

TWILIGHT:

Roleplaying
in the Devastation
of World War III

2000™

EQUIPMENT

by

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01. AIR FORCE PILOTS PERSONNEL EQUIPMENT

AIR FORCE PILOTS PERSONNEL EQUIPMENT

This is what a pilot will have on him:

GPS Locator	Life Preserver
G-Suit	Parachute
Helmet	Rescue Radio
IR Strobe Light	

GLOBAL SURVIVAL KIT

This kit is installed in the ejection seat and attached to the parachute used only when landing in water. Helicopter pilots will not have the Global Survival Kit. It comes with the following items:

Anti-Motion Pills	Salt Tablets
Bags of Drinking Water (3)	Sea Dye Marker
Desalter Kit	Shark Repellent
Fishing Kit	Signal Mirror
GPS Receiver	Space Blanket
Matches (150)	Sun Burn Cream
One Man Raft	Survival Manual
Radio & Battery	Whistle
Reversible Sun Hat	

SURVIVAL VEST

This vest is on the pilot and comes with the following components:

Ammo & Weapon (3 magazines, 9 mm)	Morphine Tablets
Anti-Diarrhea Tablets	Pen Gun Flares
Anti-Infection Tablets	Pen Light
Bandages (2)	Rescue Radio
Black Wool Cap	Salt Tablets
Camouflage Stick	Saw
Compass	Snake Bite Kit
Eye Ointment	Space Blanket
Fungicidal Ointment	Sterilized Dry Dressing
Gill Net	Survival Mirror
GPS Receiver	Tape
Hand Saw	Tourniquet
Insert Repellent	Water Bag
Knife	Water Purification Tablets (50)
Let-Me-Down Rope	Whistle
Matches (50-100)	Yahoo Bars (4)

02. BLACKSMITH TOOLS

ANVIL

The anvil at its simplest is a large block of iron or steel. Often the flat surface of an anvil will be hardened steel, and the body made from tougher iron. Come in 3 weights.

Weight	50 kg	100 kg	150 kg
Price	\$600	\$900	\$1,800

BLACKSMITH APRON

This was used to give the blacksmith some sort of protection from sparks. It is usually made out of leather or durable suede.

Weight	Nil
Price	\$60

BLACKSMITH COAL

Weight	70 lb
Price	\$20

BLACKSMITH GLOVES

These were used to give the blacksmith some sort of protection from sparks. Usually made out of leather or durable suede.

Weight	Nil
Price	\$6

BRUSH

A heavy duty steel wire brush, used for scale removal during forging.

Weight	Nil
Price	\$25

CRUCIBLE

This holds molten metals (steel/copper), and can be attached to a crane to move molten metal out of the forge, and cast it into the mould in a controlled manner. The price depends on the size and how advanced the pouring technique. For \$100 you get an insulated bucket with handles, for \$5,000, an industrial 500 liters steel casting bucket.

Weight	10 kg
Price	\$100-5,000

FIREPOTS

Firepot or hearth, a place where the burning fuel can be contained over or against a pipe through which air can be forced into the fire opening.

Weight	200 kg
Price	\$500

FORGE

The forge is the fireplace of a blacksmith's shop. It provides the means to keep the fire contained and controlled. The quality of the forge is determined by its cost, a gas fired industrial forge from a steel foundry will run into the 10s of thousands of dollars, and are immobile. Small hand-made coal burning forges will run \$1,000-5,000 depending on size.

Heating your forge:

- **Coal:** The best all around fuel for blacksmithing is soft coal. You need to get the coal about the size of a marble, if this is not possible; the larger chunks need be broken up prior to using them.
- **Wood:** The easiest to find but not as good as coal. One problem with wood is that the ashes are always being blown about by the air blast. It also burns fast.
- **Charcoal:** Store bought "cookout" charcoal can also be used for light forging. Again the air blast tends to blow the ashes around.

FULLERS

Swages and fullers are shaping tools. Opposite to the swage in some respects is the fuller, which may take a number of shapes and is driven into the metal with a hammer. Together they will quickly stamp a spoon shape on the end of a bar.

Weight 27 kg
Price \$300

HAMMERS

Blacksmiths' hammers tend to have one face and a peen. The peen is typically either a ball or a blunt wedge and is used when drawing.

Weight 1-4 lbs
Price \$48

HORSESHOE TOOLS

This set is used for doing horseshoe work.

Weight 150 kg
Price \$500

JIGS

A jig is generally a custom built tool, usually made by the smith, to perform a particular operation for a particular task or project. For example, a smith making decorative scrolls for an iron fence will make a bending jig, or scroll iron, to apply a particular shape to the stock, ensuring that each scroll has the same bend.

Weight 1-2 kg
Price Nil

PRITCHEL

A Pritchel is a type of punch used in forging, particularly in manufacturing horseshoes. The Pritchel is held in an anvil by placing it in the anvil's Pritchel hole. The horseshoe is then heated in a forge and hammered over the Pritchel to punch a hole to accommodate the nails that hold the horseshoe on the horse's hoof.

Weight Nil
Price \$20

TONGS

Tongs are used to hold the hot metal. They come in a range of shapes and sizes.

Weight 2 kg
Price \$50

SWAGES

Swages and fullers are shaping tools. Swages are either stand alone tools or fit the "hardie hole" on the face of the anvil. The metal is shaped by being driven into the form of the swage. Together they will quickly stamp a spoon shape on the end of a bar.

Weight 27 kg
Price \$300

03. BLACKSMITH'S EQUIPMENT

ANVIL

The anvil at its simplest is a large block of iron or steel. Often the flat surface of an anvil will be hardened steel, and the body made from tougher iron.

	Weight	Price
<i>35 lbs Anvil</i>	35 lbs	\$160
<i>70 lbs Anvil</i>	70 lbs	\$225
<i>70 lbs Anvil</i>	70 lbs	\$270
<i>70 lbs Wide Face Anvil</i>	70 lbs	\$300
<i>100 lbs Anvil</i>	100 lbs	\$655
<i>100 lbs Anvil with Turning Cams</i>	100 lbs	\$690
<i>112 lbs Calvary Anvil</i>	112 lbs	\$400
<i>125 lbs Anvil</i>	125 lbs	\$490
<i>150 lbs Anvil</i>	150 lbs	\$800
<i>Anvil Stand</i>	10 lbs	\$298

ASSORTED STEEL RIVET KIT

This assorted steel rivet kit features button head annealed rivets and any level of Blacksmith. The kit includes:

$10\frac{3}{16}" \times \frac{3}{8}"$ (1 lb)	$10\frac{3}{16}" \times 1\frac{1}{2}"$ (1½ lbs)
$10\frac{3}{16}" \times \frac{1}{2}"$ (1 lb)	$10\frac{1}{4}" \times 2"$ (1½ lbs)
$10\frac{3}{16}" \times \frac{5}{8}"$ (1 lb)	$10\frac{1}{4}" \times \frac{1}{2}"$ (2 lbs)
$10\frac{3}{16}" \times \frac{3}{4}"$ (1 lb)	$10\frac{1}{4}" \times 1"$ (2 lbs)
$10\frac{3}{16}" \times 1"$ (¾ lb)	$10\frac{3}{8}" \times 1\frac{1}{4}"$ (2 lbs)
Weight 14 lbs	
Price \$50	

BLACKSMITH APRONS

This is used to give the blacksmith some sort of protection from sparks. It is usually made out of leather or durable suede.

	Weight	Price
<i>Large Leather Bib Apron</i>	Nil	\$41.25
<i>Small Leather Bib Apron</i>	Nil	\$38.50
<i>Small Size Apron</i>	Nil	\$179.95
<i>Medium Size Apron</i>	Nil	\$179.95
<i>Large Size Apron</i>	Nil	\$179.95

BLACKSMITH ADVANCED KIT

This kit includes all the tools for any Advanced Level Blacksmith. Kit includes:

1 <i>Advanced Blacksmithing</i> book	1 Block Brush 1¼"
1 Beeswax cake 1¼ oz	1 Brass Ruler
1 Billy Tong, Rivet ¾"	1 Drift Punch ¼" (A-33 Tool Steel)
1 Billy Tong, Single Pickup Small	1 German Cross Peen 1 kg, 2.2 lbs
1 Billy Tong, Triple Pickup	1 Gilders Paste Celtic Bronze (metallic)
1 Billy Tong-Bolt ½"	1 Green Mengel Swage Block, A
1 Billy Tong-Bolt ⅜"	1 Half Round Pipeliner File
1 Billy Tong-Box Jaw, ¼" x ¾"	1 JHM 160 lb Anvil
1 Billy Tong-Box Jaw, ½" x 1"	1 Kasenit Hardening Combs #1, 1 lb can
1 Billy Tong-Box Jaw, ⅜" x ¾"	1 Ped German Cross Peen 800 grams, 2.2 lbs
1 Billy Tong-Box Jaw, ⅜" x 1"	1 Pieh Tool Blacksmith Apron, Style C
1 Billy Tong-Duckbill, ⅜"	1 Pieh Tool Center Punch, S7
1 Billy Tong-Rivet, ⅜" x 14" reins	1 Pieh Tool Chisel Hardy 1"
1 Billy Tong-Small Scrolling	1 Pieh Tool Cone Mandrel, 1"
1 Billy Tong-V-bit ¼"	1 Pieh Tool Eye Punch ⅜" - S7
1 Billy Tong-V-bit ½"	1 Pieh Tool Fuller Punch ⅜"
1 Billy Tong-V-bit ⅝"	1 Pieh Tool Turning Fork 1"
1 Blacksmith Double Burner Forge	

1 Pieh Tool Veining Chisel, S7
 1 Super Stable Welding Combs, 1 lb
 1 Swedish Cross Peen 1 kg, 2.2 lbs
 1 Welders Silver Pencil (3 Pack)

Weight Nil
Price \$3,100

1 Wolf Jaw 300 mm Tong
 1 Wood Rasp Handle, Screw on
 2 Kevlar Knit Glove-Lg 100% Kevlar

BLACKSMITH INTERMEDIATE KIT

This kit includes all the tools for any Intermediate Level Blacksmith. Kit includes:

1 *Intermediate Blacksmithing* book
 1 Bass Ruler
 1 Beeswax cake, 1¼ oz
 1 Billy Tong-Bolt ½"
 1 Billy Tong-Bolt ¾"
 1 Billy Tong-Box Jaw ¼" x ¾"
 1 Billy Tong-Box Jaw ½" x 1"
 1 Billy Tong-Box Jaw ⅜" x 1"
 1 Billy Tong-Box Jaw, ⅜" x ¾"
 1 Billy Tong-Duckbill ⅜"
 1 Billy Tong-Rivet ⅜" x 14" reins
 1 Billy Tong-Small Scrolling
 1 Billy Tong-V-bit ¼"
 1 Billy Tong-V-bit ½"
 1 Billy Tong-V-bit ⅝"
 1 Block Brush 1¼"

Weight Nil
Price \$1,000

1 Green Mengel Swage Block A
 1 Half Round Pipeliner File
 1 Ped German Cross Peen 1 kg, 2.2 lbs
 1 Ped Swedish Cross Peen 1 kg, 2.2 lbs
 1 Peddinghaus German Cross Peen 800 grams, 2.2 lbs
 1 Peddinghaus Wolf Jaw 300 mm Tong
 1 Pieh Tool Blacksmith Apron
 1 Pieh Tool Center Punch, S7
 1 Pieh Tool Eye Punch ⅜" S7
 1 Pieh Tool Veining Chisel, S7
 1 Super Stable Welding Combs, 1 lb
 1 Welders Silver Pencil (3 Pack)
 1 Wood Rasp Handle, Screw on
 2 Kevlar Knit Glove-Lg 100% Kevlar

BLACKSMITH STARTER KIT

This kit includes all the tools you need to get started in blacksmithing, and a book, *Basic Blacksmithing*, to guide you through working with metal. Kit includes:

1 *Basic Blacksmithing* book
 1 Beeswax cake 1¼ oz
 1 Billy Tong-Bolt ¾"
 1 Billy Tong-Bolt ½"
 1 Billy Tong-Box Jaw ⅜" x ¾"
 1 Billy Tong-V-bit ¼"
 1 Blacksmith Apron
 1 Block Brush 1¼"

Weight Nil
Price \$500

1 Brass Ruler
 1 Peddinghaus German Cross Peen 800 grams, 2.2 lbs
 1 Peddinghaus Wolf Jaw 300 mm Tong
 1 Pieh Tool Center Punch, S7
 1 Pieh Tool Veining Chisel, S7
 1 Welders Silver Pencil (3 Pack)
 2 Kevlar Knit Glove-Lg 100% Kevlar

BLOCK WIRE BRUSH

A heavy duty steel wire brush, used for scale removal during forging.

Weight Nil
Price \$25

BRAZING FLUX

Brazing Flux is a filler metal that is used as a strong, sealed joint between to pieces of metal.

Weight Nil
Price \$5

COLD CHISEL

A cold chisel is a tool made of tempered steel used for cutting "cold" metals, meaning that they are not used in conjunction with heating torches, forges, etc. Cold chisels are used to remove waste metal when a very smooth finish is not required or when the work cannot be done easily with other tools, such as a hacksaw, file, bench shears or power tools. Cold chisels come in a variety of sizes, from fine

engraving tools that are tapped with very light hammers, to massive tools that are driven with sledge-hammers. Although the vast majority of cold chisels are made of steel, a few are manufactured from beryllium copper, for use in special situations where non-sparking tools are required.

There are four common types of cold chisel:

- **Cold Flat Chisel:** The flat chisel is the most widely known type, which is used to cut bars and rods, to reduce surfaces and to cut sheet metal which is too thick or difficult to cut with snips.
- **Cold Cross Cut Chisel:** The cross cut chisel is used for cutting grooves and slots. The blade narrows behind the cutting edge to provide clearance.
- **Cold Round Nose Chisel:** The round nose chisel is used for cutting semi-circular grooves for oil ways in bearings.
- **Cold Diamond Point Chisel:** The diamond point chisel is used for cleaning out corners or difficult places and pulling over centre punch marks wrongly placed for drilling.

Weight	Nil
Price	\$10

CRUCIBLE

This holds molten metals (steel, copper), and can be attached to a crane to move molten metal out of the forge, and cast it into the mould in a controlled manner. The price depends on the size and how advanced the pouring technique. For \$100 you get an insulated bucket with handles, for \$5000, an industrial 500 liters steel casting bucket.

Weight	10 kg
Price	\$100-5,000

FILES/RASPS

A file is a hand tool used to shape material by cutting. A file typically takes the form of a hardened steel bar, mostly covered with a series of sharp, parallel ridges or teeth. Most files have a narrow, pointed tang at one end to which a handle can be fitted.

The rasp is a related tool which is generally larger and has raised, pointed teeth on its surface rather than straight ridges.

- **Mill File:** Mill files are used to create smooth and clean finishes of metal pieces.
- **Half Round Rasp:** Half round rasps are used for fine detailing and intricate shaping of metal pieces.
- **Half Round File:** Half round files are used for filing both flat and concave metal pieces.
- **Round File:** Round files are used for filing and shaping of metal pieces.
- **Slim Taper File:** Slim taper files are used to file in between saw blade teeth to reinvigorate worn down saw blades.

Weight	Nil
Price	\$6

FIREPOTS

Firepot or hearth is a place where the burning fuel can be contained over or against a pipe through which air can be forced into the fire opening.

Weight	200 kg
Price	\$500

FORGE

The forge is the fireplace of a blacksmith's shop. It provides the means to keep the fire contained and controlled. The quality of the forge is determined by its cost, a gas fired industrial forge from a steel foundry will run into the 10s of thousands of dollars, and are immobile.

	Weight	Price
<i>Coal Forge with Blower</i>	Nil	\$1,229.95
<i>Floor Model Coal Forge Blower and Hood</i>	Nil	\$1,349.95
<i>Coal Forge with Coke Firepot</i>	Nil	\$669.50
<i>Coal Forge with Coke Firepot & Blower</i>	Nil	\$1,229.95
<i>Coal Forge with Coke Firepot and Hood</i>	Nil	\$819.95
<i>Floor Model Coal Forge with Blower and Hood</i>	Nil	\$1,349.95
<i>Portable Coal Forge</i>	Nil	\$420

Coal/Coke/Charcoal Forge
Natural Gas/Propane Forge

Nil \$100-\$3,000
86 lbs \$740-\$3,000

FORGE FUEL

- **Bagged Smithing Coal, 50 lbs Bag:** This coal is uniform, clean, and carefully prepared. It cokes perfectly, boasts a high heat value, and offers sound and clean welds and forgings. The best all around fuel for blacksmithing is soft coal. You need to get the coal about the size of a marble, if this is not possible; the larger chunks need be broken up prior to using them.
- **Bagged Smithing Coke, 50 lbs Bag:** Coke offers high heat, high efficiency, and low smoke. Because coke burns hotter, it needs a shallower flame.
- **Cooking Charcoal, 12 lbs Bag:** Store bought "cookout" charcoal can also be used for light forging. Again the air blast tends to blow the ashes around.
- **Wood:** The easiest to find but not as good as coal, one problem with wood is that the ashes are always being blown about by the air blast. It also burns fast.

	Weight	Price
Smithing Coal	50 lbs	\$21
Smithing Coke	50 lbs	\$24
Charcoal	12 lbs	\$20
Wood	1-100 lbs	Free

FORGE BORAX

Forge Borax is a simple flux that is used to keep the welding surfaces from oxidizing and producing a poor quality weld.

	1 lb Can	5 lbs Can
Weight	1 lbs	5 lbs
Price	\$7	\$35

FULLERS

Swages and fullers are shaping tools. Opposite to the swage in some respects is the fuller which may take a number of shapes and is driven into the metal with a hammer. Together they will quickly stamp a spoon shape on the end of a bar.

Weight	27 kg
Price	\$300

GLOVES

This is used to give the blacksmith some sort of protection from sparks, it is usually made out of leather or durable suede.

	Weight	Price
Kevlar	Nil	\$36
Leather	Nil	\$15
Suede	Nil	\$15

HAMMERS

Blacksmiths' hammers tend to have one face and a peen. The peen is typically either a ball or a blunt wedge and is used when drawing.

	Weight	Price
Ball Peen Hammer	16-40 oz	\$21
Bordering Hammer	200 grams	\$40
Brass Hammer	1-4 lbs	\$27
Chasing Hammer	90-400 grams	\$40-\$50
Clipping Hammer	1.75-2 lbs	\$69.95
Cross Peen Hammer	32-48 oz	\$26-\$30
Double Face Sledge Hammer	1-3 kg	\$23-\$50
Driving Hammer	8-14 oz	\$23-\$35
Engineers Hammer	64 oz	\$35
French Pattern Hammer	0.4-1 kg	\$20.80
German Pattern Hammer	0.6-2 kg	\$22.00
Grooving Hammer	200-400 grams	\$30-\$40

<i>Rounding Hammer</i>	1-3 lbs	\$36
<i>Shrinking Hammer</i>	300-400 grams	\$40
<i>Straight Peen Hammer</i>	8-12 lbs	\$77-\$94
<i>Swedish Pattern Hammer</i>	1-1.5 kg	\$41.80

HAND HELD POWER PUNCHER WITH METAL HOLE PUNCH KIT

The Metal Hole Punch tool is a powerful, light weight, hand hole punch tool that punches holes in all types of metals. Develops over 1 ton of punching power for accurate, precision round holes in mild steel up to 14 gauge, aluminum, brass, copper, etc. Complete with 7 sets of punches and dies in the following sizes: $\frac{3}{32}$ " , $\frac{1}{8}$ " , $\frac{5}{32}$ " , $\frac{3}{16}$ " , $\frac{7}{32}$ " , $\frac{1}{4}$ " and $\frac{9}{32}$ " .

Weight	5 lbs
Price	\$40

HARDIE CONVERSION SLEEVE

A cut and shaping tool, that fits into a square hole (the "hardie hole") on the face of the anvil.

Weight	Nil
Price	\$2

JIGS

A jig is generally a custom built tool, usually made by the smith, to perform a particular operation for a particular task or project. For example, a smith making decorative scrolls for an iron fence will make a bending jig, or scroll iron, to apply a particular shape to the stock, ensuring that each scroll has the same bend. Weight: 1 to 2 kg, Price Nil

Weight	1-2 kg
Price	Nil

PRITCHEL

A Pritchel is a type of punch used in forging, particularly in manufacturing horseshoes. The Pritchel is held in an anvil by placing it in the anvil's Pritchel hole. The horseshoe is then heated in a forge and hammered over the Pritchel to punch a hole to accommodate the nails that hold the horseshoe on the horse's hoof.

Weight	Nil
Price	\$20

QUICK-HARD HARDENING POWDER

Quick Hard is a fast acting hardening powder which can be applied to steels for developing case-hardened surfaces on parts such as: tools, dies, fixtures, cutting edges, drills, chisels, punches, rollers, cams, knives, and much more. Weight: Nil, Price: \$39

Weight	Nil
Price	\$39

SAFETY GLASSES

Weight	Nil
Price	\$2

SWAGES

Swages and fullers are shaping tools. Swages are either stand alone tools or fit the "hardie hole" on the face of the anvil. The metal is shaped by being driven into the form of the swage. Together they will quickly stamp a spoon shape on the end of a bar.

	Weight	Price
<i>Acorn Swage</i>	Nil	\$73.50
<i>Ball Spring Swage</i>	Nil	\$73.50
<i>Rope Spring Swage</i>	Nil	\$73.50
<i>108 lbs Swage Block</i>	Nil	\$395.85
<i>Mini Swage Block</i>	Nil	\$44.55

TONGS

Tongs are used to hold the hot metal. They come in a range of shapes and sizes, below is a list of the common tongs of a blacksmith.

	Weight	Price		Weight	Price
<i>Box Jaw Tom Tongs</i>	2 kg	\$38	<i>Round Nosed Tongs</i>	2 kg	\$31
<i>Close Mouth Tongs</i>	2 kg	\$33	<i>Single Pickup Tongs</i>	2 kg	\$37
<i>Double Pickup Tongs</i>	2 kg	\$33	<i>Small Scroll Jaw Tongs</i>	2 kg	\$33
<i>Fire Tongs</i>	2 kg	\$51	<i>Triple Pickup Tongs</i>	2 kg	\$37
<i>Flat Nosed Tongs</i>	2 kg	\$27	<i>V-Bit Bolt Tongs</i>	2 kg	\$33
<i>Heavy V-Bit Bolt Tongs</i>	2 kg	\$38	<i>V-Bit Duckbill Tongs</i>	2 kg	\$33
<i>Large Scroll Jaw Tongs</i>	2 kg	\$37	<i>V-Bit Tongs</i>	2 kg	\$33
<i>Open Mouth Tongs</i>	2 kg	\$33	<i>Wide Box Jaw Tongs</i>	2 kg	\$37
<i>Rivet Tongs</i>	2 kg	\$33	<i>Wolf's Jaw Tongs</i>	2 kg	\$33

TURNING HARDIE

A shaping tool that fits into a square hole (the Hardie Hole) on the face of the anvil.

Weight	Nil
Price	\$22.50

04. CIA SPECIAL PROJECTS BUNDLES

ADVISOR BUNDLE

1 Cellular Phone
1 Computer Laptop
1 Language Manual

1 Large ALICE Pack (To Store Bundle)
1 Portable Lie Detector

ASSASSINATION BUNDLE

1 Makarov pistol
8 Rounds, Subsonic 9 mm Makarov

1 Satchel (To Store Bundle)
2 Doses of Basic Lethal Poison

CAMP SET UP BASE BUNDLE

1 Battery Bank
1 Laptop Computer
1 Portable Generator
1 Tactical Radio

3 Large Tents
8 5-gallon Fuel Cans (Full)
10 Folding Shovels
500 ft of Barbed Wire, Rolled

CAPTURE BUNDLE

1 Satchel (To Store Bundle)
1 Taser

2 Pairs of Handcuffs
50 ft of Rope, Coiled

DESTRUCTION BUNDLE

1 Demolitions Kit
1 Large ALICE Pack (To Store Bundle)
5 kg of Plastic Explosives

DIPLOMACY BUNDLE

1 Briefcase (To Store Bundle)
1 Cellular Phone

1 Digital Camera
1 Laptop Computer

DIVERSION BUNDLE

1 Large ALICE Pack (To Store Bundle)
2 Pairs of Earplugs

4 Flash/Bang Grenades
5 kg of Plastic Explosives

LOCAL INDIGENOUS ARMY BUNDLE

This kit was developed by the CIA as a way for special military projects team to rapidly arm and train 200 local indigenous persons. Each kit contains 200 Local Indigenous Personnel Packs, a Support Pack, and a Command Pack. There are also 7,000 rounds of 7.62 mm Pact Ammo.

Local Indigenous Personnel Pack Contents:

1 1-liter Canteen and Cup
1 20 m Roll Parachute Cord
1 7.62 mm Tokarev Pistol and 5 8-round magazines
1 Bayonet with Sheath
1 Bottle of Water Purification Tablets (50 tablets)
1 Compass
1 First Aid Kit
1 Flashlight
1 Leatherman Tool
1 Motorola Radio with throat mic
1 Pair Boots
1 Rucksack

1 Set Web Gear
1 SKS Carbine with sling, cleaning kit, and 9 10-round clips
1 Sleeping Bag with Carrier
1 Toilet Kit
1 Watch
2 M126A1 Red Star Parachute flares
2 Pair OD Fatigues
2 Pair Underwear and Socks
2 Smoke grenades
4 Days of Rations for One Person
100 Waterproof Matches
250 rounds 7.62 mm Pact

The rucksack is a standard medium ALICE pack without the frame. The ammo provided (in 50-round boxes) was enough to load the magazines/clips and have extra left over to be carried in the pack. The Motorola radio is a special variant that can transmit & receive on only one frequency. The

food issued was of the MRE/C-Ration style which is assumed to be more readily accepted by the locals. There were no weapons like grenades or anti-armor weapons issued, in case an armed LIP turned against a team. That way they would be less likely to be able to wipe out the entire team with one blow.

Basically, the Support Pack contains some refills for the expendables in the Local Indigenous Personnel Packs as well as armorer's tools & spares for the Local Indigenous Personnel Packs firearms. The Command Pack contains training materials such as books and lesson plans. It also contains some signal gear like flares and smoke grenades.

MEDIC BUNDLE

Special Forces Medical Kit

RAID BUNDLE

1 Large ALICE Pack (To Store Bundle)	2 Pairs of Binoculars
1 Tube of Black Face Paint	2 Sets of Night Vision Goggles
2 Concussion Grenades	2 Smoke Grenades
2 Extra Batteries (For Night Vision Goggles)	5 Flashlights
	100 ft of Rope, Coiled

SABOTAGE BUNDLE

1 Large ALICE Pack (To Store Bundle)
1 Demolitions Kit
10 kg of Plastic Explosives

SURVEILLANCE BUNDLE

1 Digital Camera	8 Line Taps
1 Large ALICE Pack (To Store Bundle)	8 Standard Batteries
1 Pair of Light Amplification Binoculars	

TRANSLATOR BUNDLE

1 Waterproof Shoulder Bag (To Store Bundle)
1 Laptop Computer with Translator Software
1 Language Manual

TRANSPORT PRISONER BUNDLE

1 Pairs of Handcuffs
1 Set of Leg Irons
1 Taser

05. CLIMBING EQUIPMENT

ASSAULTS LADDERS

Used for assaulting buildings or aircraft. Carried by 2 men is broken down into 3 sections. Extends from 30" to 12½'. Spring-loaded bolts within each rung automatically engage for positive locking in 1' increments. Specially processed aluminum rungs for strength. Rounded surface and serrated rung tread allow for safe use. Molded bumpers and conical feet provide skid-resistant surface protection.

Weight	5 kg
Price	\$350

BELAY DEVICES

A belaying device is a metal safety device, through which a belaying rope is threaded. It assists the belayer (the person holding the rope) in bringing the fall under control, by gripping the rope if it comes under sudden tension.

Weight	Nil
Price	\$100

BOLTS

Bolts are screw-like shafts made from metal that are drilled into rock to provide protection. The two types are contraction bolts and expansion bolts. Contraction bolts are squeezed together when driven into a rock. Expansion bolts press around a surrounding sleeve to form a snug fit into a rock.

Bolts require drilling a hole into a rock, which is time-consuming, exhausting, and extremely noisy. A hanger (for carabiner attachment) and nut are placed on the bolt. The bolt is then inserted and driven into the hole. Because of this requirement, a hand drill must be carried in addition to a piton hammer. Hand drills (also called star drills) are available in different sizes, brands, and weights. A hand drill should have a lanyard to prevent loss.

Weight	Nil
Price	\$20

CARABINERS

Fundamental for any serious climbing, carabiners are alloy loops through which climbing line is fed.

A screw-gate carabiner has a hinged section, which locks into place with a tubular screw, which locks the gate into the body of the carabiner. Screw-gate carabiners are typically used where the climbing or descending does not require the carabiner to be opened frequently (such as the carabiner securing the climbing harness, or when rappelling or abseiling).

A non-screw carabiner simply has a gate held in place by a strong spring. Non-screw carabiners (also called snap links) are used for fast access or where the carabiner is repeatedly opened (such as securing equipment for movement by line or as a secondary carabiner when moving to or from a fixed rope).

	<i>Non-screw</i>	<i>Screw-gate</i>
Weight	Nil	Nil
Price	\$70	\$42

CHOCK SET

Similar to pitons, a chock set is a selection of irregular shaped wedges that can be wedged into cracks in the rock to form anchor points and footholds. In the same way as pitons they have an eye at the top to allow a line or carabiner to be attached.

Weight	Nil
Price	\$50

CHOCK PICKS

Chock picks are primarily used to extract chocks from rock when they become severely wedged.

Weight	Nil
Price	\$80

CLIMBING HARNESES

The hardware includes a D-ring with a 5,000 lbs proof load as well as a back ring for the Australian

rappel. The waist and leg straps are fully adjustable and, in most cases, can be used as an assault belt to carry a holster.

Weight 1 kg
Price \$110

CRAMPONS

These are metal overshoes that fit on the sole of a climbing boot, giving the wearer added traction on snow or ice.

Weight 1 kg
Price \$50

DEADMAN

A belaying point for climbing in snow, consisting of a metal plate, with a wire loop attached. The safety rope is doubled through the loop on the Deadman; if the climber falls, then the safety rope engages, breaking the fall.

Weight 0.55 kg
Price \$22

DYNAMIC ROPE

This rope allows for stretch within the fibers of the rope, which can be a disadvantage in rappelling, prusik climbing, and other applications. Dynamic ropes are more susceptible to abrasion and wear. The minimum tensile strength for an 11 mm ($\frac{7}{16}$ ") rope for military use is 4,500 lbs.

Two types of dynamic ropes are nylon-laid and kernmantle. Synthetic fibers are the best climbing and rappelling materials, so nylon has become the standard material for climbing ropes. The military mountaineering critical application rope is constructed in a *laid* fashion with continuous multi-filament-nylon fiber yarn twisted into strands.

Weight 120 ft
Nil
Price \$180

FAST ROPE INSERTION & EXTRACTION SYSTEMS

Fast Rope Insertion & Extraction Systems provide efficient and safe methods for inserting and evacuating personnel to and from specific targets. It is useful for deploying troops from a helicopter in places where the helicopter itself is unable or unwilling to touch down. The line may be hooked to davits that are found on certain helicopters.

	60 ft	90 ft	120 ft
Weight	23 kg	34 kg	46 kg
Price	\$1050	\$1450	\$1850

GRAPNEL

3 pronged climbing grapnel.

Weight 0.75 kg
Price \$50

GRAPPLING HOOK (COLLAPSIBLE)

This is a multiple-pronged hook to be used at the end of a length of rope to assist in climbing walls, etc. It is made from lightweight aluminum and the grappling hook can fold down for easy storage. It can also be fired attached to a rope from a line thrower, or from a 40 mm grenade launcher using M688 rocket shells. It also can be thrown, but counts as two kilograms instead as one (because of the rope also attached).

Weight 1 kg
Price \$60

ICE AXE

Used for step cutting, probing, self-arrest, belays, anchors, direct-aid climbing, and ascending and descending snow and ice covered routes.

Weight Nil
Price \$50

ICE HAMMER

The ice hammer is as short as or shorter than the technical axe. It is used for pounding protection into the ice or pitons into the rock.

Weight Nil
Price \$50

ICE PICK

An ice pick is a one-handed pick for use when climbing above the snow line. It also doubles as a deadly hand-to-hand.

Weight 0.30 kg
Price \$65

ICE PITONS

Ice pitons are used to establish anchor points for climbers and equipment when conducting operations on ice. They are made of steel or steel alloys (chrome-molybdenum), and are available in various lengths and diameters.

Weight Nil
Price \$20

ICE SCREWS

Ice screws provide artificial protection for climbers and equipment for operations in icy terrain. They are screwed into ice formations.

Weight Nil
Price \$20

JUMAR ASCENDER

This is a special climbing rig consisting of a pair of foot loops attached to clamps, which lock on a hanging rope when downward pressure is applied. The climber uses the Jumar Ascender to literally walk up the rope, almost as efficiently as climbing a ladder, at a speed of 2½ meters per phase. This may be doubled (AVG:Climbing or DIF:Agility) or tripled (DIF:Climbing or FOR:Agility).

Weight Nil
Price \$100

JUMAR CLAMP

A clip applied to a mountaineering line that will run freely along a slack line, but tightens in response to downward weight. It is used as a safety device, which prevents a climber falling too far, but can also be used in ascending line by pulling upwards with the hands/arms (to slacken the rope) and lifting the body upwards.

Weight 0.15 kg
Price \$265

KEVLAR ROPE

Kevlar rope is the best rope available for climbing. It will not stretch and is flame resistant.

100 ft
Weight 2 kg
Price \$180

LADDERS

Just a regular commercial ladder from your local hardware store.

Weight 5 kg
Price \$80

LEG GAFFS

For climbing poles, trees, etc.

Weight 0.5 kg
Price \$20

LIGHTWEIGHT LADDER

Used by mountaineers and also Search and Rescue (SAR) teams, this lightweight ladder is two meters long and made of tubular aluminum. At one end there are hooks which allow the ladder to be secured over a ledge, whilst at both ends there are holes for triangular bolts, which can be used to link several ladders together. This may be done either in line (to form a longer ladder) or at right angles to assist in crossing crevasses.

Weight 10 kg
Price \$45

LINE ASCENDER

This device locks onto a line and can also be coupled to a mountaineering harness, enabling the climber to climb a free hanging line. The device works in the same way as a Jumar Clamp, locking when downward pressure is placed upon it, but running freely upwards. There are hand-straps and stirrups, which are pulled upon and slid upwards alternately to ascend the line. By attaching the mountaineering harness to the line the climber may rest if required.

Weight 1 kg
Price \$265

LINE GUN KIT

Capable of throwing a line up to 259 m or more depending on the cartridge and line used, this extremely accurate .45-70 caliber gun comes with:

1 Box of Patches	1 Wire Brush
1 Cleaning Rod	1 Wooden Box
1 Cleaning Solvent	10 Brass Projectiles
1 Gun Oil	25 Blank Heavy Loads
1 Instructions Book	3 Rewinding Spindles
1 Line Canister	4 Nylon Shot Lines 600 ft
Weight 20 kg	
Price \$1100	

LINEMAN BODY BELT

This belt is worn by linemen while they are climbing a pole.

Weight 2 kg
Price \$20

MAGNETIC CLIMBING DISKS

Self explanatory.

pair
Weight 0.6 kg
Price \$150

MARINE ASSAULT CLIMBERS KIT

The MACK is a collection of equipment items designed to provide an infantry company with the ability to safely and efficiently overcome vertical obstacles in mountainous or urban terrain. It comes packed in four boxes. The kit includes:

1 Rope Cutter	8 Ascenders
4 Camming Devices Large	8 Belay Plates
4 Camming Devices Small	8 Climbing Bags
4 Rock Bolts	8 Climbing Harnesses
4 Wire Wedge Nuts	8 Rescue Pulleys
5 Pieces of Rope (300 ft each)	10 Cable Ladders (30 ft each)

16 Rope Bags
39 Pieces of Rope (165 ft each)
240 Carabiners Locking

336 Carabiners Non Locking
450 ft of Para Cord
600 ft of Nylon Webbing

Weight 100 kg
Price \$800

MOUNTAINEERING LINE

The advent of modern man-made fibers such as nylon and polypropylene allowed the manufacturers of mountaineering lines and climbing ropes to make much lighter and stronger lines, with greater breaking strains. All lines are available in a variety of colors to enable certain types of rope to be color-coded for an expedition.

- **4 mm Polypropylene Line:** A lighter line, used for securing tarpaulins, guy lines and frame pack lashing. It comes in 30 meter lengths, with a breaking strain of around 600 kg.
- **8 mm Terylene Line:** A lighter weight rope for secondary use or descending. It comes in 200 meter reels, with a breaking strain of 1,250 kg.
- **9 mm Polypropylene Line:** A standard, all-purpose line for general climbing or descending. It comes in 90 meter lengths, with a breaking strain of around 1,500 kg.

	Weight	Price
<i>4 mm Polypropylene (30 m)</i>	Nil	\$160
<i>8 mm Terylene (200 m)</i>	Nil	\$540
<i>9 mm Polypropylene (90 m)</i>	Nil	\$630

MULTI-PURPOSE ROPE

Perfect for mountaineering uses by paramedics, police, and fire personnel, or if you just need some of the best rope available. Pre-cut in standard 120 ft lengths.

Weight 7 lbs
Price \$75

NYLON LADDER

This is a lightweight 10 m ladder made of similar material to mountaineering line. It is used by secondary climbers to climb speedily and with less effort over difficult sections of a climb. There are loops at the top, enabling it to be fastened to an anchor (such as a piton or Deadman) using a snap link. It rolls up into a cylinder 30 cm long by 15 cm diameter for portability.

Weight 1.50 kg
Price \$160

PADDED GRAPNELS

3-pronged with plastic padding. Weight: 0.5 kg, Price: \$75

Weight 0.5 kg
Price \$75

PITONS

A piton is a metal pin that is hammered into a crack in the rock. Pitons provide a secure anchor for a rope attached by a carabiner. The many different kinds of pitons include vertical, horizontal, wafer, and angle. They are made of malleable steel, hardened steel or other alloys.

Weight 2 kg
Price \$140

PITON HAMMERS

A piton hammer has a flat metal head; a handle made of wood, metal, or fiberglass; and a blunt pick on the opposite side of the hammer. The primary use for a piton hammer is to drive pitons, to be used as anchors, into the rock. The piton hammer can also be used to assist in removing pitons, and in cleaning cracks and rock surfaces to prepare for inserting the piton.

Weight 0.3 kg
Price \$55

PULLEYS

Pulleys are used to change direction in rope systems and to create mechanical advantage in hauling systems.

Weight Nil
Price \$70

RAPPELLING DESCENDER

This is an aluminum figure-of-eight device used when rappelling or abseiling, which reduces the friction on the rope and hands.

Weight 0.10 kg
Price \$70

RAPPELLING/ABSEIL HARNESS

This is a looped knitted nylon seat harness that is worn in a figure of eight, held together by a carabiner. It is worn around the seat/pelvis, and is required for abseiling or rappelling.

Weight Nil
Price \$140

ROPE

Climbing rope can support up to 1,000 lbs, comes in 150 ft lengths.

Weight 5 kg
Price \$50

ROPE AND GRAPPLE SET

This set, available in flat black, soft white or olive drab, contains:

1 Carry Bag	12 Carabiners
1 Grappling Hook with Optional Padded Sheath (to reduce noise)	200 ft of 9.9 mm High Tension (1,000 lbs) Rope
1 Personal Braking System	Climbing Pitons
1 Rappelling Saddle	Rappelling Gloves
1 Silent Piton Driver Gun	Various Accessory Cords
5 Pulleys	
Weight 20 kg	
Price \$200	

ROPE BAGS

Used for the storage and deployment of rope.

Weight Nil
Price \$50

ROPE CUTTER

Used for cutting rope.

Weight Nil
Price \$100

ROPE LADDERS

Same as a regular ladder but made out of rope, useful for boarding ships. One man can also carry it.

Weight 1 kg
Price \$25

SELF-DRIVING BOLTS

Self-driving bolts are quicker and easier to use. These require a hammer, bolt driver, and drilling anchor, which is driven into the rock.

Weight
Price

SNAPLINKS

- **D-shaped Snaplinks** are made of steel or aluminum alloys, and are available in many sizes and thickness, all of which can be with or without locking gates.
- **Locking Snaplinks** have a locking mechanism with a threaded sleeve on the gate. The sleeve screws tightly over the gate opening end or hinge end to hold the gate closed. A reverse locking gate is needed to prevent a moving rope from unscrewing the sleeve.
- **Oval Snaplinks** are made of steel or aluminum alloys and are available in many sizes and thickness. Both sides of an oval snaplink bear the strain equally under load weight.

Weight Nil
Price \$80

SNOW PICKET

The snow picket is used in constructing anchors in snow and ice

Weight
Price

SPRING-LOADED CAMMING DEVICES

Spring-loaded camming devices are a convenient, reliable placement in cracks where standard chocks are not practical.

Weight Nil
Price \$80

STATIC ROPE

This rope allows for minimal stretch of the rope. The minimum tensile strength for an 11 mm ($\frac{7}{16}$ ") static rope for military use is 4,500 pounds. Due to the internal parallel strand construction of the static rope, there is less spinning and kinking than with a dynamic rope. Static ropes can be used for slings, harnesses, stirrups, rappelling, rope installations, hauling lines, and where stretch of the rope is not desired.

Weight 120 ft
Price Nil
\$150

TACTICAL FENCE CLIMBERS

The Tactical Fence Climbers by Dynamic Entry allow for a fully outfitted operative to quickly scale a fence. They are inserted through the links of a fence, and the pegs are extended. This allows for rapid ascent and descent on the other side. Supports the biggest, baddest operator on your team!

<i>Fence's Height</i>	<i>Recommended number of TFCs</i>
6'	2
8'	3
10'	4
12'	5

Weight 2 kg
Price \$100

WIRED SNOW ANCHORS

The wired snow anchor provides security for climbers and equipment in operations involving steep ascents by burying the snow anchor into deep snow.

Weight Nil
Price \$80

06. CLOTHING

2ND GENERATION EXTENDED COLD WEATHER CLOTHING SYSTEM (ECWCS)

The current Extended Cold Weather Clothing System is approximately 8 years old. The parka lacks design features that would make the garments more functional and waterproof. The 2nd Generation ECWCS does not have these shortcomings and will provide protection from wind, rain and snow.

The outer garments of this system feature a parka and trousers. The parka has two hand warm-ing/cargo pockets, two side access breast pockets, two upper sleeve pockets, and a roll and stow hood that fits into the collar. It also features water shedding slide fasteners and zippered armpit vents. The trousers feature suspender attachments, belt loops, two side leg cargo pockets, and knee high zippers for easy donning and doffing while wearing boots. The material is a tri-laminate using a water-proof, vapor permeable membrane laminated between two nylon knits. Both garments come in wood-land camouflage. These garments are windproof, waterproof and breathable.

	Weight	Price
<i>Parka</i>	0.589 kg	\$800
<i>Trousers</i>	0.453 kg	\$600

ASSAULT SUIT

Special assault equipment intended for use on drug lab raids, hostage rescues, and other similar situations. The suit consists of a set of black fatigues, gloves, a Kevlar helmet (with integral individual tactical radio, a throat mike and bone conduction earphones), a gas mask, tactical web gear and boots. It is also Fire retardant.

Luminescent markings (such as "POLICE" or "DEA") are usually stenciled on the back for quick identification of friend or foe during dimly lit fire fights. Body armor and personal weapons must be purchased separately.

Weight	8 kg
Price	\$1,100

BALACLAVAS

A balaclava is an extremely practical item of clothing for cold weather, but is also favored by criminals and law enforcement/military agencies alike for protecting anonymity (as well as adding to the psychological factor). Two broad types are available: the standard woolen ski balaclava, intended predominantly for keeping the head and face warm in extremely cold weather, and the Nomex bala-clava (used by anti-terrorist units).

Both offer protection against cold weather, but the Nomex version less so. However, it does have the advantage that it also provides limited protection against flames and heat.

	<i>Nomex</i>	<i>Ski</i>
Weight	0.10 kg	0.10 kg
Price	\$45	\$35

BODY VEIL, CAMOUFLAGE

Infrared-defeating body camouflage.

Weight	1 kg
Price	\$100

BOOTS

No matter what they say about armies marching on their stomachs, the physiological fact is that it's the feet that do the walking. Choice of appropriate footwear for a combat mission can be essential. It is also important that characters are able to stay on their feet at crucial times, and provide protection against the elements to their feet. Equally, an inappropriate choice can lead to unnecessary noise when stealth is essential.

- **Canvas Jungle Boot:** This is a high, lightweight canvas boot with a rubber sole. It is intended for survival use in warmer and wetter climates where the feet need to breathe if possible, and the boots require good drainage.
- **Combat Boot:** A standard, hard plastic soled leather boot. This is good for all-purpose use, and offers limited protection against water penetration.
- **Mukluks:** Mukluks are boot coverings similar to overboots, based on the traditional Eskimo foot protection. They are made of lightweight, flexible, waterproof material (such as nylon), with a rug-

ged rubber sole. They have a tie-cord at the top, acting in a similar way to gaiters, and prevent snow getting to the feet, whilst also reducing the chances of trench foot.

- **Overboots:** Overboots is a covering for mountaineering boots, intended to protect against penetration by snow. They are made of a 5 mm layer of neoprene, lined with toweling or fleece. They completely cover the boot and come up to the mid-calf, negating the need for gaiters. They are intended to be worn with either crampons or snowshoes, and protect against both the cold and wet.
- **Rubber Boot:** This is a soft-soled boot with flexible uppers. It is intended for increased agility and grip, and is ideal for short assault actions, but not survival use.
- **Safety Boot:** Similar to the combat boot, this boot additionally offers metal toe caps and/or metal sole plates, to protect the vulnerable areas of the feet.
- **Thermal Boot:** Another variation on the basic combat boot, the thermal boot incorporates a man-made thermal lining that offers protection in temperatures down to -25°C .

	Weight	Price
<i>Canvas Jungle Boots</i>	0.85 kg	\$75
<i>Combat Boots</i>	1.52 kg	\$105
<i>Mukluks</i>	0.20 kg	\$40
<i>Overboots</i>	Nil	\$35
<i>Rubber Boots</i>	1.20 kg	\$113
<i>Safety Boots</i>	1.65 kg	\$68
<i>Thermal Boots</i>	2 kg	\$180

BOOTS – CIVILIAN BOOTS

Leather lace up combat boots. Just like mother used to wear.

Weight	0.90 kg
Price	\$80

BOOTS – INTERMEDIATE COLD WET BOOTS

The Marine Corps needed a boot that was able to protect Marines from cold and wet in environments that were too severe for the infantry combat boot but not so cold to warrant issuing the extreme cold weather boots (the extreme cold weather boots are not conducive to extended wear for long periods of time).

This boot will protect Marines from the extremes of cold and wet weather while providing greater traction and mobility than boots currently in use by the Marine Corps. The ICW boot is a leather boot that features a waterproof liner, comfort liner and 200 grams of insulation. It has a repairable Vibram lug sole for increased traction in snow and rough terrain. Rated to -30°F .

Weight	2.49 kg
Price	\$300

BOOTS – WILD LAND FIREFIGHTING BOOTS

Heavy leather boots with 8-12" ankle protection. Boots are the closest thing to a status item with wild land firefighters, most equipment is issued but boots are generally purchased by the user. Once an individual has spent 21 days in a pair of boots they understand the value of a good pair. Generally new firefighters buy the most economical pair of boots available (usually \$80-120), more seasoned veterans will spend the money for the best they can get often paying \$250-400, custom fit boots are not uncommon.

This money goes for quality construction not glitters; it is spent for comfort not vanity. So when meeting an unknown firefighter the first impression is often determined by a glance foot ward, a cheap pair of boots says "I am inexperienced" or "I spend most of my time in the office".

Weight	4 kg
Price	\$80

BOOTS – WINTER BOOTS

The US version is called "Mickey Mouse Boots" and is very comfortable and effective to -20°F . The Soviet version is less comfortable but is effective to -60°F .

Weight	1 kg
Price	\$150

CHAIN SAW CHAPS

These are similar to the chaps used by horse riders but are made of Kevlar cloth. They are designed to protect a chainsaw operators legs from the saw. If the saw cuts into the chaps the Kevlar abrades away quickly jamming the saw and usually protecting the sawyer, the chaps are generally destroyed in this process.

Weight	1 kg
Price	\$150

CHINESE COPY OF “ADIDAS” SNEAKERS

Because of the harsh, mountainous terrain of Afghanistan, regular military issued boots destroyed Soviet soldiers' feet. Chinese copies of the Adidas sneaker started to be used by soldiers. These were much more forgiving than the stiff, leather boots. They held up better on the rocks and you can run in them without carrying the weight of iron on your legs. They were made in China and after some problems many Soviet merchants got connections that would supply them.

Weight	0.5 kg
Price	\$20

CIVILIAN CLOTHES – BUSINESS CLOTHES

A business outfit generally includes a jacket or blazer, and it tends to look sharp and well groomed without being overly formal.

Weight	2 kg
Price	\$100

CIVILIAN CLOTHES – CASUAL CLOTHES

Casual clothes range from cut-off jeans and a T-shirt to neatly pressed khakis and a hand-knit sweater.

Weight	1 kg
Price	\$50

CIVILIAN CLOTHES – FORMAL CLOTHES

From a little black dress to a fully appointed tuxedo, formal clothes are appropriate for “black tie” occasions.

Weight	2 kg
Price	\$200

COAT

An outer garment worn on the upper body. Its length and style vary according to fashion and use.

Weight	1 kg
Price	\$50

COATS – CIVILIAN WINTER COAT

Worn over fatigues. Protects against 30°F.

Weight	3 kg
Price	\$100

COATS – OVERCOAT

A warm coat worn over a suit jacket or indoor clothing.

Weight	1 kg
Price	\$100

COLD-WEATHER GEAR

This set of clothing is designed to supplement the basic clothing issue for troops that must operate in cold weather. It consists of a hood for the field jacket (issued with fatigues), wool underwear, a sweater, a scarf, a pile cap, and a pair of insulated overshoes (“*Mickey Mouse Boots*”). Various pieces of this set-up are worn depending on the individual's taste and the temperature. The gear is usually issued in camouflage pattern or OD green, but can sometimes be had in white.

Weight 5 kg
Price \$200

COLD WEATHER GEAR, EXTREME

This is intended to supplement the cold-weather gear. It consists of a heavy parka, insulating liners for the field jacket, trousers, and poncho. Only under the coldest conditions will everything be worn. This gear is usually issued in camouflage pattern or OD green, but sometimes can be had in white.

Weight 10 kg
Price \$200

COLD WEATHER MASK

This mask is used under arctic conditions to protect the face from high winds that cause frostbite.

Weight Nil
Price \$50

COVERALLS/DRY SUITS – AIRCREW DRY COVERALL

The Aircrew Dry Coverall is an anti-exposure dry suit constructed of Gore-Tex fabric with a Nomex flame resistant outer layer. US Coast Guard pilots and crew wear this dry suit. The Aircrew Dry Coverall is designed to eliminate the need for a flight suit by providing cargo pockets on the lower trouser legs and thigh and a pen pocket on the sleeve of the garment. Other features include glove pockets on the lower sleeves and a cross chest waterproof entry zipper.

Weight Nil
Price \$600

COVERALLS/DRY SUITS – FAST JET DRY COVERALL

The Fast Jet Dry Coverall is a breathable, flame resistant, anti-static dry immersion coverall for jet fighter pilots. The dry coverall has been windblast/ejection tested at 600 KEAS and is compatible with cockpit environments and personal protection equipment including Anti-G suits. Features include dual direction waterproof entry/relief zipper, passive air release valve, neoprene gloves and attached waterproof socks.

Weight Nil
Price \$900

COVERALLS/DRY SUITS – IMMERSION SUIT

This survival clothing is used by rescue persons and any one else who will be subject to extremely cold water like that of the ocean.

Weight Nil
Price \$250

COVERALLS/DRY SUITS – MULTIFABS DRY IMMERSION SUITS

Multifabs Dry Immersion suits are to provide protection from hypothermia in the event of immersion in cold water. Originally developed for protection of oil industry personnel, who fly over the North Sea, Multifabs dry suits are available in many configurations to protect the wearer in a variety of professions or military missions. The immersion suits are made of Gore-Tex materials, many styles available with Nomex face fabric for flame resistance.

Weight Nil
Price \$400

COVERALLS/DRY SUITS – MULTIFABS SURVIVAL SUITS

These dry suits provide flame retardant, over water thermal protection with a variety of anti-exposure coveralls for continuous wear or quick donning. They feature flame resistant Gore-Tex fabric with Nomex, latex or neoprene seals and wear resistant panels in critical areas.

Weight Nil
Price \$300

COVERALLS/DRY SUITS – OTS DRY SUITS

The OTS Dry under Suit is a unique anti-exposure protection solution. The suit integrates thermal

protection in a low profile design and is worn underneath a flight suit or standard work clothes. The fabric is lightweight and breathable which reduces the thermal burden while working and still offers protection against hypothermia should the wearer enter cold waters. Four styles are available with additional neck and wrist seal options.

Weight	Nil
Price	\$500

COVERALLS/DRY SUITS – PASSENGER ANTI-EXPOSURE COVERALL

The PAEC CWU-83/P is a breathable, constant wear dry suit designed to provide protection against hypothermia. The US Navy uses this immersion suit. Features include a valve and lower leg stretch panels to eliminate trapped air as well as a lifting strap to aid rescue.

Weight	Nil
Price	\$800

COVERALLS/DRY SUITS – QUICK DON DRY SUIT

The Quick Don Dry Suit is a one size fits all immersion suit packaged in an environmentally sealed pouch. The dry suit is designed to be donned in the event of an emergency and fits over standard clothing and equipment. Features include adjustable waist and ankle straps, wear resistant material on the soles of the attached fabric boots, passive air release valves and neoprene hood and gloves.

Weight	Nil
Price	\$200

COVERALLS/DRY SUITS – RESCUE SWIMMER DRY COVERALL

The Rescue Swimmer Dry Coverall is a breathable, flame resistant, constant wear immersion suit designed to protect the wearer from hypothermia while providing maximum flexibility for swimming and rescue maneuver. Features include wear resistant material at critical points, a stretch panel at the back and neck and attached waterproof socks.

Weight	Nil
Price	\$300

COVERALLS/DRY SUITS – TACTICAL DRY SUIT

The Tactical Dry Suit provides waterproof protection in a lightweight, rugged garment. The combined features allow maximum range of motion with head to toe protection. The suit features reinforcements on the seat, knee, and forearms. It also has a hood for head and face protection. Leg Pockets provide needed storage space and an air exhaust valve eliminates trapped air. The Tactical Dry Suit is made from Gore-Tex fabric that insures waterproof protection and breathable comfort.

Weight	Nil
Price	\$700

COVERALLS/DRY SUITS – WINCHMAN DRY COVERALL

The Winchman Dry Coverall includes the features of the Aircrew Coverall and adds wear resistant material to critical wear points like the knees, seat and forearm. The Winchman Dry Coverall is available in orange, navy and green.

Weight	Nil
Price	\$550

EAR DEFENDERS

Lightweight ear defenders designed to be worn under a balaclava or Kevlar helmet. Their specific purpose is to reduce the aural effect of stun grenades on the user, allowing them an edge in combat. The earpieces can also accommodate either a headphone or headset.

Weight	0.40 kg
Price	\$60

FATIGUES

Military style uniform/working dress made of hardwearing material. The distinction between fatigues and ordinary clothing is that fatigues are made of harder-wearing material, and have numerous pockets, attaching loops, etc. Fatigues consist primarily of a cap or beret, jacket/smock, shirt, T-shirt, trou-

sers, belt, underwear, and boots.

There are a vast range of different patterns and styles of fatigues available. Each nation's military has its own pattern of disruptive pattern material (called DPM hereafter — 'camouflage'), as well as working dress, but in essence they are broadly similar and differences are a matter of personal preference.

Fatigue Types: Plain (Khaki, Olive, or Black), DPM Woodland, DPM Desert, DPM Jungle, DPM Urban, Cool Temperate, Cold Weather.

	Weight	Price
<i>Fatigues Cold Weather Plain</i>	6.30 kg	\$263
<i>Fatigues Cold Weather Urban DPM</i>	6.30 kg	\$263
<i>Fatigues Cold Weather Woodland DPM</i>	6.30 kg	\$263
<i>Fatigues Cool Temperate Plain</i>	4.30 kg	\$165
<i>Fatigues Cool Temperate Urban DPM</i>	4.30 kg	\$165
<i>Fatigues Cool Temperate Woodland DPM</i>	4.30 kg	\$165
<i>Fatigues Cool Temperate Desert DPM</i>	4.30 kg	\$165
<i>Fatigues Temperate Coveralls Plain</i>	1.71 kg	\$113
<i>Fatigues Temperate Coveralls Urban DPM</i>	1.71 kg	\$113
<i>Fatigues Temperate Coveralls Woodland DPM</i>	1.71 kg	\$113
<i>Fatigues Temperate Desert DPM</i>	4.30 kg	\$165
<i>Fatigues Temperate Plain</i>	4.30 kg	\$165
<i>Fatigues Temperate Urban DPM</i>	4.30 kg	\$165
<i>Fatigues Temperate Woodland DPM</i>	4.30 kg	\$165

GAITERS

Gaiters are a covering for the lower leg and ankle, sealing the gap between the trouser leg and the boot. This is important in all climates, preventing or reducing the intrusion of solids into the foot and leg areas. Gaiters protect from sand and grit in boot and insects and leeches on legs. They cannot however prevent the intrusion of water into boots in cases where the feet are constantly immersed in water (such as in jungle climates).

Weight	0.10 kg
Price	\$15

GHILLIE SUIT/BLANKET

This is a complex overall-type garment, made of rags and burlap sewn into place on a grid/matrix of a Nomex flight suit. It is worn over DPM fatigues and with attachments of foliage to disrupt the outline of the body and make it indistinguishable from the background. Obviously, this is only useful in environments where there is some matching foliage as part of the background camouflage (i.e. it is difficult to pretend to be a bush in the middle of a snow-covered field!). It includes a body suit and a mesh helmet/head cover. It is particularly used for covert sniping operations. The Ghillie blanket is basically the same as the suit, except in a blanket shape (3 x 3 meters), and is draped over equipment.

Ghillie suits are intended for use in cool-temperate forest, since one of their main disadvantages is that they can get hot if worn for prolonged periods. They are also heavy and a considerable fire hazard.

	Weight	Price
<i>Ghillie Blanket</i>	10 kg	\$825
<i>Ghillie Suit</i>	7.50 kg	\$100

GLOVES – COLD WEATHER GLOVES

This glove will provide a water resistant, versatile, and durable glove.

Weight	Nil
Price	\$60

GLOVES – COLD WEATHER MITTEN

A Trigger Finger design that is waterproof and good for extreme cold down to -25°F.

Weight	Nil
Price	\$80

GLOVES – COLD WEATHER MITTENS WITH TRIGGER FINGER

Cold weather mittens with trigger finger make them easier to use. Trigger finger mittens are made

of 50% cotton & 50% nylon upper cuff that covers most of your forearm. These have an extra soft leather palm and removable wool inner liners.

Weight Nil
Price \$25

GLOVES – HEAVY GLOVES

Heavy winter gloves or mittens. May affect tasks requiring manual dexterity. Protects hands against frostbite down to 10°F.

Weight 0.5 kg
Price \$30

GLOVES – LEATHER GLOVES

These are high quality, thin leather gloves, enabling the wearer to perform relatively dexterous operations, whilst retaining the ability not to leave fingerprints, or simply to protect the hands from the elements. The wearer can carry out activities such as firing a weapon, but more delicate operations (such as picking a lock) are not possible.

Weight 0.05 kg
Price \$4

GLOVES – LIGHT GLOVES

Light leather, synthetic, or wool gloves. Protects hands against frostbite to 30°F.

Weight 0.2 kg
Price \$15

GLOVES – NOMEX/KEVLAR GLOVES

Lightweight gloves with Kevlar backs, designed for police and military use. Special operations forces and police SWAT teams particularly favor them.

They offer limited protection for the backs of the hands (but not sufficient to be classed as armor), protection for the palms, good grip and the use of weapons. They also offer protection to the palms, which can be important when rappelling or abseiling.

Weight 0.05 kg
Price \$98

GLOVES – RAPPELLING GLOVES

Tough leather gloves with reinforced palms, designed for rope handling and specifically rappelling/fast-roping.

Weight 0.07 kg
Price \$85

GLOVES – SKI GLOVES

Thermal padded, wind-proof gloves with a Gore-Tex outer designed purely to protect the wearer from the elements. Protects hands against frostbite down to -10°F.

Weight 0.5 kg
Price \$50

GLOVES – THERMAL GLOVES

Padded, wind-proof gloves with a Gore-Tex outer designed purely to protect the wearer from the elements. They do not permit any activity requiring dexterity beyond that to hold an item (such as a ski stick). They additionally have tie cords to enable them to be tied around the wrist, since losing a glove in cold weather can be catastrophic.

Weight Nil
Price \$68

GOGGLES – DESERT GOGGLES

Desert Goggles are made of clear polycarbonate, with a toughened lens designed to protect the wearer to international safety standard level. They specifically protect against flying fragments and

spray mist. The lens is surrounded by flexible plastic for comfort and there are ventilation holes to prevent the goggles misting over. The goggles are held in place by a thick elastic strip. They also feature a detachable tinted ultra-violet shade.

Weight 0.10 kg
Price \$81

GOGGLES – FLASH GOGGLES

Protects from NICO, Flash Bang, unnecessarily if using a helmet visor.

Weight 0.5 kg
Price \$200

GOGGLES – SAFETY GOGGLES

Safety goggles are similar to desert goggles, except that they do not feature the tinted shade. They are suited well to tasks involving cutting or spraying, but also firing a weapon.

Weight Nil
Price \$25

GOGGLES – SKI GOGGLES

These are similar to safety goggles but are additionally tinted and shielded from ultra-violet radiation (basically the same as desert goggles, but the shade is not removable).

Weight 0.10 kg
Price \$87

GORE-TEX ECWS (EXTREME COLD-WEATHER SYSTEM)

This is the most modern of cold-weather survival, issued to US and some NATO countries as well as Pact Arctic units and other alpine units and mountain climbers. The ECWS consists of Gore-Tex equivalents of the items in the cold-weather and extreme-cold weather gear, but this gear is much more durable, is waterproof, and more resistant to cold than ordinary gear. It is much sought-after by troops who don't have it, and as a result items of the ECWS can be found worn by just about anyone.

This gear is usually issued in a camouflage pattern, but civilian versions are usually in bright colors (such as orange or blue), and it can be had in white.

Weight 15 kg
Price \$895

HEADGEAR – BALL CAP

A simple cap.

Weight Nil
Price \$10

HEADGEAR – FIELD CAP HOT WEATHER

Circa 1964. Many of these can still be found world wide.

Weight Nil
Price \$40

HEADGEAR – FRENCH FOREIGN LEGION KEPIS

The famous headgear of the French Foreign Legion comes in white.

Weight Nil
Price \$20

HEADGEAR – PITH HELMET

Worn by famous explorers and for a time USMC.

Weight Nil
Price \$50

HEADGEAR – SOVIET ENLISTED FUR CAP

Classic headwear common to all Soviet troops.

Weight Nil
Price \$50

HEADGEAR – SOVIET ENLISTED SIDE CAP

Worn by Soviet enlisted personnel.

Weight Nil
Price \$10

HEADGEAR – SOVIET JUMP HELMET

Issued to Soviet airborne troops.

Weight Nil
Price \$20

HEADGEAR – SOVIET TROPICAL CAP (“AFGHANKA”, “PANAMKA”)

This cap was first introduced during World War II. The cap at that time had a bigger brim, the eyelets were machine embroidered and not all caps had a chin cord. The earlier cap was used throughout the Cold War and wound up fading away during the 1960s. The cap was reintroduced during the Soviet-Afghan War and this version had a shorter brim and the eyelets were metal. It had a faux leather sweat band and chin cord.

Weight Nil
Price \$20

HEADGEAR – STETSON HAT

This hat is worn by the Royal Canadian Mounted Police, several State Police Departments, and by US Army Drill Sergeants.

Weight Nil
Price \$200

HUNTER JACKET

This jacket is designed for hunting and is made of Gore-Tex and has reinforced elbows and lots of pockets for extra kit.

Weight
Price \$200

IMPROVED ECWCS SHIRT AND TROUSERS

The shirt is a front opening shirt with long sleeves, hand warming packets, 2 breast pockets, and a zip-up collar. The trousers are a bib type with built-in suspenders that feature quick release fasteners and full length side zip for easy donning and doffing. The material is 100% polyester fleece and comes in several weights, depending on the thickness of insulation required.

Weight Nil
Price \$300

INSIGNIA AND LOGOS

Insignia or logos can be added to any uniform or casual clothing in order to increase authenticity, or enable impersonation of corporate personnel or officials. Where such insignia are uncommon, it should be borne in mind that the person producing the insignia must be able to see what they are copying. Additionally, some insignia may be rare or difficult to obtain.

The types of insignia and logos commonly used include:

- **Blood Type:** Blood type patches are Velcro patches for attaching to a uniform in combat (to speed identification). These are often attached to the boots.
- **Company/Corporate Logo:** Displaying the company for whom the individual works.
- **Rank / Name Tag / Unit / Qualification:** These are tags and flashes denoting the military unit to which the person belongs, their rank, etc. These may also show specialist qualifications (such as parachutist jump wings or pilot flight wings).
- **Retroflective Tape/Reflective Name Tags:** Special Velcro patches of tape that is visible under visible and IR light, only in the direction from which the light originates (there is a low scatter of reflected beams). Used to identify members of your team, especially in dark/night combat situations.

	Weight	Price
<i>Insignia, Blood Type</i>	Nil	\$5
<i>Insignia, Company</i>	Nil	\$15
<i>Insignia, Rank / Unit</i>	Nil	\$30
<i>Insignia, Retroreflective Tape/ Reflective Name Tags</i>	Nil	\$10

LIGHT WEIGHT COLD WEATHER UNDERWEAR SET (LWCWUS)

Provide a moisture wicking, heat retentive, lightweight garment that keeps Marines dry and comfortable in a variety of environments. The LWCWUS is a thin, quick drying, hydrophobic, Moisture wicking synthetic garment set composed of long undershorts and zippered neck long undershirt. It is launderable using standard commercial equipment.

The current cold weather underwear provides excellent insulation in extreme cold weather, but is too warm in moderate cold conditions. Marines conducting strenuous activity would perspire heavily causing the underwear to lose its insulative qualities. The result was Marines suffering from hypothermia, dehydration and other cold weather injuries. The LWCWUS does not have the deficiencies of its predecessor.

Weight	Nil
Price	\$200

M-65 COMBAT JACKET

This is the standard issue US item, can also be found in storage in the US and many allied nations.

Weight	Nil
Price	\$25

MILITARY POLICE ARM BAND

Issued to MP in most Western Armies.

Weight	Nil
Price	\$20

NEOPRENE GLOVES AND HOODS

Titanium lined Neoprene Gloves and Hoods provide insulation to hands and head. The 3 mm thick gloves and hoods are brightly color for visibility in water. The gloves have a five finger design with grip spots on the palms to increase traction in water. The Balaclava style hood fits snugly against the face, over the chin and covers the neck for maximum protection.

Weight	Nil
Price	\$250

NOMEX ASSAULT SUIT

This is a loose-fitting assault suit is used commonly by Special Forces anti-terrorist units and police SWAT specialists in tactical situations. It is similar to a standard jump suit and is worn over light clothing, but has additional pockets for storing equipment, and a hood. The ankles and cuffs are elasticized.

Weight	1.60 kg
Price	\$250

NOMEX FIRE RESISTANT CLOTHING

Nomex is a fire resistant cloth, fire resistant does not mean fire proof, it will burn but when removed from a source of heat the fire goes out. The most common designs are jump suits or a long sleeved shirt and pants, designs that include lots of pockets are popular. Fire resistant cotton is often used as a substitute material; it is regular cotton treated with a fire resistant chemical and is about one half the cost of Nomex. Both materials are about the weight and thickness of heavy cotton or denim.

Weight	1 kg
Price	\$200

NOMEX FLIGHT SUIT

A one-piece jumpsuit made from Nomex, a fire-retardant fabric. It has an integral hood, Kevlar reinforcements at the elbows and knees, and gives DR 2 *against flame damage only* (see p. B129-130). A full-face mask can be added to provide extra protection against collateral burns from smoke grenades,

gunfire, or stun munitions. Flight suits are issued to flight and tank crews and some special operations troops in NATO armies and just to fixed wing flight crews in Warsaw Pact armies.

Weight 1 kg
Price \$170

OVERWHITES

A lightweight, white (usually splotted with dark grey or forest green) garment to be worn over the individual's other clothing. Overwhites are not intended to provide a great deal of insulation, just camouflage under snow conditions.

Weight 1 kg
Price \$50

PARKAS – ALL WEATHER PARKA

Designed for use in temperate and rainy climates. Made of Gore-Tex (a breathable fabric that is waterproof). The jacket has a quilted lining that can be removed in warmer weather, but is required when the temperature is between 15°C and –10°C.

Weight 3 kg
Price \$165

PARKAS – ARCTIC PARKA

Designed for use in the coldest climates. The exterior is made of waterproof polyester, with a heavy quilted lining and a fleece-lined hood. Additionally, the sleeves have elasticized cuffs to reduce heat loss. It is intended for use when the temperature is between 0°C and –30°C.

Weight 6 kg
Price \$218

PARKAS – CIVILIAN PARKA

This winter coat is used to protect the wearer from cold weather.

Weight 1 kg
Price \$200

PARKAS – HIGH VISIBILITY PARKA

Intended for use where it is important that the wearer is seen, this version is a combination of the all-weather and arctic parkas, with a waterproof polyester exterior and a detachable quilted lining. It is intended for use when the temperature is between 10°C and –10°C. The hood is detachable (since workers requiring high-visibility clothing often work in an environment where hearing is imperative and wearing a hood is unsafe).

Weight 3.75 kg
Price \$180

PARKAS – MILITARY PARKA

A military issue overcoat.

Weight 4.5 kg
Price \$50

PARKAS – WHITE CAMOUFLAGE SNOW PARKA

White camouflage snow parka is a light weight outer shell you can wear over your heavier warm clothing. Parka has a hood with draw string, snap front, and draw string waist and bottom. Parka has slits on side that look like pockets with flap that snaps to keep out snow and cold. These are handy because it allows you to reach into pockets of pants or coat worn underneath parka without taking it off. Parka runs very large and is made to wear over winter clothing.

Weight 1 kg
Price \$200

PONCHOS –EUROPEAN SNOW PONCHO

Genuine issue for the military, these snow covers give superior camouflaging without taking up

needed pack space. Spruce-on-white camo pattern blends into snow-covered woodlands for concealment.

Weight Nil
Price \$14

PONCHOS –PLASTIC OR VINYL PONCHO

Weight 0.62 kg
Price \$19

PONCHOS – PONCHO

A lightweight nylon cape with a hood, designed as a lighter alternative for troops to wearing a parka, where protection against the cold is not important. The poncho normally comes in olive drab or DPM.

Weight 0.50 kg
Price \$30

PONCHOS – PONCHO LINER

Light, thin quilted cloth, surprisingly warm and used to make the poncho into an impromptu sleeping bag. Protects against 30°F, even when wet.

Weight 0.6 kg
Price \$30

PONCHOS – PONCHO/SLEEPING BAG

Widely issued to German troops, and issued in small quantities to US troops. Also known as the IMPS (Individual Multi-Purpose Shelter). As it sounds, this is an insulated poncho that can be unfolded and closed off to form a sleeping bag. Small stays keep the other end off the wearer's head and chest if desired. It folds into the hood for carrying.

Weight 1.4 kg
Price \$200

RAIN SUIT, VINYL OR PLASTIC

Weight 0.88 kg
Price \$30

REVERSIBLE PARKA AND TROUSERS

The Reversible Parka and Trousers are the best Rainwear for the worst weather. Designed to keep you dry under the most adverse conditions, this reversible rainwear is waterproof, windproof, breathable, durable and extremely lightweight. Reversible Combat Rainwear allows the war fighter to operate day or night in desert or forest. The Reversible Parka and Trousers are available in Woodland camouflage reversing to Day Desert camouflage and Day Desert Camouflage reversing to Night Grid.

Weight Nil
Price \$500

SHEMAGH

Next to his rifle, knife and boots, the Shemagh is probably one of the most useful pieces of equipment a soldier can have. A Shemagh is a square cotton cloth, about 110 x 110 cm. It comes in a wide variety of color combinations (red & white, black & white, black & green, sand & black, blue & white, etc.), the more dominant color is sewn or woven into the cloth in a pattern. When used correctly, as originally intended (a head wrap), the Shemagh is surprisingly comfortable.

The Shemagh is a traditional head wrap originating from the Middle East/Arabic culture developed from the Arabic turban, and have been used by them for centuries. Now days it's perhaps publicly best known as used by the Palestinians in Israel. The British SAS discovered the Shemaghs potential when operating in northern Africa's deserts during the World War II. It has been a popular and valuable piece of the SAS soldiers equipment ever since and have spread from there.

Weight Nil
Price \$10

SNOW COVERALLS

This is a white jacket, trousers and over-shoes, worn over cold weather fatigues to provide camouflage against snow. Snow coveralls are typically made of Gore-Tex, a water-resistant but breathable fabric.

Weight 1.71 kg
Price \$113

SWEATER

Synthetic or wool sweater. Protects against 20°F.

Weight 0.5 kg
Price \$30

THERMAL FATIGUES

Insulated clothing for freezing conditions.

Weight 1.3 kg
Price \$80

THERMAL INSULATING GARMENT

The TIG is a one piece, lightweight undergarment made from Thinsulate which protects the body core from hypothermia. When worn with a Multifabs immersion suit, the TIG increases the survival time in cold water. The Thermal Insulating Garments are available with short sleeves and pant legs or long sleeves and pant legs, available in standard sizes from extra-small to XXX large.

Weight Nil
Price

THERMAL UNDERWEAR

Worn under clothing. Includes socks. Protects against 15°F.

Weight 0.5 kg
Price \$40

UNDERCOVER BLAZER

The Undercover Blazer features the BBS pockets; interchangeable chest panels that hold all the small items you may need, and even has a hidden radio pocket and a wire guide system to allow for a hand control and an earpiece.

Weight Nil
Price \$150

UNIFORM

From the cable guy to a senior Air Force officer, people on the job tends to wear uniforms — making such clothing an essential part of some disguises, since a uniform inclines people to trust the wearer.

Weight Nil
Price \$20

UNITED NATION FLAG

This flag is worn by United Nation Peacekeeping Troops deployed to UN Military Mission, comes in either a small patch for clothing, or small flag for vehicles, or as full flag; can also be made as a sticker.

Weight
Price \$10

UNITED NATIONS UNIFORM ITEMS

These items are used by UN troops as means of Identification, and issued by the UN through contractors and Military supply systems world wide. Over the years many have made their way in Army Surplus Stores and other Military Collectors.

The United Nations uniform consists of all of the following items.

	Weight	Price
<i>UN Blue Beret</i>		\$20
<i>UN Blue Field Cap</i>		\$30
<i>UN Metal Hat Badge</i>		\$40
<i>UN Shoulder Patch</i>		\$5
<i>UN Armband</i>		\$10
<i>UN Blue Scarf</i>		\$20
<i>UN Blue Helmet Cover</i>		\$40

WINDBREAKER

This is a lightweight jacket made of wind-resistant material.

Weight
Price

WINTER COMBAT SUIT

Insulated combat suit, usually white (but sometimes reversible). Includes winter boots. Protects against 40°F.

Weight 5 kg
Price \$300

07. COLD WEATHER EQUIPMENT

COLD WEATHER INFANTRY KIT

Consists of components needed to support a 4-man fire team. The kit features:

1 2-Burner Stove	Funnels
1 4-Man Tent	Lightweight Sled with Transport Bag
1 Avalanche Probe	Lightweight Sled's Assist Harness
1 Hatchet with Sheath	Lightweight Sled's Main Pulling Harness
1 Snow Saw	Poles
1 Whisk Broom with Dust Pan	Ski Wax
5 Stove's Fuel Bottles	Snow Shovels
Climbing Skins	Thermos
Cooking Pots	
Weight 50 kg	
Price \$200	

CROSS-COUNTRY SKIS

Used for winter travel over snow. Includes poles, ski boots and bindings.

Weight	8 kg
Price	\$250

GEAR SLED (PULK)

Used for hauling the additional gear that troops have to carry in winter time; they have flaps on top for easy access to the contents. The sleds are lightweight, yet rugged, will fit into most vehicles when folded and can be towed by two persons or a snowmobile.

Weight	6 kg
Price	\$500

INSULATED CANTEEN COVER

Used for keep your canteen insulated in cold weather conditions.

Weight	Nil
Price	\$20

SNOW KNIFE

Used for carving snow, can only be used in arctic areas.

Weight	Nil
Price	\$25

SNOW SHOES

Lightweight magnesium snowshoes, ideal for walking on fresh or loose snow without sinking; they work simply on the principle of distributing the wearer's weight across a broader area.

Weight	1.8 kg
Price	\$80

US COLD WEATHER SURVIVAL KIT (INDIVIDUAL)

This is issued to US soldiers who operate in winter and arctic environments. Such soldiers will still have their field pack, BDUs and webbing or load bearing equipment.

Balaclava	Improved ECWCS Trousers
Bivy Cover	Intermediate Cold Wet Boot
Cold Weather Weapons Cleaning Kit	Light Weight Cold Weather Underwear Set
ECWCS Pants	Modular Sleeping Bag (MSB)
ECWCS Parka	Shooters Mittens
Extra Liners for Boots	Snowshoes
Heavy Gloves	Tinted Ski Goggles
Heavy Wool Scarf	Wool Hat
Improved ECWCS Shirt	

Weight 10 kg
Price \$500

US COLD WEATHER SURVIVAL KIT (SQUAD)

This kit is issued to Squad leaders so they have the equipment to survive in cold weather.

Cold Weather Infantry Kit
Extreme cold weather tent (ECWT)

H-45 Space Heater
Squad Stove

Weight 60 kg
Price \$800

08. COMPUTER EQUIPMENT

COMBAT CDA (COMMANDERS DIGITAL ASSISTANT)

The CDA is basically a militarized PDA (Personal Digital Assistant). CDA has a satellite phone capability and can download maps, along with instructions overlayed on the maps. CDAs have the "Blue Force Tracker" technology that constantly shows on the screen the location of all nearby friendly platoons, tanks and combat aircraft.

Instead of, as in the past, the company commander trying to explain to his lieutenants, over the radio, what the new plan is, he just sketches out a new plan on his CDA, and transmits it to his platoon leaders (and the battalion commander, so his boss knows what's going on as well).

Weight 1 kg
Price \$800

CURRENCY COUNTER

This is used for counting large sums of money bills only.

Weight 2 kg
Price \$75

DESKTOP PC PORTABLE WORK STATION

The basic office PC, with facilities like an integral modem, DVD/CD drive, floppy drive, D re-writer and flat screen monitor, all sealed in water and shock proof box that can be disconnected and transported just about any where.

Weight 15 kg
Price \$2,500

DIGITAL CAMERA

The latest photographic device and improving in quality all the time, the digital camera doesn't require film, saving pictures to a memory stick that is inserted into the camera. The stick will hold data for up to 165 standard quality images, or six extremely high quality images. The images can then be downloaded to a PC or laptop with the relevant software for editing or enhancement. The images created can also be animated using appropriate PC software.

The camera features an intelligent flash, 10x zoom lens, an LCD display and a voice memo.

Weight 1 kg
Price \$1,800

DIGITAL NOTEBOOKS

Notebooks are smaller and less powerful versions, although they still permit Internet access, but operate much simplified software. Typically they do not use a mouse and rely on touching the screen with a pen. Their main use is as their name describes: as a highly portable executive notebook.

Weight 0.6 kg
Price \$1,650

DIGITAL SOUND PROCESSOR

Digital Sound Processing (DSP) manipulates sound waveforms as bits of data and allows much greater alteration of audio input than the analog sound processors. This item requires DIF:Computers Skill to use properly. Because it is heavily computer based, the DSP has the same processing capability the FSP does but also has the following:

- **Speech Repair/Extrapolation:** This is the systemization of words missing in the audio input but either identified by computer or deduced by context in the conversation.
- **Translation:** Once identified, the computer can synthesize the speech as it were spoken in another language.
- **Voice printing:** The Computer automatically generates a voiceprint from the spoken sample.
- **Switching:** The computer is able to synthesize the speech as if it were spoken by a different person.
- **Voice Stress Analysis:** The computer can also add or eliminate microtremors which indicate voice stress.
- **Keyword Scanning:** The computer is able to search for specific keywords and phrases in the speech, then flag them for the surveillance expert's attention.

- **Mixing:** The DSP allows the blending of multiple audio sources so as to appear that only one source was used.

In current technology, the DSP is limited to post-processing because of its bulk and power requirements. The DSP presented here is actually a special board for a personal computer. The board allows all DSP functions except speech repair/extrapolation and translation. Functions at this stage require custom software and much more powerful computers. This system is available to all civilians in Western nations.

	<i>Board</i>	<i>Software</i>
Weight	N/A	N/A
Price	\$800	\$500-\$2,000

DIGITAL TRANSMISSION RELAY

Used for relaying digital information from electronic devices to a computer.

Weight	1 kg
Price	\$2,200

ELECTRONIC SCALE

Conveniently compact and stylish, used to accurately weight precious metals, gems, components and a wide variety of other objects which are simply impossible to weigh on conventional scales. Comes equipped with weighing tray, and a resting mat to stabilize the scale when working in uneven surfaces, operates on 3 "AAA" type batteries.

Weight	3 kg
Price	\$200

EXTERNAL DISK DRIVE

An external disk drive is an easily connectable means of either increasing the amount of storage space that a PC or laptop has, for storing particularly large files (such as images, sounds or video), or for use as a backup for the computer's internal hard disk drive. It uses a high capacity disk (similar to a disk drive), with a capacity of upwards of 2,000 bytes. It connects to the PC or laptop through a USB (Universal Series Bus) port.

Weight	0.6 kg
Price	\$390

FLIGHT COMPUTER

A flight computer is a handy slide rule type computer. It can determine a number of things for a pilot such as wind vectors, fuel remaining, time to destination, etc. In addition to slide rule type flight computers, small electronic pocket type calculators are available. They perform the same functions. In use the pressure altitude is entered into the computer along with the current temperature and the output is the density altitude.

Weight	Nil
Price	\$60

INMARSAT COMPUTER RELAY TERMINAL

Used for transmitting voice and data Via Satellite to another user, can be used on all Land Masses and Oceans except for Poles.

Weight	48 lbs
Price	\$30,000

LAPTOP WORKSTATIONS

Typically, laptops are marginally less powerful than their desktop counterparts, although in practice the difference is marginal to the average user. The main difference between laptops and desktops is in price

Certainly compared to the early generation of laptops, the present models are extremely powerful, and they have all the features of desktop models (sacrificing a little of the high end performance for size). Some laptop models even incorporate printers, although the print quality is not higher than that required for letters.

Weight 1 kg
Price \$2,500

LCD MONITOR

Used by many western armies for display tactical data where low light conditions exist, can be used with any computer.

Weight 10 kg
Price \$700

M23 MORTAR BALLISTIC COMPUTER

The M23 Mortar Ballistic Computer is a lightweight, hand held device used to compute mortar gun fire commands. It is capable of being operated by battery or can be slaved off of vehicle power outlets or vehicle battery. The M23 Mortar Ballistic Computer is used in support of the M224 60 mm, M252 81 mm, and M120/M121 120 mm mortars, as well as the M30 4.2 inch mortar. The Mortar Ballistic Computer is loaded with the ammunition ballistic tables for these four weapons.

Weight 2 kg
Price \$1,000

MAS MORFIRE MORTAR COMPUTER SYSTEM

MORFIRE is a computer-based networked system for use by mortar platoons. With MORFIRE, advanced ballistic algorithms compute accurate firing solutions in real time, modified by current meteorological conditions.

The system provides and manages real-time data transfer between mortar fire controllers, command posts and mortars in digital format over combat net radios. The option of virtually simultaneous voice communication is retained. With MORFIRE, distributed processing ensures the retention of traditional flexible command structures while enabling instant reallocation of resources and concentration of fire for individual missions. Comprehensive facilities support fire planning, fire support co-ordination measures and the management of target records. An advanced user/machine interface retains and enhances the discipline of traditional fire orders and report messages in STANAG format. There is also a provision for free text messaging.

MORFIRE automatically accepts data via a direct Global Positioning System (GPS) interface or datalink location records and target data. The section hand-held computers can store the locations of 10 mortar lines, each of 10 mortar barrels. The system can provide the facility for the simultaneous engagement of multiple targets from individual mortars or multiple mortar lines. Complex fire distributions using multiple ammunition types are executed without any time penalty while comprehensive facilities are provided for the generation, execution and modification of multiple fire plans, complete with audio visual prompts and countdowns. Target records are maintained and automatically updated for changes of grid, location and meteorology.

The systems consist of a Data entry terminals and computer weighting 0.75 kg and powered by 3 "AA" batteries, and a Datalink and display unit weighting 3.5 kg and powered by 3 "D" alkaline batteries.

Weight 4.25 kg
Price \$10,000

MEMORY STICK

Used to add more memory to digital equipment.

Weight Nil
Price \$75

MODEM

A modem allows a character to connect a computer to the Internet. To use a modem, a character must have a computer and an appropriate data line. All computers come with dial-up modems, which allow connection to the Internet. A dial-up modem uses a standard telephone line; while it's connected, that telephone line can't be used for another purpose.

Weight 0.5 lbs
Price

PC CAMERA

A PC camera is a small, fist-sized camera for connection to a PC or laptop. It has an integral microphone to carry audio, and is used for video e-mail or video-conferencing.

Weight	0.2 kg
Price	\$80

PERSONAL DIGITAL ASSISTANT

A Personal Digital Assistant (PDA) is a miniature electronic notebook, with limited processing power as a computer. It is not intended to entirely replace the role of the PC, but rather to supplement it, with high portability. Features of the PDA include: address book and diary, PC-compatible software (such as operating system, word-processing and spreadsheet), IR port (allowing rapid download to PC or laptop), Note Pad software, carrying case, and a keyboard to increase typed input ability.

Weight	0.3 kg
Price	\$400

PERSONAL ORGANIZER

Holds hundreds of addresses and notes.

Weight	Nil
Price	\$50

PORTABLE LCD TELEVISION

A small, Walkman sized color television, powered by internal batteries. It can be wired to receive signals from external viewing devices, such as concealed cameras and camcorders, via a digital transmission relay.

Weight	0.2 kg
Price	\$150

PORTABLE MILITARY LUNCHBOX COMPUTER

This is the first generation of military computers for use in the field. Most of these were employed by signals units for transmitting of messages, and very few of these are available in the *Twilight: 2000* world. A PC with a good computer and electronics skill could adapt the computer for other uses.

Weight	15 kg
Price	\$4,500

PRINTERS – COLOR INKJET PRINTER

A printer suited for creating hard copies of text and image files from computers.

Weight	2 kg
Price	\$200

PRINTERS – COLOR SCANNER/PRINTER

A portable device used for scanning and printing documents.

Weight	3 lbs
Price	\$300

PRINTERS – LASER PRINTERS

Allows extremely high quality printing in either color or black and white.

	<i>B&W</i>	<i>Color</i>
Weight	44 kg	44 kg
Price	\$400	\$960

PRINTERS – PORTABLE LASER PRINTERS

These are also extremely high quality, but sacrifice some of the sturdiness of the desktop version.

	<i>B&W</i>	<i>Color</i>
Weight	2.5 kg	2.5 kg
Price	\$353	\$705

ROCKY WEATHERIZED NOTEBOOK COMPUTER

Designed for the rigors of offshore use, the Rocky notebook computer can withstand high levels of shock, dust, and moisture without compromising its operational ability. The Rocky is not an indoor notebook computer that has been lightly upgraded, but has been designed from the ground up for use in hostile environments. Rocky's external seals ensure the protection of all components and external connections. Its indestructible magnesium casing, which is rust and dent resistant, the Rocky also comes with sunlight readable LCD and back lit keyboard to complement its outdoor capabilities.

Weight 4.7 kg
Price \$1,400

SCANNER

A color flatbed scanner allows the user to transfer images and documents from hard copy into a computer in digital form.

Weight 1 kg
Price \$100

SCANNER/FAX

This device allows images to be copied at very high resolution as a digital image. This is stored as a file and either transmitted as a file or modified using appropriate software. Scanners can also be used to scan text and then edit this in a word-processing program.

Weight 1.1 kg
Price \$200

09. CONSTRUCTION MATERIALS

BARBED WIRE, ANTIPERSONNEL

Concertina wire consisting of strips of metal with razor-like blades. This is in common use by NATO forces.

	<i>1 meter</i>
Weight	2 kg
Price	\$20

BARBED WIRE, CONCERTINA

Spring-like coil of barbed wire, with interlaced strands of normal barbed wire, also known as a "combat slinky".

	<i>1 meter</i>
Weight	2 kg
Price	\$10

BARBED WIRE, STRAIGHT

Normal lines of heavy wire with knots of barbs.

	<i>1 meter</i>
Weight	0.3 kg
Price	\$2

CAMOUFLAGE NETS – CAMOUFLAGE NETTING

Modern camouflage netting is typically infrared- and radar scattering, and imposes a one level penalty on such detection attempts. Eastern-Bloc nets are normally square; NATO nets are a modular set of hexagons and diamonds. Camouflage nets have a different pattern on each side (normally summer/spring and fall; other patterns include winter/snow, sand/scrub, jungle, and others are certainly available).

Weight and price is for an arbitrary 10 x 10 m square, and includes the poles and spreaders for erection.

Weight	10 kg
Price	\$1,500

CAMOUFLAGE NETS – LIGHT-WEIGHT CAMOUFLAGE SCREEN SYSTEM (LCSS)

The LCSS is a camouflage net that provides protection in areas where there is no large convenient overhead cover, such as unplowed fields, rocky areas, grasslands, and other wide-open spaces. The LCSS is a modular system consisting of a hexagon screen, a diamond-shaped screen, a support system, and a repair kit. Any number of screens can be joined together to cover a designated object or area. LCSSs provide excellent cover when properly used; they are radar scattering or radar transparent. Comes in both forest and desert patterns.

Weight	4 kg
Price	\$200

CAMOUFLAGE PAINT KIT

4 spray cans plus 6 stencils allow for easy camouflage of vehicles, bunkers, or any field equipment. One kit will cover approximately 100 sq ft of surface. Specify jungle, forest or arctic.

Weight	10 kg
Price	\$35

CEMENT

Price could vary but this can be made from local materials.

	<i>1 m³</i>
Weight	
Price	\$10

COPPER WIRE

A hard to come by item in the *Twilight: 2000* world.

1 ft
Weight
Price \$500

ELECTRICAL HARDWARE

Wire and light outlets.

Weight 1 kg
Price \$40

LIGHTING KITS – GENERAL ILLUMINATION LIGHT SET

Used as the lighting kit for general purpose tents, this waterproof kit is great for any indoor/outdoor electrical lighting project. It comes packed in a sturdy wooden storage container with a tray. Each set includes the following:

3-way adaptors	50 ft #8/2 generator feed cable
5-way adaptors	100 ft #10/2 feed cable
10 ft #16 light cords	100 ft #12/2 feed cable
16 bulb reflectors	Switches
25 ft #16 light cords	
Weight 68 kg	
Price \$50	

LIGHTING KITS – MILITARY ELECTRICAL SYSTEM

Designed to illuminate tents while running auxiliary electrical equipment as well. Included is:

- 1 locking breaker box with 5 auxiliary outlets and one for connecting to an outside electricity source
- 2 aluminum reflectors
- 4 220V 100W light bulbs
- 7 different size and length cables, each with waterproof connector covers

Weight 73 lbs
Price \$130

LIGHTING KITS – TENT LIGHTING KIT

Used as a lighting kit for medium or large tents, comes in a sturdy wooden storage container with tray and includes the following:

3-way adaptors	50 ft #8/2 generator feed cable
5-way adaptors	100 ft #10/2 feed cable
10 ft #16 light cords	100 ft #12/2 feed cable
16 110V water proof lighting fixtures	Dimmers
16 bulb reflectors	Seals
25 ft #16 light cords	Switches
Weight 65 kg	
Price \$200	

LUMBER

At Game Master choice for price and quality.

Weight
Price

NAILS

Weight 1 kg
Price \$5

NAILS – HORSESHOE NAILS

Used for nailing horseshoes to the horse, but can hold just about anything together.

		100	
	Weight	20 kg	
	Price	\$50	
PAINT			
	Olive Drab.		
		1 liter	
	Weight	1 kg	
	Price	\$10	
PAINT, SPRAY			
	Any color.		
	Weight	1 kg	
	Price	\$10	
SANDBAG			
		<i>Empty</i>	<i>Full</i>
	Weight	0.2 kg	10 kg
	Price	\$1	

10. COOKING EQUIPMENT

24 VOLT RATION HEATERS

These have a 10 amp fuse. Plug can be plugged into any aux 24V outlet, or you can install a plug. These will heat 4 MREs in 20 minutes or heat water in a plastic bag.

Weight
Price \$65

150 LITERS WATER HEATER

Used for heating water. Power Consumption: 175 kw.

Weight 180 kg
Price \$1,500

BARQUE

2 large burners with lid and can run of gases like propane or natural gas, or charcoal or even wood. Fuel Consumption: 0.75 liter/period.

Weight 8 kg
Price \$100

CAN OPENER

Such as the US "P38".

Weight Nil
Price \$1

CANTEEN CUP

This cup is carried with a canteen as allow GI to drink coffee or soup.

Weight Nil
Price \$2

CAST IRON POTS

A set of three cast iron pots used when cooking over an open fire, these are usually found in most villages in the *Twilight: 2000* world.

Weight 20 kg
Price \$20

CF-82 COOKER

A neat, compact and lightweight portable cooker designed to serve 1-5 men under field conditions. Of imaginative design, it has a high heat output under all weather conditions and at all altitudes, and can be fuelled with petrol, paraffin, methylated spirit or diesel oil. Notable features of the new unit are its reliability, strength, versatility, ease of operation (full operating instructions are incorporated in the lid). The lid has two positions, upright or fully reclined to allow larger pans to be used.

Weight 3 kg
Price \$200

CF-83 COOKER

The CF-83 cooker is equipped with two 3.5 kw burners that are controlled by independent taps. The input supply is connected at the rear of the unit. This unit is used for baking items in the field.

Weight 20 kg
Price

CF-85 FIELD COOKING UNIT

CF-85 field-cooking unit is compact and easily transported in a long wheel base Land Rover or similar vehicle. No special adaptations or additional protective packing are required. It is particularly suited to use by highly mobile field teams of all types, including military personnel, medical workers, scientific groups, film crews, surveyors and explorers, and is also ideal for use under emergency conditions resulting from war or natural disaster. The CF-85 is able to provide food and beverage preparation for

up to 120 people and is supplied completes with a wide range of cooking containers and utensils. Fuel Consumption: 2 liters/period.

Weight 50 kg
Price \$400

CF-111 HIKER STOVE

The Hiker is at ease operating at high altitudes such as 6,000 m (19,500 ft) and has been the choice of professionals, military units and aid projects world wide. With accurate flame control, from full to simmer, the risk of charring food is minimized. The Hiker is a multi-fuel cooker making it easy to find fuel wherever the stove may be in use. A compact and lightweight portable cooker designed to serve 1-5 men under field conditions. Fuel Consumption: 0.75 liter/period.

Weight 1 kg
Price \$150

CIVILIAN MOBILE KITCHEN TRAILER (MKT)

Similar to Military Mobile Kitchen Trailer described later on in his section, these are most used as mobile fast food outlets found at the side of many roads.

Weight 6,000 kg
Price \$3,000

COFFEE CUP, FOLDING

A small steel cup that folds flat in a pocket.

Weight Nil
Price \$3

COFFEE POT

Used for cooking coffee.

Weight 1 kg
Price \$10

COLEMAN 500 "C1B1" STOVE

Prior to the appearance of the Two Burner Coleman stove, the Canadian Army issued the Coleman 500, a single burner stove they called "C1B1". Used until early 80s when they were replaced with the Coleman Peak stove. Fuelled with naphtha, or Camp Fuel, but in a pinch gasoline would work also.

The C1B1 stove has similar characteristics to the M1950 stove, but with differences as follows: it is a pressure gasoline burning stove in which only naphtha gasoline can be used; it burns approximately four hours on a tank of fuel (½ liter); the flame produces more heat and its height can be controlled; and it has a larger, steadier cooking platform.

Weight 1 kg
Price \$85

COLEMAN PEAK 1 MULTI-FUEL STOVE

Issued to many armies as a squad stove replacing the M1950 and Coleman 500 stoves. Burns white gas, kerosene, and jet fuel; its built-in fuel tank (12 oz) runs on high for 90 minutes. Comes with a case that doubles as 2 pots. Not as compact for a given burn time as other designs, but is a proven product. Coleman stoves simmer better than other multi-fuel designs, and require little or no priming. Due to weight and bulk, however, the stove is better for hunters than travelers.

Weight 50 kg
Price \$75

COLEMAN TWO BURNER CAMP STOVE

2 large burners. Includes windscreen and a fuel tank, all in metal case. Fuel Consumption: 0.75 liter/period.

Weight 5.4 kg
Price \$100

CONTAINERIZED KITCHEN (CK)

The CK is a mobile field kitchen that can support 800 soldiers with up to three hot, cook-prepared or heat-and-serve meals per day. The CK will be deployed to meal preparation sites, generally at battalion level. The CK consists of a combination of existing military kitchen equipment and commercial components together in an expandable 8' x 8' x 20' ISO container. The CK is mounted on a tactical trailer and towed.

Major features of the CK include electrical power from an on-board Tactical Quiet Generator, an environmental control for heating and cooling, and refrigerated storage of 60 cubic feet. Cooks in the CK will be able to roast, grill, boil, fry and bake. The CK will have running water, a protected serving line, and ventilation of exhaust and cooking by-products. Fuel Consumption: 8 liters/period.

Weight 10,000 kg
Price \$50,000

COOKING ACCESSORIES KIT

This kit contains items that any field cook would need and is found in most field kitchens, contents:

1 Biscuit Cutter	1 Skimmer
1 Can Opener, Hand, Tray Pack/ Round Cans	1 Table, Work and Serving
1 Can Opener, Table Mounted	2 Bakery Pan
1 Can Opener, Tray Pack	2 Butcher's Steel
1 Dispenser, Liquid, Insulated	2 Fork-Foods
1 Fork, 15"	2 Pairs of Gloves, Heat Protective
1 Ice Storage Chest	2 Pan, Baking and Roasting, Deep
1 Ice Pick	2 Pan, Roasting and Baking, Bottom
1 Knife Cooks	2 Pan, Roasting and Baking, Top
1 Knife, Boning	2 Pan, Serving Line
1 Knife, Bread	2 Pin, Rolling, Wooden
1 Knife, Paring	2 Sifters, Flour, Hand
1 Knife, Slicing	2 Spoons
1 Knife, Steak	4 Spatulas
1 Ladle	5 Boards, Food Slicing and Chopping
1 Measuring Spoon Set	5 Food Containers Insulated
1 Sharpening Stone	5 Potato Peelers

Weight 2 kg
Price \$500

COOKING EQUIPMENT

Limited kitchen gear for preparation of meals over an open fire typically consists of a couple of kitchen knives and a frying pan and/or Dutch oven/wok. Cooking equipment allows the preparation of enough food for 4 people at a time. Necessary for consumption of domestic food, and preferable for consumption of canned foods.

Weight 4 kg
Price \$75

COOKING POT

Used for cooking food.

Weight 2 kg
Price \$20

COOLER, LARGE

A 2' x 2' x 4' drink or food cooler, uses 11 kg of ice in 3 days of normal weather.

Weight 11 kg
Price \$150

COOLER, SMALL

A 2 cubic foot drink or food cooler, uses 2 kg of ice in 3 days of normal weather.

Weight 2 kg
Price \$30

EAST GERMAN FIELD KITCHEN

This Field Kitchen is a direct development of the World War II German Hf.12 Field Kitchen or "Gulash Kannone". They can be towed by standard 4x4 or large car. Fuelled by wood or Diesel, the 3 vats and 4 ovens can produce a wide of food. Fuel Consumption: 0.75 liter/period.

Weight 400 kg
Price \$250

EAST GERMAN FOOD BARREL

This barrel is used to keep food out of the elements; can also be used for holding flour, sugar, etc., and comes with insert.

Weight 2 kg
Price \$50

EATING UTENSILS

Heavy-duty knife, fork, and spoon, hollow handle for spices/napkins, can-opener.

Weight Nil
Price \$10

ESPRESSO MAKER:

Produces one 3 oz serving.

Weight Nil
Price \$10

FIELD RANGE OUTFIT

The Field Range is portable and can be adapted to many different cooking configurations; can be used to bake, roast, boil, grill and deep-fat fry foods by putting the burner unit in top or bottom position. One field range outfit may be used to cook for up to 50 people.

Weight 50 kg
Price \$200

FIELD STOVE

A portable and modular system which has fully automatic burners, running on diesel or 60 kw electrical power.

Weight 70 kg
Price \$400

FK2000 FIELD KITCHEN

The FK2000 is designed for mobility and very rapid deployment. The FK2000 is trailer mounted and can be towed using a standard commercial towing chassis. The total weight of the unit makes it easy to airlift by helicopter. It operates on a variety of fuels; the Standard model has equipment for burning diesel or solid fuel.

A team of 5 (four cooks and a supervisor) is sufficient to enable this kitchen to feed 300 soldiers in field conditions and to provide the men with 3 cooked meals a day. Cooking can be done on the move so that meals are ready immediately the convoy halts. All equipment required for kitchen use, including the protective tent, has its own storage space. Side opening hatches provide protection against rain and direct sun. If further protection is required, add-on side covers may be attached. Camouflage lighting makes it possible to work in a blackout situation, even without the protective tent. Fuel Consumption: 6 liters/period.

Weight 1,600 kg
Price \$10,000

FOLDING STOVE

A simple metal stove that fold down to less than 10 cm, good for cooking over an open fire.

Weight 1 kg
Price \$10

FRENCH FIELD KITCHENS

These 60s vintage, French Army field kitchens were used by the French Foreign Legion. Complete with stainless steel flatware, glass drinking cups and plates, wooden handled pans and coffeepot, porcelain capped canteens and an array of utensils and containers. There's a blueprint of the contents on the inner lid. It opens into a clever table and is filled with aluminum pots, pans and utensils; there's even a glass decanter in a protective aluminum sleeve.

Weight 10 kg
Price \$200

GAZ-BLUET STOVE

Light, compact, very convenient, and have excellent fuel availability in Europe. They simmer well, burn hot, and pop on either a CV 270 or 470 gram isobutene canister making heat instantly available for your pleasure. The convenience of these stoves is unbeatable: you flick your lighter and turn the valve. No spare parts necessary.

Weight Nil
Price \$30

HAWKMOOR MK III TRAILER-MOUNTED FIELD KITCHEN

The rugged Hawkmoor Mk III trailer-mounted field kitchen unit is designed to provide clean and reliable catering facilities under the toughest field conditions. The mobile unit provides food and beverage preparation for up to 200 men and uses widely available liquefied petroleum gas for trouble-free operation. The ideal towing vehicle is a Land Rover.

Once the unit has taken up station the lower enclosure walls open out to provide ample space for food preparation. The upper walls open out to provide a canopy for sheltering the preparation areas. The simplicity of the Mk III's design allows it to be set up very quickly by no more than two people. The kitchen is equipped with 6 powerful recessed burners; each rated at 15 kw, power is supplied from two 17 liter on-board generators. A larger capacity generator may be connected and stowed in the towing vehicle. Fuel Consumption: 5 liters/period.

Weight 1,500 kg
Price \$8,000

INSULATED FOOD CONTAINER

This is not something to eat, but rather a way of keeping cooked and perishable food fresh and at proper serving temperature for at least two hours. It is basically a giant box, with a lid that is sealed tight with a gasket and three pans inside to hold the food. It will keep food at acceptable levels in temperatures ranging from -25 to 120°F.

Weight 3 kg
Price \$130

KITCHEN, COMPANY LEVEL, FIELD FEEDING-ENHANCED (KCLFF-E)

The KCLFF-E is used for field feeding of company-sized units. It is designed to heat, deliver and serve 1 heat-and-serve ration per day for up to 200 soldiers. It also has a limited capability to provide perishable and shelf-stable meals prepared by cooks.

The major components are a heater cabinet, cook pot cradle, burners, work/serving tables, beverage dispensers, M59 Field Range Cabinet, ice chest, a griddle and Insulated Food Containers. The prime movers for the KCLFF-E are the HMMWV or larger vehicle. Fuel Consumption: 2 liters/period.

Weight 400 kg
Price \$500

KITCHEN TRAILER

This trailer was used by the British Army up to Falkland War, before the Mobile Kitchen Trailer. It doesn't assembly into a feed platform like the MKT but instead fold out so the cooks can out of trail and as soldiers file by.

Weight 2,500 kg
Price \$1,000

M2 BURNER UNIT

The M2 is the heat source for the M59 Field Range, KCLFF-E, MKT, MFK, CK, and the FSC.

Weight 19 kg
Price \$150

M1941 TENT STOVE

Stoves of this type normally are used to provide heat for the semi permanent, frame-type, sectional tent. A piece of plywood slightly larger than the base of the stove should be carried as part of the tent group equipment. The plywood is covered with aluminum foil and is used to provide a firm base for the stove and to prevent it from melting down into the snow. Cooking and heating are combined and, when extra heat is required to dry clothes, all individuals should dry clothes at the same time, when possible.

The stove may be operated with wood or coal or with various types of oil and gasoline. Wood should be used as fuel whenever possible. When solid fuels (wood, coal, etc.) are used, the stove must be modified by removing the oil burner from the top of the stove, closing the opening where the burner was installed, and turning over the wire grate so that there is space below the grate for draft and ashes.

This stove has the same general characteristics and safety features outlined for the Yukon stove, but the minimum daily fuel consumption per Yukon stove approximates 5 gallons of gasoline per 8 to 12 hours of operation, and the M1941 Tent Stove will burn those 5 gallons in 3 to 4 hours. Prior planning must be accomplished to reduce the number of stoves required, especially for operations that are some distance from a road net.

Weight 24 kg
Price \$75

M1950 SQUAD STOVE

The 1-burner squad stove is a cooking and heating unit for 2-5 men. It is used when operating in an isolated or forward area away from supporting units. The stove is small, compact, and lightweight, and it will operate on either MOGAS or white gasoline. The initial pressure for its operation is generated by a few strokes on the hand pump. Thereafter, the pressure is generated by heat from the burner evaporating the fuel in the stove tank.

Weight 1 kg
Price \$60

MESS KITS – GI MESS KIT

Includes 1 cooking pan and 1 eating tray. Folds together and secures with a hook. These come in aluminum and stainless steel. We recommend the stainless steel: it adds weight, but it also adds durability. You can cook on this mess kit, unlike the Swedish Mess Kit. This piece of kit is great, but there's room for improvement.

Weight Nil
Price \$5

MESS KITS – GROUP MESS KIT

Larger kit with frying pan, bowl, and pot.

Weight 2 kg
Price \$30

MESS KITS – PERSONAL MESS KIT

Used by soldiers to eat out of. It is two metal containers with folding handles; the smaller container fits into the bigger one for storage. Comes with pouch as a can opener, fork, knife, spoon, and cup.

Weight Nil
Price \$11

MESS KITS – SWEDISH MESS KIT

This kit features a heavy duty plastic container that separates to make two trays each measuring 19.2 x 12.7 cm. Stowed inside is a 10.8 cm plastic mixing/eating bowl, a collapsible plastic drinking cup, a stainless steel fork, knife & spoon set, a three compartment spice container, and a 11.4 x 17.8 cm cutting board/plate with drain holes on one corner for use as a strainer when used in conjunction with one of the two larger plastic halves.

In general the kit is on the small side. It seems expensive for a bunch of plastic. Plastic is good for some of the kit because it doesn't make as much noise as metal, but at the same time would be nice if the lid and the pan (outermost parts) were made of metal so you could cook on it.

Weight	Nil
Price	\$15

MESS KITS – US MILITARY OFFICER'S MESS SET

Comes packed in a crate, serves 8. Teaspoon, fork, knife & spoon, plate, bowl, cup, two serving bowls, tray, teapot, coffeepot, pepper.

Weight	
Price	\$375

MICROWAVE, PORTABLE

Cooks 2 meals at once, 1 cubic foot in size, uses 30 kw of electrical power.

Weight	11 kg
Price	\$300

MILLS – THE COUNTRY LIVING GRAIN MILL

Solid I-beam construction from cast aircraft aluminum, double industrial sealed bearings, stainless steel shaft, and carbon steel grinding plates come together to make a rugged and durable mill. It will grind virtually all dry grains and legumes, including wheat, corn, beans, peas, amaranth... The large hopper holds 1 kg of grain which is ground with the precision-engineered 5" diameter burrs. The grind is infinitely adjustable, so you can vary from cracked grain to extremely fine whole grain flour.

It is designed to be quickly and simply motorized. Turning effort is very easy for hand operated mill, but the V-grooved wheels provides for quick and easy conversion to an electric motor if desired. By hand, you can produce 1 cup of wheat flour in about 1-¾ minutes.

Weight	8 kg
Price	\$400

MILLS – WHEAT GRINDER

Used for grinding wheat into flour.

Weight	4 kg
Price	\$50

MOBILE KITCHEN TRAILER (MKT)

The MKT is the primary field kitchen used to prepare the full range of rations on the battlefield. It can feed up to 250 troops a day with two hot meals or 100 with three hot meals. Mounted on a standard US Army 2.5 ton trailer this unit is used by many NATO and other US allied nations for food services in the field. It is a complete kitchen unit mounted on a trailer chassis that can be towed by a standard 2½-ton or 5-ton truck. Two or three are used together to feed a battalion.

Weight	3,000 kg
Price	\$4,000

MODULAR FIELD KITCHEN (MFK)

The MFK is issued to all hospital units except the MASH. Each MFK is designed to support up to 250 personnel, to include staff personnel and patients, with T-Rations. Because the MFK is modular, it can be consolidated with other MFK modules to feed larger units.

Weight	1,000 kg
Price	\$4,000

MOUNTED WATER RATION HEATER (MWRH)

This device is used to heat water, which can then be used for hot drinks, to heat pouched or canned rations, or to provide hot water for hygiene purposes. It can heat 3.75 liters of water to boiling in 20 minutes, and the basin is large enough to hold up to 5 MRE entrees at once. There is a spigot on the front of the device to dispense water for beverages or hygiene purposes. The device can be set to heat and keep water heated to any temperature up to boiling.

This device is designed to be installed in a vehicle, and runs off vehicle power. They can be installed successfully on any armored vehicle with an Easy:Mechanic or Electronics roll, or a Difficult: Intelligence or Education roll.

Weight 4.5 kg
Price \$40

MSR XGK STOVE

Like all MSR stoves, includes windscreen, pump, and stuff sack, requires fuel bottle, operates on white gas, auto gasoline, kerosene, jet fuel, diesel, Stoddard solvent #4, and AV gas. Burns very hot and very loudly, like a blow torch. It doesn't simmer, for all practical purposes it's either on or off. The XGK is a proven design used on expeditions for melting snow and boiling water. It has a large-diameter generator tube which resists clogging. Spare parts and repair kit, \$10.

Weight Nil
Price \$100

MULTI BURNER UNIT

Multi burner unit is designed for use in both military and private sector. It is a rugged unit which functions as a block heater, passenger heat source, barbeque or oven. The Multi Burner Unit can use any type of fuel and is used by the US Army and the USMC. Fuel Consumption: 0.50 liter/period.

Weight 1 kg
Price \$200

MULTI-RATION HEATER (MRH)

The MRH is a highly portable device used to rapidly heat Unitized Group Rations in a field environment. It is capable of heating a combination of Tray Packs and #10 cans in water for 45 minutes, providing hot food for 100 personnel. The MRH uses a low cost commercial off the shelf burner that is supported by an established service and spare parts program with superior logistic support.

The MRH can be operated both in a static location or used on the back of a HMMWV for the Heat on the Move Concept. Fuel Consumption: 5 liters/period.

Weight 50 kg
Price \$500

NON-FLAMMABLE RATION HEATER (NRH)

This small device, issued with most Western MRE-type meals, is designed for individual heating of meal components in water. The device consists of a long plastic bag and two packets of chemicals. The chemicals are poured into the bag, water added to the fill line, and the bag sealed. It is then placed into a container of water. The device is able to heat all the applicable parts of an MRE to 140°F in less than 15 minutes.

The NRH is cheap, produces no toxic fumes, and is very light. These devices were also available on the civilian market in Western countries starting in 1995.

Weight 0.06 kg
Price \$1

NORWEGIAN INSULATED FIELD CONTAINER

Keep the chow and beverages piping hot or ice cold in this versatile field container. Has an airtight gasket-seal, nearly indestructible plastic shell with carrying handles and two individual Tupperware-style reservoirs.

Weight 1 kg
Price \$100

OLICAMP SCORPION STOVE

This nifty Taiwanese stove uses industry standard fuel canisters. The model III has a large built-in windscreen that is less effective than the lighter and more compact.

Weight	Nil
Price	\$20

OPTIMUS AND PRIMUS STOVES

Stoves by these Swedish companies were oft-carried by travel backpackers/explorers from the end of the last century until about 1980. While Primus has moved to gas stoves, Optimus still manufactures remarkable relics with the 8R/Hunter and SVEA/123R models.

Weight	Nil
Price	\$30

POCKET STOVE

This device was approved for issue to NATO troops in 1996; prior to this, it had been available on the civilian market for at least half a decade. It is a small stove with a stand and a fuel can, and burns diesel, aviation gasoline, or gasoline. Approximately 30 ml of fuel is added to the basin below the stand; this much fuel will burn for about 10 minutes and heat a half a liter of water to boiling. The stove cools to storable levels in about 5 minutes.

These stoves were issued on an individual basis to personnel in NATO light units, airborne and air assault units, and special operations. A similar unit was made for Pact units, but was much rarer.

Weight	0.4 kg
Price	\$14

RAPID DEPLOYMENT KITCHEN (RDK)

The RDK is a highly mobile, rapidly deployable, container based kitchen, which can be used to prepare a mix of rations at the battalion level. It is a new concept in field kitchens which use a single commercial fuel fired burner to heat an FDA approved food grade thermal fluid which is circulated through modified, thermostatically controlled commercial appliances and a tankless hot water heater. A major advantage of this kitchen is the low electric power requirement of only 10 kw as compared to an equivalent kitchen with 125 kw. The RDK uses state-of-the-art field food service technology to provide a clean, quiet, sanitary food preparation environment.

The container is an 8' x 8' x 20' standard three for one expandable shelter. It has an instant hot water heater with a sink for hand wash and a double sink for meal preparation. The food service equipment consists of a 30 cubic foot refrigerator, griddle, double stacked convection ovens, skillet and three kettles. The kitchen is vented with a continuous hood over the equipment, includes lights, worktables and accessories.

The hot section is located in a separate compartment of the container and is fitted with several safety interlocks. The burner will operate on diesel, JP-8, or kerosene and uses approximately 2.5 gallons per hour when fully operational, requires about one hour for set up and 10 minutes to heat up the appliances once turned on.

A convenient four-person designs perfect for field feeding and work sites where frequent hand washing is required. Fuel Consumption: 20 liters/period.

Weight	1,250 kg
Price	\$5,000

REMOTE-UNIT SELF-HEATING MEAL MODULE (RUSHMM)

This is a device for heating A-Rations, B-Rations, or T-Rations without the cooking overhead normally required. The device comes in a cardboard box. The box is opened, the rations placed on top of the heating element and the box closed again. A tab is pulled, and the device heats the rations in about 20 minutes. Though the device does produce a small amount of smoke, the smoke is non-toxic and does not smell. There are no open flames, and are self-contained. After use, the device is discarded.

These were originally designed for airborne and special operations use in remote areas, but most of these units did not use the high weight A, B, or T rations and did not normally carry the RUSHMM. As such, they were generally used in rear areas to feed sudden large influxes of troops or refugees. One of these modules is sufficient to heat the rations for about 18 people.

Weight 5 kg
Price \$95

RICE BOWL

Found in Chinese mess kits.

Weight Nil
Price \$50

SIGG FIRE JET STOVE

Burns white gas, gasoline, and kerosene, but simmers about as well as most other multi-fuel stoves. Sigg is a Swiss company best known for quality camping cookware.

Weight Nil
Price \$70

SIERRA ZIP STOVE

Burns wood or charcoal, and a single "AA" battery powers a fan which intensifies the heat. It works. Some love it, some hate it. One Appalachian Trail hiker hated hunting twigs every time he needed fire, as this is a busy stove. Others consider the Zip Stove a magnificent invention, with fuel available everywhere.

Weight Nil
Price \$50

SINGLE PALLET EXPEDITIONARY KITCHEN (SPEK)

The SPEK is a highly mobile, temporary kitchen for use in remote and undeveloped areas. It is capable of feeding 300 Unitized Group Ration - Heat & Serve (UGR-H&S) meals twice per day. The SPEK is transportable by C-130 with all of its equipment fitting onto a single air cargo pallet. When deployed the system can be easily unpacked and assembled, the entire kitchen can be set-up by 12 personnel in 2 hours.

The SPEK requires only 4 cooks to prepare and serve up to 300 meals within a 2-hour time period. Critical equipment include the Multi-Ration Heater (MRH), which is used for preparing UGR-H&S rations, and the Sanitation System used for cleaning, washing and sanitizing utensils. The SPEK also shelters the operators and equipment from the environment in a 3-section tempered tent. The entire system is powered by a 2 kw generator and comes complete with all required kitchen accessories, including both liquid and food storage containers. Fuel Consumption: 20 liters/period.

Weight 900 kg
Price \$8,000

SUN OVEN

This oven is a box with reflective panels designed to cook food with the power of the sun. It cooks small meals like MRE in about 5 min (on a sunny day of course).

Weight Nil
Price \$5

SWEDISH TEA POT

Aluminum body holds over a gallon. Has removable cloth filter, designed to hold tea leaves or bag. These are very rare.

Weight
Price \$40

TOMMY COOKER

Folding stove, made from simple steel stampings. Uses Hexamine "heat tabs". One tab will boil a liter of water in 15 minutes.

Weight 0.2 kg
Price \$5

TRAY RATION HEATING SYSTEM (TRHS)

The TRHS is a tactical deployable, highly mobile, field feeding system. Capable of being mounted

in most off road vehicles, contains the following components:

1 5-gallon fuel tank	3 Tables
1 Burner Unit	6 Beverage containers (5 gallon)
1 Fuel Line	24 "K" Pans
1 Quick Disconnect Adapter	Serving utensils
1 Rain Fly Tent	Tray Pack Carriers
1 Electrical power inverter	

The unit requires 2 kw of electrical power . Fuel Consumption: 10 liters/period.

Weight 500 kg
Price \$3,000

UNIVERSAL FIELD OVEN

The Universal Field Oven has been re-designed as a combination oven. It is capable of steaming vegetables, as well as roasting and baking. A unique feature is the re-use of waste heat, directed to an additional cooking position on top of the oven, which can be used for keeping prepared food hot. Fuel Consumption: 3 liters/period.

Weight 10 kg
Price \$250

YUKON STOVE, M1950

The Yukon stove is used to heat the 10-man, 5-man, and GP Small tents. In addition to providing heat, the top surface of the stove and, to a small degree, the area beneath the stove, may be used to cook rations or heat water. The Yukon stove utilizes standard leaded motor fuel as its normal fuel, but may also be operated with white gasoline, kerosene, light fuel oil, naphtha, or JP-4 fuel, without modification. During low temperatures the stove will burn five gallons of gasoline every 8 to 12 hours.

Weight 20 kg
Price \$350

11. COUNTER INTELLIGENCE EQUIPMENT

AN/PRD-11 MINI-FIX

The MINI-FIX is a man-portable direction finding system. It is composed of a man-portable vehicular radio receiver and direction finder (DF) processor system, signal monitor, DF processor (the controlling unit in the DF system), and DF antenna.

Weight 10 kg

Price \$2,000

AN/PRD-12, LIGHTWEIGHT MAN TRANSPORTABLE RADIO DIRECTION FINDER SYSTEM (LMRDFS)

The LMRDFS is a man transportable ground based communications intercept, processing, and direction finding system. The system searches for, intercepts, and provides for direction finding locations of enemy HF/VHF/UHF communications emitters.

Weight 10 kg

Price \$3,000

AN/TLG-17B RADIO JAMMING SYSTEM

The AN/TLG-17B is a high-powered radio and radar jamming system. It is capable of jamming multiple frequencies of radio waves. In order to successfully use this equipment, the operator is required to pass an AVG:Electronics task check. The operator of the jammed radio or radar must then pass a DIF:Electronics task in order to continue operating on the same frequency. This unit requires 550 watts of power to operate and has the effective range of 50 kilometers. Its weight includes the generator.

Weight 100 kg

Price \$25,000

AN/TLQ-17A TRAFFIC JAM

The Traffic Jam is a tactical communications jammer which is a ground-based HF and VHF communications intercept and jamming system. It is found in all divisions except Light. The original system was configured using 2 M151 Jeeps and 2 M416 Towed Trailers. When the Jeeps became obsolete, the system was upgraded so it could be housed in an S-250 shelter, and used a commercial utility cargo vehicle (CUCV). When the Highly Mobile Multipurpose Wheeled Vehicle was approved for use by the Army, the CUCV was replaced by the HMMWV.

Weight 1,200 kg

Price \$10,000

BUG DETECTOR KIT

This briefcase-sized kit contains several sophisticated electronic devices designed to detect common electronic bugging devices and neutralize them. Once detected, the bugs can be located and destroyed, jammed or masked (a jammer and a white-noise generator are included).

Locating bugs with a bug-detector kit uses the Electronics skill. Locating Stage I bugs is Easy; locating Stage II bugs is Average, and locating Stage III bugs is Difficult. Locating bugs without a bug-detector kit is a DIF:Observation task to find Stage I bugs; no other kind of bugs can be found without a bug-detector kit.

Weight 6 kg

Price \$2,500

BUG MONITOR

A special radio with an integral audio recorder. Can be tuned to any bug frequency, uses standard audio recording cartridge tapes.

Weight 0.6 kg

Price \$750

C500 CRYPTO TELEPHONE UNIT

The C500 is a crypto telephone unit compatible with any type of telephone set. Placed under the telephone set, C500 is simply connected to the set's wire, between the handset and the telephone.

Ready to be used, it works fully automatically after disconnect the handset's cord from the telephone set, connect the handset's cord to the C500 and connect the C500 to the telephone.

C500 works in plain or crypto mode. Easy to use, you can shift from one mode to the other after pressing one button only. Compact and lightweight, this telephony encryption system requires no additional space on your desk and is easily transportable even in foreign countries.

Weight 2 kg
Price \$2,000

CALLER ID DEFEATER

When a phone line contains a caller ID defeater, phones attempting to connect with that line show up as "anonymous" or "unavailable" on a caller ID unit. Such a call can still be traced as normal, however.

Weight Nil
Price \$50

CELLULAR INTERCEPTOR

About the size of a small briefcase, a cellular interceptor can detect and monitor a cell phone conversation within a 5-mile area by listening in on the cellular service's own transmitters. Intercepting the calls of a particular cell phone requires a laptop computer to use. Obviously, the phone must be in use for someone to intercept the call. A cellular interceptor cannot be used to intercept regular (ground line) phone connections.

Weight 6 kg
Price \$5,000

CELL PHONE JAMMER

The Cell Phone Jammer is a high quality low-power jamming device for mobile communications. The cell phone jammer unit is intended for blocking all mobile phone types within designated indoor areas. It has an effective jamming radius 80 meters.

Weight 6 kg
Price \$5,000

CELL PHONE VOICE CHANGER

The Cell Phone Voice Changer has been specifically designed to connect to a wide variety of cellular telephones. The unit is cleverly designed to emulate a hands-free headset. To deploy this unit simply connect the device to your hands-free jack, place the earpiece in your ear and turn the unit on. Once connected, this device will completely change your natural speaking voice making it virtually impossible for the person on the other end to recognize your voice.

This unit has five different voice modes: Normal Voice, Robotic Voice, Childs Voice, Duck Voice, and Male-to-Female or Female-to-Male. The unit can also be used as a "regular" hands-free headset for your cell phone when you are not using it as a voice changer. Simply switch the unit to normal voice and speak hands-free, universal to fit most US cellular phones.

Weight
Price \$60

COLOR BOXES

- **Beige Box:** A beige box is a device used to illegally use another person's phone line. It is technically equivalent to a telephone company lineman's handset (a telephone fitted with alligator clips to attach it to a line). It can be usually constructed with easily available materials, such as a simple telephone, a soldering iron, and a pair of alligator clips. Sometimes a switch is added in order to turn the microphone off (mute), so as not to introduce ambient noise into the line through the telephone's microphone. Green and red wires are the only wires that need connection in order to both talk and listen. Usually this method is done by stripping a portion of the line and attaching alligator clips linked to a corded phone.
- **Black Box:** This device, easily concealed in the palm of one hand, emits digital tones that convince the phone system to make a long-distance connection free of charge. They also let a user "bounce" a call through multiple switches, making the call harder to trace.
- **Magenta Box:** A magenta box is a device used to simulate an incoming call by applying the AC ringing signal voltage to a phone line to make the telephones on that line ring. A magenta box in

conjunction with an orange box is called a Vermilion Box.

- **Orange Box:** An orange box is a piece of hardware or software that emulates caller ID signals to spoof caller ID information on the target's caller ID terminal. It takes advantage of call waiting caller ID (also called off-hook caller ID) by mimicking the phone company's central office equipment and sending the call waiting tone followed by the audible caller ID data. An orange box can also be used to spoof the initial Caller ID information sent after incoming call rings, if the user has direct access to the target's phone line. One proposal to accomplish this involves an orange box used in conjunction with a magenta box, which in combination is called a Vermilion Box.
- **Red Box:** A red box is an illegal toll fraud device that generates tones to simulate inserting coins in pay phones, thus fooling the system into completing free calls. Any device capable of playing back recorded sounds is a potential red box. Commonly used devices include modified Radio Shack auto dialers, personal MP3 players, and audio-recording greeting cards.
- **Vermilion Box:** The vermilion box is a hypothetical portable improvised line emulator. Its function is to spoof not only caller ID but every other aspect of an incoming telephone call, including ringing and DC line voltage. Typically, the user physically disconnects the target line from the telephone network, connects the vermilion box, and then proceeds to create a completely bogus telephone call.

	Weight	Price
<i>Beige Box</i>	Nil	\$50
<i>Black Box</i>	Nil	\$250
<i>Magenta Box</i>	Nil	\$50
<i>Orange Box</i>		
<i>Red Box</i>	Nil	\$50
<i>Vermilion Box</i>	Nil	\$50

COUNTER SURVEILLANCE MONITOR

The Counter Surveillance Monitor is a broadband receiver that can detect and locate major types of electronic surveillance devices including room, telephone, body bugs, video transmitters, and some tape recorders.

Weight 3.18 kg
Price \$2,500

CVRS WIRELESS SURVEILLANCE SYSTEM

This all-in-one briefcase unit breaks the barriers of covert video transmission and recording: easy-to-carry, already disguised and hi-tech Pelican case with built in antenna, for clear, covert, video reception. The CVRS is plug-n-play, field deployable system that sets up in seconds. The self contained unit receives and records in your choice of frequencies. The system operates on an internal rechargeable battery, or from AC power.

Weight 5 kg
Price \$8,000

CVRS II WIRELESS RECEIVING SYSTEM

Completely self-contained wireless receiving system. Great for covert surveillance operations, receives and records the video images of any wireless cameras with up to 5 hours record time.

Weight 5 kg
Price \$9,000

DISGUISE KIT

This kit contains everything needed to use the Disguise skill, including make-up, brushes, mirrors, wigs, and other accoutrements. It doesn't contain clothing or uniforms, however.

Weight 9 kg
Price \$1,000

EAR-200 ELECTRO-ACOUSTIC RECEIVER

Used to locate sources of acoustic leakage, the EAR allows "before and after" comparisons to determine the effectiveness of the noise masking, and connects easily to recorders, spectrum analyzers, or other test equipment for more detailed analysis. This unit allows to check out the security of any room to determine if there is a sound leakage which would compromise the communication security of

sensitive business meetings or conferences. Place a sound source (such as a radio) inside the area in question, and then check out the walls, doors, and windows of the perimeter with its specially designed and extremely powerful amplifier. This compact unit has a highly sensitive vibration microphone, and may be listened to through the included earphone, headphones or an external speaker.

Weight 1 kg
Price \$230

ELECTRONIC COUNTERMEASURES ECM SYSTEM

This complete countermeasures system is designed for the person who wants to be able to perform the basic countermeasures checks either for his own security or as a business offering of the service to others. The set is built around a Transmitter Detector and consists of the following items:

Cords and Power Adapter	Padded Carrying Case
Headphones	Tap Trap
Infrared Probe	Transmitter Detector
Instruction Manual	Video Camera Probe
Line Driver	Wideband RF Probe
Operators Manual	

Weight 5 kg
Price \$8,000

ELECTRONIC STETHOSCOPE

Enables technicians to determine in an instant what causes irregular sounds.

Weight 50 kg
Price \$100

ELECTRONIC VOICE MASK

This device transforms a person's telephone voice into something else, clearly distorted but unrecognizable, even with a voice stress analyzer.

Weight 2 kg
Price \$300

ENIGMA MACHINE

In the history of cryptography, the Enigma was a portable cipher machine used to encrypt and decrypt secret messages. More precisely, Enigma was a family of related electro-mechanical rotor machines comprising a variety of different models. The Enigma was used commercially from the early 1920s on, and was also adopted by the military and governmental services of Nazi Germany before and during World War II.

This replica of the machine includes various computer software simulators and paper-and-scissors analogues, designed to replicate the performance of the original machine. While most modern intelligence agencies will be able to crack messages sent by this machine, most low level person and military units will not be able.

Weight 10 kg
Price \$2,000

ENVELOPE X-RAY SPRAY

This amazing spray was originally developed for the CIA to enable their field operatives to read the contents of envelopes without opening the envelope in any way. X-Ray Spray is also used to check suspect mail for evidence of letter bomb components, i.e. wires, triggers, etc.

When applied, X-Ray Spray turns opaque paper temporarily translucent enabling you to "see" what's inside and, in some cases, even read the contents. Thirty seconds after the initial application, the envelope chemical will vaporize and the envelope will return to its original state. X-Ray Spray leaves absolutely no markings, no discoloration, and no other indications of use. Each contains enough chemical to treat several hundred square inches of paper, non-flammable, non-conductive, and non-photo chemically reactive.

Weight Nil
Price \$30

EXPENDABLE JAMMER

This is a compact, disposable electronic jamming unit. Once activated, the jammer operates continuously for 2 hours, overpowering any transmitter or receiver within 20 meters and requiring operator checks within 40 meters. Once set, the jammer can be programmed to delay activation for up to 100 hours, in 1-minute intervals.

Weight 2.25 kg
Price \$4,000

FIELD SOUND PROCESSOR (FSP)

Roughly the size of a small briefcase, the FSP is packed with electronics, allowing the user to record audio inputs and perform real-time analog processing at the same time. The unit runs on a set of rechargeable 9.6V batteries, with duration of 7 hours before recharging. This item must be custom built.

Capabilities include a high-gain/low-noise amplifier, speech pass band filter, compressor, and equalizer. Essentially, this means the unit is able to take in a weak signal and boost it to within a set range to filter out all noise beyond the human speech range, and to improve the quality of the sound within that range. To work properly requires the Electronics skill.

Weight 7 kg
Price \$850

FINGER PRINT KIT

This kit contains everything a persons need to flit finger prints off objects and persons.

Weight 2 kg
Price \$400

FULL-HOUSE CARD DECK

This specially modified card deck provides the user with a unique hiding place for small objects. Made from an actual set of cards, it looks and feels completely normal. When opened, observers will see the top of the deck of cards completely unaware of the contents hidden inside. Weights slightly less than a standard deck of cards for a realistic feel when loaded.

Weight
Price \$15

HAND-EMPLACED EXPENDABLE JAMMER (HEXJAM)

The HEXJAM is a hand emplaced COMINT jammer with a 1 km range covering the 20-90 MHZ portion of the spectrum.

Weight 2 kg
Price \$300

HIDDEN CAMERA FINDER

This device allows you to find hidden camera in a room. It is available in two versions: a visual model which you look through and it flashes when it finds a hidden camera, and a visual model which flashes in the direction that the hidden camera is.

Weight Nil
Price \$500

JM-20M BODY WIRE DETECTOR

The Micro Audio/Video Bug Detector is a tiny but powerful RF vibrating detector small enough to be worn without being noticed. This tiny micro sized unit measures an amazing 2 1/8" x 1 3/4" x 1/2", but it's a full-featured dual bug detector that silently vibrates to alert of the presence of eavesdropping. It can be used as a covert body worn detector with the included arm band or as a conventional bug detector to sweep a room or office.

Weight 0.2 kg
Price \$1,000

LIE DETECTION LABORATORY

The Lie Detection Laboratory measures sub-audible micro tremors in the vocal chords to digitally

analyze a subject's level of stress. This process does not involve wires to attach or graphs to chart. Simply stated, it requires an interviewer to establish a base line, and a numeric value to attribute to every answer the subject gives. The higher the number, the less truthful the response; clear, precise digital readouts are given in both LED and printed format.

Fooling the machine requires a DIF:Constitution roll.

Weight 10 kg
Price \$5,000

M-94 25 WHEEL CIPHER DEVICE

The M-94 was a World War II US Army Signal Corps cipher device used from the early 1920s up till 1942 as a low level, tactical, cryptographic encoding/decoding device. It basically consists of 25 alphabet discs and a shaft. The disks can be mounted on the shaft in any order; they may be rotated relative to each other or may be fixed. On the rim of each alphabet disk there is stamped a different, disarranged alphabet. At its inside or cup surface each alphabet disk is marked with a number. The numbers run from 1 to 25.

Weight 1 kg
Price \$25

PHONE JUMPER

The phone jumper is a miracle for netrunners, and anyone else who needs an untraceable phone line. What this device does is two fold.

First, by attaching the device to anyone's cellular phone, and then by calling a special number (which is actually a military satellite) the device records the cell phones frequency and exact registration. The device can store up to 300 cellular service registrations. This means that you can make calls using other peoples phone service, all you need is two minutes time with their cell phone.

The second interesting use of this device is that anytime you make a call, as soon as the numbers are dialed, the device instantly opens 5 other phone lines (as if you were talking on a party line or three way). This way the phone call is completely untraceable, as any attempts to trace the call will reveal 5 different locations and owners. As an added bonus, if someone whose service you have "jumped" picks up their phone while you are using their service, the device will immediately hang up that line and replace it with another; and you can even set it to simply rotate through your stored services. For netrunners this is where the gold truly is, as due to the multiple lines, it is almost impossible to become the victim of any trace attempts or black ice programs (with black Ice there is an 80% chance of successful avoidance). Of course any trace attempts will reveal the true service owners number, who will most likely be questioned at the very least, so using your friends cell service is not recommended.

The Phone Jumper obviously acts as a regular phone.

Weight 1 kg
Price \$900

PORTABLE COMMUNICATIONS JAMMER

Blocking communications and the remote initiation of devices over GSM/PCN cellular telephone networks is simple with this dual band portable jammer. Utilizing TDMA technology the variable output power of the system enables authorized users to effectively block GSM/PCN signals in either a localized area or over greater distances, as required by the operation. The system is simple to operate, fully portable and compact, making it easy to deploy in the field.

Intended for use by government bodies to ensure security of information by preventing illicit transmission of audio, video and data, prevent remote activation of concealed surveillance equipment and prevent remote detonation of improvised explosive devices (IEDs).

Weight 25 kg
Price \$4,000

PORTABLE DIGITAL JAMMER

This device is used for the jamming of computer/PDA signals and other devices that transmit using digital technology.

Weight 5 kg
Price \$4,000

PORTABLE POLYGRAPH UNIT

This hand held device is perfect for interrogations, although it will not work on someone with an implanted heart or blood flow regulator and some heart conditions. It determines whether a person is lying by their blood pressure.

Fooing the machine requires a Difficult Constitution role.

Weight 1 kg
Price \$1,000

RADIO DIRECTION FINDER

A specialized radio receiver designed to determine the specific direction a particular radio broadcast is coming from. These are useful for a variety of tasks. Getting a directional fix using one of these is ESY:Electronics and requires 1 minute (provided that the signal stays on the air that long). The result is a compass bearing, not a distance. Two or three such RDF units, spaced far apart, can get two or more bearings for triangulation of broadcast source.

Weight 2 kg
Price \$1,500

RADIOACTIVE TRACE DUST

This fine dust can be placed on the ground, on tires, on shoes, etc., in order to trace something. It leaves a faint trail on the ground for 200 to 2,000 meters. Beyond that, it leaves no trail, but traces will remain on the marked person or object. Radioactive trace dust can only be detected (and followed) with a Geiger counter.

1 dose
Weight 0.5 kg
Price \$200

RF-204 RFI DETECTOR

This is a Radio Frequency Interference detector that can locate and isolate minute and intermittent sources of RF energy.

Weight 0.50 kg
Price \$50

RF EMITTER

The RF emitter can create RF emissions at frequencies set by the user. This is most commonly used for jamming other devices, especially communications devices. However, the RF emitter has several advanced uses (DIF:Electronics to succeed) such as jamming microprocessors, video screens and microprocessor-controlled equipment. Success means that the equipment is jammed and inoperable. Range for such jamming is limited to the strength of the emitter, but for the models shown below is 200 meters.

This is a hand-held unit with an integral transmission antenna and a LCD display showing current frequency. This device is available to any civilian in a Western nation, but spraying RF emissions without regard for radio communications guidelines is illegal in all jurisdictions.

Weight 1 kg
Price \$200

RF SCANNER/FILTER

The RF scanner is an incredibly useful device for SIGINT (Signals Intelligence) spooks. This device is capable of picking up RF emissions across a wide band and passing them along to other devices for processing. To operate the scanner/filter properly is AVG:Electronics. What can be done with this device is nothing short of amazing. For example, the device could detect RF emissions of computer monitors, allowing other monitors following signal processing (DIF:Electronics) to reproduce what is displayed on the eavesdropped monitor. The same can be done with computer microprocessors, or cordless and cellular telephones, or radio transmissions.

The scanner/filter can pick up transmissions within the range of the transmit. For low-power emissions, such as monitors and microprocessors, this is limited to 200 meters. For cordless/cellular telephones, this is 1 km. For all others, range is indefinite and depends on transmitter strength. Also, such devices can be used as direction-finding gear to locate RF emissions (DIF:Electronics).

This device is a small, hand-held unit with a LCD display showing the current frequency and signal

strength. An attached speaker/headphone jack can be fed into processing equipment. This device is available to any civilian in Western nations.

Weight 2 kg
Price \$750

SCRAMBLER/DESCRAMBLER

Used with a telephone or voice radio unit, this scrambles conversation to seemingly random noises at the transmitter and back to conversation at the receiver. A sophisticated computer analysis can descramble a particular conversation within hours and, once the scramble pattern is known, can be used to program a scrambler with a similar pattern.

Weight 1 kg
Price \$2,000

SIGINT EQUIPMENT SET

To detect, locate, track, identify, jam or tap emitters (e.g. radios, regular telephones, surveillance cameras, cellular phones, bugs, motion detectors, etc). To feed false signals into sensors (e.g. radar, microphones or cameras). To mask or scramble own emissions (to prevent or to make difficult any SIGINT measures of the opposition). To find bugs or taps and to neutralize them.

+2 to skill; -4 with improvised equipment.

Weight 9 kg
Price \$15,000

SPY PAPER

The special "spy paper" looks and feels like high quality notepad paper, yet dissolves completely in a matter of seconds when it comes into contact with water. Ideal for confidential notes or memos that must be disposed of in the most secure manner possible, highly superior to shredding.

Packaged in notepads of 36 sheets, each 4¼" x 5½" and includes a sealable storage pouch.

Package of 500
Weight 3 kg
Price \$80

TELEPHONE LINE TRACER

Essentially a highly specialized computer, a line tracer hooked to a phone line can trace phone calls made to that line, even if there's a caller ID defeater hooked up at the other end. All it takes is time. Operating a line tracer is a full-round action requiring a Computer Use check. Success gains one digit of the target phone number, starting with the first number of the area code.

Weight 2 kg
Price \$2,000

TELEPHONE OSCILLOGRAPH

This device is the size of an average hardbound book. It can record the dialing sound of a tapped phone and then identify any number called from that phone.

Weight 6 kg
Price \$1,000

TELEPHONE SCRAMBLER

Works just like a radio scrambler, but for telephones. Simply plug this into the telephone and use it. Must be used one per party using the phone.

Weight 0.3 kg
Price \$250

TELEPHONE TAP ANALYZER

A cigar-box-sized device that locates and verifies the presence of any taps on any connected line out to 10 miles. It also identifies the location of the tap. A recorder can be wired in and activated to record the tapped conversations. Detecting a tap analyzer while operating a tap is DIF:Electronics.

Weight 1 kg
Price \$500

TELEPHONE TAP DETECTOR

Plug this into a telephone line between the phone and the outlet, and it helps detect if the line is tapped. To detect a tap, make a Computer Use check (the DC varies according to the type of telephone tap used; see below). With a success, the tap detector indicates that a tap is present. It does not indicate the type or location of the tap however. Also, it can't be used to detect a lineman's phone.

Weight Nil
Price \$100

TELEPHONE TAP DETECTOR

A cigar-sized box device that contains a signal light that lights up whenever an extension phone is lifted, or when a transmitter or telephone bug is placed on the phone line or the telephone itself. The light stays lit until reset by the user.

Fooling a tap detector requires that the tapper knows that the detector is there, and then is DIF:Electronics (and the tapper can't know he's successful until he gets a look at the device or otherwise learns it is or isn't working).

Weight 2 kg
Price \$500

TELEPHONE VOICE TRANSFORMER

This device enables the user of a telephone to conceal their voice, changing the timbre and resonance. This device also has the effect of changing the voice tract, preventing the individual's voice pattern from being identified. It additionally has memories for the settings, enabling a certain voice tract to be replicated. It is not however completely infallible: anyone analyzing the voice over the telephone using voice tract analysis equipment will be able to identify the tract as artificially generated.

It is a box, 17.5 x 16.5 x 0.5 cm in dimension, which attaches to the telephone at the jack-plug (using the telephone line power).

Weight Nil
Price \$500

TEMPEST GEAR

TEMPEST is the code name for technology related to limiting unwanted electromagnetic emissions from data processing and related equipment. Its goal is to limit an opponent's capability to collect information about the internal data flow of computer equipment. This is a shielded computer with a black box attached that protects all computers within 0.18 km.

Weight 1 kg
Price \$5,000

TRANS TEC BUG SWEEPER

This device sniffs for radio frequency emitting bugs; you can hook on an earphone that lets you listen to the radio signal, in case it's a radio station signal bouncing off a wire. Comes with a flexible antenna, it can fit in your pocket and instead of a beep, it silently vibrates, which allows you to see if anyone near you is carrying a transmitter.

Weight Nil
Price \$200

VIDEO BRIEF CASE

A complete, self-contained recording system. The leather attaché blends into any environment without drawing attention. A high-tech video camera is expertly concealed in the fabric on the side the briefcase with only a $\frac{1}{16}$ " hole showing. The system is completely wired internally and comes standard with a hidden remote control built right under the leather strap on the top of the case. Simply slide your finger along the top of the case and the unit will begin recording automatically. A fold down flap allows the case to be opened without the system being visible.

Weight 8 kg
Price \$10,000

12. DE MINING EQUIPMENT

AN/PRS-3 MINE DETECTION UNIT (METALLIC)

The AN/PRS-3 is virtually identical to the AN/PRS-7A except that it is effective in finding metallic mines only. AVG:Electronics or AVG:Combat Engineer.

Weight 13 kg
Price \$1,500

AN/PRS-7A MINE DETECTION UNIT (NON-METALLIC)

The AN/PRS-7A is a backpack-mounted, man-portable, battery-operated (each battery lasts for 60 hours of operation), mine detection unit. It consists of a headset, a backpack unit, and a telescoping mine detection wand (1-meter in length, fully extended). In the hands of an experienced combat engineer, this unit is effective in detecting all kinds of mines, both metallic and non-metallic.

A man can use this unit and walk at ½ his normal rate. Detecting a normally employed mine is an ESY:Electronics or ESY:Combat Engineer for non-metallic mines and an AVG:Electronics or AVG:Combat Engineer for non-metallic ones.

	<i>AN/PRS-7A Battery</i>	
Weight	15 kg	
Price	\$2,500	\$50

AN/PSS-12 METALLIC MINE DETECTOR

The AN/PSS-12 Mine Detector is a light weight, hand held, metallic mine detector. It is capable of detecting very small metallic objects such as small firing pins in plastic and wooden mines. The AN/PSS-12 Mine Detector is capable of detecting mines in fresh or salt water, and objects buried up to 20" in the ground. Operating Time: 70 hours.

Weight 6 kg
Price \$1,000

DIM VEHICLE-MOUNTED MAGNETIC MINE DETECTOR

The DIM is mounted on an UAZ-469/69 truck. The detection element fastens on a frame on the front of the vehicle. When the vehicle approaches a metallic mine, a signal light appears on the dash and, simultaneously, the system applies compressed air into the brake cylinders, halting the detector. This system can detect metallic mines in roadways, airfields, and other terrain. It can detect mines buried 25 cm deep. It can travel at a speed of up to 10 km/h while scanning.

Placing the system in or out of operation takes up to 7 minutes. The DIM has a 2-man crew.

Weight 250 kg
Price \$500

IMP LIGHTWEIGHT MINE DETECTOR

The Soviet IMP is a lightweight mine detector designed to detect metallic mines and non-metallic mines with metal components. It is comprised of a detector head, search handle, tuning box, battery pack, and headphones. When dismantled, all the components are carried in a lightweight rectangular metal box.

The detector head assembly contains 2 transmitting antennas and 1 receiving antenna encased in a Bakelite cylinder. The search handle consists of 4 aluminum sections, which can be joined together and used at its minimum or maximum lengths. The battery pack consists of 4 1.6V batteries.

Weight 2 kg
Price \$250

M1 MINE CLEARING BLADE SYSTEM

The M1 Mine Clearing Blade System for the M1A1 MBT is an auxiliary piece of support equipment necessary for the tank unit to breach minefields during the normal conduct of operations. It is electrically operated and is capable of clearing surface or buried mines up to 6 ft in front of the tank's path without the aid of supporting forces or additional equipment.

Weight 4,000 kg
Price \$65,000

M60A1 ADAPTER KIT

Used for installing the M1 Mine Clearing Blade System on the M60A1 MBT.

Weight 272 kg
Price \$12,000

MINE CLEARANCE TOOLS

These are non-magnetic tools which can be used to clear mines from the ground and brush.

Weight 15 kg
Price \$200

NON-MAGNETIC MINE PRODDER

A non-magnetic mine prodder for locating mines at depths of up to 25 cm. Primarily intended for situations where a magnetic device would activate a mine, it is equally suitable for use where magnetic fields are not considered a risk. The prodder is lightweight and supplied with a carrier web suitable for personnel in service webbing equipment.

Weight 1 kg
Price \$40

NOTE

Mines can still be detected through the old probing method. A character crawling at up to $\frac{1}{3}$ his normal rate and probing around him with a knife or similar object does this. It is an AVG:Observation: task to do successfully. Failure may result in missing a mine.

The removal of detected mines may take anywhere from 5 to 30 minutes per mine, depending upon any anti-handling devices and how well the character passes a ESY:Combat Engineer task check. Task check failure may result in the mine's detonation.

13. DEFENSIVE EQUIPMENT

BLUE BOX

This device prevents handcuffed persons from tampering with locks or cuffs; a locking device locks the box in place.

Weight	Nil
Price	\$50

CALTROPS

Caltrops were used extensively for operations during the early days of the OSS, the predecessor of the CIA. A scaled-down version of caltrops used to stop horses during medieval times, this device was also effective in harassing modern-day enemies.

When scattered on roads and runways, the non-reflective caltrops would always land with one of the four spikes in an upright position, disrupting vehicular movement. This particular spike is hollow and can puncture a self-sealing rubber tire.

Weight	
Price	

COMPACT SAFE

This is a small safe used for storing items, completely fire and water proof. Uses an electronic number keypad with a key back up.

Weight	100 kg
Price	\$200

DEFLATOR ICE PICK

This is not your average ice pick! This special tool was designed to enable the operative to rapidly deflate or drain soft-skinned containers of liquids and gasses (i.e. tires, fuel cells, gas tanks...). Constructed of stainless steel hollow tubing and a hollow black chemical resistant handle, when left in an object the $\frac{5}{8}$ " hole ensures quick and positive deflation, even on self-sealing bladders. The giant hypodermic needle style point allows for use as a defensive weapon as well. Overall length: 10".

Weight	
Price	\$24.95

HANDCUFFS

- **Belly Chain:** Standard handcuffs with an extra long chain that can either be wrapped around the body or looped through the chain of leg irons.
- **Chain Handcuffs:** Standard handcuffs linked by 75 mm of chain.
- **Hinged Handcuffs:** These are the same as standard 'cuffs, except that the chain is replaced by heavy-duty metal hinges to restrict mobility.
- **Stasi Submission Handcuffs:** The East Germany's Ministry for State Security ruled with an iron hand. These nickel-plated steel submission cuffs were used to subdue "troublemakers" by "non-lethal" means. With a quick flick of the wrist and a sharp twist, even the most obstreperous hooligan comes along quietly.
- **Thumb-cuffs:** Compact cuffs for minimal restraint around the thumbs only.

	Weight	Price
<i>Belly Chain</i>	0.77 kg	\$80
<i>Chain Handcuffs</i>	0.35 kg	\$35
<i>Hinged Handcuffs</i>	0.4 kg	\$40
<i>Stasi Submission Handcuffs</i>	Nil	\$40
<i>Thumb-cuffs</i>	0.1 kg	\$8

HANDCUFFS – FLEXI-CUFFS

Flexi-cuffs are strips of lightweight but extremely strong plastic, approximately 5 mm wide and 2 mm thick. The strip is wrapped around the subject's hands and tightened to lock with a plastic ratchet fitting, which cannot then be loosened. They can be used as an effective restraint for hands or feet (but if used for feet, this will render the subject virtually immobile).

	<i>Pack of 18</i>
Weight	Nil
Price	\$20

HANDCUFFS – HANDCUFF RESTRAINT

A belt that loops at the back and keeps the person cuffed hands in front of him. It is used for transporting maximum security prisoners.

Weight	0.40 kg
Price	\$60

HANDCUFFS – LEG IRONS

Elliptical shaped cuffs designed to fit around the ankles, with a 35 cm chain.

Weight	0.60 kg
Price	\$50

HANDCUFFS – ZIP TIES (LARGE)

Large zip-ties were a common item issued to US and some other NATO troops for use as disposable hand cuffs. Also very popular for securing gear to the exterior of armored vehicles.

	<i>100</i>
Weight	0.5 kg
Price	\$20

LOCKS

Key or combination. A Bulletproof Lock will withstand most blows and gunshots (gunshots and very heavy blows will ruin the lock, but it will not open).

	Weight	Price
<i>Average Lock</i>	0.1 kg	\$5
<i>Bulletproof Lock</i>	0.1 kg	\$15

PERSONAL ATTACK ALARM

This is a small battery-powered (9V) attack alarm measuring 57 x 67 x 21 mm. The purpose of the alarm is to distract an assailant and summon assistance using its 120-decibel alarm. The alarm has a belt clip on the back, a test button on the side and a trigger pin on the top, attached to a 20 cm cord and key clip. Pulling the cord (thereby dislodging the pin) triggers it. Alternatively, pressing and holding the test button will also activate it. If the pin is removed, it can be replaced.

The alarm is also supplied with a wall mounting, which the belt clip fits to. The wall mounting has a double-sided adhesive plate on the back. By mounting the alarm thus and clipping the key clip to the door (it can be circled around an object such as a door handle or chain and clipped back onto the cord) this can provide a simple but highly effective intruder alarm.

Weight	2 kg
Price	\$10

PORTABLE ROADBLOCKS

These portable roadblock devices were designed for law enforcement use in field situations where an immediate vehicle-disabling roadblock is required. Despite their small size, portability, and instant deployment capability, nearly any vehicle driving over one of these devices will have an immediate blow-out. Constructed from heavy gauge $\frac{5}{16}$ " hardened round steel with Class Four tip and 3" razor edges, each unit has four 2" long spikes. No matter how they are thrown on the ground, one point will always land facing straight up. Create instant roadblocks, stop pursuing and fleeing vehicles, protect private property.

	<i>5 units</i>
Weight	10 kg
Price	\$25

RAT-TRAP

The Rat-Trap is a pocket size tire deflator designed to prevent stationary vehicles from fleeing. These are ideal for warrant service, stolen vehicle surveillance, SWAT operations, or any time that an

officer feels that a suspect might attempt to flee. Deployment is quick and easy: the officer simply removes the unit from his pocket, opens it up and places it under the suspect's tire. If the suspect flees, the Rat-Trap with its 6 stainless steel Stinger spikes will quickly deflate the tire and within moments the slowed speed of the vehicle will force the suspect to stop, facilitating arrest and avoiding a dangerous hi-speed chase. By preventing a pursuit you can save lives and reduce liability. Size (folded): 1/4" x 4 1/2" x 3/4".

Weight Nil

Price \$30

SPIKE STRIP

This device is designed to help the police end car chases. The strip comes rolled in a spool about the size of a small suitcase. Deploy it by rolling it across a roadway, where it lies like a flat, segmented belt. Until the strip is activated, the spikes do not protrude, and cars can pass safely over it. When the user activates it (via a control device attached to the end of the strip by a 10' cord), the spikes extend.

Weight 10 kg

Price \$100

VEHICLE BARRICADE

Used for stopping vehicle traffic, this barricade can stop bullets and shield person from blast and will stop vehicles up to 1 ton. Made from concrete with Kevlar outer liner, comes in 5' sections.

Weight 500 kg

Price \$500

14. DIVING EQUIPMENT

AIR COMPRESSOR

Used to refill air bottles used with the self-contained breathing apparatus. Will provide up to 1 hour of clean air.

Weight	225 lbs
Price	\$350

AIR TANKS

- **Aluminum Air Tank:** Aluminum tanks are more buoyant than steel tanks, so the diver may need to add a few extra pounds on the weight belt.
- **Reserve Air Tank:** Holds about ½ hour of air.
- **Steel Air Tank:** Steel has a higher density rate than aluminum, which allows the tank to be negatively buoyant when the dive is completed.

	Weight	Price
<i>Aluminum Air Tank</i>	10 kg	\$50
<i>Reserve Air Tank</i>	5 kg	\$50
<i>Steel Air Tank</i>	20 kg	\$100

BUOYANCY COMPENSATOR

The buoyancy compensators are worn by SCUBA divers to keep their buoyancy neutral in the water. It includes pockets in which weights can be added, negating the need for a weight belt. It also acts as a safety device to carry an injured or disabled diver to the surface, using an inflator system to provide lift. The compensator is made of Bioflex Kevlar material for durability, with a plastic polymer cradle for holding 1, 2 or 3 air cylinders. As well as having non-lift padding for comfort, it also has D-rings on the harness for attaching other diving equipment.

An alternative for snorkeling and very shallow dives is the vest compensator. Looking very much like an inflatable life vest, this performs the basic functions of buoyancy compensator, without the weights or the tank fittings.

	Weight	Price
<i>Buoyancy Compensator</i>	15 kg	\$380
<i>Vest Compensator</i>	Nil	\$50

CLOSED-CIRCUIT SCUBA (SELF-CONTAINED UNDERWATER BREATHING APPARATUS) GEAR

A Type LAR V Underwater Breathing Apparatus: maximum depth about 30 feet, air for 200-240 minutes, hydrophones are alerted within 1 yard, no bubbles.

The LAR V will interface with the Closed Circuit Life Vest, Diving Dry Suit Set, K-bottle compressed air cylinder, Oxygen Transfer Pump System (OTPS), Shop Oxygen Equipment, Surface Swimmer Set, Tool Set, and the LAR V Deployable Tool Set.

Weight	13 kg
Price	\$8,600

COMBAT DIVER SUPPORT GEAR

A set of items that are issued to Combat Divers so they can conduct operations, includes:

Camouflage Uniform	Flippers
Compass	Gloves
Depth Gauge	Life Jacket
Depth Range	Plexiglas Map Slate
Face Mask	Weight Belt
Flashlight	Wet Suit
Weight	11 kg
Price	\$200

COMMUNICATIONS – DAVIES OCCASIONAL SWIMMERS' KITS & OCCASIONAL DIVERS' KITS

The Davies OSK and ODK were designed for individual users, allowing the submersion and operation of virtually any 2-way radio. All OSK's and ODK's feature a fully submersible single-sided TASC1 Headset, a sealed Junction Box with a Clothing Clip and a tactile PTT Switch.

The OSK1 and ODK1 both incorporate Waterproof Radio Carry Bags to allow the submersion of non-waterproof radios. The radio connector is located inside the bag and once the radio is connected and placed inside the bag, it can be zipped up. When the bag is not submerged, its zip allows easy access to the radio for procedures such as volume and channel adjustment, as well as battery replacement. The bag can be worn on the user's back (or elsewhere, according to preference) by means of built-in straps and belt loops.

Weight 1 kg
Price \$250

COMMUNICATIONS – ERUS-2 UNDERWATER RADIO COMMUNICATION SYSTEM

ERUS-2 equipment is designed to provide underwater radio communication, using HF ultrasonic waves, between divers, divers and surface craft, and between surface crafts. A hand microphone and headphones are housed in a compartment provided in the case.

Weight Nil
Price \$100

COMMUNICATIONS – HYDROCOM DIVER SPEECH PROCESSOR

Hydrocom is the US Navy's standard helium speech unscrambler system. Using a full-duplex connection, Hydrocom allows communication between three divers and a surface tender without the need for press-to-talk function. Low-noise amplifiers are used to amplify divers' voices and a ground plane is incorporated to minimize noise.

An optional helium speech unscrambler printed circuit board is available which can be bypassed from the front panel of the control unit for air operation.

Weight 2 kg
Price \$200

COMMUNICATIONS – MODEL 3151 HELLEPHONE UNDERWATER COMMUNICATIONS UNIT

The Model 3151 Hellephone is a single-sideband underwater telephone, which allows the operator to communicate with divers using the diver Hellephone. The unit can also be fitted in a submersible allowing communication to take place between submersibles, surface and divers in all directions.

The unit comes complete with acoustic transducer on 15 m heavy-duty coaxial cable, rechargeable battery and battery charger.

Weight 3 kg
Price \$80

DEPTH GAUGE

Used to let you know what depth you're at.

Weight 0.2 kg
Price \$100

DIVE COMPUTER

Replacing the analogue depth and pressure gauges, the dive computer shows current and maximum depth, remaining dive time, bottom time, nitrogen loading, and rate of ascent and decompression status. It consists of a wrist strap or buckle and strap to attach the computer to D-rings on the harness or buoyancy compensator. It features an LCD screen, with one or two displays and a backlight.

Weight 0.40 kg
Price \$440

DIVE TAPE

Dive tape is similar to duct tape, except that it uses a waterproof adhesive, which means that it can be used for fixing items in place underwater.

Weight Nil
Price \$5

DIVER'S HOT WATER MACHINE

Provide heated seawater for up to 3 divers for cold water or extreme exposures. The heaters are equipped with a diesel-fired burner and fresh water boiler that circulate heated fluid through a titanium

heat exchanger. Cold seawater is pumped through the titanium heat exchanger where it is heated and then supplied to the divers through a hose incorporated in the diver's umbilical. A temperature control valve provides accurate and reliable temperature control to within $\pm 1^{\circ}\text{C}$.

Weight 150 kg
Price \$1,000

DIVING SUITS – DRY SUIT

The suit is ideal for wearing with closed-circuit and semi-closed circuit rebreathers in colder climates.

Weight Nil
Price \$125

DIVING SUITS – JIM DIVING SUIT

This one-man diving suit allows the wearer to conduct work at far deeper depths than a SCUBA diver could. By getting inside a JIM diving suit, you can dive about 600 m (1,968 ft) below the surface. The pressurized suit and helmet will protect you from the effects of water pressure at that depth. It also has 2 built-in propellers for maneuvering.

Weight 200 kg
Price \$8,000

DIVING SUITS – WET SUIT

For SCUBA diving in cold water, the wet suit is made of 3, 5 or 7 mm neoprene, and whilst it does not keep the diver completely dry, does at least maintain warmth and offer some protection from rocks. It includes reef boots and gloves.

Wet suits are also available in military DPM (Disruptive Pattern Material: camouflage) for Special Forces or Underwater Demolition Team (UDT) specialists.

	<i>Wet Suit</i>	<i>Wet Suit, DPM</i>
Weight	5.50 kg	6.5 kg
Price	\$700	\$701

DIVING SUITS – WET SUIT LINER

A liner worn under the wet suit, this protects the diver in cool water but not in a winter or arctic conditions.

Weight 2 kg
Price \$300

LIMPET MINE DISPOSAL EQUIPMENT (LMDE)

The LMDE has been designed to destroy limpet mines, which are difficult to remove from ships because of their powerful magnets and their anti-handling devices. The system features a stainless steel barrel bomb disruption device similar to those used against terrorist bombs on land. The barrel is mounted in a movable sleeve and trunnion on a stand with flotation magnets to attach it to the ship's hull, and the whole device has buoyancy blocks to reduce the effective weight in water.

When a limpet mine is discovered the diver assembles the LMDE out of the water, then takes it underwater and places it as close as possible to the mine. The barrel is carefully positioned so it faces the heart of the mine, then the diver returns to the surface from where he remotely fires a bridge wire cap cartridge. This propels a powerful slug of water at the mine, smashing open the thin casing and dispersing the main explosive charge.

Weight 15 kg
Price \$500

MW 1630/MW 1630B UNDERWATER MINE DETECTORS

Used by divers to find mines underwater. This hand-held unit can be used in shallow or deep water.

Weight 5 kg
Price \$5,000

NAVIGATION/MAPPING – COBRA-TAC DIVER NAVIGATION AND MAPPING CONSOLE

Cobra-Tac is a navigation and survey platform that is completely autonomous and operates without the need for acoustic baselines or floating surface buoys. A diver can map the bottom topography, navigate accurate grid patterns, mark and relocate waypoints, and survey the bottom using geodetic data points. Simply enter the starting position for the dive into the system's on-board navigation computer and the Cobra-Tac allows the diver to navigate.

Weight 12.7 kg
Price \$500

NAVIGATION/MAPPING – DIVER'S ELECTRONICS BEACH RECONNAISSANCE AID

Used to provide rapid and accurate beach reconnaissance operations. The equipment consists of a hand-held swim board manufactured from durable and corrosion-resistant materials including aluminum and nylon-reinforced plastic. The equipment incorporates a pressure sensor and echo sounder together with GPS receiver, electronic compass, Doppler velocity log and computer.

The GPS receiver accepts signals either from an active antenna mounted on the unit or from a floating antenna attached to the diver, providing details of the current position (latitude and longitude or other grid reference). The echo sounder provides indication of the depth and height above the seabed of the unit. This data is stored in the memory of the embedded processor unit. At the end of a mission all recorded data can be uploaded back into the laptop.

Weight 15 kg
Price \$8,000

REGULATOR

The job of the regulator is to supply air to the diver at ambient pressure.

Weight Nil
Price \$100

SCUBA MASK, FINS AND SNORKEL

Facemask, fins and a snorkel for use when either SCUBA diving or snorkeling. A full-face version of the facemask is also available, designed for use in foul water (such as where there is a risk of infection from sewage).

	Weight	Price
<i>SCUBA Fins</i>	0.30 kg	\$80
<i>SCUBA Mask</i>	0.15 kg	\$55
<i>SCUBA Mask, Full Face</i>	0.25 kg	\$65
<i>SCUBA Snorkel</i>	0.10 kg	\$25

SCUBA FINS – FOIL FORCE FIN

The fin is designed to channel water through a split in the fin and drive the diver forward. The design of the fin eradicates toe squeeze and calf fatigue as well as minimizing cramping. The fin maximizes the effectiveness of the strongest kicking muscles. The clean edges of the fin cut through the water and the independently moving wingtips allow divers to fine-tune their position in the water with small foot and leg movements.

Weight Nil
Price \$200

SEACAMS UNDERWATER VIDEO CAMERA SYSTEM

The SeaCam 2003 is a hand-held or fixed-mount color camera rated to 1,000 m water depth. It offers a high-quality color 12.7 mm Charged Coupled Device (CCD) video camera housed within Delrin pressure housing with a scratch-resistant acrylic port.

Weight 8 kg
Price \$3,000

SHARK REPELLENT

As dye marker above, but repels most shark species on a 10 or less.

Weight Nil
Price \$50

SONARS – AN/PQS-2A SONAR

The AN/PQS-2A is a continuous transmission, frequency-modulated, hand-held, non-magnetic sonar set intended for use by divers to locate and close on submerged targets such as mines, lost equipment, downed aircraft and other targets to depths of 91 m.

Weight 5 kg
Price \$3,000

SONARS – DLS-1 DIVER LOCATOR SONAR

The DLS-1 is portable self-contained sonar designed for use by divers in locating submerged objects. The system provides bearing and range information to the target and can also be used to locate pingers or other sound sources. Experience with the system allows an operator to determine range and target characteristics from the echo signal.

Has a range of 91 m and operates of rechargeable batteries, with a 10 hours life in Active Mode.

Weight 3.4 kg
Price \$1,000

SONARS – DLS-2A NON-MAGNETIC DIVER LOCATOR

The DLS-2A is portable self-contained sonar designed for use by Military EOD divers in locating underwater mines and other submerged objects. The system provides bearing and range information to the target and can also be used to locate pingers or other sound sources.

Weight 3.4 kg
Price \$2,000

SONARS – DSE 1 DIVER SONAR CAMERA

Mounted in a rugged, non-corrosive housing, the DSE 1 integrates all sensors, electronics, controls and display in one common unit. The batteries are housed in a separate battery pack underneath the unit. The unit is nearly neutrally buoyant, which allows it to float up slowly to the surface if released.

Weight 5 kg
Price \$500

UBAs – BASAR UNDERWATER BREATHING APPARATUS

The apparatus incorporates a stabilizing jacket as an integral part of the diving set so that surface buoyancy can be increased, after rescue operations, while waiting for recovery. A separate swim mask is used with the apparatus, which allows the diver to pinch his/her nose for ear clearing.

Weight 60 kg
Price \$4,000

UBAs – DC 55 UNDERWATER BREATHING APPARATUS (UBA)

The DC 55 is a self-contained semi-closed circuit UBA. It comes in the form of a set comprising a soda-lime scrubber unit, two aluminum alloy mixture cylinders and a breathing bag protected by a cover. The diver breathes into the apparatus through a mouthpiece, maintained by a strap and connected to two corrugated hoses, which lead to the inhalation and exhalation pipes containing the corresponding non-return valves.

Weight 25 kg
Price \$1,000

UBAs – DIVATOR Mk II

The apparatus incorporates a full-face mask, which provides the diver with constant slightly positive pressure to prevent contaminated water from leaking in.

Weight 20 kg
Price \$1,200

UBAs – HABD

The Helicopter Aircrew Breathing Device or HABD is a piece of military survival gear which was adopted in order to increase the chances of survival for embarked troops and aircrew trapped in an aircraft which has ditched (crashed into a body of water.)

Similar in function to SCUBA gear, it consists of a small cylinder pressurized with atmospheric air and first stage regulator worn in a pouch on the user's flotation vest; a pressure gauge; an air hose and a special second-stage regulator (the part that delivers air via the user's mouth). The regulator is on-demand (it only delivers air when the user breathes in) and is designed to be highly rugged in order to survive impacts associated with emergency ditchings.

Weight 1 kg
Price \$200

UBAs – LUNG AUTOMATIC REBREATHING (LAR V)

The LAR V is an Underwater Breathing Apparatus (UBA) that is the central item of equipment necessary to perform closed-circuit diving for the USMC. The UBA provides a combat diver with enough oxygen to stay under the water for up to 4 hours. The exact time will depend on the individual diver's rate of breathing and his depth in the water. The UBA decreases a diver's chance of detection by its ability to prevent any exhaust bubbles from escaping to the surface. The UBA must be maintained in an oxygen safe room.

Weight 15 kg
Price \$4,000

UBAs – Mk 16 UNDERWATER BREATHING APPARATUS (UBA)

The principal components of the Mk 16 include: 2 high-pressure gas reservoirs with shut-off valves, high-pressure regulators, piezoelectric oxygen addition valve, carbon dioxide scrubber, oxygen sensors, electronics, counter-lung, mouthpiece assembly and 2 independent displays.

Weight 29 kg
Price \$5,000

UBAs – OXYDIVE CLOSED CIRCUIT BREATHING APPARATUS

The Oxydive set consists of the following components: oxygen cylinder, regulator unit, bypass valve, dosage unit, relief valve, buoyancy control unit, breathing bag, absorber unit, mouthpiece and harness. The oxygen cylinder is placed between the absorber unit and the breathing bag in such a way that it will protect the main part of the breathing bag and the regulator unit.

Weight 15 kg
Price \$2,000

UBAs – OXYDIVE CLOSED CIRCUIT BREATHING APPARATUS RECHARGE KIT

For use with the Oxydive Closed Circuit Breathing Apparatus. This kit includes a carbon dioxide absorbent and a small tank of pure oxygen (enough to recharge a rebreather for 30 minutes underwater).

Weight 5 kg
Price \$100

UBAs – OXYMAX 3 CLOSED-CIRCUIT OXYGEN DIVING SET

Oxymax 3 is a compact oxygen rebreather set with up to 3 hours duration (dependant upon conditions). Oxymax 3 features a crossover valve within the mouthpiece allowing the unit to be turned into an open-circuit system. This patented valve allows the diver to have the set ready for an emergency dive in open-circuit mode without water entering the decompression chamber.

Weight 15 kg
Price \$4,000

UBAs – S-10 OXYGEN REBREATHING DIVING APPARATUS

The S-10 is a closed-circuit pure oxygen rebreather for use to depths of 80 m. This system allows progressively deeper diving and less decompression. A 3.4-liter Sofnolime™ canister provides for around 12 hours of diving.

The unit requires 3 batteries (AA-, C- and D-cells) to control the various processors and backup, with around 20 hours of operation.

Weight 30 kg
Price \$800

UNDERWATER LIGHTING – DIVE LIGHT

A dive light is a waterproof, 30-watt halogen light, in either a pistol grip or hand lamp style. It is rechargeable and has a battery life of 60 hours. It measures 10 cm in diameter and 21 cm long. For ease of carrying underwater, it is also weighted.

Weight 1.6 kg
Price \$125

UNDERWATER LIGHTING – DIVING LIGHT

Very broad flashlight, runs 10 hours on 4 batteries.

Weight 0.50 kg
Price \$50

UNDERWATER LIGHTING – SEALITE UNDERWATER LIGHTING SYSTEMS

The standard lightweight SeaLite range offers lamp voltages from 12V DC to 240V AC with wattage ranging from 50 to 500W. All lamps have positive locking bayonet mounts to reduce the possibility of vibration-related failures.

Weight 2 kg
Price \$150

UNDERWATER TRANSPORTS – AQUA-SLED

Has light and depth gauge, runs at 1 knot for 2 hours.

Weight 64 kg
Price \$200

UNDERWATER TRANSPORTS – DIVER PROPULSION DEVICE (DPD)

The DPD is a man-portable device capable of propelling a diver at a speed of 1 knot for up to 200 minutes. Power is provided by rechargeable gel-cell lead oxide batteries connected to 2 drive motors.

Weight 70 kg
Price \$6,000

UNDERWATER TRANSPORTS – DRY DECK SHELTER (DDS)

Any submarine can be employed to carry combat swimmers; however, some navies have several submarines that have been specially modified to carry swimmers and their equipment more effectively, including the installation of chambers called Dry Deck Shelters to house Swimmer Delivery Vehicles (SDVs). These submarines retain their full suite of weapons and sensors for operations as attack submarines; but they have special fittings, modifications to their air systems and other features to enable them to carry DDSs.

The DDS can be used to transport and launch an SDV or to “lock out” combat swimmers. A DDS can be installed in about 12 hours and is air-transportable, further increasing special operations flexibility. The unit is 11 meters long and can hold 1 SDV and 20 divers.

Weight 30,000 kg
Price \$10,000

WATERPROOF BAGS - BERGEN BAG

This cylindrical bag is tested to perform at 4 atmospheres and has a heavy sealed lip at each end. It is fitted with a heavy-duty waterproof zip that extends round 90% of the bag's circumference to facilitate ease of loading/unloading.

Weight Nil
Price \$100

WATERPROOF BAGS - DIVEX SPECIAL OPERATIONS WATERPROOF RUCKSACK

The special operations waterproof rucksack will remain waterproof at any depth providing air is supplied during descent and internal pressure is kept at or slightly above the ambient water pressure. The bag has exterior pockets for weights, ammunition and other items which do not require waterproofing.

The Buoyancy Control System consists of a DIN 200-bar/0.5-liter air cylinder with control valve, a power inflator for external air source, an oral inflator for surface use and an automatic adjustable

buoyancy control exhaust valve. D-rings and strap handles are provided for tied-down, lifting and attachment purposes.

Weight Nil
Price \$600

WATERPROOF BAGS - DIVEX WATERPROOF SKI BAG

The waterproof ski bag is specifically designed to provide special operations personnel with a secure means of carrying skis into arduous environments.

Weight Nil
Price \$250

WATERPROOF BAGS - DIVEX WATERPROOF WEAPON SLEEVE

The weapon sleeve is constructed from robust materials and designed to accommodate whichever weapon is to be carried. It is fitted with a heavy-duty waterproof zip that extends round the base of the bag, thus easing loading and unloading procedures. A shoot-through option is available and usually supplied as standard. One lifting handle is provided as well as adjustable shoulder straps.

Weight Nil
Price \$300

WATERPROOF BAGS - FROGMAN RUCKSACK

This water and airtight bag has been developed for frogmen and Special Forces that have to keep equipment completely dry.

Weight Nil
Price \$200

WATERPROOF BAGS - UNDERWATER CARRIER

A sealed container to transport weapons, ammunition and equipment underwater. This cylindrical container is 1.5 meters long and about 0.4 meter in diameter. It opens like a clamshell for ease of access, and contains several straps and lashing rings to secure gear inside. When sealed, the container will protect its contents from water damage.

By inflating or deflating several internal flotation/ballast bladders, its buoyancy can be adjusted to enable it to float, sink, or be neutral (preferable for hauling gear long distances underwater). Pulling a lever will inflate several emergency bladders, making the loaded container capable of supporting the weight of an average person as well. The container can carry up to 50 kilograms of equipment, and when neutrally buoyant, has the same effect on a swimmer as light personal equipment.

The weight given is empty; the carrier weights this plus the weight of any contents when out of the water.

Weight 6 kg
Price \$85

WATERPROOF BAGS - WATERPROOF, GAS-TIGHT AMPHIBIOUS RUCKSACK

Designed to meet the requirement of swimming, diving and submarine lockouts. It provides protection via DUI's 3-bag concept. The waterproof bag is heavy-duty nylon-butyl-rubber trilaminate. A 1,000-denier Cordura stuff sack is included to store the equipment in to protect the inside of the waterproof bag. The outer Cordura bag takes most of the abuse. All of the straps are sewn to this outer bag so the least amount of stress is placed on the waterproof bag.

Features of the bag include an oral inflator and exhaust valve, padded shoulder and waist straps, D-ring, sternum strap and compression straps, and drain panels in the bottom of the bag. The bag also includes a zippered weight storage area that incorporates DUI's patented quick release weight system in the event the weights had to be ditched. This bag is ideal for water and land use.

Weight 1 kg
Price \$200

15. DOCUMENTS

BIRTH CERTIFICATE

Price \$100

CONCEALED WEAPONS PERMIT

Good in 16 US States and available through legal channels if desired.

	<i>Legal</i>	<i>Forged</i>
Price	\$100	\$150

DICTIONARY, LANGUAGE

An extensive translation of one language to another, including idiomatic phrases. Unfortunately, it takes some time to use in a conversation.

Weight 0.5 kg
Price \$20

DICTIONARY, "POINTEE-TALKEE"

Small booklet consisting of basic phrases on one page and the equivalent phrase in two other languages on the opposite page. The user points to the desired phrase and asks the other person to point to his reply (the instructions are the first set of phrases). These dictionaries are normally issued to aircrews.

Phrases are simple ("Where is food?" "Does anyone speak English" "Glad to meet you", etc.) and contain phrases in the following subjects: finding an interpreter, courtesy phrases, food and drink, comfort and lodging, communications, injury, hostile forces, and friendly forces. There are approximately 5-20 phrases per subject (as necessary).

Weight 0.1 kg
Price \$50

DEATH CERTIFICATE

Not much call for these but they can be made.

Price \$200

DOG TAGS

Dog Tags or ID Discs are worn by soldiers as mean of instant ID should the person be unable to speak. Contains name, birth date, religion, service number, nationality, and blood type.

Price \$10

DRIVER LICENSES

Price \$20

GUN PERMIT

Allows persons to own guns, available in most countries.

Price \$150

HEALTH INSURANCE CARDS

Used by hospitals for billing governments or insurance companies for health care services.

Price \$100

"HOW TO BECOME FILTHY RICH FROM REAL ESTATE WITHOUT ANY CAPITAL OR EVEN BEING MODERATELY INTELLIGENT"

A real estate seminar presented by "ROBCA Realty, Inc.", and presented in various motels and convention centers. Comes complete with all supporting videos and step up step presentations. Can easily generate money for mercs in need of capital: roll 1D10x1,000 to see how much money is made.

Price \$200

MAPS

These are available for any region on earth, order through any national library map service.

Price \$30

MILITARY QUALIFICATION BADGES

These are Badges that are worn on the uniform to denote special qualification, like parachutist or EOD. Comes in cloth or metal.

Price \$10

IDENTIFICATIONS

Federal Agent and Police Identification comes with a badge. Police and Military Identification will not stand up to a computer run background check. A roll vs. the character intelligence will determine if they can establish a phoney identity (1D10 difficult).

	Price
<i>Identification, Corporation</i>	\$100
<i>Identification, Federal Agent</i>	\$300
<i>Identification, Military</i>	\$300
<i>Identification, Police</i>	\$200

PASSPORT

Available through legal channels if desired.

	<i>Legal</i>	<i>Forged</i>
Price	\$20	\$200

PRESS PASS

Used to identify members of the press.

Price \$100

RED BOOK

Carried by devote communist in the Far East.

Price \$5

SILK MAPS

Issued to pilots so they have a small waterproof map should they be shot down. These are available for any region on earth.

Price \$50

SOCIAL INSURANCE NUMBER

Price \$50

SOLDIER BOOK OF FIELD WORSHIP

Chaplains issue this book to soldiers.

Price \$5

UN IDENTIFICATION CARD

Issued to UN troops by the UN.

Price \$50

VISUAL LANGUAGE TRANSLATORS

These cards enable users to improve communication through hundreds of universally understood color pictures. They help eliminate language barriers and don't require batteries. VLTs are folding picture cards and are easy to use: just point to pictures or text phrases in the language on the card, answers are given by pointing to pictures, comes in any language and with 20 phases.

Price \$30

16. ENGINEERING EQUIPMENT

BRIDGES – ALUMINUM FLOATING FOOTBRIDGE

The aluminum-floating footbridge provides a standard means of rapidly crossing dismounted infantrymen in support of river crossing operations. A bridge set, which is carried on 2 2½-ton trucks, consists of 21 duckboards and 42 floats; this is sufficient to provide 76 m of 0.55 m wide walkway and has a carrying capacity of 75 persons per minute in a single column. It can be assembled in 11 minutes by a working party of 45 personnel.

Alternatively, a reinforced footbridge 25.2 m long and 1.65 m wide with a capacity of 150 persons per minute in 2 columns can be assembled by 45 personnel in 18 minutes.

Weight	4,000 kg
Price	\$15,000

BRIDGES – BAILEY BRIDGE

Used to cross rivers, lakes, ditches etc. It can be assembled by a unit of 32 engineers or 5 with construction skill directing the job. It takes 4 hours to assemble. Transported by 6 1.4-ton trucks.

The Bailey bridge is an all-purpose prefabricated steel panel bridge designed for portability and speed of erection under adverse conditions. Optimum spans are 12.2 to 61 m. Width is 3.809 m between steel kerbs and 4.343 m between trusses. The components are manufactured in fixtures to ensure accuracy and interchangeability. The heaviest component weighs 281 kg. A straight uniform reach is also desirable, the bridge being easily affected by eddies, cross-currents or river turbulence.

The aluminum-floating footbridge consists of treadways, pontoons, and handrail posts, ropes, hold-fasts and approach posts. One bridge set contains 144 m of bridge in normal mode of assembly, weighs 4,105 kg and can be transported by 2 2½-ton (6x6) trucks towing 2½-ton utility pole-type trailers. The complete bridge can also be carried in a C-130 Hercules transport aircraft and one half set of the footbridge can be delivered by parachute from a C-130 using 2 2,721 kg bearing platforms. An expedient bridge 30.48 m long, which will take a Jeep-type vehicle and trailer, can be constructed from the components of one aluminum footbridge set. The treadways are blocked apart and lashed leaving an open space of 0.71 m between them. The second bay, and succeeding alternate bays, is assembled with the two-pontoon bay downstream and the three-pontoon bay upstream.

The bridge is normally assembled using the successive bay method, but if the water is too deep for this method, the bridge is assembled in sections, which takes twice as long. The bridge can also be assembled on the shore, which requires a straight shore assembly area as long as the bridge, cleared to a width of 6.096 m. Finally the bridge can be assembled in the water or on steep banks. In this case, two skids are set in the water and inclined against the bank. This allows the bays or bridge sections to be launched into the water.

In currents up to 2.438 m/s, the number of troops that can cross single file at 2-pace intervals is as follows: daylight: 75 personnel/min; moonlight: 40 personnel/min; blackout: 25 personnel/min.

If required, the pontoons can also be used as paddle-propelled rafts. An expedient 2-pontoon raft is formed by lashing 2 pontoons side by side with 1 treadway placed across them; this will carry 1 wounded man and 2 paddlers, one in the bow and one in the stern. A 3-pontoon expedient raft is formed by lashing 3 pontoons side by side with 1 treadway placed across them and an additional treadway placed along each side of the centre treadway; this can carry 4 wounded men and 4 paddlers, two in the bow and two in the stern.

Weight	8,000 kg
Price	\$120,000

BRIDGES – GENERAL SUPPORT BRIDGE SYSTEM

The General Support Bridge System uses automated bridge launching equipment that can launch bridges 44 m long. The close support (battle situation) bridges consist of three different tank-launched bridges capable of being carried on a truck.

There are also two basic spanning systems for the general support bridge. The long span system allows for lengthening a 32 m span to 44 m, while the two span systems allows two 32 m bridge sets to be constructed and secured in the middle by piers or floating pontoons, crossing a gap of 60 m.

Transported by 6 2-ton trucks.

Weight	8,000 kg
Price	\$150,000

BRIDGES – IMPROVED RIBBON BRIDGE (IRB)

The IRB is a modular floating bridge with integral superstructure and floating supports. A complete IRB consists of a ramp bay at each bank and the required number of interior bays to complete the bridge. Each of the bays is transported in a folded position on a Common Bridge Transporter and held in place by a Bridge Adapter Pallet. The bays unfold automatically in the water as a result of buoyant forces that actuate a cable and lever system.

Individual bays may be joined to form a raft for ferrying operations. The IRB mission is to provide a continuous roadway or raft capable of crossing assault or tactical vehicles over nonfordable wet gaps.

Weight	30,000 kg
Price	\$200,000

BRIDGES – LOGISTIC SUPPORT BRIDGE (LSB)

The system is composed of a small range of standard parts: panels, chord reinforcements, transoms, decks, bracing members, ramps, grillages and ground beams. Bridge components can be transported using flat racks and ISO containers.

The modular design of the equipment means it can be constructed in a large number of different configurations, allowing the system to be used for a wide range of load and spans. The system is capable of routinely carrying tracked and wheel traffic. Single spans up to 61 m are possible, however longer spans can be achieved with pier equipment and span junction sets.

The bridge is designed to be left in situ as a semi-permanent bridge.

Weight	
Price	

BRIDGES – MEDIUM-GIRDER BRIDGE (MGB)

The MGB is a lightweight, hand-built, easily transportable bridge that can be erected in various configurations to cover a full range of military and emergency bridging requirements. The deck units are fitted between 2 longitudinal girders to provide a 13' wide roadway. A bridge set has sufficient components to construct one 102 ft bridge in a double-story configuration or three 31 ft bridges in a single-story configuration.

The MGB is constructed on rollers and launched using a detachable launching nose. It is transported on 5-ton trucks with trailers.

Weight	10,000 kg
Price	\$10,000

BRIDGES – RIBBON BRIDGE

The ribbon bridge is a floating modular asset with an integral superstructure and floating supports. Individual bays are joined to form rafts or bridges for river-crossing operations. Ribbon bridges and rafts provide a reliable and responsive means of crossing wet gaps.

The Ribbon Bridge consists of integral float-deck elements connected longitudinally to form a continuous floating roadway. There are 2 basic bridge elements, the interior bay and the ramp bay. The interior bay consists of the roadway pontoons and two bay pontoons joined by hinges and pins. During deployment, the bow and roadway pontoons automatically unfold in the water. The ramp bay unfolds in the same manner as the interior bay. Ramp bays also have the capability to adjust to riverbank slopes up to 20° through the use of hydraulic cylinders.

The bays are carried folded on the rear of specially modified M812 5-ton (6x6) trucks (or other trucks of suitable capacity). Launching of bridge bays may be accomplished by one of three modes: free, controlled or high bank. In the free launch mode the truck is backed into the water.

The bridge is normally assembled along the shore and the complete bridge is then swung across the river using bridge erection boats. Bridging boats are used to hold the bridge in position and in a current with a velocity of 2.5 m/s are normally positioned every 20 m. If the bridge is to remain in place for extended periods, overhead anchor cables may be employed. It can also be constructed using the method of successive bays or rafts. If required, individual bays can be deployed by helicopter.

The Ribbon Bridge can be constructed at the rate of 6.705 m/min over rivers with a current up to 2.438 m/s.

Weight	30,000 kg
Price	\$100,000

SMOKE GENERATORS – M56 MECHANICAL SMOKE GENERATOR

The M56, mounted on the HMMWV, will disseminate smoke on the move and from stationary positions to defeat enemy sensors and smart munitions such as tank thermal sights, guided munitions, direct energy weapons, and other systems operating in the visual through far-infrared regions of the electromagnetic spectrum.

The system uses a turbine engine as a power source to disseminate large area obscurant clouds. The visual screening module is capable of vaporizing fog oil for up to 90 minutes and the infrared module is capable of disseminating a particulate material to provide 30 minutes of screening. Consumption: 8 liters/period.

Weight 400 kg
Price \$2,500

SMOKE GENERATORS – M58 MECHANICAL SMOKE GENERATOR

The M58 is a mechanized multi-spectral smoke and obscurant system made by integrating components from the M56 Motorized Smoke Generator program on top of a M113A3 APC, with a Drivers Vision Enhancer (DVE) and a gas particulate filter unit for Chemical/Biological protection.

This unit can be jury rigged to run off a power supply (ESY:Mechanic).

Weight 1,000 kg
Price \$3,000

SMOKE GENERATORS – M157A2 PULSE JET MECHANICAL SMOKE GENERATOR SET

The M157A2 Smoke Generator System (SGS) utilizes 2 remotely operated pulse jet generators to vaporize fog oil to produce large area visual smoke screens. The system consists of 2 generators, 1 control panel, 1 air compressor assembly, 1 fog oil pump assembly and associated hoses, mounting kits (M284A1) and electrical cables. Consumption: 8 liters/period.

Weight 500 kg
Price \$2,000

SMOKE GENERATORS – TACTICAL SMOKE GENERATOR

This is a device to produce a massive volume of thick smoke that is opaque to certain optical frequencies. When vision is blocked, all tasks related to the vision or aiming (if lasers or millimetric waves are blocked) become 3 levels more difficult.

A tactical smoke generator may be transported in any vehicle or trailer capable of supporting its weight. The smoke generator produces a cloud equal to 3 smoke grenades in volume every phase, and typically runs for 90 minutes on a tank of fuel (about 650 liters, 7.2 l/min). It is basically a pulse jet engine that injects special oil into its exhaust to produce the smoke. The fog oil also lasts for 90 minutes on a tank (about 450 liters, 5 l/min). The jet engine runs on almost any type of military fuel except alcohol, including diesel, jet fuel, gasoline, AvGas, etc.

There are several types available, based on when they are made:

- **Pre-1970s:** The smoke blocks vision and image intensification.
- **1970-1980:** The smoke blocks vision, image intensification, and lasers.
- **1981-1985:** The smoke blocks vision, image intensification, infrared, and lasers.

	Weight	Price	Price, Fog Oil
<i>Pre-1970s</i>	1,200 kg	\$2,000	\$15/liter
<i>1970-1980</i>	1,200 kg	\$2,500	\$20/liter
<i>1981-1985</i>	1,200 kg	\$3,000	\$25/liter

17. ENTRY TOOLS

ADVANCED AUTOMATIC SAFECRACKER

This device is roughly the size of a VHS cassette albeit somewhat thicker. There is a large hole on the back of the device and a small display screen on the front. To use the device you place it over the combination knob, the hole contracts and begin spinning the knob until the sensors detect a change in sound or pressure. When the lock has been successfully cracked the combination will appear on the display screen.

The device can store up to ten combinations and requires no skill whatsoever to use. Cracking a safe with this device takes from 30 seconds to 10 minutes, runs off either a rechargeable battery pack (2 hours) or from a wall outlet.

Weight 0.50 kg
Price \$2,000

ASSAULT ENTRY KIT

The Assault Entry Kit has been designed to be an invaluable part of any police or military assault team, and is in wide use with Police Drug Squads worldwide. The kit comprises the following items:

- **Ram-it Door Ram:** Designed for 1-man operation, the Ram-it is 76 cm long and weighs only 16 kg. It nevertheless impacts with an incredible 6,356 kg of kinetic force, enough to open practically any door. Its short length only requires 50-60 cm of backswing, making it ideal for use in close quarters.
- **Go-Bar:** This forcible entry tool has been designed specifically for professional use. It is made of one piece, drop-forged, quality steel alloy and may be struck on any of 3 flat sides, with a power sledge hammer for extra impact or penetration.
- **Power Sledge:** This 4.5 kg sledge has an oversized head for maximum impact. The handle is made of shock-absorbing material to prevent damage to the user.
- **Pull-It Bar Kit:** This 3-part unit consists of the bar, made of top-quality steel, which enables the operator to forcibly remove any type of lock quickly and effectively; the Kerry Key, which operates through the lock to move slide bolts open and to turn other types of locks; and the Shove Knife, which opens spring latches.

Weight 20 kg
Price \$250

CAR ENTRY TOOL SET

These are specialized tools for picking car door/trunk locks, steering column locks, fuel tank cap locks and steering wheel locking devices.

Automotive Lockpick Tools (tension wrenches, picks)	Probes
Broken Key Extractors	Steering Wheel Lock Breaker
Button Grabber	Wedges
Weight 3 kg	
Price \$560	

DOOR RIPPER

A simple lightweight tool for forcing outward opening doors.

Weight 1 kg
Price \$75

DOOR SPREADER

This simple pneumatic device is placed on either side of the door jam, and then activated. The bar extends forcing the door jam to widen, allowing the door to be opened.

Weight kg
Price \$

ELECTRONIC LOCKPICK SET

Used to "read" combination and electronic locks.

Weight 0.5 kg
Price \$500

EXPLOSIVE WALL BREACHING SYSTEM

The explosive wall breaching system is designed to provide a rapid method of entry through walls and other barriers by Special Forces and rapid response teams. The system comprises a plastic shell, which constitutes a frame for the support of the explosive, and a container for water, which surrounds the explosive. When the unit is placed in contact with a flat surface and fired, the explosive energy is tamped by the water and the force is thrown forward cutting a hole in the wall. The surrounding water jacket greatly reduces the velocity of projected fragments and reduces the danger to operators by quenching the hot explosive gases.

Two channels are provided for accommodating the explosive. The first is a closed loop around the periphery, which defines the size of the hole produced; a second runs along the vertical centre line. The explosive load may be varied to suit the operation. For use on thin structures such as internal walls, the peripheral charge only need be used. It may consist of one or more lengths of detonating cord. A single length of 10 gram/meter cord would give a loading of 23 grams of explosive; the groove can accommodate 100 gram/meter cord. Alternatively, flexible linear cutting cord may be used for a more directional cutting effect. For thick, resistant walls the vertical channel may also be loaded with explosive. The purpose of this central charge is to push out that part of the wall defined by a peripheral cut made with a linear cutting charge. Though the peripheral explosive channel is rounded the bottom of the body is square so that the unit is stable when leaned against a wall.

The unit is provided with straps for attaching it to an operator's back when climbing or descending ropes.

	<i>fully loaded</i>	<i>empty</i>
Weight	20 kg	6 kg
Price	\$350	

HOOLIGAN TOOL

The Hooligan Tool is a multi-purpose levering device for prying open doors and windows. It has a hooked duck bill and claw for inserting into the opening and levering. It is 90 cm in length and is heavy and robust enough to also use as a pounding tool.

Weight	5 kg
Price	\$180

JIGGLER KEY SETS

These are sets of keys for using the raking technique of opening locks without a tension tool. There are 2 sets of keys, for varying sizes of small and large keyways. They are suitable for picking most types of low and medium security locks.

Weight	Nil
Price	\$48

LOCK BREAKER

Two heavy duty tools for rapid intervention operations. Each tool is designed with a sharp tapered pike that can be inserted behind locks and latches and a wide "duckbill" shaped wedge for levering open doors and windows.

Weight	2 kg
Price	\$75

LOCK RELEASE GUN

The size of a large automatic pistol, this device uses compressed air from a small cylinder to generate suction to pull the tumblers in the lock into place.

Weight	1 kg
Price	\$125

LOCKPICK, ELECTRIC

A probing device (shaped like an electric toothbrush). It comes with pick heads, tension tools and adjusting tools and is suitable for picking most types of low and medium security locks.

Weight	0.60 kg
Price	\$230

LOCKPICK TOOLS

Picks, torsion wrenches, shims, a stethoscope, and other equipment to open all types of locks.

Weight 0.5 kg
Price \$200

LOCKPICKING TOOL SET (SPECIALIST)

This is a set of tools for opening specialty locks, such as filing cabinets, padlocks, handcuffs, brief-case combination locks and tubular locks (such as used for bicycles).

1 Mini-Knife Tool/Probe	3 Tubular Lockpicks
1 Straight Knife Tool	10 □Warded Keys
2□ Handcuff Keys	20 Padlock Shims
Weight 0.65 kg	
Price \$230	

LOCKPICKING TOOL SET (STANDARD)

This is a set of tools for opening a variety of standard pin tumbler, wafer and lever locks. The set is contained in a zip-up leather wallet 25 x 20 x 2 cm in size.

1 Plug Spinner	7 Tension Wrenches
4 Broken Key extractors	32 Hook Picks
Weight 0.55 kg	
Price \$200	

MECHANICAL BREACHER'S KIT

A tool kit that provides infantry units with an organic ability to breach man-made and natural obstacles without the use of explosives. The kit consists of a 10-lbs sledgehammer, a 30" Hooligan tool, and bolt cutters. All of the tools are electrically non-conductive and combat rugged. The tools can be carried by 1 person in the commercial backpack provided, or distributed throughout the squad, and carried using tool carriers.

The kit also includes personal protective equipment (eye protection, gloves and cut-resistant sleeves).

Weight 50 kg
Price \$500

PADLOCK KEYS

These are keys and are design to open basic padlocks.

Weight
Price \$100

POCKET KNIFE LOCKPICK

A five-bladed pocket knife with four lock picks, a broken key extractor and a tension wrench concealed in the handle. It is suitable for picking simple locks.

Weight Nil
Price \$39

RAMS – HYDRAULIC DOOR RAM (5 TONS)

A compact hydraulic ram for opening reinforced inward opening doors. When in position, with the main ram over the lock area of the door, a secondary ram is activated to force the jaws deep into the frame. By operating a valve the main ram is activated to force the door open with a force of up to 5 tons. This is a powerful pneumatic ram that can apply a force of up to 11 tons and is effective on heavily secured doors.

Weight 45 kg
Price \$1,800

RAMS – MANUAL DOOR RAM

A simple and effective door ram for the rapid forced entry of inward opening doors. The ram, fitted with protected handgrips, is swung with maximum manual force against the lock area of the door to

impart a weight load on impact of approximately 3 tons. Opens all but steel reinforced doors.

Weight 16 kg
Price \$150

RAMS – PNEUMATIC DOOR RAM

The ram is first positioned on the door with the air bag support plate over the lock area. The hydraulic claws are then forced into the doorframe with the hand pump to provide secure anchoring. The air bag is placed between the plate and the door and inflated using the portable compressed air cylinder. Doors open in a fraction of a second.

The pneumatic ram is supplied complete with hydraulic pump, 3 interchangeable claws to suit all standard doors from 760 mm to 910 mm in width, air bag, air hose and compressed air cylinder with shoulder strap. Note that the cylinder is supplied empty and must be fully charged before use.

Weight 60 kg
Price \$2,000

RAMS – THUNDERBOLT ENTRY RAM

The Thunderbolt is a police battering ram for forcing doors open. It has two rubberized handles to assist with grip and can be used by one or two people.

Weight 15 kg
Price \$315

SLIM JIM

This is a device that is used for breaking into cars, carried by police officers and tow truck drivers.

Weight 1 kg
Price \$50

18. EOD EQUIPMENT

BLAST CONTAINMENT – BOMB BLAST INHIBITOR

The inhibitor suppresses both the fragment emissions from a bomb and the blast pressure, while the glycol and water based chemical mix contained within its walls virtually eliminate the fireball.

Weight 10 kg
Price \$300

BLAST CONTAINMENT – BOMB CONTAINMENT BAG

Used for the temporary storage of suspected letter bombs prior to disposal. The bag is fabric reinforced with ballistic inserts and is designed to eliminate the dangerous fragmentation effects of the detonated explosive device.

Weight 10 kg
Price \$100

BLAST CONTAINMENT – BOMB SUPPRESSION BLANKET

This blanket is to be used to cover bombs while awaiting examination. If the bomb explodes the blanket would contain much of the blast and fragments.

Weight 15 kg
Price \$100

BLAST CONTAINMENT – MOBILE BLAST CONTAINER

The unit has a removable inner bag designed to hold a suspect device in the upright position to allow X-ray inspection while in the container. The bag is fitted with handle loops to allow easy removal of the package for transportation to a safe area for further scrutiny.

Weight 50 kg
Price \$500

BOMB CONTROL DETECTOR

This will screen your mail and packages. It will detect virtually all known letter bombs detonating devices regardless of the type of explosives used. The unit is programmed to automatically trigger an alarm on packages containing potentially dangerous explosive devices.

Weight 20 kg
Price \$400

BOMB DISPOSAL ROBOT

Used to defuse bombs and other explosive devices without exposing personnel to the dangers.

Weight 150 kg
Price \$8,000

DE-ARMER

The De-Armer is placed close to the target, aimed at the fuse and fired remotely and electrically causing a steel slug to either shear the fuse parts that are exposed or cause damage severe enough to prevent it from functioning.

Weight 2 kg
Price \$100

ECM SHIELD

The ECM Shield is a jamming system, used for the jamming of Radio Controlled IEDs.

Weight 10 kg
Price \$3,000

EOD RADIO SYSTEM

A wireless radio system that features a very low level of RF radiation when transmitting, to minimize the risk of activating IEDs, and a very sensitive receiver ensuring that the second party can always be heard. The user has the option of switching off the transmitter after reaching a device, while

still being able to receive incoming signals.

Weight Nil
Price \$100

NON-LINEAR JUNCTION DETECTOR

A very sensitive electronic stethoscope for the detection of mechanical run backtimers and electronic timing systems in IEDs.

Weight 2 kg
Price \$400

SHORTSTOP ELECTRONIC PROTECTION SYSTEM (SEPS)

This is an electronic countermeasures system designed to predetonate fused artillery shells, mortar shells, and artillery rockets. When operating, these rounds detonate in the air out of range to do the protected ground troops any harm. The system protects all units within 250 meters and predetonates all HEDP, HE, FAE, AA, and WP rounds 50% of the time before they can do any harm to the protected units.

This unit requires 30 seconds to set up and activate. The SEPS will protect all troops, not just friendly ones, within the radius of effect.

Weight 11.4 kg
Price \$20,000

TOOLS – BOMB DISPOSAL TOOL KIT

Contains a comprehensive selection of over 60 hand tools for Access, Investigation and Render Safe Procedures during EOD/IEDD tasks.

Weight 5 kg
Price \$200

TOOLS – FOLDING NON-MAGNETIC SHOVEL/ENTRENCHING TOOL

Same as a folding shovel but non-magnetic.

Weight 1 kg
Price \$100

TOOLS – HEAVYWEIGHT EOD TRIPOD

Portable tripods for providing lift during EOD tasks. Load capacity is 90 kg (198 lbs).

Weight 10 kg
Price \$400

TOOLS – NON-MAGNETIC EXCAVATION TOOLS

A set of non-magnetic excavation tools for EOD operations, suitable for contact use. The kit includes:

Chisel Flat	Scraper
Club Hammer	Shovel
Pick	Sledge Hammer
Pry Bar	

Weight 18 kg
Price \$1,500

TOOLS – NON-MAGNETIC TOOL KIT

A comprehensive non-magnetic tool kit for contact EOD operations.

Weight 5 kg
Price \$1,000

TOOLS – NON-MAGNETIC WRENCHES

A set of double ended open non-magnetic wrenches.

Weight 1 kg
Price \$800

UNDERGROUND CABLE DETECTOR

A portable, battery-powered detector for locating underground command wire cables. The detector is used at walking pace and the presence of a cable is indicated by a strong audible tone, which rises in frequency as the target is approached.

Weight 2 kg
Price \$200

WARLOCK FORCE PROTECTION SYSTEM

The Warlock Force Protection System is a lifesaving countermeasure. Warlock has been effective in countering the threat of IEDs, such as those being used by terrorists in Iraq and Afghanistan.

The Warlock devices are modified versions of battle-proven Shortstop Electronic Protection System. Warlock Green emits a radio frequency to jam communications signals that detonate improvised explosive devices. EDO also manufactures a less sophisticated jammer called Warlock Red.

Originally designed to defeat proximity fused indirect fire munitions, Warlock has a dual capability to deny the use of enemy modern communication devices. Warlock can be used individually or in groups to provide wide area coverage without mutual interference. The systems have three configurations: man-pack, vehicle mounted, and stand-alone.

Weight 10 kg
Price \$5,000

WATER JET DISRUPTER

A specially shaped liquid container and a retaining shell. The device is loaded with both water and plastic explosive by the end user and a conventional detonator is fitted in its receptacle, used to destroy a suspected bomb without having it detonate.

Weight 4 kg
Price \$300

X-RAY GENERATOR

Used to X-ray a suspected device. A video camera unit placed behind the suspect package is used to receive the X-ray image. The image can be view on any computer.

Weight 5 kg
Price \$1,200

19. EQUESTRIAN CLOTHING

Boots – Cowboy Boots

There are two basic styles of cowboy boots, western (or classic), and roper. The western style is distinguished by a tall boot shaft, going to at least mid-calf, with an angled “cowboy” heel, usually over 1” high. Western boots can be customized with a wide variety of toe shapes; the classic design is a narrowed, usually pointed, toe.

A newer design, the “roper” style, has a short boot shaft that stops above the ankle but before the middle of the calf, with a very low and squared-off “roper” heel, shaped to the sole of the boot, usually less than 1” high. Roper boots are usually made with rounded toes, but, correlating with style changes in streetwear, styles with a squared toe are seen.

Weight	Nil
Price	\$500-\$1,000

Boots – Dress Boots

Dress boots do not have lacing at the ankle, and are generally stiffer. They are worn by dressage riders, eventers in the dressage phase, and at formal fox hunts. They are also worn by riders of show jumpers. Dress boots are traditionally black in color.

Weight	Nil
Price	\$50

Boots – Field Boots

Field boots have lacing at the ankle, which allows for some give so the rider is more comfortable riding with the highly flexed ankle that develops from the shorter stirrup length required for work over fences. Therefore, field boots are preferred in all jumping disciplines, including hunt seat equitation, show jumping, fox hunting, and both jumping phases in eventing. They are also worn by police officers riding motorcycles or on mounted patrols, and by some police agencies as part of their “Class A” uniform or with ceremonial mounted units.

The majority of field boots are black, although brown-colored boots may also be purchased. Field boots (and many paddock boots) have an extra layer of leather on the toe, called a toe cap.

Weight	Nil
Price	\$130

Boots – Paddock Boots

Paddock boots, also known as jodhpur boots, are short boots that come just above the ankle, used most often for pleasure riding and everyday use. The lace-up style is primarily seen in hunt seat riding, whereas the elastic-sided Chelsea boot design is seen in both hunt seat and saddle seat disciplines. The elastic side boot is also commonly used in Australia as a riding boot and dress boot.

Weight	Nil
Price	\$100

CHAPS

Chaps are sturdy coverings for the legs consisting of leggings and a belt. They are buckled on over trousers with the chaps' integrated belt, but unlike trousers they have no seat and are not joined at the crotch. They are designed to provide protection for the legs and are usually made of leather or a leather-like material.

They are most commonly associated with the cowboy culture of the American west as a protective garment to be used when riding a horse through brushy terrain. In the modern world, they are worn for both practical work purposes and for exhibition or show use.

Weight	Nil
Price	\$170

CHAPS – ARMITAS

Armitas are a short legging with completely closed legs that have to be put on in a manner similar to pants. They are sometimes a bit longer than chinks, but still stopping above the top of the boot, fringed on the sides and on the bottom to reach the boot tops, attached by a fringed belt.

Weight Nil
Price \$250

CHAPS – BATWING CHAPS

Batwing chaps are cut wide with a flare at the bottom. Generally made of smooth leather, they have only two or three fasteners around the thigh, thus allowing great freedom of movement for the lower leg. Batwing chaps are often seen on rodeo riders, particularly those who ride bucking stock. They are also seen on working ranches, particularly in Texas.

Weight Nil
Price \$250

CHAPS – CHINKS

Chinks are half-length chaps that stop 2-4" (5-10 cm) below the knee, with very long fringe at the bottom and along the sides. They are usually fringed along the outside edge and bottom, making their apparent length appear about 4" (10 cm) longer. The leg shape is cut somewhere between batwings and shotguns, and each leg usually has only two fasteners, high on the thigh. They are occasionally called "half-chaps".

Chinks are most often seen on cowboys in the Southwestern and Pacific states, most notably on those who follow the California vaquero or "buckaroo" tradition.

Weight Nil
Price \$250

CHAPS – SHOTGUN CHAPS

Shotgun Chaps, sometimes called "Stovepipes", were so named because the legs are straight and narrow. Each leg is cut from a single piece of leather. Their fit is snug, wrapping completely around the leg. They have full-length zippers running along the outside of the leg from the thigh to just above the ankle. The edge of each legging is usually fringed and the bottom is sometimes cut with an arch or flare that allows a smooth fit over the arch of a boot.

Shotgun chaps are more common on ranches in the northwest, Rocky Mountains and northern plains states, as well as Canada, and are the design most commonly seen in horse show competition for western riders, especially western equitation.

Weight Nil
Price \$250

CHAPS – WOOLIES

Woolies are a variation on shotgun chaps, made with a fleece or hair-on hide, often angora wool, lined with canvas on the inside. They are the warmest chaps, associated with the northern plains and Rocky Mountains.

Weight Nil
Price \$250

HEADGEAR – AKUBRA

Akubra is an Australian brand of hat, whose wide-brimmed styles are a distinctive part of Australian culture, especially in rural areas. The name is believed to be derived from an Aboriginal word for head covering.

Weight Nil
Price \$100

HEADGEAR – COWBOY HAT

The cowboy hat is a defining piece of attire for farm and ranch workers in the western and southern United States, western Canada and northern Mexico, for country-western singers, and for participants in the North American rodeo circuit. It is recognized around the world as part of Old West cowboy lore.

Weight Nil
Price \$30-\$200

HEADGEAR – EQUESTRIAN HELMET

An Equestrian helmet is worn by the rider, when riding horses. This type of helmet is specially de-

signed to protect the rider's head if a person falls off a horse, especially if they should strike their head on a hard object while falling or accidentally be struck in the head by a horse's hoof.

Weight Nil
Price \$30

HEADGEAR – KEPI

The kepi is a cap with a flat circular top and a peak. The kepi is most often associated with the American Civil War era, and into the Indian Wars. The kepi used by US Cavalry from 1858-1896 had a yellow base with grey sides and top. Kepi are still wore today, but mostly by historic cavalry reenactors.

Weight Nil
Price \$60

HEADGEAR – STETSON HAT

This hat is worn by the Royal Canadian Mounted Police, several State Police Departments, by US Army Drill Sergeants and used by historic cavalry reenactors.

Weight Nil
Price \$200

RIDING BREECHES

Riding breeches are specifically designed for equestrian activities. Traditionally, they were tight in the legs, stopping about halfway down the calf, with buckles or laces in the calf section, and had a pronounced flare through the thighs that allowed freedom of movement for the rider. However, with the advent of modern stretch materials such as spandex, modern breeches have no flare and fit skin-tight. Zippers and Velcro fastenings have replaced laces and buckles at the calves as well. The flared style is seen at times, and is available to cavalry and other historic reenactors.

There are 4 main types of riding breeches:

- **Full Seat Breeches:** Breeches with grippy material from the knee, up the inner thigh, and across the buttocks. Primarily seen in dressage competition, where the “sticky” seat helps riders stay quiet and deep in the saddle as they sit the gaits of their horses. They are designed to be worn with tall boots or half chaps.
- **Jockeys' Breeches:** Made from a white lightweight fabric (usually nylon) and typically have elasticized lower legs. Also known as silks.
- **Jodhpurs:** A type of riding pants with legs extending to the ankles, where they end in a small cuff that fits over the top of a low riding boot. These riding pants have elastic straps or “stirrups” that run under the rider's boots, and are usually worn with garters, to prevent them from riding up. They are meant to be worn with jodhpur boots, also known as paddock boots, which come up just above the ankles.
- **Kentucky Jodhpurs:** Full-length riding pants used exclusively in saddle seat style riding. Like hunt seat jodhpurs, they are close-fitting from waist to ankle, but differ in that they are much longer, ending with a flared bell bottom that fits over the jodhpur boot, usually extending longer than the heel of the boot in back, and covering the arch of the foot (but not the toe) in front. Like the hunt seat jodhpurs, they have elastic straps that run under the boot to help hold the pant leg in place.
- **Knee Patch Breeches:** Breeches that stop mid-calf, designed to be worn with tall boots, which come up to the knee, or with half chaps and short paddock boots. They have grippy material, usually leather or a “grippy” synthetic, only on the inside of the knee area. These are the only type of breeches worn by hunt seat riders. Show jumpers, eventers, show hunters, as well as some endurance riders, and pleasure riders also often use the breeches.

	Weight	Price
<i>Full Seat Breeches</i>	Nil	\$119
<i>Jockeys' Breeches</i>	Nil	\$140
<i>Jodhpurs</i>	Nil	\$150
<i>Kentucky Jodhpurs</i>	Nil	\$150
<i>Knee Patch Breeches</i>	Nil	\$47

20. EQUESTRIAN EQUIPMENT

BOSAL

A type of noseband used on the classic hackamore of the vaquero tradition. It is usually made of braided rawhide and is fitted to the horse in a manner that allows it to rest quietly until the rider uses the reins to give a signal. It acts upon the horse's nose and jaw. Though seen in both the "Texas" and the "California" cowboy traditions, it is most closely associated with the "California" style of western riding.

Weight	Nil
Price	\$25-\$50

BREASTPLATE OR BREASTCOLLAR

Prevents saddles of all styles from sliding sideways or backward on a horse's back

Weight	1 lb
Price	\$50-\$200

BRIDLE

A piece of equipment used to direct a horse. The bridle includes both the headstall that holds a bit that goes in the mouth of a horse, and the reins that are attached to the bit.

Weight	Nil
Price	\$20-\$300

BRUSHING BOOTS

Brushing boots are used to protect a horse's legs during exercise, especially when they are in fast work, or if they are showjumping or eventing.

Weight	Nil
Price	\$20-\$50

CRUPPER

A piece of tack used on horses to keep a saddle, harness or other equipment from sliding forward.

Weight	Nil
Price	

HACKAMORE

A type of headgear for a horse which does not have a bit. Instead, it has a special type of noseband that works on pressure points on the horse's face, nose, and chin.

Weight	Nil
Price	\$50-\$300

HALTER

A headgear that is used to lead or tie up horses; it fits behind the ears, and around the muzzle. To handle the animal, usually a lead rope or lead shank is attached.

Weight	Nil
Price	\$20-\$50

HARNESSES – CARRIAGE OR VAN HARNESS

Lighter weight but strong harness used for pulling passenger vehicles such as buggies or carts, or other lighter loads.

Weight	Nil
Price	\$30-\$90

HARNESSES – CART OR WAGON HARNESS

Harness for pulling heavier vehicles with a horse collar. The traces are often made of chain and attach to loops on the shafts of the vehicle.

Weight	Nil
Price	\$500-\$1,000

HARNESSES – PLOW HARNESS

Similar to the cart harness but without breeching, used for dragged loads such as plows, harrows, canal boats or logs.

Weight	Nil
Price	\$500-\$1,000

HARNESSES – RACING HARNESS

The racing harness, like the show harness, has a breastcollar harness, but horses are hitched to a very lightweight two-wheeled cart, called a sulky.

Weight	Nil
Price	\$500-\$1,000

HARNESSES – SHOW HARNESS

Show harnesses are used for light cart driving, have a breastcollar instead of a horse collar and are made with strong but refined-looking leather throughout.

Weight	Nil
Price	\$500-\$1,000

HOBBLE

A device that prevents or limits the locomotion of a human or an animal, by tethering one or more legs.

Weight	Nil
Price	\$20

HORSE BLANKET

A horse blanket or rug is a blanket or animal coat intended for keeping a horse warm or otherwise protected from wind or other elements. They are tailored to fit around a horse's body from chest to rump, with straps crossing underneath the belly to secure the blanket yet allowing the horse to move about freely.

Weight	2 lbs
Price	\$75-\$100

LEAD

A lead, lead line and lead rope (USA) or head collar rope (UK), is used to lead an animal such as a horse. Usually, it is attached to a halter. The lead may be integral to the halter or, more often, separate. When separate, it is attached to the halter with a heavy clip or snap so that it can be added or removed as needed.

Weight	Nil
Price	\$15

PACK SADDLE

A pack saddle is any device designed to be secured on the back of a horse, mule, or other draft animal so it can carry heavy loads such as luggage, firewood, small cannons or other weapons too heavy to be carried by humans, etc.

Ideally the pack saddle rests on a saddle blanket or saddle pad to spread the weight of the saddle and its burden on the pack animal's back. The underside of the pack saddle is designed to conform well to the shape of the pack animal's back. It is typically divided into two symmetrical parts separated by a gap at the top to ensure that the weight being carried does not rest on the draft animal's backbone and to provide good ventilation to promote the evaporation of sweat.

Weight	10 lbs
Price	\$300-\$600

REINS

Reins are items of horse tack, used to direct a horse or other animal used for riding or driving. Reins can be made of leather, nylon, metal, or other materials, and attach to a bridle via either its bit or its noseband.

Weight	Nil
Price	\$10-\$100

SADDLE BLANKET

A blanket which is inserted under a saddle in order to absorb sweat, cushion the saddle, and protect the horse's back. Saddle blankets have been used for millennia with all types of saddles. There are a number of different modern designs. While a pad or blanket cannot take the place of a properly fitted saddle, pads with shims or blankets with a special design can partially compensate for minor fitting problems.

Weight	2 lbs
Price	\$30-\$40

SADDLEBAGS

Saddlebags are bags that are attached to saddles and sit in various positions, on the side, in front or behind the saddle. They attach to the saddle's girth and to the saddle itself by straps and ties. They can be made from various materials; although leather was the traditional material it is heavier and requires more maintenance than many modern versions.

Saddlebags are one of four types:

- **Pannier:** A basket, bag, or similar container, carried in pairs either slung over the back of a beast of burden. Traditional panniers for animal transport are typically made of wicker or lightweight plastic, and built to distribute weight evenly on either side of the animal.
- **Pommel Bags:** Sit in front of the saddle.
- **Regular Saddlebags:** Sit behind of the saddle.
- **Rifle Holster:** A specialized type of saddlebag used to hold a rifle, most commonly in a location where it can be easily withdrawn for immediate use.

	Weight	Price
<i>Pannier</i>	Nil	\$10-\$100
<i>Pommel Bags</i>	Nil	\$50-\$500
<i>Regular Saddlebags</i>	Nil	\$50-\$500
<i>Rifle Holster</i>	Nil	\$30-\$50

SADDLES – AUSTRALIAN STOCK SADDLE

The Australian Stock Saddle is in popular use all over the world for activities that require long hours in the saddle and a secure seat. The saddle is suitable for cattle work, starting young horses, everyday pleasure riding, trail riding, endurance riding and polo, and is also used in Australian campdrafting competitions and stockman challenges.

Weight	10 lbs
Price	\$700-\$1,200

SADDLES – BAREBACK PAD

Usually a simple pad in the shape of a saddle pad, made of Cordura nylon or leather, padded with fleece, wool or synthetic foam, equipped with a girth. It is used as an alternative to bareback riding to provide padding for both horse and rider and to help keep the rider's clothing a bit cleaner. Depending on materials, bareback pads offer a bit more grip to the rider's seat and legs.

Some bareback pads come with handles and even stirrups, but without being attached to a saddle tree these appendages are actually unsafe and pads with them should be avoided

Weight	1 lb
Price	\$100-\$200

SADDLES – ENDURANCE RIDING SADDLE

A saddle designed to be comfortable to the horse, with broad panels but lightweight design, as well as comfortable for the rider over long hours of riding over challenging terrain.

Weight	10 lbs
Price	\$400-\$600

SADDLES – ENGLISH SADDLE

This style of saddle used in all of the Olympic and FEI equestrian disciplines, except for the newly-approved FEI events of equestrian vaulting and reining. Most designs were specifically developed to

allow the horse freedom of movement, whether jumping, running, or moving quickly across rugged, broken country with fences.

Weight 10 lbs
Price \$1,500-\$3,000

SADDLES – FLEXIBLE SADDLE

Uses a traditional tree; however the panels are not permanently attached to the finished saddle. These saddles use flexible panels (the part that sits along the horse's back) that are moveable and adjustable to provide a custom fit for the horse and allow for changes of placement as the horse's body develops.

Weight 10 lbs
Price \$300-\$600

SADDLES – MCCLELLAN SADDLE

A riding saddle designed by General George B. McClellan and adopted by the Army in 1859. The McClellan saddle was a long-lasting success and continued in use, in various forms, from the period of its adoption until the US Army's last horse cavalry and horse artillery was dismounted in World War II.

Today, the McClellan saddle continues to be made in the United States for used by ceremonial mounted units in the US Army, as a pleasure saddle, and as a saddle for historical reenactors.

Weight 10 lbs
Price \$500-\$1,000

SADDLES – MILITARY OR POLICE SADDLE

Similar to an English saddle in general design, but with a tree that provides greater security to the rider and distributes a rider's weight over a greater area so that the horse is comfortable with a rider on its back for long hours.

Weight 10 lbs
Price \$200-\$500

SADDLES – SIDESADDLE

Sidesaddle riding is a form of equestrianism that uses a type of saddle which allows a rider (usually female) to sit aside rather than astride a horse, mule or pony. Sitting aside dates back to antiquity and developed in European countries in the Middle Ages as a way for women in skirts to ride a horse in a "modest" fashion while also wearing fine clothing. It has retained a specialty equestrian niche even in the modern world.

Weight 10 lbs
Price \$500-\$800

SADDLES – TREELESS SADDLE

Not built upon a solid saddle tree, is intended to be flexible and comfortable on a variety of horses, but also not always able to provide the weight support of a solid tree. The use of an appropriate saddle pad is essential for treeless saddles. Available in both Western and English designs

Weight
Price \$300-\$800

SADDLES – WESTERN SADDLE

Familiar to movie viewers, rodeo fans, and those who have gone on trail rides at guest ranches. Western saddles are used for western riding and are the saddles used on working horses on cattle ranches throughout the United States, particularly in the west. This saddle was designed to provide security and comfort to the rider when spending long hours on a horse, traveling over rugged terrain.

Weight 10 lbs
Price \$300-\$700

SHADOW ROLL

A shadow roll is a piece of equipment, usually made of sheepskin or a synthetic material, that is attached to the noseband of a horse's bridle. Like blinkers, it partially restricts the horse's vision, and helps him to concentrate on what is in front of him, rather than objects on the ground (such as shad-

ows). Shadow rolls are most commonly used in horse racing, as some horses will try to jump shadows on the ground which will slow them down.

Weight Nil
Price \$30-\$85

SPUR

A spur is a metal tool designed to be worn in pairs on the heels of riding boots for the purpose of directing a horse to move forward or laterally while riding. It is usually used to refine the riding aids (commands) and to back up the natural aids (the leg, seat, hands and voice). The spur is used in every equestrian discipline. There are rules in most equestrian organizations about spur design, use and penalties for using spurs in any manner that constitutes animal abuse.

Weight Nil
Price \$12-\$100

SURCINGLE

A surcingle is a strap made of leather or leather-like synthetic materials such as nylon or neoprene, that fastens around a horse's girth area. A surcingle is used for ground training and over a saddle or horse pack to stabilize the load. It also is a primary component of a horse harness.

Weight Nil
Price \$50-\$200

TERRET

A terret is a metal loop on a horse harness, guiding the reins and preventing them from becoming tangled or snagged on the harness.

Weight Nil
Price \$20

TWITCH

A twitch is a device that is used to restrain horses for various stressful situations, such as veterinary treatment. It is made up of a stick-like handle or a metal ring with either a loop of chain or rope on the end, which is wrapped around the upper lip of the horse.

Weight Nil
Price \$20

WHIPS – BUGGY WHIP/COACHWHIP

A buggy whip is a horse whip with a long stiff shaft and a relatively short lash used for driving a horse harnessed to a buggy or other small open carriage. A coachwhip, usually provided with a long lash, is used in driving a coach with horses in front of other horses.

Though similar whips are still manufactured for limited purposes, the buggy whip industry as a major economic entity ceased to exist with the introduction of the automobile. A resurgence of interest in the international sport of combined driving and historical carriage driving, sports enjoyed by people of all ages, has allowed some buggy whip manufacturers to stay in business, serving this specialty niche market.

Weight Nil
Price \$50

WHIPS – CROP

A crop, sometimes called a riding crop or hunting crop, is a short type of whip without a lash, used in horseback riding, part of the family of tools known as horse whips. Crops are most commonly seen in sports such as show jumping, hunt seat style English riding, horse racing, and in rodeo speed sports such as barrel racing.

It is to back up the leg aids, when the horse is not moving forward, or occasionally as a disciplinary measure (such as when a horse refuses or runs out on a jump). Less often, it may be used to tap the horse on the shoulder as a simple reminder to the animal that the rider is carrying it.

Weight Nil
Price \$20

WHIPS – QUIRT

A quirt is a forked type of stock whip which usually has two falls at the end (like the tails on some tawses). The falls on a quirt are made of leather, buffalo, or cow hide. The core of the quirt is usually a leather bag filled with lead shot, the main part including the handle is often made from braided rawhide, leather or kangaroo hide and is usually somewhat stiff but flexible.

Weight	Nil
Price	\$5-\$20

21. EXPLOSIVE EQUIPMENT

BLASTING MACHINE

A hand cranked electrical igniter which can fire up to 10 caps electrically. The machine generates current by muscular motion and never needs recharging or a battery.

Weight 0.5 kg
Price \$50

BOOBY TRAP KIT

This kit contains all the items (excluding explosives and blasting caps) for creating a simple booby trap. It consists of a spring-loaded electric pull-type detonator, attached to a hair-trigger pin. The pin is attached to a trip wire or cord (both included); when the wire is pulled the detonator is activated.

Weight 0.80 kg
Price \$150

CLAYMORE DETONATOR

This is the detonator used for igniting the claymore mine; can be jerry rigged for other explosives. This ignites an 8 seconds fuse that triggers the explosive.

Weight 0.05 kg
Price \$20

DEMOLITIONS KIT

Commonly used by demolitions squads, is a smaller version of the Engineer Demolitions Kit. Contains an assortment of blasting caps, time fuses, fuse wire and detonators to enable a character to rig explosive charges and fuse them for a time delay, remote detonation, contact, movement, pressure or tamper detonation.

Weight 5 kg
Price \$350

ELECTRICAL WIRE

This is a 100 meters spool of standard electrical wire used to carry ignition from the detonator to an electric blasting cap. Ignition is almost instantaneous. It can be used with any kind of detonator.

Weight 5 kg
Price \$75

ENGINEER DEMOLITIONS KIT

This kit contains an assortment of items to enable a person to rig explosives for detonation. It comes packed in a wooden crate. The kit includes:

1 Blasting Machine	50 Blasting Caps, Non-Electric
1 Engineer Demolitions Tools Set	50 Igniters, Pull
5 Igniters, Pull/Release	200 meters of Electrical Wire
5 Radio Detonators with remote	200 meters of Fuse, Instant
5 Timed Detonators	200 meters of Fuse, Timed
50 Blasting Caps, Electric	500 meters of Trip Wire

Weight 30 kg
Price \$750

ENGINEER DEMOLITIONS TOOLS SET

Items needed to prepare explosives, the set includes:

1 Circuit Tester	1 Pair of Pliers
1 Knife	1 Pair of Wire Cutters
1 Pair of Crimpers	1 Roll of Tape

Weight 4 kg
Price \$50

IGNITERS

Igniters are used to ignite a fuse or can be placed directly into the explosive. A pull igniter (such as the M60 Fuse Igniter) is typically used in simple booby traps. A pull/release igniter (such as the M4A1) can be used in more sophisticated booby traps, such as trip wires detonating when pulled or cut. The difference between them is that a pull igniter is a single direction igniter (it ignites when pulled), whilst pull/release igniters are bi-directional (they ignite when pulled or tension is released).

Both igniters work underwater, and are usually triggered by removing the safety pin and pulling the ring.

	Weight	Price
<i>Igniter, Pull</i>	0.07 kg	\$30
<i>Igniter, Pull/Release</i>	0.08 kg	\$45

INSTANT DETONATOR

The instant detonator (typified by the M2A1) is a combination between a detonator, a fuse and a blasting cap. The detonator is embedded into the explosive and a T-ring is pulled. This ignites an 8 seconds fuse that triggers the explosive.

Weight	0.05 kg
Price	\$90

RADIO-DETONATION BROADCAST UNIT

An electrical device which enables a charge to be detonated from a remote location via radio signal. The broadcast unit is specially adapted to send a coded signal to prevent accidental detonation of the charge by harmonics or by induction. The unit may broadcast signals from up to 1 km; longer distances may be possible with an improvised longer-ranged radio.

Weight	0.3 kg
Price	\$350

RADIO-DETONATION RECEIVER UNIT

An electrical device which enables an explosive charge to be detonated from a remote location via radio signal. The unit is about the size of a pack of chewing gum, and contains a ROM chip and a battery. It is attached to a normal electrical blasting cap.

The receiver and its associated broadcast unit are specially adapted to send and receive a coded signal to prevent accidental detonation by harmonics or by induction. The unit may receive signals from up to 1 km; longer distances may be possible with an improvised ranged radio.

Addition of a voice recognition chip to the circuit (DIF:Electronics) makes possible detonation by a single specific word or sound sent by the transmitter.

Weight	Nil
Price	\$250

RADIO DETONATORS

Radio detonators are remote-controlled, battery-powered devices that generate an electric current upon receipt of a radio signal. Some are supplied with their own transceiver; others may be used with a programmable hand transceiver.

Weight	0.3 kg
Price	\$135

ROAD CRATER KIT

This is a kit designed to allow characters to put large craters in roadways, preventing most vehicle traffic and slowing down tank and AFV traffic.

Weight	5 kg
Price	\$100

TIMED DETONATORS

Timed detonators are adjustable, digital devices (such as the M1 Timer/Detonator), which can have a time delay set from 10 seconds to 48 hours. Upon the clock elapsing, an electric current is generated.

Weight 0.25 kg
Price \$135

TRIP WIRE

A fine plastic wire for creating booby traps. It comes in two 100 m spools. Comes with 4 rolls of wire: 2 are yellow (for fall colors) and 2 are olive drab (for pine trees or grass).

Weight 0.40 kg
Price \$10

22. FARRIER'S EQUIPMENT

A farrier is a specialist in equine hoof care, including the trimming and balancing of a horse's hoof and the placing of shoes to the horse's foot. A farrier couples a subset of the blacksmith's skills (fabricating, adapting, and adjusting metal shoes) with a subset of veterinary medicine (knowledge of the anatomy and physiology of the lower limb) to address the care of the horse's feet.

12" SADDLE HORSE CLINCHER

A clincher used on larger clenches in saddle horse hooves.

Weight	Nil
Price	\$55

CLINCH BLOCK

This is usually just a small piece of metal with an angled edge. The block is used to put underneath the wrung off nail when "setting" the clenches (horseshoe nails) before clinching.

Weight	2 lbs
Price	\$9-\$11

CLINCH CUTTER

A tool used to knock a clench down when removing a horseshoe.

Weight	2 lbs
Price	\$32

CLINCH GOUGE

This tool is designed to remove excess hoof under the nail when clinching.

Weight	Nil
Price	\$25

COMBINATION HORSESHOE SPREADER/PULLER

They're used, as the name implies, to pull off a horse's shoe when necessary and for ease in spreading most shoe sizes and styles, and can also be used to cut nails. A farrier uses this whenever resetting or removing a horse's shoes.

Weight	Nil
Price	\$60

CREASE CLENCH PULLER

This tool gets into the tight spots that other farrier tools can't reach. The slender jaws slip into the crease of shoes to allow for easy removal of individual clenches. The well balanced "feel" of the tool and its ability to retrieve misdriven clenches make them an essential tool for all farriers.

Weight	Nil
Price	\$55

FARRIER'S APRON

A specialized style of chinks without fringe, also known as horseshoeing chaps. They protect the upper legs of farriers from getting scratched or cut up in the process of shoeing or otherwise treating the hooves of horses. Some designs have a breakaway front for safety while working. Farrier's aprons are also sometimes used by ranch hands when stacking hay to reduce wear on clothing.

Weight	Nil
Price	\$41

FARRIER SHOEING KIT 6-PIECE

This kit is designed as a basic horseshoeing kit, for a beginner farrier. This kit includes:

1 3-lbs Driving Hammer	1 Clincher
1 12" Nipper	1 Hoof Knife
1 14" Farriers Rasp	1 Rasp Handle

Weight	Nil
Price	\$55

FARRIER TOOL KIT 9-PIECE

This kit is designed for the basic or beginner farrier. Kit includes:

1 2-lbs Driving Hammer	1 Clinch Cutter
1 12" Pritchel	1 Curved Jaw Clincher
1 14-oz Driving Hammer with 13" handle	1 Heavy Duty Hoof Pick
1 14" Blackmaster Rasp with wood handle	1 Wide Right Hand Hoof Knife
1 15" Nipper	

Weight	Nil
Price	\$350

HOOF ANTISEPTIC

Used as an antiseptic and wound-healing agent, and as a diagnostic tool to locate cavities during resection. It penetrates the hoof into all infected cavities, and can be used as a topical treatment or under a patch repair. Hoof antiseptic is made for White Line Disease, Hoof Rot, and Fungus.

	Weight	Price
<i>Hoof Antiseptic, 2 oz</i>	Nil	\$10
<i>Hoof Antiseptic, 4 oz</i>	Nil	\$12
<i>Hoof Antiseptic Spray, 8 oz</i>	Nil	\$11

HOOF BUFFING ATTACHMENT

Quickly remove any marks, rings or gouges on the hoof wall. Attaches to any drill with a $\frac{3}{8}$ " or larger chuck. An appropriate drum belt slips over the hoof buffer's rubber bladder, which is inflated to hold the drum belt in place. Drum belts will usually last for 8 to 15 horses, depending on conditions.

	Weight	Price
<i>Hoof Buffing Attachment</i>	Nil	\$64
<i>60 Grit Drum Belt for Hoof Buffer</i>	Nil	\$2
<i>80 Grit Drum Belt for Hoof Buffer</i>	Nil	\$2
<i>100 Grit Drum Belt for Hoof Buffer</i>	Nil	\$2
<i>Replacement Bladder for Hoof Buffer</i>	Nil	\$3

HOOF GAUGE

Dual scales measures both hoof angle and toe length (toe to coronary band) and aids in matching hooves to correct angle and length. Works on most saddle horses.

Weight	Nil
Price	\$38

HOOF GUARD SEALANT

A clear sealant for stronger, healthier hooves. Seals nail holes and small cracks in the hoof wall; holds in natural moisture; added UV protection.

	Weight	Price
<i>Hoof Guard Sealant, 16 oz</i>	Nil	\$15
<i>Hoof Guard Sealant, 32 oz</i>	Nil	\$22

HOOF KNIFE

Used for cutting excess horn from the sole of the hoof.

Weight	Nil
Price	\$16-\$30

HOOF NIPPERS

- **12" Hoof Nippers:** Designed for trimming hooves of the smaller hooved horses.
- **14" Hoof Nippers:** Designed for trimming hard hooves and trimming on most breeds.
- **15" Hoof Nippers:** Designed for trimming hooves of larger breeds.

	Weight	Price
<i>12" Hoof Nipper</i>	Nil	\$179
<i>14" Hoof Nipper</i>	Nil	\$183
<i>15" Hoof Nipper</i>	Nil	\$183

HOOF PAD

Weight	Nil
Price	\$3-\$10

HOOF PICK

Used to remove mud, manure, and rocks from the sole of the hoof. In the winter, hoof picking also provides the chance to remove packs of snow from the horse's hooves.

Weight	Nil
Price	\$1-\$30

HOOF STAND

Provides stable and safe support for the horse, allowing it to relax without putting all of its weight on the farrier while this is doing his work on the horse's hooves.

Weight	10 lbs
Price	\$30-\$200

HOOF TESTER

A device used to locate lameness or trouble areas in the horse's hoof. The adjustable models can be used with only one hand, and with the correct adjustment there is not any part of the hoof that cannot be checked with them.

	Weight	Price
<i>Hoof Tester</i>	Nil	\$50
<i>Hoof Tester, Adjustable</i>	Nil	\$63
<i>Hoof Tester, Large</i>	Nil	\$190

HOOF TRIMMING KIT

The kit contains a total of 9 hoof trimming instruments:

1 Clinch Cutter	1 Hoof Pick
1 Clincher	1 Nipper
1 Hammer	1 Pritchel
1 Handle	1 Rasp
1 Hoof Knife	

Weight	Nil
Price	\$180

HORSE THERMOMETER

Used to take the horse's temperature

Weight	Nil
Price	\$79

HORSESHOE

A U-shaped item made of metal or of modern synthetic materials, nailed or glued to the hooves of horses and some other draught animals. Like a shoe on a human, it is used to protect the animal's feet from wear and tear.

	Weight	Price
<i>Aluminum</i>	4 lbs	\$20-\$30
<i>Steel</i>	4 lbs	\$10-\$30
<i>Synthetic</i>	4 lbs	\$40-\$75

HORSESHOE NAILS

Used to secure the horseshoe to the horse's foot.

	Weight	Price
<i>100 per box</i>	Nil	\$10
<i>250 per box</i>	Nil	\$20
<i>500 per box</i>	Nil	\$30
<i>1,000 per box</i>	Nil	\$60

RASPS

A coarse file (tool) that is used to file down the horse's hooves.

- **14" Farriers Rasp:** Multi-purposed, the rasp will both finish a trim by rasping off any extra hoof and rounding up the edges, or finish a shoeing job by rasping down nails and wall as needed.
- **17" Big Hoof Draft Rasp:** The Big Hoof Rasp is a full 17" rasp from heel to shoulder, giving 3" more than a standard rasp. This rasp allows farriers to use fewer strokes, increasing efficiency and reducing fatigue. This rasp can be used for warm bloods, draft horses, or any large horses.

	Weight	Price
<i>14" Farrier Rasp</i>	Nil	\$14
<i>17" Big Hoof Draft Rasp</i>	Nil	\$25

SHOE STUDS

Studs or Screw-in Calks are traction devices screwed into the bottom of a horse shoe. Stud improve a horse's balance and grip over uneven or slippery terrain, and can make him move better and jump more confidently in poor footing.

The shoes are "tapped," or drilled, on either heel of the shoe, so that different studs may be applied as needed and changed according to the footing conditions and the type of work performed by the horse. Therefore, a horse may have a maximum of 8 studs (2 per foot).

	Weight	Price
<i>Screw-In Ice-3 Stud, $\frac{3}{4}$"</i>	Nil	\$2
<i>Screw-In Ice-4 Stud, $\frac{5}{8}$"</i>	Nil	\$1
<i>Screw-In Ice-6 Stud, $\frac{9}{16}$"</i>	Nil	\$1
<i>Screw-In Ice-7 Stud, $\frac{11}{16}$"</i>	Nil	\$1
<i>Screw-In Ice-8 Stud, $\frac{1}{2}$"</i>	Nil	\$1

SHOEING BOX

It gives a farrier access to his tools without bending, saving from unnecessary strain on the back. It features 2 clenches compartments, a large rubber lined tool tray, 2 rasp holsters, a knife holster, and casters legs. Height: 22", width: 16", depth 12".

Weight	16 lbs
Price	\$30

STALL JACK

Very similar to a Hoof Stand, but is designed to support the leg of the horse.

Weight	Nil
Price	\$174

23. FOOD STUFFS

BEVERAGES – ELECTROLYTE DRINK SACHETS

The body quickly uses vital supplies of minerals and nutrients whilst in the wilderness, and it is essential that these be replaced regularly through liquid intake. These sachets are of isotonic drinks such as Gatorade, Lucozade or Isosport and can be dissolved in drinkable water to replace these minerals.

	<i>Pack of 20</i>
Weight	Nil
Price	\$10

BEVERAGES – PEDIALYTE

It has more electrolytes than Gatorade and less sugar. It sounds great until you read the ingredients and see that it contains Sucrolose (otherwise sold as Splenda). This artificial sweetener is created by chlorinating regular table sugar, which by doing so reduces the calories. The stuff tastes like crap.

Pedialyte is typically used to re-hydrate little kids who have the runs, which is ironic since Sucrolose causes the runs (among other unsavory side effects) in lab animals. Sucrolose has only been on the market since 1976 and only on the American market since 1998, which means nobody knows much about its long term effects so don't forget how excited everyone was about saccharine when it was first introduced.

Volume	1 liter
Price	\$5.50

BEVERAGES – SODA

Sugar-laden carbonated beverage. Some Americans have been known to trade almost anything for a can of "pop". Many will also have a strong opinion about which brand is valuable and which is worthless, especially the pre-war colas. Locally manufactured varieties come in a limited range of flavors, ginger beer, ginger ale, sassafras, and root beer being most common.

	Weight	Price
<u>Local Manufacture</u>		
2 liters Plastic Bottle	2 kg	\$10
1 liter Plastic Bottle	0.90 kg	\$5
0.4 liter Glass Bottle	0.43 kg	\$2
<u>Pre-War Manufacture</u>		
2 liters Plastic Bottle, Cola	2 kg	\$500
2 liters Plastic Bottle, Other	2 kg	\$100
1 liter Plastic Bottle, Cola	0.90 kg	\$250
1 liter Plastic Bottle, Other	2 kg	\$50
12 oz Aluminum Can	Nil	\$15

BEVERAGES (ALCOHOL) – BEER

Beer is still being brewed widely; its main vice is the fact that it consumes edible food to make. This does not, however, keep it from being made in fairly large quantities.

	<i>Bottle</i>
Weight	0.25 kg
Price	\$3

BEVERAGES (ALCOHOL) – HARD LIQUOR

Gin, scotch, vodka, whisky and a host of others. These are specific types of alcohol valued for their flavor, not mere grain alcohol (see fuel).

	<i>Current bottling</i>	<i>Pre-war bottling</i>
Volume	1 liter	1 liter
Price	\$10	\$1,000

BEVERAGES (ALCOHOL) – WINE

Although less common than beer, wine is still produced in reasonably large quantities.

	<i>1 Bottle</i>
Weight	0.90 kg
Price	\$10

BEVERAGES (MILK) – DEHYDRATED MILK

Highly sought after in the Third World, almost as much as the UHT Milk, and it may also be consumed safely by the lactose-intolerant.

Weight	1 kg
Price	\$15

BEVERAGES (MILK) – UHT (ULTRA-HIGH TEMPERATURE) MILK

These are small, single-serving boxes of milk that have been specially treated to kill all microbes and keep fresh even under high temperatures without refrigeration. These items were highly sought after by soldiers and civilians alike, especially mothers with infants. A single box provides 236 ml of milk; the container comes with a straw. Several variations are available, including whole and 2% versions of white, chocolate, and strawberry.

Minimum shelf life under poor, high-temperature conditions is 10 months, and most last for several years, if unopened.

	<i>Box</i>	<i>Case of 27</i>	<i>Pallet of 3,240</i>
Weight	0.25 kg	6.75 kg	825 kg
Price	\$7	\$150	\$18,000

BEVERAGES (WATER) – AQUA BLOX

Aqua Blox is packaged in aseptic (drink box) containers. “Purified water” means that the water contains less than 10 parts/million of total dissolved solids and minerals. The water used in Aqua Blox is also commercially sterile which means there is no microbial growth in it. Because Aqua Blox uses Ultra High Temperature (UHT) pasteurization, sterilized packaging, airtight and light resistant containers, this water has a 5 year shelf life and is US Coast Guard approved.

	<i>Case of 15</i>
Weight	1 kg
Price	\$15

BEVERAGES (WATER) – BOTTLED WATER

Bottled water is drinking water packaged in bottles for individual consumption and retail sale. The water used can be glacial water, spring water, well water, purified water as well as public water sources (i.e. tap water). Many countries, particularly developed countries, regulate the quality of bottled water through government standards, typically used to ensure that water quality is safe and labels accurately reflect bottle contents. In many developing countries, however, such standards are variable and are often less stringent than those of developed nations.

Some of the more common US types of bottled water are listed below:

- **Artesian Water:** This type of water originates from a confined aquifer that has been tapped. The distinguishing feature of water from an artesian aquifer is that it flows from the tap due to gravity; the subterranean water level is at a height greater than that of the location of the tap.
- **Fluoridated Water:** This type of water contains fluoride added within the limitations established in the FDA’s Code of Federal Regulations. Includes water classified as “For Infants” or “Nursery”.
- **Ground Water:** This type of water is from an underground source that is under a pressure equal to or greater than atmospheric pressure.
- **Mineral Water:** This type of water contains at least 250 parts/million total dissolved solids. It comes from a source tapped at one or more bore holes or springs, and originates from a geologically and physically protected underground water source. No minerals may be added.
- **Purified water:** This type of water has been produced by distillation, deionization, reverse osmosis, or other suitable processes. Purified water may also be referred to as “demineralized water”. It meets the definition of “purified water” in the United States Pharmacopoeia.
- **Sparkling Water:** This type of water contains the same amount of carbon dioxide that it had at emergence from the source. The carbon dioxide may be removed and replenished after treatment.

- **Spring Water:** This type of water comes from an underground formation from which water flows naturally to the Earth's surface.
- **Sterile Water:** This type of water meets the requirements under “sterility tests” in the United States Pharmacopoeia.
- **Well Water:** This type of water is taken from a well.

	<i>Case of 25</i>
Weight	6.5 kg
Price	\$25

BEVERAGES (WATER) – WATER, DE (DRINKING, EMERGENCY)

Plastic pouches of distilled water for emergency use by aircrews and life raft occupants for use after a crash, bailout, or ship sinking. They are guaranteed fresh for 5 years after manufacture, and contain 118 ml of water each, with a nipple for drinking.

	<i>Pouch</i>	<i>Case of 24</i>
Weight	0.12 kg	3 kg
Price	\$2	\$38

BEVERAGES (WATER) – WATER, DS (DRINKING, STERILE)

This is a larger container of emergency water, also used by medical personnel. It is packaged in a rigid plastic bottle, and contains 473 ml of water.

	<i>Bottle</i>	<i>Case of 24</i>
Weight	0.5 kg	12 kg
Price	\$8	\$150

BEVERAGES (WATER) – WATER BARREL

This large container of water is found in old Civil Defense Shelters and usually found in groups of 3; although they are quite old, they still can be found closed and unopened. The container is airtight, and reusable.

Weight	20 kg
Price	\$50

CAFFEINE GUM

This gum, available in Spearmint and Icy Mint, contains caffeine, guarana, and ginseng. It is perfect if you need a way to stay awake and alert for three days straight, like through the Ranger & Sapper School, where the only edibles you're allowed to take are gum and chewing tobacco.

Two pieces of “Jolt Gum” = 1 cup of coffee. One piece = a “regular” cola.

	<i>Pack of 12 pieces</i>
Weight	
Price	\$2

CANDY

Weight	1 kg
Price	\$3

CHEWING GUM

Weight	1 kg
Price	\$2

CHOCOLATE

Weight	1 kg
Price	\$5

DOMESTIC/COMMON FOOD

Pre-prepared food such as field rations or locally made meals. Required intake is 2 kg per day.

Weight 1 kg
Price \$4

EMERGENCY RATIONS – DATREX EMERGENCY RATIONS

Approved by the US Coast Guard. Each white ration package measures 3.5" x 3" x 2.5" and consists of 12 bars of compressed concentrated food, which is enough food to last 1 person over 2 days. They taste somewhat like a shortbread cookie and are very filling. Ingredients: Wheat Flour, Vegetable Shortening, Cane Sugar, Water, Coconut, and Salt. 5 year shelf life.

	Weight	Price		Weight	Price
1 Package	0.5 kg	\$6	5 Packages	2.5 kg	\$12
2 Packages	1 kg	\$9	6 Packages	3 kg	\$13
3 Packages	1.5 kg	\$10	7 Packages	3.5 kg	\$14
4 Packages	2 kg	\$12	8 Packages	4 kg	\$15

EMERGENCY RATIONS – EMERGENCY RATION PACK

This is a 900 calories meal. The waterproof container can be used for cooking or boiling water. It consists of:

Book of Matches	Snickers Bar
Button Compass	Solid Fuel Tablets 40 grams
Coffee (2 units)	Sugar (2 units)
Milk (2 units)	Survival Instructions
OXO Cube	Sweets
Pencil	Water Purifying Tablets (6 units)
Plain Mint Cake (85 grams)	Whistle
Poly Bag	Wire

Weight
Price

EMERGENCY RATIONS – EMERGENCY SURVIVAL FOOD TABLETS

A compact, light-weight, life saving food ration for any emergency. Ultra high calorie food tablets provide all essential vitamins and minerals, protein for strength, fat for endurance, dextrose and lactose for fast energy. Average consumption of 12 tablets per day may be decreased when other food is available in adequate amounts and quality, or increased in times of complete starvation or extreme physical exertion. It's possible to survive exclusively on these tablets up to 4-5 months, without any other foods.

The container may be carried easily in a standard GI canteen pouch. A separate plastic bag is packed under the lid so the tabs may be removed and carried in pocket or back pack, while this container is used as an extra canteen. Each bottle is a 15 day supply (180 tablets).

1 Bottle

Weight
Price \$30

EMERGENCY RATIONS – FOOD PACKET, SURVIVAL, ABANDON SHIP (FPSAS)

This is a minimal survival ration designed for storage on life rafts and life jackets and to be grabbed in a hurry when abandoning sinking ships. It consists of 6 calorically dense cereal bars. It will minimize the effects of acute starvation, but does not provide full nutrition. It is hard on the digestive process and it is not recommended for consumption more than 5 days in a row except in extreme circumstances. Required daily intake is 0.13 kg. Minimum shelf life is 5 years.

	<i>Ration</i>	<i>Case of 40</i>
Weight	0.15 kg	21.77 kg
Price	\$7	\$290

EMERGENCY RATIONS – FOOD PACKET, SURVIVAL, GENERAL PURPOSE (FPSGP)

An Air Force product, updated in 1993 to replace the old General Purpose Survival Packet, which had not been updated since the 1960s. It contents 6 compressed bars or tablets, packaged individually and contained in a paper board box. Food components include: all-carbohydrate wintergreen tablets, a short bread bar, a chocolate chip bar, a granola bar, and two corn flakes cereal bars. The ration also includes 1 packet each of lemon tea, sugar, and a soup and gravy base.

	<i>Box</i>
Weight	Nil
Price	\$200

EMERGENCY RATIONS – FOOD PACKET, SURVIVAL, GENERAL PURPOSE, IMPROVED (FPSGP-I)

This ration is designed for shot-down aircrews. It is a lightweight, high nutrition ration consisting of compressed food bars (2 cereals, 3 cookies, and 1 sucrose), lemon tea mix, dehydrated soup, and dehydrated gravy. It is nutritious, but not very filling, can lead to constipation, and contains a minimum of protein to reduce the amount of water intake required. Daily required intake is 0.3 kg. Minimum shelf life is 5 years.

	<i>Ration</i>	<i>Case of 24</i>
Weight	0.32 kg	8.26 kg
Price	\$13	\$250

EMERGENCY RATIONS – MAINSTAY EMERGENCY FOOD BARS

These food bars are moist, but not crumbly, with a pleasant lemon-vanilla flavor that stimulates salivation, and avoids the need for liquids to “wash it down”. Drinking of fluids with a Mainstay bar has the added advantage of producing a “full” feeling, after consumption, due to a slight expansion of the food matter. Mainstay bars are packaged 9 bars to a vacuum-sealed, Mylar foil pouch.

Mainstay food bars are for emergencies, and should not be consumed if other food stuffs are available.

	<i>Bar</i>	<i>Pouch of 9</i>	<i>Box of 3 pouches</i>
Weight	0.07 kg	0.61 kg	
Price			\$200

EMERGENCY RATIONS – MAYDAY EMERGENCY FOOD RATIONS

This emergency food bar is nutritious and tastes great. The Mayday food bar is baked under strict supervision to insure quality. These great tasting food bars have a 5 year shelf life and are US Coast Guard approved under the licensing requirements set forth in 1995. They can be stored outside in temperatures up to 149°F and require no preparation prior to eating. These bars are great for extended hiking trips as well as preparing any school, office or home for a natural or man made disaster.

	<i>Case of 24</i>
Weight	2 kg
Price	\$75

EMERGENCY RATIONS – SEVEN OCEANS RATION

The Seven Oceans Ration is a 500 gram compressed food bar ration specifically formulated to provide a balanced diet for survival at sea.

	<i>Case of 24</i>
Weight	13 kg
Price	\$10

EMERGENCY RATIONS – SURVIVAL BISCUIT

This is the food stuff found in old Civil Defense Shelters and consists of crackers, biscuits, wafers and carbohydrate supplement. Comes packed in a metal tin.

Weight	2 kg
Price	\$20

ENERGY BARS/ENERGY GEL

High-calorie, high-carbohydrate food supplements. If packing energy supplements, reduce required food rations by $\frac{1}{3}$. This assumes that the energy supplements are accounting for a maximum of $\frac{1}{3}$ of the caloric intake. If living off energy supplements alone figure 0.8 kg required intake per day; however, increase daily water intake. Living off energy supplements for more than 3 days would be extreme.

Weight	1 kg
Price	\$20

FREEZE-DRIED BEEF

Simply beef jerky food salt tasting beef.

Weight	Nil
Price	\$5

FRESH FISH

A common food source in costal towns and villages.

Weight	Various
Price	\$10-\$100

HUMANITARIAN DAILY RATION (HDR)

These rations are often given out to displaced populations living in refugee camps and devastated areas by government or relief organizations. They are designed to provide an inexpensive, but nourishing meal to people with moderate malnutrition. To appeal to the maximum number of people, the meals are vegetarian, with two entrees in each pouch, consisting of things such as bean salad, brown rice with lentils, lentil stew or red beans and rice. Other items such as crackers and peanut butter or jelly, flat bread, raisins, fruit bars, biscuits, and shortbread are also in the pouch. An accessory packet with red and black pepper, salt, sugar, matches, a moist towelette (alcohol-free), a napkin, and a spoon are included.

Foods are chosen for nutritional content and filling capability, as perhaps as little as one meal may be provided per day. Minimum shelf life is 3 years. Required daily intake is 1 kg.

	<i>Ration</i>	<i>Case of 10</i>
Weight	1.1 kg	12 kg
Price	\$5	\$40

MILITARY RATIONS – A-RATIONS

This is a mixed ration of semi-perishable and perishable food, based on the UGR-H&S. In addition to the standard non-perishable UGR food containers, the A-Ration contains luxury items like concentrated juice instead of instant, pastries, cooking oil, pudding, cake, cookies, steak sauce, and generally better-tasting food items. Items such as UHT milk, irradiated bread slices, breakfast cereal, hot sauce, catsup, jelly, spices, napkins, paper towels, Styrofoam cups, fiberboard trays and plastic utensils are also included.

Some of the items in the A-Ration require refrigeration to keep properly. If properly kept, the A-Rations have a minimum shelf life of 5 months, and may keep much longer. One module feeds 75 persons, a tier feeds 150 persons, and a pallet feeds 600 persons. Required intake is 2.2 kg per day.

	<i>Module</i>	<i>Tier</i>	<i>Pallet</i>
Weight	165 kg	325 kg	1,310 kg
Price	\$985	\$1,575	\$6,290

MILITARY RATIONS – B-RATIONS

USMC and special operations personnel in base camps primarily use these. They are midway between the A-Rations and the UGR-H&S, having no perishable components, but providing more palatable food than the UGR-H&S. 10 breakfast and 10 lunch/dinner menus are provided, with items such as juice, scrambled eggs, potatoes, canned fruit, and dinner dishes ranging from beef and gravy to baked chicken, with vegetables. Accessory items: margarine, peanut butter, jelly, coffee, cocoa, Kool-Aid, tea, fiberboard trays, cups, utensils, and trash bags.

The food is very nutritious and filling. The ration is delivered in 200-meal pallets, and is strong enough to be parachuted or sling-loaded. Minimum shelf life under poor conditions is 2 years. Required intake is 1.3 kg per day.

	<i>Pallet</i>
Weight	285 kg
Price	\$1,250

MILITARY RATIONS – C-RATIONS

These are the predecessor of the MREs, first used by the US and UK in World War II. The USMC was still using them as late as the early 1990s, and local variations are still quite common.

The ration consists of one can of meat or vegetarian dish, one can of fruit or vegetables, and a can with a bread or cake item, a can with crackers, a can with peanut butter, cheese spread, or jellies, a pouch with a candy disc (usually chocolate, sometimes with a filling), and an accessory package with

spoon, salt, pepper, instant coffee, sugar, creamer, chewing gum, matches, a P-38 can opener, and toilet paper (enough for one act if you're careful). Some countries also supply cigarettes, usually 4-6 per C-Ration. Required daily intake is 2 kg.

	<i>Ration</i>	<i>Case of 12</i>
Weight	1.1 kg	14 kg
Price	\$9	\$85

MILITARY RATIONS – K-RATIONS

These are lightweight rations, sort of halfway between the freeze-dried LRP Rations and the pre-packaged MREs. Countries unable to manufacture the LRP Rations generally issued them as light rations for long patrols and special operations units, and larger countries issued them as a cheaper alternative to LRP Rations and a more-durable alternative to MREs. They were also produced by independent, local manufacturers in a variety of forms as emergency and survival rations for civilians.

Typical contents were one can of chopped ham or turkey and egg mixture, a small pound cake, a freeze-dried biscuit, a fruit bar, a packet of coffee or cocoa, tablets of dextrose or malted milk balls, a packet of chewing gum or candy, one can of meat, potted meat, deviled ham, or chicken or turkey salad, and a daily dose of vitamins, along with a plastic spoon, a packet of salt, and toilet paper (enough for one act if you use it carefully). Required intake is 1.25 kg per day.

	<i>Ration</i>	<i>Case of 12</i>
Weight	0.42 kg	5.5 kg
Price	\$6	\$60

MILITARY RATIONS – T-RATIONS

In bivouac, the normal ration is A/C/A, or hot breakfast, MRE lunch, and hot dinner. This requires the mess section to cook twice daily, and keeping food fresh and restocked presents logistical problems.

The T-Ration is a pre-prepared meal kit consisting of sealed metal trays of entrees and side dishes such as meat, scrambled eggs, lasagna, etc., and items like canned fruit and vegetables, designed to feed multiple (18) soldiers per tray. They are heated by boiling the trays in water for a specific time. This system lessens mess personnel staffing requirements and eases preparation. There are 7 breakfast and 14 lunch/dinner menus. A module also contains various instant beverages, non-dairy creamers, hot sauce, jelly, Styrofoam cups, cardboard plates, and utensils. The T-Rations are normally supplemented with irradiated, individually wrapped bread slices, UHT Milk (both provided with the modules), and locally procured salad (which became harder to get as the war wore on).

The T-Rations are designed to last a minimum of 3 years under poor conditions, and if kept carefully, can last much longer. A can opener is required to open the tins. Required intake is 2 kg per day.

	<i>Module</i>	<i>Pallet of 24</i>
Weight	42 kg	1,010 kg
Price	\$215	\$4,125

MILITARY RATIONS – FIRST STRIKE RATION (FSR)

The FSR is a compact, eat-on-the-move ration designed to be consumed for no more than three days during initial periods of highly intense, highly mobile combat assaults. The FSR substantially reduces weight and cube load: a single FSR (24 hours food, 2,900 calories) is about 50% of the size and weight of 3 MREs (3,800 calories).

An FSR is packed in a single trilaminate bag and contains filled pocket sandwiches, a pouch of tuna or chicken, 2 packets of ERGO high-energy drink mix, 2 high-energy cereal bars, a dairy-based calcium-enriched dessert bar, 2 packets of beef jerky, fortified applesauce, nut and fruit mix, caffeinated gum, and an accessory pack containing a beverage mix, salt, matches, tissues, plastic spoon, and cleansing moist towelettes. The FSR has a 2-year shelf life when stored at 80°F.

Weight	1 kg
Price	\$20

MILITARY RATIONS – FOOD PACKET, CARBOHYDRATE SUPPLEMENT:

The Carbo Pack is a ration supplement that provides additional energy to the war fighter during intense, prolonged physical activity and highly stressful conditions. Components are easy to prepare, consume and digest providing a true eat-on-the-move capability. The Carbo Pack consists of two 8 oz carbohydrate electrolyte beverages and one carbohydrate rich bar providing minimum of 75 grams of

carbohydrate and 380 calories. The beverages can be re-hydrated and consumed from their pouch while the bar is ready to eat.

Weight
Price \$40

MILITARY RATIONS – HOSPITAL RATION SUPPLEMENT

This is a package of easily digestible foods usually fed to hospital patients in field hospitals, especially those with abdominal wounds. The ration could be a supplement to normal foods or given as the whole meal, depending on the condition of the patient. Normal troops also liked to acquire these packs as a nice change of pace from standard rations.

The pack consisted of cans of preserved fruit, concentrated orange juice, evaporated milk, instant coffee, condensed soup, canned meat, and tomato juice, as well as teabags, and packets of cocoa, breakfast cereal, and items such as plastic knives, spoons, and forks, straws, a roll of toilet paper, and a roll of paper towels. This package generally came in 5 kg and 10 kg sizes. Required intake is 2 kg per day.

Weight 1 kg
Price \$7

MILITARY RATIONS – LARGE UNIT RATION PACK

A metal 55 gallon drum, a large sack of soup base, some dried vegetables and a sack of hardtack. To serve add the soup base and dried vegetables together, add water and bring to a boil, and then let simmer. Serve 1 piece of hardtack per man with the soup.

The vegetables and soup base can be substituted for oatmeal, cream of wheat, grits or cornmeal to make breakfast porridge.

Weight 20 kg
Price Nil

MILITARY RATIONS – LONG-RANGE PATROL (LRP) RATIONS

These are freeze-dried, dehydrated, just-add-water rations, along with items such as ranger cookies, cookie bars, candy, powdered beverages such as Kool-Aid, cocoa, coffee, and apple cider. There is an accessory packet with a spoon, sugar, creamer, toilet paper (enough for 2 acts), matches, salt, and chewing gum. 8 menus are available.

Use of this ration for longer than 5 days at a time is not recommended, as it can cause digestive problems such as constipation and cramps. Required intake is 0.4 kg per day.

	<i>Ration</i>	<i>Case of 16</i>
Weight	0.45 kg	9.07 kg
Price	\$16	\$205

MILITARY RATIONS – MEAL, COLD WEATHER/LONG RANGE PATROL (MCW/LRP)

They are designed for use by both troops operating in extreme cold and by Long-Range Patrol units. They come in bags similar to the RCW and MRE, with one bag per day being used for troops in normal climates and three bags per day for troops in extreme cold. 12 menus are available, ranging from oriental chicken with rice to a western omelet, with fruit or sports bars, crackers and peanut butter, cheese or jelly, candy bars, and items such as nut raisin mixes, ramen, cookies, granola bars, or nuts. An accessory packet with items such as Kool-Aid, lemon tea, cocoa, coffee, creamer, sugar, chewing gum, matches, hot sauce, moist towelette, toilet paper, salt, and a spoon is in the packet.

Daily required intake is 0.55 kg in normal climate or 1.65 kg in extreme cold.

	<i>Bag</i>	<i>Case of 12</i>
Weight	0.55 kg	8.16 kg
Price	\$12	\$115

MILITARY RATIONS – MEAL, READY-TO-EAT (MRE)

This is the standard ration of many armies, with countless variations all over the globe. They are packed in a weatherproof plastic pouch or box, with individual foil or plastic pouches within for the ingredients of the meal.

In the US, 24 menu variations are available, with moist main entrees ranging from grilled beefsteak and chicken with noodles to a bean and rice burrito and meat loaf with gravy. Along with this is a side dish ranging from western beans and pound cake to Mexican rice and mashed potatoes. Other ingre-

dients include beef jerky, hard candy, applesauce, cheese and crackers, and soft pretzels, and usually there are items such as crackers with cheese, jelly, or peanut butter. Rounding out the MRE are beverage powders such as Kool-Aid, cocoa, and coffee, a small bottle of hot sauce, or dehydrated fruits. An accessory packet is in the MRE containing a spoon, sugar, non-dairy creamer, salt, chewing gum, matches, toilet paper (about enough for one act if you're careful), a moist towelette, a flameless heating device, and sometimes candy or apple cider.

The minimum shelf life is about 3 years, but I have kept some MREs for 10 years that were still edible. Required daily intake is 1.7 kg.

	<i>Ration</i>	<i>Case of 12</i>	<i>Pallet of 576</i>
Weight	0.86 kg	10.3 kg	494 kg
Price	\$8	\$77	\$3,685

MILITARY RATIONS – MEAL, READY-TO-EAT, VEGETARIAN (MREV)

This is similar to the MRE, but contains no food items derived from animals or animal by-products. 4 menus are available, and contain food items such as minestrone, beans and rice, and other bean dishes, along with crackers, peanut butter or jelly, potatoes, chocolate covered cookies, brownies and oatmeal cookie bars, cocoa or Kool-Aid, and a standard MRE accessory packet. All foods have been vitamin and mineral fortified to meet military nutritional requirements.

The minimum shelf life is 3 years. Required intake is 1.7 kg per day.

	<i>Meal</i>	<i>Case of 12</i>	<i>Pallet of 576</i>
Weight	0.86 kg	10.3 kg	494 kg
Price	\$10	\$95	\$3,810

MILITARY RATIONS – MEAL, RELIGIOUS, KOSHER (MRK)

This variant of the MRE is designed to meet the needs of Jewish and Islamic soldiers. It is based on meals acceptable to those groups, most notably without those items based on pork and ham (amongst other things). 10 menus are available. The meal comes in two bags, one with the entrée/meal items, and one with accessory items such as are normal in MREs and snack items such as tea, coffee, hot or cold cereal, items such as bagel chips or granola bars, and sealed containers of fruits or nuts such as raisins, prunes, peanuts, or almonds.

It has a somewhat shorter shelf life, starting at 10 months. Required intake is 1.7 kg per day. A similar meal exists, largely in South Asia, for Hindu troops, who cannot eat beef.

	<i>Ration</i>	<i>Case of 12</i>
Weight	0.86 kg	10.3 kg
Price	\$10	\$95

MILITARY RATIONS – MRE TRAY PACKS

These are large flat cans. The tray pack has 18 servings per tray with 4 trays per case, or 72 servings per case. You can warm them up in an oven, over a camp fire, wood heater top, or most any heat source.

	<i>Case</i>
Weight	10 kg
Price	\$90

MILITARY RATIONS – RATION, COLD WEATHER (RCW)

These are rations designed for extreme cold weather to resist cold and to meet the extra caloric requirements of individuals operating in extreme weather. The food is either low-moisture or freeze-dried, and the rations consist of two bags. Bag A consists of high-fat foods, largely oatmeal, cocoa, apple cider, chicken noodle soup, fruit bars, crackers, and an accessory packet for the meal with a spoon, coffee, non-dairy creamer, sugar, chewing gum, toilet paper, and matches and hexamine heat tabs. Bag B has the main entry; 6 menus are available, from chicken stew to spaghetti and meat sauce, along with granola bars, cookies or brownies, instant orange drink, a toffee roll, chocolate covered cookie, and lemon tea.

All ingredients are fortified with extra vitamins, electrolytes, and carbohydrates, as well as fat, while limiting sodium and protein to reduce the risk of dehydration. Shelf life is a minimum of 3 years. Required daily intake is 1.2 kg. A case consists of 6 rations (one for each Bag B menu available).

	<i>Ration</i>	<i>Case of 6</i>
Weight	1.25 kg	9.67 kg

Price	\$10	\$62
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MILITARY RATIONS – TAILORED OPERATIONAL TRAINING MEAL (TOTM)

These are pre-packed meals used primarily to feed trainees, garrison and armory personnel, and other low-priority feeding needs. In the US, hundreds of thousands were handed out by FEMA after the November Nuclear Strikes. They are low-bulk, high-nutrition meals designed to not take up much room (typically, the pockets of a military uniform). The packaging is similar to an MRE, but in more commercial packaging, and often with civilian equivalents to MRE items. There are also things not normally found in MREs, such as preserved fruit, moist towelettes, napkins, and red pepper.

18 menus are available, and a case typically has 6 menus in sets of 2. Required daily intake is 1.9 kg per day.

	<i>Meal</i>	<i>Case of 12</i>	<i>Pallet of 600</i>
Weight	0.76 kg	9.07 kg	464 kg
Price	\$20	\$240	\$12,000

MILITARY RATIONS – UNITIZED GROUP RATION-HEAT & SERVE (UGR-H&S)

These are evolutionary developments of the T-Rations, designed to replace them. They are easier to open, vitamin and mineral-fortified, and packed in lighter containers. The modules are essentially similar to the T-Rations, but are somewhat more nutritious and are larger. One module feeds 50 people, one tier feeds 100 people, and a pallet feeds 400 people.

The UGR-H&S has a minimum shelf life of 18 months under poor conditions, and normally last far longer. Required intake is 1.9 kg per day. There is an arctic supplement to the UGR-H&S that provides an additional 914 calories per soldier per day; this supplement costs and weighs an additional 60%.

	<i>Module</i>	<i>Tier of 2</i>	<i>Pallet of 8</i>
Weight	95 kg	190 kg	760 kg
Price	\$570	\$905	\$3,630

MILITARY RATIONS (BRITISH) – 4-MAN RATION PACK

The 4-man pack is a British ration for use in AFVs and is designed for crew feeding with 4 rations in 1 box. There are slight variations in components, no pudding, but an extra savory pouch and extra beverages.

Weight	2 kg
Price	\$20

MILITARY RATIONS (BRITISH) – 10-MAN RATION PACK

This British ration is a self contained ration to feed 10 people for 24 hours. Cooked by a chef with central feeding facilities (field kitchen), but minimal catering skills required. It can also be supplemented with bread, fresh fruit and vegetables where supply allows. It contains Breakfast, Main Meal and Snack Meal.

Weight	10 kg
Price	\$80

MILITARY RATIONS (BRITISH) – GENERAL PURPOSE RATIONS

GP rats come in a thin brown cardboard box, about 12 x 8 x 8 cm. The box holds one 24-hour man ration, from a choice of 9 menus. And that's pretty much where similarities end, except for the accessories pack. Each ration comprises Breakfast, Main Meal, Dessert, Snack, and a beverage/accessories pack. GP rats have a shelf life of 6 years.

	<i>Box</i>	<i>Case of 5</i>
Weight	2 kg	10 kg
Price	\$50	\$250

MILITARY RATIONS (CANADIAN) – INDIVIDUAL MEAL PACK (IMP)

An IMP is one meal breakfast, lunch or dinner for one person. It is packaged in a way that makes it compact and lightweight. Each meal pack comes with one main entree, a dessert, several types of beverages, a hard candy, and a package of cookies or a chocolate bar. The package may also include such accessories as instant soup mix, instant mashed potatoes or instant rice.

The main courses can be eaten cold or hot by placing the pouches in boiling water for 5 minutes. US Flameless Ration Heaters (not included in IMPs) can also be used to heat IMP entrees.

	<i>Meal</i>	<i>Box of 12</i>
Weight	Nil	5 kg
Price	\$8	\$100

MILITARY RATIONS (CANADIAN) – LIGHT MEAL COMBAT

The Canadian Armed Forces version of the LRP Rations.

	<i>Ration</i>	<i>Case of 16</i>
Weight	0.45 kg	9.07 kg
Price	\$16	\$205

MILITARY RATIONS (FRENCH) – RATION DE COMBAT INDIVIDUELLE RECHAUFFABLE (RCIR)

France uses a ration called the “Combat Ration Individual Reheatable”. A single ration contains 3,200 calories and is intended to provide the nutritional needs for 1 soldier for 1 day. Each RCIR meal box contains 2 ready-cooked entrees, 1 appetizer, 1 package of instant soup, cheese spread, salted and sweet crackers, breakfast kit, sugar, energy bar, chocolate bar, chewing gum, caramels, hard candies, multipurpose paper towels, water purifying pills, and a reheating kit (matches, fuel tablets, and a disposable folding stove).

RCIRs are delivered in boxes of 12 rations. A single pallet of RCIRs will contain 20 boxes or 240 RCIRs. Some soldiers have reported that the trading value of RCIRs when on exercise with MRE eating troops is 1 RCIR for 5 MREs on average. In Somalia, a crate of RCIRs would get you a US field cot.

	<i>Ration</i>	<i>Box of 12</i>
Weight	1.25 kg	9.67 kg
Price	\$10	\$50

MILITARY RATIONS (FRENCH) – RATION DE SURVIE

This is the air version of the French Survival Ration.

Weight	Nil
Price	\$10

MILITARY RATIONS (FRENCH) – RATION INDIVIDUELLE LYOPHILISEE COMMANDO (RILC)

The French also have a freeze-dried ration for Special Forces, called the “Freeze-dried Individual Ration Commando”. In this ration, all the canned food is replaced by freeze-dried food.

	<i>Ration</i>	<i>Case of 20</i>
Weight	0.45 kg	10 kg
Price	\$20	\$300

MILITARY RATIONS (FRENCH) – REPAS INDIVIDUELLE D'EXERCICE (RIE)

The French Training Ration, similar in intent to the US military's TOTM.

	<i>Meal</i>	<i>Case</i>	<i>Pallet</i>
Weight	0.78 kg	9.07 kg	464 kg
Price	\$10	\$200	\$10,000

MILITARY RATIONS (GERMAN) – EINMANNPACKUNG (EPA)

Germany uses this ration, the “Combat Ration, Individual”. Each EPA is intended to provide 2 substantial meals. There are 4 menus of EPAs (Types I, II, III, and IV).

Each EPA has several heavy duty foil trays containing things like Green Beans with Ham, Italian Noodles, Goulash, or Pea Soup with Bacon. They also contain 2 smaller foil “cans” of bread spreads such as liverwurst or luncheon meat spread. The meal box also includes instant fruit juice powder, instant coffee, instant tea, powdered cream, a really good chocolate bar, sugar, salt, gum, jam, water purifying tablets, and paper towels.

	<i>Meal</i>	<i>Box of 24</i>	<i>Case of 50</i>
Weight	Nil	10 kg	
Price	\$8		\$100

MILITARY RATIONS (GERMAN) – EINMANNVERPFLEGUNG (EPA)

These are German combat rations which provide one day's worth of food for one individual. They include 2 complete pre-cooked meals, various instant drinks, a small package of cookies jokingly referred to as *Panzerplatten* ("Armor plates"), paper, matches and even chocolate and chewing gum.

Weight 1.25 kg
Price \$10

MILITARY RATIONS (SOVIET) – BREAD LOAVES

Frequently, Soviet troops would carry loaves of hard black bread to supplement their rations.

Weight Nil
Price \$1

MILITARY RATIONS (SOVIET) – ENERGY WAFERS

They pack lots of calories, and together with Soviet tea rations make a meal by themselves.

Weight Nil
Price \$2

MILITARY RATIONS (SOVIET) – FIELD RATIONS

A standard ration pack (intended to last 1 day) is contained in a 175 x 145 x 135 mm cardboard box. The package contains 2 300-gram cans of meat (various types, none being particularly appetizing), 1 lump of black bread (prepared for long-term storage, meaning it must be soaked in tea or water, before it can be eaten), 2 grams of tea, and 9 small packs of sugar. There is no seasoning, not even any salt, and none of the accessories (utensils, matches, toilet paper, etc.) found in MREs.

Weight 2 kg
Price \$8

MILITARY RATIONS (SOVIET) – FRESH MEALS

These meals are supplied in three large metal containers, cylindrical in shape, and are used to feed a platoon for a 24 hour period. It contains three meals with meaner options for each soldier. The meals consist of:

- **Breakfast:** A spoonful of porridge, tea and a piece of bread.
- **Lunch:** A bowl of soup, a cracker, a spoon of mash, half a mug of fruit jelly and a roll.
- **Dinner:** A spoonful of mash, tea, a roll and a piece of meat.

Weight
Price

MILITARY RATIONS (SOVIET) – HARD SAUSAGES

Similar to salami, made from chopped pork and coarsely ground pepper, come packed in tin. Frequently Soviet troops would carry Hard Sausages to supplement their rations.

Weight Nil
Price \$2

MILITARY RATIONS (SOVIET) – MOUNTAIN RATION

This ration was issued after the first year of war during the Soviet invasion of Afghanistan showed that supply columns could not keep up with troops on the move, and that other rations available were generally designed to be used by mounted troops in vehicles, which made them not only unwieldy in transport in the troop's personal equipment bag, but hard to distribute fairly among troops. After initial experimentation in the number and size of tins included in this ration, the Soviet directorate in charge of supply procurement decided in what was record time that the daily combat ration for "soldiers in mountainous terrain" was to be as follows:

- 2 tins of canned meat with vegetables and starch
- 1 pack of Instant Kasha (Porridge)
- 1 issue of Tea in the form of three strung sachets
- 1 issue of Sugar, consisting of three individual clear bags marked "Sugar"

As these rations were only barely at subsistence level for troops in action, additional rations were handed out. Frequently, troops would carry loaves of hard black bread, hard sausages, and tins of sweetened condensed milk along with this ration, to provide energy snacks.

Weight 0.50 kg
Price \$15

MILITARY RATIONS (SOVIET) – SUBMARINE RATION

Soviet military navy submarine food ration, 4 briquettes of food concentrates that does not require cooking, vacuum packed.

Weight Nil
Price \$10

MILITARY RATIONS (SOVIET) – SWEET BISCUIT WAFERS

A package of sweet biscuit wafers was issued with the Soviet Mountain Ration, as an additional ration for troops on patrol where no fresh foods were available.

Weight Nil
Price \$2

MILITARY RATIONS (SOVIET) – SWEETENED CONDENSED MILK

This canned milk is carried by Soviet troops who use it in tea.

Weight 0.50 kg
Price \$3

NORWEGIAN HONEY

Comes in three sizes: 70, 130 and 420 grams jars. Quite a prize in the *Twilight: 2000* world.

Weight Nil
Price \$500

NORWEGIAN KIPPER

Lightly smoked fillets of herring. 3.25 oz can, quite popular through Europe.

Case of 24
Weight 2 kg
Price \$50

ONE YEAR STANDARD FOOD SUPPLY

A 1 year standard food supply for 1 person stored in 87 cans.

1 Apple Sauce Can	1 Sausage TVP Can
1 Apple Slices Can	1 Small Navy Bean Can
1 Baby Lima Beans Can	1 Sweet Green Pea Can
1 Banana Slices Can	1 Taco TVP Can
1 Beef TVP Can	1 Tomato Powder Can
1 Carrot Can	1 White Cream Sauce Can
1 Cheese Sauce Can	1 Whole Egg Can
1 Chicken Bouillon Can	2 16-Bean Mix Cans
1 Chicken TVP Can	2 6-Way Rolled Grain Cans
1 Egg Mix Can	2 ABC Soup Mix Cans
1 Egg Noodle Cans	2 Boiled Rice Cans
1 Green Bean Can	2 Brown Sugar Cans
1 Green Split Pea Can	2 Cornmeal Cans
1 Ham TVP Can	2 Cracked Wheat Cans
1 Kidney Bean Can	2 Great Northern Beans Cans
1 Lentil Cans	2 Hard Red Wheat Cans
1 Orange Drink Can	2 Hash Browns Cans
1 Peach Flavored Apple Flakes Can	2 Long Grain Brown Rice Cans
1 Pinto Bean Can	2 Macaroni Cans
1 Potato Diced Can	2 Nine Grain Cracked Cereal
1 Potato Flakes Can	2 Pearl Barley Cans
1 Potato Granules Can	2 Popcorn Cans
1 Potato Slices Can	2 Quick Oats Cans
1 Salt Can	2 Seven Grain Cans

2 Small Red Bean Cans
2 Spaghetti Cans
2 Whole Corn Cans

Weight 300 kg
Price \$800

4 White Rice Cans
4 White Sugar Jar Cans
6 Powdered Milk Cans

POUCH BREAD/PASTRIES

Pouch bread was first introduced to coalition forces during the 1990-91 build up to Desert Storm. It rapidly became a hit, and is much sought-after to improve the soldier's lot in life. It is basically a small loaf of bread sealed in a foil or plastic pouch, treated with preservatives, stabilizers, water-control agents, and oxygen-scavenging sachets to keep the bread fresh at least 3 years at normal storage conditions. This technology has been extended to some other items, such as brownies, cookies, pop-tarts, pound cake, and other such items, and these were likewise well received, with morale being improved in units where these items were available.

The pouch bread and pastries were not intended to be ration-replacing items, and so are not as nutritious as rations, but one may replace $\frac{1}{4}$ of the weight of pouch bread or $\frac{1}{5}$ of the weight of pouch pastries with an equivalent amount of rations (thus, 1 kg of pouch bread may replace 0.25 kg of rations for nutritional purposes).

	Weight	Price
<i>Pouch of bread</i>	0.25 kg	\$1
<i>Case of 24 pouches of bread</i>	7 kg	\$20
<i>Pouch of pastry or cookies</i>	0.15 kg	\$2
<i>Case of 40 pouches of pastry or cookies</i>	7 kg	\$60

POUCH BREAD – IMPROVED POUCH BREAD

This product emerged as a technological breakthrough during Operation Desert Storm: fresh, shelf-stable bread packed in a pouch. The special formulation allows the pouch bread to retain quality during long-term storage, even at high temperatures.

	<i>Box of 50</i>
Weight	2 kg
Price	\$100

POUCH BREAD – SHELF-STABLE POCKET SANDWICH

These were first issued to US soldiers in early 1995, and production was quickly ramped up in order to provide easy meals to soldiers in the field and in active operations. They are basically hollowed-out Pouch Bread filled with a variety of fillings, from roast beef to turkey to ham to vegetarian meals like alfalfa sprouts and cheese. They proved immensely popular with troops, and due to ease of use and consumption were issued as rations to many troops who did not have time to stop and eat a meal. When NATO and Israeli troops saw what the US soldiers had, they demanded the same, and with a couple of months they were being produced by many NATO countries, as well as by Israel.

The pocket sandwiches keep at least 3 years if unopened. Required intake is 1.5 kg per day.

	<i>Sandwich</i>	<i>Case of 24</i>
Weight	0.35 kg	9.5 kg
Price	\$5	\$96

SELF HEATING MEALS

These pre-packaged meals are favorites among hunters and hikers. Each meal comes in a self-heating package that must be cracked to activate the heating element, after about 2 minutes the meal is ready to eat.

	<i>Package of 3</i>
Weight	3 kg
Price	\$50

SURE-PAK MRE FULL MEAL

This is an instant, no cooking required meal. Just open the package and eat. Most include a meat entree, a pound cake, and usually an additional item of applesauce, potatoes au gratin, etc., plus the famous accessory pack of coffee creamer, salt, pepper, sugar, wet nap, sauce and spoon.

6 varieties x 2 = 12 full meal packs per case. This product has been the longest-available civilian MRE on the market, and the closest to the military version.

	<i>Meal</i>	<i>Case of 12</i>
Weight		8 kg
Price	\$10	\$75

TRAIL RATIONS

Trail rations come in a number of commercial options. They all provide the necessary energy and nutrition for survival. These are simple one package meals and do not include an accessory pack like military rations.

	<i>Case of 12</i>
Weight	5 kg
Price	\$30

TRANSDERMAL NUTRIENT DELIVERY SYSTEM (TNDS)

This is similar technology to the nicotine patch for people quitting smoking, but instead of delivering nicotine the TNDS delivers a concentrated dose of vitamins, minerals, and other nutrients to the wearer. These patches were generally issued only to NATO and Israeli special operations units who were on high-intensity missions for use when there was no time for an extended period for eating. There was a rumor that these patches were also treated with steroids and adrenaline, but this was never confirmed.

These patches were never meant as a total replacement for rations, and could replace about ¼ of the daily requirements of rations per day, with 2 being used per day. They do not alleviate the hunger pains or stomach growling caused by lack of food. Some of these patches were also used by astronauts and pilots on long missions, but they are rarer in those applications.

	<i>Pack of 10</i>
Weight	0.1 kg
Price	\$500

WILD FOOD

Foraged food such as berries and tubers, and hunted food such as deer. Required intake is 3 kg per day.

Weight	1 kg
Price	\$2

24. FUEL SYSTEMS

350 GPM POL UNREGULATED PUMP

The 350 gpm Pump is a component of the Fuel System Supply Point and the Inland Petroleum Distribution System used by supply units to deliver fuel to combat units.

Weight	500 kg
Price	\$3,000

FLEXCEL LIQUID CONTAINER

This is the large rubber fuel bladder so often seen slung underneath Chinook helicopters during Gulf War footage. These bladders can be parachuted without using a pallet or any sort of padding, can survive a fall of 100 meters without a parachute, or a fall of 12 meters from an aircraft moving at 170 km/h (ComMov 137). Fuel is pumped by putting a heavy weight on the bladder (normally, the vehicle receiving the fuel runs over the bladder), and the bladder can typically be emptied in 25 seconds. A FLEXCEL comes in two sizes: large (2.6 x 0.36 m, holds 250 l) and small (1 x 0.2 m, holds 45 l).

Weight and cost include hoses and valves.

	Weight	Price
<i>45 liters</i>	10.3 kg	\$30
<i>250 liters</i>	56.7 kg	\$150

FORWARD AREA REFUELING EQUIPMENT (FARE)

FARE provides forward area refueling of helicopters and aircraft and may also be used to refuel ground vehicles and to support special operational requirements. It consists of a 100 gpm, gasoline engine driven, diesel engine driven, or electric motor driven, pump and power source, a 100 gpm Filter Separator, a 2,400 gallon tank and hose, and couplings.

Weight	260 kg
Price	\$4,000

FUEL POD

A 1,000 liters fuel tank, can be placed on back of any vehicle with a flat surface.

	Weight	Price
<i>Empty</i>	200 kg	\$800
<i>Full</i>	500 kg	

FUEL PUMP

Used for pumping fuel out of tanks or into vehicles or aircraft.

Weight	85 kg
Price	\$700

FUEL TANK

This is a large metal container used for storing fuel, stores 100 liters.

Weight	500 kg
Price	\$3,000

GAS CAN SPOUT

Place on a jerry to help the fuel be poured out.

Weight	Nil
Price	\$5

GAS PUMP

This small pump is used to get fuel out of barrels and into your gas tank.

Weight	1 kg
Price	\$10

RUBBER FUEL BLADDERS

These small bladders can be used as gas tank for boats or as gas can. These bladders can be

safely airdropped from a height of 100 meters without a parachute. Placing a heavy weight on the bladder will pump fuel (squashing it with a vehicle is the normal method). Weight and cost include hoses and valves.

	Weight	Price
<i>Rubber Fuel Bladder, 30-liter</i>	1 kg	\$15
<i>Rubber Fuel Bladder, 37-liter</i>	1 kg	\$20
<i>Rubber Fuel Bladder, 50-liter</i>	3 kg	\$200

RUBBER FUEL BLADDERS, NATO

This is a generic category of fuel bladders, used by many countries since they take up far less space than the usual assortment of jerry cans and 200-liter fuel drums found at other fuel dumps. These are normally shaped like a giant rubber pillow (unlike the drum-shaped FLEXCELS), and do not have the strength of a FLEXCEL. The bladder will need a pallet for a parachute drop, and can be free-dropped only 50 meters, or from aircraft moving at a maximum of 80 km/h without preparation. Many sizes are generally available. All of these bladders will collapse to 15% of their normal size when empty.

Squashing the bladder pumps the fuel (requiring 3 phases per liter to empty). Weight and cost include hoses and valves.

	Weight	Price		Weight	Price
<i>210 liters</i>	19 kg	\$95	<i>9,460 liters</i>	83 kg	\$4,250
<i>380 liters</i>	34 kg	\$170	<i>11,355 liters</i>	97 kg	\$5,100
<i>945 liters</i>	42 kg	\$420	<i>15,140 liters</i>	102 kg	\$6,800
<i>1,890 liters</i>	48 kg	\$850	<i>18,295 liters</i>	117 kg	\$8,200
<i>1,950 liters</i>	50 kg	\$875	<i>28,380 liters</i>	151 kg	\$12,375
<i>2,840 liters</i>	52 kg	\$1,275	<i>37,850 liters</i>	169 kg	\$16,500
<i>3,785 liters</i>	62 kg	\$1,700	<i>56,775 liters</i>	197 kg	\$24,750
<i>5,670 liters</i>	68 kg	\$2,550	<i>75,710 liters</i>	273 kg	\$33,000
<i>7,570 liters</i>	77 kg	\$3,400	<i>189,300 liters</i>	564 kg	\$82,500

RUBBER FUEL BLADDER, WARSAW PACT/EASTERN BLOC

Similar to the NATO fuel bladders above, the size of these bladders is based on metrics instead of gallons. They are often used to convert flatbed trucks to makeshift fuel tankers.

	Weight	Price		Weight	Price
<i>4,000 liters</i>	125 kg	\$3,400	<i>50,000 liters</i>	580 kg	\$42,500
<i>6,000 liters</i>	135 kg	\$5,100	<i>150,000 liters</i>	1,050 kg	\$127,500
<i>25,000 liters</i>	290 kg	\$21,250	<i>250,000 liters</i>	1,450 kg	\$212,500

SIPHON HOSE

This is a small length hose that is used for removing gas from a vehicle tank, most small units in *Twilight: 2000* will carry at least one of these.

Weight	Nil
Price	Nil

25. FUELS

1 LITER PROPANE CANISTER

This small heavy duty metal container was designed to be used by both the HP-45 PSH, and the Multi fuel stove. The containers hold enough propane for 4 hours continuous use.

Weight	5 kg
Price	\$30

AVIATION GASOLINE (AV GAS)

Volume	1 liter
Price	\$20

BIO DIESEL

Volume	1 liter
Price	\$0.20

CAMPING FUEL

	<i>Can</i>
Volume	3 liters
Price	\$5

DIESEL

Volume	1 liter
Price	\$0.40

GASOLINE

Volume	1 liter
Price	\$0.48

GREASE

Volume	1 liter
Price	\$10

HEXAMINE (“HEXI BLOCK”)

This is a waxy solid fuel, similar to soap, containing hexamethylenetetramine (also known as hexamine). It has been in use since the 1950s. While the US Army used Trioxane the British Army used Hexamine. It was a great fire starter from the days before MREs and MRE heaters.

Hexamine can be used with a canteen cup stand, a Tommy cooker, an Esbit stand, or any similar device. It works at high altitudes and in all weather conditions. The non-toxic formula is completely harmless to the environment, although it is toxic if swallowed and can be deadly with prolonged exposure in an unventilated area. Hexamine tablets are significantly less toxic and significantly more effective than Trioxane, although they are harder to light. Despite the manufacturer’s claim that the tablets are odorless, they in fact have a pronounced “fishy” odor, which, while not offensive, makes it necessary to treat them as food and keep them in bear-proof containers if camping. Hexamine does not liquefy when burning. The packaging says that it leaves no ash residue, but our testing found that it does leave a waxy residue.

One cube will bring ½ liter of water to a rolling boil in 8 minutes. One box contains 12 individually sealed tablets.

Weight	14 grams
Price	\$0.50

OIL

Simple motor oil.

Volume	1 liter
Price	\$2

SEALANT

Used for sealing mechanical parts.

Volume 1 tube
Price \$5

STERNO CANNED HEAT

Sterno gel is a formulation of denatured alcohol, water and gel. Pry open the lid and light the gel for 2 hours of burn time. It puts out a visible flame and a good amount of heat. Since this is an alcohol based product, the combustibility decreases as temperature drops. Make sure you seal it well since the gel will dry out over time rendering it useless.

This product is often used by restaurant caterers to keep food warm. Sterno is good for heating food, or light-duty cooking like scrambling eggs for example, but if you want a long-term cooking solution, you'd best look elsewhere. It's not that the emissions are dangerous, but it took us 45 minutes just to simmer ½ liter of uncovered water so it's just not practical for cooking meat or boiling any liquids. We were able to cook an egg over Sterno in about 10 minutes.

Sterno also comes in a 73.7 grams can that only costs \$1 per can, but it fits under the canteen stand and doesn't leave enough room for oxygen to circulate. The 198 grams canister is pressure fitted to the wide opening on a canteen stand, leaving enough space for oxygen to circulate. One pack contains two 198 grams canisters.

Weight 198 grams
Price \$1.88

TRIOXANE ("TRI-FUEL")

Trioxane tablets are a chalk-like fuel used by the US military. It was a great fire starter back in the day before MREs and MRE heaters. They can be used with a canteen cup stand, a Tommy cooker, an Esbit stand, or any similar device. Each tablet is sealed in waterproof foil package. Unlike Sterno, you do not need to worry about spilling the material. Trioxane is harmful if swallowed and the packaging suggests taking precautions to avoid loose powder contaminating food. The fuel does not liquefy when burning but leaves a blue wax-like residue.

The only advantages of Trioxane over Hexamine are that it is less expensive and easier to light. They come 3 tablets per box.

Weight 15 grams
Price \$0.27

26. GENERATORS

A/M32A-60B GENERATOR SET

The A/M32A-60B Generator Set, commonly called the “dash 60 start cart,” is a trailer-mounted power unit capable of providing AC and DC power for aircraft electrical systems as well as high volume air for starting aircraft engines. The USAF and other branches of the military, as well as many allied nations around the world, used thousands of these units in several variants over the years, many are still in use today. The McDonnell-Douglas F-4 Phantom II was but one of the aircraft for which the unit was designed.

Powered by a gas-turbine engine that turned a maximum of 42,000 rpm, the A/M32A-60B generated precise 3-phase, 400-cycle power and produced 120 pounds of air pressure at 1,781 cubic feet per minute.

Weight 4,500 kg
Price \$50,000

AIRCRAFT AUXILIARY POWER UNIT

This is used to provide power to an aircraft while is on the ground, this unit comes with cables that are attached to the plane or Jet. It can be jerry rigged to provide power to any vehicle if needed (AVG Mechanic skill). Fuel consumption: 170 liters/period.

Weight 2,500 kg
Price \$100,000

AUXILIARY POWER UNIT (APU)

A small 5 kw diesel generator, commonly found attached to AFVs, this unit is used to power the tanks electronics when tank is at a dead stop, and it want to reduce its thermal signature. Attaching an APU to AFV is AVG:Mechanic. Fuel consumption: 7 liters/period.

Weight 250 kg
Price \$1,200

BATTERIES

Useful to have for use with a range of other equipment. Divided here into two generic categories, “radio” and “equipment”; assume radio batteries are alliance-specific (i.e. Warsaw Pact radio batteries will not work in a NATO radio and vice versa), while equipment batteries may be assumed to be universal.

Note: This is obviously a gross oversimplification, which referees may complicate at their leisure.

	Weight	Price
<i>Advanced Battery, 1.8 kw</i>	Nil	\$0.09
<i>Advanced Battery, 18 kw</i>	Nil	\$0.90
<i>Advanced Battery, 28.8 kw</i>	Nil	\$1.44
<i>Advanced Battery, 72 kw</i>	Nil	\$3.60
<i>Advanced Battery, 144 kw</i>	Nil	\$7.20
<i>Lead-Acid Battery, 231 kw</i>	Nil	\$5.78
<i>Lead-Acid Battery, 432 kw</i>	4 kg	\$11.55
<i>Lead-Acid Battery, 1,800 kw (Car Battery)</i>	16 kg	\$45
<i>Lead-Acid Battery, 3,200 kw (Truck Battery)</i>	29 kg	\$80
<i>Lead-Acid Battery, 4,000 kw (Tank Battery)</i>	36 kg	\$100
<i>Radio Battery</i>	0.5 kg	\$50

BATTERY CHARGER

Mostly these are jury-rigged systems capable of charging a variety of different sized batteries. Run off of a generator or vehicle (either must be running while it is in use), but power requirement is negligible and does not count against the generator's output.

Weight 0.5 kg
Price \$100

BRUNTON SOLAR SPORT 2.2 W PORTABLE POWER SOURCE

Electric power in a small package that weights only 11 oz. It can convert solar energy into 2.2 watts of power to recharge a cell phone, computer, FRS radio, GPS receiver, flashlight or other rechargea-

ble batteries while far from electricity sources. Designed as a stand-alone system, but capable of being plugged together in a network with multiple units to double or triple the wattage output, comes with accessories and adapters for various small electronics.

Weight 1 kg
Price \$89

BRUNTON SOLAR-PAK BATTERY CHARGER

Portable power to recharge a cell phone, laptop, FRS radio, flashlight and other larger rechargeable gear items while in the field. Plus, charge up to 4 "AA" NiCad or Nickel Metal Hydride rechargeable batteries for use in GPS, PDA and other devices.

Weight 0.50 kg
Price \$40

DYNAMOTOR

Apparatus for transforming or converting electric power from alternating current (AC) to direct current (DC), or vice versa, consisting of one or more motors coupled to and driving one or more generators. The motors operate from what ever power source available, and the generators provide power of the desired characteristics. It is usually attached to vehicle and used for powering radio and other vehicle equipment.

Weight 20 kg
Price \$100

ELECTRO-MOTIVE DIVISION PLANTS

The 4,500 kw plants from EMD consist of 3 generator units each capable of producing 1,500 kw of power. These are bias huge train engines that generate kilowatts, many of these power Milgov and Civgov camps.

Weight 9,000 kg
Price N/A

GENERATORS

	Fuel Consumption	Weight	Price
<i>1.5 kw Generator</i>	2 l/period	50 kg	\$200
<i>5 kw Generator</i>	5 l/period	150 kg	\$700
<i>10 kw Generator</i>	7 l/period	250 kg	\$1,200
<i>50 kw Generator</i>	40 l/period	600 kg	\$8,000
<i>100 kw Generator</i>	55 l/period	1,000 kg	\$15,000
<i>500 kw Generator</i>	170 l/period	2,500 kg	\$50,000
<i>1,000 kw Generator</i>	200 l/period	1,500 kg	\$100,000
<i>2,000 kw Generator</i>	500 l/period	3,000 kg	\$200,000

GENERATOR, COMPACT

A compact generator used by mountain troops and Special Forces. It is only 10 x 10 x 15 cm and extremely efficient, capable of running 3.8 hours per tank. Tactical Quietness. Output: 400 watts. Fuel consumption: ¼ liter/period (G, AvG, A).

Weight 5 kg
Price \$300

GENERATOR, SOLAR, M85

A backpack-style solar panel set. Its folded size (22 x 12.5 x 5 cm) expands to 100 x 22 x 0.4 cm, and can be set up on its own frame or hung from a tree, vehicle, or man's back. It can charge one 12- or 24-volt battery per period, provided there is strong sunlight. Output: 21 watts.

Weight 2.2 kg
Price \$600

GN-58 FIELD HAND CRANK GENERATOR

Designed primarily to give radios periods of extended range. Operating this count as hard labor for one period, though one person can operate it for two half-hour segments once per period. It could be

operated in shifts, but broadcast times are kept short to avoid eavesdropping, jamming, and detection. Output: 2 kw (maximum).

Weight 2 kg
Price \$300

M91 HAND-CRANKED GENERATOR

A small, folding generator designed primarily to give radios periods of extended range (usually triple the radio's normal range). Operating this count as hard labor for one period, though one person can operate it for two half-hour segments once per period. It could be operated in shifts, but broadcast times are kept short to avoid eavesdropping, jamming, and detection. Output: 1 kw (maximum).

Weight 2 kg
Price \$200

MEP-012A 750 KW PRIME POWER GENERATOR

The MEP-012A is a trailer mounted, diesel driven generator set. It's the prime power generator used in the US Army's 249th Engineer Battalion Prime Power Support and USAF's Harvest Falcon/Eagle Bare Base programs.

Weight 10,000 kg
Price \$50,000

POWER POLES

A low-cost power alternative to generators, Power Poles are used for provide power off of existing power lines and can set up in 30 minutes per pole. The set comes complete with circuit breaker and power outlets.

Weight 50 kg
Price \$200

SOLAR-AA BATTERY CHARGER

This portable piece of technology can recharge portable devices such as GPS, PDA, flashlight and other items that utilize rechargeable batteries. Simply place the batteries in the unit and expose it to direct sunlight. Recharging begins immediately with no risk of overcharging.

Weight
Price \$20

TACTICAL QUIET GENERATOR (TQG)

The TQG is the latest generation of military generators for use by the US Armed Forces. These military generators use predominantly commercial components. The TQG are skid or trailer mounted generator sets, and are "single-fuel" compliant (operate on diesel/JP fuels). Noise has been reduced to 70 db or less, quiet enough to reduce detection ranges from over a mile to less than 400 meters. The sets are undetectable from the front and sides by ground or airborne FLIR. In December 1993 the 5-60 kw sets first entered service at Fort Bragg, NC in the 82nd Airborne Division.

Weight 288 kg
Price \$17,000

27. HEATERS AND COOLERS

CAMFIRE PORTABLE HEATERS

In service with the US military and Canadian Armed Forces since 1979, CAMFIRE portable heaters are rugged, reliable, and durable in even the harshest environments. The robust roll cage and weather hood protects the heater from environmental elements.

Weight 50 kg

Price \$800

FREEZER, LARGE

A 14-cubic foot freezer, it can only be powered by generator. Power consumption: 1.4 kw.

Weight 175 kg

Price \$1,000

FREEZER, SMALL

A 1-cubic foot freezer suitable for preserving food or medical supplies, it can be powered either by a vehicle battery or a generator. Power consumption: 0.12 kw.

Weight 20 kg

Price \$100

H-45 PORTABLE SPACE HEATER

The H-45 Heater, Type II is a non-electrical powered, lightweight, portable space heater used of heating general purpose military tentage. It provides a heat output of 20,000 to 45,000 btu/hr and can operate on all types of liquid fuel (diesel, gasoline, JP). Its construction provides smokeless combustion. The heater includes flexible smokestack, gravity feed adapter, hoses, and a fuel can.

Fuel consumption: 4 liters/period.

Weight 27 kg

Price \$700

HUNTER HEATER TRAILER

This is a 40,000 btu heater trailer that would be used to heat large tents like a command post or hospital. Fuel consumption: 20 liters/day (Av Gas).

Weight 1,000 kg

Price \$50,000

PORTABLE HEATER

Suitable for 1 average-sized room. Power consumption: 4.75 kw.

Weight 3 kg

Price \$200

REFRIGERATOR, CONTAINERIZED

This device can run of a generator and also be used as a morgue. Power consumption: 50 kw.

Weight 5 kg

Price \$200

REFRIGERATOR, LARGE

A 14-cubic foot refrigerator, can only run off of a generator. Power consumption: 1.3 kw

Weight 150 kg

Price \$1,000

REFRIGERATOR, SMALL

A 1-cubic foot refrigerator suitable for preserving small quantities of food or medical supplies. It can be powered by a vehicle or a generator. Power consumption: 1 kw.

Weight 20 kg

Price \$100

REFRIGERATOR, TRAILER

This 20-cubic feet refrigerator can run off most vehicle power systems or a generator. Power consumption: 3 kw.

Weight	5 kg
Price	\$12,000

REFRIGERATOR, SOLAR

A 3' x 3' x 3' solar-powered model. At night runs on a 12v battery.

Weight	100 lbs
Price	\$1,000

SPACE HEATER ARCTIC (SHA)

This device is similar in concept to the H-45 space heater, but is used in smaller spaces and in colder climates. It is useful in buildings, containers, and tents of approximately 230 sq ft (71 m²), and is effective in temperatures from -60 to 60°F (-51 to 16°C). Fuel consumption: 2.5 liters/period.

Weight	18.6 kg
Price	\$650

SPACE HEATER CONVECTION (SHC)

This is a larger heater, designed to heat larger buildings, field hospitals, command post complexes, and other such areas. It will provide a comfortable climate to an area of about 640 sq ft (198 m²). The burner is an enhanced-efficiency design, and uses the burned fuel to provide power to the electrical convection cells. The system includes blowers, fuel pumps, safety devices, and an electrical control box. The heater may be set up outside or inside a structure. It is effective in an outside temperature of -40 to 60°F (-40 to 16°C). Fuel consumption: 5.5 liters/period.

Weight	33.6 kg
Price	\$1,100

SPACE HEATER SMALL (SHS)

This is a small military space heater meant to provide a comfortable temperature to small tents up to 100 sq ft in size. It may burn all sorts of military fuels, including butane, propane, diesel, gasoline, and aviation fuel. The design provides for combustion without smoke and a minimum of fuels. The heater includes a smoke pipe and integral fuel tank, and takes up a minimum of space (approximately 35 x 22 x 41 cm). It is effective in temperatures ranging from -60 to 60°F. Fuel consumption: 1 liter/period.

Weight	9.07 kg
Price	\$275

28. LASERS

AIM-1

Infrared laser aiming device. Projects a 70 cm tall laser line on target, visible only with IR vision devices, shooter determines height of line to use based on estimated range.

Weight 2.6 kg
Price \$500

AN/GVS-5 LASER RANGEFINDER

Army Night Vision Laboratory's work in lasers resulted in the AN/GVS-5 Laser Infrared Observation Set in 1980. This piece of equipment significantly increased the probability of hitting a stationary or airborne target with the first round fired. The AN/GVS-5 is a lightweight, hand-held, binocular-like laser rangefinder used for observation and target acquisition. It contains a panel assembly, optical assembly, and laser transmitter module.

The AN/GVS-5's special features include: 7x15 sighting optics, a multiple target indicator, and minimum range adjustment. It can use either battery or vehicle power (using an adapter cable). The rangefinder can take one ranging per second. It can take approximately 100 rangings before requiring a new battery.

Weight 3 kg
Price \$5,400

AN/PAQ-1 LASER TARGET DESIGNATOR (LTD)

The AN/PAQ-1 LTD is a near infrared laser rangefinder/designator used to obtain target range. It is also used with homing weapons such as the Copperhead 155 mm, Hellfire and Maverick missiles and guided bombs. They home in on a laser spot from this shoulder/ tripod-mounted unit.

Weight 7 kg
Price \$5,000

AN/PAQ-3 MODULAR UNIVERSAL LASER EQUIPMENT (MULE)

The MULE is a man-portable tripod-mounted or shoulder-fired unit which incorporates a laser rangefinder/target designator which works with all laser-guided weapons now under development. It is used to locate targets and to guide laser-guided projectiles to their targets. It can track moving targets and combine range, azimuth, and elevation into a digital message to be sent to the tactical fire control center. The major components are the Laser Designator/Rangefinder Module and the Stabilized Tracking Tripod Module. A supporting item of equipment is the North Finding Module.

Weight 50 kg
Price \$200,000

AN/PEQ-1 SOF LASER MARKER (SOFLAM)

The AN/PEQ-1 SOFLAM is the SOF-specific laser range finding and designating unit for Special Operating Forces providing the capability to locate and designate critical enemy targets for destruction using laser guided ordnance. The unit is lighter and smaller than current laser markers; better reliability and availability than current system.

The Army began to take delivery of 296 units in May 1996. The SOFLAM is currently in use with Army Special Forces and Rangers, Navy SEALs, and Air Force Special Tactics Squadrons.

Weight 5 kg
Price \$8,000

AN/PVS-6 MINI EYESAFE LASER INFRARED OBSERVATION SET (MELIOS)

The MELIOS provides the individual soldier with accurate range azimuth and vertical angle determination to provide target acquisition data for direct and indirect weapons systems. It operates in the eye safe wavelength region allowing maximum use by units in training and tactical exercises. It replaces the AN/GVS-5 which is not eye safe.

MELIOS is designed for ranges out to 10 km with ± 5 meter accuracy. The system is capable of operating on 24 volt DC rechargeable batteries, or from 24 volt DC vehicle power using an external power adapter. It can effectively range a moving target to 3,000 meters, and a stationary target to 5,000 meters.

Weight 2 kg
Price \$5,000

AN/TVQ-2 GROUND/VEHICULAR LASER LOCATOR DESIGNATOR (G/VLLD)

This near infrared laser is used in the same way as the AN/PAQ-1 LTD, and is operated on a tripod mount or the Fire Support Team Vehicle. Its greater power and accuracy allow for spotting targets at distances up to 5 km.

Weight 25 kg
Price \$10,000

COMMERCIAL LASER RANGEFINDER

This can range up to 300 yards to a target, much farther for some other objects. It is compact and lightweight, is easy to handle with its no-slip rubber covering, and comes with a carrying case. Sold in most sporting goods stores.

Weight Nil
Price \$300

LASER PEN & TARGET DESIGNATOR

Available in two different models to choose from, one stylish "pen-style" laser pointer, and one ultra-compact "keychain-style" unit. Both models produce a brilliant ruby red laser dot up to 700 yards away, powered by 2 "AAA" batteries. The perfect device to accurately and clearly point out what you're pointing to whether it's an exact map location on a distant wall, or a building down the street.

Weight
Price \$40

PORTABLE LASER RANGEFINDER

Powered from internal batteries. Reads out distance to a designated object.

Weight 2 kg
Price \$1,000

VEHICLE LASER RANGEFINDER WITH BALLISTIC COMPUTER

Vehicular powered. Feeds target correction data directly into on-board targeting computer.

Weight 5 kg
Price \$10,000

VEHICLE LASER RANGEFINDER

Vehicular powered.

Weight 5 kg
Price \$1,500

29. MEDICAL SUPPLIES

ADHESIVE TAPE

Adhesive tape comes in rolls of varying widths. Wider tape is more useful for some things and narrower tape for others. Adhesive tape is the medical equivalent of "Duct Tape".

Weight	Nil
Price	\$2

ANESTHETIC, GENERAL

This renders the patient unconscious, usually for surgery. Available in two forms, liquid (for injections) and gaseous; usually (if both are available) the liquid form is used to render the patient unconscious, and the gas is used to keep the patient down. 15 cc of liquid will take effect in 10+HT seconds and last for 30 minutes; bottles range in size from 5 to 50 cc. 1 liter of gaseous will take effect in 10 minutes and will last for 1 hour; the gas cylinders can discharge the gas at rates up to 2 liters/minute.

	Weight	Price
<i>Liquid, 1cc</i>	Nil	\$1
<i>Gas, 1 liter</i>	Nil	\$10
<i>Gas, 5-liters Cylinder</i>	15 kg	\$10

ANESTHETIC, LOCAL

This numbs a small area to allow minor surgery, Novocain is a typical example. 10 cc will numb a single hit location for 10 minutes. It comes in liquid form only. Bottles vary in size from 1 to 20 cc.

	<i>1 unit</i>
Weight	Nil
Price	\$10

ARMY MEDICAL SHELTER

This is an air-transportable medical shelter, one of many types for use in a mobile field hospital. The shelter has the same dimensions as an ISO 1C container. It is rated at 8,000 kg and can be stacked 2 high. The shelter has aluminum-polyurethane wall panels inserted into a structural steel frame. The double doors at both ends provide access for wide loads and the side door is used for normal entry and exit.

The integral high-lift jacks enable the shelter to be dismounted from its carrying vehicle using a hydraulic system or an air line hose from the vehicle. The jacks are normally pushed into the wall housing for transportation.

Weight	1,000 kg
Price	\$5,000

ARMY MEDICAL TOWELS

Issued to US Army Medical Units, comes in pack of 6, has a lot of uses.

Weight	Nil
Price	\$20

ANTIBIOTIC

Comes in 3 varieties (plus, minus, and neutral) and 2 forms (liquid and oral). A typical dose is 1 pill or 5 cc. 3 to 6 doses per day are required to eliminate bacterial infections. The oral form must have the doses spread out over the entire day; the liquid form can be given in 1 massive dose every day. Use will stop the loss of HT and will give a +1 per day taken to the HT roll to recover from the disease.

Antibiotics are ineffective against viral infections. This is why Herpes cannot be treated with Penicillin, but Syphilis can. Bacterial infections are only affected by one variety of antibiotics; the specific variety depends on the disease and the strain. For example there may be two different strains of Syphilis, one may be effected by neutral and the other by plus.

Oral antibiotics come in bottles in sizes from 24 to 500 doses. Liquid antibiotics come in bottles from 10 to 50 cc and must be refrigerated.

	<i>1 dose, Oral</i>	<i>1 dose, Liquid</i>
Weight	Nil	Nil
Price	\$5	\$10

ANTI-DIARRHEA TABLETS

Important when you've consumed water that hasn't been purified or when your culinary skills fail you. Whilst the effects of this may be less in environments where the water is purer (such as mountain environments), this is an essential item in areas such as jungle.

	<i>Jar of 100 Tablets</i>
Weight	Nil
Price	\$12

ANTI-FEVER

A drug used to reduce fever. This will give the recipient a +2 to his HT roll to recover from the disease and will reduce the effects on ST, DX and IQ by one.

	<i>1 dose</i>
Weight	Nil
Price	\$5

APOTHECARY BOTTLE

Beautiful hand-blown glass laboratory or drug bottle. Military issue, unused but highly desirable for spices, lotions or white lightning. Each bottle comes with a fitted cork. The capacity is 500 ml (about a pint).

Weight	Nil
Price	\$10

ATROPINE

Counteracts the effects of nerve gas. Atropine is also used as a last ditch effort to restart a heart.

35 cc are required to counter nerve gas. Doses this large are dangerous to the user, who will have a -3 penalty to all stats until the counter agent is administered; the counter agent (included in the price) must be administered between 10 and 20 seconds after the atropine. If this is not done, the atropine will cause 1d+3 damage and the subject will be at -4 to ST, DX and IQ until this damage is healed.

Less than 1 cc is used to restart the heart. 15 cc can counteract an overdose of heroin or cocaine.

Atropine comes in 20 cc bottles. Auto-injector packs contain one 35 cc automatic syringe of Atropine and one 20 cc automatic syringe of the counter agent.

	<i>1 cc</i>	<i>1 Auto-Injector Pack</i>
Weight	Nil	
Price	\$5	\$7.50

ATROPINE, AUTO-INJECTOR

Pre-measured automatic syringe which can be operated by non-medical personnel, 1 dose, disposable.

	<i>Pack of 10</i>
Weight	0.05 kg
Price	\$500

AUTO-INJECTORS

Used for the administration of medication in pre-determined doses.

Weight	Nil
Price	\$20

AUTOMATED EXTERNAL DEFIBRILLATOR (AED)

This is an emergency treatment device that can restart the heart in some cases of cardiac arrest. Once applied it will automatically analyze the heart rhythm and defibrillate if necessary. It requires no specialist medical training to use. Battery powered and good for 6 hours of monitoring or 50 shocks.

Weight	3 kg
Price	\$2,500

BACK BOARD

Used for immobilizing a person with suspected spinal injury.

Weight 3 kg
Price \$50

BAG OF SMALL PLASTIC TUBES

Used for collecting blood and cell samples.

Weight Nil
Price \$10

BANDAGE SCISSORS

These lightweight scissors can cut through cloth, metal, thick plastic, web belts, seat belts and most casting materials. A loop of parachute cord has been tied through the handle of these scissors to reduce the risk of loss and to make them easy to find. They require no maintenance.

Weight Nil
Price \$20

BASINS

A seamless and sanitary dish.

Weight 0.57 lbs
Price \$25

BATTALION AID STATION KIT

Used by medical personnel to establish an aid station. Comes packed in 2 waterproof containers.

1 Blood Pressure Cuff	5 Air Splints Full Leg
1 Field Surgical Kit	5 Cervical Collars
1 IV Bottle (500 ml)	5 IV Prep Se
1 OP Airway Set of 6 1	5 Lactated Ringers
1 Pen Light	10 Bags of Cotton
1 Resuscitator	10 Blister Dressings
1 Stethoscope	10 Burn Sheet Sterile
1 Thermometer	10 Cold Pack Chemical
2 Angiocatheter	10 Gauze Roller Elastic
2 Catheters	10 Self Adhesive Bandage
2 IV Bag (1,000 ml)	20 Dressing Abdominal
2 IV Extension Tubing	20 Gauze Roller Elastic
2 Ladder Splint	20 Sterile Strip Bandage
2 Saline IV (1,000 ml)	24 Blankets
2 Scrub Brush Surgical	50 Triangular Bandages
2 Sterile Drains	100 Combat Dressing
3 IV Admin Set	100 Sutures
4 Reusable Heat Packs	100 Tongue Depressors
4 Scalpel Blades #11	500 Butterfly Bandage
4 Scissors	500 Surgical Sponges
4 Sterile Syringes	1,000 Band-Aids
Weight 71 kg	
Price \$1,500	

BITE INFECTION KIT

This kit contains all the items needed to disaffect wound created by bites from animals or men.

Weight Nil
Price \$50

BLISTER TREATMENT KIT

One of the pains of a soldier's existence is a blister. This kit contains moleskins, gauze, padding, "Second-Skin" blister pads, antiseptic gel, and sterile needles. The kit is sufficient to treat 50 blisters. It will not be sufficient to provide more than surface protection for blister gas injuries.

Weight 0.1 kg
Price \$50

BLOOD TRANSFUSION KIT

This kit contains everything medical personnel will need to transfuse one person's blood with another.

Weight	3 kg
Price	\$150

BLOOD, PLASMA

Almost as good as whole blood, but without the type and RH problems. One unit gives a +1 to physician and first aid rolls to treat serious and critical injuries. Blood plasma is made from whole blood and must be refrigerated.

	<i>1 Unit</i>
Weight	0.50 kg
Price	\$40

BLOOD, WHOLE

Comes in 4 types (A, AB, B, and O) and 2 RH (negative (–) and positive (+)). O– can be given to anyone but AB–. O– and AB– can only accept their own type and RH. 1 unit gives a +2 to physician and first aid rolls to treat serious and critical injuries. Whole blood must be refrigerated.

	<i>1 Unit</i>
Weight	0.50 kg
Price	\$25

BODY BAG

An all-too-common necessity.

Weight	0.5 kg
Price	\$35

CAST CUTTER

This tool is used to cut off cast. Power consumption: 2 watts/period.

Weight	
Price	

CAST TAPE

Synthetic casting tape is manufactured from knitted polyester fiber impregnated with a water-activated polyurethane resin. The result is a strong, durable, lightweight, conformable, radiolucent, and porous cast. Cast Tape is intended for use in construction of most common orthopedic cast, external immobilization of fractures and other orthopedic conditions, providing there is no risk of swelling.

The working time for unrolling and molding the cast is approximately 3-4 minutes. The cast is weight bearing in about 20 minutes.

Weight	Nil
Price	\$25

CERVICAL COLLAR

Used for prevent persons from moving their head after a suspected spinal injury.

Weight	1 kg
Price	\$50

CHEMICALLY PROTECTED DEPLOYABLE MEDICAL SYSTEMS (CP-DEPMEDS)

The purpose of the CP-DEPMEDS is to provide a clean, toxic free, environmentally controlled patient treatment area necessary to sustain medical operations in a toxic environment, consisting of warfare agent resistant liners and tents, passageways and ISO shelters, with litter and ambulatory airlocks, motor blowers and filters and space heaters.

Weight	1,000 kg
Price	\$5,000

CIPRO

A drug used to combat anthrax, comes in pill form only.

Box of 9 tablets

Weight
Price \$0.95

COMBAT CORPSMEN BAG

For many years, US Combat Corpsmen as well as US Army medics have carried the "Unit One" combat medicine bag. It's their primary source of medical supplies in field environments. For obvious reasons items like the morphine injectors will be hard to come by. It's relatively lightweight, and can be opened without removing it from the shoulder. Although it comes equipped with standard supplies, these are often modified by individual Combat Corpsmen and medics to meet their tactical situation and personal preferences.

1 Airway	2 books of Field Medical Cards
1 card of Safety Pins	2 bottles of Aspirin
1 Oral Thermometer	2 Large Battle Dressings, (7¼" x 8")
1 pair of Scissors	2 Muslin Triangular Bandages
1 Pencil, Black Lead, Mechanical	2 packages of Atropine Injectors
1 roll of Adhesive Tape (3" x 5 yards)	2 packages of Gauze (3" x 5 yards)
1 roll of Wire Fabric (5" x 36")	3 bottles of Povidone-Iodine
1 Surgical Instrument Set	3 packages of Morphine Injectors
1 Tetracaine Hydrochloride Ophthalmic Solution	6 packages of Band-Aids
1 Tourniquet	8 Medium Battle Dressings (4" x 7")
Weight 4 kg	
Price \$200	

CZECH FIELD MEDICAL LAB

Fabulous lab set up, in 2 big wooden crates with steel hardware. Balance scale, large porcelain mortar & pestle, gas stove, folding table, Bunsen burner, requisite stainless tools, pipettes, sample bottles, cork stoppers.

Weight
Price \$950

CZECH FIRST AID KIT

A medic's case is filled with various sized sterile bandages, Mikov knife, stainless steel scissors and tweezers, tapes and soap. Sturdy canvas case stores gear in foldout compartments, easily buckled shut. Adjustable padded nylon shoulder strap and waist belt.

Weight 3 kg
Price \$50

CZECH MILITARY DENTAL FIELD CLINIC

Contained in 2 monster wooden crates is a complete dental clinic. One crate has the chair and the light and related. The big crate has everything else, literally. Drill unit, hundreds of drill bits, lots of mirrors, forms in all sizes, all the related stainless steel tools to poke and prod and make someone's life miserable. Just switch a portable generator to 220V and start drilling!

Weight 100 kg
Price \$600

DENTAL IMPRINTING KIT

Used for make dental impressions, comes with plenty of molding mass.

Weight 2 lbs
Price \$100

DENTAL REPAIR KIT

A kit designed to take care of most dental emergencies in the field.

1 1½" 18 gauge Needle
1 ⅝" Needle
1 '5-0' Nylon Suture with Needle
1 Intravenous Catheter

Weight 0.10 kg
Price \$14

1 Nitrile Barrier Gloves
2 Syringes (3 cc, 25 gauge)
4 Syringes (1 cc) with Needle
10 Antiviral/ Bacterial Towelettes

DENTAL TOOLS

Used by a dentist while conducting dental work.

DOCTORS BAG

This a civilian doctor's bag used for carrying instruments and medicines.

Weight 6 kg
Price \$650

DOSIMETER KIT

The dosimeter measures the personal radiation dose of an individual. It consists of an ionization chamber, a quartz fibber electrometer, a capacitor, and a microscope.

Weight 4 lbs
Price \$150

DRAIN

This is used for drain fluids out of the body.

Weight Nil
Price \$200

DRUG KIT

This kit contains the simple drugs that doctors and medics would need in the field.

Drugs in Ampoules

20 Aminophyline (to treat people with asthma)
20 Ipecac Syrup (to induce vomiting)
20 Isuprel (emergency treatment of allergic reactions to insect stings)
20 Lanoxin (helps the heart to beat more strongly and regularly)
20 Narcan (to treat overdoses of narcotic medications)
20 Nitroglycerin (to prevent heart attacks)
40 Aromatic Ammonia (to prevent or treat fainting)
40 Epinephrine (to treat life-threatening allergic reactions)
60 Inderel (to reduce high blood pressure)
100 Benadryl (to prevent motion sickness, nausea, vomiting, and dizziness)

Weight 30 kg
Price \$500

Filled Syringes

6 Valium (anti anxiety agent)
12 2-PAM Chloride (to treat exposition to nerve agents)
12 Atropine (helps restore or control heart function)
12 Dextrose (a.k.a. Corn Sugar)
12 Epinephrine (a.k.a. Adrenaline)
12 Lidocaine (local anesthetic)

Fluids in 500 ml IV Bags

12 5% Glucose
12 Artificial Blood
12 Normal Saline Bags

DRUG TESTING KIT

A simple urine testing kit used for testing to see if people have been taking drugs.

Weight Nil
Price \$50

DRUGS – COCAINE

Cocaine is very expensive, illegal and totally addictive. 3 doses of ¼ gram each are required daily to prevent withdrawal. An addict will want more than this however and should make a will roll every 4 hours to avoid taking another dose; this only applies if the user is trying to make his supply last.

While the effect lasts (4 hours per dose) the user will have the high pain threshold advantage and will not be affected by fatigue, but keep track of how much fatigue the user should have taken! The user also suffers from the delusion “I am invincible!” until the drug wears off.

Weight	1 gram
Price	\$1,200

DRUGS – HEROIN

Heroin is very expensive, incapacitating, illegal and totally addictive. Three doses of (0.3 grams x the number of months the person has been addicted if taken nasally; 0.1 grams x the number of months the user has been addicted if taken intravenously) each are required daily to avoid the effects of withdrawal. The user will be useless for work or combat. The effects of a dose last for 3 hours and the user must make a Will –3 roll to avoid taking another dose as soon as the previous dose wears off. IV overdoses are almost instantaneous, the user is found with the needle still in his arm.

Weight	1 gram
Price	\$1,500

DRUGS – LSD

LSD or “acid” is incapacitating, hallucinogenic, cheap (can be made from rye bread moulds, now fairly common since preservatives are no longer commonly used in food preparation) and illegal. The user will be out of service for 6 hours per dose ingested. The first dose will take about 30 minutes to take effect. One dose of LSD will tide over the average addict for a day.

Acid is relatively easy to walk away from once you’ve become addicted, +2 to withdrawal rolls. Unlike many drugs it is relatively safe to “overdose”, this will merely increase the time the hallucination lasts. The danger lies in forgetting things like eating, drinking and sleeping while under the effects of the drug. Roll vs. Will –5 to remember.

	1 Dose
Weight	
Price	\$10

DRUGS – MARIJUANA

Marijuana is fairly expensive, incapacitating and illegal. Marijuana or pot has similar effects as alcohol, but is smoked like a cigarette. Oddly enough, marijuana is now easier to find than tobacco, this is because pot can be grown locally (seeds for tobacco are not often found in a carton of cigarettes). Soviet and WP personnel seem to avoid this drug better than others for some reason.

One cigarette of marijuana (“joint”) will satisfy an addict for 1 day. An ounce bag is enough to make 20 “joints”.

	1 Joint	Ounce Bag	
Weight		1 oz	1 kg
Price	\$75	\$1,500	\$75,000

DRUGS – MORPHINE

A highly refined form of opium, morphine is a liquid that is administered intravenously. It is a medicinal drug as well as a “recreational pharmaceutical”. When used as medicine, it relieves the user of all pain. This gives a +2 to First Aid or Physician skills to treat injuries since the patient will not be writhing in agony. When used for recreation it gives the user the High Pain Threshold advantage and a delusion “Everything is just fine, no matter how bad it seems”.

One dose lasts for an hour. Morphine is totally addictive, illegal and expensive.

Weight	
Price	\$150

DRUGS – MORPHINE INJECTORS

Morphine injectors come in a variety of sizes and shapes. Shown here are auto-injectors containing 20 mg of Morphine Sulphate in 1 ml of water. Morphine is a narcotic used to relieve severe pain. It blocks much of the pain but also has a calming effect. It should not be used for minor pain. While mor-

phine is a powerful pain reliever, it can depress respirations. This isn't a problem for those in severe pain, as the pain itself blocks the respiratory depression effect of the morphine. For those in lesser amounts of pain, respiratory rate should be monitored periodically.

Weight Nil
Price \$20

DRUGS – OPIUM

The original form of morphine and heroin. Opium is a paste that is taken orally. One dose lasts for 2 hours. Opium is expensive, incapacitating, totally addictive and illegal.

Weight 1 gram
Price \$500

DRUGS – SPEED

Includes Amphetamine, Ephedrine and Phenylpropanolamine (PPA). Speed will cause the user to be alert and awake for the duration of the dose, but will incur double penalties for fatigue and lack of sleep. A single dose (2 pills) will take effect in HTx2 minutes and will last 5 hours. Speed is not addictive, but it is often abused by people to avoid sleeping or to “get more work done”.

1 Dose
Weight Nil
Price \$30

ECG/SPO2 MONITOR

This is a device for monitoring the heart rate and rhythm of a patient (ECG: electrocardiogram) and the level of oxygen in the blood (SpO₂: saturation of peripheral oxygen). It is battery powered and good for about 6 hours of continuous use.

Weight 0.70 kg
Price \$1,000

ECHINACEA

Echinacea cleanses the poisons, toxins and pus from any abscessed formation in the body, and increases bodily resistance to infection. It is one of the best cleansers of the Lymphatic System; helps to sweep dead cells and other debris through the channels of the lymphatic system, and dispatches white blood cells to fight infection. It redoubles the power of the lymph nodes to filter broken-down material within the body.

Most are “wild crafted”. The rest are purchased from reputable wholesalers, organic whenever possible. Tinctures are made on the new moon, shaken at least once a day, and then strained on the full moon. Great care is taken to follow nature and historic uses and methods as possible.

Weight	2 oz	4 oz	8 oz	16 oz
Price	\$12	\$20	\$40	\$70

FEMA EMERGENCY SURGICAL KIT

This kit, based on a military version of the same name, is designed for use by FEMA doctors who need to conduct emergency surgery.

1 ‘3-0’ Black Nylon Sterile Suture with attached Needle	1 Scalpel Handle
1 ‘5-0’ Black Nylon Sterile Suture with attached Needle	1 Sterile Scalpel Blade
1 5” Curved Hemostat	1 Surgical Probe
1 5” Pointed Forceps	1 Suture Lip Scissors
1 Custom Red Tri-Folding Case	1 Tincture of Benzoin Swab
1 Needle Holder Hemostat	2 Alcohol Pads
1 Operating Scissors	2 Antiseptic Towelettes
	10 Non-Suture Wound Closure Strips
Weight	
Price	

FEMA VILLAGE MEDICAL BAG

This was given out by FEMA shortly after the nuclear strikes to medical personnel. The idea was to

provide some medical access to surviving townspeople that couldn't make to the FEMA Camps.

¼ liter of 70% Alcohol	Ephedrine, 15 mg tablets
½ liter of White Vinegar	Epinephrine (Adrenalin), Injectable 1 mg ampoules
1 bar of Soap	Ergonovine, 0.2 mg injections or tablets
1 box of Surgical Gloves (100 pairs)	Iron (Ferrous Sulfate), 200 mg pills (best if pills also contain Vitamin C and Folic Acid)
1 jar of Petroleum Jelly (Vaseline)	Lindane (Gamma Benzene Hexachloride) 1 Bottle 393 and/or Sulphur Powder 20 grams
1 pair of Tweezers with Pointed Ends	Mebendazole, 40 tablets of 100 mg or 2 bottles
1 pair of Scissors	Metronidazole, 250 mg tablets
1 small bottle of Gentian Violet; or 1 tube of Antibiotic Ointment	Needles # 22, 3 cm Long; 3–6 # 25, 1.5 cm Long
1 small bottle of Hydrogen Peroxide	Penicillin, 40 250 mg tablets
1 Small Package of Cotton	Penicillin, Injectable; if only one, Procaine Penicillin 600,000 u/ml
1 tube of Antibiotic Eye Ointment	Penlight (Small Flashlight)
2 1", 2" & 3" Gauze Bandage Rolls	Phenobarbital, 15 mg tablets
2 rolls of Adhesive Tape (Adhesive Plaster), 1" Wide	Promethazine, 25 mg tablets
2 Syringes, 5 ml	Quinine
2 Thermometers	Several Plastic Bags
20 Sterile Gauze Pads in Individual Sealed Envelopes	Streptomycin, 1 gram vials (for combined use with penicillin)
100 grams of Sulphur	Tetanus Antitoxin, 50,000 units
Acetaminophen, 500 mg tablets	Tetracycline, 250 mg capsules or tablets
Ampicillin, 250 mg capsules	Vitamin A, 200,000 units capsules
Ampicillin, Injectable 250 mg ampoules	Vitamin K, 1 mg injections
Antivenom	
Aspirin, 50 300 mg (5 grain) tablets	
Catheter (Rubber or Plastic # 16 French)	
Chloroquine	
Cotrimoxazole (Sulfamethoxazole, 400 mg with Trimethoprim, 80 mg)	
Elastic Bandages, 2" & 3" Wide	
Weight 10 kg	
Price N/A	

FIELD ANESTHESIA SYSTEM

The Field Anesthesia System includes components and accessories necessary to administer anesthesia in an expeditionary field environment. It is stored in a single lightweight durable case, which protects the components during transport and acts as an integral part of the system during anesthesia delivery.

Weight	185 lbs
Price	\$800

FIELD DENTAL KIT

A small kit for use by characters with Medical (Surgical) skill that also have dental knowledge. It is, however, designed for use by amateurs. It does not necessarily provide the materials for a permanent solution to dental problems.

1 Dental Instructions Book	1 Spatula
1 Dental Mirror	10 Gauze Pads (100 x 100 mm)
1 Forceps	10 units of Local Anesthetic
1 Mixing Dish	100 grams of Filling Material
1 package of Cotton Balls	100 grams of Cementing Material
1 pair of Tweezers	100 units of Tooth Ache Remedies
Weight 0.3 kg	
Price \$700	

FIELD DRESSINGS, LARGE

Large Battle Dressings are used for the largest wounds. They measure 12" x 12". Like the Medium Battle Dressings, they have 4 cloth (muslin) tails. When fully saturated, a Large Battle Dressing will

contain about 650 ml of blood (a little more than one unit of whole blood).

Weight 0.25 kg
Price \$20

FIELD DRESSINGS, MEDIUM

Also found in most medical kits (but not the personal medical kit). Medium Battle Dressings are used for larger wounds. They measure 7.25" x 7.25". While the Small Battle Dressings have 2 cloth (muslin) tails, the Medium Battle Dressings have 4. When fully saturated, a Medium Battle Dressing will contain almost 400 ml of blood. The plastic wrapper can be used (with adhesive tape) to effectively occlude an open chest wound. 190 x 203 mm.

Weight 0.11 kg
Price \$9

FIELD DRESSINGS, SMALL

The normal size found in first aid kits and personal medical kits. 100 x 180 mm.

Weight 0.05 kg
Price \$4

FIELD MEDICAL ASSORTMENT #1

A kit typically carried by medics, nurses, and doctors.

1 bar of Antibacterial Soap (100 grams)	6 Antacid Tablets
1 Compress Bandage (100 mm)	6 Butterfly Bandages
1 Needle	6 Gauze Pads (100 x 100 mm)
1 pair of Tweezers	10 Alcohol Pads
1 Razor Blade	10 m of Sutures
1 Thermometer	12 Band-Aids (various sizes)
1 Wire Mesh Splint (1 m)	100 ml of Antiseptic
2 rolls of Gauze (25 mm x 5 m)	100 units of Mild Pain Reliever
3 Surgical Needles	
Weight 0.6 kg	
Price \$500	

FIELD MEDICAL ASSORTMENT #2

A larger version of the above.

1 Compress Bandage (100 x 180 mm)	4 Safety Pins
1 Compress Bandage (190 x 203 mm)	6 Butterfly Bandages
1 Compress Bandage (300 x 300 mm)	6 Surgical Needles
1 Cravat (1 x 1 m)	8 Antacid Tablets
1 Elastic Bandage (75 mm x 2.5 m)	10 Cotton Swabs
1 Forceps	10 Gauze Pads (100 x 100 mm)
1 Hypothermia Thermometer	10 Telfa Pads (75 x 100 mm)
1 Needle	10 units of Antihistamine
1 pair of EMT Shears	10 units of Mild Sedative
1 pair of Vinyl Examining Gloves	10 units of Strong Sedative
1 Wire Mesh Splint (1 m)	20 Alcohol Pads
2 bars of Antibacterial Soap (100 grams)	20 m of Sutures
2 Eye Pads	20 ml Plastic Bottle
2 Moleskins (75 x 100 mm)	20 Salt Tablets
2 Razor Blades	32 Band-Aids (assorted sizes)
2 rolls of Gauze (50 mm x 5 m)	100 grams of Antiseptic Gel
3 Suture Strips	100 ml of Antiseptic
4 Adhesive Knit (25 x 75 mm)	100 units of Mild Pain Reliever
Weight 1.4 kg	
Price \$800	

FIELD MEDICAL CARD

The Field Medical Card is about 4" x 8" and serves as the medical record for battle injuries for US

and NATO Forces. It is designed to provide medical information about the injury and the care provided to the wounded soldier. It records the injury, illness and treatment during combat. It records the patient disposition, including death. It records outpatient visits when the medical record is not available.

When a patient is transferred from one Medical Treatment Facility (MTF) to another further to the rear, the card goes with the patient. It remains attached to him or his clinical record (when established), until he reaches a hospital, dies and is buried, or is returned to duty.

Weight Nil
Price N/A

FIELD SURGICAL KIT

A set of stainless steel instruments for use in emergency operations. These kits are often seen in the hands of Special Forces medics and civilian paramedics. The instruments come in a zippered cloth pouch with an emergency surgery manual. The kit also contains, in sterile pouches (upon first use):

1 pair of Bandages Scissors	1 Suture Kit (20 operations)
1 pair of Suture Scissors	2 pairs of Forceps
1 pair of Tweezers	10 units of +/- Antibiotic
1 Penlight	10 units of Local Anesthetic
1 Scalpel Handle with Blade	10 units of Total Anesthetic
1 set of Prep Pads (20 operations)	20 Scalpel Blades

Weight 1 kg
Price \$450

FIRST AID KITS – FIRST AID ASSORTMENT #1

This is an assortment of minor medical supplies assembled into a kit.

1 Bandage Compress (100 mm)	1 Safety Pin
1 Moleskin (75 x 100 mm)	2 Gauze Pads (100 x 100 mm)
1 Needle	2 Telfa Pads (100 x 75 mm)
1 Razor Blade	4 Alcohol Pads
1 roll of Gauze (25 mm x 5 m)	8 Band-Aids (various sizes)
1 roll of Medical Tape (25 mm x 10 m)	

Weight 0.25 kg
Price \$40

FIRST AID KITS – FIRST AID ASSORTMENT #2

Another assortment of medical supplies.

1 Bandage Compress (100 mm)	1 roll of Medical Tape (25 mm x 10 m)
1 Cravat (1 x 1 m)	4 Butterfly Bandages
1 Moleskin (75 x 100 mm)	4 Gauze Pads (100 x 100 mm)
1 Needle	4 Safety Pins
1 pair of Tweezers	4 Telfa Pads (100 x 75 mm)
1 Razor Blade	6 Alcohol Pads
1 roll of Gauze (25 mm x 5 m)	12 Band-Aids (various sizes)

Weight 0.4 kg
Price \$65

FIRST AID KITS – FIRST AID ASSORTMENT #3

A larger first aid kit, normally found in a plastic box issued with NATO and US vehicles. The kit features a set of first aid instructions that allow a +2 Medical (Trauma Care) during first aid attempts.

1 Carlisle Dressing	2 Telfa Pads (75 x 100 mm)
1 Cravat (1 x 1 m)	3 Compress Bandages (100 mm)
1 pair of EMT Shears	5 Alcohol Pads
1 pair of Tweezers	10 Safety Pins
1 roll of Gauze (25 mm x 5 m)	10 Salt Tablets
1 Thermometer	20 Cotton Swabs
2 rolls of Medical Tape (25 mm x 10 m)	50 units of Mild Pain Reliever

50 ml of Antiseptic
100 ml Burn Mixture

Weight 0.8 kg
Price \$250

100 ml Petroleum Jelly
100 grams Antiseptic Gel

FIRST AID KITS – FIRST AID ASSORTMENT #4

A small assortment normally issued to airborne troops.

1 Compress Bandage (100 mm)
1 Cravat (1 x 1 m)
1 pair of Small Scissors
1 pair of Tweezers
1 roll of gauze (25 mm x 5 m)
1 roll of Medical Tape (25 mm x 10 m)
4 Alcohol Pads

4 Safety Pins
10 Band-Aids (various sizes)
25 units of Mild Pain Reliever
25 units of Mild Sedative
50 ml of Antiseptic
100 grams of Antiseptic Gel

Weight 0.45 kg
Price \$100

FIRST AID KITS – FIRST AID BOX

This is the box that the First Aid Assortment #4 is issued in.

Weight Nil
Price \$2

FIRST AID KITS – FIRST AID KIT

This is a commercial available first kit aid sold by outdoors and sporting good stores. This kit is designed for camping and other outdoor activities.

1 Burn Blanket
1 pair of Heavy Duty Shears
2 Resuscitation Masks, Disposable
4 Eye Pad with Conforming Bandage
4 packs of 5 Sterile Swabs
4 Sterile Dressings with Conforming Bandage
4 Sterile Dressings with Conforming Bandage
6 Burn Dressings
6 Burn Dressings (2 Face, 4 Hand)

6 Sterile Dressings with Conforming Bandage
6 Sterile Dressings with Conforming Bandage
8 Triangular Bandages
10 pairs of Disposable Latex Gloves
12 Safety Pins
16 Crepe Bandages
20 Cleaning Wipes
100 Minor Analgesics
100 Waterproof Adhesive Dressings

Weight 4 kg
Price \$350

FIRST AID KITS – FIRST AID KIT GENERAL PURPOSE

Issued to US and allied forces during the 1960s right thru 1980.

Weight
Price \$65

FIRST AID KITS – FIRST AID POUCH

This is an US Army issued item and is a part of the ALICE web gear system Contains a bandage and 5 cleaning wipes.

Weight Nil
Price \$10

FIRST AID KITS – GP FIRST AID MEDICS BAG

Everything you need for that unexpected emergency. Packaged in a 3 section nylon medical pouch with carrying strap.

1 bar of Soap
2 Cotton Elastic Bandages
2 pairs of Medical Gloves

5 packets of Aspirin
14 packets of Antiseptic Towelettes
15 packets of Alcohol Prep Pads

15 packets of Iodine USP Prep Pads,
Medium
15 packets of Wash-Up Towelettes
Bandage Tape
Burn Aid Gel
Camouflage Gauze Bandage Roller
Combine Dressing
Cotton Tip Applicators
Field Dressing Squares
First Aid Cream
Gauze Bandage
Hand Sanitizer
Instant Cold Pack

Weight 2 kg
Price \$100

Large Dry Gauze Bandage
Peroxide
Pill Bottle
Scissors
Self Adherent Bandage
Sling
Sterile Eye Pad
Sterile Sponges
Sutures
Syringe
Tongue Depressor
Triple Antibiotic Ointment

FIRST AID KITS – JUNGLE FIRST AID KIT

A compact, easy to store and carry First Aid Kit, ideal for keep in cars, boats, offices, cabins... Comes in a 8" x 6" water tight zip-pouch, or in a great 6½" x 5" camouflage pouch with hook and loop opening and two pockets.

½" Medical Tape
1 Eye Pad
10 Pain Relievers
2" x 2" Sterile Pads
4" x 4" Sterile Pads
Alcohol Towelettes
Antiseptic Pads
Bandage Gauze 2" x 6 yards
Clean-Up Towelettes

Weight 1 kg
Price \$20

First Aid Cream
First Aid instructions
Iodine Pads
Large Adhesive Strips
Scissors
Small Adhesive Strips
Triple Antibiotic Ointment
Tweezers

FIRST AID KITS – PERSONAL FIRST AID KIT

The Personal First Aid Kit is designed for use by one person. That means that when someone gets injured the person who renders first aid reaches for the casualty's kit rather than using supplies from their own. This is logical because it means that individuals always have access to basic first aid equipment and don't run out because they've used all the stuff from their own kit on someone else.

This represents a typical kit, which would be expected to contain the following items. It measures approximately 10 x 15 x 5 cm.

1 Burn Dressing (20 cm x 45 cm)
1 Crepe Bandage
1 pair of Disposable Gloves, Latex
1 Sterile Dressing with Conforming Bandage
2 Sterile Dressings with Conforming Bandage

Weight 0.50 kg
Price \$20

2 Triangular Bandages
4 Safety Pins
6 Cleaning Wipes
20 Aspirin Tablets
20 Sticking Plasters
50 Waterproof Adhesive Dressings

FIRST AID KITS – PERSONAL FIRST AID KIT

It is an economical trauma pack for on site response. It provides the basic supplies needed for most emergencies. Comes in a nylon bag, has 5 compartments for easy access.

1 8-oz bottle of Hydrogen Peroxide
1 EMT Shears
1 First Aid Manual
1 Forceps
1 Rescue Blanket

1 Sterile Sheet
1 tube of Burn Ointment
2 Eye Wash
2 rolls of Adhesive Tape
3 CPR Micro-shields

4 Eye Pads
 4 pairs of Latex Gloves
 5 Cold Packs
 5 Combine Dressings

Weight 1.89 kg
Price \$60

5 Conforming Bandages
 25 Gauze Pads
 50 Antiseptic Wipes
 100 Adhesive Bandages (various sizes)

FIRST AID KITS – SMALL FIRST AID KIT

This US Government Issued kit is designed to provide first aid in the field. Used by FEMA and US Park Service.

1 Triangle Bandage
 2 Zip-loc Bags (2 gallons)
 4 Butterfly Closures
 4 oz Drinking Water, retort pack
 4 pairs of Disposable Gloves
 5 1½" x 2" Pads
 5 2" x 3" Bioclusive Dressings
 6 2" x 3" Pads
 7 2" x 3" Adhesive Pads
 7 4" x 4" Pads
 10 3" x 4" Adhesive Pads
 12 Safety Pins
 80 Band-Aids, assorted Strip and Spot
 Cold Compress, crush to activate type
 Cotton swabs

Weight 2 kg
Price \$100

Cyalume Sticks (1 red, 1 yellow)
 Eye Bath Cup (1 Table Spoon capacity)
 Fever Thermometer
 Kling Gauze 4" x 5 yards
 Neosporin (antibiotic cream)
 Paper Adhesive Tape ½" x 5 yards
 Pump Style Snake Venom Remover
 Triage - Emergency Care Handbook,
 191 pages, 7" x 9"
 Vial of Alcohol
 Vial of Boric Acid Powder
 Vial of Hydrogen Peroxide
 Vial of Witch Hazel
 Wet-proof Adhesive Tape ½" x 10 yards

FIRST AID KITS – VEHICLE FIRST AID KIT

Found in all NATO AFV Vehicles.

1 Burn Blanket
 12 Safety Pins
 4 Eye Pads with Conforming Bandage
 4 Sterile Dressings with Conforming
 Bandage

Weight 4 kg
Price \$100

6 Sterile Dressings with Conforming
 Bandage
 8 Triangular Bandages
 100 Waterproof Adhesive Dressings
 Packs of 5 Sterile Swabs

FRENCH FIRST AID KIT BOX

Four clasps on the box to keep lid on box. Measures 9½" long by 3" deep by 5" wide.

Weight Nil
Price \$10

HAND SANITIZER

Kills most germs in seconds and then evaporates, good for 15 uses.

Weight
Price \$1

HOSPITAL SURGICAL KIT

Used for performing surgery. Similar to the Field Surgical Kit, but generally found in hospitals. Comes in a sealed container.

1 Bandage Scissors
 1 Curved Hemostat Forceps
 1 Kelly Forceps
 1 Scalpel
 1 Single-Use Sterile Tray

1 Stainless Steel Needle Holder
 1 Straight Hemostat Forceps
 1 Straight Sponge
 1 Suture Scissors
 1 Tissue Forceps

1 Wound Probe
 2 Absorbent Towels
 2 Holding Forceps
 4 Prep Pads
 4 Tweezers

5 Gauze Sponges
 5 Sterile Surgical
 10 Clamps
 10 Scalpel Blades
 10 Sterile Sutures

Weight 68 kg
Price \$800

HYDROGEL

Hydrogel is a “conductive” hydrophilic/hydrophobic copolymer adhesive gel that resists fluid and conforms well to just about all surfaces (sticks to just about everything). Hydrogel is most commonly associated with medical industry as that sticky backing on those EKG electrode pads. Hydrogel offers an adhesive, breathable polyurethane border, eliminating the need for tapes and conforms to “hard-to-dress” areas. Used within a burn and wound sheet dressing, the Hydrogel protects the wound from dehydration and exogenous contamination.

More recently it has found uses within the construction industry (acts as a medium in which an ionic current will flow through and ultimately protects rebar from corrosion) and more importantly within the military as a key component of the “breacher’s” tool kit. Because of the nature of this gel, Hydrogel will adhere to almost all surfaces in most environmental temperatures. This material can be easily cut into thinner width strips and shorter lengths to build traditional or custom charges. The material replaces or reduces the need for putty and/or riggers’ tape.

1 Tube
Weight 0.25 kg
Price \$100

IODINE TABLETS

Makes water safe to drink, but leaves a strong metallic taste. One unit is sufficient to treat 1 quart of water; 30 minutes are required for the iodine to work.

100 Units
Weight 0.05 kg
Price \$30

IV CATHETER KIT (“STICK KIT”)

Tubing and either needle or catheter. Required for use of IV Fluid, Whole Blood, or Plasma.

Weight 0.01 kg
Price \$20

IV FLUID

Available in two sizes, 500 ml and 1000 ml bags.

	<i>500 ml</i>	<i>1,000 ml</i>
Weight	0.5 kg	1 kg
Price	\$100	\$200

KERLIX ROLLER BANDAGE

This rolled gauze provides a flexible, absorbent material, good for general bandaging purposes.

Weight Nil
Price \$2

LATEX GLOVES

Ultra-thin, disposable surgical latex gloves, intended principally for medical use. They have however found their way into various other uses: they are useful for handling heat-sensitive explosives and also for wearing when fingerprints cannot be left (but perhaps the wearer does not wish to be seen to be wearing gloves).

Weight Nil
Price \$2

M-3 FOLDING MEDIC BAG

Commonly known as the Combat Lifesavers Bag, the M-3 folding medic bag is packed to the brim with critical use lifesaving supplies, all in a handy carrying bag with shoulder strap. Each bag has three separate compartments that contain items ranging from pressure dressings & gauze, to a cold pack, to hydrogen peroxide, sutures & hand sanitizer. Please note: the M-3 Medic bag does not contain controlled medications, needles, or fluid replenishes such as saline/Lactated Ringers.

1 Abdominal Pad	1 Tweezers
1 Airway	2 Cotton Tip Applicator
1 Burn Aid Package	2 Dry Gauze Bandage
1 Conforming Bandage	2 Elastic Bandages
1 EMT Shears	2 First Aid Cream
1 Eye Pad	2 Medical Tape
1 Field Dressing	2 pairs of Latex Gloves
1 Hand Sanitizer	2 Sutures
1 Hand Soap	2 Triple Antibiotic
1 Hydrogen Peroxide	4 Gauze Bandages
1 Ice Pack	4 Sterile Sponges
1 Irrigation Syringe	6 Safety Pins
1 Magnifying Lens	10 Aspirin Tablets
1 Pill Bottle	15 Alcohol Wipes
1 set of First Aid Instructions	15 Antiseptic Wipes
1 Splint	15 Clean Wipes
1 Stainless Steel Hemostat	15 Iodine Wipes
1 Triangular Bandage	16 Bandage Strip
Weight 2 kg	
Price \$70	

MEDIC BAG, "AIRBORNE"

So called because these pouches were first designed for paratroopers in World War II. The pouch is hard in order to resist crushing. Holds 2.5 kg.

Weight	0.2 kg
Price	\$15

MEDIC BAG, LARGE

Holds 8 kg, and is organized for storage and quick finding of medical supplies.

Weight	1 kg
Price	\$40

MEDIC BAG, SMALL

A smaller version of the above. Holds 4 kg.

Weight	0.3 kg
Price	\$25

MEDIC'S AID BAG

Basic issue item for combat medics. Contains:

1 Basic Surgical Instrument Kit	10 IV bags (1,000 ml)
1 Casualty Blanket	100 doses of Mild Pain Reliever
5 Stick Kits	Bandages, Dressings and other assorted medical supplies for trauma first aid
10 doses of Atropine (auto-injectors)	
10 doses of Liquid Anesthetic (total)	
10 doses of Oral Antibiotic (+/-)	
10 doses of Sedative (strong, auto-injectors)	
Weight 12 kg	
Price \$2,000	

MEDICAL ARM BAND

This is a simple arm band worn by medical personnel.

Weight Nil
Price \$2

MEDICAL KITS – CIVIL DEFENSE SHELTER MEDICAL KIT

Designed to conduct basics first aid, this kit comes in two forms: Kit A which supplies 50-65 persons, and kit C which supplies 300-325 persons. These kits were placed in many Civil Defense Shelters located through the US and Canada.

	<i>Kit A</i>	<i>Kit C</i>
Applicator, Wood, Cotton Tip End (pack of 100)	1	6
Aspirin Tablet (bottle of 500)	1	-
Aspirin Tablet (bottle of 1,000)	-	3
Bandage, Gauze Roller 2" x 6 yards (pack of 12)	1	6
Bandage, Muslin 37" x 37" x 52" (each)	1	6
Cascara Sigrid Tablet (bottle of 100)	1	6
Depressor, Tongue, Wood (pack of 100)	1	3
Eugenol (1 oz bottle)	1	1
Eye & Nose Drops (½ oz bottle)	3	18
Forceps (each)	1	1
Isopropyl Alcohol (1 qt can)	1	6
Kaolin & Pectin Powder (40 grams bottle)	3	16
Manual: <i>Medical Care in Shelter</i>	1	1
Pads, Gauze, Surgical 4" x 4" (pack of 200)	1	6
Penicillin G Tablet (bottle of 100)	2	12
Petrolatum, White (1 lb can)	1	3
Phenobarbital Tablet (bottle of 500)	1	-
Phenobarbital Tablet (bottle of 1,000)	-	3
Pin, Safety 1½" (pack of 12)	3	12
Purified Cotton (1 lb package)	1	3
Scissors, Pocket, Straight 4" (each)	1	3
Soap, Surgical (1¾ oz cake)	6	36
Sodium Bicarbonate (1 lb can)	1	2
Sodium Chloride (1 lb can)	1	2
Sulfadiazine Tablet (bottle of 500)	1	-
Sulfadiazine Tablet (bottle of 1,000)	-	3
Syringe, Fountain (each)	1	1
Thermometer (each)	1	4
Water Purification Tablets [iodine] (bottle of 50)	2	12
	<i>Kit A</i>	<i>Kit C</i>
Weight	5 kg	20 kg
Price	\$100	\$300

MEDICAL KITS – JUNGLE MEDICAL KIT (INDIVIDUAL)

Comes with everything you may need in the jungle.

Weight
Price \$55

MEDICAL KITS – LARGE/SURGICAL MEDICAL KIT

This kit was designed for medical doctors operating away from regular hospitals. This kit is used by many aid agencies and government agencies like FEMA.

1 Betadine Scrub Brush	1 Ear Syringe (Suction Bulb)
1 bottle of Betadine Paint	1 Eye Dropper
1 bottle of Hydrogen Peroxide	1 Foley Catheter
1 bottle of Rubbing Alcohol	1 Laryngoscope
1 Chest Tube	1 Needle Holder
1 Cotton Sewing Thread and Needle	1 New Born Suction Trap
1 Crico-Thyrotomy Tube	1 Pedi Handle

1 Salem Sump (18f, 14f)
 1 Scalpel Handle
 1 Splinter
 1 Stethoscope
 1 Stylet
 1 Suction Catheter (14f)
 1 Suction Hose
 1 Thermometer
 1 Tonsil Suction Tip
 1 tube of Betadine Ointment
 1 Umbilical Cord Clamp
 2 Gauze Roller Bandage
 2 Grease Gauze Dressing
 2 Hemostat
 2 Kotex Dressings
 2 Pickups
 2 rolls of Tape
 2 Scissors
 4 Blades Miller #3 Mac #3
 4 Forceps
 5 Tongue Blades
 10 Airways
 10 ET Tubes
 10 Razor Blades
 10 Triangle Bandages
 20 Betadine Prep Pads
 20 Field Dressings
 20 Moleskins
 20 Splints (Wire and Air), Tourniquet

Weight 11.5 kg
Price \$1,100

25 pairs of Gloves Sterile
 25 Sterile Strips
 50 Alcohols Wipes
 50 Eye Patches
 50 Eye Shields
 50 Sponges
 50 Sutures
 100 Antiseptic Towelettes
 100 Betadine Wipes
 100 Q-Tips
 100 Safety Pins
 100 Sterile Strips
 1,000 Band-Aids
 Ace Bandage
 Dental Pickups
 IV Administration Sets
 IV D5/W 500 cc
 IV D50/W 50 cc
 IV Extension Sets
 IV Jelcos
 IV Lactated Ringers 1,000 cc
 IV Normal Saline 1,000 cc
 IV Pressure Bag
 Penicillin (Oral and Parenteral)
 Safety Pins
 Scalpel Blades: #15, #10, #11
 Surgical Needles
 Syringes
 Tiny Cotton Balls

MEDICAL KITS – MEDIUM MEDICAL KIT

This kit is design to provide first aid in the field. This kit is used by many aid agencies and government agencies like FEMA.

1 Benadryl 50 mg/cc
 1 roll of Vaseline Gauze
 1 Scalpel Blade #10
 1 Scalpel Blade #11
 1 Scalpel Blade #15
 1 Syringe (3 cc)
 1 tube of Betadine Prep (4 oz)
 12 Lomotil
 15 Band-Aids
 2 Epinephrine 1:1000
 2 Eye Dressing (Pads)
 2 Needles (18 gauge)
 2 Needles (20 gauge)
 2 pairs of Gloves Sterile
 2 Tongue Blades
 2 Triangle Bandage
 3 Hemostats
 4 Alcohol Wipes
 4 Betadine Wipes
 4 Field Dressing
 4 Pill Vials

Weight 8.5 kg
Price \$200

4 Sponges
 4 Sutures
 5 Atropine 0.4 mg/cc
 5 Razor Blades
 6 Betadine Ointments
 8 Neosporin Ointment
 25 Safety Pins (in assorted sizes)
 ASA (Adult)
 Cotton Balls
 Insect Repellent
 Liquid Soap
 Maalox
 Needle Holder
 Paramedic Scissors
 Pickups without Teeth
 Scalpel Handle
 Signal Mirror
 Straight Mayo Scissors
 Tape (1" satin tape wrapped on match-stick and stored in a pill vial)
 Tylenol (Adult)

MEDICAL KITS – NBC MEDICAL KIT

The individual NBC Medical Kit puts at a character's disposal a complete series of preventive and First Aid medications, absolutely necessary not only in case of CW attack, but also to alleviate the most common illnesses under training, operational or civilian urgency needs. The different items are disposed in logical order and are immediately located. They are secured in such a way to eliminate the vibrations and shocks problems the kit can be exposed to during training, operations and transport. Its reduced dimensions allow the kit to be carried in the respirator haversack or in any rucksack's pocket. The container's fabric has been specifically designed to withstand all climatic conditions. Its reliability is therefore assured.

Contents:

- **Anti-Shock Powder:** To be used in case of heavy loss of liquid due to vomit, diarrhea, sweat, etc.
- **Atropine Sulphate Auto-Injectors:** For Nerve agent attacks, human respiration problems and food poisoning treatment.
- **Chemical Agent Liquid Detector Papers:** Detector papers for CW agent attack.
- **Decontaminant Powder:** Individual and small-scale decontamination capability.
- **Eye Lotion:** Acts as an eye decongestant.
- **Metalline Burn Compresses:** Protection for burns, blisters and heavy skin irritation.
- **Painkiller Tablets:** Against rheumatic, traumatic and ulcer pain, headache, toothache, etc.
- **Piroadostigmine Bromide:** Preventive treatment for Nerve agent attack.
- **Protective Earplug:** Against all kinds of noises.

Weight 1 kg

Price \$200

MEDICAL KITS – PARAMEDIC KIT

The Paramedic kit is the most comprehensive set of medical supplies available, next to Special Forces Medical Kit. The kit is carried and used by 2 people, a paramedic or doctor and an assistant. Although the Paramedic Kit can be carried in the trunk of most cars it will take 2 people to carry it to the scene. It is normally supplied packed in 2 backpacks for ease of carriage.

1 Bag, Valve, Mask	2 rolls of Gauze
1 Compress Bandage	2 Upper Limb Splints, Inflatable
1 Compress Bandage	3 Suture Strips
1 Compress Bandage	4 Adhesive Knit
1 Cravat	4 Safety Pins
1 Elastic Bandage	4 Solution Giving Sets
1 Forceps	5 Endotracheal Tubes
1 Hypothermia Thermometer	6 Butterfly Bandages
1 Needle	6 Surgical Needles
1 pair of EMT Shears	8 Antacid Tablets
1 pair of Forceps	10 Cotton Swabs
1 pair of Heavy-Duty Shears.	10 Gauze Pads
1 pair of Vinyl Examining Gloves	10 Telfa Pads
1 Sharps Bin	10 units of Antihistamine
1 Sphygmomanometer	10 units of Mild Sedative
1 Stethoscope	10 units of Strong Sedative
1 Wire Mesh Splint	12 Intravenous Sets
1 Intubation Stylet	12 Syringes, Assorted Sizes
2 bars of Antibacterial Soap	20 Alcohol Pads
2 Eye Pads	20 Salt Tablets
2 Intravenous Fluids, Colloid (500 ml)	32 Band-Aids
2 Intravenous Fluids, Crystalloid	100 units of Mild Pain Reliever
2 Lower Limb Splints, Inflatable	Antiseptic (100 ml)
2 Moleskins	Antiseptic Gel (100 grams)
2 Razor Blades	Plastic Bottle (20 ml)
2 rolls of ET Tape	Sutures (20 m)

Weight 10 kg

Price \$700

MEDICAL KITS – SMALL MEDICAL KIT

This kit is designed for doctors or paramedics who need to quickly patch up persons and stabilize them for transport to the hospital. This kit is used by many aid agencies and government agencies like FEMA.

1 ampoule of Benadryl	2 ampoules of Epinephrine 1:1000
1 bar of Soap	2 Eye Dressing (Pads)
1 Eye Shields	2 Hemostats
1 Nail Clippers	2 pairs of Gloves Sterile
1 Needle Holder	2 Sponges (2 packs with 2 each)
1 Pickup with Teeth	2 Triangle Bandage
1 Razor Blade	3 Pill Vials
1 roll of Gauze 1"	4 Alcohol Wipes
1 roll of Vaseline Gauze	4 Betadine Wipes
1 Scalpel Blades #10	4 Sutures
1 Scalpel Blades #11	5 Q-Tips
1 Scalpel Blades #15	5 Tongue Blades
1 Scalpel Handle	6 Band-Aids
1 Scissors	6 Betadine Ointments
1 Syringe 3 cc	6 Field Dressing
1 Thermometer	25 Safety Pins (assorted sizes)
1 tube of Betadine Prep (4 oz)	Cotton Balls
Weight 6.50 kg	
Price \$400	

MEDICAL KITS – SPECIAL FORCES MEDICAL KIT

Used by Special Forces medics to provide on site emergency medical care.

1 4.5" Splinter Forceps	4 rolls of Gauze
1 All-Purpose Shear	4 Sterile Pressure Bandage with Elastic Ties
1 Aluminized Cattery Unit	4 Triangular Bandages
1 Blood Pressure Cuff	5 Burn Sheet Type Dressings
1 Cervical Collar	5 Sterile Absorbents
1 Digital Thermometer	5 tubes of Water-Jelly
1 Elastic Bandage with Velcro	6 Eye Pads
1 Eye Irrigating Solution	10 ½ oz Ammonia Inhalants
1 Forceps	10 Adhesive Bandages
1 Mylar Emergency Blanket	10 Alcohol Preps 2 PLY
1 Oral Airway Pack with Set of 6 Sizes	10 Butterfly Bandages
1 package of Cotton	10 Dressings
1 Penlight with Pupil Gauge	10 Field Dressings
1 roll of Plastic Tape	10 Gauze Pads
1 Rolled Wire Splint	10 Gauze Pads
1 Stethoscope	10 Gauze Pads
1 Towel	10 Iodine Prep Pads
1 tube of Aloe Vera Gel	10 Sutures
1 tube of Burn Jelly	10 Triple Antibiotic Ointments
1 Tweezers	10 Wipe & Dry Towelettes
2 Chemical Hot Packs	12 Antibacterial Antiseptic Towelettes
2 Chemical Ice Packs	20 Motrin Tablets
2 Cotton Tipped Applicators	20 Tylenol Tablets
2 Elastic Bandages	26 Antihistamine Packets
2 Oral Rehydration Salts Packets	50 Fabric Adhesive Bandage Knuckles
2 rolls of Cloth Adhesive Tape	50 Fabric Adhesive Bandage Large Fingertips
2 Self-Adherent Bandages	50 Fabric Adhesive Bandage Large Patches
4 ½" Splinter Clamps	50 Fabric Adhesive Bandage Small Fingertips
4 Combine Pads	60 Antiseptic Wound Cleaner
4 Conforming Bandages	
4 Conforming Bandages	
4 Hypodermic Needles	
4 Moleskin Packages	

Weight 2 kg
Price \$250

MEDICAL KITS – WORLD TRAVELER MEDICAL KIT

Designed for travel into Third World and developing countries. Includes treatment for Dehydration, Wounds, Blisters, Allergic Symptoms, Colds, Flu, Headache, Muscle Ache, Diarrhea, Insect Bites, Virus Transmission, and other associated problems.

1 20 cc. Irrigation Syringe	2 Tinactin Antifungal Cream
1 5" x 9" Trauma Pads	2 Tincture of Benzoin
1 Adhesive Tape 10 yards	3 Cortisone Creams
1 Antimicrobial Hand Wipes	3 Safety Pins
1 Comprehensive Guide	3 Sting Relief Pads
1 Conforming Gauze Bandage	4 Cotton Tipped Applicators
1 Elastic Bandage with Velcro	4 Double Antibiotic Ointments
1 EMT Shears or Bandage Scissors	6 Antihistamine
1 Infectious Control Bag	6 Antiseptic Towelettes
1 Insect Repellent	6 Diamode (Immodium)
1 Moleskin Kit	8 Dristan
1 Pencil	8 Extra Strength Tylenol
1 Splinter Picker Forceps	8 Motrin
1 Thermometer	8 Mylanta
2 Nitrile Examination Gloves	10 Wound Closure Strips
2 Non-Adherent Sterile Dressings	15 Strip & Knuckle Bandages
2 Oral Rehydration Salts	16 Gauze Pads
2 Pill Vials	50 Water Purification

Weight 0.25 kg
Price \$76

MEDICAL REFERENCE SET

This is a complete set (12 volumes) of army medicine textbooks used as reference material by medical personnel, commonly found in field hospitals and other medical units. Add 1 point to any medical skill when used before performing a task.

Volume I – *Emergency War Surgery*
Volume II – *Anesthesia and Pre-Operative Care of the Combat Casualty*
Volume III – *Conventional Warfare: Ballistic, Blast, and Burn Injuries*
Volume IV – *Ophthalmic Care of the Combat Casualty*
Volume V – *Medical Aspects of Chemical and Biological Warfare*
Volume VI – *Medical Aspects of Harsh Environments*
Volume VII – *Medical Consequences of Nuclear Warfare*
Volume VIII – *Military Dermatology*
Volume IX – *Military Medical Ethics*
Volume X – *Military Preventive Medicine*
Volume XI – *Rehabilitation of the Injured Combatant*
Volume XII – *War Psychiatry*

Weight 20 kg
Price \$1,000

MEDICAL REFILL KIT

This is a generic assortment of bandages, dressings, band-aids and other disposable contents of the medic's aid bag, doctor's medical kit, etc. Medical kits must be periodically refilled as the supplies are used. This listing does not include any of the drugs or IV fluid normally contained in the bag/kit. Price listed is for 10 treatment units.

Weight 2 kg
Price \$300

MEDICAL SHELTER SYSTEM

The Medical Shelter System is an advanced medical shelter designed to be a Chemically Protected

Deployable Medical System (CP-DEPMEDS) to improve shelter quality for medical personnel. The MSS is the latest effort in utilizing high-pressure airbeam technology. The main benefit of this system is that it allows soldiers to rapidly deploy and quickly get a medical staff into a clean work environment. It takes 4 troops in 15-20 minutes to assemble the shelter.

Weight 200 kg
Price \$3,000

MEDICAL STERILIZER

This device is used for sterilization of surgical instruments.

Weight 200 kg
Price \$2,500

MEDICAL TRANSPORT CHEST

This chest can be used to store and transport medical supplies and equipment.

Weight 1 kg
Price \$20

MULTI-PERSON TRAUMA MEDICAL UNIT

Designed for large accident scenes and used by agencies like FEMA and Emergency Workers. Comes in a 50 person, 100 and 1,000 person kits; the contents stay the same, only the quantities differ.

1 Alcohol	10 Ammonia Inhalant Ampoules
1 Antiseptic Towelettes	12 Instant Ice Packs
1 Body Bag	15 Adhesive Tape Rolls
1 Duffel Bag	20 Blood Stoppers
1 Large Butterfly Bandage	20 Multi Trauma Dressings
2 Burn Care Kits	20 Sterile Gauze Pads
2 Cervical Collars	25 Solar Blankets
2 Eye Wash Bottles	100 Plastic Bandages
2 Hydrogen Peroxide	100 Plastic Bandages
2 Non-Sterile Kling Gauze Rolls	Paramedic Blanket
2 Penlight	Splint Kit
4 Bandages Shears	Sterile Gauze Pads
10 Ace Bandages	Triangle Bandage

	<i>50 Kit</i>	<i>100 Kit</i>	<i>1,000 Kit</i>
Weight	4 kg	8 kg	16 kg
Price	\$250	\$500	\$1,400

NASO-PHARYNGEAL AIRWAY

This soft rubber (latex) airway passes through the nose, straight back over the palate and into the back of the throat. It usually doesn't cause a gag reflex, but may cause some nasal irritation. It is best inserted after first lubricating the tip with KY jelly or other similar lubricant. Then pass the airway gently but firmly slightly up then over the palate, until the flange is tight against the nose.

Weight Nil
Price \$10

ORAL AIRWAY

This hard plastic device fits through the mouth, over the tongue and into the back of the throat. It will effectively keep the tongue out of the way. It is not a good choice in the conscious patient or semi-conscious patient because it frequently provokes the gag reflex, which could result in vomiting and aspiration by the victim.

To insert the oral airway, use a tongue-blade or tongue-blade-like-device to push the tongue to the side. Then insert the oral airway. If no tongue-blade-like device is available, insert the oral airway reversed (with the curve upward toward the roof of the mouth. When half-way in, rotate the oral airway 180 degrees (so the curve is now downward) and the airway will usually slide right into place.

Weight Nil
Price \$10

OXYGEN BOTTLE

This bottle is used with the Oxygen Kit. It comes pre-filled.

Weight	2 kg
Price	\$100

OXYGEN INHALATOR

This is a compact and economical fixed flow inhalator. Oxygen flow is preset at 6 l/min. The aluminum cylinder holds 240 liters of O₂ and lasts about 40 minutes; it is refillable. The kit includes a disposable mask, cylinder wrench, and the cylinder.

Weight	3 kg
Price	\$230

OXYGEN KIT

An oxygen cylinder and clear oxygen therapy mask. The cylinder is good for about 25 minutes at high flow, 60 minutes at medium flow and 180 minutes at low flow.

Weight	8 kg
Price	\$280

OXYGEN REGULATOR

This device is used to regulate the amount of oxygen from the oxygen bottle to the mask.

Weight	1 kg
Price	\$100

PAIN RELIEVER, MILD

Aspirin, Acetaminophen, and Ibuprofen among others. A dose consists of 2 to 4 pills. One dose will last four to 6 hours.

Bottle of 100 Pills

Weight	
Price	\$100

PDI ALCOHOL PREP PADS

These are great for sterilizing scrapes or cuts, and for prepping and cleaning fabric surfaces prior to gluing. These small and light weight packets belong in any repair kit, first aid kit, or survival kit.

Pack of 50

Weight	
Price	\$10

PHARMACIST KIT

A portable pharmacy for use with the medical skill, a pharmacist kit includes everything needed to prepare, preserve, compound, analyze, and dispense medicinal drugs.

Weight	2 kg
Price	\$800

PICKER-POLAROID X-RAY FILM DEVELOPER

This unit comes in an unopened box. All the unit really does is take cassettes of Polaroid x-ray film, pull the film out of the cassette through 2 rollers (just like the Polaroid camera) and develop the film. Many of these end up in old Civil Defense Shelters.

Weight	150 kg
Price	\$200

POLELESS LITTER

Poleless Litter is constructed with a non-skid, flame-retardant monofilament polypropylene material. Two web straps secure the litter around the body, and six heavy-duty handles make it easy to carry. The special design allows rescuers to insert a 2" pole, such as pike poles, through the litter cover or to use debris through the outer handles.

Weight 1 kg
Price \$100

PORTABLE MEDICAL LABORATORY

This contains every a character will need to perform medical testing. Comes packed in 20 containers measuring 10' x 15' x 2'. Transport by one or more trucks.

1 Atmosphere Controlled Ashing Furnace	5 Tongs
1 Flume Hood	10 200 ft Plastic Tubing
1 Incubator	10 Bunsen Burners
1 Mixer	10 Centre Rod Stands
1 Oven	10 Condensers
1 Refrigerator	10 Plastic Containers
1 Stove	10 Plastic Pails
2 Stopwatches	10 Plastic Scoops
3 Buchner Funnels	10 Plastic Tube Racks
4 Pocket pH Meters	12 Erlenmeyer Flask
5 10 ml Crucibles	12 Volumetric Flasks
5 1100 SP Series Stereo Microscopes	20 Narrow Mouth High Density Bottles
5 8½" Clamps	20 Plastic Beaker Cups
5 Baths	20 Watch Glasses
5 Crucibles	30 Cylinders
5 Hot Plates	30 Weighing Dishes
5 Metal Tripod Stands	50 Beakers
5 Mortar Pestles	100 Graduated Cylinders
5 Plastic Desiccators	100 Plastic Flasks
5 Portable Balances	100 Plastic Funnels
5 Pumps	500 Disposable/Reusable Plastic Beakers
5 Scales	500 Shell Vials
5 Stainless Steel Beakers	600 Petri Dishes
5 Stainless Steel Funnels	600 Serological Canisters
5 Stainless Steel Pots	900 4-oz Containers
5 Stainless Steel Scoops	1,000 Plastic Syringes
5 Straight Sided Jars	1,000 Test Tubes
5 Thermometers	3,000 Closures
Weight 1,100 kg	
Price \$150,000	

POTASSIUM IODATE/ KIO₃ ANTI RADIATION TABLETS

Potassium Iodate (KIO₃) will shield (or block) the thyroid and prevent it from absorbing radioactive iodine during exposure to radioactive materials. Each bottle contains 200 fresh scored tablets of Potassium Iodate 85 mg. Dosage should be started at least 12 hours before fallout.

Dosage:

- **Adults and children over 12 years of age:** 2 tablets per day for 15 days (minimum) to 85 days.
- **Children 3 years to 12 years:** 1 tablet per day for 15 days (minimum) to 85 days.
- **Babies 1 month to 3 years:** ½ tablet per day for 15 days (minimum) to 85 days.
- **New-born to 1 month:** ¼ tablet per day for 15 days (minimum) to 85 days.
- **Large dogs:** 1-2 tablets per day

1 Bottle

Weight
Price \$100

PREFAB RUBBER TOURNIQUET

Used for stopping sever bleeding.

Weight Nil
Price \$10

PROPHYLACTIC

Also known as a rubber, protects against pregnancy and the spread of such diseases as AIDS, herpes, syphilis, gonorrhea... Many soldiers use it to keep dirt out of the end of their weapons; they are held in place with a rubber band.

	<i>Box of 24</i>
Weight	Nil
Price	\$10

QUICK CLOT

This agent is used for aiding in the clotting of blood, carried by many combat medics.

Weight	Nil
Price	\$50

SAM SPLINT

The best way to splint a fractured limb in the wilderness. Lightweight and compact, the SAM Splint adjusts and conforms to most medical situations.

Weight	Nil
Price	\$15

SEDATIVE, MILD

Makes the subject calm. Gives a +1 bonus against fright checks or shocks. One dose consists of 1 or 2 pills, this dose will take effect in 20 minutes and lasts for 2 to 3 hours.

	<i>Bottle of 100 Pills</i>
Weight	
Price	\$500

SEDATIVE, STRONG

Makes the subject very calm. Gives a +3 against fright checks or shocks. 5 cc will take effect in 20 seconds and will last 1 hour. Strong sedative comes in 20, 50, and 100 cc bottles.

	<i>1 cc</i>
Weight	Nil
Price	\$1

SEDATIVE, STRONG (10 AUTO-INJECTORS)

The same strong sedative listed in the basic rules, contained in pre-measured auto-injectors.

Weight	0.2 kg
Price	\$100

SNAKE BITE KIT

This kit can help a person who has been bitten by a poisonous snake to recover from the effects.

Weight	Nil
Price	\$25

STERILIZER KIT/ GUN PARTS CLEANER

Super quality European military stainless steel box with lid, immersion bin, leg stands and alcohol stove. A MASH doctor would boil water and immerse his scalpels in the boiling water to sterilize the instruments.

The sterilizer kit can also be used to clean or degrease gun parts. A gunsmith will fill the basin with cleaning solvents or gun blue and immerse parts to degrease, clean or blue.

Weight	2 kg
Price	\$20

STRETCHER

Used for carrying wounded, collapsible into a pack bundle for rucksack or vehicle storage.

Weight	5 kg
Price	\$50

SUPER TONIC

Historically used as an Anti-Plague Formula, it's an immune system formula with antiviral, antibacterial, and antifungal properties. This is the one thing many of us in the local area use at the first sign of the sniffles or sneezes because it really helps us keep going. One local contractor says he uses this on a regular basis to keep him on the job all winter long.

The recipe contains: apple cider vinegar, fresh garlic bulb, fresh hot peppers and onions, horseradish and ginger root. Many found they like it in tomato juice and as a salad dressing.

Weight	2 oz	4 oz	8 oz	16 oz
Price	\$12	\$20	\$40	\$70

SURGICAL INSTRUMENTS

The tools required to perform major surgery, such as scalpels, forceps, hemostats, and clamps. These tools are required to get an unmodified roll with surgery skill.

Weight	4.5 kg
Price	\$2,500

SURGICAL KIT

The surgical kit contains the instruments necessary for minor surgical procedures. The surgical kit is packaged (non-sterile) in a canvas bag. Before use, the instruments should be sterilized. In skilled hands, the surgical kit can be used for fairly extensive and successful operations. In other hands, the kit may lead to other outcomes.

1 Probe	2 Scissors (large and small)
1 Scalpel (handle and several blades)	Gauze Pads
2 Forceps	Suture Material
2 Hemostats (curved and straight)	
Weight	Nil
Price	\$100

SURGICAL RAZOR

This is used for shaving of patients before surgery.

Weight	Nil
Price	\$10

SURGICAL TUB

Used for scrubbing and washing.

Weight	10 kg
Price	\$20

SURGICAL TUBING

This rubber tubing has many uses, sold in 40 meter lengths.

Weight	Nil
Price	\$2

SURVIVAL BLANKET

An Aluminized insulated emergency blanket used to cover accident or hypothermia victims. It is not made for comfort, but seals in body heat. It folds into a small space (102 x 51 x 38 mm), but opens to 2 x 1.5 m.

Weight	Nil
Price	\$20

SUTURE/SYRINGE KIT

A hospital-quality field surgical kit for closing wounds. An essential item for Third World Travel where sterile components are not always available, the kit also contains sterile supplies for injections of medication or anesthesia, or for starting or delivering IVs.

1 '3-0' Nylon Suture with Cutting Needle	1 Adhesive Tape 10 yards
1 '5-0' Nylon Suture with Cutting Needle	1 Angiocatheter 18 gauge

1 Conforming Gauze Bandage
 1 IV Administration Set
 1 Mayo-Hager Needle Holder 5"
 1 Povidone Iodine
 1 Scalpel
 1 Scissors S/S 5"
 1 Sterile Drape
 1 Syringe
 1 Syringe with Catheter
 1 Thumb Tissue Forceps 4½"
 2 18 gauge 1½" Needles

2 21 gauge 1½" Needles
 2 25 gauge 5⁄8" Needles
 2 3 cc. Syringe
 2 5" x 9" Trauma Pads
 2 Non-Adherent Sterile Dressing
 2 Tincture of Benzoin
 4 Double Antibiotic Ointment
 4 Pads 4" x 4" or 3" x 3" or 2" x 2"
 4 Surgeons Sterile Gloves
 5 Antiseptic Towelettes
 10 Wound Closure Strips

Weight 0.20 kg
Price \$55

TRANQUILIZER, STRONG (100 UNITS)

Chlorpromazine/Thorazine or a similar drug, most often used to treat psychiatric cases. Available in oral or liquid form (the latter for injection).

Weight 0.5 kg
Price \$500

TRANQUILIZER AUTO-INJECTORS

Loaded with a fast-acting tranquilizer drug. When applying one to an unresisting target (one surprised or subdued by unarmed combat), the user may choose the body part the injector is used on. Resisting targets must be subdued using unarmed combat before the injector can be applied. The drug will take effect even if the injector is removed immediately.

As with tranquilizer darts, a hit in any part of the body will be effective eventually, but some areas give faster results than others do.

- **Head hits:** Instant unconsciousness.
- **Chest and abdomen hits:** Unconsciousness after 1D6–2 phases (5 to 15 seconds).
- **Arm hit:** Requires the target to roll his Constitution or less on 1D10 to stay awake each phase.

Set of 3
Weight Nil
Price \$75

TRAUMA FIELD SET

This set provides initial supplies and equipment required to provide unit and division-level trauma support care for 3-5 days. Contains items like such as chest drainage systems, scissors, forceps, regulator, restraint set, wash basins, tape, surgical sutures, irritating supports rods, catheterization pack, surgical scrub brushes, bandages, sterile burn dressing, splints, valve surgical drain, casualty blankets, concentration oxygen masks, stethoscopes, disposable Levin tubes, IV injection set.

Weight 500 kg
Price \$18,000

TRAUMA KIT

The kit contains 50 items required to treat and stabilize victims at the scene of an incident. The Trauma Kit contains sufficient equipment to simultaneously treat 2 patients suffering from life-threatening injuries, or 3 to 5 patients suffering from less severe injuries. Supplied in a waterproof backpack, can be easily stored in any vehicle or helicopter.

Weight 11 kg
Price \$400

WARMER-PAK

Heats to 130°F for 10 hours, for snipers or thieves. Microwave to reuse.

Weight Nil
Price \$10

WARSAW PACT FIELD FIRST AID KIT

Thread, scalpels, tweezers, bandages and glass syringes, with needles.

Weight
Price \$100

WASHER, HAND

Hand-cranked washer, washes up to 5 lbs of clothes in 2 minutes.

Weight
Price \$50

WATER CHLORINATING KIT

This kit contains ampoules of calcium hypochlorate sufficient to disinfect 3,000 liters of water, and a test set to determine if the water has been sufficiently disinfected (it cannot determine if the water is clean to begin with). The process takes 30 minutes to fully disinfect and test. This kit also contains 50 units of iodine for individual canteen disinfecting.

Weight 2 kg
Price \$1,000

WATER PURIFICATION TABLETS

No water in the wilderness can assume to be immediately drinkable, and whilst water purification tablets don't leave the water palatable (it invariably tastes slightly of chlorine), they do leave it safe for cooking and drinking.

Weight 0.02 kg
Price \$20

WHO DIARRHEA EPIDEMIC RESPONSE KIT

To treat 100 cases of severe diarrhea.

Weight 20 kg
Price \$200

WHO EMERGENCY HEALTH KIT

For medical care and treatment of a range of common conditions, each kit for a population of 10,000.

Weight 80 kg
Price \$10,000

WHO PARENTERAL FLUID KIT

Provides transfusions and giving sets.

Weight 5 kg
Price \$100

WHO TRANSFUSION KIT

For the collection and testing of 200 units of blood.

Weight 20 kg
Price \$400

30. MILITARY AIRFIELD EQUIPMENT

9 TON HI-LIFT TRUCK

The 9-ton hi-lift truck is used for loading and unloading the KC-10. The trucks were manufactured in 1983 or later, equipped with outriggers, and have a 17' or greater reach capacity.

60K TUNNER MATERIAL HANDLING EQUIPMENT (MHE)

The new 60K Tunner loader has a total loading capacity of 60,000 pounds. It will replace older, 40,000-pound capacity loaders in the Air Force inventory. The Tunner is much better than its predecessors; so far, 5 times more reliable and 150 to 350% more capable.

The Tunner can carry up to 6 cargo pallets at once, drive on and off C-5, C-17 and C-141 aircraft, and load and unload cargo from all military and commercial cargo aircraft. Other advantages of the new loader include an improved turning radius, higher top speed and mechanized rollers that greatly enhance the loading and unloading process. The loader has a versatile deck that elevates from 39" to 18.5' and a powered conveyor system to move cargo. With other equipment, several people are required to push pallets into position. Its payload capacity of 20,000 pounds more than the 40K loader will have a major impact when loading large and heavy cargo, especially when airlifting tractor-trailers exceed the capability of a 40K loader.

The Tunner Loader has a roll-on, roll-off capability that makes it easy to be transported to where it is needed. It requires no reconfiguration for transport on a C-5 or C-17 and can be reconfigured for transport on a C-141 in 90 minutes by 4 people (unlike the 40K which takes 2 people more than 3 hours to prepare). Upon arrival at any destination, the Tunner is immediately ready to perform its mission.

ADVANCED FORWARD AREA REFUELING SYSTEM (AFARS)

The Advanced Forward Area Refueling System is a 2-man portable, 4 point refueling system with lightweight hoses and sexless daybreak fittings. Internally transportable by one UH-60 or two UH-1 aircraft, capable of being deployed in 20 minutes or less using 4 personnel. It has a minimum refueling rate of 55 gpm per point when all nozzles are in use and a maximum of 90 gpm at any nozzle.

The AFARS will be a one for two replacement of the current Forward Area Refueling Equipment (FARE) system with only 2 refueling points, inadequate hoses, and a 35 gpm per point pumping rate.

AN/FPN-36 RADAR

The so called "Quad-radar" is a mobile, air-transportable ground control approach radar and was designed for a precision approach under bad weather conditions. The approaching aircraft and the course & glide slope was seen on a Beta-scan scope. In Germany this older radar was replaced by the PAR-80 radar.

AN/MPN-14K LANDING CONTROL CENTRAL RADAR SET

The AN/MPN-14K Landing Control Central (Radar Set) can be configured as a complete RAPCON or GCA facility. The radar unit is used by air traffic controllers to identify, sequence, and separate participating aircraft; provide final approach guidance, guidance through air defense corridors and zones, and coordinate ID and intent with local air defense units at assigned airports/air bases/ bare bases. These services can be provided in all types of weather. The radar unit is capable of identifying aircraft using secondary radar up to a 200 nm radius and primary radar coverage to 60 nm. The PAR provides both azimuth and elevation information from 15 nm to touchdown. Both the PAR and ASR can be used as final approach aids. The unit has three ASR display indicators and one PAR indicator located in the operations shelter, and one each ASR and PAR indicator located in the maintenance shelter. Complete operations are conducted from the operations trailer.

The system is limited to a single runway but has the capability of providing opposite direction runway operations with the aid of a transportable turntable. Ten maintenance personnel and six controllers are needed to install the AN/MPN-14K within 26 hours.

AN/MPQ-49 FORWARD AREA ALERTING RADAR (FAAR)

The Forward Area Alerting Radar is one of two Army systems for early warning in the airhead. The FAAR system is a complete, self-contained, acquisition radar system (AN/MPQ-49), which consists of a radar set (AN/TPQ-43 and TPX-50 IFF), the M561 Gamma Goat, and a trailer with a 5-kilowatt generator set. The system must be air landed into the airhead. It requires about 30 minutes to emplace and can detect targets out to 20 km.

The Forward Area Alerting Radar was a D-band pulse Doppler radar used to detect low flying air-

craft and provide alerting and tentative identification to Chaparral and Vulcan fire units and Man portable Air Defense (MANPAD) teams. The radar had a range of about 20 km, contained the Mark XII Identification, Friend or Foe (IFF) system, and transmitted digital data to the target alerting data display sets (TADDS) located with each Chaparral/Vulcan battalion. The FAAR section consisted of three men and one vehicle and trailer. In September 1991, after the FAAR was retired from the Army inventory, the system was offered for foreign military sales (FMS) and to other government agencies.

AN/MRC-144 RADIO SYSTEM

The AN/MRC-144 is a mobile HF/VHF/UHF HAVE QUICK II capable communications facility (AN/GRC-206(V) 3) mounted in an M-998 HMMWV. It provides single sideband (SSB) HF, VHF/FM, VHF/AM, and UHF communications. This system can be remote up to 2 km. The HF radio has secure phone patch capability and all radios have secure voice capability.

When used in an Air Traffic Control capacity, ATC personnel must be tasked separately. It provides VFR control tower operations until sustaining equipment arrives then it can be redeployed as necessary. One radio technician and 1 radio operator should have HF/SSB, VHF/FM, UHF/AM, and VHF/AM radios available over 90 percent of the tuning range in 45 minutes. If the MRC-144 is being used primarily as a backup control tower or command post, the radio operator may not be required and may be available for redeployment. The ground radio technician may not be required if other UTCs requiring radio maintenance are deployed with the wing.

AN/TMQ-31 METEOROLOGICAL DATA SYSTEM

The AN/TMQ-31, Meteorological Data System is an Army-developed system which provides raw meteorological data to a variety of users, primarily the field artillery. It consists of automated electronics components housed in an S-280 shelter. It is capable of tracking radiosonde by NAVAIDS or RDF mode, and pilot balloons with an electro-theodolite for visual flights. The basic system requires a large array of external supporting equipment, including: an AN/TMQ-4A system for balloon inflation and launch operations and surface measurements; two MEP003 power units and an M353 trailer; a 400-gallon water tank/trailer; an RDF antenna and modified M105 trailer; three five-ton 6x6 cargo trucks; and a crew of seven.

The AN/TMQ-31 MDS is capable of using NAVAIDS (LORAN, Omega, VLF/Omega, RDF) or manual modes in the acquisition of meteorological data. Automatic operations using NAVAIDS extend to 75 km (46.56 miles) with a dipole antenna, and 165 km (102.46 miles) with a reflector antenna. Automatic RDF operations extend to 160 km (99.36 miles) using a dish antenna and manual operations are limited to available ceiling/line-of sight. The system can be operational in 15 minutes (NAVAID).

AN/TPN-19 LANDING CONTROL CENTRAL RADAR SET

The AN/TPN 19 Landing Control Central (Radar Set) is a complete Radar Approach Control (RAPCON) or Ground Controlled Approach (GCA) facility. The radar unit is used by air traffic controllers to identify, sequence, and separate participating aircraft; provide final approach guidance, guidance through air defense corridors and zones, and coordinate ID and intent with local air defense units at assigned airports/air bases/bare bases. These services can be provided in all types of weather with little or no effect on the equipment operation and ATC services provided to the aircraft.

The radar unit is capable of identifying aircraft using secondary radar within a 200 nm radius and primary radar coverage to 60 nm. The Precision Approach Radar (PAR) provides both azimuth and elevation information from 20 nm to touchdown. The unit has 6 display indicators capable of providing both Airport Surveillance Radar (ASR) and PAR. Both the PAR and ASR can be used as final approach aids.

With all indicators and communications equipment operational, the unit is capable of taking over ATC operations at busy airports. Depending on antenna location, the PAR system is capable of providing service for up to 4 runways, but the unit can provide approach guidance to only one runway at a time. The ASR and PAR may be deployed autonomously. Ten maintenance personnel are needed to install the AN/TPN-19 within 26 hours, not including site survey. Under combat limited situations with no augmenters assigned, the standard set up time is 36 hours. After setup, 6 radar maintenance personnel can maintain the TPN-19, with the other 4 available for redeployment. The power production and air conditioning maintenance personnel may be "pooled" with other personnel to meet deployed location requirements. Requires flight inspection to become operational

AN/TPN-22 PRECISION APPROACH RADAR (PAR)

The AN/TPN-22 Precision Approach Radar (PAR) is a transportable, computerized, pencil beam, 3-dimensional radar. The system is a track while scan radar which is used for landing tactical aircraft.

The radar uses phase and frequency scanning techniques with an electronically steered beam antenna array. The system will track up to six aircraft and is capable of multi-mode operation: Mode I fully automatic landing, Mode II ILS guidance commands to the aircraft and Mode III ground controlled approach talk down.

SNC developed a Solid State Modulator for the TPN-22 which provided a significant improvement in the system reliability. The TPN-22 Solid State Modulator was developed by SNC for the US Marine Corps and is currently in production.

AN/TPN-30 MARINE REMOTE AREA APPROACH AND LANDING SYSTEM (MRAALS)

The Marine Corps AN/TPN-30 is an all weather Instrument Landing System. The system provides azimuth, elevation and range data to suitably equipped aircraft. Azimuth and elevation data is transmitted on a single channel and range data is transmitted on a single TACAN channel. A modification to the TPN-30 incorporates a TACAN bearing capability that enabled the system to provide pilots with range and bearing to the MRAALS location and the identification of the facility. In all, 81 systems have been delivered.

AN/TPN-31 (ATNAVICS)

The Air Traffic Navigation, Integration and Coordination System (ATNAVICS) is an Airport Surveillance Radar (ASR) and Precision Approach Radar (PAR) system that will provide Air Traffic Services (ATS) at Army terminal airfields, landing sites or zones at Division, Corps and Echelons Above Corps (EAC).

AN/TRC-176 RADIO SET

The AN/TRC-176 is a portable UHF/VHF capable radio set operating in the 116.0 to 149.975 or 225.0 to 399.975 MHz frequency bands. It can provide 1 channel of either UHF or VHF voice communications (both UHF and VHF cannot be operated simultaneously) or can be secured and operate in the HAVE QUICK mode to prevent enemy jamming. Air-to-ground radio operations encompass the majority of missions for this system, although it can be used for local command and control and engineering nets. The operational range for local area ground-to-ground communications is less than 35 miles with minimal obstructions between communications points. For air-to-ground the operational range is up to 200 miles line-of-sight.

One ground radio technician should have 8 watts of power over 90 percent of the VHF and UHF tuning ranges within 4 hours. After the unit is operational, the technician can be returned to home base if there are other radio technicians available to maintain the radio.

AN/TRC-195 CONTROL CENTRAL

The AN/TRC-195 CC provides a limited tower capability for remote site operations. It contains 4 telephone lines, 2 UHF, 1 VHF-AM, 1 HF/VHF-FM, and 1 crash net radio, and a wind measuring set powered by a single MEP-003 Generator or equivalent power source. AN/TRC-195 CC Tower full operating power requirement is 3.0 kw, the emergency operating power requirement is 1.5 kw. The AN/TRC-195 CC Tower communication systems are capable of encrypted transmitting and receiving.

The unit is transportable by forklift, and is usually loaded into and employed from the back of a HMMWV. However, the AN/TRC-195 CC Tower can be loaded on a variety of vehicles. The radios, speech security equipment, and wind measuring set are provided from other MATC systems to enable full operational capability. The 28-volt power supply is provided with each system. The assembled unit has a nylon top and 4 mast assemblies.

AN/TRN-26 DEPLOYABLE TACAN BEACON-TRANSPONDER SET

The beacon-transponder set, AN/TRN-26 is a portable, dual channel tactical air navigation system (TACAN) designed for use at remote landing strips. The TACAN system provides radio navigation information (bearing, identification and distance) to as many as 100 aircraft simultaneously. Dual monitoring equipment provides a continuous check of all TACAN parameters and initiates visual and audio alarms if failures occur. Transponder transfer or shutdown is initiated automatically upon detection of a parameter failure. A remote indicator, located up to 3 miles away, can also be used to provide the user with an up-to-date status of the TACAN equipment. The TACAN equipment can be tuned to any one of the 126 X-band channels (962-1024 MHz transmits) (1151-1213 MHz receives). The identification function is a toggle switch selected 4 character, and Morse code system. The TACAN has an acquisition range (lock-on) of 35 nm at 1500 ft altitude above unobstructed flat terrain, and a reception range of 100 nm (minimum).

Associated monitoring equipment provides a continuous check of all significant TACAN parameters,

and shuts itself down whenever a fault occurs. Due to the UHF carrier, the transmitted information is limited to line of sight usage only. Maximum radiated power out is 400 watts. The AN/TRN-26 is normally housed in an S-250 shelter which has a volume of 294 cu ft and a combined weight of 2,770 lbs. If required, the TACAN can be broken down to either single channel configuration with a weight of 750 lbs or to minimum configuration with a weight of 430 lbs.

All assigned maintenance personnel should have the TACAN operational within 4 hours. At least one integral monitor and either primary or backup, with at least 360 watts output power and identification must be operational before the TACAN can be declared operational. The unit requires flight inspection to become certified for IFR use. The TACAN system requires 28 VDC for operation; however, by using the AC/DC power supply, it can be powered by 120 VAC, 20 AMP commercial powers or a 3 kw, 120 VAC Chryco generators. The equipment can be placed on a pallet and transported, or jack-lifted onto a 1- ton truck and thus transported.

AN/TRN-41 TACAN

The AN/TRN-41 is a portable, lightweight, air droppable, unmanned Tactical Air Navigation (TACAN) designed to provide bearing, facility identification, and distance information. The TACAN transmits continuous bearing information to an unlimited number of aircraft and provides slant range distance information. Due to the UHF carrier, the transmitted information is limited to LOS use only with a range of 75 nm. Actual system coverage and reception depends upon deployed location. This TACAN does not possess external monitoring device as required by AFMAN 11-225; therefore, it is not certifiable for IFR use.

Three trained personnel should have the system operational in 4 hours. The TACAN must be transmitting identification and at least 100 watts of power prior to declaring the system operational.

AN/TRN-45 MOBILE MICROWAVE LANDING SYSTEM (MMLS)

The AN/TRN-45 is a solid state tactical transportable all weather guidance system which provides highly reliable localizer glide slope facilities for aircraft approaching landing at airfields. The system provides azimuth, elevation, and distance information. Normally used in a bare base tactical environment, the new MMLS will allow Air Force aircraft to quickly set up a precision approach capability at airfields that have limited or no navigational aids. This will enable aircraft to establish operations for adverse weather and fly a precision approach to landing.

Normal setup is a collocated configuration where elevation and azimuth antennas are situated together at the typical ILS glide slope antenna location. The collocated configuration requires using aircraft to be equipped with specialized MLS receivers (e.g., CMLSA, PLSR). A split-site configuration places the azimuth antenna at the departure end of the runway. The system has an azimuth coverage of $\pm 40^\circ$, elevation coverage of 0.9° to 15° , and a 15 nm range under optimal conditions. Frequency range: MMLS 5031-5091 MHz, DME/P 979-1150 MHz.

Three trained personnel can set up the MMLS in a co-located configuration in 60 minutes. Set up in a split-site configuration will take 2 hours (times do not include site survey or transportation time). The unit requires Terminal Instrument Procedures Specialist (TERPS) to draw instrument approach procedures and flight inspection to be certified for IFR use.

MMLS augments existing Air Force Air Traffic Control and Landing systems allowing its aircraft to operate at airfields with limited or no navigational aids in adverse weather. MMLS is an all-weather, lightweight, transportable, ground-based precision approach system. It was specifically designed to give AMC's C-17 and C-130 aircraft the ability to rapidly project combat-ready forces and cargo to any location worldwide. Some of the mobile precision approach radar systems currently being used can take 7 C-130 loads and 33 personnel 48-72 hours to set up. The MMLS can be airlifted in 1 C-130 and can be set up by 3 people in less than 2 hours. Using MMLS, aircraft approaches can frequently commence at an austere airfield in less than 24 hours.

AN/TSQ-120A CONTROL TOWER

The AN/TSQ-120 Air Traffic Control Central is a transportable and environmentally controlled Air Traffic Control Tower. The AN/TSQ-120 provides for ground and air traffic control of fixed and rotary wing aircraft in a designated control zone. Runway vehicular traffic is also controlled by the AN/TSQ-120. While performing its functions, the AN/TSQ-120 interacts with other units of the Marine Air Traffic Control and Landing System (MATCALS), remote facilities, and agencies by telephone and inter facility communications systems. The AN/TSQ-120 can be operated independently or in conjunction with other aircraft landing systems and equipment.

The AN/TSQ-120A ATCC Tower consists of:

- **Antennas**
- **Landline Selector Group:** The Landline Selector Group provides interface and signaling for up to ten telephone lines in two or four wire configuration. Two lines are capable of WESCOM SS-1A Selective Signaling (FAA compatible), and one line is dedicated to voice only.
- **Operations Central Group:** The Operations Central Group consists of an operations central shelter and associated external equipment. The Operations Central Group is mounted on Tower AB-1236/TSQ-120 and has operating facilities for three Air Traffic Controllers. Windows on all sides provide 360° observation. The replaceable windowpanes are abrasion resistant, smoke tinted, shatterproof polycarbonate. Internal roller mounted shades provide relief from sun glare with a minimum of visual obstruction.
- **Radio Equipment:** For communicating with aircraft.
- **Recording Equipment**
- **Storage-Transport Group:** The Transport Group (STG) consists of a metal pallet fitted with cable reels to stow the inter-shelter power, signal, and antenna cables. Other installed containers provide stowage for the transportation of components within the Operations Control Shelter or the Terminal Shelter. The principal components of the storage-transport are a transport pallet, four cable reels with connecting cables, and transport containers for the wind direction-velocity transmitter three antenna masts and miscellaneous equipment.
- **Terminal Group:** The Terminal Group (TG) contains radios, telephone equipment, recorders, intercom, and signal and power distribution systems that provide required communications information to the operating positions in the tower cab. In addition, a maintenance console and workbench are provided for maintenance personnel to simultaneously select voice communications on any or all of the system radios, select voice communications on any one of the ten system telephone lines, and monitor audio input-output signals to the radios.
- **Tower Unit**

AN/TSQ-131 COMMAND & CONTROL SYSTEM (CCS)

The AN/TSQ-131 is a transportable air traffic control radar facility. Each AN/TSQ-131 houses one set of 4 radar operator positions, 1 supervisor position, and the required equipment for data processing, voice communications, and data communications.

AN/TSQ-198 TACTICAL TERMINAL CONTROL SYSTEM (TTCS)

The TTCS is a highly mobile air traffic facility which is used at the Brigade level to provide Air Traffic Services (ATS) at remote landing zones, drop zones, and temporary helicopter operating areas. It is capable of ground-to-air communications between Army, other services, and allied aircraft. It is also capable of ground-to-ground communications internal to ATS units and other ground units. The configuration allows some of the components of the TTCS to conform to man-pack configurations.

AN/TSQ-216 REMOTE LANDING SITE TOWER (RLST)

The RLST is a Tactical Mobile Control Tower. It is housed in a modified S-250 Shelter with an extendible roof which is raised for operation and lowered for transport. The system is configured for 2 operator positions and 1 supervisor and is fully self-contained. Communications equipment is provided for VHF/UHF AM, VHF-FM and HF-SSB frequency bands. The radios can be remote by fiber optics up to 3 km from the tower. A towed trailer transports dual diesel generators, communications rack, and ancillary and support equipment.

The TSQ-216 mounts on a HMMWV, CUCV or other suitable vehicle. It drives-on/backsoff or backs-on/drives-off a C-130 aircraft. It is helicopter liftable by UH-60L, CH-46 or CH-53 helicopters.

AN/TSW-7 AIR TRAFFIC CONTROL CENTER

The AN/TSW-7 Air Traffic Control Center was designed to provide military air traffic controllers with the basic equipment required to rapidly launch and recover aircraft at remote airfields with damaged or no control towers. The unit provides controllers with access to land lines, UHF/VHF radios, crash phones, emergency warning and evacuation alarm signals, barometers, tape recorders, NAVAIDS monitors, light guns, and wind measuring equipment. The facility consists of a communications shelter, and an ancillary equipment pallet. The communications shelter contains HF/UHF and VHF equipment. The facility is designed to accommodate up to three air traffic controllers at one time. In a 3-man team, the work load would be divided into: local control (controlling local airborne and runway traffic), ground control, (controlling all aircraft on the ground but no on the runway), and a flight data position (administrative coordinating with AWACS, and other air traffic control resources).

Typically, the unit is transported on two 2½-ton trucks. This permits rapid tactical deployment. A

team of 7 is typically able to set up the unit within 16 hours. Under such a scenario, the tower would be operational with 3 UHF radios, a 243.0 MHz guard receiver, 2 VHF radios, a 121.5 guard receiver, and 1 light gun. Electricity, air conditioning, and telephone support are typically supplied by the air wing the tower is deployed to support.

AN/UPS-3 TACTICAL DEFENSE ALERT RADAR (TDAR)

The TDAR is one of two Army systems for early warning in the airhead. The TDAR is a short range (20 km), 2-dimensional radar used for cueing Stinger and Avenger gunners to beyond line-of-sight air targets. The minimum and maximum detection altitudes of the TDAR is from 0 to +10,000 ft. The TDAR has a 20 km range, which provides a warning of air attack by low-flying aircraft. The time of the warning varies; depending on air speed (fixed wing can be one to two minutes in advance while rotary wing may be up to 10 minutes in advance). It is capable of detecting helicopters from 8 to 10 km and fixed wing aircraft from 20 km at speeds ranging from 50 knots to 1.6 mach. The minimum target velocity for target detection is 70 knots for fixed wing aircraft and 50 knots for rotary wing aircraft within 8 km of the radar. Target detection accuracy is within 300 meters.

The TDAR can be airdropped with the air defense unit, and then linked by wire or radio to all air defense units in the airhead. The TDAR can be mounted on a pedestal or in a HMMWV. The TDAR is generally employed at the section leader's position but may be employed at any level. The system can be remote from the command post position from 2 km when using the RTU external power source such as a generator and WF16 data wire.

31. NAVIGATION EQUIPMENT

BNC-100 BOAT NAVIGATION CONSOLE

The BNC-100 ensures accurate navigation of small inflatables in tactical combat situations when accuracy is essential. Rugged and reliable, consists of a knot-meter and a navigation compass, both mounted on a high-impact plastic board with an adjustable chem-light holder and instrument hood.

Developed in conjunction with the US Navy Special Boat Operations, the BNC-100 is designed for easy installation on the air compartment of small inflatables like the Zodiac F470. Mounting slots on both sides of the console allow for reliable tie-down points utilizing tie-wraps, 550 cord, or bungee straps.

Weight	2 kg
Price	\$250

BOOK OF CORRECTION TABLES

Seasonal corrections for results supplied by navigation instruments, to help the navigator obtain a more accurate result. PCs may scrounge books from libraries in coastal areas.

Weight	Nil
Price	\$200

CARTOGRAPHY – CHARTS

A set of detailed charts for a particular area of the world. They include major landmarks, navigational beacons, water depths and important navigational hazards. The adventurers should note which general areas they own charts for. Note that it is easiest to obtain charts for the area one is currently in. The referee is advised to be very sparing in making charts for distant areas available to players, unless the group is located in a major port city or naval base.

	Weight	Price
<i>Immediate Area</i>		\$100
<i>Distant Area</i>		\$1,000
<i>Mercator Projection of Ocean</i> <i>(for long-distance, deep-sea navigation)</i>		\$100

CARTOGRAPHY – MAPS

- **Gas Station Map:** Can cover an entire nation or state, but detail is low. Better than nothing, but still gives a -2 to orienteering.
- **Good Travel Map:** Required to avoid a penalty with orienteering. Covers a larger area (50 x 50 km) in less detail.
- **Military Map:** Gives +2 to navigation roles. Only covers a small area, 20 x 20 km.

	Weight	Price
<i>Gas Station Map</i>	Nil	\$10
<i>Good Travel Map</i>		\$75
<i>Military Map</i>	¼ lb	\$100

CHRONOMETER

A finely crafted, highly accurate clock. When correctly set (AVG: Intelligence+Navigation) it is used to determine longitude.

Weight	1 kg
Price	\$1,000

COMPASSES – BQM SURVIVAL WRIST COMPASS

Liquid-filled precision compass, is protected in a sturdy non-magnetic case and slides on most wristbands. This backup compass is a handy navigation accessory. The sealed liquid filled module is depth tested to 100 meters. It also features luminous cardinal points. And the plastic band that wraps around your watch band inevitably breaks. Dimensions: 2.4 x 2.4 x 1.4 cm.

Weight	27.3 g
Price	\$6

COMPASSES – BRUNTON NEXUS 40LU WRIST COMPASS

A most durable wrist compass. It sticks up a little higher than the other compasses in its class and has a glowing background instead of the usual glowing cardinal directions; however, you can easily read your direction. Features a disk-stabilizing waterproof vial and watch-strap loop attachment that fits most watch bands.

The luminous face is a little too luminous for field use, in fact if the compass slips past your sleeve, the glowing background is a dead give away with a night vision device.

Weight 2.83 g
Price \$8

COMPASSES – BRUNTON CLASSIC 9068 WRIST COMPASS

This compass identifies the cardinal directions. It features a disk-stabilizing waterproof vial and watch-strap loop attachment that fits most watch bands. Dimensions: 2.5 x 2.5 x 1.3cm.

Weight 5.67 g
Price \$4

COMPASSES – COBRA-TAC

COBRA-TAC is an underwater electronic compass. It allows a diver to navigate, mark and relocate waypoints, and survey the bottom using data points. Simply enter the geodetic starting position for the dive in the systems and the on board navigation computer does the rest.

Weight 12 kg
Price \$500

COMPASSES – ELECTRONIC COMPASS

A simple version of a GPS unit, the electronic compass has features such as course memory, a back light, automatic route reversal and a course/distance clock. The rechargeable battery has a life of around 200 hours of constant use.

Weight 0.05 kg
Price \$135

COMPASSES – FB 1605 NATO SURVIVAL COMPASS

The FB 1605 compass is a tiny brass button compass that has a jeweled bearing and is built to full military specifications for survival use. This “brass button” compass is a standard NATO inventory item as specified by the British Army. The NATO Survival Compass has been designed to hold up under the harshest environments, and during World War II was even swallowed by military pilots during capture so that it could later be used as an escape compass. This button compass was also often sewn into clothes to prevent its loss and to ensure that its owner always had a compass available.

Weight Nil
Price \$30

COMPASSES – MILITARY COMPASS

This is a standard military compass, with phosphorescent points and letters, in a rugged case. It enables direction finding only.

Weight Nil
Price \$30

COMPASSES – SILVA COMPASS

A standard orienteering compass, with a clear, plastic base, enabling direction finding and positioning/bearing.

Weight 0.02 kg
Price \$20

COMPASSES – SUUNTO CLIPPER WRISTBAND MICRO-COMPASS

Suunto's Clipper is a liquid filled compass featuring a jeweled bearing, hardened steel needle, and a ratcheting rotating bezel marked in 10° increments. Use with the included Velcro wrist-band or clip on to your own watch-band. The clipper will fit bands as thick as 3.2 mm and as wide as 22 mm. Also clips to the edge of a map or the sleeve of your jacket.

Extremely versatile in theory, but what advertisers don't tell you is that the clip is relatively weak and if you have an active lifestyle it's almost guaranteed to fall off. At eight bucks a pop, these compasses shouldn't pop right off.

Weight 54.5 g
Price \$8

COMPASSES – TAC100-2 UNDERWATER COMPASS

The TAC100-2 utilizes a black compass card with luminous markings to indicate heading. Internal lubber lines keep the diver on course. Designed to withstand the rigors of the marine environment.

Weight Nil
Price \$150

COMPASSES – THERM-O-COMPASS

This micro compass/thermometer makes for a good “tag” when attached to a jacket or backpack zipper, key ring, or carabineer and provides a lot of information in a handy way. The clear acrylic case is durable and not easily scratched. Liquid-filled compass has luminous dial for easy reading during night land navigation. Wind chill chart on would be invaluable if you or someone in your group has had previous cold weather injuries (Wind chill chart units come in mph, km/h, or m/s). We recommend it for hikers and campers, but its shiny white surface wouldn't be recommended for military personnel (not to mention, there isn't any room on an LBV for one more dangling piece of gear). This item is distributed with a number of different retailers' logos at varying prices. Dimensions: 2.9 x 5.1 cm.

Weight 11.34 g
Price \$3

COMPASSES – US MILITARY TRITIUM LENSATIC COMPASS (3H)

This Lensatic compass has been used by US troops, foreign militaries, law enforcement, Special Forces, and outdoor enthusiasts of every variety for decades. Cammenga has been the government's exclusive manufacturer since September, 1992. Tritium light sources provide readability in total darkness.

Weight 141.75 g
Price \$85

GPSs – AN/ASN-149 GPS

The AN/ASN-149 provides Army aviation cargo aircraft with accurate location and velocity information critical to navigation. It also provides Universal Coordinated Time for communication systems and assists in situational awareness and prevention of fratricide.

Weight 4 kg
Price \$8,000

GPSs – AN/PSN-11 PRECISION LIGHTWEIGHT GPS RECEIVER (PLGR)

The PLGR or “plugger” is the military's latest man-portable Global Positioning System (GPS) receiver. It receives locational data from orbiting GPS satellites, and is accurate to within 20 meters. The PLGR can display data in latitude/longitude, military grid and a variety of other coordinate systems. It also has built-in anti-jamming capabilities, along with the ability to receive encrypted data.

The AN/PSN-11 will operate for thirty days on a 1.8 kw advanced battery.

Weight 3 kg
Price \$1,200

GPSs – CASIO PROTREK GPS WATCH

This device from Casio is aimed at the market for backpackers and outdoors types who use the Global Positioning System to track their location. It is a rather bulky digital wrist-watch, which while it has all the standard features of a digital watch, additionally has a GPS receiver built in. It can mark the wearer's location, either by the second on in an on-demand fix, give landmark points and has a route memory.

Weight Nil
Price \$500

GPSs – CIVILIAN GPS

A more user friendly model, it can store maps downloaded from a PC. Standard features: sun and moon predictor, calculator, compass and aneroid barometer. This unit is better for hikers since it has a longer battery life. Battery life varies from 11 hours when running in “normal” mode, to 20 hours when running in “battery save” mode.

Weight 170 g
Price \$220

GPSs – GPS 18

A GPS sensor with map software that automatically guides you with turn-by-turn directions and voice prompts to get you safely to your destination. (Please note: laptop computer not included.) Similar to Garmin's Map Source software, GPS 18 features an easy-to-use interface, making it intuitive to operate so you can focus on driving. It offers auto-routing and voice-prompting capabilities to virtually any address. The GPS 18 package also includes City Select North America map data with detailed maps of the United States and selects cities in Canada. This data is fully unlocked, and map detail includes highways, interstates, business and residential roads, with turn restrictions, speed categories, and other navigation features. It also features more than 5 million points of interest including restaurants, lodging, attractions, shopping, emergency services, post offices, and more.

The GPS 18 includes a 12 parallel channel, WAAS-enabled sensor, available with either a PC or USB connection. The receiver includes an integrated magnetic base and is less than 3” in diameter

Weight
Price

GPSs – MARITIME GPS

This is a waterproof and corrosion resistant GPS unit that is used to keep track of your position while at sea.

Weight 0.50 kg
Price \$2,000

GPSs – MARITIME GPS PLOTTER

This is a GPS unit and computer map display unit that allow the user to change course and keep update of your position.

Weight 0.50 kg
Price \$1,800

GPSs – PRECISION LIGHTWEIGHT GPS RECEIVER II (PLGR II)

Rockwell Collins' PLGR II is a small, lightweight, second-generation handheld GPS receiver. It offers the highest level, state-of-the-art receiver performance in a handheld GPS receiver.

Weight 1 kg
Price \$3,600

GPSs – VEHICLE GPS SYSTEM

Vehicle GPS systems are a completely different type of unit. They use satellite navigation predominantly at street level, and are generally systems that are integral to the dashboard of the vehicle (many are integral within and load data through the car CD player). The unit shows the vehicle's location on a moving map, along with points of interest to the motorist or tourist (hotels, banks, petrol stations etc.). The main function of the unit is to calculate fastest routes and give spoken directions to the driver whilst driving. Map data is provided annually by the manufacturer on CDs. Versions are also available showing the locations of all fixed speed traps (speed cameras) in a country.

Weight 0.60 kg
Price \$1,600

HIGH ALTITUDE-HIGH OPENING (HAHO) NAVIGATION BOARD

Used to provide the parachuting personnel with a means of navigation during static line or Military Free-Fall (MFF) High Altitude High Opening (HAHO) parachute operations The HAHO Navigation Board integrates a chest-mounted console with a GPS operating through a 486 microprocessor and an LCD screen.

Weight 2 kg
Price \$8,000

HIGH ALTITUDE-LOW OPENING/HIGH ALTITUDE-HIGH OPENING (HALO/HAHO) NAVIGATION AID

The HALO/HAHO Navigation Aid allows the user to land precisely on target during adverse weather conditions i.e. clouds, rain, and snow. The system is a HALO/HAHO helmet system that includes a heads up display navigation aid and integrated oxygen system. The system also includes a laptop-based mission planning system, map overlay, alternative target designation features, and predicted release cones based on user wind estimates that are manually input in advance.

Weight 1 kg
Price \$9,000

PACE COUNTER

Pace count beads, or pacer beads as they are more often called, are to help you keep track of how far you have traveled, usually at night. By pulling down a bead every time you have walked 100 meters, and with the way the beads are arranged you can keep track of 5,000 meters traveled and you "reset" the beads.

They are nothing more than a piece of 550 Para Cord, about 18" long, with the inside threads usually pulled out. The piece of cord is folded in half and you first string four small beads (any kind if you are making your own); the beads must be a little snug on the folded cord. The beads should be a different shape on the bottom or top just to make it easier to tell in the dark which end is which, but is not mandatory. Leave about 5 or 6 inches to the top where the cord is folded and tie a knot under the four beads. Now take nine more of the same beads and string them onto the loose end of the para-cord, then tie a knot (a figure 8 knot or a simple overhand knot works best) in the end of the cord to keep the beads from coming off. That's all there is to making one.

Weight Nil
Price N/A

POCKET RANGEFINDER

Optical rangefinder used by scouts not gunners.

Weight Nil
Price \$70

RETICLE GUNSIGHT

An old-style, non-electrical range-finder.

Weight 1 kg
Price \$50

SEXTANTS – AIRCRAFT SEXTANT

This aircraft sextant was used for celestial navigation. The idea is that the person sighting a star or the Sun keeps it in the cross hair and at the same time keeps the bubble centered. As the elevation control is moved up and/or down the clockwork mechanism is averaging the elevation over a period of time. When the elevation dial is at 90° you are looking straight up and with it set for 0° you are looking at the horizon.

Weight 2 kg
Price \$300

SEXTANTS – SEXTANT

A sextant is a measuring instrument used to measure the angle of elevation of a celestial object above the horizon. Making this measurement is known as sighting the object or taking a sight. The angle, and the time when it was measured, is used to calculate a position line on a nautical or aeronautical chart. A common use of the sextant is to sight the sun at noon to find one's latitude.

Weight 2 kg
Price \$100

SUB-MONITOR DIVER TRACKING SYSTEM

The Sub-Monitor Diver Tracking System monitors and tracks military divers training underwater

with close circuit rebreathers or open circuit SCUBA's, utilizing the latest acoustic short-baseline technology. The Sub-Monitor Surface Station tracks up to seven divers simultaneously in real time using the TLT Series Target Locating Transponder.

Weight 5 kg
Price \$200

TAC-100 DIVER NAVIGATION BOARD

The TAC-100 Underwater Navigation Board is the original combat swim board used by Special Forces around the world. First Developed for the US Navy SEAL Teams and Army SOF, the TAC-100 integrates a Depth Gauge, Dive Chronometer and Underwater Compass onto a rugged and a lightweight high impact plastic board with easy-to-grip handles. The TAC-100 comes with a padded carrying bag for transport.

Weight 2 kg
Price \$200

32. NBC EQUIPMENT

AN/PDR-75 RADIAC SET

The Radiac Set AN/PDR-75 will provide the capability to monitor and record the exposure of individual personnel to gamma and neutron radiation. Each individual will be issued a DT-236/PDR-75 dosimeter. This device, worn on the wrist, contains a neutron diode and a phosphate glass gamma detector. When a determination of exposure is required, the dosimeter is inserted into a CP-696/PDR-75 reader, which then displays the cumulative neutron and gamma dose.

Weight	kg
Price	\$3,000

AN/PDR-77 RADIAC SET

The AN/PDR-77 detects and measures alpha and x-ray radiation. It also detects and measures beta and gamma radiation. The system incorporates commercially available measurement electronics, an alpha probe, beta gamma probe, and x-ray probe. The radiac set has a digital LCD display, is auto-ranging, and has settable audio and/or visual alarm thresholds. The radiac set is the primary radiac device to support the storage and movement of nuclear weapons, to respond to nuclear accidents, and to maintain Army equipment containing radioactive materials.

Weight	kg
Price	\$4,000

AN/UDR-13 RADIAC SET

This Radiac Set is a compact, handheld, or pocket carried, tactical device capable of measuring prompt gamma/neutron dose from a nuclear event plus gamma dose and dose-rate from a fallout environment in a tactical battlefield situation. A push-button pad enables mode selection, functional control, and the setting of audio and visual alarm thresholds for both dose-rate and mission dose. A "sleep" mode with automatic wakeup is provided to enhance battery life. Data readout and warning/mode messages are provided by LCD.

Weight	kg
Price	\$630

AN/VDR-2 RADIAC SET

The AN/VDR-2 can perform ground radiological surveys in vehicles or in the dismounted mode by individual soldiers as a hand held instrument. The set can also provide a quantitative measure of radiation to decontaminate personnel, equipment, and supplies. Components of the Radiac Set include the Radiacmeter IM-243, Probe DT-616, and Pouch with strap.

Installation kits are available as Common Table Allowances (CTA) items for installation of the Radiac Set in various military vehicles. The set includes an audible and/or visual alarm that is compatible with vehicular NBC protective systems in armored vehicles and also interfaces with vehicular power systems and intercoms.

Weight	5 kg
Price	\$4,000

AUTOMATIC CHEMICAL AGENT ALARM (ACADA)

The Automatic Chemical Agent Alarm (ACADA) is a man portable automatic alarm system capable of detecting blister and nerve agents. The ACADA operates with no human interference after system start-up, detects automatically for a minimum of 24 hours, provides audio and visual alarms, and has a communication interface to support battlefield automation systems.

Weight	4 kg
Price	\$2,000

BATTLE DRESS OVER-GARMENT (BDO)

The BDO is a 2-piece 4-color Woodland Camouflage patterned garment that is to be worn in all environments when under imminent threat of a chemical attack and after chemical operations have been initiated. The over garment is worn with a chemical protective mask with butyl hood, butyl gloves and liners, and chemical protective overboots to complete the chemical protective ensemble.

The BDO is a 2-layer garment consisting of coat and trousers. The outer layer is water repellent treated nylon/cotton twill and the inner liner is a polyurethane foam/nylon tricot laminate impregnated

with activated charcoal. The hip-length coat has a stand-up collar and full length sleeves with hook and loop wrist adjustment tabs. Each sleeve has an outside, one-sided bellows pocket with flap positioned below an inner atropine pocket. The coat has 2 side-opening chest pockets, a slide fastener front closure with intermittent fastener tapes and an enclosed, elasticized draw cord hem. The trousers have a slide fastener front opening with protective flap, 2 bellows pockets with flaps located at the thigh, 2 hip pockets with flaps, waist adjustment buckles and straps, suspender loops and belt loops. Each leg opening has a slide fastener at the out seam to control the adjustment opening and a draw cord in the hem.

The BDO has been issued to all Army units for chemical protection. Max wear time is 30 days in an uncontaminated environment, basic issue is 2 per soldier.

Weight 2 kg
Price \$100

CHEMICAL DEFENSE SUIT

This heavy duty suit comprises a jacket with hood, trousers, shoe covers and gloves, woven from cloth and wool, with inserts to protect the wearer from the effects of chemical agents on the battlefield, such as nerve and blood agents. It must be used in conjunction with a gas mask. All components fit together tightly and all openings to the suit can be sealed.

Weight 8 kg
Price \$500

CHEMICAL DETECTOR KIT

Detects and identifies the varieties of chemical agents in common use. The kit is usable only once.

Weight Nil
Price \$20

CHEMICAL IDENTIFIER

The system can analyze suspected drugs or chemicals and their precursors and return an absolute identification in less than 10 seconds. Chemical Identifier can be used as a screening tool for samples to determine if further investigation is needed.

Weight 50 kg
Price \$5,000

CHEMICAL HOODS

Chemical Hoods, designed to go over top of gas masks. Complete with shoulder straps for securing cover over shoulders and storage bag, can be used with most gas masks.

Weight Nil
Price \$100

CHEMICAL PROTECTIVE OVER-GARMENT (CPO)

The CPO suit is the Navy's current issued garment used to protect the wearer from all known chemical agents and has a 10 years shelf life in its sealed container. Once the suit is removed from its sealed container bag, it is good for a total cumulative wear time of 100 hours within 30 days after opening. The foil bag and plastic over bag should be retained for stowage of uncontaminated CPOs between uses. In a contaminated environment the suit will provide 6 hours of protection. Although the CPO suit provides good skin coverage, it provides no special protection against biological contamination. Currently issued one per USMC Soldier.

Weight 2 kg
Price \$200

CHEMICALLY AND BIOLOGICALLY PROTECTED SHELTER (CBPS)

CBPS is a replacement for the M51 Chemically Protected Shelter. It consists of a dedicated M1113 HMMWV vehicle, a Lightweight Multipurpose Shelter mounted on the back of the HMMWV, a 300 ft semi-cylindrical air-beam supported soft shelter, and a towed High Mobility Trailer with a 10 kw Tactical Quiet Generator for auxiliary power. Four soldiers operate the CBPS; during transport, 2 ride in the HMMWV and 2 in the Lightweight Multipurpose Shelter. Soldier's gear and required medical equipment will be stored in the Lightweight Multipurpose Shelter or on the trailer. The inflatable shelter is

rolled and carried on the rear of the Lightweight Multipurpose Shelter during transport.

The CBPS can be inflated in 4 minutes and can be made fully operational in less than 20 minutes with four personnel. All power required to support operations of the system is provided by the HMMWV engine via an under-hood hydraulic pump, or from the auxiliary 10 kw TQG. Multiple CBPS systems can be connected and 2 colors are available, green and tan.

Weight 500 kg
Price \$10,000

DOSIMETER

The direct-reading pocket dosimeter is a portable instrument designed to measure the total dose of moderate and high levels of gamma radiation.

Weight 1 kg
Price \$45

EMERGENCY DECONTAMINATION SHOWER

This shower is used at decontamination units for decontamination of personnel.

Weight 5 kg
Price \$200

EVAC-U8 EMERGENCY ESCAPE SMOKE HOOD

Studies show that the most important thing you can do to survive a fire is to maintain your source of breathable air. In just a few seconds, you can easily put on this EVAC-U8 Emergency Escape Smoke Hood and breathe filtered air for up to 15 minutes, precious time in the event of an emergency situation. This will help you to guide yourself and others out of harms way.

The hood is made of translucent Kapton and is heat resistant. Its compact canister is small enough to fit in a suitcase or briefcase.

Weight Nil
Price \$20

FALLOUT KIT

"We cannot in any way warrant functionality or protective qualities of these products".

- **Russian gas mask and filter:** Uses standard 40 mm filters. Air passages in mask to prevent foggy lenses. Unlike masks with adjustable straps this Russian mask provides entire head coverage. The elasticity accommodates numerous sizes.
- **Tested radiation Detector:** Functionally identical to the CDV-715, except for its unique "Split Case" design with a Remote Access Cable allowing sensor head to be placed in a remote location (underground or bomb shelter) and be monitored remotely from a distance of up to 25 ft.
- **Chemical Protective and Scent Absorbent Suit:** This 2-piece suit is made to stringent US Government specifications, so you know it is top quality. Labeled "Suit, Chemical Protective, 2 Piece", this is the current style US Chemical Suit. New, sealed in its original bag, this suit is made from a water repellent, wind resistant and tear resistant cotton/nylon blend. Bought straight from the government. Sized in men's sizes, the smaller ones work well for women and children. Order one size smaller than your normal size, as these suits were designed to go over top of full filed gear. Sizes: XS, S, L, XL.
- This kit includes six pairs of rubber gloves. Size: S, M, L.

Weight 200 kg
Price \$70

FUME SPONGE

Collects fumes for later analysis.

Weight Nil
Price \$50

GAS MASK, CIVILIAN

Provides respiratory, eye, and face protection against field concentrations of chemical and biological agents. It will also withstand a maximum of 2 blood agent attacks. The mask also permits intelligible speech, does not interfere with hearing and provides for a drinking capability while being worn.

Because of these features, the mask can be worn continuously for 8 to 12 hours. Unlike military gas masks it almost impossible to deliver aimed rifle fire due to the position of the filter.

	Weight	Price
<i>Gas Mask</i>	1.30 kg	\$100
<i>Gas Mask Filter</i>	Nil	\$75

GAS MASK, MILITARY

There are various models in use around the world, but the basic purpose remains the same. The gas mask is a protective mask against gases that cause harm when inhaled. Combined with a chemical defense suit it can also be used against nerve and blood agents. The filters in the mask require replacement after around a year of constant use. There is also an attachment to most masks that enables the wearer to drink from a canteen without removing the mask.

	Weight	Price
<i>Eastern Gas Mask</i>	1 kg	\$200
<i>Eastern Gas Mask Filter</i>	Nil	\$40
<i>Western Gas Mask</i>	1.30 kg	\$525
<i>Western Gas Mask Filter</i>	Nil	\$175

GEIGER COUNTER

Detects nuclear radiation, powered by one 12V battery.

Weight	0.50 kg
Price	\$500

GREEN/BLACK VINYL OVER BOOT (GVO/BVO)

The GVO is a plain olive drab vinyl green overshoe with elastic fasteners. It protects against NBC agents, rain, mud, or snow. The BVO is very similar except it is black with enlarged tabs on each elastic fastener.

Weight	1 kg
Price	\$100

IMPROVED CHEMICAL AGENT MONITOR (ICAM)

The ICAM is a hand-held, soldier-operated, post-attack device for monitoring chemical agent contamination on people and equipment. It detects vapors of chemical agents by sensing molecular ions of specific motilities (time of flight) and uses timing and microprocessor techniques to reject interferences. The monitor detects and discriminates between vapors of nerve and mustard agents.

The ICAM consists of a drift tube, signal processor, molecular sieve, membrane, and expendables such as batteries, confidence tester, dust filters, buzzer, and battery pack.

Weight	2 kg
Price	\$

INTEGRAL CHEMICAL AGENT DETECTOR (ICAD)

The ICAD is a device used to detect most gases and give the user sufficient warning to take precautionary measures. The ICAD will detect any nerve, regurgitate, blister, or blood agent for 30 meters. The rechargeable battery is good for 4 months of continuous use and for an additional \$100 you can have it equipped with an RF transmitter module.

Weight	1 kg
Price	\$4,000

M7 VOICE AMPLIFIER

The M7 voice amplifier was developed for the M40 mask through the Pre-Planned Product Improvement program to improve face-to-face communication in an NBC environment. The amplifier can be attached to and removed from the front voice emitter of the mask while wearing CB protective gloves. The amplifier uses a standard Army battery for power. The weight of the unit does not have an adverse affect on the seal of the mask.

Weight	9 oz
Price	\$

M8 CHEMICAL DETECTOR & AGENT IDENTIFIER

The M8 were originally designed for military reconnaissance to detect the presence and identity of chemical agents producing agent specific color changes. When activated by chemical agents, this detector may appear to become polka dotted. Compare the color of the dots with the colors marked on front to determine the identity of the specific agent. With a color change to yellow suspect first nerve G non-persistent gases (Tabun, Sarin, Soman), with a color change to red suspect first blister agents, like mustard gases, with a color change to dark green suspect first nerve VX persistent gases.

It is widely distributed on the battlefield with each soldier carrying some M8s in his or her protective mask carrier. Please note this product cannot identify biological agents, such as anthrax. This product must remain dry, as it will not work properly if wet.

Weight	Nil
Price	\$60

M8A1 CHEMICAL AGENT AUTOMATIC ALARM

The M8A1 system can automatically detect chemical agents in vapor concentrations. It has a self-contained power pack, and it is designed to be used ashore where it can be mounted on a vehicle, carried on a person's back or used as a ground emplacement. It is not authorized for shipboard use. When a chemical agent is detected at a remote location, a warning light and horn provide advanced warning of a chemical warfare (CW) attack. The M8A1 is a nerve agent alarm only. The system consists of the M43A1 detector, as many as five M42 alarm units and various power supplies.

Weight	10 kg
Price	\$5,000

M9 CHEMICAL DETECTOR

M9 is used by ground forces and is placed on personnel and equipment to identify the presence of liquid chemical agent aerosols. The M9 Chemical Detector was developed for the US military to enable soldiers to detect nerve VX, nerve G (Tabun, Sarin, and Soman) and mustard H gases in combat.

“Chemical agent detector paper, M9 is the most widely used method of detecting liquid chemical agents” (quote from US military fm 3-3, chapter 3). It contains a suspension of an agent sensitive red indicator dye in a paper matrix. It will detect and turn pink, red, reddish brown or red-purple when exposed to liquid nerve agents and blister agents, but it does not identify the specific agent, nor does it detect any biological agents, such as anthrax.

Weight	Nil
Price	\$40

M20A1 SIMPLIFIED COLLECTIVE PROTECTION EQUIPMENT (SCPE)

The M20A1 SCPE provides collective protection for up to 10 individuals against NBC agents. The M20A1 is a clean air shelter that allows personnel to perform their duties unencumbered by individual protective equipment. The system operates on 110 VAC 60 Hz or European 240 VAC 50 Hz (with adapters). The M20A1 can be used as a command and control post, or a rest and relief shelter in the HQ.

Weight	1 kg
Price	\$5,000

M21 REMOTE SENSING CHEMICAL AGENT ALARM

The M21 Alarm is a standoff chemical agent detector. It detects both nerve and blister agents at line-of-sight distances up to 5 km. In a stationary position, the M21 automatically scans a 60° arc.

Weight	3 kg
Price	\$1,000

M22 AUTOMATIC CHEMICAL AGENT DETECTION ALARM ACADA

The M22 is an “off-the-shelf” automatic chemical agent alarm system capable of detecting and identifying standard blister and nerve agents.

Weight	6.4 kg
Price	\$5,000

M256A1 CHEMICAL DETECTOR & IDENTIFIER KIT

The M256A1 chemical agent detector kit is a compact, simple-to-use kit designed to detect blister, nerve and blood (cyanide) agents. It also determines the type of agent present or confirms the absence of a hazardous concentration of agent. It is used after a chemical attack to determine if it is safe to unmask or reduce the protective posture level. This is one of the military's most sensitive devices for detecting chemical agents and detects all agents at levels below those that can kill or injure people. It was used extensively during the 1st Gulf War.

The kit consists of: a plastic carry case with Velcro closure, instruction cards, 1 booklet of M8 test paper sealed in a plastic bag, 12 sampler-detector pouches (each consisting of 8 glass ampoules filled with chemical reagent), 3 test spots, a chemical heater, protective strips, and tabs. You would use the sampler detectors to test for chemical agents in the vapor form. The M8 paper is used to check for chemical agents in the liquid form.

The test consists of: activating the sampler by breaking the integral crushable ampoules and releasing test reagents, exposing the activated test disc to ambient air, comparing the observed color change to the color chart in the instructions, thereby determining the presence or absence of chemical agents. Please note this product cannot identify biological agents, such as anthrax.

Weight 1 kg
Price \$20

M291 SKIN DECONTAMINATION KIT

The M291 consists of a wallet-like carrying pouch containing 6 individual decontamination packets, enough to perform 3 complete skin decontaminations. Each packet contains an applicator pad filled with decontamination powder. The M291 allows you to completely decontaminate your skin through physical removal, absorption, and neutralization of toxic agent with no long-term harmful effects. This item is for external use only. It may be slightly irritating to eyes or skin. Be sure to keep the decontamination powder out of eyes, cuts, or wounds, and avoid inhalation of the powder.

Decontamination is accomplished by application of a black decontamination powder contained in the applicator pad. Application to skin exposed to contamination is explained in the technical manual.

Weight Nil
Price \$45

M31 BIOLOGICAL INTEGRATED DETECTION SYSTEM (BIDS)

The BIDS consists of a shelter mounted on a dedicated vehicle and equipped with a biological detection suite employing complementary technologies to detect large area biological attacks. The system includes a trailer-mounted 15 kw generator to provide electrical power. First deployed during the 1st Gulf War, only 77 of these systems were made and about 50 of them made it to Europe.

Weight 3,500 kg
Price \$25,000

M40A1 PROTECTIVE MASK

The M40A1 mask protects against CB agents, radioactive fallout particles, and battlefield contaminants. There is an external-mounted filter canister, which is easy to replace and may be mounted on the left or right side. Standard US issue.

Weight 3 kg
Price \$175

M42A2 COMBAT VEHICLE CREWMAN MASK

The M42A2 mask has the same components as the M40A1 with an additional built-in microphone for wire communication. The filter canister is attached to the end of the hose with an adapter for CPFU connection.

Weight 3 kg
Price \$230

M45 FLIGHT CREW PROTECTIVE MASK

The M45 provides protection without the aid of forced ventilation air. It is compatible with aircraft sighting systems and night vision devices. It has close fitting eyepieces, a voice transmitter, drink tube, and low profile filter canister.

Weight 4 kg
Price \$300

M48 PILOT PROTECTIVE MASK

The M48 is an upgrade of the M43 Type I mask. Their improved blower is chest-mounted, lighter, less bulky, and battery-powered.

Weight 6 kg
Price \$500

M51 CHEMICALLY PROTECTED SHELTER

This is a self-contained unit, designed to provide collective protection for 10 occupants against all known chemical-biological (CB) agents. It normally is deployed whenever a CB attack is anticipated or imminent. Using alternate erection procedures, it can be deployed during or immediately after a CB attack (contaminated environment). The shelter system can be stored or used in most climates and erected on most terrains. In normal weather, 4 men and a crew chief can remove the shelter system from the trailer and erect it in approximately 30 minutes. Disassembly and return to the transit configuration can also be accomplished in approximately 30 minutes. A modified 2-wheel military standard model M105A2, 1½-ton trailer transports the system. The CBPS may be attached to the rear of a high mobility multi-purpose wheeled vehicle (HMMWV) The entire system can be air-dropped.

Basically the shelter system consists of an inflatable entrance, an inflatable shelter, a military standard gasoline engine, a gas-particulate filter assembly, an air conditioning system, heating system, centrifugal blower, generator, an entrance gas-particulate filter unit, an air-evacuation fan, emergency shelter supports, and the necessary cables, controls, and flexible ducts. The unit requires a 10 kw generator; it will provide 300 square feet of working space.

Weight 500 kg
Price \$10,000

MULTIPURPOSE RAIN/SNOW/CB OVER BOOT MULO

The MULO is made by injection molding an elastomer blend, compounded to provide the characteristic chemical and environmental protection required. The boot incorporates 2 quick-release side buckles and is designed to be worn over the standard issue combat boot, jungle boot, and intermediate cold/wet boot (ICWB). The MULO provides 60 days of durability and 24 hours of protection against liquid chemical agents. The MULO is capable of being decontaminated to an operationally safe level using standard field decontaminates. Environmental protection is provided against water, snow, and mud in addition to POL and flame resistance.

Weight 1 kg
Price \$230

NBC SKIN DECONTAMINATING AGENT

Used for decontaminating skin, issued to US Forces

Weight
Price

NBC FILTER

This unit is designed to be attached to a bomb shelter's air shaft to provide the occupants safe air to breath.

Weight 20 kg
Price \$800

NUKALERT COMPACT MONITOR & ALARM

A domino-sized, key chain attachable, personal & portable, gamma radiation detecting and alarming device, this sealed unit is always on and monitoring. Unit chirps with increasing frequency through 10 easily recognizable ranges. This device can be used to first alert you the need to check your environment further with the sensitive high-range type meters.

Weight Nil
Price \$20

OPTICAL CHEMICAL SENSOR

Detects and identifies the varieties of chemical agents in common use. It is reusable and run of two 12V internal batteries.

Weight 2 kg
Price \$2,000

OXYGEN REBREATHING

This device supplies oxygen in where breathing the air might be dangerous; it's almost identical to a SCUBA tank.

Weight 15 kg
Price \$500

RADIATION PROTECTION SUIT

This specialty treated suit provides protection for all types of radiation, used by nuclear technicians and other persons who spend time around nuclear sources.

Weight Nil
Price \$350

SMART II ANTHRAX (SPORE) TEST KIT

This kit includes 2 Bacillus Anthracis (spore) lateral flow screening assay tests. Plus, powder/small surface sample collection kit (swipe-2) for environmental use only, not for human use.

Weight 1 kg
Price \$80

STEAM DECONTAMINATION TRAILER

Used to decontaminate persons who have been exposed to NBC environments, operates from an integral 60 kw generator.

Weight 1,000 kg
Price \$5,000

VAPOR PROTECTIVE SUIT

The Vapor Protective Suit resists almost every awful, corrosive chemical know, and is very comfortable to wear. It comes with integrated boots making a totally seal environment; the wearer must wear an oxygen system which can be worn inside the suit.

Weight 2 kg
Price \$1,000

VEHICLE DECONTAMINATION SYSTEM

Similar to the Steam Decontamination Trailer but used for the decontamination of vehicles, needs a crew of four to run it, and takes about 10 minutes to decontaminate small vehicles like a HUMMVEE or a Land Rover, 20 minutes for medium trucks (any thing up to 5 tons), 40 minutes for large trucks, and close to an hour for Tanks and AFVs. Towed by a 5-ton truck.

Weight 2,500 kg
Price \$25,000

WRISTWATCH RAD COUNTER

Weight
Price \$100

33. NOISE SUPPRESSERS & FLASH SUPPRESSERS

The use of a noise suppresser degrades the performance of a weapon. Weapons fitted with noise suppressers have their armor penetration degraded by one category (1-Nil becomes 2-Nil, 1-2-Nil becomes 2-3-Nil, etc.). The noise suppresser reduces the range of the weapon by 5 m (for a pistol, revolver, or submachinegun) or 10 m (for any other sort of weapon). Some weapons are specially designed to take silencers and may break these rules.

Fitting a suppresser to a weapon not already prepared for one is a task (DIF:Gunsmith). Adding a suppresser to a weapon threaded for one requires no special skill.

FLASH SUPPRESSER, PISTOL

Prevents a bright muzzle flash by venting explosive gasses. This suppresser is suitable for pistols (but not machine pistols). Attempting to spot a character using it causes the Observation skill to be degraded by -3 during the day and one full place at night. Suppressers cannot be made which will eliminate the flash of Magnum ammunition.

Weight 0.1 kg
Price \$65

FLASH SUPPRESSER, RIFLE

Suitable for use with sporting rifles, sniping rifles and semiautomatic battle rifles. It gives the same benefits to rifles as pistol flash suppressers.

Weight 0.2 kg
Price \$75

NOISE SUPPRESSER, AUTOMATIC SHOTGUN

Suitable for use with shotguns such as the HK CAW, SPAS-12, and Assault 12. It may also be used with the 25 mm version of the MM-1, if used with 12-gauge ammunition (using this suppresser on the MM-1 with grenade ammunition is 50% likely per shot of destroying the noise suppresser!). Attempting to spot a character using this suppresser causes a -2 Observation at short and medium range, and -3 Observation at long and extreme range.

Weight 0.6 kg
Price \$300

NOISE SUPPRESSER, AUTOMATIC WEAPON

Suitable for use with assault rifles, machine pistols, automatic battle rifles, and submachineguns. There are no noise suppressers for use with automatic rifles and machineguns. The character attempting to spot someone using this suppresser gets a -4 Observation at short and medium range and -3 Observation at long and extreme range.

Weight 0.5 kg
Price \$200

NOISE SUPPRESSER, PISTOL

Suitable for use with pistols. This device will do nothing to silence a revolver. This device cannot be used with machine pistols (such as the Stechkin or Micro-Uzi); an automatic weapon noise suppresser is required for these weapons. The character attempting to spot someone using a pistol with a noise suppresser gets his Observation degraded by 1 place.

Weight 0.25 kg
Price \$135

NOISE SUPPRESSER, RIFLE

Suitable for use with sporting rifles, sniper rifles, and battle rifles. Automatic battle rifles require the automatic weapon noise suppresser. Attempting to spot a character using this device causes the Observation skill to be degraded by one place.

Weight 0.5 kg
Price \$225

NOISE SUPPRESSER, SHOTGUN

Suitable for use with pump or semi-automatic shotguns. Attempting to spot the character using this suppresser gets –2 Observation at short and medium range and –3 observation at long and extreme range.

Weight 0.6 kg
Price \$275

NOISE/FLASH SUPPRESSER, PISTOL

Combines the effects of noise and flash suppressers (all effects are cumulative). Suitable for use with pistols (but not machine pistols). The flash-suppressing aspect will not work with Magnum ammunition.

Weight 0.25 kg
Price \$400

NOISE/FLASH SUPPRESSER, REVOLVER

Silencers for revolvers are huge, bulky affairs and must be hand-made for each weapon. They shroud the barrel and cover the revolver cylinders, requiring an extra step (removing the cylinder cover) to reload. Add 2 extra rounds to reload a silenced revolver. These weapons are extremely rare and were produced mainly as curiosities. Attempting to spot a character using one of these weapons is DIF:Observation.

Weight 1.5 kg
Price \$1,000

NOISE/FLASH SUPPRESSER, RIFLE

Suitable for use with sporting rifles, sniper rifles, and semiautomatic battle rifles, combining the benefits of noise and flash suppression.

Weight 0.5 kg
Price \$600

34. OLDER PERSONNEL EQUIPMENT

WORLD WAR II EQUIPMENT

.45 AUTO PISTOL SHOULDER HOLSTER

This holster was a World War II issue, it has been dyed black in accordance with the 1963 directive that changed the color of all Marine leather items from brown to black. There was also a belt holster version.

CARBINE 15 RD MAGAZINE POUCH

The cotton M1 ammunition pouch could accommodate two 8-round M1 rifle clips or two 15-round magazines for the M1 or M2 Carbine. The loop on the back of the pouch contained a male press-stud that was used to attach it to the female fastener on the M1936 pistol belt.

CARBINE 30 RD MAGAZINE POUCH

This olive drab cotton duck pouch accommodated four 30-round magazines for the M2 Carbine. It was closed by a single lift-the-dot fastener and had 2 belt loops on the back.

GENERAL AMMUNITION POUCH

The World War II designed ammunition bag was used by the CIDG (Civilian Irregular Defense Group) for their 'Grease Gun' magazines. The case was also used by SOG Spike/Recon Teams for carrying magazines for their Swedish K submachinegun.

JUNGLE FIRST AID POUCH

First standardized in August 1943, the Jungle First Aid Pouch was made from water repellent and mildew resistant cotton duck dyed olive drab shade no. 7 and boasted 3 internal compartments. It was attached to the belt via a double-hook and additional gear could be hung from the pair of eyelets on its bottom edge. The dimensions of the pouch were slightly enlarged in December 1944 and the official nomenclature was changed to Container, For Kit, Jungle, Medical, Individual, M2.

M1910 CANTEEN

The aluminum 1-quart M1910 canteen was produced until 1962, when it was replaced by the plastic polyethylene version.

M1923 AMMUNITION POUCH

The cotton M1923 pouch held two 7-round magazines for the .45 caliber automatic pistol. The loop on the back contained a male snap fastener that was used to attach it to the female fastener on the M1936 pistol belt. Later versions were equipped with M1956 slide keepers.

M1936 PISTOL BELT

The cotton M1936 belt featured a single female snap fastener that was used to attach reciprocal pouches, such as the M1923 and M1 Carbine ammunition pockets. Like most pistol belts it had 3 rows of eyelets. The lower row was for attaching double-hook fixture equipment, the middle row for adjusting the waist size and the upper row accommodated suspender snaps.

M1937 BAR BELT

The M1937 BAR belt was capable of carrying 12 magazines for the Browning automatic rifle. The belt had an upper row of eyelets that could accommodate suspender snaps and a lower row for attaching hook fixture equipment. Special Forces soldiers in Vietnam especially liked the BAR belt as it enabled them to carry a large number of M16 magazines

M1942 FIRST AID/COMPASS POUCH

Introduced during the war, the cotton M1942 pouch was used for carrying either a field dressing or a compass. It featured a double-hook hanger on the back and its flap was closed with a lift-the-dot fastener.

M1942 MACHETE

Introduced during the war, the M1942 machete had an 18" steel blade and a riveted two-piece plastic handle. It was used by both Army and USMC soldiers for clearing jungle vegetation.

M1945 COMBAT FIELD PACK & M1945 SUSPENDERS

The United States supplied the South Vietnamese Army with surplus stocks of the cotton M1945 load carrying equipment in the early stages of the war. However, the attachment of the combat field pack to the suspenders was so poor that when it was employed ARVN soldiers routinely carried the pack on a separate set of shoulder straps.

PLYWOOD PACKBOARD

The World War II era plywood packboard featured a laced-in cotton backrest and was used for carrying various pieces of kit such as mortar rounds and radios. Although they were a favorite of the Marines in Vietnam, the Army's use of the packboard declined soon after the introduction of the Lightweight Rucksack and Frame.

MACHETE SHEATH

The World War II era laminated cotton duck machete sheath was used for most of the Vietnam War despite being officially replaced by the plastic version in 1966.

THREE-POCKET GRENADE CARRIER

Developed during the war, the 3-Pocket Grenade Carrier was made from olive drab cotton duck and could accommodate six fragmentation grenades. It had a brass double-hook hanger on the back and was equipped with two cotton tie tapes. The carrier was used by the Marine Corps in Vietnam, as their standard issue M1961 ammunition pouch had no straps or pockets for attaching grenades.

KOREA/POST WAR EQUIPMENT

EX-54 ENTRENCHING TOOL CARRIER

Tested as a replacement for the M1945 load carrying system, the experimental EX-54 webbing introduced the slide keeper attachment method that was employed by the production M1956 field gear. Though similar in appearance, the EX-54 shovel carrier had a number of features that were not carried over to the standard M1956 version, including: two male snap fasteners on the bayonet securing strap so that it could accommodate two types of scabbard, and a male snap fastener on the left side of the front was used to secure a strap that wrapped behind the cover from the right.

EX-54 SUSPENDERS

Tested as a replacement for the M1945 load carrying system, the Quarter Master Corps EX-54 webbing evolved into the standard M1956 field gear that was used throughout the Vietnam War. The experimental suspenders were identical to their M1956 successors with the exception of the front belt hooks, which had separate rings for attaching the sleeping gear carrier rather than integral loops.

M2A1 AMMUNITION VEST

The M2A1 ammunition bag had two large pockets that were designed for carrying 60 mm mortar shells. Both mortar crews and bazooka teams used the vest in Vietnam, though apart from the Marines, bazooka use fell early in the war due to the introduction of the LAW rocket launcher.

M1910 1 QUART CANTEEN COVER

The M1910 1-quart canteen cover was made from olive drab cotton duck and featured a felt lining. It was closed with two lift-the-dot fasteners and had a double-hook hanger on the back, so that it could be attached to the pistol belt. Though replaced by the M1956 cover before the start of the Vietnam War, the M1910 cover was still used by early advisors and Marines.

M1910 PICK-MATTOCK

The M1910 pick-mattock consisted of a metal head and a wooden handle that was detachable for carrying purposes. The pick-mattock was replaced by the M1951 combination entrenching tool, which featured a pick blade on the opposite side of the shovel.

M1951 ENTRENCHING TOOL

The vintage M1951 combination entrenching tool improved upon the M1943 design with the addition of a pick blade on the opposite side of the shovel. Like its predecessor, the M1951's head could be folded along the wooden shaft for carrying in its cover.

M1956 ENTRENCHING TOOL COVER

Like the M1943 3rd pattern carrier, the cotton M1956 cover's flap was secured by a snap fastener, however, it also featured an attachment for holding a bayonet on the front and slide keepers on the rear, as opposed to a double-hook. The M1956 carrier could accommodate either the M1943 shovel or the M1951 combination entrenching tool.

M1956 INDIVIDUAL EQUIPMENT BELT

The M1956 pistol belt was made from 2¼" wide cotton webbing dyed olive drab shade no. 7. It was made in Medium (under 30" waist) and Large (30" waist and over) sizes, and unlike the M1936 belt it could be adjusted in length from both ends. The M1956 belt was initially produced with a ball-type buckle, however from 1967 it was also available with a quick-release 'Davis' T-slot fastener. With the weight taken by the M1956 suspenders the belt was used to carry a field pack, ammunition pouches, canteen covers, etc.

M1956 SUSPENDERS

The development of the H-back design cotton M1956 suspenders began in 1954 with the Quarter Master Corps experimental EX-54 load carrying system. Like the experimental version both the front and rear straps of the suspenders were terminated with hooks, however, the front belt hooks featured integral loops for attaching the sleeping gear carrier rather than separate rings. The bottom edge of each shoulder pad had a metal loop that connected to the supporting strap of an ammunition case, whilst the web keeper on top of the pad was often used to attach a first aid pouch. The suspenders were issued in 3 sizes in Vietnam: Regular, Long and X-Long.

M1956 UNIVERSAL SMALL ARMS AMMUNITION POUCH

The cotton "universal" cases were so named because they were designed to accommodate either a folded bandoleer containing 7 clips of M1 ammunition or 3 magazines of M14 rifle ammo. M16 magazines proved too short for the Universal pouch and as a result a sock was often put in the bottom to raise the magazines up for faster retrieval during firefights. The case attached to the pistol belt via 2 slide keepers and had a supporting strap that clipped to the metal loop on the suspenders. In common with the majority of ammunition pouches, each case had strips on both sides for attaching hand grenades.

VIETNAM ERA EQUIPMENT

1 QUART CANTEEN

The olive drab plastic polyethylene 1-quart canteen was first produced in 1962 and replaced the M1910 aluminum model. It featured a plastic screw cap with an attaching strap.

2 QUART COLLAPSIBLE CANTEEN (FILM BLADDER)

The first 2-quart collapsible canteen issued in Vietnam had a square vinyl film bladder with heat sealed edges. The bladder, which was carried in a nylon cover, had a plastic screw cap and was supplied with a removable corrosion resistant steel strainer. Usage difficulties caused by its thin construction resulted in the introduction of a redesigned 2-quart bladder in 1966.

2 QUART COLLAPSIBLE CANTEEN (FILM BLADDER) COVER

The first 2-quart canteen cover sent to Vietnam was produced by the International Latex Corporation and was effectively a nylon version of their 1945 design with an added belt loop. It also featured a single lift-the-dot fastener and a 2" wide webbing reinforcement strip across the back. Subsequent to testing by Special Forces the design was modified to have a 1" rather than a 2" wide reinforcement strip. The modified cover was standardized in 1963.

2 QUART COLLAPSIBLE CANTEEN (FILM BLADDER) COVER 2ND PATTERN

The 2nd pattern cover for the plastic film bladder was considerably different from the original. It had slide keepers on the back rather than a belt loop, featured a pocket for water purification tablets but did not have a shoulder strap. Unlike its predecessor the canteen could be opened without having to unfasten the cover.

2 QUART COLLAPSIBLE CANTEEN

The 1966 design 2-quart collapsible canteen bladder was formed from ethylene-vinyl acetate copolymer (EVA) with the neck at one corner and measured approximately 7" x 7" x 3". The EVA mate-

rial was less susceptible to punctures than the vinyl film of its predecessor and its shaped design meant that it could be removed or inserted into the canteen cover when full. The bladder was either blow molded in one piece (Type I construction), or thermoformed from 2 sheets (Type II construction).

2 QUART COLLAPSIBLE CANTEEN COVER

The 1967 design 2-quart canteen was originally issued with an unlined rubberized cover that had a plastic latch fastener closure and a pocket for water purification tablets. It could be attached to the pistol belt via 2 slide keepers on the back or carried by its detachable shoulder strap.

2 QUART COLLAPSIBLE CANTEEN COVER 2ND PATTERN

The 2nd pattern cover for the corner neck 2-quart canteen was made from water repellent nylon duck and improved upon the original design with the addition of a felt lining. The lining provided some insulation for the bladder in cold weather and when wet helped to keep the canteen cool in Vietnam's high summer temperatures.

2 QUART COLLAPSIBLE CANTEEN COVER 2ND PATTERN VARIATION

This 2nd pattern 2-quart canteen cover's shoulder strap is only detachable on the left hand side

5 QUART FLOTATION BLADDER ASSEMBLY

The Army's flotation bladder assembly could be used as either a canteen or as a personal flotation device for heavily loaded soldiers crossing rivers and streams. The assembly consisted of a 5-quart capacity vinyl film bladder with a nylon cover that featured a funnel neck to aid filling from a still water source and a pocket for water purification tablets. When being used for flotation purposes, belt loops on the base of the cover allowed the breath-inflated bladder to be attached to the swimmer's trouser belt. Unfortunately by the time the flotation bladders arrived in Vietnam, few troops were employed in the sort of foot mobile operations that necessitated the use of such equipment.

Though the contract to manufacture the assembly was won by Trenton Textiles Eng., the International Latex Corporation fabricated the prototype. ILC exclusively produced the 2-quart collapsible canteens for the military in World War II and the first version used in Vietnam.

ARCTIC CANTEEN

The 1-quart arctic canteen saw service with Special Forces early in the Vietnam War, mainly in the Central Highlands. The vacuum insulated canteen was made of corrosion resistant steel.

ARCTIC CANTEEN COVER

The arctic canteen cover had a double hook on the back so that it could be attached to a pistol belt.

ARVN RUCKSACK

Natick Labs specifically designed the ARVN rucksack, or Indigenous Ranger Pack, for the South Vietnamese Army as a replacement for the M1945 Combat Field Pack. The US had furnished the ARVN with surplus stocks of the M1945 pack early in the war, but it proved to be too small and too heavy. Development began in 1963 when Natick Labs fabricated 250 rattan frame prototypes in Thailand. However, the frame was found to interfere with body movements of the wearer and its projections frequently got caught in the undergrowth. Despite subsequent improvements to the rattan frame, when tested by Airborne and Marine Brigade units against a metal frame version the latter was a decisive winner.

The production ARVN Rucksack featured a non water-resistant cotton pack with 2 outside pockets mounted on a steel X-frame. A webbing hanger for attaching an entrenching tool cover was located on the top flap and side straps were provided for carrying extra equipment. The pack's comparatively small size meant it could be worn higher on the back than the Lightweight Rucksack.

AUSTRALIAN 2 QUART COLLAPSIBLE CANTEEN

The Australian Army's 2-quart canteen assembly was very similar to the model issued to US forces early in the war. Though the cover was made in the same two-color camouflage as the Aussie raincoat, it shared a number of features in common with the American cover, including: a single lift-the-dot fastener, shoulder strap, belt loop, 1" wide reinforcement strip across the back, and a drainage eyelet located either side of the central leg-tie eyelet. The plastic film bladder was also similar to the US model, but boasted a wider aperture. Though the American 2-quart canteen assembly was completely redesigned in 1967, the Australian design continued in production throughout the war.

CAMOUFLAGE PAINT STICK

The camouflage face paint stick was designed by Natick Labs and consisted of two ¾" diameter cylinders joined end to end to form a single container. Three different camouflages were available: light green and loam for use in Vietnam, light green and sand for desert use, white and loam for arctic use. The camouflage paint was easy to apply, contained insect repellent and was relatively odorless.

CIDG RUCKSACK

Conrad "Ben" Baker of the Counterinsurgency Support Office (CISO) designed the indigenous rucksack after being asked by Special Forces in Vietnam if something similar to the VC "ditty bag" could be produced for CIDG troops. Approximately 350,000 rucksacks were procured by CISO at a cost of \$2.80 each, as opposed to \$14.90 for a US issue Lightweight Rucksack.

Made from water resistant rubberized cotton canvas, the CIDG pack had a thin waist strap and featured 3 outside front pockets and a back map pocket. Though designed for indigenous personnel and their advisors, the rucksack was also popular with SOG and LRP teams.

COLLAPSIBLE ENTRENCHING TOOL

The lightweight folding entrenching tool officially replaced the M1951 model when it was standardized in 1969 and had an aluminum handle and a steel blade. Unlike its predecessor it did not have a pick blade, but the shovel did feature both a serrated cutting edge and a sharpened blade edge. The tool was carried on the pistol belt inside a specially designed nylon cover.

COLLAPSIBLE ENTRENCHING TOOL CARRIER

The carrier for the lightweight collapsible entrenching tool was made from OG-106 nylon and featured a single plastic spring catch fastener. Unlike the M1956 cover, it had plastic rather than leather wear point reinforcements and did not have a bayonet attachment.

DEMO/UTILITY POCKET KNIFE

This pocket knife was carried in Vietnam by SF troops.

FIRST AID KIT CASE PLASTIC INSERT

Designed as a liner for the Nylon Medical Instrument and Supply Set case No. 8, the insert served as a container for the Individual First Aid Kit. Made from olive drab plastic, it measured 4¾" long by 2⅜" wide by 4½" high. When issued in August 1969, the first aid kit consisted of:

- Adhesive Bandages, ¾" x 3" (300)
- Artificial Respiration/Mouth-to-Mouth Resuscitation Instruction Card
- Camouflage Compressed Gauze Bandage, 2" x 6 yards
- Eye Dressing
- Hot Climate Anti-Chap Lipstick (Type II)
- Individual Troop Camouflage First Aid Field Dressing, 4" x 7"
- Iodine Water Purification Tablets, 8 mg (50)
- Plastic Tablet Bottle with Snap-on Cap
- Povidone-Iodine Solution, NF, 10%, 15 cc (50)
- Sodium Chloride, Sodium Bicarbonate Mix, 4.5 grams (2)

GENERAL PURPOSE STRAP

This was used for carrying anything that needed the aid of a strap.

HESSIAN SAND BAGS

Each soldier was issued with 20 bags and had to fill them at night to help create foxholes. A nylon model later replaced this Hessian version.

JUNGLE FIRST AID KIT 2ND PATTERN

This version of the Marine Corps Jungle First Aid Kit replaced the 1st pattern left over from World War II. It would be superseded by the 3rd pattern M1967 model.

LENSATIC COMPASS

The Army's Lensatic Compass featured a rear sight lens that allowed the dial to be read whilst using the cover's sighting wire to line up an object. The dial was illuminated by radioactive tritium vials, which depleted after several years. The compass also featured a straight edge graduated at 1:25,000 meters (later models were made with a 1:50,000 scale) to measure distances on a map. Both the cot-

ton M1956 and nylon M1967 load carrying systems had pouches designed to carry the compass. However, the Lensatic Compass was neither waterproof nor moisture-proof and often failed in Vietnam's jungle environment.

LIGHTWEIGHT AMMUNITION CARRYING VEST

Development of the Lightweight Ammunition Carrying Vest began in May 1969 after the 25th Infantry Division requested that a garment be produced to enable riflemen to carry M16 magazines comfortably and securely. Following Natick Labs completion of the design work in October, 400 vests were procured by the Defense Personnel Support Center (DSPC) and shipped to Vietnam in January 1970 for evaluation by the 4th and 25th Infantry Divisions. The vest featured 20 pockets, each accommodating a single 20-round M16 magazine, distributed over the front and sides. The lower back portion of the vest boasted 2 additional pockets for carrying a pair of 1-quart canteens.

After a favorable 60-day test the Army Concept Team In Vietnam (ACTIV) recommended that Natick reinforce the pocket corners and add delta rings for carrying 4 grenades. ACTIV proposed that the suggested modifications be evaluated in the US and that if successful, the vest be issued for operational use in Vietnam.

LIGHTWEIGHT RUCKSACK CARGO SHELF - RIVETED FRAME

The cargo shelf for the riveted frame Lightweight Rucksack featured 5 cargo strap slots, rather than the original model's 2 slots. In Vietnam 3 cargo shelves were issued for every 10 rucksacks, though Special Forces were authorized one per individual.

LIGHTWEIGHT RUCKSACK CARGO SHELF - WELDED FRAME

The Lightweight Rucksack cargo support shelf was made from aluminum alloy and featured 2 cargo strap slots. In order to convert the rucksack into a packboard the shelf was inserted above the bottom horizontal bar of the frame, or it could be placed above both the middle bar and pack if a combination packboard was needed. The shelf was redesigned in 1966 with the introduction of the riveted frame Lightweight Rucksack.

LIGHTWEIGHT RUCKSACK FRAME CUT DOWN

This early welded frame has been shortened in order to lift the bottom of the frame above the kidney area of the back and make it much more comfortable for a recon soldier.

LIGHTWEIGHT RUCKSACK P62

The 1962 experimental Lightweight Rucksack consisted of an OG-106 nylon pack with an external welded frame of seamless aluminum tubing. The pack could be mounted in various positions on the frame and had more than double the capacity of the M1961 butt pack thanks to its large main compartment and 3 outside pockets. Each of the outside pockets had strapped and buckles adjustable closures whilst the 2 side pockets were positioned beneath webbing equipment hangers and were tunneled accordingly. Additional webbing hangers designed for attaching 1-quart canteens were located on each side of the pack.

The welded frame featured 2 vertical cargo straps and had an upper and lower horizontal back strap. The upper horizontal strap boasted a pair of hinged double eyelet webbing hangers that were designed to accommodate machete sheaths. The 2 shoulder straps were tied to the bottom D sections and threaded around and the top of the frame. The left strap had a quick release fastener that allowed the rucksack to be disposed of rapidly in an emergency.

LIGHTWEIGHT RUCKSACK P64

The design of the 1964 production Lightweight Rucksack was little changed from the 1962 experimental version, however, the arch of the external tubular welded aluminum frame was less pronounced than on the prototype. The nomenclature and contract information was stamped inside the pack rather than on a label and a paper instruction sheet was sewn into the pouch flap pocket. The 1964 rucksack also featured a 2-slot cargo shelf, which was used to convert the frame into a packboard or combination packboard.

The welded frame Lightweight Rucksack was also issued with an adjustable waist belt, which featured a quick release T-slot buckle. Produced in medium and large sizes, it was often used by Special Forces in Vietnam as an equipment/pistol belt.

LIGHTWEIGHT RUCKSACK P66

The 1966 Lightweight Rucksack design featured a riveted aluminum tubular frame rather than the

welded frame of the experimental and early production models. It also had a thin waist strap with a snap hook in place of the P64 version's quick-release belt. In addition the riveted frame model boasted a redesigned cargo shelf.

LIGHTWEIGHT RUCKSACK P68

The 1968 Lightweight Rucksack improved upon the design of the 1966 model with the addition of a middle horizontal back strap to the riveted frame. Like its predecessor it featured a thin waist strap and could be converted into a packboard by inserting a cargo support shelf.

LINCLOE SMALL ARMS AMMUNITION CASE

Introduced in 1971 as part of the LINCLOE (Lightweight Individual Clothing & Equipment) program that lead to the ALICE system, these nylon pouches accommodated three 30 rd magazines for the M16 rifle. Though the later LC-1 cases had the same grenade pockets on each side and suspender snap eyelet on the back, the LINCLOE pouch uniquely had individual flap covers for each magazine compartment. The flaps were designed to ensure that the magazines remained in their proper positions when one was removed, but they also slowed magazine removal.

USMC adopted the LINCLOE pouches in 1972 and Marines guarding the US embassy in Saigon in April 1975 are thought to have carried them.

M1 (M1916) .45 PISTOL HOLSTER

Standard black leather holster issued for the .45 caliber auto pistol. There was also a shoulder holster version.

M2 BANDOLEER

The cotton M2 bandoleer had 6 pockets that were each designed to contain a cardboard sleeve that held two 5 rd clips of 7.62 mm ammunition for the M14 rifle. In Vietnam soldiers would often carry a 20 rd M14 magazine in each of the bandoleer's pockets, enabling them to carry far more ammo than the issued magazine pouches would allow. Soldiers would often wear 2, and sometimes even 3 bandoleers.

M3 BANDOLEER

The cotton M3 bandoleer had 7 pockets that were each designed to contain a cardboard sleeve that held a 10 rd clip of 5.56 mm ammunition for the M16 rifle. In Vietnam troops would often carry a 20 rd M16 magazine in each of the bandoleer's pockets and would frequently strap 2, and sometimes even 3, bandoleers across their chests. Not only were the bandoleers lighter than the standard issue magazine pouches, they were also less bulky and allowed faster rifle reloading.

Though limited testing in 1968 proved that nylon bandoleers were more durable and lighter when wet than the standard cotton version, they were never officially adopted.

M4 BANDOLEER

The M4 bandoleer was designed to contain 7.62 mm linked ammunition within a cardboard carton. This particular bandoleer held 100 rounds of linked ammo for the M60 machine gun, which was comprised of 4 M80 ball cartridges for every 1 M62 tracer cartridge. During rainy season operations in Vietnam M60 gunners and assistant gunners typically carried their ammo in the M4 bandoleer.

M16 MAGAZINE WATERPROOF BAG

The EVA (Ethylene Vinyl Acetate) copolymer bag was designed to keep an individual M16 20 rd Magazine clean and dry. In addition to the standard plain bag, a Chieu Hoi version was also produced with a psyops message designed to induce NVA and Viet Cong troops to defect.

M18A1 CLAYMORE MINE BAG

The Claymore Mine Bag (officially known as the M7 Bandoleer) was made from olive drab water resistant canvas and was used to carry the M18A1 Anti Pers Mine and its accessories. The mine was stored in one pocket, whilst the other pocket housed the firing device, test set and blasting cap assembly. The bag also featured a 2" wide shoulder strap and an instruction sheet was sewn inside the flap.

Once the mine had been detonated soldiers in Vietnam often used the bandoleer to carry extra magazines and grenades.

M79 BANDOLEER

Ammunition for the M79 grenade launcher was issued in a cotton bandoleer, which had 2 pockets that each held 3 rounds and their plastic spacers. The tendency of the bandoleer to snag on the jungle underbrush led to the development of the Grenade Carrier Vest.

M79 GRENADE CARRIER VEST

Prior to the introduction of the Grenade Carrier Vest ammunition for the M79 Grenade Launcher was routinely carried in the 6 rd cotton bandoleers it was issued in. However, M79 gunners in Vietnam found that the bandoleers had a tendency to get snagged in the jungle and that one-handed extraction of a single round was difficult. In an effort to solve these problems a Special Forces Sergeant, in coordination with a Natick Labs representative in Vietnam, fabricated a prototype vest that was successfully evaluated by various units.

The vest was made from nylon netting to minimize heat stress and featured 6 pockets (2 on each side of the front and 1 each side of the back) that could each accommodate 3 grenades. Each of the 18 rounds was held in place by a Velcro fastener. Following a directive from Army Material Command, Natick Labs procured 6,687 vests for US forces and all were shipped to Vietnam between May and June 1966.

As a result of the recommendations made by the Army Concept Team In Vietnam (ACTIV) in September 1967, Natick Labs redesigned the grenade carrier vest. The improved version boasted a capacity of 24 rounds, each of which was held in an individual pocket that was closed by a snap fastener. The body of the vest was made from OG-106 7¼ oz nylon duck with Rachel knit nylon mesh over the shoulders and back to give increased ventilation. A snap fastener was added to the top and bottom of the front Velcro closure and a strap with quick-operating buckle allowed the back to be adjusted. The improved vest, which was designed to be worn over the flak jacket and suspenders, was approved for procurement in January 1968 and was issued in small and large sizes.

M79 HOLSTER

This M79 grenade launcher holster has been made from a PRC-10 Radio Antenna Bag. It belonged to a SOG recon team veteran.

M1910 1 QUART CANTEEN COVER

The M1910 1-quart canteen cover was made from olive drab cotton duck and featured a felt lining. It was closed with 2 lift-the-dot fasteners and had a double-hook hanger on the back, so that it could be attached to the pistol belt. Though replaced by the M1956 cover before the start of the Vietnam War, the M1910 cover was still used by early advisors and Marines.

M1923 (M1956) AMMUNITION POUCH

The cotton M1923 pouch held two 7 rd magazines for the .45 caliber automatic pistol. Unlike the original version, this 1960s model attached to the pistol belt via 2 slide keepers.

M1938 MAP/DISPATCH CASE

The M1938 Dispatch Case was made from olive drab cotton duck and could be carried by its detachable shoulder strap. It featured 2 large pockets, several slots for writing instruments and also boasted a transparent plastic insert with gridlines to aid the reading of maps.

M1941 USMC NYLON HAVERSACK

The M1941 haversack was produced in nylon prior to the introduction of the Marine Corps own M1967 load carrying system.

M1941 USMC PACK SYSTEM

The Marine Corps M1941 pack evolved from an experimental model developed during 1940 by a board of NCOs from the 5th Marines and consisted of a haversack, knapsack, blanket roll and a pair of suspenders. These components could be assembled in numerous configurations, including: Light Marching Pack (haversack only), Marching Pack (haversack and suspenders), Field Marching Pack (marching pack plus short blanket roll), Transport Pack (marching pack plus knapsack) and Field Transport Pack (transport pack plus long blanket roll).

The 1941 USMC haversack design featured a roll-top rather than the original standard flap and was produced into the late 1960s. It had a blanket roll strap on the top, a side bayonet attachment and a cartridge belt supporting strap at the bottom. The haversack also had a pair of eyelets on the top flap that were designed for attaching an entrenching tool cover. The knapsack's coupling strap could be

threaded through the loops on the bottom of haversack to provide additional cargo carrying capacity, though this was rarely required in Vietnam.

The Marine Corps World War II era straight-back design cotton suspenders were only 1" wide and had no shoulder padding. The 4 front belt supports had hook ends, whilst the rear straps terminated with snap hooks. The suspenders were worn in an X formation with various belts and the numerous configurations of the USMC's M1941 pack system. They were produced into the late 1960s, until the introduction of the USMC M1967 system.

M1943 ENTRENCHING TOOL

The World War II vintage M1943 folding shovel had a wooden shaft and could be fixed in three different positions. The head could be folded along the shaft for carrying in its cover, placed at 90 degrees for use as a pick or fixed in the normal shovel position for digging foxholes and filling sand bags. The M1943 tool was superseded by the M1951 model.

M1943 ENTRENCHING TOOL COVER 3RD PATTERN

The 3rd pattern M1943 shovel cover was very similar to its predecessor, but the flap was secured by a brass snap fastener rather than a lift-the-dot fastener. The cover's double-hook was typically used to attach it to the Marine Corps' M1941 haversack or more rarely to the M1936 belt.

M1952 RUCKSACK

A descendant of the World War II design Mountain Rucksack and favored by Special Forces troops in Vietnam, the M1952 Rucksack consisted of a large cotton duck pack with 3 outside pockets supported by a tubular steel frame. The main pouch and the outside pockets had leather strap and buckle closures, whilst the pack flap pocket had a zip fastener. The left side of rucksack boasted 3 cotton duck equipment hangers, whilst the right side featured a rifle-securing strap. The rucksack was also equipped with a waist strap to keep it centered on the back and a quick-release snap hook on the left shoulder strap.

M1956 1 QUART CANTEEN COVER

The cotton M1956 cover had a felt lining and was designed to carry the 1-quart canteen and cup. It attached to the pistol belt via a pair of slide keepers and was closed with 2 snap fasteners. In Vietnam the covers were also used as pouches to carry spare magazines by SOG recon men and Infantry LRRP/Ranger units.

M1956 20 RD M16A1 MAGAZINE POUCH

The cotton M16A1 ammunition case was shorter than the universal pouch and was capable of accommodating four 20 rd magazines for the M16 rifle. The pouch attached to the pistol belt via two slide keepers and had a supporting strap that clipped to the metal loop on the suspenders. In common with the majority of ammunition cases it had strips on both sides for attaching hand grenades.

M1956 BUTT PACK ADAPTER STRAPS

The cotton field pack adapter strap assembly attached to the suspenders to allow the butt pack to be worn on the back, rather than on the pistol belt. Adapter straps were not required when wearing M1967 suspenders as they had snap hooks on both shoulders that could be clipped directly to the butt pack.

M1956 COMBAT FIELD PACK 'BUTT PACK'

The M1956 butt pack was made from Olive drab cotton duck and featured a small carrying handle, a plastic cardholder and side webbing for attaching standard slide-keeper fixture equipment. The pack also had a row of eyelets on the compartment flap that could be used for attaching hook fixture gear, such as a machete sheath or a bayonet scabbard. The pack was typically worn on the back of the pistol belt, though it could be worn higher up the back with the use of adaptor straps. When worn in the standard position the rear suspender straps were clipped directly onto the pack, rather than to the upper row of eyelets on the belt.

M1956 FIRST AID/COMPASS CASE

The canvas M1956 pouch was used for carrying either a field dressing or a Lensatic compass and had a single slide keeper on the back that was used to attach it to either the pistol belt or the web keeper on top of the padded portion of the suspenders. The first pattern pouch was little changed from the experimental EX-54 version in that the main body had no edging and no drain hole.

M1956 FIRST AID/COMPASS CASE 2ND PATTERN

The 2nd version of the cotton M1956 pouch improved upon the original design with the addition of a drain hole and a stitched edging around the storage compartment. Like its predecessor it had a single slide keeper on the back that was used to attach it to either the pistol belt or the web keeper on top of the padded portion of the suspenders.

M1956 SLEEPING BAG CARRIER

These straps were originally intended to attach a sleeping bag to the M1956 suspenders. However, in Vietnam's hot climate soldiers preferred to use the poncho liner in combination with a poncho to create a hybrid light-weight sleeping bag. This hybrid sleeping equipment was well suited to this carrier.

M1956 SUSPENDERS 2ND PATTERN

In 1961 the following improvements were made to the design of the M1956 load carrying suspenders: the rear straps were terminated with snap hooks rather than plain hooks; the front hook sleeping gear attachment loops were fabricated from flattened rather than rounded metal.

Though they were technically superseded in 1968 by the nylon M1967 version, the M1956 suspenders continued to be worn throughout the Vietnam War.

M1956 UNIVERSAL SMALL ARMS AMMUNITION POUCH 2ND PATTERN

The 2nd version of the universal small arms ammunition pouch had a softer front than the original.

M1961 AMMUNITION POUCH

The basic design of the Marine Corps cotton M1961 ammunition pocket, which accommodated a single 20 rd magazine for the M14 rifle, remained constant throughout the Vietnam War, though the pouch and flap were lengthened slightly in late 1964. The loop on the back of the pouch contained 2 male press-studs, either one of which could be used to attach it to the M1961 cartridge belt. The lower press-stud was used when the pocket was attached the belt upside-down, thus allowing the magazine to fall straight into the hand when the pouch was opened. A first aid kit or 3-pocket grenade carrier could be hung from the pair of eyelets on the bottom edge of the pouch.

M1961 CARTRIDGE BELT

The cotton M1961 belt expanded upon the M1936 design with a snap fastener between each of the middle row eyelets. Though the fasteners could technically be used to affix older generation Carbine or .45 ammunition pouches, they were designed to attach M1961 model M14 magazine pockets. The M1961 belt was typically worn in conjunction with the Marine Corps M1941 suspenders and pack system.

M1961 COMBAT FIELD PACK 'BUTT PACK'

The M1961 butt pack improved upon the original M1956 design with the addition of a rubberized waterproof throat lining to the storage compartment. Each new pack was supplied with a load carrying equipment instruction pamphlet or sheet. Like its predecessor, the pack was typically worn on the pistol belt, but could be worn on the back with the use of M1956 adapter straps, or clipped directly to the shoulder snap hooks on the M1967 suspenders.

M1967 1 QUART CANTEEN COVER

The M1967 1-quart canteen cover was made from OG-106 4 oz nylon duck and featured an acrylic pile lining and 2 plastic snap fasteners. In addition to being both lighter and quicker drying than the M1956 cover it also boasted a small pocket for water purification tablets. Like its predecessor it had 2 slide keepers so that it could be attached to the belt and was often used as a pouch for carrying spare magazines.

M1967 20 RD M16 MAGAZINE POUCH

The 2nd pattern M16 ammunition case was produced in nylon rather than cotton and featured a plastic spring catch fastener. Like its predecessor it was designed to accommodate four 20 rd magazines for the M16 rifle. The pouch attached to the pistol belt via 2 slide keepers and had a supporting strap that clipped to the metal loop on the suspenders. In common with the majority of ammunition cases it had strips on both sides for attaching hand grenades.

M1967 30 RD M16 MAGAZINE POUCH

Development of the M16 30 rd ammunition case began in January 1966 when Natick Labs received a request from US Army Weapons Command for a pouch to carry the forthcoming large capacity magazines. The resultant nylon case could accommodate 3 magazines and had a riveted metal insert with opposing stainless steel leaf springs that exerted pressure on the magazines to prevent them from rattling or falling from the case. It also featured a plastic spring catch fastener that permitted one-hand opening and straps on both sides for attaching hand grenades. The pouch was attached to the belt via 2 slide keepers and to the metal loop on the suspenders by means of a support strap with snap hook.

The 30 rd cases were rarely issued in Vietnam due to the scarcity of the magazines.

M1967 FIRST AID/COMPASS POUCH

The nylon M1967 pouch replaced the M1956 version and was used for carrying either a bandage or a Lensatic compass. Like its predecessor it had a single slide keeper on the back that was used to attach it to either the pistol belt or the web keeper on top of the padded portion of the suspenders.

M1967 INDIVIDUAL EQUIPMENT BELT

The nylon M1967 pistol belt could be adjusted at both ends and was issued with a quick release 'Davis' T-slot fastener. The belt, which was essentially a nylon version of the M1956 belt, was worn in conjunction with the M1967 suspenders in order to complete the base of the M1967 load carrying system.

M1967 SLEEPING GEAR CARRIER

The M1967 Sleeping Equipment Carrier was made from OG-106 water repellent treated 7¼ oz nylon duck. When the pack was worn on the belt the carrier could be worn on the shoulders by clipping its 2 D-rings to the shoulder hooks on the suspenders. Alternatively, when the pack was worn on the shoulders, the sleeping gear carrier could be strapped to the bottom of the pack and kept from bobbing about by fastening the Velcro loop around the belt. Though it was designed to carry a sleeping bag it could equally well be used for a transporting the poncho and poncho liner.

M1967 SUSPENDERS

The H-back design nylon M1967 suspenders were 2¼" wide and had padded shoulders. Both shoulder pads had a metal loop to affix the supporting strap from an ammunition case and a web keeper that was typically used to attach a first aid pouch. The M1967 design also featured snap hooks on both shoulder pads that could be clipped to the butt pack, enabling it to be worn on the back without the need for adapter straps.

Unlike the M1956 suspenders both the front and rear straps connected to the belt via snap hooks. However, M1967 load carrying system's construction was such that its components could be interchanged with the equivalent parts from the earlier canvas M1956 webbing.

M1967 USMC COMBAT FIELD PACK

The nylon M1967 USMC Combat Field Pack was designed by the Marine Corps Landing Force Development Center as a replacement for the M1941 Haversack. The design of the pack evolved from the experimental XM1964 haversack and boasted 2 outside pockets in addition to the main storage compartment that had a waterproof rubberized collar. The top flap had 2 side webbing hangers and 1 in the middle for attaching an entrenching tool carrier.

When the matching USMC M1967 suspenders were used to support an equipment belt the pack was worn on the back by clipping the top eyelets to the suspender shoulder hooks and by mating the pack's male snap fasteners with the female fasteners on the rear suspender straps. Alternatively it could be worn as haversack by connecting both front and rear suspender straps to the D rings on the bottom of the pack.

M1967 USMC SUSPENDERS

The Marine Corps M1967 load carrying system (not to be confused with the Army's M1967 gear) replaced the World War II designed M1941 system and consisted of a combat field pack, a cargo pack and a pair of suspenders. After testing by the 2nd Marine Division and Force Troops it was approved for issue in South East Asia, however, Marine Corps elements had begun to withdraw from Vietnam before the system could be issued.

Though similar in appearance to the Army's M1967 nylon suspenders, the USMC model was considerably more sophisticated. The rear straps featured female snap fasteners that mated with the male

snaps on the back of the combat pack and the padded shoulder straps boasted quick release buckles.

MACHETE SHEATH – PLASTIC

First authorized for Limited Production procurement in 1966, the plastic machete sheath featured a built in sharpener and thirteen 2 mm ventilation holes. The plastic sheath was thought to be superior to the cotton duck model because it did not stiffen or crack in cold climates. However, in Vietnam's humid jungle environment the plastic sheath's ventilation was inadequate and the machete blade soon rusted as a result.

MC-1 PARATROOPER SWITCHBLADE

The orange handled MC-1 paratrooper switchblade was popular with Airborne and Special Forces troopers in Vietnam. The knife featured a 3¾" snap blade and a shorter hook blade that was designed for quick cutting of parachute shroud lines in the event of an emergency.

MULTIPURPOSE NET

The multipurpose net was made from olive green nylon, weighed 1 lb and measured approximately 5' x 9'. Included with each net were two 14' cords, which served as suspension ropes when the net was employed as a hammock. The multipurpose net could also be used for carrying loads, as a litter, cache or for trapping animals, etc.

MX-991/U FLASHLIGHT

The angle head MX-991/U Flashlight was powered by 2 BA-30 batteries (D-Cell equivalent) and came with a red, green and blackout plastic lens filter. When not in use the filters were stowed in the battery compartment screw-on cap, which also housed a spare bulb. A suspension ring was attached to the base of the flashlight and the back was fitted with a belt clip. Later versions of the MX-991/U were equipped with a switch guard.

NYLON MEDICAL INSTRUMENT & SUPPLY SET CASE No. 8

The nylon Medical Instrument and Supply Set case No. 8 was first produced in 1969 as a replacement for the cotton Jungle First Aid Kit pouch. It was specifically designed to accommodate a plastic box that contained the components of the Individual First Aid Kit. The case was closed by 2 lift-the-dot fasteners and was attached to the belt via a pair of slide keepers. It was also equipped with a Velcro loop for attaching it to a parachute harness.

NYLON SAND BAGS

These nylon bags were simply an update of the old Hessian bags.

SHOTGUN AMMUNITION POUCH

The shotgun ammunition case was made from cotton duck and had compartments for 12 cartridges. It featured 2 belt loops on the back and 2 lift-the-dot fasteners closed the pouch flap. The riot shotgun was not a favored weapon in the jungle, but was used by some soldiers and MPs whilst patrolling base areas.

SIGHT CARRYING CASE

This small case was designed to carry the M15 sight for the M76 grenade launcher that attached to the barrel of the M14 rifle. However, this particular pouch was used by a Marine to carry a field dressing in Vietnam.

SPECIAL FORCES BOLO KNIFE

The Counterinsurgency Support Office procured bolo knives for Special Forces in Vietnam, who found the standard 18" machetes to be too long. The knife featured a wooden handle and had an 11³/₈" long round-tip blade. It was carried in a cotton sheath that had a riveted metal throat and a belt loop on the back.

STONER MAGAZINE POUCH

The Stoner magazine pouch could accommodate two 30 rd magazines for the Stoner 63A1 rifle that was exclusively used by SEAL teams in Vietnam. Two slide keepers on the back of pouch were used to attach it to the equipment belt.

TROPICAL RUCKSACK

Development of the Tropical Rucksack (aka Jungle Rucksack) began in 1965 when the MACV requested a nylon version of the ARVN pack from Natick Labs for evaluation purposes. However, after initial testing the rucksack had to be significantly redesigned in order to strengthen the pack and round off the corners of the frame. The redesigned rucksack was assessed against 3 Cresson H. Kearny modified Gurkha-Australian packs, before being finally approved for procurement in early 1968.

The standardized Tropical Rucksack featured an OG-106 nylon pack with 3 outside pockets mounted on a spring steel X-frame. The outside pockets and the main compartment were provided with removable waterproof treated nylon liners, though these were often poorly coated and prone to leak. The map pocket inside the top flap did not have a liner but the underside was waterproofed. The outside pockets had strap and buckle adjustable closures and snap fasteners for quick access, whilst Velcro sealed the map pocket. Webbing equipment hangers were located around the top of the bag and tie straps were positioned on each side of the pack. In addition, 2 loops were provided on the bottom of the rucksack and 2 on each side for attaching extra items.

The Jungle Rucksack was slightly heavier and more expensive to produce than the Lightweight Rucksack, but offered quick-release buckles on shoulder straps, greater carrying capacity and fewer projections to get snagged on the undergrowth. In addition to replacing the Lightweight Rucksack, in January 1968 ACTIV recommended that combat/combat support units in Vietnam be issued the Tropical Rucksack rather than the M1967 butt pack.

UNIVERSAL LOAD CARRYING SLING

The universal load sling was used to carry ammunition, crew served weapons or for other general carrying purposes. The strap had a snap hook at one end and its length could be adjusted. Slings could be used in pairs depending on the weight of the load.

USMC M-14V Pouch

Developed as part of the Marine Corps M1967 Load Carrying System, the nylon M-14V pouch was designed to carry two M14 magazines, vertically one behind the other. The pouch had a snap fastener closure and could be attached to the belt via 2 slide keepers. A horizontal version (M-14H) was also produced.

35. PARACHUTE SYSTEMS

60,000 LBS LOW VELOCITY AIRDROP DELIVERY SYSTEM (60K LVADS)

The mission of the 60K LVADS is to drop heavy construction and combat equipment. The system is comprised of a conventional parachute design, and will allow the deployment of equipment weighing up to 60,000 lbs (total rigged weight) from an altitude of 2,000 ft at speeds of 130-150 knots.

The 60K LVADS components include:

- **Extraction System:** Three 28 ft heavy-duty extraction parachutes, a tow plate actuated double-braided rope extraction line, and the 60K Extraction Force Transfer Coupling. To improve airdrop accuracy, the extraction parachutes will be deployed by a 15 ft drogue parachute.
- **G-11C parachutes:** The system will use a cluster of 12 modified parachutes, with a new release in development that will separate the parachutes from the load at ground impact.
- **Load Restraint System:** Loads are restrained using standard tie down straps, heavy-duty D-rings, and 10,000 lbs pound load binders.

Weight 1,000 kg

Price \$12,000

500 FT LOW VELOCITY AIRDROP DELIVERY SYSTEM (MEDIUM AND HEAVY)

The 500 ft LVADS airdrops heavy equipment from an altitude of 500 feet. LVADS combines standard airdrop augmented with a GPS beacon system to achieve precision airdrop at low levels.

The 500 ft LVADS-Medium has the potential to drop cargo between 2,200 and 22,000 lbs. The 500 ft LVADS-Heavy has the potential to drop between 20,000 to 42,000 lbs gross rigged weight cargo when deployed from aircraft at speeds of 130 to 150 KIAS.

Weight 1,500 kg

Price \$10,000

AFFORDABLE GUIDED AIRDROP SYSTEM (AGAS)

This is a Parafoil, which can be controlled to steer a round parachute. Known as AGAS, the system will make airdrop deliveries that are low cost, autonomous and precise. The unit consists of:

- **GN&C (Guidance, Navigation & Control) Box:** The GN&C box can receive its ground target coordinates wirelessly prior to deployment from the transport aircraft.
- **Pneumatic Muscle-Control Actuators:** After the AGAS is deployed from the aircraft, the GN&C box controls the actuators to steer the load and maintain an accurate trajectory. The actuators pull the canopy risers to correct the canopy's path onto a predetermined flight profile. Each of the 4 actuators can be controlled to change the canopy shape, which steers the parachute.
- **Standard Round Canopy**

Weight 16 kg

Price \$800

AIRCREW EMERGENCY PARACHUTE

This parachute is used by small plane pilots, should they need to jump out of an aircraft.

Weight 4 kg

Price \$300

ALTIMETER

This is a standard parachutist's altimeter, with an analogue dial with luminous markings for low light conditions. The altimeter clips onto the parachute harness. An altimeter is preferable for all drops, but essential for high altitude drops.

Weight 0.02 kg

Price \$150

COMBAT EQUIPMENT LOWERING SYSTEM

Used by parachutist for attaching equipment to them for a drop. The system includes:

1 Military Free-Fall (MFF) Equipment Attaching Strap
1 SARPELS Cargo Carrier
1 Single Action Release Handle

5 Horizontal & Vertical Cargo Carrier Securing Straps
8 ft MFF Lowering Line
15 ft Static Line Lowering Line

Weight 5 kg
Price \$400

ESCAPE PARACHUTE

An emergency parachute system that has been specifically developed for low altitude exit and deployment. A typical scenario for its use might be by high-rise tenants in the event of fire or earthquake.

Weight 2 kg
Price \$800

FULTON SURFACE-TO-AIR RECOVERY SYSTEM "SKYHOOK"

A specialized ground/air pickup rig for extraction by aircraft when ground conditions do not permit a landing, which was originally designed for military and civilian air/sea rescue units. The unit can be used for either personnel or cargo. Skyhook requires a specially modified multiengine aircraft, usually provided by the patron (few merc groups can afford to maintain them).

The ground unit consists of a personnel harness (very similar to a parachute harness), a coil of cable, and an inflatable helium balloon large enough to carry the cable several hundred feet into the air. The passenger dons the harness, inflates the balloon (upon arrival of the pickup aircraft), and prepares himself for the shock of pickup.

A specially modified cargo aircraft snares the balloon/cable with a specially fitted V-shaped "blimp-catcher" on its nose, and reels in the passenger until the passenger is close enough to a specially installed cargo door on the bottom of the aircraft. The aircrew snares the passenger/cargo, hauls him/it aboard the plane, and prepares for another pickup if necessary. The shock involved is no more severe than an opening parachute, provided that the pickup aircraft does not fly too fast. The process is dangerous, but no more so than a parachute jumps if done properly.

The pickup plane must fly straight and level a few hundred feet off the ground. The whole operation needs suitable terrain (no nearby obstructions) and reasonable privacy. The blimp can be equipped with IR/white light strobes (activated at the last moment) for a night pickup. The weather must be reasonably clear, with no excessive wind conditions. Skyhook can also be used at sea. A Skyhook ground unit may not be reused.

Weight 18 kg
Price \$800

HALO Rig

HALO stands for high-altitude, low opening, and refers to a particular style of parachute drop. The parachutist leaves the plane at a great height (usually over 25,000 ft (7,600 m), high enough to require oxygen gear) and free-falls to a level below radar and visual observation height before opening.

The HALO rig consists of:

1 Altimeter	1 Oxygen Tank with Valve
1 Cotton Ripstop Jump-Suit	1 pair of Gore-Tex Cold-Weather Gloves
1 Face Mask with Hose	1 pair of Overboots
1 Gore-Tex Jump-Suit	1 Parachute with Reserve Chute
1 Helmet	1 Polartec Jump-Suit Liner

Weight 20 kg
Price \$2,400

HELMETS

There are a number of helmets and protective head gear used in parachuting and flying. The basic purpose of each is to provide protection to the head in the event of a crash, but additional systems are usually also attached. These include attaching points for communications, visors and breathing apparatus.

The broad types of kit available are:

- **Air Crew Helmet:** This is the basic type of flying helmet, with a tinted anti-fog visor to provide protection from ultra-violet light and glare. It has points for attaching communications links (head-set and boom microphone) and a facemask for oxygen.
- **High Altitude Helmet:** A full-face helmet for high altitude parachute drops (HAHO and HALO), similar in configuration to a motorbike helmet. It has a flip-up anti fog visor, an airtight collar and interchangeable liners, with connection points for an oxygen system.
- **Special Forces HALO Helmet:** A standard open-face helmet, which has 2 communications link

attachments (for a dual communications set up), a facemask for oxygen equipment and an SDU-5 Strobe Light.

	Weight	Price
<i>Helmet, Air Crew</i>	1.7 kg	\$235
<i>Helmet, High Altitude</i>	0.95 kg	\$325
<i>Helmet, Special Forces HALO</i>	1.1 kg	\$290

GUIDED PARAFOIL AIR DELIVERY SYSTEM, LIGHT (GPADS-L)

The GPADS-L is a high altitude, offset bundle delivery system that consists of a gliding parachute system, incorporating autonomous navigation. The GPADS-L utilizes a ram air parachute with a projected payload capacity of 700-1,500 lbs. An automatic navigation system using the militarized GPS allows for self-guided precision delivery.

Weight	1,000 kg
Price	\$25,000

JUMP COMPUTER

Just as dive computers have replaced depth and pressure gauges for diving, jump computers have in part replaced analogue altimeters for skydiving as the preferred piece of kit. Essentially, the jump computer is an audible altimeter. It has 3 programmable altitudes at which an audible warning is given. It also has an electronic logbook to record details of all jumps; this can be downloaded to a PC using a standard linking cable.

In addition to altitude, the jump computer displays on one screen details of descent speed and direction, enabling greater precision in making a landing. The screen is backlight for use at night.

Weight	0.30 kg
Price	\$291

MC-5 STATIC LINE/FREE-FALL RAM AIR PARACHUTE SYSTEM (SL/FF RAPS)

The MC-5 SL/FF RAPS will provide Military Free-Fall (MFF) parachuting communities with a parachute that can be configured for static line or free-fall, depending on mission requirements. The MC-5 integrates components of the Paraflite MT-1XX Interim RAPS, the MC-4 RAPS, and the MT-1XS S/L convertible static line system into one versatile parachute system.

The system uses identical main and reserve canopies, which not only reduce the logistics involved with separate canopies, but also eliminates the training, maintenance, and operational use of a different size/configuration reserve canopy. The system's main and reserve parachutes, which can be interchanged, are 112.8 m², seven-celled, and are manufactured from 31.19 grams F-111 nylon ripstop fabric. A cotton reinforcement/buffering panel is installed on the top and bottom skin of the canopy. The deployment sequence for the reserve canopy incorporates a free-bag system, which consists of a spring-loaded pilot chute, a bridle, and a deployment bag.

The harness and container assembly has a two-pin main container to accommodate the static line. The leg straps/chest strap is fitted with quick ejector snaps.

Weight	3.5 kg
Price	\$6,000

MILITARY PARACHUTE KITS

Used by military parachutist teams for free fall operations.

2.44 m MFF Lowering Line	LWCWUS Underwear set
4.6 m Static Line Lowering Line	MA2-30 Altimeter
Cotton Ripstop Jumpsuit	Military Free-Fall (MFF) Equipment Attaching Strap
Flyer's Gloves	Overboots
Flyer's Helmet Bag	Polartec Jumpsuit Liner
Flyer's Kitbag	SARPELS Cargo Carrier
Gore-Tex Cold-weather Gloves	Single Action Release Handle
Gore-Tex Jumpsuit	Static Line/Free-Fall Ram Air Parachute System (SL/FF RAPS)
HAHO Nav Board	
Helmet	
Horizontal & Vertical Cargo Carrier Securing Straps	

Weight 37.2 kg
Price \$6,000

NOMEX FLIGHT SUIT

Nomex is a lightweight, fire retardant material, which is comfortable to wear in a variety of temperatures. Nomex flight suits are in use in a number of countries as standard issue, for both aircrews and troops operating at altitude. The suit is a full-length body suit, with pockets on the arms, chest, thighs and legs. Although available in a variety of colors it is typically sage green.

Weight 2.5 kg
Price \$180

OXYGEN SYSTEM

Designed for high altitude drops, the oxygen system is similar in set up to SCUBA equipment (although it is not intended specifically for use underwater). It consists of a single oxygen tank (another can be added if necessary), a regulator, and a hose with connections for the oxygen mask. The oxygen system does not include the mask, which is integral to the helmet. Separate oxygen supply is normally provided in-flight on high altitude jumps.

Weight 5 kg
Price \$430

PARACHUTE WEAPONS & INDIVIDUAL EQUIPMENT HARNESS

Harness attaches to parachute harness for troops to carry extra supplies with them when doing jump drops. The soldier just releases the equipment before he gets to the ground.

Weight Nil
Price \$100

PARACHUTE RELEASE SYSTEM

The parachute release system (also known as an Automatic Activation Device (AAD)) is intended for military high altitude drops. It contains an altimeter and microprocessor that control parachute opening at a given altitude. This enables the parachutist to concentrate upon steering and free fall maneuvers.

Weight 1 kg
Price \$200

PARACHUTE RIGS

The parachute rig, whether it is a basic military static line rig or a sports/high altitude skydiving rig, consists of 3 elements: Harness, Main Parachute and Reserve Parachute. There are numerous different kinds of rig available, depending upon the type of deployment being used. Broadly, these can be described as Static Line Jumps (where there is automatic parachute deployment) and Free Fall (with automatic or conventional ripcord deployment).

Weight is a critical factor in making a parachute deployment. The role of the parachute is to arrest the descent speed. Excessive weight naturally means that this becomes more difficult to control. A typical parachute rig has a recommended jump weight (i.e. including the weight of all things suspended from the parachute) of around 160 kg, although the maximum is around 30% more (210 kg).

Most Special Forces units use multi-purpose parachute systems, effectively modular systems that allow for different kinds of set up for different types of jump. The rig consists of:

- Harness with mountings for the primary parachute and risers.
- Pockets for altimeter/jump computer, oxygen tanks and communications gear.
- Jettison system, to allow the primary parachute to be jettisoned in an emergency (to prevent submersion, or when suspended from tree tops).
- Quick releases to lower attached equipment on a lanyard (such as rucksacks and equipment bags).

	Weight	Price
<i>Parachute Release System</i>	0.075 kg	\$1,045
<i>Parachute Rig, Modular</i>	10.3 kg	\$5,000
<i>Parachute Rig, Sports</i>	7 kg	\$4,000
<i>Parachute Rig, Static Line</i>	6 kg	\$2,000

PARACHUTIST INDIVIDUAL EQUIPMENT KIT (PIEK)

Due to extreme cold encountered during high altitude parachute operations, the parachutist must have protection from the environment. The PIEK provides a complete ensemble of individual parachutist clothing and equipment to meet the demands of high altitude Military Free-Fall and static line parachute operations. Contains:

Cotton Ripstop Jumpsuit			Gore-Tex Jumpsuit
Flyer's Gloves			Polartec Jumpsuit Liner
Gore-Tex Cold-weather Gloves			
	Weight	Price	
<i>Jumpsuits</i>	3 kg		
<i>Boots</i>	1.5 kg		
<i>Helmet</i>	0.7 kg		
<i>Total</i>	6 kg	\$1,000	

PARAGLIDER (STEERABLE PARACHUTE)

A special form of parachute permitting the passenger to direct his descent more than is possible with a normal parachute. If recovered, the paraglider can be repacked and reused.

Weight	16 kg
Price	\$1,650

RUSSIAN D-5/6 PARACHUTE SYSTEMS

Unlike NATO parachutes, Russians parachutes do not have static lines that hang out of the jump doors, slowing down the airplane and requiring two or more people to pull them in. The Russian D5/6 parachute has a drogue stabilizer chute, which is deployed when the Paratrooper exits the door. As he falls away from the airplane stabilized, he can deploy the main chute with a rip cord pull or by an automatic opening device. He can jump from aircraft much faster, up to 250 mph, at high altitudes using the delay-opening feature.

He can jump in front of the aircraft's engine so his BMD AFV can exit the rear ramp, by simultaneously exiting from both jump doors and the BMD's over the rear ramp. Russian Paratroopers land closer together than the American system of having a separate heavy drop zone for vehicles and a personal drop zone for Paratroopers.

Weight	12 kg
Price	\$400

MILITARY RESERVE PARACHUTE

Paratroopers and sports parachutists carry two parachutes. The primary parachute is called a main parachute, the second, a reserve parachute. The jumper uses the reserve if the main parachute fails to operate correctly. Reserve parachutes were introduced in World War II by the US Airborne Units, and are now almost universal and tend to be of round design. For human jumpers only emergency bail-out rigs have a single parachute rather than two.

Weight	4 kg
Price	\$500

SEMI-RIGID DEPLOYABLE WING

The Semi-Rigid Deployable Wing provides a long stand off capability, which eliminates the need for delivery aircraft to fly over a defended target, or to cross sensitive air borders. It has a precision delivery system when coupled with an integrated guidance, navigation, and control system linked to a GPS. The structure has an internal rigid frame, enclosed in a ram-air inflated, double-surface sail that is inflated via a single inlet at the nose of the Wing. A wing warping technique using servo actuators controls maneuvering. The Semi-Rigid Deployable Wing is capable of carrying 1,000 lbs.

Weight	500 lbs
Price	\$30,000

SINGLE ACTION RELEASE PERSONAL EQUIPMENT LOWERING EQUIPMENT (SARPELS)

The SARPELS will provide military parachutists with a complete equipment lowering system for both static line and MFF parachute operations. The SARPELS allows individuals to carry various configurations of individual combat equipment. The system will provide easy access to weapons and

equipment upon parachute landing and has a single action release capability. It can be front or rear mounted on the parachutist.

Weight 2 kg
Price \$400

SKYDIVING GOGGLES

Skydiving goggles are lightweight, wrap-around anti-fog goggles to protect parachutists' eyes from the wind, cold and particles. They are also available in tinted versions to protect from glare.

Weight Nil
Price \$35

SKYDIVING SUIT

Whilst there are numerous skydiving suits available on the market (especially sports suits) they all share a basic similarity in design, especially for higher altitude drops. Sports suits are intended for use as the primary layer of clothing, worn over light clothing or underwear. Military suits are roomier, worn over other clothing and boots. Freefall (high altitude) suits have an insulated or thermal lining. High altitude drops (from over 25,000 ft/7,500 m) require this due to the low temperatures. This is integral to the suit.

	Weight	Price
<i>Skydiving Suit, Military</i>	Nil	\$375
<i>Skydiving Suit, Sports</i>	Nil	\$400

T-21 MILITARY STATIC LINE PARACHUTE

In parachuting a static line is a line connecting the deployment bag of the parachute to the aircraft from which the parachutist jumps. After falling away from the aircraft, this short line (rarely more than a few meters) then pulls the parachute deployment bag from its container. After that, the parachute deploys. The static line separates from the parachute, and remains in tow behind the aircraft. It is subsequently pulled in and stowed away by the jumpmaster.

This method of parachute deployment is commonly used in several ways: training student skydivers, base jumping, and military paratroopers jumping from very low altitudes (400+ ft).

Weight 12 kg
Price \$1,000

TANDEM OFFSET RESUPPLY DELIVERY SYSTEM (TORDS)

TORDS provides reconnaissance teams with a parachute delivery system that can supply/resupply reconnaissance teams with combat essential equipment or personnel. This system has a payload capacity in excess of 500 lbs. The TORDS has a square main and reserve canopy. The deployable system for the reserve canopy incorporates a free-bag system which consists of a spring-loaded pilot chute, a bridle, and a deployable bag. The reserve free-bag is not connected to the canopy and will be jettisoned during deployment.

The TORDS has a 6 ft drogue parachute which is deployed to reduce the terminal velocity of the tandem master and load (passenger/combat equipment) to approximately 120 mph upon reaching opening altitude. A ripcord is pulled to release the drogue which then acts as a pilot chute and deploys the main canopy. The TORDS comes complete with a passenger harness and a combat equipment container.

Weight 20 kg
Price \$2,000

VEHICLE LOW-ALTITUDE EXTRACTION KIT

This consists of a drogue parachute and a shock-absorbing pallet strapped to the bottom of the vehicle. An aircraft must have a rear cargo ramp to utilize this kit. The aircraft flies at extremely low altitude (3 to 5 meters) at minimum speed and deploys the drogue chute out the back. The drogue chute opens; the vehicle is yanked out of the aircraft; and the pallet absorbs most of the shock of landing.

Vehicles larger than 25 tons cannot be dropped in this fashion. Crew may not ride in the vehicle while this goes on. It requires 10 minutes to make a vehicle operational after landing.

Weight 1,500 kg
Price \$8,000

36. PERSONAL POSSESSIONS TABLES

APPENDIX II

PERSONAL POSSESSIONS

All characters can have 4x1d10 personal possessions to 'individualize' their personality.

- | | Item |
|-----------|--------------------------------|
| 1 | Pistol or Revolver |
| 2 | 1d10 Paper Money |
| 3 | Watch |
| 4 | Writing Supplies |
| 5 | Book |
| 6 | Coffee Mug |
| 7 | Family Photos |
| 8 | Candy/Food Item |
| 9 | Medical Item |
| 10 | Pre-war Alcohol (40 oz bottle) |

POCKET ITEMS

This table is used when characters are searching someone.

- | | Item |
|-----------|--------------------|
| 1 | Pistol or Revolver |
| 2 | Map |
| 3 | First Aid Dressing |
| 4 | Ration |
| 5 | 1d10 Paper Money |
| 6 | Candy |
| 7 | Writing Supplies |
| 8 | ID Card |
| 9 | Letters |
| 10 | Extra Ammo |

37. PERSONNEL GEAR

ALCOHOL PENS

	<i>Box of 100</i>
Weight	
Price	\$20

BUGLE

The bugle was essential to all military communication until its displacement by electronics. The primary bugler was assigned to the headquarters staff, and kept close to the commander at the front. Soldiers were quick to learn the calls of the bugle, and on a routine day at least four, and as many as ten, were made. It's found in military bands everywhere.

Weight	3 kg
Price	\$200

CHAPLAINCY LOGISTICAL SUPPORT PACKAGE (CLSP)

This is a fiberglass or Kevlar box, light yet strong, issued to chaplains and their assistants for field ministry purposes. The box is about 1 x 0.75 x 0.75 m in size, and contains supplies needed to conduct chaplain's services for about a company-sized element at a time (about 100 troops).

The box contains a laptop computer, about 40 pocket-sized religious books, various papers needed by a chaplain (such as forms for Red Cross support and notification of families of casualties), writing implements, pocket hymnals, sacramental wine, holy water, holy wafers or the equivalent, and the vestments required by the chaplain. The box functions as a makeshift altar and desk.

Weight	25 kg
Price	\$5,000

CHEWING TOBACCO

Shredded tobacco that is chewed by PC. One tin chewing tobacco contains 3 days worth of tobacco.

	<i>1 Tin</i>
Weight	Nil
Price	\$150

CIGARETTES

To feed that nicotine addiction. Three cigarettes are required to meet a tobacco addict's daily requirement.

	Weight	Price
<i>1 Cigarette</i>		\$20
<i>1 Pack (20 Cigarettes)</i>		\$400
<i>1 Carton (10 Packs)</i>	0.90 kg	\$4,000

CIGARS

One cigar will give a tobacco addict his daily dose, but he has to put it out after smoking a third of it and re-light it later.

	Weight	Price
<i>1 Cigar, "Cuban" Quality</i>	Nil	\$75
<i>1 Cigar, Good Quality</i>	Nil	\$50
<i>1 Cigar, Poor Quality</i>	Nil	\$40

COT, FOLDING BUNK BED

This is just like a regular cot but in bunk bed style.

Weight	10 kg
Price	\$80

COT, LIGHT FOLDING

Made of thinner canvas and a lower lighter aluminum frame.

Weight 3.2 kg
Price \$62

EYE GLASSES

Basic vision correction for those who need them, cost and availability reflect the fact that eye glasses are only being manufactured in limited quantities in better established communities (i.e. Krakow), as well as the fact that most have to be custom made for the individual.

Note: While availability is limited, it is recommended that characters who wear glasses be allowed to purchase several pairs during initial character generation.

Weight Nil
Price \$1,000

FLASH GOGGLES

Protects from NICO, etc. Unnecessarily if using a helmet visor.

Weight 0.5 kg
Price \$200

GOGGLES

Used for keep dust, dirt, and rain out of the eyes, comes in bulletproof models too.

	Weight	Price
<i>Bulletproof</i>	Nil	\$100
<i>Standard</i>	Nil	\$20

GREASE PENCILS

Box of 100

Weight
Price \$12

HORSE TACK

Saddle, bridle, straps, stirrups and saddle blanket.

Weight 10 kg
Price \$100

KNEEBOARD

Pilot's map and note board that straps to the thigh.

Weight
Price \$30

INSTRUMENT

- **Brass:** A Trumpet, French horn, or a Tuba, necessary in order to use the Perform.
- **Guitar:** Necessary in order to use the Perform.
- **Keyboard:** A portable keyboard, necessary in order to use the Perform.
- **Percussion:** A drum snare or bass, necessary in order to use the Perform.
- **Wind:** A flute or other reed instrument, necessary in order to use the Perform.

	Weight	Price
<i>Brass</i>	1 kg	\$250
<i>Guitar</i>	3 kg	\$100
<i>Keyboard</i>	5 kg	\$200
<i>Percussion</i>	21 kg	\$300
<i>Wind</i>	Nil	\$200

M4 EMERGENCY INCENDIARY DOCUMENT DESTROYER

It is used for the rapid destruction of paper, photographic film, recording tape, magnesium or aluminum reels, and cryptographic devices like printed circuit boards made of plastic.

Weight 20 kg
Price \$50

MILITARY PERSONAL RETENTION LANYARD

Built from tubular webbing & internal Shock Cord. Designed to act as a personal lanyard when operating from helicopters, ships, or dangerous heights. Can be used by attaching locking carabineers to each end (CQB belt/climbing harness) to anything solid to keep you from falling.

Weight Nil
Price \$10

NOTEBOOK, WATERPROOF

Waterproof cover and paper, with pen and pencil.

Weight
Price \$10

PENCILS

Box of 100
Weight
Price \$12

PORTABLE RECORD PLAYER

Used for playing records.

Weight 5 kg
Price \$50

PRISONER KIT

Issued to POWs when placed in US detention camps.

- 1 Bed Sheet
- 1 Blanket
- 1 Canteen
- 1 Cot
- 1 Foam Sleeping Mat
- 1 Orange Jumpsuit
- 1 pair of Running Shoes (no laces)
- 1 pair of Shower Sandals
- 1 Toothbrush
- 1 Wash & Shave Kit (Soap, Razor, Shampoo and Toothpaste)
- 1 Wash Basin
- 1 Washcloth
- 2 Buckets
- 2 Towels

Weight 5 kg
Price \$15

SUNGLASSES

These are high quality sunglasses, such as Ray Ban by Bausch and Lomb. The lenses dramatically reduce reflection and glare, as well as shielding the eyes from harmful ultra-violet radiation.

Weight Nil
Price \$40

TABLE, FOLDING

A cloth-top folding table: packs small, opens to 15" x 15" x 26".

Weight 5 lbs
Price \$30

TOILET TISSUE

Useful for cleaning remote areas, feels much better than leaves.

1 Roll
Weight Nil
Price \$100

TYPEWRITER

Weight 3 kg
Price \$50

US ARMY OLIVE DRAB FIELD DESK

Plywood construction. Complete with 7 slides out drawers for files and Misc. Items. Desk is unique design, looks like a small moving trunk with carrying handles; lid on front of box is removable and hooks to side of desk. Newer designs are made out of plastic.

Weight 10 kg
Price \$50

WATCHES – ATOMIC WRIST WATCH

Keep up with atomic time in North America, Europe and Asia. Unlike other atomics that only work on one continent, this works around the world. 20 mm LCD with soft-glow EL backlight displays time, day and date. Loaded with essential functions, like stopwatch, alarm and time zone indicator. Stainless steel band. Water-resistant to 30 m.

Weight Nil
Price \$100

WATCHES – BENRUS WATCH

During World War II, Korea and Vietnam, the Benrus Watch Co. supplied US troops with rugged timepieces. Featuring an all-steel, water-resistant case and 17-jewel mechanical movement, with time hack feature. Built to last a lifetime.

Weight Nil
Price \$50

WATCHES – MILITARY WATCH/TIME PIECE

Most digital watches were destroyed by EMP during the nuclear exchange, so surviving watches are mostly analog.

Weight Nil
Price \$100

WATCHES – SPORTS WATCH

Intended for sports and outdoor use, various models are available by manufacturers such as Tag Heuer, Rolex, G-Shock, Seiko, Casio, Camel, Adidas and other companies. All are precision timepieces, with features including waterproofing, shock proofing, and rotating bezel for time calculation

and luminous features for night /low light use. Some are entirely analogue, whilst others also include a digital watch with features such as a stopwatch.

Weight 0.10 kg

Price \$2,000

WATCHES – TIMEX MILITARY WATCH

This superb watch is water resistant, comes with a 4 year battery, and features luminescent hands/markers, and a strong nylon band. Timex – It takes a lickin' and keeps on tickin'!

Weight Nil

Price \$80

38. PRECIOUS METALS

THE PRECIOUS METALS MARKET

The “precious metals market” comprises a guild of traders who can be located around a town or village. The traders operate a cartel and are hostile to “unauthorized” merchants.

For player reference: 1 Troy Ounce = 31.103481 Grams.

PRECIOUS METALS CONVERSIONS

	Price
1 Gold Ounce	\$600
1 Palladium Ounce	\$300
1 Platinum Ounce	\$1,100
1 Silver Ounce	\$12

COINS PRICES

	Price
A-Mark Silver Bullion Bar, 10 oz	\$100
Australia, Gold Kangaroo Coin, ½ oz	\$250
Australia, Gold Kangaroo Coin, 1 oz	\$500
Austria, Gold Philharmonic Coin, 1 oz	\$500
Austria, Silver Maria Theresa Thaler Coin, ¾ oz	\$7
Canada, Gold Maple Leaf Coin, ¼ oz	\$125
Canada, Gold Maple Leaf Coin, ½ oz	\$250
Canada, Gold Maple Leaf Coin, 1 oz	\$500
Canada, Silver Maple Leaf Coin, 1 oz	\$10
China, Gold Panda Coin, ¼ oz	\$125
China, Gold Panda Coin, ½ oz	\$250
China, Gold Panda Coin, 1 oz	\$500
Engelhard, Silver Bullion Bar, 100 oz	\$1,000
France, Gold 20 Francs “Rooster” Coin, 1 oz	\$600
Johnson-Matthey Silver Bullion Bar, 1,000 oz	\$10,000
Johnson-Matthey Gold Bullion Bar, 1 kg	\$16,075
Mexico, Gold 50 Pesos Coin, 1 oz	\$500
South Africa, Gold Krugerrand Coin, 1 oz	\$500
Swiss Federal Bureau Gold Bullion Bar, 1 oz	\$500
Swiss Federal Bureau Gold Bullion Bar, 10 oz	\$5,000
UK, Gold Sovereign Coin, ¼ oz	\$125
UK, Gold Sovereign Coin, ½ oz	\$250
UK, Gold Sovereign Coin, 1 oz	\$500
US, Gold Eagle Coin, ¼ oz	\$125
US, Gold Eagle Coin, ½ oz	\$250
US, Gold Eagle Coin, 1 oz	\$500
US, Platinum Eagle Coin, ¼ oz	\$250
US, Platinum Eagle Coin, ½ oz	\$500
US, Platinum Eagle Coin, 1 oz	\$1,000
US, Silver Eagle Coin, 1 oz	\$10

MILITARY SCRIP

Official wartime military scrip is issued in bills (\$10, \$20, \$50, \$100) and notes (¢25, ¢50, \$1, \$5). The official scrip can be used only to purchase supplies from the PX and Commissary (where they exist). The official scrip is also used by communities that trade with Milgov.

Traders will typically inflate their prices 10-25% for customers using scrip. Your \$5 scrip note could be worth as little as \$3.75 in a trade. A 1 oz gold coin will earn you \$375-\$450 in scrip.

PRE-WAR US DOLLARS

Pre-war US currency is worth (at best) $\frac{1}{10}$ of its face value. Therefore a \$100 bill may be worth \$10 in a trade. Traders will typically inflate their prices 25-50% for customers using pre-war dollars. Your \$100 bill could be worth as little as \$5 in a trade. A 1 oz gold coin will earn you enough dollar bills to keep you in toilet paper for months.

COUNTERFEIT MONEY

An all too common place in the *Twilight: 2000* world. Worthless... unless you need it.

39. PROPERTY

LAND

	Price
<i>1 Acre, Bush Lot</i>	\$50
<i>1 Acre, Urban Lot</i>	\$100

HOUSING

Character can buy a "Retreat", a ranch or other place away from civilization that can support the survivalist and his family, if any.

	Price
<i>Concrete Bunker (8 persons)</i>	\$20,000
<i>Fallout Shelter</i> ¹	\$30,000
<i>Frame House (7 rooms, 2 story)</i>	\$20,000
<i>Frame House, Each Additional Room</i>	\$3,500
<i>Frame House, Each Extra Story</i>	\$4,000
<i>Log Cabin</i>	\$1000
<i>Mountain Cabin (7 rooms)</i>	\$20,000
<i>Mountain Cabin, Each Additional Room</i>	\$3,500
<i>Urban House (8 rooms, 2 story)</i> ²	\$80,000
<i>Urban House, Each Additional Room</i>	\$4,000
<i>Urban House, Each Extra Story</i>	\$8,000

¹ Added to any of above. Capable of defeating fallout from any size nuclear blast.

² A standard house that is found in most areas of the developed nations.

40. RADARS AND SURVEILLANCE

8 MM CINE AERIAL RECONNAISSANCE CAMERA

8 mm Cine Film Cameras were used on board British military aircrafts for reconnaissance purposes. The cameras are made by Fuji Photo Optical Co. in Japan for the Royal Air Force. The camera takes an 8 mm film cartridge and has a remaining film indicator and rewind button. The camera can be clipped on to a high powered lens that is fixed on the aircraft. Good for filming bomb damage for assessment or for spying on enemy installations.

Weight 2 kg
Price \$300

35 MM CAMERA LENSES

- **Normal Lens:** This is for standard use.
- **Telephoto Lens:** This is for close-up photos at distance.
- **Telephoto Zoom Lens:** This is for extreme close-up photos at distance.
- **Wide Angle Lens:** This is for broad view/landscape pictures.

	Weight	Price
<i>35 mm Normal Lens</i>	Nil	\$150
<i>35 mm Telephoto Lens</i>	Nil	\$525
<i>35 mm Telephoto Zoom Lens</i>	Nil	\$630
<i>35 mm Wide Angle Lens</i>	Nil	\$150

600-305 BLACK CAT THERMAL IMAGER

The 600-305 Black Cat Thermal Imager is a simple to use night vision camera. Easily fitted with a range of lenses from 50 mm to 150 mm depending on the requirement.

Weight 10 kg
Price \$1,200

AN/GRC-17-2 GROUND SURVEILLANCE RADAR SYSTEM

The AN/GRC-17-2 is a very advanced, ground-based, surveillance radar system. This unit consists of three pieces: the antenna, the power unit, and the radar receiver-transmitter. The unit is capable of picking up the motion of a ground vehicle at 10 km, an aircraft at 25 km, or a man at 4 km. It requires the successful passing of Electronics: ESY task check to set up the unit and a Computer: AVG task to operate it.

	Weight	Price
<i>AN/GRC-17-2 Ground Surveillance Radar System</i>	32 kg	\$20,000
<i>Antenna</i>	10 kg	
<i>Power Unit</i>	12 kg	
<i>Radar Unit</i>	10 kg	

AN/MPN-14K

AN/MPN-14K consists of an operations trailer and a radar trailer. The operations trailer provides a centralized operating area from which to control the movement of aircraft within a 60 miles radius. The operations trailer also provides a precision operating area from which to control the final approach of landing aircraft. The radar trailer contains the radar equipment (transmitters, receivers, processors, and antennas). It also contains part of the communications equipment, an Airport Surveillance Radar (ASR) indicator, and a Precision Approach Radar (PAR) indicator, which allows this trailer to be used for autonomous operation, if necessary.

The two trailers can be separated up to a distance of approximately 100 ft (125 ft cables are furnished). The trailers may be shipped on standard railroad flatcars or transported by aircraft. The operations and radar trailers are designed to be towed in tandem or as individual units. Ten maintenance personnel and six controllers are needed to install the AN/MPN-14K within 26 hours.

Weight 80,000 kg
Price \$200,000

AN/TPS-77

The AN/TPS-77 is a tactical transportable radar which provides continuous high-quality surveillance on aircraft targets out to 250 nm. There are 127 AN/TPS-77 systems operational in 14 countries

and many have operated for years completely unmanned in remote areas and in a wide range of operational environments. Takes 30 minutes to set up by a crew of six and is carried by two 5 ton trucks.

Weight 10,000 kg
Price \$500,000

ARTILLERY COUNTER-BATTERY

Used to detect the originating position of Artillery rounds, it's usually employed with an Artillery battery to provide an instant response. Vehicular powered, through a 100 m cable to permit limited tactical mobility.

Weight 7 kg
Price \$200,000

AUDIO RECORDER

Audio recorders record sound from a designated source (usually they include a small condenser microphone). Any character with Electronics skill can hook one up to a wiretap or a broadcast monitor.

They come in simple and advanced varieties; both types use standard audio cartridge tapes. The simple variety merely records sound. The advanced recorder has better recording quality, including the ability to record a greater sound range (including ultrasonic and subsonic), varied playback speeds, and so on.

	Weight	Price
<i>Audio Recorder, Advanced</i>	2 kg	\$750
<i>Audio Recorder, Simple</i>	0.3 kg	\$75

AUDIO RECORDING CARTRIDGE

A cassette that records sounds from an audio recorder. Available in one-, two-, three- and six-hour versions.

	<i>1 hour of recording time</i>
Weight	Nil
Price	\$1

AUTOMATIC IR CAMERA

This camera is used by hunters to find out where the best game is. This camera can be set up at any location and takes automatic pictures when its IR sensor is tripped by the persons body heat, can operate up three days before the batteries run out.

Weight 4 kg
Price \$600

BIONIC EAR AND BOOSTER

Increase sound by up to 30 decibels using an omni-directional microphone, a solid-state amplifier and high fidelity earphones for concert-hall quality sound reproduction. When combined with the included parabolic Bionic Booster, the Bionic Ear becomes highly directional, allowing to easily locate the source of sounds and suppress background noises.

Weight 1 kg
Price \$200

Boom Mic

Used by film crews for recording sound, come with a recording deck and is handled by one person.

Weight 5 kg
Price \$300

BORE-SCOPE

A fiber-optic light guide, inserted into a room or container and allowing a view of that space's interior. Telescopic or wide-angle lenses can be fitted. The image is then carried via optical cable to the human eye, camera or TV monitor, regardless of twists, coiling or bends. The cable is trimmed to a specific length when purchased and cannot be shortened or lengthened after that time. For technical reasons, the diameter is 5 mm and maximum length is 20 m.

1 meter
Weight 0.5 kg
Price \$3,000

BROADCAST MONITORING EQUIPMENT

This kit, combined with an electronics repair kit, permits characters with Electronics skill to listen in on cellular phones, radios and other broadcast signals, provided that the operating frequency of the broadcast source is known.

Weight 1 kg
Price \$400

Bugs

Electronic listening devices come in three stages, with each higher stage representing greater complexity and conceivability.

- **Stage I Bugs:** Rather large (roughly 2 x 3 x 1 cm) and sport a small whisker antenna. They have a broadcast range of 0.5 km, broadcasting continually for 24 hours between recharges. They may be hooked to a building's electrical system (an Easy: Electronics task). Since they broadcast continuously, they are easy to detect: a FM Radio tuned to the correct frequency can receive their signal.
- **Stage II Bugs:** Smaller (1 cm cubes with a whisker antenna) and have 36 hours of broadcasting time with a broadcast range of 1 km. They may be bought as voice-activated, extending their actual charge life (the unit only uses energy when it hears something to broadcast).
- **Stage III Bugs:** Very small (5 mm cubes with a whisker antenna), have a range of 200 m and a broadcasting charge of 12 hours between recharges. They are voice-activated.

	Weight	Price
Stage I	Nil	\$150
Stage II	Nil	\$450
Stage II, Voice Activation	Nil	\$550
Stage III	Nil	\$1,100

CAMERA BRIEFCASE

A briefcase equipped with a concealed cut-out for a camera lens, and an activator button on the handle. It can conceal an advanced still camera, a digital camera, or a video camera.

Weight 2 kg
Price \$150

CAMERA FILM

The medium upon which photographs are stored, film comes in a variety of sizes and speeds. The purchase DC represents the cost of a roll of 24 exposures of high-speed (ASA 400) film.

Weight Nil
Price \$20

CAMERA FLASH

Weight Nil
Price \$20

CAMERA MOUNT

This device allows a camera to mount to a vehicle's window for surveillance operations.

Weight
Price

CANNON DIAL 35 CAMERA

The Cannon Dial 35 Camera was a motor driven device for both advance and rewind. This allowed taking pictures at the rate of 2 per second. The motor was wound up and was spring driven. The camera took about 76 pictures per a normal 36 exposure roll of film. This camera was known as a Half Frame.

Weight Nil
Price \$100

CELL PHONE INTERCEPTOR

This device allows a person to monitor cell phone frequencies.

Weight 1 kg
Price \$1,000

CIGARETTE LIGHTER SPY CAMERA

MI6's "Q" probably invented a cool gadget like this for 007. What appears to be an ordinary cigarette lighter is really a 0.3 mega pixel camera. 8 MB of SDRAM storage (up to 39 high resolution images). Black and white LCD screens optical viewfinder, 10-second timer and rechargeable 4.2 volt lithium battery. USB cable included. 2" x 2" x 1/2" size, perfect for clandestine photos.

Weight Nil
Price \$70

COMMAND EAR

This amplifies sound by 40 decibels, allowing to hear up to 100 yards away. Stereo sound provides 360° awareness of sound direction with the clearest amplification available.

Weight 1 kg
Price \$225

CONCEALABLE CAMERA

This is a fixed focus camera, about the size of a matchbox. This allows photography of objects at a specified distance (specified when purchased). The special miniature film comes in 24 exposure rolls.

	Weight	Price
<i>Concealable Camera</i>	Nil	\$700
<i>Concealable Camera Film</i>	Nil	\$60

CONCEALABLE MICROPHONE

This is a simple set-up for covertly recording conversations within 3-4 meters of the microphone. The microphone is the size of two stacked dimes and transmits the sounds it picks up by radio signal up to 200m away. The signal can be received using any programmable receiver set to the correct frequency (most civilian transceivers will suffice).

The main disadvantage with the microphone is that it can be easily detected using the right equipment (such as a Transistor Detector). The signal is also of limited power (due to the small size) and range can be affected if surrounded by dense items.

Weight Nil
Price \$1,050

CONCEALABLE VIDEO CAMERA

A cylinder measuring just 60 mm long by 30 mm diameter, the concealable video camera can be used on its own or concealed and combined with a fiber optic lens. It is powered by batteries in an external pack and must either transmit to, or be attached to a recording device.

Weight 0.1 kg
Price \$2,800

CUBE-CAM

A tiny device equipped with a 360° camera feed. The cube-cam allowed the persons to see into potentially dangerous areas before actually entering them.

Weight 2 kg
Price \$80

DAVIS WEATHER MONITOR II SYSTEM

Everything you need for measuring inside and outside temperature, wind speed and direction, wind chill, and daily and accumulated rainfall plus barometric pressure, inside and outside humidity, and

dew point. Includes Weather Monitor II console, along with a self-emptying tipping bucket rain collector, anemometer, and Temperature/Humidity Sensor.

Weight 1.53 kg
Price \$400

DETECT EAR

This microphone together with its parabolic dish is a powerful sound enhancement system for selective listening. Hear sounds with pinpoint accuracy at ranges up to 300 m. The ear allows the user to focus on sound in the direction you points the microphone, it also has a 3-band equalizer to adjust sounds and an adjustable volume for each ear and an output Jack for tape recording sounds.

This system includes a 6-panel snap together parabolic dish with a tripod mount for extended use, and is powered by 2 AAA batteries that last about 100 hours.

Weight 1 kg
Price \$500

DICTAPHONE

A pocket-sized tape recorder typically used for recording memoranda whilst on the move. However, it is also useful as a cheap and easily concealable means of recording a personal conversation with someone up to 3 meters away (depending upon background noise). The Dictaphone requires miniature audiocassettes, which are replayed using an appropriate audio player (most offices have an audio-typing facility).

	Weight	Price
<i>Dictaphone</i>	Nil	\$68
<i>Miniature Audio Cassette</i>	Nil	\$5

DIGITAL AUDIO RECORDER

These tiny recorders (about the size of a deck of playing cards) can record up to 8 hours of audio and can be connected to a computer to download the digital recording. Digital audio recorders don't have extremely sensitive microphones; they only pick up sounds within 10 ft.

Weight Nil
Price \$80

DIGITAL SOUND PROCESSOR

Digital Sound Processing (DSP) manipulates sound waveforms as bits of data and allows much greater alteration of audio input than the analog sound processors. This item requires DIF: Computers Skill to use properly. Because it is heavily computer based, the DSP has the same processing capability the FSP does but also has the following:

- **Speech Repair/Extrapolation:** This is the systemization of words missing in the audio input but either identified by computer or deduced by context in the conversation.
- **Translation:** Once identified, the computer can synthesize the speech as it were spoken in another language.
- **Voice printing:** The Computer automatically generates a voiceprint from the spoken sample.
- **Switching:** The computer is able to synthesize the speech as if a different person spoke it.
- **Voice Stress Analysis:** The computer can also add or eliminate microtremors which indicate voice stress.
- **Keyword Scanning:** The computer is able to search for specific keywords and phrases in the speech, then flag them for the surveillance expert's attention.
- **Keyword Scanning:** The computer is able to search for specific keywords and phrases in the speech, then flag them for the surveillance expert's attention.
- **Mixing:** The DSP allows the blending of multiple audio sources so as to appear that only one source was used.

Current Tech: In current technology, the DSP is limited to post-processing because of its bulk and power requirements. The DSP presented here is actually a special board for a personal computer. The board allows all DSP functions except speech repair/extrapolation and translation. Functions at this stage require custom software and much more powerful computers. This system is available to all civilians in Western nations.

HI-Tech: The DSP is shrunk down so that it will fit within a palmtop computer for real-time pro-

cessing. Speech repair/extrapolation and translation functions become available to laptop and desktop computers, but require custom software. The custom software is only available to government agencies.

	<i>Board</i>	<i>Software</i>
Weight	N/A	N/A
Price	\$800	\$500-\$2,000

DIRECTIONAL MICROPHONE

Also called a “shotgun mike”, this device permits the user too electronically “eavesdrop” on normal conversations at ranges of up to 500 meters. It functions off an internal battery, and requires 30 seconds to set up and tune.

Weight	5 kg
Price	\$3,000

DIRECTIONAL TRACKER

This device is used to track transceivers, hidden microphones, trail mikes, and radios (if properly tuned). A directional tracker is the size of a small briefcase. Proper reading of the device is AVG: Electronics or DIF: Intelligence, and will give only a general distance to the target (i.e. near, far away, in between, etc.). Powered by internal batteries.

Weight	4.5 kg
Price	\$1,200

DISPOSABLE CAMERA

A 35 mm camera with film built in can be purchased from vending machines, tourist traps, drug-stores, and hundreds of other places. Once the film is used, the entire camera is turned in to have the film developed.

Weight	Nil
Price	\$20

DKL LIFE GUARD

The Life Guard is a civilian sensory device developed principally for search and rescue, particularly following an earthquake. It is in use with the US military, law enforcement agencies, fire departments, the US Coast Guard and private security firms.

It is a hand-held, futuristic pistol-shaped device connected to a laptop or palmtop PC. There is also a set of earphones. The pistol is pointed in the direction required for sensing. The Life Guard tracks the electromagnetic field generated by the human heart with a red (eye-safe) laser, using dielectrokinetics — this is a unique signal, distinguishable from other organisms such as animals. Rechargeable batteries power it. The Lifeguard has a range of about 20 meters using the standard composite Range Adjustment Device (RAD), and is not affected by terrain, obstacles or vegetation. Using an all-metal RAD its range can be increased to around 500 meters. It is accurate to between 2-4 meters of the subject’s position. Its main limitation is the operating temperature. Without a PC, the laser is operable from between –10°C to 45°C. PCs are generally not as reliable when operating in a temperature of less than 5°C.

Coupled to other devices, the Lifeguard’s potential can be increased considerably. It can be linked to a PC or laptop to provide a screen image and with terrain mapping software can give a detailed map of a situation. Furthermore, if members of a team carry GPS locators attached to a radio transceiver then they can be identified on the screen.

	Weight	Price
<i>DKL Life Guard</i>	0.9 kg	\$3,000
<i>DKL All-Metal RAD</i>	1 kg	\$300
<i>DKL Composite RAD</i>	0.3 kg	\$150

DLS-1

The DLS-1 uses sonar technology to locate objects within 20, 60, and 120 yard ranges. As a target is located with the DLS-1, an audible tone is generated in the underwater headset. A low tone indicates a close target whereas a high tone indicates a distant target. Moving towards the target will cause the tone to become continually lower until contact is made.

Weight 3 kg
Price \$900

ELECTRONIC STETHOSCOPE

A highly sensitive version of regular stethoscope, used by thieves and doctors.

Weight 0.50 kg
Price \$100

FIBER OPTIC LENS

This miniature camera has a cobra-shaped head, just 2 mm in diameter, and can be placed covertly to enable surveillance. It requires an external source for recording/transmission (such as a concealable video camera or standard camcorder), to which it is linked by a line of 3 mm fiber optic cable. The quality of the image is limited by the size of the lens, even with PC enhancements, but it is useful for routine and tactical surveillance.

Weight
Price \$700

FIBER-OPTIC SENSORS

It is a little-known fact that the pattern of modulation in a fiber-optic cable varies with the pressure placed on the cable. NATO considered using this principle in an array of ground-sensor mechanisms in Europe to pick up advancing tank vibrations. The fiber-optic sensor can also be used as a microphone inside buildings. The fibers must be placed within the targeted building, either inside a wall or attached through adhesives, then illuminated by a tiny diode laser. A photoreceptor on the other end of the fiber picks up the laser light modulated by any sound in the environment, and passes the data on for transmission or storage.

Current Tech: This kit consists of a 5 m spool of optical fibers, a diode laser and transformer so the laser can feed off of house AC current, and a photoreceptor module with a serial output jack. Assembled kits are only available to government personnel.

Weight 1.3 kg
Price \$1,200

FILM PROJECTOR

Used for showing films.

Weight 5 kg
Price \$50

FORWARD LOOKING INFRARED (FLIR) SYSTEM

The FLIR uses body temperature or heat emitted from an object to form visible images. This therefore facilitates overt or covert observation in the absence of ambient light, that is, in total darkness. It has a forward-looking infrared and video camera mounted in a gyro-stabilized turret that can traverse 360°. The system also includes a video recorder and GPS interface, and a microwave downlink for real-time broadcasting of infrared video images can be mounted on aircraft or vehicles.

Weight 200 kg
Price \$10,000

HAND HELD ULTRASOUND DEVICE

Roughly the size of a pack of cigarettes this device uses ultrasound to peek into safes, trunks, etc. The entire front of the device is a monitor, which displays an outline of the contents inside the object being scanned. This item is indispensable to thieves and EOD experts. The rechargeable battery pack (about the same size) lasts for 2 hours of continuous use.

Weight 1 kg
Price \$5,000

HIDDEN MICROPHONE

A generic term for a "bug", a hidden microphone that ranges in size from tiny devices less than pea size to more normal microphones about the size of a silver dollar. Sound resolution is usually related to size, with smaller devices being less readable. The microphone transmits continuously once acti-

vated, for two weeks. The microphone is readable at 1,5 km, though a character with Electronics skill can pick up the signal at 3 km (AVG Electronics) or even 4,5 km (DIF: Electronics), a check being required each phase.

Weight Nil
Price \$200

INFRARED CAMERA

A compact camera, incorporating a powerful covert infrared light source. The head is easily maneuvered into confined spaces and has a swan neck fitting to permit adjustments to the angle of view, used for night time photography.

Weight 10 kg
Price \$900

INFRARED SENSOR

These sensors can be used to detect a body without any contact. It does this by detecting the heat that the human body gives off. This type of sensor can be attached to alarms systems to act as their trigger.

Weight Nil
Price \$100

INFRARED VIDEO CAMERA

A compact and portable infrared video system. The camera head, incorporating a powerful covert infrared light source, is mounted on a lightweight telescopic arm that can be extended to 1,550 mm. Only 40 x 50 mm, the head is easily maneuvered into confined spaces and has a swan neck fitting to permit adjustments to the angle of view.

Weight 10 kg
Price \$900

LASER MICROPHONE

A device that projects a laser beam onto a windowpane and translates the sounds in the room from the vibration of the pane. An Easy: Electronics task allows the operator to listen in on conversations hundreds of meters away. All that is required is uninterrupted LOS to the target window, and a relatively flat trajectory between window and laser microphone.

Weight 5 kg
Price \$1,500

MAGNACORD 1024 TAPE RECORDER

It comes in two parts. The upper unit, based on a die cast main plate, is the mechanical tape deck and it contains no electronics. It has a two speed drive motor and two permanent split-capacitor reel drive motors. There is an empty plug that could be used for remote control of the mechanics.

The lower unit has the transistor electronics in the form of slide in printed circuit cards. The dual VU meters can be set to monitor: bias (left meter above), source, or tape. You can mix the ¼" front panel Microphone input with the rear panel RCA jacks. You can listen to the source or the recorded sound. You can also feed the output from one channel to the input of the next, but there will be a slight time delay because of the distance between the records and play heads.

The row of control buttons are (left to right): Rewind, Record, Safety (must be pressed with Record), Stop, Cue, Play, Hi-Fwd. The Cue function has the tape loaded but not driven to allow manual positioning of the tape. You can use the marks on the top cover or remove the cover to get more exact. This can be used for cutting and taping the tape for editing or just for cueing the next selection.

Weight 4 kg
Price \$200

MAN PORTABLE RADAR

Similar to the AN/GRC-17-2 Ground Surveillance Radar System, this small, portable radar can be broken down into two man size loads.

Weight 10 kg
Price \$20,000

MICRO THROUGH-WALL/CEILING REMOTE VIEWING KIT

The through-wall surveillance scope is easily installed by drilling a 2.5 mm diameter straight hole through a wall. The imaging system has an offset, 55° field of view that can be rotated to provide an 85° view of the interior.

Weight 5 kg
Price \$500

MINIATURE CAMERA

These are miniature versions of the advanced or digital still cameras. They can be made to resemble cigarette lighters, breath spray bottles, wristwatches, etc.

	Weight	Price
<i>Advanced Still Camera</i>	Nil	\$1,000
<i>Digital Still Camera</i>	Nil	\$2,000

MINIATURE COLOR TV

Weight 0.50 kg
Price \$200

MINI-DISC RECORDER

This is a portable sound recorder/player, which fits into the palm of your hand. It accepts standard mini-discs for recording and produces extremely high quality digital recordings when combined with a listening device such as a concealed microphone or parabolic microphone. Its rechargeable batteries have a life of around 12 hours of continuous use.

	Weight	Price
<i>Mini-Disc Recorder</i>	1 kg	\$375
<i>Mini-Discs</i>	Nil	\$15

MINOX TLX 8 x 11 SPYMASTER SET

The quintessence of photographic miniaturization, a masterpiece of optical and mechanical precision, manufactured to the tightest tolerances, small but handy in size, big in technology and imaging performance. This is what Dr. Walter Zapp set out, in 1938, to do with the first Riga model and the same applies today. The advantages of this 8 x 11 are not only appreciated by hardened professionals. You can always rely on the smallest of the Minox cameras for providing superb photographs.

It's light, robust and so versatile; you can use it for all purposes. Even has a measuring chain, if you need to go very close up, like copying secret documents! It's the camera that you shouldn't ever leave behind, comes complete with flash unit, measuring chain in feet, ever-ready case & batteries.

Weight 98 grams
Price \$1,300

MORTAR COUNTER-BATTERY RADAR

Used to detect the originating position of mortar rounds, is vehicular powered, through a 100 m cable to permit limited tactical mobility, and usually employed with a mortar ballistic computer and a mortar battery to provide an instant response.

Weight 7 kg
Price \$100,000

MOTION DETECTOR

An electronic motion detector that uses ultrasonic waves to detect moving objects. Any moving object larger than 1 cm moving in any one dimension will trip the device (speed and size can be adjusted as desired). Motion detectors can be set up to sound an alarm, signal a switchboard or activate another device (like a camera or mine). Motion detectors detect an area up to 5 m in radius (the exact radius is set when the detector is set) and can be deployed in numbers to scan large areas. They are not much use in areas where there is a lot of motion, such as areas with wind-blown foliage, etc.

Weight 3 kg
Price \$2,000

MOVIE CAMERA

Used for filming movies, has a mic. Also called a steady camera.

Weight 20 kg
Price \$800

NIGHTWATCH PERIMETER INTRUSION DEVICE

A convenient defense to use in your home, backyard, work area, or campsite. Once the tripwire perimeter has been established, just sit back and relax. Comes complete with main control unit, 8,000 ft of ultra thin tripwire, and earphone (if you wish to keep the audible alarm off). Operates on batteries, which are not supplied. 2 independent circuits.

Weight 5 kg
Price \$90

NIKON SUPER ZOOM 8 CAMERA

This is an old 16 mm film motion picture camera. Introduced in the 1960, this camera is largely outdated but still quite popular with film students, and those who wish to blend into the background.

Weight 6 kg
Price \$700

PARABOLIC BOOSTER

A small dish-shaped booster used to increase the range and acuity of a sound amplifier 30 times. The booster also allows the user to zero in on specific sources and eliminates confusing background noise.

Weight 0.2 kg
Price \$60

PARABOLIC MICROPHONE

Appearing as a collapsible (umbrella-like) satellite dish, approximately 20 cm in diameter, a parabolic microphone may be either set up on its own tripod or hand-held. It needs to be coupled to a device to amplify and/or record the sound (such as a mini-disc recorder) and if used remotely requires a transmission device (such as a Digital Transmission Relay, or a programmable hand transceiver). It has a range of up to 500 meters, although this may be affected by weather conditions and background noise.

Weight 0.4 kg
Price \$1,190

PERSONNEL LOCATING BEACON

This device is used by skiers, mountain climbers and other persons who spend time in avalanche zones. When the unit is activated it will broadcast an emergency signal via a preset radio frequency and can locate via RF equipment.

Weight Nil
Price \$200

PHOTO-SNIPER CAMERA

This is a 35 mm camera that was designed by the KBG for use on surveillance missions. Made by the Zenit Company, this camera is part camera and part sniper rifle and was at one time the most sought after piece of spy gear.

Weight 3 kg
Price \$200

POLICE WIRE

Used by Law Enforcement Agencies, they are roughly 2 x 3 x 1 cm and sports a small whisker antenna. They have a broadcast range of 0.5 km, broadcasting continually for 24 hours between re-charges. Since they broadcast continuously, they are easy to detect: a FM Radio tuned to the correct frequency can receive their signal.

Weight Nil
Price \$150

PORTABLE WEATHER STATION

This device can tell you the current weather conditions and can access weather patterns via weather satellites.

Weight 0.50 kg
Price \$400

PRD-303/SV SURVEILLANCE SYSTEM

The PRD-303/SV is a small motion sensor with 120° of covered arc. It detects the motion of solid objects between one and two meters off the ground. Effective range of the sensor is about 250 meters in open terrain. Several PRD-303/Ss are usually tied into a single PRD-303/V. The PRD-303/V can receive signals from up to 10 different PRD-303/Ss, tell which one has been tripped, and inform the operator of the motion. The PRD-303/V can be located up to 2 km away from the sensors, as long as it has an unobstructed LOS.

Setting up the PRD-303/V is a Computer: ESY task. Implanting the PRD-303/S is Electronics: AVG task. Operation of the unit is a Computer: AVG task.

	<i>Sensor</i>	<i>Receiver</i>
Weight	0.75 kg	3.3 kg
Price	\$700	\$1,800

PROFESSIONAL NEWS CAMERA

This camera is used by news agencies to capture and broadcast the news, comes with a built in mic and a zoom lens.

Weight 10 kg
Price \$2,000

REMOTE VIDEO SURVEILLANCE CAMERAS

Good for remote monitoring of an area.

	<i>1 Camera</i>
Weight	2 kg
Price	\$80

REVERSE PEEPHOLE SCOPE

A small diameter scope for covert surveillance. It allows the operator to survey the interior of a room by looking through a door peephole lens from outside of the door.

Weight 0.5 kg
Price \$50

REVOLVER CAMERA

A miniature camera mounted on the side of a revolver, the camera “fires” every time the trigger is pulled. The photographs are for verifying that the weapon hit the target. In essence, it is a gun camera for revolvers. It can be mounted on the side of rifles and submachineguns, but not semiautomatic pistols.

Weight 1 kg
Price \$250

SEISMIC INTRUDER DETECTION DEVICE

This Cold War-era motion detector was designed to blend in with local terrain. It can detect movement of people, animals, or objects up to 300 meters. The device is powered by three mercury cells and has a built-in dipole antenna and built-in 150 MHz transmitter, which relays the device's findings through coded impulses.

Weight Nil
Price N/A

SEISMOMETER

Detects movement by detecting tiny tremors, detects movement within a 25 m radius of the detector. The detector can be tuned to detect even animal-sized tremors or ignore anything up to large vehicles. Powered by internal batteries, comes in two versions: one is connected to the receiver by Commo wire, the other transmits to the receiver by radio up to 2 km away. A receiver can handle up to 6 seismometers.

Setting the seismometer is ESY: Electronics or Computer, or AVG: Intelligence or Combat Engineer.

	Weight	Price
<i>Detector, Radio</i>	4 kg	\$11,250
<i>Detector, Wire</i>	4 kg	\$3,750
<i>Receiver, Radio</i>	2 kg	\$3,750
<i>Receiver, Wire</i>	2 kg	\$1,250

SINGLE LENS REFLEX 35 MM STILL CAMERA

This is a high quality single lens reflex camera, such as those made by Nikon, Canon or Minolta, and used by professionals and amateurs alike. This camera has manual settings such as focus, exposure and shutter speed. The camera also includes a flash and manual winding. The camera takes a variety of lenses according to the type of photo required.

Weight	1.3 kg
Price	\$400

SINGLE LENS REFLEX 35 MM STILL CAMERA

This is a high quality single lens reflex camera, such as those made by Nikon, Canon or Minolta, and used by professionals and amateurs alike. A CPU in the camera automatically optimizes settings such as focus, exposure and shutter speed; this can be adjusted manually if desired. The camera also includes a flash and automatic or manual winding. The camera takes a variety of lenses according to the type of photo required.

Weight	1.3 kg
Price	\$1,050

SOUND AMPLIFIER

This device consists of a flashlight-sized sound-gathering microphone and earphones. The device amplifies sound to the point that a whisper could be heard at 100 meters. The amplifier has a dampener to prevent hearing damage from sudden loud noises. It is not always possible to distinguish near noise from far noise. The amplifier works in a 45° arc in the direction it is pointed, powered by internal batteries.

Weight	0.9 kg
Price	\$80

SPECIAL VISION ADAPTER

This device allows an advanced or digital still camera, or a video camera, to be attached to an IR scope, starlight scope or image intensifier.

Weight	Nil
Price	\$25

SPORT EAR

Gives advanced warning of approaching persons. Sounds are amplified by 40 decibels, giving an incredible sensitivity for distant sounds (up to 100 yards away) or faint sounds (like a twig snapping).

Weight	Nil
Price	\$125

SPY PEN CAMERA

This spy camera, disguised as a fully-functioning pen, recalls the gadgets that "Q" used to develop for 007. Auto focus, exposure and balance, 2 MB of memory (more than 500 images), even a voice function that tells you how many shots have been taken.

Weight Nil
Price \$100

STILL 35 MM CAMERA

A one-shot, self-contained camera-in-a-box. You take the pictures, turn in the camera at a developing centre, and receive the developed pictures in an hour.

Weight 0.3 kg
Price \$10

TELEPHONE LINE TAPS

There are two kinds of line taps, those that fit in the handset or on the telephone (receiver taps) and those installed in the junction box or exchange (line taps). Obviously the latter are considerably harder to detect. The tap transmits a signal that can be picked up by any programmable transceiver.

	Weight	Price
<i>Telephone Line Tap</i>	Nil	\$700
<i>Telephone Receiver Tap</i>	Nil	\$210

TRACKER BUG

This is a miniaturized transponder that allows tracking with a radio-direction finder, which detects the signal put out by the tracker bug. It is about the size of an aspirin tablet and has 1 km range (it can't be hooked up to an antenna like a standard transponder) and an internal battery giving it 6 hours broadcast time (rechargeable by anyone with Electronics skill and an electronics tool kit). It has a self-adhesive coating on one side for attachment to a vehicle or whatever is being tracked. Moving the tracker bug from its plastic carrying case activate it.

Weight Nil
Price \$1,800

TRAIL BUG

This is little more than a powerful hidden microphone. The trail bug is silver-dollar-sized and 13 mm thick, and is normally hidden on a vehicle in order to track it. Once activated the device will function for 10 weeks, and can be tracked at a range of 8 km in an urban or mountainous environment, or up to 30 km in open country. A character with skill can read the trail bug at 12 km/40 km (AVG: Electronics) or 15 km/50 km (DIF: Electronics).

Weight 0.5 kg
Price \$300

UNDER-DOOR REMOTE VIEWING KIT

A low profile surveillance system that can be pushed under doors with gaps of only ¼". The imaging system has a 55° field of view and the direction of view can be adjusted to survey the whole room from the floor up. The under-door scope features a dedicated C-mount for video camera attachment and an attachable viewing eyepiece for visual observations. The kit also includes a right angle adapter that attaches to the front of the under-door scope to provide a clear view of the inside surface of the door and any barricades or booby traps that may be present. Optional accessories for low-light conditions; the under-door scope can be used with IR viewing equipment.

Weight 5 kg
Price \$400

VEHICLE GPS TRACKING SYSTEM

This is a vehicle tracking system which uses Global Positioning Satellites (GPS). The GPS satellite signals are continuously broadcast from an orbit of 20,000 miles and this unit receives those signals to calculate its location. The longitude, latitude, Unit ID and other GPS information is transmitted via a CDMA cellular modem to a computer or control center for display on a regional map.

The unit consists of a GPS Receiver and Cellular Modem which is fastened to the target. A GPS "Puck" antenna attaches with a magnet to the underside of the bumper cover and a miniature magnet mount cellular antenna fastens to the frame. Power is supplied by a direct connect to vehicle power or by a field replaceable battery pack which will power the system for approximately 5 days. Since many surveillance operations last a week or more, the replaceable battery pack contains 8 "D" alkaline cells which are easily replaced. In order to conserve power, the vehicle unit can be programmed to "go to

sleep” and only awake when the control center calls. If vehicle battery power is used, the unit can be programmed to stay awake at all times. You can continuously track the vehicle if needed.

For non-covert applications, the unit can be connected to an alarm input device such as a panic button. Activating the alarm will send a “Help” message and location information to a computer or control center, as well as providing “listen in” capabilities, remote vehicle shut-off and door locking and also be connected to the unit.

Weight 2 kg
Price \$1,900

VIDEO CAMCORDERS

Video camcorders are video cameras that are generally available through retail stores, which record video imagery on either a cassette or a memory stick. All are powered by a clip-on rechargeable battery, or can be powered from the mains. The battery is recharged whilst on the camera and typically has enough power for around 2 hours of use. Camcorders record a video image, which can be viewed either through the viewfinder / LCD screen on the camera itself or through attaching to a TV, monitor or PC.

There are two main types of camcorder: analogue and digital. Analogue camcorders (VHS and Hi-8) record a lower quality image onto a slightly larger cassette. Digital Video (DV) camcorders record onto either a small Mini-DV cassette or a memory stick. These media are not specific to a manufacturer and are interchangeable between appropriate unit types. Memory sticks are a digital medium that is interchangeable between digital cameras, MP3 players and PCs, storing the image as data. The memory stick is 50 x 21.5 x 2.8 mm and weights just 4 grams, yet it can hold up to 128 MB of data.

It should be noted that camcorders are a slightly different format to that used for TV and film. Whilst the quality of DV camcorder images is comparable, professional TV and film cameras are generally of a superior standard.

Standard features and accessories for all camcorders are as follows:

- **Automatic focus**
- **20x zoom**
- **Editing using the camera**
- **Remote control**
- **Shoulder strap**
- **Connecting leads** (connection to VCR, S-video, USB for connection to PC, SCART connector)
- **Battery charger**

Additionally, DV camcorders have the following features:

- **Digital zoom:** Increases magnification from 20x to 200x. However, the quality of the image is not as high and fine detail is not visible.
- **Digital Still:** Can take digital still photographs, like a digital camera.
- **Night vision:** Standard amplification of ambient light, providing for a relatively high quality image in even near total darkness. The image is slightly grainier and has almost total loss of color unless there is a separate light source.

	Weight	Price
<i>Video Camcorder Accessories</i>	0.3 kg	65
<i>Video Camcorder Battery</i>	0.3 kg	\$72
<i>Video Camcorder, DV Memory Stick</i>	0.7 kg	\$1,600
<i>Video Camcorder, Hi-8</i>	0.7 kg	\$560
<i>Video Camcorder, Mini-DV</i>	0.6 kg	\$1,120
<i>Video Camcorder, VHS</i>	0.8 kg	\$320

VIDEO RECORDING CARTRIDGES

Six hours of video and audio recording.

Weight 0.1 kg
Price \$5

WEATHER PROBE

This is used to accurately measure the wind speed and direction and air temperature for firing of long-range artillery. The probe unit can be linked to a system that converts the measurement data into weather reports or directly into adjustments to gun firing data.

Weight
Price

WIRE-TAPPING TOOLS

This kit, combined with an electronics repair kit, permits characters with Electronics skill to tap into and monitor electronic communications lines (phone lines, mostly).

Weight 2 kg
Price \$300

X-RAY CAMERA

This camera uses special film to show what lies under objects or what is in boxes and other containers.

Weight 4 kg
Price \$900

ZOOM LENS

Allows distant objects to be photographed. Fits to almost any photo camera, comes in 24 mm, 27 mm, 35 mm, 50 mm, 100 mm, 200 mm and 300 mm.

Weight 1 kg
Price \$500

41. RADIOS AND COMMUNICATIONS

10 W SSB MANPACK RADIO

This is a Chinese radio set that may also be used for telegraphy. Short range is 10 km when used for voice communications, and 8 km when used for telegraphing, if using the 15 meter antenna. Batteries, a generator, or a hand generator can power the radio.

Weight 9.8 kg

Price \$1,150

15 W SSB VEHICULAR RADIO

This is basically a high-powered version of the 10 W SSB that requires vehicle or generator power. Short range is 50 km when used for voice or 40 km when used for telegraphy.

Weight 7.7 kg

Price \$5,800

125 W SSB VEHICULAR RADIO

This is an older Chinese radio for shorter-range communications. Short range is 7.5 km.

Weight 22 kg

Price \$865

200 W SSB VEHICULAR RADIO

This Chinese radio can be used for voice, telegraph, and teletype traffic. It has a very long range of 125 km (short), and can be remotely controlled at a range of 3 km.

Weight 28 kg

Price \$14,000

350H SECURE MANPACK RADIO

This is the standard manpack radio in French service. The communications are secured by means of frequency hopping, both for security purposes and to defeat jamming. The frequency switches among any of 285,000 possible channels several hundred times per second. It was designed to work in networks and to act as a modem for computers, and may be remotely controlled. Short range is 2 km.

Weight 5.9 kg

Price \$2,000

353H SECURE VEHICULAR RADIO

This is one of the standard vehicular radios in the French military. It is basically a version of the 350H equipped with a power amplifier. Short range for this radio is 20 km.

Weight 8.85 kg

Price \$9,200

354H SECURE VEHICULAR RADIO

Another standard vehicular radio in French service, the 354H adds a second power amplifier and relay equipment for other, shorter range radios. Short range is 100 km.

Weight 20 kg

Price \$46,000

A-13 HIGH POWER MAN-PACK RADIO STATION

The A-13 is a British HF manpack transceiver. The A-13 was developed primary for infantry use. It was also used by amphibious forces and the Special Forces.

Weight 5 kg

Price \$800

AKVEDUK 5UN-1 MANPACK RADIO

This is a small radio in use by Russian forces, including frontier troops and National Guard units. It operates in the UHF band, unlike most military radios, and can also be used as a relay device, to

transmit Morse code, and to transmit data at a speed of 32 kb/s for download to an attached computer. It may be operated by remote control at a range of 10 meters. Short range is up to 8 km, depending on terrain.

Weight 5.6 kg
Price \$4,000

AM-1077 VHF POWER AMPLIFIER

This device, when linked to an AN/PRC-77 (the standard manpack/vehicular radio in the *Twilight: 2000 Version 2.2* rules), PRC 1077, or AN/VRC-12 (13 km vehicle radio in the rules), boosts range by up to 400%. To achieve this range, a standard 3.084 m whip (normal antenna for most US vehicles) or its equivalent, or a better antenna, must be used.

Weight 3.6 kg
Price \$2,900

AM-4677B POWER AMPLIFIER

This amplifier may be connected to an AN/GRC-125, AN/GRC-160, AN/VRC-53, AN/VRC-64, AN/PRC-77, or AN/PRC-25 to boost the range of these radios by 400%. There is an AM-4677C version, designed to support certain European radios. This device includes a speaker for the radio installed. This amplifier must be run from vehicle or generator power.

Weight 2.4 kg
Price \$2,900

AM-4700 POWER AMPLIFIER

This amplifier can work with a wide variety of radios, including most VHF radios used by US, NATO, and allied countries. A vehicle or generator must power it. This device boosts range by 400%.

Weight 2.5 kg
Price \$3,200

AM-6987/GR POWER AMPLIFIER

This amplifier is designed for AM-band UHF radios (such as those used to communicate with aircraft by FALOs). It boosts range of these radios by 770%.

Weight 38.56 kg
Price \$5,800

AM-7175/URC POWER AMPLIFIER

This amplifier is used by FM or AM UHF radios to provide a large boost in range. It is a modern device that includes a speaker. Aircraft and ships normally use it. This device boosts range of such radios by 15 times.

Weight 9.98 kg
Price \$11,500

AM-7209 VRC POWER AMPLIFIER

This device can amplify the signals of most VHF radios, including frequency-hopping radios like the SINCGARS and radios equipped with scramblers such as the AN/VRC-89. Hook-up is simple, with few external controls and only a single cable connection to the radio and antenna. Signal is boosted by 770%. This device requires vehicle or generator power.

Weight 7.5 kg
Price \$7,000

AM-7238 FILTER/POWER AMPLIFIER

Designed for VHF radios on standard NATO tactical frequencies, the AM-7238 combines the filtering of crosstalk between two co-located radios, and an amplifier that boosts range by 400%. This device has been produced for the US SINCGARS radio since 1991, and variants for European radios have been made since 1994.

Weight 5.4 kg
Price \$3,600

AN/GRA-39A RADIO SET CONTROL GROUP

A normal radio transmitter must be located within a few meters of its antenna; the antenna, the actual source of the broadcasts, is easily located. This develops a major problem for radio operators — keep moving, requiring a short antenna and reduced range, or take the chance of having an enemy artillery barrage sent your way, ruining your whole day. The US Army came up with a solution: the AN/GRA-39A. This unit consists of two pieces: one is attached to the antenna and the other to the radio, connected by WD-1. This system allows both the radio and its human operator to be up to 1 mile from the antenna, thus removing them from danger. To set up the AN/GRA-39A requires WD-1 along with a successful Electronics: ESY task completion. Use of this device is Electronics: ESY task.

Weight 7.5 kg
Price \$1,000

AN/GRC-103 (V) RADIO RELAY SET

This Canadian system is in use by Canadian, NATO, other armed forces, and US. It is used to relay radio communications over longer distances than normal radios are able to communicate. This relay set is able to pass communications over a range of up to 180 km, depending on terrain and antenna used. By itself, it cannot be used to hear or send radio calls, but instead passes calls to other radios.

Weight 61.5 kg
Price \$20,800

AN/GRC-160 RADIO

The Radio Set AN/GRC-160 is designed for use in vehicles, and it uses the same radio (RT-841) as the AN/PRC-77. An AM-2060 amplifier provides operating voltage to the RT-841/PRC-77 and, also, has a self-contained loud speaker that amplifies the signal received. The installation kits are provided for specific vehicles and are permanently installed in the vehicles.

Weight 15 kg
Price \$1,500

AN/GRC-206 (V) VEHICULAR/GROUND RADIO

This radio is normally used in a ground station, but may be vehicular-based. Functions and controls are monitored by a microcomputer. The radio operates in HF, VHF, or UHF ranges and in the FM or AM bands. The radio was specifically designed to be mounted in a Jeep or M-113 APC, but is adaptable to other vehicles with ease (in the US Army, they are often mounted in HMMWVs). Two persons may use this radio at once. The AN/GRC-206 (V) may be remote controlled by wire from up to 3.3 km away. A scrambler may be added by use of a cable attachment. This radio is often employed by US special operations units and on USAF special operations aircraft. Short range is 30 km, 35 km, or 150 km, depending on antenna used.

Weight 14 kg
Price \$8,300

AN/GRC-213A VEHICULAR RADIO

This radio was first issued to US units in 1983, and is based on the HF AN/PRC-104 Manpack radio. The AN/GRC-213 adds an amplifier and a vehicle mounting rack. The radio is capable of burst transmissions and data transfers at the rate of 15.3 kb/s. Short range is 20 km.

Weight 19.5 kg
Price \$2,300

AN/GRC-226 VEHICULAR RADIO

This is an older Canadian-built radio in use by NATO forces and several other allied countries. It has a short range of 10 km when using a mast antenna.

Weight 36 kg
Price \$1,150

AN/GRC-238 (V) VEHICULAR/GROUND RADIO

This radio combines two AN/PRC-139 hand radios, an amplifier, and an interface box into a single radio able to communicate over longer ranges than the base radios. The lid of the container contains

an input panel with push-button controls, LED readouts, and a speaker. A handset and a headset come with the radio. Short range is 5 km, 16 km, or 40 km, depending on antenna used, or 2 km without an antenna. The AN/GRC-238 (V) may use either the VHF or UHF band. A scrambler is included with the AN/PRC-139s. The component AN/PRC-139 radios may be removed and used separately if desired, but the amplifier will not function unless both radios are in the interface box.

Weight 6.3 kg
Price \$1,820

AN/GRC-512 VEHICULAR RADIO

This radio has ECCM (Electronic Counter-Countermeasures) features to allow it to continue operating in an environment where radio communications are being jammed. It is a frequency-hopping radio, and can also be used to allow computers to communicate with its built-in modem. The AN/GRC-512 can also be used as a relay set and may be operated by remote control. Short range is 15 km.

Weight 27 kg
Price \$8,500

AN/GRC-515(V)

The AN/GRC-515 is a Canadian radio. Unlike radio sets, which are only capable of short communications paths, the AN/GRC-515 can provide a highly reliable communications link with path lengths of at least 10 km under heavy rain conditions or 20 km under very heavy rain conditions. The AN/GRC-515 has a number of unique features, which facilitate rapid set up and tear down. In limited service in 2000.

Weight 20 kg
Price \$6,000

AN/MSQ-114 SATELLITE COMMUNICATIONS CONTROL

The AN/MSQ-114 is part of the GMF Satellite Communications Control System which is used to manage the satellite communication capability assigned to the satellite terminals operating within the tactical network. The primary function of the AN/MSQ-114 is to continuously monitor the transmission of the communications satellite to assure that all network terminals are operating within the proper limits of frequency, power output, and bandwidth. The AN/MSQ-114 is usually deployed one unit per theatre of operation. Since the AN/MSQ-114 is a limited production item, its deployment is rigidly controlled. It requires two 60 kw generators and has a 20 ft parabolic dish. It requires 24 hours to set up.

Weight 8,000 kg
Price \$500,000

AN/PRC-104 MANPACK/VEHICULAR/GROUND RADIO

This is a HF radio used for communicating with ground units and air units. It is a small, yet powerful radio that marked the first use of Large-Scale Integrated (LSI) circuits in a military radio. The radio has a short range of 8 km ground to ground and 100 km ground to air in the manpack mode. In the vehicle-mounted version (known as the AN/MRC-138) it has a range of 50 km/300 km, and there is a ground-mounted generator-powered base station (known as the AN/GRC-193) with a range of 400 km both ground to ground and ground to air. These radios may be used with a scrambler. The US Air Force, Navy and Marines (Reserve forces) use these radios, as well as New Zealand, Sweden (reserve forces), Spain, and some countries in the Middle East, Africa, and Far East.

	Weight	Price
<i>AN/PRC-104</i>	6.4 kg	\$670
<i>AN/MRC-138</i>	10 kg	\$4,200
<i>AN/GRC-193</i>	15 kg	\$7,100

AN/PRC-112 A SECURE TRANSPONDER

This radio is more a survival radio than anything else is; it operates on only 8 frequencies on the UHF/AM band, including the international emergency band. There is a newer version, the GPS-112, which adds a GPS (Global Positioning System) receiver. Short range is 4 km.

	Weight	Price
<i>AN/PRC-112</i>	0.8 kg	\$1,300
<i>GPS-112</i>	0.8 kg	\$3,300

AN/PRC-117A SECURE MANPACK RADIO

This is a first-generation frequency-hopping radio, first fielded in 1982 by US special operations forces. It has since been superseded by the SINCGARS radio, but is still used by reserve special operations units. It may be used with a scrambler. The frequency hopping also adds ECCM capability. In clear net mode, it may communicate with all other US, NATO, and allied VHF/FM-band radios. The AN/PRC-117A may also be used as a repeater. Short range is 10 km.

Weight 5.8 kg

Price \$3,300

AN/PRC-117B(C) SECURE MANPACK RADIO

This is an AN/PRC-117A with an integrated Vinson scrambling module.

Weight 6.9 kg

Price \$5,300

AN/PRC-117D(C) SECURE MANPACK RADIO

This radio is a VHF/UHF AM/FM version of the PRC-117B(C), used by FALO teams and to communicate with other aircraft. The CIA, NSA, and other clandestine government agencies also use this radio. Range is 10 km in ground-to-ground mode and 80 km in ground-to-air mode.

Weight 6.86 kg

Price \$9,300

AN/PRC-119 SINCGARS SECURE MANPACK RADIO

The Single Channel Ground and Airborne Radio System (SINCGARS) is the standard manpack radio of US forces and some allied countries, such as Israel. This unit has a built in frequency-hopping unit. Any radio can communicate with any other by means of a special frequency-hopping unit that changes frequency (all 2,300 of them) at 30-second intervals so that it is almost impossible to listen in on a conversation for any long period of time. However, both radios must be on a same link to be able to communicate. The AN/PRC-119 may also be used as a modem, transmitting and receiving data at a rate of 16 kb/s. The SINCGARS may be combined with a Vinson scrambler for maximum security. This radio has a maximum range of about 8 km as a manpack radio.

Weight 7.5 kg

Price \$4,000

AN/PRC-126 HAND RADIO

This is a VHF/FM-band squad-level radio. This radio normally operates in the 30-88 MHz range, but the US Air Force version, the AN/PRC-128 Scope Shield, can use either the 30-88 MHz range or 130-174 MHz range. Security teams at USAF bases use it. Short range is 1 km.

Weight 1.17 kg

Price \$500

AN/PRC-132 MANPACK RADIO

This small-but-powerful radio was designed for Special Forces, Delta units, and US Navy SEAL teams. 80 channels may pre-program into its memory, and add-in cards may be used to give modem capability or to expand available frequencies. A scrambler may be added with a cable. Range is 5, 10, 20 or 50 km depending on antenna used.

Weight 5 kg

Price \$1,770

AN/PRC-139 HAND RADIO

This radio operates over either the 30-88 MHz, 136-174 MHz, or 403-470 MHz bands, depending on what transceiver is installed (changing transceivers is a task requiring a Phillips screwdriver and no special skills). It features an embedded Vinson (scrambler) module. The radio may also function as a modem, at a data rate of 16 kb/s. This radio is in use by most Air Force and US forces, particularly the US Army. Short range is 2 km.

Weight 1.35 kg

Price \$1,000

AN/PRC-148 MBITR Two-Way Radio

Multi-Band Intra-Team Radio (MIBTR) system is available for approved Government programs under separate contract vehicles and are subject to security and export control regulations. MBITR accessories are available for on-line purchase. Look over the many accessories and companion items associated with this product. Pricing applies to product end use in the US or for US Government Agencies. Use for simple 2-way or for advanced signaling & interconnect. The US Army selected the ICOM IC-F3S Portable Transceiver for the new Soldier Intercom.

It includes an ICOM IC-F3S portable transceiver, spare battery, AA alkaline battery pack, combat carrying case and a Telex Stinger stealth headset all packaged and shipped from ICOM America. It operated 24-42 hours with the rechargeable battery and 21-36 hours with the throwaway AA cells (10% transmit, 10% receive and 80% standby mode). The soldier intercom provides better knowledge of a soldier's position, tactical situation, and threat. It is a good improvement over hand and arm signals.

Weight
Price

AN/PRC-6 RECEIVER / TRANSMITTER

A newer version of early PRC-6 hand held radios as used in Korea and Vietnam wars Has a BC-611 Power Supply Unit which allows the radio runs off nine D-Cell Batteries.

Weight
Price \$70

AN/PRC-66

The AN/PRC-66 is a compact, lightweight, tactical UHF, solid state manpack radio set. This radio set was designed to provide a full range of tactical communications within the tactical UHF band. This set was originally developed by Collins of Canada. Like many other manpacks, the PRC-66 can also be vehicular mounted by the use of a vehicle adapter mount. Both rechargeable or throwaway battery packs are employed.

Weight 4 kg
Price \$2,000

AN/PRC-68

The AN/PRC-68 is a short-range, hand held VHF tactical radio transceiver. It may be carried in a blouse pocket or in a special harness. Production started around 1976. Frequency is selected by 3 internal switches permitting a 2 MHz wide band. Frequencies are controlled by an external, 10 channel rotary selector switch which increase the preset frequency by 200 KHz per channel. The PRC-68 is a fully solid state unit and is modularized.

Weight 1 kg
Price \$1,000

AN/PRC-77 RADIO

The AN/PRC-77 radio set is a short-range, manpacked, portable, FM receiver-transmitter used to provide two-way voice communication. The AN/PRC-77 operates on low power and at very high frequencies (VHF). The location of the equipment greatly affects its operating range.

Weight 4 kg
Price \$200

AN/PSC-5 MANPACK/VEHICULAR SATCOM TERMINAL

This device, when linked to a portable satellite Downlink subsystem or a vertical satellite beamer, allows communications via satellites in orbit. Normal transmission mode is voice, but a keyboard may be attached for text, as can a fax machine or a computer. The device may also be used as a regular radio, with a short range of 18 km. It may be used as a beacon for rescue or other homing operations.

Weight 7.5 kg
Price \$6,000

AN/TGC 14-A TELETYPEWRITER SET

The Stand US Army Teletypewriter set used for sending and receiving of text messages, almost out of use by the NATO nation as the start of the Twilight War.

Weight 25 kg
Price \$400

AN/TRC-199 (V) TACTICAL REPEATER

This is a radio repeater based on two AN/PRC-139 radios in a case with an amplifier and rebroadcast equipment. The two component AN/PRC-139 hand radios may be removed and used as normal, but the rebroadcast feature of the device will not work unless both AN/PRC-139s are in their cradles. Short range for rebroadcast is 2 km, 10 km, or 40 km, depending on antenna used. A scrambler may be added.

Weight 25.4 kg
Price \$4,300

AN/TSC-143 STAR-T (SHF TRI-BAND ADVANCED RANGE EXTENSION TACTICAL TERMINAL)

The STAR-T is a HMMWV mounted multichannel satellite terminal. It has a tri-band capability in the SHF range. The STAR-T terminal will operate over commercial and military SHF systems and will interface with both commercial and military switching systems. It will provide the required range extension for TRI-TAC systems at EAC and non-terrestrial communications connectivity between EAC and ECB. STAR-T will provide communications connectivity for split based operations between the theater and the sustaining base.

Weight 2,000 kg
Price \$250,000

AN/TTC-39 TRI-TAC AUTOMATIC TELEPHONE CENTRAL OFFICE

The Tri-Service Tactical (TRI-TAC) signal system is a mobile telephone exchange unit. A total of 240 local telephone subscribers can be provided, including secure digital phones, non-secure digital phones, and STU-III's. Dialing is fully automatic and requires no operator assistance. Programmable subscriber features include compressed dialing, call forwarding, and conference calling.

Weight 2,000 kg
Price \$100,000

AN/URC-101 MANPACK SATCOM RADIO

This is a self-contained satellite communications system (terminal, antenna, and transmitter are contained in the same unit). The unit transmits either AM or FM voice or data, in the high VHF or standard UHF bands, and can also be used as an emergency locator beacon. It may also be used as a normal radio, with a range of 5 km in the VHF band and 20 km in the UHF band. The AN/URC-100 is scrambler-compatible. The radio transmits in a 60° arc using a hand-held antenna.

Weight 7.26 kg
Price \$6,700

AN/VRC-12

From 1965 through about 1990, its period of service, US Army and USMC units communicated with each other via these AN/VRC-12 tactical radios with few exceptions. The radio set was their tactical vehicular combat net radio, providing short range, two-way radio telephone communications. It was used primarily in utility vehicles, trucks, APCs, Bradley Fighting Vehicles, self propelled Howitzers and the PATRIOT Missile System. The AN/VRC-12 generation of radios was planned to be replaced in the mid-1980s by the SINCGARS family of VHF frequency-hopping radios with embedded cryptographic circuitry. However, a series of program setbacks repeatedly delayed this upgrade so that by 1990 only a few units had the SINCGARS while most continued to use the VRC-12s.

Weight kg
Price \$

AN/VRC-46

Is a short range, vehicular and fixed use radio used by the US and Canadian Forces until the introduction of SINCGARS. It's a good radio with a short range and would still be used by some US National Guard Units.

Weight 20 kg
Price \$1,000

AN/VRC-87C SINCGARS SECURE VEHICULAR RADIO

This is the standard vehicular radio of US forces and some allied forces, such as Israel, Kuwait, and Saudi Arabia. This radio has a short range of about 50 km from a vehicle only. This unit has a built in frequency-hopping unit. Any radio can communicate with any other by means of a special frequency-hopping unit that changes frequency (all 2,300 of them) at 30-second intervals so that it is almost impossible to listen in on a conversation for any long period of time. However, both radios must be on a same link to be able to communicate. A Vinson scrambling module may be added for maximum security.

Weight 12 kg
Price \$3,500

AN/VRC-92E VEHICULAR DUAL LONG RANGE RADIO

This is a two radio design that allows for retransmitting of radio signals and the Battalion or Brigade Headquarters. This radio can also establish a secure internet connection should the signal be available.

Weight 10 kg
Price \$5,000

AN-GRC-46 RADIO TELETYPEWRITER SET

The AN/GRC-46 is an AM set capable of simplex or duplex operations, transmitting and receiving Voice, CW and RTTY. The main components of the set are the T-195/GRC-19 Transmitter (operational from 1.5 to 20 MHz), the R-392/URR Receiver (operational from 0.5 to 32 MHz) and the Teletype equipment which can send or receive printed messages. Messages can be sent directly from either keyboard or they can be recorded on perforated tape for later transmission.

The primary purpose of this set is to provide Radio-Teletype communications between Company and Brigade level units. The set has a maximum output of 100 watts with a reliable range of 50 miles using a 15 ft whip antenna. Sky waves can extend the range up to several thousand miles, but are unreliable and unpredictable. It is shelter mounted and carried in the bed of a $\frac{3}{4}$ ton M37B1 truck. In usual operation it uses the whip antenna but it can also use a longwire or any of several other antennas. With additional equipment, the transmitter and receiver alone can be operated from remote locations, up to 2 miles away from the set.

Power requirement is 27.5 VDC obtained from the vehicle power supply or from a 1.5 kw gasoline generator. The teletype equipment is powered by 115 VAC motor generators that are, in turn, powered by the vehicle's electrical system or the DC generator.

Weight 100 kg
Price \$500

AN-PRR-9/PRT-4 RADIO SET (WALKIE TALKIE)

These were used on the Son Tay Raid into North Vietnam to rescue downed airmen. Range is up to 1 mile. It's a complete one crystal set. Each unit comes with the following: transmitter, receiver, headset, lanyard, slide, and one antenna.

Weight 9 kg
Price \$80

ANTENNA, 500 KM

A wire antenna, used to rig field-expedient antennas, and a half a dozen resistors and insulators. Rigged from trees or other supports and grounded, the antenna alone will triple the radio's range. When used in conjunction with a generator, the full range may be reached. Weather and terrain will affect the range of the radio when using these antennas.

Weight 3 kg
Price \$100

ANTPS-32 RADIO SET

An old War World II radio that was used for long distance communication. Although no longer used by the US Army, many radio enthusiasts still use it or parts of it for communication.

Weight 100 kg
Price \$500

AUDIO RELAY

The Audio Relay is an autonomous radio station. The Audio Relay houses a 4 watt FM transmitter, a folding antenna, a 30 watt amplifier, two speakers, and two solar panels on a detachable cover. It can be set up anywhere. The solar panels provide some of the power. The Audio Relay can run off any international AC power source or, for remote locations, a 12-volt car battery. The battery can be re-charged by the solar panels or by plugging the unit in to a wall outlet. The Audio Relay can broadcast material in a radius of up to 1 mile away.

Weight 4 kg
Price \$2,000

AVIATION TRANSCEIVER

This is a small radio transmitter that most small plane pilots carry so they monitor civil air traffic.

Weight 1 kg
Price \$800

BR-3U TRANSMITTER AND "SVIR" RECEIVER

This radio equipment was part of a KGB "leave behind" program in Europe in 1966. It was buried near Friburg, Switzerland, and 'booby-trapped' with explosives. Similar caches have been found in Italy, Belgium, and perhaps other countries. It has a magnetic tape keyer for automatic transmission at a rate of 450 words per minute. With an output power of 80 watts and a frequency spread of 4.5 to 18 MC, it is eminently suitable for intercontinental traffic. Such a radio set reveals an extensive commitment of effort to clandestine operations and a high order of professionalism.

Weight 3 kg
Price \$700

BULLHORN

Makes voice distinctly audible at 300 meters and indistinctly audible at 600 meters, powered from internal batteries.

Weight 3 kg
Price \$40

BV-613

An Army welfare receiver, developed from the BV-612, issued during World War II. Still found with amateur radio operator.

Weight 3 kg
Price \$100

BWEIGHT-22B MANPACK RADIO

This is an older Chinese tactical radio, powered by internal batteries. Though an encryption module is not supplied with the basic radio, one may be easily added by means of a cable. The radio is resistant to EMP effects. Short range is 2 km with a whip antenna or 5 km with a mast antenna.

Weight 6.9 kg
Price \$1,000

BWEIGHT-133 MANPACK RADIO

This is a newer Chinese tactical radio that may be powered by a battery or hand generator. It may be used for voice or telegraphy. Short range is 4.5 km with a whip antenna or 15 km with a mast.

Weight 13 kg
Price \$2,250

CARACAL (PRM 4740A) SECURE HAND RADIO

These British-made radios were sold to a Middle-Eastern nation (possibly Kuwait), and are rumored to be used by US Special Operations, British SAS, and British SBS units. They are possibly the smallest radios to incorporate frequency-hopping technology. 10 channels may be pre-programmed for quick frequency changing, and they are interoperable with all US and allied frequency-hopping radios.

Weight 1 kg
Price \$4,000

CDT-882A GROUND-TO-AIR RADIO

A Chinese radio used by airborne and airmobile troops to communicate with aircraft, and by FALO teams to co-ordinate air strikes. It consists of an AM and FM radio. Ground to air short range is 9 km, and ground-to-ground communication short range is 6 km.

Weight 9 kg
Price \$2,100

CELLULAR MOBILE PHONES

Without a doubt the mobile phone was the personal gadget of the late '80s and '90s, and now it is a fact of everyday life. Service providers have competitive tariffs, improved reception, more durable batteries and lightweight models and extensive network coverage of the globe. There are three basic types, depending upon the needs of the user.

Standard features of all mobile phones include:

- Address book
- Caller ID/Number Display
- Clock/Alarm/Reminder
- E-Mail
- Internet Access and Downloading
- Ring Back/Auto Redial
- Text Messaging
- Voice-Activated Dialing

Weight Nil
Price \$320

CLANSMAN PRC-349

The Racal Clansman PRC-349 is a VHF/FM transceiver intended for personal communication in combat conditions. The radio is designed to be fully compatible with the existing range of Clansman VHF equipment. The radio can be mounted on the shoulder, chest or back with adjustable quick release holster. It can also be carried inside a back pack or pocket of a combat jacket. Operates from 12 VDC using AA batteries.

Weight 5 kg
Price \$2,000

CLANSMAN UK VRC-353 50W VHF FM VEHICLE RADIO

Manufactured by Marconi Space and Defense Systems for the British Armed Forces the VRC-353 was first introduced in the 1970s and was the worlds most versatile and advanced VHF FM vehicle radio system of it's time, capable of voice and data. Constructed in a die-cast alloy waterproof case, the radio is operationally compatible with the PRC-77, VRC-12, SEM-25, SEM-35 radio sets.

Weight 15 kg
Price \$1,000

COMMANDO HAND RADIO

This is the standard hand radio of Italy. It operates in a narrow band range (18 MHz total) in the VHF range. It is of very rugged construction, and simple to operate. Short range is 1 km.

Weight 0.7 kg
Price \$500

COMMERCIAL RADIO

This is a standard commercial radio found in most department stores.

Weight 2 kg
Price \$40

COMMO WIRE

Has a myriad of other uses other than for communications, comes in a 300 m roll.

Weight 3 kg
Price \$25

COUGAR (RACAL) HANDHELD

This is a lightweight portable version in the range of Cougar radios and is compatible to all the other configurations in the Cougar family of radios. It carries all the features of the Cougar family. It is deployed down to half-section level and is the principal radio used in urban patrols.

Weight 1 kg
Price \$500

COUGAR (RACAL) MOBILE REPEATER

This is a Repeater Station which supports the Cougar range of radios in the Force. Its briefcase configuration affords rapid deployment and installation. This Repeater Station has channel switching capability, a feature that improves the versatility of the unit.

Weight 6 kg
Price \$1,500

COUGAR (RACAL) VEHICLE BASE STATION

This is a VHF radio and is usually deployed at the company level. This is a duplex radio (transmit and receive on separate frequencies), but has a simplex that can be programmed to transmit on a single frequency capability as well. It comes in both secure and clear modes.

Weight 2 kg
Price \$1,000

COUGARNET (PRC 6515) HAND/MANPACK/VEHICULAR/GROUND RADIO

This British-made radio is used by the British Army and Navy, civilian agencies in Great Britain and elsewhere, and has enjoyed some foreign military sales, most notably to the US Air Force. The radio is able to bridge communications using UHF and VHF, especially when acting as a repeater. A battery, vehicular power, or a 1.5 kw generator may power Cougarnet. The radio is modular, plugging into a variety of amplifiers for hand (2 km range), manpack (10 km range), or vehicular/ground mount use (20 km range). Only the vehicular/ground version may be used as a repeater, but all versions may send and receive VHF and UHF traffic. A scrambler may be added by use of a cable.

	Weight	Price
<i>Complete System</i>		\$2,300
<i>Hand Unit</i>	2 kg	
<i>Manpack</i>	16.5 kg	
<i>Vehicular/Ground</i>	20 kg	

COVERT HEADSET/VOX HEADSET

Worn discreetly (such as by bodyguards or surveillance personnel), this headset has a single non-occluding ear piece that is coiled to allow the ear to hear ambient sound as well as the radio. There is a neck band with a throat microphone and PTT (Push-To-Talk) button and a separate hand PTT box. There is a transparent voice tube to transport the signal from the neck-mounted speaker to the ear.

A VOX headset is similar to a covert headset except that there is not a PTT switch. The unit is voice-activated instead, transmitting when the user speaks. A version is also available with a small folding boom microphone.

Weight Nil
Price \$395

COVERT RADIO TRANSCEIVER

A CIA issued radio, given to agents operating in foreign countries.

Weight 5 kg
Price \$500

DRACENA-R VEHICULAR/GROUND RADIO

This Polish radio can be run from vehicular power or a 1.5 kw generator. It may be used for voice, telegraph or data transmission (the latter with a speed of 16 kb/s). The radio uses a 2 meter bar antenna, which may be mounted on a 10 meter mast for extra range. Range is 6 km with the bar antenna, or 30 km with the antenna mounted on a mast.

Weight 20 kg
Price \$3,500

ENCRYPTION HANDSET

An encryption handset is a separate unit that can be attached to a transceiver or Satellite Communication Unit in order to transmit and receive encrypted signals (data or voice transmissions). Each user on an encrypted network has its own call sign. An encrypted handset can call another encrypted set for which the call sign is known. The handset has a scrambling circuit, which randomly changes the frequency and security codes. The base station control terminal can also change the code key of all radios on the net. It can be used to selectively call a captured or stolen radio and destroy its memory, to make it inoperative.

The handset is relatively bulky (190 x 50 mm). It is powered by internal rechargeable batteries and is ruggedly designed to take as much punishment as the radio set itself. This includes immersion in shallow water, as well as physical punishment.

Weight Nil
Price \$1,300

ENCRYPTION KEY

For loading codes into secure radios to allow frequency hopping powered by internal batteries. For game purposes, assume that NATO secure radios use a common encryption key and Warsaw Pact secure radios use a separate common key. All secure radios on the same net must have the proper codes loaded into them for secure operations.

Weight 0.5 kg
Price \$250

ER79A RADIO SET ER79A

A French military radio (similar to the American AN/PRC-9 or 10), is a compact, tactical VHF, manpack radio set. Initial distribution began in late 1950s. Although mainly designed for manpack use, it can be employed in a vehicular mounted configuration using standard VRC-12 family equipment. Accessories included: Handset, Short Antenna (3 ft, steel tape), Long Antenna (10 ft, whip) with antenna base support, Belt Pouch for antennas and handset, Canvas Backpack specifically for radio.

Weight 5 kg
Price \$100

ERC-321 SECURE MANPACK RADIO

This radio has been produced in large numbers for the Italian military and also exported to many Italian and former Italian allies. It is a lightweight, compact radio that uses frequency-hopping technology for security and ECCM. Short range is 3 km.

Weight 4 kg
Price \$3,000

F-200 Co-SITE FILTER

This small device prevents crosstalk caused by having more than one radio in close proximity to each other (such as in the same vehicle) in the same frequency band and operating frequencies close to each other. Each F-200 may insulate two radios.

Weight 2.93 kg
Price \$400

FAX PHONE

The fax phone is partway between a telephone and a Personal Digital Assistant (PDA), enabling the user to have the features of a phone, but with office facilities such as a facsimile imager, stylus and diary. The Fax Phone does not have photo messaging, but otherwise has the same features as a Mobile Phone.

Weight	0.16 kg
Price	\$285

FIELD SOUND PROCESSOR (FSP)

Roughly the size of a small briefcase, FSP is packed with electronics, allowing the user to record audio inputs and perform real-time analog processing at the same time. Capabilities include a high-gain/low-noise amplifier, speech passband filter, compressor, and equalizer. Essentially, this means the unit is able to take in a weak signal and boost it to within a set range to filter out all noise beyond the human speech range, and to improve the quality of the sound within that range. To work properly, this requires the skill of Electronics.

Current Tech: Current tech FSP gear is as described above. The unit runs on a set of rechargeable 9.6V batteries, with duration of 7 hours before recharging. This item must be custom built.

Hi-Tech: No new features, aside from smaller size (about the size of a handbag) and manufacture from government contractor. This unit is available only to government personnel.

	Weight	Price
<i>Field Sound Processor, Current Tech</i>	7 kg	\$850
<i>Field Sound Processor, Hi-Tech</i>	5 kg	

FLYAWAY TRI-BAND SATELLITE TERMINAL

A commercial Off-The-Shelf highly transportable tri-band satellite communication terminal, capable of supporting a variety of worldwide missions. The terminal is DSCS certified for military X-band satellite operation including automatic satellite tracking, it provides high data rates based on frequency band, with local and/or remote operation. The terminal is transported in environmentally protected electronic operating cases.

Weight	500 kg
Price	\$5,000

FM-3000 MARINE RADIO

This is a standard Marine radio that is used for marine communication between ships and land.

Weight	5 kg
Price	\$900

FRENCH TF.PP-1A SOUND POWERED TELEPHONE

Sound powered telephone equipment provides facilities for talking and signaling without the use of any batteries or a power source. The telephone handset contains a sound-powered transmitter and receiver units. The French TF.PP-1A sound powered telephone requires 2-conductor field telephone wire connected to another unit for communication without batteries.

Weight	1 kg
Price	\$200

FREQUENCY-HOPPING RADIO

This radio resists jamming and interception by shifting among several pre-set frequencies at pre-set intervals (usually several hundred per second). Unless a listener knows the frequencies and intervals, he cannot remain locked onto the signal. All sets in a system must be synchronized in order to communicate, but this can be accomplished by any of the radios in the loop at a predetermined time using an electronic key coder.

	Weight	Price
<i>Frequency-Hopping Radio</i>	5 kg	\$800
<i>Electronic Key Coder</i>	0,5 kg	\$500

FS-5000 SPY RADIO

This Radio is not intended for man portable use, like a military man pack or hand held radio. It was designed for use in US Embassies as an emergency radio, but it proved to be impractical during the testing phase. Most radios were then sold on the open, most being bought by private business or other companies, or survival groups.

Weight 1 kg
Price \$1,200

GARMIN RINO 120

The Garmin Rino 120 is a GPS-integrated radio, using the FRS (Family Radio Service) or GMRS (General Mobile Radio Service). As such, it is a small, handheld transceiver that also incorporates a GPS unit. It has a range of up to 2 miles using FRS or 5 miles using GMRS — the difference is that a FCC license is required in the USA to use GMRS.

The unit includes a voice scrambler for secure communications, 22 channels and 38 squelch codes. The main advantage against other hand transceivers is the addition of the GPS system. This works in the same way as a standard GPS unit but can also be used to beam the user's location to another user. Standard maps of North and South America (including cities) are pre-loaded, and other maps can be downloaded. It also has other standard GPS features such as waypoint storage, backtracking and multi-position navigation.

The radio has a tough, olive-colored plastic case, which is rugged and waterproof. It uses 3 AA batteries, which provide for around 15 hours of typical use (including GPS).

Weight 1 kg
Price \$270

GERMAN FIELD PHONE

The German version of the TA-312/PT Field Telephone.

Weight 2 kg
Price \$100

GRA-71 CODER-BURST TRANSMISSION GROUP

The AN/GRA-71 is composed of an electromechanical Morse-code generator that enables an operator to record messages (in Morse-code characters) on magnetic recording tape. It has a keyer device to convert the tape-recorded Morse-code characters into equivalent electrical impulses for keying an associated transmitter and a keyer adapter device that contains the electronic circuitry for supplying power to the keyer unit and adapting its output to the transmitter.

Weight 12 kg
Price \$1,000

GTR-100 GROUND RADIO

This Italian radio was designed for use as a base station, to be run from a generator. Features include digital controls and ability to pre-set up to 30 frequencies. A 1.5 kw generator is required to power this radio. Short range is 125 km.

Weight 21 kg
Price \$14,400

HAM RADIO (CITIZEN'S BAND RADIO)

This is a commercial radio that is used by radio operators to communicate around the world. In the *Twilight: 2000* world this could be one of ways to pass and receive news about what is happening around the world. Characters can find persons with ham radio equipment in a lot of small villages and towns.

Weight 6 kg
Price \$100

HANDSET

This is a common radio accessory that many soldiers seem to break.

Weight Nil
Price \$20

HF 100W POWER AMPLIFIER

This unit may be attached to Chinese radios to boost range by 600%. A vehicle or generator (but not a hand generator) must power it.

Weight 6.8 kg
Price \$9,000

HRS 7000 MANPACK/VEHICULAR RADIO

This German radio was designed for the reconnaissance and special operations missions. It is a small, yet powerful radio that contains a keyboard for data transmission and frequency input as well as a conventional radio. Short range is 30 km when manpacked and 200 km when used on vehicular or generator power. The radio has ECCM features and a scrambling module.

Weight 8 kg
Price \$14,000

INDIVIDUAL TACTICAL RADIO

A small radio of limited range (1 km) designed to be used by small groups who require precise coordination and hands-free operation. The radio consists of a voice activated throat mike (strapped in place over the larynx), a headset with bone-conduction earphones, and a battery case (usually carried in a shirt pocket). This radio is hands-free and allows the wearer to hear more-or-less normally when in use. The set also incorporates a manual "beeper" button; enabling Morse signals to be sent if the sender does not want to speak. These are relatively sophisticated radios and are more expensive than the normal walkie-talkie.

Weight Nil
Price \$550

JAGUAR-V SECURE MANPACK RADIO

This British radio is used by that country and several NATO countries, Oman, Cyprus, Saudi Arabia, Brazil, and an unnamed Latin American country; a total of 42 countries world-wide are using this radio. Use of this radio began in the Desert Storm. It is a frequency-hopping radio with considerable ECU capability, resisting jamming by constantly shifting hopsets to undimmed frequencies. Security is further heightened by use of a scrambler. The Jaguar-V can also be used for data transmission at a rate of 16 kb/s.

The Jaguar-V may tolerate up to 50 radio nets, each with dozens of radios, at once, if each net is frequency hopping in a different sequence, and still transmit to all of them. Short range is 5 km with a whip and 20 km with a long antenna.

Weight 7.5 kg
Price \$4,200

KY-68 DIGITAL SUBSCRIBER VOICE TERMINAL (DSVT)

The KY-68 DSVT is used for encrypting/decrypting voice traffic and provides secure digitized data traffic. It operates as a full-duplex or half-duplex voice/data subscriber terminal at 16 to 32 kb/s. The KY-68 provides secure and non secure access to the switched networks and secure access to non-switched networks. Handset H-350/U is normally issued with the DSVT and includes a push-to-talk switch which is used when the DSVT is operating in the half-duplex mode to allow for voice transmission.

The terminal consists of a five-position function switch, audio and ring volume controls, ring/busy, extension, and non secure warning indicators. The DSVT provides a digital communications interface with TRI-TAC and MSE circuit switches.

Weight Nil
Price \$800

LEPRECHAUN SECURE HAND RADIO

This is the squad-level member of the SINCGARS radio family. It is a frequency-hopping radio with an integral Vinson scrambler/descrambler module, includes a 16 kb/s modem, and a GPS receiver may be added via a cable to transmit and receive instant location updates. The Leprechaun is derived from the AN/PRC-139. Short range is 5 km.

Weight 1.4 kg
Price \$2,500

LINEMAN'S TELEPHONE

This is the device used by telephone engineers to access telephone lines (to diagnose and repair faults). It looks like an oversized and bulky telephone handset (about the size of a standard military hand transceiver), with two cables to attach it to the telephone line by crocodile clips. It can be attached to the phone line anywhere where there are wires (typically at a telegraph pole outside), and can be used to eavesdrop silently on conversations or to make calls. It can also be used to listen for line noise and background interference (such as can be caused by taps on the line).

Weight 0.45 kg
Price \$100

LST-8000

The Titan Linkabit LST-8000 (v) T is a portable/transit case tri-band terminal that will give the user the capability of communicating over commercial satellites in the C and Ku Bands as well as accessing the Military DCSC Satellites in X-Band. This tri-band system that will give the users the capability to access worldwide C, X, and Ku band Super High Frequency (SHF) satellites while still maintaining a high degree of portability, flexibility, and diversity to the community of military users. It provides secure SHF communications at C, Ku, and X Bands with automatic satellite tracking, supporting data rates up to 512 kb/s in C-Band, 1.544 mb/s (T-1) in X-Band and 9.4 mb/s (E-2) in Ku band.

It is compatible with multiple PBX, vocoder, faxes, and analog or digital devices for remote operation. This highly transportable system is portable in two-man transit cases with an aggregate burden of 27 cubic feet.

Weight 720 lbs
Price

MAP-25 MANPACK RADIO

This simple radio operates in the low HF range using the AM and FM bands. US forces do not use it, but is instead exported to several Asian, African and South American countries. It can use a large variety of headsets and handsets, and accessories such as solar battery chargers and encryption modules. Short range is 25 km in FM mode and 10 km in AM mode.

Weight 4.3 kg
Price \$2,100

MICROPHONE

This is a hand microphone for a hand transceiver, similar to those used by police foot patrols. There is a remote speaker microphone, clipped or attached by Velcro onto the chest/lapel and attached to the transceiver by a straight or coiled cord. The microphone has a PTT switch on the side and may be used with a small non-occluding earpiece, which attaches by jack plug.

Weight Nil
Price \$85

MILITARY HEADPHONE SET

These are large dual earphones designed for manpack and vehicular radio transceivers. There is insulation around the speakers to reduce background noise, which fit over the top of the head. The strap can be worn over the top of a military helmet. There is a folding boom microphone for talking.

Weight 0.2 kg
Price \$695

MILITARY INTERCOM SET

This headset is a robust overt headset for use with a hand transceiver. There is a single waterproof speaker, a noise-canceling microphone (which eliminates background noise further than a meter from the microphone), a lightweight headband (comfortable for wearing under headgear for long periods) and a military PTT switch.

Weight Nil
Price \$140

MINIATURE SECURE HAND-HELD RADIO (MSHR)

This pocket radio uses a scrambler to provide secure communications. Used by the FBI, the MSHR is interoperable with military UHF radios. It will continue working even if immersed in water. Short range is 2.5 km.

Weight 0.28 kg
Price \$1,250

MORSE KEY

This is a device used by operators to send Morse code messages; usually only the most experienced radio operators will be able to do this. Both the Russian and US, and their Allies, have Morse Keys.

Weight Nil
Price \$50

MOTOROLA GR 300 REPEATER

This repeater was specifically designed for use with the Motorola P110 but can be programmed to serve the Cougar range of radio as well. It boosts the range of any of the Cougar radios.

Weight 2 kg
Price \$800

MOTOROLA HAND HELD RADIO

This small radio is used for short range commutations, up to 25 km. It has 500 channels and is available at most electronic stores.

Weight 1 kg
Price \$200

MOTOROLA LTS 2000

The LTS 2000 is an UHF radio which boasts improved features to the Motorola MTX. It is a secure radio and has such features as selective telephone, block outs and a host of other special features. Used by many law enforcement agencies.

Weight Nil
Price \$800

MOTOROLA T7400 AA TWO-WAY RADIOS

The T7400 two-pack of 2-way rechargeable radios feature built-in VOX (allows hands free operation), 10 audible call tones, a Quiet Talk noise filter, and access for NOAA weather alert channels in the area. This feature packed model also includes a vibrating alert feature and offers built-in support for hands-free operation. Also included is a channel scanning feature and 10 different call tones. This model features an accessory connector for headset operation, as well as a no-accessory hands-free capability.

The T7400 has a special feature — “compounding”. A sophisticated digital technology that helps eliminate the static hiss between words. This technology not only extends the effective range of the radio but also delivers clearer transmission quality, power to spare with these radios. They are sold in pairs.

Weight Nil
Price \$100

MOTOROLA MTX

A Handheld Radio and Charger, the MTX is a state-of-the-art UHF radio. It is a portable unit and is part of a larger system used by the local police. A very versatile radio, it is programmable, secure and offers nationwide coverage. The MTX can be deployed at the command level to infantry battalions.

	Weight	Price
<i>Motorola MTX, Charger</i>	2 kg	
<i>Motorola MTX, Radio</i>	Nil	\$400

MOTOROLA P110

A Handheld Radio, the P110 is a VHF radio booted with both duplex and simplex facilities. It is

portable and can be programmed for compatibility with the Cougar group of radios. This radio is deployed for local internal communications but can be used for tactical purposes as well.

Weight Nil
Price \$800

OCCASIONAL SWIMMER SET

Although called an 'occasional' swimmer set, this set of radio accessories is actually designed to work after extensive periods of being submerged. There is a lightweight elastic headband, a flexible boom microphone, a PTT switch and a waterproof radio container.

Weight 0.26 kg
Price \$1,295

PAGER, ALPHANUMERIC

A means of non-verbal communication, similar to text messaging, pager originally preceded cellular phones before phones became more reliable and had extended battery power. To send a pager message requires the pager number; numbers may be grouped to receive certain series of transmissions (such as updated news messages). Pager messages are normally sent via an operator, but alternatives include numeric only messages from touch-tone phones and full alphanumeric messages sent by a suitably equipped PC.

Pagers may be set to vibrate, beep or play melodies when receiving messages. They also have an alarm feature to act as a reminder. The price includes the service charge.

Weight Nil
Price \$100

PH-26 PHANTOM SECURE HAND RADIO

This radio is designed for shot-down aircrews to contact rescue forces. It gives the pilot over 4,000 frequencies to work with, and secure communications by means of frequency hopping. It operates in the UHF FM band. Short range is 5 km.

Weight 0.59 kg
Price \$2,500

POLICE SCANNER

This radio allows to listen in on the police band, but not transmit.

Weight 1 kg
Price \$100

PORTABLE FACSIMILE MACHINE

Connected to a radio, this enables Recon photos, situation maps and other reports to be sent and received by units in the field.

Weight 6 kg
Price \$1,800

PORTABLE FAX MACHINE

Connected to a phone, portable phone, computer or satellite Downlink system, this enables documents to be sent and received (or just printed out in the case of the computer) in remote locations.

Weight 6 kg
Price \$1,800

PORTABLE FAX MACHINE, SECURE

Same as the portable fax machines but send documents or pictures to be sent via a scrambled transmission.

Weight 8 kg
Price \$2,500

PORTABLE RADIO STATION TYPE RS-6

This unit was said to have been carried along with Francis Gary Powers on his U-2 flight as he was shot down over the Soviet Union on May 1st, 1960. It was supposedly stored in pouches on his flight suit. The RS-6 comprises four units (receiver, transmitter, power supply and filter) in sturdy metal cases, plus an accessory plastic pouch for the antenna parts.

- The **Receiver Unit** is an 8-tube super heterodyne with two bands receiving AM or CW, 3 to 6.5 and 6.5 to 15 Mc, with continuous tuning or fixed frequency by plug-in crystal.
- The **Transmitter** controls the frequency by plug-in crystals in two bands, covering: (1) 2 to 7 Mc and (2) 7 to 16.5 Mc with RF output of 6 to 10 watts depending on frequency, using open wire antennas of random length, preferably one quarter-wave long.
- The **Power Supply** operates from AC mains 70 to 270 V, or from a 6 V battery; delivers 400V DC and 6V heater supplies to the filter unit, and also provides for recharging a 6V battery from AC mains. A Hand-Cranked Generator, Type GN-58, is used in place of the power supply when mains and 6V storage battery are unavailable.
- The **Filter Box** contains smoothing circuits and two 90V-regulator tubes to give smooth, stable HT to the receiver. Serves as a junction box for the receiver and transmitter, and stores ear-set, cords, and cables.
- The **Accessory Pouch** carries 30 m of antenna wire, antenna insulators, battery clamps, and inter-unit cable, plus a spare lamp bulb.

Weight 10 kg

Price \$800

PORTABLE SATELLITE DOWNLINK SUBSYSTEM

An antenna system permitting computer communication, via geosynchronous satellite, with practically any location in the world when linked into a proper radio in place of the normal antenna. It requires five minutes to erect and align, and two minutes to completely dismantle.

Weight 4 kg

Price \$12,000

PORTABLE VIDEO RECEIVER

This device, when hooked to a Portable Satellite Downlink Subsystem, allows video signals to be received.

Weight 3 kg

Price \$700

PR 1605 HAND RADIO

This radio is waterproof, and functions (to a limited extent) underwater. Naturally, diving gear with special facemasks and voice emitters must be used when underwater to use this radio. It operates in both the VHF and UHF bands, and thus ground radios, ships, and aircraft can be contacted. This radio is used by US special operations forces, US Marines, and the Portuguese Navy.

Range underwater is in a 100-to-1 ratio: 1 meter underwater uses the equivalent of 100 meters of signal strength above water, so that an operator 10 meters underwater would use up 1 km of range just to get the signal out of water.

Weight 1 kg

Price \$2,000

PRC-105/A MANPACK RADIO

This radio has been used by Iran since 1987. It is a compact yet powerful radio that unfortunately has a narrow range of operating frequencies (40MHz total). Short range is 0.6 km with a short rod antenna, 2.5 km with a whip, and 5 km with a mast. It is otherwise unremarkable.

Weight 4.6 kg

Price \$1,350

PRC-122 MANPACK RADIO

This radio began to replace the PRC-105/A in the Iranian military shortly before the Twilight War, and was thus never fielded in any large numbers. It increases the number of channels available by 400, incorporates some ECCM protection, and has channel presets and a lower power setting for lis-

tening silence. Displays are digital and designed for low-light operation. A scrambler may be added via a cable. Short range is 0.6 km with a short rod antenna, 2.5 km with a whip, and 5 km with a mast.

Weight 4.65 kg
Price \$1,360

PRC-319 HF/VHF MAN-PACK RADIO

The PRC-319 is a real Spy Radio used by the British Special Forces (SAS) in England as well as USA, Australia, and New Zealand. The PRC-319 is a 50 watt modern microprocessor based radio transceiver that transmits in both the HF and VHF bands, up to Aircraft frequencies for ground to air communications. The PRC-319 is also a burst transmitter which can store messages for up to 500 hours before automatically transmitting it at a high data rate. The burst transmission feature allows considerable security over conventional radios. Included with the radio is an Electronic Message Unit (EMU). This is a small alphanumeric keyboard that allows transmission of written words when voice transmissions would be dangerous, as well as data, coordinates, and direct communication with fire control and direction computers.

The radio can be operated by remote control from up to 50 meters away. Transmitting range is 20 km with short antenna and up to 5,000 km with a whip antenna. The radio operates from a 24VDC standard Clansman battery.

Weight 10 kg
Price \$2,000

PRC-351 MANPACK TRANSCEIVER

The PRC-351 Manpack Transceiver is a portable VHF (FM) Radio, made by RACAL BCC Ltd England. This radio has been designed to provide command communications at battalion and company level for dismounted troops. It was also used in vehicles by mounted troops. The PRC-351 replaced the older A41 and A42 British VHF radios.

Weight 10 kg
Price \$2,000

PRC-447 MANPACK RADIO

This is a previous generation Italian radio, superseded by the ERC-321, but not until just before the Twilight War. It is still used in large numbers. It is used to transmit in the HF band using IS, for longer-range tactical communications. Short range is 4 km with the 2.3 meter whip or 20 km with a long antenna.

Weight 7 kg
Price \$1,700

PRC-624 HAND RADIO

This radio is in common use in Israel. It is light and compact, yet powerful for a radio its size. The radio can be used as a modem with a speed of 20 kb/s. Short range is 2 km.

Weight 1 kg
Price \$1,000

PRC-638 MANPACK RADIO

This radio fills the same niche in the Italian military as the PRC-447, but operates in the VHF FM bands for shorter-range but clearer transmissions. It is also half the weight of the PRC-447. Short range is 2 km with a whip or 4 km with a longer whip.

Weight 3.5 kg
Price \$1,170

PRC-677A MANPACK/VEHICULAR RADIO

This is a newer Italian radio than the PRC-638. It is also used by the British military (where it is known as the MEL-8677A). This radio may be made secure by adding a scrambler, and may be used as a modem with a speed of 16 kb/s. Short range is 3 km.

Weight 4.5 kg
Price \$875

PRC-738 SECURE MANPACK/VEHICULAR RADIO

This Italian radio is used in heavy electronic warfare (EW) environments due to its ECCM capabilities. The PRC-738 is a frequency-hopping radio that automatically hops to an unjammed frequency set. Short range is 2.5 km on the short whip, and 20 km on the long whip.

Weight 6.6 kg
Price \$5,800

PRC-999K SECURE MANPACK/VEHICULAR RADIO

This is a South Korean frequency-hopping radio. It can be made further secure by the addition of a scrambling module on a cable. When not using frequency hopping, the radio is interoperable with the PRC-77 and PRC-1077; in frequency-hopping mode, the radio is interoperable with US and US allies frequency hopping radios (such as SINCGARS). Short range when manpacked is 0.3 km with a rod antenna and 5 km with a whip. Vehicular range is 25 km.

Weight 5.8 kg
Price \$9,200

PRC-2200 MANPACK RADIO

This is an older-generation radio used by the Israeli military (an Israeli-made version of the US SINCGARS radio, called the PRC-730, began replacing it in the late 1980s). It is still in use by second-line, home defense, and police units. Short range is 1.5 km with a rod antenna, 11 km with a whip, and 20 km with a mast.

Weight 8 kg
Price \$17,000

PRC/VRC 2000 MANPACK/VEHICULAR/GROUND RADIO

This is an older British-made radio operating in the HF band. It entered service in 1981 with several African, Middle Eastern, and Latin American countries. Middle Eastern countries have mostly switched to newer secure radios, but the PRC/VRC 2000 may still be found in service with the African and Latin American countries. The radio is not secure, but can be used as a low-speed modem, with a speed of 600 bytes per second. A scrambler may be added with a cable.

Range is 4 km with a whip and 15 km with a long antenna for Manpack operations, or 20 km on a vehicular or ground mount. A 1.5 kw generator is required for ground mount operations.

Weight 8.5 kg
Price \$1,550

PRM 4021 MANPACK RADIO

This is a small, inexpensive, yet powerful radio in service with a number of armed forces worldwide. It is an AM radio operating in the HF band with special filters to clean up the signal-to-noise ratio, allowing for very clear transmissions, and to read transmissions that would be unintelligible over normal radios. Unfortunately, the PRM 4021 requires manual antenna tuning in addition to frequency tuning. Range is 10 km.

Weight 7 kg
Price \$835

PRM 4041A MANPACK/VEHICULAR RADIO

This is one generation advanced from the PRM 4021. Improvements include automatic antenna tuning. The antenna may be detached and located up to 10 meters away by use of a cable. Short range is 15 km as a manpack and 20 km from a vehicle.

Weight 9.65 kg
Price \$1,800

PRM 4720A HAND RADIO

This lightweight radio is built by England and used by Belize, Denmark, Cyprus, Greece, and an unnamed sub-Saharan nation. It may be made secure by the addition of a scrambler, and may be used as a 16 kb/s modem. Range is 1 km and cannot be boosted, even with the addition of an amplifier, though its signals may be rebroadcast via a repeater. It is generally used as a short-range squad radio.

Weight 0.6 kg
Price \$500

PTR 349 HAND RADIO

This radio was designed to be used by patrols and ambushing parties; the radio is capable of amplifying whispered communications to normal volume at the receiving end. It is small, but very powerful for a radio its size. Short range is 2 km with a short 0.5 m whip and 2.5 km with a longer 1 m whip. The PTR 349 is built by Britain and used by several countries in Europe, Africa, and the Middle East.

Weight 1.6 kg
Price \$1,250

PUBLIC ADDRESS SYSTEM

This system is found in Army base camps and is used to play music and give announcements.

Weight 10 kg
Price \$100

PVS 1430 VEHICULAR/GROUND RADIO

This British-built radio is used by Egypt, Iraq, Kuwait, Libya, Oman, and some African and Far Eastern nations. It is compatible with both Western and Eastern-Bloc vehicles. Both sides' generators may also power it with at least 1.5 kw power. It may transmit both voice and data (16 kb/s). Short range is 3 km with a whip or 24 km with a normal antenna.

Weight 12 kg
Price \$2,800

PVS 1850 (SMALLTALK) MANPACK RADIO

This is claimed by the manufacturer to be the smallest radio in its class. It is designed to be used by patrols, ambushing parties, parachute drop zone communications, internal security, and other short-range applications. It can translate a whispered voice into a normal-volume voice on the receiving end. Short range is 2 km. This radio is used by the British and by various armed forces in Africa, Asia, and Latin America, as well as Iraq and Qatar.

Weight 3 kg
Price \$500

PVS 2410 MANPACK/VEHICULAR RADIO

Forces in Africa, Europe, Latin America, and the Middle East use this British-built radio. It is a FM radio operating in the VHF band, and is interoperable with other VHF radios used by the US, UK, and NATO. It may pass data at the rate of 16 kb/s. The radio may be remotely operated at a range of 3 km, and may be used as a repeater. Range is 4 km as a manpacked radio, or 20 km in a vehicle mount.

Weight 8 kg
Price \$1,800

PVS 2450 VEHICULAR RADIO

This British-made radio has been exported worldwide. It is an FM radio operating in the VHF band, designed for command use at longer ranges than the PVS 2410, and is more compact than that radio. The PVS 2450 is compatible with NATO VHF radios and US multiple radios of this type may be operated on the same frequency in close proximity (such as in a command post vehicle) without interfering with each other. A scrambler may be added by using a cable. Range is 4 km using a short whip or 50 km using a standard vehicular antenna.

Weight 6 kg
Price \$5,800

PVS 5300 MANPACK/VEHICULAR RADIO

This is a small radio designed for immediate tactical communications at platoon level and below. It can operate in whisper mode, meaning that a whispered communication from the user can be amplified by the radio to be received at normal volume by the listener. The PVS 5300 operates in the HF band, so as not to interfere with higher-level communications. Short range is 4 km with a short whip or

20 km with a longer whip. The PVS 5300 is British-made, but has been exported to every continent except the Americas.

Weight 3.8 kg
Price \$835

QUAKER OAT BOX CRYSTAL RADIO SET

This is a home made radio that can be made by anyone with limited knowledge and a few materials and Radio Crystal. Range will be very limited, about only few km, and only to receive signals on the lower FM band.

Weight Nil
Price Nil

R-33 MANPACK/VEHICULAR RADIO

This Bulgarian radio is in common use by Pact forces. It is an older, heavier radio with a short range of 5 km with a 3 meter whip antenna, or 10 km with a 10 meter mast antenna.

Weight 40 kg
Price \$2,300

R-39 SECURE MANPACK/VEHICULAR RADIO

This Bulgarian radio is a more modern design, with digital readouts and push-button input controls. Included is a 256 Bits encryption set. Short range is 1-1.5 km, depending on terrain. This radio can be remote controlled at a range of 3 km.

Weight 12 kg
Price \$5,500

R-56 MANPACK RADIO

This is the standard tactical manpack radio with Bulgarian forces, and is also used by other Pact forces and Bulgarian allies. It is a modern system, with digital readouts and push-button inputs. The radio has a short range of 3 km with the 2.7 meter whip antenna or up to 10 km with the 4 meter mast antenna.

Weight 11 kg
Price \$1,500

R-111 VEHICULAR RADIO

This is a huge, old radio still used in Category 3 and Mobilization-Only units in Russia and the Warsaw Pact. Some third-world countries that were Soviet client states may also have them. The R-111 has a short range of 9 km with the short 3.4 meter antenna or 13 km with the antenna mounted on a mast. The radio may be remotely controlled at a range of 500 meters.

Weight 100 kg
Price \$1,500

R-112 VEHICULAR RADIO

This is another ancient Russian radio, used in low-priority units. It has a longer range than the R-111. The R-112 has a short range of 6 km with a whip antenna or 25 km with a mast.

Weight 90 kg
Price \$2,900

R-113 VEHICULAR RADIO

This is one of the oldest Russian radios still in service, but is still often found in Russian and Pact armored vehicles. It must be run from vehicle power or by a generator. It has a short range of 5 km, using a 4 meter whip antenna.

Weight 17 kg
Price \$575

R-123M VEHICULAR RADIO

This Russian radio is used in armored vehicles, primarily the 2S1 howitzer and SNAR-10 self-propelled radar system. It is roughly equivalent to US radios of mid-1970s vintage, using a variety of dials and knobs to set it. Short range is 5 km with a 4 meter whip antenna, or 14 km with a 10 meter telescopic antenna (usable only when the vehicle is stationary).

Weight 45 kg
Price \$1,600

R-130 VEHICULAR RADIO

The R-130 is primarily installed in Russian command vehicles. It has a short range of 13 km with a 4 meter whip antenna, 19 km with a 10 meter whip, or 88 km with a mast antenna.

Weight 44 kg
Price \$10,000

R-148 MANPACK RADIO

This small radio is issued to Russian company commanders and staff officers in airborne and motorized rifle units. Controls and readouts are simple and easy to read and use quickly. Short range is 1.25 km.

Weight 3 kg
Price \$625

R-154-2M VEHICULAR RADIO

This Russian radio is primarily issued to reconnaissance and command vehicles. It consists of a HF radio, an AM long-range radio, and a Teletype transmitter. The radio is described as "unusual and complex" to operate, but in the hands of an experienced RTO, gets good results. Short range is 12 km in the HF or Teletype mode and 100 km in the AM mode.

Weight 90 kg
Price \$6,500

R-159 MANPACK RADIO

This Russian radio is widely issued throughout Pact armed forces, and can even be found in some Category 3 and Mobilization-Only units. It operates in the UHF band, and has a short range of 2.5 km with a whip antenna or 12.5 meters with a mast. The radio is also capable of passing data to computers at a speed of 16 kb/s.

Weight 9.2 kg
Price \$1,150

R-163V (ARBALET-1V) SECURE MANPACK RADIO

This is a more modern Russian radio, used at all levels and all categories of the Russian and Pact military. It has digital readouts and push-button controls. Radio traffic from this unit is encrypted, and the radio can download information to a computer at a rate of 32 kb/s. Short range is 2 km with a whip or 5 km with a mast.

Weight 8 kg
Price \$4,000

R-163-10V (ARBALET-10V) SECURE VEHICULAR RADIO

This is the vehicular counterpart to the R-163V listed above. It has all the features of that radio, and can also transmit Teletype information, and has limited ECCM ability (making it harder to jam). Short range is 18 km with a whip antenna and 60 km with a mast antenna (usable only when the vehicle is stationary).

Weight 35 kg
Price \$8,300

R-163-10K SECURE MANPACK/VEHICULAR RADIO

This Russian radio is for tactical command use. It can be used for voice and telegraph operations. Range is 2.5 km when used manpacked or 7.5 km when used in vehicular mode. Information may be downloaded to computers at a rate of 32 kb/s.

Weight 13.5 kg
Price \$5,000

R-173 SECURE VEHICULAR RADIO

Russian and Pact Tanks primarily employ this modern radio. It operates in the VHF band, and has a range of 10 km with a whip and 30 km with a mast.

Weight 43 kg
Price \$9,200

RA2000 FIELD TELEPHONE

The RA2000 Field Telephone is a tough, modern, electronic telephone instrument suitable for use in any heavy-duty application in the field. Versions of the RA2000 are compatible with all common military and commercial automatic and manual telephone systems.

Weight 4 kg
Price \$500

RA4800 E-MATEL

E-Matel is a rapidly deployable, multiplexed, automatic telephone system, based on a single length of ordinary field cable. It is compatible with the RA525 Matel system, and incorporates system enhancements including extended range, a smaller handset, increased capacity, and a PC-based Management System. The e-Matel system uses intelligent handsets which can be quickly connected on to the field cable highway, with no requirement for a central switchboard or operator. Hence, no single point of system failure exists.

The network may be up to 10km long using standard D10/WD-1 field cable, which can be deployed from the back of a moving vehicle or using a hand reeling machine. A highway can accommodate up to 40 handsets, with provision for up to ten simultaneous private duplex conversations and three conference calls.

Weight 2 kg
Price \$800

RACAL MA-4224 AUDIO ENCRYPTION UNIT

Voice encryption unit for British radio sets.

Weight 1 kg
Price \$1,000

RACAL RA-1772 HF COMMUNICATIONS RECEIVER

The Racal 1772 is a 19" Rack Mounting high-grade general purpose synthesized solid state communications receiver.

Weight 20 kg
Price \$120

RACAL TRA-967 VHF MANPACK TRANSCEIVER

The Racal TRA-967 was primarily designed as a manpack but can be used as a fixed or as a vehicle station. The four frequency digits are illuminated by Tritium Beta Lights, which do not require a power supply. Re-broadcast facilities are also incorporated within the set. The TRA-967 is completely sealed and is Rust and Waterproof.

Weight 3 kg
Price \$900

RADIO AMPLIFIER

This device can increase the range of radio it is attached too.

Weight 4 kg
Price \$400

RADIO BATTERIES

Weight 1 kg
Price \$100

RADIO CLASS TUBE

These are old World War II tubes used in radios of the day. Characters with the Electronic skill could find a use for these old tubes.

Weight Nil
Price \$1

RADIO CRYSTAL SET

These are old World War II sets that can be used with home made radio like the Quaker Oats Radio.

Weight Nil
Price \$20

RADIO SCANNER

This scanner automatically scans radio frequencies for activity.

Weight 1 kg
Price \$100

RADIO TEST SET

This set is used to test radios to ensure that they are functioning right.

Weight 10 kg
Price \$200

RC-292 ANTENNA

The RC-292 antenna is an elevated, wide-band, modified ground-plane antenna designed to increase the range of radio sets in the 30 to 76 MHz range. The reception range for the RC-292 is 8 to 36 miles, depending on the type of radio set being used and the terrain.

Weight 3 kg
Price \$100

RC-292 ANTENNA SYSTEM

The RC-292 is a 10 meter-tall radio antenna. The radio attached to this antenna has its broadcast range tripled in normal mode or multiplied by six in high-power —thus highly detectable— mode. The antenna is non-mobile and takes 1 man-hour to assemble (i.e., one man takes one hour, two men take one-half hour, four men take 15 minutes, etc.). In addition, it takes ½ man-hour to disassemble.

Both assembly and disassembly require a successful Intelligence: ESY task completion. This antenna broadcasts in 360° for purposes of reception and detection.

Weight 10 kg
Price \$1,000

RC-585 ANTENNA SYSTEM

The RC-585 is identical to the RC-292 except the RC-585 only broadcasts on a 90° arc —thus making it harder to detect. It takes an additional ½ man-hour to erect.

Weight 13 kg
Price \$1,500

RESCUE PHONE

This is a hostage rescue phone that is used to communicate between hostage taker and the negotiation team. It comes with Rescue Phone CRT Console, 2 Lightweight Plantronics Headsets for Negotiators, Headset Mic LED Indicator with Full Range Slide Volume Controls, 8 Speaker Outputs, 1 Command Speaker/Monitor, 3 Recorder Outputs with Loop Start Controller, 1 Tape Recorder and 3 Tapes, Loop Test Switch with LED, 1 Throw Phone with Padded Zipper Case, 1 Wire Spool with 1,000

ft of Telephone Wire, Parallel Phone Line and Throw Phone Connections, 2 Audio Terminals for Hard Wire Connections, and all the necessary plugs, cords, and adapters for immediate set up.

Weight 17 kg
Price \$5,000

RL-37 REEL UNIT

This sawhorse-looking device allows the rapid and mobile deployment of the one-mile reel of WD-1. This unit can be stationary mounted, drawing the wire out from the central location, or mounted on the back of an open vehicle, allowing the laying of lengthy segments of wire rapidly.

Weight 8 kg
Price \$100

RTX-5051/IR HAND RADIO

This is an Iranian radio operating on a narrow band (10 MHz total), for immediate tactical communications. The radio can be used as a modem. Short range is 1 km.

Weight 0.87 kg
Price \$500

RUSSIAN AND WARSAW PACT FIELD PHONE

A low tech model of the TA-1 Field Telephone.

Weight 4 kg
Price \$100

RV-2/400 HAND RADIO

This is a small radio that can also be used as a transponder in case of emergencies. It is standard equipment among Italian platoons (sometimes down to the fireteam level) and FIST teams. Short range is 1 km.

Weight 1.2 kg
Price \$500

SATELLITE ANTENNA UNIT

This unit is used with GPS and radio equipment that needs a vehicle mounted Satellite Antenna. It comes in maritime and ground vehicle models.

Weight 4 kg
Price \$150

SATELLITE RADIO COMBINER

Specialized communications equipment that provides simultaneous transmission and reception of military UHF Satellite radio channels. To prevent co-site interference, extensive transmit and receive filtering is employed. Multiple modes of operation allow users flexibility in configuring communication nets.

Weight 1 kg
Price \$800

SATELLITE RF (RADIO FREQUENCY) TERMINAL

This is a military specification portable encrypted radio transceiver, capable of communicating via satellite or line of sight. The terminal is 10 x 15 x 20 cm in size and fits into a carrying case similar to a laptop carry case. Accompanying the terminal is a collapsible antenna. The terminal can be linked to a laptop or palm-top computer for transmitting data, and can be used in conjunction with a VOX headset or a standard hand transceiver.

Weight 4 kg
Price \$2,800

SATELLITE TELEPHONE, PORTABLE

This unit looks similar to an early, bulky cellular phone, and is much easier to use than similar radio frequency units. It enables telephone access from anywhere in the world, connecting via a satellite

network to the local telephone networks. It has all the features of a good cellular phone.

Weight 4 kg
Price \$6,000

SATELLITE TELEPHONE MODEM, PORTABLE

A modem for use with a portable satellite telephone, this connects to a laptop, palm-top or PC by cable and requires a small collapsible antenna.

Weight 0.7 kg
Price \$3,200

SB-22/PT FIELD SWITCHBOARD

This switchboard is designed to be a compact, rugged, battery-operated, self-contained unit capable of handling up to 22 separate telephone lines. Setting up the unit requires WD-1 to be run to serviced telephones and a successful Electronics: ESY task completion. Intelligence: ESY task is necessary each period to successfully operate this unit.

Weight 7.5 kg
Price \$600

SB-22A/PT FIELD TELEPHONE SWITCHBOARD

The SB-22A/PT manual switchboard is a portable local battery communications switchboard, readily adaptable for all-weather field use or mobile and fixed base military shelter operations. The switchboard has facilities for interconnecting 12 separate voice frequency (VF) circuits. Additionally, the SB-22A has provisions to interconnect local battery telephone circuits, VF teletypewriter circuits and to control remote radio equipment.

Weight 7.5 kg
Price \$500

SB-993/GT MANUAL SWITCHBOARD

Designed for quick "connect/disconnect" of up to six battery or sound-powered field phones (such as EE-8, TA-1, TA-43/312) plus and operator unit, consists of seven U-184/G terminal plug-jacks that plug into "stack" onto rear of another, active lines make neon lamp in "glow", comes with a metal case.

Weight Nil
Price \$80

SB-3614(V)/TT AUTOMATIC TELEPHONE SWITCHBOARD

The SB-3614(V)/TT is a tactical 30-line analog switchboard which can provide a variety of 2, 4, and 6 wire circuits. Subscriber lines off the SB-3614 are 2-wire DTMF or Dial Pulse, and can support TA-838 or STU-III telephones. Trunk interfaces are 2-wire for long locals or PTT lines, 4-wire for the SB-3865 or TTC-39, and 6-wire for E&M signaling DSN via STU-5.

Up to three SB-3614s can operate in a stacked configuration. The 3614 can also be operated with the SB-3865 in a hybrid stack. However, it should be noted that no more than three switchboards total of either type can be used in a hybrid stack. A limitation of the hybrid stack is that an access code is required for dialing between the two types of switchboards. The SB-3865 database also has the capability to route only 30 subscribers to the SB-3614, including the operator position. SB-3614 subscribers can access trunks without operator assistance by dialing an assigned access code. In all cases, incoming trunk calls are answered by the switchboard operator and forwarded to the called party.

Weight 10 kg
Price \$100

SECURE CELLULAR PHONE

Same as a regular cellular phone but it has a built in scrambler for secure calls.

Weight 0.5 kg
Price \$500

SECURE PAGER

Same as a regular pager but it can receive scrambler messages from a secure sender.

Weight 0.5 kg
Price \$500

SECURE TELEPHONE UNIT III (STU-III)

This unit allows the secure phone conversations to be sent between users. This phone is only in the possession of US and Canadian Army units, and them only using them for communications between these two armies.

Weight 5 kg
Price \$1,000

SEM 52-S HAND RADIO

This small radio is in use by German armed forces and has been widely exported. It may also be used as a modem, with a data transfer rate of 16 kb/s. A scrambler may be added by use of a cable. It may also be used as a loudspeaker. Short-range is 2 km.

Weight 0.95 kg
Price \$1,000

SEM 52-SL HAND RADIO

This is a more advanced version of the SEM 52-S hand radio. It has twice the channels available, and a keyboard may be plugged into the radio for data transmission and to program the stored channels in the radio. Data transfer rate is 16 kb/s. This radio is interoperable between military, police, and civilian radio nets. Short range is 2 km.

Weight 0.95 kg
Price \$1,500

SEM 173 SECURE MANPACK/VEHICULAR RADIO

This German radio is in use by that country and has been exported to several countries. Controls are all push-button and digital, and the control panel may be used as a modem (16 kb/s) or handset, or a regular handset may be plugged in. The radio has ECCM features. The smart handset may also be used to remote control the radio at a range of 15 m. The SEM 173 is equipped with a loudspeaker. This radio is a frequency-hopping radio, and also incorporates a scrambler. Short range is 5 km.

Weight 5.2 kg
Price \$5,800

SEM 183/193 SECURE VEHICULAR DUAL RADIO

These are basically two SEM 173 radios combined in one unit with an amplifier added. These radios may be remote controlled at a range of 4 km. One radio may transmit at a range of 5 km, and the other at a range of 50 km, if both are transmitting or receiving at the same time. Otherwise, the amplifier is automatically slaved to the transmitting or receiving radio.

Weight 24.7 kg
Price \$12,700

SHARED-APERTURE ANTENNA

An antenna utilizing an existing antenna structure for the transmission of two or more electromagnetic signals. The sharing of the aperture is accomplished by the incorporation of several feed devices or by the design of a broadband, dual-or-more-frequency radiation structure. Sharing an aperture provides the advantage of minimizing the number of discontinuities in the surface to the structure or platform.

Weight 2 kg
Price \$2,000

SOLAR POWERED RADIO

This is a small commercial radio that runs off solar power.

Weight Nil
Price \$20

SPEAKER

This is attached to manpack and vehicular radios to allow people other than the operator to hear radio conversation.

Weight 0.45 kg
Price \$45

SPEARHEAD COMBAT RADIO

Spearhead is the worlds smallest radio weight in at 500 grams (not including the antenna and battery). It is designed to be used with SINCGARS radio system and is used my many US Special Operations Units.

Weight 0.50 kg
Price \$1,100

SURVEILLANCE RECEIVER SRR-4

This is an US military VHF receiver that can be used at a portable, mobile or fixed location. It is mainly used for radio surveillance and general communications monitoring. It can be tuned continuously from 50 Mc to 200 Mc covering everything from the 6 meter ham radio band to about the middle of the American VHF-TV high band (channels 7 -13). At these frequencies, the radio signals can be received up to 50 to 75 miles away, although conditions may vary due to weather conditions as well as the ionosphere. It is designed to receive AM (Amplitude Modulation), FM (Frequency Modulation), and CW (Morse code) signals.

Used for monitoring all military Comms, amateur radio, and TV audio in the 50 - 88 Mc (all modes FM unless noted) area. Although it would be useful for FM broadcast (88 - 108 Mc), civilian aviation (108 - 137 Mc - AM mode), military Comms and weather satellites (137 - 144 Mc AM/FM modes), 2 meter ham radio (144 - 148 Mc), military Comms (148 - 150 Mc), public service (150 - 162 Mc), Federal Government (162 - 174 Mc), and TV audio (174 - 200 Mc).

The receiver is designed to run off of an internal 12V battery or external power, 12 volts DC (negative ground) from a vehicle or 110/220 volts AC, 60 cps (cycles per second). This receiver is self-contained except for the audio equipment. The receiver comes with a telescopic antenna (mounts on the front), antenna mounting block, spare parts case, headset adapter cable, power cable, service cable, instruction manual, and a carrying case.

Weight 3.4 kg
Price \$500

SYNCAL 30 (RACAL) MANPACK

The Syncal 30 Manpack is a High Frequency (HF) man-portable radio and works in the frequency range 2-30 MHz. This radio is very reliable and is considered the workhorse of the Force. The Syncal 30 Manpack has voice and carrier wave frequency and is compatible to the Syncal 2000 and other High Frequency radios.

Weight
Price

SYNCAL 2000 (RACAL) MANPACK

The Syncal 2000 is a High Frequency (HF) radio. It is a programmable duplex and has voice, data and carrier wave capability. The Syncal 2000 is a lightweight man-portable radio and is designed to withstand extreme hot or cold temperatures. It is powered by a nickel cadmium rechargeable battery. It is carried by a Signaler.

Weight
Price

TA-1 FIELD TELEPHONE

Requires commo wire to link it to other field telephones. Secure unless the wire is tapped, includes 30 m of commo wire, sound-powered.

Weight 3 kg
Price \$100

TA-125 TERMINAL BOX

The TA-125 Terminal Box is a small, light weight, weatherproof unit which contains 4 rows of 12 binding posts and 2 rows of 24 pin type jacks. The cover is hinged at one end of the box and secured in the closed position by a spring-loaded latch at the other end. The terminal box provides a quick and easy method of monitoring, testing, and patching telephone, teletypewriter, and other circuits in forward field areas. Also, serves as a small main frame for Switchboards SB-22/PT and SB-86/P.

Weight Nil

Price \$50

TA-312/PT FIELD TELEPHONE

This small, rugged, battery-operated, field telephone is quite common in US Army field organizations. It is used, for the most part, in areas where units are planning to stay for an extended period of time. The field telephone unit consists of a handset, as well as a box-like base that has a hand crank. To set the unit up requires WD-1 telephone line (commo wire), run to a switchboard or destination phone and Electronics: ESY task completion.

Weight 2.5 kg

Price \$250

TA-341/TT PHONE

TA 954 DIGITAL MILITARY PHONE

The Digital Non-secure Voice Terminal (DNVT) TA-954/TT is a four-wire terminal contained in a ruggedized case, which transmits and receives conditioned diphase-modulated digitized voice and loop signaling information at 16 or 32 kb/s. The DNVT has a 16-key push button keyboard, receiver and ring volume controls, an incoming call/off-hook indicator light, and writing pad. It contains built-in protection from nuclear energy electromagnetic pulses and lightning.

Weight 3 kg

Price \$20

TA 940B POWER AMPLIFIER

This device may be attached to Design, US, or NATO HF-band radios to boost range by 770%, or to boost AM radios by 200%. A vehicle or generator must power it.

Weight 8.6 kg

Price \$5,800

TA 944 POWER AMPLIFIER

This newer amplifier superseded the TA 940B in NATO service. It has the same capabilities as the TA940B.

Weight 5.9 kg

Price \$6,000

TA-1088/PT FIELD TELEPHONE

The TA-1088/PT Telephone is a neatly styled, lightweight, battery operated instrument which is suitable for connection to manual or automatic 2-wire field telephone system or central battery signaling exchanges. This highly flexible field telephone is extremely rugged and provides excellent battery life from easily replaceable standard "C" size cells. The TA-1088/PT telephone provides facilities for magneto ringing, dc loop calling and two-way duplex speech communications. It can also provide connection facilities via built-in keypad to automatic magneto or central battery exchanges, using either DTMF or loop disconnect signaling.

Weight 1.7 kg

Price \$400

TA 4044B POWER AMPLIFIER

This amplifier is used in the same way as the TA 940B and TA 944 amplifiers, but adds support for VHF radios (the normal band used by most military radios, such as those listed in the *Twilight: 2000* Version 2.2 rules). It cannot be used for AM radios, but will boost range of HF and VHF radios by 770%.

Weight 15.5 kg
Price \$5,800

TAC LINK II

A compact, lightweight, tactical video datalink that allows the user to transmit, receive, record, display, and play back real-time video imagery. TAC Link can be easily carried and operated by one person and provides a low-cost solution to tactical imagery problems. TAC Link can operate in conjunction with remote electro-optical and radar sensors. It can be used for air-to-ground (downlink), ground-to-air (uplink), or ground-to-ground operations. With TAC Link, personnel operating in a field environment have instant access to the most up-to-date imagery intelligence.

TAC Link transmitters can be deployed on a variety of platforms: fixed- and rotary-winged aircraft, unmanned air vehicles (UAVs), ground vehicles, structures (buildings, towers, etc.), dismounted personnel. TAC Link can be used with a variety of sensors: forward-looking infrared (FLIR), low-light television (LLTV), video camera and radar. Runs off a 12 Volt DC internal or external battery. Range: 30+ miles over land, 60+ miles over water.

Weight 6 kg
Price \$400

TACBE BEACON / RADIO

The TACBE is a dual-purpose military beacon and radio, about the size of a hardback novel, with a meter-long antenna on top. By pulling out one tab it acts as a beacon, transmitting a distress signal that can be picked up by any aircraft. Pulling out another tab enables the TACBE to be used as a radio. This is intended for communicating with aircraft overhead (such as search and rescue teams or AWACS support), but can also be used to communicate with other TACBEs, on a line-of-sight basis only.

The main problem with the TACBE is that it is easily located using direction-finding equipment, allowing opposing forces to pinpoint the location of its transmissions. However, as a means of emergency communication it serves its purpose admirably.

Weight 0.80 kg
Price \$220

TACTICAL DATA TRANSCEIVER

A tactical data transceiver is used for the secure transmission of alphanumeric messages over a radio net. It is similar in appearance to a large hand transceiver, but has a full alphanumeric keypad in addition to the normal switches. Including the rechargeable battery the dimensions are 300 x 100 x 50 mm. The battery is recharged in the unit and has sufficient power for around 10 hours of use.

Weight 1.2 kg
Price \$1,500

TACTICAL HAND-HELD RADIO (THHR)

The THHR, which is also designated as the AN/PRC-148(V)(C), is a small, secure device that provides Marine Corps units with a standardized and maintainable radio to support the communications requirements of small units (platoon, squad, and team). The THHR operates in the AM and FM bands, contains embedded communications security, and is interoperable with other radio systems, such as Single-Channel Ground and Airborne Radio System (SINCGARS), in the single-channel mode and frequency hopping modes.

Weight 1 kg
Price \$500

TELEPHONE PLUG-INS

These devices are inserted into telephone jack-plugs to cause predictable malfunctions in the operation of the telephone. They are typically used to cause confusion and distraction. They work because typically the telephone jack-plug is not immediately visible (often being hidden behind furniture). However, upon inspection, they are immediately visible, and can be disabled simply by unplugging them. They cannot be combined together.

- **Dead Ringer Plug-In** allows outgoing calls from the telephone, but incoming calls will not cause the phone to ring (although they can still be answered).
- **Disconnected Number Plug-In** causes outgoing calls to fail to connect and gives the exchange-

disconnected message.

- **Wrong Number Generator Plug-In** causes outgoing calls to automatically reach a wrong number (dialed at random on the local dialing code).

	Weight	Price
<i>Plug-In, Dead Ringer</i>	Nil	\$50
<i>Plug-In, Disconnected Number</i>	Nil	\$50
<i>Plug-In, Wrong Number Generator</i>	Nil	\$60

TELEPHONE SET L & J

A light weight 2-wire portable telephone set built into a metal case, the top of which can be closed without interference with the instrument inside. Was used by British Army for field communication. The Telephone sets L and J can operate from either an internal battery or hand generator and also power from a central power source.

Weight	2 kg
Price	\$100

TRANSPONDER

Special radio transmitter designed to broadcast a specific signal at a specific frequency to provide a homing beacon for pickup aircraft, radiation homing missiles, etc. The device has a 1 km range without an antenna, which extends to 10 km with an antenna. Its internal battery will power the broadcast for 18 hours and can be started with an internal timing circuit up to 72 hours after emplacement.

Weight	1 kg
Price	\$1,800

TRANSPONDER, ENCRYPTED

As above, with encrypted burst-mode transmissions and IFF (Identification Friend or Foe) interrogator. The US AN/PRC-112 (V) is an example.

Weight	0.2 kg
Price	\$2,500

TRC 331 VEHICULAR RADIO

This is an older French radio most commonly found in older French-made armored vehicle. It is without security features or data transmission capability. A scrambling module or telegraph set may be added via cables. Short range is 20 km.

Weight	9.4 kg
Price	\$2,300

TRC 340 MANPACK RADIO

This is an older French-made radio for use at platoon level and above. Short range is 2 km with a 1.2 meter whip, 15 km with a 2.4 meter whip, or 20 km with a 7 meter mast.

Weight	7.9 kg
Price	\$1,000

TRC 342 VEHICULAR RADIO

This French-built radio is a combination HF/AM device. Telegraph operations are also possible. This radio has a short range of 20 km with a whip and 100 km with a mast.

Weight	25.8 kg
Price	\$11,500

TRC-344 VEHICULAR RADIO

This is a French-built radio using the FM and AM bands. Telegraph operations are also possible. Short range is 100 km with a whip and 400 km with a mast. This radio is normally used by upper-echelon command and reconnaissance elements.

Weight	54 kg
Price	\$46,000

TRC 350 MANPACK/VEHICULAR RADIO

This is a French-built radio designed for use at company level and by patrolling elements. In vehicles it is typically paired with an amplifier for longer range (and is then known as the TRC 353), though it may be found without one in vehicles. The TRC 350 may transmit voice and data, and features easy to change frequencies. Short range is 10 km.

Weight 9.6 kg
Price \$5,000

TRC 353 VEHICULAR RADIO

This is basically a TRC 350 with an amplifier and automatic matching unit to allow for quick frequency changes. The amplifier may be separated from the radio up to 40 meters by use of a cable. Short range is 50 km.

Weight
Price \$5,800

TRC 354 VEHICULAR RADIO

This is a TRC 350 with a more powerful amplifier than the TRC 353. Short range is 200 km.

Weight 64 kg
Price \$23,000

TRC 374 HAND RADIO

This French radio was designed for difficult conditions such as jungles, deserts, and mountainous terrain. Short range is 5 km.

Weight 2.5 kg
Price \$2,500

TRC 570 VEHICULAR RADIO

This radio is built in France and is used by that country and several overseas forces. It is designed to defeat jamming and can transmit for a Teletype machine or act as a modem at a rate of 16 kb/s. It can also be connected as a field telephone through the use of commo wire. Short range is 30 km.

Weight 8 kg
Price \$3,500

TRC 9100 SECURE HAND RADIO

This is a small, yet powerful French radio that allows immediate secure tactical communications. It uses frequency-hopping technology in the 33-88 MHz band as well as scrambling. Short range is 2 km.

Weight 1 kg
Price \$4,000

TRC 9200 SECURE MANPACK RADIO

This French radio combines frequency hopping and transmission scrambling to provide excellent security for communications. It has built-in 4,800 bytes per second modem. Short range is 4 km.

Weight 7 kg
Price \$8,000

TV Dish

A 12" satellite receiver used for receiving TV signals and jerry rigged to receive radio or video signals (diff Electronics).

Weight 2 kg
Price \$250

UIQ-10 PUBLIC ADDRESS SET

This is a Public Address set that is designed to be carried on a soldier's back and then used on the ground. It has a built in back pack frame and support legs. Made for the US Marine Corps.

Weight 10 kg
Price \$300

UK/PRC 344 CLANSMAN MANPACK RADIO

This is a short-range member of the Clansman family. It is an UHF-band radio operating on IS, and is useable for ground-to-ground and ground-to-air transmissions. FALO teams naval transports and landing parties and marines normally use it. The radio can be operated by remote control at a range of 3 km, and may be used as a repeater. A scrambler may be used with this device. Short range is 4 km in the ground-to-ground mode and 40 km for ground-to-air transmissions. Britain, and at least two other NATO countries, Bahrain, and the Dutch Marines use this radio.

Weight 7.5 kg
Price \$1,850

UK/PRC 349 CLANSMAN HAND RADIO

This small member of the Clansman family uses a headset with a boom microphone or throat mike. Squad leaders normally use it. It is signal-activated, meaning that the battery is kept in a low power-consumption mode until a signal is sent or received. This results in a split-second delay at transmission times, but contributes to a longer battery life (20 hours). A scrambler may be used with this radio. Short range is 1 km. The UK and Spain use the UK/PRC 349.

Weight 1.5 kg
Price \$500

UK/PRC 350 CLANSMAN MANPACK RADIO

This was the standard British tactical radio before the advent of the Jaguar, Panther, and Cougar-net series, and as they were produced by the thousands and widely exported, many are still being used. Knobs on this radio are large to allow for the wearing of extreme-cold weather mittens, and the entire radio will remain operating down to -40°F. The radio can be used in whisper mode. A scrambler may be used with this radio. The UK/PRC 350 operates in the mid-VHF band. Short range is 2 km.

Weight kg
Price \$750

UK/PRC 351/352 CLANSMAN MANPACK RADIO

This member of the Clansman family operates in most of the VHF band, at a longer range than the UK/PRC 350. Battery life is a full 18 hours, as opposed to the 350's 12 hours. The radio may be connected to another UK/PRC 351 by commo wire to use as a sort of field telephone with links up to 3 km. The UK/PRC 351 may be used with a power amplifier (in which case it is known as the UK/PRC 352). A cable may add a scrambler. Short range is 4 km for the UK/PRC 351 and 20 km for the UK/PRC 352.

	Weight	Price
UK/PRC 351	7.5 kg	\$335
UK/PRC 352	9 kg	\$1,670

UK PTC-404 FIELD TELEPHONE

The Racal UK PTC-404, 2 Wire Field Telephone safely operates from 6 VDC using 4 "D" Cells and connects by 2 core wire. These field Phones are designed to be water and dust proof. Operational range is over 10 miles (28 km). 3 Modes of operation, Normal for normal speech, Whisper for when circumstances only permits whispering in to the microphone and Test to test operation and communications link. Also featured is a variable Audio and Visual Alarm facility.

Weight 1 kg
Price \$300

UK/VRC 321 CLANSMAN VEHICULAR RADIO

This member of the Clansman family was designed to operate from armored vehicles but can also be used as a ground station. It may communicate with ground and air units. A scrambler may be added to the unit. Short range is 5 km or 40 km, depending upon what length of antenna is used.

Weight 27 kg
Price \$4,600

UK/VRC 322 CLANSMAN VEHICULAR RADIO

This is a longer-range, HF-band radio used in command, reconnaissance, and logistics vehicles. It

can also be used to communicate with aircraft. It may be equipped with a variety of microphones, handsets, speakers, data transmission units, and scramblers. It may be operated by remote control at a range of 3 km. Short range is either 40 or 300 km, depending on antenna used.

Weight 72 kg
Price \$19,600

UK/VRC 353 CLANSMAN VEHICULAR RADIO

This radio was designed primarily for fighting vehicles, but can also be used in fixed or mobile ground stations, running off a generator or vehicular power. It may transmit voice or data (at a speed of 20 kb/s). It is a powerful unit that normally overpowers enemy jamming. It is easily and quickly set and operated. A scrambler may be used. Short range is 1 km, 15 km, or 50 km, depending on antenna and amplifier used.

Weight 22.2 kg
Price \$5,770

ULTRASONIC DIVING COMMUNICATOR

This is a fully automatic, wireless communicator for use by SCUBA divers. The communicator allows transmitted and received speech, enabling conversation (unlike radio transceivers). There are two parts to the communicator: a diver unit and a surface unit.

The diver unit consists of a unit that mounts onto the facemask of the diver, fitting around the back of the diver's head. This connects by cable to a microphone in a speaking cavity on the mouthpiece. The earphone works by bone conduction and is placed under the hood, in contact with the bone around the ear. The surface unit is composed of a set of battery-powered headphones with a microphone. Attached to the headphones is a cable (standard lengths are 10, 33 and 67 meters) at the end of which is a transducer. The cable and transducer are placed in the water to transmit to the diver.

The system permits a minimum range of 50 meters (from transducer to diver). Depending upon the acoustic circumstances, ranges of up to 300 meters are possible. The batteries last for over 4 hours of use on the diver unit, and over 8 hours on the surface unit. This assumes broadcasting 20% of the time.

	Weight	Price
<i>Diver Unit</i>	0.8 kg	\$375
<i>Surface Unit</i>	0.5 kg	\$310

US FIELD PHONE SET

The original US military field phone set, talk over standard bell or speaker wire up to 1 mile, uses two "D" batteries, crank to ring, fitted leather case.

Weight kg
Price \$70

VEHICLE RADIO ANTENNA

This is a vehicle antenna found on jeeps and other small vehicles.

Weight 2 kg
Price \$400

VERTICAL SATELLITE BEAMER

This device resembles a portable satellite Downlink system, but is an infrared laser transmitter, allowing transmission only to orbiting satellites equipped with laser-receptors. The transmission beam is only visible to IR vision gear. It takes five minutes to set up and two minutes to take down.

Weight 12 kg
Price \$35,000

VIDEO PHONE

A standard phone that can also send standard video.

Weight 2 kg
Price \$1,000

“VILLAGE RADIO”

These radios are issued one to a village and are used for reports of troop movements to US groups like the CIA and Special Forces units. They are dirt simple to use and run on eight “D” cell batteries. The telescoping antenna is 1 ft long collapsed and 6’ 2” long extended. There are no manufacturers marking anywhere on the radio so if they were found the US couldn’t get blamed.

Weight 2 kg
Price \$200

VINSON COMSEC KY-57

The KY-57 is the primary piece of VINSON COMSEC equipment used today for voice/data encryption on VHF radios and for a large number of wire line devices. When hooked to a radio, a teletype piece of gear, or a telephone device, the KY-57 can scramble (encrypt) the information being passed through it so only stations on our net having the same key as we do receive the information.

The KY-57 uses electronic keys to encrypt the information, can be re-keyed remotely, and can accept signal fades up to 12 seconds without losing synchronization with the transmitting station. The KY-57 can be set up in the man-pack, vehicular, or fixed-site configuration.

Weight
Price

VRC-2200 VEHICULAR RADIO

This Israeli radio is the vehicular-mounted version of the PRC-2200. The VRC-2200 adds an amplifier, a vehicle mounting rack, and an antenna-matching unit. Short range is 30 km.

Weight 24 kg
Price \$3,500

VRC/GRC-105 VEHICULAR RADIO

This is a PRC-105/A radio coupled with an amplifier and a software-controlled matching unit, in a frame. It has been in use by the Iranians since 1990. Other statistics are the same as the PRC-105, except that short range is 30 km.

Weight 10.5 kg
Price \$3,500

WD-1 TELEPHONE LINE

This line is highly useful for a wide variety of purposes, including, but not limited to, the laying of telephone lines. It is also used in wiring remote electronic detonators, claymore mines, or trip wires—or simply stringing something up. The cost of the wire includes a linesman set (a leather belt pouch containing a set of wire cutters/strippers, a roll of electrical tape, and a pocket knife). The WD-1 comes in three size reels: 1 mile (1,609 m), ½ mile (805 m), and ¼ mile (402 m).

	Weight	Price
¼ mile	5 kg	\$35
½ mile	10 kg	\$75
1 mile	22 kg	\$200

WEATHER RADIO

Over 850 National Weather Service transmitters send out alerts across the country to warn people when their safety is threatened. Alerts are sent out to tell people that they need to take some action in order to protect themselves, such as “seek shelter” or “evacuate the area immediately!”.

The National Weather Service also uses this system to broadcast weather 24 hours a day. With the push of one button, you can hear current weather conditions and forecasts for your area, any time of day or night. With a personal Weather Radio receiver, you can pick up the NOAA Weather Radio signal and have immediate access to life-saving information when every second counts.

Weight
Price

WIND-UP RADIO

Though first placed on the US market in the mid 1980s, sales of these items took off only in the mid-1990s as many models came to the world-wide market. It is a standard commercial radio that can

be used to pick up commercial radio stations, weather stations, and civil defense broadcasts. This radio gets its power from a wind-up magnet, the mainspring charging a Nickel-Cadmium battery. 200 cranks will run the radio for an hour or the built-in flashlight for 35 minutes. These types of radios are not likely to be damaged by EMP.

Weight 0.8 kg
Price \$70

WIRELESS 2 WAY RADIO HEADSET

This is a cheap commercial version of inter team radio popular with Special Ops units, has limited range and is very bulky.

Weight Nil
Price \$20

WORLD-RECEIVER RADIO

A small commercial radio that can receive short wave broadcasts.

Weight 0.50 kg
Price \$100

XD-D2B 15/25 W MANPACK RADIO

This is one of the more modern Chinese designs. It may be powered from a battery, generator, or hand generator. Short range is 8 km when using a whip or 15 km when using a mast.

Weight 10 kg
Price \$4,000

42. RED CROSS PACKAGES

NEW RED CROSS PACKAGE

This is what The International Red Cross Committee (Geneva, Switzerland) currently provides as relief packages to help POWs in enemy custody.

1 Book of Crossword Puzzles	1 Package of Moist Towelettes
1 Deck of Cards	1 Package of SPF 30+ Towelettes
1 Hackey Sack Ball	1 Wooden Game (like Cribbage)
1 Magnetic Travel Game (Chess or Checkers)	1½ Oz. Package of Cheez-It
1 Miniature Hand-Held Fan	1½ Oz. Package of Pretzels
1 Package of 37 Oz. Package Mentos	2 Oz. Shortbread Cookies
1 Package of Candy	2 Packages of Gum
1 Package of Cookies	2 Packages of Tissues

Weight 2 kg

Price \$200

OLD RED CROSS PACKAGE

This older version is what The International Red Cross Committee (Geneva, Switzerland) provided as relief packages to help POWs in enemy custody. Most of these packages are quite old and only found in old storage warehouses.

1 Bar of Chocolate	1 Tin of Corned Beef
1 Bar of Soap	1 Tin of Dried Milk Powder
1 Tin of Butter	1 Tin of Jam
1 Tin of Cheese	1 Tin of Pudding
1 Tin of Cigarettes (50)	1 Tin of Sardines
1 Tin of Coffee	1 Tin of Stew

Weight 1 kg

Price Nil

PRISONERS OF WAR FIRST AID SAFETY KIT

The International Red Cross Committee (Geneva, Switzerland) provides relief packages to help POWs in enemy custody. The official nomenclature of such kit is "Prisoner of War First Aid Safety Kit". It comes with instructions in five languages for use of enclosed medical products.

1 x Absorbent, Cotton	2 x Anti Fungus, Ointment (1 Oz. Tube)
1 x Adhesive, Gauze, Bandage (100 x Adhesives 1" x 3" in single box)	2 x Aspirin Tablets (500)
1 x Laxative Compound Pills (500)	2 x Insecticide
1 x Tape, Adhesive (3" x 5 yds)	6 x Antiseptic, Ointment (¼ Oz. Tube)
2 x Antacid, Tablets (500)	6 x Gauze, Plain, Sterilized, Compressed (½ yd x 36)

Weight

Price

43. RELOADING EQUIPMENT

BLANKS

Should players have some need for it, blank ammunition is available for most military cartridges. Cost is half that of the regular round. Availability is one level more scarce for rifle cartridges, two levels more scarce for pistol ammunition (most of this ammunition has been re-machined into normal brass shell casings by 2000).

BULLETS

Cast lead bullets for hand-loading. Weight and price both equal $\frac{1}{10}$ that of loaded ammunition. Availability is identical to that of loaded ammunition.

EMPTY BRASS

For players who want to purchase empty brass for hand loading on their own, price and weight are both equal to $\frac{1}{10}$ that of loaded ammunition. Availability is identical for any given ammunition type.

PRIMERS

For reloading use, price given is for enough primers to reload 100 shots.

Weight Nil
Price \$25

RELOADING BULLETS

Enough bullets for 350 shots.

Weight 3 kg
Price \$25

RELOADING POWDER

Enough propellant for 350 shots.

Weight 5 kg
Price \$150

RELOADING PRIMERS

Enough primers for 350 shots.

Weight 10 kg
Price \$250

SMOKELESS POWDER

For reloading use, 1 kg of smokeless powder will reload 20 shots of rifle ammunition (60 rounds) or 40 shots of pistol ammunition.

Weight 1 kg
Price \$10

44. RIFLE SIGHTS

The simple open sights on rifles never really improved since the 1900s. However, the weapons, rounds and soldiers were up to the task of longer ranged shooting.

The UK has always placed high demands on musketry skills and went with a standard x4 sight on the L85. The 1978 Austrian Steyr AUG rifle had an x1.5 sight. A quicker target acquisition time was possible with this. (1.5 seconds instead of 3 seconds for open sights). The US came up with standard Picatinny or Weaver sight rail. This enabled night sights or telescopic sights to be removed and reinstalled with no loss of zero. In the 1990s, the US Army started replacing the M16A2 with the shorter M4 carbine (yes, even the M16 is too long for mechanized, airmobile and paratroops). The sight rails mentioned earlier featured extensively on the M4 versions. Other countries either adopted the same sort of rails on modified weapons (Australia) or adopted new 5.56 mm weapons with the sight rails fitted as standard (M16A3 and Canadian C7). x1.5, x3.5 and x4 sights featured extensively (points to the UK for being 10 years early). The point being the sight was as important as the weapon.

Telescopic sights decrease task difficulty by one. However 5.56 mm rounds lose this benefit over 600 meters, 7.62 mm over 800 meters (1,000 meters for sniper 'match' loads).

Open sights limit ROF to 2 for bolt action, or 3 for semi-automatic, regardless of ROF mentioned elsewhere in this article. However, above rifle ROF are used for automatic fire. x1.5 or HUD or 'red dot' sights have a ROF of 4 (max range 200 meters). Skill level increases ROF by 1 per level of skill over 3. In 1914, Sergeant Snaxall of the British Army fired 38 shots in one minute at 300 yards hitting the inner ring of the target with every shot! This was with a bolt action Lee Enfield, and the record has never been broken. (I'm not going to bother trying to simulate this). During World War I, the German army thought every British infantry battalion had more than the issued 2 machine guns due this fast and accurate shooting.

Laser sights are either visible or IR (not visible to unaided eye). As long as the laser is boresighted, a laser gives a +4 bonus up to 50 meters for aimed shots. Rifles can not be aimed using conventional sights if the user is wearing night vision goggles (NVG). An IR laser being visible to NVG, enables the weapon to be aimed. Visible light torches attached to rifles are better for room clearing as the user retains peripheral vision.

45. SANITARY EQUIPMENT

0.6 OZ. FLUORIDE TOOTH PASTE

Box of 100

Weight	
Price	\$25

1 OZ. ANTIBACTERIAL DEODORANT SOAP

Box of 100

Weight	
Price	\$20

2 OZ. SHAMPOO AND BODY BATH

Box of 100

Weight	
Price	\$45

5" NYLON BLACK COMB

Box of 100

Weight	
Price	\$8

12-HS MEN SHOWER UNIT

The 12-HS consists of 6 2-man shower stalls consisting of Fiberglas bases with fabric secured over a framework of aluminum tubing. A combination of hose connections and a pump assembly supply water and provide drainage for the shower facility. The diesel/JP-8 fired M80 water heater supplies hot water. The 12-HS provides a heated shower facility for soldiers in the field. It is capable of supporting 72 10-minutes showers per hour.

Weight	200 kg
Price	\$400

30 TUFT NYLON WHITE TOOTHBRUSH

Box of 100

Weight	
Price	\$20

ASPEN 1,000DM

This Reverse Osmosis water purification system will supply up to 1,000 gallons per day (just under one gallon per minute) of highly purified water from virtually any non-chlorinated water source, including seawater. It features a patented energy recovery pumping system allowing it to be powered directly from a vehicle's battery or even solar panels. A separate generator is not required.

The Aspen 1,000DM is a highly mobile completely self contained water purification system with unique technology that makes it the easiest to deploy, maintain and monitor of any Military Reverse Osmosis purification system in existence. There is no other Reverse Osmosis purification system that offers as much versatility, performance, trouble free operation and can be powered by 24-volts DC current.

Weight	130 kg
Price	\$2,500

ASPEN 1,800BC/BP

The ASPEN 1,800 Brief Case and/or Backpack water purification systems will supply up to 1,800 gallons per day (75 gallons per hour) of highly purified water from virtually any non-saline water source. Water can be drawn from ditches, ponds, rivers, lakes or standing water that may contain chemical and biological contamination. The BC unit is 22" x 17½" x 13½" and weighs 55 lbs. The BP unit is 19" x 16½" x 8½".

Weight 15 kg
Price \$2,000

ASPEN 3,000CM

This water purification system will supply 2,500 to 3,000 gallons per day of highly purified water from virtually any non-saline water source. Water can be drawn from ditches, ponds, rivers, lakes or standing water that may contain chemical and biological contamination. Operates on 90 to 260 volts AC at 50 or 60 hertz, virtually any international power source (power cord with adapter is provided). Additional DC capabilities for 12 Volt (Civilian) and 24 Volt (Military) are optional.

Weight 40 kg
Price \$4,000

ASPEN 5,000M

This water purification system will supply 4,000 to 5,000 liters per day of highly purified water from virtually any non-saline water source. Water can be drawn from ditches, rivers, lakes or standing water that may contain chemical and/or biological contamination. Operates on 90 to 260 volts AC at 50 or 60 hertz as well as 10 to 30 volts DC, virtually any power source. The military version comes standard with a 24-volt DC input (optional on the civilian version). Power cords with military type quick-connects are provided. A solar option is also available. Both interlocking cases are 43" x 28" x 14".

Weight 90 kg
Price \$2,000

ASPEN 10,000CM

These cases come standard in OD Green, Military Sand and UN Blue. Other colors are available for a small up-charge. The Aspen 10,000CM water purification system will supply 8,500 to 10,000 gallons per day of highly purified water from virtually any non-saline water source. Water can be drawn from ditches, ponds, rivers, lakes or standing water that may contain chemical and biological contamination.

Weight 125 kg
Price \$2,000

ASPEN FIELD HOSPITAL SINK SYSTEM

It is designed for rapid deployment, and can be assembled in minutes. The Field Sinks are rotationally molded and are designed to be shipped and stored as a case. The case can be easily configured into a workstation when not used as a sink. The Field Sink offers protective storage for field medical equipment, manuals, and supplies in 6 removable drawers with one that can be locked.

Weight 43 kg
Price \$200

ASPEN GBI 60,000

It will produce over 11,000 liters per hour of safe water from a fresh water source. The GBI 60,000 is field portable (trailer or truck mounted), diesel powered and one person operable (sets up in 30 minutes). Lifting sling is provided. The trailer-mounted unit is capable of being towed by an automobile, small truck or HMMWV and can be pulled by hand to off road locations.

Weight 300 kg
Price \$5,000

BABY WIPES

Like the Coleman wipes, baby wipes are also pH-balanced, rinse free and hypoallergenic. Though they may lack the anti-bacterial ingredients found in "adult wipes," they are, more importantly, available in unscented formulas. This must be taken into consideration if venturing into bear-infested areas since scent attracts bears (and biting insects for that matter). But ultimately the choice is yours: a few stinky germs vs. man-eating bear. Okay, if you still can't decide we'll also let you know that baby wipes are generally cheaper than hygiene products specifically designed for recreational or military use.

Package of 50
Weight
Price \$2

BARBERS KIT

A simple kit that has an electric and non electric hair clippers, along with scissors, use for cutting soldiers hair in the field.

Weight Nil
Price \$50

BRIEF RELIEF

Individually packaged disposable urinal pouches, feature internal funnel and one-way valve design to prevent accidental spills. Within each pouch is a blend of naturally bioactive polymers and enzymes that instantly turn urine into lemon-scented gel. This handy pouch is easily used by both men and women.

Weight Nil
Price \$5

CAMP SHOWER

This gravity feed shower has a 4 liter bag, found in most camping stores.

Weight 1 kg
Price \$20

CARE PACKAGE

This package is sent from someone at home to soldier in combat. The GM may award each one of these to each character prior to the game beginning; it may contain any for the following items

Beanie Babies	Hooah Bars
Body Amour	Kneepads
Dunkin Donuts Coffee: Dunkin Donuts	Patriot Greetings or Button
will send 24 one-pound bags	Phone Cards
Electrical items; Transformers, dual volt-	Powder Soup
age appliances, plug adapters, etc.	T-Shirts
Health & Hygiene Items	

Weight Nil
Price \$20

CHLORINATION TEST KIT

A small kit containing test tubes, 100 test tablets, and other equipment used to determine if the water is safe to drink.

Weight Nil
Price \$20

CHLORINE BLEACH

Used in small amounts, bleach is an effective and very common field-expedient for purifying water. Measuring proper dosage is a task (failure indicates that any bacterial contamination — if any — has not been neutralized). Liquid bleach is most often used to purify a large point-source of water (i.e. a 1,000 liter tank trailer or even a 20 liter jerry can) and not individual canteens. One liter of bleach is sufficient to decontaminate 100,000 liters of water. It can also be used to sterilize medical equipment when an autoclave is not available.

1 liter
Weight 1 kg
Price \$20

CIVIL DEFENSE SANITATION KIT

This kit is found in Civil Defense Shelters, and can still be good after all these years. It comes in SK III model and SK IV.

	SK-III	SK-IV
Can Opener (manual)	1	1
Commode Chemical (pack)	6	12
Commode Seat, Plastic	1	1

Cups and Lids (plastic)	35	70
Hand Cleaner (can)	1	1
Instruction Sheet	1	1
Poly Bag Liners (commode)	1	1
Polyethylene Gloves (pair)	1	1
Sanitary Napkins	36	60
Tie Wire (bag closing)	1	1
Toilet Tissue	5	10
Water Dispensing Spout	1	1
	<i>SK-III</i>	<i>SK-IV</i>
Weight	6 kg	10 kg
Price	\$50	\$100

COLEMAN CLEANSING CLOTHS TUB

Great to clean and moisturize your skin anytime bathing is not an option. The PH-balanced formula with aloe vera is rinse-free and hypoallergenic. These also have anti-bacterial properties to kill germs. The only drawbacks are the fragrance and the large size of the container. Both mosquitoes and bears are attracted to fragrance. 48 wipes per package.

	<i>1 Package</i>
Weight	
Price	\$8

COMBAT BATH

An Antibacterial Bath Cloth containing a solution used for full body cleansing. It's odorless and measures 7.5" x 8.0" with a thickness of .090", housed in a resealable pouch of 8. Water is the main ingredient; no alcohol. Shelf life guarantee of 2 years.

	<i>Set of 3</i>
Weight	Nil
Price	\$10

CONTAINERIZED BATCH LAUNDRY

The CBL provides a facility to wash and dry 200 lbs of laundry per hr. Equipped with the capability to reuse water; it recaptures 28% of the water used. It is capable of collecting wastewater and transferring it up to 500 ft. The CBL consists of two commercial 20 kg washer/extractors and two 33 kg dryers mounted in an 8' x 8' x 20' ISO container.

Weight	1,200 kg
Price	\$5,000

CONTAINERIZED SELF-SERVE LAUNDRY: The CSSL consists of 6 stackable commercial washer/dryer units mounted in an 8' x 8' x 20' ISO container. An 8-ft TEMPER tent with a modified wall is provided as a folding and sorting area. The CSSL provides a cold-water washing and drying facility for soldiers to wash and dry personal laundry. It is capable of supporting 120 soldiers per 20-hr operating period.

Weight	1,000 kg
Price	\$2,000

CONTAINERIZED SHOWER SYSTEM

The CSS consists of 12 commercial Fiberglas shower stalls, an on-board ejects pump, an M80 water heater, 2 shave stands and a 16-ft TEMPER tent. Each shower stall is equipped with individual controls to adjust water pressure and temperature. The CSS provides a private shower facility for soldiers. It is capable of supporting 72 10-min showers per hr. It is capable of collecting wastewater and transferring it up to 500 liter of water.

Weight	1,000 kg
Price	\$5,000

FOOD SANITATION CENTRE

The FSC employs a shallow wash sink that provides a work surface and 110 degrees Fahrenheit water spray for manual cleaning of cookware. Items are rinsed with a 140 degrees Fahrenheit hot

water spray and sanitized by immersion in a tank that is maintained at a minimum temperature of 170 degrees Fahrenheit by direct steam injection.

Weight 200 kg
Price \$500

FIELD WASHSTAND

This is a small washstand for field use, able to be used by four people at once. The faucets are pumped manually using a foot pump, and the stand has a paper towel holder and soap dispenser. The stand is fed by an 83-liter water tank and a 10-liter soap tank, and has another tank for capture of wastewater.

Weight 27.22 kg
Price \$115

FIELD SHOWER

This is a shower that is built out of ready available, scrounged materials, and can hold up 100 liters of water.

Weight 100 kg
Price Nil

FORWARD AREA WATER POINT SUPPLY SYSTEM (FAWPSS)

This system consists of hoses, nozzles, six 500 gallon drums and a 125 gpm pump. It is used to provide fresh water at company level near the combat zone.

Weight 200 kg
Price \$800

GI ISSUED SOAP

Pack of 4
Weight Nil
Price \$10

HAND WASHING STATION

Used for washing hands.

Weight 10 kg
Price \$50

HCP-1 (HEALTH AND COMFORT PACK, TYPE 1)

This is general issue in most Western and Middle Eastern military forces and in lesser issue with eastern military forces. It is also common in disaster relief organizations. Each HCP-1 is designed to equip 10 persons for 30 days. The pack consists of 10 bags and 10 boxes, packed in a crate.

Each bag contains a toothbrush, 2 tubes of toothpaste, 100 meters of dental floss, 10 disposable double-bladed razors, 2 cans of shaving cream, 3 bars of soap, a large container of foot powder, 20 moist towelettes (the large size), a bottle of hair shampoo, two sticks of deodorant, 5 ballpoint pens, and a jar of petroleum jelly.

The box contains a box of laundry detergent, 4 rolls of toilet paper, a comb, a small sewing kit, fingernail clippers, a hairbrush, a small mirror, a bottle of hair conditioner, a tin of shoe polish, another box of 50 moist towelettes, shaving gel (for female legs and underarms, but may also be used for faces), a writing tablet with 100 sheets of paper, a tweezers, a box of Band-Aids, electric shave lotion, a bottle of hand lotion, a bottle of mink oil, 4 bottles of sunscreen, 3 sets of boot laces, a box of 50 envelopes, 3 nail files, a shoe polishing brush, 4 hair nets, another jar of petroleum jelly, and shave powder.

Weight 155 kg
Price \$1,950

HCP-2 (HEALTH AND COMFORT PACK, TYPE 2)

This is an additional HCP designed for female military personnel and refugees. Like the HCP-1, it is designed for 10 persons for 30 days. The HCP-2 comes in a box and contains the following items: 48 regular sanitary napkins, 72 heavy sanitary napkins, 60 regular tampons, 84 heavy tampons, 250 panty shields, 400 moist towelettes, 20 4.55-liter self-seal plastic bags, 150 76 x 178 mm plastic bags,

10 68-liter plastic garbage bags, 10 ponytail holders, 1 hairbrush, 2 plastic combs, 50 bobby pins, and 10 personal hygiene body wipes (large versions of the moist towelette, with an additional deodorizer).

Weight 155 kg
Price \$1,950

HYGIENE KIT

Typical kit issued to soldiers in the field, containing tooth brush, razors, soap, and other essentials. A hygiene kit will last one character for approximately two months.

Weight 0.5 kg
Price \$20

HOO-AHHS FIELD WIPES

Originally developed for soldiers in the field, these are great for hunters, campers, anglers, or outdoor enthusiasts of any kind. Made of strong, non-woven fabric, Hoo-Ahhs will remove all sorts of dirt and grime without breaking apart like paper based towelettes. They will even remove military grade face camouflage. Hoo-Ahhs are aloe-based and alcohol free so they won't dry out your skin (even the sensitive, extra stinky areas). These are also unscented – so they won't attract insects or bears.

Pack of 6
Weight Nil
Price \$10

JAPANESE PAPER SOAP

50 single-use sheets of paper soap in an easy-carry pouch. One sheet is enough to either wash your hands, or wash your pits and crotch. Take along a packet of these sheets of soap when traveling or working. They're easier to pack than a bar of soap and there's no worry about messy spills in your luggage. The sheets dissipate so there's nothing to throw away. This lightly scented soap does not create sudsy lather, but it does clean your hands. Contrary to popular belief, it is not the foaming agent that cleans. This is a good idea, but you could carry a bar of soap (that would last more than 50 washes) in a zip lock bag for a fraction of the price. 12 wipes per package.

Weight
Price \$6

LAUNDRY ADVANCED SYSTEM

The LADS consists of 2 laundry drums and water-processing equipment within an 8'x8'x20' ISO frame, a fuel tank, a storage container and a generator mounted on a M871A3 trailer. The LADS provides the capability to wash and dry the laundry of 500 soldiers in the field per 20-hr operating period. It washes the laundry, extracts water and dries the laundry in the same drum. The laundry water is recycled and reused via a distillation process to minimize water consumption and waste water generation.

Weight 5,000 kg
Price \$10,000

LIP BALM

Box of 100
Weight
Price \$65

LOTION

2 Oz. Bottles.

Box of 100
Weight
Price \$50

MATURING THEATRE LATRINE (MTL)

This is a very fancy name for a porto-potty made to military specifications. It is the normal sort of outdoor toilet common at open-air events and construction sites throughout the US and other countries. In addition to the wastes being carted away or disposed of in sewers systems or other ways, the

bowl for the wastes can be removed from the toilet, flammable liquid placed within, and the wastes burned. Though popular at command posts of higher echelons, they were generally considered too big for elements of maneuver units and even if issued to them, they were generally discarded or traded to rear elements for more desirable items.

Weight 50 kg
Price \$300

MODULAR INITIAL DEPLOYMENT LATRINE (MIDL)

Somewhat more robust than the Personal Commode, this is used to service units up to platoon size in the first stages of deployment or when the unit will not be long in one place. It consists of a collapsible fiberglass or plastic commode with hangers for a plastic bag below the opening. Wastes are deposited into the bag, and then the bag is sealed and burned or buried. A frame for supporting a privacy screen is provided with the MIDL. Enough bags are provided with the kit for 25 soldiers for 30 days, assuming normal bowel functions during that time.

Weight 8 kg
Price \$90

MOIST TOWELETTES

Box of 100
Weight
Price \$4

MOUTHWASH 2 Oz Bottles

Box of 100
Weight
Price \$45

OLD FASHIONED HEAVY DUTY HAND OPERATED CLOTHES WRINGER

Attach to wash tub, counter, board etc. The hardest thing about hand washing clothes is not the washing but wringing out enough water so they will dry in a reasonable amount of time.

Weight 10 kg
Price \$200

PERSONAL COMMODE

Known as a "PC" by the troops, these were first issued to Allied troops during the Gulf War. It consists of a heavy, corrugated cardboard seat covered by a vinyl shell. The Personal Commode folds down to a package of only 0.45 kg but is, amazingly, capable of supporting 545 kilograms. If the user is careful, the Personal Commode may be re-used. An optional add-on is a privacy cover in the form of a waterproof tent to pull over the Personal Commode.

One of the secondary uses of the Personal Commode is as a seat on hot desert sands.

	Weight	Price
Personal Commode	0.45 kg	\$12
Privacy Cover	1 kg	\$50

PERSONAL COMFORT KIT

The Personal Comfort Kit has been designed for the troops who are stationed in the Middle East. They are designed in khaki and desert camo and are shipped complete with: Deodorant, Bath/Body Wash, Field Towels, Hand Sanitizer, Nail Clippers, Lip Balm, Tooth Brush, Tooth Paste, 2 Razors, Shave Gel, Wash Cloth, and 1 Comb. These kits are small enough to fit in the side pocket of a Soldier's BDU or ALICE Pack and weigh less than 2 pounds.

Weight Nil
Price \$20

PORTABLE CHEMICAL TOILET

A small toilet which contains chemical for breaking down of waste, commonly found in many RV trailer.

Weight 2 kg
Price \$50

PORTABLE POOL

Hold up to 1,000 liters of water.

Weight 100 kg
Price \$200

PORTABLE TOILET

This is a sturdier version of the Personal Commode.

Weight 2 kg
Price \$25

PORTABLE SHOWER

Used for providing emergency showers in camps for displaced person, used by agencies like FEMA and the Red Cross.

Weight 250 kg
Price \$800

REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)

This unit provides potable water from any water source. The Army's workhorse, the ROWPU produces potable water from a variety of raw water sources such as wells, lakes, seas, lagoons, rivers, oceans, ice holes. The ROWPU, resembling a large trailer, comes in a variety of sizes and uses a variety of chemicals and membranes to filter and purify water for consumption. The ROWPU is transported in an 8 ft by 8 ft by 10 ft rigid frame and produces 1,800 gallons of fresh water per hour, or 600 gallons per hour if you're using sea water. It requires a 30 kw generator.

Weight 7,300 kg
Price \$10,000

ROLLED TOILET TISSUE

Box of 100
Weight
Price \$55

SANITATION KIT

A portable john, with materials to make a privacy room, this kit also includes items for laundry needs

1 5 Gallon Bucket	6 Trash Cans Liners
1 Snap on Toilet Seat	1 Chemical Deodorant
1 Roll Toilet Tissue	1 50' Nylon Rope
1 Bar Soap	6 Clothes Pins
1 Hand Sanitizer	1 5'x7' Tarp
1 Gallon Plastic Water Jug	6 Twisty Ties
4 Latex Gloves	Laundry Soap 1/2 Cup
Weight 2 kg	
Price \$27	

SEWING KIT

Box of 100
Weight
Price \$30

SOAP

Mostly post-war lye soaps produced locally from rendered fat; double the cost for prewar soap which is usually less harsh on the skin and something of a luxury good. Soap is included in the hygiene kit listed above, but appears here also, as it can also be used for washing clothing, and is useful in preventing disease.

1 Bar
Weight 0.25 kg
Price \$5

SOLAR SHOWER

Similar to the Camp Shower, but it allows the sun to heat the water inside.

Weight Nil
Price \$50

SCOURING POWDER

Weight
Price \$10

SHOWER TRAILER

This trailer has a metal frame with rubberized fabric walls to provide four shower stalls, a 100-liter water heater that can provide 20 showers to soldiers before the tank is exhausted provides hot water. The tank requires 50 minutes to fully heat the water, and is powered by diesel or aviation fuel (30 liters per period), an external generator (45 kw), or vehicle power. The unit packs into two canvas bags. Two soldiers may set it in 15 minutes.

Weight 1,000 kg
Price \$2,000

SMALL UNIT SHOWER (SUS)

This is a hollow collapsible metal frame with rubberized fabric walls to provide four shower stalls. The shower units are similar to those aboard naval vessels, with push button controls that spray only when the button is pushed. A 75-liter water heater that can provide 16 showers to soldiers before the tank is exhausted provides hot water. The tank requires 50 minutes to fully heat the water, and is powered by diesel or aviation fuel (30 liters per period), an external generator (45 kw), or vehicle power. The unit packs into two canvas bags. Two soldiers may set it in 15 minutes.

Weight 68 kg
Price \$275

STRAIGHT RAZOR

Weight Nil
Price \$20

TRANSITIONAL CARE PACK

Many times, wounded Soldiers are taken to field hospitals for treatment with little more than their BDU's. That is why World Prep has developed the Transitional Care Pack. The kit is designed in desert camo and is also small enough to travel with the soldier.

Weight Nil
Price \$25

TWIN BLADE DISPOSABLE RAZOR

Box of 100
Weight
Price \$22

TWO-MAN SHOWER

Similar to the Small Unit Shower but made for two persons.

Weight 20 kg
Price \$150

WASH BASIN

A small bowl used by one person for washing.

Weight Nil
Price \$5

WATER DESALINATION UNIT

This unit is capable of desalinating 300-700 liters per hour, depending on the raw salt content of the water. No chemicals are needed for the operation of the unit, though a tank is provided to add chlorine, if desired. The unit requires that an external 1.5 kw generator be hooked up during operation. A disinfecting unit is also provided, but this device cannot remove other pollutants such as fallout, sand, and mud. Water can be siphoned from containers, or directly from a natural water source.

Weight 175 kg
Price \$2,600

WATER PURIFICATION KIT, SMALL

A small machine designed to draw water through a system of filters, purifying the water of most contaminants. Purifies 0.75 liters per minute, and runs on hand power. It is not capable of desalinating water. Filters last for 50 liters.

Weight 1.5 kg
Price \$170

WATER PURIFICATION UNIT, MEDIUM

This is a machine carried in a backpack. It eliminates organic, mineral and bacterial pollutants by using a set of mechanical filters. Filters last for 1,200 liters. Water is purified at the rate of 200 liters per hour. The unit runs from internal batteries and can purify up to 7 liters of water from internal tanks while being carried, or siphon water from containers or directly from a natural water source such as a pond, lake, or stream. It is not capable of desalinating water.

	Weight	Price
Water Purification Unit, Medium	18 kg	\$750
Extra filter	5 kg	\$150

WONDER WASH

Wonder Wash is a way for the soldiers to get things washed without waiting for the laundry service. Using a hand-crank, it washes a 2 kg load super clean in just a couple of minutes, has a patented pressure system that forces detergent into the fabric at high speed for a fast, efficient, economic and very easy wash, and uses 90% less water and detergent than conventional machines.

Weight 2.5 kg
Price \$50

46. SEARCH EQUIPMENT

CHEMICAL KIT

A portable laboratory for use with the chemistry skill, a chemical kit includes the tools and components necessary for mixing and analyzing acids, bases, explosives, toxic gases, and other chemical compounds.

Weight 3 kg
Price \$200

CONTRABAND DETECTOR

The contraband detector is a portable, lightweight instrument that indicates the presence of hidden material by signalling unexpected changes in the density or thickness of a surface.

Weight 2 kg
Price \$1,000

EVIDENCE KITS

Law enforcement agencies around the world use generally the same tools to gather evidence. Having an evidence kit does not grant access to a law enforcement agency's crime lab; it merely assists in the proper gathering and storing of evidence for use by such a lab.

Basic: A basic evidence kit includes clean containers, labels, gloves, tweezers, swabs, and other items to gather bits of physical evidence and prevent them from becoming contaminated.

Deluxe: A deluxe kit includes all the materials in a basic kit, plus supplies for analyzing narcotic substances at the scene and for gathering more esoteric forms of physical evidence such as casts and molds of footprints or vehicle tracks, as well as chemical residues and organic fluids. It also contains the necessary dusts, sprays, brushes, adhesives, and cards to gather fingerprints.

	<i>Basic</i>	<i>Deluxe</i>
Weight	2 kg	3 kg
Price	\$400	\$800

EXPLOSIVES DETECTOR

An advanced explosives detector that provides immediate detection and location of concealed explosives.

Weight 2 kg
Price \$800

EXPLOSIVE DETECTION KIT

This is a unique, aerosol-based explosive detection system field test kit for the explosives detection and identification of the following explosive types: - Group A explosives (e.g. TNT, TNB, etc.), - Group B explosives (e.g. Semtex H, RDX, C4, etc.) and - compounds containing inorganic nitrates that are used in improvised explosives (e.g. ANFO). Explosive detection results appear in seconds. No additional tools or other explosives detectors equipment required. The identification/detection process requires no special training and testing can be performed "on the spot".

Weight 3 kg
Price \$150

GENERAL PURPOSE & NON-CONDUCTIVE FLEXIBLE ENDOSCOPE SEARCH KITS

An ultrasonic distance estimator used to determine the distance of containers and other cavities where it is difficult to ascertain the true depth, when searching for false panels. The kit includes a side viewing endoscope for searching inaccessible areas through a gap of 10-mm diameter. A 10W-halogen lamp in the tip of the endoscope provides bright illumination and enables inspections to be made over distances of up to 1.5m. Power for the endoscope is supplied from a secondary power socket in the fluorescent hand lamp included with the kit.

Weight 5 kg
Price \$800

HANDHELD RADAR SCOPE

This handheld radar scope provides troops with the ability to sense through up to 12 inches of con-

crete whether to see if someone is in the next room. The Radar Scope is waterproof and rugged, and runs on AA batteries.

Weight 1.3 kg
Price \$1,000

INTERCHANGEABLE MIRRORS

A wide range of mirrors to fit all telescopic and fixed length arms. All mirrors are set in lightweight moulded black polypropylene frames with screw fixing studs.

Weight 2 kg
Price \$150

METAL DETECTOR, HAND HELD

A hand held metal detector effective on both ferrous and non-ferrous objects and suitable for EOD and police post-incident operations. A metal detector for personnel search with an instant audible and visual alarm, a more sensitive detector which is effective on metal objects as small as 0.05 grams.

Weight 2 kg
Price \$400

METAL DETECTOR

A portable detector for locating ferrous objects under ground or water and suitable for the accurate location of bombs, pipes and wreckage.

Weight 2 kg
Price \$90

METAL DETECTOR, WALK THROUGH

These types of metal detector are used at airports and other high security areas.

Weight 50 kg
Price \$500

SECURITY KIT

The Security Kit has everything you need to make the flow of traffic stop or slow down. Each kit comes in a plastic storage box. Each kit contains:

1 Storage Box	2 Police Do Not Cross Tape Rolls
2 Convex Vehicle Mirrors	2 Red Nylon Braided Rope Rolls
2 Metal Detector	2 Slow/Stop Sign Paddle
2 Metal Detector Recharger Kit	20 Traffic Cones with Reflective collars
Weight 20 kg	
Price \$200	

THD TACTICAL HAND-HELD DETECTOR

The advanced circuitry of the new THD Tactical Hand-Held Detector is highly sensitive and needs no adjusting. The unit detects ferrous, non-ferrous and stainless steel weapons contraband or other metallic objects with ultra-quick response time. All silent operation and Red LED indicator light allow the officer to maintain tactical advantage while scanning and retrieving metallic items. Bright LED flashlight at tip of unit for low light and / or night operation The Green LED indicates unit is on, and changes to Amber when battery needs replacing, runs off a one 9-Volt battery.

Weight 1 kg
Price \$200

VIDEO PERISCOPE

Used for checking out rooms through confine entryways, comes with a special camera for viewing from under doors.

Weight kg
Price \$

UNDER VEHICLE SEARCH MIRROR - TROLLEY TYPE

A large convex mirror with fluorescent lighting mounted on castors for searching the underside of vehicles. The mirror offers a wide field of view and the hinged handle can be lowered to ground level for maximum under vehicle penetration.

Weight 0.955 kg
Price \$100

X-RAY SCANNER

This machine is used for examining the contents of small and medium packages.

Weight 50 kg
Price \$400

X-RAY SCANNER, PORTABLE

This machine is used for examining large packages or other things that couldn't fit in a regular X-Ray scanner.

Weight 90 kg
Price \$1,000

47. SIGNALLING EQUIPMENT

BUDD LIGHT

A pulsed IR beacon that is used as an aid for vehicles and personnel identification and for marking obstacles, passage points, helipads, and minefields. It can be attached to military vehicles or can be carried by individual soldiers as a command and control device when operating at night. It can also be used as a means for ground troops to signal air support, giving a specific location of friendly troops, and are useful to specialized units, such as pathfinders, for marking of pickup, drop, or landing zones.

The Budd Light consists of two simultaneously pulsing LEDs emitting in the near IR range, peaking around 880 nm. The pulse width is 400 meters and the pulse rate is one pulse every two seconds (30 pulses/minute). Light emitted from the LEDs can be seen by any image intensifier to include night vision goggles (but is not visible through the Forward Looking Infrared (FLIR)). The LED IR emission is directional with dispersion angle of about 40°.

All circuitry, except the battery contacts, is enclosed in a rubber casing. The device is powered by a 9V alkaline battery; battery life is about eight hours. With the battery attached, it measures ¾" x 1" x 2" and weighs about 2 oz.

Weight Nil
Price \$2

CHEMLIGHT

A small tube filled with glowing chemicals. A Chemlight glows at maximum intensity for 3 hours (visible at 100 meters or at the maximum range of a night vision device) and half intensity for 9 hours. Merely putting the Chemlight in a pocket will stop the light. Chemlights are available in red, green, yellow, orange, and blue.

Another variety of Chemlight, the Brightstick, will produce very bright light for 30 minutes (visible at 250 meters or twice maximum night-vision gear range). Brightsticks come only in white or yellow.

High-intensity Chemlights are used by police and special operations, and are sometimes issued to pilots. A high-intensity Chemlight produce 5 minutes of extremely bright light, the first minute of which is actively blinding. They are available only in red.

Infrared Chemlights function as normal Chemlights, but are visible only to individuals using night-vision gear. They glow for 6 hours.

Light discs are simply disc-shaped, 10 cm wide Chemlights. They may be written upon and are most often used as markers. They glow for 4 hours, and are available only in green.

<i>Box of 12</i>	Weight	Price
Chemlights	0.25 kg	\$26
Brightstick	0.25 kg	\$32
High-Intensity Chemlight	0.25 kg	\$36
Infrared Chemlight	0.25 kg	\$75
Light disc	0.5 kg	\$30

CHEMLIGHT CASE

A plastic tube used to hold a Chemlight. Twisting the end cap turns a shutter which blocks as much of the Chemlights glow as desired.

Weight Nil
Price \$3

DK100 UNDERWATER ACOUSTIC BEACON

The Dukane DK100 Underwater Acoustic Beacon provides the aviation industry with a combination of superior technology. Mounted on flight recorders and military aircraft, the DK100 greatly assists in the underwater recovery of aircraft and their recorders. FAA & CAA approved under TSO-C121, the rugged and durable construction of the DK100 insures its survival even under high-impact shock.

Once activated, the DK100 will operate in water depths to 20,000 feet (6,000 m). Using a 6-year battery, the DK100 continuously sends out an acoustic signal for a minimum of 30 days (90 days optional). The DK100 is equivalent to ELP-362D/S Emergency Locator Beacon and is approved for use by all major flight recorder manufacturers.

Weight Nil
Price \$100

FLARE LAUNCHERS

As with much survival equipment, there are a number of flare launchers available on the market. Three commonly-available/used kinds of flare launcher are shown here:

- **15 mm Flare Launcher:** For firing 15 mm signal flares, the flare launcher propels the flare approximately 60 meters vertically and burning at 35,000 candlepower, enabling the signal to be visible from up to 12 miles/19 kilometers. The launcher is hand-sized, with a triple head that enables three flares to be loaded.
- **Heckler & Koch EFL (Emergency Flare Launcher):** A highly portable flare launcher, useful for hiking, boating and camping activities, the EFL is also useful for signaling extraction teams and such; should be included in every operative's kit. Its small size (9 cm long overall) is its biggest selling point, since it can be carried much more easily than other, larger flare guns (and is capable of being cocked and fired from one hand). It uses a removable 5-shot magazine and fires proprietary H&K 19 mm signal flares that reach a height of approximately 66 meters.
- **Heckler & Koch P2A1:** For firing H&K 26.5 mm signal flares.

	15 mm Flare Launcher	H&K EFL
Weight	0.25 kg	1 kg
Price	\$41	\$40

FLARES

- **15 mm Signal Flares:** These are for use in standard 15 mm launchers. They are available in red, green, white, and yellow.
- **H&K 19 mm Signal Flares:** Designed to be fired from the HK EFL. They are available in green, red and white.
- **H&K 26.5 mm Signal Flares:** These are for use in the HK P2A1 launcher. They are available in green, red or white.
- **Hand Flares:** Standard highway flares for marking a route for others to follow or avoid. The flare is 20 cm long with a 15 mm diameter and is activated by unscrewing the cap and striking the fuse on an abrasive surface (like a match). Each flare burns for approximately 20 minutes. They also work under water, with a reduced burn time.
- **Mk 13 Mod 0 Signal Flare:** It is the standard survival signal flare of US pilots, used to attract the attention of SAR aircraft and to give pickup aircraft wind drift direction; it is also used by US Special Forces. One end is for night use and produces a red flame; the other end is for day use and produces orange smoke. Each end burns for about 20 seconds. The night end has bumps around its outer edge, approximately one-quarter inch from the end, for easy identification. Follow the instructions printed on the signal.
- **Mk 124 Mod 0 Signal Flare:** This marine smoke and illumination signal is also used for either day or night signaling by personnel on land or sea. It is a one hand operable device that emits orange smoke for daytime use and red flame for night time use. Burning time for each end is about 20 seconds. Each end has protective plastic caps, and the night end has two prominent raised bead circles on the casing to positively identify this end by the sense of touch. A label on the outer surface around the whole body of the signal further identifies the ends. The label also gives detailed instructions on how to use the signal, used by US Navy Seals, USAF and USN pilots.
- **Road Flare:** 15-foot radius of light, burns very brightly for about 30 minutes.

	Weight	Price
15 mm Signal Flare	Nil	\$14
Hand Flare	Nil	\$20
Mk 13 Mod 0 Signal Flare	Nil	\$50
Mk 124 Mod 0 Signal Flare	Nil	\$75
Road Flare	0.43 kg	\$5

FLASHLIGHTS

There are broadly three kinds of quality flashlight of use to characters: Mag-Lite, marine and military.

- **Mag-Lite Flashlights:** Preferred for general use, due to their ruggedness, precision manufacturing and power. The larger versions also double as an effective club if required. There is a broad range of flashlights available, ranging from key ring size to full size; the most popular kinds are dealt with here. All Mag-Lite flashlights feature an adjustable beam and have a spare bulb in the

tail. Mag-Lite also produces a belt holder for the larger lights (consisting of a loop through which the light is suspended).

- **Mini-Mag-Lite AA:** A pocket light, is 145 mm long and requires two AA cells.
- **Mag Charger:** A full size light, requiring 4 D Cells (rechargeable) and is 315 mm long. The cells last for 1.5 hours of continuous use and produce beam 800-metres wide.
- **Standard Mag-Lite** flashlights are 2 to 4 cell (C or D) and vary in length between 225 mm and 370 mm. The most commonly used light is the 2C.
- **Badge Lite:** A strobe attachment which screws into the base of the light and is a strobe pulsating at 140 times per minute. It is available in blue, green, amber, red or clear.
- **Small Military Flashlight:** The standard infantryman's hand lamp, some prefer this flashlight to the Mag-Lite torches, since although it is not adjustable, it can be clipped onto web gear or a helmet band, freeing the hands for other purposes.
- **Marine Flashlight:** Similar to a large hand lamp, this light is waterproofs with a rubberized coating to resist corrosion, and has a button to enable Morse signaling.

	Weight	Price
Badge Lite	0.01 kg	\$75
Flashlight, Mag Charger	0.90 kg	\$185
Flashlight, Mag Lite 2C	0.60 kg	\$27
Flashlight, Mag Lite 2D	0.75 kg	\$38
Flashlight, Mag Lite 3C	0.75 kg	\$38
Flashlight, Mag Lite 3D	1 kg	\$44
Flashlight, Mag Lite 4C	1 kg	\$50
Flashlight, Mag Lite 4D	1.25 kg	\$55
Flashlight, Mag Lite AA	0.20 kg	\$16
Flashlight, Marine	0.75 kg	\$55
Flashlight, Small Military	0.20 kg	\$20

FLASHLIGHT, "4-BATTERY"

An adjustable flashlight often carried by police and private security guards. It also makes a very effective club.

Weight	1.05 kg
Price	\$40

FLASHLIGHT, KRYPTON

Three times as bright as a military flashlight, but requires a special lithium battery that lasts only 6 hours.

Weight	0.14 kg
Price	\$30

FLASHLIGHT, MILITARY

Battery-powered flashlight of rugged construction, such as the US "angle" flashlight.

Weight	0.3 kg
Price	\$12

FLASHLIGHT, MILITARY KRYPTON

This flashlight is in common use by Special Forces. It is very tough, has a light 3 times as bright as a standard military flashlight, and comes with a clip for attachment to firearms.

Weight	0.3 kg
Price	\$45

FLASHLIGHT, MINI MAG-LIGHT

Popular flashlight carried instead of the normal flashlight by many US soldiers since it is every bit as bright as the angle flashlight. The light can be focused.

Weight	0.17 kg
Price	\$22

FLASHLIGHT, PENLIGHT

Issued to pilots and in field surgical kits.

Weight 0.08 kg
Price \$13

GIANT MILITARY PROPANE RESCUE LAMP

Has 14" lamp with convex mirror, metal tripod, repair kit, wooden storage trunk, & hoses. These are extra heavy-duty quality Swedish Army. Comes with extra mantels, propane tank not include.

Weight 2 kg
Price \$20

HAND STROBE LIGHT

This version is similar to a small torch, approximately 15 cm in length and 2 cm in diameter, intended for hand signaling.

Weight 0.11 kg
Price \$150

HELIOGRAPH

Otherwise known simply as a Signaling Mirror, the heliograph is made of steel (to prevent breakage) and is 100 x 75 mm in size. With good visibility on a clear, sunny day, it can be seen at distances up to 30 km/18.5 miles.

Weight 0.1 kg
Price \$30

HELMET STROBE LIGHT

This is a military specification strobe light, such as the DU-5E or MS-2000 (M), which can be attached to the various types of aircrew and naval helmets to assist with search and rescue. It is very rugged, flat in configuration (50 x 90 x 25 mm) and has blue and infrared covers. The unit runs on two AA batteries.

Weight 0.46 kg
Price \$45

INOVA 24/7 STROBE

The Inova 24/7 Smart Bright LED flashlight is a compact and extremely versatile multifunction light. By rotating the octagonal dial you move through 3 steady light output modes and 5 strobe functions. By rotating the bezel clockwise one and two clicks you activate the 4 bright white LEDs in either the low or high intensity mode. By rotating the bezel counter clockwise one click you activate the two red LEDs. The clicks in between take you to the different strobe and SOS functions.

The sturdy stainless steel clip allows for easy attachment to a shirt pocket, belt, or gear. The 24/7 will stand flat on its base or set it on its back for general illumination. The neck lanyard (included) allows the light to shine forward while around your neck or to suspend it from your tent. The Inova 24/7 runs on a single, easily replaceable, 3 volt lithium cell.

Weight 0.5 kg
Price \$70

IR (INFRARED) BEACON

The covert signals emitted by these infrared beacons are visible at long ranges when viewed with a night vision systems. IR beacon flashes a constant signal when the battery is attached. Runs off one AA battery, and last for 24 hour.

Weight Nil
Price \$300

KRILL LIGHTS

Everyone agrees that Chemlights are useful and almost indispensable. They are relatively inexpensive (in small amounts), easy to come by, and emit enough light for most tasks, but don't light up the entire forest. But they do have their drawbacks: you can't turn them off, they get expensive if used in large numbers, can break and leak...

The Krill is an electronic version of the chemical light stick, and is better in all aspects. They are about the same size as Chemlights (12.5 cm x 25 cm) and weigh a bit more (approx. 100 g). However, they last up to 120 hours on a single set of AA batteries (the Extreme version lasts 50 hours), can be turned off, come in a variety of colors, stay cool to the touch, are waterproof to 50 meters, and won't leak! Also, major cost savings can be realized in situations where large numbers of Chemlights are routinely used. Light output is comparable or greater than a standard Chemlight.

There are four versions manufactured: Krill, Krill 180, Extreme and Extreme 180. The Extreme lights have brightness almost twice that of the standard Krill. The 180 versions output light on only half of the body. All models come in six colors: red, orange, yellow, white, blue, and green.

Weight Nil
Price \$20

LANDING ZONE MAKER

Used for marking landing zone for helicopters.

Weight Nil
Price \$20

LANTERN

Lights a 10-meter radius. Fuel Consumption: 1 liter.

Weight 2 kg
Price \$25

LASER PRODUCTS SURE-FIRE FLASHLIGHTS

This light/hold combination is perfect for low-light tactical scenarios, providing for good light coverage, as well as a steady shooting hand. The cost for a complete set-up varies depending on type, number of cells, etc.

Weight
Price \$100-150

LED ETERNA LIGHT

The Eterna Light can provide light continuously for over 50 days without charging or replacing batteries, using only three lithium batteries that come with the unit. The built-in microprocessor of the Eterna Light controls power utilization extending battery life way beyond ordinary flashlights, even far beyond other LED flashlights. The light also comes with various signal and attention-grabbing light variations that can be controlled by the user. The best emergency signal light we have ever seen.

Weight
Price \$55

LOCATOR BEACON

This is similar to the beacons carried by aircrews to assist with their recover when they are forced to eject over water. It is effectively a small radar transponder, pocket-sized and emitting a signal that can be located at distances of up to 20 miles or so.

Weight 0.25 kg
Price \$325

M-227 SIGNAL LAMP

Used for signaling using visual means, this lamp uses 5 D cell batteries and comes with a Morse key, tripod & shoulder stock.

Weight 1.2 kg
Price \$100

M79 MOD 0 ILLUMINATION SIGNAL KIT

A pyrotechnic that contains seven screw-in cartridge flares and one pencil type projector used to aim and fire the cartridges. The Illumination Signal Kit, MK-79 is used to attract vessels, aircraft, and ground rescue teams. These signals produce a red star display at an altitude of 250-650 feet for a minimum time of 4.5 seconds. Their luminous intensity is about 12,000 candle power.

Weight Nil
Price \$150

MILITARY SIGNAL FLARE HOLDER

Plastic container with water-proof O-ring seal, used by US Special Forces. Holds the long silver signal flares (after taking out from the original metal container).

Weight Nil
Price \$10

MILITARY STROBE LIGHT

Attached infrared (IR) filter for Night Vision Goggle (NVG) viewing. Directional, shielded blue filter identifies strobe from ground fire. Raised polarity indicators allow correct battery replacement even when visibility is low. Omni directional white strobe emits brilliant 250,000 peak lumens. Compact lightweight and waterproof to 200 feet, large sliding switch for easy operation under any conditions. Battery door attached to case to prevent loss. The unit will operate continuously for a minimum of eight hours, operated by two AA batteries. Currently used by US Pilots, Special Forces, Seals and US coast guards.

Weight Nil
Price \$100

NAVIGATION AND SIGNALING BATTERIES

These are generic sized batteries for use in standard portable equipment. It is always sensible to carry a few spares as a contingency. Batteries lose their charge if they get cold, and they need to be kept inside clothing and close to the body in cold temperature. Most batteries available have an indicator of remaining strength (operated by pressing the finger against a button at the top and bottom). A distinction should be made between these batteries and the specialized rechargeable batteries used in equipment such as mobile phones, video cameras, etc. Specialized batteries are specific to the item of equipment used.

Each of the versions shown below is available in a rechargeable model, although rechargeable versions generally do not last as long. A battery charger for charging rechargeable batteries is available as either a standard plug-in or vehicle cigarette lighter socket version. Battery costs and weights are per cell.

	Weight	Price
Battery Charger	0.10 kg	\$16
Battery, 9-volt	0.09 kg	\$1
AA Battery	0.06 kg	\$0.80
AAA Battery	0.03 kg	\$0.70
C Battery	0.10 kg	\$1
D Battery	0.11 kg	\$2

PHOENIX LIGHT

The Phoenix Light is similar in size, shape and weight to the Budd Light. It uses a standard 9-volt battery. It is ideal for marking and positive identification of individuals, airdrop bundles, vehicles, routes, and landing zones. In company size operations it may be used to identify the forward line of troops for night close air support. The Phoenix Light's innovation is a programmable coded flashing signal that can be easily entered and changed by the soldier in the field. It operates in near IR. As with the Budd Light, the Phoenix Light can be viewed by night vision goggles, but not the FLIR system. Air-to-Ground and Ground-to-Ground ranges are greater than Budd Light.

Weight Nil
Price \$30

PERSONAL MARKER LIGHT (PML)

Is a safe chemical light approved by the USCG and the FAA for use on life preservers. Waterproof, windproof, and non-inflammable, is used by US Special Forces.

Weight Nil
Price \$20

RECHARGEABLE LANTERN

This lantern is a multi-purpose work light, 30 cm in length, with a carrying/hanging handle at the top. It has twin fluorescent tubes providing the main light source, but also has a (white light) spotlight, and flashing red and amber lights. It contains two rechargeable D cells, which can be recharged in the lanterns whilst it is connected to the mains.

Weight	0.78 kg
Price	\$32

REFLECTIVE TAPE

The tape allows quick identification of buddies and friendly forces. They are usually placed at helmets, assault vests, backpacks, and BDUs. The tape reflects both visible and IR light. The light rays are reflected in the direction from which they came. Since very little light is scattered when the light is returned, retro reflective materials appear brightest to an observer located near the original light source.

	<i>30 ft Roll</i>
Weight	Nil
Price	\$20

STROBE LIGHT

A powerful flashing Xenon light used as a distress signal. Pilots are issued one of these, and other soldiers commonly carry them. From the air they are visible at a range of 15 km during the day and 50 km at night. The strobe will flash continuously for 9 hours.

Weight	0.14 kg
Price	\$50

ULB-350 SERIES UNDERWATER BEACON

The ULB-350 Underwater Beacon is a small, rugged and reliable acoustic signaling device used for marking equipment and underwater sites. Ideal for applications where size and weight are an issue, the ULB-350 offers flexible features that allow you to tailor it to your requirement. Uses a 9 volt alkaline or lithium battery.

Weight	Nil
Price	\$10

WHISTLE

Important for communicating between team members where radios are not available, and also useful for locating individuals in a search and rescue operation, the whistle has a range of up to 1 km (0.75 miles) on a clear, still day. There is always a whistle attached to a life preserver.

Weight	Nil
Price	\$4

48. SURVIVAL EQUIPMENT

6½ DAY CANDLES

Once lit, one of these candles will burn 24 hours a day for at least 6½ days. These big candles come in a specially designed plastic container that keeps the wax hot and level for longer burn times. The candles make excellent gifts and some people will light one to remember a special person or occasion. They make fine emergency candles.

They come 12 candles per case and 5 cases will provide over one year of continuous light. (78 days per case x 5 cases = 390 days of light).

	<i>Case of 12</i>
Weight	3 kg
Price	\$35

BED ROLL

The bedroll basically consists of one blanket, tightly rolled up into a cylinder, commonly used by trail riders.

Weight	1 kg
Price	\$50

BLANKET

Weight	
Price	\$10

BUNGEE CORD

1 meter long (stretches to 2 meters). These are in common use by soldiers to attach gear and build shelters.

	<i>4 Cords</i>
Weight	0.17 kg
Price	\$8

CAMOUFLAGE COMPACT

This is a small, flat plastic case containing a mirror in the lid and four blocks of grease paint in camouflage colors. It is an essential part of individual camouflage, applying the paint to the face and hands, enabling the individual to blend into their background. One pack contains ten applications for face and hands.

Weight	0.02 kg
Price	\$18

CAMOUFLAGE PAINT

This is 3 small plastic tubes containing grease paint in camouflage colors. It is an essential part of individual camouflage, applying the paint to the face and hands, enabling the individual to blend into their background. One pack contains ten applications for face and hands.

Weight	0.02 kg
Price	\$12

CANTEEN CUP & STAND

Weight	
Price	\$2

CANTEEN, 1-LITER

Self-explanatory. Canteens are not intended to serve as a soldier's only water supply, but they are just that for soldiers on special missions. Because of this, characters may wish to carry 2 or more.

Weight	(loaded) 1 kg
Price	\$10

CANTEEN, 2-LITER RESERVE

This is a large-capacity reserve water supply, attached to the outside of a field pack or slung on a strap.

Weight (loaded) 2 kg
Price \$25

CANTEEN, 5-LITER RESERVE

This is a larger reserve water supply, usually carried inside field pack or slung on a strap.

Weight (loaded) 5 kg
Price \$30

CANTEEN, ECHO COLLAPSIBLE

This 1-quart canteen is made of heavyweight soft plastic. The air can be squeezed out as water is consumed, which reduces the noise of sloshing water of partially full canteens. If the canteen is empty, you can collapse for space saving efficiency and store it in your ruck. The flexible canteen greatly improves the water flow through the drinking tube of the M40 Field Protective Mask because the canteen body can be squeezed; Edgewood Arsenal Tests (Chemical Biological Defense Command) showed 2 times the water flow rate while drinking through the new Joint Services Protective Mask using the flexible 1-quart canteen compared to old, hard-shell plastic canteens.

The manufacturer claims that it reduces impact related injuries caused while landing on your side (what impact related injury can a canteen cause besides a bruised hip?). The pliability of the plastic makes closing the LC-2 canteen cover snaps difficult: when you push on the snap, the canteen just gives and the snap doesn't fasten. This could be remedied with a canteen cover that doesn't have snap closures. Take the good with the bad. The improvements over the LC-1 Canteen are slight and don't justify the extra cost.

Weight 0.05 kg
Price \$10

CANTEEN, HYDRATION SYSTEM

A soft-sided canteen designed to be worn as a backpack (it can be used in conjunction with a rucksack and/or LBE). Two sizes are available (2 and 4 liters). Hydration systems include a flexible drinking tube to allow rapid access to the water while on the move. Hydration systems were very popular with American soldiers, as well as many athletes (mountain bikers, distance runners, hikers).

	<i>Small</i>	<i>Large</i>
Weight	(empty) 0.2 kg (loaded) 2 kg	(empty) 0.2 kg (loaded) 4 kg
Price	\$100	\$150

DOME TENT, MRE HEATERS AND MREs COMBO

A self contained survival kit; this combo includes a 6' x 6' Back-packing Dome Tent, a case of MREs Meals, and 12 MRE heaters.

Weight 13 kg
Price \$100

FIRE STARTER, BLAST MATCH

An all-weather fire starter which you can strike with one hand. Lift the thumb button slightly to release the spring-loaded flint bar, and swing the nose cap to the back to extend the handle for a comfortable grip. Place the tip of the flint bar next to any dry tinder on a firm fire platform; press the thumb button and plunge toward the tinder to generate a spark twice as hot as a standard match and ignite the tinder. It doesn't really generate a lot of sparks, requiring a lot of strikes. The price is the real damper compared to others on the market.

Weight
Price \$17

FIRE STARTER, FLINT AND STEEL

The most basic means of making a fire in any conditions, the flint and steel includes a small magnesium bar, which assists greatly in igniting kindling.

Weight Nil
Price \$25

FIRE STARTER, MAGNESIUM SHAVING BLOCK FIRESTARTER

Scrape the tool with any knife to create a small pile of shavings, and then ignite them with the built-in sparking tool. The magnesium ignites to 5,400 °F. It fits in your pocket (3" x 1" x ¼") and includes a chain which can be used as a lanyard. It's good for hundreds of strikes, but the downside is that the process can be time consuming and you must have a knife.

Weight
Price \$6

FIRE STARTER, SPARKLITE FIRESTARTER KIT

The smallest, most effective self-contained spark and tinder wet/dry fire starting method available. Special ODYN flint will start 2,000 survival fires; best of all, you can strike it with one hand. Use it as an emergency flash illuminator or signal. The Tinder-Quick fire tabs start fires fast and will burn two minutes.

Plastic Kit box measuring 2.5" x 1.625" x 0.75" includes Striker & Flint, 8 pieces of Tinder-Quick, and instructions. It is available in OD Green or International Orange. Sparklite will fit in hollow handle survival knives (uses the space of four matches).

Weight
Price \$7

FIRE STARTER, STRIKE FORCE FIRE STARTER SYSTEM

An alloy flint bar and hardened steel striker type fire starter, self-contained with tinder material in a rugged black 5" plastic capsule with lanyard. Easy-to-use, the stainless steel striker sends a shower of sparks to the special Strike Force Tinder cube, which ignites wet or dry and is extinguishable for reuse. The ½" flint rod will last a lifetime.

Weight
Price \$11

FIRE-STARTER PASTE

Looks like toothpaste but very flammable; good for 20 uses.

Weight Nil
Price \$5

FISHING KIT, DELUXE

Includes rod, reel, sinkers, lures and spare line, all in a two level tackle box.

Weight 4 kg
Price \$100

FISHING KIT , EMERGENCY FRESH WATER

This emergency fishing kit is designed for overland flying and is best suited for freshwater fishing. It is very compact and light, which lends itself to being stored just about anywhere including survival kits, aircraft, map compartments and even your pockets. Contains:

1 Bobber, small	2 Jigs, Feather
1 Fire Starter	2 Safety Razor Blades
1 Instructions	3 Flies
1 Large Vial Container	4 Leaders
1 Main Fishing Line, 50', 20 lb	4 Safety Pins, assorted
1 Main Fishing Line, 50', 50 lb	5 Swivels, assorted
1 Salt and Pepper	8 Weights, assorted
1 Small Vial and Large Bobber	10 Bait
1 Tin Foil	12 Hooks, assorted
1 Trotline	

Weight Nil
Price \$25

FISHING KIT, NATO

Great additional to any survival kit, set includes:

4 flies	8 small hooks
4 medium hooks	24 split shot
4 swivels	30 meters line

Weight Nil

Price \$30

FISHING KIT, TRAVEL FISHING SET

Telescopic fishing pole with reel, line, hook, sinker, and bobber, everything you need to become an instant angler.

Weight

Price

FISHING LINE

20 meters, including a hook.

Weight 0.2 kg

Price \$5

FISHING NET

1 x 1 meters, with weights.

Weight 1.8 kg

Price \$38

FISHING NET, SURVIVAL GILL NET

This 12' x 4' net is used by stretching it across a stream or pond after improvising weights for the bottom and floats for the top. Fish that attempt to swim through are caught in the net and can be used for food or bait. This survival gill net is an excellent supplement to any fishing kit. It can be set up and left unattended while time is devoted to building survival shelter, providing medical attention or signaling.

Weight Nil

Price \$14

FISHING POLE

With 20 meters of line and a hook.

Weight 4 kg

Price \$50

FOAM SLEEPING MAT

Smoothes out the bumps in rough ground, but unfortunately acts as a sponge in wet weather.

Weight 0.5 kg

Price \$15

GERMAN AIR FORCE AND NAVY SECUMAR 10 HL LIFE PRESERVER SURVIVAL VEST

German Air Force/Navy Life Preserver Survival Vest for Pilots, in a life preserver, with contents:

Calumet Stick	Strobe Light
Signal Mirror	Survival Book
Signal Whistle	

Weight 6 kg

Price \$500

GERMAN NAVY SURVIVAL PAK SEA CONTAINER

German Navy Survival Pak Sea Water Container, used by all Navy Aircraft and Fighters Pilots The container is packed with the following contents:

Fire Tablets
Gloves
Mini Compass
Pocket Knife

Weight 3 kg
Price \$200

Survival instructions
Water Container
Water purification tablets

GI INSECT REPELLENT CLOTHING WASH

Contains 2 bottles of repellent and bags to wash your clothing in. Provides protection from bites of mosquitoes, ticks, chiggers, and lice; repellents made for clothing applications really keep ticks from jumping onto your legs while walking through tall grass. Use the Permethrin clothing repellent before putting your clothing on. One kit treats one uniform and lasts for the life of the uniform. It can also be used to treat a bed net to repel insects while sleeping. This is an alternative to the GI Insect Repellent Spray.

Weight Nil
Price \$20

GI SUN CREAM

Weight
Price \$10

HAMMOCK

Normal canvas hammock with wooden end stays.

Weight 0.7 kg
Price \$19

HAMMOCK, COVERED JUNGLE

A normal hammock with a canopy over the hammock and insect netting between the canopy and hammock.

Weight 1.25 kg
Price \$32

HAMMOCK, LIGHT MESH

Supports 225 kg, yet rolls into a fist-sized ball.

Weight 0.3 kg
Price \$10

HAMMOCK, SUPER

20 feet long, it weights only 1.5 pounds and can hold up to 1 ton.

Weight Nil
Price \$50

INSECT REPELLENT

Insect repellent is essential for wilderness travel in most warm, humid or low-lying areas. One stick will last for approximately two weeks (applying four times a day). Whilst some Special Forces may shun the use of items that alter your personal scent, using insect repellent is an essential basic comfort.

Weight Nil
Price \$10

KNIFE SHARPENER KIT

Includes knife clamp and angle guide.

Weight 0.5 kg
Price \$20

LIGHTER, CIGARETTE LIGHTER

Total 500 seconds of flame (approximately 250 lights). Most require butane or propane, but motor fuels or alcohol can fuel some (Tinkering might help). Lighters can be found in the pockets of most soldiers.

Weight	Nil
Price	\$10

LIGHTER, WINDMILL DELTA

This is essentially a standard Windmill lighter with elastomer armor.

Weight	0.055 kg
Price	\$60

LIGHTER, WINDMILL SHOCK-PRO

An external cap lock makes the Shock-Pro extremely shock proof. The high capacity fuel tank is praise-worthy and would definitely live up to extended backcountry use. Refillable butane gas level is visible through fuel window. Designed with a Piezo-electric ignition and sports quick release buckle and web strap for easy attachment to a belt or strap. The lighter is also flame adjustable for different altitudes, and wind/water resistant.

This would be a five star lighter if it weren't so awkwardly shaped. The shape actually makes it difficult to light in certain situations.

Weight	0.080 kg
Price	\$70

LIGHTER, WIND-PROOF LIGHTERS

There are many different makes of wind-proof lighters, fuelled by either butane gas or naphtha (a petroleum distillate). The most popular and reliable petrol lighters are the Zippo and Ronson lighters, and there are a thousand and one piezo-electric gas lighters available. The key difference between a petrol and gas wind-proof lighter is that the petrol version produces a flame, whilst the gas version uses a powered gas jet to super-heat the material into combustion.

	<i>Gas</i>	<i>Petrol</i>
Weight	Nil	Nil
Price	\$25	\$30

MATCHES

A box of wind and waterproof matches sealed in protective varnish. Each burns for approximately 12 seconds.

	<i>Can of 50</i>
Weight	Nil
Price	\$2

MOSQUITO NET BAR

Mildew resistant, fine marquisette weaves for extra protection, reinforced edges and double reinforced corner w/ties. 250 cm x 250 cm.

Weight	0.5 kg
Price	\$10

PARACHUTE CORD

Although principally designed for attaching parachutes to the harness, Para cord is also a useful piece of survival equipment. It is lightweight, very strong and can be used for making shelters, attaching equipment and so on.

	<i>500-meter roll</i>
Weight	0.5 kg
Price	\$50

SEW KIT

Weight
Price \$2

SLEEPING BAG

Protects against 30 °F.

Weight 4 kg
Price \$50

SLEEPING BAG, BIVY COVER

The Bivy Cover is a waterproof, windproof bag designed to be used with the modular sleeping bag or by itself. It incorporates the same material that is used in the Extended Cold Weather Clothing System. It weighs less than two pounds and comes with a breakaway zipper that can completely enclose the occupant and be egressed quickly.

Weight Nil
Price \$70

SLEEPING BAG, GERMAN SNIPER

Three-season sleep system with rubberized outer shell, full-length zipper with double-pull and non-locking slider for rapid exit, button front and wrist cinches, drawstring contoured, waterproof Gore-Tex® Bivy bag with leak-proof, sealed seams.

Weight 2 kg
Price \$100

SLEEPING BAG, MODULAR (MSB)

This is a two-bag system consisting of a lightweight outer patrol bag (temperature rated to 30°F) and an intermediate inner bag (temperature rated to -10°F). The bags can be used independently or mated together to form the extreme cold weather bag rated to -30°F.

The MSB incorporates the latest sleeping bag technology using lightweight polyester fibers for insulation. It is hydrophobic (water hating) and light, weighing less than 7 pounds. It comes with a compression sack for easy stowage.

	Patrol Bag	Inner bag	MSB
Weight	1.1 kg	2 kg	3.1 kg
Price			\$150

SLEEPING BAG, WINTER

Protects against -45 °F.

Weight 5 kg
Price \$100

SLEEP SCREEN

A dome 2' tall and 3' wide of insect netting to protect head/shoulders in sleeping bag.

Weight
Price \$25

SNARE KIT

This unique survival animal snare kit is carried by Air Force pilots and Special Forces types. All essential hardware and instructions are included for trapping birds, rabbits, and most all small to medium size animals.

Weight
Price

SOLAR POWERED RECHARGEABLE LANTERN

A lightweight, compact, reliable source of day or night lighting, for indoor and outdoor activities. Convenient carrying handle, adjustable belt strap, spare lamp compartment for emergency use (provided with 4 spare lamps), and easy to change florescent tube. This solar powered lantern has three

unique lighting sources: fluorescent light, flashlight and blinking light. Each unit has a 3-way power system:

- Solar Panel: In the day-time an automatic charging system in the circuit charges the built-in rechargeable battery for night-time use. The charging time is 8-10 hours (in full sun).
- Batteries: The lantern uses the normal "D" size batteries during the non-light period. On the other hand, it can also be used as "extra" energy with double power for longer lighting time.
- AC/DC Adaptor: It can be used with your AC/DC adaptor to charge the built-in rechargeable battery. The charge time is 5-8 hours (do not charge for more than 8 hours).

Weight 0.5 kg
Price \$90

SPACE BLANKET

Useful in emergency/rescue situations, this lightweight reflective plastic blanket uses the person's own reflected body heat to maintain warmth.

Weight Nil
Price \$30

SPEEDHOOK

This small device is used for fishing and trapping when no food is readily available. The Speedhook works like a spring loaded trap: when a fish or other small animal "takes the bait", it automatically springs open setting the hook. The Speedhook is specifically designed for survival applications, and is so effective it has been outlawed for non-survival use in some areas.

The Regular Speedhook is a pack of 2 of the great Speedhook devices like the one included in the military fishing and trapping kit.

Weight Nil
Price \$7

SPEEDHOOK, MILITARY

This is the Military Version of the Speedhook and is currently included in the Cold Weather Survival Kits of the US Air Force, US Army, US Army Reserves, US Coast Guard and others. This Speedhook comes with fishing line, one hook, several pieces of dehydrated bait and complete instructions.

Weight Nil
Price \$10

SURVIVAL SPEAR

This modular spear can be used as a walking stick, or unscrew it into two pieces and use it as trekking poles. The bayonet lug allows you to quickly attach a bayonet for spear fishing. Unscrew the pole into two sections and use them for tent stakes with a tarp or use them for your hammock.

Weight 1 kg
Price \$80

SURVIVAL BACKPACK

This pack is just a large backpack filled with some stuff that's useful to the average person. The estimated weight of the pack is about 20 kg, which is a lot but it's really designed to be carried in a vehicle more than being lugged around everywhere on someone poor slob's back

1 Large Backpack	1 USAF Pilot's Emergency Strobe Light with 3 Batteries
1 Air Horn	1 Water Purification Pump & Accessories
1 Camping Stove & 12 Hours Fuel	2 Cans of Spray Paint Fluorescent Orange
1 Entrenching Tool	2 Large Bottle Insect Repellent
1 Green Plastic Tarp, 5' x 7'	2 Magnesium Fire Starters
1 Heavy Duty Sewing Kit	2 Rolls Olive Green Duct Tape
1 Machete & Sheath	3 Small Signal Mirrors
1 Mini Dental Kit	3 Waterproof Stuff Bags
1 Roll Electrical Tape	6 Sets Earplugs
1 Roll Heavy Duty Wire (10 m)	
1 Roll Luminous Tape (5 m)	
1 Sharpening Kit	

12 Cyalume Light Sticks, IR
16 Emergency Candles

24 Cyalume Light Sticks, Green

Weight 20 kg
Price \$200

SURVIVAL KIT 1

This kit is intended to for an emergency situation that may arise. Contents contained in a small olive drab (OD) backpack. Kit includes:

1 Compass
1 Folded Local Map
1 Folding Pocket Knife
1 Heavy Duty Reinforced Space Blanket
(OD on one side, silver on other)
1 Knife Sharpening Stone
1 Light Weight OD Rain Poncho
1 Note Pad w/ Pen & Pencil
1 OD BDU Pants
1 OD Light Weight Wind-Breaker
1 OD Plastic Canteen & Canteen Cup
1 OD Tee-Shirt
1 OD Wool Sweater
1 OD Wool Watch Cap
1 Pair Black Leather Gloves, with OD
Liners
1 Personal First-Aid Kit
1 Set KFS (Knife, Fork, Spoon)

1 Short Range Survival Radio (10 km,
one channel only)
1 Signal Mirror
1 Signal Whistle
1 Small Collapsible Plastic Bucket
1 Small Flashlight
1 "Tommy" Cooker, with 3 boxes of 25
Fuel Tablets
1 Water Filter Straw
1 Water Storage Bladder
2 Disposable Lighters
2 Large Heavy Duty Trash Bags
2 MRE Meals
2 Pair Grey Socks
4 Boxes of Water/Wind Proof Matches,
with OD plastic container
20 meters of OD Para Cord
Toilet Paper in sealed plastic bag

Optional

1 Black Widow .22 LR back-up pistol
1 M-6 Survival Rifle (.22 LR & .410)
8 rounds, Green Flares
8 rounds, Red Flares
8 rounds, White Flares

25 Rounds, .410 slug
50 rounds, .22 JHP Hornet
50 rounds, .22 LR
50 rounds, .410 bird shot

	<i>w/o weapon</i>	<i>w/ weapon</i>
Weight	5.50 kg	9.75 kg
Price	\$1,000	\$3,000

SURVIVAL KIT 2

A wide variety of useful items contained in a high-impact plastic container (that can double as a 0.7-liter canteen). The kit also includes 4 laminated cards containing survival tips that give the user a default skill of Survival 1 when trying to find food or make an expedient shelter. There was a massive run on these kits in the last few weeks before nuclear strikes began.

0.5 meters Wire
1 Aluminum Foil (1 x 1 meter)
1 Candle
1 Duct Tape (50 mm x 1 m)
1 Emergency Tent (2-man)
1 High-Pitch Whistle
1 Razor Blade
1 Safety Pin
1 Signal Mirror
1 Zip-Lock Bag
2 Energy Bars (½-day food)

2 Gauze Pads (100 x 100 mm)
2 Salt Packets
2 Small Flares
3 Band-Aids (assorted)
3 Band-Aids, Butterfly (assorted)
3 Bouillon Cube
3 Tea Bags
4 units Mild Pain-Reliever
5 Dextrose Cubes (¼-day food)
6 meters Nylon Cord
50 Waterproof Matches

Weight 0.5 kg
Price \$40

SURVIVAL KIT, 3 DAY

The vacuum packaged kit includes:

1 Compact Flashlight
 1 Pack of 12 MRE Heaters
 2 Water Containers (3½)
 2 Chemical Protective Coverall Liners
 2 Potable Aqua packages (emergency drinking water germicidal tablets, each package treats up to 25 quarts of water)

Weight 2 kg
Price \$100

4 "C" cell batteries
 12 Assorted Entree meals (4 Breaded Chicken Breast patty with Pasta Shells in Tomato Sauce, 4 Cooked Ham Slices, 4 Beef with Mushrooms in sauce)

SURVIVAL KIT, 10-PERSON LIFE RAFT

This kit contains everything need for 10 person to survive in a lift raft for 48 hours. Contents:

1 Bailer
 1 Drinking Cup
 1 First Aid Kit
 1 Fishing Kit
 1 Flashlight
 1 Hand Pump
 1 Pressure Relief Valve Plug
 1 Repair Kit
 1 Signal Mirror
 1 Spare Sea Anchor
 1 Whistle
 2 Orange Smoke Signals

2 Paddles
 2 Spare Flashlight Bulbs
 2 Sponges
 3 Can Openers
 4 Red Parachute Flares
 6 Flashlight Batteries
 6 Red Hand Flares
 10 Rations
 15 liters of Drinking Water
 60 Anti Sea Sickness Tablets
 60 Thermal Protective Aids

Weight 8 kg
Price \$200

SURVIVAL KIT, HUNTERS

This kit has everything you need to have in your backpack for that unexpected overnight crisis at a low price. Packaged in a Ziploc waterproof bag, includes:

1 FM 21-76 Survival Manual
 1 Emergency Blanket
 1 Sportsman Smoke Signal
 6 bars Trioxane fuel bars
 100 ft of Parachute Cord

Light Stick
 Storm Matches
 US G.I. Signal Mirror
 Wrist Compass

Weight 2 kg
Price \$60

SURVIVAL KIT, AVIATOR'S

Though this item is for aircrews, it is often acquired by Special Operations Units. This kit was the official issue for NATO aircrews.

1 3-blade Pocket Knife
 1 Button Compass
 1 Water Bag (1 liter)
 2 Large Needles
 2 Striker Strips

3 Fishhooks
 4 Magnesium Fire Starters
 6 meters Steel Wire
 10 meters Fishing Line
 10 Waterproof Matches

Weight 0.14 kg
Price \$30

SURVIVAL KIT, 72 HOUR EMERGENCY KIT

Contains four separate units sealed in tamperproof re-closable Mylar pouches.

- **3-Day Food Unit:**

1 Menu Plan
 2 Apple Cider Mix
 2 Granola Bars

3 Candy
 6 Napkins
 Beef Jerky

Cheddar Crackers & Peanut Butter	MRE Bread
Fruit Cup	Peanut Butter
Fruit Roll-up	Raisins
Hot Chocolate Mix	Ramen Noodle Soup
Instant Oatmeal	Spoon
Jelly	Trail Mix
Macaroni & Cheese	
• Basic Unit:	
2 Baggies	Hand Warmers
33 Gallon Garbage Bag	Heavy Duty "D" Batteries
50 Water Purification Tablets	Multipurpose Pocket Knife
Camping Cup	Paper Pad
Compass	Pencil
Emergency Blanket	Waterproof Matches
Emergency Poncho	Whistle
Flashlight	
• First Aid Unit:	
1 First Aid Information Sheet	2" x 2" Gauze Pad
½" Paper Tape Roll	2" x 3" Non Stick Pad
2 Alcohol Prep Pads	3" x 4" Non Stick Pad
2 Butterfly Bandages	4" x 4" Gauze Pad
2 Extra Strength Non Aspirin packs	5 ¾" x 3" Band-Aids
2 Hydrocortisone	5 1" x 3" Band-Aids
2 Ibuprofen packs	5" x 9" Compress
2 Iodine Pads	8" x 10" Dressing
2 Latex Gloves	Burn Cream
2 Safety Pins	Fingertip Bandage
2 Triple Antibiotic	Knuckle Bandage
2" Stretch Rolled Gauze	
• Personal Hygiene Unit:	
3 Disposable Towels	Lotion
3 Wet Wipes	Mouth Wash
Bar Soap	Razor
Comb	Rolled Tissue
Dust Mask	Sewing Kit
Emery Board	Shampoo
Facial Tissue	Shave Gel
Lip Balm	Tooth Brush
Liquid Soap	Tooth Paste
Weight 5 kg	
Price \$100	

SURVIVAL KIT, AIRCREW SURVIVAL PACK Mk 4

The Air Crew Survival Pack Mk 4 has been successfully used in the Gulf and is standard issue inside Royal Air Force ejection seats. This high specification kit is vacuum-sealed in foil packets. The Air Crew Survival Pack comes in a flexible olive bag.

Candle	Razor blade
Compass	Sewing needles
Elastic band	Sleeping bag
Fire tablets	Small tin
Fishing kit	Snare wire
Flint & Striker	Suspender clips
Foil blanket	Tinder
Instruction sheet	Vinyl tape
Nylon cord	Water carrier condoms
Purifying Tablets	Wire saw
Weight Nil	
Price \$80	

SURVIVAL KIT, PERSONAL

The kit consists of 2 plastic containers, curved to fit in chest or thigh pockets, each measuring 11.43 x 13.97 x 3.81 cm and weighting 0.45 kg. They are sealed with O-rings and held together by "C" clamps that run the length of the long sides, the clamps being slid off when the contents are needed.

- *Container No. 1*
 - 1 Adhesive Plaster
 - 1 Aluminum Dish
 - 1 bar of Soap ($\frac{3}{8}$ oz)
 - 1 Boric Acid Ointment Tube ($\frac{1}{8}$ oz)
 - 1 Gauze Roll
 - 1 Illuminating Candle
 - 1 Lipstick, Anti-Chap and Sunburn Protective
 - 1 Mirror with cord attached
 - 1 Single Edge Razor Blade
 - 1 Snare Wire Assembly
 - 1 Tincture Benzalkonium Chloride bottle (2 cc)
 - 2 Waterproof Receptacles (Rubber Prophylactics)
 - 3 Band-Aids
 - 6 D-Methemphet Hydrochloride Tablets
 - 6 Salt Tablets (Sodium Chloride)
 - 6 Waterproofed Matches
 - 11 APC tablets
 - 50 Iodine Water-Purification Tablets
 - *Container No. 2*
 - 1 Absorbent Cotton (2 grams)
 - 1 Chamois
 - 1 Fishing Kit (plastic container: 2 Wet Flies with Snell, 15 Fish Hooks, Nickel Demon with Double Hook, 3 Lead Strip Sinkers)
 - 1 Fishing Line
 - 1 Gerber Multi-tool
 - 1 Sewing Kit (2 Needles and Thread)
 - 1 Single Edge Razor Blade
 - 1 Sparking Metal (Flint)
 - 1 Sun and Bug Repellent Tube (1 Oz)
 - 1 Wrist Compass and Strap
 - 2 Spare Sinkers
 - 3 Band-Aids
 - 6 Waterproof Matches
 - 9 Mainstay Emergency Food Bars
 - 16 Oxytetracycline Tablets
- Weight** 0.9 kg
Price

SURVIVAL KIT, PERSONNEL

Sold at most hunt/sporting good stores. Contents:

- 1 Bag of Waterproof Tinder
 - 1 Commercial First Aid Kit
 - 1 Compass
 - 1 First Aid Instruction Sheet
 - 1 Flashlight
 - 1 Folding Blade Knife
 - 1 Golf Pencil
 - 1 Hand Cranked Powered Radio
 - 1 Hunting Knife
 - 1 Machete
 - 1 Mess Kit & Metal Cup
 - 1 Personal Hygiene Kit
 - 1 Rain Poncho
 - 1 Rescue Blanket
 - 1 Set of Waterproof Survival Cards
 - 1 Signal Mirror
 - 1 Topographic Map Book
 - 1 Tube of Sun Screen
 - 1 Whistle with Lanyard
 - 1 Wire Saw
 - 2 Bottles of Water Purification Tablets
 - 2 Boxes of Condoms
 - 2 Boxes of Salt and Dextrose Tablets
 - 2 Lypsyl Lip Balm Tubes
 - 2 Sets of Spare Batteries
 - 2 Sets of Spare Bulbs
 - 2 Sewing Needles
 - 2 Single Edge Razor Blades
 - 3 Safety Pins
 - 3 Small Fishhooks
 - 3 Split Shot Sinkers
 - 5 Tea Candles
 - 10 Wind & Waterproof Matches with Striker
 - 20 ft Brass Wire Snare
 - 22" Duct Tape
 - 25 ft Fluorescent Plastic Surveyors Tape
 - 26 ft Sewing Thread on Plastic Bobbin
 - 35 ft Fishing Line approx. 25 lbs Test
 - 50 ft Parachute Line
- Weight** 10 kg
Price \$200

SURVIVAL KIT, SPECIAL OPERATIONS

This kit was primarily issued to LRSU teams, special operations units, and aviators. It is packaged in an aluminum tin, which can also serve as a cup or cooking pot. The kit also comes with a set of survival tips, but these were rarely used by the units to which the kits were issued (they already knew

the information!).

- 1 Candle
- 1 Flare
- 1 High-Intensity Chemlight
- 1 liter Water Bag
- 1 Pair Tweezers
- 1 Roll Medical Tape (25 mm x 5 m)
- 1 Sharpening Stone
- 2 Energy Bars (½-day food)
- 2 Razors
- 3 Fishhooks
- 3 meters Snare Line
- 3 Safety Pins
- 4 Band-Aids, Large (Assorted)
- 4 Gauze Pads (100 x 100 mm)

Weight 0.3 kg

Price \$150

- 5 Units +/- Antibiotic
- 10 Band-Aids (Assorted)
- 10 meters Fishing Line
- 10 Units' Mild Pain-Reliever
- 20 meters Nylon Cord
- 20 Salt Tablets
- 50 Waterproof Matches
- Button Compass
- Duct Tape (50 mm x 2 m)
- Flint and Steel
- Hacksaw Blade
- Lanyard Saw
- Notepaper and Pencil
- Signal Mirror

SURVIVAL KIT , US ARMY/USAF GENERAL PURPOSE SURVIVAL KIT

These are on issue to USAF Air Crewmen as well as Special Forces ground troops. It is individually sealed in a plastic 2-part container which holds the following contents:

- 1 10-pack of Aspirin
- 1 book of Waterproof Matches
- 1 bottle of 50 water purification tablets
- 1 bottle of Betadine Solution
- 1 Candy Bar or Energy Tablets
- 1 Fishing Kit
- 1 Larger General Purpose Bandage
- 1 pack of Antibacterial Wipes

Weight 3 kg

Price \$200

- 1 package of Band-Aids
- 1 package of Rubber Gloves
- 1 Piece of Tin Foil
- 1 roll Surgical Tape
- 1 tube of Eye Ointment
- 1 Wire Saw
- 2 Soup and Gravy Powder Bases

SURVIVAL KNIFE

A knife with store survival gear stored in its hollow handle. The knife is not properly balanced for throwing (FOR: Thrown Weapon), but the butt can be used as a hammer. In addition to the supplies listed below, 0.1 kg of other gear can be carried in the handle.

- 1 Sharpening Stone
- 2 Needles
- 3 Fishhooks
- 3 meters Snare Wire
- 5 meters Thread

Weight 0.5 kg

Price \$75

- 6 Waterproof Matches
- 10 meters Fishing Line
- Button Compass
- Lanyard Saw

THERMOS BOTTLE

1-pint thermos, steel with plastic cup; keeps 24 hours hot, 72 hours cold.

Weight Nil

Price \$10

TORNADO Mk 10 EJECTION SEAT SURVIVAL CONTAINER

This is a Military Pilots Survival Container used by Tornado pilots, it comes packed into the Tornado's Mk 10 Ejection Seat.

- First Aid Pack
- FRS-3 Life Raft
- Gloves
- Sun Glass

- Survival Manual
- Survival Pack
- Water Rations

Weight 15 kg
Price \$350

TRAPS

These are used by trappers to capture animals for their fur, but could also be used in a survival situation, or as an anti personnel weapon (2 Damage point to one leg).

Weight 6 kg
Price \$20

US NAVY DECK CREW LIFE PRESERVER SURVIVAL VEST MARK 1

A life vest used by weapon crews on aircraft carriers, includes:

1 Strobe Light
2 AA Batteries

CO2 canister.
Signal Whistle

Weight Nil
Price \$170

VACUUM FLASK

Issued to Artic troops to hold hot water. A vacuum flask is a vessel which keeps its contents hotter or cooler than their environment by interposing an evacuated region to provide thermal insulation between the contents and the environment. The vacuum referred to is used for thermal insulation; the contents are not in vacuum conditions.

Weight Nil
Price \$25

VEST, PILOT'S SURVIVAL

US armor crews (NATO wears similar vest armor crews also use this). It is a nylon mesh vest with 3 large and 3 small zippered pouches on the chest, a holster (merely enough to hold the pistol in place, not to protect it from the elements), a knife/bayonet sheath, and four small and one large miscellaneous attachment point. Two more pockets are found on the inside of the vest. The vest comes

Weight kg
Price \$

WATER TREATMENT, EXSTREAM XR WATER PURIFIER BOTTLE

The Exstream XR is a water purifier, not a water filter. A filter does not filter out the smallest of micro organisms to include viruses. Exstream products filter out Cysts, Bacteria and Viruses by use of a Prefilter, Cyst Filter and their Virustat technology. Only purifiers can be registered with the EPA and of course, the Exstream XR is. What is amazing is that all of this power is in the form of a sports bottle. The Exstream XR holds 34 oz of water and will purify up to 26 gallons before needing replacement components. That is 4-6 weeks of exclusive usage.

Weight (empty) Nil
(load) 1 kg
Price \$50

WATER TREATMENT, POLAR PURE WATER DISINFECTANT

It uses pure crystallized iodine in a unique delivery system to destroy water-borne pathogens including giardia cysts and micro-organisms (viruses) that pass through filters.

Simply add water to the Polar Pure bottle as directed, and a saturated iodine solution for disinfection is maintained in the filled bottle. This saturated solution is then used to disinfect your drinking water at an optimal concentration of 4-5 ppm iodine per quart/liter of water. Saturation concentration varies with the solution temperature, but a green dot on the liquid crystal chart shows how many capfuls are needed for disinfection.

Pure iodine crystals are stable and slightly soluble in water but evaporate easily. Keep your bottle filled with water to maintain a iodine-saturated solution and tightly capped to avoid iodine loss. Polar Pure Water Disinfectant can be used for backpacking, camping, hiking, water sports, bicycling, foreign travel, hunting and fishing, emergency kits. The small size and easy use make it the choice of many outdoors enthusiasts and those concerned with emergency preparedness.

Weight Nil
Price \$15

WATER TREATMENT, SEA WATER DESALT KIT

USAF Emergency survival sea water desalts kit, in metal container with all the contents; the sea water desalter kit converts salt water to suitable drinking water. The kit consists of a metal outer container, eight chemical packets, a plastic processing bag, and a tape used to mend holes in the plastic bag.

Weight Nil
Price \$50

WATER TREATMENT, SURVIVAL STRAW

Filter-in-a-straw, filters out most microscopic organisms; good for 5,000 gallons.

Weight Nil
Price \$25

WATERPROOF MAP CASE

Made of woven nylon, with a clear plastic inner, this map case completely protects maps from the vagaries of the elements. It can be rolled up for easy storage.

Weight Nil
Price \$30

WHETSTONE

For sharpening blades and tools.

Weight
Price \$10

WILD LAND FIREFIGHTING BELT WEATHER KIT

This is a small kit designed to fit on a belt, it includes a compass along with several specialized pieces of equipment used to determine the current wind speed/direction, air temperature and humidity. A notebook and pencil are included for documenting the results. None of the equipment is electronic.

Weight 1 kg
Price \$100

WOODMAN'S PAL

Standard military issue from World War II through Desert Storm, the Woodman's Pal has been hacking through the thickest brush since 1941. The US Army even commissioned a booklet called "Fighting with the Woodman's Pal" to instruct soldiers on the method of its use in hand to hand combat. Originally called the LC-14-B by the US military, it is now referred to as "Survival Tool Type IV".

Whatever you call it, it is a tough no nonsense piece of essential survival gear. Made of specially annealed 3.18 mm thick steel hardened to Rockwell C-47 and has a resin bonded fluorocarbon coating to prevent corrosion. The blade is 26.7 cm long. The version the US Army and the USMC currently use features a leather grip and finger guard. Choose between a black Cordura sheath with a honing stone and a leather sheath. The manufacturer provides a lifetime warranty.

Weight Nil
Price \$65

49. TENTS AND SHELTERS

ARMORED GUARD HOUSE

Each armored guard house is designed to meet individual security, ballistic requirements. Bullet-resistant glass allowing full 360° visibility, it also has an armored door with an automatic closer, and a security lock and exit bar. There is also a climate control unit with exterior ballistic casing and a breaker panel, which is access-ready to outside power source. Each unit has self locking gun ports and slam locks. All walls have armor value of 5.

Weight 800 kg
Price \$2,000

BALLISTIC PANELS

These are simple ballistic panels that can be added to any structure.

Weight	Price	NIJ Levels	Bullet Description
0.29 kg/m ²	\$44/m ²	I	.22, .38
0.36 kg/m ²	\$54/m ²	II	9 mm, .357 Mag
0.45 kg/m ²	\$65/m ²	IIIA	.44 Mag, 9 mm
1.13 kg/m ²	\$190/m ²	IV	7.62x39 mm
2.14 kg/m ²	\$330/m ²	III	5.56 mm, .30, .308
2.38 kg/m ²	\$356/m ²	III+	7.62x39 mm
2.38 kg/m ²	\$261/m ²	V	7.62x39 mm
2.72 kg/m ²	\$502/m ²	VI	5.56 mm AP

BARRIERS – 64 x 80 BTC EXPRESS

BTC (Barbed Tape Concertina) is a coil of single-strand spring-steel line wire fitted with barbed tape. The coil loops are connected by steel clips to form a cylindrical diamond-pattern when the coil is deployed. Line posts provide for the attachment of communications cables, power cables, high voltage lines, sensor cables and secondary coaxial barbed tape coils.

64 x 80 BTC Express is a rapid deployment barrier. The loaded magazine of BTC is designed for use with the 463L military pallet, and in 2 minutes will deploy a barrier 64" wide, 80" high and 650 feet long. The barrier can be recovered for redeployment in 22 minutes.

Weight 8 kg
Price \$200

BARRIERS – CHAIN LINK FENCE

6 ft and 8 ft chain link fence is ideal for site security; for even more added protection, 3 strand barbed wires can be added. Chain link fence comes in 4, 6 and 8 ft and in 200 m rolls.

Weight 20 kg
Price \$100

BARRIERS – CROWD CONTROL BARRICADES

They are used to control crowds at concerts, parades, festivals and other special events, or as a temporary railing system to direct pedestrian from traffic away from small excavations or disaster sites.

Weight 30 kg
Price \$80

BARRIERS – HESCO BARRIER

These are collapsible wire mesh containers with a heavy duty plastic liner, which are shipped collapsed and very compact. Soldiers can quickly pull them open, and then use a front end loader to fill them with sand, dirt or gravel to make a protective barrier to protect personnel and equipment from enemy fire (or bombs). The labor saving angle is very popular with the troops. Before the HESCO barriers, troops filled sandbags, which was slow (about 20 sandbags per soldier per hour). Troops using HESCO barriers and a front end loader can do ten times the work of troops using sandbags.

Filled with sand, 24" of barrier thickness will stop rifle bullets and shell fragments. It takes 5' of thickness to prevent penetration by an RPG round (although these usually do not hit at the right angle to need that much thickness, but just explode creating a lot of fragments). About 4' of thickness will protect against most car bombs.

The HESCO barriers come in a variety of sizes designed for military work. Most of them can be stacked.

High x Wide x Long	Price
2' x 2' x 4'	\$46.50
2' x 2' x 10'	\$98
3'3" x 2'6" x 30'	\$445
3'3" x 3'3" x 32'	\$493
3'3" x 5'0" x 32'	\$740
4'6" x 3'6" x 32'	\$651
4'6" x 4' x 32'	\$665
7' x 5' x 100'	\$3,700
7'3" x 7' x 91'	\$3,500

BARRIERS – MOBILITY WALL

Each Mobility Wall is approximately 5' tall and highly versatile. The Wall can be utilized whether empty or filled with ballast. If used empty, multiple walls can provide protection from wind, blowing sand and grit, privacy in open places or they can be used to simply delineate separate sections. Once they've been filled with ballast they'll not only provide all the benefits listed above but will also provide a great deal of blast and ballistic protection from anything up to 7.62 mm rounds including shrapnel and flying debris.

Weight	500 kg
Price	\$2,500

BARRIERS – PANEL FENCE

Comes in 12' sections and in heights of 4', 6' and 8'. All fence panels come with vertical and horizontal cross bars. These fence panels are free standing and do not require drilling. Fence panels' stands are made of metal, not concrete, so they weigh less but work just as well.

Weight	40 kg
Price	\$100

BARRIERS – PERIMETER SECURITY WALL

The Perimeter Security Wall is customizable to your security needs. The prefabricated standard height is up to 16' tall by 8' wide. The length is determined solely by your security requirements and threat levels. There are no loose parts to lose and it has a snap together frame for easy setup and takedown.

Weight	100 kg
Price	\$800

BARRIERS – PORTABLE ROADBLOCKS

These are four-pronged steel spikes arranged in a pyramid shape, each spike being approximately 5 cm in length. They are deployed simply by scattering them on the road in the path of vehicles, when the vehicle attempts to pass over them they puncture the tires. An alternative version is a portable roadblock chain: it is essentially the same, but with the roadblocks linked into a 5-meter chain, for stretching across the road. The chains may be joined together for increased length.

	<i>Portable Roadblocks</i>	<i>Portable Roadblocks Chain</i>
Weight	0.5 kg	12.5 kg
Price	\$15	\$350

BASE CAMP KIT

This huge kit contains 3,000 prefabricated building pieces which can be used for setting up a complete, Battalion-size base camp. Used by the French and German Armies, as well as the American Red Cross.

Weight	500,000 kg
Price	\$1,200,000

BUNKERS – CONCRETE SLAB BUNKER

This is a second-stage field fortification, intended for 10 people, that provides cover from artillery shell ground bursts; can be equipped with Stove, Chimney, Ventilation Duct and Valves.

The bunker has a pitched roof and consists of reinforced-concrete slabs and pillars. The quartering portion of the bunker requires an excavation of 40-50 m³. The bunker takes 2 to 3 hours to erect for an experienced digger or crane operator and two assistants.

Weight 16,000 kg

Price \$4,000

BUNKERS – PREFABRICATED BUNKER

A simple prefabricated unit, used in roadblocks or fixed defensive positions; sand bags will add extra protection.

Weight 100 kg

Price \$300

BUNKER S – PREFABRICATED PILLBOX

A pillbox constructed of prefabricated concrete panels.

Weight 200 kg

Price \$100

CONTAINERIZED CHAPEL

The Containerized Chapel provides a fully functional chapel to accommodate the religious needs of Protestant, Catholic, Muslim and Jewish soldiers. It is contained in an 8' x 8' x 20' ISO container and includes a 64-ft TEMPER tent, 2 Environmental Control Units (ECU), power generation/distribution equipment, seating for 100 and religious supplies.

Weight 2,000 kg

Price \$900

FALLOUT SHELTER

A fallout shelter is a civil defense measure intended to reduce casualties in a nuclear war. A fallout shelter is designed to allow its occupants to avoid exposure to harmful fallout until radioactivity has lowered to a safer level. This is a small version that will accommodate a family of five as an escape hatch.

Weight 4,000 kg

Price \$3,000

FIRE SHELTER

A tent made of heavy duty aluminum foil backed with fiberglass cloth, used as a last resort when trapped by fire. It is pre-packaged folded into a rectangle about 0.15 x 0.24 m (6" x 10") and issued with a canvas cover which is hung on a belt.

It may sound like a worthless piece of equipment unlikely to work, but it reflects 95+% of the radiant heat generated by a fire and has been credited with saving the lives of more than 300 firefighters in the US since its introduction in the 1970s. Its use is largely restricted to the United States, although Australia was involved in its development. It is a required piece of equipment in the US, but most other countries do not issue them due to the cost.

Weight 1.5 kg

Price \$100

FLAT PACK BUILDINGS

A ready to built building in 6 m, 7 m and 8 m lengths; when packed its transport dimensions are 605 x 245 x 65 cm. Flat Pack Buildings have a steel frame and skin, fully insulated with double glazed windows. Takes 45 minutes to set up and requires no cranes nor special tools.

Weight 2,350 kg

Price \$800

FORWARD OPERATION BASE SYSTEM - BBC2 MODULE

The Bare Base Command and Control (BBC2) Module is a rapidly deployable command post that can provide for many different field contingencies. The complex is based on off-the-shelf components integrated into a full-service package. Its main building blocks are the Modular General Purpose Tent System (MGPTS) and the Standard Integrated Command Post System (map boards, tables, lights...).

Five MGPTS (in size "medium") compile 3,645 sq ft of work and living space, accommodating up to 32 soldiers. Because the individual tents are modular, they can be constructed in various arrangements to correct for diverse terrain types. Eight soldiers design the BBC2 Module for complete assembly in less than 4 hours.

Weight 2,000 kg
Price \$900

FOXHOLE OVERHEAD PROTECTION KIT

This kit is used to provide overhead protection from artillery fragments to personnel in a foxhole.

Weight 10 kg
Price \$100

GATES

Gates are available in 4', 6' and 8' heights. Standard gate openings are 4', 12' and 24' widths.

Weight 5 kg
Price \$50

GER

The Ger is the traditional dwelling of the Mongolian peoples, as well as of the Central Asian and Siberian peoples; in Mongolian Ger simply means "home". It is made of a wooden framework (collapsible walls topped by poles radiating from a central smoke hole ring) covered by large pieces of felt. The ropes which go around the Ger, called Bus ("belts"), are usually made of braided horse mane and tail hair.

The Ger is easily assembled and disassembled, and its components can be loaded on a couple of camels or on a yak cart.

Weight 25 kg
Price \$200

ISO SHELTER, TWO SIDE EXPANDABLE ISO SHELTER

Used for living quarters in a base camp.

Weight 6,900 lbs
Price \$2,000

ISO CARGO CONTAINERS

These containers are used to ship cargo worldwide.

Weight 1,000 kg
Price \$800

LARGE AREA MAINTENANCE SHELTER

Large Area Maintenance Shelter is semi-mobile shelter platform systems that can deploy worldwide. They are designed to support Staging Base operations for maintenance of aviation and ground combat vehicles. Each end of the shelter has a full width, full height clamshell type door. Each shelter is supplied with equipment for lighting, ventilation, and electrical door opening. The Shelter can accommodate any AFV or Tank and most fighter aircraft.

Weight 100 kg
Price \$300

MOBILE HOSPITAL

This is a fully equipped hospital and can be transported to anywhere. It is approx. 1,000 m² and can handle up to 300 patients. The hospital is placed in tents or appropriate buildings in various combinations. To unfold the hospital takes 10-12 hours; the composition of the material and packing permit to transport by all means of truck, railway, ship or plane.

The hospital is designed to admit, sort and temporarily hospitalizes wounded persons with mild and severe injury. It provides professional surgical aid; its equipment makes it possible to carry out major operations on limbs and chest and minor operations on head. The performance of the main workplace of the hospital, the Surgery/Dressing Unit, is 40 to 59 surgeries, of which 11 major and 24 medium or 39 minor ones.

The hospital consists of 3 tents measuring 9 x 12 meters, with insulating and hygienic inlets, and 17 smaller tents. The main tents serve as Special Cleaning Treatment Department, Admission Department, Resuscitation, Anaerobic Department, Surgery/Dressing Unit, X-ray Department, Pharmacy Department (with dispensary and preparation of infusion solutions), Laboratory with out-patient department, Hospital Department with 300 beds, Administration Section, and accommodations for staff.

The Hospital comes with beds and blankets, X - Ray Apparatus, Laboratory Start-Up Kit, two Gator Ambulances Pharmacies stores, Therapy Devices, Operation Devices, Bandage Material, industry, tables, cabinets and further accommodation. It also comes equipped with 3 electricity generators with cable and lights and complete food-unit with kitchen, dishes, etc. Material to erect toilets, washing-rooms, firing and more cisterns are also included.

Weight 60,000 kg
Price \$285,000

N-1080 NUCLEAR HARDENED TACTICAL SHELTER

The N-1080 was developed to house and shelter complex and expensive equipment that modern armed forces use in the front line. The N-1080 was designed to protect such equipment against the effects of tactical nuclear weapons. It is a conventional shelter in appearance but the walls, floors and ceiling are Kevlar laminates and many of the fittings are Kevlar extrusions. The door has special blast proof hinges and a Craig V-846 anti-blast valve is fitted above the door. The N-1080 has a specially strengthened air conditioning and filter unit at the front end of the shelter. The door has an emergency escape hatch and special corner and lifting castings are provided.

The N-1080 is 3.734 m long, 2.21 m wide and 2.12 m high.

Weight 544 kg
Price \$10,000

PORTABLE BUILDINGS

Armies use several models of portable buildings to quickly set up base camps. They are transported by two tractor trailers, and can be set up by 10 men in 2 hours. Each unit is powered by a 25 kw generator and hooked up to any water and sewer. The available models are:

- **12 Bed Hospital Ward:** 12 patient beds and 1 nurse's station.
- **14 Bed Hospital Ward:** 14 patient beds and 1 nurse's workstation with computer.
- **Emergency Hospital:** 8 patient beds and 2 operating tables for emergency medical care.
- **Field Administration Building:** 4 private offices and 5 computer stations in a common work area.
- **Field Maintenance Facility:** 6 work benches, 1 supervisor office, 1 parts room and 1 maintenance bay
- **Field Supply Facility:** 3 computer workstations, 1 storage bay for supplies.

Weight 3,000 kg
Price \$700

PRISON, AIRLIFT CAPABLE PRISONER CONTAINMENT SYSTEM (ACPCS)

The Airlift Capable Prisoner Containment System is an individual module designed to securely seat, restrain, isolate, and control an individual under legal apprehension during transportation in an aircraft or other vehicle, or for a temporary holding period. The ACPCS is roughly the size of a phone booth.

Weight 300 kg
Price \$900

PRISON, TRANSPORT PRISONER CONTAINMENT FACILITY (TPCF)

The Transport Prisoner Containment Facility is a one person, portable jail cell and is designed to securely restrain, isolate, and control an individual under legal apprehension. This is an ideal product for civilian law enforcement or military police who may need to detain people without being able to leave their post or the premises. No special tools are necessary for assembly and all parts are supplied. The TPCF is easily erected by 2-4 men and can be accomplished in approximately 1 hour.

Weight
Price

QUONSET HUT

The Quonset hut is a skeleton row of semi-circular steel ribs covered with corrugated sheet metal. The ribs sit on a low steel-frame foundation with a plywood floor. The design was based on the Nissen hut developed by the British during World War I.

The most common design created a standard size of 20' x 48' (6 x 15 m) with 10' (3 m) radius, allowing 720 sq ft (67 m²) of usable floor space, with optional four-foot overhangs at each end for protection of entrances from the weather. Other sizes were developed, included 20' x 40' (6 x 12 m) and 40' x 100' (12 x 30 m) warehouse models.

The flexible interior space was open, allowing for use as barracks, latrines, offices, medical and dental offices, isolation wards, housing, and bakeries. Between 150,000-170,000 Quonset huts were manufactured during World War II. After the war, the US military sold the surplus Quonset huts to the public for \$1,000 each. Many are still standing throughout the United States.

Weight 1,000 kg
Price N/A

SHELTERS/TENTS – 1-MAN TENT

Weight 1.3 kg
Price \$60

SHELTERS/TENTS – 2-MAN SHELTER

For use in desert and temperate conditions, capable of withstanding snow loads, wind-driven rain and winds up to 40 mph. The tent uses three durable poles to increase stability. The reversible fly (in camouflage green and desert tan) can be used as a stand-alone shelter. Screened vents on the 2 doors and roof aid the flow of air.

Weight 1 kg
Price \$200

SHELTERS/TENTS – 3-MAN SHELTER (LEWS)

Special Operations Forces use this shelter in the extreme weather of arctic, desert and mountain regions. The shelter withstands snow loads, wind-driven rain, wind gusts up to 65 mph, and temperature extremes of -25 °F to 120 °F. The LEWS is designed with a waterproof rain fly (in desert tan, arctic white or woodland green) that provides additional storage space. The tent body is vapor-permeable with a waterproof, tub-style floor. Vents on the tent roof and doors minimize the build-up of condensation.

Weight 2 kg
Price \$300

SHELTERS/TENTS – 4-MAN SHELTER (ECWS)

This shelter is for arctic and temperate weather conditions. The ECWS is similar to the LEWS in its design and physical requirements. However, the tent has 2 rain flies (in arctic white and woodland camouflage green) for additional storage space, and the shelter is also equipped with a loft for gear.

Weight 2 kg
Price \$400

SHELTERS/TENTS – 4-MAN TENT

A dome structure with a waterproof fly, is a self-standing shelter for 4 people to sleep. It is designed to be stable in high winds and durable in poor environmental conditions. One person can assemble it.

Weight 2 kg
Price \$1,000

SHELTERS/TENTS – 10-MAN TENT

A dome structure with a waterproof fly, is a self-standing shelter for 10 people to sleep. It is designed to be stable in high winds and durable in poor environmental conditions. One person can assemble it.

Weight 35 kg
Price \$250

SHELTERS/TENTS – ARCTIC DOME TENT, 4-MAN

Made from a polyester fabric and using fiber glass poles offering very light weight with durability and strength. Supplied complete with spare poles and an arctic liner for extra warmth.

Weight 2 kg
Price \$100

SHELTERS/TENTS – ARTIC TENT, 5-MAN

This tent is six-sided, pyramidal, and supported by a telescopic tent pole. It is designed to accommodate four to five men and their individual clothing and equipment. Under emergency conditions, one tent may provide shelter for a rifle squad or other similar unit when rucksacks are placed outside the tent.

The tent has one door; ventilation is provided by two built-in ventilators located on opposite sides and near the peak of the tent. Three lines are provided for drying clothing and equipment. Total weight of the tent, including the pins and center poles, is 48 pounds. The tent is heated by an M1950 Yukon stove.

Weight 20 kg
Price \$150

SHELTERS/TENTS – ARTIC TENT, 10-MAN

The six-sided, pyramidal tent, supported by a telescopic pole, normally accommodates ten men and their individual clothing and equipment. It will accommodate additional men by leaving individual packs and equipment outside the tent overnight and by lowering the telescopic pole to spread the sidewalls to cover more ground surface. It may also function as a command post, aid station, or as a small storage tent.

The tent has two doors; this permits tents to be joined together, with access from one to the other, when additional space is required. A snow cloth is attached to the bottom of the sidewalls for sealing the tent to the ground. This is accomplished by piling and packing snow on the snow cloth. If the tent is used in terrain where there is no snow, sod or other materials may be used to seal the bottom of the tent. Flexible plastic screen doors are provided and may be attached front and rear of the tent for protection against insects. The tent is ventilated by four built-in ventilators on opposite sides and near the peak of the tent. Four lines are provided for drying clothing and equipment. Total weight, to include the pins and tent pole, is 76 pounds. The tent is heated by an M1950 Yukon stove.

Weight 40 kg
Price \$300

SHELTERS/TENTS – BIVY SHELTER

This is a small, 1-man tent that is waterproof and offer protection from the elements.

Weight Nil
Price \$200

SHELTERS/TENTS – COMMAND POST TENT

This Tent provides 2.5 x 2.5 meters of floor space with a 1.5 m ceiling; used for housing a Battalion Headquarters, can also be linked together.

Weight 11.3 kg
Price \$400

SHELTERS/TENTS – COMMAND POST TENT – MODULAR COMMAND POST (MCP)

The Modular Command Post is a modular, frame-supported shelter tent originally designed specifically for field command center operations. The MCP, a highly mobile, rapidly deployable, extensive tent system, can be set up and configured to meet multiple applications. The MCP design is based on command post systems as single, self-contained entities, capable of independent operations that may be connected together to form larger scale command.

Weight 530 kg
Price \$5,000

SHELTERS/TENTS – EMERGENCY TENT

A space blanket shelter with Velcro door and whip-pole; 1 minute set up.

Weight Nil
Price \$10

SHELTERS/TENTS – EXTREME COLD WEATHER TENT (ECWT)

This self-standing dome tent serves as shelter for 4 Marines to sleep, dry wet clothing and for meal preparation. It is designed to be stable in high winds and durable in poor environmental conditions. The shelter has a vestibule entrance area with enough space for 2 men to shed their packs and cold weather clothing before entering the tent body. It can be assembled by one person.

The previous tent used in extreme cold weather environments was constructed by putting five Norwegian tent sheets together. These tent sheets would get wet and freeze, becoming stiff and difficult to handle. When erected, the tent sheets required digging out the snow inside and tying the external liner to the tree. The new tent as described above is much more efficient in cold climates.

Weight 9 kg
Price \$500

SHELTERS/TENTS – FIRST AID TENT

This tent is used for shelter medical personnel and patients from the elements.

Weight 10 kg
Price \$400

SHELTERS/TENTS – GENERAL PURPOSE MODULAR TENT SYSTEM

These new general purposes tents use heat-seal seaming technology to prevent leaks. The General Purpose Modular Tent System has an A Frame structure and huge floor area; it comes in 16' x 16' sections and comes with two A frames.

	<i>Per Section</i>
Weight	20 kg
Price	\$800

SHELTERS/TENTS – GENERAL PURPOSE MODULAR TENT KIT

This is a kit with 3 sections plus an end and door section of the General Purpose Modular Tent System.

Weight 360 kg
Price \$4,800

SHELTERS/TENTS – INFANTRY SHELTER

The Infantry Shelter can provide cover and protection from the elements for two persons and their equipment. It features a tent with an integrated waterproof floor and a waterproof, opaque free standing fly; it can be quickly erected and struck using collapsible aluminum poles.

Weight 3 kg
Price \$200

SHELTERS/TENTS – IPK KIT SHELTER

This 1-man Emergency/Survival Shelter is good for concealing yourself in a trench or large hole. This large ground sheet is 3' x 6' and comes with strong, lightweight pegs and cord, and instructions for use.

Weight Nil
Price \$20

SHELTERS/TENTS – JAMESWAY TENT

This 16' by 16' frame-type tent is a lightweight unit that offers protection for one squad. It has wooden floor units, a frame, a rounded roof, and comfortable head clearances along the centerline of the shelter. The roof and ends of the tent are fabricated from insulated, coated, fabric blankets. The structure is fastened to the ground with tent pins or snow with improvised devices. An optional vestibule may be erected at one or both ends. Additional floor sections may be added to each other

lengthwise for creating larger buildings. Extra end sections may be installed along any rib as interior partitions.

The heavier weight of this tent restricts its normal use to permanent or semi permanent base camps. It could be used for forward elements under stabilized conditions.

Weight 1,000 kg
Price \$10,000

SHELTERS/TENTS – MODULAR GENERAL PURPOSE TENT SYSTEM (MGPTS)

The Modular General Purpose Tent System is a larger, modular, pole-supported tent which can be connected together with MGPTS or with other types of shelters, including the TEMPER tent. The MGPTS can be used for medical facilities, troop billeting, command and control, field service support, emergency/disaster relief, maintenance functions, and storage. Available in 3 sizes, is designed to protect people and equipment from various climate and weather conditions ranging from hot to severe cold.

	<i>Small</i>	<i>Medium</i>	<i>Large</i>
Weight	200 kg	350 kg	530 kg
Price	\$1,000	\$2,000	\$6,000

SHELTERS/TENTS – NATO ARMIES – BRITISH ARMY RIDGE TENT

The British Army Ridge Tents are without doubt the most widely used single skin tents in the world. Made from water and rot proof canvas, comes complete with pegs, poles and mallet in a valise.

Weight 26 kg
Price \$175

SHELTERS/TENTS – NATO ARMIES – FRENCH ARMY TENT

Complete with poles, fully waterproof rain fly, and storage bag. Measures 7' x 5' x 45" at the peak.

Weight 2 kg
Price \$50

SHELTERS/TENTS – NATO ARMIES – GERMAN ARMY TENT

Similar to the French Army Tent, measures 7' x 5' x 45" at the peak.

Weight 2 kg
Price \$50

SHELTERS/TENTS – PORTABLE COLLECTIVE PROTECTION SYSTEM (PCPS)

The Portable Collective Protection System provides an uncontaminated, positive pressure shelter for use as a command and control facility or a rest and relief facility for 12 to 14 Marines at a time in a chemical/biological contaminated environment. Marines will be able to receive approximately 4 hours of rest and relief per day. The PCPS consists of the Protective Shelter, Support Kit, and Hermetically Sealed Filter Canister (HSFC).

Each shelter consists of a tent and a fly. The tent floor and fly are made of a composite material. An attached aluminum structure helps to support the tent. When overpressure is applied, the shelter will provide protection from liquid and vapor chemical agent penetration and biological agent penetration. An airlock allows decontamination of entering personnel.

The support kit contains the accessories necessary for deployment of the system: the motor/blower assembly that supplies air to the system, and flexible ducts that guide the air to the HSFC and then to the shelter. The HSFC consists of a hermetically sealed aluminum canister containing a gas filter and particulate filter.

Weight 300 kg
Price \$6,500

SHELTERS/TENTS – PORTABLE SHELTER

This is a portable shelter that can hold up to 50 men. It can set up by 4 men in 15 minutes and comes with a 10' x 4' crate for storage.

Weight 25 kg
Price \$700

SHELTERS/TENTS – PORTABLE VEHICLE SHELTER

This is a portable shelter that can hold commercial vehicles. It can set up by 4 men in 15 minutes and comes with a 10' x 4' crate for storage.

Weight 25 kg
Price \$200

SHELTERS/TENTS – PROSPECTOR TENT

This canvas tent is made of quality 10 oz cotton duck, unbleached. Each tent is treated to make it mildew, water and fire resistant; treatment is wax based. It has a 6" stove hole that will accommodate 5" nesting stove pipe. There is many loops on the ridge line for exterior ridge poles, which are made from any materials found near by.

Weight
Price \$70

SHELTERS/TENTS – SHELTER HALF, CANVAS

A rubberized canvas sheet. Alone serves as a 1-man tarp, and can be combined with another Shelter Half to form a 2-man tent. Includes pegs, poles, and rope.

Weight 1 kg
Price \$25

SHELTERS/TENTS – TENT, EXTENDABLE MODULAR PERSONNEL (TEMPER)

The Tent, Extendable Modular Personnel is a modular, frame-supported tent designed to set up in multiple configurations. Designed to withstand various climates, its outer cloth colors are designed to camouflage the tent against the intended terrain and are visual and electronic suppressive with a blackout coating for protection from night optic vision gear.

Weight 600 kg
Price \$12,000

SHELTERS/TENTS – US GENERAL PURPOSE TENT

This is a six-sided pyramidal tent fabricated of cotton duck cloth. A liner is available to insulate the tent during cold weather. The tent is equipped with slide fastener doors, screened doors, screened ventilators, and stovepipe opening. It has a front and rear entrance, each with a lacing flap arrangement to permit attachment of the vestibule or erection of tents in tandem. It is supported by 8 adjustable aluminum poles around the eave line and a standard telescopic magnesium pole at the peak.

The tent is used for command posts, fire direction centers, battalion aid stations, or for any general purpose use.

Weight 84 kg
Price \$300

SHELTERS/TENTS – US PUP TENT

This tent includes 2 sides or shelter halves that snap together in the middle, 2 complete end poles (6 total poles), 10 stakes, and 2 guide ropes. The US Pup Tent fits 2 people and can be broken into two halves.

Weight 1 kg
Price \$20

SMALL UNIT SOLAR SHADE (SUSS)

The SUSS family provides standard systems that give shade from the sun in hot desert climates. Using a composite of different fibers, the SUSS reduces both near-infrared and thermal signature while providing protection from temperature extremes that occur during day and night operations. Size when erected is approximately 5' x 8'. It also can be broken into two bundles (Cover and Poles/Stakes).

	1 Man	2 Man	4 Man
Weight	0.25 kg	kg	10 lbs
Price	\$800	\$1,000	\$1,800

TARPS – 2 X 3 METER TARP

Waterproof heavy canvases, often issued with vehicles.

Weight 2.5 kg
Price \$8

TARPS – BASHA

The British Army version of the Field Tarp.

Weight Nil
Price \$50

TARPS – FIELD TARP

The Field Tarp is constructed as a flat piece of coated material with snap fasteners spaced evenly around its perimeter for use in a closed configuration as needed. Eyelets are positioned at the four corners for placement of elastic loops, which can be utilized to stake the tarp to the ground. The dimensions will be approximately 91¾" x 82¾". To achieve those dimensions, two pieces of materials are joined together by a heat-sealed seam.

Weight Nil
Price \$50

TOWERS – GUARD TOWER

This is a portable tower in a 15-pieces kit; takes about half an hour to fully assemble and will stall about 15 feet.

Weight 200 kg
Price \$900

TOWERS – LOOKOUT TOWER

A larger version of the guard tower, often made out of materials at hand; stands about 50 feet.

Weight 300 kg
Price \$1,000

TOWERS – SKY WATCH TOWER

This is the anywhere, anytime mobile crime deterrence and surveillance unit that goes from absolute ground level to a second story eye level elevation in just seconds. Sky Watch can easily be relocated in a matter of minutes. Rugged heavy duty construction and high ground clearance enable Sky Watch to handle even the most primitive off-road conditions.

Weight
Price

50. TOOLS

20-MOLAR ACID

100 grams of concentrated acid (usually nitric or sulphuric).

Weight 0.1 kg
Price \$250

AIR COMPRESSOR

For filling tires, rafts, Aqualung tanks, and other items needing compressed air.

Fuel Consumption: 2 liters/period.

Weight 45 kg
Price \$200

AIR TOOLS

A kit of tools that are used with an air compressor, to do things like spray paint, cut, attach and remove B nuts, etc.

Weight 2 kg
Price \$100

AIRCRAFT TOOLS

These are tools that can fix aircraft engines. R/R.

Weight 22 kg
Price \$2,000

AIR-PUMP

A bellows foot-pump, for pumping up inflatable boats, tires and other equipment.

Weight 1 kg
Price \$15

ANVIL

This is part of the basic blacksmith tools, but must be bought and handled separately. This and a small forge allow basic blacksmithing (creation of simple metal parts).

Weight 100 kg
Price \$50

ARC WELDER

Operates of an integral generator, which cannot be modified for other use. Cutting torches and Arc welders are necessary for jury-rigging.

Fuel Consumption, 40 liters/period.

Weight 75 kg
Price \$500

BASIC TOOL KIT

Small hand tools suitable for a variety of purposes, including wrenches, pliers, screwdrivers, and so on.

Weight 5 kg
Price \$200

“BELLY BUSTER” HAND-CRANK AUDIO DRILL

The “Belly Buster” drill was used during the late 1950s/early 1960s to drill holes into masonry for implanting audio devices. After assembly, the base of the drill was held firmly against the stomach while the handle was cranked manually. This kit came with several drill bits and accessories.

Weight
Price

BENCH GRINDER

This tool is used for sharpening tools, like axes and knives.

Weight 20 kg
Price \$300

BICYCLE TIRE REPAIR KITS

Repair kits for Army bikes. Complete with tools for taking tires off rim, wrench to fit 4 different size bolts, little tire irons, screw driver, long leather strap to hold tire on rim, and patch kit in little metal box.

Weight Nil
Price \$20

BLACKSMITH TOOLS

A lot of towns and villages in the *Twilight: 2000* world will have a blacksmith. There are two types of sets: the commercial set that is made before the war, and the home made set produced after the war. Both include tongs, hammers, bending rods, engravers, etc. A basic tool set can also be used for the work, but suffers a -1 penalty.

When making your own blacksmith tools (such as hardy tools, tongs, swaggers, chisels, punches...) scrap rebar is very useful and it is readily available, mostly from demolished buildings; and leaf springs, the teeth from spike tooth harrows and cultivator shoes are good for tools that require tempering.

Most tools set will have:

Anvil
Flatter Chisel
Fuller Chisel
Hammers
Hardy Tools

Hot Chisel
Punches
Sledge Hammer
Tongs

Weight 20 kg
Price \$100

BOLT CUTTERS

Cuts drop forged steel (such as lock hasps) up to 15 mm thick, or wire up to 25 mm, or chains and similar material of comparable dimensions.

Weight 3.5 kg
Price \$35

BULLET MOULDS

One mould will allow casting of the lead bullet of one caliber of weapon; dropping molten lead into a bucket of water makes shot much more simply. Gunpowder or cordite is still needed however.

Lead bullets are usually much worse penetrators (+1 to each penetration category), but cannot be jacketed with primitive technology. They can be crossed into dummdums (by hollowing out the tip); this reduces the range by ½ and worsens the penetration further (+1), but increases the damage by 1 die.

Weight Nil
Price \$250

CARPENTRY TOOLS

Used in wood working, contains:

1 Axe
1 Brush
1 Caliper
1 Hammer
1 Hand Drill
1 Nail Remover
1 Pliers, Large
1 Pliers, Med
1 Screw Driver, Large

1 Screwdriver, Small
1 Small Hand Saw
1 T Square
1 Tape Measure
2 Planers
2 Screw Starters
4 Chisels
4 Large Drill Bits
7 Files

Weight 30 kg
Price \$500

CHAINSAW

Runs for 2 hours on ½ gallon gas.

Weight 6 kg
Price \$150

CRANES

These are fixed assemblages (which have to be built into the shop) which lift and move heavy objects via electrical power. They require around 2 kw/ton for everyday use, with peak power ranging in the 15 kw/ton range (usually handled by batteries). Diesel cranes can also be found, and consume fuel at the rating listed for generators of that power.

They are essential for speedy replacement of large vehicle parts (engines, turrets), or moving immobilized vehicles around. A 10-Ton crane is good enough for parts and engines, a 50-Ton crane for vehicles (except the heaviest of tanks). They can also be invaluable in construction of buildings, bridges etc.

Setting up a crane at a site is a Major (but Average) task for Civil Engineer, or Machinist.

Weight 20 kg
Price \$500/ton

CRUCIBLE

This holds molten metals (steel/copper), and can be attached to a crane to move molten metal out of the forge and cast it into the mould in a controlled manner. The price depends on the size and how advanced the pouring technique: for \$100 you get an insulated bucket with handles, for \$5,000 an industrial 500-liters steel casting bucket.

Weight 10 kg
Price \$100-5,000

CUTTING TORCH

This requires acetylene and oxygen (or compressed air) tanks. Small tanks will last for 4-5 jobs, while large tanks will last 30 jobs (cutting time: 10 minutes/job). Cutting torches and Arc welders are necessary for jury-rigging.

	Weight	Price
<i>Cutting Torch</i>	25 kg	\$300
<i>Small Tank</i>		\$50
<i>Large Tank</i>		\$150
New charge of Acetylene		\$40/job
New charge of Oxygen		\$5/job
New charge of Compressed Air		\$1/job

DOG TAG MACHINE

A machine used for making dog tags.

Weight 4 kg
Price \$200

DRAFTING KIT

Contain materials and tools like drafting board, one solar powered calculator, a compass, protractor and a ruler.

Weight 5 kg
Price \$50

ELECTRICAL REPAIR TOOLS

Specialized tools for work on electrical appliances, wiring, and non-solid state equipment.

Weight 3 kg
Price \$500

ELECTRONIC REPAIR TOOLS

As above, but for work on solid state electrical devices such as radios, radar sets, etc.

Weight 3 kg
Price \$1,000

ENTRENCHING TOOL

The E-Tool, a folding shovel/pick.

Weight 0.75 kg
Price \$26

EXCAVATING TOOLS

Picks, shovels, mattocks, and so on.

Weight 20 kg
Price \$300

EXTENSION CORDS

Used for distributing power.

Weight Nil
Price \$10

FABRIC REPAIR KIT

A small kit for clothing, tents, packs, tarps, etc.

Weight Nil
Price \$15

FINISHING TOOLS

These are power hand tools for “blueprinting” parts to fit exactly into place. They are needed for using cast parts, and augment the normal tools for the machinist.

Weight 5 kg
Price \$1,500

FIRE EXTINGUISHER, LARGE

20 uses.

Weight 8 kg
Price \$150

FIRE EXTINGUISHER, SMALL

8 uses.

Weight 1 kg
Price \$50

FIRE EXTINGUISHER BOTTLE, VEHICLE

Three are included as standard equipment on AFVs.

Weight 7.5 kg
Price \$500

FORGE

The quality of the forge is determined by its cost. A gas fired industrial forge from a steel foundry will run into the tens of thousands of dollars, and are immobile. Small experimental gas fired forges will cost \$4,000-5,000. Primitive hand-made coal burning forges will run \$1,000-5,000 depending on size. As natural gas is as rare as can be, hardly anyone will be using gas-fired forges, but they have about twice the efficiency, and are much easier to work with.

Heating your forge:

- **Coal:** The best all around fuel for blacksmithing is soft coal. You need to get the coal about the size of a marble, if this is not possible the larger chunks need be broken up prior to using them.
- **Wood:** The easiest to find but not as good as coal. One problem with wood is that the ashes are always being blown about by the air blast. It also burns fast.

- **Charcoal:** Store bought “cookout” charcoal can also be used for light forging. Again the air blast tends to blow the ashes around.

Weight 100 kg
Price \$1,000-50,000

GLASS CUTTER

Weight 0.1 kg
Price \$5

GLUE GUN

These guns are used for applying hot glue; they are great for repairing fabric, but need electricity to work.

Weight 1 kg
Price \$20

GLUES AND TAPES – DUCT TAPE

Also known as “100-mph Tape”, each roll is 50 mm wide by 50 m long. Any color (usually olive drab or black in military use).

1 Roll
Weight 1 kg
Price \$7

GLUES AND TAPES – ELECTRICAL TAPE, 150'

Sticks anywhere; has a tensile strength of 90 lbs.

1 Roll
Weight Nil
Price \$1

GLUES AND TAPES – EPOXY GLUE

50-gram Tube
Weight 0.1 kg
Price \$10

GLUES AND TAPES – MILSPEC “SPEED TAPE”

2” x 180’ rolls of Duct Tape, etc. Olive Drab, Black, Camouflage, etc.

1 Roll
Weight 0.5 kg
Price \$10

HACKSAW

Used for cutting metal, blades in handle.

Weight Nil
Price \$15

HAND RIVETER

This is a hand tool used for applying rivets.

Weight Nil
Price \$80

HEAVY ORDNANCE TOOLS

Specialized tools for repair of heavy ordnance arms.

Weight 25 kg
Price \$750

HIGH SPEED MELTING POT

Used for melting small amounts of metals like lead, gold or silver.

Weight 8 kg
Price \$100

HOIST

A hoist is a mechanism that provides a mechanical advantage when raising or lowering heavy loads such as bombs, mines, and torpedoes.

Weight 8 kg
Price \$50

HORSESHOE TOOLS

This set is used by those blacksmith that do mostly horseshoe work. It will include:

Anvil	Punch
Chisel Hammer	Rasp
Concave Tool	Shoe Tongs
Fire Tongs	Sledge Hammer
Pritchel	Turning Hammer
Weight 150 kg	
Price \$500	

JACK

A simple auto jack used for lifting a car.

Weight 10 kg
Price \$100

“JAWS OF LIFE”

Used for cutting trapped persons out of car wrecks. Law Enforcement Personnel use it as an entry tool.

Weight 20 kg
Price \$300

MASON TOOL KIT

This kit contains tools that are used for working with mason, brick and stones.

Weight 20 kg
Price \$1,500

MATTAX

The Mattax is a dual-purpose tool combining the functions of a mattock and an ax, and is intended for hand excavation which is difficult to perform with the entrenching tool. It will assist in loosening hard ground and chopping through roots. Normally one man in the fireteam will have this tool.

The Mattax has a two-sided metal head 23-28 cm long: one side is a mattock and the other side is an ax. It has a 61 cm handle constructed of wood, replaceable and separable from the head. It comes with a carrying case which can be affixed to the equipment belt or pack.

Weight 2 kg
Price \$50

METAL DETECTOR

A device the size of a walkie-talkie, detects the presence of metal up to two feet away.

Weight 4 kg
Price \$750

METAL WORKING KIT

This kit has tools for working with sheet metal.

Weight 30 kg
Price \$200

MIG WELDER

A MIG welder uses a gas or gas mixture to displace the air around the arc, and prevents the air reacting with the molten metal. The “electrode” is still melted as with an arc welder, but the electrode is a special wire which is mechanically fed into the arc.

Operates of an integral generator, which cannot be modified for other use. Fuel Consumption: 40 liters/period.

Weight 75 kg
Price \$1,500

PIONEER KIT

The Pioneer Kit, complete with several tools and a plastic storage box, has everything you need to set up and dig in. Each kit contains:

1 ¾” Electrical Tape Roll	2 Hand Shovels
1 Claw Hammer	2 Handsaw
1 Hatchet with Blade Cover	2 Machete with Sheath
1 Single Bit Axe	2 Pick and Matlock
1 Storage Box	2 Pick and Matlock with Wood Handle
1 Wire Handling Gloves	2 Sledge Hammers
1 Wooden Handle for Sledge	

Weight 50 kg
Price \$400

PLUMBING TOOL KIT

Contains wrenches, pipe cutters and other tools for working on plumbing.

Weight 30 kg
Price \$400

PNEUMATIC STILTS

These auto-retracting stilts are a wonder. When not in use the stilts consist of leg braces with a rod attached, and can be concealed under the pant legs. When activated by pushing a button at the top of the rod the stilts extend and a small foothold pops out. The stilts extend out to 6 feet and are made of titanium; they are ½” wide at the bottom and 2” at the base. Be warned they do take lots of practice to use.

Weight 50 kg
Price \$1,000

POCKET KNIFE

A generic folding utility knife, not suitable for combat purposes but a handier tool than a knife or bayonet.

Weight Nil
Price \$20

POCKET KNIFE – SWISS ARMY KNIFE

A many-bladed utility knife that folds into a small package. Includes:

40 mm Blade	Reamer
57 mm Blade	Scissors
Bottle Opener	Screwdriver, Large
Can Opener	Screwdriver, Small
Corkscrew	Tweezers
Fish Scaler	Wire Stripper
Key Ring	Wood/Rope Saw
Plastic Toothpick	

Weight 0.1 kg
Price \$22

POCKET MULTI-TOOL

Equipment such as Leatherman tools, Gerber Multi-Tool, and the like. Typically include one or more knife blades, plus screw-driver blades, pliers, and other useful basic tools.

Weight Nil
Price \$50

POCKET MULTI-TOOL – LEATHERMAN SUPER TOOL

4 Screwdrivers
9" Ruler
Awl/Punch
Can and Bottle Opener
Electrical Crimper
File

Knife Blade
Pliers/Wire Cutters
Serrated Blade
Wire Stripper
Wood/Bone Saw

Weight 0.2 kg
Price \$80

PORTABLE HYDRAULIC MOTOR PUMP

A Honda 4-stroke engine with a 2.2 liters tank, it is used for operating hydraulic equipment.

Weight 18 kg
Price

PORTABLE MACHINE SHOP

The shop consists of a trailer containing numerous machine tools: bench grinder, disk grinder, drill press, horizontal and vertical boring machines, lathe, metal saw, milling machine... Exact components and uses are left to the discretion of the referee.

Any truck except a ¾-ton can tow it. Power Consumption: 60 kw.

Weight 1,750 kg
Price \$75,000

PORTABLE ROTARY SAW

A diamond toothed rotary saw, which runs off its own power supply but comes with plug adapter and a 9' power cord for prolonged use. The machine itself has been specially designed for extremely quiet operation; however, noise will still be an issue depending on what you are cutting with it.

The drill can cut 5 feet of 1" thick steel in ten minutes, and the battery lasts 20 minutes before it must be recharged.

Weight 4 kg
Price \$300

PORTABLE WOOD SHOP

The shop consists of a trailer containing numerous machine tools: band saw, belt sander, compound miter saw, drill press, joiner, planner, router, table saw, wood lathe... Exact components and uses are left to the discretion of the referee.

Any truck except a ¾-ton can tow it. Power Consumption: 60 kw.

Weight 1,750 kg
Price \$75,000

POWER HAND TOOLS

A selection of power tools including rotary saw, drill, jigsaw and scrollsaw. Power Consumption: 4 kw for the whole set.

Weight 35 kg
Price \$500

POWER HAND TOOLS, CORDLESS

Same as the Power Hand Tools but cordless.

Weight 35 kg
Price \$800

PRINTING PRESS

Used for printing things like newspapers or propaganda materials; carried by units like western public affairs or Pact's Propaganda Teams.

Weight 250 kg
Price \$800

PRITCHEL

A Pritchel is a type of punch used in forging, particularly in manufacturing horseshoes. The Pritchel is held in an anvil by placing it in the anvil's Pritchel hole. The horseshoe is then heated in a forge and hammered over the Pritchel to punch a hole to accommodate the nails that hold the horseshoe on the horse's hoof.

Weight Nil
Price \$20

PRUNING SHEARS

A stealthy alternative to a machete for clearing vines and brush.

Weight 0.75 kg
Price \$35

PRY BAR

A tool used for prying open things.

Weight 1 kg
Price \$20

RELOADING KIT

Contains various specialized tools needed for the hand-reloading of small arms ammunition, including swages and bullet molds. Players or referees should specify what molds are available for casting bullets; typically a kit will include molds for the 2-3 rounds used by the character's parent army.

Weight and cost does not include expendable materials for reloading (i.e. powder, primer, bullets, and brass).

Weight 2 kg
Price \$200

RELOADING KIT, EXPANDED

Includes more advanced tools for reloading, including a bench-mounted press and other sophisticated hand tools.

Weight 20 kg
Price \$500

SANDCASTING SET-UP

Rather than one fixed product, this represents the gathering of all the materials in order to do Sandcasting. It includes braces, clamps, and a clean supply of sand.

The fastest way of making parts is called Drop Forging. Once an object has been created, it can be cast by placing it (or a wax copy) in sand, and hyper compressing the sand around it (or melting the wax out). Pouring molten metal into the mould will make a crude (unfinished) copy. The parts then have to be annealed, and finally finished.

Weight 50 kg
Price \$1,000

SHOVEL

Used for digging.

Weight 3 kg
Price \$20

SLEDGE HAMMER

A large hammer.

Weight 2 kg
Price \$50

SMALL ARMS TOOLS

Specialized tools for repair of small arms.

Weight 5 kg
Price \$200

SPETSNAZ SURVIVAL TOOL

An all-purpose survival tool, available only to elite Spetsnaz Special Forces and Soviet Air Force pilots. 15" long, with a 10" high carbon steel blade. Machete, knife, shovel, hammer, ice pick/sewing needle, saw, pry bar, ruler, navigational sight, parachute cord cutter, screwdriver, wrench and more.

Weight 1½ lbs
Price

STAPLER

A heavy duty stapler used for putting up signs. MP will carry one to help with route marking.

Weight Nil
Price \$20

STILLS

	<i>Organic Material per day</i>	<i>Alcohol per day</i>	Weight	Price
Still, Small	30 kg	5 l	700 kg	\$500
Still, Medium	80 kg	35 l	2,000 kg	\$2,500
Still, Large	3,000	2,400 l	83,000 kg	\$200,000

TACTICAL WELDING SHOP

A 2-ton trailer that has a MIG welder and a cutting torch on board.

Weight 3,000 kg
Price \$50,000

TEMPERATURE-CONTROLLED OVENS

These allow the slow cooling of metals to properly anneal newly cast metal parts. Crude annealing will cause the part to automatically have a wear value of d10 (10 being automatic failure of the part).

Weight 50 kg
Price \$1,000

VEHICLE TOOLS, TRACKED VEHICLE

Specialized tools for repair and maintenance of tracked vehicles. It includes a grease gun, spark plug wrenches, torque wrenches, and so on.

Weight 15 kg
Price \$1,000

VEHICLE TOOLS, WHEELED VEHICLE

Specialized tools for repair and maintenance of wheeled vehicles. It includes a grease gun, spark plug wrenches, torque wrenches, and so on.

Weight 10 kg
Price \$500

WISE

Used for holding things.

Weight 20 kg
Price \$40

WATER PUMP

Used for pumping water or other liquids.

Weight 50 kg
Price \$100

WELDING MASK

Used to protect your eyes when welding.

Weight 2 kg
Price \$50

WINCH

Weight 20 kg
Price \$100

WIRE CLIPPERS

Clips up to 10 mm wire.

Weight 0.5 kg
Price \$10

WIRE SPLICING KIT Mk-356/G

The WD-1 Telephone Line is steel cored and is very difficult to splice using techniques designed to work on pure copper wires, if you don't have a splicing kit. This is a crimping tool set designed for splicing WD-1 and other field telephone wires. It consists of: Bag Cotton Magazine, Sleeve Splicing kit and the Splicing Sleeve Compressing Tool.

Weight 2 kg
Price \$50

WIRE SAW, US MILITARY SPEC

The US Military Spec design incorporates a single, relatively thick "wire blade" with a unique spiral cutting edge; it looks awkward but it definitely works. This wire saw is available in two different models: a heavy duty model with thumb screws (allowing the user to exchange the wire blade) and bulkier end grips; and a standard version which has a permanently fixed, lighter weight wire blade and less bulky end grips. The standard model is more compact, but also less durable.

Weight Nil
Price \$20

51. UNIT LOAD DEVICE AND PALLETS

UNIT LOAD DEVICE (ULD)

A Unit Load Device is a pallet or container used to load luggage, freight and mail on wide-body aircraft and specific narrow-body aircraft. It allows a large quantity of cargo to be bundled into a large unit. Since this leads to fewer units to load, it saves ground crews time and effort and helps prevent delayed flights. Each ULD has its own packing list (or manifest) so that its contents can be tracked as a unit.

ULDs come in two forms: containers and pallets.

- **ULD Containers** (also known as “cans” or “pods”) are fully enclosed containers made of aluminum, or a combination of aluminum (frame) and Lexan (walls). Depending on the nature of the goods inside, may or may not have refrigeration units built-in.
- **ULD Pallets** are rugged sheets of aluminum with rims designed to lock onto cargo net lugs.

Common Types	Linear Dimensions	Volume	Remarks
<i>ULD Container LD1</i>	156/234 x 153 x 163 cm	4.9 m ³	Contoured, Half width
<i>ULD Container LD2</i>	120/158 x 153 x 163 cm	3.4 m ³	Contoured, Half width
<i>ULD Container LD3</i>	164/201 x 153 x 163 cm	4.2 m ³	Contoured, Half width
<i>ULD Container LD6</i>	318/407 x 153 x 163 cm	8.95 m ³	Contoured, Full width Equivalent to 2 LD3s
<i>ULD Container LD8</i>	244/318 x 153 x 163 cm	6.88 m ³	Contoured, Full width Equivalent to 2 LD2s
<i>ULD Container LD11</i>	318 x 153 x 163 cm	7.16 m ³	DQF-prefix As LD6 without contours
<i>ULD Pallet LD7</i>	224 x 318 cm	10.8 m ³	Rectangular PAG- and P1P-prefix
(2 variants)	/244 x 318 cm	11.8 m ³	PMC- and P6P-prefix
<i>ULD Pallet LD8</i>	244 x 153 cm	6.88 m ³	FQA-prefix
<i>ULD Pallet LD11</i>	318 x 153 cm	7.16 m ³	FLA- and PLA-prefix
	(base/overall width x depth x height)		

ULD Aircraft Compatibility

- LD1s, a less common type, is designed specifically for the 747s, but LD3s are more commonly used because of ubiquity (share the same floor dimensions, so 1 LD3 takes the place of 1 LD1).
- LD2s and LD8s are used in 767s because of its narrower fuselage.
- LD3s, LD6s and LD11s will fit in 787s, 777s, 747s, MD-11s, L-1011s and Airbus wide-bodies.
- LD7s will fit in 787s, 777s, 747s, late model 767s (with the big door) and Airbus wide-bodies.

Interchange ability of certain ULDs between LD3/6/11 aircraft and LD2/8 aircraft is possible when cargo needs to be quickly transferred to a connecting flight. Policies vary from airline to airline whether such transfers are allowed.

- LD2s and LD8s can be loaded in LD3/6/11 aircraft, but at the cost of using internal volume inefficiently (33 cu ft wasted per LD2).
- Of the LD3/6/11 family of ULDs, only the LD3 can be loaded in a 767 and will occupy an entire row where 1 LD2s or 1 LD8 would have been (90 cu ft wasted per LD3).

ULD Capacity

Aircraft loadings can be made up of all containers, all pallets, or a mix of ULD types, depending on convenience. Below is a table indicating the maximum capacity of an aircraft for all-container and all-pallet configurations. In some aircraft the two types must be mixed as some compartments take only certain ULDs.

Container capacity of an aircraft is measured in positions. Each half-width container (LD1s, LD2s, LD3s) in the aircraft they are native to occupies 1 position. Typically, each row in a cargo compartment is made of 2 positions. Therefore, a full-width container (LD6s, LD8s, LD11s) will take 2 positions. An LD6 or an LD11 can replace 2 LD3s. An LD8 replaces 2 LD2s.

Pallet capacity of an aircraft is measured by how many PMC-type LD7s (96" x 125") it can hold. These pallets use approximately 3 LD3 positions (it occupies two positions of one row and half of the

two the following row) or 4 LD2 positions. PMCs can only be loaded in cargo compartments with large doors designed to accept them (small door compartments are container only).

Aircraft	Container Capacity	Pallet Capacity
A300-600	22 LD3s	4 pallets + 10 LD3s
A300-600F	41 LD3s	25 pallets
A300B2/B4	20 LD3s	?
A310	14 LD3s	3 pallets
A320PF	7 LD-3-45W + 10 pallets	10 AAZ + 7 LD-3-45W
A321PF	10 LD-3-45W + 13 pallets	13 AAZ + 10 LD-3-45W
A330-200	26 LD3s or 23 pallets	8 pallets + 2 LD3s
A330-200F	9 AMA containers + 4 pallets + 26 LD3	22 pallets + 8 pallets + 2 LD3
A330-300	32 LD3s	11 pallets
A340-200	26 LD3s	9 pallets
A340-300	32 LD3s	11 pallets
A340-500	30 LD3s	10 pallets
A340-600	42 LD3s	14 pallets
A380-800	38 LD3s	13 pallets
A380-800F	59–71 LD3s	66 pallets
B727-100F	None	9 pallets
B727-200C	None	11 pallets
B727-200F	None	12 pallets
B747-400/300/200/100	30 LD1s	5 pallets + 14 LD1s
B747-400ER	28 LD1s	4 pallets + 14 LD1s
B747-400F/ERF	32 LD1s (lower deck) + 30 pallets (main deck)	
B767-200	22 LD2s	3 pallets + 10 LD2s
B767-300	30 LD2s	4 pallets + 14 LD2s
B767-300ER	30 LD2s	4 pallets + 14 LD2s
B767-300F	30 LD2s (lower deck) + 24 pallets (main deck)	
B767-400ER	38 LD2s	5 pallets + 18 LD2s
B777-200/200LR/ER	32 LD3s	10 pallets
B777-300/300ER	44 LD3s	14 pallets
B777F	30 LD3s + 27 pallets	37 pallets
B787-8/-3	28 LD3s	9 pallets
B787-9	36 LD3s	11 pallets
L-1011	16 LD3s	None
L-1011-500	19 LD3s	4 pallets
MD-11F	28–32 LD3s	26 pallets

PALLET

A pallet (sometimes called a skid) is a flat transport structure that supports goods in a stable fashion while being lifted by a forklift, pallet jack, or other jacking device. A pallet is the foundation of a unit load design, which can be as simple as placing the goods on a pallet, and securing them with straps or stretch-wrapped plastic film, or as exotic as a ULD mini container. While the majority of pallets are made of wood, pallets manufactured from plastic, metal, and paper can also be found. Each material has advantages and disadvantages relative to the others.

Although pallets come in all manner of sizes and configurations, all pallets fall into two very broad categories: “stringer” pallets and “block” pallets.

- **Stringer Pallet:** Stringer pallets use a frame of three parallel pieces of timber (called stringers). The top deck boards are then affixed to the stringers to create the pallet structure. Stringer pallets are also known as “two-way” pallets, since a pallet-jack may only lift it from two directions instead of four. Forklifts can lift a stringer pallet from all four directions, though lifting by the stringers is more secure.
- **Block Pallet:** Block pallets are typically stronger than stringer pallets. Block pallets utilize both parallel and perpendicular stringers to better facilitate efficient handling. A block pallet is also known as a “four-way” pallet, since a pallet-jack may be used from any side to move it.

Two-way pallets are designed to be lifted by the deck boards. So, in a warehouse, the deck board side faces the corridor. So, for optimal cubage in a warehouse, the deck board dimension should be the shorter. This also helps the deck boards be more rigid.

Four-way pallets, or pallets for heavy loads, or general-purpose systems that might have heavy loads, are best lifted by their more rigid stringers. So, a warehouse has the stringer side facing the corridor. So, for optimal cubage in a warehouse, the stringer dimension should be the shorter.

In a pallet measurement, the first number is the stringer length, the second is the deck board length. Square or nearly-square pallets help a load resist tipping. No universally accepted standards for pallet dimensions exist. Companies and organizations utilize hundreds of different pallet sizes around the globe. While no single dimensional standard governs pallet production, a few different sizes are widely used.

North American Pallets

Of the top pallets used in North America, the most commonly used by far is the Grocery Manufacturers' Association (GMA) pallet, which accounts for 30% of all new wood pallets produced in the United States.

Dimensions	Industries Using
889 x 1,156 mm	Military 1/2 ISO containers
914 x 914 mm	Beverage
1,016 x 1,016 mm	Dairy
1,016 x 1,219 mm	Military, Cement
1,067 x 1,067 mm	Telecommunications, Paint
1,118 x 1,118 mm	Drums, Chemical
1,219 x 1,016 mm	Grocery, many others (GMA Pallet)
1,219 x 1,067 mm	Chemical, Beverage
1,219 x 1,143 mm	Automotive
1,219 x 1,219 mm	Drums
1,219 x 508 mm	Retail
1,219 x 914 mm	Beverage, Shingles, Packaged Paper

European Pallets

The Euro Pallet, also called a CEN pallet, is widely used in many industries in Europe. It measures 80 x 120 x 12 cm. Manufacturers of Euro Pallets must be sanctioned by the Euro Pallet Association (EPAL), which governs the smallest details, even which types of nails and lumber may be used.

The 4 common sizes of Euro Pallets are:

Name	Dimensions
Pallet EUR 1	800 x 1,200 mm
Pallet EUR 2	1,200 x 1,000 mm
Pallet EUR 3	1,000 x 1,200 mm
Pallet EUR 6	800 x 600 mm

TYPES OF PALLETES

Perimeter Base Pallet

All stringer and some block pallets have "unidirectional bases", i.e. bottom boards oriented in one direction. While automated handling equipment can be designed for this, often it can operate faster and more effectively if the bottom edges of a pallet have bottom boards oriented in both directions. For example, it may not need to turn a pallet to rack it, and operation is less sensitive to pallet orientation.

Stillage Pallet

A stillage is like a pallet or skid, but with a cage or sides, or some form of support typically tailored to the material it is intended to carry. Some are designed to be stackable.

US Air Force HCU-6/E - 463L Master Pallet

The HCU-6/E or 463L Master Pallet is a standardized pallet used for transporting military air cargo. It is the main air-cargo pallet of the United States Air Force, designed to be loaded and offloaded on today's military airlifters as well as many civilian Civil Reserve Air Fleet (CRAF) cargo aircraft. The "463L Master Pallets" can be unloaded on the ground in peacetime or in combat, or airdropped with a parachute. They are built of a balsa wood core and surrounded by a thin aluminum skin. There are 22 rings surrounding the edge, each rated at 7,500 lb (3,400 kg).

Each HCU-6/E pallet is 88" wide, 108" long, and 2¼" high (224 x 274 x 5.7 cm), its usable space being 84" x 104" (213 x 264 cm). It can hold up to 10,000 lb (4,500 kg) of cargo at 8 g. Empty, each pallet weighs 290 lb (130 kg), or 355 lb (160 kg) with two side nets and a top net.

US Navy Pallet

US Navy loads generally use 40" x 48" pallets, that are less than 4,000 lbs (1,800 kg), weather-proof, and stack 16' (4.9 m) high. They often use steel pallets, steel straps with notched seals, outdoor plywood, and plastic film.

52. VEHICLE EQUIPMENT

ARMOR KITS

Armor Kits are an inexpensive way to achieve 80% ballistic coverage of a vehicle at approximately half the cost of normal armoring packages. Armor kits can be installed in the field in 3 to 4 hours. An Armor Kit consists of the following 23 pieces:

1 Backlight (Flat)	1 Under Rear Seat
1 Behind Rear Seat	1 Windshield (Curved)
1 Front Floor Area & Partial Fire Wall	2 Center Pillar Posts
1 Front Headliner	2 Front Kick Panels
1 Rear Floor Area	2 Rear Sail Panels
1 Rear Headline	4 Door Panels
1 Rear Package Tray	4 Sidelights (Flat)

Armor Kit, Package One

Installed behind the existing automobile glass and/or the existing automobile body, will defeat the .357 Magnum, 9 mm, .38 and .45 caliber ammunition.

The Second Option of this package will defeat all of the above, as well as the .30 Carbine and .44 Magnum ammunition.

Armor Kit, Package Two

With Curved Windshield and Flat, Side and Rear Glass; the curved windshield should be installed in place of OEM factory glass. The windshield will always be a higher defeat level than the rest of the vehicle: 7.62 mm NATO ammunition.

Installed behind the existing automobile glass and/or the existing automobile body, will defeat the .357 Magnum, 9 mm, .38 and .45 caliber ammunition.

The Second Option of this package will defeat all of the above, as well as the .30 Carbine and .44 Magnum ammunition.

	Weight	Price
Package One, First Option		\$14,000
Package One, Second Option		\$15,000
Package Two, First Option		\$21,000
Package Two, Second Option		\$22,000

ARMOR KITS – FLOORBOARD SHRAPNEL ATTENUATOR

The Floorboard Shrapnel Attenuator has been specifically designed to protect troops in high threat situations. Bomb blasts and the resulting shrapnel are constant threats in a combat situation; this product will serve as extra protection for any vehicle's floorboard. Add +1 to Armor Value.

Weight
Price

ARMOR KITS – HMMWV ARMOR KIT

Exclusive armor protection against 7.62 mm AP NATO. Complete kit: 15 pieces; armor steel, 7 pieces; ballistic glasses with screws.

Weight
Price \$30,000

ARMOR KITS – LIGHTWEIGHT BALLISTIC ARMOR

Lightweight Ballistic Armor can stop 7.62 x 39 mm ball rounds.

Weight 3.75 lbs/sq ft
Price

ARMOR KITS – TRANSPARENT (GLASS) BULLET RESISTANT ARMOR

Bullet resistant transparent armor: a special glass/polycarbonate laminate that can resist penetration by common handguns and high powered rifle rounds.

Weight
Price

CAMOUFLAGE NETTING POLES

Used to helping to set up Camouflage Netting over vehicles and tents. Comes in sets of 6 2-ft sections, each section can be attached to other.

Weight	Nil
Price	\$50

CARGO BED COVER (CBC)

The CBC provides a vented, weather-tight and lockable rigid wall enclosure to store, protect and secure equipment, tools, and other theft-prone items without interfering with its carrier ground, air, or rail mobility.

The CBCs offer a more durable and environmentally safe alternative to the standard bow and canvas covers. They also offer a safe, standard alternative to the non-standard wooden or poorly constructed home-made covers/built-ups that must be removed for air and rail transport and quickly degrade over time because of operation over rough terrain. All CBCs meet the transportability requirements of its prime mover and are C-130 transportable.

	Weight	Price
Type I CBC	190 kg	
Type II CBC	180 kg	
Type III CBC	300 kg	
Type IV CBC	325 kg	

COMBAT IDENTIFICATION PANELS (CIP)

The Combat Identification Panel has one primary component: a flat or Venetian style panel, approximately $\frac{1}{8}$ " thick x 24" high x 30" long, covered with a low emission thermal tape. The panels are installed flat against the vehicles' exterior shell (with Velcro) or placed inside a bracket adapted to hang on the vehicles exterior.

CIPs can be mounted in an operational mode, thermal tape out, or reversed to a non operational, Chemical Agent Resistant Coating (CARC) paint side out, mode. When viewed through FLIR thermal sensors, the CIP shows up as a contrasting cold spot on the hot target image. In the engagement process, a gunner would use this contrast to determine if the targeted vehicle is friendly or unknown.

Weight	2 kg
Price	\$200

IR HEADLIGHTS AND FILTERS

These are lights and filters that can be installed on any vehicles so they give off IR light versus the regular white light.

Weight	1 kg
Price	\$200

ISO SHELTER/CONTAINER

The ISO Shelter/Container is 8' high, 8' wide and 20' long. For special requirements, the shelter is available in 10', 30' or 40' lengths.

Weight	
Price	

MATTRACKS LITEFOOT ATV TRACK SYSTEM SERIES

A Mattracks Rubber Track Conversion Systems for ATVs

Weight	
Price	

MATTRACKS LITEFOOT TRAIL-R-MATE SERIES

Designed to fit ATV utility and cargo trailers or other pull-behind ATV implements, great for work or play when you need high flotation over difficult terrain. Trailer-R-Mate are for use with non-driven wheels on trailers, farm implement, tractors and many other pull-behind commercial, recreational and agricultural applications.

Weight	
Price	

MATTRACKS RUBBER TRACK CONVERSION SYSTEMS FOR 4x4 VEHICLES

Mattracks rubber track conversion systems transforms most 4x4 vehicles into a true all-terrain vehicle equipped with rubber tracks that will go almost anywhere and bring you back! Mattracks rubber track conversions system features the patented rubber torsion anti-torque system. Available for vehicles up to 1½ tons; a military package is available for the HMMWV only. The Mattracks Track has a steer steering assist package that allows for one-handed steering while standing in place.

Weight	kg
Price	\$

MINE CLEARING BLADE SYSTEM

The Mine Clearing Blade System is an auxiliary piece of equipment necessary for the tank unit to breach minefields during the normal conduct of operations; come with an adapter for any western AFV.

Weight	270 kg
Price	\$20,000

NBC FILTER

This compact, easily installed filter system is a positive pressure ventilation system, which removes harmful particles and gases from the ambient air and channels clean air to the driver's cabin.

Stainless steel filter housing, designed for external installation. Three-stage filtration, with 4 filter elements and easy filter change (no tools needed). Adaptable to external high capacity cyclone/coarse dust filter.

Weight	10 kg
Price	\$10,000

RUN FLAT TIRES

Allow a vehicle to travel up to 60 miles at 60 mph (depending on road conditions) on flattened tires. A ballistic rubberized plastic "roller" ring is designed, molded and installed inside each tire around the rim. When the tires are deflated, the solid rubber ring acts as a backup tire, an airless spare within the tire.

	<i>Set of 4</i>
Weight	250 kg
Price	\$2,000

S-250 SHELTER

The S-250 shelter makes possible to transport and operate a wide variety of communications and electronic equipment in the field as a mobile unit. This high strength, insulated, all-weather, general purpose mobile unit is designed to meet the user's specifications for complete systems integration.

The mobile shelter system is transportable by 1¼-ton military truck, 1¼-ton Type E commercial utility cargo vehicle (CUCV), and 1¼-ton High Mobility Multipurpose Wheeled Vehicle (HMMWV). Payload: 1,400 kg.

Weight	350 kg
Price	\$500

S-280 ELECTRONIC EQUIPMENT SHELTER

A larger version of the S-250, measures 147" length and 87" width.

Weight	200 kg
Price	

S-788 LIGHTWEIGHT MULTIPURPOSE SHELTER

The S-788 Lightweight Multipurpose Shelter is a lightweight, transportable, electromagnetic interference protected HMMWV-mounted tactical rigid wall shelter. S-788 is designed for use in housing all types of battlefield systems and is a replacement for the S-250 communications-electronics shelter. Payload: 1,400 kg.

Weight	300 kg
Price	\$8,000

S-1497 SHELTER LIGHTEST HMMWV ENCLOSURE

The S-1497 electronic equipment shelter is made to fit on the 1.25 High Mobility Multipurpose Wheeled Vehicle (HMMWV).

Weight 235 kg
Price \$

SMOKE DISCHARGERS

These are 4 barrel tubes that come with any electrical fire system for smoke grenades that create a cloud of smoke for a vehicle to hide behind.

Weight 50 kg
Price \$500

VEHICLE EQUIPMENT TOOL KIT

This Kit would be found in most NATO vehicles, it includes:

Axe	First-Aid Kit
Canvas Bag containing basic tools	Pick
and/or tracked vehicle tools	Shovel
Extra Wooden Handle	Sledge Hammer
Weight 20 kg	
Price \$200	

VEHICLE WEATHER SENSOR

This is a vehicle mounted sensor that will give the weather conditions outside of the vehicle. This information is then computer display screen.

Weight 200 kg
Price \$500

53. VISION DEVICES

AIMS, SCOPES & SIGHTS – 0x RED-DOT SCOPE

Used by Canadian forces on the C-7A1. Requires flashlight batteries and will function for nearly 30 days of continuous use. Reduces SS by one.

Weight Nil
Price \$100

AIMS, SCOPES & SIGHTS – 3.5-10x VARIABLE POWER SCOPE

This scope has a ranging reticule; this is a series of lines to the side of the cross hairs. Place the center line on the target's feet, and the number next to the line on top of his head is the range. Gives +4 to Acc at maximum magnification.

Weight Nil
Price \$400

AIMS, SCOPES & SIGHTS – 4x SCOPE

Normally used on the M-4A1 and M-16A3. Gives +2 to Acc.

Weight Nil
Price \$100

AIMS, SCOPES & SIGHTS – 4x SUIT SCOPE

"Sight Unit Individual Trilux", a compact scope developed for Commonwealth FALs. The reticule is illuminated with a vial of tritium allowing the sight to be used in low light conditions. Gives +2 to Acc.

Weight Nil
Price \$200

AIMS, SCOPES & SIGHTS – ACOG REFLEX SIGHT

Normally found only on the M-4A1, but it was available commercially. Designed for Close Quarters Battle (CQB). The ACOG reduces SS by three.

Weight Nil
Price \$1,500

AIMS, SCOPES & SIGHTS – AN/PAQ-4C INFRARED AIMING LIGHT

This device produces a target-marking beam similar to that of a standard laser sight, except that it is infrared, thus invisible to the naked eye. The targeting dot can only be seen through passive infrared or thermographic sensors; as a result, it is an effective tool for night combat, but fairly useless under most other conditions.

The AN/PAQ-4C is designed for use with the M-16 or M-4, but can be adapted to the M-60, M-240G, M-249 and M-2HB machineguns. Operates for 30 minutes of continuous use on an 18 kw advanced battery.

Weight Nil
Price \$400

AIMS, SCOPES & SIGHTS – AN/PVS-4 INDIVIDUAL WEAPON NIGHT SIGHT

A second generation image intensification device, the AN/PVS-4 Individual Weapon Night Sight is a portable, battery operated, electro-optical instrument used for observation and aimed fire of weapons at night. It amplifies reflected light such as moonlight, starlight, and sky glow so that the viewed scene becomes clearly visible to the operator. The sight does not emit visible or infrared light (except from the eyepiece) that can be detected by the enemy.

It can be used with the M16 rifle, M249 and M60 machine guns, and 83 mm Mk 183 MOD 1 (SMAW) rocket. This sight comes furnished with mounting brackets for the M16 and M60, reticules and mounting brackets for use with other weapons must be separately requisitioned. A carrying bag and battery adapter for low temperature operations may also be requisitioned.

Weight 1.8 kg
Price \$4,815

AIMS, SCOPES & SIGHTS – LASER/INFRARED AIMING LIGHT

This combines the utility of the Aimpoint sight and the infrared aiming light. It can also be used underwater to a range of 20 meters. It may also be used as a flashlight.

Weight 0.25 kg
Price \$750

AIMS, SCOPES & SIGHTS – M68 CLOSE COMBAT OPTICS

The M68 sight is a reflex (non-telescopic) sight. It uses a red aiming reference (collimated dot) and is designated for the “two eyes open” method of sighting. The “two eyes open” method allows for quick acquisition of the target with a high hit probability. The M68 sight is designed for use with the M16 series rifle and M4 series carbine.

Weight 0.2 kg
Price \$200

AIMS, SCOPES & SIGHTS – REFLEX (COLLIMATOR) SIGHT

Short range optical scopes designed to improve close-range target acquisition. Available in limited quantities to western armies during the war (most often found issued to special operations units). Powered by internal batteries.

Weight 0.2 kg
Price \$500

AIMS, SCOPES & SIGHTS – TELESCOPIC SIGHTS

Telescopic Sights of several types and powers are normally found on civilian hunting rifles or military sniping rifles, although they can also be found on assault rifles and battle rifles, and (much more rarely) on pistols, revolvers and auto rifles.

They are almost never used on other weapons. Use of telescopic sights on auto rifles, machineguns, and grenade launchers tends to ruin the sight due to the extreme vibration encountered. Sniper rifles include the weight of a sight.

	Weight	Price
1.5x Sight	0.1 kg	\$27
2.5x Sight	0.1 kg	\$40
2x Sight	0.1 kg	\$36
2-6x Sight	0.3 kg	\$150
3.5x Sight ¹	0.18 kg	\$47
3x Sight	0.15 kg	\$45
3-9x Sight	0.45 kg	\$200
4x Day/Night Sight ²	1.45 kg	\$1,850
	Weight	Price
4x Sight	0.2 kg	\$48
6x Sight	0.3 kg	\$100
7.5x Sight	0.4 kg	\$120
8.5x Day/Night Sight ³	2.22 kg	\$3,400
9-12x Sight	0.6 kg	\$350
10x Sight	0.5 kg	\$250
12x Sight	0.6 kg	\$275
20x Sight	1 kg	\$450

¹ This is the standard sight in the game rules. It is the sight fitted to weapons with integral sights, such as the AUG, G-11 or Colt ACR.

² This telescopic sight combines both magnification and night vision (using light intensification).

³ This is a stronger version of the 4x Day/Night Sight.

BINOCULARS – 4x BINOCULAR

A decent civilian set, allows the user to see longer distances than normal.

Weight Nil
Price \$100

BINOCULARS – 8X DIGITAL BINOCULAR CAMERA

Shoot high-resolution, 1.3 mega-pixel photos from up to a mile away; view them on the 1½" color LCD screen or download them to a computer. Powered by four "AAA" batteries.

Weight 3 kg
Price \$150

BINOCULARS – 10X BINOCULAR

Allows the user to see longer distances than normal. Used for Artillery spotting.

Weight 1 kg
Price \$200

BINOCULARS – BIG EYE BINOCULAR

The Mark III Mod 5 Big Eye Binocular has a magnification of 20x power with an apparent field-of-view of approximately 70°. The objective has an aperture of 120 mm. Optical elements are anti-reflective coated to increase light transmission. Variable density polarizing filters may be introduced into the optical path to reduce glare. Visors are provided on each barrel and may be extended to minimize reflections on the objective lenses. The binocular is mounted on a height adjustable carriage assembly; it is free to rotate through 360° in azimuth and is adjustable through 70° in elevation, ranging from -10° depression to +60° elevation with reference to the horizon.

The whole can be disassembled into three parts: binocular, carriage and pedestal assembly. Found aboard most major warships and along border checkpoints and crossings.

Weight 90 kg
Price \$400

BINOCULARS – NIGHT VISION BINOCULAR

Allows the user to see longer distances than normal at night.

Weight 1 kg
Price \$100

BINOCULARS – TANK COMMANDER BINOCULAR

Issued to tank corps commanders, this precision-ground multi-coated optics allow the user to see the brightest possible image, even in low light or haze. Wide field of view; its rugged porro-prism design features a shockproof and watertight construction. It also has an individually focusing diopters and rangefinder reticule.

Weight 1 kg
Price \$100

INFRARED AIMING LIGHT

The IR Aiming Light, when properly bore sighted to a weapon, provides a dot of light similar to that of an Aimpoint Laser Sight. This dot, however, is visible only to those using night vision devices. Maximum range of sight for this dot is 600 meters. These devices were first used by Coalition forces during Desert Storm.

Weight 0.13 kg
Price \$350

INFRARED SPOTLIGHT

Powered from by a vehicle. IR goggles must be used to see by this light.

Weight
Price

INFRARED TELESCOPE

An instrument that collects the infrared radiation emitted by objects.

Weight 1.25 kg
Price \$500

LIGHT TABLE

Intelligence analysts used these light tables to review surveillance images. Complete in OD green wooden case.

Weight 10 kg
Price \$50

LIGHTING – FRENCH ARMY EMERGENCY SIGNAL FLASHLIGHT

A flashlight carried in all French Army vehicles, the red filter slides off. Requires 4 “D” batteries.

Weight 1 kg
Price \$20

LIGHTING – GLO-TOOB FX LIGHT

The Glo-Toob FX is an extremely solid LED glow light, with 7 modes of operation. It is waterproof to extreme depths (about 350 atmospheres) and runs on a single 12V lighter battery. The Glo-Toob is made from an aluminum core surrounded by a tough clear epoxy. One end has a screw-on knurled aluminum cap that allows for access to the battery.

This light is great for providing emergency lighting as well as ambient task lighting. Divers, emergency services personnel, boaters, climbers, campers, hunters and geeks of all kinds will appreciate the solid construction and reliability of this little light. Used by Navy Seals, SAS, and other covert units, comes in red, blue, yellow and white.

Weight Nil
Price \$25

LIGHTING – HEADLAMP

This is a battery powered headlamp designed to fit on a helmet. It is bright enough to allow a person to walk confidently in broken terrain on a dark night and will last approximately 6-8 hours on 4 AA batteries. The most common designs use a large rubber band which goes around the outside of the helmet.

Weight 0.2 kg
Price \$15

LIGHTING – HEADLIGHT

This is a simple light that come with a head band to allow hand free operation.

Weight Nil
Price \$10

LIGHTING – MINER LAMP

Used by miners and cave explorers.

Weight Nil
Price \$10

LIGHTING – MOBILE LIGHTING UNIT

This is a trailer with a self-contained generator that runs the lights used for emergency lighting. Fuel Consumption: 25 liters/24 hour period.

Weight 1,000 kg
Price \$4,000

LIGHTING – MOON FLASH RADIO FLASHLIGHT

The Moon Flash, built in Japan in the 60s, is light years ahead of its time. Outfitted with a transistor AM radio and flashlight includes wrist strap and earphone.

Weight Nil
Price \$25

LIGHTING – PORTABLE BATTERY POWERED FLOODLIGHT

Provides up to 7 hours of continuous emergency lighting.

Weight 25 kg
Price \$200

LIGHTING – RUNWAY LIGHT

These small lights are carried by Airborne Pathfinder Teams for the marking of drop zones for other paratroopers.

Weight Nil
Price \$20

LIGHTING – SEARCHLIGHT

These light and light up the nighttime sky, and were at one time used by Army Anti Aircraft Units. Now they are most used by police units and movie production companies.

Weight 500 kg
Price \$4,000

LIGHTING – SEARCHLIGHT, SPECTRO LAB SX-16 NIGHT SUN

The Spectro Lab SX-16 Night Sun searchlight is used to provide a mobile versatile high intensity light source. It is useful in a wide variety of situations, such as Law Enforcement, SAR operations on either land or sea... The searchlight can provide up to 30 million candle power of illumination and its beam spread is adjustable from 4" search mode to 20" flood mode.

Weight 80 kg
Price \$1,000

LIGHTING – WHITE LIGHT SPOTLIGHT

Powered by a vehicle. It can shed over 1,000 watts of light onto a target.

Weight
Price

LIGHTING – WORK LIGHT

This is a simple light that can be used in any number of ways.

Weight 3 kg
Price \$40

NIGHT VISION – 25X IMAGE INTENSIFIER

A high power LLTV imager. Operates for 3 hours on an integral 2,700 kw advanced battery.

Weight 20 kg
Price \$52,000

NIGHT VISION – ADD-ON IMAGE INTENSIFIER

This is a miniaturized image intensifier first produced by Norway in the early 1990s, but soon distributed all over NATO and other friendly nations. The procedure is reversed from the Add-On Starlight Scope sight; the image intensifier is mounted on top of the optical sight. The resulting hybrid sight can be used both day and night. It is protected against blinding by explosive burst and flares. Effective range at night is limited to the range of the image intensifier (900 meters).

Weight 0.79 kg
Price \$2,500

NIGHT VISION – ADD-ON STARLIGHT SCOPE

This device is designed with the addition of a telescopic sight in mind. The telescopic sight is attached to the starlight scope, and then the starlight scope is attached to the weapon. This provides night vision equal to starlight scope, and magnification equal to the telescopic sight. Effective range at night is limited to the range of the starlight scope (450 meters).

Weight 1.46 kg
Price \$1,100

NIGHT VISION – AN/AVS-9 AVIATOR’S NIGHT VISION IMAGING SYSTEM

Used by helicopter pilots, to fly nap of the earth without lights, similar to the AN/PVS-7B.

Weight Nil
Price \$2,000

NIGHT VISION – AN/PVS-5 NIGHT VISION GOGGLES

AN/PVS-5 Night Vision Goggles (NVG) are a self-contained, passive, image intensifying, night vision viewing system worn on the head with or without the standard battle helmet or aviator helmet. They are a second generation binocular system capable of providing night vision viewing using available light from the night sky (starlight, moonlight). The built-in infrared light source provides added illumination for close-up work such as map reading.

The PVS-5 is equipped with a head strap to allow “hands-free” operation. Shipping case, soft carrying case, eyepiece and objective lens cap, and arctic adapter assembly are authorized ancillary items. Demist shields are also provided to prevent fogging of the eyepiece.

The AN/PVS-5 individual NVG were procured in the early 1980s. A general purpose goggle, they are found in a variety of applications, such as for vehicle drivers, riflemen, and unit leaders. There are three models in existence, with differences in each model that require separate model support packages.

Weight 0.85 kg
Price \$5,000

NIGHT VISION – AN/PVS-7B NIGHT VISION GOGGLES

The AN/PVS-7B is the most advanced, high-performance night vision goggle in the world today. This unit provides greater user comfort and low-light level performance than the military standard AN/PVS-5A. The AN/PVS-7B delivers improved performance over other Generation III equipment, with improved system resolution and nearly double the luminous gain. It can be operated for up to 40 hours, powered by 2 “AA” alkaline batteries. In addition, the AN/PVS-7B has a quick-release lever that permits one-hand mounting and un-mounting, an IR-on indicator, an automatic high-light cutoff to protect the image intensifier, and a low-voltage indicator.

Weight Nil
Price \$2,000

NIGHT VISION – AN/TVS-5 CREWED NIGHT SIGHT

The AN/TVS-5 was designed in the 1970s to provide a night fighting capability with crew-served weapons. It was procured during the 1980s and delivered upon receipt. The AN/TVS-5 Night Vision Sight is a portable, battery operated, electro-optical instrument used for observation and aimed fire of weapons at night. It amplifies reflected light such as moonlight, starlight, and sky glow so that the viewed scene becomes visible to the operator. An eye guard prevents visible and infrared light from being emitted from the eyepiece. The AN/TVS-5 is generally used as a crew-served weapon night sight; however it can be tripod mounted for surveillance.

The AN/TVS-5 is presently the standard night sight for the M2 .50 Caliber and 40 mm Mk19 heavy machine guns. The sight comes furnished with the mounting bracket and reticule for the M2 machine gun. Brackets and reticules for use with other weapons must be separately requisitioned. A carrying bag and battery adapter for low temperature operations may also be requisitioned.

Weight 3.63 kg
Price \$4,000

NIGHT VISION – LIGHT INTENSIFIER GOGGLES

These amplify existing light thousands of times, rather than heat emanating from objects and people. They have the same range as IR Goggles when used in the passive mode, but double their range and allow for better short-range vision clarity when used in the active mode. The drawback to active mode is that the goggles are acting as a flashlight and show up clearly to starlight scopes, IR goggles, thermal vision, and passive/active IR viewers.

Weight 0.5 kg
Price \$1,800

NIGHT VISION – M982 SUBMERSIBLE MONOCULAR NIGHT VISION SYSTEM

The M982 lightweight monocular night vision systems operate on 1 “AA” battery to keep system weight to a minimum. The monocular features a short-range light emitting infrared diode to enhance scene viewing. The M982 can be used in a hand held mode with optional 3x, 4x, and 6x objectives for longer-range observation. Adapters are also available for mounting on 35 mm and CCTV cameras and camcorders.

The standard system features a unique face-mounting bracket that is used on the AN/PVS-7C and AN/PVS-15 fielded with the US Special Forces. This mount design allows quick changing from the left to the right eye. The standard configuration mounts on a flip-up facemask. Optional mounting includes helmet mounts, and a dual mounting system. This unit can also be mounted to most scuba facemask.

Weight kg
Price \$

NIGHT VISION – NIGHT VISION IMAGER

This device, powered from internal batteries, works on the same basis as light-intensification/night vision goggles. It attaches to the top of a camcorder and directs its image into the camera’s existing lens. It provides sensitive night vision capability with a good range (around 500 meters).

Weight 0.75 kg
Price \$5,000

NIGHT VISION – NITE-WATCH PLUS

This unique night viewer is probably the lightest and most compact device of its kind, making it pocket sized and easily concealed. The modular construction of Nite-Watch Plus enables it to be swiftly added to most types of SLR, Video and CCTV cameras with a range of adapters.

With typically over 7,000 hours of life when used in low light level conditions, Nite-Watch Plus is available in 2 basic mechanically different forms. The original Nite-Watch form incorporates 3 miniature lithium batteries, the newer option incorporates 2 “AAA” batteries in a “side-pack” version.

	<i>Original</i>	<i>Side Pack</i>
Weight	1 kg	
Price	\$1,000	\$1,050

NIGHT VISION – NSPU-3A NIGHT VISION SCOPE

A first generation night vision scope, it is the soviet version of the Starlight Scope.

Weight 6 kg
Price \$1,100

NIGHT VISION – SMALL NIGHT VISION SCOPE

A small night vision scope with less range and image intensification capability than a full sized scope (detection range is 1.5 times normal rather than double). Most commonly found in law enforcement and espionage applications. Powered by internal batteries.

Weight 0.25 kg
Price \$4,000

PEEPHOLE VIEWER

A miniature monochrome low light video camera, with custom designed video lens that is easily fitted to a “peephole” door viewer for convenience during prolonged surveillance operations. The unit may be connected in seconds to standard interior or exterior peephole viewers, allowing safe viewing on a video monitor. Events may then be recorded for future reference or used in evidence. A time lapse recorder can be used for extended periods.

The peephole camera kit operates on 230V AC/50Hz or from a 9V battery.

Weight 3 kg
Price \$500

RANGEFINDERS –COINCIDENCE RANGEFINDER, PORTABLE

Powered from internal batteries. Reads out distance to a designated object.

Weight 1 kg
Price \$500

RANGEFINDERS – COINCIDENCE RANGEFINDER, VEHICLE

Powered from internal batteries. Reads out distance to a designated object.

Weight 3 kg
Price \$700

RANGEFINDERS – PORTABLE COINCIDENCE RANGEFINDER

Allows gunners to estimate distances using a system of specially mounted 6x telescopes. The operator looks through the eyepiece and will see two images of the target. He then adjusts the images until they coincide, creating one image. The range is then read off of a gauge in the mount.

Weight 8 kg
Price \$600

RANGEFINDERS – SWEDISH MILITARY CULMINATING RANGEFINDER

An original Swedish military rangefinder manufactured by Nife Optics. Used by mortar squads to quickly and accurately determine the distance to fire their rounds on target, but can be used by hunters and Snipers teams to find the distance of their targets.

Does not use batteries like laser rangefinders, nor require a beam reflection for use. Good luck trying to get the range on a bird on a wire at 350 meters with a laser rangefinder; this rangefinder can do it easily with the 8x magnification eyepiece!

The aluminum tube has a rubberized armored housing over the lenses to protect it from dropping. The hard plastic case is durable and protects the rangefinder with formed foam lining. The sling is attached to the tube along with the lenses covers so you can safely carry it anywhere without the case. Also included is a mono-pod that will attach horizontally or vertically, and a lenses brush and chamois for keeping the lenses clean. Length of unit: 33.5" Case Size: 37½" x 9¾" x 8¾".

Weight
Price \$200

SPOTTING SCOPE

A compact 12x telescope or bios, usually fitted with a small integral tripod for stability. Often times used by scouts and snipers in military applications.

Weight 2 kg
Price \$500

SPOTTING SCOPE – ARTILLERY SPOTTING SCOPE

This powerful optical device allows Artillery Observers to spot the impacting rounds of the artillery. It's similar to the Big Eye Binocular but more portable.

Weight 10 kg
Price \$200

SPOTTING SCOPE – SPETSNAZ SPOTTING SCOPE/RANGEFINDER

These variable power (4-20x) spotting scopes with two rangefinder reticules were originally issued to USSR's elite units. They calculate distances accurately, the old-fashioned way, without batteries and in any weather, ideal from 200-2,000 yards. Just 11½" long, can be hand-held or mounted to a tree or tripod. Mil-spec, all metal construction, tested from -50°F to 120°F and in 80% humidity. Each come with amber filter, carrying case and dual mounting bracket, tripod mountable.

Weight 0.5 kg
Price \$200

TELESCOPE

Both military and civilian models are good for spotting distance targets.

Weight 2 kg
Price \$200

THERMAL VISION – COMPACT THERMAL VIEWER

This small device is like the Thermal Weapons Sight, but designed to be hand held.

Weight 1 kg
Price \$800

THERMAL VISION – HEAT STALKER

A battery operated device used for detecting changes in temperature radiated by objects over 500 ft away. Sensitive enough to detect the temperature of objects warmer than 0°F. The Heat Stalker can be used by a person to detect the presence of a suspect in a dark area without using a light and compromising their position.

Weight Nil
Price \$700

THERMAL VISION – THERMAL GOGGLES

A portable thermal device, available to NATO armies in very limited quantities during the war. Effective range is approximately 500 meters for man-sized targets, 1,000 meters for vehicles. Powered by internal batteries.

Weight 2 kg
Price \$5,000

THERMAL VISION – THERMAL WEAPONS SIGHT

This is a thermal vision sight designed to be mounted on small arms and heavy weapons, such as the US military's AN/PAS-13 (V) 2 TWS. A user of this sight can identify targets at a range of 690 meters (down to telling what type of uniform is worn, type of weapon carried, whether the target has a mustache, etc.), and larger objects such as vehicles and buildings at a range of 1,000 meters. Glass and Plexiglas are opaque to the Thermal Weapons Sight, and appear black.

Most of these devices have crosshairs to facilitate aiming. These sights were introduced by NATO and Israeli forces in early in 1997; as such, supplies of these sights are low, and they are hard to come by.

Weight 2 kg
Price \$4,000

THERMAL VISION – THERMOGRAPHIC GOGGLES

A typical example would be the AN/PVS-7B. 117 yard range. Operates for 12 hours on an internal 28.8 kw advanced battery.

Weight 0.7 kg
Price \$6,000

THERMAL VISION – THERMOGRAPHIC SIGHT

A night weapon sight. 880 yard range. Operates for 4 hours on an internal 72 kw advanced battery.

Weight 1.3 kg
Price \$8,720

TRIPOD

This is a standard, heavy-duty telescopic tripod for cameras and camcorders of all descriptions. Its legs extend from 50 cm to 150 cm.

Weight 1.5 kg
Price \$45

54. WATERCRAFT EQUIPMENT

LIFE JACKETS – LIFE JACKET

Buoys wearer's weight, plus 10 kg, and the weight of the jacket itself. Reduces difficulty of swimming rolls by 1 level for purposes of staying afloat.

Weight 6 kg
Price \$75

LIFE JACKETS – LIFE JACKET ACCESSORY KIT

A bag containing:

1 Dye Marker
1 Packet of Shark Repellent

1 Strobe Marker
1 Whistle

Weight 2 kg
Price \$45

LIFE JACKETS – MILITARY LIFE JACKET

This is a lightweight life jacket, consisting of waistcoat with an integral blast-resistant pouch and an inflatable profiled stole, made of high-visibility material with reflective strips. It has pockets for a locator beacon and flares, and includes a heliograph, a whistle and a small military flashlight.

The life jacket inflates using a single-pull CO₂ cartridge. If this fails or if additional topping up is required, there is also a mouthpiece.

Weight 0.6 kg
Price \$160

LIFE PRESERVERS – LPU-10/P LIFE PRESERVER

A floatation bladder used by military pilots. It is an underarm pneumatic life preserver inflated by a CO₂ gas cylinder.

Weight 1.5 kg
Price \$50

LIFE PRESERVERS – LPU-21/P LIFE PRESERVER

A life preserver used by US military pilots, it is usually worn with the pilot's survival vest. Some SEALs like to attach it onto their assault vests.

Weight 1 kg
Price \$100

LIFE PRESERVERS – LPU-32/P LIFE PRESERVER

A life preserver used by US military pilots as part of their flight gear. It has a horse-collar style with front zipper, and an emergency CO₂ inflator rig.

Weight 1 kg
Price \$200

LIFE PRESERVERS – USAF PNEUMATIC UNDERARM LIFE PRESERVER

Manufactured for US Air Force pilots, it is a pneumatic underarm life preserver, worn by most pilots as part of their survival gear.

Weight 2 kg
Price \$125

LIFE VEST – MEU LIFE VEST

A life vest that is worn under body armor. Comes with 2 CO₂ bottles, manual inflation tube, and bottom compartment for a HABD breathing device.

Weight Nil
Price \$200

LIFE VEST – USN LIFE VEST

US Navy boat crew life vest, used by assault boat units.

Weight 1.5 kg
Price \$50

LIFE RING

Found in many commercial boats.

Weight 1 kg
Price \$20

OUTBOARD MOTORS – I-MARS OUTBOARD MOTOR

The I-MARS 35 Horsepower Outboard Motor is a combination of the 35 hp Military Amphibious Reconnaissance System (MARS) outboard motor and a pump jet. The pump jet takes the place of the propeller in order to provide the user with a safer outboard motor. Can use on any large craft.

Gas Consumption: 5 gallons/period.

Weight 119 lbs
Price \$5,400

OUTBOARD MOTORS – LARGE OUTBOARD MOTOR

A regular outboard motor which can be used on any large craft.

Gas Consumption: 5 gallons/period.

Weight 100 lbs
Price \$1,000

OUTBOARD MOTORS – SMALL OUTBOARD MOTOR

Same as above but smaller. Gas Consumption: 1 gallon/period.

Weight 30 kg
Price \$400

PADDLES

A set of lightweight plastic paddles for use with any small or medium size boat.

Weight 2 kg
Price \$110

55. WEAPON ACCESSORIES

100-ROUND MAGAZINE

By way of personnel attrition, 100-round magazines became rather common. Made of various materials, both polymers and metal, most soldiers by 2000 usually carried one. They are NATO standard, fitting all guns that take M-16 type magazines.

Weight	5 kg
Price	\$150

BEAM FILTERS

SURE-FIRE Beam Filters use optical filter material to limit the color of the beam to blue, red, or infrared. Blue light is useful to show blood trails as dark black. Red light helps avoid loss of dark adaption while still providing useful light to work with. IR light (invisible) is used with special night vision.

	<i>Blue</i>	<i>Red</i>	<i>IR</i>
Weight			
Price	\$100	\$100	\$200

BIPOD

ESY:GS to attach these.

Weight	Nil
Price	\$100

BRASS CATCHER

For use when one does not want to empty casings around. Usually made of plastic or cloth (some rare metal brass catchers do exist). Usually holds 100-200 rounds or links. Brass catchers do not exist for bolt-action, lever-action, or pump-action weapons, or pistols or revolvers

	<i>Cloth</i>	<i>Plastic</i>
Weight	0.5 kg (empty) 5 kg (full)	1 kg (empty) 5 kg (full)
Price	\$5	\$15

DUAL MAGAZINE CLIP

This is used for clipping 2 magazines together.

Weight	Nil
Price	\$20

FOLDING STOCK

Mostly used on shotguns. ESY:GS to install.

Weight	Nil
Price	\$100

M-1 GARAND RIFLE GRENADE SIGHT

Allows the firer of the M-1 Garand to sight a rifle grenade.

Weight	Nil
Price	\$50

M429 GRENADE LAUNCHING SYSTEM

12 ga shotgun adaptor, attaches to shotgun barrel and launches 40 mm grenade equivalents up to 200 m. Requires special blank shotgun loads.

Weight	0.5 kg
Price	

MAGAZINES

As stated in the basic rules, magazines for weapons must be purchased separately (except, of course, for weapons with internal magazines). Price is \$1 per shot of capacity, and availability is identical to that of the "parent" weapon.

	<i>Rifle</i>	<i>Pistol</i>
Weight (empty)	0.1 kg	0.05 kg
Price	\$1/shot	\$1/shot

MAGAZINE EXTENSIONS

Weight	
Price	\$150

PISTOL GRIPS

Weight	
Price	\$150

RECOIL COMPENSATORS

These are available to Law Enforcement persons or through the black market (Criminal contacts) and they are very difficult to acquire. Legally, these can be purchased and installed in any S/A pistol for \$500-1,500 (depending on the weapon); through the black market, they can cost twice as much (plus installation).

If a PC wants to attempt to install one of them, he must pass an AVG:Small Arms and a DIF:Engineering. The recoil compensator lowers the single shot (SS) recoil of the pistol it is in by 1.

Weight	Nil
Price	\$80

RIFLE REST

This is a mounting that enables a rifle to be attached to any standard camera tripod or mooned, to hold the weapon for an indefinite period of time. Used by marksmen, such as police sharpshooters, it is adjustable for any type of rifle and has arm supports for the shooter. This enables a shooter to maintain a "ready" position for lengthy periods of time, without tiring the arms.

Weight	0.5 kg
Price	\$240

SADM CONTAINER H-912

This container is used for parachuting a Special Atomic Demolition Munition; although never used it has many used a parachute cargo container.

Weight	2 kg
Price	\$400

SLIDE GRIP

Weight	
Price	\$150

SHOTGUN BANDOLEER SLING

Holds 15 shells.

Weight	0.1 kg
Price	

SHOTGUN MAGAZINE EXTENSIONS

An easy way to increase your firepower, for law enforcement, competition shooting, or minion hunting. They are constructed of solid blue steel, and come with spring and installation instructions.

	<i>7-shots</i>	<i>8-shots</i>	<i>9-shots</i>	<i>10-shots</i>
Weight				
Price	\$100	\$125	\$150	\$180

SLING

Military weapons (except pistols) and many civilian sporting weapons are fitted to take slings (those which are not may be easily adapted to do so by a gunsmith). There are numerous varieties of slings, ranging from simple cloth webbing to sophisticated assault slings and versions designed for use by

marksmen.

Weight	0.1 kg
Price	\$20

SPEED LOADERS

Speed loaders are devices that speed the reloading of weapons firing rounds that would normally be needed to be loaded individually into the weapon, such as revolvers and shotguns. They are specific to the weapon for which they are intended, due to variations in cylinder size, and the arrangement and caliber of ammunition.

- **Revolver Speed Loader:** A small, cylindrical plastic clip that holds the rounds in place, ready to be dropped into the cylinder. The user simply empties the cases from the cylinder and inserts the cartridges using the speed loader, depressing the clip to release the rounds into the cylinder.
- **Shotgun Speed Loader:** A tube holding 4 shotgun cartridges, available for all common pump-action and semi-automatic shotguns. The tube is inserted into the magazine well and the cartridges are levered into place.
- **Speed Loader Belt Pouch:** A leather or nylon belt pouch for holding revolver speed loaders. It holds 2 loaded cylinders and can be attached to either a belt or a LBE utility belt.

	Weight	Price
<i>Speed Load Belt Pouch</i>	0.05 kg	\$30
<i>Speed Loader, Revolver</i>	0.01 kg	\$8
<i>Speed Loader, Shotgun</i>	0.05 kg	\$40

TACTICAL LIGHTS FOR SMALL ARMS

There is more to attaching a light source to your weapons than a roll of duct tape. In a pinch it might work (if you have a good natured Referee), but it will not hold up under any combat situation. There are clamps for about \$20 for shotguns, but these too don't hold up, trust me.

The best method is to have a Tactical Light Kit installed, available from the SURE-FIRE Corp. for Pistols, SMGs, Rifles, and Shotguns. With a Detected Housing for the light and a 6V Halogen light source, you can shoot in the dark with one hand literally tied behind your back.

The housing will run about \$150-\$250 and the lights are about \$200-\$350, depending on the brand/size.

Weight
Price

TRIPODS

With the exception of the AT-4, a tripod for a weapon must be purchased separately.

	Weight	Price
<i>NATO Light Tripod (NLT) ¹</i>	7 kg	\$250
<i>NATO Medium Tripod (NMT) ²</i>	10 kg	\$500
<i>NATO Heavy Tripod (NHT) ³</i>	22 kg	\$1,000
<i>Pact Light Tripod (PLT) ⁴</i>	10 kg	\$250
<i>Pact Medium Tripod (PMT) ⁵</i>	12 kg	\$500
<i>Pact Heavy Carriage (PHC) ⁶</i>	100 kg	\$1,000

¹ Accepts M60 and MG3.

² Accepts MAG.

³ Accepts M214, M2HB and Mark-19.

⁴ Accepts PK and Vz 59.

⁵ Accepts AGS-17.

⁶ Accepts DShK.

WATERPROOF WEAPONS BAGS

Used by SEALs and Marines to protect weapons from the elements. Come in small, medium or large sizes.

Weight	Nil
Price	\$200

WEAPONS CLEANING KIT

A small tool kit issued almost universally to soldiers for cleaning and basic maintenance on their personal weapon. Basic kit consists of a cleaning rod, bore brushes and other basic tools, as well as a small bottle of lubricant/cleaning solution.

This assumes a generic “one-size-fits-all” approach, but referees may want to break the classification down by weapon type (i.e. Assault Rifle Cleaning Kits, Pistol Cleaning Kits, etc.).

Weight	0.25 kg
Price	\$20