

6 Personal Equipment and Armor

6.1 Uniform

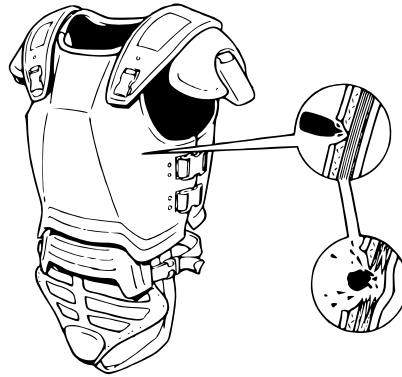
The Marine uniform should consist of:

- Battledress utilites
- Boots
- Gloves
- Compass
- First Aid Kit
- Combat Knife

This equipment has been designed to make the Marine feel as comfortable as possible during combat and non-combat. Key elements has been derived from the many years of service with the previous BDU's to enhance the current issue to the point were the BDU surpasses every other known BDU from other countries. This also applies to the boots and gloves used by the Colonial Marines.

The knife is an essential part of the equipment, for everyday use, combat as well as survival situations. The current standard issue Marine knife has been designed for all these conditions and performs well over set standards.

Were applicable, the Marine should also carry pen, paper and maps in his uniform.



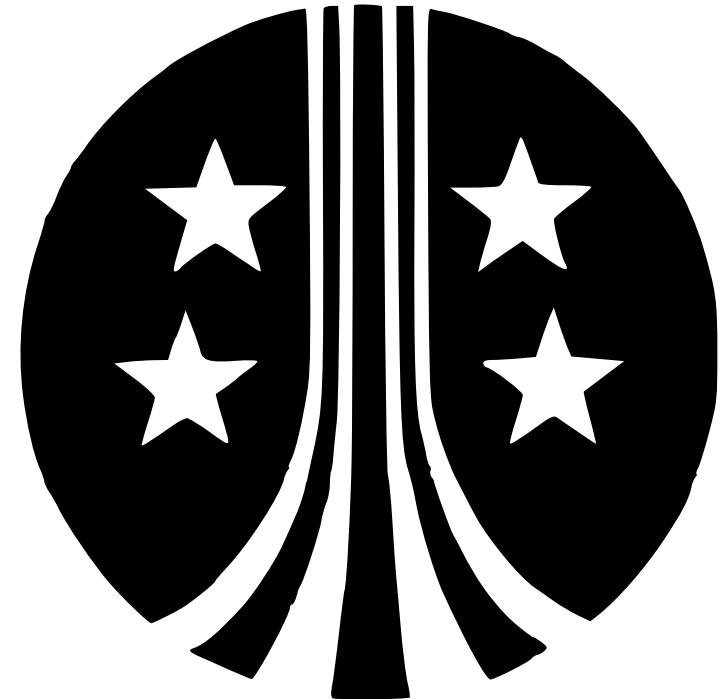
The M3 body armor covers the torso, shoulders, the groin and lower parts of the leg (both front and rear). When carrying a M56 Smartgun, the operator wears a special torso harness with mount for the gun. It has the same protection as the regular M3.

This is the standard Marine combat equipment:

- M10 Helmet
- M3 Body Armor
- Water cantes
- Gasmask
- Ammunition

6.2 Combat Equipment

During combat situations the Marine should always carry this equipment to be able to survive in combat. The helmet and the body armor is designed to withstand several hits from assault rifles, given that the hits are spread out and not confined to a very small area. The helmet is also equipped with a group radio to enable the group to function over a distance, and also to keep noise levels down when orders are given. The radio system also consists of ear plugs that limit the sound pressure during weapons fire and explosions to ensure that the Marines will not suffer from diminished hearing.



USCM REFERENCE MANUAL

4TH COLONIAL MARINE BRIGADE
1ST SPEC OPS COY

1 4th Colonial Marine Brigade 2 Firearms

The brigade is a part of Marine Space Force Her- culis. The MSF is headquartered at the Chinook 91 GSO station. The MSF is comprised of the 4th Colonial Marine Division, the 4th Colonial Marine Brigade and the 4th Aerospace Wing. The MSF is deployed throughout the Anglo-Japanese arm at a number of UA colonies. The brigade operates to- gether with the Aerospace Wing, providing trans- portation through space as well as planetary land- ing capabilities through the UD-4 “Cheyenne” drop- ship, heavy-lift shuttles and strikeships.

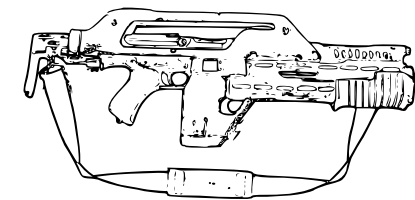
1.1 USCM Platoon TO&E

The USCM doctrine calls for small autonomous in- fantry units, capable of operating with or without higher level support on the battlefield. This forces the rifle units to carry its own heavy equipment, to move great distances rapidly using by foot and concentrate heavy firepower quickly. The current organization of the Colonial Marines reflects this doctrine.

The rifle squad consists of four Marines, which divides into two-man fireteams. One fireteams car- ries M41 rifles and the other fireteam operates one M56 Smart Gun and a M41 rifle. The squad is led by a Corporal and a Lance Corporal. Two squads makes up a section which is lead by a Sergeant, and forms a section. The section has a M577 Armored Personnel Carrier with a driver, and if involved in a drop operation the section is attached with a UD-4 dropship from the aerospace team.

Two or three sections is lead by a Lieutenant and form a rifle platoon, and is comprised of 25 to 37 Marines, including dropship and APC crews. The platoon commonly carry one or two synthetic hu- mans to aid in technical or scientific matters, as well as to assist as medics or backup drivers/pilots. Each platoon carries support weapons, such as M240 flamethrowers, UA-571 Sentry guns, M78 PIG plasma guns, M5 RPGs, M83 SADARs and M227 Infantry mortars. The platoon also has suffi- cient sensor equipment to cover an 1000 meters of frontage.

2.1 M41A1 Pulse Rifle



This is the standard issue rifle for all Marines. It’s a durable weapon using case less 10mmx24 ammunition, which comes in pre filled magazine of 100 rounds. The rectangular shaped round has a 210 grain (13.6 gram) projectile embedded and the propellant is comprised of Nitramine 50, which generates a muzzle velocity of 840 meters per second. The M41A1 is fitted with a 30mm grenade launcher with can fire a wide array of grenades.

Technical data:	
Weight:	4.9 kg
Magazine:	100 rounds
Muzzle velocity:	840 m/s
Ammunition:	10mmx24, 30mm grenades
Effective range:	500 meters, 180 meters
Maximum range:	2100 meters, 400 meters
Rate of fire:	900 rounds per second

2.2 M41AF1 Pulse Rifle with Flame Thrower

The M41AF1 is the same weapon as the standard M41, but instead of the grenade launcher incor- porates a flame thrower. This flame thrower uses cartridges with fuel which can sustain a burst of 10 seconds.

assistance or refueling drop Marines on the surface from out of orbit and return to space.

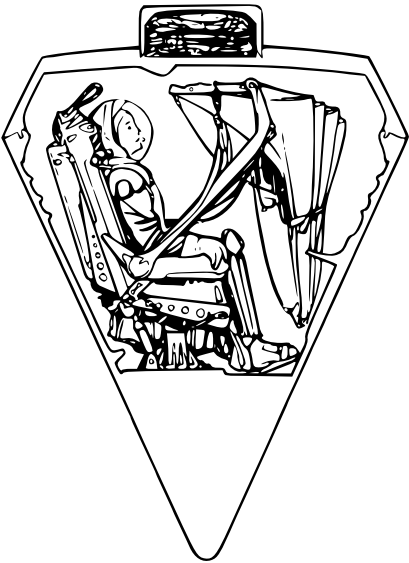
The vehicle also carries several weapons systems, which enables the UD-4 to serve as a gun ship and support the Marines once they have landed and deployed. The weaponry available is a 25mm GAU 113/B DLP cannon and a wide array of missiles for ground or aerial targets

Technical data:	
Weight:	18,620 kg
Crew:	Pilot and Crew Cheif/Weapons Officer
Maximum load:	16,000 kg or One M-557 APC with full complement
Maximum speed:	Mach 12 in upper atmosphere Mach 1,5 in lower atmosphere
Maximum range:	5 hours

the vehicle which can carry heavier equipment. The vehicle is deployed from space crafts resid- ing in low to medium high orbit, and the Marine carries a vaccum suit during the descent which lasts 3-7 minutes.

Technical data:	
Maximum load:	One passenger, or 800 kg
Maximum range:	25 minutes (oxygen supply)

5.5 Re-entry Insertion Vehicle

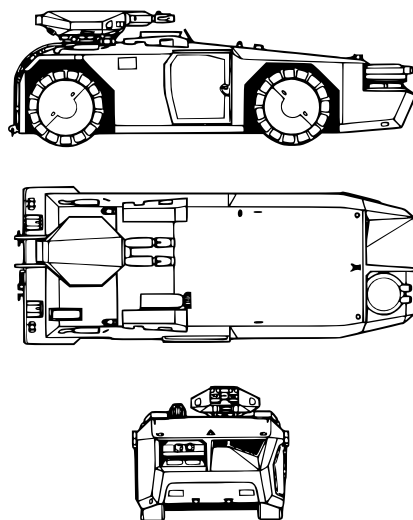


The re-entry insertion vehicle is used to deploy small Marine units with low probability of detec- tion. The vehicle can contain one Marine and his personal equipment. There is also one version of

reconnaissance and messenger service. It is also used as a small cargo lifter.

Technical data:
 Weight: 800 kg
 Maximum load: Driver, passenger and 800 kg of hanging cargo
 Maximum speed: 240 kmh
 Maximum range: 5 hours

5.3 M577 APC

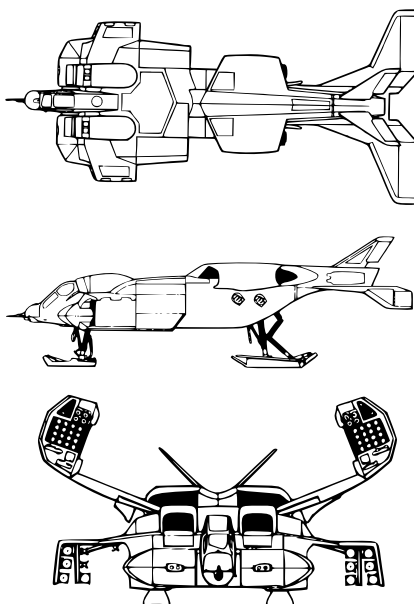


This vehicle can transport a battle ready group of marines. It is lightly armored to withstand small arms fire and shrapnel. The vehicle is equipped with an advanced tactical operations center and communications equipment. The M577 is armed with a 20mm DLP twin machine gun mounted in the front. The DLP has three different ammunition types, HE, HEAP and APF. The turret of the M577 can mount a dual phased plasma cannon. The guns is fired in sequence and can achieve a cyclic rate of fire of 40 rounds per minute, and the maximum range at ideal conditions is 4 000 meters. The APC is a 4x4 construction to allow for a lower weight and has a normal ground clearance of 22

cm. The chassi can however be raised another 30cm by the hydro-pneumatic suspension.

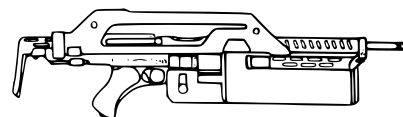
Technical data:
 Weight: 800 kg
 Maximum load: Driver, commander and 12 soldiers
 Total load 14 500 kg
 Maximum speed: 150 kmh
 Maximum range: 500 km

5.4 UD-4L Cheyenne



The UD-4 is the main workhorse of the Colonial Marines. The UD-4 transports both men and material on planets as well as to and from planets. During its lifespan the UD-4 has seen several upgrades and has now arrived at the L version which contains advanced tactical systems, as well as electronic warfare systems and warning systems. The L version also has been given upgraded engines and the Republic Dynamic TF-900 turbines deliver a total thrust of 620 kN. The UD-4 can without

2.3 M41AE2 Assault Rifle



This weapon is a modification of the standard M41 to equip the squads with a lightweight machine gun. The M41AE2 is equipped with a bipod and a 300 round magazine. The mechanism has been slightly modified to endure the more intense usage of the gun and allow for a slightly higher rate of fire, and the grenade launcher has been removed.

Technical data:
 Weight: 5.7 kg
 Magazine: 300 rounds
 Muzzle velocity: 840 m/s
 Ammunition: 10mmx24
 Effective range: 600 meters
 Maximum range: 2100 meters
 Rate of fire: 900-1200 rounds per second

2.5 M43 Pistol



The M43 Pistol is the old army issue weapon that has gone through few changes since it was introduced in the 20th century. Despite it's age this weapon still keeps the competition at bay, although more and more soldiers prefer to use the newer VP70 which is capable of firing bursts

Technical data:
 Weight: 0.95 kg
 Magazine: 12 rounds
 Muzzle velocity: 282 m/s
 Ammunition: 9mm
 Effective range: 50 meters
 Maximum range: 1500 meters

2.6 VP70 Pistol



The new VP70 would probably be the standard weapon in the armed forces if it weren't for the inability for the VP70 to mount a red point sight. When combined with the arm rest, this gun is fairly accurate when using the burst mode.

2.4 M43A1 Submachine gun

The M43A1 submachine gun is a small and powerful weapon suitable for close quarters combat, and for covert ops where silent operation is required as it can mount a silencer

Technical data:
 Weight: 3.1 kg
 Magazine: 30 rounds
 Muzzle velocity: 450m/s
 Ammunition: 9mm
 Effective range: 90 meters
 Maximum range: 300 meters
 Rate of fire: 800 rounds per second

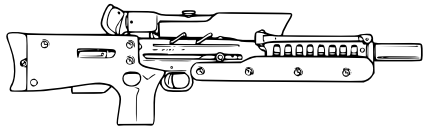
Technical data:
 Weight: 0.95 kg
 Magazine: 14 rounds
 Muzzle velocity: 310 m/s
 Ammunition: 9mm
 Effective range: 50 meters
 Maximum range: 1500 meters

2.7 VP55 Low Recoil Pistol

The VP55 was developed for use in sensitive environments, such as a space ship or a airplane. The ammunition used is a special kind with lower gun powder charge and a softer projectile, which reduces muzzle velocity and most importantly impact energy of the bullet so as not to penetrate the hull of the fuselage.

Technical data:
 Weight:
 Magazine:
 Muzzle velocity: 200 m/s
 Ammunition: 9mm low recoil
 Effective range: 45 meters
 Maximum range: 1000 meters

2.8 M42A Sniper Rifle



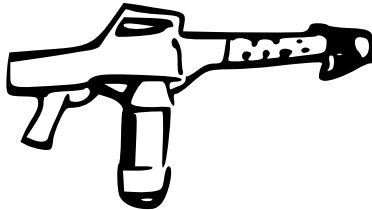
The standard issue sniper rifle of the corps. It's a 10mm semi-automatic rifle with much of the components in common with the M42 to ease repairs. Ammunition is fed from a 15 round magazine located behind the hand grip. The gun can be operated with a variety of different rounds ranging from the M252 10mmx28 HEAP round, to the sub caliber M252 10mmx28 AP. Even the M250 ammunition used to the smartgun can be utilized with a degradation in performance.

The scope is a multispectral 20 power passive sensor which combines and displays an image composed of visual, infrared and electromagnetic emmissions. The scope can also be connected by wireless or optical link into a sensor grid. The

scope can also, when connected, direct the fire of the local sentry gun matrix.

Technical data:
 Weight: 4.3 kg
 Magazine: 15 rounds
 Muzzle velocity: 940 m/s
 Ammunition: M252 10mmx28 HEAP, M252 10mmx28 sub caliber, M250 10mmx28
 Effective range: 2800 meters, 3800 meters, 1700 meters

2.9 M240 Flamer



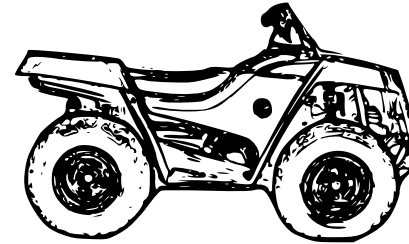
A flame thrower is a fearsome weapon in close combat and the M240 has proven what it can do. The M240 has a reservoir with thickened naphtal which is a further development of the old napalm. The reservoir holds enough fuel to sustain a 20 second burst. The range of the M240 is 30 meters, but can be extended to 50 meters if fired at an angle but this reduces the performance greatly since the fuel disperses at this range.

Technical data:
 Weight: 2.7 kg
 Magazine: 20 seconds
 Muzzle velocity: 940 m/s
 Ammunition: M240 Naphtal
 Effective range: 30 meters

5 Vehicles

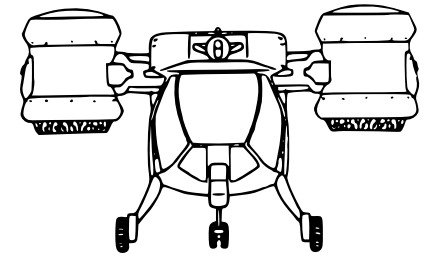
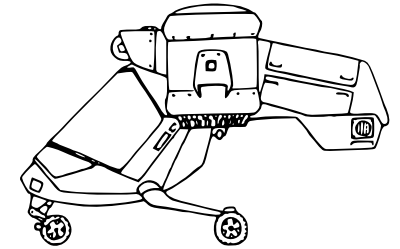
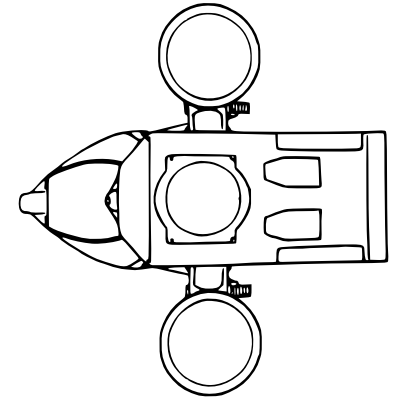
5.2 M421 Firefly VTV

5.1 M119 ATVL



The All Terrain Vehicle Light is a small four wheeled vehicle which is very versatile. It can carry the driver and one passenger, or 175 kg of cargo. If a trailer is attached another 175 kg can be loaded onto the trailer. This coupled with its phenomenal ability to tackle obstacles and rough terrain has made the place for the ATVL in the Colonial Marines. It is used to transport men and material in areas where the immediate threat is not that large, or where the use of a M577 APC is not recommended because of terrain or other reasons. It has capability for multiple fuels, and has a modified suspension which can take the beating of a air drop with parachute or re-entry vehicle.

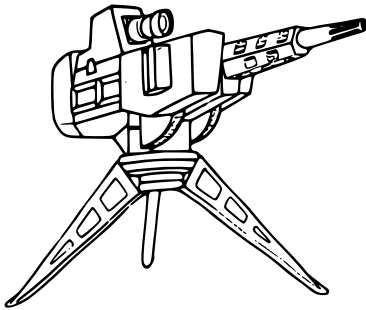
Technical data:
 Weight: 165 kg
 Maximum load: Driver and passenger, or 175 kg of cargo
 Is capable of pulling a trailer with another 175 kg of cargo
 Maximum speed: 80 kmh
 Maximum range: 400 km



This small Vectored Thrust Vehicle is an unarmed vehicle mostly used for fire control,

4 Mines and Automatic Weapons

4.1 UA571-C Sentry Gun



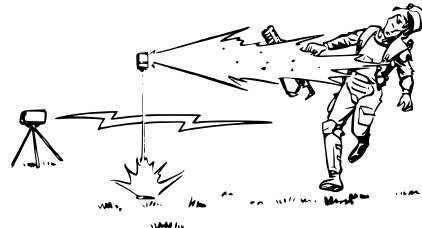
The UA571-C is an automatic system for guarding areas without human presence. The weapon system is comprised of gun mount, weapon, sensor box, magazine and control unit. Using the sensor systems integrated, the system can be programmed to open fire in a wide variety of ways. The system can be used against infantry and unarmored vehicles. The system can be linked together with other units and into the local sensor matrix.

Technical data:
Weight: 19.6 kg
Magazine: 500 rounds
Ammunition: M250 10mmx28
Rate of fire: 1100 rounds per minute
Maximum range: 1000 meters

4.2 M20 Claymore

This oldtimer is still in service in the corps and still does a good job. The Claymore can be triggered by tripwire, as a controlled mine or with sensor trigger M21. The mine is mostly used against troops and unarmored vehicles.

Technical data:
Weight: 1.2 kg
Maximum range: 50 meters



The M5A3 is a bounding mine which triggers with a seismic sensor. The mine can be programmed to trigger in a wide array of ways. The mine determines what the target is when triggered and from this sensor data determines the field of fire. This way an enemy soldier sneaking into a camp with friendlies can be taken out by the mine without harming anyone else beside the enemy soldier.

Technical data:
Weight: 2.2 kg
Maximum range: 50 meters

4.4 M860 Vehicle Mine

This mine is designed for penetration of armored or unarmored vehicles. The mine can be utilized as either a shape charge mine or high explosive, and can be fitted with clearing protection. The sensor of the mine reacts on magnetic anomalies or by a direct force of 125 kg. When triggered the mine can direct its shaped charge up to 3 meters to any side, disabling vehicles even when they don't drive directly above the mine.

Technical data:
Weight: 6 kg
Maximum range: can direct sideways up to 3 meters

2.10 M56A2 Smartgun



The Smartgun is the mainstay machine gun of the Marine corps. It consists of the M56A2 machine gun mounted on a stabilized mount which is attached to a harness which the operator wears. The stabilization system includes steering which allows the targeting computer to maneuver the gun towards the target, ensuring first hit capability. The system has a targeting computer which utilizes an infrared sensor with a 30° search cone and displays an overlay image onto the operator's head-mounted eyepiece. The M56A2 utilizes the M250 round which is a 10mmx28 230 grain (14.9 grams) caseless projectile encased in a rectangular block of Nitramide 50. When HE ammunition is used, this round can be programmed for impact detonation or delayed detonation.

Technical data:
Weight: 17.8 kg
Magazine: 100 rounds (cartridge), 400 rounds (box)
Muzzle velocity: 940 m/s
Ammunition: M250 10mmx28
Effective range: 600 meters
Maximum range: 1500 meters

2.11 M21A Shotgun (Benelli)

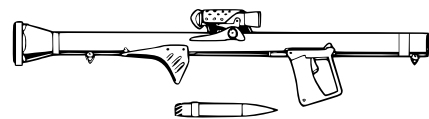


The M21A is a very rugged construction, with semi-automatic action which allows for quick firing. With the built-in recoil system the Marine can have a much quicker regain of target when shoots are fired. The weapon can use virtually any available 12-ga cartridge that can be found on the market. Since its introduction, the M21A has become the favorite weapon of choice for many Marines for use in close quarters due to its efficiency at close range. However, even though it can be used at longer ranges than 30 meters, pellets disperse to a great deal and does not guarantee first-kill. At ranges above 70 meters the shooter must know the distance rather precisely to hit the target since the pellet trajectory becomes more like a mortar round at these ranges.

Technical data:
Weight: 2.8 kg
Magazine: 8 rounds
Muzzle velocity: 430 m/s
Ammunition: M21 12-ga shotgun shells
Effective range: 30 meters
Maximum range: 130 meters

3 Support Weapons

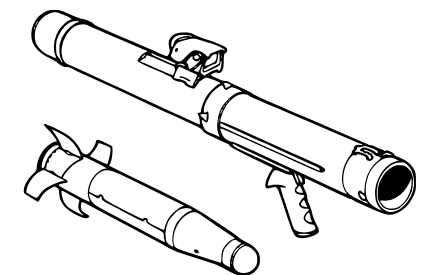
3.1 M5 Rocket Propelled Gun



The M5 fires RPG rockets which carries a devastating warhead. Each rocket weighs in at 2 kg and can be of a regular high explosive charge design for taking out infantry units, or a shaped charge anti-armor charge designed to penetrate armored vehicles. The drawback with this weapon is that it takes quite some time for the rocket to travel from the firing position to the target, which makes it harder to hit moving objects and also possible for infantry to take cover. The M5 RPG has an effective range of 400 meters at stationary targets.

Technical data:
Weight: 2.3 kg, Rockets 2.2 kg
Ammunition: M5 HE, M5 AP
Minimum range: 20 meters
Maximum range: 400 meters

3.2 M83A2 SADAR

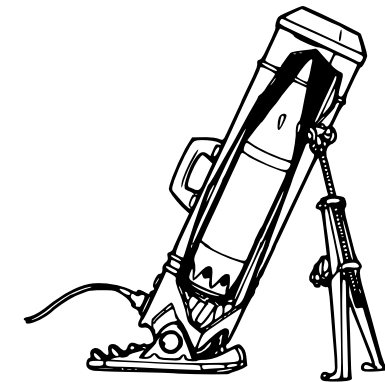


The SADAR is corps main anti armor weapon for the infantry units. The SADAR is comprised of a launch tube with a targeting computer and the missile. The missile utilizes top striking technology to hit where the armor is the thinnest and also steer to follow the motion of the target. However, if the weapon is fired without getting a lock in the targeting computer, the missile will travel in a

straight line and explodes on impact. The weapon is of a non-reloadable type and is discarded when used.

Technical data:
Weight: 3.1 kg
Minimum range: 20 meters
Maximum range: 1000 meters

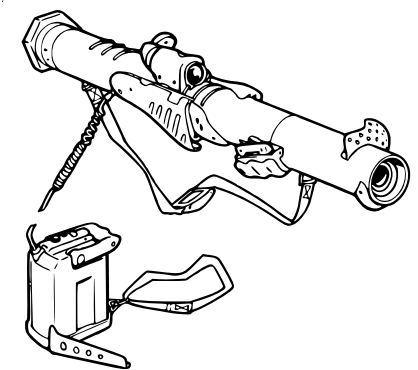
3.3 M112 HIMAT



With the M112 the corps can withstand an enemy assault with armor. The HIMAT is comprised of a targeting system, gun mount and the missile. The gun mount is of a one time use type. The targeting system can be connected to several gun mounts. When fired, the missile quickly gains altitude, from where it will strike down on the target at a high velocity ensuring high probability of kill.

Technical data:
Weight: 11.3 kg, targeting system 1.1 kg
Minimum range: 35 meters
Maximum range: 5000 meters

3.4 M78 Phased Plasma Infantry Gun



The PIG is an antitank weapon which utilizes a Cadmium-Tellurid pellet which when fired is heated to the point where it forms a plasma and is then accelerated to a high speed. When impacting the plasma will vaporize the armor, melting the metal and creating a pressure wave and shrapnel which disables the vehicle and its crew.

Technical data:
Weight: 15.2 kg
Rate of fire: 20 rounds per minute
Magazine: 30 rounds
Maximum range: 1000 meters

3.5 M227 Infantry Mortar 60mm

This small sized mortar can be carried in combat by a team of Marines. Although it's firepower isn't that great it packs considerable punch with regard to the normal weapons Marines usually carries. The mortar have a effective range of 8 kilometers in normal gravity and can fire regular high explosive shells as well as anti-tank, smoke and illumination rounds.

The mortar is comprised of four parts. Barrel, tripod, baseplate and sight. The mortar can be equipped with a trigger incorporated in the breach or with a fixed pin causing firing immediatly upon loading.

Technical data:
Weight: 10 kg
Ammunition: HE, ATH, Smoke, Illumination
Minimum range: 200 meters
Maximum range: 8000 meters

3.6 SIM118 Hornet

The SIM118 Hornet is a anti-aircraft missile capable of destroying both fixed wing aircrafts as well as helicopters. The SIM118 missile relies on impact energy to destroy its target and carries no explosive charge. Due to its speed and reliable tracking system it performs very well in its role as an anti-aircraft missile, and is a light weapon system thanks to it lacking a explosive charge.

The missile can engage targets at ranges up to 10 kilometers and heights up to 6 km, and has a speed of nearly mach 3. The weapon is of the fire and forget type, and the launcher module is of a reusable type. When deploying the weapon on a vehicle or in a fixed position, a launch system can be used where four missile tubes are mounted on a launch ramp. This system can be plugged in to the local defense matrix giving operators the ability to fire the missiles remotely, or even automatically when a air threat is detected.

Technical data:
Weight: 2.1 kg (launcher)
3.4 kg (missile)
Ammunition: Hornet missile
Maximum height: 6km
Maximum range: 10 km