



USCM Reference Manual
Version 2.0

4th Colonial Marine Brigade

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The brigade is part of Marine Space Force Herculis. 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 together with the Aerospace Wing, providing transportation through space as well as planetary landing capabilities.

The brigade also utilizes platoon size units operating independently. Such a unit typically uses a Conestoga class frigate for space transport and is equipped with two UD-4 “Cheyenne” dropships as well as two M577 Armored Personnel Carriers.

USCM doctrine calls for small autonomous units capable of operating with or without higher level support on the battlefield. A squad is typically led by a Corporal and equipped with M41 rifles as well as one fireteam member operating the M56 Smartgun. Two squads make up a section and two or three sections is led by a Lieutenant and form a platoon. The platoon commonly carry one or two synthetic humans to provide technical, scientific or medical assistance. Each platoon also carry support weapons such as M240 flamethrowers, UA-571 Sentry guns, M78 PIG plasma guns, M5 RPG:s, M83 SADARs and mortars.

Firearms

M41A1 Pulse Rifle

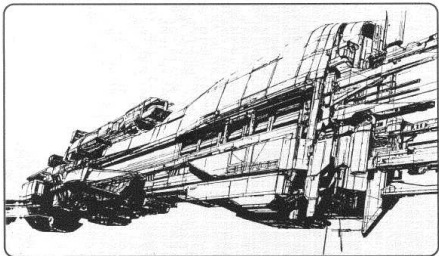


This durable weapon is the standard issue rifle for all marines. It uses caseless 10mmx24 M309 rounds with a 13.6 gram projectile embedded in a block of Nitramine 50 propellant. Magazines hold 99 rounds but are in practice only filled to 95% capacity to reduce the risk of jamming. The M41A1 is fitted with the U1 grenade launcher which has an internal magazine holding four 30mm grenades.

Technical data:

Weight:	3.4kg empty
	5.9kg loaded magazine
	7.3kg loaded + 4 grenades
Magazine:	99 rounds
Muzzle vel:	840 m/s
Ammunition:	10mmx24 / 30mm grenades
Effective range:	500m / 180m
Max range:	2100m / 400m
Rate of fire:	900 rounds per second
Accessories:	Scope 3X AN/RVS-52 CCD,
	Green laser sight

Space Transport



Independent platoons are typically assigned a Conestoga class frigate. This ship is capable of self-sustained operations for extended periods of time, carries armaments, defensive systems and two dropships as well as a varying complement of marines.

For FTL travel it has a Romberg-Rockwell Cygnus 5 unit. Humans need to be stored in cryo-sleep pods during FTL travel but will be awakened by automated systems or the ships artificial person in the unlikely event anything unexpected should happen.

The revivification process takes up to 30 minutes. Nausea and other side-effects are common during this and for some time afterwards.

Artificial gravity is maintained throughout the ship.

During planetside operations the Conestoga can support with observation, communication or orbital bombardment. Unless a geostationary orbit above the ground personnel can be achieved this support will be conditioned by orbital mechanics. Enemy ground-to-space capability is also a significant factor in this.

The armament of the Conestoga consist of railguns, particle beams, lasers, missiles, mines and kinetic projectiles. While considered a light ship in terms of space

combat the weaponry is still formidable enough to provide a large degree of autonomy when operating detached from larger fleets.

The EEV (Emergency Escape Vessels) carried are standardized models used throughout most starships. each EEV has capacity for 5 people and allow survival for extended periods through cryosleep. The automated systems will by default navigate to and land on the closest inhabited world.

Other ship types frequently used by the USCM Starlift Command include the Henderson Field class transport and the Okinawa class assault carrier.

Other Equipment

Lockpicks

The mechanic set contains small tools for physically manipulating locks. The electronic kit has wire connectors and tools to manipulate the electrical wiring controlling a lock/door. The digital lock breach connector used with a laptop has a card reader interface and short-range wireless transmitter to interact with authentication systems.

Some marines just bypass all of this and go directly for the “explosives” section where predesigned door breaching charges are available.

Explosives

To detonate an explosive charge you need a blasting cap which is itself triggered either by a classic fuse lit with fire, a mechanic switch or electricity. Make sure not to forget the means of detonation for the explosives you carry. All multitools approved for military use have a crimping tool suitable for attaching blasting caps.

Radios

The PRC 489/4 radio typically mounted in the M10 helmet is for communication within the squad. It is intentionally weak enough to only cover a few hundred meters at best – to not reveal the squad by its emissions.

The TR 860 squad radio carried on a soldier's back will extend this range significantly, especially if a TRS-4 Satellite antenna is mounted. A wire antenna is a less capable but also less weight option. It is typically thrown up into a tree or other tall object when used. A squad radio can be relayed via a stronger radio to allow direct communication with for example a ship in orbit directly via the headset.

Radio jammers

These can be set to a wide range of frequencies and work by drowning out anything else on the same frequency with noise. The jamming effect declines quickly with distance to the target transmitter. They have a battery to last up to a couple of hours depending on power/frequency settings.

The SigInt module for the TR 860 can be employed for advanced jamming techniques as well as monitoring and analyzing enemy transmissions.

System HUB

This device will let you create a defensive matrix by connecting multiple sensors, sentry guns, mines, computers etc. together using fiber optic cable or even wireless.

Motion detector

The portable motion detector used by military forces operates using active ultrasound emissions. To avoid interference a squad rarely makes use of more than one at a time.

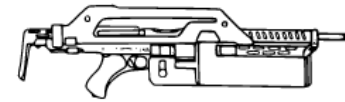
Ghillie suit

Each suit is custom made for the wearer and made of radar-absorbent camouflage material. To regulate the thermal signature a portable heat sink can be attached by superconducting cable.

Welding units

So useful, especially in space, that a small hand welder is part of colonial marine standard equipment. Can be used in both cutting or joining mode. The hand welder will quickly run out of power if used for any more substantial work like cutting through doors. The larger plasma unit however will allow a squad to cut through almost anything.

M41AE2 Assault Rifle



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

Technical data:

Weight:	2.8kg empty 7.1kg firing weight
Magazine:	300 rounds
Muzzle vel:	840 m/s
Ammunition:	10mmx24
Effective range:	600m
Max range:	2100m
Rate of fire:	900-1200 rounds per second
Accessories:	Scope 3X AN/RVS-52 CCD, Green laser sight, Replacement barrel

M42A1 Submachine Gun

A smaller weapon suitable for close quarters combat or covert ops.

Technical data:

Weight:	2kg empty 2.45kg firing weight
Magazine:	30 rounds
Muzzle vel:	450 m/s
Ammunition:	9mm
Effective range:	90m
Max range:	300m
Rate of fire:	800 rounds per second
Accessories:	Scope 1X Holo NV, Green laser sight, Weapon Light+IR, Bayonet, Silencer

M43 pistol



This classic model has gone through few changes since it was first introduced.

Technical data:

Weight:	0.77kg empty 0.95kg firing weight
Magazine:	12 rounds
Muzzle vel:	282 m/s
Ammunition:	9mm
Effective range:	50m
Accessories:	Green laser sight, Silencer

VP70 Pistol

The new VP70 would probably be the standard issue sidearm if it weren't for the lack of a mounting point for laser sights. It has a burst fire mode and can use a stock extension to let it be handled more like a submachine gun.



Technical data:

Weight:	0.74kg empty 0.95kg firing weight
Magazine:	14 rounds
Muzzle vel:	310 m/s
Ammunition:	9mm
Effective range:	50m
Accessories:	Stock extension, Silencer

VP55 Low Recoil Pistol

The VP55 was developed for use in sensitive environments, such as a space ship or airplane. The ammunition uses a lower gun powder charge and a softer projectile to decrease risk of damaging the environment.

Technical data:

Weight: 1.2kg firing weight
Magazine: 8 rounds
Muzzle vel: 200 m/s
Ammunition: 9mm low recoil
Effective range: 45m

Dartgun

A dartgun can be used for remote administration of drugs. This can be a non-lethal way to subdue a person.

Technical data:

Weight: 1.9kg empty
2kg firing weight
Magazine: 1 dart
Ammunition: Dart
Effective range: 40m

M42A Sniper Rifle



A 10mm semi-automatic scoped rifle with much of the components in common with the M42 series to ease field repairs. The 15 round magazine is located behind the hand grip. It is designed to use the M252 subcaliber AP or HEAP round, but can also fire regular M250 with a degradation in performance.

The scope is a multispectral 20x passive sensor which combines an image from visual,

infrared and electromagnetic emissions. the scope can also be connected by wireless or optical link into a sensor grid and when connected can also be used to direct fire of the local sentry gun matrix.

Technical data:

Weight: 4.1kg empty
4.3kg firing weight
Magazine: 15 rounds
Muzzle vel: 940 m/s
Ammunition: M252 HEAP / M252 AP / M250
Effective range: 2800m / 3800m / 1700m

M240 Flamer



A flamer is a fearsome weapon in close combat. The M240 uses thickened napthal for fuel. The range can be extended to 50m if fired at an angle – with reduced performance since the fuel disperses at this range.

Other ways to use a flamer is blind angle burst when the burst is bounced off a facing wall or “wetshot” when firing fuel without the burner on to later ignite the vapors to create an intense fireball.

Since the fuel is difficult to extinguish a commander must carefully consider the tactical area before permitting the use of flame. Fuel tanks are also at risk of explosive combustion if hit by gunfire.

Technical data:

Weight: 2kg empty
2.7kg firing weight
Magazine: 20 seconds
Ammunition: M240 napthal tank
Effective range: 30m

Medical Equipment

Combat emergency care is part of every soldiers training. Medic kits of for different levels of specialization and comes prepackaged.

If a CBRN contaminated environment is expected special equipment will be carried for that in addition to what the regular kits provide.

Medic kits

First aid, individual

Carried by every soldier and focused on bleeding stoppage. The tourniquet is a combat model designed so it can be applied with one hand.

Contents: Trauma dressing, Tourniquet.

Medic kit, squad

Designed to be carried by one member of every squad.

Contents: 5xTrauma dressing, 3xTourniquet, Burn gel, Splint, ABD (Abdominal dressing), Hemostatic bandages, Hemostatic agent, Trauma shears, Elastic tape, Blister tape, Chest seal, Tracheal + NPA tubes, Mylar blanket, Painkillers.

Medic kit, platoon

2xSquad Medic kit + 8xBurn gel, 4xSplint, Medications kit, IV kit, 15xBlood plasma, Disinfection, Digital thermometer, Needle decompression kit, Eyewash.

Medic kit, field hospital

Designed for a temporary setup of a stationary place to treat wounded. Contents: As platoon + Field surgery kit, PDT Monitor, Portable oxygen concentrator, Defibrillator, additional consumables.

Field Surgery kit

Scalpel metal+laser, Hemostatic clamps, Ultrasound detector, Splinter forceps, Sewing equipment, Surgery gloves/pads, Drainage tubing.

Medications kit

Contents: Adrenalin, Amiodarone (hearth rhythm), Antibiotics, Beta-agonist, Hydrogen peroxide, Painkillers, Common medicines.

Medical, other

Bi-clear spray

Designed to dissolve organic matter and make it impossible to get a full DNA sample from for example a blood stain or other bio-traces. Highly toxic.

Intraosseous infusion kit

This allows auto-success on setting IV if operator has First Aid 2+.

Pressure suits are significantly bulkier but multi-purpose as they can also be used in high-pressure environments. The IRC Mk. 35 which is the most common of this type within the corps is a well protected single-element suit which offers a surprisingly good mobility.



Mk.35 Pressure suit

For toxic/contaminated environments the standard gas mask and rain protection gear is always available to every marine. There are also specialized hazmat suits in use where the heavy one offers a fully sealed breathing system as well as radiation protection.

Suit accessories in use by the corps are designed with standard fittings to work with any of the suits.

Quickseal patch

Designed for emergency repair of smaller suit breaches, e.g. a bullet hole, by simply opening and slapping it over the leak.

M56A2 Smartgun



The smartgun is the mainstay machine gun of the Marine Corps. The gun itself is mounted on a stabilized mount attached to a harness worn by the operator. The stabilization system allows the targeting computer to maneuver the gun towards the target, ensuring first hit capability. The system utilizes an infrared sensor with a 30° search cone and displays an overlay image onto the operator's head-mounted eyepiece. When HEAP ammunition is used the rounds can be programmed for impact detonation or delayed detonation.

- Technical data:
- Weight: 10.8kg empty
12.55kg firing weight (belt)
17.8kg firing weight (drum)
 - Magazine: 100 rounds belt
400 rounds drum
 - Muzzle vel: 940 m/s
 - Ammunition: M250 10mmx28
 - Effective range: 600m
 - Max range: 1500m
 - Accessories: Heat sink, Replacement barrel

M21A Shotgun



This rugged semi-automatic from Benelli has become the weapon of choice for many marines for use in close quarters. With the built-in recoil system the marine can have a much quicker regain of target when shots are fired. It can use virtually any 12ga cartridge found on the market, but for military use high power shells with fewer and heavier pellets tend to be favored for their penetration power.

- Technical data:
- Weight: 2.3kg empty
2.8kg firing weight
 - Magazine: 8 rounds
 - Muzzle vel: 430 m/s (varies)
 - Ammunition: .12 shells
 - Effective range: 30m (more with slugs)
 - Accessories: Green laser sight, Weapon light+IR

M790 Grenade Launcher

This 40mm hand-held grenade launcher has a very simple but efficient design. Rarely used since the introduction of the M41A1 with built-in grenade launcher, but the marines who kept it swear by its superiority.

- Weight: 2kg empty
- Magazine: 1 grenade
- Ammunition: 40mm grenades
- Effective range: 180m
- Max range: 400m

Support Weapons

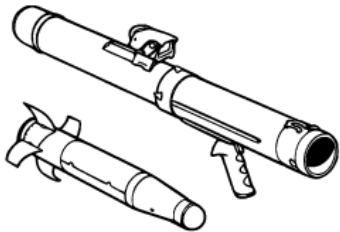
M5 Rocket Propelled Grenade



The M5 fires 2.2kg rockets carrying devastating warheads which can be HE for taking out infantry units or shaped charge AP for use against armored vehicles. The relatively slow speed of the unguided M5 rockets can make it difficult to hit moving targets.

Weight: 2.3kg, rockets 2.2kg
Ammunition: M5 HE/AP rockets
Min range: 20m
Max range: 400m

M83A2 SADAR



The SADAR is the corps main anti armor weapon for infantry units. It is comprised of the a launch tube with a targeting computer and the missile. When a target lock is achieved it utilizes top striking technology and also steer to follow the motion of the target. Otherwise it will travel in a straight line and explode on impact. The SADAR is non-reloadable and discarded once used.

Weight: 3.1kg
Min range: 20m
Max range: 1000m

M112 HIMAT



The M112 Hypervelocity Intelligent Missile, Anti-Tank allows the corps to engage armored units at longer distance. When fired the missile quickly gains altitude from where it will strike down at the target. The gun mount and missile are single-use, but the SR-105 targeting system is reusable and can be networked with several gun mounts. With the APS-100 Fire Control unit connected in a defense network HIMAT:s can also be set to autonomous mode where they will automatically engage targets according to programmed criteria and network sensor input.

Weight: 11.3kg
SR-105 2.5kg, APS-100 1.2kg
Min range: 35m
Max range: 5000m

Personal Equipment

Standard equipment

Every marine is typically equipped with:

BDU:s

Boots

First aid (Trauma dressing, Tourniquet)

Knife

Hand welder

M3 Body armor

M10 Combat helmet

Flashlight, shoulder mounted on M3

Personal weapon (usually M41A1)

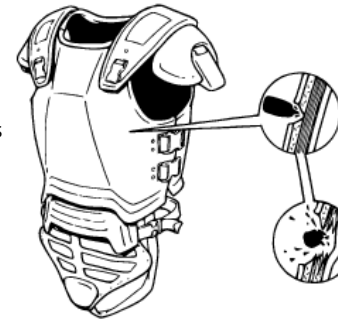
Sidearm

Ammunition, food, water and other equipment depending on mission parameters. Often packed in the IMP 40L backpack which attaches directly on the back of the M3 armor.

M3 Body armor

A full set covers:

Shoulders
Chest
Groin
Knees
Shins



M10 Combat helmet

This ballistic helmet includes a short-ranged PRC 489/4 squad radio, IFF and camera/microphone. It also has a passive IR sight which flops down over the right eye.

IFF Transponder

This small device will reply to encrypted Identify Friend or Foe signals from weapons able to send them like the Smartgun to avoid the risk of friendly fire.

Environment/space suits

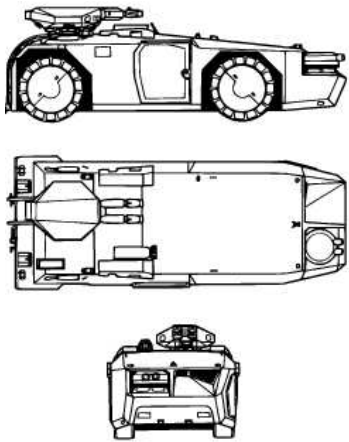
The marine corps uses several types of suit depending on environment and threat level. Being able to operate and maintain your suit as well as working in low-g environments are essential skills for all colonial marines.

Light compression suits like the IRC Mk. 50 or Halitel CM-2200 requires no decompression period before donning and let standard marine equipment like M3 armor be worn outside them.



Mk.50 Compression suit

M577 APC



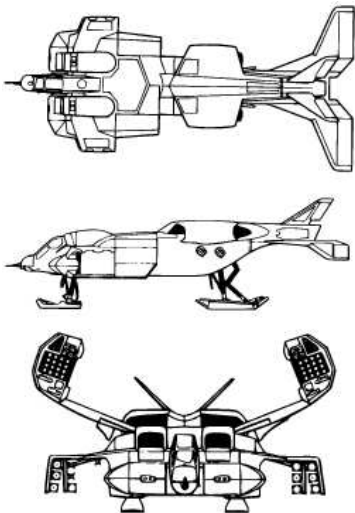
This Armored Personnel Carrier can transport a battle ready group of marines. Because of the air drop requirements it is only lightly armored but can withstand small arms fire and shrapnel. The APC is equipped with a tactical operations center and communication equipment. The ground clearance seems low at only 22cm but can be raised by hydro-pneumatic suspension. The turret can fold back during transport. The standard M577A model is armed with dual plasma cannons in the turret and twin 20mm DLP machine guns in the front. Other variants include:

- M577A2 2xLaser, 2x20mm
- M577A3 2xParticle beam, 2x20mm
- M577B5 2x20mm, 60mm mortar
- M579 4x20mm, 4xSIM-118

On the M577B5 mounting the machine guns in the turret also leaves space for a roof hatch not included on the other models.

Weight: 14500kg (crew & combat load)
Max load: Driver, commander and 12 soldiers
Max speed: 150 kmh
Max range: 500 km

UD-4L Cheyenne

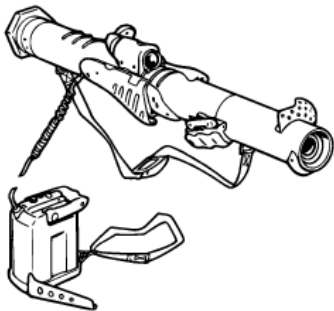


The UD-4 is the main workhorse of the Colonial Marines, transporting men and material to and from planets and sometimes even filling a strikeship role. It is equipped with advanced tactical systems as well as electronic warfare and warning systems. The L version is powered by Republic Dynamics TF-900 turbines delivering a total thrust of 620kN.

The weaponry consist of a 25mm GAU 113/B DLP cannon and a wide array of missiles for ground and aerial targets.

Weight: 18620kg
Crew: Pilot, Co-pilot
Max load: 16000kg or one M577 APC with full complement
Max speed: Mach 12 in upper atmosphere
Mach 1.5 in lower atmosphere
Max range: 5 hours

M78 PIG



The Phased Plasma Infantry Gun is an anti-tank weapon which utilizes a cadmium-tellurid pellet which when fired is heated to plasma and accelerated at high speed. On impact the plasma will vaporize the armor, melt the metal and create a pressure wave and shrapnel inside the vehicle. When traveling through air the plasma will often leave a distinctive vapor trail.

Weight: 15.2kg
Rate of fire: 20 rounds per minute
Magazine: 30 rounds
Ammunition: CT-pellets
Max range: 1000m

M227 Infantry Mortar 60mm

This small 60mm mortar is designed to be carried into combat by a team of marines. It is comprised of four parts. Barrel, tripod, baseplate and sight. The range varies with gravity and atmospheric conditions.

Weight: 15kg, grenades 1.4kg
Ammunition: HE, ATH, Smoke, Illumination
Min range: 200m
Max range: 8000m

M402 Heavy Mortar 80mm

Weight: 70kg, grenades 4kg
Ammunition: HE, ATH, Smoke, Illumination
Max range: 12km

SIM-118 Hornet

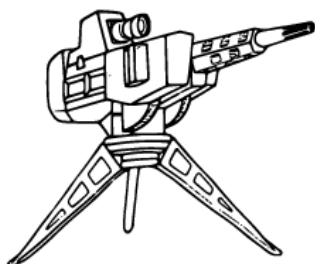
This manpad type anti-air weapon is effective against both fixed wing aircraft and helicopters. The missile has no warhead, it is purely kinetic and relies on high speed and a reliable tracking system. It is fire & forget as the missile uses its own tracking system after acquiring a target lock before firing. The launcher is single-use and provides an optical sight to the operator but use the missiles own sensor for target acquisition. Launchers can also be networked for remote firing in a defense matrix.

The Hornet missile can engage targets at 10km distance and 6km height and has a speed of mach 3.

Weight: 12kg
Max range: 10km

Mines and automatic weapons

UA571-C Sentry Gun



This automated system can be deployed quickly to guard an area and is comprised of gun mount, weapon, sensor, magazine and control unit. It can be preprogrammed in a wide variety of ways and can also be linked into the local sensor matrix. Other less common variants are the D laser model and the F 40mm grenade model.

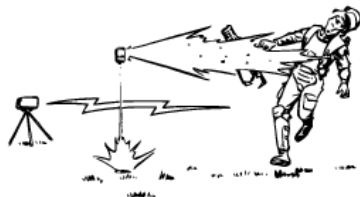
Weight: 19.6kg loaded
Magazine: 500 rounds
Ammunition: 10mmx28
Rate of fire: 1100 rounds per minute
Max range: 1000m

M20 Claymore

This classic model is still in service and does a good job against troops and unarmored vehicles. It comes with a wire trigger to be used either as a tripwire or a controlled mine. It can also be used with various sensor triggers.

Weight: 1.2kg
Max range: 50m

M5A3 Bounding Mine



The bounding mine triggers by a seismic sensor and will pop up spinning to a height up to 2m. When facing the target it explodes.

Weight: 2.2kg
Max range: 50m

M860 Vehicle Mine

This mine is designed for penetrating armored or unarmored vehicle targets. It can be used either in shaped charge mode or high explosive mode and can also be fitted with clearing protection. It triggers on magnetic anomalies or by direct pressure. When triggered the mine can direct its shaped charge up to 3m to any side to hit a vehicle even when not driving directly above the mine.

The M862 is the self-burying version of this mine, designed to be deployed by artillery or aerospace craft.

Weight: 6kg
Max range: 50m

Mine accessories

The following sensors can be fitted on any type of mine used by the marine corps.

Motion sensor

Active ultrasound sensor for motion detection.

Optic sensor

Passive with IR, triggers on movement detected against backdrop.

Vehicles

M119 ATVL



The All Terrain Vehicle Light is small and versatile. It can carry the driver and one passenger, or 175kg cargo. If a trailer is attached another 175kg can be loaded on it. This coupled with its ability for navigating rough terrain has made the place for the ATVL in the marine corps. It has multifuel capability and a suspension which can take the beating of an airdrop with parachute or drop pod.

Weight: 165kg
Max speed: 80 kmh
Max range: 400 km

Drop pod

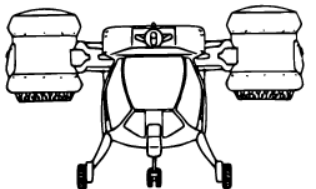
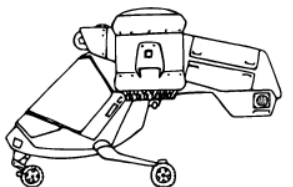


This re-entry insertion vehicle can carry one marine and personal equipment. There is also

a version that can carry a heavier load like an ATVL. The pod is deployed from spacecraft in low to medium orbit and the marine carries a vacuum suit during the descent.

Max load: One passenger or 800kg
Max range: 25 minutes (oxygen supply)

M421 Firefly VTV



This small Vectored thrust Vehicle is unarmed and mostly used for fire control, reconnaissance or as a small cargo lifter.

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

Other vehicles

AD-19C/D Bearcat	Strikeship
AD-17A Cougar	Strikeship
CS-14 Briaeros	Heavy lift shuttle
P-5000 Powerloader	Cargo handling
ATIC (Modular car)	Terrain Vehicle
M34A2 Longstreet	Light armor
M22A3 Jackson	Medium armor
M40 Ridgeway	Heavy armor
M292A2	158mm SP Artillery