

Foreword

Greetings,

The manual you have in your hands is the result of long hours of work by a number of people, in particular Erik Larson (who wrote the original draft material for the Infantry branch) and Kevin McNulty (the TRACOM S-2) who then spent many hours editing and revising the material as well as adding new material where needed. Along the way, many people contributed criticism, advice and suggestions on everything from the layout to the technical specifications of the field gear. In other words, these people worked hard for you and the Corps. Remember them when you have a comment or complaint about this manual, and treat them with respect.

This is the fourth Branch Handbook to come out during my time in TRACOM, and I honestly believe it to be the best yet. Erik is a veteran of the 82nd Airborne, and truly loves the Infantry, which you can see by the amount of detail in the work. Kevin is probably the most exacting man I've encountered in the SFMC when it comes to the technical specifications for equipment. The two of them have created something the SFMC has needed for a long time: a manual that shows just how effective the Infantryman of the future can be; and it imparts the feeling of pride and confidence that members of the Infantry share. I will be very surprised if the SFMC doesn't see rapid growth in units choosing to be Infantry MSGs.

At this point, half of the Branches in the SFMC have handbooks out. This includes Infantry, Aerospace, Mecha and Combat Engineer. The remaining four branches (Armor, Special Operations, Medical and Support) have yet to be completed. I'd like to take a moment and remind you that TRACOM is always looking for artists, authors and help in creating and distributing the materials we produce. If you have a suggestion for a TRACOM manual, let us know! The more people involved in creating material for the Corps, the quicker we can get high quality material to the people who want it.

With your help, and with the help of Marines like those who created this manual, the STARFLEET Marine Corps is building it's own future history. A complex, interesting and believable future, set in the Star Trek universe. I'm proud to say I've been a part of it, and I hope you'll join us as part of the TRACOM team.

Forging the Future,

COL Matt Kelley
Commanding Officer, SFMC Training Command
18 July 1998

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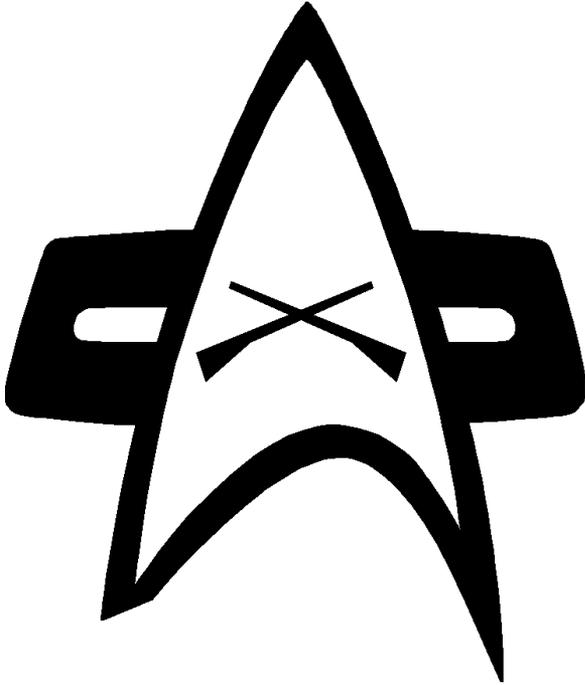
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**SFMC Infantry Branch
Guidebook**

“Follow Me!”

Welcome Aboard!

Welcome to the long-awaited Infantry Branch Guidebook of the STARFLEET Marine Corps (SFMC). This publication is intended primarily for members of the SFMC, which is a component of STARFLEET, The International Star Trek Fan Association, Inc. (SFI). However, anyone with an interest in our part of the Star Trek universe is invited to look and learn.

This manual was created for members of the SFMC, their friends, and anyone else with an interest in the Infantry concept of Star Trek as it is applied by the SFMC. It is intended to serve as a handy reference work for members of the Infantry branch. It covers the equipment, tactics, missions, and organization of the SFMC Infantry. In short, it is a one-book source of information for the new Infantry member wherein they can get the information they need to know to role play as a member of the Infantry branch.

The majority of this work is obviously fictional in nature, but the references to uniforms and insignia of the SFMC are accurate. It is intended to provide a source of "background material" for members of the SFMC Infantry branch, and/or anyone interested in the concept of Infantry in the 24th century. It is not intended to be the last word on the subject, however, as branch material is constantly being revised, upgraded and updated by the members of the branch themselves. Further publications concerning the Infantry and their special training will be forthcoming as the information base is expanded and improved. This book will give you a solid understanding of the core concepts related to this branch of duty, and form the foundation for further learning and study in the field.

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Pronoun Disclaimer

The use of he/his/him, etc., and in particular the term “man” as in “Infantryman” or “crewman”, are used for convenience as the standard English language conventions of unknown-gender pronouns. Not very politically correct, perhaps, but grammatical... and a lot less awkward than “Infantrypersons”. The point is, we don’t mean anything by it. Women in the Infantry are just fine with us.

Dedication

“To those who have gone in harm’s way, so that others would remain free”

“The basic unit of the military will always be the infantryman, because of his ability to take and hold ground. You can bomb a city to rubble, shell it with artillery for days, send tanks up the streets, whatever... but it’s always gonna boil down to some grunt and his buddies going into the houses and the holes and finding the enemy face to face, then forcing him to give ground or die. Tanks and planes and ships don’t take ground, we do.”

—Anonymous Infantry Sergeant, 20th Century

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Reporting Authority

The governing authority for Infantry information is the Branch Director / Infantry. Send questions, comments, or suggestions concerning Infantry to:

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Questions relating to the development and material for other branches of the SFMC should be sent to the TRACOM S-2 at the same address.

History of the Infantry

On nearly every Federation world, there has been some force of individuals who were tasked with carrying warfare to the enemy personally. They were called different things, and performed their tasks differently, but the aim was all the same. Almost.

Klingons, ancient Vulcans, and Andorians fought wars often for the sake of romantic needs. War was an art to enjoy. Innovations were geared to making war enjoyable. One would have expected the synthesis of infantry warfare to have begun here, but it did not.

In all of these cultures, individual warriors sought glory for themselves and their clans. The individual element to war precluded organizing into administrative echelons for practical purposes, as that would defeat the "purpose". Thus, strategy and doctrine in personal combat advanced very slowly on these worlds.

On another planet, however, something strange and terrible happened. War evolved not as an art, but as a science. This happened on Earth. Initially, in this planet's prehistory, wars were fought much the same as on the Klingon or Andorian worlds, but the Terran model then began to differ.

Phalanxes & Legions

Infantry appeared on Earth with the advent of organized societies in the 3d and 2d millennia BC. The most powerful early infantry were the Greek Phalanxes and Roman Legions, foot soldiers who fought in dense groups while engaging their enemy with spear and sword. In China during the Warring States period infantry armies numbered in the hundreds of thousands. These armies utilized specialists in branches and organized echelons to fight in concert. Individual glory or honor took a back seat to the common cause of national victory. Because the armies fought as a team and not as a mass of thugs with a mass of individual champions leading them, they destroyed nearly every foe they fought.

The Dark Ages

The defeat of the Roman infantry by barbarian cavalry in AD 378 heralded a thousand-year period during which infantry took second place to the cavalry. The invention of the stirrup in AD 550 advanced the calvary even further and relegated the infantry to the background.

The Resurgence of Infantry

In the 1300's several technological innovations led to the resurgence of infantry; among them the longbow, pike and halberd, crossbow, and eventually gunpowder. These inventions meant foot soldiers could unseat and therefore beat the venerable calvary, and the movement of infantry back to the forefront began in earnest.

As guns began to replace swords and lances, the infantry again became the primary fighting unit. By the era of the standing or permanent army in the 17th century, foot soldiers were armed with musket and pike. The infantryman was meant to be a mindless brick in a human wall that advanced toward the enemy in a long line, firing all the while. This technique was perfected by Frederick II of Prussia in the mid-18th century.

Into the Bushes

During the last of the French and Indian Wars (1754-63), new tactics were borrowed from the Indians by the American colonists. Troops under British General James Wolfe included regiments of specially trained scouting and skirmishing units using flexible tactics that took advantage of any available concealment. These troops regularly overcame larger French units that continued to use the more rigid formations. During America's Revolutionary War, these tactics were used to great effect by Colonial Rebels to defeat larger, better equipped, and better trained British units. The days of the line formation were numbered.

The US Civil War

In the 19th century infantry tactics were forced to change to cope with new technology. As weapons became more accurate and effective, infantry had to spread out and dig in to make itself less vulnerable. By the time of the U.S. Civil War (1861-1865) hand grenades, barbed wire, and repeating rifles made mass attacks ineffective. Troops began to attack in waves--one wave raking the enemy with fire while the next scrambled toward the opposition.

World War I

In the 20th century, as weapons became more sophisticated, many expected the infantry to become obsolete. In spite of the many innovations in transportation, communication, and weapons, however, the foot soldier played a major role in the battles of World War I. The practice of "digging in" hit its pinnacle during this conflict when massive battles were fought from and for

complex systems of trenches throughout the French countryside. The advent of the tank and aerial bombardment, however, quickly destroyed this concept, and once again the infantry had to be on the move to survive.

World War II

Technology advanced rapidly during the second half of the twentieth century, but still the infantry prevailed. No matter how complex armor and air power became, individual soldiers were still required for taking and holding territory and rooting out enemy resistance. During World War II two important advances were made in the deployment of these ground forces, however.

The first, amphibious assault was perfected by the United States Marine Corps in the South Pacific. Also of great importance in the European theatre was the perfection of the Airborne Assault, initially an invention of the Germans but ultimately used to greatest effectiveness by the allies. In fact, the largest airborne operation of the century, Operation Market Garden, although a failure, nearly broke the German front lines and proved the potential power of airborne infantry.



One of the defining moments of Earth's 20th Century: Marines raise the flag atop Mount Surabachi on the Island of Iwo Jima. On seeing the spectacle, then Naval Secretary James Forrestal commented "The raising of that flag... means a Marine Corps for the next 500 years."

Desert Storm: Infantry Enters a New Era

In 1991, the United States and the United Nations Coalition forces assaulted Iraq, and Iraqi troops in occupied Kuwait, with a massive high-technology aerospace campaign. Unlike previous wars, the massive commitment of ground forces was absent until well into the conflict. The end result was the most lopsided victory in Terran military history-- tens of thousands of enemy dead with less than a thousand allied troops dead and wounded. After this demonstration, military commanders worldwide began to wake up and realize that the old model of warfighting had been swept aside; small numbers of well-trained and well-armed troops could utterly defeat a less advanced larger force quickly and with low casualties. Although many historians argue that the Persian Gulf War was an aberration in warfare in true terms, no one could deny the effect that it had on military thinking.

A New Century, a New Infantry

Following the Eugenics Wars and another world war against China, the people of the United States had few aspirations to continue in the role of world leader. The European Hegemony came to the forefront of world politics and the U.S. stayed out of world affairs save for protecting its allies and its overseas economic interests. The U.S. military continued to retool and revamp its forces under tighter and tighter budgets, though, which made their armed forces some of the most highly trained and efficient the world had known. Masses of poorly trained infantry were a thing of the past. Emphasis was placed on better trained soldiers with powerful equipment. By the time Vulcans made first contact with the human race, the U.S. Marine Corps required a college degree for all of its applicants, and had a force of only sixty thousand active.

The Colonial Marines

When the MegaCorporations began colonizing other planets, they needed trained fighters to protect and police their colonists. Thus, the Colonial Marines were born. Formed on a model of several of Earth's ground forces (most notably the United States' Army and Marine Corps), the Colonial Marines formed the first truly spaceborne ground forces. No longer were the Marines merely an assault force. They were now responsible for taking a position, **and** holding it and defending it for the long run. At the forefront of these planetary operations were the infantry—still the only force capable of completely securing any piece of planetary real estate.

When the Romulans first attacked in 2156 on the colony world of Sectis, Colonial Marine Infantry were the first humans to take up the fight. Unfortunately, surprise and overwhelming numerical superiority gave the Romulans victory. But the Colonial Marines on Sectis fought against the odds for longer than the Romulans could have ever supposed—although the ghosts of the Japanese invaders of Wake Island in WWII could have warned them about the tenacity and skill of Marine infantry.

The UNPF Marines

To survive and ultimately triumph over the Romulan advance, the United Nations of Earth nationalized all armed forces in 2158 to create the United Nations Peace Force. The Colonial Marines, U.S. Marines, Royal Marines, Russian Naval Infantry, and countless other Marine and Army forces were banded together as the UNPF Marine Corps.

By the spring of 2162, UNPF forces had fought the Romulans to a standstill.



UNPFMC Infantry mount an ambush for a Romulan patrol in the battle to retake Sectis.

Without warp power, the Romulans were dependent on planetary installations and depots to advance. Eventually, the UNPF Marines began to deny them this valuable real estate, and started to take back what the Romulans had gained. In March of 2162 a primarily spaceborne battle at Cheron led to the ultimate defeat of the Romulans, but the Battle of Cheron would not have been possible without the blood and sweat of the UNPFMC Infantry.

Starfleet and the SFMC

In response to the Romulan Invasion, five separate civilizations joined together to form the United Federation of Planets. The UFP was created as a peaceful and cooperative organization of defense and exploration. However, no one had forgotten the lessons they had learned at the hands of the Romulans. A strong naval force, STARFLEET, was created; and to take the battle to the ground, the SFMC was an integral part of that new defense force. And at the heart of the new SFMC, the infantry. The reason the SFMC exist at all today is the infantry, for were it not necessary to take the battle to the enemy individually no ground forces would be needed at all. The legacy of Roman organization and American technical advancement and practical innovation has found it's highest expression.

Infantry Traditions

As the SFMC branch with the longest history, Infantry is steeped in tradition and custom. The most notable among these is actually a Corps-wide tradition: that every Marine is an Infantryman first. No matter what their eventual branch and Military Occupational Specialty (MOS) every Marine in the SFMC goes through basic infantry school first. This is why every marine, no matter their current branch, may wear black (the Infantry branch color) as their branch color.

The Infantry Motto “Queen of Battle”

Infantry has been known as the “Queen of Battle” since its earliest days on ancient Earth. Akin to the chess piece, Infantry moves in any direction, attacks from any direction, and wields a considerable power not to be underestimated. The first line of the Infantry creed reads, “I am the Infantry—*Queen of Battle!*”

The Infantry Slogan “Follow Me!”

From the earliest days of the old United States’ ground forces, a traditional motto of the infantry has been “I am the Infantry. Follow me!” Today, this is shortened to the latter expletive.

The esprit that this motto embodies is evidenced in a story from the days of Earth’s World War Two. During a savage German advance, a force of retreating American armor came across an airborne infantryman, from the United States’ 82nd Airborne Division, who was digging a foxhole. When one tank crew paused to speak to the man, he said “Are you looking for someplace safe to park that vehicle?” They replied that they were, and the infantryman told them to park it behind his foxhole because, “I’m the 82nd Airborne, and this is as far as the bastards are going.”

The Infantry Device “Crossed Rifles”

Although they hadn’t used flintlocks in a century, 20th century infantrymen on Earth still had a crossed pair of them on their uniform. The crossed rifles symbolized the era when infantry truly came into its own in modern times. They still do. For even though they haven’t used a chemically fired projectile weapon in centuries, today’s infantryman still wears crossed rifles on their uniform.

The Infantry Creed

A modified version of an Old Earth infantry creed, the modern creed reads:

I am the Infantry--Queen of Battle! For six centuries I have kept our Nation safe, purchasing freedom with my blood. To tyrants, I am the day of reckoning; to the suppressed, the hope for the future. Where the fighting is thick, there am I... I am the Infantry! FOLLOW ME!

I was there from the beginning, meeting the enemy face to face, will to will. I have seen nations born, divided, and reunited. I have toppled dictators and defended the weak. I have protected brave colonists from the plains to the stars. I have patrolled jungles, beaches, paddies, deserts and skies in the bitter test that belongs to the Infantry. I have answered humanity's call, I have proclaimed freedom, I have protected the innocent. I am the Infantry! FOLLOW ME!

Throughout the Federation, I stand... ever forward. Duty called, I answered. My bayonet... on the wings of power... keeps the peace. And despots, falsely garbed in freedom's mantle, falter... hide. My ally in the paddies and the forest... I teach, I aid, I lead. I am the Infantry! FOLLOW ME!

Where brave men fight... there fight I. In freedom's cause... I live, I die. From Concord Bridge to Heartbreak Ridge, from Sectis to Setlik... the Queen of Battle! Always ready... then, now, and forever. I am the Infantry! FOLLOW ME!

Organization of the Branch

The infantry branch is divided into two major fields of service based on the equipment and tactics used by each.



Light Infantry

Ground troops that fight on foot with a minimum of carried weapons in fast-moving, adaptable formations are Light Infantry. Also known as LI, today's light infantry bears a strong resemblance to the first infantry, for although their weapons and gear have changed, the essential weapon, the Marine himself, has changed little. Light infantry units are what most people think of when they hear "Marine". The use of LI is a bit more limited in the 24th century than it once was, since the relatively unprotected Light Infantryman (as compared to their Powered brethren) are susceptible to the complex and powerful weapon systems of today. They require more support than they once did for the same reason. However, there is still no replacement for this valuable commodity.



Powered Infantry

In contrast to the lightly equipped foot soldier is the powered infantryman (PI) encased in a protective and powerful articulated suit. This "powered armor" is less than Mecha, more than exoskeleton. It is a fully mechanized and articulated suit individually fitted to the infantryman that includes life support, weapons, fire control, communications, and essential supplies. While it is not organic technology, any powered infantryman will tell you their suit is an extension of themselves.

While protective and powerful, powered armor has limitations for some applications. It is heavy, limiting the amount which can be carried by shuttle or APC. It breaks down, requiring maintenance personnel be assigned to minimize casualties. They are larger than average humanoids, making them ineffective for most building-clearing operations. These among other limitations have led to the SFMC doctrine of possessing both powered and light infantry. The two most often work together; with the powered infantry taking point and providing cover, followed closely by the light infantry to clear structures and take objectives.

MOS Listings by Field

Light Infantry

300 Infantryman

The basis for all other specialties in the Infantry branch (arguably for the entire SFMC). Although the traditional name of Infantryman is used, assignments to this MOS are not limited by sex. 300s receive extensive training in basic infantry tactics and skills including marksmanship, orienteering, light infantry weapons operation/maintenance, basic reconnoitering, etc.

301 Light Weapons Specialist

With more extensive training in a wider variety of light weapons (including maintenance and repair) than a 300, a 301 usually handles nonstandard man-portable light gun systems for a fire team. This may include automatic projectile weapons or heavy compression phaser rifles.

302 Heavy Weapons Specialist

A 302 handles the largest and most complex man-portable gun systems in the Light Infantry arsenal. These typically include large-caliber projectile weapons and/or tripod-mounted phaser and disrupter units. Typically two 302s are assigned to such a system who then alternate roles as operator and loader. 302s are also trained to maintain these systems in the field.

308 Scout/Sniper

Special training in reconnoiter, stalking, marksmanship and concealment make 308s valuable commodities on the battlefield. Usually operating independently of larger infantry units, 308s travel in two-person teams who then alternate roles as sniper and spotter.

320 Man-portable Missile Crewman

320s are trained in the use and maintenance of all the infantry's various portable missile systems. 320s are typically assigned to the heavy weapons platoon of a light infantry company.

328 Air Defense Systems Specialist

328s are trained in the use and maintenance of both directed energy and projectile anti-air weapons. In most ground combat situations, the Infantry's main threat is from the air, making the job of a 328 a critical one.

330 Combat Communications Specialist

A 330 operates standard, satellite, and subspace communications systems

for an Infantry platoon. 330s also man higher headquarters command posts and often serve as battlefield dispatch and relay station operators.

331 Infantry Datawarfare Specialist

The use of computing power on the battlefield is the purview of the datawarfare specialists. Most datawarfare operations are conducted by the Support or Special Operations branches, but limited hacking of enemy systems, misinformation, and protection of friendly databases is accomplished in the forward area by the highly-trained 331s.

335 Battlefield Surveillance Crewman

Monitoring the operating area for threats from the air, ground, or underground is done by 335s with special combat tricorder equipment. 335s direct air defenses and supply the battlefield commander with valuable tactical data.

340 Light Infantry Commander

Officers commanding infantry units receive the MOS of 340 which indicates training in all aspects of light infantry operations.

345 Light Infantry Leader

NCO billets from squad leader and up are filled by 345s who receive specialized training in leadership, tactics, and command. A 345 must have a secondary MOS in whichever type of unit they are assigned to. For instance, the leader of a Light Infantry Company's datawarfare squad must have an MOS of 345/331.

349 Light Infantry Armorer

349s are fully trained machinists and gunsmiths. They are tasked with the highest level of maintenance, repair, and modification of all Light Infantry small arms.

Powered Infantry

350 Powered Infantryman

Like the 300, the 350 is the basis for all subsequent MOSs in their field. 350s must first graduate light infantry school before receiving their special training in powered armor. 350s are trained in the usage and field maintenance of the standard Phalanx suit which itself employs more light weapons systems than a Light Infantry fire team.

351 Powered Scout

Additionally trained in the use and maintenance of the more lightly

equipped but faster and more maneuverable Pathfinder suit, 351s are the point-leaders for the Powered Infantry company. Carrying less weapons but more complex sensor systems, 351s are frequently the first ground troops to survey the battlefield.

353 Powered Combat Support Infantryman

Supporting combat roles for powered infantry are filled by 353s who are indeed trained infantrymen, but who primarily conduct combat support missions. Obviously, it would be difficult to assign conventional support troops to Powered units. The 353 fills the gap. 353s most commonly operate the standard Phalanx suit.

357 Powered Heavy Infantryman

Operators of the slower but more heavily armed and armored Magnum suit, 357s bring on the biggest weapons indigenous to the Infantry. Of most limited application among the powered suits, it also has the most destructive potential; and its operators are trained well to temper that power and apply it to utmost effect.

380 Powered Infantry Commander

Trained to fight and maintain the complex C3 suit. Powered Infantry commanders must complete 340 school and serve as a light infantry commander for at least a year before entering the 380 MOS.

365 Powered Infantry Leader

Double-qualified like their 345 counterparts, NCOs entering the 365 MOS must come from within the enlisted ranks of the Powered Infantry—or must serve in a non-leader capacity in a Powered Infantry unit for at least a year prior to their 365 training. 365s also operate and maintain the C3 suit.

369 Powered Infantry Armorer

369s are trained to maintain, build, rebuild, and customize every type of suit-mounted weapon system in the SFMC inventory. Needless to say this MOS requires loads of specialized training..

Organization of Units

Infantry units are highly flexible and may be organized in several fashions as best suits the mission. To best understand the organization of such units, let us look at the building blocks of Marine Infantry organization.

Component Units

For this example, we will discuss standard Light Infantry units. The basic Infantry maneuver unit is the four-man fire team. The team leader (usually a corporal equipped with an M-116 phaser rifle with a clip-on grenade launcher) is assigned two Infantrymen (also with M-116s) and a Light Weapons Specialist (with an M-206 Compression Phaser Rifle or P-605 EM Projectile Weapon). By matching up three fire teams with a sergeant, you get a squad. A squad is the smallest unit that will be detached to a composite Strike Group. More typically, a platoon is detached.

Three squads, with a second lieutenant and a platoon (staff) sergeant in command, make up a platoon. Several different types of platoons exist—the fire teams above, however, would give us a standard Light Infantry rifle platoon. Combine three such platoons with a heavy weapons platoon and you get a standard Marine rifle company, under the command of a captain and his first sergeant. This is the nominal strength of a Marine Strike Group (Infantry).

While an Infantry battalion could simply be made of several rifle companies, it is much more typical to see it use a mix of company types and platoon types to achieve its mission objectives. A battalion is normally the largest homogenous Infantry unit. The larger Infantry Brigades and Divisions have subordinate units from several other branches, although in wartime homogenous divisions have been fielded.

Platoon and Company Types

We have already looked at the Light Infantry rifle platoon, but many other platoon types are possible. These are formed based on mission requirements and logistical considerations. These platoons can then be combined in various ways to form a myriad of company types. These platoon types can usually be either Powered or Light, unless otherwise specified below. The most common platoon types are:

Heavy Weapons Platoon

A platoon which fields mortars, man-portable missile systems, and other

heavy weapons to support Light Infantry rifle platoons. Powered HW Platoons are usually equipped with Magnum suits.

Assault Platoon

These platoons specialize in covert and “forced-entry” insertion operations. Powered Assault Platoons are assembled with whatever suits and specialists best fit the terrain/mission.

Reconnaissance Platoon

A concentration of Battlefield Surveillance Specialists and specially trained Infantrymen to increase the tactical intelligence available to the battlefield commander. The Powered Recon Platoon is equipped with scouting Pathfinder suits.

Scout/Sniper Platoon

A different and much more specialized reconnaissance platoon, these can often be combined with standard recon platoons for even more effective intelligence gathering and battlefield surveillance. There is no equivalent Powered Platoon type here. Powered Armor does not lend itself to stalking and concealment.

Other Unit Types

There are additional considerations in organizing some Infantry units. Specialized types of units that can be any size from platoon to battalion include:

Aeromobile

This designation indicates that the Infantry unit has been assigned subordinate aerospace units, and that those organic (belonging to the Infantry unit) air elements are capable of transporting all of the Infantry unit’s assets. This is naturally a large and complex force that few starships outside amphibious assault craft can embark. However, a few of the larger classes (i.e. Galaxy & Sovereign) do embark such units which are used as Rapid Deployment Forces for trouble spots and other crises. Aeromobile Infantry Units are rarely larger than Company-sized.

Special Operations Capable

An SOC designation means the unit is trained in a limited but important range of special operations missions. While equipped and prepared to carry out such missions at a moments notice, these are not the small, elite Spec Ops units most people are familiar with. Rather, they are standard Infantry units with some specialized training and equipment, and therefore fall outside the Special Operations Branch.

Inside a

Marine Strike Group (Infantry)

Having described a typical Marine Infantry unit, it must now be noted that there really is no such thing as a typical Marine Infantry unit. As said before, Infantry units are organized as mission objectives and logistical considerations dictate. For this reason, you would be hard pressed to find two identical Infantry companies in the entire SFMC. However, our discussion of unit organization would not be complete without a look at at least one deployed Infantry unit.

The Neighbors of the Beast



The 667th Powered Infantry (Aeromobile-SOC) is typical only in that it is as specialized and unique as any other Marine Infantry unit. A reinforced Company in size, it is designated as an MSG (Infantry). And although it is a Powered Infantry unit, it also has organic aerospace and Light Infantry elements that help it achieve its current mission of acting as the Rapid Deployment Force for the Second Fleet aboard the USS *Yamato*.

As an RDF unit, the 667th is both Aeromobile and Special Operations Capable, making it a bit of a “kitchen sink” unit. It does, however, serve as a good example of how diverse and specialized SFMC Infantry units can become. Before it had to fill its current role as the Second Fleet’s RDF, the 667th was a straight-up Powered Infantry company with three Powered Rifle platoons and a Powered Heavy Weapons platoon. Now, of course, things are substantially different.

The following page shows a breakdown of the force that makes up the 667th. As a straight-up Powered Infantry company, the Powered Recon platoon is replaced with a Heavy Weapons Platoon. The Light Infantry Rifle platoon and Scout/Sniper squad are drawn from the 1st Battalion, 2nd Marine Brigade. The air element comes from the 2nd Marine Air Wing and consists of a Tactical Airlift Squadron (VMS-667), reinforced with a detachment of A-78 Dragons from VMA-78.

**667th Marine Strike Group (Infantry)
Reinforced Powered Infantry Company, Aeromobile, SOC**



Headquarters/
1st Powered Rifle
Platoon

Assigned Strength:

Ground Element:

196 personnel

146 suits

8 vehicles

Air Element:

56 personnel

16 aircraft



Detached
Scout/Sniper Squad



Rifle Platoon



2nd Powered Rifle
Platoon



Light Landing Craft
Flight



3rd Powered Rifle
Platoon



Heavy Landing Craft
Flight



Powered Recon
Platoon



Close Air Support
Flight

Tools of the Trade

Before embarking on your education in Infantry deployment and tactics, it will be important for you to learn the basic equipment of the SFMC Infantry. It is the type and capabilities of equipment available to the SFMC today that in part dictates the method by which Infantry forces are employed. So let us review the tools of the trade.

Light Infantry Weapons

The term “light” can lead to some confusion in the arena of Infantry weapons. Small arms and other smaller portable weapons systems designed primarily for engaging enemy personnel are collectively referred to as “light weapons”; however, in this description we are grouping both heavy and light weapons which are used by the Light Infantry, as opposed to those weapons used by their Powered Infantry counterparts.

Phasers

The weapons system known as Phased Energy Rectification has been a mainstay of Starfleet and the Starfleet Marine Corps for well over a century at the time of this writing, and is used by many other governments and cultures under different names.

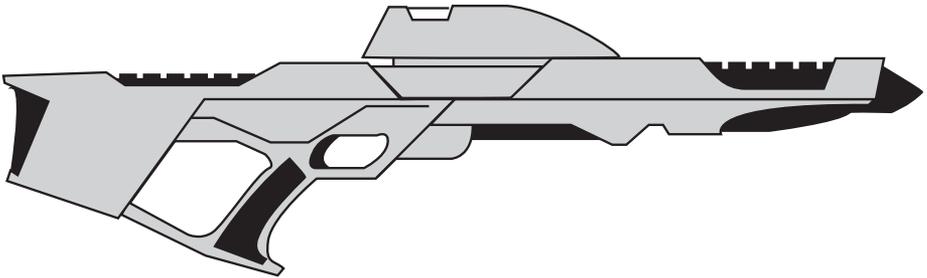
SFMC phasers, however, are modified significantly from their Starfleet counterparts—especially internally. Although the M-116A2 phaser rifle looks exactly the same as the Fleet’s Type III Mark 2 phaser rifle from the outside, the insides are significantly different.

The added parameters that concern Marine infantry fall under weapon durability, quality of aiming devices, ease of manipulation, and above all else resistance to impulse interference from natural or fabricated dampening. It is very, very difficult to neutralize any Marine infantry device through a dampening field. Specially designed shielding and buffers within the control systems make Marine infantry systems over two thousand percent harder against dampening interference than comparable Starfleet systems. The trade-off has been additional procurement costs per unit, greater weight per weapon, and an increase in maintenance complexity.

All infantry phaser systems are recharged from sarium krellide power magazines, or “clips” as they are sometimes called. The SFMC requires that all phaser magazines accepted from a contractor must meet the “five and five” rule: that is, they are capable of being recharged in less than five

standard minutes, and capable of holding a full charge for five standard years in storage. They must also be immune to damage from all but the worst mishandling, and leach their energy out if damaged rather than explode.

Recently, SFMC units have begun receiving beam-frequency scramblers, which vary the frequency of the phaser beam and thus increase its effectiveness against adjustable screens such as those used by the Borg. The BF scrambler is normally fitted to the end of the weapon, integral with the emitter system, by the unit armorer. In the few instances when Marine and Borg units have clashed, the BF scrambler has proven extremely effective.



M-116A2 Phaser Rifle

The M-116A2 is the new standard Light Infantry weapon of the SFMC. Introduced in the fall of 2375 as the M-116A1 (which is the same unit as the Type III Mark 2 carried by Starfleet), the A2 version adds luminescent lines on the dorsal side to serve as a low-light waist-aiming device for snap shots, an enhanced illuminated reticle system in the scope, and increased counter-measures against dampening. It is slightly heavier than the rifle it replaces (the M-110/Starfleet Type III), but is also more powerful. More importantly, it has a shoulder stock—the lack of which was the chief complaint about the M-110 (which is still in service as a light carbine).

This rifle provides the necessary firepower for common direct-fire infantry situations. It possesses the full standard sixteen power levels of the Starfleet phaser rifle, with the addition of a pulse-burst automatic firing mode that conserves energy over the steady stream that is found on the M-970. It is reloaded from standard WC-2 power clips, of which three are normally carried in battle dress. The M-116A2 can have accessories such as laser-dot sights and beam scramblers fitted to it, in addition to the weaponmount grenade launcher system, discussed later. Like all phasers in the SFMC inventory, its beam can be adjusted from a wide-field cone dispersion pattern to a “needle” pinpoint beam application.

The M-970A1 Compression Phaser Rifle

The 970A1 is a powerful compression phaser rifle capable of establishing a base of fire to support Infantry squad operations. For this reason, it is also known as the Squad Compressed Rectification Phaser Rifle (SCRPR) and its operators are known by Infantrymen as "scrapppers". A scrapper is usually a Light Infantry fire team's light weapons specialist.

In external appearance the SCRPR looks like the standard Starfleet compression phaser rifle, although it has a different internal arrangement which includes a larger clip housed in the stock as opposed to the grip, and a hardier emitter assembly to handle the higher power settings. The M-970A1 has the sixteen standard power settings of otherphasers, with of four additional higher settings. These settings are only for use during limited situations due to their extreme destructive yield and use of power. For reference, setting twenty is thus described:

"A discharge of .30 seconds onto a surface will cause an explosion capable of geologic displacement of 1,980 cubic meters of rock in a confined area, penetration of shielding up to most main battle tanks, and/or a lethal burst radius of 300 meters from the impact point for unprotected hominid life forms with emitter set for maximum needle setting. Effective range of fire on this setting to obtain listed yield is two thousand and ninety meters on needle, with steady exponential fall-off and spread-out of discharge past this point."



M-3A4 Tactical Hand Phaser

Although it is authorized for use in Marine units, the Starfleet "broom handle"phasers and pocketphasers leave a lot to be desired from a tactical standpoint. Both weapons can be damaged rather easily, neither has integral sights, and the controls are complicated and hard to manipulate quickly while under stress. These factors led the SFMC to retain the "Combat Phaser" Type M-3 as a sidearm despite the fact that it's power levels and capabilities were obsolete for many purposes. In 2328 the first of a series of upgrades on the frame of the M-3 were performed by the original Earth-based contractor and a fourth series of upgrades on this device are now also being done by them to bring these units up to the level of the M-3A4.

This phaser has a conformal shape that the firer grips fully in hand and aims with constant illumination sights atop the phaser. A window below the sight displays the power level. A button on the left side of the grip allows

the firer to cycle through power settings, while another button on the right side allows the firer to select up to five "pre-shot" settings quickly (the settings are entered through a control pad on the top of the phaser, that is covered by a panel during use). All of the phaser controls can be manipulated without the firer altering the firing posture.

After the phaser is fired, the sights automatically increase their illumination to compensate for possible night-vision loss from the phaser bloom during low light combat. Although the illumination of the sights is not visible from the front or sides of the weapon, nor at a range of more than two meters behind, another button forward of the rear sight allows the illumination to be cancelled entirely.

The M-3 has two safety devices. A grip safety prevents the weapon from firing without a hand gripping the control surface solidly, and there is an integral safety within the trigger that is released as the trigger is pulled. There is no button or key safety, the M-3 is "cold" with the trigger released and instantly "hot" with the trigger compressed. This highly effective trigger system has been a trademark of the M-3's manufacturer and to this day is still copied by competitors, with never quite the same final level of perfection as the original.

M-110A1 Carbine

Resembling the older Starfleet Type III phaser rifle, the M-110A1 carbine is a light phaser rifle that is small, lightweight, and easy to maneuver. It is used for really close-quarter battle (CQB) where the goal is to quickly and accurately put phaser beams on target in cramped quarters. It is used by antiterrorist units, hostage rescue teams, and other specialized CQB units.

M-2A3 Heavy Phaser Rifle

Just sitting in the weapons rack it looks heavy, difficult to move, clumsy to operate, and powerful enough to take out a small asteroid... and it is. It is the M-2A3 heavy phaser rifle. A compression phaser rifle with both beam and pulse firing capabilities, the M-2 is nearly the size of most of its operators and must be carried in pieces by a heavy weapons fire team unless anti-gravs can be used (in which case it takes only two to carry).

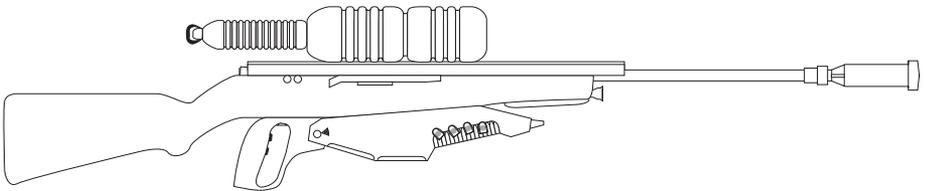
The M-2A3 is basically the equivalent of a Type 5 shuttle-mounted phaser emitter in portable form (and as an M-2 crew will tell you, "portable" is being used loosely here). It is tripod mounted when carried, or more commonly it is mounted on an APC. For all its drawbacks, however, it packs a punch well worth hauling it around.

Projectile Weapons

Against lightly armored or relatively unprotected targets, projectile weapons can be quite effective. They have several advantages over phasers in many applications. First and foremost (and of highest consideration for sniper weapons), there is no “tracer effect” of a phaser beam which pinpoints your position for enemy forces. “Firing a phaser is like painting a big line in the sky that says, ‘shoot here,’” said one Marine Sniper Instructor. Projectile weapons are more energy efficient as well.

Most small-arms projectile weapons in the SFMC inventory are either missiles or electromagnetically fired ‘gauss guns’ which operate by using a series of miniature superconducting magnets to draw a projectile from the breech, through the barrel, and out the muzzle in a very short amount of time. In larger EM cannon (20mm and above), the EM firing system is capable of muzzle velocities in excess of 4000m/s!

EM-fired projectiles require no chemical propellant and so are caseless. This means more ammunition can be carried by an infantryman, and more can be stored and transported in any given space. It also means no ‘dirty’ propellant residue to foul the barrel or increase maintenance requirements.



P-688 Sniper Rifle

The P-688 is an electromagnetically fired projectile weapon capable of hitting targets accurately at a maximum range of 5km (average effective range: 2.3km). The P-688 has an integral air data probe which can evaluate the atmosphere for wind and pressure, adjusting the sight picture accordingly in its holographic sight assembly. Through analyzing this data, the P-688 can also self-adjust its muzzle velocity to just under the speed of sound in any given atmosphere, making the weapon silent.

Although snipers rarely have a need for rapid projectile firing, the P-688 is capable of emptying its 10-round magazine in 15 seconds. The P-688 fires 5mm calibre projectiles of five types: ITR (inert training round), JHP (jacketed hollow point antipersonnel round), explosive antipersonnel round,

incendiary round, and light armor piercing round. One magazine each of the latter three and two of the JHP rounds are typically carried by each shooter in a Scout/ Sniper team.

Fitted below the forward body is a clip-on unit called a “3-pak” which contains a power cell, ammunition magazine, and phaser unit for CQB. The P-688 is the only projectile weapon which also has a phaser capability. The 15mm calibre weapons are just too big to be used in CQB to begin with, and the 5mm Squad Automatic Weapon (below) uses all of its available room for ammunition storage. The 3-pak enhances the safety of the P-688 as it cannot be operated without the rifle, the rifle cannot be operated without it, and each 3-pak is programmed to function with only one P-688. Other safety features include a retina scanner inside the scope which is programmed for only the user. It also scans for blood flow so that a dead eyeball cannot activate it. The larger calibre cousin of the P-688, the P-788A1 below, has the same scope and scope safety system.

P-788A1 Sniper Rifle

The 15mm projectile fired by the P-788A1 can do substantial damage against protected targets. It is capable of hitting “equipment-sized” targets at over 7km (although 3km is actually the limit of its *effective* range).

The larger barrel and frame of the P-788 fortunately make room for a miniature IDF generator in the stock. With the IDF on, the rifle has surprisingly little kick. With the IDF off, however, the weapon can be hard to handle, especially at the maximum muzzle velocity of 1000mps. And since acceleration is constant over the travel of the barrel with EM projectile weapons, this recoil makes the weapon hard to keep on target.

P-622A2 Squad Automatic Weapon

The P-622A2 SAW is a rapid-firing EM projectile weapon which fires the same 5mm ammunition as the P-688. This weapon is typically used by a fire team’s light weapons specialist in place of the SCRPR when conditions favor projectile weapons. If the targets a squad is likely to encounter are susceptible to projectile weapons fire, a SAW can be more effective in laying down suppressive fire than a SCRPR which produces thermal and other side-effects during sustained firing.

The small caseless projectiles take up little space, so many can be carried by the SAW gunner. With a fully loaded weapon and tactical harness, it is not difficult at all for a SAW gunner to go into the field with over 10,000 rounds of antipersonnel projectiles! Though small, the high muzzle velocity of

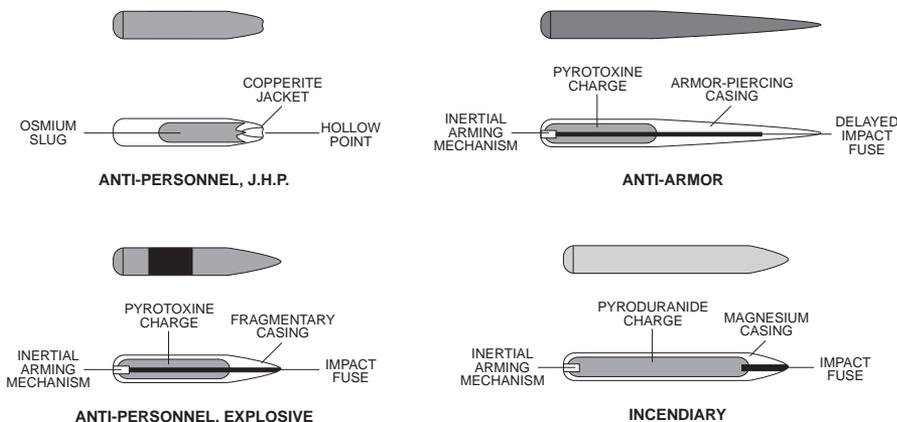
these projectiles give them enough kinetic energy for adequate stopping power. In fact, the muzzle velocity is so high that especially soft and dense osmium hollow-point cores must be used in the JHP ammunition to transfer energy quickly and prevent target run-through. The explosive antipersonnel rounds require an extremely quick fuse for the same reason.

P-722A3 Heavy Automatic Projectile Weapon

This is the 15mm calibre version of the P-622. It is usually carried by a Light Infantry Company's heavy weapons platoon by a three-man team. One man carries the ammunition and acts as loader during firing operations, one carries the barrel/bipod subassembly, and acts as spotter during firing, and the third carries the loader/body subassembly and is the shooter.

Considering that most tactical aerospace craft are armed with EM cannon only 5mm larger in diameter, one can see that the P-722A3 is the "big gun" of Light Infantry projectile weapons. It can also be mounted on vehicles such as an APC, and is standard equipment on many armored vehicles.

Common Live Rounds for SFMC Projectile Weapons



Shown here are the four most common munitions types for the SFMC's arsenal of EM projectile Infantry weapons. Not shown is the inert training round. The rounds shown here are 5mm rounds, although 15mm rounds appear very similar and use the same basic internal arrangements. EM projectile weapons with a muzzle velocity higher than 4000m/s (as on mecha, aerospace craft, etc.) use simple duranium slugs because, at those speeds, their kinetic energy produces more destructive force than the equivalent weight of explosives.

M-387 Manpack Light Infantry Missile Launcher

The MAPLIML, or "Mapper", as it is often called, is considered by many to be the most versatile and useful weapon of the SFMC light infantry. It is usually carried in the heavy weapons squad of a rifle platoon, or the heavy weapons platoon of a rifle company.

The MAPLIML weighs 5 kg empty and 8 kg loaded with a full cannister of six missiles. It consists of a rotary cannister, frame, grips and folding shoulder-stock (it can be fired with or without this extended), and integral sighting system. A variety of 40mm missiles, each with an effective range of 12km, can be carried. Each missile uses differential thrust for maneuvering (tail fins—once so popular for missiles—are absolutely useless on the zero-atmosphere battlefields which the SFMC sometimes fights on). A gas bottle in the rear of the missile shoots the round out cold and at a distance of approximately twenty yards the rocket motor takes over.

One of the unique features of this launcher (and arguably the feature that makes it so popular) is that the operator can "spool through" the cannister manually through push-buttons until the round of choice is in position, and rounds can be manually loaded one upon another into the cannister as they are expended. Thus, a skilled MAPLIML operator will have a variety of ordnance at hand for any situation that might materialize.

Current MAPLIML ammunition includes:

High Velocity Armor Piercing (HIVAP)

This round utilizes a cast rhodium penetrator imbedded in a sympathetic-resonance shroud that is designed to minimize the effectiveness of enemy shield arrays on the weapon. The round attains a very high velocity in a short time to strike the target with maximum kinetic effect in a tiny cross-section of impact area. This round is most effective against targets within two kilometers of launch. It has a minimum arming distance of 110m.

High explosive

The molecular compression lethezine-12 warhead has a lethal burst radius of seventy yards against unprotected hominids and can penetrate most medium armored vehicles and possibly the weaker areas of heavy ones due to it's electrothermal focusing cone. Minimum arming distance is 100m.

Plasma conformal payload (PCP)

This round comprises a shell of pliable high temperature explosive that fulminates the surfaces of armor it contacts into a high temperature plasma. It is designed for penetration of armor or targets that might resist the

shattering power of a phaser blast or penetration of armor under conditions that make use of a phaser undesirable. It has a burst radius of 15m with a burn time of four seconds. It is effective against many hard materials and can drain most light shield arrays. Minimum arming distance is 30m.

Fragmentation

This round is three-fourths penetrator flechette and one-fourth shock explosive warhead that is intended to penetrate unprotected materials and lightly shielded personnel. This is probably the least powerful and least expensive MAPLIML missile, and is the round of choice against low technology infantry formations. On unprotected hominids, this round has a kill/casualty radius of 50m. Minimum arming distance is 70m.

Conductive droplet munition (CDM)

This is a molecular ignition agent that is dispersed in an oxygen-rich environment through an electrical charge. As the electrical charge decays the agent bonds with the oxygen it contacts and ignites, liberating heat and creating a temperature of 5000° C within the area it spreads through. The extreme high velocity with which the agent is released and ignites (at the speed of the electrical charge) creates a devastating blast effect outside the area immediately affected. It has a burn radius of 100m with a kill/casualty blast radius of 300m. Minimum arming distance is 400m.

Beacon/marker

This round emits an EM signal with a colored vapor plume at the impact point, and is designed to be used as a marker to direct fire or other activity. It is reloadable, and has no minimum arming distance.

Frangible incendiary

This round is designed to set fire to relatively easy-to-ignite material within a one hundred meter radius of impact. It is lethal to unshielded hominids, but more of an irritant to beings in heavy armor. The scattering particles have a burn time of fifteen seconds after initial detonation, and are effective in blocking infrared sensors in addition to their main function. Minimum arming distance is 100m.

Matter/Antimatter

The Matter / Antimatter round, because of its destructive power, is employed on special authorization only. It has a vaporizing burst radius of 3/4km and is effective on targets up to light starships; while displaced air and debris from the explosion make the round effective against personnel and buildings, particularly unhardened ones, for a distance up to 4km.

MP-404 Squad Infantry Missile

The SIM is a disposable missile launch tube capable of carrying any one MAPLIML missile. The capability of carrying individual 40mm missiles allows each Infantryman in a rifle fire team to carry at least one missile without getting weighed down. If mission objectives necessitate, each fire team could be issued as many as six missiles between it's two Infantrymen and Fire Team Leader (although it is much more common to issue only one to each Infantryman). The missile type can be selected according to mission.

HPW-184A2 Arbalest Heavy Missile System

The Arbalest HMS is the most powerful weapons system in use by the SFMC Light Infantry. It is designed to enable otherwise lightly armed Marine elements to engage and destroy heavy tanks, space vehicles engaging in strafing attacks, and other very high threat targets in situations where supporting aerospace, armor, or other forces have been unable to prevent the threat from closing in on the Marine unit.

Arbalest differs from most standard Marine weapons in a crucial aspect; the weapon is based on antimatter. Only one other such device is issued to Marine units, and that is the M/A round for use with the MAPLIML weapon. Due to the inherent difficulties with containment safety, Infantry Branch planners do now and will continue to regard these as Special Weapons and to severely limit their deployment.

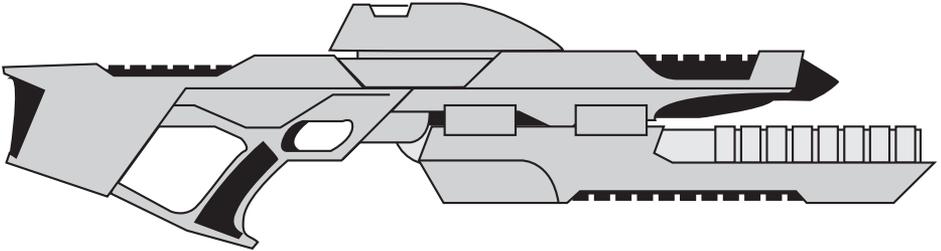
The system consists of three elements, and is designed to be used by a heavy weapons or air defense fire team. The first element of the system is the LRSS-987 EM sensor array. It weighs 10 kilograms. This system is used only with the Arbalest and is capable of detecting targets the size of small missiles out to 300km maximum. It can be linked to larger arrays for increased target acquisition capability. The 987 is powered by a sarium krellide cell with an endurance of 42 hours.

The second element of the system is the launcher itself, which weighs 8.3 kilograms. The Arbalest launcher can be used without the sensor array, but this is unusual. The launcher consists of a launching tube, a firing grip, and a conformal sight with a fire control processor that is designed for use without helmet assists. The sight is linked by cable to the sensor array (which is designed for stationary use) to highlight targets within the launch operator's view as the launch operator stands in the firing position and swivels the weapon on their shoulder to bring it to bear on the target vector. If this is undesirable, the array operator can call out target bearings to the launch operator as he reads them on the goggle-enclosed array sensor

display and the launch operator can attempt to acquire them using infrared and visual scanning.

The third component of the Arbalest system is the missile weapon itself. The missile, designated the Mark 184, is used with the Arbalest launcher as well as with some of the power armor suit units that the SFMC deploys. The warhead has a maximum potential yield of 1.1 kiloton with an average yield of .8 kiloton on an orbital target. Much more yield is retained on ground targets.

The extremely high particle annihilation rate of the warhead will damage shields and armor caught in the blast out of proportion to the raw expressed yield; it is believed that this weapon can destroy any likely air or land vehicle threat, with the exception of some extreme cases such as atmosphere-capable starships or very heavy tanks. The missile has a range of over 300 kilometers.



SPW-201A1 Weaponmount Grenade Launcher

The WGL is attached to the underside of the emitter tube on both the M-116A2 and M-110A1 phasers. They utilize forty millimeter EM accelerated and armed grenades similar in construction to MAPLIML rounds, although they do not have homing capabilities and their range and destructive power are considerably less. The WGL is loaded with single rounds. A drum-fed variant of this weapon was considered for issue but was rejected as being too bulky, especially when used in conjunction with the M-116A2. A PI suit-mounted version is available with a five-round tube style clip.

WGL is intended to be used as a combination direct and indirect fire system, unlike MAPLIML. WGL ammunition, with the exception of HIVAP, is designed to be fired in an arcing trajectory that will enable it to strike targets that might be out of the line of sight or directly shielded. Controls on the WGL allow the operator to select an indirect firing thrust mode per shot or use the default full-power thrust setting for direct firing. The WGL feeds power for its electromagnetic drivers from the power magazine of the phaser it is attached to, and consumes a minuscule amount of energy.

All of the forty millimeter G-12 rounds used in this weapon have a minimum arming distance of sixty meters and a maximum effective range of 800 meters in direct fire. WGL's munitions are not, by doctrine, considered useful at ranges over 1000 meters due to atmospheric variances (the HIVAP can travel farther, but is not considered a viable weapon at any but short ranges). All rounds are impact fused. Ammunition types include grenade-variants of the PCP, CDM, HIVAP, HE, Beacon/marker, Incendiary and Fragmentation warheads found in the MAPLIML missiles. Two unique non-lethal WGL rounds are also available:

Oleoresin Capsicum (OC)

OC crystal powderburst for use on unprotected hominids for purposes such as riot breaking. Constricts breathing and causes temporary blindness and extreme pain. Radius dependent on airflow around target but will cover about five thousand square feet. Two additional formulas that are still classified-- listed as "alphagas" and "iridagel"-- are also issued for resistant life-forms in certain areas. Operator should ensure that no life-forms are physically struck by the round if avoidance of injury is a consideration.

Stunburst

Emission projectile for stunning occupants of rooms or areas not exceeding 500sq ft without damaging equipment and minimizing injury to the occupants. Mainly used for antiterrorist or hostage situations. Round is reloadable upon recovery if it is undamaged.

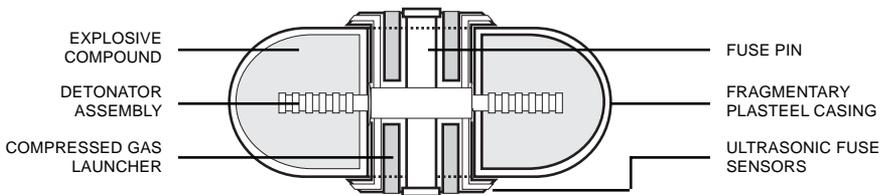
The sighting system for the WGL is attached to the rifle scope, and the WGL cannot be detached for independent operations with existing accessories. For most WGL operations it is necessary to physically cock the rifle at an inclined angle for firing, which in turn rules out the use of the LOS sight used for phaser firing. The WGL sight has a ranging system that utilizes an EM sensor with an adjustable frequency laser backup for use in countermeasure environments. The sight reticle has standard illumination and reticle options with the addition of a rangefinder that operates by assessing a hominid target's head in a variable reticle; most every being that the SFMC anticipates fighting in a land battle at this time is hominid-shaped.

Some analysts felt that the inclusion of a launcher of this type was unnecessary on the M-116 series phaser. As bursting munitions become smaller on the battlefield their effectiveness alongsidephasers lowers dramatically. Past a certain point, it is not worthwhile to use missile weapons on the battlefield as the phaser is much more effective per unit. Therefore, the focus of the WGL program has been to develop munitions that supplement, not duplicate, the mission of infantry phaser instrumentation and bring capabilities that bridge gaps in whatphasers can do well, given the high energy cost of usingphasers at very high power levels.

Mines

The land mine is one of the most useful and versatile devices in the Marine Infantry arsenal. Although decried by some as inhumane following some well-publicized incidents of noncombatants blundering into mine units near roads and cities, the Corps continues to deploy land mines during operations. They are simply too useful to eliminate; however, non-lethal mines are being used extensively whenever their application can be as effective as lethal mine versions.

Nonetheless, mine operations must be conducted with extreme care. Any mine that a Marine deploys is to be noted as to nomenclature, type of charge, detonation settings, position, and any other special information that may be needed to disarm it, such as whether it has been fitted with anti-disturbance systems. Mine fields, defined as two or more mines set in by the same Marine or Marine unit in the same area to work in concert with each other, are to be recorded similarly. Mine deployment is to be reported to the chain of command as soon as possible after it's completion in order to ensure no danger to friendly forces or personnel. The OIC of a Marine field unit is responsible for seeing to it that recorded mine data is preserved and passed up to higher levels as appropriate.



SWS-108A5 Manpack Infantry Mine

The Manpack Infantry Mine (coined the “minimike” by Marines during the Ingroesti Insurgency of the early 2300's) has remained essentially unchanged since it's service introduction seventy years ago. The mine casing is a circular disk five centimeters in diameter by two centimeters high (the illustration above is actual-size!).

The edge of the casing is rounded so that the mine will always fall flat no matter how it is dispensed. The control core (which can be changed according to mission objectives), contains four compressed-gas tubes which launch the mine in the air upon trip but before detonation (an air blast being the most effective). All fusing and launching mechanisms are duplicated

between the top and bottom of the control core so the mine will operate no matter which side it settles on. The fuse pin is pushed into the top of the disk and clicks in place with a magnatomic coupler. To deactivate the mine, remove the pin with a magnatomic decoupler.

Minimikes come in three types. The first is a standard HE casing with an effective blast radius of 10m given a proper airburst. More lethal is the 50m blast radius of the CDM casing. Also available is the nonlethal stun casing which releases a burst of stunning phaser energy from a circular emitter around the circumference of the casing. This is a one-shot unit that can be recharged after the mine is recovered.

When the mine is tripped, an omnidirectional burst transmission is made by the fuse pin in the split second between trip and detonation. This transmission is on coded frequency, and notifies friendly forces of which mine is detonating and where it is. This will alert ground forces to enemy advances, as well as notify security troops to dispatch to the area for suspect pickup in the case of the nonlethal stun mine. All three versions can be detonated by pressure, trip-wire, ultrasonic field, or by commanded detonation using a combat tricorder.

For hand-emplacement by Infantry, this mine is issued in a field portable package that contains six mine bodies and six fuze assemblies. It can also be dispensed from pre-loaded tube dispensers which can be carried, mounted on armor suits, or installed in vehicles. Using the tube dispenser, a Powered Infantry Phalanx trooper can lay 360 minimikes before reloading.

SWS-270A3 Manpack Heavy Mine

The Manpack Heavy Mine is a dedicated anti-vehicle system designed to disable vehicles up to and including tanks and mecha. The 270A3 has a 3kg charge of electrothermally focused explosive in a 1kg casing, and is designed to detonate underneath its target. The Mark 4A fuze assembly is pushed into the top of the mine, where it fits flush with the outer casing.

This mine is issued in a field portable package consisting of one mine body and one fuze assembly. It can also be dispensed from vehicles or powered suits. The mine has a shaped casing which forces it to land in an upright position no matter how it falls to the ground from the dispenser. However, the most effective method for laying this particular mine is to place it by hand, partially burying the mine casing and camouflaging the trip.

The SWS-270A3 can be set automatically for pressure or ultrasonic detonation; under both, the mine will not detonate under pressure or disturbance

levels typical of infantry or very small vehicles. It can also be set for command detonation via combat tricorder.

This mine is disarmed by a fuze pin as well, and can be safely handled by personnel as it is insensitive to detonation; however, care must be taken to ensure that it has not been fitted with anti-disturbance systems by hostile elements. Despite its anti-vehicle mission, the explosive is lethal to unprotected hominids at a range of 200m. This mine should not be deployed less than 100m from a similar unit to avoid fratricidal detonation.

Explosives and Breaching Tools

Marines Infantryman may also carry a variety of light explosives and tools which they most often use for breaching obstacles, doors, windows, etc. to gain forceful entry into structures. Although some of these explosive devices are tailored to specific uses, many are improvised from components carried by the Marine to suit a specific application.

FES-55/FES-56 “Door Poppers”

These small, lightweight charges come pre-assembled in a shaped casing system; one for sliding doors (FES-55), and one for hinged doors (FES-56). The “door poppers”, as they are known to Infantrymen, will easily force open or unhinge most structure doors up to the equivalent of starship cargo bay doors (some doors of this size/strength may require two charges).

The charge is armed by insertion of the detonator plug and is command detonated by combat tricorder, or by phaser burst. A second setting on the detonator will allow timed detonation with a preset timer of 30 seconds. Door poppers are small enough to be transported in a pocket of the standard Infantry load bearing vest.

Personal Weapons

Many Marine infantry troops carry a personal “backup” weapon of some sort, despite the fact that each Marine infantryman is issued a hand phaser in addition to the heavier rifle or other weapon they may carry. Most often these are low-tech weapons like blades or chemically fired projectile weapons. One reason cited by many troops interviewed is that they fear a dampening field will render their issued weapons inert. Others include the need for sentry removal and utility purposes (daggers and knives). Doctrine encourages Marines to carry what they feel they need to do their job, within the limits of unit safety and practicality.

Foreign Weapons

During Basic Infantry School, all Marines are familiarized with the weapons of the Federations Allies, as well as with any Threat weapons they may come across in the field. The need for this training is obvious: should an unarmed Marine come across a foreign weapon, the ability to use it becomes paramount. Light weapons specialists are given even further training in the use of foreign light weapons, especially various Threat weapons. Heavy weapons specialists receive similar training for correspondingly larger foreign weapons.

Powered Infantry Weapons

Weapons carried by Powered infantry are usually quite similar to those carried by the Light Infantry. The primary differences between the two are that Powered Infantry can usually carry more or larger weapons per man; and Powered Infantry weapons are usually suit-mounted as opposed to carried. And although hand dexterity in a powered armor suit is actually quite good, gloved suit hands are usually larger than the average Light Infantryman's hands, so many carried weapons have to be specially modified for use by Powered Infantry personnel.

Mounted Weapons Control

SM-1 Multi-Function Grip (MFG)

Triggering of all mounted weapons is done with the SM-1 multifunction grip (MFG). An MFG is mounted on the back of each hand and is rotated around the inside of the hand and into the palm with a simple flick of the wrist. It is rotated out with a flick in the opposite direction, returning to its mounting and leaving the hand free for other uses.

Thumb controls on the MFG allow the user to toggle through several options including mounted weapon selection, ammunition type (if applicable), targeting method, etc. There are fingertip buttons on the MFG for weapons discharge/release triggering. Each button is permanently assigned to a mounted weapon (or weapons station in the case of interchangeable weapons). For instance, the forearm-mounted phaser is always fired with the index finger of the hand on which the unit is mounted.

Powered Infantry recruits often feel awkward with the MFG at first, but once they adapt to this unique method of weapons control, it becomes second-nature. In fact, throughout Powered Infantry School, recruits wear MFG simulators on their forearms whenever they are not inside a suit.

SM-9A5 "Bullseye" TVD

Sighting with mounted weapons is much different from carried rifles and launchers. Projected onto the faceplate of a powered armor suit is a through-visor display (TVD) very similar to those used by aerospace pilots. The current version of this display is the SM-9A5 TVD, although new software upgrades are due soon that will up-rate the TVD to the SM-9A6. This electronic display gives the suit operator all the targeting information he requires to put whichever weapon he selects on-target.

Phasers

SM-134A1 Suit-Mounted Combat Phaser

The mounted weapons on any particular suit vary by the type of suit and its mission. However, most suits currently in use have a combat phaser mounted in the forearm of the operator's dominant hand. This unit is the SM-134A1 which, internally, is a twin to its Light-Infantry-carried brother, the M-116A2. It has the same 16 settings, although controls are on a panel on top of the forearm unit. The emitter runs along the top of the forearm and does have small luminescent sights for instances when the TVD is inoperable or being used for some other purpose.

The SM-134A1 is a snap-in/snap-out unit with magnatonic couplers on the internal mounts. Each mount also houses a datalink contact with the suit. The unit can be decoupled by the operator using the thumb switch on the MFG, but cannot be operated in this condition as the rifle draws its power from the suit.

SM-908A2 Suit-Mounted Compression Phaser

This phaser emitter is the Powered Infantry equivalent to the Light Infantry's M-970 Compression Phaser Rifle. This is basically a Powered Infantry "scrapper" to establish a base of fire for a fire team. It is usually mounted on the forearm in place of the SM-134A1. The powered suit hardly notices the difference in weight, and the operator doesn't notice at all—until they see their power usage figures. The larger drain in suit power on the standard Phalanx suit is the primary reason this weapon is not simply issued to everyone. It is typically for the fire team's light weapons specialist. The SM-908 is used extensively on the Magnum heavy weapons suit.

SM-600 "Viper" Suit-Mounted Heavy Phaser

On some Magnum suits, you will find a large cylinder running parallel to the spine down one side of the back. Coming from the top and reaching over one shoulder is a steerable device resembling a snake's head. This is the SM-600 Suit-Mounted Heavy Phaser known as the "viper". The viper is nearly the equivalent of a shuttle-mounted phaser, with a steerable emitter controlled by the MFG and TVD. The suit operator simply looks at a target, depressed the appropriate trigger on the MFG, and the target goes away.

This is an incredibly powerful unit, but it drains a suit's resources (even the hearty Magnum). It consumes an enormous amount of energy in its own

right. But it also tasks the servos of the suit to support its incredible weight, further draining the suit's power and increasing component wear. It is, however, a formidable presence on the battlefield.

Projectile Weapons

There are no Powered Infantry sniper weapons, but there are two types of projectile weapons available for use in suits. In addition, a version of the Light Infantry's SAW, specially modified to be gripped and carried by armored troops is also available.

SP-628A2 Suit-Mounted 5mm EMPW

This light Electromagnetic Projectile Weapon (EMPW) is mounted on the forearm opposite the phaser unit on most Phalanx suits. Ammunition is stored in a linkless drum system which wraps completely around the arm several times. Ammunition and firing principle are identical to the SAW and P-688; targeting and triggering are similar to mounted phasers.

Pathfinder scouting suits and C3 command suits usually forego the projectile weapon altogether, having advanced sensors mounted in the non-dominant forearm. However, if mission parameters dictate projectile weapons be used, the SP-628A2 can be fitted instead of the SM-134 on the dominant arm. If the heavy Magnum Suit carries any projectile weapon, it is usually the larger SP-777.

SP-777 Suit-Mounted 15mm EMPW

The SP-777 is a no-nonsense projectile weapon capable of inflicting substantial damage on equipment-sized targets. It is mounted in the non-dominant forearm of the Magnum suit, and can be fitted to the Phalanx suit at the cost of some sensor capability. It is not possible to mount this unit on a C3 or Pathfinder Suit. Also, the limits the unit places on maneuverability (see below) mean that it is not a weapon for every Marine on every mission.

Ammunition for the SP-777 is carried in a magazine on the back of the suit and fed to the barrel by a linkless conduit system which is remarkably resistant to jams and stoppages. The large calibre ammunition requires a long barrel, though, and the unit does extend past the elbow on most hominids. This leaves the flexible conduit attached to the breech of the weapon about 20cm to the rear of the elbow. This limits the range of motion of the non-dominant arm, and care must be used not to get the conduit caught on any obstacles.

SM-344 Suit-Mounted Light Infantry Missile Launcher

Ask any Powered Infantryman what the difference is between him and his Light Infantry counterpart. You will probably see his eyes glaze over with a distant look, a slow, subtle smile will spread across his face, and he will softly say, “missiles.”

Every suit in the SFMC inventory is capable of carrying a missile launcher of some sort, the most common being the SM-344 — identical to the MAPLIML Light Infantry unit save the grip assembly. This is mounted on the shoulder of the Phalanx and Magnum suits (two can be carried, one on each shoulder, if no other shoulder-mounted weapons are carried). The rotating missile drum can be cycled through like its Mapper counterpart using the thumb switch of the MPG. The TVD shows missile type selected along with targeting information.

A shoulder-mounted launch cannister has limited side-to-side rotation, but the suit itself is easily rotated. Being on the shoulder, though, they do have quite a bit of elevation range which is good because it is difficult to bend backwards in a powered armor suit to angle your shoulders back. In fact, the units can elevate to 90°, lying flat against the back to engage aerial threats—although care must be taken to avoid missile propulsion back-blast (a suit will protect you, but the heat and energy can overload sensors).

Using the same launch assembly as the Mapper makes for much easier logistics and maintenance in the field. It also means the same ammunition can be used for both. This is the reasoning behind most of the common weaponry between the Light and Powered fields.

SM-371A2 Suit-Mounted SIM Launcher

The SM-371A2 is a reusable 40mm launch tube which fires the Mapper and SIM ammunition from fixed mounts on the shoulders of the C3 and Pathfinder suits. Up to two per shoulder can be mounted. These single-shot units can be reloaded in the field the same as the larger SM-344, but chances are if a scout unit has to use a SIM, they are in trouble too big to worry about reloading.

SM-800 Suit-Mounted Arbalest

As the name implies, this is a shoulder-mounted version of the same Arbalest missile carried by the Light Infantry. It is fitted in a steerable launcher with the same range of motion as the SM-344. It is usually only fitted to Magnum suits.

Powered Armor Suits

A powered armor suit is without question the most complex piece of machinery in the Infantry's inventory. It is beyond the scope of this familiarization guide to explain the detailed workings of these suits; however, some general principles and suit-types can be covered.

Suit Control Principles: Negative Feedback

Except for the obvious difference in scale, PI suits resemble some types of Mecha vehicles. This leads the general public to assume controls and operation of each are the same, but nothing can be further from the truth. Mecha vehicles are *vehicles*: the pilot sits at controls that he operates both with his hands, and through his neural interface helmet. A PI suit is fitted to its wearer and operates as an extension of himself. It adds to his strength, his speed, and his survivability, but it functions *with* him, not *for* him.

It does this through a complex system of sensors which press themselves against the wearer when he climbs into and activates the suit. These then sense the wearer's body movements on a continual basis. For example, when the wearer lifts his forearm, the sensors feel the increased pressure between the top of the wearer's arm and the inside of the suit's upper forearm. As long as the wearer continues to push, the suit will raise it's forearm in an effort to relieve the pressure on the sensors. When the wearer stops their arm, the pressure on the sensors also stops, so the suit's arm stops. This is negative feedback.

What negative feedback means to the wearer is that the suit moves with them naturally and instinctively from the very first instant they climb into it. They do not have to learn complex controls to make the suit move, they require only experience in learning the suit's capabilities. From the first time a recruit climbs into the suit, they can walk, run, jump, pick items up, etc. Of course, not knowing how much the suit amplifies their movements, they may find themselves atop a building the first time they try to jump. That's where experience comes in.

Suit Capabilities

Powered suits magnify the strength of the wearer by using servomotors and heavy load bearing structural components to increase the power of the wearer's natural arms and legs. For instance, in a powered suit, the average human can lift 10 to 20 times the amount of weight they could normally lift on a class M planet (the amount varies with suit type). Accordingly, the amount of weight a trooper can carry is increased as well. While this is

quite impressive when the items in question are things like people and furniture, the statistic is somewhat less impressive when one notes that this means one Powered Infantryman can only just pick up another.

In the same manner arm strength is amplified, so too is leg strength. Even in the heavy Magnum suit, a PI can run at about 30mph. The lighter Pathfinder suit—built for speed—can manage over 50mph. This means that PI troops very rarely require vehicles for deployment as they can run about as fast as an APC anyway.

Leg strength is amplified in another way as well. By using jump-jet assemblies in the legs (similar to common jet-boots used by recreational mountain climbers), a powered suit can jump much higher than an average hominid. On a class M world a Pathfinder scouting suit can average a vertical leap of 15m with little effort. There is enough fuel in the Pathfinder leg assemblies for a hundred such jumps. The heavier Magnum suit has neither the height-range nor endurance of the Pathfinder, but even the much heavier assault suit can crank out a 10m vertical leap when need arises.

Powered armor also increases a PI's survivability by protecting him with both physical and energy armor. The suit's skin is duranium composite in most areas, very resistant to impact and damage. Vital areas also have a thin layer of cast rhodium added (helmet, chest, back). If energy usage is not a problem, the suit can also use a low-level force-field that will protect it from most light weapons for a good amount of time.

A powered suit also increases a PI's endurance by providing him with a comfortable environment inside the suit, and by giving him water and nutrients on demand (through a food/water tube inside the helmet). A PI can even sleep inside his suit if necessary (the suit can be set to remain stationary while the trooper relaxes). The real limit to a PI's endurance, then is his suit, which runs on charge packs similar to a tactical aerospace fighter. Charge pack endurance varies widely with suit load, operating environment, suit type, etc.

Capability Standards

In the following listings of suit types, each suits' average capabilities are listed. Although it should be noted that since weapons mix, field equipment, and fighting environment can vary widely, these figures are really only valid for comparing one suit type to the others under the same circumstances. The actual maximums of the suit vary too widely to cover ever permutation in this brief guide.

For purposes of these comparisons, the following standards are established:

- The suit is operating in a Class M environment (as defined by Starfleet Regulatory Agency (SFRA) standard 102).
- The suit environment is being maintained to SFRA standard 102.19 for Class M compatible oxygen-breathing personnel.
- The suit is being worn by an average hominid (as defined by SFRA-standard 103).
- The suit is operating with the average ordnance load-out listed in the suit description, and under battlefield conditions.



PAS-18C Phalanx Powered Infantry Rifleman Suit

The Phalanx is the standard-issue PI suit in the SFMC. All PI troopers are trained first in this suit, even if their eventual MOS requires a different suit. Any PI can climb into a Phalanx and fight it with ruthless efficiency. Weapons loading is widely variable, as is sensor fitting.

Fire team and squad leaders typically have an upgraded battlefield surveillance system and better comm (including a dedicated fire support channel).

Standard Powered Infantry Rifleman ordnance load-out:

| | |
|--|--|
| Top forearm station: (dominant hand) | SM-134A1 combat phaser |
| Outboard forearm station: (dominant hand) | SM-134 secondary emitter |
| Inboard forearm station: (dominant hand) | TDRS-44 target designating system |
| Top forearm station (opposite hand): | combat tricorder, suit-mounted |
| Outboard forearm station: (opposite hand) | SP-628A2 5mm EM Projectile Weapon w /300 rounds |
| Inboard forearm station: (opposite hand) | SP-682 ammunition magazine |
| Outboard shoulder station (left): | SQD-12 flare / chaff dispenser |

Top shoulder station (left): SM-344 LI missile launcher w/6 rounds mixed.

Outboard shoulder station (right): SQD-14 flare/chaff dispenser

Top shoulder station (right): EQW-14 Battlefield Surveillance Sys

Back station (left): SM-344 reloader w/6 rounds mixed

Back station (right): field pack

Outboard thigh station (left): field medical pack

Outboard thigh station (right): field suit-casualty pack

Comparative Suit Capabilities: PAS-18

Maximum Speed: 65kph for one hour

Maximum Vertical Leap: 14.5m

Average Endurance: 17 hours

Armor Rating/Sensor Rating: 5/4



PAS-71 Pathfinder Powered Infantry Scout Suit

The Pathfinder is built for speed; it is lightly armored and has few weapons (it doesn't even have inboard forearm stations). Instead, it is packed with sensors, targeting, navigational and fire control systems, and other forward-area recon systems. However, if need arises for scouts to fight, a 5mm EMPW and four SIMs can be swapped with the scouting gear listed below.

Standard Powered Infantry Scout ordnance load-out:

Top forearm station: SM-134A1 combat phaser
(dominant hand)

Outboard forearm station: TDRS-44 target designation system
(dominant hand)

Top forearm station (opposite hand): force recon tricorder, suit-mounted

Outboard forearm station: TDRS-29 advanced target designation/illumination system

Outboard shoulder station (left): SQD-12 flare/chaff dispenser

| | |
|------------------------------------|--|
| Top shoulder station (left): | EQW-801 Air Defense Sensor Suite |
| Outboard shoulder station (right): | EQW-18 forward-deployable remote sensor beacon dispenser |
| Top shoulder station (right): | EQW-28 Battlefield Surveillance Sys |
| Back station (left): | reserve charge pack |
| Back station (right): | field pack |
| Outboard thigh station (left): | field medical pack |
| Outboard thigh station (right): | field suit-casualty pack |

Comparative Suit Capabilities: PAS-71

| | |
|-----------------------------|------------------------------|
| Maximum Speed: | 87kph for three hours |
| Maximum Vertical Leap: | 23m |
| Average Endurance: | 36 hours (with reserve pack) |
| Armor Rating/Sensor rating: | 2/8 |



PAS-52G Magnum Powered Heavy Weapons Suit

The Magnum can carry more and larger weapons than the Phalanx, but pays the price with much-reduced speed and maneuverability. Magnums have the widest variety of ordnance load-out since they can carry any suit-mounted weapon. Even in the same fire team, no two Magnums may be loaded the same.

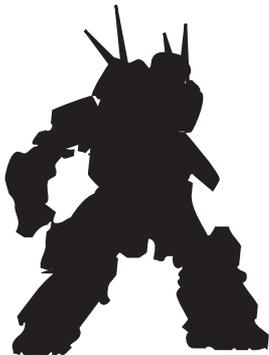
Standard PI Heavy Weapons ordnance load-out:

| | |
|--------------------------------------|--|
| Top forearm station: | SM-908A2 compression phaser (dominant hand) |
| Outboard forearm station: | SM-134A1 combat phaser (dominant hand) |
| Inboard forearm station: | SPW-201A1 weaponmount grenade (dominant hand) launcher, w/5 round tube magazine |
| Top forearm station (opposite hand): | SP-777 control module |
| Outboard forearm station: | SP-777 15mm EMPW w/2000 rounds |

| | |
|---|---|
| Inboard forearm station: (opposite hand) | SPW-201A1 weaponmount grenade launcher, w/5 round tube magazine |
| Outboard shoulder station: (left, bottom) | SQD-12 flare/chaff dispenser |
| Outboard shoulder station (left, top): | SM-344B LI missile launcher w/6 rounds mixed. |
| Top shoulder station (left): | SM-344B LI missile launcher w/6 rounds mixed. |
| Outboard shoulder station: (right, bottom) | SQD-12 flare/chaff dispenser |
| Outboard shoulder station (right, top): | SM-344B LI missile launcher w/6 rounds mixed. |
| Top shoulder station (right): | EQW-14 Battlefield Surveillance Sys |
| Back station (dominant side): | field pack |
| Back station (opposite side): | SP-777 ammunition magazine |
| Outboard thigh station (left): | field medical pack |
| Outboard thigh station (right): | field suit-casualty pack |

Comparative Suit Capabilities: PAS-52

| | |
|-----------------------------|--------------------|
| Maximum Speed: | 47kph for one hour |
| Maximum Vertical Leap: | 10m |
| Average Endurance: | 15 hours |
| Armor Rating/Sensor Rating: | 7/3 |



PAS-4A C3 Powered Infantry Leader Suit

The C3 is the Command, Control and Communications suit worn by all PI officers and senior NCOs. While the suit heavily resembles the Phalanx (they are made by the same manufacturer), the weapons/sensor load-out seems more reminiscent of the Pathfinder suit. It is as well armored as a Phalanx, but uses a reserve charge pack and larger leg jump jets to achieve speeds comparable to a Pathfinder. This gives the commander the ability to maneu-

ver amongst his deployed units more effectively. The C3 also has expanded comm capabilities which typically include a private channel for unit commanders, and a direct line to tactical HQ.

Standard Powered Infantry Leader ordnance load-out:

| | |
|--|--|
| Top forearm station: (dominant hand) | SM-134A1 combat phaser |
| Outboard forearm station: (dominant hand) | SM-134 secondary emitter |
| Inboard forearm station: (dominant hand) | TDRS-44 target designation system |
| Top forearm station (opposite hand): | force recon tricorder, suit-mounted |
| Outboard forearm station: (opposite hand) | SP-628A2 5mm EM Projectile Weapon w /300 rounds |
| Inboard forearm station: (opposite hand) | SP-682 ammunition magazine |
| Outboard shoulder station (left): | SQD-12 flare/ chaff dispenser |
| Top shoulder station (left): | EQW-801 Air Defense Sensor Suite |
| Outboard shoulder station (right): | SQD-12 flare/ chaff dispenser |
| Top shoulder station (right): | EQW-28 Battlefield Surveillance Sys |
| Back station (left): | reserve charge pack |
| Back station (right): | field pack |
| Outboard thigh station (left): | field medical pack |
| Outboard thigh station (right): | field suit-casualty pack |

Comparative Suit Capabilities: PAS-4

| | |
|-----------------------------|------------------------------|
| Maximum Speed: | 48mph for one hour |
| Maximum Vertical Leap: | 20m |
| Average Endurance: | 17 hours (with reserve pack) |
| Armor Rating/Sensor Rating: | 6/8 |

Personal Protective Gear

After weapons, the most critical gear for an Infantryman to familiarize himself with is the collection of worn garments and equipment collectively known as Personal Protective Gear. This ranges from the basic cloth BDU to the substantial and complex MIPPA helmet.



PPG-10 Battle Dress Uniform

This two-piece cloth uniform is the basic combat utility uniform for operation in normal Class-M environments. It is comfortable and durable nylux fabric which is normally black, but can be replicated in camouflage patterns if needed.

The BDU is very archaic-looking by 24th-century fashion standards, but it has two distinctly practical features. First and foremost it has pockets—lots of them. Infantrymen carry a lot of equipment into the field, and even with load bearing vests and packs, there never seems to be enough places to put it all. Second, it has buttons. These may be old fashioned closures, but consider: they can be easily replaced/ repaired in the field without technology, and can be opened and closed silently.

PPG-50 Thermal Hazardous Environment Overgarment (THEOG)

Phaser beams and projectiles are not the only hazards faced by a Marine Infantryman. Sometimes the atmosphere of a planet (or lack thereof) can be just as deadly. Corrosive atmospheres, toxic chemicals, lethally cold and hot temperatures, and the possibility of encountering dangerous biological matter make the THEOG (pronounced “thug”) an indispensable part of the Marine's equipment load on many planets. Each Marine is issued one THEOG in addition to their standard Battle Dress Uniform (BDU) allotment. It is usually worn only when environmental extremes are anticipated.

The THEOG is a lightweight full-body suit resembling the polystyrene flight suit worn by aerospace personnel. But unlike the polystyrene suit which becomes airtight only in the absence of atmosphere, the dermalock fabric of the THEOG maintains a uniformly airtight condition with a much higher endurance. When worn with gloves, boots, and the standard-issue helmet,

the THEOG completely seals the Marine away from the surrounding environment.

The THEOG consists of several layers (from outermost to innermost):

- Plasticized textile polytetrafluorethylene to provide resistance to most chemical and biological contaminants.
- Dermalock fabric to provide airtight integrity and uniform suit pressure under external pressure variances from zero to four Class M atmospheres.
- Viscous polymer-based sealant to auto-seal minor suit breaches.
- Thermal stabilizing filament layer to control internal suit temperature under outer temperature extremes of -100°C to +500°C.

Although it is not rated as armor, the THEOG is also capable of preventing penetration by low-velocity shrapnel and thermal effects below weapons-grade. A pressure backup in the air circulator will maintain suit pressure in the event of a minor puncture and permit the operator to carry on normal operations. A major rupture, such as one that could be caused by a large piece of shrapnel or a phaser hit, will incapacitate the sealant system; but, the THEOG has a rupture-sensitive transponder that can signal a transporter or medical team to withdraw the operator. Medical injection systems are carried with every Marine unit that can inject medications repeatedly through the garment safely.

PPG-100 Extreme Conditions Hazardous Environment Garment (EXCHEG)

The PPG-100 EXCHEG is a limited-issue garment that is designed for specialty work that falls somewhere between the environmental extremes between normal operations and those requiring power armor suits. It is basically a heavier version of the THEOG suit. It has three extra layers of sealant membrane, enhanced pressure resistance and puncture resistance, and is roughly 12% bulkier and is 3kg heavier.

PPM-200B Circulating Breather

It does little good on the modern battlefield to armor soldiers against shrapnel or phasers but leave them vulnerable to hazardous fumes or biomatter. To ensure that Marines will not become disabled or inhibited in their operations by chemical agents or noxious atmospheric components,

the PPM-200B is worn as a piece of standard equipment with the THEOG and MIPPA uniform components during many Infantry operations.

The 200B is composed of an armored bottle (charged with a supply of oxygen-heavy breathing air at the start of operations), a re-breather mask, and a tube that connects the two and runs under the load-carrying equipment. The mask scrubs the exhaled carbon dioxide from the circulator and recycles oxygen back into the system.

The 200B can be deactivated to admit outside atmosphere by means of a blower if the operator desires; however, during normal combat operations against all but the most primitive opponents this is not encouraged. Although the circulator is a bit bulkier than a filter mask, the advantages of recirculation versus filtering make the trade-off well worth it.

The mask portion of the unit is interchangeable with the face protector of the MIPPA helmet so that when the re-breather is needed, the Marine simply switches the mask for the face protector, maintaining his face protection and easing the fit and application for the wearer.

FE-7803

Marine Infantry Personal Protective Armor (MIPPA)

The MIPPA issued to Marine infantry is designed to provide limited protection from direct fire and fragmentary projectiles. Although no individual armor system can protect a Marine from all potential threat weapons, the MIPPA system strikes a good balance between protection and maneuverability.

MIPPA consists of several components. First is a helmet that is designed to permit maximum head movement and visibility while maintaining a reasonable amount of head protection. The helmet has built-in ear filters that amplify low sounds while dampening loud noises. It also has a transparent aluminum visor with filters that operate in three modes: (1) visible light wavelengths with optional UV blockage, darkening and polarization, (2) light gathering, and (3) infrared. Light gathering maximizes available visible light, while infrared detects heat and can function in the total absence of visible light. Both are power-assisted modes that operate off the helmet battery.

The second component of MIPPA is a full-torso vest assembly held in slight standoff from the torso via underlying flexible platelets to avoid inhibiting breathing. This has a detachable lower-body protector to cover the groin and buttocks, but most Marines find this piece inhibits movement too much

and forgo wearing it.

Next are armored gloves with a gauntlet that covers most of the forearm. These self-seal to the sleeve of the THEOG and EXCHEG. The forearm unit has a magnatonic strip for attaching personal weapons, the combat tri-corder, or other small field equipment. These, along with the last component—armored boots—are often worn even without the vest unit; and in fact must be worn with the THEOG or EXCHEG to provide a completely airtight environment.

The armor material used by the MIPPA system is a molecularly aligned composite solid that utilizes kinetic dampening material and crystalline terranium to resist both energy and projectile weaponry. Both the vest and helmet are capable of withstanding kinetic impacts of 1000 m/sec by projectiles of up to 200 grains weight; however, the concussive shock of impacts this severe will almost always severely injure or kill a Marine despite their inability to penetrate the armor.

For projectiles that do disrupt the vest, the outer shell is designed to give rather than shatter, trapping the projectile in the vest backing, which is a lighter form of anti-kinetic material. It also provides a standoff against residual energy, either charged particle or electrical, that might seep through the armor shell.

Against energy weapons, the armor is capable of resisting an energy discharge equivalent setting five on a Federation Type II phaser for a duration of one second repeatedly without loss of cohesion. Given the weaponry that Federation forces have found in the inventories of potential aggressors, it is believed that this armor will successfully resist most standard small arm emissions.

Field Equipment

Both Powered and Light Infantry forces require a good deal of field equipment to sustain them and to support their operations; although, Light Infantry obviously require much more of this type of gear as much of what a PI needs is built in to his suit..

A note on camouflage

There are three schools of thought on camouflage: a) don't bother, the enemy has advanced sensors you won't fool anyway; b) just try to break up outlines and shapes so they won't be able to tell exactly what's out there; c) try to blend in as best you can...it couldn't hurt. Current SFMC Infantry doctrine supports "c".

Most pieces of equipment (including most weapons and PI suits) issued by the SFMC are coated with a substance known as "polychromatic paint." This coating is capable of changing colors and patterns according to commands issued by the paint controller. The paint controller is also connected to sensors which scan the surrounding terrain for the appropriate colors and patterns that will make the equipment blend in most efficiently.

Soft material garments not suitable for polychromatic paint can be optimized, by use of replication devices, with various camouflage patterns as prescribed by unit commanders. Adhesive tapes based on similar technology are available to cover equipment not polychromatic painted.

Further, all Marine infantry equipment is issued with finish designed to minimize radiation reflection. These measures are effective against visual identification from most members of known species, but are relatively limited in their effectiveness against any sensors or enhanced organic sensory capabilities (i.e. - a sense of smell). The aforementioned tapes and overgarments are also designed to break up an infrared signature to minimize the profile that can be recognized by infrared sensors.

EWD-189J "Eloflage" Personal Electronic Interdiction System

Camouflage clothing, paints, and adhesives as well as field craft have been the traditional method of avoiding detection throughout the history of infantry warfare. However, the threat from enemy sensors, which have little trouble seeing through these simple measures, cannot be ignored. To make the Marine less visible to these sensors, the SFMC issues each infantry

soldier a personal dampening system. It consists of a slip-over, lightweight, soft filament suit worn as an undergarment (the suit must be worn underneath other articles so it does not tangle in surrounding vegetation or other matter). The standard-issue helmet also has an integral eloflage mesh between the helmet cover and helmet.

Eloflage fibers are coated with elements that disrupt sensors (although the exact ingredients are classified, it is known that kelvanite and fistrium are both capable of this). The 189J uses several other countermeasures to thwart sensors, including dampening the thermal signature of a Marine, and scanning incoming sensor pulses and retransmitting them unchanged.

As handy as eloflage turns out to be, it does lead to tactical problems on the battlefield. As one LI platoon leader lamented:

"What it amounts to is everyone goes back to visual aiming on most stuff, because they don't trust their rangefinders or tracking systems to see through our 'flage, and of course most infantry types don't want Robbie the Robot aiming their weapon for them anyway. At a certain point in the battle, everyone gives up trying to unscrew the sensors and it just goes stone age: everyone looks for the other guy and throws something at him."

EWD-202B "Holoflage" Squad Holographic Generator

If visual scanning is the primary threat, the EWD-202B is the absolute ultimate in camouflage. A portable holographic generator, it is capable of projecting a holographic image of surrounding terrain over an entire squad of LI troops (or about three Phalanx suits if they stand close together).

Of course, the 202's energy signal as it generates the field is obvious to passive energy sensitive devices. However, if the battlefield is already cluttered with energy signatures, it can still be useful. The energy output,



The team on the left is using traditional camouflage, the team on the right is using "holoflage". Very effective against visual scanning, isn't it?!

and subsequently the hologram size, can be turned down to a very minimal signature if the hologram needs only to cover one or two LI troops close together (say a scout/sniper team).

The unit itself, though, is large and difficult for one man to carry if he must carry other field equipment as well. For this reason it is usually disassembled into two parts (generator and emitter) and carried by two men in a squad, then reassembled when ready to use. The assembled unit can be fitted on one back station of any powered armor suit.

CTS-8907 Combat Tricorder System

The combat tricorder is the "core" calculation, sensor, and analysis device of most Federation military personnel in addition to the SFMC infantry. The 8907 incorporates the full 235 sensor assemblies and features found on the standard Starfleet TR-595H(P) tricorder with the some additions, some of which are readily apparent upon examination such as the CEMS outlet for direct-feed of data to a MIPPA helmet. Other features include "silent" mode, for use in a tactical environment. A large database of military information is incorporated into the onboard memory, with emphasis on subjects that would be most relevant to infantry warfare.

The 8907 has a detachable sensor nozzle assembly that is designed to be mounted on the MIPPA helmet to allow the tricorder to maintain much of it's effectiveness while leaving the operator's hands free. The CEMS can then transmit the tricorder readings to the helmet goggles. This particular arrangement is favored by many Marine combat veterans.

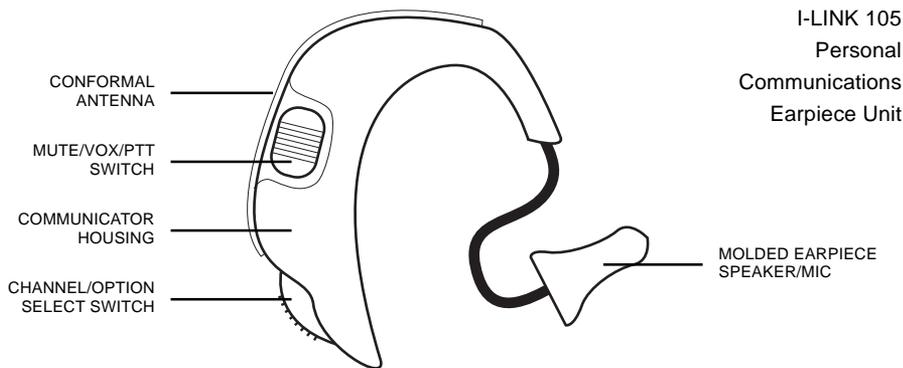
CTS-8911 Force Recon Tricorder System

An even "beefier" version of the 8907 is the 8911 Force Recon Tricorder which has a greater range, broader sensor suite, and improved silent operation mode. 8911s are carried by recon and scout/sniper teams, as well as fitted into Pathfinder PI suits.

I-LINK 105 Communications Equipment

While in the field, the individual Marine foregoes the standard uniform combadge for the I-LINK 105 personal communications system. It is normally worn inside the MIPPA helmet, but can be worn without any other equipment if desired.

The I-LINK consists of an earpiece which contains an earphone speaker/microphone which is inserted into the outer ear canal; and a transceiver



I-LINK 105
Personal
Communications
Earpiece Unit

assembly which wraps over the top of the ear, with the bulk of the unit resting behind the ear against the head.

The I-LINK has a transponder inside it that duplicates the function of the combadge transponder worn by Starfleet and Marine personnel during normal operations. A pressure switch permits an open channel by pressing and holding for one second. Another pressure switch will block the set's transmitter, which is important to prevent the exertions, frustrations, and murmurs of the Marine wearing the device from clogging the traffic. Other channel options are cycled through by changing one or more times and then holding for a second. A computer voice names the channel inside the earpiece and the channel is also displayed on the inside of the MIPPA visor for the Marine for one second after selection. The use of the earpiece mic enables transmission to be done with a very low voice tone.

The I-LINK has a rated range of 800 kilometers in a Class M magnetosphere. The actual range of communications will vary depending on specific local conditions. For surface to ship operations, the I-LINK is dependent upon the signal boosters and enhancers of the host vessel. With no computer control over the transmissions, it is not possible for the I-LINK to contact one or more specific receivers at the exclusion of others-- it operates on a straight channel system. The unit automatically adjusts signals it receives to set parameters as it is able.

PI troopers use the same unit, however, the I-LINK inside a suit simply acts as a relay to the suit's communications gear.

IPS-105/IPS-110 Mobile Infantry Shielding Systems.

Infantry operate on a battlefield where every combatant may be carrying an area effect weapon capable of negating a zone the size of a building. They are also subject to constant attack by air or even aerospace vehicles up to

and including spacecraft. It is not possible, with current technology, for infantry to carry deflector capabilities that can shrug off an attack by a capital ship's weapons, or even those of a heavy tank or fighter. However, it is possible-- and necessary-- for infantry to have shielding that enables them to defeat the firepower of other infantry or moderately armed combatant vehicles. The alternative is to so spread infantry out on the battlefield that they become tactically useless as a combined force.

Infantry formations in the SFMC make use of two shielding systems that are issued at the team or squad and platoon level typically. The IPS-105 MISS array is a backpack-sized instrument that projects a force field in either a "bubble" or "screen" configuration. The "bubble" is useful against indirect fire and area effect weapons, whilst the "screen" is most often used during direct-fire situations. The screen has a frontage of seventy meters by forty-five, maximum, while the bubble will cover an area about fifty meters in diameter. The deflector is most effective when the area covered is reduced. It can be used while moving, if set to allow low-velocity matter through; and in screen use the operator can project the field up to fifty meters. The exact angles, coverages, and power levels that the array operates at are at the discretion of the operator, and a skillful operator can make the MISS array a formidable advantage for his or her unit.

The IPS-110 array is larger, and is intended to be carried by three operators in dismantled sections. It has an area coverage of 200 meters in bubble with a frontage of one hundred and forty meters by eighty in screen, and has roughly five times the strength of an IPS-105. It can be projected one hundred meters from the unit.

FDS-100 Auxiliary Map/Directional System

The disadvantage of relying upon computer tracking and sensors, or overhead satellites, for guidance on the battlefield is that same sensors can be fooled or destroyed, or atmospheric or other forces can block the satellite signals. Marine infantry units or individual Marines must always have the ability to navigate on a surface without the help of outside agencies. For this purpose, one FDS-100 system is issued per individual.

The FDS-100 is preset prior to the mission according to the magnet fields of the operational area, with map data entered into the unit for overlay. Using a compass and a "bounce" setting to account for pace count, the unit will track an individual's progress over any planetary surface where they maintain a standard pace and the influence of the planet's magnetic poles are also constant.

The unit also has built-in inertial navigation, which measures distance and course travelled from a predetermined starting point to determine current position. However, this feature is only useful when starting point position and angular positioning data on the subject planet are available.

Miscellaneous Field Equipment

Marines make use of many other implements in the field other than the ones in their basic issue, and experience has shown that it is often best to let units equip themselves on some matters as opposed to trying to anticipate their every need. Nonetheless, there are many small items the Corps does issue that are not covered in this manual in detail. Miniature lights, ponchos, canteens, entrenching tools (with battery vibroblade capabilities), transponders, rappel gear, personal first aid kits, multipurpose adhesives, and many, many other "tiny" items are included in this category. Many Marine infantrymen choose some commercially available items for inclusion in their equipment, especially knives.

Ration packs are one item that Marine procurement officers are especially proud of. Although it is hard to anticipate the dietary wants of Marines from many different cultures and planets, Marines report that rations are generally good and that some of the reported favorites are unique to the SFMC ration system, such as the field-named "Veal THEOG". A typical ration pack will sustain a Marine in combat for twenty-four to thirty-six hours at full energy. It consists of a main course, two side dishes, and a variety of beverage powders, candies, stimulants, and the often-reviled but never scorned "stop-up" tablets that are designed to minimize bowel movements for troops wearing thick protective garments in hazardous environments for long periods of time.

And yes, there is also toilet paper in them.

Field Observation Devices

The ability to see an enemy and assess his strength before the enemy performs in kind is one of the most important capabilities any infantry unit can have. Ideally, a thorough reconnaissance is done before the infantry are deployed, but this is not always possible.

For light infantry, several portable but highly effective FODs are issued. The first are integral with all MIPPA helmets: zoom-capable imagers using the light gathering and infrared modes as backup to the normal viewing. The imagers in the helmet can zoom images up to 500 times. At the ranges that the infantry do their job, visual scanning is still largely the superior method of observing the foe -- this has been so since the earliest days of infantry warfare and has not changed; although the added dimensions of cloaking technology as used by Jem'Hadar, Klingon, and Romulan forces have presented new challenges.

EQW-14 Battlefield Surveillance System

Observation of protected targets in detail is accomplished by the EQW-14 Battlefield Surveillance System, which uses FLIR, neutrino, quark resonance, and EM scanning. A frequency-hopping algorithm is used to complicate attempts at jamming, and a "snapshot" system will fish out the best scans for use in the overall sensor picture. The BSS has a maximum range of one thousand kilometers in atmosphere, which is much more limited at ground level. It is carried by one Marine and can be linked to a tricorder for maximum accuracy in aiming on fast-moving or hard-to-see targets. One can be carried by each trooper in a PI formation as it is easily and quickly mounted on one of the shoulder stations.

EQW-808C Spectral Shift Sensor

For detecting ground-based cloaking technology, the Light Infantry use the EQW-808C spectral shift assessor (SSA), which detects variances in light-wave travel at ground level. Cloaking technology is very hard to employ in the clutter of an atmosphere, vegetation, and landscape with the same degree of success one would enjoy in airless space. In addition, quantum singularity traces revealed on tricorders may also indicate the use of a cloaking device in the vicinity; however, this is very hard to pinpoint. The 808C can be used with the BSS sensor or a boosted tricorder to identify a potentially cloaked area or target and then confirm the status of the reading.

EQW-28 Advanced Battlefield Surveillance System

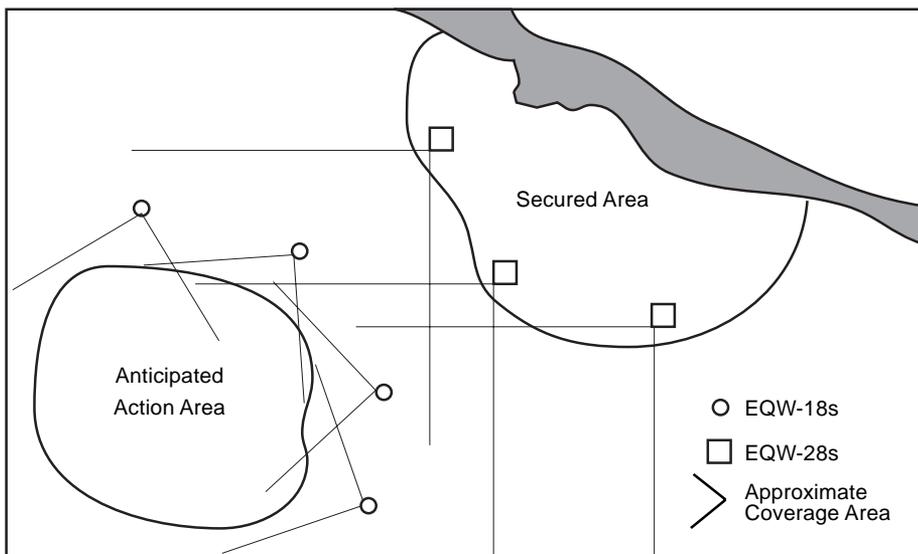
This sensor package basically consists of a boosted EQW-14 in conjunction with an EQW-808C. It has a greater range than the 14 along with the increased sensing capability of the 808. It is a large, bulky unit that usually is only powered suit mounted for recon or command forces.

EQW-804 Air Defense Sensor System

The difficult and demanding job of detecting and tracking air, transatmospheric, and orbital threats is accomplished by the EQW-804 system. This is a large sensor package with an even larger deployable antenna which must be vehicle or suit mounted. It can be carried on antigravs in a pinch, but would take several men to lift unaided.

EQW-18 “Sentry” Forward-Deployable Remote Sensor Transponders

These are dispensed, tricorder-like units which can take both passive and active readings and transmit them via secure datalink to a remote terminal and/or relay device. These can be hurriedly cannister-dispensed like land mines, or can be deliberately hand-placed and carefully hidden.



A typical arrangement of FODs on the battlefield. In addition to these emplacements, EQW-14s, manpack drones and Air Defense Systems would likely be in use as well.

Each transponder can be individually programmed with one of three gathering modes: 1) Passive Only, wherein the sensor will make no attempt at active scanning so as not to alert the enemy to its presence; 2) Burst Active, which will periodically send out a single "ping" on each of its active sensors to get a snapshot of the tactical situation without readily giving away its presence; and 3) Steady Active, with all sensors on all the time for use when the transponder's presence is not intended to be covert as in a perimeter security alarm.

In addition to these scan modes, four types of transmission modes can be programmed: 1) Omnidirectional Burst, which periodically sends out a short, data-compressed signal in all directions simultaneously (for when the location of the receiver is unknown at emplacement or will be moved during emplacement); 2) Omnidirectional Standard, which sends standard signals whenever new data is collected; 3) Unidirectional Burst, which sends a tight-beam burst transmission to a specific point; 4) Unidirectional Standard, which is a tight-beam transmission whenever new data is collected.

Lastly, the transponder can be set to passively gather and record-only for the ultimate in stealth. However, the device will then have to be collected by someone before the gathered data can be analyzed for useful information

EQW-50 Manpack Drone

This small drone is only seven centimeters in diameter, but can be one of the infantry leader's greatest assets. The EQW-50 is capable of sustained reconnaissance operations for a period of seventy hours on a single charge while carrying out hover and flight activity. It can move at a rate of one hundred and ten kilometers per hour, with a sensor range and capability equivalent to that of a combat tricorder. Data reception and transmission capabilities identical to the EQW-18 are included along with a "mother" processor that autopilots the device in lieu of specific instructions.

Although it can still be detected by alert sentries or sensors, this drone can penetrate dangerous areas and give its owner a "first look" at the threats therein without exposing personnel to risk.

Electronic/Data Warfare Equipment

Combat Equipment Management Systems (CEMS)

Due to the sheer volume of sensors, communications devices, fire control data from carried weapons, and other information that must be handled and/or equipment that must be controlled, Marine infantry make use of the CEMS system in order to optimize their handling of it all in the confusing environment of the battlefield.

Tricorders, communications, fire control, transporter calls, attack signals, and any other function requiring the manipulation of a control can be pre-programmed into the CEMS arm and belt units for quick use on the battlefield with a minimum of equipment handling. CEMS has a separate computer control which will also respond to common voice commands issued from the operator's throat mic. The CEMS can also put displays on the inside of the operator's MIPPA helmet visor.

CEMS is standard in every PI suit, with the interface being keyed through the combat tricorder panel on the forearm.

EWD-507 Ground Offensive Electronic Interdiction System (GOEIS)

Electronic impulses are fundamental to every common military system in use by any known government today. Almost as soon as any culture discovers electronic weapons, methods are sought to interfere with the electrons causing the device to operate. The GOEIS (pronounced, "goes") system is the most advanced portable electronic warfare system in the known galaxy today, incorporating focused and area effect transmissions in a web that will severely impair any combat force approaching a SFMC infantry unit.

GOEIS consists of a one-meter long transmission/reception assembly, a backpack power battery, and two "user boards" that comprise the core system. It uses 34 separate emission systems and 46 reception systems that work to identify enemy equipment in the area, determine it's electronic vulnerabilities, and then attack those vulnerabilities using powerful jamming transmissions and relational database offensive instructional assault. The system is designed for carrying and use by two dedicated operators.

Typically, the GOEIS operators will be put in a secure area, sometimes with security elements to protect them, within the battle area and will work if possible from a stationary point. GOEIS can be effective against any device in the battle area that is dependent upon transmission or reception for its effectiveness and also against sealed systems that can accept transmitted material if adequate time is had to "hack through" whatever onboard safeguards are present. The transmission assembly also has an LOS aiming feature that can maximize the transmission power brought to bear on a given area of the battlefield, although this does require the operators to be more exposed and closer to the enemy many times.

EWD-505 Overlapping Bubble Electronic Jamming System (OBEJS)

Aside from jamming hostile equipment, the other electronic parameter that must be addressed is keeping the enemy's own sensor systems from detecting the infantry. Eloflage systems help to a certain extent, but are limited by their size, thus the OBEJS system is carried to supplement them.

The EWD-505 is carried by two infantryman; one carries the system and a basic powerpack, with the second one carries a dedicated auxiliary powerpack that can be hooked together in tandem for use during heavy operations. It broadcasts a continuous "snow" of electronic jamming on all frequencies not being used by friendly units. The entire relevant sensor band can also be scanned and coverage modified on an ongoing basis as needed. Range is 10km.

EWD-480 Focused Electronic Jamming System

GOEIS provides the mechanism for Marine infantry to interdict most any enemy system, but occasionally a specialized jamming system is needed for a hardened or very important electronic target. The EWD-480 is the most powerful man-portable electronic warfare device in existence.

The EWD-480 uses a light soliton pulse in concert with various forms of radiation to send a jamming field onto a target that can penetrate most any defense barrier, be it electronic or physical, due to the soliton pulse's temporal variance. The only way to jam the EWD-480 is to match its soliton variances with another jamming field or stay out of its influence cone. The EWD-480 has a variable pulse algorithmic patterner that can be configured to confuse an enemy countermeasure, but care must be taken to keep the 480 operating within the band that will influence the target.

Two disadvantages exist with the EWD-480 when working with ground troops. Due to its soliton carrier pulse and high energy output, the system has effects on equipment and people that are somewhat akin to that of an energy weapon, particularly when the energy pressure is applied for more than a few seconds. Further, the soliton pulse is so penetrative that it can actually go through geographical features. The pulse will disrupt communications signals passing through its arc as well. Care must be taken to ensure that friendly units aren't "in the way" of this device.

The exact range of this device is dependent upon the characteristics of the target. However, the closer the target is to the EWD-480 the more energy pressure can be applied. Contact needs to be maintained with the unit spotting the target (if any) to ensure that the target is being affected.

EWD-007 "Hack Pack"

Portable Datawarfare Terminal

This is a man-portable LCARS terminal which has been modified with interfaces for all known computer systems. It comes in a field pack with I/O connection hardware and adapters which enable the trained user to "hack" into enemy databases and operating systems either through a hard connection, wireless modem, or through the GOEIS system above.

If the datawarfare specialist can avoid or defeat his trained counterparts defending the enemy computer system, he can extract valuable information, deny the enemy access to their own information, or even insert false information. This is insidiously effective warfighting even though shots may never be exchanged. A great deal of technology and effort are put into securing battlefield computer systems, but if the EWD-007 and a talented operator can crack through, they can wreak havoc on the enemy.

Of course, the enemy can do the same to us, so highly trained datawarfare specialists are maintained on our own computer systems to defend them from such attacks.

Special Equipment

Marines have specialist shops in their operational areas and ships that can manufacture special equipment on short notice for use in an unusual operation. Marine units also borrow equipment from Starfleet units, or from other Federation agencies. Civilian equipment can be purchased by strike groups using purchase orders, although they must go through the strike group leader for approval.

Once again, the total list of special equipment that Marine infantry use, have used, might use, or could use is far too extensive to cover in this manual. But below are some of the most common items that find their way down to a planet's surface during operations.

TDRS-44 Target Designator and Rangefinder

This is one of the most used pieces of special equipment in the inventory. It utilizes laser, EM, and reticular differential imaging to enable a Marine to gauge the distance and azimuth of a point from them. Utilizing its laser and EM systems, it also can be used to point a target out for a weapon. This device can be quickly adapted for suit mounting.

TDRS-29 Advanced Target Designation/Illumination System

An even more powerful version of the TDRS-44, this unit includes an extended-range target designator/illuminator. The illuminator is equipped with a particle gun which can leave a residual energy signature on a target for up to 30 minutes. Weapons which home on this decaying particle signature can find enough useful signature in clear air for about the first 20 of those minutes.

This makes the 29 a "fire-and-forget" target illuminator whereby a scout can "spot" a target and be long gone before the weapon arrives. This also negates target movement somewhat: as long as the target stays out in the open it is a sitting duck, and the spotter needn't stay with the target during its movement.

FTA-402 Multipurpose Beacon

This device is, as it's name implies, a signalling device that can be used for many purposes. These include designating landing or beaming zones, maintaining a fix on a location, or even calling in weapons fire. It can

operate by infrared or visible spectrum illumination, wide or narrow angle electromagnetic signal, or passive response signalling that requires the reception of a "trigger" signal. It is a pocket-sized cylinder.

FMD-100 Gravitic Stretcher Assembly

This device is a "must" for Marine units that have to transport wounded personnel. A combat-loaded Marine plus equipment is very heavy. To have to move one around that has been incapacitated is a tremendous strain on a unit.

The FMD-100 consists of six twelve-centimeter long poles with two cross-supports that fit together in threes to produce two shafts, which have suspended between them a web holder. The unit, when turned on, can reduce the weight of cargo within it's frame to five percent of it's normal weight in standard gravity. It is powered by a standard nuclear battery with a life of forty hours.

FMD-54E Field Medical Kit

This is a MIPPA-pouch sized aid kit that is designed for use by an individual Marine. It is designed for use by personnel inexperienced in medicine. With it's implements (including a fold-out PADD device that contains a database of medical data and instructions) it is possible for Marines to treat minor injuries easily and even conduct emergency surgery to save a wounded Marine.

Procedures for the use of the kit do encourage infantry personnel to refer casualties to medical personnel, and serious injuries will be treated with this kit only when there is no other choice.

FMD-54G Powered Infantry Field Medical Kit

This medical kit essentially has the same contents as the 54E, with the addition of hypospray adaptor nozzles and a panel key. The key unlocks the medical access panel on any SFMC suit, through which one Marine can administer any medication to another completely suited PI trooper through the suit's life support system (the special hypospray adaptor nozzles are required for this).

The 54G also comes in an armored leg pack with magnatomic couplers so that it can be fitted on either outboard thigh station of any PI suit. Extra kits are often carried by Powered Combat Support Specialists.

General Purpose Moulding Foam

When constructing improvised positions in the field, repairing damage to a stormed area so that personnel can move around, damming small waterways, or performing any other task that involves construction, it can be hard for Marines to find indigenous materials that are suitable for the task or that are readily available. GPM foam solves this problem. The foam comes in one-kilogram cans and expands to five hundred times its compressed volume upon being sprayed out. Within one minute it hardens to a tensile strength almost as high as MIPPA armor. Its color can be modified by injecting special dyes into the cans prior to use, in order to blend in with indigenous terrain.

GPM foam is normally carried by Infantry only when specifically mandated by the unit leader. It is standard equipment in most Combat Engineer units.

MIU-400E Field Replication System

This system is one of the heaviest pieces of special equipment used by the Marines; requiring three Marines to carry and set up, and as such is usually brought in only to secure areas. It consists of a logic unit processor, a front-end raw materials feed, and a fabrication unit.

The 400E is capable of manufacturing any piece of equipment or component with a mass of 36 cubic centimeters or less of size. It can be used to build parts for weapons or other devices. Given enough time, it can produce complete weapons if there are sufficient raw materials. Depending upon what it is called to produce, it may require special software instructions or extra time to formulate the molecular lattices.

All components for any Marine small arm or other piece of equipment are included in the memory. Per procedure, no weapon or piece of equipment manufactured in this device will be accepted for full-time service until it has been examined and determined that the components meet or exceed the manufacturer's tolerances for the component. Some materials, such as dangerous chemicals, may require approval of the unit commander to make.

Weapons, in addition, must be given a SFMC registry number and entered properly in the TO&E when manufactured. Improvised or modified weapons may be stored at the unit commander's discretion, and although they will be listed on the TO&E they will not be given formal registry numbers.

With alternate isolinear chip modules, this unit can also be used to replicate food as part of a field kitchen.

MIU-692 Light Field Equipment Repair System

This is a ten-by-five-by-six centimeter container with a variety of tools designed to diagnose and correct equipment problems in the field. Enclosed tools include welders, scanners, power wrenches and drivers to remove and install components, testing devices, a PADD with repair data for Marine equipment, and such basic items as a spread-out cover to work on and a light to use during low-light conditions. This system is generally not capable of repairs on equipment with large parts, although it might be used to fix the smaller components of a fire control system or global positioning device on a tank or vehicle.

MIU-701 Field Suit Casualty Kit

This is a specialized tool kit specifically for powered armor suits. Each suit has such a kit on board (usually on an outboard thigh station). With the resources of this kit, small holes and cracks can be patched, servomotors repaired, weapons stations serviced, etc. The tools in the kit are all adapted for use by powered-armor-gloved hands with larger grips, buttons, etc. Most often, this type of work is done by one suited PI trooper on another, although the trooper can get out of his suit and use the kit with bare hands on his own suit if conditions permit.

Field maintenance kits have limited usefulness on the battlefield, though. It is important to remember the words of one Higher Maintenance Depot Gunny, *"Just remember, lots of times the best thing to do is beam the thing back to the ship and have 'em send down a new one, and don't waste your time trying to fix the thing in the mud. You probably got other problems, right?"*

Individual Tactics & Tasks

As stated before, there is a wide range of tactics and scenarios for their application. This guidebook could never begin to cover them all—that's what Infantry School is for. However, as a familiarization guide, this book can cover certain basic infantry concepts and tactical doctrine.

Cover and Concealment

Concealment is any medium that enables you to be unobserved, or less likely to be observed, by an enemy. You should constantly take advantage of cover in the field. Never assume that the enemy is not around. Never assume that because you have not been fired upon, or because your infiltration was clever, that you are not being observed.

Use natural foliage or material together with your camouflage to break up your outline and the outline of your equipment. Beware of radiation reflection or of shades of coloration that don't match the surroundings. Also, beware of proximity to objects or terrain that will draw attention. Put yourself in the enemy's head: "Where would I look for me in this area?"

Cover is different from concealment. Cover may allow you to be unobserved, but it also provides *relative* safety from attack. A bush, sapling, or depression in the ground is not cover, but a wall, rock formation, or vehicle can be. Make a point of knowing the hardest natural materials of the planet you are operating on so that you can use them for cover.

Light Infantry Methods of Movement

There are several ways infantry can move on the battlefield. The most common ways of moving for Light Infantry include the rush, high crawl, and low crawl. Non-hominids may require special methods for accomplishing these movements, and will be instructed in such at Infantry School.

The Rush

To effectively accomplish a rush:

1. Start from the prone position by slowly raising your head and selecting your next position.
2. Lower your head, draw your arms in to your body, keep your elbows down, and pull one leg forward. With one movement, raise your body by straightening your arms.
3. Spring to your feet, and step off with either foot. Crouch to whatever extent is practical to minimize your silhouette and run to your next position.

4. Just before hitting the ground, plant both feet.
5. Fall forward, breaking your fall with the butt of your rifle.
6. Roll on your side, place the butt of the rifle in the hollow of your shoulder, then roll into a firing position.

The rush may be used from one covered position to the another when enemy fire allows brief exposure. Try not to stay up any longer than three to five seconds so that you don't give the enemy time to track you with automatic fire. But remember: rush from cover to cover, do not hit the ground in open territory just because you have been up for five seconds.

Try never to rush directly from a position from which you have been firing. Chances are the enemy has that position well-sighted and you will be fired on as soon as you appear. Roll to the left or right or crawl a short distance before springing to your feet.

When you move as a member of a buddy team, you must communicate with each other. Ensure that one man covers by fire any movement by the other man. When moving as a member of a fire team, watch and listen to your team leader; he will lead you along the best route and ensure that covering fire is provided when you move.

The High Crawl

To accomplish a high crawl:

1. Keep your body off the ground and rest your weight on your forearms and lower legs. Cradle your weapon in your arms, keeping its muzzle off the ground. Keep your knees well behind your buttocks so it stays low.
2. Move forward by alternately advancing your right elbow and left knee; then your left elbow and right knee.

Use the high crawl when the route you have selected provides both cover and concealment and/or when poor visibility reduces enemy observation. Even if the terrain is suitable only to the low crawl, you must use the high crawl if speed is required.

The Low Crawl

To accomplish a low crawl:

1. Keep your body as flat as possible to the ground. Grasp your rifle sling at the upper sling swivel, letting the hand guard rest on your forearm and the butt of the rifle drag on the ground (this keeps the muzzle off the ground).

2. To move forward, push your arms forward, and pull your right leg forward. Then pull with your arms and push with your right leg. Continue this push-pull movement until you reach your next position.
3. Change your pushing leg frequently to avoid fatigue.

Use the low crawl whenever the route you have selected is less than half a meter high or visibility allows good enemy observation. This is a slow method and is suitable only when speed is not essential.

Powered Infantry Methods of Movement

Light Infantry doctrine calls for movement from, to, and in cover or concealment whenever possible. This protects the LI by keeping the enemy from getting a clear shot. Powered Infantry also strives to protect themselves by keeping the enemy from getting a clear shot. However, the nature of PI equipment leads to a doctrine that depends as much on maneuverability as cover: moving targets are harder to hit. PI suits do not do well in prone or crawling positions, so the PI troopers must keep moving quickly when suitable cover is not available. PI movements include the rush, the bound, the jump and the low-slide.

The Bound

To accomplish a bound, simply push off extra hard during your rush stride. This will activate the jets in your suit legs to provide a power-assisted broad jump. Several of these in a row can cover a good deal of ground quickly.

Use the bound whenever you would use the rush, but there is too much distance to cover to your next position in the recommended three to five seconds. Be careful not to bound for too long as it will quickly use up the fuel in your legs' jet units.

At the top of your bound arc, use the height to your advantage by looking around and by making an active sensor ping if possible. At the top of your bound, any cover less than a building is useless, so the enemy will have seen you already anyway.

The Jump

A simple jet-assisted jump can be used to advance over large obstacles like low buildings. Like the bound, the jump is seldom done under cover, so great caution should be used. The peak of the jump is also a good time for observation. Be sure to check your leg units' fuel levels before attempting difficult jumps.

The Low-Slide

When movement under low cover is necessary for PI troops, the low slide can be used. This is accomplished through the use of a snap-on antigrav unit which keeps the head, torso, and legs of a PI suit a mere 3cm off the ground in a prone position. The field stops at the shoulders, so you advance by pulling yourself along the ground with your arms. This movement is nearly as slow as the LI low-crawl, but keeps the PI well protected.

Movement by Transporter

Transporters can be used effectively in the movement of ground forces only when there is little threat of interruption or interception by enemy forces. Transporter signals will set off enemy energy-detection systems if they are present. Also, movements by consecutive rapid-succession beamings are not recommended as they can have biological effects on the transportees.

Movement Under Fire

To move when under direct fire, you should select an individual movement route within your team or squad's movement route or axis of advance. Search this route for areas of cover and concealment.

Select your next position (and the route to it) as one that exposes you to the least enemy fire, provides the most cover and concealment, and does not require you to cross in front of other members of your element and mask their fires.

Determine the correct individual movement technique (see above) to advance to your next position. Do not move until covering fire is established if it is available.

Movement Over, Through, or Around Obstacles

Whenever possible, use smoke or a similar concealment technique when crossing an obstacle. Going over an obstacle on the battlefield invariably raises you into a position for good enemy observation. When it is possible to use holoflage, this is the best way to cross obstacles. Normally, obstacles should only be crossed under cover by fire or observation.

Wire Obstacles

To cross barbed wire, metal ribbon, etc., you may put wood, grass mat, or wire netting over it. Cross carefully, because such a mat or net forms an unstable path.

To cross under wire obstacles, slide head-first on your back under the bottom strands. Push yourself forward with your shoulders and heels. Carry your weapon lengthwise on your body and let the wire slide on the weapon to keep it from catching on your clothing and other equipment. Inch your way along, holding the wires in one gloved hand.

If you must cut your way through wire obstacles, try to cut only the lower strands. Leave top wires in place to make it less likely for the enemy to discover the breach. If energy emissions are not a problem, use a phaser beam to cut the wire (a pistol is more manageable for this); otherwise, use a cutting tool. Most modern wire obstacles cannot be broken by hand.

CAUTION: Always check wire obstacles for booby traps or early warning devices. It is threat doctrine to attach tripwire-activated mines to wire obstacles. A grappling hook with a length of rope attached should be used first to pull the wire (if no early-warning devices are detected).

Danger Zones

Roads, trails, streams, and the like are extreme danger zones for infantry troops as they are almost always absent cover and concealment. To cross such areas, select a point at or near a bend or corner—preferably one with concealment on each side. Crawl up to the edge of the area and observe the other side carefully before crossing. Cross rapidly but quietly. Get down as soon as you reach the other side and check the area around you carefully.

If possible, wait for darkness to cross a major danger zone. This is especially true when a large unit must make a crossing of a wide area. Crossing by transporter is useful if it can be accomplished without interruption or without revealing friendly positions to enemy forces.

Walls

The top edge of a wall is like the top of a ridgeline: not only does it elevate you into enemy observation, it usually silhouettes you and makes you a prime target. Avoid this by rolling quickly over the top, staying as low to the wall as possible. If the wall is low or you are in powered armor, jumping over may be effective in some circumstances providing you do not spend much time in the air.

Constructed Obstacles and Minefields

Infantry forces will almost never be called upon to cross constructed obstacles or minefields without the help of combat engineers. However, if it becomes necessary, the method by use to cross will vary with the situation. Some constructed obstacles may be crossed by methods similar to those for wire obstacles, but tactics will vary with obstacle construction.

Minefields can be crossed by using combat tricorders to pinpoint mine locations. This can be done by finding the actual mine or, in the case of sensor-resistant mines, by finding an area of recently disturbed ground or vegetation. For safety's sake, probing ahead of moving troops is recommended even when a tricorder is used.

Whenever possible, these obstacles should be maneuvered around if combat engineer support is not available.

Other Basics

Reacting to Indirect Fire

Indirect fire is usually from artillery, mortars, rockets, or similar weapons of a ballistic or semi-ballistic nature.

If there is a possibility of an indirect fire attack, keep your eyes and ears open; there is a good chance you will have some warning before the first projectile explodes in your area. Projectiles of almost every sort make a distinctive sound as they travel through the air, and that sound can usually be heard before the projectile's arrival. Even hypersonic rounds give visual cues to the projectile's travel. You may also simply hear a warning shout of "incoming" from another Marine who has detected one of these aural or visual cues or has detected the incoming round with a sensing device.



Complacency on a patrol can be a problem. No matter how serene the setting, one must constantly be aware of the possibility for ambush or incoming indirect fire.

The first thing you should do when you hear any of these warnings is shout or repeat "Incoming!" to alert others. Immediately look to your squad or fire team leader before taking any other actions and follow their lead.

If your element is not moving and you get any of the above warnings, remain in your defensive position, taking advantage of available cover. If you are not in a defensive position, look for cover. Try to keep movement to a minimum, though, as it may reveal your exact position to the enemy. Be aware that indirect fire zeroed in on your position may be an indicator of impending attack by ground forces.

If your element is moving when you get any of the above warnings, shout, "Incoming!" and follow your team leader's actions. If you cannot see your team or squad leader, run out of the impact area and into cover if available. Stay low to avoid shrapnel.

Reacting to Flares

Flares provide the enemy with visibility during darkness. This can negate any advantage we assume when we maneuver by night. Therefore, it is important to minimize enemy observation.

If you encounter a ground flare, simply avoid or move out of the illuminated position and reorient yourself. Continue with your mission or follow your team or squad leader's instructions.

If an overhead flare is used, you will often get a warning by hearing the flare rising or by detecting it with a sensing system. When you get this warning, assume a prone position (behind concealment when available) before the flare bursts. If it is not possible to assume a prone position, crouch as low as possible in as much concealment as possible. Hold this position until the flare burns out. If this is a powered flare, follow your squad or team leader's instructions. If you are alone against a powered flare, attempt to disable it with your weapon and find cover.

If you receive no warning of a flare and are suddenly illuminated, immediately drop to a prone position and freeze until flare burns out.

If you are illuminated by a flare while taking direct fire, operate as you would during day ops.

Selecting a Temporary Fighting Position

A temporary fighting position is a position not specifically constructed to fight from, but from which an infantryman can fire or otherwise engage the enemy. When selecting such a position, always take advantage of as much

natural cover and concealment as possible. Also be careful of the background to the position to avoid silhouetting yourself for enemy observation.

Observe and fire from around the side of an object if possible—this conceals most of you. Stay low to observe and fire whenever possible. You can aim better and take advantage of concealing vegetation this way. After you select a position, follow your team leader's directions. He may reposition you to gain better team coverage of the area.

Clearing a Field of Fire

In preparing defensive positions for expected contact with the enemy, you should, whenever possible, clear a suitable field of fire for your position within your team's assigned sector of fire. Before attempting this, however, you should be mindful of how much clearing can be done in the time allotted. Do not do a rush or sloppy job since an improperly cleared field of fire may afford the enemy more concealment and cover than if you left the area in its natural state.

Remove potential cover and concealment for the advancing enemy while leaving a thin screen of natural vegetation to hide the defensive position. If possible, remove the lower branches of trees in lightly wooded areas. In heavy woods, complete clearing may not be possible or desirable in the time available. Restrict your work to thinning undergrowth and removing low branches from large trees. Clear a narrow lane of fire in an irregular pattern that will not reveal the weapons' position. Remove thin dense brush—it is never a suitable obstacle and it obstructs the field of fire. Cut weeds only where they obstruct your view. Drag away cut brush, limbs, and weeds to points where they will not be detected by an enemy or furnish them with concealment. Cover cuts on trees and bushes forward of the position with dirt, mud, or snow. Ensure no trails are made in your sector of fire as lanes are cleared.

SFMC Tactical Philosophy

Marine light infantry tactics are put together with an emphasis on flexibility, simplicity, and tactical principle.

Flexibility

There are literally millions of possible combinations of rushing, firing, orders of combatant movement, prioritizing of targets, and hand signs. It is not practical nor desirable for the SFMC to formulate volumes on these matters and mandate them to units. Tactics as taught must be flexible. They must be adaptable to the myriad situations in which they may be used.

Simplicity

Tactics must also be simple. The old principle of "KISS", or, "Keep it simple, stupid." was probably invented by a soldier. The possibility of a tactic failing rises in direct proportion to the difficulty inherent in executing it.

Tactical Principle

If a tactic is based on sound tactical principle, it is likely to succeed. If the tactic contravenes a common-sense tactical imperative, then the tactic-- no matter how well planned—is likely doomed.

For example, suppose an infantry company considers evacuating noncombatants to shuttles while under attack from an opposing infantry force. It is common knowledge that a well-equipped infantry force has antiaircraft weaponry, so it is very likely that any shuttlecraft attempting to execute a landing to take on personnel will be damaged or destroyed. It is tempting here to place all planning effort into answering the question, "how do we evacuate noncombatants on shuttles in this situation?" However, what should be asked is, "should we even attempt to evacuate noncombatants by shuttles in this situation?" Better to scrap an idea that is bad in its conception, than to try to make it better with tactics.

The idea can be restated as such. We first ask, "WHAT are our goals in a combat situation (or WHAT SHOULD OUR GOALS BE) ?" Once this question is resolved, we can go on to ask, "HOW THEN do we carry out the specifics to achieve our goal?"

This is the essence of successful strategy. Once a good destination (goal) is chosen, we then pick the best route (tactics) to get to that destination.

Unit Tactics

Squad Firing Techniques

Weapons in the Marine squad must be used to support one another. The first set of weapons a foe will encounter will be the MAPLIML, the Arbalest, the WGL, and the support phasers. The second perimeter of offense is the basic weapon such as the M-116. Thirdly, there are short range devices such as sidearms. Due to tactical necessity, the use of these devices will probably overlap.

One particular type of technique that Marines on a battlefield find useful is the art of busting an enemy shield. Methods for doing this vary with the type of shield, but one popular method enlists support phasers to cut in on one point in the shield, while WGLs send PCP rounds into that point (15mm EM rounds work as well). The concentrated fire is maintained while the MAPLIML operator launches an HE round through the weak spot.

Other firing techniques include using a wide angle phaser shot to flush opponents into a position where they can be fired on directly, or to use same to jam an enemy sensor or clear around a corner. Phasers can also be used in prolonged fire, as can automatic projectile weapons, to keep the enemy pinned down while other Marines advance on the position. Whenever using automatic or prolonged fire, be sure the advancing force can choose a route approximately 90 degrees off the firing axis of the support group.

A word on prolonged fire: an entire squad hosing a position down with prolonged phaser fire is likely to dissuade even the most aggressive enemy from taking to active a part in the surrounding battle. However, bear in mind this may not be the only firefight you get into on any given day. Phaser charge packs have a lot of power, but you are capable of using it all up. So limit your prolonged fire to a few initial bursts, then settle in with steady single shots.

Tactical Examples

Even basic Infantry unit tactics could not possibly be covered comprehensively in this guidebook. Two entire volumes and eight long weeks in Infantry school is barely enough to teach the basics. However, some practical examples of unit combat tactics will give you some familiarization with Infantry tactical doctrine.

Unit tactics are merely an extension of what the individual Marine will do. There are hundreds of thousands of possible tactics that Marine units can

use, and very rarely will the tactics involve only infantry forces. Usually all elements of the strike group participate. The principle of force integration should be followed by Marine leaders on the battlefield.

Several actual missions are described in the following section, as told by participants in the infantry units, to illustrate just how Marine infantry successfully deploy on a unit level and give better than they get.

Combat Report: Ambush at Goelinusa

August 14, 2373. Goelinusa, a Federation protectorate, has just experienced a military coup in it's capital city. Insurgents of the Opamsi faction, a militant religious order with left-of-government leanings, have stormed the capital, commandeered the resources of the planet's recently upgraded information services net, and are eliminating their political enemies and members of what they term the "bourgeoisie". Starfleet Intelligence indicates their doctrine may have been partially inspired from 19th and 20th century Earth's Communist ideology. The Opamsi have advanced weapons procured from Orion and Ferengi smugglers, and have incapacitated the government's forces. The government has appealed to the Federation for help. Within hours of their initial contact, the 284th Marine Strike Group, along with other forces, are on the way. And soon thereafter, an ambush is being set in.

Gunnery Sergeant Tom Witt, 3rd Infantry Platoon leader:

Third Infantry Platoon beamed into the area of operations on Goelinusa's Continental Plain with intelligence that the Pansies were executing persons there after a "trial" of sorts with some kangaroo religious court. We had three squads with M-116s and a fourth squad with screens, 505s, and one MAPLIML. All my squad leaders had TDRs to help out the gunner. The Pansies only had a few heavy weapons in that area according to intelligence.

Everything happened really fast once we landed. I set us in two ambushes on two highways running parallel with the Mapper in between, in some cover so he could fire indirect with the rangefinders, and the screens scattered about. Between our eloflage and our field craft, there was no way they were going to see us until we opened up.

All of a sudden, here come a bunch of flatbeds on the first highway full of people with two commandeered police cruisers full of Pansy gunmen in front and back, alternately, about forty yards away from the flatbeds. Another convoy-- this one all troops or Pansy sympathizers coming to

watch the executions, is about five hundred meters behind the flatbeds. We lit up our 505s and I told the MISS operators to stand by in case we missed any. Alpha one's WGL sends a plasma round right through the guard car in the flatbed group.

There was a flash, a hiss, and the car just shot up on it's hover systems and nose-dived-- I mean boom, right into the asphalt, with whatever Pansies were still alive screaming what remained of their lives out. All of the metal in the vehicle was burning from the PCP. The fuel package explodes. The flatbeds swerve.

About this time those follow-ons have figured out that the head-removal line is breaking down, and they all slow down and hesitate, but it's the last thing they every do because Bravo Two's leader has a TDR on the lead vehicle and here comes a MAPLIML round out of High Angle Hell, boom-whroosh!-- launched, up in air, seeker head kicks it around, and it blazes straight into the spot where the TDR's EM designator is pointing it to. A CDM round detonates right in the middle of all of them. You see a blue flash as the round disperses the agent all over the vehicles and then the wall of flame, and the shock wave that whambarrammms over you a few seconds later. CDM rocks-- we call 'em "Blue Moon Rounds", you have to be damned careful you're nowhere near 'em when they go, not out of a MAPLIML. Almost too powerful for us to use many times.

Anyway, they find a big carbonized area with melted vehicles, skeletons, a few fragments of weapons, teeth, and such later. No one from that second bunch returned fire. The Pansies in the second vehicle and on the flatbeds, the guards for the people, are unassing because they figure that their vehicles are going next, and they are firing. They had some pretty hot stuff. But our MISS arrays were on and it all explodes against our screens. Rough on the vegetation, but we don't lose anyone. A few seconds later we've gotten the last of them because they've got no screens and they're running around in our cross-fire.

I give the order to advance. Our MISS operators move out with their systems onto the kill zone, with everyone else deploying behind them with minimum standoff between the screen perimeter and them. They're shooting stun blasts into anyone they have on the ground, just to make sure. We weren't using stun earlier though, except for shooting into the flatbeds-- unless you aim real precise, it won't put 'em down if they're wearing armor or if they're drugged up seriously; not like the movies. One eager beaver was faking it and threw a grenade at us, and it bounced off the screen and detonated-- killed him, and just missed the people on a flatbed.

We cleared the area, and searched the people, and then got them out of there and to one of the refugee camps that the crew from the U.S.S. Umiak was setting up. We had sort of a security problem with all of them trying to hug our troops-- they'd been about two miles and a few minutes away from a big draw cut across the neck area. But hey, you couldn't blame 'em...

The Goelinusa uprising was successfully stopped, and the elected government was reinstated and harmony restored within weeks of the Marines' arrival. Few of the Opamsi leaders ever answered for their actions in trial. A Marine armored unit assaulted their base camp and none of the leaders were willing to surrender, preferring to shoot it out with the Marine tanks.

Combat Report: Out of Nowhere

Sometimes Marine units find themselves out-gunned. This happens typically in altercations with the major powers of the Alpha and Delta Quadrant. One Marine tells us what it is like to wind up on the wrong end of the firepower equation.

February 20th, 2369. A Marine unit near Tholian space is treated to a Tholian Pearl Harbor, with nowhere to hide.....

Lance Corporal Ella D'Gorga, 699th MSG:

We were in garrison, basically resting up. There'd been some trouble with the Tholian assembly in the past week, but the alert status was low and we had three patrolling cruisers near our system, so no one was thinking there'd be a raid or anything.

All of a sudden, the alert goes off. We didn't know it at the time, but three Tholian cruisers-- Type I-2 "Chandeliers", big ones-- had come out of warp right outside our gravity well and had turned a slew of raiders with nukes loose on us. One Chandelier was gunned really badly by the Broadsword as it closed in on the planet and was destroyed just after it dumped it's raiding craft, but the others got away. And now the raiders are loose in the atmosphere releasing nukes. Most of them hit power stations and sensors, but one of the warheads came in toward us. We had like three minutes warning.

Top comes running in the barracks screaming at the top of his lungs for us to get the f--- suited up and get the MISS arrays and Arbalest team up here, and we snapped and popped. All of us are running with our equipment and uniforms out to the prep bay-- this little pressure dome,

basically. Levara-19 was a moon, and there's virtually no atmosphere. Nothing that we can live in, anyway.

We had been off duty. I'm running along with my thug suit, boots, MIPPA gear and M-116 all in my arms with a big T-shirt, panties and slippers on. To this day, no one's said anything about it, which is the most amazing thing about this story in my opinion.

Top grabs Mitchell and Evans, our MISS team, and tells them to take their array and wedge it into this munitions rack that's fixed to the bay floor. No one knows why, but you don't question Top when he tells you to do something. Not only is he big enough to remove your spinal column with one grab, but he's a veteran. If he says "do something", by golly-- you do it! Then he hollers at all of us, who're scrambling to get in our stuff, to pull in here next to the shield perimeter. That makes sense, now. And they turn it on.

Not more than five seconds later, the dome shreds. ZOWIE; the shock wave tears it to pieces, and there's nothing but the heterodying as the force blows over the shield layer and the flash of the heat cloud. It's a miracle no one's blinded. We're all writhing around on the floor, scared s---less, for sure convinced we're going to die. But we aren't going to. Yeah, the shield; it's trapping the air inside it, the way Top set it. But not only that, think about this-- if it hadn't been wedged in and secured, the pressure differential would've sent the array flying away like a popped balloon, because there's no pressure outside. We're high and dry, while everything around us is blasted or burned to pieces, or dead from pressure loss or no air to breathe.

But anyway-- we're all mostly in our gear now. Another minute and everyone's checked over. We release the shield. And WHOOM, there goes the air. We're in THEOG and safe.

Top had the Arbalest team going. One of the raiders was about fifty kilometers overhead, almost in a hover. We figure he's the one that nuked us. He's not indicating that he knows our Arbalest's sensor array is on him. I guess they figured nothing could've survived that and maybe it was electronic noise from the explosion residue. Well, good theory-- there had to be a lot of that. But now, our Arbalest team is on his butt. And then, you know what? He starts to descend!

We're all ready and waiting. If he broke ten kilometers, our MAPLIMLS were going to try too. We're all hunched down, looking at Top and deciding whether to try it or not; because if we missed, then that raider's got enough weaponry to light us up. MISS arrays are

okay, but they aren't good enough to handle direct fire from a spacecraft, usually. But our Arbalest team's really good, and Tholian ships have crappy shields. They fired right as soon as he broke ten kilometers.

The Arbalest slams upwards, you can see a short vapor trail from the launcher and then the flare from the motor-- not nearly as spectacular as when you fire the thing in an atmosphere. It was a little weird. The signals from the missile and the target merge, and we see the flash up overhead-- and then the big fireball. We got the shield set to handle any over-blast; we're firing danger close, and risking sympathetic detonations. But then, the signal from the raider just plunges. And then we see it-- a little triangular, shiny thing-- falling out of the sky over in the distance with fire coming out of what must have been it's fuel plant. Scratch one. Well, scratch all of them, because the cruisers came in and waxed all of the raiders before they could egress to their motherships.

Unfortunately, we suffered eighty percent casualties out of that one. At least our platoon came through it together. It's easier when you don't know the ones you lose...

Most recently, the Tholian assembly has signed a nonaggression treaty with the Dominion. Federation defense planners expect that Dominion "industrial assistance" will soon start to show up on the Tholian frontier in the form of Dominion weaponry, which has so far demonstrated itself to be unsettlingly close to similar Federation technology in it's capabilities.

Combat Report: Looking down the barrel

Often times, Marine infantry find themselves up against threats like tanks that cannot be defended against solely through the use of the MISS arrays.

April 19th, 2374. What history is now calling the Khitomer Breakdown is in full swing. Hostilities have broken into full scale war between the Federation and the Klingon Empire. Marine units scramble to protect outlying Federation assets from the Klingon war machine. Ultimately, the Klingons will punch through the gauntlet of Starfleet and will land on several Federation worlds and outposts before enough forces can be rallied to stop them.

Lt. Tom "Hell's Belle" Belle, 233rd MSG:

I think it was First Squad that spotted the K'rmach first; that translates to "squasher of ground troops", or something like that. Way I understand it, the Klingon ground forces beamed back and then everything got real quiet. And they called, "watch out, because the Klingons just

got out of the way". Then, it comes up over the ridge about five hundred meters away. We had no drones at all, they'd been shot down. The Klingons were jamming and sniping them like crazy. Don't let anyone tell you that the Klingons don't know how to fight a technological war-- it's just that one, they like edged weapons. Two, they only use vehicles and large weapons when they feel like they have to. And three, every weapon has to look like it was hand-forged from a steel plate that Kahless dipped into a volcano and twisted with his hands, or something. They've got the most ornate, beautiful antitank weapons you've ever seen; I mean, you'd put one on your wall if you captured one. Spot a bunch of Klingons moving up with what looks like a modern art collection, and you'd better nail them before they put all that stuff together.

One-Alpha calls, "Tally ho, armored target, off your LOS," and I respond, "Designate for MAP." I had one MAPLIML in my platoon, and I kept her with me. I was thinking PCP, because we couldn't use HIVAP without it being closer and in our LOS. They do, and I have her fire one. Whoosh-boom, there it goes. Five seconds later, we hear, "no good". And then, all hell breaks loose.

The Klingons back-traced our firing point and launched a Chicken Little over us. I'm yelling for everyone to boost their eloflage and for the MISS operators to fire up. Too late; three bomblets come down and do out Fourth Squad and two members of Two-Bravo. I'm starting to think I should've called in air or fire support, or our armor, to handle this thing; we were fighting static and we didn't have an area to defend. Well, they ain't going to leave us alone now.

I tell One-Alpha to hold fire and keep the S.O.B. in view. I lose them, I lose track of the tank. I check my tricorder and ask Cherie for the TDR's reading for the tank. She gives it to me and I plug it in; the tank's about five hundred and fifty meters away and at the speed he moves at that's no distance at all. I spot another ridge between him and us that I figure he'll try to go around. We've got maybe one or two minutes before he's rounding it. The order-- run!!!

Second and Third squads, and my MAPLIML and GOEIS team, are scampering along, and I'm putting everyone into the rocks. I have to put me, our MAPLIML, GOEIS, and several people from Second in this depression with no cover because I can't use the screens with the rocks otherwise. It'll take him a little longer-- but not much-- to kill us with the screens up. I figure he'll see us in the rocks anyway, but hey. I tell Cherie to load PCP and a HIVAP behind it. All our GL's, PCP. Everyone turns their phasers up to high needle. I tell everyone to fire

their PCP in where they see Cherie's go off, and then she'll use her HIVAP, and then we fire phasers. And then, if we haven't cracked the tank's screens and armor, I figure we just run like hell and hope they don't decide to chase us. Everyone offsets their eloflage from the person next door so it breaks up the signals some more. I was thinking at that point that I should've really insisted we get some jammers along.

We hear the energizer on the thing. And it rounds the bend; the Bringer of Smoke, or whatever the name means, twenty meters high and sixty long. The turret's pointed away from us, not that this makes much of a difference-- it can turn our way really fast.

I just yell fire, and probably bust everyone's ears over the I-LINK. Whoosh-BOOM! The PCP from the MAPLIML goes off and fulminates, turns the whole side of the vehicle into a sparkler.

The WGLs bloop-bloop-bloops their own PCP rounds, and the screens on this thing can't be covering that spot too good right now. The autoweapons on the turret are swinging around toward us and are starting their chop-chop, and the MISS arrays are up and it's fountaining dirt and dust. I'm losing target visibility.

I'm hoping Cherie can see better than I can. "HIVAP away!"

There's this ungodly explosion and bright fireball ahead of us, which wasn't the tank--- it was the booster in the HIVAP round, moving that thing to killing speed. Our screens just about puked from the reverse shock wave of the round punching out and we've got people bowled over and ducking, thinking the Klingons have fired a nuke at us. But it hits the tank, and you can hear that chalk-on-a-chalkboard WHAANG right through the MIPPA. It goes in! The tank lurches, we hit the powerpack, and that round went pyrophoric inside the frame and just tore up the internals. There's smoke pouring out of the energizer covers. They're on fire.

We fire phasers, right through the area that got pulverized by that HIVAP. And that vehicle is a Roman Candle. The whole rear end of the thing blows burning fragments out and then explodes, cutting the vehicle in half and physically shoving the smoking front end about twenty meters ahead. One Klingon — one — gets out and starts shooting his disrupter at us, and there's this boom and a hole in the ground where he was. Actually, a she — we found these carbonized earrings not far from the hole.

Even in these three disparate examples it is clear that tactics are wide ranging and must be flexible to be useful. It is often said that no engagement plan survives the first contact, and it is often true. That is why it is a necessity for Marines to train and practice until tactics and techniques become second-nature to them. Without this level of training it is impossible to adapt to changing tactical scenarios fast enough to survive. Fortunately, there is another old adage: "You fight like you train," and the SFMC trains VERY well...

Glossary

Here is a list of common terms, abbreviations and acronyms that appear in this manual. There may be some references to terms that are common to the SFMC, but are not listed in this glossary. Those terms should be listed in the Marine Force Manual or in other relevant Branch Guidebooks.

Aerospace - 1. A planet's atmosphere and the space outside of it, considered as one continuous field. 2. Things that are designed for flight in aerospace. 3. The combat arm that deploys aerospace vehicles, such as fighters. 4. The aerospace vehicles of a combat force.

Airborne Assault - To insert large quantities of Infantry troops via parachute. Historically referred only to operations from air to land, but now also refers to operations where troops are launched/dropped from orbit to planet-side.

Amphibious - Relating to or organized for a military landing by means of combined naval and land forces. Historically referred only to operations from water to land, but now also refers to ops from orbit to planet-side.

Antiaircraft - Designed specifically to damage/destroy aerospace craft.

Antigrav/Antigravity - A method of propulsion or lifting that uses an antigraviton generator to counteract the normal effects of gravity.

Antipersonnel - Designed specifically to inflict death or bodily injury rather than material destruction.

Antishipping - Designed specifically to damage/destroy spacecraft/starships.

Antivehicular - Designed to damage/destroy ground/water-based vehicles.

Armor - 1. A defensive covering worn to protect the body against weapons. 2. A tough, protective covering, such as metallic plates or composite panels on tanks or warships. 3. The combat arm that deploys armored vehicles. 4. The armored vehicles of a ground force (includes tanks and self-propelled artillery in the case of the SFMC).

Armor Rating - A subjective numeric value assigned to a vehicle or suit's armor capabilities which indicates only its relative strength/weakness in relation to other like units. *See also "sensor rating"*.

Armored Personnel Carrier (APC) - Any of a series of wheeled, tracked, or hover-capable ground vehicles designed for transporting Infantry personnel on the battlefield.

Battalion - In the SFMC, 3-4 companies plus HQ (typically 400 to 600 persons).

Branch - A group of related jobs within the Starfleet Marine Corps. There are eight branches of duty within the SFMC: Aerospace, Armor, Combat Engineers, Infantry, Mecha, Medical, Special Operations, and Support.

Brigade - In the SFMC, 3-4 battalions plus HQ (typically 1500 to 2400 persons).

Butt - The very endpiece of a rifle that contacts the shoulder of the user when in proper firing position. *See also "stock"*.

Calibre - The diameter of the bore of a firearm, shown today in millimeters.

Camouflage - 1. The method or result of concealing personnel or equipment from an enemy by making them appear to be part of the natural surroundings.
2. The use of physical, as opposed to electronic or holographic, camouflage.

Carbine - A lightweight rifle with a short barrel.

Caseless - Ammunition requiring no attached casing of propellant.

Centimeter - One one-hundredth of a meter. There are about 2.6cm in an inch.

Cloaking Technology - Any system designed to render persons or objects "invisible"; usually by selective manipulation of light rays.

Colonial Marines - One of several historical Marine organizations that evolved into the present day SFMC.

Combined Arms - Military term for operations that involve more than one branch type of unit (Aerospace and Armor, Mecha and Infantry, etc.). Also known as "composite" operations or units.

Company - In the SFMC, 3 platoons plus HQ (typically 120 to 140 persons).

Crew Portable - Something designed to be carried by two or more Marines.

Deflector Shield - Standard defense field for starships, based on the ability to alter gravitational effects across a plane perpendicular to the incoming threat. Deflector shields do not function safely or effectively inside a planetary atmosphere.

Differential Thrust - The process of maneuvering by disproportionately distributing thrust through nozzles which usually point in several directions. Commonly used by missiles. *See also "vectored thrust"*.

Direct Fire - A method of weapon employment where line of sight must exist between the firing weapon and it's target.

Division - 3-4 brigades plus HQ (typically 7,000 to 10,000 persons).

Duranium - Extremely hard metal alloy used extensively in starship construction, armor, and projectiles.

Electronic Countermeasures (ECM) - Measure to counteract enemy sensing and targeting attempts through jamming, misinformation and distortion of their sensor signals.

Effective Range - In weapon systems, the distance at which the average operator can place the majority of shots on target. *See also "maximum range"*.

Eloflage - Any type of electronic measures or countermeasures designed to camouflage something.

Entrenching - To dig or occupy a trench.

Eugenics Wars - Devastating wars that took place in Earth's history, as genetically engineered humans (who believed themselves superior to non-engineered humans) tried to conquer the world.

Exotic Atmosphere - Any non-Class-M atmosphere that is composed of hominid-toxic, corrosive or high pressure gases.

Field - In SFMC organization, a group of related MOSs within a branch. Examples in the Infantry Branch are Light Infantry and Powered Infantry.

Fire Team - The basic maneuver unit of SFMC Infantry. Usually four persons.

Flare - In infantry applications, an incendiary illumination device to provide a lighted field of view during night operations. *See also "Powered Flare"*.

Flechette (flah-SHAY) - Small dart or needle sized projectiles, usually fired in a large group as an antipersonnel weapon (they are usually ineffective against armored targets).

Force Field - A defensive technology, consisting of an energized field that that protects a target by deflecting, diverting or absorbing a certain amount of energy per millisecond. Sometimes inaccurately referred to as "shields".

Frangible - Capable of being broken; breakable.

Fulminate - To explode or detonate.

Gravitic - Of or having to do with gravity; esp. the manipulation of gravity.

Grip - On a handheld weapon, the portion or portions by which the operator holds the weapon with his hands.

Halberd - A weapon of the 15th and 16th centuries having an axlike blade and a steel spike mounted on the end of a long shaft.

Hardened - Term used to describe a building or fortification that has been constructed to resist damage from enemy weapons. This can be done by improving the design, using stronger materials etc.

Heavy Weapons - Weapons designed to engage vehicles or equivalent hardened targets, or to affect a large area with a single attack. Often requires a special mount or firing platform and more than one person to operate.

Holoilage - The use of hologram generation for the purpose of camouflage.

Hominid - Historically, a primate of the family Hominidae, of which *Homo sapiens* is the only extant species. Today used interchangeably with "humanoid" to describe beings which are terran-like in appearance.

Huamnoid - See "hominid".

Incendiary - Causing or capable of causing fire.

Indirect Fire - Fire from artillery, mortars, rockets, or similar weapons of a ballistic or semi-ballistic nature. The projectile does not travel a straight path and so a direct line of sight to the target is not needed.

Kilogram - Standard measurement for weight used in the metric system. One kilogram is 1000 grams, or about 2.2 pounds.

Kilometer - Standard measurement for distance used in the metric system. A kilometer is 1000 meters, or about 0.6 miles.

Kiloton - Standard measurement for explosive force. It is equal to the explosive force of 1000 tons of conventional TNT explosive.

Legion - The major unit of the Roman army consisting of 3,000 to 6,000 infantry troops and 100 to 200 cavalry troops.

Light Weapons - Man-portable weapons designed primarily to engage individual personnel targets or very small vehicles.

Longbow - A long, hand-drawn bow, such as that used in medieval England, which sometimes exceeded 6 feet (1.8 meters) in length.

Man Portable - Something designed to be carried by one Marine.

Manpack - A man-portable system designed to be carried in a pack, usually on the back. It must usually be unpacked before use.

Marine Occupational Specialty (MOS) - The specific "job" or function to which the individual Marine is trained to do. Groups of related MOSs are called Branches.

Maximum Range - In weapon systems, the maximum distance a shot will travel if it hits nothing else in flight. For Infantry weapons, it is usually expressed in terms of a Class M atmosphere/gravity.

MegaCorporations - Huge industrial conglomerates of the 21st century, responsible for much of Earth's early colonization efforts and rebuilding of civilization after the Eugenics Wars. Funded the Colonial Marines.

Meter - Measure of distance, the standard on which the metric system is based. One meter equals 39 inches, or one yard plus three inches.

Millimeter - One one-thousandth of a meter. About the thickness of a 20th century U.S. dime.

Mission - 1. A special assignment given to a person or group. 2. A combat operation assigned to a person or military unit. 3. An aerospace operation intended to carry out specific program objectives.

Musket - A smoothbore shoulder gun used from the late 16th c. to the 18th c.

Muzzle - The end of the barrel of a projectile weapon through which the projectile leaves. Also, the emitter crystal end of an energy weapon.

Non-Commissioned Officer (NCO) - Refers collectively to pay grades E-4 through E-9 (corporal through sergeant major). These are enlisted personnel who lead other subordinate enlisted personnel.

Omnidirectional - In all directions simultaneously.

Phalanx - A formation of infantry carrying overlapping shields and long spears, developed by Philip II of Macedon and used by Alexander the Great.

Platoon - In the SFMC, three squads, a platoon leader and platoon sergeant (typically 41 persons).

Pike - A long spear formerly used by infantry.

Polarization - A light-filtration process that eliminates glare.

Portable - Designed to be carried from place to place by personnel as opposed to vehicles. *See also* "man portable" and "crew portable".

Power Cell - An advanced form of battery, used to power small electronic devices and weapons.

Powered Flare - An electric rather than incendiary flare that is powered by some type of battery and so remains lit far longer.

Prolonged Fire - The practice of keeping a steady phaser beam firing on a target for a prolonged period. Akin to automatic projectile weapons fire in tactical use and results.

Rappel - The act or method of descending from a mountainside or cliff by means of a belayed rope that is passed under one thigh and over the opposite shoulder so that it can be payed out smoothly and gradually.

Re-breather - A respirator unit which reclaims oxygen from the exhaled gases for further inhalation by the wearer.

Reticle - A network of very fine lines in the focus of the eyepiece of an optical instrument or weapon sight.

Rodinium - One of the hardest metals known to Federation science. Outposts along the Romulan Neutral Zone were constructed of cast Rodinium.

Run-through - The effect of a high energy projectile or beam travelling completely through its intended target.

Sensor Rating - A subjective numeric value assigned to a vehicle or suit's sensor capabilities which indicates only its relative strength/weakness in relation to other like units. *See also* "armor rating".

Sensor Signature - The signal or emissions that personnel or vehicles give off, which can be detected by enemy sensing devices. This can be heat, electro-magnetic, acoustic or some other form of energy.

Sniper - A skilled military shooter detailed to spot and pick off enemy soldiers from a concealed place.

Special Operations - Any operation that is not considered routine, common or standard when speaking of the SFMC as a whole.

Spotter - One who observes friendly fire for fire control purposes.

Squad - In the SFMC, 3 fire teams and a squad leader (typically 13 persons).

Stock - In a hand-held weapon, the portion placed against the shoulder for stabilization.

Stop-up Tablets - Oral medication which inhibits bowel movements for personnel which may spend excessive time in environmental suits.

Strategic - Important or essential in relation to a plan of action; essential to the effective conduct of war; highly important to an intended objective. Usually refers to a longer term plan or view of a military situation.

Tactical - Of, relating to, used in, or involving military operations that are smaller, closer to base, and of less long-term significance than strategic operations. Usually refers to the immediate plan and situation rather than the long-term goals and picture of the strategic operation.

Top - Colloquial term for the First Sergeant of a platoon or company.

Tracer - A weapon that, intentionally or unintentionally, marks the path of its fire (usually chemically or electronically) so that its operator can see it.

Transatmospheric - Travelling from atmosphere to space or vice-versa.

Transponder - A transmitter-receiver activated for transmission by reception of a predetermined signal.

Unidirectional - In only one direction.

United Nations Peace Force - Military forces of the United Nations, charged with peacekeeping duties and defense of Earth against aggressors.

Vectored Thrust - The process of maneuvering by changing the orientation of a thruster nozzle while maintaining the level of thrust through the nozzle. See also "differential thrust".

Wake Island - A hallmark battle in the history of the Marine Corps. For two weeks, a force of 400 U.S. Marines and about 1,000 civilians fought off an entire Japanese invasion force of ships, planes and troops; although the island was finally captured by the Japanese in late December, 1941.

Guide to Acronyms

Here is a list of commonly used acronyms in this manual. Entries followed by an asterisk have a separate glossary entry. Other terms are covered in detail in their respective manual sections.

APC* - Armored Personnel Carrier

BDU - Battle Dress Uniform

BF - Beam Frequency

BSS - Battlefield Surveillance System

C3 - Command, Control, Communications

CDM - Conductive Droplet Munition

CEMS - Combat Electronics Management System

cm* - centimeter

CQB - Close-Quarter Battle

ECM* - Electronic CounterMeasures

EM - ElectroMagnetic

EMPW - ElectroMagnetic Projectile Weapon

EXCHEG - Extreme Conditions Hazardous Environment Garment (pronounced "ex-cheg")

FLIR - Forward-Looking InfraRed

GOEIS - Ground Offensive Electronic Interdiction System (pronounced "goes")

HE - High Explosive

HIVAP - HI Velocity Armor Piercing (pronounced "hi-vap")

HMS - Heavy Missile System

HQ - HeadQuarters

HW* - Heavy Weapons

I-LINK - Individual communications Link

IR - InfraRed

ITR - Inert Training Round

JHP - Jacketed Hollow Point

kg* - kilogram

km* - kilometer

kph - kilometers per hour

kt* - kiloton

LI - Light Infantry(man)

LOS - Line Of Sight -OR- Loss Of Signal (depends on context)

LW* - Light Weapons

m*- meter

MAPLIML - MAn Portable Light Infantry Missile Launcher (usually called "mapper")

MFG - Multi-Function Grip

MIPPA - Marine Infantry Personal Protective Armor (pronounced "mippa")

MISS - Mobile Infantry Shielding Systems

MOS* - Marine Occupational Specialty

mm* - millimeter

m/s - meters per second

MSG - Marine Strike Group

NCO* - Non-commissioned Officer

OBEJS - Overlapping Bubble Electronic Jamming System

OC - Oleoresin Capsicum

OIC - Officer In Charge

PADD - Personal Access Display Device

PCP - Plasma Conformal Payload

PI - Powered Infantry(man)

RDF - Rapid Deployment Force

SAW - Squad Automatic Weapon (pronounced "saw")

SCRPRR - Squad Compressed Rectification Phaser Rifle (pronounced "scrapper")

SFMC - StarFleet Marine Corps

SIM - Squad Infantry Missile (pronounced "sim")

SOC - Special Operations Capable

SQI - Skill Qualification Identifier

STARFLEET MARINE CORPS

THEOG - Thermal Hazardous Environment Overgarment (pronounced "thug")

TVD - Through-Visor Display

UFP - United Federation of Planets

UN* - United Nations

UNPF* - United Nations Peace Forces

UNPFMC - United Nations Peace Forces Marine Corps

US - United States

USMC - United States Marine Corps

UV - Ultra Violet

WGL - Weaponmount Grenade Launcher (pronounced "wigggle")

Designer's Notes

Before you say it, I know I left something out. In fact, I know I left a lot out. But then again, I put a lot in. Hopefully it's enough to satisfy the majority of you who have been clamoring for an infantry manual for over a year. Because despite all its other flaws, this book has one overriding advantage over any other version in the last 12 months...

This one got DONE!

As with any project like this, there were many compromises. Most involved the massive amount of technical detail already done for this book over a year ago by Erik Larson. Erik, I'm sorry if I butchered your labor of love, but thank you a hundred times over for doing it. Without it, this manual would have been at least another three months in coming.

A lot of you were probably looking forward to more on tactics, but I felt that would be the best area for a follow-up course. Tactics truly is beyond an introductory work, which this ostensibly is. Additionally, it is an admitted weak point of mine, so anyone wanting to develop the course, bring it on!

I hope all of you get a lot out of this first infantry manual. As I said, I know I left out a lot, but hey, that allows room for follow-on books and courses, right? Want to do one? PLEASE, give me a call (see Introduction section).

I look forward to your comments, CONSTRUCTIVE criticisms, ideas, suggestions, questions and even complaints about this book. It will mean someone read it anyway (grin). But seriously, we are always looking for ways to improve, and you can help us more than anyone by reading and using the book and then telling us what you think, so please do!

In the meantime, keep on reading!

Semper Fi,
COL Kevin McNulty
Director, Branch Development
SFMC



About SFMC Academy

The Starfleet Marine Corps Academy was established by Commander Starfleet in 2164 when it was determined that Starfleet Academy could no longer adequately meet the needs of both services. The historical home of the United States' Navy and Marine Corps academies, Annapolis, was selected as the new home of the SFMCA. The head of the Academy, known as Director SFMCA, is still headquartered at the main campus in Annapolis.

The motto of the SFMCA is "Facta Non Verba" or, in Federation Standard, "Deeds not Words." This is reflected in the more informal academy slogan, "We lead by example... whether we mean to or not."

The Director SFMCA reports to the Commanding Officer of the Training Command (COTRACOM) who, in addition to the SFMCA, oversees branch schools, enlisted personnel training, advanced technical schools, and periodic skill refresher courses. Most of these courses are held either at one of the SFMCA facilities, or at one of the many training facilities in the New Valley Forge system which is home to TRACOM. These facilities, together with an Oberth-class spacedock serving as TRACOM headquarters, comprise Station Valley Forge.

Today, the SFMCA consists of 5 campuses, 8 training worlds, and 42 ranges and field courses throughout the UFP. Together with Station Valley Forge, the SFMCA comprises one of the largest and most advanced military training organizations in the known universe.