

Armored and Dangerous



Illustration by Keith Parkerson

The power of powered armor in the STAR FRONTIERS® game

by David Dennis

Powered armor is a device commonly used in science-fiction role-playing games and occasionally used in fantasy RPGs. TSR's own GAMMA WORLD® game has powered armor. A suit of powered armor also appears in AD&D® module S3 *Expedition to the Barrier Peaks*. Unfortunately, the game that would most likely have powered armor lacks it. Spacesuit armor is found in the STAR FRONTIERS® Knight Hawks rulebook, but it is not powered. Here, then, is real powered armor.

Properties of powered armor

Certain characteristics apply to any powered-armor suit, no matter what the design. The main property of such armor is the protection it provides. The degree of protection for each weapon type is listed on Table 3. The percentages listed there work on the same principal as spacesuit armor. If a character is hit by a weapon, look on the chart for the proper percentage and roll percentile dice. If the number is less than or equal to the listed percentage, the weapon fails to penetrate the armor. If the weapon penetrates the armor, the character still takes only half damage. Powerscreens may be combined with powered armor (using the SEU in the miscellaneous powerpack, if there is one), but defensive suits may not. Thus, a powerscreen that allows only half damage through (such as an inertia screen) means only one-fourth the total damage affects the character.

Besides providing protection, powered armor boosts the wearer's Strength and Stamina. A person wearing a fully functional suit of armor has triple his normal Stamina. This benefit comes from lack of

fatigue, lack of effort expended when wounded, decreased penetration by weapons, and many other factors. Even more benefits are received from the increased strength the armor gives. An armored character is able to lift one metric ton (1,000 kg) over his head, carry 200 kg at encumbered movement, and carry 120 kg encumbered. The suit's strength adds an additional 35 points to damage done in melee combat. For purposes of hitting in melee combat, such that half of the attacker's Strength is the chance to hit, give the wearer a base 100% chance to hit. Jumping is also boosted by the armor's strength, allowing jumps of 200 meters in height. Jet-assisted jumps may be made to 400 meters, but only 10 jet-assisted jumps may be made before the suit runs out of fuel. Horizontal jumps of 180 meters, with a 40-meter peak at the height of the arc, may also be made. Rate of movement in powered armor depends upon the type of armor purchased. All of the options listed for vehicles also apply to powered armor (with the exception of skid turns).

The key word in the phrase "powered armor" is "powered". These machines of destruction consume massive amounts of power. Powered armor suits are fuelled by type I parabatteries (600 Cr each) that last 48 hours each. If the suit runs out of power, the wearer is stuck with an incredibly cumbersome suit that leaves him almost helpless. Fortunately, every suit carries two spare parabatteries that may be exchanged for the used battery in 10 turns. In addition to the normal power supply, most suits have two separate powerpacks for weapons and miscellaneous devices such as screens, cameras, and infrared jammers. The amount of SEU in each of these varies from suit to suit. The weapons pack has connections for two weapons, and the miscellaneous pack has connections for one screen and two auxiliary items.

A soldier on a battlefield as dangerous as those of the STAR FRONTIERS game needs to be completely aware of his surroundings. Therefore, every suit of powered armor contains a compass, infrared goggles, magnigoggles, radiophone, toxy-rad gauge, and an external microphone that dampens loud noises and amplifies quiet ones. This microphone also allows the wearer of the suit to communicate with creatures outside. Every suit also contains a vital-statistics monitor on the outside that measures the wearer's rate of respiration, pulse, brainwaves, and the locations of his wounds. (In game terms, characters will be able to tell the current Stamina of wounded soldiers.)

In case of a gas or radiation attack, every suit of powered armor contains a gas mask and a four-hour air supply (which means that powered armor is completely usable underwater or in space). The air supply may be renewed where there is clean air. Powered armor also contains a four-day supply of food for

one person (stored in a freeze-dried form). The solid supply of food is only to be used when the suit's main supply runs out. The main food supply consists of a constant intravenous flow of nutrients that allows the soldier to fight and be fully nourished without stopping to eat. This supply of food also lasts four days. Two doses of stimdose, two doses of biocort, and one dose of staydose make up the suit's medicinal supply. The suit automatically administers these drugs to the suit user when necessary. Note that the effect of the biocort is tripled because it is added to the wearer's original Stamina. Furthermore, if a character's armor breaks down in the wilderness, the suit contains a survival pack identical to that found in the *Crash on Voltarnus* module included in the Alpha Dawn game set. As a final note, getting into a suit of armor takes four rounds (five for Vrusk).

Uses for powered armor

Powered armor is used by the UPF and certain rich and powerful megacorporations and planetary governments for planetary raids, antiarmor strikes, search-and-destroy missions, and various other activities across the Frontier. Soldiers in powered armor are usually landed by shuttles or dropped to a planet from orbit by assault transports: large, bulky ships equipped with ion engines, each capable of carrying 1,000 normal troops, or 700 powered troops and 10 shuttles. (Each shuttle carries 100 soldiers of either type.) Along with the shuttles, each transport carries numerous one-man reentry capsules for orbital drops by powered-armor troops. The Knight Hawks statistics for these ships are in Table 1.

Prior to an orbital drop, powered-armor soldiers are encased in individual capsules. A capsule consists of several layers, two of which contain parachutes and one which contains retrorockets. As the capsule enters the atmosphere, the layers burn away, protecting the soldier inside. With the combined use of the parachutes, retrorockets, and the powered armor's boot jets, the capsule is able to make a safe and gradual descent.

As the ablative layers of the capsule break off, they show up as numerous blips on radar, thus making it difficult to track descending capsules. To further this end, dummy capsules, exploding capsules, magnetic decoys, ion-window devices, white-noise broadcasters, and radar jammers are also launched from orbiting ships. Together, these elements produce thousands of images on radar when there are in actuality only a few hundred manned capsules being dropped. Consequently, the drop is probably the safest part of the mission. A 2% chance exists for any dropped soldier to become a casualty in the actual drop; casualties during the drop are almost invariably fatalities.

Powered-armor drop capsules are *not* for sale to the general public. They are

considered high-security military hardware, and possession of such a capsule or a drop-capable ship (or a suit of powered armor, for that matter) is a major felony.

Powered armor design

The system provided in this section allows you to custom-design a suit of powered armor. This system gives the designer 545 points with which to build a suit. The basic cost of a suit of powered armor is 3,500 Cr for a stripped-down version without weapons, sensors, or special movement capabilities. Prices for additional equipment may be added to this base price. The system for designing a suit is explained below:

Weapons: Weapons cost one point for every kilogram of weight they possess. For purposes of game balance, pistols weigh 3 kg and rifles 7 kg. A character may never have more than five pistols or three rifles per arm. In addition, a suit may never have more than 30 kg of weapons built into one arm. However, a character may still hold a handheld weapon in an arm with 30 kg. Handheld weapons must still be paid for in points. Total point cost for all weapons desired may never exceed 85 points. All costs for weapons purchased are added to the base cost.

Movement: When designing a powered suit, the turn speed, top speed, acceleration, and deceleration must be bought in points. Each of these is paid for using a number of points equal to that ability in meters/turn (thus, a turn speed of 90 meters/turn costs 90 points). Flight capability may also be bought, but a 190 meters/turn top speed on the ground and a minimum ground acceleration of 80 meters/turn are needed to qualify for the running take-off needed to fly. Flight costs an additional number of points equal to the top air speed in meters/turn divided by 10, rounded up. The monetary price for movement is 5 Cr per meters/turn in every ground ability and 10 Cr per meter/turn of top speed in flight. Flying suits accelerate, decelerate, change altitude, and make turns just like a jetcopter. However, flying suits may perform nap-of-the-earth flying with no movement penalties.

Power: The amount of SEU stored in the weapons and the miscellaneous powerpacks must be decided upon. Add up the total SEU carried in each powerpack and divide this number by 10, rounding up. This is the number of points that must be paid. The monetary cost is 5 Cr for every SEU carried. Powerpacks may be recharged at the same places as power backpacks (at no more than a 50-point expenditure).

Ammunition: Again, the listed weight in kilograms is taken in points. A dash on the Ammunition chart (in the Alpha Dawn Expanded Game Rules booklet, page 40) means that the item weighs 0.5 kg or less. For point costs, assume that these items weigh 0.5 kg each and therefore cost ½ point each.

Table 1
Assault Transport and Shuttle Statistics

Ship type	HS	HP	ADF	MR	DCR	Weapons	Defenses
Shuttle	3	15	—	4	29	None	RH
Assault transport	10	50	1	4	50	LB,RB(x3)	RH, MS, ICM (x 4)

Table 2
Standard UPF Assault Model Powered Armor

Weapon system	Points	Cost (Cr)
Basic suit	—	35,000
Two rocket launchers (right forearm)	15(x2)	5,000 (x 2)
One grenade mortar (back)	15	2,000
One flamethrower (left forearm)	10	3,000
Two missile packs (one each shoulder)	20	1,200 (x 2)
Turn speed: 90 meters/turn	90	450
Top speed: 150 meters/turn	150	750
Acceleration: 70 meters/turn	70	350
Deceleration: 50 meters/turn	50	250
Weapons power: 300 SEU	30	1,500
Misc. power: 200 SEU	20	1,000
Flamethrower ammunition	10	50
Eight grenade mortar shells	4	8 (x 8)
Nine rockets	4 (x 9)	15 (x 9)
One heavy laser (handheld)	10	6,000
Total	545	62,949

Extras: If you wish to include special equipment such as more communications, radar, infrared jammers, cameras, holoscreens, and so forth, the point cost is up to the referee. A good ballpark estimate of cost may be made by dividing the cost in credits by 100, thus giving the point cost. Under this system, an infrared jammer would cost 5 points, a holoscreen would cost 10 points, and a subspace radio would cost 200 points.

An example of an armored suit is shown in Table 2 — the standard UPF Assault Model powered unit. The UPF armor is, naturally, highly efficient in its use of points, with no leftover or wasted points. The total listed cost in credits includes the base price.

Weapons for armor

Some weapons listed in Tables 2 through 6 are probably not familiar to you. These devices are weapons that are especially well-suited for use with powered armor. When designing armor, you may want to look at the weapons described in Alex Curylo's excellent article "Tanks a Lot!" from DRAGON® issue #99. The weapons described therein may be designed into powered armor. Here are the weapons that may be used:

ECM (electronic countermeasures) rifle: This weapon shoots a beam of magnetic energy. Its main function is to disrupt robots and computers, though it may

affect living beings by causing disorders in the iron content of the creature's blood and by jamming the creature's neural synapses. To find the chance of jamming a computer or robot, multiply the number of SEU used by five for a base percentage chance of success. From this base, subtract the level of the computer or robot multiplied by four; this will yield the chance of a malfunction. When a malfunction occurs, roll on the malfunctions table (page 15 in the Expanded Game Rules booklet) for the results. To cause damage to living targets, an expenditure of two SEU is necessary. When firing at vehicles or armor, treat the number of SEU used as the number of dice of damage done when using the damage table. Even if 15 SEU are fired at an armored soldier, the attack still does 5d10 to the wearer, but it is a 15-dice attack for the damage table.

Flamethrower: Originally mentioned in Alex Curylo's article, this weapon may also be used in a suit of powered armor. This device is hooked to a tank of napalm. The flamethrower's purpose is incendiary work, but it works well when used as an anti-personnel weapon.

Missile pack: Although guided missiles were mentioned in "Tanks a Lot," missile packs were not. Each missile pack contains six missiles. Missile packs come with a full supply of ammo when purchased. When fired, the wearer of the suit may command the missiles to divide themselves between as many targets as the number of

missiles launched. In addition, the suit wearer may dispatch different numbers of missiles to different targets. For example, a soldier in a suit with missile packs sees one civilian, one skimmer, and one enemy powered-armor soldier. The soldier launches eight missiles, aiming one at the civilian, three at the skimmer, and four at the enemy suit. All missiles must roll separately to hit, but receive a 30% bonus to hit because each missile is guided. As many missiles may be fired as are remaining in the suit, although all need not be fired. Missile packs may never be mounted in the arms or legs of a suit.

Armored combat

Combat in powered armor is conducted like normal ranged combat except for a few modifiers. Computerized targeting systems are built into every powered armor suit. As a result, characters wearing powered armor receive a 20% bonus to hit when using ranged weapons. If the character uses a missile pack, this bonus is also added to that given under the description.

If a weapon penetrates the armor during combat, there is a chance that damage to the suit occurs. The following sequence provides a step-by-step system for resolving this type of damage. Note that results derived from this are cumulative. Based on this premise, if speed is reduced by half twice in a row, the overall speed falls to one-quarter normal. As a final note, damage to powered armor may be repaired by technicians using the repair machinery subskill.

1. Check if the weapon penetrated the armor. If so, additional suit damage may have occurred. (The nature of this damage will be checked later on Table 7.) Character damage also results. If not, no character damage results.

2. Check if damage to the armor occurs. Subtract the number rolled from the number needed to hit for the difference. If the difference is equal to or greater than 35, then additional damage to the suit's functions has occurred.

3. Add the number of dice of damage caused by the weapon to a 2d10 die roll.

4. Divide the percentage of protection by 5, then multiply the quotient by 2. Subtract the product from the sum in step 3.

5. Consult Table 7. Apply the results next turn.

6. Roll for normal damage to the character, reducing the damage by half; reduce it by one-quarter if using a powerscreen effective against that weapon type.

For example: Jn'kri, a Vrusk, is hit by a

Table 3
Powered Armor Protection

Weapon type	Degree of protection
Lasers	50%
Sonics	60%
Electrostunner	100%
Bullets	70%
Needlers	100%
Recoilless rifle	40%
Gyrojet	55%
Frag. grenade	45%
Rocket launcher	35%
Axe, knife, etc.	100%
Electric sword	65%
Spear or sword	85%
Shock gloves	70%
Stunstick	85%
Guided missile	30%
Flamethrower	90%
Cannon	30%
Howitzer	15%
Bomb	20%
Mine	50%
ECM rifle	45%

Table 4
Special Weapons' Effects

Weapon type	Damage	Ammo	SEU	Rate **	Defense
ECM rifle	5d10 or jam	Varies	2-20	2	Gauss
Flamethrower	3d10*	10	—	1	None
Missile pack missile	6d10 each	6	—	1-6	Inertia

* Flamethrowers cause 1d10 of damage per turn to a target for three turns after firing, or until the flames are extinguished.

** A character in powered armor may fire all weapons he possesses in the same turn except those on the gun arm. Here, the wearer must choose between the hand-held weapon and the weapons built into that arm.

Table 5
Special Weapons' Ranges

Weapon type	Range				
	PB	Short	Medium	Long	Extreme
ECM rifle	0-10	11-30	31-100	101-150	151-300
Flamethrower	0-10	11-20	21-30	31-45	46-70
Missile pack missile	0-10	11-50	51-150	151-300	301-500

rocket launcher fired from an attacking ground transport. First, Jn'kri checks to see if the rocket has penetrated the armor. Jn'kri rolls a 49 and sees that the rocket has indeed penetrated the armor. Now, he checks to see if his suit sustains any further damage. The ground transport needed to roll a 60 to hit; it does so. The difference between 60 and 20 is greater

than 35 (60 - 20 = 40), so his suit might take additional damage. He now rolls 2d10 and comes up with a 17. To this, he adds 15 (because a rocket launcher does 15d10); the result is 32. He then divides the suit's resistance to rocket launchers (35%) by 5 and gets 7, then multiplies this by 2 to get 14. The result of this calculation is subtracted from 32 to get 18. Jn'kri checks a

result of 18 on Table 7 and sees that it means no further damage is taken by the suit, although damage to himself is taken.

Vrusk who are buying powered armor must add an additional 10% to the base price, resulting in a base price of 38,500 Cr. This increase is needed for the additional cost of more limbs, additional artificial muscles, strangely shaped gloves and

Table 6
Special Weapons' Statistics

Weapon type	Cost (Cr)	Mass (kg)	Ammunition			
			Type	Cost (Cr)	Mass (kg)	Rounds
ECM rifle	8,000	15	Pack	Varies	Varies	Varies
Flamethrower	3,000	10	Napalm	50	10	10
Missile pack	1,200	10	Missiles	1,000	10	6

Table 7
Damage to Powered Armor

Die roll plus damage	Effect
2-19	No effect
20	Turn speed -20 meters/turn
21	Acceleration -25 meters/turn
22	Top speed -35 meters/turn
23	Jumping length (horizontally) -20 meters
24	Jumping length (vertically) -35 meters
25	Boot jets out, no vertical jumps over 200 meters
26	All Strength functions by half
27	Gyros out, no jumps
28	Top speed reduced by half
29	Lose half energy in suit power supply
30+	Suit's muscles locked, paralyzed for 1d10 turns

helmets, air vents on the suit's bottom, and so on.

Now that you know what powered armor is and isn't, what do you use it for? No, not for a barroom brawl against that Yazirian who tells you to go jump on an Arcturian slime amoeba. Neither is it used for capturing the last remaining tree-dwelling rhinosquid on Antares IV. Powered armor should be used wisely, because time is literally money where powered armor is employed. Such devastating fire-power would be useful against armored vehicle or fortified positions held by deadly enemies — e.g., Sathar, pirates, etc. But just because you took on a dozen space pirates without a scratch doesn't mean that it's safe to go tackle those three hovertanks hiding around the corner. Ω