2024/04/18 23:04 1/4 space

# **Space Combat in a Power Armor**



The Grandaddy of SARP armor combat: Space.

Though you can maneuver in three dimensions (just like in the air) the floor can be in any direction - gravity wells ten or even thousands times that of a typical planet tugging at you as you maneuver through belts of rock moving at millions of miles an hour. The energies here are intense and the temperatures in extremes.

Visibility is nigh infinite and it truly comes down to who spots who first.

In space, high velocity high accuracy weapons reign supreme.

#### Consider...

- Functioning in a group means so much more now: You can only look in one direction at a time.
- Communicating and coordinating together is vital.
- Cover is non-existent in every direction. You don't even have the curvature of the earth or atmosphere to insulate you from detection.
- Response-speeds need to be extremely fast: With the extreme distances, the possibility to evade fire poses a massive advantage to high mobility units hence why most Space Powered-Armor handle a lot like Space-fighters.
- Motion depends utterly on thrust and inertia. You can fire in one direction and be moving in another. This can be used to great effect to confuse inexperienced or nervous pilots - Multiple units properly coordinated into patterns, subspace wake can mask your position and even distort light making you harder to target.

#### Think...

Can I afford not to be supported by a big ship who can tell me what's going on five light-years away?

# **Environmental Factors**

There are some key differences between space combat and planetary combat:

- There is no cover to hide behind.
- There is no atmosphere.
- There is no gravity
- Enemies can be in any direction.

• Space is very big

#### Cover

Cover in space is something of a problem. As space is so vast with so little of itself filled with mass, there is almost always next to zero cover. As such, fire-fights in space tend to be a matter of remaining hidden for as long as possible before striking your target or seeing it before it is able to see you.

**But what if there is an object?** Considering the enormous distances, one would appear as almost invisible on sensors over large distances with a very narrow sensor profile. It is quite feasible that one could hide this sensor profile behind an object closer to one's target (such as debris or a ship) quite effectively but again, such objects are few and far between.

In space, there is nowhere to hide

## **Atmosphere**

Heat buildup Anti-matter weapons available Speed Concussive explosions won't carry

# **Gravity**

Gravity, a distortion of space, is a powerful reminder of one's environment. Gravity exists in fields and is observable: If a smaller object is caught in the gravitational field of a bigger object, it will fall toward the bigger object unless escape velocity is achieved. There are many considerations which need to be made to conquer gravity.

### Weightlessness

#### Firing arcs

A round fired over a large distance will have it's trajectory distorted by gravitational fields. Even weak gravitational fields will have enough of an effect to distort the trajectory enough as so the round does not impact the target. In the case of self-guiding munitions, this is not a problem. However, in the case of traditional munitions your options are to either...

**Have your onboard computer compensate for the gravitational fields.** Self explanatory and relatively simple, having one's onboard computer compensate with negotiate the majority of gravitational field problems unless the force is not entirely predictable.

**Make a best guess if a computer is unavailable.** Inaccurate and hazardous, making a wrong calculation in some circumstances can guide your rounds back at yourself or friendly targets. However, with enough experience and an idea of the fields about one's self, it is possible to accurately hit a target

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2024/04/18 23:04 3/4 space

over a short distance with a high velocity round.

#### **Entrapment**

If you are unable to maintain escape velocity over a planetoid or object with sufficient mass as to merit a gravitational field, you will fall into it. The massive energy discharged through your armor in the impact will almost certainly be lethal. Around objects with an especially large gravitational field, it is advised you think very carefully and check your fuel before getting close to any large objects.

#### **Collision risks**

Just as you can fall into objects, objects may fall into you under some circumstances. There are weapons that use this function of gravity to guide themselves to targets such as (x). You should take note of any spacial bodies around you of a similar mass: A sudden acceleration may distort the space sufficiently around you as to drag these objects along with you which can be dangerous.

#### **Direction**

Orientation

#### **Vastness**

#### Sensors

Due to the extreme ranges of space combat, traditional sensor technology ceases to be effective once a target reaches a distance equivalent of 0.1LY ( $9.4605284 \times 10^14$  meters) because the target is moving at a greater speed than light (hence a target will often reach you long before the energy signatures from the same location would have).

To combat this problem, sub-space and quantum based targeting systems are often used, along with long-ranged probes equipped with sub-space communications which act as spotters, giving you early warning of an incoming target.

Keeping in mind that the further away a target is, the lower it's sensor profile is, there is a chance at all times that an enemy may sneak by completely undetected provided their sensor profile is kept below your minimum detection threshold (otherwise known as the low-observable factor or **stealth**).

#### **Extreme Ranges**

### **Extreme Speeds**

# **Tactics**

The primary purpose of a power armor in a defensive space battle is to fight off other power armors, who probably want to board your starship. Likewise, the purpose of a power armor in offense is to disable systems on the enemy's starship.

# **Attacking a Starship**

**Getting Past Shields** 

Where to Hit

**Computer Engines** 

**Defending your Ship** 

**Intercepting Armors** 

**Combat A Friendly Ship** 

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