32. PLANETARY CONDITIONS AND WEATHER

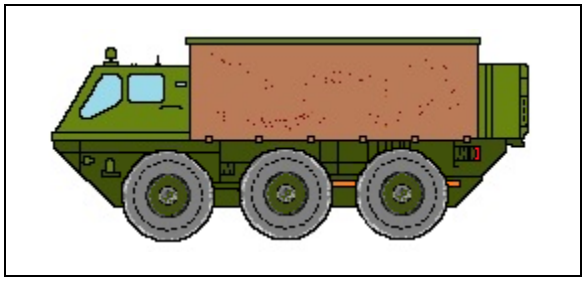
Briefing

Space travel allowed the armies of the stellar nations to fight battles on planets, moons and asteroids under a wide range of conditions. Gravity, atmosphere and weather are the most obvious characteristics with an impact on surface combat.

Gravity

1. The movement rates and weapon ranges given in the rules are based on a gravitational force of one Gravity (1G).

2. Greater or lesser gravity has a corresponding effect on the movement rates of infantry and vehicles. A gravity of 2G will double movement costs, cutting movement rates in half. A gravity of ½G will double movement rates. The movement rate of grav vehicles is not affected by either greater or lesser gravity because the vehicle can adjust its gravity field to maintain optimum performance.



3. Greater or lesser gravity has a corresponding effect on the ranges of projectile weapons and artillery. A gravity of 2G will cut ranges in half. A gravity of ½G will double ranges.

4. The ranges for energy weapons are not significantly affected.

5. Players should also take into consideration the effects of gravity on alien races.

a. **Movement –** A gravity of 1G could allow troops from a 2G world to double their movement speeds, making them much faster and more agile. In contrast, a gravity of 1G could cut movement rates in half for troops from a ½G world.

b. **Weapons –** Players must decide whether the weapons carried by their troops were optimized for use on their home worlds, or were specifically issued for use on the current planet, moon or asteroid. If the weapons were optimized for use on their home worlds, their ranges will be affected as discussed in paragraphs 3 and 4 above.

Atmosphere

1. The movement rates and weapon ranges given in the rules are based on an atmospheric pressure of one Atmosphere (1A).

2. Greater or lesser atmospheric pressures require units to have pressurized suits or vehicles in order to perform in that environment.

3. Atmospheres composed of gases or liquids other than those to which the troops are accustomed require units to have fully enclosed suits or vehicles with an attached air supply in order to perform in that environment.

4. Units may not operate in environments for which they are not equipped.

5. Hover vehicles cannot operate in an environment with no atmosphere.

6. Atmospheric effects on energy weapons

a. Players who wish to impose as many realistic limitations on science fiction weaponry as possible may choose to apply atmospheric effects. This is not recommended for the majority of wargames.

b. Electromagnetic beams (lasers, maser and phasers) are affected by atmosphere in a number of ways. Fog, dust and smoke may scatter or absorb the beams. Heated air makes beams expand and flare out. Turbulence, such as cross

currents and vertical drafts, disrupts beams. All of these effects would weaken a weapon's effectiveness, possibly reducing its attack factor by one level (For example, an attack factor of 6 would be reduced to 5.)

Weather

1. Players who wish to add weather conditions to a battle should first determine the type of atmosphere and climate the planet possesses, and then determine the most likely weather conditions.

2. **Clear** conditions will have no effect on combat. Movement, visibility and weapon fire will be normal.

3. **Fog, mist, dust, haze, rain, snow** and **heat shimmer** will reduce visibility to a specific distance. For example, if visibility is limited to 36 inches, no targets beyond that distance can be observed.

a. Laser designators are ineffective in these conditions because their beams are deflected and dispersed.

b. Charged particle beam weapons are unaffected by weather. This category includes conversion beams, disintegrators, ion cannon and particle beams.

4. The following guidelines can be used to determine the distance limits to set for visibility.

Obscuration	Visibility limit
Thin	80
Moderate	40
Thick	20
Dense	10

The visibility limit is the maximum distance at which personnel can identify prominent objects.

5. **Rain** loosens soil and makes ground movement more difficult. Firm ground becomes soft, unpaved roads becomes soft ground, and rivers rise making fords impassable.

6. **Breezes** and **winds** will affect smoke and gas clouds. Breezes will dissipate smoke and gas clouds if a 4 to 10 is rolled on a ten-sided die. (Persistent gases require a roll of 6 to 10.) Stronger winds will automatically dissipate smoke and gas clouds.