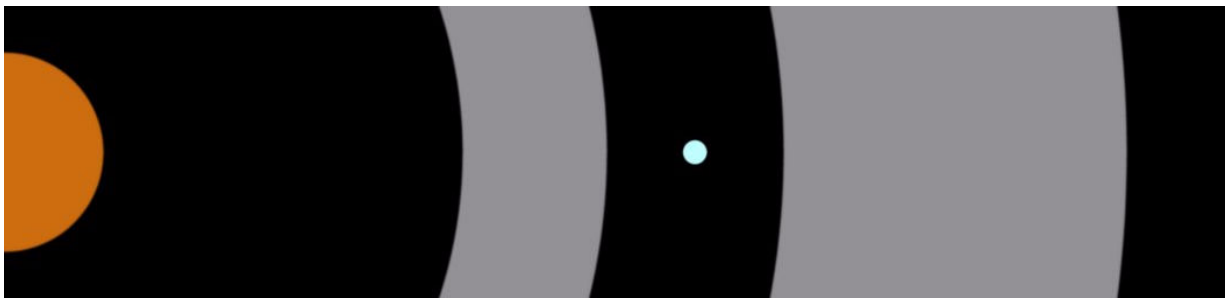
THE GLOWREALM



Glower Inner Ring Home Outer Ring

All drawn to scale.

Astronomical Data

Glower

Almost a Brown Dwarf Star
Mass: c. 70x Jupiter
Distance from Shiner: 130 Million Km
Diameter: 170,000 Km
Orbital Period: 328 Earthdays = 1063.77 Homedays = one Homeyear
Small diameter, as Glower's core is composed of degenerate matter.
Surface Temperature: 824°K
Glower emits radiation mostly in the infrared, warming the Glowrealm.
Atmosphere: dense mixture of hydrogen, helium, nitrogen, etc., lit from below by extensive orange glows of nuclear fusion reactions occurring sporadically at the core surface. Great storms of lightning race continually across Glower's angry face.

The Inner Ring

Made up entirely of 120 Million exhodon Habitats and facilities.
Inner radius: 394,000 Km
Habitat orbital period: 4.0 hours
Outer radius: 518,000 Km
Habitat orbital period: 6.0 hours

The Outer Ring

Made up entirely of 600 Million exhodon Habitats and facilities.
Inner radius: 670,000 Km
Habitat orbital period: 8.9 hours
Outer radius: 965,000 Km
Habitat orbital period: 15.4 hours

Home

Distance from Glower: 594,000 Km
Diameter: 21,000 Km
Mean density: 0.7x Earth
Surface gravity at poles: 11.3 m/s ²
Surface gravity on Glowerside equator: 9.8 m/s ²
Surface gravity on Farside equator: 11.3 m/s ²
Orbital period: 7.4 hours = one Homeday
Equatorial rotational velocity: 9915 Km/h
Low Home orbital velocity: 39645 Km/h
Insolation from Shiner: 408 W/m ² on Farside. The Glowerside of Home receives an additional 232 W/m ² from Glower.

Glowrealm Rings

Glower's equator and the Glowrealm Rings are inclined at an angle of 32° to the orbital plane of Glower around Shiner.

Thus, for two short periods per Homeyear, Glower's rings stand edge-on to the sun.

For one halfyear the rings are illuminated by Shiner on their northern side (this is called Northyear), for the other halfyear on their southern side (this is called Southyear).

General

The Hexapod ancestors of the Exhodon found it relatively easy to fly into space: the peaks of the Great Rampart (q.v. Factoid) rise 30 Km above sea level and therefore almost into the vacuum of space. The Great Rampart runs around the equator of Home, and its peaks therefore have a rotational velocity of 9915 Km/h. The first spacecraft were thrown into

orbit by magnetic guns: metal tunnels 100's of kilometers long, whose multitude of solar-powered flywheels dumped many gigawatts of energy into the acceleration coils in only tens of seconds of violent thrust.

Exhodic Law forbids the Exhodon from descending to Home's surface; leaving the Hexapods to live their endless biological cycles.

War Control operatives, however, continue to obey an ancient command and descend secretly at long intervals to maintain the last Thrower in operation. The reason for this activity has been lost in the mists of time.

Numerous space stations surround Home in synchronous orbits: i.e. they appear to be stationary points in the sky when viewed from the surface. The two main groups are:

Helm Creators

Every exhodon is born when its helm is created in a birth cell in one of the 24 orbiting Helm Creators. The coparents donate parts of their own characters, but no memories, then add some random traits to the mix. The birth cell programs this character information into the helm, plus the standard mentality features; such as Exhodic Law, language, scientific and mathematical knowledge, etc..

Battle Stations

Each Helm Creator is protected by a co-orbiting Battle Station containing numerous highly-destructive weapons capable of repelling any attack. War Control operatives are permanently on watchful duty.

Off-duty operatives live in the halves of the Helm Creator Habitats not occupied by the actual Helm Creators themselves.