

# Space 2108, Background

- By 2108 Earth's atmosphere is becoming increasingly uninhabitable.
- Climate change has left vast areas too hot to inhabit, and led to mass extinctions.
- It has also created vast deserts where little life grows.
- Tech nations (US, Europe, India and China) have developed farming modules to grow food, but there was not enough to support all the nations.
- Those too poor were left to their own devices.
- Civil war, mass migration, and the rise of far-right governments led to mass migration, and mass killings.
- Only Russia and Canada really benefited from climate change.
  
- China has become the dominant super power and has reached out to the galaxy to try and find a sustainable new planet.
- The US is also exploring space, but is now behind the curve.
- The European Space Agency is exploring and is the third power in space.
- The UK has a limited deep space capability.
- The Russian space program has collapsed, but they don't care because climate change has made northern Russia a pretty fertile place.
  
- In 2068 a planet was discovered 180 AU<sup>1</sup>, 16.74bn miles) from Earth which has a freezing atmosphere.  
Travel Times :   RSN Corvette (0.12g) – 16 weeks  
                      Small Ferry (0.1954g) – 12 weeks  
                      Small Cargo Ship, Loaded (0.0011g) – 3 years, 4 months
- It has plenty of water and is approximately the same size as earth, but is further from it's sun.
- The summer temperature at the equator is  $-5^{\circ}\text{C}$  ( $23^{\circ}\text{F}$ ), whilst the winter temperature is about  $-40^{\circ}\text{C}/\text{F}$ .
- At the poles the temperature range is  $-60^{\circ}\text{C}$  ( $-76^{\circ}\text{F}$ ) to  $-120^{\circ}\text{C}$  ( $-184^{\circ}\text{F}$ ).
- The planet's surface was uninhabited and there is little sign of surface life due to the constantly freezing temperatures.
- A number of creatures have been found living in the deep oceans.
  
- The planet has been named *Caerilium*.
- By 2085 China, the US, Europe and the UK had all established colonies on the land masses within  $22.5^{\circ}$  either side of the equator (a band approximately 5,000 miles wide).
- The population of *Caerilium* is fairly small as all food has to be grown in insulated farming modules – although there are now deep robotic subs fishing as well.
- All the colonising powers have started building giant biomes powered with nuclear fusion and geothermal energy.
- Those producing crops are already underway, but others have been established to provide parks.
- Two orbital space stations have also been established. One run by the Chinese, and the other is a joint venture between the other three powers.

**Heat** (B130) : HT / Survival (Desert) roll every 30 minutes at  $80^{\circ}\text{F}$  ( $27^{\circ}\text{C}$ ). Failure loses 1 Fatigue. For every  $5^{\circ}\text{F}$  over  $90^{\circ}\text{F}$  ( $32^{\circ}\text{C}$ ), the rolls are at  $-1$ . Therefore  $150^{\circ}\text{F}$  is a HT/Survival roll at  $-12$ . When fatigue gets to 3, start deducting from HP instead.

**Cold** (B130) : HT / Survival (Arctic) roll every 30 minutes at  $32^{\circ}\text{F}$  ( $0^{\circ}\text{C}$ ). Failure loses 1 Fatigue. For every  $5^{\circ}\text{F}$  below  $0^{\circ}\text{F}$  ( $-17^{\circ}\text{C}$ ), the rolls are at  $-1$ .  $-8$  at  $-40^{\circ}\text{F}/\text{C}$ .  $-15$  at  $-76^{\circ}\text{F} / -60^{\circ}\text{C}$ .  $-36$  at  $-184^{\circ}\text{F} / -120^{\circ}\text{C}$ .

**Radiation** (Sp104) : Normal background radiation on Earth is 1.6 rads per year. On Mars it is 30 rads per year. Use the table on p104 of GURPS Space to determine the Ht roll and effects. Background radiation rolls are conducted annually. Permanent radiation levels builds up at a rate of 10% annually.

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<sup>1</sup> 1 AU is the distance from the earth to the sun, 93m miles