

Introduction

This PDF introduces a new Mission deck you'll treat much like a patent deck. When you use the Mission deck, victory points (VPs) are awarded *only* for completing Mission cards from your hand.

Setup

Remove the Future and Power cards if you're playing a Basic game. Then shuffle the Mission deck and place it faceup alongside the patent decks. Include the Mission deck if you're using Idea Turns.

Buy / Sell / Trade

Mission Planning Op (Engineering): Take the top 3 cards from the Mission deck, auction one, and return the other two to the bottom of the deck. You may perform only one Mission Planning Op per turn.

Research Op (Science): You may auction the top card from the Mission deck.

Hand Limits: You may never have more than 4 uncompleted Mission cards, even if you have Skunkworks. Mission cards don't count against your patent card hand limit and vice versa.

Free Market Op: You may sell an uncompleted Mission card to the bottom of its deck for the same number of WTs a white patent card would bring.

Discard: You may discard a Mission card at any time as a free action.

Deal Making: You may trade Mission cards with another player as long as an equal number of *Mission* cards are exchanged.

Budget Cut: You may discard an uncompleted mission card instead of a patent card.

Boost Op: You *cannot* boost Mission cards.

Missions

Success: You successfully complete a mission if you meet its requirements *while the card is in your hand*. Set the card to one side to keep score. Completed missions don't count against your hand limits.

Failure is Always an Option: If someone else completes your mission before you do, remove the card from the game. It has no WT value and no one scores VPs.

Obsolete: If the Mission card on top of the deck has already been completed or is no longer possible, remove it from the game. No one scores VPs.

Victory: When a player reaches 8 VPs in a Basic game or 12 VPs in Colonization, finish the year and play 1 more year. Highest total VPs wins and ties are possible. Adjust the VP goal up or down for longer or shorter games.

Other Rules

Claim Jumping: You don't lose a completed Mission card if your claim is later stolen.

Permanent Colony: If you complete a colonize mission and later convert that colony dome to crew, remove the completed Mission card from the game and lose the VPs.

Alternate Usage

(by Alex Mauer)

Replace the Glory and Venture cards with the Mission deck and play High Frontier normally. In other words, you receive normal VPs for claims, factories, colonies, etc....

When you complete a mission you receive the VPs as a *bonus* exactly like completing a standard Glory or Venture.

Setup: Remove the Future and Power cards.

Tableau: Shuffle the Mission deck, draw 10 cards, and place them faceup where everyone can see them.

Mission Accomplished: Take the mission card and replace it with a new card from the deck. There should be 10 missions faceup at all times.

Orbit Sol



The ESA's Solar Orbiter will provide the closest ever views of the Sun. Launch is planned for February 2019.

First to decommission a robonaut, plus supports, in the **Sol-Mercury** Rabbithole.



1 VP

Orbit Mercury



NASA's MESSENGER probe was launched in 2004 and orbited Mercury from 2011 until 2015 when it was purposely crashed.

First to decommission a robonaut, plus supports, in **L1** over Mercury.



1 VP

Claim Mercury



First to claim the **North Pole** site on Mercury.



1 VP



Messenger of the Gods

Data from MESSENGER reinforces the idea that the radar-bright areas on Mercury's north pole are water ice exposed on the surface in permanently shadowed areas, with much more ice buried beneath unusually dark material.

First to land humans on Mercury and return safely to Earth's surface.

3 VP

Colonize Mercury

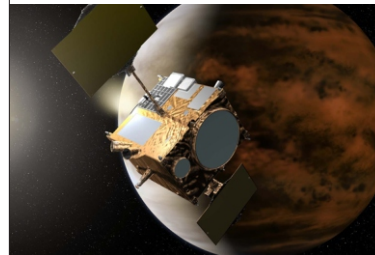


First to establish a *permanent* colony on Mercury.



3 VP

Orbit Venus



JAXA's Akatsuki's main engine failed to put it into orbit around Venus. After circling the Sun for 5 years, it was able to attain orbit in 2015 using only RCS thrusters.

First to decommission a robonaut, plus supports, in **LVO**.



1 VP

Claim Venus



First to claim the Venus Aerostat.



2 VP

Goddess of Love



First to land humans on the Venus Aerostat and return safely to Earth's surface.



2 VP

Colonize Venus



First to establish a *permanent* colony on the Venus Aerostat.



3 VP

Orbit Mars



NASA's *Climate Orbiter* burnt up in the atmosphere because the ground software supplied impulse values in English units when the onboard software expected metric.

First to decommission a robonaut, plus supports, in LMO.



1 VP

Claim Mars



First to claim the **Hellas Basin** site on Mars.



1 VP



God of War

A manned Martian settlement will require robonaut precursors for the ISRU extraction first for water and oxygen, then for hydrogen and methane fuel.

First to land humans on Mars and return safely to Earth's surface.

3 VP

Colonize Mars



First to establish a *permanent* colony on Mars.



2 VP

Terraforming Mars



First to have a factory on all 3 Mars sites plus at least 1 *permanent* colony on any Mars site.



4 VP

Orbit an Asteroid

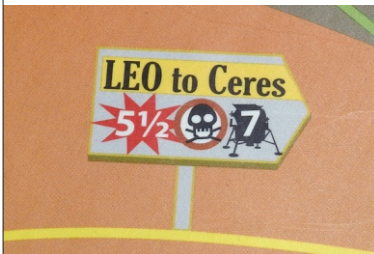


NASA's *Dawn Orbiter* is the first spacecraft to orbit two extra-terrestrial bodies. It orbited Vesta from 2011 to 2012 and began orbiting Ceres in 2015.

First to decommission a robonaut, plus supports, in any HEO in the

♀ Ceres zone. **1 VP**

Claim Ceres



First to claim Ceres.



1 VP

Claim Encke



First to claim Comet Encke.



3 VP

Claim Hertha



First to claim Hertha.



2 VP

Goddess of Harvest



First to land humans on **Ceres** and return safely to Earth's surface.

?

2 VP

Colonize an Asteroid



First to establish a *permanent* colony on any asteroid in the **Ceres** zone.

?

2 VP



Saving the Earth

Due to the intractability of the 3-body problem, the chance of a NEO hitting the Earth can't be determined more than 60 years in advance. If an object with 8+ on the Torino scale is identified, the only practical way to divert it is to build mass drivers on its surface and operate them over a few decades.

First to decommission a refinery plus non-radiator supports on **Hermes A and B**.

4 VP

Flyby Jupiter



In 1973, NASA's Pioneer 10 became the first spacecraft to visit Jupiter.

First to enter the **Jupiter slingshot** with humans or a functioning robonaut.

2

1 VP

Claim Achilles



First to claim Achilles.

2

3 VP

Claim Äneas



First to claim Äneas.

2

3 VP

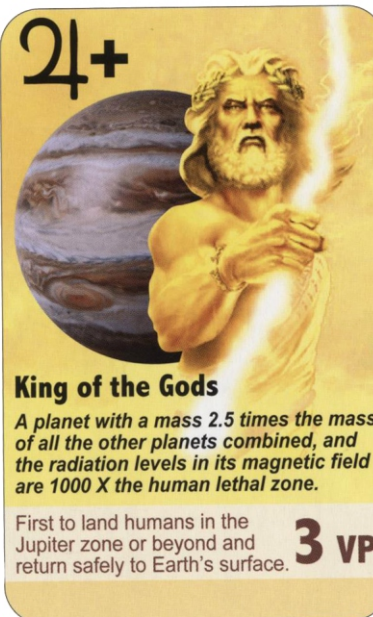
Claim Callisto



First to claim the **Vahalla** site on Callisto.

2

3 VP



2+

King of the Gods

A planet with a mass 2.5 times the mass of all the other planets combined, and the radiation levels in its magnetic field are 1000 X the human lethal zone.

First to land humans in the Jupiter zone or beyond and return safely to Earth's surface. **3 VP**

Colonize Jupiter

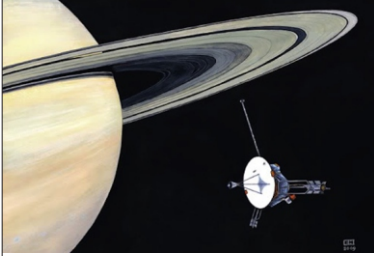


First to establish a *permanent* colony on **Callisto, Europa, Ganymede, or Io**.

2

5 VP

Flyby Saturn



After passing by Jupiter in 1974, NASA's Pioneer 11 became the first spacecraft to encounter Saturn 5 years later.

First to enter the **Saturn slingshot** with humans or a functioning robonaut.



1 VP

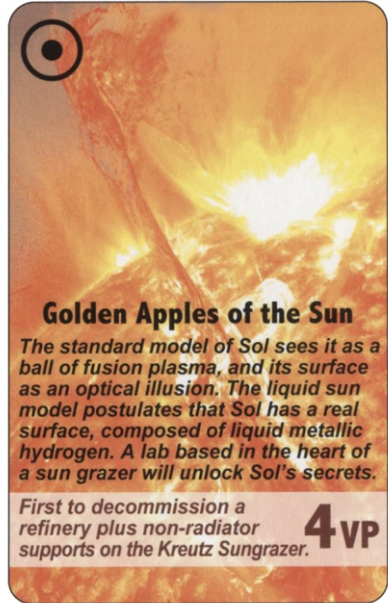
Claim Enceladus



First to claim Enceladus.



3 VP



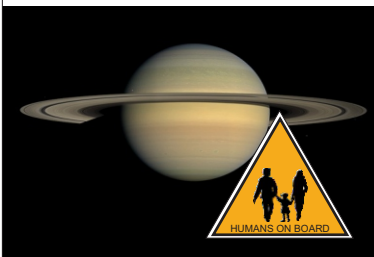
Golden Apples of the Sun

The standard model of Sol sees it as a ball of fusion plasma, and its surface as an optical illusion. The liquid sun model postulates that Sol has a real surface, composed of liquid metallic hydrogen. A lab based in the heart of a sun grazer will unlock Sol's secrets.

First to decommission a refinery plus non-radiator supports on the Kreutz Sungrazer.

4 VP

Colonize Saturn

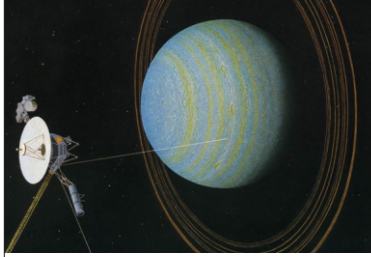


First to establish a permanent colony on **Dione, Enceladus, Iapetus, Rhea, Tethys, Titan, or the Saturn Aerostat.**



6 VP

Flyby Uranus

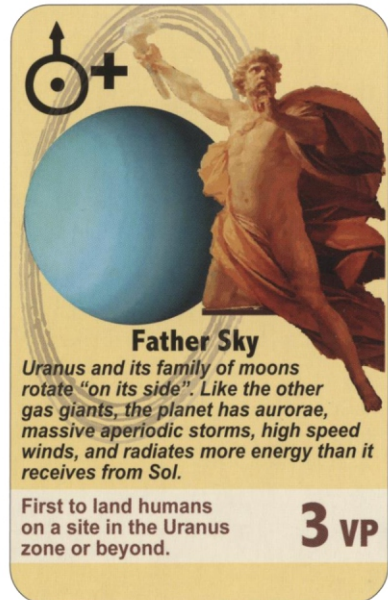


In 1986, NASA's Voyager 2 became the first and only spacecraft to visit Uranus.

First to enter the **Uranus slingshot** with humans or a functioning robonaut.



1 VP



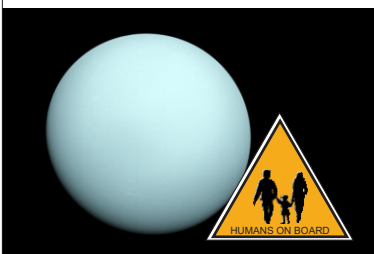
Father Sky

Uranus and its family of moons rotate "on its side". Like the other gas giants, the planet has aurorae, massive aperiodic storms, high speed winds, and radiates more energy than it receives from Sol.

First to land humans on a site in the Uranus zone or beyond.

3 VP

Colonize Uranus



First to establish a permanent colony on **Ariel, Oberon, Titania, Umbriel, or the Uranus Aerostat.**



7 VP

Flyby Neptune



In 1989, NASA's Voyager 2 encountered Neptune, completing its grand tour of Jupiter, Saturn, Uranus, and Neptune.

First to enter the **Neptune slingshot** with humans or a functioning robonaut.



2 VP

Astronomy




A gravitational lens mirage taken with the Hubble Space Telescope's Wide Field Camera 3.

First to decommission a robonaut, plus supports, in a sunlens.




2 VP



Search for CUDOS

Anomalous cryovolcanoes, in places far too cold for geysers such as on Charon, may indicate impacts by CUDOs (Compact Ultra Dense Objects) orbiting the galactic center. An CUDO with the mass of a 10 km asteroid would be 10 cm in diameter.



First to land humans on your claimed TNO science site and return safely to Earth's surface. **4 VP**

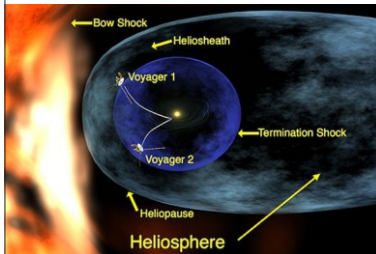
Colonize Neptune



First to establish a permanent colony on Triton or the Neptune Aerostat.

Ψ 8 VP

Exit Solar System



The heliopause is the boundary where the Sun's solar wind is stopped by the interstellar medium.

First to decommission a robonaut, plus supports, on any solar system exit. **2 VP**


Straight



First to claim sites with all 5 spectral types.

4 VP


Power



Score if you're in power at the end of an election. Otherwise, keep this card for future attempts.

Remove this card from a Basic game. **1 VP**


Power



Score if you're in power at the end of an election. Otherwise, keep this card for future attempts.

Remove this card from a Basic game. **1 VP**


Power



Score if you're in power at the end of an election. Otherwise, keep this card for future attempts.

Remove this card from a Basic game. **1 VP**


Power



Score if you're in power at the end of an election. Otherwise, keep this card for future attempts.

Remove this card from a Basic game. **1 VP**

Power



Score if you're in power at the end of an election. Otherwise, keep this card for future attempts.

Remove this card from a Basic game. **1 VP**

Future



Score 12 VP if you're the first to complete any Future. However, score 3 VP if you fail an Epic Hazard roll.

Remove this card from a Basic game.

12 or 3 VP



Doomsayer of the Gods

Comets are as mysterious as they are spectacular. Nobody knows when or why they will have an outburst, grow or shed tails, glow in the x-ray region, split, or disintegrate, even far from Sol.



First to land humans on a science site and return safely to Earth's surface. **3 VP**

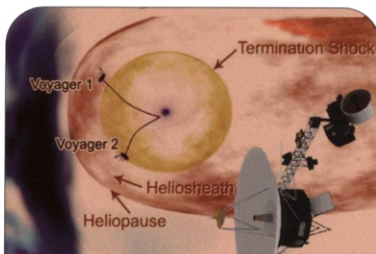


Submersible Prospectors

Radioactivity and tidal heating may create salty subsurface oceans, big enough to decouple crust from mantle. These sites may harbor exotic chemistries or life.

To submersible prospect, have a human spend a Science Op at one of your claims with a buggy present. Roll 2d6 ≤ size = success. Only one attempt per site.

First to subsurface prospect and return the humans safely to the Earth or a lab. **4 VP**



Outer Diaspora

The science probe Voyager 2, launched 1977, made a flyby of Jupiter in 1979 which boosted its heliocentric velocity by 15 km/sec, above the solar system escape velocity. Subsequent gravity-assists were made at Saturn (1981), Uranus (1986), and Neptune (1989). Now at over 100 AU from Sol, it will reach interstellar space around 2016.

First to have a space colony in 5 heliocentric zones. **4 VP**



Search For ET Life

"The most likely place to find life is also the most neglected. It's right next door, where the air is churning with complex chemistries at Earth-normal temperatures and pressures. I am talking, gentlemen, about the upper atmosphere of Venus. Mind you, it is drier than the Sahara..."

To search for ET life, have a human spend a Science Op in an astrobiological site 🌿. Roll 1d6, a "1" or "2" = success. Only one attempt per site.

First to discover ET life and return the humans safely to the Earth or a lab. **4 VP**



Insulin crystals grown in orbit.

Insulin crystals grown on Earth.

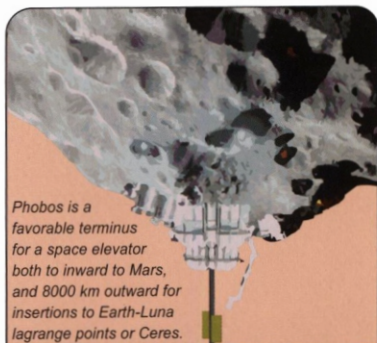
A zero-g medical application identified by G. Harry Stine is the efficient production of single-cell products such as blood-fraction leukocytes. Weightlessness keeps the fragile cells mixed in a suspension of nutrients while extracting the drug being produced.

The absence of gravity means that you can mix stuff that normally don't stay mixed because they are different densities. If you shake a bottle of salad dressing in space, the oil and vinegar stay mixed. It also means that warmer stuff won't rise because of lowered density, and so convection heating won't result in separation of materials.

Space Pharmacy Venture

Each Research Op returns 1 WT profit at the end of your turn.

First to have 3 S site claims, and pay 5 WT. **3 VP**

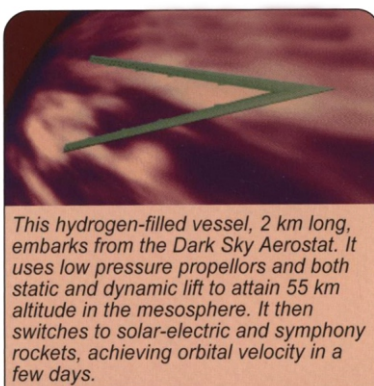


Phobos is a favorable terminus for a space elevator both to inward to Mars, and 8000 km outward for insertions to Earth-Luna lagrange points or Ceres.

Space Elevator Venture

LEO and Earth-Luna L2 are colocated. Phobos and Arsia Mons Caves of Mars are colocated. Your spacecraft adjacent to one end of the elevator are considered adjacent to the other end.

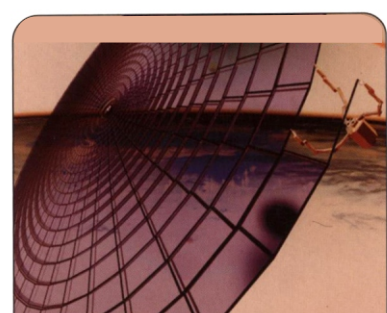
First to have 4 C site claims, and pay 5 WT. **3 VP**



Space Tourism Venture

If it is neither war or anarchy at the end of your turn, you profit 1 WT.

First to have 3 V site claims, and pay 5 WT. **3 VP**



SpiderFab, a technology under development by Tethers Unlimited Inc., integrates elements of 3D printing, automated composite layup, and robotic assembly to create large orbital structures with solar cells and reflectors to create football-stadium sized antennas, and megawatt solar arrays.

Space 3D Printing Venture

Your ET Production and Digital Swap Ops profit you 1 WT at the end of your turn.

First to have 3 M site claims, and pay 5 WT. **3 VP**

