

# ORBITER

## International Space Vehicle

### Pegasus

## Operations Manual

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Orbit Hangar Mods: <http://www.orbithangar.com/searchauth.php?search=mr%20martian>



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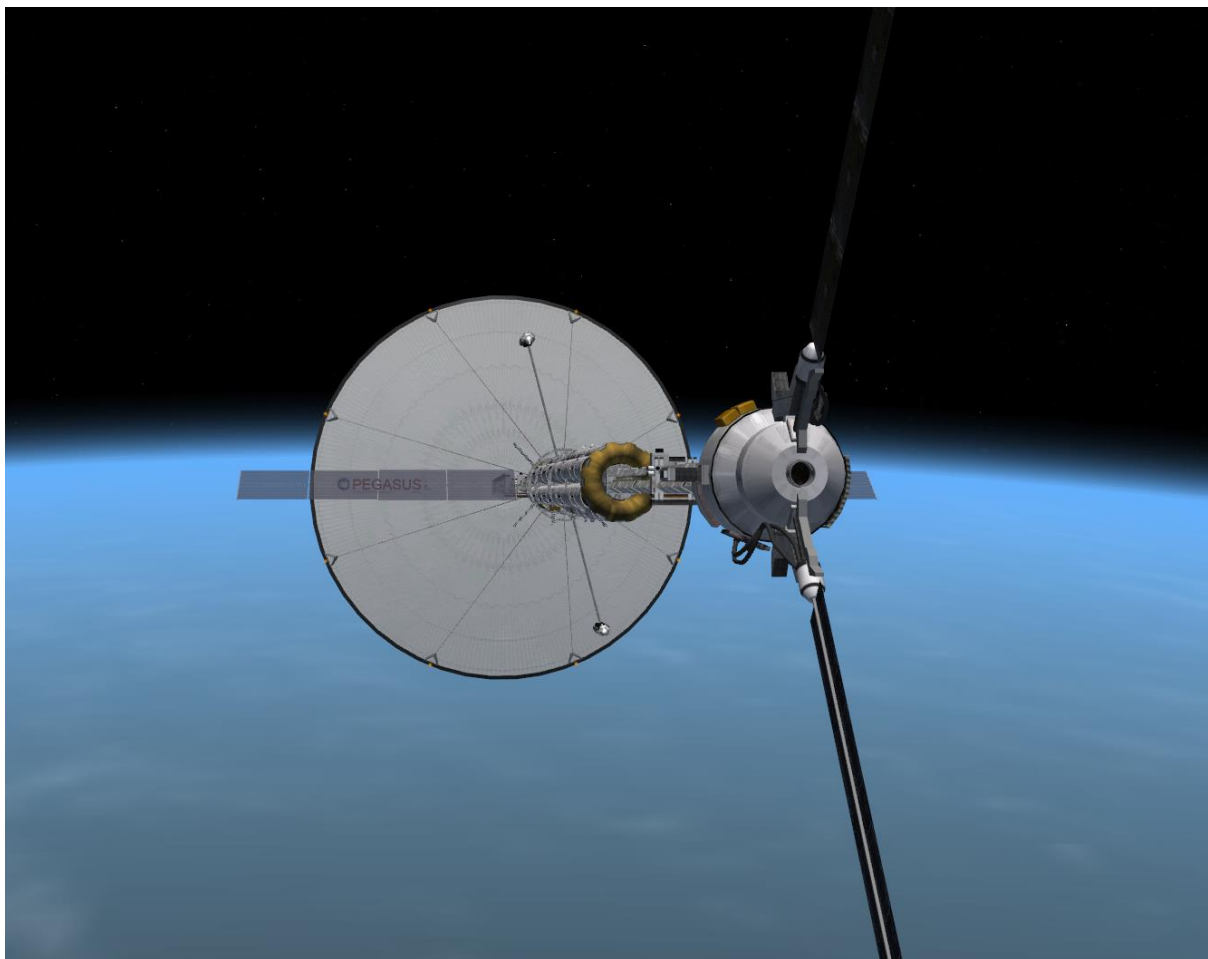
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# 1 Introduction

ISV Pegasus is an attempt at a realistic recreation of the International Planetary Exploration Craft: Pegasus and its mission as seen in the 2004 BBC special: *Space Odyssey: Voyage to the Planets*.

This add-on includes: Pegasus, Venus lander, Mars lander, Io lander, Pluto lander, comet lander, two robotic probes, refuelling hydro-tanks, mission-specific cargos such as a Mars rover, Pluto telescope, and seismic detectors, and detailed environmental elements specific to the program such as landing sites, a comet, and binary asteroids.

This release of ISV Pegasus is a Version 2 release, which greatly improves the performance, detail, user interface, visuals, features, etc.

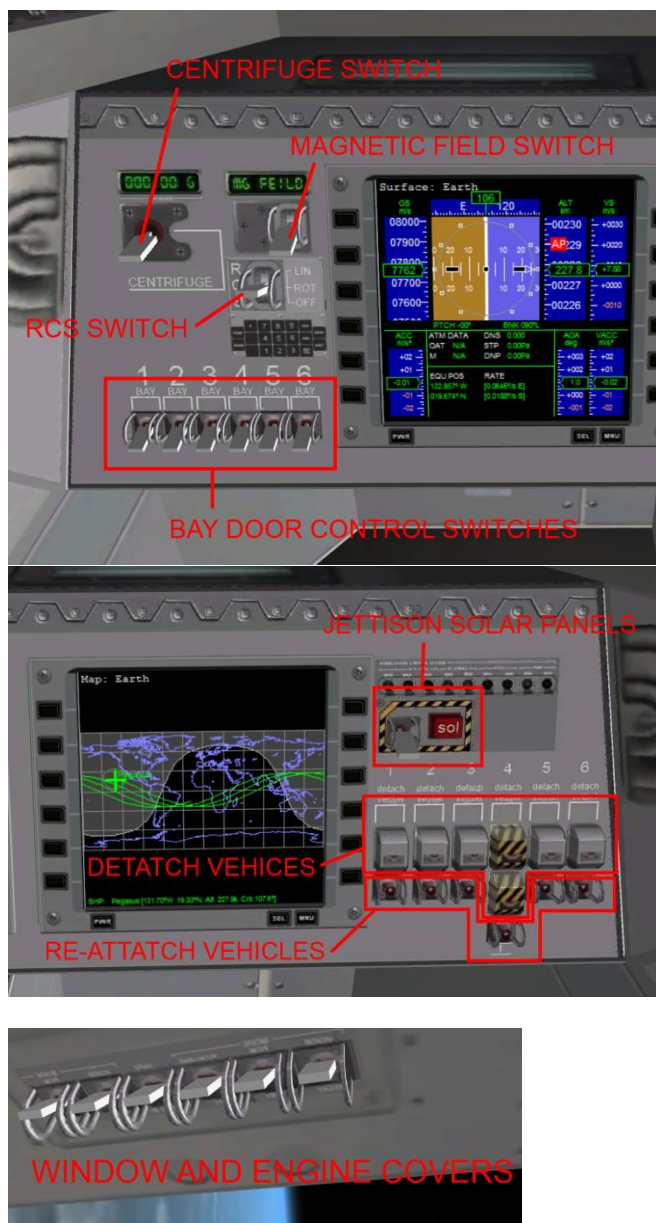


## 2 Notes on operation

Most of the controls for the vehicles in this add-on are moderately self-explanatory. However, there are some more advanced control systems that are explained below. Other controls, such as for the *Mars Rover* are defined by Dansteph's UCGO.

### 2.1 ISV Pegasus Controls

Below are some images of the Pegasus Virtual Cockpit. (top: pilot's position, middle: co-pilot's position, bottom: above co-pilot's position.



Farmilliarise yourself with the virtual cockpit controls above. Note that the black and yellow vehicle jettison controls are for robotic probes. There is only one re-attach control under these, as only one probe has the capacity to return to Pegasus.

## 2.2 Atmospheric Landers

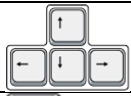










Atmospheric Landers have the ability to jettison various stages throughout their descent. In this addon, this is done autonomously, however, the pilot has the ability to jettison items such as the heatshield and chute from the virtual cocpit. In image is not provided, as the controls are clearly labeled in the cockpits.

When you what to take off again, be sure to jettison the landing gear component first. This is NOT done autonomously.

## 2.3 Non-Atmospheric Landers

Non-Atmospheric landers do not have as many controls as atmospheric ones. They are usually comprised of two segments only: a lander and its gear component. None of the landing sequence is autonomous in a non-atmospheric lander. As with atmospheric landers, the pilot must jettison the landing gear before take-off from a surface. The lander *Messier* is different for two reasons: it is equipped with retro rocket motors for easy descent tonto a comet, and it does not have detachable landing gear. Non-Atmospheric craft also have the ability to abort a mission. If something occurs where a mission abort is required, an abort switch is located next to the jettison-gear switch.

## 2.4 Universal Shortcut Keyes

	left-right: toggle UMMU for EVA or Transfer, up-down: toggle airlock for EVA
	EVA or Transfer crew Member
	Turn off Cautions and Warnings
	Open-close bay door 1
	Open-close bay door 2
	Open-close bay door 3
	Open-close bay door 4
	Open-close bay door 5
	Open-close bay door 6
	Jettison Landing Gear
	Deploy chute

Shift ↑	C	Jettison chute
J		Jettison Heat Shield
U		Deploy mission-specific cargo (landers)
G		Extend Landing Gear

### 3 Damage and Failure Simulation

When 'Damage and Failure Simulation' is active, a variety of changes occur to the mission.

- Solar Panel Jam – left Solar Panel Jams when jettisoned. An EVA must be performed to remove it (Note: solar panels can be removed by MMU regardless of malfunction)
- Titan Probe Voltage Spike – the Titan probe suffers an electrical failure, which prevents its chute from being deployed, causing the probe to be destroyed
- Death of John Pearson – Medical officer, John Pearson dies from lethal solar radiation. This occurs in Saturn Space.

All these events occur in the film, turn on 'Damage and Failure Simulation' to make your experience more true to the film.

### 4 Realistic Flight Model

Activate 'Realistic Flight Model' to make your experience more realistic. With this parameter active, vehicles and craft can be destroyed in certain circumstances. Vehicles will be destroyed when they collide with the ground at too high-a-speed, and when they burn up in the atmosphere. Various alarms will warn you if the vehicle is in a potentially dangerous situation, allowing the pilot to make corrections. Crew will be killed if the vehicle enters a high-radiation, such as within Jupiter Space or the Sun without proper magnetic protection. Alarms will sound to warn the pilot, allowing them to activate the magnetic shield generator. When approaching the Sun, at low altitudes, the magnetic field is not enough to protect the crew, and the centrifuge must be shut down so that power can be diverted to the shield generators. Proximity alerts will sound if the vehicle is on a collision course with an object, or when an unidentified object (such as an asteroid) is detected. Proximity alarms will sometimes sound when a vehicle is landing, press 'M' to switch off the alarms.

MMU will also have to manually unload cargos from Landers, rather than tapping 'U' key. To do this, send MMU under lander and tap 'Return' key.

## 5 Credits

All credit goes to me for the space ships, and the bases. I however, did NOT make the meshes or textures for the binary asteroids, Hubris and Catastrophe. The original meshes and textures were made by Piper, and I recolored the textures a little. The original can be found in his 90 Antiope ad-on found at this address: <http://orbithangar.com/searchid.php?ID=3621>

The mesh for the comet: Yano-Moore was made also by Piper, and can be found in his Pluto and moons ad-on. There is a link to that wonderful ad-on further down. The texture for Yano-Moore was made by Donatelo200 and can be found in his amazing Upsilon Andromeda System ad-on, a link to that is here: <http://orbithangar.com/searchid.php?ID=4773>

The Pluto-Charon system was not made by me either. It too was made by Piper and can be found here: <http://orbithangar.com/searchid.php?ID=4595> however, the level 8 texture for Pluto was made by me. I used Piper's Pluto map as a base texture, and then worked on it in Photoshop.

The surface tiles for the Europa landing site are a recolored version of the Europa landing site in Dansteph's UCGO 3.0. The original can be found here: <http://www.orbithangar.com/searchid.php?ID=4429>

One of the Ares Lander meshed was no made by me. It was made by Francisdrake. I made additional meshes and combined them with Francisdrake's in the code. The original can be found here: <http://orbithangar.com/searchid.php?ID=2717>

Thank you so much to these ad-on authors for making this ad-on possible.

**!!!! DO NOT UNDER ANY CIRCUMSTANCES  
REDISTRIBUTE THE FILES IN THIS AD-ON !!!!**