

Readme Documentation for
Ascension Island Version 2
(Addon for Orbiter 2006)



Welcome to Ascension Island!

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Introduction

Thank you for downloading Ascension Island Version 2.

This addon now includes two versions of the Ascension Base: The original Cold War era Airbase (Version 1) and the all new Ascension International Aerospace Wideawake Launch Facility. I have implemented the Timeline feature to handle this, using the MJD scenario trigger. Therefore, any scenario with a MJD date before 01/01/2010 will have the original Airfield, any after this date will have the new AIA Launch Facility instead. It is important you follow the Installation Instructions carefully for this feature to work. I have made a real effort to keep the poly count down, so the island should run smoothly on lower end machines (although I have not tested this).

Changes since v1:

- 17 custom day and night textures for new AIA base buildings.
- Timeline Feature implemented.
- New general Purpose Launch Pad and VAB building.
- Topography meshes tweaked to be slightly more organic.
- Clouds removed from Surface Tiles.
- AIA base runway extended and widened slightly (4.3km length).
- Several new Scenarios for each base version.

Cold War era Airbase



This is the base as it appeared in Version 1, a loose reconstruction of the Cold War era Airbase. It is little more than a long runway with a few stock buildings. It is suitable for shuttle TAL aborts, atmospheric flights or Green Turtle watching holidays.

AIA Wideawake Launch Facility



Phase 1 of the Ascension Project is now complete, AIA are proud to bring you the all new Wideawake Launch Facility. The first General Purpose Launch Pad and VAB facility have been completed. The Facility is designed with flexibility in mind, so is capable of assembling and launching a huge range of vessels. (Read the GPLP section for more details on configurations and operation.) The runway has also been extended and a new R&D, Administration, MCC and Tracking Complex has been constructed. Whatever it is you need to launch or land, Ascension Island is the number one choice!

Installation

It is important you follow these steps carefully for all the features of the addon to load successfully. This installation does not over-write any stock Orbiter files.

STEP 1. – Clear version 1

If you have Version 1 installed, it is best you delete it before installing version 2.

The complete list of files installed with Version 1 can be found in the Miscellaneous section of this pdf.

STEP 2. - Install the files

Copy all the unzipped addon folders into your Orbiter directory, making sure to maintain the folder names and structure.

STEP 3. - Activate custom textures

Open the **Config/Base.cfg** file and add the list below into the file's texture list.

Copy the list and paste it between **BEGIN_TEXTURES** and **END_TEXTURES**.

```
roof_blue  
roof_fan  
wall_corr  
wall_door  
wall_door_n  
wall_hq  
wall_hq_n  
wall_logo  
wall_logo_n  
wall_obs  
wall_obs_n  
wall_office  
wall_offwin  
wall_offwin_n  
wall_plant  
wall_window  
wall_window_n
```

STEP 4. - Activate Timeline Feature

This addon uses the Timeline Feature of Orbiter. The new Version 2 Launch Base will only load if you add the following line to the **Config/Earth.cfg** file.

Copy the line and paste it between **BEGIN_SURFBASE** and **DIR Earth\Base**.

```
DIR Earth\AIA_Base PERIOD 55197.000012 –
```

General Purpose Launch Pad (GPLP)

The GPLP is designed to be a flexible launch platform with interchangeable MLPs and a 130m tower. The MLP and animated gantry setups are spacecraft3 vessels loaded in the scenario file. Two different MLPs are included in this release: The General Purpose MLP and the Resolve Specific MLP. The gantry that 'connects' the Vessel to the tower can be controlled with spacecraft3 robotic arm controls. Therefore it can be raised and extended to the desired height for whatever launcher you are using. In future I might release more custom MLP's for specific craft if there is demand.



MLP configuration

The Pad loads with the surface base, The MLPs (with gantry) must be loaded separately into the scenario (This requires spacecraft3 to be installed). See the relevant scenarios for the required code for the 2 included MLPs.

Pad Controls

CTRL + = Activate Noise Supression System

This is just a dummy white smoke thruster. Once it is switched on it will not burn out, so must be switched off manually (or left to merrily puff indefinitely).

Gantry Controls

SPACE BAR = Activate controls

SHIFT-num4 or Shift-num6 = Select Elevation or Extension of gantry

SHIFT-num2 or SHIFT-num8 = Actuate Elevation or Extension.

Scenarios

Several scenarios are included with the addon for both bases, including ones for the stock DG, stock Shuttle and other addons. There should be at least enough variety for you to be able to bastardise them to your own needs.

Addons

Some scenarios require other addons to be installed before they will run. Any addons required are stated in the scenario description and can be found either here:

<http://www.orbithangar.com/>

here:

<http://orbiter.mustard-fr.com/>

or here:

<http://www.dougsorbiterpage.com/>

Guidance Files

Please also bare in mind that scenarios using multistage vessels will load that vessel's default guidance file. I can't say how effective this will be at getting into orbit from Ascension, they will need tweaking.

Vessel Height

For best vertical alignment to the pad, it is likely you will have to change the CoG value of spacecraft.dll and multistage.dll vessels. This is easy to do, just look for the *vesselname.ini* file in the relevant config folder and change the CoG value accordingly. The included Scenarios that require this will state what file needs changing in the description.

Here are a few I have worked out:

Donomy's Resolve: CoG = 32.5

Jekka&momo's Ariane6: CoG = 29

Well & Nomatter's Ariane 5: CoG = 33



Miscellaneous

Cloud shadow anomaly

The topography meshes (hills etc.) have a strange lighting issue. They look fine in daylight and at night, but their material colour is too light when in the shadow of a cloud. Despite my best efforts I could not rectify this, so if this bothers you (like it does me) the work around is to simply turn off the cloud shadows in the Visual Effects tab.

Touch of mesh flicker

For some reason there is some occasional flicker on the logos included around the AIA base. It only happens when zoomed out. Also, the VAB launch track can show splits at some angles. I think both these minor problems are due to the Orbiter engine and my .msh converter.

Version 1 file list

List of files installed by Version 1. Recommended you remove these before installing Version 2.

Doc/
UKSSP_AP/
AI_ReadMe.txt

Config/
Earth/Base/
Ascension.cfg

Scenarios/
Ascension Island/
Wideawake Default.scn

Meshes/
UKSSP_AP/
crater1.msh
crater2.msh
crater3.msh
crater4.msh
crater5.msh
hill_80.msh
hill_228.msh
hill_north.msh
hill_plain.msh
hill_small.msh
mountain.msh

Textures/
UKSSP_AP/
crater1.dds
crater2.dds
crater3.dds
crater4.dds
crater5.dds
hill_80.dds
hill_228.dds
hill_north.dds
hill_plain.dds
hill_small.dds
mountain.dds

Textures2/
Earth_4_wo326_s180.dds
Earth_4_wo326_s181.dds
Earth_4_wo326_s182.dds
Earth_4_wo327_s180.dds
Earth_4_wo327_s181.dds
Earth_4_wo327_s182.dds
Earth_4_wo328_s179.dds
Earth_4_wo328_s180.dds
Earth_4_wo328_s181.dds
Earth_4_wo328_s182.dds
Earth_4_wo329_s180.dds
Earth_4_wo329_s181.dds
Earth_4_wo329_s182.dds

Version 2 file list

Complete file list for Version 2 Installation.

Doc/
 AIAdoc/
 Alv2_ReadMe.pdf

Config/
 Earth/
 AIABase/
 Ascension.cfg
 Base/
 Ascension.cfg
 Spacecraft/
 GPLP_gpmlp.ini
 GPLP_resmlp.ini

Scenarios/
 Ascension/
 Cold War Era/
 Harrier Patrol Flight.scn
 TAL Abort Final Approach.scn
 Alien Technology.scn
 AIA 2010/
 Ariane5 Launch.scn
 Ariane6 Launch.scn
 DG Emergency Landing.scn
 DG on runway.scn
 GPLP General MLP.scn
 Resolve Launch.scn
 XR-1 on runway.scn

Meshes/
 AIAmsh/
 crater1.msh
 crater2.msh
 crater3.msh
 crater4.msh
 crater5.msh
 hill_80.msh
 hill_228.msh
 hill_north.msh
 hill_plain.msh
 hill_small.msh
 mountain.msh
 launch_base.msh
 GPLP.msh
 VAB.msh
 GPLP_gpmlp.msh
 GPLP_resmlp.msh

Textures/
 roof_blue.dds
 roof_fan.dds
 wall_corr.dds
 wall_door.dds
 wall_door_n.dds
 wall_hq.dds
 wall_hq_n.dds
 wall_logo.dds
 wall_logo_n.dds
 wall_obs.dds
 wall_obs_n.dds
 wall_office.dds
 wall_offwin.dds
 wall_offwin_n.dds
 wall_plant.dds
 wall_window.dds
 wall_window_n.dds
 AIAtex/
 crater1.dds
 crater2.dds
 crater3.dds
 crater4.dds
 crater5.dds
 hill_80.dds
 hill_228.dds
 hill_north.dds
 hill_plain.dds
 hill_small.dds
 mountain.dds
 wall_logo.dds
 GPLP_uv.dds
 VAB_uv.dds

Textures2/
 Earth_4_wo326_s180.dds
 Earth_4_wo326_s181.dds
 Earth_4_wo326_s182.dds
 Earth_4_wo327_s180.dds
 Earth_4_wo327_s181.dds
 Earth_4_wo327_s182.dds
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 Earth_4_wo328_s181.dds
 Earth_4_wo328_s182.dds
 Earth_4_wo329_s180.dds
 Earth_4_wo329_s181.dds
 Earth_4_wo329_s182.dds

Copyright and drivle

Nothing particularly legal here really. As Orbiter is free, my addons are free – to do with as you will. Feel free to use the contents of this addon how you like, use the textures in your own base, use the GPLP on the moon, make an mlp for the pad.. whatever. Just remember the meshes and textures in this addon are my intellectual property, or somesuchthing apparently, so if you use them, throwing a little credit my way would be nice. Thanks and have fun.

If you want to get in touch for whatever reason, PM me on the orbiter forum or email me. You can visit my blog to see the latest development news for all my addons.

