



Spaceport Field Guide (SpFG) version 1.0 User's Guide

Developed by SpaceWorks Commercial, A Division of SpaceWorks Engineering, Inc. (SEI)
www.spaceworkscommercial.com

The purpose of the Spaceport Field Guide is to provide an easy to use collection of information about spaceports around the world. The database currently includes nearly 200 launch sites, and over 300 facilities associated with those sites.

How to Use the Spaceport Field Guide:

The Spaceport Field Guide (SpFG) is designed to be used in conjunction with Google Earth. The user can open up the .kmz SpFG file in Google Earth to use the software. The user can choose to open the Spaceport Field Guide .kmz file directly or open it directly with Google Earth. If Google Earth is not currently installed on your computer, the user must install it.

Link: Spaceport Field Guide (SpFG) version 1.0
http://www.spaceworkscommercial.com/projects/spaceportfieldguide/spfg_v1.kmz

Link: Google Earth
<http://earth.google.com/intl/en/download-earth.html>

Once the Spaceport Field Guide is open, click on the blue SpFG link in the Places menu (on the left, above "more information") to see a brief explanation of terms, designations, and icons used in the guide.

The Places menu can be used to navigate through the many launch sites. To display a balloon window with more information about a particular spaceport, click on its icon or placemark name in the Places menu. To zoom in, double click on the spaceport's icon, folder, or placemark name. As you zoom in on "active" or "planned" sites (defined below), any available launch and support facilities will become visible.

Spaceport Status and Icons:

The Spaceport Filed Guide divides spaceports into three status groups.



Active: Red Icons
These spaceports have seen a launch within the last five years.



Planned: Blue Icons
These range from proposals to nearly completed spaceports.



Inactive: Gray Icons
These spaceports have not been actively used in the last five years.

To change the visibility of any group(s) on the Google Earth map, click the check box next to the status folder of interest.

Additionally, the Spaceport Field Guide distinguishes between commercial and government sites as follows:



Commercial: Circular Icons



Government: Square Icons

Finally, at high levels of detail, the Spaceport Filed Guide will show any facilities available at active or planned spaceports. This includes launch pads, runways and support infrastructure. Some facilities are shared by two Spaceports (for example, MARS and Wallops Flight Facility); in this case, an icon for each spaceport will appear at the shared facility. Launch and support facilities are designated with the following icon:



Facilities

Spaceport Readiness Level (SpRL):

The Spaceport Readiness Level (SpRL) serves as a quick reference to the operational status of global government and commercial spaceports. The scale ranges from a value of zero (inactive spaceport) to four (fully operational spaceport). Two SpRLs are assigned to each spaceport, one indicating the spaceport's suborbital launch capability and one indicating its orbital launch capability.

SpRL Value	Scale	Short Name	Definition
0		Inactive	There is no plan or interest in establishing spaceport operations, or the spaceport has been inactive for more than five (5) years.
1		Preliminary	There are notional or preliminary plans for development of a spaceport. A potential geographic location for a spaceport and/or individual(s)/organization(s) that will be involved in its development have been identified.
2		Preparatory	A specific geographic location and physical space (land) have been located and secured (purchase, lease, grant, etc.). There may be limited test facilities located within the spaceport area.
3		Developmental	Development/construction is underway for operational (i.e. non-test) infrastructure. Relevant regulatory/legal applications have been initiated or are in-process (environmental, nation state, international legal regulations).
4		Operational	The spaceport is deemed operational. All relevant assessments have been performed and spaceport licenses have been obtained. . Launch vehicle operators (commercial or government) can use the site, or it is already actively used. If the spaceport has been operational for more than five (5) calendar years, there has been at least one (1) operational (i.e. non test-related) launch within that period of five (5) calendar years.

Notes:

1. Spaceports are assigned two separate and independent SpRL values for orbital and sub-orbital operational capability. . Since the operational constructs of an orbital-capable spaceport may differ from those of a sub-orbital spaceport, assignment of two separate SpRL values more thoroughly represents the overall spaceport capabilities. For example, a spaceport may be capable of hosting sub-orbital launches while still in the developmental stages for orbital capability.
2. Operational status makes no distinction between vertical versus horizontal take-off/landing, or any other technical characteristics of the spaceport-specific concept of operations.
3. Test flights could occur at multiple SpRL values for a spaceport. The SpRL indicates the operational capability of the spaceport and makes no qualification about the ability for the spaceport to host test flights.
4. Vehicle and spaceport licenses could be separate and not directly related. In many regulatory frameworks, including that of the U.S. Federal Aviation Administration, vehicles must obtain an Operator's License separately from the blank license necessary for the spaceport. The SpRL system of categorization indicates the spaceport's readiness, which may differ from the readiness of the vehicles of potential customers intending to launch from that spaceport.

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