



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>
TTY: 1-888-835-5322

DA: 13-446
RELEASED: MARCH 15, 2013

GUIDANCE ON OBTAINING EXPERIMENTAL AUTHORIZATIONS FOR COMMERCIAL SPACE LAUNCH ACTIVITIES

The purpose of this Public Notice is to provide guidance for commercial space launch activities and related spacecraft¹ use that require the use of spectrum for operational communications related to launch, cargo delivery, and/or re-entry.

Currently, commercial space launch operations use radio frequencies allocated exclusively for federal government use, and the scope of such operations often encompass use of radio transmissions from within and beyond the Earth's atmosphere. The Federal Communications Commission (FCC) may authorize use of these radio frequencies on a temporary, non-interference basis through the FCC's Experimental Authorization process. This Public Notice provides guidance to applicants on how to obtain an Experimental Authorization for communications used for commercial space launch activities and related cargo transport activities. This Public Notice also provides guidance concerning experimental licensing of related non-government ground stations and ground testing facilities.

Overview: The Office of Engineering and Technology (OET) at the FCC is responsible for experimental authorizations, and processes authorization requests through its Experimental Authorization system (<https://apps.fcc.gov/oetcf/els/index.cfm>). To apply, applicants must first obtain an FCC Registration Number which can be done online at <https://fjallfoss.fcc.gov/coresWeb/publicHome.do>. They can then apply for an Experimental Authorization using the Special Temporary Authority (STA) website link available at <https://apps.fcc.gov/oetcf/els/forms/STANotificationPage.cfm>. Because of the time required for processing such an application for experimental authorization, we recommend that applicants apply at least 90 days in advance of the commercial space launch, related cargo transport activity, or ground testing activity. For coordination purposes, we also recommend that applicants contact OET in advance of formally submitting Experimental Authorization applications to the FCC.

¹ By "spacecraft," we are referring to a cargo delivery vehicle that is used in the context of an FAA-licensed launch and/or re-entry.

An Experimental Authorization is required for a commercial space launch vehicle (*i.e.*, rocket) that will use radio frequencies during a launch. Radio frequencies are often used during launches for telemetry – the sending of information from the launch vehicle to ground controllers during the launch. Radio frequencies are also often used by a transponder placed on the launch vehicle for radar tracking during the launch.

A separate Experimental Authorization is required for the use of radio frequencies by a spacecraft launched into space by the launch vehicle. Spacecraft may use such radio frequencies for communications after separating from the launch vehicle. However, spacecraft that use radio frequencies that the Commission licenses under existing FCC rules – such as communications satellites licensed under our Part 25 rules – do not need to obtain an Experimental Authorization.

A separate Experimental Authorization is required to operate a ground station that will communicate with the commercial space launch vehicle or spacecraft. Ground stations belonging to and operated by the United States government do not require an Experimental Authorization but instead are authorized through the National Telecommunications and Information Administration. A separate Experimental Authorization is also required to operate a ground testing facility for testing the radio communications equipment that will be used in commercial space launch activities.

Required Information: Applicants applying for an Experimental Authorization for commercial space launch and related cargo transport activities should provide the following information through the Experimental Authorization system:

- a. Technical information including frequency, power, emission, latitude and longitude coordinates of the launch site or test operations.
- b. An overview of the proposed launch or testing including, if appropriate, identifying the launch facility and the overall mission.
- c. The anticipated orbital parameters or range of orbital parameters (altitude, inclination) in which the launch vehicle or related spacecraft will operate.
- d. A 24-hour contact for interference issues.
- e. If the applicant is also requesting authorization to operate an earth station to communicate with the launch vehicle or spacecraft, it should provide the frequency, power, emission, latitude and longitude coordinates for the earth station. If the applicant is planning to communicate with an earth station operated by another company, the United States government, or one located outside the United States, its territories and possessions, the applicant should include technical parameters of the earth station in an exhibit to the application for reference purposes only.

The Federal Aviation Administration (FAA) and the National Aeronautics and Space Administration (NASA) have developed and administer safety and policy processes for launch, cargo delivery to the International Space station, and re-entry activities, including processes in connection with orbital debris mitigation and re-entry risk. Accordingly, applicants need not

submit orbital debris mitigation information to the FCC in connection with launch, cargo delivery, or re-entry activities that will be reviewed or approved through FAA and NASA processes. Applicants should coordinate those activities through the FAA and NASA, as appropriate.

Non-Interference Basis: All Experimental Authorizations are granted on a non-interference basis, *i.e.*, the licensed operations can neither cause interference nor claim protection from interference.

Coordination with Federal Governmental Agencies: Because the spectrum in which many applicants will seek to operate is allocated for Federal use, the FCC will coordinate its use with NTIA. This coordination may result in the experimental authorization being subject to special conditions.

Length of Experimental Authorization: Experimental Authorizations are valid for a six-month period from the date of grant and are renewable. Applicants must obtain a new authorization for all communications associated with each launch.

For further information contact: Anthony Serafini at 202-418-2456 or via email at anthony.serafini@fcc.gov or Walter Johnston at 202-418-0807 or via e-mail at walter.johnston@fcc.gov.

- FCC -