
**Commercial
Space
Transportation
Experimental Permit**

Experimental Permit Number: EP 15-011

**Space Exploration
Technologies**

is authorized, subject to the provisions of 51 USC Subtitle V, ch. 509, and the orders, rules, and regulations issued under it, to conduct launches.

General. The permittee is authorized to conduct:

- (1) An unlimited number of flights of the Dragonfly Reusable Launch Vehicle within the operating area identified by permit order A; and
- (2) Pre-flight and post-flight ground operations at McGregor Test Site associated with flights of the Dragonfly Reusable Launch Vehicle.

This permit is granted subject to the terms, conditions, and limitations set forth in permit orders A and B, and any subsequent orders issued by the Office of Commercial Space Transportation.

The permittee shall at all times conduct its operations in accordance with the regulations prescribed by the Office of Commercial Space Transportation for the activities authorized by this experimental permit.



US Department
of Transportation
Federal Aviation
Administration

800 Independence Ave., S.W.
Washington, D.C. 20591

Issued On: July 29, 2015

Effective On: July 29, 2015

Kenneth Wong

Manager, Licensing & Evaluation Division

Experimental Permit Order No. EP 15-011A (Rev 2)

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
EXPERIMENTAL PERMIT ORDER REGARDING

REUSABLE SUBORBITAL ROCKET LAUNCHES

Under Experimental Permit No. EP 15-011

Issued to

SPACE EXPLORATION TECHNOLOGIES

- 1) Authority: This Order is issued to Space Exploration Technologies (SpaceX) under 51 U.S.C. Subtitle V, Chapter 509 and 14 C.F.R Ch. III.
- 2) Purpose: This Order modifies Experimental Permit No. EP 15-011 (the Permit) issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation (Office), authorizing SpaceX to conduct launches of its Dragonfly reusable launch vehicle. This Order prescribes definitions and conditions applicable to each launch conducted by SpaceX under the Permit.
- 3) Definitions: For purposes of the Permit and any orders issued by the Office modifying the Permit, the following definitions apply:
 - (a) "Pre-flight ground operations" begin with pressurization of the Dragonfly propellant tanks
 - (b) "Post-flight operations":
 1. Begin when Dragonfly has landed and end after SpaceX returns the vehicle to a safe condition, for non-tethered operations.
 2. Begin when Dragonfly has stopped thrusting and end after SpaceX returns the vehicle to a safe condition, for tethered operations.
- 4) Safety Clear Zone:
 - (a) During pressurization of the Dragonfly propulsion system, SpaceX must establish a safety clear zone with a 3000 foot radius from the launch point as identified in SpaceX's permit application.

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- (b) During post-flight operations, SpaceX must establish a 3000 foot radius safety clear zone around Dragonfly upon landing until SpaceX verifies that no hazard exists.
- 5) Operating Area: "Operating Area" means a cylindrical region with a radius of 3000 feet from the launch point.
- 6) Pre-Flight Trajectory Reporting: SpaceX must provide the FAA with the planned trajectory no less than 72 hours prior to each flight.
- 7) Post-Flight Trajectory Reporting: SpaceX must provide post-flight trajectory data in accordance with 14 CFR § 437.67 within 14 days of a permitted flight.
- 8) Altitude: SpaceX may operate the Dragonfly vehicle to an altitude that does not exceed 80 feet AGL, in accordance with its application.
- 9) Weather Data: SpaceX must not proceed with launch unless the observed weather conditions (wind direction and speed) are within the bounds of the toxic risk analysis.
- 10) Permit Term: The term of the Permit is one year from July 29, 2016.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By:


Kenneth Wong, Manager
Licensing and Evaluation Division

Original Issued: July 29, 2015
Rev 2 Issued: July 28, 2016
Rev 2 Effective: July 29, 2016

Revision History:

Original Permit Order - Issued July 29, 2015

Revision 1 - Issued October 28, 2015

- 1) Revised paragraph 3(a) to change the pre-flight ground operations

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definition.

- 2) Revised paragraph 3(b) to change the post-flight ground operations definition.
- 3) Added new paragraph 9 to establish restrictions on weather data.
- 4) Renumbered original paragraph 9 to paragraph 10.

Revision 2 - Issued July 28, 2016

- 1) Redesignated Experimental Permit Order No. "EP 15-011A (Rev 1)" to "EP 15-011A (Rev 2)"
- 2) Revised paragraph 10 to change permit term from "one year from the effective date of the Permit" to "one year from July 29, 2016"
- 3) Revised "Issued: October 28, 2015" to "Rev 2 Issued: July 28, 2016"
- 4) Revised "Effective: October 28, 2015" to "Rev 2 Effective: July 29, 2016"

Experimental Permit Order No. EP 15-011B

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
EXPERIMENTAL PERMIT ORDER REGARDING

FINANCIAL RESPONSIBILITY REQUIREMENTS

Under Experimental Permit No. EP 15-011

Issued to

SPACE EXPLORATION TECHNOLOGIES

1. Authority: This Order is issued to Space Exploration Technologies (SpaceX) under 51 U.S.C. Subtitle V, Chapter 509 and 14 C.F.R. part 440.
2. Purpose: This Order modifies Experimental Permit No. EP 15-011 (the Permit) issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, by prescribing financial responsibility requirements for permitted activities in accordance with 14 C.F.R. part 440.
3. Definitions: For the purposes of this order, "permitted launch activities" means activities authorized by the Permit. Other terms used in this Order are defined in accordance with 14 C.F.R. § 440.3.
4. Liability Insurance: SpaceX must maintain a policy or policies of liability insurance (or otherwise demonstrate financial responsibility) in accordance with 14 C.F.R. § 440.9(b) in the amount of Three Million Dollars (\$3,000,000) for covered claims resulting from permitted activities performed at McGregor Test Site as described in Experimental Permit Order No. EP 15-011A for each launch of Dragonfly.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: 
Kenneth Wong, Manager
Licensing and Evaluation Division

Issued: July 29, 2015
Effective: July 29, 2015