
Commercial Space Transportation License

License Number: LRLO 20-119

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 suborbital reusable launch vehicle (RLV) missions.

General. Space Exploration Technologies is authorized to conduct RLV missions to launch the Starship Prototype Launch Vehicle. The RLV missions authorized by this license commence and conclude at the Boca Chica launch and landing site, Boca Chica, Texas.

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

The licensee 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 license.



US Department
of Transportation
**Federal Aviation
Administration**

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

Issued: May 28, 2020
Effective: May 28, 2020

**LIRIO LAN-MING
LIU**

Digitally signed by LIRIO LAN-
MING LIU
Date: 2020.05.28 12:22:48 -04'00'

Executive Director, Office of Operational Safety

License Order No. LRLO 20-119A

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

LAUNCH

AUTHORIZED BY LICENSE NO. LRLO 20-119
ISSUED TO

Space Exploration Technologies

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LRLO 20-119 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct suborbital missions to launch the Starship Prototype; and prescribes as conditions to License No. LRLO 20-119 certain requirements applicable to those missions.
3. Definitions: For purposes of License No. LRLO 20-119 and any orders issued by the FAA pertaining to activities covered by License No. LRLO 20-119:
 - (i) "Pre-flight ground operations" means SpaceX's pre-flight preparations of the Starship Prototype at the Boca Chica Launch Site.
 - (ii) "Flight" shall mean the flight of the Starship Prototype vehicle, commencing with ignition of the vehicle from the Boca Chica Launch Site. Flight includes operation of the Starship Prototype vehicle on a suborbital trajectory with translation to the landing pad at the Boca Chica Launch Site. A flight is concluded upon safing of the vehicle.
4. Special Reporting Requirements: In addition to all applicable reporting requirements under 14 C.F.R. Ch. III:
 - (i) SpaceX must identify and report any anomaly to the FAA occurring on a prior flight of the vehicle or during any pre-flight processing of the vehicle

License Order No. LRLO 20-119A

that could be material to public safety. SpaceX may not proceed with flight operations until receiving written correspondence from the FAA that the identified anomalies have been adequately addressed.

- (ii) In order to perform pre-flight operations that include propellant loading, SpaceX must provide the FAA with the nominal thrust profile and the intended quantities of Methane and Liquid Oxygen at least 3 business days in advance of each operation.

- 5. License Term: The term of License No. LRLO 20-119 authorizing SpaceX to conduct RLV missions is two (2) years from the effective date of this license order.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: **LIRIO LAN-MING** Digitally signed by LIRIO LAN-MING LIU
Date: 2020.05.28 12:23:57 -04'00'
LIU
Lirio Liu, Executive Director
Office of Operational Safety

Issued: May 28, 2020
Effective: May 28, 2020

License Order No. LRLO 20-119B (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FLIGHT

AUTHORIZED BY LICENSE NO. LRLO 20-119
ISSUED TO

Space Exploration Technologies

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LRLO 20-119 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct suborbital missions to launch the Starship Prototype; and prescribes as conditions to License No. LRLO 20-119 certain requirements applicable to the authorization to conduct the flights of these launch vehicles.
3. Authorization: SpaceX is authorized to conduct flights:
 - (a) Using the Starship Prototype vehicle on the ground track and trajectory presented in the license application;
 - (b) From SpaceX's Boca Chica Launch Site;
 - (c) According to the launch vehicle, launch vehicle systems, and safety management program represented in the SpaceX application as of the date of this order, and any amendments to the license application approved by the FAA, in writing; and
 - (d) Only when an FAA Safety Inspector is present at SpaceX's Boca Chica launch and landing site.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: **DANIEL P**
MURRAY
Digitally signed by DANIEL P
MURRAY
Date: 2021.03.12 16:51:26
-05'00'

Daniel P. Murray, Manager
Safety Authorization Division

Original Issued: May 28, 2020
Rev 1 Issued: March 12, 2021
Rev 1 Effective: March 12, 2021

Revision History:

Original License Order B - Issued May 28, 2020

Revision 1 - **Issued March 12, 2021**

- 1) Added Paragraph (3)(d) requiring an FAA Safety Inspector to be present at the Boca Chica Launch and Landing site for flight.

License Order No. LRLO 20-119B

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FLIGHT

AUTHORIZED BY LICENSE NO. LRLO 20-119
ISSUED TO

Space Exploration Technologies

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LRLO 20-119 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing SpaceX to conduct suborbital missions to launch the Starship Prototype; and prescribes as conditions to License No. LRLO 20-119 certain requirements applicable to the authorization to conduct the flights of these launch vehicles.
3. Authorization: SpaceX is authorized to conduct flights:
 - (a) Using the Starship Prototype vehicle on the ground track and trajectory presented in the license application.
 - (b) From SpaceX's Boca Chica Launch Site; and
 - (c) According to the launch vehicle, launch vehicle systems, and safety management program represented in the SpaceX application as of the date of this order, and any amendments to the license application approved by the FAA, in writing.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: **LIRIO LAN-MING** Digitally signed by LIRIO LAN-
LIU MING LIU
Date: 2020.05.28 12:24:33 -04'00'

Lirio Liu, Executive Director
Office of Operational Safety

Issued: May 28, 2020

Effective: May 28, 2020

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FINANCIAL RESPONSIBILITY REQUIREMENTS

Under License No. LRLO 20-119
Issued to

Space Exploration Technologies

1. Authority: This Order is issued to Space Exploration Technologies, referred to as SpaceX, under 51 U.S.C. Subtitle V, chapter 509, and 14 C.F.R. part 440.
2. Purpose: This Order modifies License No. LRLO 20-119 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, by prescribing financial responsibility requirements for licensed launch activities in accordance with 14 C.F.R. part 440.
3. Definitions: For purposes of this Order, "licensed launch activities" shall mean activities authorized by the License. Other terms used in this Order are defined in accordance with 14 C.F.R. § 440.3.
4. Liability Insurance: SpaceX shall 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:
 - a) Three Million Dollars (\$3,000,000) for covered claims resulting from pre-flight operations of the Starship Prototype from SpaceX's Boca Chica Launch Site; and
 - b) Five Hundred Million Dollars (\$500,000,000) for covered claims resulting from flight of the Starship Prototype from SpaceX's Boca Chica Launch Site.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: **DANIEL P**
MURRAY
Digitally signed by DANIEL P
MURRAY
Date: 2020.12.07 21:18:34
-05'00'

Daniel P. Murray, Manager
Safety Authorization Division

Original Issued: May 28, 2020
Rev 1 Issued: December 7, 2020
Rev 1 Effective: December 7, 2020

Revision History:

Original License Order C - Issued May 28, 2020

Revision 1 - Issued December 7, 2020

- 1) Paragraph (4) (b) replaced "One Hundred Ninety-Eight Million Dollars (\$198,000,000)" with "Five Hundred Million Dollars (\$500,000,000)".