

Commercial Space Transportation License

License Number: LLO 20-118 (Rev 4)

**ASTRA SPACE,
INC.**

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. Astra Space, Inc. is authorized to conduct:

- (a) Flights of the Rocket v3 launch vehicle from Launch Pad B at the Pacific Spaceport Complex – Alaska (PSCA), transporting a payload, if any, to low Earth polar orbit and
- (b) Pre-flight ground operations at PSCA associated with the flights, as identified in paragraph (a) of this license, of the Rocket v3 launch vehicle.

This license is granted subject to the terms, conditions, and limitations set forth in licensing orders A, B, C, and D 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

Original Issued: January 9, 2020
Rev 4 Issued: August 18, 2021
Rev 4 Effective: August 18, 2021

**DANIEL P
MURRAY**

Director, Office of Operational Safety

Digitally signed by
DANIEL P MURRAY
Date: 2021.08.18
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Revision History:

Original License - Issued January 9, 2020

Revision 1 - Issued February 19, 2020

- 1) In paragraph (a), replaced "Three" with "Four"

Revision 2 - Issued March 20, 2020

- 1) In paragraph (a), deleted "each" and after payload inserted "if any,"

Revision 3 - Issued December 3, 2020.

- 1) In paragraph (a), deleted "Four"
- 2) In paragraphs (a) and (b), deleted ".0"

Revision 4 - Issued August 18, 2021.

- 1) Updated License, replaced "LLS" with "LLO"
- 2) Updated License, to "Rev 4"

License Order No. LLO 20-118A (Rev 4)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

LAUNCH

AUTHORIZED BY LICENSE NO. LLO 20-118
ISSUED TO

ASTRA SPACE, INC.

1. Authority: This Order is issued to Astra Space, Inc., referred to as Astra, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLO 20-118 originally issued as an LLS 20-118, on January 9, 2020, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Astra to conduct launches as identified by name in the license application of its Rocket v3 launch vehicle; and prescribes as conditions to License No. LLO 20-118 certain requirements applicable to the launches.
3. Definitions: For purposes of License No. LLO 20-118 and any orders issued by the FAA pertaining to activities covered by License No. LLO 20-118:
 - (a) "Flight" shall mean the flight of a Rocket v3 launch vehicle, commencing with ignition of the first stage from Pacific Spaceport Complex - Alaska (PSCA) and transporting classes of payloads, if any, to low Earth polar orbit. A flight is concluded upon Astra's last exercise of control over the Rocket v3 launch vehicle, including the safing of the Rocket v3 launch vehicle stages or components that reach Earth orbit, following separation of the payload, if any.
 - (b) "Pre-flight ground operations" shall mean Astra's pre-flight preparations of a Rocket v3 launch vehicle at PSCA, beginning with the arrival of the Rocket v3 launch vehicle at PSCA.

License Order No. LLO 20-118A (Rev 4)

4. License Term: License No. LLO 20-118 expires on March 9, 2026.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: **DANIEL P MURRAY**
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Date: 2021.08.18 10:41:16 -04'00'
Daniel P. Murray, Director
Office of Operational Safety

Originally Issued: January 9, 2020
Rev 4 Issued: August 18, 2021
Rev 4 Effective: August 18, 2021

Revision History:

Original License Order A - Issued June 1, 2018

Revision 1 - Issued February 19, 2020

- 1) In paragraph (2), replaced "issued concurrently" with "originally issued on January 9, 2020" and "three" with "four".
- 2) In paragraph (4), replaced "third" with "fourth" and replaced "the effective date of this license order" with "January 9, 2020".

Revision 2 - Issued March 20, 2020

- 1) In paragraph (2), first line, replaced typographical error on license number to correct "LLS 20-118"

Revision 3 - Issued December 3, 2020

- 1) Deleted ".0" throughout
- 2) In paragraph (2), deleted "four" and after "launches" inserted "as identified by name in the license application"
- 3) In paragraph (4), replaced "fourth" with "last" and after "launch" inserted "as identified by name in the license application and "".

Revision 4 - Issued August 18, 2021.

- 1) Throughout, replaced "LLS" with "LLO"
- 2) Updated License Order, to "Rev 4"
- 3) In paragraph (1), after "...originally issued" inserted "as an LLS 20-118"
- 4) In paragraph (3) (a), after "transporting" inserted "classes of", and after first "payload" added "s".
- 5) In paragraph (4), after "License Term:" replaced entire sentence with "License No. LLO 20-118 expires on March 9, 2026."

License Order No. LLO 20-118B (Rev 4)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FLIGHT

AUTHORIZED BY LICENSE NO. LLO 20-118
ISSUED TO

ASTRA SPACE, INC.

1. Authority: This Order is issued to Astra Space, Inc., referred to as Astra, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLO 20-118 originally issued as an LLS 20-118, on January 9, 2020, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing conduct launches of Rocket v3 launch vehicles; and prescribes as conditions to License No. LLO 20-118 certain requirements applicable to the authorization to conduct the flight of a launch vehicle.
3. Authorization: Astra is authorized to conduct flights of the launch vehicles, as identified by name in the license application:
 - (a) Using a Rocket v3 launch vehicle;
 - (b) From Launch Pad B at Pacific Spaceport Complex - Alaska (PSCA);
 - (c) On the ground tracks and trajectories presented in the license application;
 - (d) Transporting (i) U.S. government payloads and (ii) non-government communication, remote sensing, research and scientific payloads, if any, to low Earth polar orbit as described in the license application; and
 - (e) According to the launch vehicle, launch vehicle systems, and safety management program represented in the Astra 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
LICENSE ORDER REGARDING

PRE-FLIGHT GROUND OPERATIONS

AUTHORIZED BY LICENSE NO. LLO 20-118
ISSUED TO

ASTRA SPACE, INC.

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1. Authority: This Order is issued to Astra Space, Inc., referred to as Astra, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
 2. Purpose: This Order modifies License No. LLO 20-118 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Astra to conduct launches of its Rocket v3 launch vehicles; and prescribes as conditions to License No. LLO 20-118 certain requirements applicable to the authorization to conduct pre-flight ground operations.
 3. Authorization: Astra is authorized to conduct pre-flight ground operations at Pacific Spaceport Complex - Alaska (PSCA) associated with the launch of a Rocket v3 launch vehicle.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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Daniel P. Murray, Director
Office of Operational Safety

Originally Issued: January 9, 2020
Rev 4 Issued: August 18, 2021
Rev 4 Effective: August 18, 2021

Revision History:

Original License Order C - Issued January 9, 2020

Revision 1 -Issued December 3, 2020

- 1) Deleted ".0" throughout.

Revision 2 - Issued August 18, 2021.

- 1) Throughout, replaced "LLS" with "LLO"
- 2) Updated License Order C, to "Rev 2"

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FINANCIAL RESPONSIBILITY REQUIREMENTS

UNDER LICENSE NO. LLO 20-118
ISSUED TO

ASTRA SPACE, INC.

1. Authority: This Order is issued to Astra Space, Inc., referred to as Astra, under 51 U.S.C. Subtitle V, chapter 509, and 14 C.F.R. part 440.
2. Purpose: This Order modifies License No. LLO 20-118 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: Astra shall maintain a policy or policies of liability insurance in accordance with 14 C.F.R. § 440.9(b) in the amount of:
 - (a) Thirty Million Dollars (\$30,000,000) for covered claims resulting from flight of the Rocket v3.0 launch vehicle from Pacific Spaceport Complex - Alaska (PSCA), and
 - (b) Three Million Dollars (\$3,000,000) for covered claims resulting from pre-flight operations performed at PSCA

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

DANIEL P

By: **MURRAY**

Daniel P. Murray, Director
Office of Operational Safety

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Originally Issued: January 9, 2020
Rev 4 Issued: August 18, 2021
Rev 4 Effective: August 18, 2021

Revision History:

Original License Order D - Issued January 9, 2020

Revision 1 - Issued August 18, 2021.

- 1) Throughout License, replaced "LLS" with "LLO"
- 2) Updated License Order D, to "Rev 1"
- 3) In paragraph (4) deleted "(or otherwise demonstrate financial responsibility)"