

# Commercial Space Transportation License

License Number: LLS 18-112

**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 a launch.**

General. Astra Space, Inc. is authorized to conduct:

- (i) A suborbital flight of the Rocket 1 launch vehicle from Launch Pad 2 at the Pacific Spaceport Complex – Alaska (PSCA); and
- (ii) pre-flight ground operations at PSCA associated with the flight, as identified in paragraph (i) of this license, of the Rocket 1 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

**Issued: March 30, 2018**

**Effective: March 30, 2018**

*Kenneth Wong*

**Manager, Licensing and Evaluation Division**

OFFICE OF  
COMMERCIAL SPACE TRANSPORTATION  
LICENSE ORDER REGARDING

**LAUNCH**


AUTHORIZED BY LICENSE NO. LLS 18-112  
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. LLS 18-112 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Astra to conduct the launch of its Rocket 1 launch vehicle; and prescribes as conditions to License No. LLS 18-112 certain requirements applicable to the launch.
3. Definitions: For purposes of License No. LLS 18-112 and any orders issued by the FAA pertaining to activities covered by License No. LLS 18-112:
  - (i) "Flight" shall mean the suborbital flight of the Rocket 1 launch vehicle, commencing with ignition of the first stage from Pacific Spaceport Complex - Alaska (PSCA). Flight is concluded upon the Rocket 1 vehicle impacting on Earth.
  - (ii) "Pre-flight ground operations" shall mean Astra's pre-flight preparations of the Rocket 1 launch vehicle at PSCA, beginning with the arrival of the Rocket 1 at PSCA.
4. License Term: License No. LLS 18-112 terminates upon completion of the launch authorized by the license, or one (1) year from the effective date of this license order, whichever occurs first.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

By:   
Kenneth Wong, Manager  
Licensing and Evaluation Division

Issued: March 30, 2018

Effective: March 30, 2018

**License Order No. LLS 18-112B**

OFFICE OF  
COMMERCIAL SPACE TRANSPORTATION  
LICENSE ORDER REGARDING

**FLIGHT**


AUTHORIZED BY LICENSE NO. LLS 18-112  
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. LLS 18-112 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Astra to conduct the launch of its Rocket 1 launch vehicle; and prescribes as conditions to License No. LLS 18-112 certain requirements applicable to the authorization to conduct the flight of this launch vehicle.
3. Authorization: Astra is authorized to conduct flights of the launch vehicle:
  - (a) Using a Rocket 1 launch vehicle;
  - (b) From Launch Pad 2 at Pacific Spaceport Complex - Alaska (PSCA);
  - (c) On a nominal launch azimuth of 188.5 degrees;
  - (d) Transporting an inert upper stage on a suborbital trajectory without a payload; 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  
FEDERAL AVIATION ADMINISTRATION

By:   
Kenneth Wong, Manager  
Licensing and Evaluation Division

Issued: March 30, 2018

Effective: March 30, 2018

OFFICE OF  
COMMERCIAL SPACE TRANSPORTATION  
LICENSE ORDER REGARDING

**PRE-FLIGHT GROUND OPERATIONS**

AUTHORIZED BY LICENSE NO. LLS 18-112  
ISSUED TO

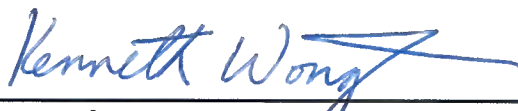
ASTRA SPACE, INC.

---

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. LLS 18-112 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Astra to conduct the launch of its Rocket 1 launch vehicle; and prescribes as conditions to License No. LLS 18-112 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 the Rocket 1 launch vehicle.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

By:

  
Kenneth Wong, Manager  
Licensing and Evaluation Division

Issued: March 30, 2018

Effective: March 30, 2018

OFFICE OF  
COMMERCIAL SPACE TRANSPORTATION  
LICENSE ORDER REGARDING


**FINANCIAL RESPONSIBILITY REQUIREMENTS**

Under License No. LLS 18-112  
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. LLS 18-112 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 (or otherwise demonstrate financial responsibility) in accordance with 14 C.F.R. § 440.9(b) in the amount of:
    - (a) Nine Million Dollars (\$9,000,000) for covered claims resulting from flight of the Astra 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.
  5. Demonstration of Compliance: Astra must submit to the FAA evidence of financial responsibility and compliance with allocation of risk requirements in accordance with § 440.15, no later than fifteen (15) days prior to the launch conducted under this license.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

By:   
Kenneth Wong, Manager  
Licensing and Evaluation Division

Issued: March 30, 2018

Effective: March 30, 2018