
Commercial Space Transportation License

License Number: LLO 13-083

ORBITAL SCIENCES CORPORATION

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. Orbital Sciences Corporation is authorized to conduct:

- (i) Flights of Minotaur I launch vehicles from Pad 0B at Wallops Flight Facility (WFF), as identified in license orders issued by the Federal Aviation Administration; and
- (ii) Pre-flight ground operations at WFF associated with the flights, as identified in paragraph (i) of this license, of Minotaur I launch vehicles.

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 On: June 7, 2013

Effective On: June 7, 2013



Manager, Licensing and Evaluation Division

License Order No. LLO 13-083A (Rev 2)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

LAUNCH

AUTHORIZED BY LICENSE NO. LLO 13-083
ISSUED TO

ORBITAL SCIENCES CORPORATION

1. Authority: This Order is issued to Orbital Sciences Corporation, referred to as Orbital, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLO 13-083 originally issued June 7, 2013, by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Orbital to conduct launches of Minotaur I launch vehicles; and prescribes as conditions to License No. LLO 13-083 certain requirements applicable to the launches.
3. Definitions: For purposes of License No. LLO 13-083 and any orders issued by the FAA pertaining to activities covered by License No. LLO 13-083:
 - (i) "Flight" shall mean the flight of a Minotaur I launch vehicle commencing with ignition of the first stage from Wallops Flight Facility (WFF) on a launch azimuth of 104.69 ± 2 degrees and transporting United States government and U.S. government sponsored payloads to a low Earth orbit. A flight is concluded upon Orbital's last exercise of control over the Minotaur I launch vehicle, including the safing of the Minotaur I launch vehicle stages or components that reach Earth orbit, following separation of the payloads.
 - (ii) "Pre-flight ground operations" shall mean Orbital's pre-flight preparation of the Minotaur I launch vehicle at WFF, beginning with the arrival of the Minotaur I launch vehicle at WFF.

License Order No. LLO 13-083A (Rev 2)

4. License Term: The term of License No. LLO 13-083 authorizing Orbital to conduct launches is five (5) years from June 7, 2018.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: 
Kenneth Wong, Manager
Licensing and Evaluation Division

Original Issued: June 7, 2013
Rev 2 Issued: June 5, 2018
Rev 2 Effective: June 7, 2018

Revision History:

Original License Order - Issued June 7, 2013

Revision 1 - Issued November 13, 2013

- 1) In section 3(i) add "and U.S. government sponsored" before "payloads."

Revision 2 - Issued June 5, 2018

- 1) In paragraph 2, replaced "issued concurrently" with "originally issued on June 7, 2013".
- 2) In paragraph 4, replaced "the effective date of this license order" with "June 7, 2018"

License Order No. LLO 13-083B (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
* LICENSE ORDER REGARDING

FLIGHT

AUTHORIZED BY LICENSE NO. LLO 13-083
ISSUED TO

ORBITAL SCIENCES CORPORATION

1. Authority: This Order is issued to Orbital Sciences Corporation, referred to as Orbital, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLO 13-083 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Orbital to conduct launches of Minotaur I launch vehicles; and prescribes as conditions to License No. LLO 13-083 certain requirements applicable to the authorization to conduct flights.
3. Authorization: Orbital is authorized to conduct flights:
 - (a) Using Minotaur I launch vehicles;
 - (b) From Wallops Flight Facility (WFF), Virginia;
 - (c) On a launch azimuth of 104.69 ± 2 degrees;
 - (d) Transporting U.S. government and U.S. government sponsored payloads to a low Earth orbit;
 - (e) According to the launch vehicle, launch vehicle systems, and safety management program represented in the Orbital 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*
Kenneth Wong, Manager
Licensing and Evaluation Division

Issued On: November 13, 2013
Effective On: November 13, 2013

Revision History:

Original License Order - Issued June 7, 2013

Revision 1 - Issued November 13, 2013

In Section 3(d) add "and U.S. government sponsored" before
"payloads."

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

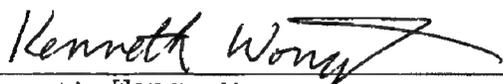
PRE-FLIGHT GROUND OPERATIONS

AUTHORIZED BY LICENSE NO. LLO 13-083
ISSUED TO

ORBITAL SCIENCES CORPORATION

1. Authority: This Order is issued to Orbital Sciences Corporation , referred to as Orbital, under 51 U.S.C. subtitle V, chapter 509, and 14 C.F.R. Ch. III.
2. Purpose: This Order modifies License No. LLO 13-082 issued concurrently by the Federal Aviation Administration's Office of Commercial Space Transportation, authorizing Orbital to conduct launches of Minotaur I launch vehicles; and prescribes as conditions to License No. LLO 13-083 certain requirements applicable to the authorization to conduct pre-flight ground operations.
3. Authorization: Orbital is authorized to conduct pre-flight ground operations at WFF associated with the launches of U.S. government and U.S. government sponsored payloads on Minotaur I launch vehicles.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By: 
Kenneth Wong, Manager
Licensing and Evaluation Division

Issued On: June 7, 2013
Effective On: June 7, 2013

License Order No. LLO 13-083D (Rev 1)

OFFICE OF
COMMERCIAL SPACE TRANSPORTATION
LICENSE ORDER REGARDING

FINANCIAL RESPONSIBILITY REQUIREMENTS

Under License No. LLO 13-083
Issued to

ORBITAL SCIENCES CORPORATION

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1. Authority: This Order is issued to Orbital Sciences Corporation, referred to as Orbital, under 51 U.S.C. Subtitle V, chapter 509, and 14 C.F.R. part 440.
 2. Purpose: This Order modifies License No. LLO 13-083 originally issued June 7, 2013, 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: Orbital 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) Twenty-Two Million Five Hundred Thousand Dollars (\$22,500,000) for covered claims resulting from flight of the Minotaur I launch vehicle from Wallops Flight Facility (WFF).
 - (b) Nine Million Dollars (\$9,000,000) for covered claims resulting from pre-flight operations performed at WFF.

5. Government Property Insurance: Orbital shall maintain a policy or policies of insurance (or otherwise demonstrate financial responsibility) in accordance with 14 C.F.R § 440.9(d) in the amount of:
- (a) Fifty Million Dollars (\$50,000,000) for covered claims resulting from flight of the Minotaur I launch vehicle from WFF.
 - (b) Ten Million Dollars (\$10,000,000) for covered claims resulting from pre-flight operations performed at WFF.
6. Covered property includes all property owned, leased, or occupied by, or within the care, custody, or control of, the United States and its agencies, and its contractors and subcontractors involved in licensed launch activities, at WFF.

OFFICE OF COMMERCIAL SPACE TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

By:


Kenneth Wong, Manager
Licensing and Evaluation Division

Original Issued: June 7, 2013
Rev 1 Issued: June 5, 2018
Rev 1 Effective: June 7, 2018

Revision History:

Original License Order - Issued June 7, 2013

Revision 1 - Issued June 5, 2018

- 1) In paragraph 2, replaced "issued concurrently" with "originally issued on June 7, 2013".
- 2) In paragraph 5(a), changed Government Property Insurance value for flight from \$44,000,000 to \$50,000,000.
- 3) In paragraph 5(b), changed Government Property Insurance value for pre-flight from \$1,000,000 to \$10,000,000.