



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

# Memorandum

Subject: **ACTION**: Amateur Rocket Launch NOTAM

Date: 01/04/06

From: Manager, Airspace Branch, AWP-520

Reply to  
Attn of:

To: Manager, Rancho Murieta Automated Flight Service  
Station

Attached is a Certificate of Waiver and associated special provisions issued to The Livermore Unit of the National Association of Rocketry (LUNAR) for rocket launches for calendar year (CY) 2006. Specific dates and times are listed in the special provisions of the waiver. Maximum launch altitude is limited to 15,000 feet AGL.

When requested by the proponent, please transmit a NOTAM for rocket launch activity based on the above information in accordance with FAA Order 7930.2.

Example:

UNMANNED ROCKET 2NMR LIN115012 15,000AGL/BLO WEF (date/time) UTC

Questions should be directed to Karen McDonald, Airspace Specialist, AWP-520.2, at (310) 725-6557.

Leonard A. Mobley

Attachment

cc: NOCAL TRACON  
ATA-400  
ZOA

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

**CERTIFICATE OF WAIVER OR AUTHORIZATION**

ISSUED TO

Livermore Unit of the National Association of Rocketry (LUNAR) / CY-2006  
By : John Joseph Hagerty, Jr.

ADDRESS

Mr. Jack Hagerty  
785 Jefferson Ave.  
Livermore, CA 94550

[president@lunar.org](mailto:president@lunar.org) or [jhagerty@juno.com](mailto:jhagerty@juno.com)

W: (925) 455-1143 Cell: (925) 437-8543

This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.

OPERATIONS AUTHORIZED

Sport rocket launch of multiple high-power unmanned rockets 9.5 nautical miles (NM) east of Farmington, CA. Latitude 37°57'N, Longitude 120°48'W (Linden (LIN) VORTAC 115 degree radial at 12 NM). Maximum altitude 15,000 feet AGL.

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

Title 14 Code of Federal Regulations (CFR) Section 101.1 (3)(ii)(a), (b); and 101.23 (b), (h)

**STANDARD PROVISIONS**

1. A copy of the application made for this certificate shall be attached and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration, or of any State or municipal official charged with the duty of enforcing local laws or regulations.
3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.
4. This certificate is nontransferable.

Note-This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.

**SPECIAL PROVISIONS**

Special Provisions Nos. one to sixteen inclusive, are set forth and attached.

This certificate is effective (see special provisions), and is subject to cancellation at any time upon notice by the Administrator or his authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

Western Pacific Region  
(Region)

\_\_\_\_\_  
(Signature)

January 4, 2005  
(Date)

\_\_\_\_\_  
Manager, Airspace Branch  
(Title)

## SPECIAL PROVISIONS

1. Rocket launch operations are authorized from 0900 until 1600 local for Calendar Year **(CY) 2006** on the following dates:

|                |                  |
|----------------|------------------|
| January 7, 14  | Snow Ranch Field |
| February 4, 11 | Snow Ranch Field |
| March 4, 11    | Snow Ranch Field |
| April 1, 8     | Snow Ranch Field |
| May 6          | Snow Ranch Field |
| November 4, 11 | Snow Ranch Field |
| December 2, 9  | Snow Ranch Field |

2. The holder of this certificate shall notify Rancho Murieta Automated Flight Service Station (AFSS) at (800) 752-7860, no later than 24 hours prior to initiating operations, of the dates, times, place, altitudes, nature and duration of the operation, and request that a Notice to Airmen (NOTAM) be issued.
3. The holder of this certificate shall notify the Northern California TRACON at (916) 366-4019 no later than 30 minutes prior to initiating operations, and again after completion of operations. Provide Northern California TRACON with an emergency telephone number to terminate operations if necessary.
4. The holder of this certificate shall notify the Oakland ARTCC at (510) 745-3331 no later than 30 minutes prior to initiating operations, and again after completion of operations. Provide OAK ARTCC with an emergency telephone number to terminate operations if necessary.
5. The holder of this certificate shall notify all the above facilities of any cancellation of any of the listed dates scheduled for rocket launches.
6. The trajectory of all rockets shall be contained within a 2 statute mile radius (SMR) of the launch point. Snow Ranch Field lies midway between two converging airways (V459 and V23), and the rocket trajectory shall not cross either airway.
7. The holder of this certificate shall provide an observer(s) positioned to view the perimeter of the 2 statute mile radius. The observer(s) shall have direct communication with the launch site for the purpose of terminating launches if aircraft are observed that could penetrate the 2 statute mile radius.
8. Rockets may not be launched at an angle of less than 80 degrees above the horizon.

9. The operations shall not be conducted when the surface visibility in the launch area is less than 5 miles and/or into clouds.
10. Rockets launched between sunset and sunrise shall be equipped with a strobe light so as to give a visual warning equal to that specified by the Code of Federal Regulations (CFR) Title 14, Part 23, Section 1401, required by aircraft in flight. (A strobe with at least a 3-mile range may be used.)
11. The holder shall notify Rancho Murieta AFSS, and Northern California TRACON if for any reason launches are to be canceled, either for the entire launch period for which notification has been made or any portion thereof.
12. The holder has the responsibility to temporarily halt or cancel the operation at any time the safety of persons or property, either on the ground or in the air, is in jeopardy or there is a contravention of any of the terms or provisions of this waiver.
13. **The maximum allowed altitude is 15,000 feet above ground level (AGL).**
14. **Northern California TRACON or OAK ARTCC reserves the right to limit the altitude of rockets at any time.**
15. It is the responsibility of the holder to ensure that all persons participating in this operation are briefed on and understand both the standard and special provisions of this waiver.
16. **LUNAR** covenants and expressly agrees that with regard to any liability which may arise from operation of any rockets or related activities, that party shall be solely and exclusively liable for the negligence of its own agents, servants, participants, and /or employees, in accordance with the applicable law, and that neither party looks to the other to save and hold it harmless for the consequence of any negligence on the part of one of its own agents, servants, and /or employees.