



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airport Traffic Control Tower
6311 34th Avenue South
Minneapolis, MN 55450

December 18, 2007


Alan Estenson
7006 Ives Lane North
Maple Grove, MN 55369

Dear Mr. Estenson:

Enclosed is your waiver package for 2008, which includes the Certificate of Waiver or Authorization, Special Provisions, and the Central Altitude Reservation Function sanction.

Please call Pat Karsten at 612-713-4014 if you have any questions.

Sincerely,



Carl E. Rydeen
Acting District Manager

Enclosure

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO Alan Estenson – Minnesota Amateur Spacemodeler Association (MASA)

ADDRESS 7006 Ives Lane North, Maple Grove, MN 55369

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

Location: GEP330013.8 (lat/long: N45°21' W93°30') within a 3-nautical mile radius. Unmanned rocketry activities.

Date: January 1, 2008 thru December 31, 2008

Time: 0800-1800 CDT (1300-2300Z)
0800-1800 CST (1400-0000Z)

Alternate Date: N/A

Time: N/A

Altitude: Surface to 5,500 feet MSL (with call-in requests for higher altitudes)

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

FAR 101.23(b) in controlled airspace. FAR 101.23(c) Within five miles of the boundary of any airport.

STANDARD PROVISIONS

1. A copy of the application made for this certificate shall be attached to and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Administrator of the Federal Aviation Administration, or of any State of 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. 1 to 13, inclusive, are set forth on the reverse side hereof.

This certificate is effective from 01/01/08 to, 12/31/08 inclusive, and is subject to cancellation at any time upon notice by the Administrator or his authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

Central Terminal Service Area

(Region)

Carl E. Rydeen

(Signature)

December 12, 2007

(Date)

Acting District Manager, Minneapolis ATCT

(Title)

Special Provisions for Certificate of Waiver or Authorization
Issued To
Alan Estenson, Minnesota Amateur Spacemodeler Association (MASA)
Near Nowthen, MN GEP330013.8
January 1, 2008

Special Provision #1. Notice requirements specified by 14 CFR, Part 101, 101.25 shall be made at least 24 hours but no more than 48 hours in advance of each proposed launch. This notification shall be made to the Princeton Automated Flight Service Station (PNM AFSS) at (877) 487-6867. The requirements of 14 CFR, Part 101.25(c) and (d) are modified as follows:

101.25(c) The estimated size and weight of the largest rocket to be operated.

101.25(d) The estimated highest altitude to which any rocket will be operated.

The launch coordinator shall request that the PNM AFSS issue a Notice to Airman (NOTAM).

Below is an example of the NOTAM that will be issued by the PNM AFSS:

!!!PNM UNMANNED ROCKET 3NMR GEP330014 5,500/BELOW WEF 0504231300-0504232300

Special Provision #2. Real time telephone communication shall be effected with Minneapolis Approach Control as follows:

One hour before the first launch, the launch coordinator shall contact the Minneapolis TRACON Front Line Manager at (612) 726-9086 to confirm the intent to proceed with the launch. Minneapolis TRACON shall also be provided a telephone number where immediate and continuous coordination can be made with the launch coordinator in the event it becomes necessary for flight safety to halt or delay the launch. This telephone shall be monitored at all times, and the launch coordinator shall be immediately available in the event coordination becomes necessary.

Special Provision #3. No unmanned rocket shall exceed 5,500 feet MSL, with the exception of requests for higher altitudes if approved by the Minneapolis TRACON.

Special Provision #4. Regardless of altitude, any launch that will involve rockets that do not meet all three of the following conditions must receive specific approval from the FAA Office of Commercial Space Transportation (AST):

1. Has a motor, or combination of motors, with a total impulse of 200,000 pound-seconds or less, AND
2. Has a motor, or combination of motors, with a total burning time or operating time of up to 60 seconds (up to 15-second burn for non-MASA sanctioned events), AND
3. Has a ballistic coefficient (i.e. gross weight in pounds divided by the frontal area of the rocket vehicle) less than 12 pounds per square inch.

Requests for the launching of rockets that do not meet all of the above conditions shall be made with the Minneapolis ATCT at least 60 days in advance of the proposed launch and include:

1. Name, address, and telephone number of the applicant.
2. Launch vehicle physical dimensions and weight.
3. Type of launch vehicle propulsion (e.g. solid, liquid, etc.)
4. Total impulse and burn time of the launch vehicle motors.

5. Launch site location.
6. Planned flight path including staging and impact locations
7. Predicted altitude of the launch vehicle.

Special Provision #5. Air traffic spotters shall be used immediately before and throughout each launch to ensure that there are no nonparticipating aircraft within 3-nautical miles of the launch site. Spotters shall be positioned to ensure complete coverage of all quadrants and altitudes of airspace use. Spotters shall have the capability to communicate immediately with the launch coordinator. Individuals serving as air traffic spotters shall have sufficient experience in visually locating airborne aircraft to ensure the safety of nonparticipating aircraft. A launch shall be immediately halted anytime a nonparticipating aircraft is within 3 miles of the launch site.

Special Provision #6. All applicable operating limitations of Title 14, Code of Federal Regulations (14 CFR), Part 101, not specifically waived, apply. Special attention shall be given to the provisions contained in 14 CFR 101.23, Operating limitations.

Special Provision #7. No launch may occur outside the times listed on the waiver.

Special Provision #8. No launch may occur on dates other than those listed in the “Operations Authorized” section of the Certificate of Waiver or Authorization unless specifically stated on the Certificate of Waiver.

Special Provision #9. Operations shall be conducted in accordance with all applicable state and local ordinances.

Special Provision #10. A physical barrier and adequate policing shall be provided to confine spectators to designated areas and/or appropriately segregate them from launch operations. Operations shall be halted when unauthorized persons enter the area of flight operations. Only personnel necessary to support operations should be authorized within the operating area.

Special Provision #11. The holder of this authorization shall retain sole responsibility for adherence to 14 CFRs, the provisions of this Certificate of Waiver, and for the safeguarding of persons and property.

Special Provision #12. All persons connected with the unmanned rocket operations shall be familiar with the applicable 14 CFRs and this waiver with its Special Provisions.

Special Provision # 13. FAR 101.23(c) is waived under the condition that the waiver holder contacts any airport managers/owners within a 5-mile radius of the launch site and receive concurrence from those managers/owners.

**Department of Transportation
Federal Aviation Administration**

Central Altitude Reservation Function

The Central Altitude Reservation Function issues this sanction for the operation described on the CERTIFICATE OF WAIVER OR AUTHORIZATION issued to Alan Estenson (MASA) for operations located within a 3NM radius of the GEP 330 degree radial 13.8 NM fix.

This sanction is valid for the effective period shown on the CERTIFICATE OF WAIVER OR AUTHORIZATION. This sanction is issued 12/11/07.

rb07-119