

MEMORANDUM OF AGREEMENT
Between the
Federal Aviation Administration Office of Commercial Space Transportation
and
White Sands Missile Range
on
Safety For Commercial Launch Operations

1.0 Purpose

This Memorandum of Agreement (Agreement) explains the roles and responsibilities of White Sands Missile Range (WSMR) and Federal Aviation Administration (FAA) (hereafter collectively referred to as the “Parties”) for overseeing safety of commercial launch and reentry activities.

2.0 Scope

This Agreement applies to launch and reentry activities at WSMR and Spaceport America as overseen and regulated by the FAA. Spaceport America is a New Mexico State Agency that has a separate agreement with WSMR relative to launch, reentry, landing and impacts of rockets and other aircraft on WSMR property. This Agreement does not alter or otherwise modify the roles and responsibilities delineated by statute or national policy for WSMR or FAA. For the purpose of this Agreement, the launch of an amateur rocket shall be considered a commercial launch activity.

3.0 Authority

3.1 The Department of Transportation is authorized to enter this agreement by 49 United States Code (U.S.C.) Section 106(l)-(m) in the exercise of its responsibility to license and regulate commercial space transportation activities established by 51 U.S.C. Subtitle V, Chapter 509 – Commercial Space Launch Activities, 51 U.S.C. §§50901-50923 (Chapter 509), specifically 51 U.S.C. § 50903, Executive Order No. 12465, and the Federal Aviation Act of 1958.

3.2 The Army is authorized to enter this agreement in the exercise of its responsibility to conduct the affairs of the Department of the Army as specified in 10 U.S.C Chapter 3013. In addition, as the owner and operator of the federal launch range at White Sands Missile Range, New Mexico, the Army has the responsibility for

ensuring that activities at this range do not unreasonably endanger public health and safety, and providing resource protection.

- 3.3 In accordance with Federal Acquisition Regulation 17.500(b), the Economy Act, 31 U.S.C. Section 1535, provides authority for intra-agency transactions of supplies or services when more specific statutory authority does not exist.
- 3.4 Specific requirements applicable to FAA licensed or permitted launches and reentries from WSMR and Spaceport America are contained in Title 14 Code of Federal Regulations (C.F.R.) and the WSMR range safety requirements or equivalent.

4.0 Objectives

The Parties' objectives entering into this Agreement are to:

- 4.1 Continue current cooperation between WSMR and the FAA regarding FAA overseen and regulated commercial launch and reentry activities;
- 4.2 Minimize the regulatory burden on the U.S. commercial space sector by clearly delineating federal agency requirements and oversight responsibilities, and consolidating WSMR and the FAA documentation products where possible, thereby avoiding unnecessary overlap and duplication; and
- 4.3 Provide an agreed to and stable framework for the U.S. commercial space transportation industry.

5.0 Background

- 5.1 The FAA Office of Commercial Space Transportation (AST) is responsible for regulating commercial space launches and reentries and the operation of launch and reentry sites to protect the public health and safety, safety of property, and national security and foreign policy interests of the United States. AST has the sole authority for issuance of licenses and permits for such activities and sole authority for prescribing and enforcing requirements contained in such licenses and permits.

5.2 Commercial launch and reentry operators may use Government ranges and facilities for the purpose of conducting launch and reentry activities in accordance with 51 U.S.C. Section 50913. Commercial launch and reentry operators may contract with the Government for the use of range facilities and services for an amount equal to the direct costs incurred by the Government as a result of such use. Also, under the Commercial Space Transportation Regulations, 14 CFR Ch. III, a launch or reentry operator is responsible for ensuring the safe conduct of a licensed or permitted launch or reentry and for ensuring public safety and safety of property at all times during the conduct of that operation.

5.3 Under DODD 3200.11, WSMR may assist AST in acquiring and maintaining critical information associated with licensed launch and reentry operations and aiding in appropriate investigations.

6.0 Definitions

This agreement contains terms defined by Chapter 509 or 14 C.F.R. §401.5. The terms include direct cost, launch, license, mishap, permit, reentry, reentry site, and reentry vehicle.

7.0 Data sharing

7.1 To within the restrictions of applicable statutory or regulatory guidelines the Parties will:

7.1.1 Develop, maintain, and implement a process for communication, requirements review, and interpretations of safety requirements.

7.1.2 Share safety documentation and analysis products for commercial launches or reentries that either Party determines have the potential to put WSMR at risk.

7.1.3 Coordinate to determine whether a launch or reentry operator complies with safety policy and criteria consistent with each agency's requirements.

7.1.4 Share launch and reentry vehicle safety and performance data common to commercial launch and reentry operations for the purposes of

maintaining common systems' safety and performance and treat any proprietary data consistent with each agency's obligations.

7.1.5 Exchange all data and information needed to carry out the terms of this Agreement and knowledge of risks associated with commercial launch and reentry operations.

7.1.6 Agree to cooperate and exchange information on mishaps of mutual interest.

7.2 For FAA regulated launches and reentries, WSMR understands it has no authority to waive or grant Equivalent Level of Safety (ELS) determinations to FAA safety requirements. WSMR and the FAA will coordinate to resolve any waiver or ELS issues related to any common safety requirements prior to the launch.

8.0 AST Responsibilities

AST shall:

- 8.1 Conduct, with WSMR participation, such investigations as AST may deem appropriate to evaluate the cause and remedial action necessary to prevent a recurrence, of an accident or mishap resulting from FAA licensed or permitted activities at WSMR or Spaceport America.
- 8.2 Take such actions as AST deems appropriate to monitor compliance with FAA requirements.
- 8.3 Establish comprehensive financial responsibility and allocations of risk requirements as required by the Act to cover liability, loss, or injury resulting from licensed or permitted activities conducted at WSMR or Spaceport America. AST shall seek, as appropriate, comments intended to protect the Government when its property or personnel are involved in FAA authorized launch and reentry operations.
- 8.4 Determine where special conditions or unique safety considerations may exist, requiring special safety policy development specifically applicable to commercial launch and reentry operations, making known in such circumstances any

requirements developed, in writing, to WSMR and the commercial launch or reentry operator.

- 8.5 Identify special or unique safety conditions concerning commercial launch and reentry activities which may lead to the potential for a public hazard and evaluate flight anomalies which have the potential for creating a public hazard. When such conditions are noted by AST, WSMR shall be immediately advised.
- 8.6 Notify WSMR immediately when a commercial launch or reentry is incapable of continuing safe operations or national security interests are jeopardized by continuing actions of the commercial launch or reentry operator.

9.0 WSMR Responsibilities

WSMR shall:

- 9.1 Maintain baseline safety procedures required for commercial launch and reentry operations at WSMR to protect public safety. Such baseline, which may be the same as that currently used for the WSMR launch and reentry operations, shall be furnished to AST and each commercial launch or reentry operator.
- 9.2 Identify special or unique safety conditions concerning commercial launch and reentry activities which may lead to potential public hazard and evaluate flight anomalies which have the potential for creating a public hazard. When such conditions are noted by WSMR, AST shall be immediately advised.
- 9.3 Notify AST immediately when WSMR is incapable of continuing safe operations or national security interests are jeopardized by continuing actions of the commercial launch or reentry operator at WSMR.
- 9.4 Notify AST in advance of termination of services provided to the commercial launch or reentry operator by WSMR; and recommend to AST appropriate actions which the commercial launch or reentry operator should take to maintain the current level of public safety.
- 9.5 In the event that AST conducts an investigation of a licensed or permitted activity, provide all relevant safety and range data documentation to AST pertaining to

safety issues including, but not limited to, flight anomalies, significant equipment failures and injuries.

9.6 Provide AST with data necessary to support the determination of quantitative and qualitative public risk levels and maximum probable loss associated with the licensed or permitted launch or reentry operator's operations and plan.

9.7 Limit requests for documentation to the commercial launch or reentry operator to information or data directly related to public and site safety, operational safety, operational scheduling, and associated activities. WSMR shall maintain the confidentiality of, and protect from disclosure, information or data furnished to WSMR by a commercial launch or reentry operator or the FAA and marked as proprietary.

10.0 Reimbursement

Each Party shall bear the full cost it incurs in performing, managing, and administering its respective responsibilities under this MOA. WSMR and the FAA may formulate appropriate subordinate agreements as necessary to reimburse each other to carry out this Agreement.

11.0 Amendments to Agreement

11.1 Amendments to this Agreement may be proposed at any time by AST or WSMR and, where possible, the comments of commercial launch and reentry operators shall be solicited on such amendments as may directly affect their activities at WSMR. Amendments to this Agreement shall enter into force following mutual agreement of AST and WSMR.

11.2 This agreement will remain in effect until it is terminated by either party in writing, with 30 days' notice. The agreement will be reviewed every five years and may be reviewed and updated at other times as deemed necessary, subject to the agreement of the Parties. Amendments shall be in writing, jointly signed, dated and attached to the basic MOA. This agreement is effective when the last signature is affixed.

12.0 Implementation

The FAA and WSMR should use this Agreement as a basis for writing implementing procedures to carry out their respective responsibilities for commercial space transportation and range activities. The primary point of contact for WSMR shall be the WSMR Commanding General and primary point of contact for the FAA shall be the Associate Administrator for Commercial Space Transportation, who together shall be mutually responsible for the successful execution of this agreement.

13.0 Effective date

This Agreement shall become effective upon execution by AST and WSMR.



George C. Nield
Associate Administrator
Commercial Space Transportation



JAMES O WINBUSH JR.
Colonel, U.S Army
Commander, White Sands Missile Range