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Operations

SPACELIFT OPERATIONS



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This instruction implements Air Force Policy Directive (AFPD) 10-2, Space; Air Force Instruction (AFI) 10-1201, Space Operations; and supports the Memorandum of Agreement (MOA) on Spacelift Roles and Responsibilities established between Air Force Space Command (AFSPC) and Air Force Materiel Command (AFMC). It applies to: Headquarters Air Force Space Command (HQ AFSPC); Fourteenth Air Force (14 AF); operations personnel as defined by AFSPC Instruction (AFSPCI) 36-2202, Mission Ready Training, Evaluation and Standardization Programs, and maintenance personnel as defined by AFSPC Instruction (AFSPCI) 21-10801, Maintenance Management of Space Launch Systems assigned to the 30th Space Wing (30 SW) and 45th Space Wing (45 SW). It also applies to all military, government service, and applicable contractor personnel whose duties directly relate to the management, maintenance, preparation, and conduct of activities required to support the AFSPC Spacelift Mission. It does not apply to the Air Force Reserve nor Air National Guard units.

Send comments and suggested improvements on an AF Form 847, Recommendation for Change of Publication, through appropriate command channels, to HQ AFSPC/DOOL, 150 Vandenberg Street, Suite 1105, Peterson AFB CO 80914-4200. Organizations at any level may supplement this instruction. Supplements will not lessen the requirements nor change the basic content or intent of this instruction. Process supplements as shown in AFI37-160, Volume 1, Table 3.2., The Air Force Publications and Forms Management Programs--Developing and Processing Publications. Forward one copy of each supplement to 14 AF/DOO and HQ AFSPC/DOOL. This instruction is consistent with the Air Force Occupational Safety and Health Standards (AFOSH).

1. Spacelift Operations:

1.1. General. Existing National, Department of Defense (DoD), and Air Force (AF) space policies identify "assured access to space" as the need to guarantee the availability of critical space capabilities for executing space missions. This is a key concept, which supports and implements National Security Strategy, National Military Strategy, and Air Force doctrine. These policies indicate assured mis-

sion capability for critical space systems can only be achieved through assured and protected access to space.

1.1.1. DoD, as launch agent for both the defense and intelligence sectors, will maintain the capacity to evolve and support those space transportation systems, infrastructure, and support activities necessary to meet national security requirements. DoD will be the lead agency for improvement and evolution of the current expendable launch vehicle fleet, including appropriate technology development. The AF, as the DoD executor for space launch, executes spacelift operations through AFSPC. Thus, AFSPC's spacelift mission is to deliver space systems, on target and on time to support national objectives and provide a decisive advantage to U.S. forces worldwide.

1.1.2. HQ AFSPC provides the necessary policy and guidance to support the spacelift mission. 14 AF maintains Operational Control (OPCON). Within 14 AF, two operational wings, 30 SW and 45 SW, provide the necessary forces, command and control (C2), risk analysis, instrumentation, and data processing required to ensure safe and successful mission completion. The 30 SW operates the Western Range (WR) and 45 SW operates the Eastern Range (ER). In addition to the spacelift mission, each wing provides Test and Evaluation (T&E) support to DoD activities as outlined in DoD Directive (DoDD) 3200.11, Major Range and Test Facility Base. The wings provide collateral sensors to the Space Surveillance Network (SSN) as directed in United States Space Command Regulation (UR) 55-12 (S), Space Surveillance Network (SSN) Operations (U). Commercial launch and testing are conducted as required by DoDD 3230.3, DoD Support for Commercial Space Launch Activities, and by 49 United States Code (USC) 70101-70119, chapter 107, Commercial Space Launch Activity. Commercial activity not associated with spacelift operations are governed by Title 10 USC 2681.

1.1.3. Support for Civil Spacelift consists of support to NASA and the National Oceanographic and Atmospheric Administration (NOAA) as defined in the National Space Policy, and Air Force Policy Directive 10-12. The Air Force will launch satellites for the DoD and other Government agencies for required orbital operations.

1.1.4. Support for Commercial Spacelift as defined under 49 USC §70101-70119, chapter 107. National and DoD policy encourages commercial launch operations development within the US private sector. Cooperative involvement between the 30th, and 45th space wings with commercial activities help maintain the competitiveness of the US space industrial base in the world economy. AFSPC retains public safety and resource protection responsibilities for all spacelift operations. The Commercial Space Launch Act tasks the wings to support commercial launch activities with Launch property or launch services that are excess or otherwise not needed for public use.

1.2. Scope. This instruction clearly defines the spacelift operational roles and responsibilities of HQ AFSPC/DO/DOO, 14 AF, and the 30 SW and 45 SW.

1.3. General Operations Responsibilities:

1.3.1. AFSPC must maintain a robust, secure, and modern spacelift capability to meet warfighter, National Command Authority (NCA), and other national security mission needs. All echelons within AFSPC must strive to meet this basic requirement at an affordable cost.

1.3.2. Most spacelift operations are conducted by contract with non-DoD agencies. To ensure proper mission conduct and contractor compliance, AF personnel must fully understand existing contracts, and their provisions. Complete understanding of the delegation of authority within the contract between the AF and the contractor is of particular importance for commanders and mis-

sion personnel to prevent the generation of grievance complaints from the contractor and to prevent the unnecessary increase of cost. Guidance should always be sought from the cognizant government contracting office.

1.3.3. Safety is paramount in all aspects of spacelift operations; Commanders at every level, are required to integrate safety into mission accomplishment. All personnel must comply with applicable technical, procedural, safety, security, and resource protection requirements and directives. This also includes systems readiness reviews conducted IAW AFSPCI10-120111, Readiness Review of Space and Missile Systems; crew management IAW AFSPCI10-120102, Space and Missile Crew Force Management; training IAW AFSPCI36-2202, Mission Ready Training, Evaluation and Standardization Programs; maintenance IAW AFSPCI21-10801, Maintenance Management of Spacelift Systems; and configuration control is accomplished IAW AFSPCI21-104, Configuration Control Process.

2. HQ AFSPC Duties And Responsibilities:

2.1. HQ AFSPC Directorate of Operations (HQ AFSPC/DO). The DO will:

2.1.1. Be the waiver approval authority for HQ AFSPC/DO issued spacelift and range policy and guidance.

2.1.2. Ensure subordinate operational units are organized in accordance with AFI38-101, Air Force Organization.

2.1.3. Advocate for full fidelity training systems (equipment, courseware, etc.) necessary to ensure properly trained space operators and in coordination with HQ AFSPC/LG for maintainers.

2.1.4. Advocate for the necessary resources (equipment, manpower, etc.) to meet, sustain, and evolve AFSPC launch capability requirements; and to provide support to other external launch customers as required by directive, regulation, and Public Law.

2.1.5. Provide direct support to AFSPC/CC on spacelift operations issues.

2.1.6. Communicate with other space operations stakeholders, to include DoD agencies, MAJ-COMs, NASA (civil), Department of Transportation and commercial users for issue resolution and continuous improvement.

2.2. HQ AFSPC Current Operations Division (HQ AFSPC/DOO). HQ AFSPC/DOO will:

2.2.1. Develop, implement and review standardized policy and guidance to AFSPC units supporting DoD, Civil and commercial spacelift operations. Published policy and guidance will be reviewed annually.

2.2.1.1. Participate in the Spacelift Operations portion of the AFSPC Mission Area Plan (MAP) development process to help develop long-range modernization planning.

2.2.1.2. Develop all Concept of Operations (CONOPS) associated with spacelift operations, to include but not limited to the Spacelift, Range, and the Evolved Expendable Launch Vehicle (EELV) IAW AFSPCI10-606, Development and Use of Conceptual Documents.

2.2.1.3. Develop and publish the standard Air Force Commercial Space Operations Support Agreement (CSOSA) with commercial, state, and other non-federal users requiring AFSPC support, for subordinate units to administer.

- 2.2.1.4. Develop and publish Memorandums of Agreement (MOA) between AFSPC and other organizations, as required.
- 2.2.2. Review and comment on proposed manpower strength and grade adjustments.
- 2.2.3. In coordination with HQ AFSPC/DR, advocate for current and future system's operational requirements through the Planning, Programming and Budgeting System (PPBS).
 - 2.2.3.1. Serve as the Program Element Monitor (PEM) and a Mission Team Member within the PPBS, advocating for spacelift and range program elements (i.e. Medium Launch Vehicle (MLV), Western/Eastern Space Launch Facility (Ranges), Titan, Upper Stages, Space Shuttle, etc.).
 - 2.2.3.2. Coordinate funding advocacy with the HQ AFSPC staff.
 - 2.2.3.3. Establish and coordinate the appropriate transition of PEM responsibilities from HQ AFSPC/DR to HQ AFSPC/DO, for EELV.
- 2.2.4. Provide direct support for decision making on all space launch and range matters to include process improvement and future acquisitions.
 - 2.2.4.1. Provide Combatant Command (COCOM) Satellite PEMs with analyses of constellation capabilities using approved models to support launch decision making and acquisition decisions.
 - 2.2.4.2. Provide direct support to USCINCSpace, AFSPC/CV, HQ AFSPC/DO and subordinate operational commanders, as requested.
 - 2.2.4.3. Coordinate all Program Management Decision (PMD) changes and updates.
 - 2.2.4.4. Provide direct support to the 14th Air Force Constellation Sustainment Assessment Teams (CSAT) with analyses of constellation capabilities and launch base capacities using approved models to support launch decision making.
- 2.2.5. Develop and maintain the National Mission Model (13 year), Space Launch Manifest (3 year), and the Current Launch Schedule (15 months).
 - 2.2.5.1. Serves as executive agent for the Current Launch Schedule Review Board (CLSRB).
- 2.2.6. Serve as the lead Air Force agency responsible for managing the Technology Safeguard Monitor (TSM) Program, protecting sensitive US commercial satellite and launch technology while supporting joint US/Foreign commercial space activities IAW AFI10-1210 Technology Safeguard Monitoring for Foreign Launches of US Commercial Satellites.

3. 14th Air Force Responsibilities:

3.1. 14th Air Force (14 AF). 14 AF will:

- 3.1.1. Maintain operational control (OPCON) of forces and issue execute orders in support of COCOM systems.
- 3.1.2. Review and approve Spacelift Operations Concepts of Employment (COEs) and Range Operations COEs as required by AFSPCI10-606, Development and Use of Conceptual Documents.
- 3.1.3. Develop Operational Considerations (OCs) to support USCINCSpace requests.

- 3.1.4. Develop Operations Orders (OpOrd) and Operations Plans (OPlan) annexes and checklists.
- 3.1.5. Review spacelift operational and contingency policy and guidance.
- 3.1.6. Perform Staff Assistance Visits at the spacelift wings request.
- 3.1.7. Develop standardized policy and guidance governing the review and approval processes associated with operational and training documentation.

4. Wing Responsibilities:

4.1. Wing Commander Responsibilities. The Wing Commander will:

- 4.1.1. Ensure all necessary operational support is provided to authorized programs as defined by the Universal Documentation System (UDS).
- 4.1.2. Ensure safety is paramount in all aspects of mission accomplishment.
- 4.1.3. Implement a wing-wide integrated training program, exercising launch team cohesiveness.
- 4.1.4. Ensure all mission ready operators and the associated training and evaluation programs meet the requirements specified in AFSPCI10-120102, Crew Force Management, and AFSPCI36-2202, Mission Ready Training, Evaluation and Standardization Programs.
- 4.1.5. Ensure the National Military Command Center (NMCC) is notified through OPREP-3 channels, if a launch accident or errant trajectory occurs. If a errant trajectory occurs that may have international implications, Ensure the National Military Command Center (NMCC) is notified through OPREP-3 and Launch Correlation Unit (LCU).
- 4.1.6. Perform as the Launch Decision Authority (LDA) for all launch operations, or delegate a designated MR representative.
 - 4.1.6.1. Ensure all phases of launch processing and launch operations will be conducted in accordance with developed procedures.
 - 4.1.6.2. Remain accountable for public safety, launch area safety and resource protection for all personnel, systems, facilities and equipment throughout all phases of launch vehicle processing and space launch and range operations on DoD and civil ELV missions.
 - 4.1.6.3. Review launch vehicle, satellite and range readiness for launch operations and verify the operations are safe to proceed.
 - 4.1.6.4. The LDA retains the final decision to launch and will issue the “final clear to launch,” as appropriate, culminating in vehicle launch and satellite deployment.
- 4.1.7. Appoint an interim Safety Investigation Board (SIB) president as required.

4.2. Wing Safety Responsibilities: The Chief of Wing Safety will:

- 4.2.1. Develop and implement required programs, practices, and procedures to reduce the risk to mission accomplishment. Assist commanders, protect resources and improve capability.
- 4.2.2. Advise commanders on safety requirements for all operations.
- 4.2.3. Provide wing experts for safety input on operational issues.
- 4.2.4. Provide launch safety requirements for operational procedures.

- 4.2.5. Develop standardized safety requirements.
- 4.2.6. Manage the weapons safety mishap reporting program.
- 4.2.7. Investigate, report, and identify corrective actions for safety deficiencies, high accident potentials and mishaps.
- 4.2.8. Establish operational safety criteria and establish display, tracking, and data processing parameters.
- 4.2.9. Provide analyses of flight safety criteria and establish display, tracking and data processing parameters.
- 4.2.10. Conduct analysis and advise commanders of in-flight impact, explosive, toxic, laser, radiological, and acoustic hazards.
- 4.2.11. Ensure Mission Flight Control Officers (MFCOs) meet the requirements of paragraph 1.3. as it pertains to safety.
- 4.2.12. Review and approve all unit operations and training documentation.

4.3. Mission Flight Control Officers Responsibilities:

- 4.3.1. Provide final range safety Go/No-Go for launch recommendation to the Wing Commander in compliance with flight safety rules.
- 4.3.2. Develop procedures for equipment and vehicle failure/discrepancy/problem resolution.
- 4.3.3. Develop mission flight rules consistent with range safety requirements and operational needs.
- 4.3.4. Serve as the sole authority for determining if the flight of a launch vehicle should be allowed to continue or be terminated based on actual flight data and mission rules.
- 4.3.5. Initiate flight termination action when flight data violates destruct criteria or mission rules.
- 4.3.6. Coordinate real-time safety waiver requests with the LDA, as necessary, to ensure safe mission completion.

5. Operations Group Responsibilities:

5.1. Operations Group Commander (OG/CC) Responsibilities:

- 5.1.1. Perform as the Mission Director (MD) for AFSPC missions.
 - 5.1.1.1. Reports launch vehicle, satellite, and on-orbit assets readiness for launch operations to LDA.
 - 5.1.1.2. Reviews the mission readiness assessment provided at the Launch Readiness Review (LRR) and advises the LDA on a decision to enter or proceed with the launch countdown.

5.2. Operations Group Standardization and Evaluation (OG/OGV) Responsibilities:

- 5.2.1. Develops and standardizes the format, types and procedures for all wing developed Emergency Action checklists for all MR positions.
- 5.2.2. Serve as operations expert on all operational issues to the wing and group commanders, as appropriate.

- 5.2.3. Serve as a wing trusted agent for exercises (Guardian Challenge, Operational Readiness Inspection, etc.).
- 5.2.4. Complies with and validates all wing MR programs (documentation, techniques, implementation, etc.) as defined in AFSPCI36-2202 Mission Ready Training, Evaluation and Standardization Programs and AFSPCI10-120102 Space and Missile Crew Force Management.
- 5.2.5. Evaluates mission ready crew members and conducts annual staff assistance visits.
- 5.2.6. Request augmentation support from wing organizations, as needed, to fulfill above responsibilities.
- 5.2.7. Standardizes operations policies and procedures.

6. Operations Support Squadron.

6.1. Operations Support Squadron Commander Responsibilities:

- 6.1.1. Ensure unit compliance with paragraph **1.3**.
- 6.1.2. Certify as an interim Safety Investigation Board president.
- 6.1.3. Ensure OSOT 13SX and 1C6XX personnel are instructor certified and MR.

6.2. Operations Training Responsibilities (OSOT):

- 6.2.1. Meet program training responsibilities as defined in AFSPCI36-2202 Mission Ready Training, Evaluation and Standardization Programs and AFSPCI10-120102 Space and Missile Crew Force Management, and AFSPCI21-10801, Maintenance Management of Space Launch Systems.
- 6.2.2. Standardize all MR and space launch maintenance training to include: review and approve all training materials, develop policies and guidance for training issues.
- 6.2.3. Serve as operations training expert on training issues to the group commander. Provide training updates to group commander on unit training programs and performance.
- 6.2.4. Manage the Mission Ready Program for Commanders.
- 6.2.5. Develop and conduct an instructor training program.

7. Space Launch Squadron (SLS) Responsibilities. Launch Squadrons are divided into operations and maintenance sections. Operations is further divided into operational (launch director, launch crew commander, etc.) and functional (commander, operations officer, flight commanders, etc.) responsibilities. Responsibilities for operations positions typically relate to a specific mission. Functional responsibilities cover multi-mission planning and the training, equipping and leadership of personnel. These responsibilities fully apply when the SLS is the primary launch agency. They apply in varying levels when the SLS is a support entity to other launch agencies IAW contractual or other governing documentation.

7.1. Space Launch Squadron Commander Responsibilities:

- 7.1.1. Ensure unit compliance with paragraph **1.3**.
- 7.1.2. Certify as an interim Safety Investigation Board president.

7.1.3. Develop procedures for failure/discrepancies/anomaly resolution. This procedure will identify discrepancy notification channels. Anomalies require AFMC notification.

7.1.4. Identify space launch system maintenance requirements to be included in Operational Requirements Documents (ORDs). Include maintenance mission support requirements in appropriate plans, programs, host/associate and contract agreements.

7.1.5. Serve as advocate for maintenance and logistics standardization initiatives.

7.2. Space Launch Squadron Operations Officer Responsibilities:

7.2.1. Provide fully trained and certified operations personnel for all missions.

7.2.2. Review and approve all unit operations and training documentation.

7.2.3. Review and approve all launch vehicle/facility/spacecraft operations schedules/plans.

7.2.4. Review and approve launch vehicle/spacecraft countdown procedures (unit and contractor) that include actual launch.

7.3. Maintenance Supervisor (MA) Responsibilities:

7.3.1. Overall management and supervision of maintenance functions and resources of the SLS IAW AFSPCI21-10801, Maintenance Management of Space Launch Systems.

7.4. Air Force Launch Director (LD) Responsibilities. The LD is the senior unit mission ready position, directing launch countdown activities, readiness reviews, etc. for assigned launches.

7.4.1. Evaluate launch systems modifications/upgrades to assess impacts to operations/procedures. Notify the mission director and LDA of potential impacts to mission accomplishment.

7.4.2. Review and approve projected launch date changes before forwarding outside of the unit for official approval.

7.4.3. Verify and comply with launch “Go/No-Go” decision criteria for all booster, satellite and facility systems supporting launch.

7.5. Air Force Launch Crew Commander (LCC) Responsibilities:

7.5.1. Operational launch crew commander for a specific mission.

7.5.2. Ensure all resources (personnel, materials and facilities) are available and ready when needed to support launch operations.

7.5.3. Establish requirement and/or review and approve launch vehicle/spacecraft countdown procedures and integrated processing schedules.

7.5.4. Evaluate launch systems modifications/upgrades to assess impacts on operations/procedures. Notify the LD of modifications/upgrades that could affect critical path operations or the projected launch date.

7.5.5. Verify and comply with launch “Go/No-Go” decision criteria for all booster, satellite and facility systems supporting launch in conjunction with the LD.

7.5.6. Responsible for spacecraft, booster, and facilities processing during the, execution phase and while performing operations tasks during the generation and recovery phases.

7.5.7. Conducts execution of launch countdown activities.

7.6. Operations Support Flight Commander Responsibilities:

- 7.6.1. Oversees Mission Ready operations training program.
- 7.6.2. Oversee and integrate launch agency requirements into the UDS documentation.
- 7.6.3. Develops and maintains squadron procedures.

7.7. Launch Operations Flight Commander Responsibilities:

- 7.7.1. Manage crew force IAW AFSPCI10-120102, Crew Force Management.
- 7.7.2. Manage the Duty Not Including Flying (DNIF) of Special Operations program IAW AFSPCI10-120102, Crew Force Management.

8. Range Squadron Responsibilities:

8.1. Range Squadron Commander Responsibilities:

- 8.1.1. Ensure unit compliance with paragraph 1.3.
- 8.1.2. Certify as an interim Safety Investigation Board president.
- 8.1.3. Develop procedures for failure/discrepancies/anomaly resolution. This procedure will identify discrepancy notification channels. Anomalies require AFMC notification.
- 8.1.4. Review, approve and/or coordinate launch vehicle/facility/spacecraft operations schedules/plans as appropriate.

8.2. Range Squadron Operations Officer Responsibilities:

- 8.2.1. Provide fully trained and certified operations personnel for all missions.
- 8.2.2. Review and approve all unit operations and training documentation.
- 8.2.3. Review and approve Range countdown procedures (unit or contractor) that include actual launch.
- 8.2.4. Review and approve integrated launch vehicle/spacecraft countdown procedures (unit or contractor) that include actual launch (as applicable).

8.3. Operations Support Flight Commander Responsibilities:

- 8.3.1. Oversees Mission Ready operations training program.
- 8.3.2. Maintains and integrates launch schedules.
- 8.3.3. Develops and maintains squadron procedures.

8.4. Range Operations Flight Commander Responsibilities:

- 8.4.1. Manage crew force IAW AFSPCI10-120102, Crew Force Management.
- 8.4.2. Manage the Duty Not Including Flying (DNIF) of Special Operations program IAW AFSPCI10-120102, Crew Force Management.

8.5. Range Operations Commander (ROC) and Range Control Officer (RCO) Responsibilities:

- 8.5.1. Manage, direct and control range resources to ensure all range instrumentation is capable and ready to support launch operations.
- 8.5.2. Responsible for range support during the generation, execution and recovery phases of operations. This includes range instrumentation support, contingency support requirements, aircraft/seacraft support and support by off-range assets.
- 8.5.3. Certify range readiness in accordance with AFSPCI10-120111.
- 8.5.4. Provides the launching agency the final overall "range-clear-to-launch" as authorized by the LDA.
- 8.5.5. Responsible for the management of all operational range instrumentation to include operational impact assessment.
- 8.5.6. Directs all range system interfaces with user systems and coordinates with range system controllers to ensure mission capable support during range operations.
- 8.5.7. Responsible for integrating global tracking sites into a single tracking network under centralized control.
- 8.5.8. Coordinates contingency forces to include Search and Rescue/MEDIVAC helicopters and crews, medical support teams and DoD Explosive Ordnance Devices (EOD) teams, as required.

8.6. Aerospace Control Officer (ACO) Responsibilities:

- 8.6.1. Responsible for directing all aircraft operations conducted on the range.
- 8.6.2. Directs all range and inter-range support during dedicated aeronautical operations.
- 8.6.3. Directs area clearance activities to ensure Flight Hazard Area (FHA), and restricted airspace are clear of unauthorized encroachments.
- 8.6.4. Reports activity status and recommends Go/No-Go to the MFCO and ROC for safety issues and to the ROC for operational issues.
- 8.6.5. Ensures air controllers comply with DoD, Air Force and Federal Aviation Administration (FAA) rules and procedures as applicable.

9. Weather Squadron Responsibilities:

9.1. Weather Squadron Commander and Operations Officer Responsibilities:

- 9.1.1. Provide certified Launch Weather Officers (LWOs), Launch Weather Team (LWT) members and Range Weather Forecasters to fully support Range operations/missions.
- 9.1.2. Provide required weather resources to fully support Range operations/mission.
- 9.1.3. Acts as Senior LWT member.

9.2. Launch Weather Officer Responsibilities:

- 9.2.1. Provides or arranges for tailored weather services to fully support all phases of launch operations.
- 9.2.2. During Day of Launch (DOL) operations, serves as weather single point of contact between LWT and Launch Director/Range launch team.

9.2.3. Observe, forecast and evaluate weather (includes upper air wind profiles, severe weather advisory and warning services, etc.) with respect to launch commit criteria, report status, and make launch recommendation.

9.2.4. Is a LWT member.

ROBERT C. HINSON, Brig Gen, USAF
Director of Operations

Attachment 1

GLOSSARY OF REFERENCES AND TERMS

References

49 USC 70101-70119 (Chapter 107--Commercial Space Launch Activity).

DoDD3200.11, Major Range and Test Facility Base.

DoDD3230.3, DoD Support for Commercial Space Launch Activities.

DoDD5160.32, Development of Space Systems.

AFPD10-12, Space.

AFI10-1201, Space Operations.

AFI21-108, Maintenance Management of Space Systems.

AFI38-101, Instruction for Air Force Organization.

AFM1-1, Volume 1, Basic Aerospace Doctrine of the United States Air Force.

Air Force Doctrine Document 4, Space Operations Doctrine

MCI21-101, Designation/Redesignation of Spacelift and Missile Systems Fixed Installed or Mobile Support Equipment.

AFSPC and AFMC Memorandum of Agreement on Spacelift Roles & Responsibilities

AFSPCMD5-30000, 30th Space Wing.

AFSPCMD5-30100, 30th Operations Group.

AFSPCMD5-30105, 30th Range Squadron.

AFSPCMD5-45000, 45th Space Wing.

AFSPCMD5-45100, 45th Operations Group.

AFSPCMD5-45105, 45th Range Squadron.

AFSPCI10-606, Development and Use of Conceptual Documents.

AFSPCI21-104, Configuration Control Process.

AFSPCI10-120102, Space and Missile Crew Force Management.

AFSPCI21-10801, Maintenance Management of Space Launch Systems

AFSPCI36-2202, Mission Ready Training, Evaluation and Standardization Programs

Concept of Operations for the Spacelift Mission

Concept of Operations for the Air Force Space Command Ranges

Terms

Anomaly—An unexpected or unplanned condition that does not meet provided system performance parameters and which cannot be corrected by organizational maintenance resources in accordance with

validated procedures. After analysis, an “out-of-family” condition could be declared an anomaly.

Combatant Command (COCOM)—Nontransferable authority established by title 10, United States Code, section 164, exercised only by commanders of unified or specified combatant commands. COCOM (command authority) is the authority of a Combatant Commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command.

Collateral Sensor—A USSPACECOM operationally assigned sensor with a primary mission other than Space Surveillance Network (SSN) support.

Concept of Operations (CONOPS)—A document that identifies the relationship, deficiencies, and desired interfaces envisioned between a new or upgraded system and the existing or planned system.

Coordinating or Integration—The process of ensuring units work effectively with one another.

Current Launch Schedule Review Board—Provides a quarterly review of all launch activity at the 30th and 45th Space Wings. It approves the Space Launch Manifest (3 year), and the Current Launch Schedule (15 months).

Directing—The process of assigning people and guiding them toward accomplishment of an objective.

Direct Support—Provide a comprehensive, structured, support process to bring workable systems to the customers. Maximize support of HQ functions to promote operational and administrative effectiveness.

Discrepancy—An unexpected or unplanned condition that does not meet provided system performance parameters and which can be corrected by organizational maintenance resources in accordance with validated procedures at the unit level.

Execution Phase—The execution phase may commence at one of three points. For launch operations, the Launch Readiness Review (LRR) signifies the wing’s readiness to support the mission. The wing commander’s (e.g., Range commander) certification of readiness during the LRR signifies the actual transition point. For those Range operations that do not require a LRR, the execution phase may commence at the completion of the crew brief where Range readiness is formally established by the appropriate program manager. Finally, for those Range operations that do not require a LRR or a formalized crew brief, the start of active, on-station activities (those not associated with the generation phase, such as pre-operational support) signify the commencement of the execution phase. The execution phase continues through the actual mission conduct, and terminates at mission completion.

Failure—Condition or fact of not achieving the desired end.

Generation Phase—The generation phase includes all pre-operational functions required to conduct an operation - from program introduction, through program development, to just prior to the commencement of on-station activities.

Launch Decision Authority (LDA)—The LDA is accountable for launch mission success and will direct launch vehicle processing, launch, range and safety operations. The LDA is responsible for public safety, launch site safety and resource protection for all personnel, systems, facilities and equipment throughout all phases of launch processing and launch operations at the Eastern and Western Ranges. The LDA will confirm launch vehicle and range readiness to conduct launch operations and that operations are safe to proceed.

Major Range and Test Facility Base (MRTFB)—A national asset which is sized, operated, and maintained primarily for DoD test and evaluation support missions, however, for Eastern and Western Range operations the MRTFB mission is secondary to the space launch mission.

Mission Ready (MR)—All operations personnel who exercise command and control of an operational system or operations center that fulfills AFSPC mission requirements must be certified before performing unsupervised duty. Certification signifies confidence by a designated official in an individual's ability to perform unsupervised operations duty.

On-Station—A point in time when mission ready personnel arrive to their operational console, prepared to conduct active mission activity.

Operational Consideration (OC)—Consist of Crisis Action Plans for the use of military forces in the event of hostilities, military operations other than war, crisis situations, increased international tension, or civil disturbances.

Operational Control (OPCON)—Transferable command authority which may be exercised by commanders at any echelon at or below the level of combatant command. OPCON is inherent in Combatant Command (command authority) and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission.

Operation Plans (OPLAN)/Operation Order (OPORD)—A plan or a series of connected operations to be carried out simultaneously. It is usually based upon stated assumptions and is in the form of directives employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation “plan” is usually used instead of “order” preparing for operations well in advance. An operation plan may be put into effect at a prescribed time, or on a signal, and then becomes an operation order.

Out-of-Family—An event, condition or parameter that is outside a statistical norm for like events, conditions or parameters. After analysis, an “out-of-family” condition can be declared an anomaly.

Range Commander—The host Wing commander, or his designee, is the Range Commander. The Range Commander is responsible to provide a safe, reliable range capable of supporting a launch or test through mission completion.

Range Operation—Any procedure that requires the use of Range resources.

Recovery Phase. The recovery phase commences when mission ready personnel are no longer required to conduct active mission segments of an operation (i.e., main engine cut-off, or re-entry vehicle bus burn-out occurs, etc.). This phase continues until all equipment/facility reconfiguration actions are complete.

Space Launch Maintenance—Maintenance function conducted by USAF or contractor personnel at the launch base in support of operations to attain and maintain the capability to command, control, and execute a space launch system.

Spacelift—The ability to project power by transporting people and materiel to and or through space (AFM1-1). This includes the deployment, sustainment, and augmentation of satellite constellations by delivering space systems to the required orbit.

Spacelift Operations—Actions conducted by USAF or contractor personnel at the launch base to control and execute space launch systems (i.e. launch countdown, countdown simulations, integrated systems

verifications, dress rehearsals, etc.). Normally, these actions are conducted from control/operations centers, however, they may be accomplished from any place personnel exercise command or control over space launch systems.

Space Surveillance Network (SSN)—A network of sensors which provide United States Space Command (USSPACECOM) the ability to detect, track, identify, and catalog all man-made earth orbiting objects or satellites.

Universal Documentation System (UDS)—The UDS provides a common language and format for stating program, mission, and test requirements and supporting documentation.