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Operations

SPACE

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OPR: HQ USAF/XOFS (Maj Lee/Maj Taylor)

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- 1.** Aerospace systems facilitate peacetime operations and are ready to conduct worldwide military combat operations. The Air Force must exploit the advantages of speed, scope, and mobility in space to fulfill its global commitment to national defense. This directive establishes policies for planning, acquiring, operating, and sustaining Air Force space forces.
- 2.** The Air Force will establish, organize, employ, and sustain space forces necessary to execute the missions and functions assigned including rapid response to the National Command Authorities (NCA) and the conduct of military operations across the spectrum of conflict.
- 3.** In support of national and Air Force goals, Air Force space forces will conduct space related combat, combat support operations, and peacetime activities.
 - 3.1.** In the event of missile, air and space attacks against the US and its allies, Air Force space forces will provide Tactical Warning/Attack Assessment (TW/AA), to include timely notification of the NCA of actual or expected nuclear detonations. Space forces also will provide warning of attack to US combatant commands and US allies.
 - 3.2.** The Air Force will ensure control of the aerospace environment, sufficient to allow freedom of action for US and allied forces while precluding the use of space systems and products hostile to US national security.
 - 3.3.** The Air Force will base, operate, and maintain space systems ready to support the operational requirements of US combatant commands. Combat support will include at least surveillance, early warning, intelligence, navigation, environmental data, and rapid, secure communications.
 - 3.4.** As the DoD executive agent for space launch, the Air Force will launch satellites for the DoD and other government agencies for required orbital operations.

3.5. As directed by the Secretary of Defense and the Secretary of the Air Force, the Air Force will support national intelligence space activities.

3.6. The Air Force will conduct space operations in support of the US national security, civil, and commercial space sectors and in support of USG international obligations.

3.7. Consistent with national security requirements, US civil and international obligations, and the law and national policy regarding the US commercial space sector, the Air Force will support US commercial space activities in the areas of launch, range support, and satellite control and communications. In addition, the Air Force will: transfer appropriate military technologies to the commercial sector; use commercial space systems to the maximum extent feasible; allow commercial launch companies the use of excess Air Force launch property and services; and ensure launch scheduling and range commitments to commercial space companies are met.

4. This directive establishes the following responsibilities and authorities:

4.1. The Assistant Secretary of the Air Force, Space (SAF/SN) provides broad guidance and supervision for Air Force space-related activities; develops USAF space policy; is responsible for Air Force positions on US government interagency and international space matters; and supervises the development and execution of plans and agreements pertaining to USAF support of the US commercial space industry and space-related activities of US civil agencies.

4.2. The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) directs, supervises, and executes the research, development, production, and support of the Air Force space systems and related defense materials, and issues guidance to Air Force system program offices on the use of commercial space services.

4.3. The Deputy Chief of Staff for Plans and Operations (HQ USAF/XO) develops operational doctrine, requirements, strategy, plans, program guidance, and policies for structuring, operating, and employing space forces. HQ USAF/XO also establishes Air Force operational positions on space-related activities and oversees the Air Force Tactical Exploitation of National Capabilities (TENCAP) program.

4.4. The Assistant Chief of Staff for Intelligence (HQ USAF/IN) develops and provides intelligence policy, guidance, and plans for tasking, collecting, processing, exploiting, and disseminating data derived from intelligence space systems. HQ USAF/IN also advocates intelligence requirements for space platforms to the Director of Central Intelligence (DCI) and the national intelligence space community, responsive to the operational needs of the Air Force.

4.5. The Deputy Chief of Staff for Logistics (HQ USAF/LG) develops space logistics strategies, concepts, plans, policies, and organizational relationships required to sustain Air Force space forces and as required for USAF support of US commercial space sector, to include disposition of surplus Air Force launch-related assets.

4.6. Headquarters, Air Force Space Command (HQ AFSPC) organizes, trains, equips and operates space forces, to include launch and recovery of spacelift vehicles. It also supports space-based systems through tracking, monitoring, maneuvering, and maintenance. Additionally AFSPC conducts space operations in support of US combatant commands and other US national security organizations and the US civil and commercial space sectors. It consolidates USAF major command (MAJCOM) requirements for new space systems and supports the Defense Technology Security Agency in safe-

guarding technology during the foreign launch of US commercial satellites. AFSPC is the executive agent for the TENCAP program.

4.7. Headquarters, Air Force Material Command (HQ AFMC) conducts research, development, acquisition, and logistical activities to field and sustain Air Force space forces. It also manages the Air Force Space Test Program and conducts RDT&E and procurement of DoD payloads and space-related activities of other US national security, civil, and commercial space sectors.

4.8. Air Force MAJCOMs will identify their operational requirements for space support to HQ AFSPC and HQ USAF/XO, and apply the products and capabilities of USAF space forces throughout their education, training, exercise and operational activities.

5. See **Attachment 1** for methods of measuring compliance with this directive.
6. See **Attachment 2** for an explanation of terms used in this directive.
7. See **Attachment 3** for policies implemented by this directive and for related publications.

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DCS/Plans and Operations

Attachment 1

MEASURING AND DISPLAYING COMPLIANCE WITH POLICY

A1.1. The Air Force measures compliance with the policies concerning TW/AA, space system readiness, and spacelift by using two metrics: SORTS Assessment and Spacelift Launch Success.

A1.1.1. AFSPC measures TW/AA compliance with policy by comparing C-level data from the Status of Resources and Training System (SORTS) (see **Figure A1.1.**). The trend is determined by calculating the percentage of time the system is C-1, C-2, C-3, or C-4 for each of the four areas (missile, air, and space attacks and nuclear detonation reporting). AFSPC will chart comparisons quarterly and compare them to the previous three quarters. An increase in the percentage of time the system is C-1 for an area indicates compliance. Report this data through the RCS: HAF-XOF(Q)9336, *AFSPC SORTS Assessment Report*, via mail to USAF/XOFS not later than 30 calendar days after the end of the quarter (Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec). Reporting is suspended during emergency conditions.

A1.1.2. AFSPC measures compliance with the policy of basing, operating, and maintaining space systems in a state of readiness to support combatant commanders by comparing SORTS C-level data (**Figure A1.2.**). The trend is determined by calculating the percentage of time missiles and the systems that support each space mission area (paragraph 1.3.3.) are C-1, C-2, C-3, or C-4. Comparisons will be charted quarterly and compared to the previous three quarters. An increase in the percentage of time an area's system is C-1 indicates compliance. Report this data through the RCS: HAF-XOF(Q)9336, *AFSPC SORTS Assessment Report*, via mail to USAF/XOFS not later than 30 calendar days after the end of the quarter (Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec). Reporting is suspended during emergency conditions.

A1.1.3. AFSPC and the Spacelift Wings will measure compliance with spacelift policy in two steps. First, they will compare the number of scheduled satellite launches in a year to the actual number of launches (**Figure A1.3.**). Comparisons will be charted for each calendar year and compared to the four previous years. An increase in the percentage of scheduled launches that are actually launched in a calendar year will indicate compliance. Second, the number of launches will be compared to the number of payloads reaching their required orbit (**Figure A1.4.**). Comparisons will be charted for each calendar year and compared to the previous four years. An increase in the percentage of payloads launched reaching the required orbit will indicate compliance. Reporting is done through RCS: HAF-XOF(Q)9337, *Annual AFSPC Launch Success Report*, via mail to USAF/XOFS not later than 30 calendar days after the end of the calendar year. Reporting is suspended during emergency conditions.

A1.2. The graphic displays in figures **Figure A1.1.**, **Figure A1.2.**, **Figure A1.3.**, and **Figure A1.4.** measure notional progress over time. Notional data is only provided as an example and does not imply actual existing data.

Figure A1.1. Sample Metric of TW/AA Readiness.

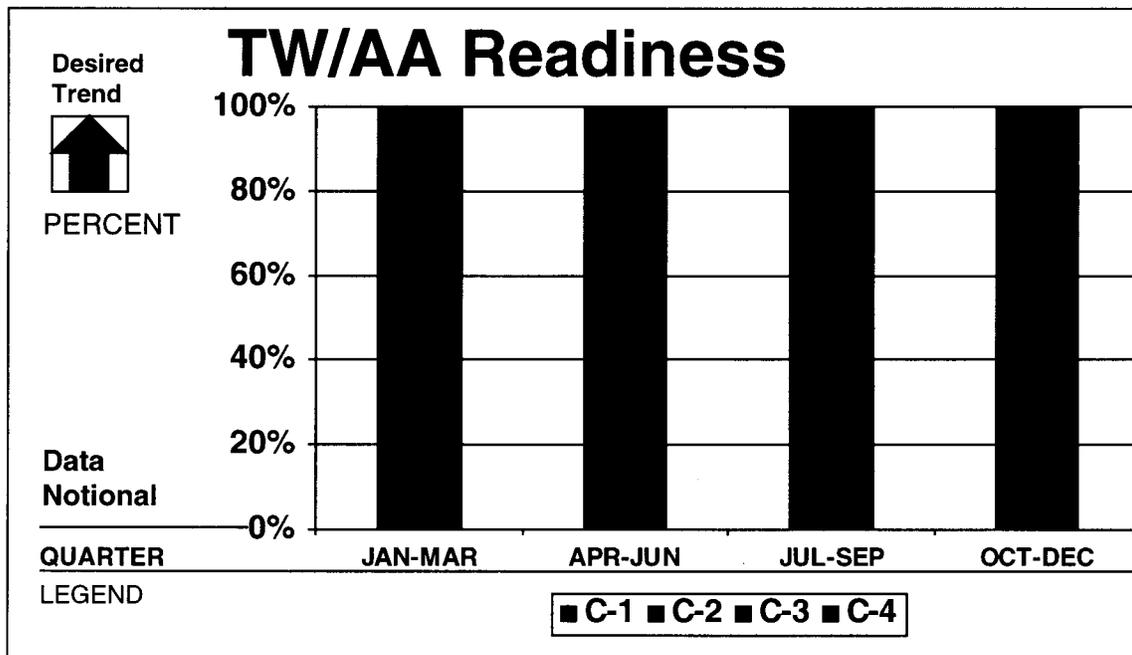


Figure A1.2. Sample Metric of Space Systems Readiness.

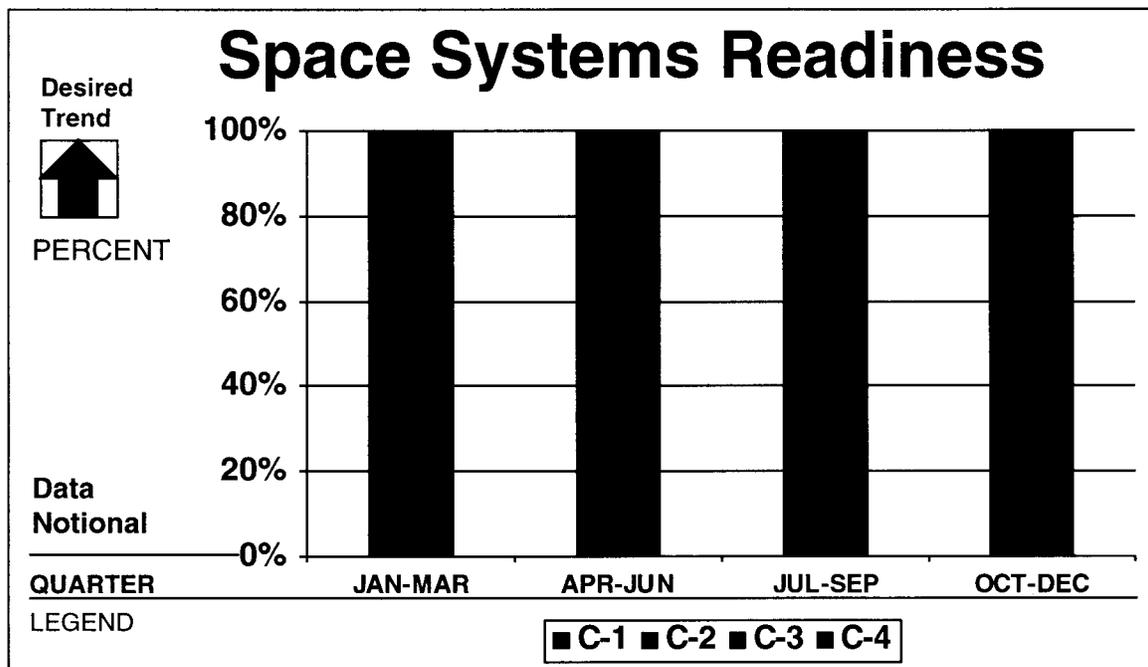


Figure A1.3. Sample Metric of Satellite Launch Success.

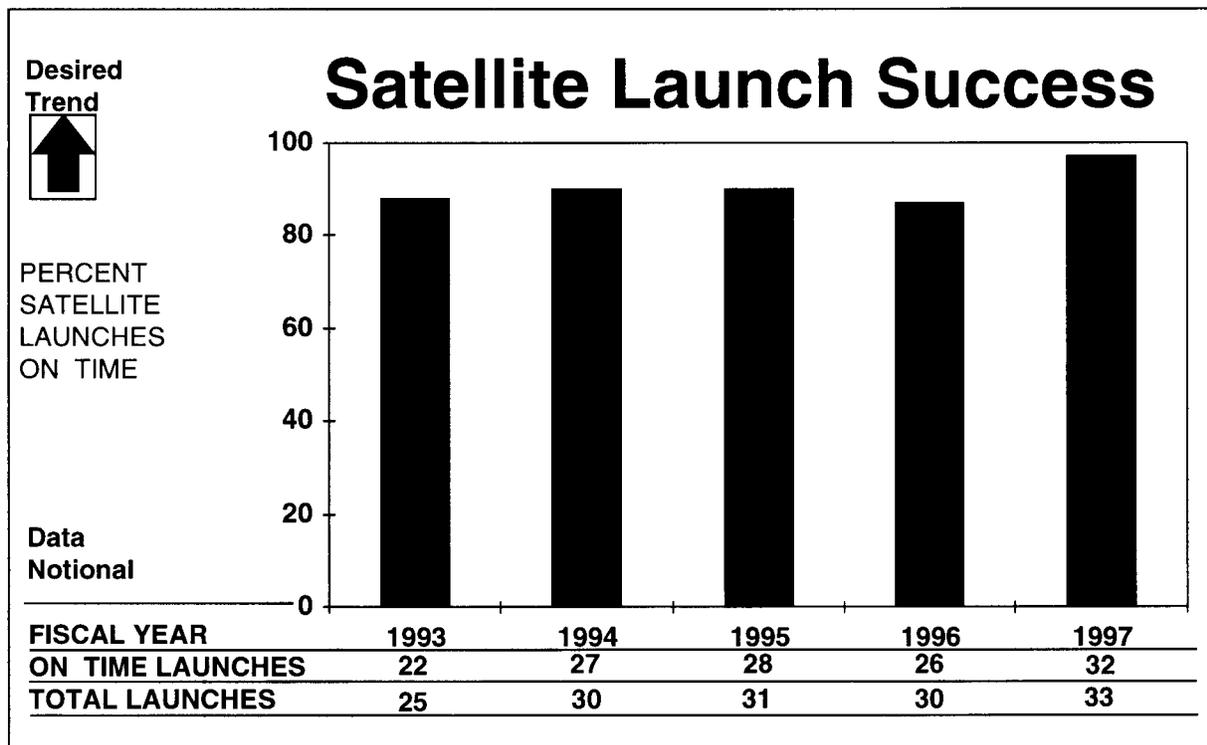
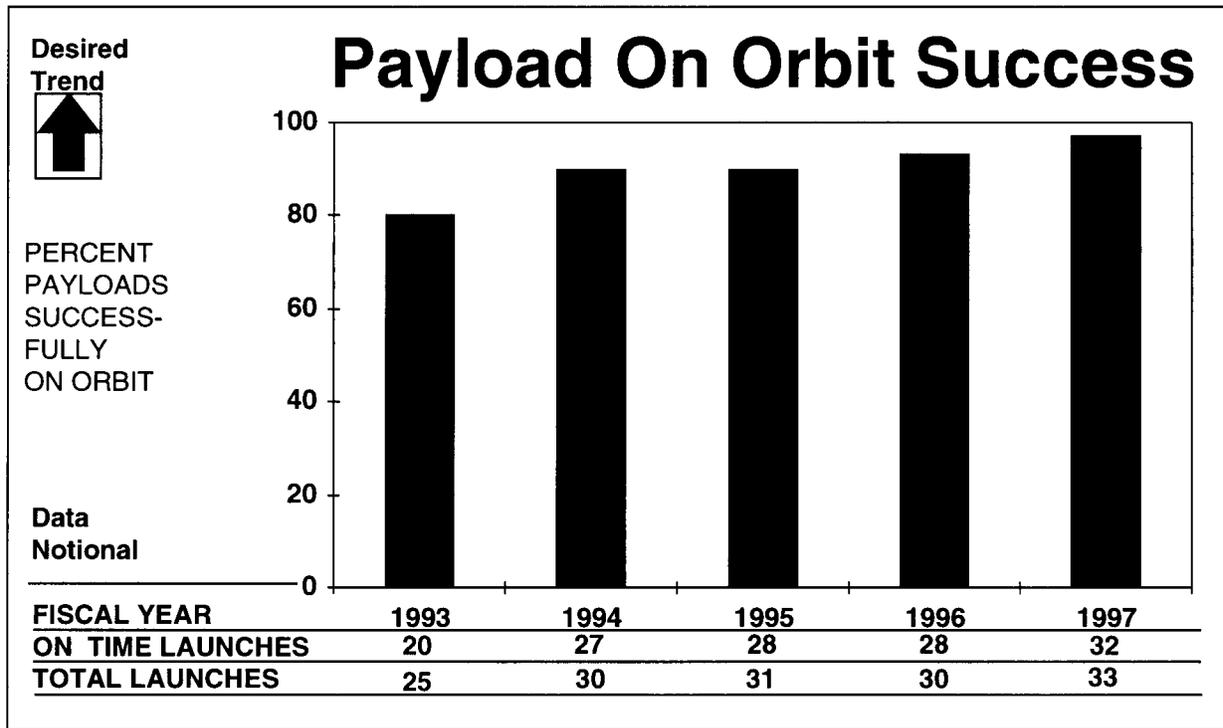


Figure A1.4. Sample Metric of Payload on Orbit Success.



Attachment 2

GLOSSARY OF ABBREVIATIONS, ACRONYMS AND TERMS

Abbreviations and Acronyms

AFI— Air Force Instruction
AFMC— Air Force Material Command
AFMD— Air Force Mission Directive
AFPD— Air Force Policy Directive
AFSPC— Air Force Space Command
DoD— Department of Defense
MAJCOM— Major command
NCA— National Command Authorities
NSPD— National Space Policy Directive
SAF— Secretary of the Air Force
SORTS— Status of Resources and Training System
TENCAP— Tactical Exploitation of National Capabilities
TW/AA— Tactical Warning/Attack Assessment
USCINCSpace—Commander in Chief, US Space Command

Terms

Aerospace—Of, or pertaining to, earth's envelope of atmosphere and the space above it; two separate entities considered as a single realm for activity in launching, guidance, and control of vehicles that will travel in both entities. (Joint Pub 1-02)

Combatant Command—One of the unified or specified commands established by the President. (Joint Pub 1-02)

Counterspace Operations—Offensive and defensive operations by friendly space and terrestrial forces directed against an enemy's space forces to gain and maintain a desired degree of space superiority. (Joint Pub 3-14)

Integrated Tactical Warning and Attack Assessment—Notification to operational command centers that a specific threat event is occurring; warning is based on evaluation of information from all available sources to determine the potential or actual nature and objectives of an attack. Component elements include: country of origin, event type and size, country under attack, and event time. (Joint Pub 1-02)

Military Space Operations—Unilateral tasks assigned to the Commander in Chief of US Space Command (USCINCSpace) and component space forces for the conduct of assured mission support from space systems. It consists of Force Enhancement, Force Application, Space Control, and Space Support. (Joint Pub 3-14)

Space Combat Support—Space Combat Support is comprised of the products and services from space forces that are either used, processed by, or provided to the supported combatant commander which directly enhances his terrestrial warfighting capabilities. (Joint Pub 3-14)

Space Control—Military space capabilities that will ensure freedom of action in space for friendly forces while limiting or denying enemy freedom of action when directed by the National Command Authorities. (Joint Pub 3-14)

Space Forces—Forces dedicated to providing and maintaining military space capabilities. They consist of Force Enhancement Forces, Force Application Forces, Space Control Forces, and Space Support Forces. (Joint Pub 3-14)

Space Support—Support for space forces including such activities as launch and deploying space vehicles, maintaining and sustaining space vehicles while on orbit, and recovering space vehicles if required. (Joint Pub 3-14)

Attachment 3

IMPLEMENTED POLICIES AND RELATED PUBLICATIONS

Implemented Policies

*NSPD 1, (S) National Space Policy (U), 2 Nov 89

*NSPD 2, (C) Commercial Space Launch Policy (U), 5 Sep 90

*NSPD 3, U.S. Commercial Space Policy Guidelines, 11 Feb 91

*NSPD 4, National Space Launch Strategy, 10 Jul 91

NSDD 13, (TS) National Security Decision Directive 13 (U), Oct 81

Public Law 98-575, Commercial Space Launch Act of 1987, 30 Oct 84

Public Law 100-657, Commercial Space Launch Act Amendments of 1988, 15 Nov 88

Public Law 102-588, NASA Authorization Act, FY93, 4 Nov 92

DoD Directive C-3100.9, (C) Space Systems Policy (U), 28 Mar 77

DoD Directive 3200.11, Major Range and Test Facility Base, 29 Sep 80

DoD Directive 3230.3, DoD Support for Commercial Space Launch Activities, 14 Oct 86

DoD Directive 3500.1, Defense Space Council, 29 Dec 88

DoD Directive 5100.1, Functions of the DoD and its Major Components, 25 Sep 87

DoD Directive 5160.32, Development of Space Systems, 8 Sep 70

DoD Directive 5530.3, International Agreements, 11 Jun 87

Secretary of Defense Memorandum, (TS/NF) DoD Space Policy (U), 4 Feb 87

Deputy Secretary of Defense Memorandum, (S) Amendment to DoD Space Policy of 4 Feb 87 (U), 15 Dec 92

Joint Pub 3-14, Joint Doctrine: Tactics, Techniques, and Procedures for Space Operations, 1 Feb 93

Secretary of Air Force, Memorandum, USAF Space Policy, 7 Dec 88

Secretary of the Air Force Order 100.1, Functions of the Secretary, Under Secretary and the Assistant Secretaries of the Air Force, 1 May 90

* Source of Availability: HQ USAF/XOFS, 1480 AF Pentagon, Washington DC 20330-1480

Related Publications

This directive interfaces with the following Air Force mission directives and other publications.

AFM 1-1, Basic Aerospace Doctrine of the United States Air Force, Mar 92

AFDD-4, Space Operations

AFMD 3, Air Force Intelligence Command: Organization and Mission

AFMD 4, Air Force Material Command: Organization and Mission

AFMD 5, Air Force Space Command: Organization and Mission

AFPD 10-1, Mission Directives, Aug 93

AFPD 10-2, Readiness, Apr 93

AFPD 14-2, Intelligence Collection, Production, and Application, Jul 93

AFPD 15-1, Atmosphere and Space Environmental Support, Oct 93

AFPD 21-1, Managing Aerospace Equipment Maintenance, Aug 93

HP 21-1, Department of the Air Force Organization and Functions

AFR 23-51, Air Force Space Command, May 90

AFI 10-1201, Space Operations, Jul 94

AFI 10-1210, Technology Safeguard Monitoring for Foreign Launches of U.S. Commercial Satellites, Jul 93

AFI 15-118, Air Weather Service Centralized Support System, Feb 94

AFI 21-108, Maintenance Management of Space Systems, New publication

AFI 38-101, Air Force Organization, Jun 94

AFI 60-101, Operations and Resources, Apr 94