BY ORDER OF THE COMMANDER
SPACE LAUNCH DELTA 30

SPACE LAUNCH DELTA 30
INSTRUCTION 10-605

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Operations

WESTERN RANGE OPERATIONAL BASELINE ACCEPTANCE

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This publication implements AFSPCI 10-605, *Operational Acceptance Process*, 20 June 2016 (Incorporating Change 1, 29 May 2018), which describes the overall process for operational acceptance transition of modifications from acquisition to operations. This Space Launch Delta 30 Instruction 10-605 (SLD30I 10-605) establishes a uniform process to change the Western Range Instrumentation and Systems (WRIS) operational configuration. It applies to personnel and agencies of the Space Launch Delta 30 (SLD 30) involved in the acquisition, installation, integration, test and evaluation, logistics support, operation, and maintenance of new or modified instrumentation systems on the Western Range (WR). This publication may be supplemented at any level, but before certification and approval, all supplements must be routed to the Office of Primary Responsibility (OPR) listed above for coordination. Refer recommended changes and questions about this publication to the OPR listed above using an AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate chain of command. Waiver requests must be submitted to the OPR listed above for consideration to reject, modify or approve the request. "Ensure that all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction 33-322, *Records Management and Information Governance Program,* and are disposed of in accordance with the Air Force Records Disposition Schedule which is located in the Air Force Records Information Management System," or any updated statement provided by the AF Records Management office (SAF/CNZ). This publication using the name or mark of any specific manufacturer, commercial product, commodity, or service does not mean or imply Air Force or Space Force endorsement.

SUMMARY OF CHANGES

This publication is being rewritten to reflect the new implementing publication and the new organization designation publishing the instruction.

Chapter 1—PROGRAM OVERVIEW **4**

1.1. Background. 4

1.2. Objectives. 4

Chapter 2—ROLES AND RESPONSIBILITIES **5**

2.1. The SLD 30 Vice Commander for Operations (SLD30/CV (O)). 5

2.2. The 2d Range Operations Squadron (2ROPS). 5

2.3. The 30th Space Communications Squadron (30SCS). 5

2.4. The 30th Operations Support Squadron (30OSS). 5

2.5. The SLD 30 Ballistics and Instrumentation Safety (SLD30/SEAT). 5

2.6. The SLD 30 Range Management Division (SLD30/RMD). 5

2.7. The 30th Civil Engineer Squadron (30CES). 5

2.8. The 30th Security Forces Squadron (30SFS). 5

2.9. The SLD 30 Range Technical Director (SLD30/RTD). 5

Chapter 3—SLD OPERATIONAL BASELINE ACCEPTANCE PROCESS **6**

3.1. 2ROPS Initiates Process. 6

3.2. Emergency Change Proposals. 6

3.3. Rescind Acceptance Process. 6

3.4. Standard Operational Baseline Acceptance Process. 6

Figure 3.1. Standard Operational Baseline Acceptance Process. 7

Chapter 4—SLD ECPM OPERATIONAL BASELINE ACCEPTANCE PROCESS **8**

4.1. ECPM Acceptance Process. 8

4.2. OM&S Contractor Develops ECPM. 8

4.3. RE Reviews ECPM. 8

4.4. RE ECPM Concurrence Forwarded to WR Configuration Manager and OM&S Contractor. 8

4.5. RE OAB Member for ECPM process. 8

Chapter 5—SLD RESCIND OPERATIONAL BASELINE ACCEPTANCE PROCESS **9**

5.1. The Rescind Acceptance Process. 9

5.2. WRIS Component Identified for Removal. 9

Figure 5.1. Rescind Operational Baseline Acceptance Process. 10

Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION 11

Chapter 1

PROGRAM OVERVIEW

1.1. Background.

1.1.1. Space Launch Delta (SLD) 30 operational acceptance (OA) is required for all WRIS configuration items that are prime mission equipment used for real time launch operational support.

1.1.2. The Headquarters (HQ) United States Space Force (USSF) Eastern/Western Range Requirements & Modification Management Guide details processes for transitioning range modifications to operational support. The Launch and Test Range System (LTRS) Test and Evaluation Master Plan (TEMP) provides guidance and direction for performing testing to validate system capabilities to meet systems requirements post development activities.

1.1.3. For acquisitions that provide modernization and technology introduction or capability modification, as well as sustainment modifications, SLD 30 operational acceptance feeds into HQ USSF S3/6 Directorate of Operations and Communications' appointed authority's operational acceptance decision to accept delivery from the acquirer.

1.1.3.1. For high-risk sustainment modifications, S3/6 chairs the Test Readiness Review Board (TRRB) for high-risk operational test activities or delegates that decision authority. This generally means the S3/6 approves readiness to proceed with directed operational test such as Force Development Evaluation (FDE), Sufficiency of Operational Test Review (SOTR) or SLD Operational Acceptance Testing. For all other operational tests, when needed, the SLD 30 Vice Commander for Operations (SLD 30/CV (O)) or SLD 45/CV chairs the TRRB.

1.1.3.2. In cases that present lower technical or schedule risk to OA, S3/6 will leverage SLD established transition to operations processes and testing as documented in 45 SWI 10-605 45th Space Wing Eastern Range Acceptance Process and this SLD30I 10-605 Western Range Operational Baseline Acceptance to make the OA decision. For these cases, the OA approval authority will officially remain within S3/6. The SLD will execute its OA process and provide a SLD-level OA decision/recommendation to S3/6 to accept or reject the system modification. If the SLD recommendation is accepted, the OA approval authority will sign a formal memo to accept the modification. The majority of SLD conducted evaluations will result in S3/6 OA approval/documentation and notification.

1.2. Objectives.

1.2.1. Establish a uniform process to control the WR operationally accepted baseline configuration.

1.2.2. Ensure each new or modified system satisfies WR Operational Safety, Suitability and Effectiveness (OSS&E).

1.2.3. Identify, validate, control, and provide the status of all WRIS modifications.

1.2.4. Minimize delays in acquiring new or modified WRIS for operational use.

1.2.5. Provide a process that identifies operational limitations and required improvements.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. The SLD 30 Vice Commander for Operations (SLD 30/CV (O)).

2.1.1. Shall serve as the chair of the SLD Operational Acceptance Board (OAB) and retain final approval authority for all SLD-level operational acceptance and rescission decisions, unless delegated.

2.1.1.1. Be able to delegate his or her authority to the SLD 30 Range Technical Director (SLD 30/RTD) or designated squadron commander as appropriate.

2.2. The 2d Range Operations Squadron (2 ROPS). 2 ROPS shall:

2.2.1. Manage the Western Range operational baseline acceptance process.

2.2.2. Provide operations and maintenance oversight of the operationally accepted WRIS.

2.2.3. Ensure configuration control of all WRIS and evaluating OSS&E.

2.2.4. Coordinate contractual impacts through the appropriate offices.

2.2.5. Issue the operational acceptance memorandum for operational use of new or modified WRIS.

2.2.6. Serve as an OAB member to verify that new or modified WRIS comply with Universal Documentation System (UDS) requirements.

2.3. The 30th Space Communications Squadron (30 SCS). Shall serve as an OAB member when needed to evaluate new or range communication systems and modifications.

2.4. The 30th Operations Support Squadron (30 OSS). Shall serve as an OAB member when needed to evaluate new or range weather systems and modifications.

2.5. The SLD 30 Ballistics and Instrumentation Safety (SLD 30/SEAT). SLD 30/SEAT shall serve as an OAB member to verify that new or modified WRIS comply with range safety requirements.

2.6. The SLD 30 Range Management Division (SLD 30/RMD). SLD 30/RMD shall serve as an OAB member to address project related issues.

2.7. The 30th Civil Engineer Squadron (30 CES). For new or systems modifications affecting civil engineering requirements, 30 CES shall serve as an OAB member when needed to verify compliance with applicable civil engineering requirements.

2.8. The 30th Security Forces Squadron (30 SFS). 30 SFF shall serve as an OAB member when needed to verify that new or modified WRIS comply with applicable security requirements.

2.9. The SLD 30 Range Technical Director (SLD 30/RTD). SLD 30/RTD shall serve as an OAB member to advise SLD 30/CV (O) on approving or rejecting all operational acceptance or rescission decisions.

Chapter 3

SLD OPERATIONAL BASELINE ACCEPTANCE PROCESS

3.1. 2 ROPS Initiates Process. 2 ROPS initiates the operational baseline acceptance process when there is an imminent need to accept changes to the WRIS operational baseline.

3.2. Emergency Change Proposals. On emergency change proposals requiring short turnaround to support launch activities, an Emergency Change Proposal Message (ECPM) can be used as the entry instrument for the operational baseline acceptance process, as defined in **Chapter 4** of this instruction.

3.3. Rescind Acceptance Process. **Chapter 5** defines the rescind acceptance process for removing WRIS from the operational baseline.

3.4. Standard Operational Baseline Acceptance Process. The below paragraphs define the standard operational baseline acceptance process for accepting changes to the WRIS operational baseline defines and are shown in **Figure 3.1**.

3.4.1. A SLD 30 Subject Matter Expert (SME) reviews the test results and documentation for the new or modified WRIS and submits an analysis of operational safety, suitability, effectiveness, and limitations to the OAB with a recommendation for SLD operational acceptance.

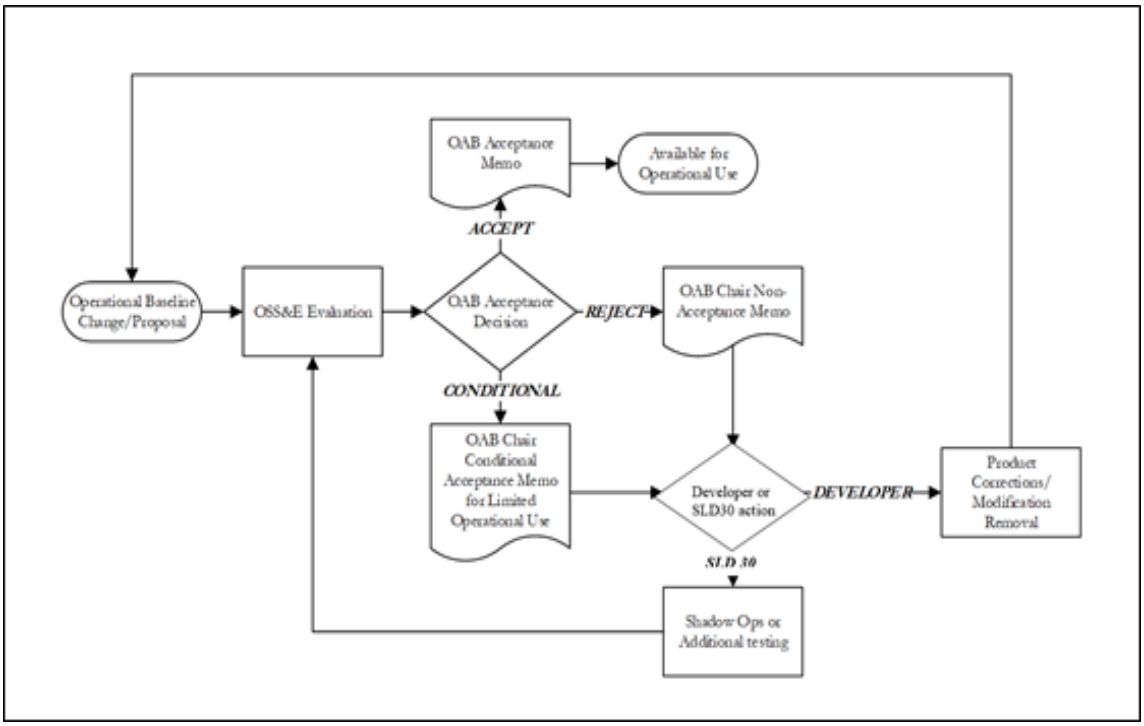
3.4.2. The OAB members review the SME analysis and make an operational acceptance recommendation to the Chair. The Chair decides to accept, reject or conditionally accept their recommendation.

3.4.3. If the OAB Chair grants acceptance, 2 ROPS issues a SLD operational acceptance memorandum with the OAB Chair's signature either with or without operational user restrictions. 2 ROPS will ensure that the operational assets, and any restrictions, are documented as the new operational baseline. If the modification was initiated under the ECPM process, the memorandum should include any applicable direction to remove the modification following the supporting operation.

3.4.4. If the OAB Chair rejects acceptance, 2 ROPS issues a non-acceptance memorandum with the OAB Chair's signature to the developer for corrective action. Additional development may be accomplished, Development Test and Evaluation (DT&E) performed, and/or data supplied. When corrective action and additional development are completed, the development agency continues the operational baseline acceptance process as defined in this chapter. If the modification under consideration was initiated under the ECPM process, the memorandum will include direction to remove the modification.

3.4.5. 2 ROPS will also notify SLD 30 Program Management Directorate (SLD 30/PMD) of operational baseline changes if associated contract actions are required.

Figure 3.1. Standard Operational Baseline Acceptance Process.



Chapter 4

SLD ECPM OPERATIONAL BASELINE ACCEPTANCE PROCESS

4.1. ECPM Acceptance Process. The ECPM acceptance process is used to evaluate requested WRIS emergency changes to support launch operations. The criteria for using the ECPM process are below.

4.1.1. There are no other reasonable or cost effective alternatives to satisfy mission requirements.

4.1.2. Real or potentially significant impacts to operations or personnel safety exist.

4.1.3. Proposed fix should minimize additional operational risk.

4.2. OM&S Contractor Develops ECPM. The OM&S contractor develops an ECPM to meet emergency WRIS changes to support of a specified need and duration. The OM&S contractor submits the ECPM to the 2 ROPS Range Engineer (RE) for that requirement.

4.3. RE Reviews ECPM. The RE reviews the ECPM and consults with appropriate technical experts (including the SLD 30 SME) and launch team members, and decides to concur or non-concur with the ECPM. Instrumentation Safety Officer (ISO) concurrence is required before modifying the ground Flight Safety System (FSS).

4.4. RE ECPM Concurrence Forwarded to WR Configuration Manager and OM&S Contractor. The RE forwards RE ECPM concurrence to the WR Configuration Manager and the OM&S contractor. RE concurrence authorizes implementation of the proposed modification. When the modification will remain in place, the operational baseline acceptance process as defined in **Chapter 3** of this instruction will be used. In such cases, the ECPM process is not intended to replace, but rather run concurrent to the normal Engineering Change Proposal (ECP) process.

4.5. RE OAB Member for ECPM process. When the ECPM process is being used the RE shall sit on the OAB.

Chapter 5

SLD RESCIND OPERATIONAL BASELINE ACCEPTANCE PROCESS

5.1. The Rescind Acceptance Process. The rescind acceptance process to remove WRIS components from operational use is stated below and shown in **Figure 5.1**.

5.2. WRIS Component Identified for Removal. When a WRIS component is identified for removal from the operational configuration baseline:

5.2.1. A WRIS SME writes the rescind request and submits it to the OAB.

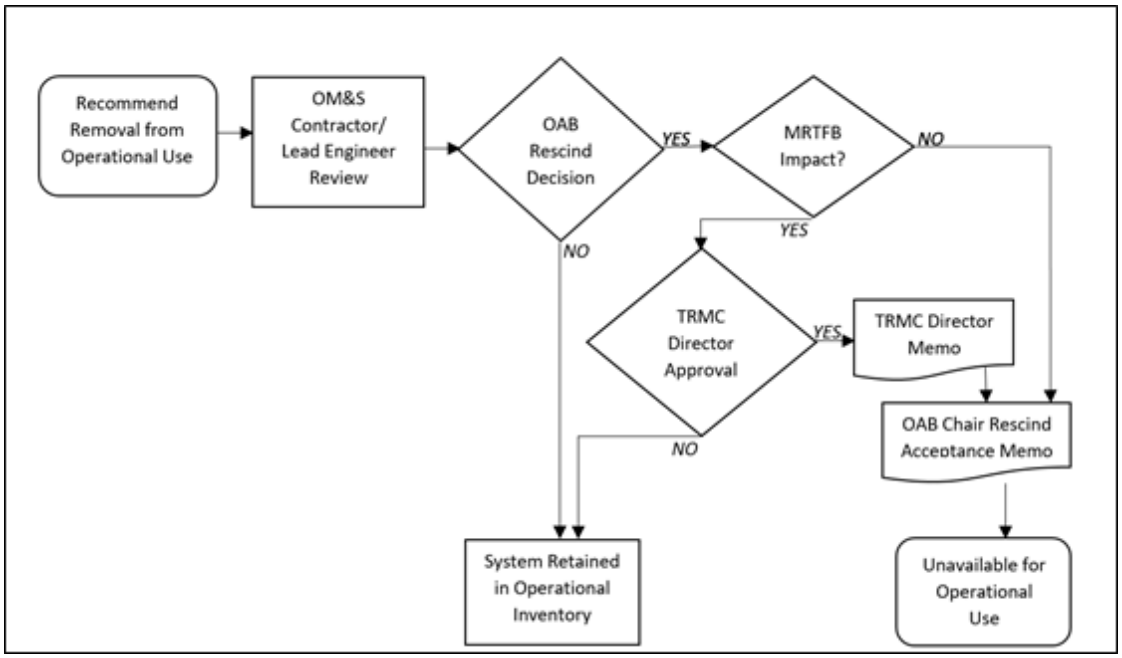
5.2.2. The OAB members review the SME's recommendation and make their recommendation to the OAB Chair. The Chair decides to rescind acceptance or to retain the current operational acceptance status.

5.2.2.1. Before acting on a rescind acceptance decision, the OAB Chair must determine if it will result in a significant change to the Major Range Test Facility Base's (MRTFB's) capability.

5.2.2.2. If resulting actions will significantly impact the MRTFB's capability, then 2 ROPS must follow actions required to obtain the Test Management Resource Center (TRMC) Director approval per DODI 3200.18, Appendix 5 to Enclosure 3. If the OAB rescinds acceptance, 2 ROPS issues a rescind SLD operational acceptance memorandum signed by the OAB Chair and updates the asset's operational status. Follow on actions may include generating a Requirement Statement to disposition equipment and notifying SLD 30/PMD to remove the asset from the OM&S contract.

5.2.2.3. If the OAB retains current operational acceptance status, 2 ROPS issues a memorandum to the agency that made the rescind request.

Figure 5.1. Rescind Operational Baseline Acceptance Process.



ROBERT A. LONG, Colonel, USSF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoDD 3200.11, *Major Range and Test Facility Base (MRTFB)*, December 27, 2007 Incorporating Change 2, October 15, 2018

DODI 3200.18, *Management and Operation of the Major Range and Test Facility Base (MRTFB)*, 1 February 2010 Incorporating Change 2, October 15, 2018

AFSPCI 99-103, *Capabilities-Based Test and Evaluation of Space and Cyberspace Systems*, 11 December 2020

AFSPCI 91-701, *Launch and Range Safety Program Policy and Requirements*, 01 February 2019

AFI 63-101/20-101, *Integrated Life Cycle Management*, 30 June 2020

AFSPCI 10-605, *Operational Acceptance Process*, 20 June 2016 (Incorporating Change 1, 29 May 2018)

45SWI 10-605, *45th Space Wing Eastern Range Acceptance Process*, 20 October 2019

HQ USSF REQS_MOD MANAGEMENT GUIDE 2020_V3.0, *Headquarters United States Space Force (USSF) Eastern/Western Range Requirements & Modification Management Guide*, 27 August 2020

Memorandum HQ USSF/S3/6R Space Enterprise Operations Division, *Launch and Test Range System (LTRS) Operational Test Determination Process Change*, 27 January 2020

Adopted Forms

AF Form 847, *Major Range and Test Facility Base (MRTFB)* , Recommendation for Change of Publication, September 21, 2009

Abbreviations and Acronyms

2ROPS—2nd Range Operations Squadron

30CES—30th Civil Engineer Squadron

30OSS—30th Operations Support Squadron

30SCS—30th Space Communications Squadron

30SFS—30th Security Forces Squadron

45SWI—45th Space Wing Instruction

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFRIMS—Air Force Records Information Management System

AFSPCI—Air Force Space Command Instruction

CDS—Command Destruct Systems

DODI—Department of Defense Instruction

DT&E—Development Test and Evaluation

ECP—Engineering Change Proposal

ECPM—Emergency Change Proposal Message

FSS—Flight Safety System

GPS—Global Positioning System

HQ—Headquarters

IAW—In Accordance With

ISO—Range Safety Instrumentation Safety Officer

LISC—LTRS Integrated Support Contract

LTRS—Launch and Test Range System

MFCO—Mission Flight Control Officer

MRTFB—Major Range and Test Facility Base

OA—Operational Acceptance

OAB—Operational Acceptance Board

OPR—Office of Primary Responsibility

OM&S—Operations, Maintenance and Sustainment

OSS&E—Operational Safety Suitability and Effectiveness

RDS—Records Disposition Schedule

RE—2 ROPS Range Engineer

RSD—Range Safety Display

RTS—Range Tracking Systems

SLD—Space Launch Delta

SLD 30—SLD 30

SLD 30/CV (O)—SLD 30 Vice Commander (Operations)

SLD 30/PMD—SLD 30 Program Management Director

SLD 30/RMD—SLD 30 Range Management Division

SLD 30/RTD—SLD 30 Range Technical Director

SLD 30/SEAT—SLD 30 Ballistics and Instrumentation Safety

SLD 30I—SLD 30 Instruction

SME—Subject Matter Expert

S3/6—USSF, Directorate of Operations and Communications

T&E—Test and Evaluation

TDTS—Telemetry Data Transmission Systems

TRMC—Test Resource Management Center

UDS—Universal Documentation System

USSF—United States Space Force

WR—Western Range

WRIS—Western Range Instrumentation and Systems

Terms

Conditional Acceptance—The new or modified system meets some, but not all, current and valid requirements and provides the WR with a beneficial operational capability that is more significant than any operational risk.

Emergency Change Proposal Message (ECPM)—A process to accelerate implementation and acceptance of emergency modifications required for mission support.

Ground Flight Safety System (FSS)—The ground element of the FSS consists of the Telemetry Data Transmission Systems (TDTS), the Range Tracking Systems (RTS), and the Command Destruct Systems (CDS). The RTS includes a Range Safety Display (RSD) system, which displays vehicle flight performance data that the Mission Flight Control Officer (MFCO) uses as the basis for a flight termination decision. The TDTS provides for the transport of onboard launch vehicle position and performance data to the RSD and the Range User. The CDS provides the MFCO the capability to terminate the vehicle's flight.

Launch and Test Range System (LTRS)—The LTRS is a complex network of 12 subsystems at the Eastern and Western Ranges, including: Command Destruct, Communications, Data Handling, Safety, Optics, Planning and Scheduling, Radar, Surveillance, Timing and Sequencing, Telemetry, Weather, and Modeling and Simulation. Each subsystem has human in-the-loop (HITL) operators and procedures that are an integral part of the LTRS. This system of systems, through a combination of instrumentation assets, provides for the safe and effective launch, testing, and tracking of Department of Defense (DoD), civil, and commercial spacelift vehicles, in addition to conducting ballistic missile, guided weapon, and aeronautical tests and evaluations.

Major Range and Test Facility Base (MRTFB)—DODD 3200.11 defines an MRTFB as "The designated core set of DoD Test and Evaluation (T&E) infrastructure and associated workforce that must be preserved as a national asset to provide T&E capabilities to support the DoD acquisition system." This document also identifies the SLD 30 as an official MRTFB activity, which is an organizational command element responsible for managing MRTFB capabilities and resources.

OM&S Contractor—This is a generic term used to refer to either the Operations and Maintenance Contractor, the Sustainment Contractor or both. Use of this term is consistent with the Launch & Test Range System (LTRS) Integrated Support Contract (LISC) language.

Operational Safety, Suitability & Effectiveness (OSS&E)—*Operational Safety*. The level of safety risk to the system, the environment, and the occupational health caused by a system or end item when employed in an operational environment. *Operational Suitability*. The degree to which a system or end item can be placed satisfactorily in field use, with consideration given to availability, compatibility, transportability, interoperability, reliability, maintainability, wartime use rates, full-dimension protection, operational safety, human factors, architectural and infrastructure compliance, manpower supportability, logistics supportability, natural environmental effects and impacts, and documentation and training requirements. *Operational Effectiveness*. The overall degree of mission accomplishment of a system or end item used by representative personnel in the environment planned or expected (e.g., natural, electronic, threat) for operational employment, considering organization, doctrine, tactics, information assurance, force protection, survivability, vulnerability, and threat (including countermeasures; initial nuclear weapons effects; and nuclear, biological, and chemical contamination threats).

Requirements Statement (RS)—Form RS-1320 LTRS Requirement Statement identifies a required capability that needs to be acquired. Requirement Statement identification, endorsement, evaluation, validation, closure, process history, and assignments are managed within the Integrated Management Information System VisualRV.

Shadow Operations—A period of time in which a new or modified WRIS is put into operational configuration and used to "shadow" in parallel with an existing system. During this time, additional information is collected and thoroughly analyzed for purposes of determining whether the new or modified system should be operationally accepted. Operational effectiveness and suitability will be included in the information collected.

Operational Acceptance (OA)—The new or modified system meets current and valid requirements and provides the WR with a beneficial operational capability that is more significant than any operational risk.

Western Range (WR)—The designated area of responsibility for the Space Systems Command managed LTRS activity for tracking and command/control of spacelift, ballistic missiles, launch and landing vehicles, specific spacecraft and aeronautical operations from the Western United States.

Western Range Instrumentation and Systems (WRIS)—Range instrumentation and systems are the combination of software, firmware, and hardware required to perform the SLD 30 WR mission. This includes, but is not limited to: radar, telemetry, optics, Global Positioning System (GPS), weather, data processing, telecommunications, command and control, display, closed circuit television, monitoring and surveillance, and simulation in implementation with automated information systems to acquire, display, and analyze data collected as an instrumentation network.