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Operations

**45TH SPACE WING EASTERN RANGE
ACCEPTANCE PROCESS**

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OPR: 45 RMS/RMR

Certified by: 45RMS/CC
(Lt Col Andrew W. Lester)

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This instruction implements AFSPCI 10-601, Declaration of Initial Operational Capability (IOC) and Full Operational Capability (FOC), and AFSPCI 21-104, Systems Requirements and Implementation Approval Process. It establishes a uniform process to Operationally Accept or Rescind Acceptance for Eastern Range Instrumentation Systems (ERIS). It also establishes configuration control guidance for hardware, software, and firmware modifications to ERIS. It applies to personnel and agencies of the 45th Space Wing (45 SW) involved in the acquisition, installation, integration, test and evaluation, logistics support, operation, and maintenance of new or modified instrumentation systems on the Eastern Range (ER).

SUMMARY OF CHANGES

This Instruction replaces 45SWI 21-102 and reflects the changes to the Acceptance and Configuration Control process. This Instruction deletes the Systems Operational Acceptance Board (SOAB), adds the Operational Acceptance Board, and adds the Operational Acceptance process. This Instruction reflects the processes that are to be used in accepting and controlling the configuration changes to the ERIS.

1. References, Terms, Abbreviations, and Acronyms. See [Attachment 1](#).

2. Objectives.

2.1. To provide the Eastern Range an operationally accepted configuration to conduct Wing missions, including safety critical and mission critical operations.

2.2. To ensure each new or modified ERIS:

2.2.1. Is adequately documented as to its operational capabilities.

2.2.2. Satisfies mission support requirements.

- 2.3. To ensure that logistics support including facilities, material, spares, documentation, maintenance, and training are properly addressed.
- 2.4. To ensure the system interfaces, performance capabilities, and design limitations are documented prior to scheduling and committing a system for operational support.
- 2.5. To provide a uniform process to: identify, validate, control, and status all ERIS modifications.
- 2.6. To minimize delays in acquiring new or modified ERIS for operational use.
- 2.7. To provide a process that identifies operational limitations and required improvements.

3. Applicability.

- 3.1. This instruction establishes guidelines for the documentation, operational acceptance of new or modified ERIS, and acceptance rescission for ERIS components for which the Wing exercises operational configuration control responsibility.
- 3.2. This instruction applies to personnel and agencies of the Wing involved in the acquisition, installation, integration, test and evaluation, logistics support, operation, and maintenance of ERIS.

4. Organizational Responsibilities.

- 4.1. This details the responsibilities for the Eastern Range Instrumentation Operational Acceptance Process.
- 4.2. The 45 RMS.
 - 4.2.1. Chairs and is the approval authority for the Operational Acceptance Board (OAB), and manages the Operational Acceptance Process. Authority will not be delegated below the flight chief level.
 - 4.2.2. Responsible for operating and maintaining all new and modified ERIS.
 - 4.2.3. Responsible for configuration control of all ERIS.
 - 4.2.4. Ensures adequate spares are provided for all new or modified systems.
 - 4.2.5. Ensures adequate documentation and training are provided for all new or modified systems.
 - 4.2.6. Insures all new or modified systems are adequately tested.
 - 4.2.7. Issues the Operational Acceptance Memorandum for operational use of new or modified ERIS.
- 4.3. The 45 SCS.
 - 4.3.1. Serves as an OAB member as required to ensure that new range communication systems and modifications are coordinated with administrative communication systems.
- 4.4. The 45 SW/SE.
 - 4.4.1. Serves as an OAB member for acceptance to insure that Range safety requirements are addressed in new or modified ERIS.
- 4.5. The 1 ROPS.

4.5.1. Serves as an OAB member to ensure that UDS requirements are addressed in new or modified ERIS.

4.6. The 45 WS.

4.6.1. Serves as an OAB member as required to ensure that Weather requirements are addressed in new or modified ERIS.

4.7. SMC/LRRP.

4.7.1. Serves as OAB member to address any issues regarding new or modified ERIS.

5. Operational Acceptance Process.

5.1. The 45 SW Standard Operational Acceptance Process (**Figure 1.**), as defined in the following paragraphs, is the process for accepting new or modified ERIS. The 45 SW Rescind Acceptance Process, as defined in Paragraph **5.3.**, is the process for rendering systems unavailable for operational use. Process and timelines are implemented using an electronic tool, accessed via the following link: <https://imis.rc.patrick.af.mil/vrvhome/>

5.1.1. The development agency recommends acceptance of a new or modified ERIS after successful completion of Developmental Test and Evaluation (DT&E) and approval at the Readiness Review Board (RRB).

5.1.2. On emergency changes requiring short turnaround to support launch activities, an Engineering Change Proposal Message (ECPM) can be used as the entry instrument for the operational acceptance process, as defined in Paragraph **5.2.** of this instruction.

5.1.3. Operational Acceptance Testing (OAT) is accomplished by the 45 RMS. At the direction of HQ AFSPC/A3T, Force Development Evaluation (FDE) may be accomplished by the 17th Test Squadron (17 TS). It is not the intention for OAT to duplicate FDE, if FDE accomplishes all required testing.

5.1.4. The O&M contractor reviews the test results and documentation for the new or modified ERIS and submits an analysis of suitability, effectiveness, and limitations to the Operational Acceptance Board (OAB) with a recommendation for operational acceptance.

5.1.5. The OAB members review the analysis and make an operational acceptance recommendation to the Chair. The Chair makes a decision for acceptance, rejection, or conditional acceptance.

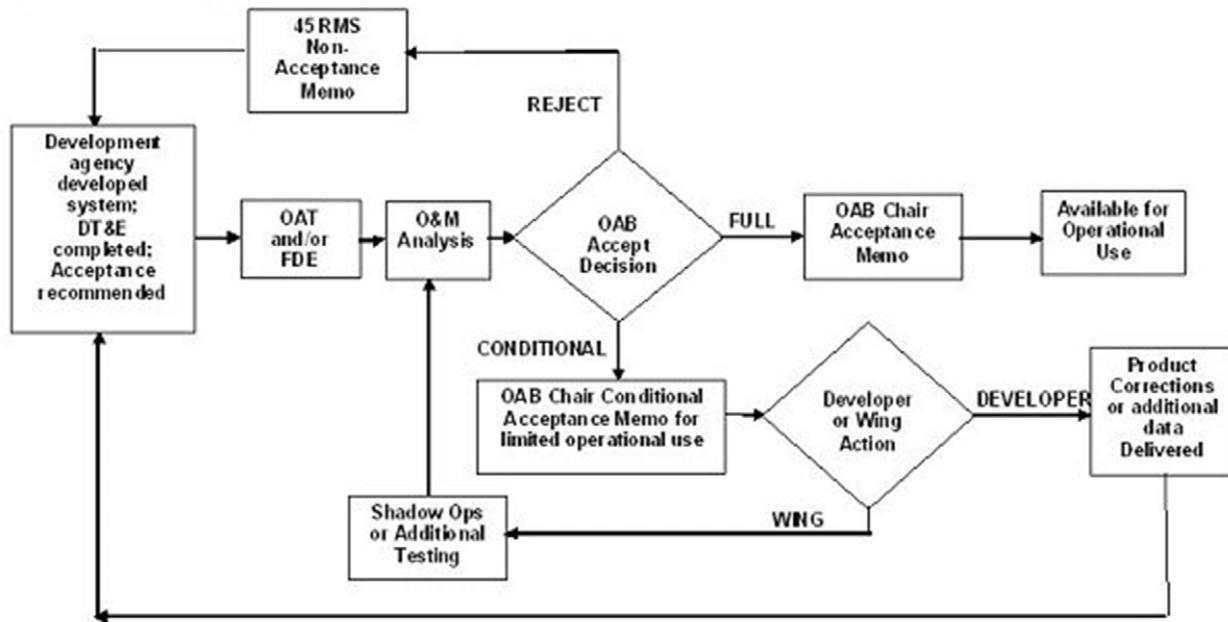
5.1.6. If the OAB grants acceptance, 45 RMS issues an Operational Acceptance Memorandum with or without operational user restrictions. 45 RMS will insure that the operational assets and any restrictions are entered into the System Configuration Acceptance Database (SCAD).

5.1.7. If the OAB rejects acceptance, 45 RMS issues a Non-Acceptance Memorandum to the development agency for corrective action. Additional development may be accomplished, DT&E performed, and/or data supplied. When complete, the development agency continues the operational acceptance process as defined in Paragraph **5.1.1.** of this instruction.

5.1.8. The 45 OG/CC or 45 SW/CC may elect to make the acceptance decision in selected instances. In these cases 45 RMS will forward the decision package and recommendation to the decision authority.

5.1.9. If the OAB grants conditional operational acceptance, 45 RMS issues a Conditional Acceptance Memorandum. Reasons for Conditional Acceptance include but are not limited to the following: corrections of known deficiencies, shadow operations, additional operational testing, and/or logistics issues. Conditional acceptance assumes that additional work will be performed to correct conditional acceptance issues. When corrections are made, the development agency continues the operational acceptance process as defined in Paragraph 5.1.1. of this instruction.

Figure 1. Standard Operational Acceptance Process.



5.2. The 45 SW ECPM Acceptance Process (Figure 2.) is the process for accepting emergency changes to ERIS to support launch operations. Criteria for the use of ECPM's are that they will be:

- 5.2.1. used only when there are no other alternatives to satisfying mission requirements
- 5.2.2. used only for urgent situations where there's a real or potentially significant impact to operations or personal safety
- 5.2.3. used only when the proposed fix does not introduce new problems, and is the minimum necessary action to correct the problem or modify the system.
- 5.2.4. The O&M contractor develops an ECPM to meet short notice changes to the ER to support a specific mission. The ECPM is submitted to the 45 RMS Range Engineer (RE) for that mission.
- 5.2.5. The RE reviews the ECPM and after consultation on Range Safety issues with the STA and MFCO, makes a decision to approve or reject the proposed change.
- 5.2.6. If the RE requires additional information before approving the requested changes, the ECPM is returned to the O&M contractor for further refinement. After making any necessary changes, the O&M contractor resubmits the ECPM.
- 5.2.7. If the RE approves the ECPM, the O&M contractor initiates the System Access Authorization (SAA) to obtain the authorization to break configuration and sends a copy of the ECPM to the Configuration Manager for the ER, SMC/RNP.

5.2.8. The O&M contractor makes the required changes to the designated system, performs the required test activities to validate that installation is complete and correct, and provides test results to RE.

5.2.9. The RE evaluates the test results and after consultation on Range Safety issues with the STA and MFCO, determines whether all ECPM actions are complete and submits the ECPM to the OAB Chair for approval.

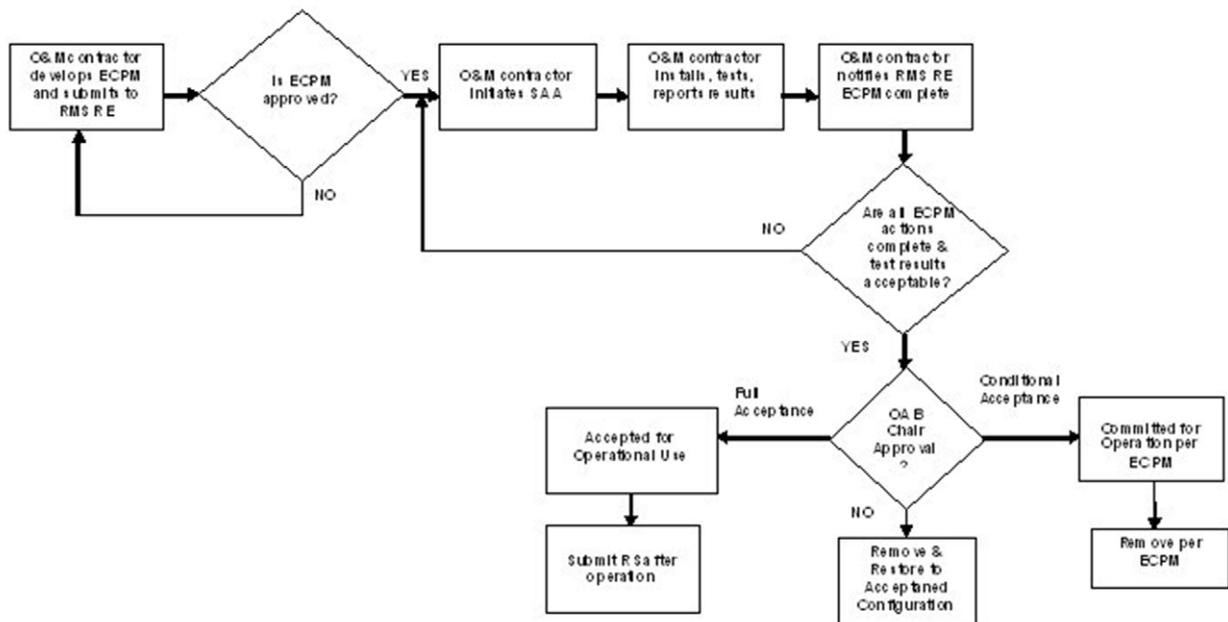
5.2.10. If the OAB Chair determines all actions are complete, the OAB issues an Operational Acceptance Memorandum and the system is available for operational use.

5.2.11. If the OAB Chair determines that all actions are not complete, the system is unavailable for operational use until the system is returned to an accepted configuration. After the O&M contractor has resolved any identified issues the process continues as defined in Paragraph 5.2.5.

5.2.12. If the OAB Chair approves as a permanent modification, then an RS will be submitted after the operation.

5.2.13. If the OAB Chair approves as Conditional and is a temporary modification, then the modification will be removed per ECPM

Figure 2. 45 SW ECPM Acceptance Process.



5.3. The 45 SW Rescind Acceptance Process ([Figure 3.](#)) is the process for removing ERIS components from operational use.

5.3.1. The developer or other agency recommends removal of an ERIS component from operational use.

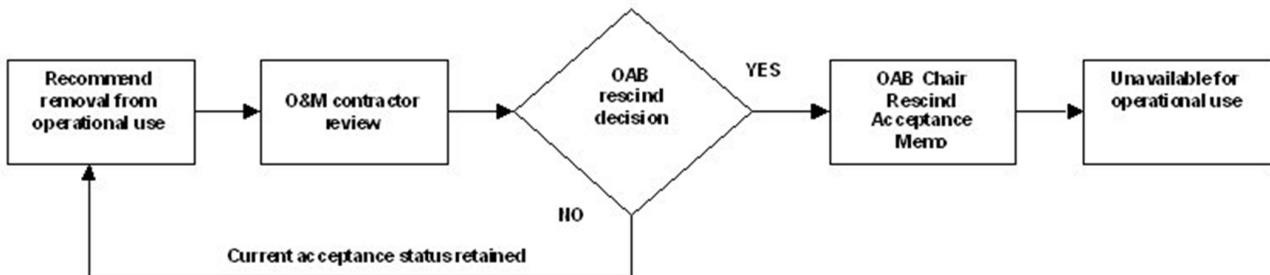
5.3.2. The O&M contractor reviews the submitted recommendation. Following review, O&M contractor forwards their recommendation to the OAB.

5.3.3. The OAB members review the recommendation and make an operational rescind acceptance recommendation to the Chair. The Chair makes a decision to rescind acceptance or to retain the current operational acceptance status.

5.3.3.1. If the OAB rescinds acceptance, 45 RMS issues a Rescind Operational Acceptance Memorandum. 45 RMS will insure that the operational asset's status is entered into the SCAD and properly dispositioned.

5.3.3.2. If the OAB retains current operational acceptance status, 45 RMS issues a memorandum to the developer or other agency that made the rescission request.

Figure 3. 45 SW Rescind Acceptance Process.



SUSAN J. HELMS, Brigadier General, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

45 SWI 21-104, *45 SW Eastern Range Instrumentation Requirements Process*.

45SWI 99-102, **Test, Evaluation, Documentation, and Operational Acceptance of Eastern Range Systems**

AFSPCI10-601, *Declaration of Initial Operating Capability (IOC) and Full Operational Capability (FOC)*.

AFSPCI21-104, *Systems Requirements and Implementation Approval Process*.

NOTE: The user of this instruction is responsible for verifying the currency of the cited documents.

Abbreviations and Acronyms

17 TS—17th Test Squadron

45 RMS—45th Range Management Squadron

45 SW—45th Space Wing

ADM—Acceptance Decision Memorandum

DT&E—Developmental Test and Evaluation

ECPM—Engineering Change Proposal Message

ER—Eastern Range

ERIS—Eastern Range Instrumentation System

FDE—Force Development Evaluation

GPS—Global Positioning System

IAW—In Accordance With

IRR—Installation Readiness Review

LTRS—Launch and Test Range System

O&M—Operations and Maintenance

OAT—Operational Acceptance Test

OAB—Operational Acceptance Board

OPR—Office of Primary Responsibility

PWRR—Project, Workflow, Requirement, and Resource

RRB—Readiness Review Board

RS—Requirement Statement

SAA—System Access Authorization

SCAD—System Configuration Acceptance Database

SLRS—Spacelift Range System

SMC—Space and Missile Center

SWI—Space Wing Instruction

UDS—Universal Documentation System

Terms

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

Development Agency—The Space and Missile Center (SMC) office that has responsibility for all ERIS development efforts for the future Spacelift Range System (SLRS).

Eastern Range (ER)—The designated area of responsibility for the Air Force Space Command (AFSPC) managed Launch and Test Range System (LTRS) activity for tracking and command/control of missiles, launch vehicles, and specific spacecraft from the Eastern United States.

Eastern Range Instrumentation Systems (ERIS)—Range instrumentation systems are the combination of software, firmware, and hardware required to perform the 45 SW ER 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 in support of ballistic missiles, space shuttle, and other launch systems, aircraft fly-bys, and orbital satellites.

Shadow Operations—A period of time in which a new or modified ERIS 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.

Unconditional Acceptance—The new or modified system meets all current and valid requirements and provides the ER with a beneficial operational capability that is more significant than any operational risk.