AF/A5R
REQUIREMENTS DEVELOPMENT GUIDEBOOK

Volume 5
Air Force Procedures:
Middle Tier of Acquisition Requirements
Validation Process
11 Jan 2019, version 1.0

PREFACE

This Guidebook is fifth in a series of AF/A5R developed guides describing Air Force Operational Capability Requirements Development. This guidebook describes the requirements actions that must be completed in support of all Middle-Tier of Acquisition efforts.

There are no restrictions on release or distribution of this guidebook.

This Guidebook is a "how to" guide for use by all stakeholders participating in the AF requirements process, and in some cases it includes the answer to the questions "why do we have to do it that way," "where is that written" and "where do we find additional information."

NOTE: The AF/A5R Requirements Development Guidebooks represent official guidance developed to ensure compliance with, and implementation of, overarching Joint Capabilities Integration and Development System (JCIDS) and Acquisition policies. It is AF Policy (per AF/A5R direction and authority under HAF Mission Directive 1-56) that, to the maximum extent practical, AF Sponsors are expected to comply with the guidance described in the A5R Guidebooks.

If you have questions regarding specific information in the guidebook(s), or if you have suggestions for improvements, please contact the OPR:

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AF/A5RP Portal Page. Additional guidance and information, to supplement this Guidebook is located on the AF Portal:

- To access the A5RP Requirements Portal Page go to https://www.my.af.mil
- Navigate to "Organizations A-Z", then type in "A5RP".

CHANGE SUMMARY

Change Summary	Date

Initial Release: Revised the Guidebook Volumes to align policy and guidance under new Vol 1, as the "Capstone Guidebook" and separate the procedural guidance and other best practices in subsequent guidebook volumes and handbooks
   -   Vol 1, Policy and Guidelines (revised previous Vol 1, refined all policy info)
   -   Vol 2, Urgent Needs (major updates, revised the transition review portion)
   -   Vol 3, JCIDS Deliberate Process (split out from Vol 1, reorganized layout)
   -   Vol 4, Modification Proposals (split out from Vol 1, minor edits)
	3 Oct 2017

Initial release of Vol 5, Middle Tier Rapid Acquisition Requirements Validation Process	11 Jan 2019

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SECTION 1. INTRODUCTION

1.1   **Overview and Background.** This section outlines the requirements validation activities that support the Middle Tier of Acquisition process. The Middle Tier Requirements and Acquisition processes are optimized to advance Air Force capabilities against the challenges outlined in the National Defense Strategy (NDS) at a faster pace than the deliberate acquisition processes. The Middle Tier Requirements and Acquisition processes and timelines must align in order to:

- Adapt to developing threats as outlined in the NDS and Chairman's Net Assessment and National Air and Space Intelligence Center assessments
- Fully leverage advancing technologies from industry, allies, and sister Services
- Fully leverage additional authorities to prototype and experiment to learn, adapt and advance key technologies and capabilities

1.2. **Description**. Section 804 of the National Defense Authorization Act (NDAA) for Fiscal Year 2016 (Public Law 114-92), provides authority to the Department of Defense (DoD) to rapidly prototype and/or rapidly field capabilities under a new pathway, distinct from the deliberate acquisition system.

Under the Middle Tier of Acquisition, programs subject to the guidance shall not be subject to the JCIDS Manual and DoD Directive 5000.01, "The Defense Acquisition System," except to the extent specifically provided in the implementing guidance. Middle Tier of Acquisition is defined as a rapid acquisition approach that focuses on delivering capability in a period of 2 to 5 years.
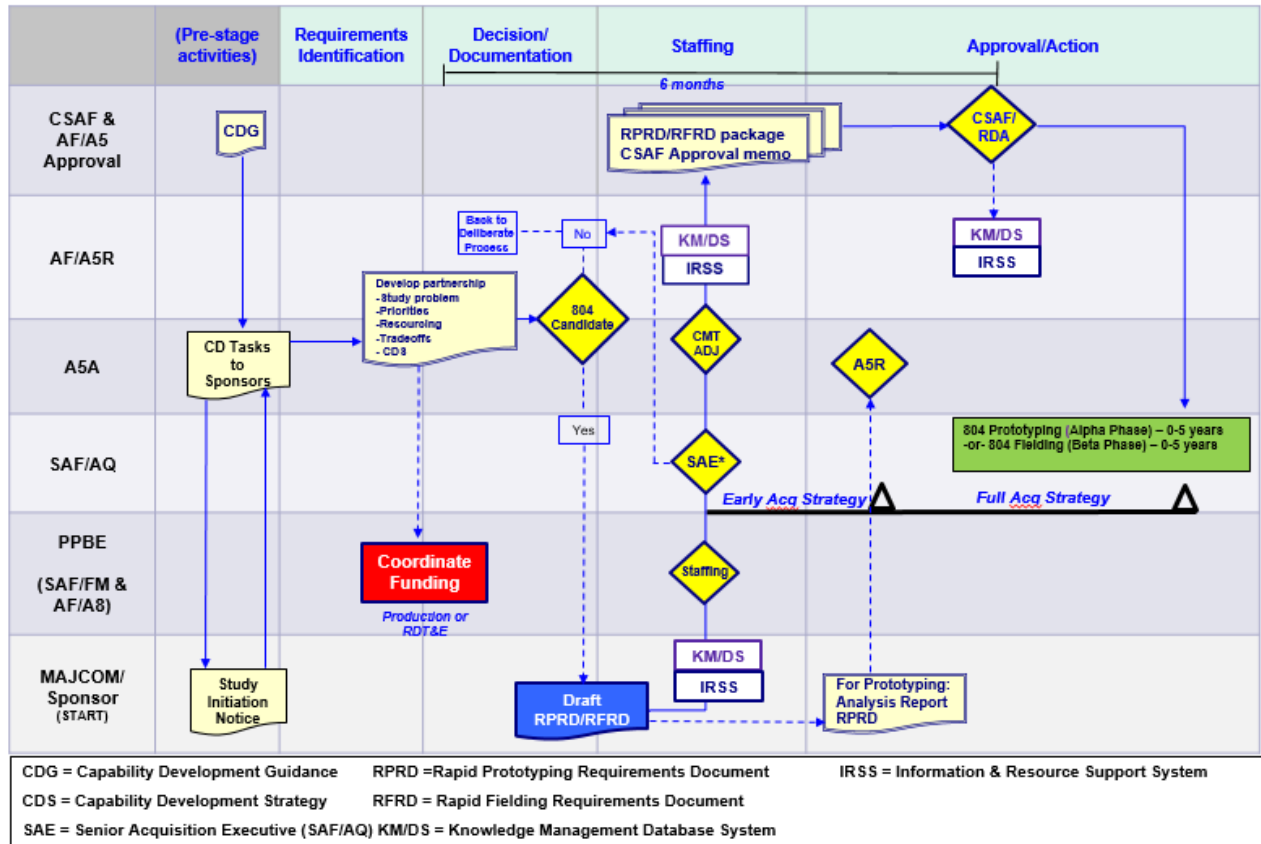
For rapid prototyping, innovative technology will be used to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs. The objectives are: (1) field a prototype that can be demonstrated in an operational environment, and (2) provide a residual operational capability within 5 years of contract award.

For rapid fielding, proven technologies will be used to field production quantities of new or upgraded systems with minimal development required. The objectives are: (1) begin production within 6 months, and (2) complete fielding within 5 years of contract award.

SECTION 2. AF MIDDLE TIER OF ACQUISITION REQUIREMENTS PROCEDURES

2.1   **General.** The Rapid Acquisition Requirements process is based on the JCIDS in that it requires analysis to determine the most effective materiel or non-materiel solution based on a valid threat assessment or approved capability gap(s) and it requires proper documentation to deliver capability solutions to the warfighter quickly.

2.2   **Process.** By default, all new capability development efforts will be reviewed for Middle-Tier of Acquisition applicability for non-developmental capabilities that can be prototyped and fielded within the 6 month to 5 year timeframe. The first step is to ensure that the new capability falls within the guidelines of the annual Capability Development Guidance (CDG). The sponsor (Lead Command/Agent, MAJCOM or Headquarters Air Force (HAF) 2-letter as appointed by AF/A5) coordinates with AF/A5R to review all previously-accomplished analyses and documentation in support of the new effort using the Information Resource Support System (IRSS) database or other related methods. Once it is determined that adequate analysis has been completed, the sponsor provides a presentation to AF/A5R that describes how the new Middle-Tier of Acquisition effort fits within an overall Capability Development Strategy (CDS). The purpose of the CDS is to define the overall plan of action and milestones that will produce a materiel solution, and it may include incremental paths incorporating various processes including Middle-Tier of Acquisition, deliberate process, information systems, modifications to fielded systems (AF Form 1067), and DOTmLPF changes. The CDS will include priorities and tradeoffs, and it will be informed by available resources in coordination with AF/A8P to determine if funding is available for the new effort. If an applicable CDS does not exist, the sponsor will explain how the new capability fits within the approved CDG. Once AF/A5R approves the path ahead, the sponsor will write a Rapid Prototyping Requirements Document (RPRD) or a Rapid Fielding Requirements Document (RFRD) for staffing and validation.

2.3   **Documentation.** Following AF/A5R approval of the analysis and development of the CDS, the Sponsor begins development of a requirements document to support Middle Tier of Acquisition. Sponsors have the option to use a validated Initial Capability Document (ICD), Draft Capability Development Document or a Capability Development Document (CDD) to transition into the Middle Tier of Acquisition process, or they can create a RPRD or a RFRD if no validated JCIDS document exists.

Section 804 Prototyping & Fielding Requirements Generation

	(Pre-stage activities)	Requirements Identification	Decision/ Documentation	Staffing	Approval/Action
CSAF & AF/A5 Approval	CDG			RPRD/RFRD package CSAF Approval memo	CSAF/ RDA
AF/A5R			Back to Deliberate Process / No	KM/DS IRSS	KM/DS IRSS
A5A	CD Tasks to Sponsors	Develop partnership -Study problem -Priorities -Resourcing -Tradeoffs - CDS / 804 Candidate		CMT ADJ	A5R
SAF/AQ			Yes	SAE*	804 Prototyping (Alpha Phase) – 0-5 years -or- 804 Fielding (Beta Phase) – 0-5 years / Early Acq Strategy Full Acq Strategy
PPBE (SAF/FM & AF/A8)		Coordinate Funding / Production or RDT&E		Staffing	
MAJCOM/ Sponsor (START)	Study Initiation Notice		Draft RPRD/RFRD	KM/DS IRSS	For Prototyping: Analysis Report RPRD

CDG = Capability Development Guidance   RPRD =Rapid Prototyping Requirements Document   IRSS = Information & Resource Support System
CDS = Capability Development Strategy   RFRD = Rapid Fielding Requirements Document
SAE = Senior Acquisition Executive (SAF/AQ) KM/DS = Knowledge Management Database System

* During the staffing process if the SAE disapproves the 804 request, the sponsor will move the document to the deliberate process.

2.4   Staffing and Validation. Upon approval by the MAJCOM/Agency Commander, the sponsor will submit either a RPRD or a RFRD for staffing and comment adjudication. The 10 day staffing period will be conducted at the HAF general officer level. During the staffing process, the SAF/AQ Senior Acquisition Executive (SAE) determines if the new capability development effort should continue in the Middle Tier of Acquisition process or move to the deliberate process. Following the 10-day staffing period, the sponsor will have 14 days to complete comment adjudication and submit a final document in IRSS to AF/A5RP. AF/A5RP will prepare a staff package that will be submitted for AF validation.

- *Note: Both prototyping and fielding documents will be presented to the Milestone Decision Authority (MDA) for approval to continue in the Middle -Tier of Acquisition process.*

- *Note: If not approved for Middle -Tier of Acquisition by the SAF/AQ SAE, the sponsor will transition to the deliberate process.*

2.5   Joint Interest Determination. Once the sponsor has submitted the document, AF/A5RP will prepare the document for HAF staffing. Simultaneously, AF/A5RP will forward the document to the J8 Gatekeeper for Joint Staff awareness. Should Joint Staff determine that Joint Interest exists, the Air Force will proceed with fielding activities to preserve the five-year fielding limitation outlined in the

FY16 NDAA Middle Tier of Acquisitions guidance while Joint Interests are outlined and a Joint approach is developed, if required.

2.6   Final Actions. Following validation by the appropriate Requirements Decision Authority, AF/A5RP will upload the approved document to IRSS and forward it to the sponsor and the appropriate SAF/AQ office to proceed with the prototyping or fielding phase.

2.7   Directed Middle Tier of Acquisition Paths. In situations where the use of the FY16 NDAA Section 804 authorities are directed by the SAE or the Milestone Decision Authority (MDA) (i.e., not initiated by the sponsor and coordinated through AF/A5R), AF/A5R will determine a capability sponsor and will formally assign the sponsor in a memorandum. The sponsor will establish a partnership with AF/A5R and AF/A5A to initiate the process outlined in Sections 2.2 through 2.6.

SECTION 3. DOCUMENTS

3.1   JCIDS Documents. For prototyping efforts, the sponsor may submit a previously-validated ICD, draft CDD or CDD. If the JCIDS document is current and requires no updating, the sponsor will submit the JCIDS document to AF/A5R for review and approval for use based on the latest CDG. Once approved, the sponsor submits the JCIDS document directly to SAF/AQX with a Middle Tier of Acquisition Requirements Memorandum (MTARM) attached explaining why the new capability is a good candidate for the Middle -Tier of Acquisition process. Once prototyping is complete, the sponsor will transition from the JCIDS document to an RFRD using the new information obtained from the prototyping effort.

- *Note: For multiple prototyping efforts, multiple prototyping documents will be needed.*
- *Note: See Section 3.7 for the MTARM template.*

3.2   For fielding efforts when the sponsor has a validated JCIDS document, the sponsor may submit a current CDD or a CDD Update to AF/A5R for review and approval for use based on the latest CDG. Once approved, the sponsor submits the JCIDS document directly to SAF/AQX, with an MTARM attached, explaining why the new capability is a good candidate for the Middle Tier of Acquisition process.

- *Note: Sponsor must ensure that funding within the FYDP is still available.*

3.3   Rapid Prototyping/Fielding Requirements Documents. If a previously-validated JCIDS document does not exist, a sponsor can create an RPRD or an RFRD. The sections in the Middle Tier of Acquisitions Requirements Documents are based on the JCIDS CDD. Sponsors will use the most current JCIDS manual as a guide to write each section of the RPRD or RFRD.

3.4   Rapid Prototyping Requirements Document. Below is the format for the RPRD. The RPRD is similar to a draft CDD. Sponsors must use the CDD format found in the current JCIDS Manual (31 Aug 2018) to create each section of the RPRD.

Cover Page:
  − Classification
  − Title starting with the phrase "Rapid Prototyping Requirements Document for…"
  − Sponsoring organization and signature authority who authorized the submittal for review. The Sponsor GO/FO must endorse the RPRD and the RFRD
  − Date submitted by the sponsoring organization
  − Proposed MDA
  − Proposed Joint Staffing Designator (JSD)
  − Proposed Joint Performance Requirement (JPR)
  − Proposed Acquisition Category (ACAT)
  − Document revision number
  − Primary and secondary POCs for the document sponsor. Include name, title/rank, phone and both NIPRNET and SIPRNET email addresses.
  − Proposed validation authority

Validation Page:

Commander's Intent:
  − Commander's explanation of why this effort is a candidate for rapid prototyping. Briefly discuss the 6 month to 5 year fielding schedule.
  − Commander's description and definition of what the successful fielding and implementation of this new materiel solution will look like.
  − Operational scenario.
  • *Note: The Commander's Intent must be signed by the MAJCOM/Agency Commander.*

Document Body:

Section 1: Operational Context.
  − Provide operational context explaining how the capability solution contributes to the missions and activities of the Air Force.
  − Detail the capability gaps to be filled and their priority to the Air Force.

Section 2: Capability Discussion.
  − Summarize any/all related analyses or studies conducted to derive the performance attributes.
  − For IT systems, add the IT box construct.

Section 3: Program Summary.
  − Summarize the overall program strategy for reaching IOC and FOC.

Section 4: Attributes.

- Explain why the capability requirements are essential to achieve assigned goals and objectives.
- Initial objective values should be the value necessary to achieve mission objectives with moderate operational risk.

Section 5: Other System Attributes.

- Define other system attributes (if known).

Section 6: Joint Interoperability (as required).

- Specify how the system will operate within the Joint environment.

Section 7: Technology/Manufacturing Readiness.

- Discuss technology and manufacturing readiness.

Architecture Products (determined by the Program manager).

- *Note: Similar to a Draft CDD, the RPRD does not contain Threat Summary or Program Affordability Sections. These sections will be part of the RFRD.*

3.5   Prototyping Analysis Report. Once the prototyping effort is complete, the sponsor will submit a summary report of the prototyping findings to A5R and maintain a separate document with other program documentation in IRSS. The report will contain the following information:

- Summary of original prototyping phase goals/objectives.
- Validity of original capability gap(s).
- Verification that prototype still addresses original capability gap(s).
- Summary of any prior analysis performed by the Air Force that contributes to the capability.
- Summary of prototyping findings.
- Any additional findings identified in prototyping, but not directly related to original gap(s).
- Schedule summary (did the original schedule hold true?).
- Prototyping funding summary.
- Earned Value Management analysis.

A5R, in coordination with A5A and AQ, will determine if it is viable to continue the program within the Middle – Tier of Acquisition process based on performance, cost and fielding timelines.

3.6   Rapid Fielding Requirements Document. Below is the format for the RFRD:

Cover Page:

- Classification
- Title starting with the phrase "Rapid Fielding Requirements Document for…"
- Sponsoring organization and signature authority who authorized the submittal for review. The Sponsor GO/FO must endorse the RPRD and the RFRD.
- Date submitted by the sponsoring organization
- Proposed MDA
- Proposed JSD
- Proposed JPRs

- Proposed ACAT
- Document revision number
- Primary and secondary POCs for the document sponsor. Include name, title/rank, phone and both NIPRNET and SIPRNET email addresses.
- Proposed validation authority

Validation Page:

Commander's Intent:
- Commander's explanation of why this effort is a candidate for rapid fielding acquisition.
- Commander's description and definition of what the successful fielding and implementation of this new materiel solution will look like.
- Operational scenario.
- *Note: The Commander's Intent must be signed by the MAJCOM/Agency Commander.*

Document Body:

Section 1: Operational Context.
- Provide operational context explaining how the capability solution contributes to the missions and activities of the Air Force.
- Detail the capability gap(s) to be filled and their priority to the Air Force.

Section 2: Threat Summary (RFRD only)
- Indicate how the capability solution being developed and associated gap(s) is consistent with the threat environment information and references.
- Cite the latest DIA or Service-approved threat products used during the development of this document.

Section 3: Capability Discussion.
- Summarize any/all related analyses or studies conducted to derive the performance attributes (KPPs, KSAs and APAs).

Section 4: Program Summary.
- Summarize the overall program strategy for reaching IOC and FOC.

Section 5: Attributes.
- KPPs/KSAs must be assigned and have sufficient granularity to support contracting actions.

Section 6: Other System Attributes.
- Define other system attributes.

Section 7: Joint Interoperability (as required)
- Specify how the system will operate within the Joint environment.

Section 8: Technology/Manufacturing Readiness
- Discuss technology and manufacturing readiness.

Section 9: Program Affordability
- Identify funding across the FYDP, to include life cycle costs.

  - If funding comes from other sources, such as a DoD 804 fund, then be prepared to discuss operations and support funding.

Architecture Products (determined by the Program manager).

3.7   MTAR Memorandum. The purpose of the MTARM is to introduce to the SAE the JCIDS document that will transition to the Middle Tier of Acquisition process. The memorandum will contain pertinent information that allows the SAE to make a decision to approve the transition to the Middle Tier of acquisition process. The memorandum, signed by the MAJCOM/Agency Commander will contain the following information:

  - Subject

  - References (any references that are relevant to the Middle-Tier effort)

  - A brief explanation as to why the effort is a good candidate for the Middle Tier of Acquisition process

  - Operational context

  - Capability gap(s) covered

  - Performance attributes

  - Program summary

  - Points of contact

APPENDIX 1 - GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

HAF MD 1-56, *Deputy Chief of Staff for Strategic Plans and Requirements (AF/A5/8)*
(In Revision to reflect separate AF/A5 & AF/A8)

AFI 63-101/20-101, *Integrated Life Cycle Management* [Acquisition Logistics]

CJCSI 5123.01H, *Charter of the Joint Requirements Oversight Council (JROC) and*
Implementation of the Joint Capabilities Integration and Development System (JCIDS)

JCIDS Manual, Manual for the Operation of Joint Capabilities Integration and
Development System

JCIDS Manual (requires CAC for access):
https://www.intelink.gov/wiki/joint_capabilities_integration_and_development_system

DoDI 5000.02, *Operation of the Defense Acquisition System (DAS)*

A5RP Requirements Page on the AF Portal (*requires AF Portal sign-on to gain access*):
https://www.my.af.mil; navigate via "Organizations A-Z", then type in "A5RP".