

AF/A5/7

CAPABILITY DEVELOPMENT

GUIDEBOOK



Volume 2A

Capability Development Overview and Operational Capability Requirements Governance

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Air Force Futures Requirements Oversight Team

AF/A5/7DR, Pentagon 5C858

PREFACE

This guidebook explains the framework for oversight and implementation of the Air Force process for validation of *operational capability requirements* in support of overarching Capability Development efforts and in compliance with the main processes for “Requirements” via the Joint Capabilities Integration and Development System (JCIDS), for “Acquisition” via the Defense Acquisition System (DAS), and for “Resourcing” via the Air Force Strategy, Planning, Programming, Budgeting and Execution (SPPBE) as well as for rapid solution pathways that are exempt from normal JCIDS and DAS oversight.

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

NOTE: Although the AF/A5/7 Capability Development Guidebooks are not statutory or regulatory policy in nature, they represent official guidance and standard procedures developed by AF/A5/7D to ensure compliance with and implementation of overarching Requirements and Acquisition policies. Per AF/A5/7 direction and authority under HAF Mission Directive 1-7, to the maximum extent practical all Air Force Sponsors will follow the guidance and procedures described in these guidebooks or coordinate with AF/A5/7D through the AF/A5/7DR (Requirements Oversight Enabling Team) for case-by-case tailoring.

If you have questions regarding specific information within the Volume 2-series Capability Development Guidebook(s), or if you have suggestions for improvements, please contact:

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AF/A5/7DR Portal Page. Additional guidance and information to supplement this Guidebook is located on the Air Force Futures’ AF Portal Page. At publication, this Portal Page is still labeled for A5RP and does not reflect the latest HAF organization. The latest information (or a link to it) can be found here:

<https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=s6925EC1352150FB5E044080020E329A9>

CHANGE SUMMARY

Change Summary	Date
This document captures updated organizations, roles, responsibilities, and DAF guidance and must be reviewed in its entirety. Portions of this guidebook were derived from the AF/A5R Requirements Guidebook Volume 1 (24 June 2020, Version 5.02) , which is rescinded and replaced by this AF/A5/7 Capability Development Guidebook Volume 2A.	N/A

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SECTION 1. BACKGROUND

1.1. Overview of Operational Capability Development, from Strategy to Concepts to Capability. Driven by the National Defense Strategy, joint operational concepts, Air Force supporting concepts, and threat-informed future force design attributes, the Department of the Air Force makes Strategic Capability Development decisions to pursue key capabilities that guarantee the service is able to accomplish its core mission set supporting the future joint fight. Armed with an understanding of the force’s future vulnerabilities and opportunities, the Capability Development Enterprise drives analysis, research, and technology development activities to identify, assess, and prioritize potential capability solutions. It leverages these insights to refine concepts of employment, define key performance attributes, and make cost-informed planning and programming decisions to pursue solutions. It balances industrial feasibility, technical development timelines, and resource limitations holistically across the AF in order to build a framework that links cohesive Requirements, Resourcing, and Acquisition strategies together into a Capability composed of new, modified, and/or existing Programs of Record. The warfighter’s operational capability requirements are distilled by the appropriate Program Offices into detailed solution performance requirements that drive industry’s proposals and production. The Acquisition Enterprise selects the optimal pathway, streamlines and tailors it to fit the program, and drives to deliver the Capability into the warfighter’s hands on a relevant timeline.

Figure 1.1 is a simplified depiction of this recursive process that highlights the activities required to derive an operational need, and then pursue the development of an operational capability to meet that need. It also highlights where the enterprise addresses fundamental questions and in which phases the AF/A5/7 Centers focus their efforts. Although this depiction portrays a roughly serial and linear process for simplicity’s sake, the actual process is iterative and multi-layered. For additional information regarding AF/A5/7 organizational activities, refer to HAF Mission Directive 1-7, Section 2 of this Guidebook, and the other Volume 2-series Guidebooks.

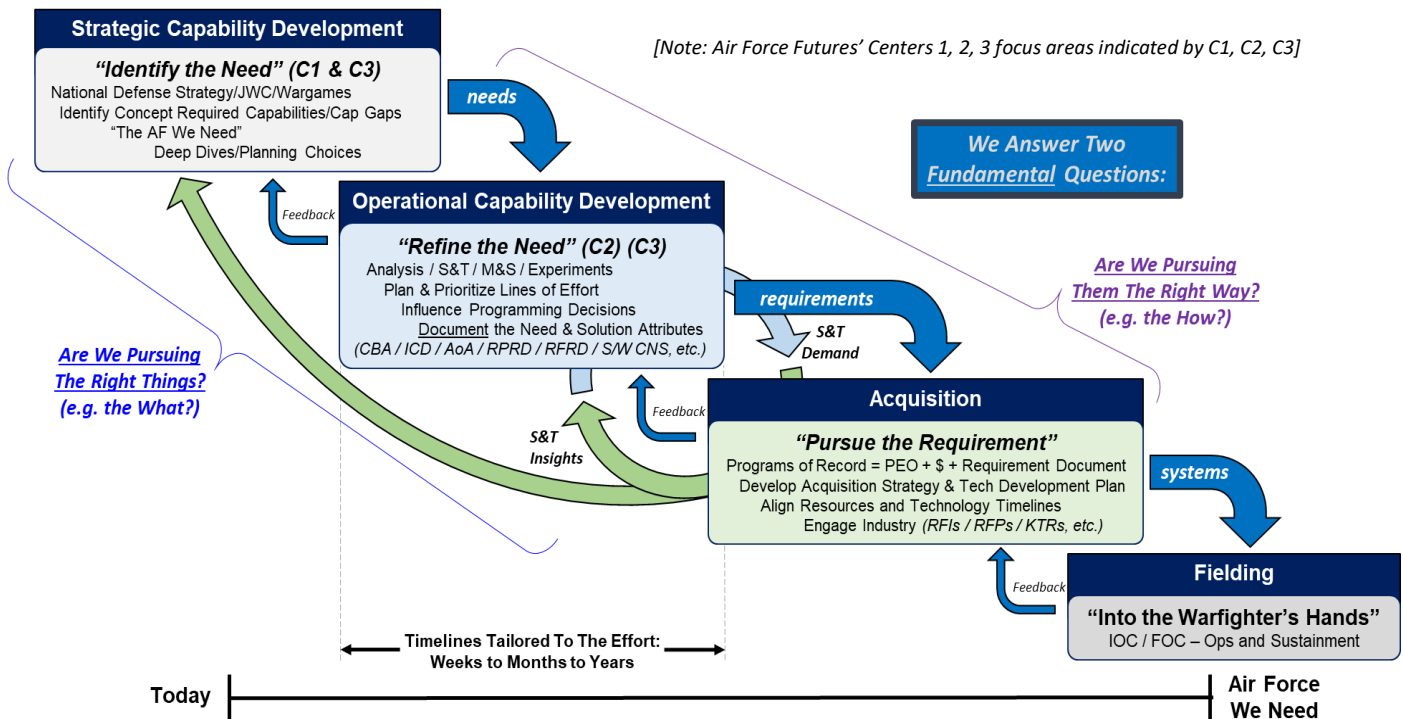


Figure 1.1 Capability Development Flow – Overview

1.2. Purpose of Operational Capability Requirements. The goal of the AF/A5/7 operational capability requirements development, documentation and validation process is to provide approved requirements documents and artifacts to facilitate timely implementation of solutions. These solutions must either address identified deficiencies associated with validated capability requirements (mission needs) or take advantage of opportunities to improve operational mission effectiveness. In short, it functions to document the analysis and factual underpinnings of our collective pursuit of the warfighter's needs, and capture those needs in validated and prioritized Operational Capability Requirements documents that drive the Defense Acquisition System to acquire the right capabilities. This process strives to balance the key tenets of transparency, sufficiency, agility, and speed; it is at the core of the Capability Development Flow depicted in Figure 1.1. The balance across all AF mission areas between resources, time, capability feasibility, and operational needs is the fundamental challenge of Capability Development. That high-level balance of interactions, constraints, and questions is modeled in Figure 1.2 below.

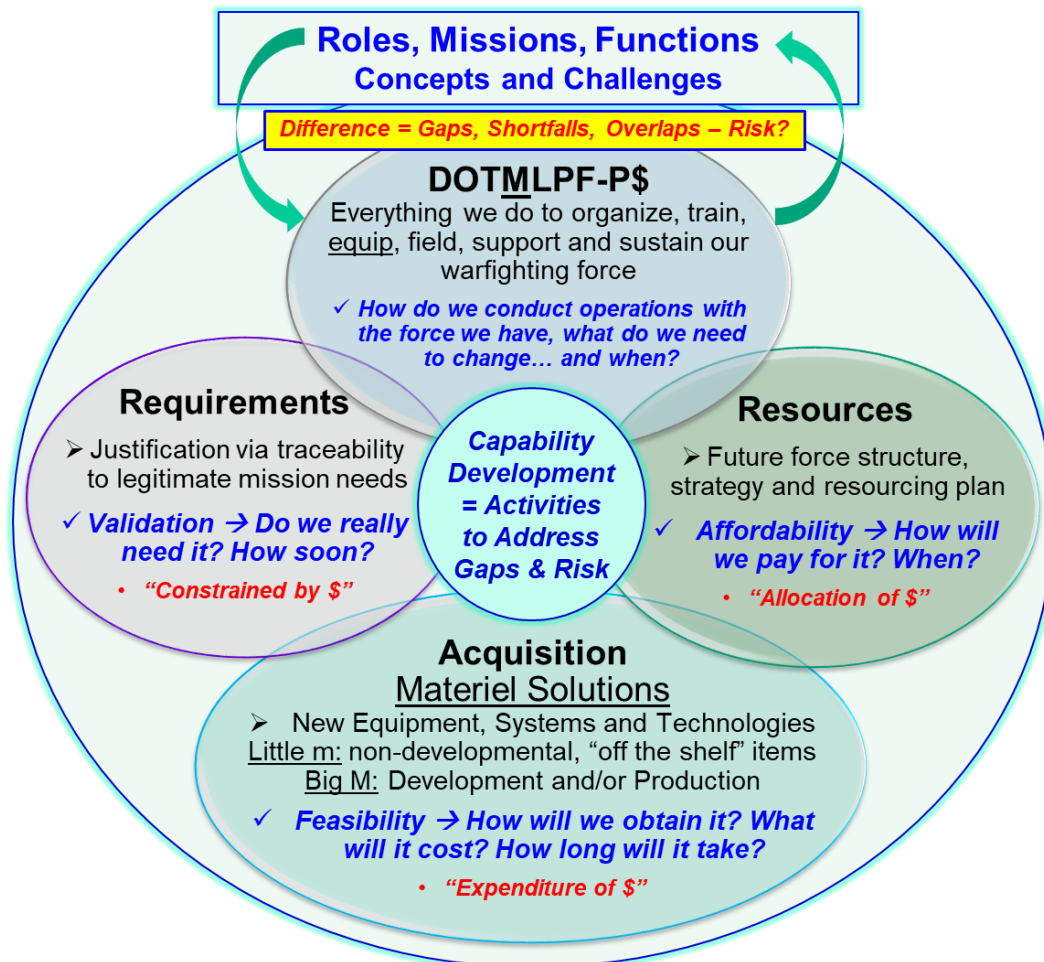


Figure 1.2 Capability Development Interactions- Overview

1.3. Scope of Authority. Under the authority described in HAF Mission Directive 1-7, AFPD 10-6, and AFI 10-601, AF/A5/7D (Air Force Futures'-Center 2) is responsible for all matters pertaining to the

development, documentation, and validation of operational capability requirements for the Air Force. The process and documents governed by those instructions and the A5/7 Capability Development Guidebooks are the sole purview of AF/A5/7D as delegated by the CSAF under USC Title 10; other AF organizations do not have independent authority to authorize, develop or approve any of these requirement documents, except by adhering to the process described herein.

1.4. Key Terminology. Capability requirements development activities are conducted in response to formal assessments of the AF's ability (in both ability and capacity) to accomplish assigned roles, missions, functions and operations and associated risks. This Capability Development Guidebook volume explains the framework for Air Force oversight of *Operational Capability Requirements development* in compliance with the Joint Staff's processes for "Requirements" via the Joint Capabilities Integration and Development System (JCIDS), for "Acquisition" via the Defense Acquisition System (DAS), and for "Resourcing" via the Air Force Strategy, Planning, Programming, Budgeting and Execution (SPPBE) processes. In addition, it describes the framework and oversight of the Air Force's implementation of the rapid solution pathways which are exempt from normal JCIDS oversight and DAS processes. All stakeholders and participants in the Requirements, Acquisition, and Resourcing processes are part of the wider Capability Development Enterprise. ***While other communities may use or understand identical terms differently, depending on their perspective and context, it is essential for all participants in Operational Capability Requirement development activities to share the same proper and foundational understanding of these key terms, and to understand how they relate to each other.***

1.4.1. Capability. The ability to complete a set of tasks or execute a course of action under specified conditions and performance through combinations of means and ways across the entire DOTMLPF-P spectrum.

- *A "capability" is more than just equipment – it is the combination of resources across the entire spectrum of DOTMLPF: Doctrine, Organizations, Training, Materiel (the equipment), Leadership & Education, Personnel, Facilities and Policy. For example, a piece of equipment is not a capability without properly trained people to operate and maintain it.*
- *Materiel Solutions are often described as "little m" solutions (indicates the use of previously fielded equipment and/or the purchase of new non-developmental, "off the shelf" items) and "Big M" solutions (indicates solutions that require new development and/or new production of equipment via formal acquisition processes).*

1.4.2. Capability Requirement (Operational Need). A properly constructed capability requirement reflects a need to be able to accomplish or perform a certain task, set of tasks, or mission(s), under a specific set of conditions or constraints, and to a minimum level of performance in order to be considered effective and/or acceptable. Requirements are described in terms of actions and abilities, not objects.

- *Note: In order to justify a capability requirement (operational need), the requirement sponsor must clearly demonstrate, via a Requirements Validation, that the need is established by, derived from and traceable to assigned roles, missions, functions and operational context. When using the term "requirement", it is important to distinguish between the capability requirement (e.g. the task, the thing that needs to be done), from the conditions or constraints under which it will be done, and the standards or degree to which it needs to be done. It is equally important to distinguish the need (the thing we need to be able to do) from the proposed solution (the system or the piece of equipment).*
- *Note: Valid capability requirements (operational needs) are derived from and traceable to one or more Concept-Required Capabilities (CRC).*

- *Note: A capability requirement can ONLY be fully understood in the context of a Concept of Operations (CONOPs) and how the capability will need to be integrated and supported in the intended operating environment. Well-written requirements have appropriately detailed descriptions of the task(s), conditions, standards, measures and a CONOPs that are all traceable to and derived from the CRC(s) that are described in the relevant Air Force Operating and/or Supporting Concept(s).*

1.4.3. Concept-Required Capability (CRC). A CRC is a description of the operational capability that is required to successfully execute/underpin how the future joint force fights within a validated and approved Concept. The CRCs are broadly and strategically described in an Operating Concept, are critical capabilities for the success of the Supporting Concept(s), and are described generically without constraining or prescribing potential CRC implementation pathways. CRCs may be identified in Concept development/refinement, may be distilled from analytical and/or discovery activities (e.g. experiments, war games, exercises, lessons learned, etc.), or may be implicitly or explicitly specified in top-down guidance from approved Strategies and Concepts.

1.4.4. Capability Gaps and Operational Risk. The difference (if any) between the Concept Required Capability (what the force needs to be able to do, or how much capability it needs) and the currently fielded and planned capability inherent to the force's organization, training, and equipment (what we are and expect to be able to do), represents the *capability gap*. The inability of the force to perform the capability (either in part or whole) at the *time* of mission need, with the expected *degree* of mission success or failure, characterizes and defines the resultant *operational risk* of the gap.

- *Gaps are expressed in terms of not being able to achieve the minimum threshold of acceptable performance or suitability to perform a capability. Risk may be expressed as risk to mission or risk to the force, and is an integral part of decision making that prioritizes activities to close capability gaps.*
- *Capability Gaps are used to identify specific capability deficiencies, while a properly understood Capability Requirement is derived from understanding the full scope of the problem and needs. Capability Requirements are rarely a "puzzle piece" that completely covers a discrete Capability Gap. Simply put, there is rarely a 1:1 relationship between an identified Capability Gap and an appropriate Operational Requirement describing a solution.*
- *An essential part of understanding a Capability Gap is deriving a specifically defined and well understood problem statement. Defining the problem drives a better understanding of the core CRC, interactions with other CRCs, and potential capability gap dependencies. The complex relationships between all gaps (and potential solutions) must be assessed and understood within the context of all interrelated CRCs (i.e. within the Big Picture) so that Nth-order consequences are understood.*

1.4.5. Capability Solutions and Opportunities. The service's ability to provide a needed capability includes *all* materiel and non-materiel approaches available to provide a fielded solution that meets warfighting needs. This includes a complementary mix of doctrine (and concepts), organizations (and basing), training (and mission rehearsals), materiel (equipment), leadership and education (force development), people (manpower and skills), facilities (and support infrastructure) and policy – collectively known as the DOTMLPF-P areas.

- *Note: When we examine our ability or inability to provide the necessary capability, we fully examine this entire DOTMLPF-P spectrum to assess our potential gaps and risk, and identify potential solutions from each of the appropriate DOTMLPF-P areas.*
 - **Non-Materiel Solutions:** Changes to doctrine, organization, training, alternate use of existing equipment (e.g. change in tactics, techniques or procedures), leadership and education,

personnel, facilities, or policy changes, etc. *without the need to develop or purchase new materiel capability solutions.*

- **Materiel Capability Solutions:** These types of solutions are often referred to in big or little “M”/“m” categories, although some solution pathways pursue capability solutions that don’t fit conveniently into this simplification.
 - “Little m” – any non-developmental, “off the shelf” items, equipment purchases and procurements that do not require new *development* or *production* contracting.
 - “Big M” –any items that require new development and/or new production contracts via formal acquisition processes, guided by validated requirements document(s).
- **Capability Opportunities:** Innovations or other new approaches and items or enhancements that are not necessarily associated with a specific capability gap, but are aligned with valid mission requirements (or needs).

1.4.6. Attributes and Measures. *Attributes* describe the mission level and system level performance and suitability characteristics (e.g. speed, distance, range, payload, survivability, etc.) necessary to provide the required capability, under the given conditions, meeting an acceptable (e.g. threshold or objective) level of performance and at an acceptable or manageable level of operational risk. *Measures* of capability are related to both the quality of capability (also called proficiency; e.g. “is it good enough?”) and to the quantity or capacity/amount of the capability (also called sufficiency; e.g. “do we have enough?”).

- *In JCIDS and AF requirement documents, the required system level attributes and characteristics are expressed in terms of Key Performance Parameters (KPPs), Key System Attributes (KSAs), Additional Performance Attributes (APAs), Other System Attributes, and similar terms for Middle Tier of Acquisition. Measures are expressed in terms of threshold (minimum acceptable) values and objective values (desired but still justifiable as being necessary to provide trade space, but potentially associated with higher cost, schedule, or technical risk, etc.).*

1.4.7. Capability Development. Capability Development includes all of the activities related to *identifying, refining, and prioritizing* a capability gap or opportunity, as well as the activities that are *pursued* to close that capability gap or seize that opportunity for the warfighter. In Project Air Force 2019, RAND defined Capability Development as 1) a systematic process of identifying materiel and non-materiel capabilities that provide the means to deliver warfighting effects consistent with Air Force strategic guidance; and 2) setting priorities for investments for success, as well as accounting for first-order estimates of costs and estimates of rates of maturation of emerging technologies.

SECTION 2. CAPABILITY DEVELOPMENT PROCESS OVERVIEW

2.1. Strategic and Integrated Capability Development. Air Force Futures teams collaborate with strategists and futurists in the Joint Staff, Combatant Commands, Major Commands, Space Force, and intelligence communities to “identify the need” for how the Air Force, as part of the Joint Force, will fight and win in future conflicts. Defining Air Force operational concepts capable of competing and winning in the future conflict environment from a capability-based perspective is the intellectual underpinning of a successful future force structure.

Capabilities-based analyses provide the service the opportunity to perform three essential developmental functions: 1) Identify *capability requirements* (operational/mission needs) related to assigned roles, missions, functions or operations within the Concepts, then 2) Determine if there are any associated *capability gaps* which present an unacceptable *operational risk* and 3) Assess and propose *potential solution approaches* to address gaps and mitigate risk.

2.1.1. AF/A5/7S Center 1’s Role in Capability Development. Center 1’s focus is to develop Air Force strategy and concepts to inform force design and PPBE, describing a Family of Concepts that captures the future warfighting vision for the Air Force. These concepts, in turn, provide the context from which to define service-specific contributions and CRCs necessary within those concepts and epochs. Key elements of their work includes assessments, analysis, and other activities to better understand the future environment, align with National Defense Strategy, and integrate with Joint Staff’s warfighting concepts.

2.1.2. AF/A5/7I Center 3’s Role in Capability Development. Center 3 performs a vital role integrating across numerous capability portfolios to ensure the interdependencies and interoperability of capabilities is fully understood and factored into priority and sequencing decisions to close the capability gaps identified for the future force design. Its focus is to create an integrated force design that describes what and how future capabilities combine and fight together in a future Air Force family of systems. This includes discovering technological opportunities; wargaming innovative operational tactics, capabilities, and strategies; and prioritizing development planning, experimentation, and prototyping activities to inform future concepts and to align future force design with threat-informed time horizons.

2.2. AF/A5/7D Center 2 Capability Development. Defining and operationalizing mission needs is the focus for Center 2. The Center’s Cross Functional Teams (CFTs) and Functional Integration Teams (FITs) work to enable the “bridge” between aspirational concepts and tangible capabilities by synthesizing the insights and activities from Center 1 and integrating them into a feasible and executable plan that fits within Center 3’s force design. All Center 2 activity is focused on developing logical and informed solution pathways by deliberately reducing the technological and integration unknowns. Continuous collaboration with Center 3, SAF/AQ, SAF/SA, AFMC, AFLCMC, AFRL, SDPE, MAJCOMs, and other key agencies drives analysis, modeling, experimentation and other activities that reduce critical uncertainties and help to identify & validate core assumptions. It is this collaboration that ultimately drives the closure of capability gaps by developing the operational requirements and capability development artifacts the resourcing and acquisition communities need in order to allocate funds and produce future weapon systems.

- *Note: The roles of the CFTs/FITs and the artifacts used to describe actionable plans to develop capabilities (ex. Capability Development Plans) are described in the AF/A5/7 Capability Development Guidebook, Volume 2B.*

2.3. Capability Planning. With well understood *capability requirements* (mission needs derived from CRCs and/or from assigned roles, missions, functions or operations) and associated *capability gaps* and *operational risks*, Capability Planning is done to assess and investigate *potential solution approaches*. All Capability Planning efforts are unique and the work/documentation needed will be custom tailored to the

situation and circumstances. There are often several solution pathways that may work and capability planning serves to answer the questions and provide a better understanding of the most feasible and successful possibilities. The Capability Planning work to develop these solution pathways produces the artifacts and documents needed to define the Air Force's *Requirements Strategy* to satisfy the operational need.

2.3.1. Solution Approaches. Sponsoring agencies considering potential courses of action (COAs) to address gaps should start by considering non-materiel approaches, or modifications to existing systems, before working their way up to more complex materiel solution approaches and larger, more costly programs. New solution development, especially for immature technology, should be viewed as a last resort after other options have been explored and deemed unsuitable to address the capability requirement, gap(s) and/or risk.

2.4. Solution Approach Pathway Recommendation [led by the sponsoring CFT or FIT and Lead Agent/MAJCOM in conjunction with Program Manager(s), Program Office reps]. Each particular solution approach/pathway option has a distinct implementation process, often with unique oversight, governance, policies and associated documentation. The sponsor's preferred solution implementation processes are described in the Capability Development Plan (CDP) or Requirements Roadmap (RR), and the solution implementation process for a particular system nested within the CDP or RR is captured in a System Development Plan (SDP). The SDP in particular requires close coordination between the requirements sponsor, the program manager(s), and the resource planning organizations. The Solution Pathway Review (described below) serves as validation of the planned pathway, sets expectations for timing of requirement artifact reviews, and authorizes sponsors to begin development of specific requirements documentation.

2.4.1. Goal. The overriding objective is to establish a course of action to develop ***the right document (for the right pathway), at the right time, with the right people involved*** to best enable timely fielding/implementation of a successful capability solution, comply with senior leader direction and applicable strategic guidance, and avoid wasted activity.

- *Note: Each solution pathway and the associated requirements document is uniquely tailored to support the proposed approach (non-materiel or materiel) and the proposed implementation or phase of acquisition, as applicable. For further detail on procedures unique to development and approval for each particular type of document, refer to the applicable A5/7 Capability Development Guidebook volume described in the following paragraphs.*

2.4.2. AF/A5/7D Process -- Solution Pathways and associated Requirements Documents. The solution approaches/pathways and associated requirements documents governed by the AF/A5/7D process are used primarily to develop and field new warfighting systems and other operational capabilities with direct impact on AF and/or Joint warfighting. The solution pathways and requirements document types are updated periodically to remain aligned with overarching defense department solution policies and guidelines.

- **Urgent Needs.** For urgent acquisition of materiel solutions associated with combat/contingency operations; with a goal of achieving initial fielding within 2 years. Urgent Needs are documented, reviewed and approved using a streamlined process that does not generate a "requirement document" (other than the urgent need submission.) For more detail, refer to A5/7 Capability Development Guidebook, Vol 2E.
- **DOTMLPF-P Changes.** For non-materiel and non-developmental materiel solutions only. Associated Requirements Document(s): DOTMLPF-P Change Recommendation (DCR), either an

AF-only DCR or Joint DCR. For more detail, refer to A5/7 Capability Development Guidebook, Vol 2G.

- Weapon System Modification Proposals. For upgrades and enhancements to fielded systems. Modification Proposals are documented, reviewed and approved using the AF Form 1067, *Modification Proposal*. For more detail, refer to A5/7 Capability Development Guidebook, Vol 2F.
- Major Capability Acquisition. The traditional JCIDS process for new warfighting systems via development and/or production efforts. Associated requirements documents: Initial Capability Document (ICD) and Capability Development Document (CDD), including variants for Information Systems and Software (IS-ICD, IS-CDD, SW-ICD). For more detail refer to A5/7 Capability Development Guidebook, Vol 2G and Vol 2J).
- Middle-Tier of Acquisition Pathway (defined in DoDI 5000.80, previously referred to as Sec. 804). For materiel solutions via Rapid Prototyping or Rapid Fielding efforts that can be completed within 5 years. To provide the “approved requirements” documentation necessary to support Middle Tier of Acquisition (MTA) efforts, sponsors have the option to 1) propose using an existing JCIDS requirements document (if approved by AF/A5/7D) to support the middle tier effort, or 2) propose developing a new requirements document created specifically for the middle-tier pathway, i.e. a Rapid Prototyping Requirement Document (RPRD) or a Rapid Fielding Requirement Document (RFRD). For more detail, refer to A5/7 Capability Development Guidebook, Vol 2I.
- Software Acquisition (via JCIDS or the Software Acquisition Pathway (defined in DoDI 5000.87, previously referred to as Sec. 800)). For software-specific capabilities or application development; there are differences between these pathway in oversight, timing, and documentation. Associated requirements documents: Capability Need Statement (CNS) and User Agreement (UA) and the Software-ICD (SW-ICD). For more detail, refer to A5/7 Capability Development Guidebook, Vol 2J.

Note: Solution pathways for non-warfighting mission and mission support areas such as business systems, manpower and education, facilities and infrastructure, etc. have their own processes that do not utilize the documents and processes described in the A5/7 Capability Development Guidebooks. Sponsors in these other areas wishing to use any of the documents or pathways under the authority of AF/A5/7D must follow the process and guidelines as described herein. Refer to Section 4 below for more detail on Sponsor Roles and Responsibilities.

2.4.3. Developing a Plan/Roadmap by Combining Solution Pathways. Solution pathways rarely provide capability in isolation, and often need to be combined in meaningful ways to achieve the intended outcome and deliver an actual capability. A Capability Development Plan or Requirements Roadmap details a list of the capability development activities sponsors intend to pursue to help them identify and prioritize effective capability solutions for the mission gaps and concept objectives in their portfolios. The solutions considered usually depend upon multiple lines of effort and multiple Capability Development activities along interdependent solution pathways to meet the overall capability needs. This may also include a “bridging plan” to move from a legacy/existing capability solution into a new transformative solution. The pathway activities may occur in parallel, or follow in sequence (as branches and sequels) or a combination of both. For example:

- Section 804 MTA Pathway for a rapid prototyping of a new sensor combined with a Weapon System Modification Proposal to install the final product on a mission platform.

- JCIDS pathway for a traditional materiel development approach, where the analysis of alternatives reveals a commercially available (non-developmental) product can be pursued using middle-tier authority for rapid production and fielding as a bridge capability.
- Modification Proposal to upgrade mission equipment and hardware or computing capacity, etc. on a legacy platform, combined with a Section 800 Software Pathway for development of new software-intensive system to be hosted on the platform.
- JCIDS pathway for a DCR to purchase a new “off-the-shelf” platform to replace a legacy platform along with a Modification Proposal to migrate the mission equipment from the legacy system onto the new replacement platform.

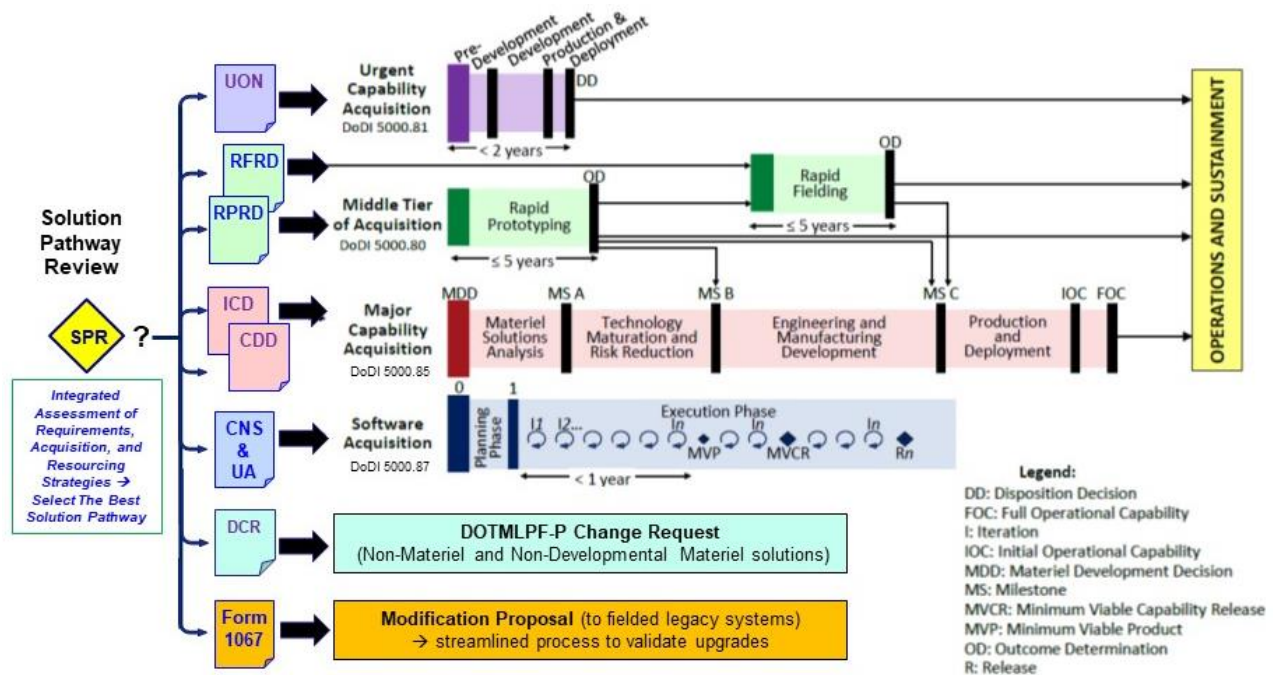
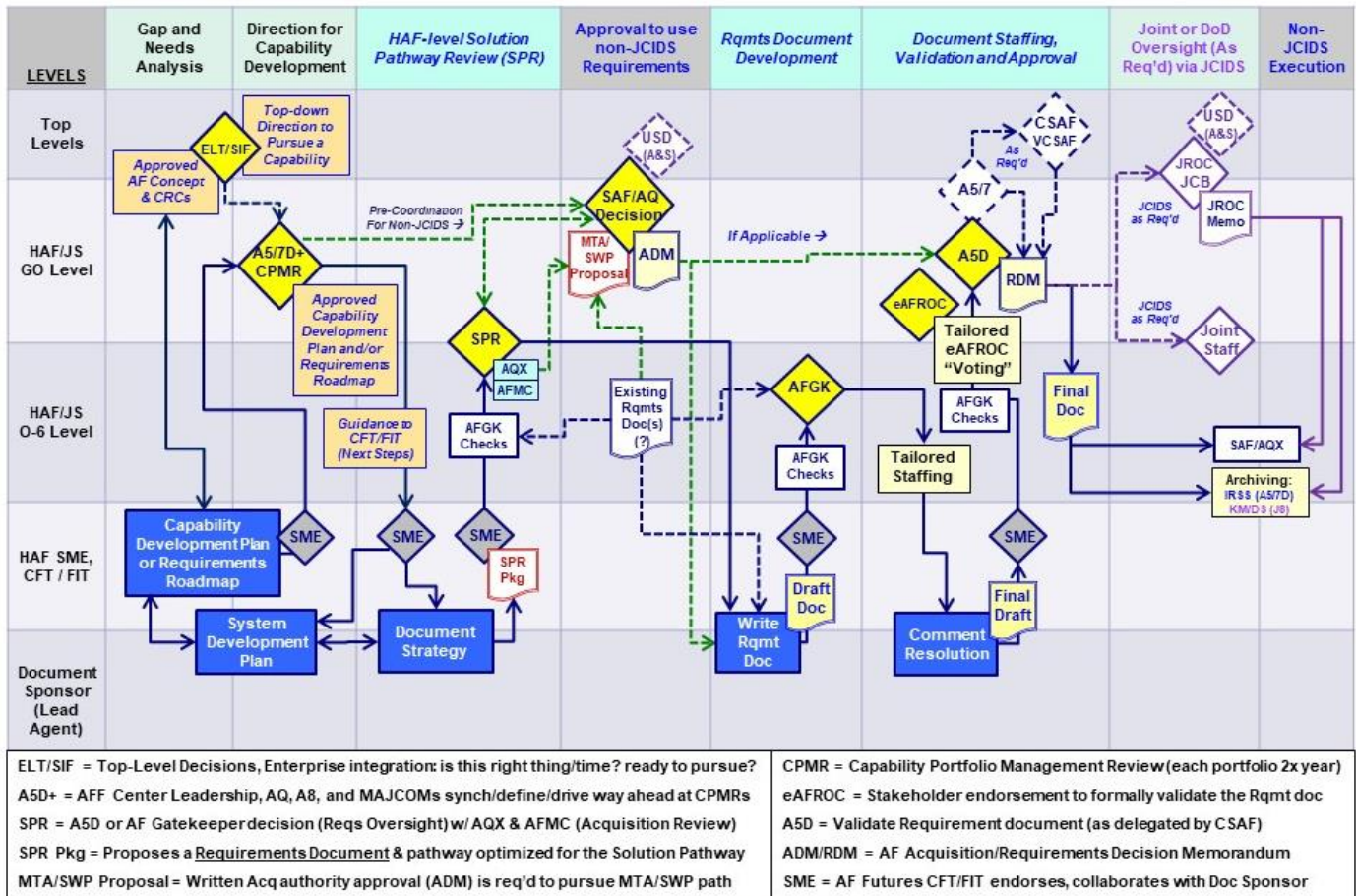


Figure 2.1. Solution Pathways and Requirements Documents Overview

2.4.4. Key Stakeholder Involvement. Thorough development of solution approach/course(s) of action (COAs) needs to involve key stakeholders across all functional and support areas to include programmers and requirements SMEs, acquisition life cycle management (SAF/AQ and AFMC, AFLCMC, AF/A4, etc.), test & evaluation (AF/TE, AFTEC, AFOTEC), interoperability (AF/A6), intelligence (AF/A2), strategy and concepts (AF/A5/7S), and risk/analysis (AF/A5/7I, SAF/SA, AF/A5/7DY-OAS). Stakeholders may include outside agencies, Space Force or other services, joint staff, OSD, etc.

- Refer to **Section 5** for further detail on Key Stakeholders and their subject matter areas.
- Sponsors should coordinate with the Lead Agent/MAJCOM’s requirement’s policy team to work through AF/A5/7DR (Center 2’s Requirements Oversight Enabling Team) to have the HAF initiate a dialogue with Joint Staff Gatekeeper early in document development process regarding potential joint-level equity and/or oversight; this will ensure the staffing and approval process goes as smoothly as possible.



(NOTE: This process is not applicable for Urgent Needs or 1067 Mods)

Figure 2.2. Tailorable AF Process for Requirements Document Development

2.5. Solution Pathway Review (SPR). Following collaboration with key stakeholders to develop and capture a solution strategy and associated course(s) of action within a System Development Plan (see Volume 2B for details on the SDP), the Sponsor (working through their Information & Resource Support System (IRSS) POC **and** the relevant AF/A5/7D SME) submits a request via IRSS to convene a SPR. The SPR serves to synchronize the enterprise on the best approach, prevent wasted work, and confirm that the Sponsor is pursuing not only the right capabilities but is pursuing them in the right way and is ready to create the appropriate document/artifact.

2.5.1. Purpose of the Solution Pathway Review: The main purpose of the SPR is to ensure the Sponsor's System Development Plan (SDP) is adequate, aligns to senior leader capability development priorities, and they are ready to convene a Document Writing Team to develop the *most appropriate* (JCIDS or non-JCIDS) operational requirements document. This includes reviewing the timing, program status, funding, team membership, and the location/format for the proposed document writing event. The SPR approval decision is typically delegated by the AF/A5/7D to the AFGK, though the AF/A5/7D may choose to chair the SPR with GO-level participation highly desired from SAF/AQX, AF/A8X, and AFMC/A5R. GO-level SPR events are standard if substantial changes have occurred since the original strategy/COA was approved or since the predecessor document was validated (e.g. significant changes in strategic guidance, CONOPs, threats, operational mission profile(s), risk assessment, affordability/funding, or schedule/timeframe, etc.). A SPR decision is specific to a particular solution or program that strives to address validated

operational need(s) in one or more System Development Plans or Capability Portfolio(s). It is a requirements pathway and document development decision only, and the SPR decision and authority is contingent upon alignment and synchronization with relevant acquisition and resourcing strategies.

- Selection of the acquisition pathway is an acquisition decision that can only be made by the MDA. The approval at a SPR of a requirements pathway, particularly a requirements pathway outside of JCIDS (ex. Middle Tier of Acquisition), is contingent upon pre-coordination and/or MDA approval. The requirements and acquisition pathways must align.
- The SPR specifies the approach the Enterprise will take to pursue a solution (i.e. validation of the SDP) and, by design, preempts AF Sponsors from investing substantive work into a particular requirement document or pathway only to find out they did it wrong (e.g. not the right document, not the right timing, or didn't have the right people involved). The goal is to decide upon an effective, integrated, and affordable way forward so that Lead Agent/MAJCOM sponsors do not have to re-accomplish previous work, or get stuck on a path for a document that is inconsistent with the best approach for integrated and agile Materiel/materiel solution implementation.
- Requirements document development begins only after the SPR when the Lead Agent/MAJCOM sponsor outlines how they have engaged all key stakeholders to develop a SDP outlining a viable solution approach and course(s) of action in for the desired solution pathway(s).
- With the exception of Urgent Needs and Modification Proposals, formal HAF-level approval (via the Solution Pathway Review) **is required** prior to a Lead Agent/MAJCOM sponsor convening a document writing team or conducting any substantive requirements document development activity. Specifically, sponsors should not begin development of any requirements document (other than Urgent Needs or AF Form 1067) until the solution pathway (and associated document strategy) has been reviewed and approved via an SPR.
 - *Note: The AF/A5/7D Urgent Needs process begins when a warfighting commander submits an urgent operational need (UON) for review and validation. The UON validation criteria determines whether or not it is appropriate to use the urgent needs process/pathway, and this validation decision serves the same purpose as the SPR.*
 - *Note: For the Modification Proposal process, the AF Form 1067 itself serves as the review of the solution approach as it is validated and approved along the way through the process. When appropriate, the Form 1067 can serve as a stand-alone requirements document, or when necessary, it can be augmented or developed into a more robust document similar to a traditional JCIDS or AF-specific requirements document. The iterative review inherent in the Modification Proposal process meets the same intent of the SPR.*

2.5.2. SPR Worksheet. The Sponsor (working through their IRSS POC and the AF/A5/7 CFT/FIT SME) submits a completed SPR worksheet with their SDP to AF/A5/7DR via IRSS not later than 21 days prior to the start of the proposed document writing event. See the [AF/A5/7DR Portal page](#) (web link in Appendix 1) for SPR Worksheet template and checklist.

- SPR Worksheet: completed by the document sponsor (all questions need to be answered) in collaboration with the applicable AF/A5/7 CFT or FIT. The worksheet must be endorsed by Sponsor's requirements policy office (e.g. MAJCOM O-6 level) and include a proposed Plan of Action & Milestones (PoAM) with a timeline for completion of the document. The applicable CFT/FIT-developed System Development Plan (SDP) should be submitted along with the SPR Worksheet. *Pro Tip: Integrate the document PoAM data into the SDP.*

2.5.3. SPR - Approval Criteria. The Sponsor must demonstrate that the Solution Pathway / Approach was developed in collaboration with all key stakeholders, including appropriate resourcing reps (to include planners and programmers) and Implementing Command reps (to include program manager, systems engineer, test, sustainment, and acquisition-intelligence analysts.)

- *Note: SPR approval also serves as “validation” or approval of the team’s SDP in light of the most up-to-date information available. The SDP is expected to evolve as a living document to reflect ongoing activity, including the creation and validation of requirements and acquisition documentation.*
- *Note: Each solution pathway and requirement document is tailored to support the proposed solution approach. Refer to the applicable A5/7 Capability Development Guidebook volume for further detail on the specific procedures and approval criteria for each particular type of document.*

2.5.4. SPR - Decision/Approval. The A5/7D-hosted (or AFGK hosted) SPR event will provide the document Sponsor with specific guidance and required actions to be accomplished (as necessary). The formal SPR decision and associated actions and tasks are documented by the AFGK in writing (e.g. memo, email, staff summary, decision chart, etc.) and archived in IRSS.

- *Note: Any SPR direction or action items must be accomplished by the MAJCOM/Lead Agent sponsor before convening the document writing team or during the document writing event, etc. (as applicable or as directed). Compliance with SPR direction will be verified before the draft document will be accepted for review and staffing (or as directed).*

SECTION 3. OPERATIONAL CAPABILITY REQUIREMENTS FUNDAMENTALS

3.1. Key Tenets of AF Requirements Document Development. The main purpose of all requirements document development activity is to facilitate the most straightforward implementation of both materiel and non-materiel capability solutions, consistent with AF capability development guidance, resourcing priorities and acquisition policies. To meet this goal, requirements activities need to be conducted with the full cooperation and close coordination of all stakeholders and enablers, especially the resourcing and acquisition communities.

- *Note: Validated capability requirements and system level performance attributes provide the basis for defining the products that are acquired through the acquisition system. The SPPBE process determines resource allocations and provides the funds necessary to execute planned programs as well as constraining the entire process to seek affordable solutions.*
- *Note: Throughout a product's life cycle, adjustments may have to be made to keep the requirements, acquisition and resourcing processes aligned. Capability requirements and system performance attributes may have to be adjusted to conform to technical and fiscal realities. Acquisition programs may have to adjust to changing requirements and funding availability. Programmed and budgeted funds may have to be adjusted to make programs executable or to adapt to evolving validated capability requirements and priorities. These adjustments will be captured within updated System Development Plans and, as appropriate, the Capability Development Plan or Requirement Roadmap (more information and details on these products are found in AF/A5/7 Capability Development Guidebook Volume 2B).*

3.1.1. KEY TENET -- STABILITY. Stable support for capability requirements and resourcing are important for successful solution pathway (e.g. program) execution. Stakeholders and process owners work closely together to adapt to changing circumstances as needed, and to identify and resolve issues as early as possible.

- Program stability necessitates effective and ongoing communication between resourcing, acquisition and user functional leads including but not limited to direct involvement in the SPPBE review process, and participation in Capability Portfolio Management Reviews (CPMR), acquisition's Systems Requirement Document Reviews, and other program reviews conducted under the governance and/or authority of the acquisition and requirements processes.

3.1.2. KEY TENET -- AFFORDABILITY. Cost-Capability Analysis and investment review is necessary to avoid starting or continuing solution approaches or acquisition programs that cannot be executed or supported within reasonable expectations for future budgets. Assessing affordability is crucial for establishing fiscal feasibility of the program, informing Analyses of Alternatives (AoAs), guiding capability requirements and engineering tradeoffs, and setting realistic program baselines to control life-cycle costs or other implementation and support expenses.

- Affordability management necessitates effective and ongoing communication between acquisition and the user/functional leads on the cost and risk implications associated with capability attributes and design parameters. For more detail, refer to Section 807 of Public Law 114-328.

3.1.3. KEY TENET -- TIMELINESS. The timeliness of capability development relates to both the timeframe in which the capability is needed and the schedule for which we should realistically expect to be able to achieve implementation or initial/full capability fielding. Setting the timing provides the framework for determining how long we have to accomplish development and fielding of a solution. A program or initiative doesn't necessarily have to "go fast" to provide a solution that is "on time."

- Timeliness depends on when the capability is needed. Timing is expressed in terms of the expected or desired timeframe for completion of actions necessary to achieve Initial Operational Capability (IOC), also known as initial fielding or initial/limited deployment in some cases. Timing and schedule are also expressed in terms of the final or “Full” Operational Capability (FOC) which is when we need or expect delivery of the final full capability (or when the final production and fielding will be completed).
- Urgent/Rapid Process: When time is the most important factor -- when we need something right away because of the risk to the force, or risk to the mission – we utilize what is known as the urgent or rapid process. With this approach, we may need to “take what we can get” and trade off some performance by accepting a less than full capability in order to field a capability solution as soon as possible.
- Normal/Deliberate (or deliberative) Process: When we don’t need the capability right away, we are required to take our time and find an optimal approach, and we utilize what is known as the deliberate process. This involves balancing the trades between finding best performance, at the right price, and which meets our timeline and future funding constraints. We may choose to take more time, to get the best value product.
- Agile/Streamlined Process: When necessary, in order to expedite the fielding of capability to the warfighter and addressing capability gaps, requirements sponsors and solution developers seek out and utilize courses of action that provide the best option to minimize the time it takes to develop and field solutions:
 - *Note: Preferred options include selecting approaches that utilize “off the shelf” or commercially available items, existing designs with mature technology and proven concepts, etc. while avoiding options that require lengthy development, use of immature technology or complex software or other integration challenges.*
- In the interest of further expediting requirements and solution implementation timelines, decision makers should utilize the most expeditious means available. Coordination with the AFGK (via SPR or other activity) should be accomplished to “custom fit” the process pathway to the capability need and timelines. To that end, the use of electronic staffing and/or direct communication is the preferred method of document review whenever practical.
 - *NOTE: Decision/approval authorities should be delegated to the lowest level commensurate with the activity and in a manner that promotes timely action.*
 - *NOTE: The MAJCOM/Lead Agent sponsor, in conjunction with the Program Office/PM and resourcing/budgeting community should seek and use all available authorities and/or waivers to expeditiously provide an acceptable level of information sufficient to support the decision being made, consistent with governing policies and statutes.*

3.1.4. KEY TENET -- FEASIBILITY. Feasibility is the measure of whether or not the solution approach is considered to be in the “realm of the possible.” The solution approach is considered feasible when we expect it is something we will actually be able to accomplish given the amount of time, technology and resources we have available to develop and field or implement the solution.

- Feasibility of Non-Materiel Solutions: For non-materiel approaches, this means we need to seek out and utilize solution approaches that can actually be implemented, within the available resource and time constraints, and will have the desired impact to provide the capability or

address the gap. There needs to be solid and coordinated support for taking the action, mainly by identifying the functional process owner(s) who acknowledge their role and agree to take the necessary action, including any allocation of resources in the form of funding, manpower, etc.

- **Feasibility of Materiel Solutions:** For materiel solution approaches that involve materiel system development or production activity, per acquisition policy, the acquisition program leadership and specifically, the Milestone Decision Authority (MDA) (or simply Decision Authority (DA) in some cases) participates in the validation review of requirements documents to ensure feasibility. AFI 63-101/20-101 outline when the implementing command must attest to feasibility.

3.2. The Technology, Mission, Resourcing, Organizational (TMRO) Assessment Framework. This review paradigm is increasingly used across the HAF to identify challenges in successfully developing resourcing and acquisition strategies. Using the framework of the four TMRO dimensions can also be a useful tool to analyze a possible requirements strategy and its suitability for requirements document development. The TMRO framework is a complementary methodology to help assess alignment to the Key Tenets of Stability, Affordability, Timeliness, and Feasibility described above.

- **Technology.** A consideration of the solution approach's technological readiness in order to identify challenges to successful implementation; typical questions to be considered: Do we know component Technology Readiness Levels (TRL) and are we able to scale the technology to what is needed? Is time to fielding sufficient to allow for suitable TRL? What are the relevant technology integration challenges?
- **Mission.** An assessment of the suitability of the proposed solution through the lens of operational mission and proposed value to the warfighter; typical questions to be considered: Does the proposed solution support/is the solution supported by the USAF's First Principles? Does it make a measurable, defensible difference on mission outcome? Do we understand the attributes that matter and the supporting analysis? What is the CONOP and what are its interdependencies?
- **Resourcing.** An assessment of the proposed solution's resource cost (from development through sustainment) and the reliability of resource commitments by the sponsoring command/agency; typical questions to be considered: Do we know the resources needed to implement the solution (funding, people, and infrastructure)? Is the solution affordable? Do we have the necessary talent to implement? Is this a resource trade or is this additive? Why is it better than other solutions vying for the same resources?
- **Organizational.** From an organizational and cultural perspective, an assessment of the desire for and alignment of the proposed solution within the gaining units/command; typical questions to be considered: Do we have the processes, structure, and culture to implement the proposed solution? Is the solution acceptable within the organizational culture? Are all stakeholders identified and are they supportive?

3.3. Classification and Releasability. Document Sponsors will follow classification marking guidance and DAF direction that the "Not Releasable to Foreign Nationals" (NOFORN) caveat shall not be applied to non-intelligence Department of Defense (DoD) Information, to include contract documents, except for Naval Nuclear Propulsion Information and other circumstances defined in the National Disclosure Policy document (NDP-1).

- *Note: Parallel processes utilizing the same fundamental approaches are managed by AF/A5/7XX Special Programs Team at classifications above the secret level or when otherwise protected by SAP/SAR or ACCM designations.*

SECTION 4. REQUIREMENTS OVERSIGHT AND GOVERNANCE

4.1. Purpose. This section describes the levels of oversight and decision authority for review, processing, validation and decision making regarding AF-sponsored operational capability requirements documentation.

4.1.1. Authority. US Code Title 10, Section 2547, assigns the Chief of Staff of the Air Force (CSAF) the responsibility to assist the Secretary in “Acquisition-related functions” by developing requirements for equipping the Air Force. This effectively designates the CSAF as the Chief Requirements Officer for the Air Force. The Deputy Chief of Staff, Air Force Futures, AF/A5/7 (through the Center 2 Lead, AF/A5/7D) is the CSAF’s OPR for implementation of AF operational capability requirements development, as described in the HAF Mission Directive 1-7. The AF/A5/7DR Requirements Oversight Team Lead is the process owner and AF waiver authority for activities of the AF/A5/7 requirements document processes.

4.1.2. Staffing Tools. The services and Joint Staff operate independent staffing tools and processes for review and approval of capability requirement documents.

4.1.2.1. Information & Resource Support System (IRSS). IRSS (pronounced “iris”) is the Air Force’s web-based tool on DISA’s SIPRNet MilCloud and is designed to facilitate processing and tasking of AF and non-AF sponsored capability requirements documents, assessments and analysis for AF review. IRSS is also used for archiving AF-sponsored capability requirements documents and all associated decision/validation memoranda.

- *Note: Formal HAF-level approval/validation decisions are captured in writing (e.g. Requirements Decision Memo, meeting minutes, email, staff summary, decision chart, etc.) and archived in IRSS.*
- *Note: Each AF organization/office responsible for reviewing capability-requirements documents (including documentation and briefings related to the CBA/study or AoA) must designate an IRSS POC responsible for receiving and responding to taskings, and uploading sponsored documents and supporting materials into IRSS (if applicable).*
- *Note: For documents and related data classified above the secret level or protected by SAP/SAR or ACCM designations, contact AF/A5/7XX, Special Programs Team. Documents are processed and tasked in IRSS by providing pointers to the systems where the documents can be found.*
- *Note: Access to the IRSS system requires users to first obtain a SIPRNet AF Portal account.*

4.1.2.2. Knowledge Management/Decision Support (KM/DS). KM/DS is the Joint Staff electronic staffing and repository system on SIPRNet designed to facilitate joint staffing and review of JCIDS documents. The Joint Staff Gatekeeper manages the organization of requirements data on the KM/DS system and ensures Sponsors provide studies or other data supporting their capability requirement documents prior to initiation of formal joint staffing, when required.

- *Note: AF/A5/7DR Requirements Oversight Team ensures copies of AF-sponsored documents are archived in both IRSS and KM/DS.*

Section 4A – Headquarters Air Force (HAF)-Level Requirements Oversight

4.2. HAF Requirements Subject Matter Expert (SME). AF/A5/7D (Air Force Futures Center 2) provides subject matter expertise on operational capability requirements to support HAF-level review and decision-making. When a functional requirements SME does not reside within a Cross Functional Team (CFT) or Functional Integration Team (FIT), the AF/A5/7D Enabling Teams (A5/7DR Requirements Oversight Team, A5/7DX Joint Integration Team, and/or A5/7DY Office of Aerospace Studies) will work with the appropriate stakeholder organization to identify an appropriate HAF SME to support the topic (e.g. SME from AF/A3, AF/A4, AF/A2/6, etc.) The HAF SME works alongside the Lead Agent/MAJCOM in capability development activities and facilitates communication between the Lead Agent/MAJCOM sponsor and the various HAF and Joint requirements process owners and stakeholders. The HAF SME also assists in providing prep sessions for senior HAF leaders prior to decision meetings and other forums. The CFT, FIT Lead (or otherwise designated SME) provides an O-6 level endorsement for Lead Agent/Command-submitted Solution Pathway Reviews and other activities that require AF Gatekeeper review (as described below).

4.3. AF Gatekeeper (AFGK). The Portfolio Manager and Lead of Center 2's Requirements Oversight and Joint Integration Enabling Teams (O-6/GS-15 level) serves as the AFGK. The Requirements Oversight Enabling Team operates the day-to-day AF requirements processes and does so in coordination with the A5/7 Special Programs Team for topics classified higher than Collateral Secret or with special access. The AF Gatekeeping function serves as the entry point for formal review of requirements documents and topics at the HAF level and is the single point of entry to the Joint Staff for the JCIDS process. Sponsors (including any HAF organizations wishing to utilize the JCIDS process or JCIDS documents or non-JCIDS AF-specific requirement documents) are not to go direct to Joint Staff without first contacting the AFGK.

- AFGK Review and/or Solution Pathway Review may be conducted via various communication methods including (but not limited to) face-to-face meetings, email, phone call, teleconference, SVTC, etc. Formal AFGK decisions are documented in writing and archived in IRSS.

4.4. AF Executive Leadership Team (ELT) and Strategic Integration Forum (SIF). The ELT and SIF are the demand-driven decision-making venues of the AF corporate governance structure (replaces the AF Council, AF Board, and Capability Development Council). The ELT is an agile decision-making body for the top leaders of the DAF to debate issues that cannot be resolved at lower levels and the SIF, when needed, supports the ELT as a decision-support forum for streamlining and simplifying coordination and developing a common operating picture on key cross-cutting issues. At these high levels of authority, the ELT and SIF serve to prioritize, integrate, and drive force design and related capability development efforts across the Air Force. The ELT and SIF decisions are strategic in nature and typically oriented towards resource allocation, budget planning, and large force design decisions; they are not consulted for Operational Capability Requirements validation decisions but their strategic decisions will impact Air Force Futures activities and priorities.

4.5. AF Futures' Directors Alignment Meeting (DAM). The DAM is the nexus for strategy, concepts, force design, capability development and requirements within the AF/A5/7. This meeting functions to synchronize and fully-integrate CD activities via a GO-level forum. The DAM orchestrates all AF/A5/7 efforts across the full CD continuum from overarching strategy to detailed capability needs analysis and documentation. Although the DAM is not a decision venue, it enables the AF/A5/7 Center Directors to inform and influence each other's decisions in their respective areas of responsibility, ensuring they are able to make fully informed and more collaborative, cross-cutting, transparent and inclusive decisions. The DAM meets as required and, while it is not a DAF governance body, it is greatly enhanced by active and ongoing GO-level participation by the acquisition and resourcing communities, in addition to the

MAJCOMs. The DAM works to ensure key strategic questions driving operational capability development have consistent senior leadership direction and engagement and that decisions are made with the appropriate levels of authority and integration.

- Directors Alignment Meeting Activities. The DAM GOs meet as required to discuss, integrate, and align activities to drive strategic capability development. Agenda items at these forums could include but are not limited to:
 - Review and coordination of Capability Development Plan / Roadmap activities for complex or sensitive efforts; as required
 - Alignment of Requirements/Acquisition/Resource Strategies for specific solutions;
 - Ensuring integration of new or updated AF Supporting Concepts or strategies;
 - Aligning priorities for development planning resources and levels of effort for CD Activities;
 - Prioritizing Strategic Questions to drive wargaming, analysis, and experimentation efforts;
 - Aligning recommended priorities for the Annual Force Design Guidance for CSAF/SecAF signature, as required;
 - Setting recommended priorities for key Science & Technology (S&T) efforts for the coming FY that support strategy/concepts/CD.
 - Recommending execution of Capability Based Assessment (CBA) activities to identify and assess future operational needs and mission gaps for complex or critical mission areas, as required. See Special Instructions sections below.
 - Recommending execution of Analysis of Alternative (AoA) activities to identify and assess potential future capability solutions that address Concept Required Capabilities for complex or critical mission areas, as required. See Special Instructions below.
- Special Instructions.
 - While the Director's Alignment Meeting can recommend CBA and AoA activities to assess AF operational needs and potential solutions (delegated down from the CSAF as the AF's Requirements Decision Authority), the approval authority for commencing and executing these activities remain part of the JCIDS Major System Acquisition pathway per CJCSI 5123 (Charter for the Joint Requirements Oversight Council) and the JCIDS Manual. Therefore, an Air Force Requirements Decision Memorandum (AFRDM) signed by the CSAF as the AF's Requirements Decision Authority (or as delegated down in accordance with the procedures described in Section 4.7 and Table 4.1 in this Guidebook), is required prior to commencing these activities.
 - The DAM, nor any of its membership outside of AF/A5/7D, does not have the authority to validate/approve capability requirements documents for the AF, to include CBAs and AoAs. Staffing for approval of AF requirements documents is overseen by AF/A5/7D, who staffs the document for review and endorsement by the AF Requirements Oversight Council (typically through an electronic venue/process, i.e. eAFROC), prior to final approval / validation by the CSAF as the AF's Requirements Decision Authority, or as delegated down in accordance with the procedures described in Section 4.7 and Table 4.1 in this Guidebook.

- *Note: The JCIDS and DAS processes may exercise additional Joint and OSD oversight of AoA documents as described below, and per CJCSI 5123 and DoD Instruction 5000.02.*
- *For additional detail on the AF process for the CBA or AoA, refer to the A5/7 Capability Development Guidebook Volume 2C, Capability-Based Assessments or Volume 2D, Analysis of Alternatives.*

4.6. Capability Development Summit. The CD Summit is a partnership of senior DAF Level Leaders that guides the alignment of capability development initiatives and priorities across requirements, acquisition and resourcing. It strives to improve the effectiveness of DAF-wide activities by aligning efforts and establishing a disciplined, time-phased, prioritized approach to capability development with a steady demand signal for development planning activities.

4.7. Capability Development Working Groups (CDWGs). Capability Development Working Groups are O-6/GS-15 level forums that work capability development issues as well as coordinating and integrating those issues across the capability development enterprise. Working groups are built to attack specific tasks or resolve specific issues as they are assigned by the DAM, CD Summit, or on occasion it may serve to coordinate activities at the O-6 level when requested by a MAJCOM/Lead Agent sponsor, AF Futures Team (CFT, FIT, etc.), or other applicable HAF SME.

4.8. AF Requirements Oversight Council (AFROC). The AFROC consists of the group of AF operational capability requirements stakeholders and organizations (as reflected in the IRSS distribution list, with principal GO/SES level representation from key stakeholders from HAF 3-letters and MAJCOM/Lead Agent 5/8/9 equivalent offices) who may be tasked to review and make recommendations on AF-sponsored documents as part of JCIDS validation and approval. The Director, AF/A5/7D (Center 2 Lead) serves as the AFROC Chairman and decision authority regarding recommendations made during AFROC review.

- *Note: AFROC review may be conducted in-person, virtually or via electronic staffing (as an “eAFROC”) utilizing IRSS. In the interest of expediting timelines, eAFROC is the preferred method of review. Stakeholders are expected to fully participate in AFROC activities when tasked, and provide representatives who can speak on behalf of their organization.*

4.9. Air Force Requirements Decision Authority (RDA). Pursuant to U.S.C. Title 10 Section 2547, the Chief of Staff of the Air Force (CSAF) is the AF decision authority for requirements documents associated with any program designated as a Major Defense Acquisition Program (MDAP). Unless otherwise specified, the AF decision authority for all other requirements decisions may be delegated to a decision authority as determined and designated by AF/A5/7D. The CSAF has delegated RDA designation responsibility to AF/A5/7D and the AF/A5/7D has subsequently designated AF RDA authority as outlined in Table 4.1 below.

- *Note: Per JCIDS, the final validation authority for requirements that have significant impact to the joint force or otherwise require higher level joint review and validation (as determined by the Joint Staff Gatekeeper or statutory mandates) also require joint requirements oversight and validation, typically after review and approval by the AF RDA (which establishes the “official AF position”).*
- *Note: While Requirements and Acquisition approaches must align, and Requirements drive and shape Acquisition approaches, the Requirements Decision Authority and Acquisition Decision Authority execute their decision authorities independently. They do not have authority over each other, therefore coordination to ensure alignment is essential for approval (for both authorities).*
- *Note: the RDA in Table 4.1 does not apply to mission support organizations and similar with independent processes, resources, and budget authority outside of JCIDS and DAS.*

Table 4.1. Delegated Authority for AF Requirements Decisions

AF Requirements Decision Authority (RDA)	Criteria for Designation (by law, by logic, by similar level to the acquisition and resourcing decision authority)
CSAF	<ul style="list-style-type: none"> • Programs Designated as MDAP • Programs where SECAF or USD/A&S is MDA • “Top Down Directed” requirements from CSAF or higher • Specifically designated as such by CSAF or higher
VCSAF	<ul style="list-style-type: none"> • JROC Interest (non-MDAP) • Specifically designated as such by VCSAF or higher
AF/A5/7	<ul style="list-style-type: none"> • JCB Interest (including AF sponsored Joint DCRs) • Programs where SAF/AQ is MDA
AF/A5/7D	<ul style="list-style-type: none"> • JCB Interest (when delegated by AF/A5/7) • UON validation (and designation of sponsor for UONs) • Programs with AF cross-functional/domain impact • AF-only DCRs (cross MAJCOM or cross functional actions) • Programs requiring HAF-level resourcing action • Programs where SAF/AQ is MDA (when delegated by AF/A5/7)
MAJCOM/Agency (GO/SES Level)	<ul style="list-style-type: none"> • MAJCOM-only programs where an AFPEO is MDA (including modification proposals below \$100M) • Actions within MAJCOM resourcing/budget authority • Direct Fielding to Ops & Sustainment (direct coordination with AFPEO for <u>product support strategy</u>) following AF-level approval of fielding/transition decision
MAJCOM/Agency (O-6 Level)	<ul style="list-style-type: none"> • MAJCOM-only programs where a PM is MDA (including modification proposals below \$100M) • Actions within program office resourcing/budget authority

Section 4B - Joint Requirements Oversight

4.10. Functional Capability Boards (FCBs). The FCBs are the first level of joint oversight and advise the Joint Capabilities Board (JCB) and Joint Requirements Oversight Council (JROC) on issues within their Joint Capability Area (JCA) portfolio(s). The FCBs are O-6 level forums chaired by a Joint Staff General or Flag Officer, or civilian equivalent. Refer to the latest *CJCSI 5123 (JROC Charter and Implementation of JCIDS)*.

- *Note: AF/A5/7DX Joint Integration Enabling Team provides an O-6 AF FCB Lead and Action Officer(s) to each FCB to ensure AF interests are represented throughout the Joint process.*
- *Note: Team Lead of the AF/A5/7DX Joint Integration Enabling Team provides the formal coordination and approval of AF FCB Lead recommendations for the official AF position on non-AF sponsored documents (designated as JCB or JROC Interest) submitted to AF for coordination via IRSS and KM/DS.*

4.11. Joint Integration Forums. The Joint Staff J8 leads periodic integration meetings at the O-6 level and at the General Officer/Flag Officer level for deliberation of cross-cutting JCIDS issues.

- *Note: The Team Lead of the AF/A5/7DX Joint Integration Enabling Team is designated as the AF representative to the Joint Integration forums and oversees the activities of the AF FCB Leads and Action Officers on behalf of AF/A5/7D.*

4.12. Joint Capabilities Board (JCB). The JCB is one level above the FCBs and advises the JROC on issues within and across the JCA portfolios. The JCB is a 1-star/2-star level forum chaired by the Director, Joint Staff J8. Refer to the latest *CJCSI 5123 (JROC Charter and Implementation of JCIDS)* for further detail.

- *Note: The Director, AF/A5/7D serves as AF Principal to the JCB and the Team Lead of the AF/A5/7DX Joint Integration Enabling Team serves as the “plus one”.*

4.13. Joint Requirements Oversight Council (JROC). The JROC is the highest level oversight and the JCIDS process owner. The JROC is a 4-star level forum chaired by the Vice Chairman of the Joint Chiefs of Staff (VCJCS). Refer to *CJCSI 5123 (JROC Charter and Implementation of JCIDS)*.

- *Note: VCSAF serves as AF Principal to the JROC and the Director, AF/A5/7D serves as the “plus one”.*

4.13.1. Cyber Requirements Evaluation Board (CREB). US Cyber Command has been given validation authority for Cyber-Operations capabilities and associated requirements validation. Programs under the purview of the CREB will typically be exempt from FCB, JCB and JROC review, as determined by the Joint Staff Gatekeeper. AF Cyber Operations requirements follow normal procedures thru AFROC oversight. The Director, AF/A5/7D is the AF representative to the CREB. For more information, contact the Team Lead of the AF/A5/7D Cyber Operations FIT.

4.13.2. Special Operations Command Requirements Evaluation Board (SOCREB). US Special Operations Command has been given validation authority for Special Operations capabilities and associated requirements validation. Programs under the purview of the SOCREB will typically be exempt from JCIDS review, as determined by the Joint Staff Gatekeeper. AF Special Operations Command (AFSOC) is the AF representative to the SOCREB. The HAF Lead is AF/A3S.

Section 4C - Additional Oversight

4.14. Director, OSD Cost Assessment and Program Evaluation (CAPE). For Acquisition Category (ACAT) ID programs (programs with Department of Defense level acquisition oversight), the Director, CAPE will provide study guidance for Analysis of Alternatives (AoA) and for AoA Study Plans. CAPE also provides the “sufficiency” assessment/approval of the associated AoA Final Report. Refer to DoDI 5000.84 for additional information.

- *Note: For those AoAs where Director, CAPE elects not to provide oversight, the DCS A5/7, Air Force Futures may serve as the decision authority (may be delegated, but no lower than the GO/SES level).*

Study Advisory Group (SAG). When the Director, CAPE has oversight of the study a SAG is established to oversee the execution of studies and AoAs.

- *Note: In situations where the AoA Study Lead and/or SAG elects to significantly revise the conditions, assumptions, mission tasks, or alternatives after AF/A5/7D and DAM review, the AF Sponsor notifies the Director, AF/A5/7D. In such cases, the Director, AF/A5/7D may request the Sponsor provide an interim progress briefing to the DAM.*

4.15. (Acquisition) Milestone Decision Authority (MDA) or Decision Authority (DA). The MDA or DA (depending on the pathway being used) is the designated individual with overall responsibility for an acquisition program. The MDA or DA has the authority to approve the acquisition strategy and the acquisition pathway and for entry of an acquisition program into the next phase of the acquisition process. The acquisition decision authority is accountable for cost, schedule, and performance reporting to higher authority, including Congressional reporting.

- *Note: Acquisition processes and procedures are governed by appropriate DoD 5000-series and AF 63-series publications, the details of which are outside the scope of this Guidebook.*

4.16. Joint Program Reviews. Sponsors coordinate with the appropriate AF Futures Team and the Joint Integration Team’s FCB Lead and obtain AF/A5/7D approval (presentation at an SPR or the DAM is preferred) prior to submitting any presentation(s) to the JCB/JROC for Joint review. This includes any JCIDS change/update or revalidation, Tripwire Review, Critical Intelligence Parameter (CIP) Breach, or Nunn-McCurdy Breach/Critical Change Review, etc. For more detail on the JCB/JROC review procedures, refer to the *JCIDS Manual*.

Section 5 –ROLES, RESPONSIBILITIES, AND STAKEHOLDER PARTICIPATION

5.1. Requirements Sponsor Roles and Responsibilities. The Requirements Sponsor is the OPR leading the effort to formally proceed through operational capability requirements processes. The Requirement Sponsor role is not synonymous with the Lead Agent designation made by AF/A8 IAW AFPD 10-9, though in practice it may indeed be the same OPR.

Note: Requirements sponsorship is assigned to a MAJCOM/Lead Agent (ex. HAF Organization such as a Cross-Functional Team (CFT), Functional Integration Team (FIT), or HAF Functional (e.g. AF/A3s, AF/A4S, AF/SG5, etc.)) to lead the development of capability requirements and associated documentation for their assigned systems, programs, functions and/or missions. Sponsorship is primarily for requirements creation and validation and includes, but is not limited to, advocating for resourcing, manpower, and any other support necessary for the conduct of requirements development activities.

- Ensure collaboration with requirements, acquisition and SPPBE stakeholders to identify, evaluate, develop, field and sustain operational/warfighting capabilities. The intent is to facilitate timely development of affordable and sustainable operational systems needed by warfighters.
- Utilize recommended guidelines for document content and format as described in the AF/A5/7 Capability Development Guidebooks and the JCIDS Manual, to the maximum extent practical or request approval from the appropriate authority for tailoring or exception/exemptions.
- Ensure each document POC or Team Lead is properly trained and certified. For JCIDS documents and related studies, ensure the document development team lead, document POC and/or study lead is trained and certified in accordance with JCIDS Requirements Manager Certification (RMCT) guidelines. For more detail, refer to [Section 6](#) of this Guidebook and Enclosure D of the JCIDS Manual.
- Conduct studies and analyses with direct assistance from AF/A5/7DY, Office of Aerospace Studies (OAS). Utilize approved risk assessments when conducting capability gap analysis. Provide risk assessment data in support of HAF-level decision bodies, and others as required.
- Ensure the proper development and documentation of applicable DoD Architecture Framework (DoDAF) products, Concept of Operations (CONOPs) (including Operational Mission Profile/Mode Summary as described by JCIDS and DoDI 5000-series) and concepts relevant to the mission context and required to support capability requirements analysis, acquisition, test, training, operations and sustainment.
- Maintain close coordination with the acquisition Program Office beginning with the requirements strategy development and throughout the requirements and acquisition process to ensure the development and documentation of affordable and feasible capability attributes and measures (consistent with available funding, time and technology). Conduct analysis to inform cost-capability tradeoffs and provide results to HAF-level capability development, requirements and acquisition forums.
- Ensure key systems engineering considerations, as identified by the acquisition program office, program manager, PEO or MDA (including, but not limited to operational safety, suitability, and effectiveness; environmental, safety, and occupational health; human systems integration; maintenance and sustainment engineering; product and system integrity; and software engineering) are appropriately addressed in requirements documents.

- For intelligence-sensitive capability requirements, intelligence representatives from the sponsor organization are responsible for obtaining (or injecting) the future threat environment and accounting for the extent of intelligence support, data dependencies, and infrastructure necessary for the capability to be fully fielded, supported and sustained.
- Ensure life cycle sustainment requirements and considerations are appropriately addressed in requirements documents.
- Ensure derived/technical requirements and specifications contained in System Requirements Documents (or equivalent) are accurately translated and developed from the parent operational capability requirements document(s) to avoid unintended/unnecessary technical challenges, cost growth, or schedule delays. Provide coordination as described in AFI 63-101/20-101.
- Consult with the appropriate AF/A5/7 Cross-Functional Team, Functional Integration Team, and/or AF FCB Lead before interacting with representatives from other services, components, or outside agencies on operational capability requirements matters – in particular, for interactions with the Joint Staff, or OSD. Obtain CFT or FIT Team Lead-level approval (as a minimum) prior to submitting any presentation(s) for HAF review or decision.
- Establish effective dialog with key stakeholders to fully develop study teams for studies and analysis intended to or likely to result in development of requirements documents. Conduct studies and analysis and develop associated documentation with direct assistance from AF/A5/7DY-OAS. Follow the guidance described in the AF/A5/7 Capability Development Guidebooks for CBA (Vol 2C) and AoA (Vol 2D).
- Submit a Study Initiation Notification memo for AF/A5/7D consideration and/or AFGK approval prior to initiating any CBA (or similar study) or AoA and obtain AF/A5/7 approval for all associated CBA and AoA activity and associated documentation.
- Notify the AFGK before initiation or participation in any study or analysis activities, regardless of AF or non-AF sponsorship or leadership. Provide AFGK with courtesy copies of any study guidance, study plan, and final report for any studies and analyses in which AF MAJCOM/Agency members are participating.
- Maintain a 12-month (or more) forecast of upcoming requirements development events for all programs in their portfolio, including estimated dates for upcoming document development events. This action is typically encapsulated within the CFT's Capability Development Plan (CDP) or the FIT's Requirements Roadmap (RR) that is discussed and updated periodically at CPMR events.
- Adhere to the procedural guidance as described in the *AF/A5/7 Capability Development Guidebooks*, to the maximum extent practical, and contact the AFGK and/or AF/A5/7DR to coordinate deviations and exceptions/exemptions or requests for tailoring, etc.

5.2. Key Stakeholder Roles and Responsibilities. Responsibilities for organizations and individuals participating in the AF operational capability requirements development process are described in this section. This list is not exhaustive; other organizations not specified in this document may provide expertise in certain situations to assist in the production of AF-sponsored capability requirements documents. Similar stakeholders are also located at the MAJCOM level.

Table 5.1. Summary of Key Requirements Stakeholders

Office Symbol	Functional Area of Responsibility
SAF/AQ	<p>Oversees implementation of the Adaptive Acquisition Framework policies and procedures: OPR is SAF/AQX</p> <p>SME for Development Planning, Experimentation, Prototyping, and Research Development Test and Evaluation (RDT&E): OPR is SAF/AQR</p>
SAF/CN	<p>Liaison with Joint Staff J6 for Interoperability and Net-Ready Attribute: OPR is SAF/CZNA</p> <p>SME for DoD Architecture Framework (DoDAF) and products: OPR is SAF/CNZA</p> <p>SME for Cyber Security strategies and accreditations: OPR is SAF/CNZP</p>
SAF/IE	<p>SME for Operational Energy including support for Energy Supportability Analysis (ESA) and Liaison with Joint Staff J4 regarding the Energy KPP: OPR is SAF/IEN</p> <p>SME for energy, environment, infrastructure (e.g. MILCON, facilities), occupational health and safety (excluding aviation and weapon safety): OPR is SAF/IEE</p>
SAF/SQ	<p>Oversight of acquisition management and feasibility review for programs under the Space Systems Command (SSC): OPR is USSF/S5R</p>
AF/SE	<p>SME for Air Force aviation, occupational, weapons, space and system mishap prevention and nuclear surety programs and policy: OPR is the AF Safety Center</p>
AF/SG	<p>SME for Medical Capabilities and Equipment: OPR is AFMRA/SG3</p> <p>Air Force Surgeon General Requirements Oversight Council will validate all medical operational requirements below ACAT III</p>
AF/A2/6	<p>SME for Intelligence threat integration and supportability planning within requirements assessment and approval process and Liaison with Joint Staff J2 and DIA for Threat and Intel Certifications: OPR is AF/A2/6O</p> <p>SME for Information Operations: OPR is AF/A2/6/CX with AF/A3CX</p>
AF/A3	<p>Oversight of Headquarters AF Flight Standards Agency (HQ AFFSA) as the SME for Airfield Operations: HAF OPR is AF/A3O</p> <p>Oversight of AF Agency for Modeling and Simulation (AFAMS) and SME for AF Operational Training Infrastructure (OTI): OPR is AF/A3TI</p> <p>SME for Integrated Air and Missile Defense (IAMD): OPR is AF/A3TY</p> <p>SME for AFSPECWAR (formerly Battlefield Airmen): OPR is AF/A3S</p> <p>SME for Air Force Weather capabilities: OPR is AF/A3W</p> <p>Requirements Authority for Aircrew Flight Equipment (AFE) programs</p> <p>Requirements Authority for Electronic Flight Bag (EFB): via AFFSA and HQ AMC</p>
AF/A4	<p>SME for Security Forces, Nuclear Security and Base Defense: OPR is AF/A4S</p>

AF/A5/7	<p style="text-align: center;"><u>CENTER 1 (AF/A5/7S)</u></p> <p>Oversight of Strategy Development & Implementation process: OPR is AF/A5/7SS</p> <p>Oversight of Strategic Competition and Regional Implementation activities: OPR is AF/A5/7SS</p>
AF/A5/7 <i>(continued)</i>	<p>Oversight of Strategy Application and Synchronization processes: OPR is AF/A5/7SS</p> <p>Oversight of Global Posture and Regional Planning processes: OPR is AF/A5/7SP</p> <p>SME for Global Campaign Plans and Theater/Functional Posture Plans: OPR is AF/A5/7SP</p> <p>Oversight of NATO, FVEY, RAAF, RCAF, Five Powers strategic engagements: OPR is AF/A5/7SP</p> <p>SME for NATO and FVEY AFIC Air Standards coordination: OPR is AF/A5/7SP</p> <p>Oversight of Futures & Foresight for Concepts: OPR is AF/A5/7SC</p> <p>Oversight and development of Air Force Operating and Supporting Concepts: OPR is AF/A5/7SC</p> <p>SME for Allies and Partners Concept Development: OPR is AF/A5/7SC</p> <p>SME for Joint Warfighting Concepts Ecosystem: OPR is AF/A5/7SC</p> <p>SME for Wargames Blue Force Design: OPR is AF/A5/7SC</p> <p>Oversight of Concept Integration processes: OPR is AF/A5/7SC</p> <p>Oversight of Concept Assessments and Net Assessments: OPR is AF/A5/7SM</p> <p>Oversight of Strategic Posture Assessment processes: OPR is AF/A5/7SM</p> <p>Oversight of Strategic Adversary Assessment processes: OPR is AF/A5/7SM</p> <p style="text-align: center;"><u>CENTER 2 (AF/A5/7D)</u></p> <p>Secretariat of the Directors Alignment Meeting (DAM) and Capability Development Working Groups (CDWGs): OPR is AF/A5/7DR</p> <p>Oversight of AF Operational Capability Requirements process: OPR is AF/A5/7DR</p> <p>Oversight of Joint Integration and JS Coordination process: OPR is AF/A5/7DX</p> <p>Secretariat of the AF Requirements Oversight Council (AFROC): OPR is AF/A5/7DR</p> <p>SME for Capability Studies and Analysis: OPR is AF/A5/7DY (Office of Aerospace Studies)</p> <p>SME for Combat Air Forces (CAF) FIT capability development and requirements: OPR is AF/A5/7DC</p> <p>SME for Agile Combat Power (ACP) CFT: OPR is AF/A5/7DC</p> <p>SME for Nuclear Deterrent Operations (NDO) FIT capability development and requirements: OPR is AF/A5/7DN</p> <p>SME for Special Operations Forces and Personnel Recovery (SOF/PR) FIT capability development and requirements: OPR is AF/A5/7DS</p> <p>SME for Global Munitions Posture FIT capability development and requirements: OPR is AF/A5/7DW</p> <p>SME for Weapons Development FIT capability development and requirements: OPR is AF/A5/7DH</p> <p>SME for Cyberspace Operations FIT capability development and requirements: OPR is AF/A5/7DK</p>

<p>AF/A5/7 (continued)</p>	<p>SME for Command and Control/Theater Air Control System (C2/TACS) FIT capability development and requirements: OPR is AF/A5/7DZ</p> <p>SME for Intelligence, Surveillance, and Reconnaissance (ISR) FIT capability development and requirements: OPR is AF/A5/7DI</p> <p>SME for Artificial Intelligence (AI) CFT: OPR is AF/A5/7DO</p> <p>SME for Information Warfare (IW) CFT: OPR is AF/A5/7DD</p> <p>SME for Position, Navigation, and Timing (PNT) CFT: OPR is AF/A5/7DP</p> <p>SME and LNO for Space CFT: OPR is AF/A5/7DV</p> <p>SME for Agile Combat Support (ACS) R&D, S&T, T&E, and LCM FIT capability development and requirements: OPR is AF/A5/7DT</p> <p>SME for Agile Combat Support (ACS) L&S and I&MS FIT capability development and requirements: OPR is AF/A5/7DL</p> <p>SME for Generating Combat Power (GCP)/Base Defense (BD)/Agile Combat Employment (ACE) CFT: OPR is AF/A5/7DB</p> <p>SME for Logistics Under Attack (LUA) CFT: OPR is AF/A5/7DU</p> <p>SME for Mobility FIT capability development and requirements: OPR is AF/A5/7DM</p> <p style="text-align: center;"><u>CENTER 3 (AF/A5/7I)</u></p> <p>Oversight of Future Force Design processes and activities (Human Capital): OPR is AF/A5/7IH</p> <p>Oversight of Future Force Design processes and activities (Infrastructure): OPR is AF/A5/7II</p> <p>Oversight of Future Force Design processes and activities (Systems Design): OPR is AF/A5/7IS</p> <p>Oversight of International Capability Development Partnerships: OPR is AF/A5/7IA</p> <p>SME for Capability Development Data Integration: OPR is AF/A5/7IC</p> <p>SME for Innovative Solution and Disruptive Technology exploration: OPR is AF/A5/7ID</p> <p>Oversight of Agile Wargaming processes and activities: OPR is AF/A5/7IX</p> <p>Oversight of Modeling & Simulation processes and activities: OPR is AF/A5/7IF</p> <p>SME for Force Design and Capability Development Analysis activities: OPR is AF/A5/7IQ</p>
AF/A8	Oversight of AF Planning and Programming (resourcing process): OPR is AF/A8X and AF/A8P
SAF/SA	SME for conducting studies, analyses, assessments, and modeling & simulation for capability, capacity, and risk
AF/A10	<p>SME for Chemical, Biological, Radiological and Nuclear (CBRN) Survivability issues: OPR is AF/A10S</p> <p>SME for Counter-WMD Enterprise: OPR is AF/A10S</p> <p>SME for Nuclear Weapons Delivery: OPR is AF/A10C</p> <p>SME for Nuclear Command, Control and Communications (NC3): OPR is AF/A10N</p> <p>SME for Arms Control, International Treaties and Agreements: OPR is AF/A10P</p>
AFCEC	SME for Civil Engineer Prime BEEF or RED HORSE: OPR is AFCEC/CX

	SME for Explosive Ordnance Disposal: OPR is AFCEC/CX SME for Fire Protection and Emergency Services: OPR is AFCEC/CX SME for Air Force Emergency Management: OPR is AFCEC/CX SME for Chemical, Biological, Radiological and Nuclear (CBRN) Defense: OPR is AFCEC/CX
AF/TE	SME for Test and Evaluation policy supporting requirements documentation: OPR is AF/TEP
AFOTEC	Operational Test & Evaluation and Testability determination
HQ AFMC	Oversight of capability requirements and feasibility review for programs under: <ul style="list-style-type: none"> - AF Civil Engineer Center (AFCEC) - AF Installation and Mission Support Center (AFIMSC) - AF Life Cycle Management Center (AFLCMC) - AF Nuclear Weapons Center (AFNWC) - AF Research Lab (AFRL) - AF Sustainment Center (AFSC) - AF Security Forces Center (AFSFC) - AF Test Center (AFTC) - Strategic Planning and Experimentation (SDPE)
HQ AETC	SME for Force Development Training and Education issues
MAJCOMs	SMEs for Operational Requirements development and implementation, as well as “train and equip” roles for new, modified, and divestment of systems providing capabilities

5.3. Document Writing Team [led by the CFT or FIT and MAJCOM/Lead Agent Sponsor]. The document writing team concept is used to develop AF-sponsored requirements documents, with the exception of Urgent Needs and AF Form 1067 Modification Proposals.

5.3.1. Purpose. The purpose of the document writing team is to provide the appropriate level of **cross-functional** expertise and involvement in requirements document generation. The team concept accelerates the document development process, improves the quality of the document, and can provide an enduring forum for developing, fielding/implementing, and sustaining operational systems.

- **Special Instructions:** Training and Certification is required for teams writing **JCIDS and AF Requirements documents**. To comply with JCIDS guidance, for any JCIDS documents subject to JCIDS oversight, the Sponsor’s team lead and the Acquisition POC must be at least RMCT Level B certified. All other team members must complete Requirements Manager Certification Training (RMCT) Level A as a minimum, and are highly encouraged to be at least RMCT Level B certified.
- [Refer to section 6 of this Guidebook for further information on RMCT.](#)

5.3.2. Document Writing Team Membership. Success hinges on participation from members with strong functional and requirements expertise.

- **Document Team Lead.** The document Sponsor designates an appropriately experienced requirements practitioner or manager (RMCT Level B certified, as a minimum for JCIDS documents) to lead all document development activity.

- Acquisition POC. The acquisition POC should be an appropriately experienced program manager or systems engineer (as appropriate) and must be RMCT Level B certified, as a minimum (for JCIDS document development).
 - *NOTE: SAF/AQX along with AFMC/A5 provide assistance to the Sponsor and AFGK in identifying the appropriate acquisition POC(s) to participate on the document writing team.*

Table 5.2 Document Writing Team Participation Example

Document Writing Team -- MEMBERSHIP
<p>Core Membership: Team Lead (CFT/FIT or MAJCOM/Lead Agent rep), Operational SMEs (from CFT/FIT and MAJCOM/Lead Agent), Acquisition POC (PM or Systems Engineer), Test, Sustainment, Acquisition-Intel, Communications, Logistics/MX, other service/agency users HAF Facilitator(s): AF/A5/7DY-OAS or other Enabling Team SME (if available)</p>
<p>Support Membership: <u>Resources:</u> HAF Planning and Programming (AF/A8 Panel reps), SAF/FM, Manpower <u>Acquisition and Test:</u> SAF/AQ, AFMC/A5R, Program Office, AF/TEP, AFOTEC <u>Supportability and Survivability:</u> SAF/IE (Energy), AF/A2 (Intel), SAF/A6 (Net-Ready), AF/A4 (Logistics/MX), AETC (Force Development Training), AF/A3 (Operational Training), AFHSIO (HSI), AF/A10 (CBRN), AF/A5/7RK (Cyber) <u>Other:</u> SAF/A6 (DODAF Architectures), SAF/SA (Risk Assessments), AF/A5/7DY-OAS Reps (Analysis), USSF <u>Policy & Process:</u> AF/A5/7DR and Sponsor POC's, AF/A5/7DX FCB rep (Joint Staff POC's)</p>

- HAF SME/Facilitator(s). A representative from AF/A5/7D (normally a CFT or FIT SME and/or Sponsor Policy rep) must be a part of the document writing team. Additionally, a document writing process SME (typically from an AF/A5/7DY-OAS or other Enabling Team) will assist and guide the team's efforts. In situations where an AF/A5/7D Enabling Team SME is unable to participate, AF/A5/7DY-OAS can provide training materials and other assistance, as needed. Additionally, AF/A5/7DR maintains checklists, guides, templates, best practices and tips to ensure consistency and standardization in AF document development. See the [AF/A5/7DR Portal page](#) (web link in Appendix 1).
- Core and Support Members. Core members are typically present for all document writing activities, but participation can be tailored based on the subject matter, at the discretion of the document Sponsor or Team Lead. Support members are typically not physically present during the document writing event, but must be available via phone or e-mail for reach back. See Table 5.2 above for sample document writing team membership.

5.3.3. Sample Plan of Action & Milestones (POAM) for Document Development and AFROC Approval:

Every effort is unique and the approach will be custom tailored to be flexible and timely.

- **SPR:** package submitted no less than 21 days prior to the planned document writing event; AFGK check takes **5-10 days**, leaving **10-15 days** prior to the event for AF/A5/7D (and/or DAM) review and sponsor corrective actions

- **Document Writing Event:** **4-5 days** up to **7-10 days** for a CDD or non-JCIDS equivalent document; document development approaches that drag on for months are not acceptable.
- **Post Event Activity:** **3-4 weeks** for internal cleanup and MAJCOM/Agency review; post event cleanup and internal MAJCOM/Agency review that drags on for months is also not acceptable.
- **Document Review (Initial Staffing):** **5-10 days** for initial AFGK check, document cleanup, and A5/7D approval to begin Initial Staffing & submission to Joint Staff. This is followed by **21 days** for AF Initial Staffing and review. For JCB/JROC Interest documents, JS Gatekeeper takes **4-10 days** to review the document, followed by **14-21 days** for JS Commenting (dependent on document type).
- **Comment Resolution:** **21-30 days** (dependent on document type). No later than 30 days, the document sponsor's Requirements and Policy organization must submit an updated document and a report of any unresolved comments. This is the standard JCIDS timeline and comment adjudication that drags on for months is not acceptable.
- **Validation Staffing:** an eAFROC review will be open for not more than **14 days** for GO level vote. Any non-concur vote should be immediately addressed with the Sponsor (do not wait until the end of the eAFROC period).
- **AF Validation & Approval:** plan on **5 days** for a decision memo signed by AF/A5/7D (or AF/A5/7) – and at least 10-14 days for a decision memo signed by VCSAF or CSAF. AF/A5/7DR has direct access to the VCSAF (as the JROC Principal) and CSAF (as the Chief Requirements Officer for MDAPs).
- **Joint Validation & Approval (as required):** FCB Review is run concurrent with staffing to the AF RDA. **14 days** for JCB, **14 days** for JROC, then up to another **10 days** to get a coordinated/signed JROCM. The expedited software staffing review process timelines are **8 days** for JCB, **8 days** for JROC.

These timelines are depicted in Figures 5.1 and 5.2 below. Timelines for JCIDS document are based on the 2021 JCIDS Manual. Non-JCIDS documents (ex. RPRD, RFRD, CNS) will follow the AF staffing, validation, and approval timelines above. For detail on procedural steps and process timelines for particular documents or artifacts, refer to the applicable A5/7 Capability Development Guidebook Volumes.

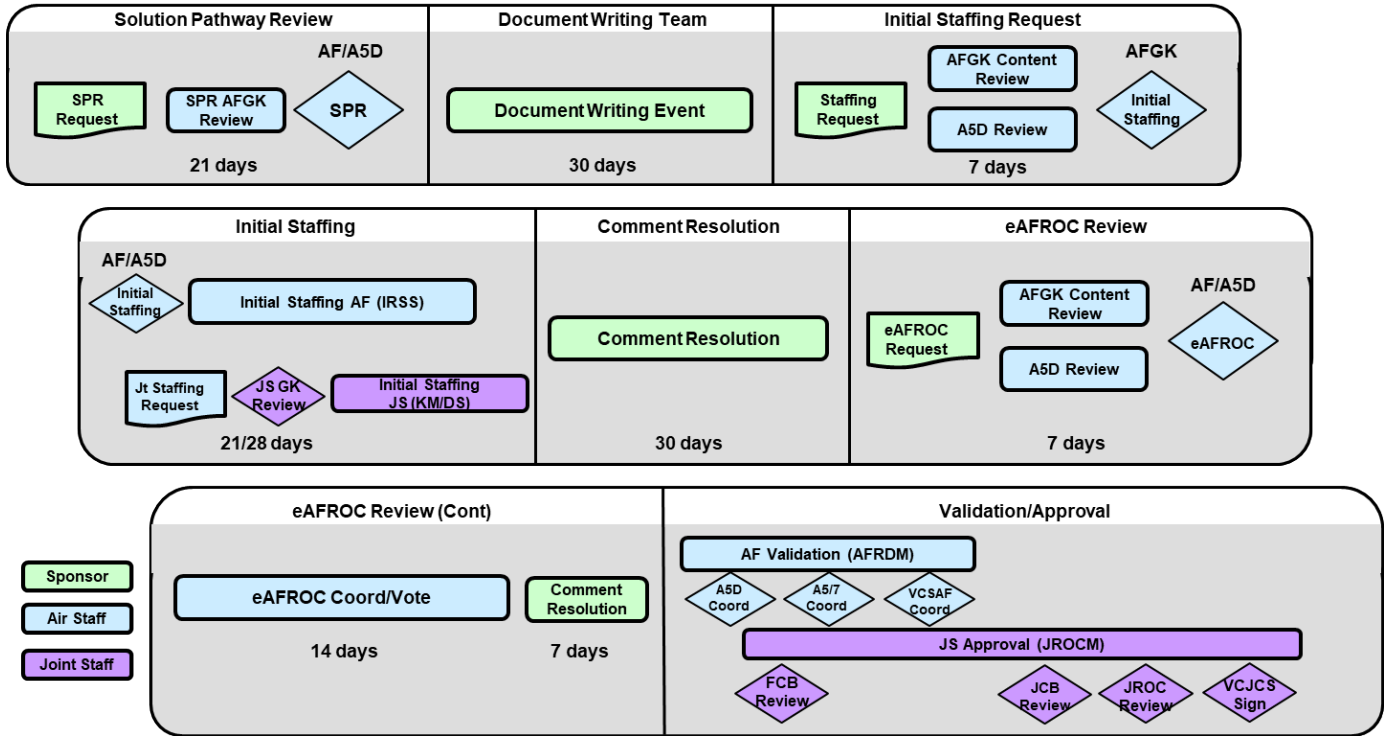


Figure 5.1. Sample POAM for JCIDS Document Development and Approval

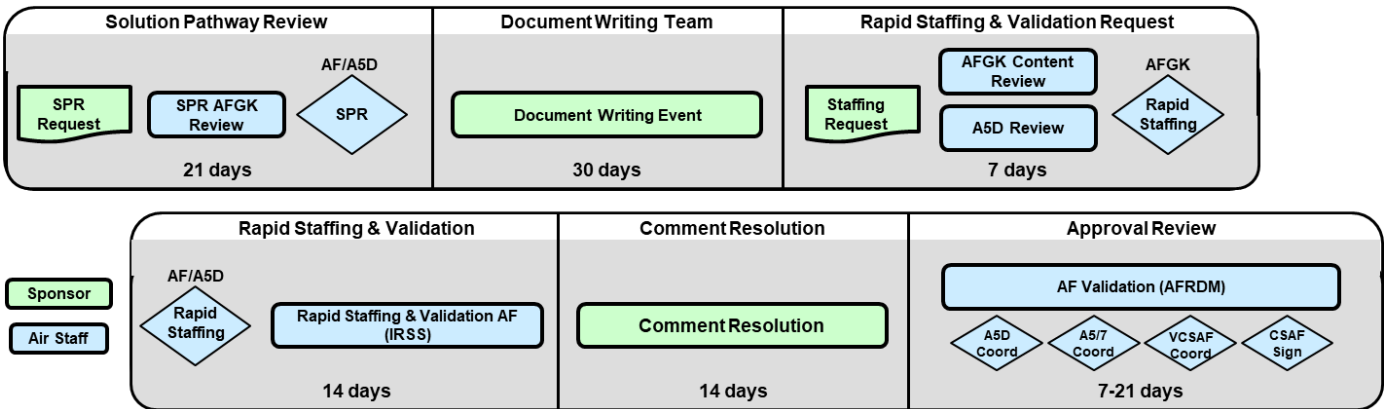


Figure 5.2. Sample POAM for non-JCIDS Document Development and Approval

Section 6 – OPERATIONAL CAPABILITY REQUIREMENTS TRAINING

6.1. Requirements Manager Certification Training (RMCT). The following guidance outlines the implementation of the AF's RMCT Program, which is in accordance with Section 801 of the 2007 NDAA (RMCT Program), Enclosure D of the Oct 2021 JCIDS Manual, and HAF MD 10-601 policy. While AF/A5/7D oversees the AF's RMCT program, the Defense Acquisition University (DAU) has the responsibility for providing the congressionally mandated baseline training for certification.

- *NOTE: The possession of a DAU training completion certificate represents the RMCT "certification" -- there is no additional paperwork or process to certify someone...if the person has a training completion certificate, or other evidence of training completion (e.g. DAU transcript, etc.), then they are "certified" to the associated RMCT level as outlined below.*
- *NOTE: The Component Appointed Representative (CAR) for the USAF on all RMCT issues is the AFGK or their designated representative within AF/A5/7DR. CAR contact information (for RMCT course scheduling, etc.) is listed on page 2 of this guidebook.*

6.1.1. Accountability. All AF organizations are accountable for ensuring responsibility for requirements documents rests only with fully trained personnel, especially document content POCs and validation authorities. AF organizations are responsible to identify and update the status of their RMCT positions and personnel to AF/A5/7DR annually. As a general rule, personnel in positions performing the following roles are considered AF key positions that require RMCT certification:

- Solution Pathway Development (Sponsors)
- Solution Pathway Review/Approval (HAF)
- Study leads (Sponsors), AF/A5/7D Enabling Teams (HAF)
- Document Writing Team leads, and document content POCs (Sponsors)
- Signature/approval decision authority for requirements endorsement or validation/approval.
- FCB Working Group, FCB, JCB, JROC representatives (principals and alternates).

6.1.2. AF RMCT Levels: All AF organizations performing operational requirements activities will determine the appropriate RMCT certification levels necessary to support the assigned duties of the position within their organization, and will also ensure the individuals assigned to these positions complete the required DAU-sponsored training courses needed to be certified at the appropriate RMCT level. The following additional training guidance applies for all AF personnel involved with Operational Capability Requirements:

6.1.2.1. Level A (Foundational Requirements). Requires completion of CLR 101 ("Intro to JCIDS"). Appropriate AF Level A RMCT Example Roles include: operational Subject Matter Expert (SME) participating in CD activities, IRSS POC, admin support for requirements documents, JCIDS packages and/or actions.

6.1.2.2. Level B (Requirements Practitioner). Requires Level A plus completion of RQM 1100 ("Core Concepts"). Appropriate AF Level B RMCT Example Roles include: Study/Analysis (e.g. CBA or AoA) Lead, Writing Team Lead, document "Content POC", Requirements Team Lead, Requirements AO/Analyst, FCB Working Group action officer, Requirements Branch Chief or Deputy Division Chief, CFT or FIT "Requirements SME".

- *NOTE: The RQM 1100 course was previously designated as RQM 110 and is equivalent for RMCT.*

- *NOTE: Completion of the Optional RQM 2100 (“Application Skills”) course is not tracked / required for any certification, but is highly recommended for individuals leading or participating in a Document Writing Team.*

6.1.2.3. Level C (Requirements Manager). Requires Level B plus completion of RQM 3100. Appropriate AF Level C RMCT Example Roles include: AF representative to FCB or Integration forums, JCB/JROC alternate or “plus one” (below GO/SES level), HAF/Sponsor Requirements Division Chief or Deputy Director (below GO/SES level).

- *NOTE: The RQM 3100 course was previously designated as RQM 310 and is equivalent for RMCT.*

6.1.2.4. Level D (Requirements Executive). (GO/SES positions only) Requires completion of RQM 4030 or RQM 4130 (O-10 only). Appropriate AF Level D RMCT Example Roles include: Commander, Director of Requirements, JCB/JROC principal.

- *Special Instructions. For cases where a GO/SES member is advancing to a 4-star level position and they already have obtained Level D Certification by completing RQM 4030 for a 3-star or lower position, then completion of RQM 4130 for the 4-star position would be considered optional, at the discretion of the member.*

6.2. Training and RMCT Certification Timelines. Failure to complete the certification training by the applicable suspense date(s), or earlier if directed, may preclude individuals from participating in the requirements process until training is completed. Specific circumstances may apply (i.e. document POCs complete certification prior to submitting document for staffing.)

- All personnel newly assigned to AF/A5/7 Center 2 (AF/A5/7D) will complete the multi-day Center 2 On-Boarding Training Course upon arrival, which provides foundational knowledge, skills, and abilities on the capability development and operational requirements validation processes they will employ as part of their duties in Center 2.
- Members requiring RMCT Level A certification should complete the DAU’s CLR 101 online course within their first 30 days of arrival.
- Members requiring RMCT Level B and Level D (for GO/SES members) certification should complete the appropriate RQM course within first 90 days of arrival.
- Members requiring RMCT Level C certification should have a minimum of 6 months in their designated position prior to attending RQM 3100 (in order to gain necessary operational experience in the requirements process needed to make the course effective). They should also complete the course no later than 12 months after being in the designated position.

Appendix 1 - GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

HAF MD 1-7, *Deputy Chief of Staff, Air Force Futures (AF/A5/7)*

AFPD 10-6, *Capability Requirements Development*

AFI 10-601, *Operational Capability Requirements Documentation and Validation*

DAFI 63-101/20-101, *Integrated Life Cycle Management [Acquisition and Sustainment]*

DAFI 99-103, *Test and Evaluation*

AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*

CJCSI 5123.01I, *Charter of the Joint Requirements Oversight Council and Implementation of the Joint Capabilities Integration and Development System*, 30 October 2021

Manual for the Operation of Joint Capabilities Integration and Development System, 30 October 2021

DoDD 5000.01, *Defense Acquisition System*, 9 September 2020

DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, 23 January 2020

DoDI 5000.02T, *Operation of the Defense Acquisition System*, Change 10, 31 December 2020

DoDI 5000.80, *Operation of the Middle Tier of Acquisition (MTA)*, 30 December 2019

DoDI 5000.81, *Urgent Capability Acquisition*, 31 December 2019

DoDI 5000.82, *Acquisition of Information Technology*, 21 April 2020

DoDI 5000.84, *Analysis of Alternatives*, 4 August 2020

DoDI 5000.85, *Major Capability Acquisition*, 6 August 2020

DoDI 5000.87, *Operation of the Software Acquisition Pathway*, 2 October 2020

DoDI 5000.88, *Engineering of Defense Systems*, 18 November 2020

Useful Resources

Joint Chiefs of Staff Library: <https://www.jcs.mil/Library/>

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

DoD Directives and Instructions: <https://www.defense.gov/Resources/Forms-Directives-Instructions/>

Department of the Air Force ePublishing: <https://www.e-publishing.af.mil/Product-Index/>

AF/A5/7 Capability Development Guidebook Library (AF Portal access): <https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=s6925EC1352150FB5E044080020E329A9> (under construction)

AF/A5/7DR Requirements Oversight Portal Page (AF Portal access): <https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=s6925EC1352150FB5E044080020E329A9> (under construction)

Key Terms

NOTE: *The purpose of this glossary is to help the reader understand the terms listed as used in this publication and throughout the requirements process. It is not intended to encompass all terms: additional key capability development terms are included in section 1.4 of this guidebook. See pertinent Joint and AF specific publications for standardized terms and definitions for DoD and AF use.*

Affordability – The degree to which the life-cycle cost of an acquisition program is in consonance with the long-range modernization, force structure, and manpower plans of the individual DoD Components (military departments and defense agencies), as well as for the Department as a whole. Affordability constraints force prioritization of requirements, drive performance and cost trades, and ensure that unaffordable programs do not enter the acquisition process.

Capability - The ability to complete a task or execute a course of action under specified conditions and level of performance through combinations of means and ways across the doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) to perform a set of tasks to execute a specified course of action.

Capability (Business): Defense Business Systems and processes, involving routine admin functions (not NSS), IT infrastructure and cybersecurity [Governed by DoDI 5000.75]

Capability (Operational/Warfighting): Weapon Systems and NSS, and associated DOTMLPF-P involving direct accomplishment of military missions [JCIDS Manual]

Capability Development: Capability Development includes all of the activities related to *identifying, refining, and prioritizing* a capability gap or opportunity, as well as the activities that are *pursued* to close that capability gap or seize that opportunity for the warfighter. Capability Development is as 1) a systematic process of identifying materiel and non-materiel capabilities that provide the means to deliver warfighting effects consistent with Air Force strategic guidance; and 2) setting priorities for investments for success, as well as accounting for first-order estimates of costs and estimates of rates of maturation of emerging technologies. [RAND Project Air Force 2019]

Capability Gap - The inability to meet or exceed a capability requirement, resulting in an associated operational risk until closed or mitigated. The gap may be the result of no fielded capability, lack of proficiency or sufficiency in a fielded capability solution, or the need to replace a fielded capability solution to prevent a future gap. [CJCSI 5123]

Capability Requirement (or Requirement, Need) - A capability which is required to meet an organization's roles, functions, and missions in current or future operations. To the greatest extent possible, capability requirements are described in relation to tasks, standards and conditions in accordance with the Universal Joint Task List or equivalent DoD Component Task List. [CJCSI 5123]

Capability Solution - A materiel solution or non-materiel solution to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more capability gaps. [CJCSI 5123]

Cost-Capability Analysis (CCA) – A process that helps define the tradespace between cost, schedule/technology risk and performance and how it relates to the “value to the warfighter.”

Development Planning (DP) – The engineering analysis and technical planning activities that provide the foundation for informed investment decisions on the fundamental path a materiel development will follow to effectively and affordably meet operational needs. [DAF Acquisition Process Model]

DOTMLPF-P – Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities, and Policy Occasionally, the Materiel area is shown as a little “m” to indicate a non-materiel or non-developmental materiel approach)

Feasible - A requirement that is technically achievable and executable within the estimated schedule and budgeted life cycle cost.

Full Operational Capability (FOC) - Full attainment of the capability to effectively employ a weapon, item of equipment or system of approved specific characteristics, which is manned and operated by a trained, equipped and supported military force or unit. The specifics for any particular system FOC are defined in that system's Capability Development Document and Capability Production Document (or non-JCIDS equivalent document).

Initial Operational Capability (IOC) - That first attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained and equipped personnel necessary to operate, maintain, and support the system.

Lead Command - Lead command designation establishes advocacy for weapon systems during their life cycle and clarifies responsibilities for all using and supporting organizations. The designated lead command provides a primary input into the process of developing and maintaining a force structure with a balance of complementary capabilities. Lead command designation is not exclusive to major commands (MAJCOMs); Field Operating Agencies (FOAs) and Direct Reporting Units (DRUs) may also be designated as Lead Agents. [Governed by DAFPD 10-9]

Materiel Development Decision (MDD) - The MDD review is the formal entry point into the acquisition management system and is mandatory for all programs. The MDD is based on a validated requirements document (an ICD or equivalent requirements document) and the completion of the Analysis of Alternatives (AoA) Study Guidance and the AoA Study Plan (for JCIDS). This decision directs execution of the AoA, and authorizes entry into the JCIDS Materiel Solution Analysis Phase of acquisition. For non-JCIDS activities (ex. Sec 804 MTA), the MDD directs execution of the proposed acquisition strategy and concurs with the proposed requirements strategy.

Materiel Capability Solution - Correction of a deficiency, satisfaction of a capability gap, or incorporation of new technology that results in the development, acquisition, procurement, or fielding of a new item (including ships, tanks, self-propelled weapons, aircraft, and related software & data, spares, repair parts, and support equipment, but excluding real property, installations, and utilities). In the case of family of systems and system of systems approaches, an individual materiel solution may not fully satisfy a necessary capability gap on its own. [CJCSI 5123]

Non-Materiel Solution - Changes to doctrine, organization, training, (previously fielded) materiel, leadership and education, personnel, facilities, or policy implemented to satisfy one or more capability requirements (or needs) and reduce or eliminate one or more gaps, without the need to develop or purchase new materiel capability solutions. The “materiel” portion is restricted to existing equipment, by use of existing materiel in alternate applications as an adaptation or repurposing not originally envisioned.

Objective Value - The objective value is only applicable when a higher level of performance (above the threshold value) represents a significant increase in operational utility. Context is provided to articulate what specific operational impact or risk is further mitigated if the performance were to reach the objective value. If applicable, the objective value is considered feasible and achievable but may involve higher risk in life cycle cost, schedule or technology. Performance above the objective value does not warrant additional expenditure. [JCIDS Manual]

Threshold Value - A minimum acceptable operationally effective or suitable value below which the utility of the system becomes questionable. The threshold value for a performance attribute (KPP, KSA or APA) represents a level of performance that is considered achievable within the projected life cycle cost, schedule and technology at low to moderate risk. [JCIDS Manual]

Validation – The review and approval of capability requirement documents by a designated validation authority. The JROC is the ultimate validation authority for capability requirements unless otherwise delegated to a subordinate board or to a designated validation authority in a Service, CCMD, or other DOD Component. [CJCSI 5123]

Abbreviations and Acronyms

ACAT - Acquisition Category	JCB - Joint Capabilities Board
ADM - Acquisition Decision Memorandum	JROC - Joint Requirements Oversight Council
AFGK - AF Gatekeeper	JROCM - JROC Memorandum
AoA - Analysis of Alternatives	JSD - Joint Staffing Designator
APA - Additional Performance Attribute	KM/DS - Knowledge Management & Decision Support (system)
CBA - Capabilities-Based Assessment	KPP - Key Performance Parameter
CDD - Capability Development Document	KSA - Key System Attribute
CDM - Capability Decision Memo	LRIP - Low-Rate Initial Production
CDP - Capability Development Plan	MDA - Milestone Decision Authority
CDWG - Capability Development Working Group	MDD - Materiel Development Decision
CFT – Cross-Functional Team	MOE - Measure of Effectiveness
CI - Configuration Item	MOP - Measure of Performance
CIP - Critical Intelligence Parameter	MOS - Measure of Suitability
COTS - Commercial off the Shelf	MTA - Middle Tier of Acquisition (aka “804”)
CRC – Concept-Required Capability	OAS - Office of Aerospace Studies (AF/A5/7DY)
CPMR – Capability Portfolio Management Review	OT&E - Operational Test and Evaluation
DA – Decision Authority (as used in acquisition)	PM - Program Manager
DAM – Directors’ Alignment Meeting	RDM - Requirements Decision Memo
DCR - DOTmLPF-P Change Recommendation	RFP - Request for Proposal
DP - Development Planning	RFRD – Rapid Fielding Requirement Document
ELT – Executive Leadership Team	RPRD – Rapid Prototyping Requirement Document
EMD - Engineering & Manufacturing Development	RR – Requirements Roadmap
FCB - Functional Capabilities Board	SDP – System Development Plan
FIT – Functional Integration Team	SIF – Strategic Integration Forum
FOC - Full Operational Capability	SME - Subject Matter Expert
GOTS - Government off the Shelf	S&T - Science & Technology
ICD - Initial Capabilities Document	SPPBE - Strategy, Planning, Programming, Budgeting and Execution
IOC - Initial Operational Capability	SPR - Solution Pathway Review
IRSS - Information & Resource Support System	SRD – Strategic Requirements Document
IS - Information System	T&E - Test and Evaluation
JCA - Joint Capability Area	