AF/A5R

REQUIREMENTS DEVELOPMENT GUIDEBOOK

Volume 1

Guidelines, Oversight and Governance

24 June 2020, Version 5.02

Requirements Integration Division

AF/A5RP, 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/A5R Requirements Development Guidebooks are generally non-directive in nature, they represent official guidance and procedures developed to ensure compliance with and implementation of overarching Requirements and Acquisition policies. Per AF/A5R direction and authority under HAF Mission Directive 1-7, to the maximum extent practical, Air Force Sponsors are expected to follow the guidance and procedures described in the AF/A5R Guidebooks or coordinate with AF/A5RP for tailoring.

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

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

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

CHANGE SUMMARY

Change Summary	Date
Initial Release: Revised the Guidebook Volumes to align policy and guidance under new Vol 1, as the "Capstone Guidebook" and separate the procedural guidance and other best practices in subsequent guidebook volumes and handbooks • Vol 1, Policy and Guidelines (revised previous Vol 1, refined all policy info) • Vol 2, Urgent Needs (major updates, revised the transition review portion) • Vol 3, JCIDS Deliberate Process (split out from Vol 1, reorganized layout) • Vol 4, Modification Proposals (split out from Vol 1, minor edits)	3 OCT 2017
• Admin changes to reflect AF/A5RP (without the dash) and integration with A5RJ • Admin changes to reflect the distinction between AFWIC (and oversight of CDWG and CDC governance) which is no longer part of AF/A5R • Deleted references to CFSP • Deleted References to AFPD 90-11 and AFPD 10-6 (until revised & republished) • Added a new table of key requirements stakeholder and areas of responsibility	20 Mar 2018
• Changes to reflect new JCIDS Manual guidance • Admin changes to reflect division of AF/A5/8 into AF/A5 and AF/A8	31 Oct 2018
• Admin Updates and errata changes (red line)	2 April 2019
• Admin changes and edits, updated graphics	9 May 2019
• Edits to clarify expectation to follow the guidebooks (vice "comply with")… • Edits/clarification to the capability and opportunity section regarding materiel versus non-materiel capability and solutions • Added info regarding oversight of Cyber-Operations by CyberCOM • Added info to emphasize the use of the AFGK Review for all documents • Admin changes to reflect updates to the CDC Charter • Admin changes to reflect realignment of SAF/CIO-A6 and AF/A2 roles into SAF/CN (CIO) and AF/A2/6, ISR and Info Dominance • Added note to Roles & Responsibilities AF/A3 (via AFFSA and HQ AMC) has been given authority over requirements for Electronic Flight Bag (EFB)	1 Aug 2019 Ver 4.0
• Added clarification that all the documents and processes described in the Guidebooks are under the purview of AF/A5R – Bottom line: outside organizations do not have independent authority to develop or approve/validate any of the documents described in the AF/A5R Guidebooks, except by following the AF/A5R process. • HAF MD 1-56 (A5/8) has been replaced by HAF MD 1-7 (AF/A5) • Office of Aerospace Studies (OAS) is now designated as AF/A5RA	5 Dec 2019 Ver 4.1c
• **Significant Revision:** • Moved CBA info from Guidebook, Vol 3 to Vol 1 (Capability Planning via CBA or similar study should be common to all solution pathways, not unique to JCIDS) • Moved information regarding the RSR from Guidebook, Vol 3 to Vol 1 and modified the framework to conduct a "Solution Pathway Review" for the Document Writing Team (common to all pathways) – replaces the RSR and HPT	18 Feb 2020 Ver 5.0
• Updated the language regarding Feasibility (page 15) • Added clarification regarding AFWIC and CDC roles (page 17) • Updated Stakeholder roles and authorities (table 4.1)	8 April 2020 Ver 5.01

• Updated language based on inputs received during staffing of the draft AFI 10-601 rewrite • Replaced both of the overview charts (2.1 and 2.2) to clarify process lanes • Updated the Key Stakeholders chart, based on input from 10-601 coordination • Added a note to clarify that an RMCT training certificate is your "certification" • Removed timelines from CBA process guide, sponsors should contact the CDWG for detail on their process and timelines	24 June 2020 Ver 5.02

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SECTION 1. BACKGROUND

1.1. Purpose. The goal of the AF/A5R requirements document approval process is to provide approved requirements documents to facilitate timely implementation of solutions to address identified deficiencies associated with validated capability requirements (mission needs) or to otherwise take advantage of opportunities to improve operational mission effectiveness.

1.2. Scope of Authority. Under the authority described in HAF Mission Directive 1-7, AF/A5R is responsible for all matters pertaining to the development and documentation of operational capability requirements. The process and documents governed by this instruction are the sole purview of AF/A5R; other AF organizations do not have independent authority to authorize, develop or approve any of these documents, except by adhering to the process described herein.

1.3. Key Terminology. Capability requirements development activities are conducted in response to formal assessments of the AF's ability (in both capability and capacity) to accomplish assigned roles, missions, functions and operations and associated risks. First, we have to underscore the proper terminology used to describe capability requirements, capability gaps, and capability solutions.

Figure 1.1 Capability Development - Overview
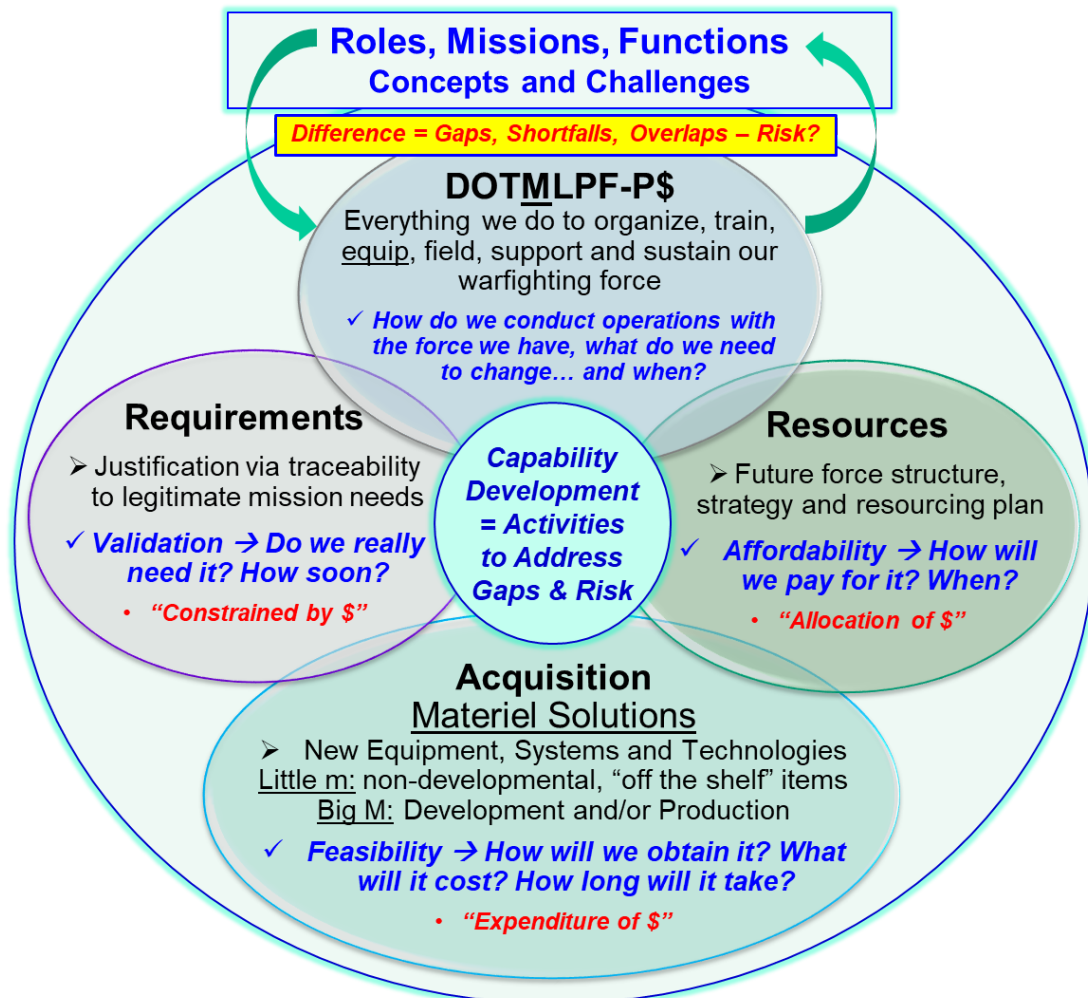
1.3.1. Capability Development. This guidebook explains the framework for Air Force oversight of *requirements development* in support of overarching capability development efforts and in compliance with the main processes for "Requirements" via the Joint Capabilities Integration and Development System (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 the rapid solution pathways which (by law) are exempt from normal JCIDS and DAS oversight.

- *NOTE: "Capability" is more than just equipment… it is the combination of People, Training, Equipment, across the entire spectrum of DOTMLPF-P… that is, Doctrine, Organizations, Training, Materiel (the equipment), Leadership & Education, Personnel, Facilities and Policy. For example, equipment without properly trained people to operate and maintain it, is not a capability…*

- *When we talk about Materiel Solutions, we use "little m" primarily to indicate the use of previously fielded equipment or purchase of new non-developmental, "off the shelf" items… the type of materiel that can be obtained without going through formal DAS processes and oversight. The "Big M" is used to indicate solutions that require new development and/or new production of equipment via formal acquisition process.*

1.3.2. Capability Requirement (Need). A well-written 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.

- **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 entire DOTMLPF-P spectrum to perform a set of tasks to execute a specified course of action.

- *Note: Requirements "Validation": In order to be considered a valid capability requirement (need), the requirement sponsor must clearly demonstrate that the need is established by, derived from and traceable to assigned roles, missions, functions and operations. When referring to the "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 item, or the piece of equipment). Useful Tip: always try to describe "requirements" in terms of actions, not objects.*

- *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.*

1.3.3. 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; is it good enough?) and to the quantity or capacity/amount of the capability (also called sufficiency; do we have enough?)

- *Note: In JCIDS, 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. Measures are expressed in terms of threshold*

(minimum acceptable) values and objective values (desired but still justifiable as being necessary, but potentially associated with higher cost or technical risk, etc.)

1.3.4. Capability Gaps and Operational Risk. The difference (if any) between the capability requirement (i.e. what we need to be able to do, or how much we need) and the currently fielded capability as represented by our organizations, training, equipment, etc. (i.e. what we are actually able to do, or not able to do), represents the *capability gap*, if any exists. The *risk* of not addressing the gap illustrates the severity and/or level of urgency in developing a capability to mitigate the gap, either in part or in total.

- *Note: Gaps are expressed in terms of not being able to achieve the minimum threshold value of acceptable performance or suitability. Risk may be expressed as risk to mission, or risk to the force and is an integral part of decision making about addressing capability gaps.*

1.3.5. Capability Solutions and Opportunities. Our ability to provide a needed capability comes in the form of all materiel and non-materiel approaches we take 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.*

  - o **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.*

  - o **Materiel Capability Solutions**:

    - "Little m" - non-developmental, "off the shelf" items, equipment purchases and procurements that do not require new *development* or *production* contracting

    - "Big M" –items that require new development and/or new production contracts via formal acquisition processes, guided by validated requirements document(s)

  - o **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).

SECTION 2. PROCESS OVERVIEW

2.1. Capability Planning. Before any action can be taken in the AF/A5R requirements document approval process, requirements managers and requirements sponsors must first: 1) identify *capability requirements* (mission needs) related to assigned roles, missions, functions or operations, 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.

Potential Solution Approaches. Sponsors considering potential courses of action (COAs) to address gaps should "start small" by considering non-materiel approaches, or modifications to existing systems, etc. and explore all viable options before working their way up to more complex materiel solution approaches and larger, more costly programs. New development (especially for immature technology, software

intensive projects, etc.) should be viewed as a last resort when other options have been explored and exhausted or deemed not suitable to address the capability requirement (needs), gap(s) and/or risk.

Figure 2.1. Solution Pathways and Requirements Documents Overview
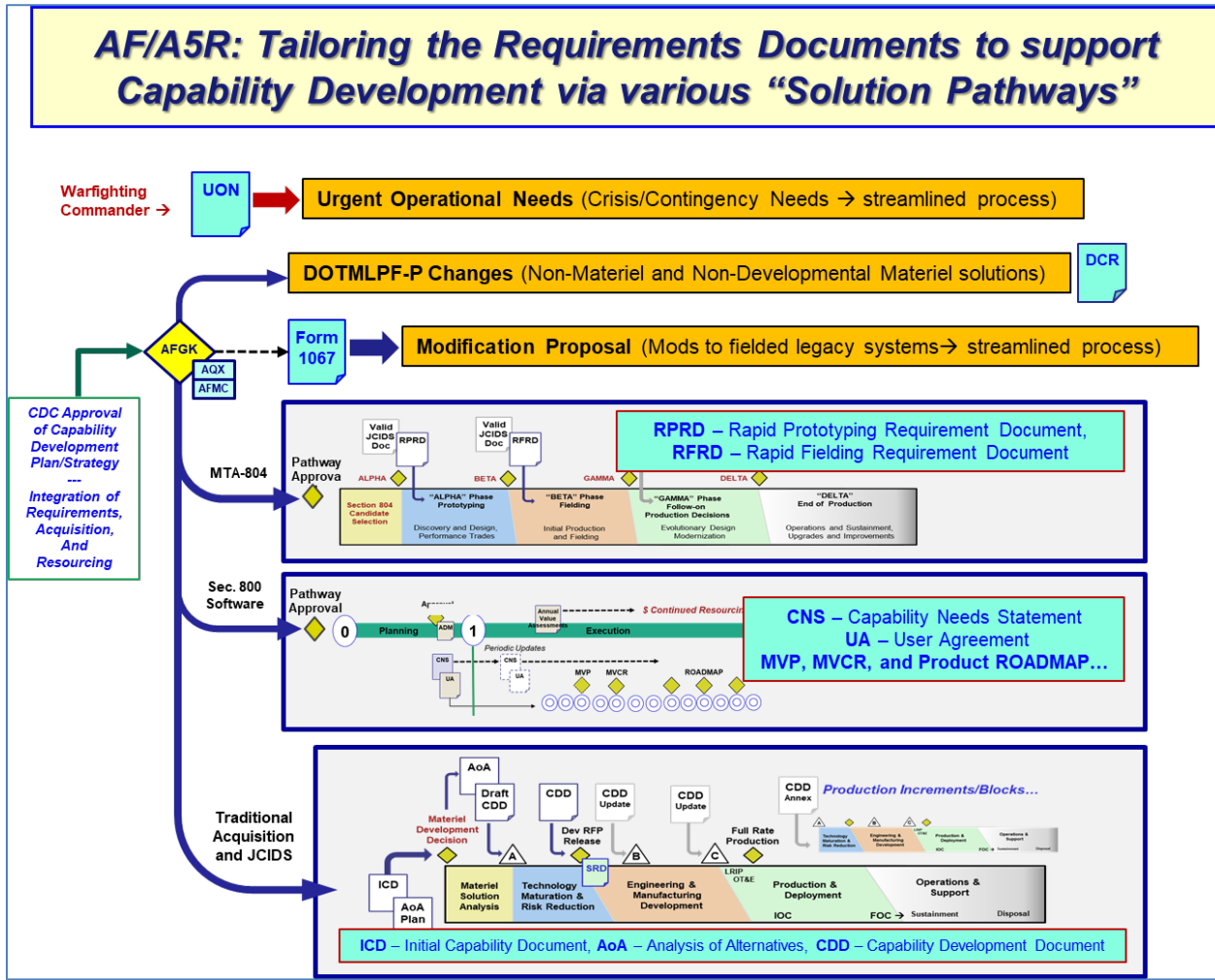
2.2. Solution Approach Pathway Selection [led by the MAJCOM/Agency Sponsor in conjunction with Program Manager, Program Office reps]. Each particular solution approach/pathway option has a distinct implementation process, often with unique oversight, governance, policies and associated documentation.

Goal. The main goal 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 and comply with senior leader direction and applicable strategic guidance.

- *NOTE: Each solution pathway and the associated requirements document is 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 A5R Guidebook volume, as shown in Figure 2.1 above, and as described in the following paragraphs.*

<u>AF/A5R Process -- Solution Pathways and associated Requirements Documents</u>. The solution approaches/pathways and associated requirements documents governed by <u>the AF/A5R process</u> are used primarily to develop and field new warfighting systems and other operational capabilities with direct impact on Joint warfighting. The solution pathways and <u>requirements </u>document types are updated periodically to remain aligned with overarching defense department solution policies and guidelines.

- <u>Urgent Needs</u>. For urgent acquisition of materiel solutions associated with combat/contingency operations; <u>with a goal of achieving </u>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, see A5R Guidebook, Vol 2.

- <u>DOTMLPF-P Changes</u>. For non-materiel and non-developmental materiel solutions. Associated Requirements Document(s): DOTMLPF-P Change Recommendation (DCR), i.e. AF-only DCR or Joint DCR. For more detail, see A5R Guidebook, Vol 3.

- <u>Weapon System Modification Proposals</u>. For upgrades and enhancements to fielded systems. Modification Proposals are documented, reviewed and approved using the AF Form 1067, *Modification Proposal.* For more detail, see A5R Guidebook, Vol 4.

- <u>Middle-Tier of Acquisition Pathway</u>. For materiel solutions via Rapid Prototyping or Rapid Fielding <u>efforts than can be </u>completed within 5 years. To provide the "approved requirements" necessary to support middle tier efforts, sponsors have the option <u>to 1)</u> <u>propose using </u>an existing requirements document, <u>for approval by AF/A5R </u>to support the <u>middle tier </u>effort, or <u>2) propose developing </u>a new requirements document specifically for the middle-tier effort, i.e. a Rapid Prototyping Requirement Document (RPRD) or a Rapid Fielding Requirement Document (RFRD). For more detail, see A5R Guidebook, Vol 5<u>.</u>

- <u>Section 800 Software Pathway</u>. For software-intensive systems or application development, <u>capable of being </u>fielded with 1 year. Associated Requirements Document(s): Capability Need Statement (CNS) and User Agreement (UA). For more detail, see A5R Guidebook, Vol 6<u>.</u>

- <u>Major Systems Acquisition</u>. The traditional process for new warfighting system<u>s via </u>development and/or production contracts. Associated Requirements Document(s): Initial Capability Document (ICD) and Capability Development Document (CDD), including variants for Information Systems (IS-ICD, IS-CDD). For more detail, see A5R Guidebook, Vol 3<u>.</u>

  NOTE: <u>*Solution pathways for non-warfighting mission areas *</u>*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 A5R Guidebooks. Sponsors in these other areas wishing to use any of the documents or pathways under the authority of AF/A5R follow the process and guidelines as described herein. Refer to Section 3 below for more detail on Sponsor Roles and Responsibilities.*

<u>Developing a Roadmap by Combining Solution Pathways.</u> Solution pathways rarely provide capability in isolation, and often need to be combined in meaningful ways to achieve the intended outcome <u>and deliver an actual capability</u>. A "Roadmap" to meeting the capability needs may be made up of combinations of multiple lines of effort along distinct pathways. This may 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:

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

- JCIDS pathway for a traditional materiel approach, where the analysis of alternatives reveals a commercially available (non-developmental) product or decision to utilize middle-tier authority for rapid production and fielding.

- Modification Proposal to upgrade mission equipment and hardware or computing capacity, etc. on a legacy platform, combined with a "sec.800" Software Pathway for development of a 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.

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, SAF/SP and SMC, AFLCMC, A4, etc.), test & evaluation, interoperability (A6), intelligence (A2) and risk/analysis (A9, AF/A5RA-OAS). Stakeholders may include outside agencies, other services, joint staff, OSD, etc.

- *NOTE: Refer to **Section 3** for further detail on Key Stakeholders and their subject matter areas.*

- *NOTE: Sponsors are encouraged to work through AF/A5RP to 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.*

Figure 2.2. Tailorable AF Process for SPR and associated Requirements Document Development (not applicable for Urgent Needs and AF Form 1067 Modification Proposals)
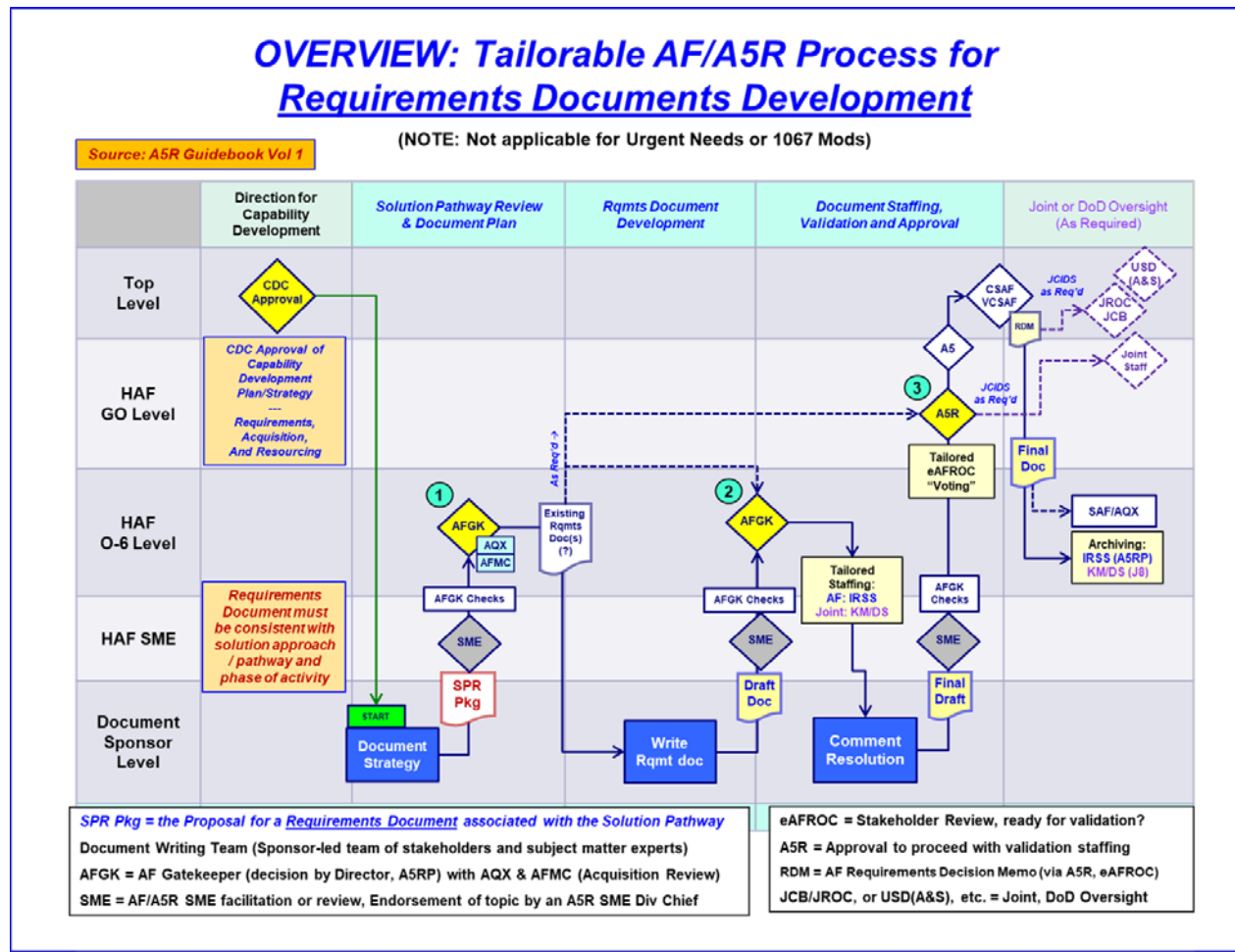
2.3. Solution Pathway Review (SPR) [decision by the AFGK, in consultation with SAF/AQX, and AFMC/A5R]. Following collaboration with key stakeholders to develop the solution strategy and course(s) of action, the Sponsor (working through their IRSS POC and the AF/A5R SME) submits the topic via IRSS for AFGK review prior to convening a document writing team for document development.

- Requirements document development begins only after the Sponsor has engaged all key stakeholders to develop a viable solution approach and course(s) of action for potential solution pathway(s) to address requirements gaps typically identified by a CBA or similar study, or following DOTMLPF-P analysis or completion of an AoA – or based on current operations in the case of urgent needs or modification proposals.

- With the exception of Urgent Needs and Modification Proposals, formal HAF-level approval (via the Solution Pathway Review) is required prior to a 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.

o *Note: The AF/A5R Urgent Needs process begins when a warfighting commander submits an urgent operational need (UON) for review and validation. The validation criteria determines whether or not it is appropriate to the use the urgent needs process/pathway, and this validation decision serves the same purpose as the SPR.*

o *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 it into a more robust document similar to a traditional JCIDS document. This iterative review inherent in the Modification Proposal process meets the same intent of the SPR.*

Formal HAF-level approval (via a Solution Pathway Review) is required prior to a Sponsor convening a document writing team or conducting substantive document development activity. Specifically, Sponsors are not to begin development of requirements document(s) until the solution pathway (and associated document strategy) has been reviewed and approved by the AFGK, in consultation with SAF/AQX and AFMC/A5R.

- The AFGK is the approval authority for AF Sponsors to convene a document writing team, but the decision may be elevated to AF/A5R if required to review significant changes that may 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.)

Purpose of the Solution Pathway Review (SPR): The main purpose of the SPR is to ensure the Sponsor is ready to convene the Document Writing Team for document development. This includes reviewing the timing, program status, funding, team membership, and the location/format for the proposed document writing event.

- *GOAL: The overall goal of the Solution Pathway Review by the AFGK is to preclude AF Sponsors from accomplishing substantive work on a requirement document 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) and then they have to re-accomplish previous work, or get stuck on a path for a document that is inconsistent with the accepted approach for solution implementation.*

SPR Worksheet. The Sponsor (working through their IRSS POC and the AF/A5R SME) submits a completed SPR worksheet to AF/A5RP via IRSS not later than 21 days prior to the start of the proposed document writing event. See the AF/A5RP Portal page for SPR Worksheet template and checklist.

- SPR Worksheet; completed by Sponsor (all questions need to be answered) and endorsed by Sponsor requirements policy office (O-6 level) which includes a Proposed Plan of Action & Milestones (POAM) with a timeline for completion of the document (see below)

- The SPR Worksheet is available on the AF Portal (www.my.af.mil); navigate to "Organization A to Z", then enter the keyword "A5RP".

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 systems engineering, test, sustainment, and acquisition-intelligence analysts.)

- *NOTE: Each solution pathway and requirement document is tailored to support the proposed solution approach. Refer to the applicable A5R Guidebook volume for further detail on the specific*

procedures and approval criteria for each particular type of document.

SPR - Decision/Approval. The AFGK provides the document Sponsor with specific guidance and required actions to be accomplished (as necessary). The formal AFGK decision and associated actions are documented in writing (e.g. memo, email, staff summary, decision chart, etc.) and archived in IRSS.

- *NOTE: Any direction or action items must be accomplished by the Sponsor before convening the document writing team or during the document writing event, etc. (as applicable or as directed). Compliance with AFGK direction will be verified before the draft document will be accepted for review and staffing (or as directed).*

2.4. Key Tenets of AF Requirements Document Development. The main purpose of all requirements document development activity is to facilitate 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; and 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 reality. 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.*

KEY TENET -- STABILITY. Stable support for capability requirements and resourcing are important for successful 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 program reviews conducted under the governance of the acquisition and requirements processes.

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 materiel acquisition approaches, the Program Manager (PM) is responsible for the systems engineering trade analysis showing how cost and capability vary with major design parameters in materiel acquisition programs. For more detail, refer to DoDI 5000.02T, Enclosure 8.

KEY TENET -- TIMELINESS. Timing 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. 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 a better price or a better 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:

  o *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 making should utilize the most expeditious means available; electronic staffing and/or direct communication is the preferred method of review whenever practical.

  o *NOTE: Decision/approval authorities should be delegated to the lowest level commensurate with the activity and in a manner that promotes timely action.*

  o *NOTE: The MAJCOM/Agency 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*

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.

2.5. IRSS (AF) and KM/DS (Joint) Staffing Tools

Information & Resource Support System (IRSS). IRSS (pronounced "iris") is a 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 memo's.

- *NOTE: Each AF organization/office responsible for reviewing capability-requirements documents (including documentation and briefings related to the CBA/study or AoA) designates 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/A5RP, Special Projects Branch. 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.*

Knowledge Mangement/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/A5RP ensures copies of AF-sponsored documents are archived in both IRSS and KM/DS.*

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

SECTION 3. REQUIREMENTS OVERSIGHT and GOVERNANCE

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

Authority. The Chief of Staff of the Air Force (CSAF) is designated as the Chief Requirements Officer for the AF. The Deputy Chief of Staff, Strategy, Integration and Requirements, AF/A5 (through the Director, AF/A5R) is the OPR for implementation of AF operational capability requirements development, as

described in the HAF Mission Directive 1-7. The AF/A5RP Division Chief is the process owner and AF waiver authority for activities of the AF/A5R requirements document process.

- *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.*

Section 3A – Headquarters Air Force (HAF)-Level Requirements Oversight

3.1. HAF Requirements Subject Matter Expert (SME). AF/A5R 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 an AF/A5R division, the designated AF/A5R Division Chief works 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 SME facilitates communication between the MAJCOM/Agency Sponsor and the various HAF and Joint requirements process owners and stakeholders and assists in providing prep sessions for senior leaders prior to decision meeting and other forums. The designated AF/A5R Division Chief provides an O-6 level endorsement of each assigned topic as part of the AF Gatekeeper review (as described below).

3.2. AF Gatekeeper (AFGK). The Division Chief, AF/A5RP (O-6/GS-15 level) serves as the AFGK; day to day functions are handled at the Process Integration branch level (and/or the Special Projects branch, for topics classified higher than Collateral Secret). 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) are not to go direct to Joint Staff without first contacting AF/A5RP.

- An AFGK Review is conducted by AF/A5RP along with an appropriate AF/A5R division(s), HAF Subject Matter Expert (HAF SME) including other stakeholders as appropriate (e.g. AF/A5RA-OAS, SAF/AQX, AFWIC, AFMC/A5R, etc.) to assess a Sponsor's readiness to meet the entry criteria for the next step in the process. In order to ensure successful development of the right document, at the right time, with the right people involved, Sponsors contact AF/A5RP for AFGK Review prior to beginning substantive work on any particular requirements document.

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

3.3. AF Capability Development Council (CDC). The AF capability development governance bodies (Working Group and Council) serve to prioritize, integrate, and verify new and ongoing capability development efforts across the enterprise to ensure key strategic questions related to operational capability have AF senior leadership direction. The capability development governance is part of the Air Force Warfighting Integration Capability (AFWIC, or AF/A5A) which operates under the authority of AF/A5, but is separate and distinct from AF/A5R. For more detail, refer to the *Charter for the AF Capability Development Council*.

- CDC interaction with AF/A5R Requirements Document Development. The capability development governance bodies provide oversight for AF-sponsored operational capability studies and analysis and associated documentation (i.e. CBA or similar study and AoA) intended or expected to result in, or support the development of, appropriate operational capability requirements document(s).

- Special Instructions.

o The capability development governance bodies do not have authority to direct "execution of an AoA". The AoA is a formal part of the Materiel Solution Analysis (MSA) Phase of acquisition, therefore, an Acquisition Decision Memorandum (ADM) signed by the Milestone Decision Authority (MDA) for the program, authorizing or directing the AF/Sponsor to begin execution of an AoA, is required prior to conducting a formal "AoA" study. For additional detail, refer to DoD Instruction 5000.02T.

o The capability development governance bodies do not validate/approve the capability requirements document(s) nor do they direct or approve development of specific JCIDS documents or other requirements documentation. Before beginning substantive work on any particular operational capability requirements document (as described in the A5R Guidebooks), Sponsors contact the AFGK (via AF/A5RP) for a Solution Pathway Review (SPR) to coordinate approval for a tailored requirements document strategy that is consistent with the preferred solution pathway. AF/A5R is responsible for matters pertaining to the development and documentation of operational capability requirements, as described in HAF MD 1-7.

- *NOTE: The review of CBA or AoA results by the capability development Governance bodies is not a "validation" in the JCIDS sense, but rather serves to establish the AF position on the results, and/or a decision on recommended alternative(s), and preferred course(s) of action. The CDWG or CDC may recommend alternative(s) different from those suggested in the study when such a decision would better serve the management and prioritization of AF Capability Development and Strategic Planning.*

- *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, refer to the Appendix 2 of this Guidebook.*

- *For additional detail on the AF process for the AoA, refer to A5R Guidebook, Vol 3.*

3.4. 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/Agency 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/A5R serves as the AFROC Chairman and decision authority regarding recommendations made during AFROC review.

- *NOTE: AFROC review may be conducted in-person, virtually (e.g. VTC) or via electronic staffing (as an "eAFROC") utilizing IRSS. In the interest of expediting JCIDS and DAS 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.*

3.5. Air Force Requirements Decision Authority (RDA). Pursuant to 10 U.S.C. 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 decision authority as determined and designated by AF/A5R.

The CSAF has delegated RDA designation responsibility to AF/A5R, per 31 Aug 2018 AFRDM. The AF/A5R adopted construct for designation of AF RDA is outlined in the table 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".)*

AF Requirements Decision Authority (RDA)	Criteria for Designation (by law, by logic, by similar level to the acquisition and resourcing decision authority)
CSAF	• 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	• JROC Interest (non-MDAP) • Specifically designated as such by VCSAF or higher
AF/A5	• JCB Interest (including AF sponsored Joint DCRs) • Programs where SAF/AQ is MDA
AF/A5R	• JCB Interest (as delegated by AF/A5) • 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
MAJCOM/Agency (GO/SES Level)	• 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 product support strategy) following AF-level approval of fielding/transition decision
MAJCOM/Agency (O-6 Level)	• MAJCOM-only programs where a PM is MDA (including modification proposals below $100M) • Actions within program office resourcing/budget authority

Section 3B - Joint Requirements Oversight

3.6. 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 *CJCSI 5123 (JROC Charter and Implementation of JCIDS)*.

- *NOTE: AF/A5RP 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: The Division Chief, AF/A5RP 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.*

3.7. 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 Division Chief, AF/A5RP 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/A5R.*

3.8. 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 *CJCSI 5123 (JROC Charter and Implementation of JCIDS)* for further detail.

- *NOTE: The Director, AF/A5R serves as AF Principal to the JCB and the Division Chief, AF/A5RP serves as the "plus one".*

3.9. 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/A5R serves as the "plus one".*

3.9.1. 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 the CDC and AFROC oversight. The Director, AF/A5R is the AF representative to the CREB. For more information, contact the HAF lead for Cyber Requirements, AF/A5RK.

3.9.2. 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 3C - Additional Oversight

3.10. 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 is the approval authority for 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.

- *NOTE: For those AoAs where Director, CAPE elects not to provide oversight, the Capability Development Council (CDC) Chair may serve as the decision authority (may be delegated, but no lower than the GO/SES level).*

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

- *NOTE: In situations where the AoA Study Lead and/or SAG elects to significantly revise the conditions, assumptions, mission tasks, or alternatives after the Capability Development Working Group (CDWG) and/or CDC review, the AF Sponsor notifies the CDWG chair. In such cases, the CDWG may request the Sponsor provide an interim progress briefing to the CDWG or CDC.*

3.11. (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 consistent with the chosen 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.*

- *For more detail on the Acquisition Pathways, refer to DoDI 5000.02, Operation of the Adaptive Acquisition Framework.*

3.12. Joint Program Reviews. Sponsors coordinate with the appropriate AF/A5R Division and the AF/A5RP FCB Lead and obtain AF/A5R approval (as a minimum) 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 4 – ROLES and RESPONSIBILITIES

4.1. Requirements Sponsor

NOTE: Requirements sponsorship is assigned to a MAJCOM/Agency or HAF Organization such as a Cross-Functional Team (CFT) or HAF Lead Organization (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 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/A5R Requirements 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 4.3** of this Guidebook.

- Conduct studies and analyses with direct assistance from AF/A5RA-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 5000.02T) 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 from the parent capability requirements document(s) and avoid unintended/unnecessary cost growth or schedule delays. Provide coordination as described in AFI 63-101/20-101.

- Consult with the appropriate AF/A5R Functional Division 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 AF/A5R Division Chief-level approval (as a minimum) prior to submitting any presentation(s) for 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/A5RA-OAS. Follow the guidance described in the AF/A5RA-OAS CBA and AoA Handbooks.

- Submit a Study Initiation Notification memo for CDC Governance approval prior to initiating any CBA (or similar study) or AoA and obtain CDC Governance approval for all associated CBA and AoA activity and associated documentation.

- Notify the CDWG Chair before initiation or participation in any study or analysis activities, regardless of AF or non-AF sponsorship or leadership. Provide CDWG Chair 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 forecast of upcoming requirements development events for all programs in their portfolio, including estimated dates for upcoming document development events. Submit topic forecasts AF/A5RP for planning purposes.

- Adhere to the procedural guidance as described in the *AF/A5R Requirements Development Guidebooks*, to the maximum extent practical, and contact AF/A5RP to coordinate deviations and exceptions/exemptions or requests for tailoring, etc.

4.2. 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 4.1. Summary of Key Requirements Stakeholders

Office Symbol	Functional Area of Responsibility
SAF/AQ	Oversees implementation of the Adaptive Acquisition Framework policies and procedures: OPR is SAF/AQX
	SME for Development Planning, Experimentation, and Engineering: OPR is SAF/AQR
	Co-Secretariat of the Capability Development Council: OPR is SAF/AQR (along with AF/A5A)
SAF/CN	Liaison with Joint Staff J6 for Interoperability and Net-Ready Attribute: OPR is SAF/CZNA
	SME for DoD Architecture Framework (DoDAF) and products: OPR is SAF/CNZA
	SME for Cyber Security strategies and accreditations: OPR is SAF/CNZP
SAF/IE	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
	SME for energy, environment, infrastructure (e.g. MILCON, facilities), occupational health and safety (excluding aviation and weapon safety): OPR is SAF/IEE
SAF/SP	Oversight of acquisition management and feasibility review for programs under the Space and Missile Systems Center (SMC): OPR is USSF/S5R
AF/SE	SME for Air Force aviation, occupational, weapons, space and system mishap prevention and nuclear surety programs and policy: OPR is the AF Safety Center
AF/SG	SME for Medical Capabilities and Equipment: OPR is AFMRA/SG3
AF/A2/6	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
	SME for Information Operations: OPR is AF/A2/6/CX with AF/A3CX
AF/A3	Oversight of Headquarters AF Flight Standards Agency (HQ AFFSA) as the SME for Airfield Operations: HAF OPR is AF/A3O
	Oversight of AF Agency for Modeling and Simulation (AFAMS) and SME for AF Operational Training Infrastructure (OTI): OPR is AF/A3TI
	SME for Integrated Air and Missile Defense (IAMD): OPR is AF/A3TY
	SME for AFSPECWAR (formerly Battlefield Airmen): OPR is AF/A3S
	SME for Air Force Weather capabilities: OPR is AF/A3W
	Requirements Authority for Aircrew Flight Equipment (AFE) programs
	Requirements Authority for Electronic Flight Bag (EFB): via AFFSA and HQ AMC

AF/A4	SME for Civil Engineering and Explosive Ordnance Disposal: OPR is AF/A4C
	SME for Fire Protection and Emergency Services: OPR is AF/A4C
	SME for Air Force Emergency Management: OPR is AF/A4C
	SME for Chemical, Biological, Radiological and Nuclear (CBRN) Defense: OPR is AF/A4C
	SME for Security Forces, Nuclear Security and Base Defense: OPR is AF/A4S
AF/A5	Co-Secretariat of the Capability Development Council (CDC): OPR is AF/A5A (with SAF/AQR)
	Oversight of AF Operational Capability Requirements process: OPR is AF/A5RP
	Secretariat of the AF Requirements Oversight Council (AFROC): OPR is AF/A5RP
	SME for Capability Studies and Analysis: OPR is AF/A5RA
	SME for Combat Air Forces capability requirements: OPR is AF/A5RC
	SME for Conventional Munitions inventory and capability requirements: OPR is AF/A5RW
	SME for non-nuclear Command & Control and Communications requirements and Intelligence, Surveillance and Reconnaissance requirements: OPR is AF/A5RI
	SME for Air Mobility, Special Operations, and Personnel Recovery: OPR is AF/A5RM
	SME for Cyber capability requirements: OPR is AF/A5RK
	SME for Space capability requirements: OPR is AF/A5RS (until transferred to OCSO)
	SME for Electronic Warfare: OPR is AF/A5L
AF/A8	Oversight of AF Planning and Programming (resourcing process): OPR is AF/A8X and AF/A8P
AF/A9	SME for conducting studies, analyses, assessments, and modeling & simulation for capability, capacity, and risk
AF/A10	SME for Chemical, Biological, Radiological and Nuclear (CBRN) Survivability issues: OPR is AF/A10S
	SME for Counter-WMD Enterprise: OPR is AF/A10S
	SME for Nuclear Weapons Delivery: OPR is AF/A10C
	SME for Nuclear Command, Control and Communications (NC3): OPR is AF/A10N
	SME for Arms Control, International Treaties and Agreements: OPR is AF/A10P
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 acquisition management and feasibility review for programs under: - AF Life Cycle Management Center (AFLCMC) - AF Nuclear Weapons Center (AFNWC) - AF Security Forces Center (AFSFC) - AF Civil Engineering Center (AFCEC)
HQ AETC	SME for Force Development Training and Education issues

4.3. Requirements Manager Certification Training (RMCT). The following guidance outlines the implementation of the AF RMCT Program.

- *NOTE: The possession of a training completion certificate represents the RMCT "certification" -- there is no additional paperwork or process to certify someone… as long as 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.*

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 identify and update the status of their RMCT positions to AF/A5RP annually.

NOTE: The following are considered AF key positions for RMCT certification:

- Solution Pathway Development (Sponsors)

- Solution Pathway Review/Approval (HAF)

- Study leads (Sponsors), AF/A5RA-OAS Advisors

- Document 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).

AF RMCT Levels: All AF organizations determine the appropriate RMCT certification levels for their assigned positions/personnel using the following guidance:

Level A. Positions in which duties involve contributing to the requirements process by reviewing and commenting on documents, providing technical, domain or subject matter expertise, or support to staffing and coordination of requirements documents.

- Training Required for Level A Certification: AF Requirements Orientation Briefing and the Defense Acquisition University (DAU) CLR 101 online course. Note: CLR 101 is optional for GO/SES positions, they take RQM 403 or RQM 413 (refer to Level D below). Possession of a training completion certificate (or other formal evidence of training completion) for CLR 101 constitutes the Level A RMCT Certification.

- AF Examples: IRSS POC, executive officer for a requirements senior leader, admin support for requirements documents, JCIDS packages and/or actions.

Level B. Positions in which duties include "significant" and direct involvement with requirements generation and document development.

- Training Required for Level B Certification: AF Requirements Orientation Briefing, and the DAU CLR 101 and RQM 110 online courses. Possession of a training completion certificate (or other formal evidence of training completion) for RQM 110 constitutes the Level B RMCT Certification.

- AF Examples: 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.

Level B+. Same criteria as Level B, plus positions designated by organization as requiring additional expertise in Requirements Policy and Process (e.g. HAF/Sponsor Policy & Process personnel, Requirements Team Leads, etc.) Training for Level B+ is the same as Level B, plus the AFIT REQ 211

classroom course. Possession of training completion certificates (or other formal evidence of training completion) for RQM 110 and REQ 211 constitutes the Level B+ RMCT Certification.

- *NOTE: beginning in FY17 the REQ 111 course was re-designated as REQ 211, AF Capability Requirements Development. Members who previously completed REQ 111 are encouraged, but not required to compete REQ 211 (it is essentially the same course with a new name.)*

Level C. Positions in which duties are primarily providing leadership and supervision in requirements generation and document development; and organizational representatives to JCIDS forums to include FCB Working Groups, FCB, JCB and JROC.

- Training Required for Level C Certification: AF Requirements Orientation Briefing, the DAU CLR 101 and RQM 110 online courses, and the RQM 310 resident course taught at Fort Belvoir, VA. Possession of a training completion certificate (or other formal evidence of training completion) for RQM 310 constitutes the Level C RMCT Certification.

- AF Examples: AF representative to FCB or Integration forums, JCB/JROC alternate or "plus one" (below GO/SES level), Requirements Division Chief or Deputy Director (below GO/SES level).

Level C+. Same criteria as Level C, plus positions designated by organization as requiring additional expertise in Requirements Policy and Process (e.g. HAF/Sponsor Policy & Process personnel, Requirements Team Leads, etc.) Training for Level C+ is the same as Level C, plus the AFIT REQ 211 classroom course. Possession of training completion certificates (or other formal evidence of training completion) for RQM 310 and REQ 211 constitutes the Level C+ RMCT Certification.

- *Note: beginning in FY17 the REQ 111 course was re-designated as REQ 211, AF Capability Requirements Development. Members who previously completed REQ 111 are not required to compete REQ 211 (it is essentially the same course with a new name.)*

Level D. (GO/SES positions only) Positions in which duties include approving draft documents for submittal into JCIDS, providing senior leadership and oversight of analysis/assessments, requirements generation, document development, coordination, and validation/approval.

- Training Required for Level D Certification: AF Requirements Orientation (tailored, as required), and either RQM 403 (3-star/below or civilian equivalent) or RQM 413 (4-star level). Completion of either RQM 403 (3-star level and below) or RQM 413 (4-star level) constitutes the Level D RMCT Certification.

- *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 403 for a 3-star or lower position, then completion of RQM 413 for the 4-star position would be considered optional, at the discretion of the member.*

- AF Examples: Commander, Director of Requirements, JCB/JROC principal.

Training and Certification Timeline. Failure to complete the certification training by the applicable suspense date(s), or earlier as 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.)

- AF Requirements Orientation Briefing: completed within first 30 days (standard briefing developed and maintained by AF/A5RP to be used by all AF organizations). Tailored briefings are suitable for GO/SES level orientation, as required.

- DAU CLR 101 and RQM 110 (or RQM 403/413, for GO/SES members) course(s), IAW JCIDS Manual: completed within first 90 days.

- RQM 310 course (level C): completed after being in the position for approximately 4-6 months, but no later than 12 months.

  o *NOTE: DAU metrics indicate the optimum time to attend RQM 310 is when personnel have attained 4-6 months of experience working in their associated requirements positions/duties.*

- REQ 211 course (select positions): should be completed after being in the position for approximately 4-6 months, but no later than 12 months, as available.

  o *Note: beginning in FY 17 the REQ 111 course was re-designated as REQ 211, AF Capability Requirements Development. Members who previously completed REQ 111 are not required to compete REQ 211 (it is essentially the same course with a new name.)*

4.4. Document Writing Team [led by the MAJCOM/Agency Sponsor]. The document writing team concept is used to develop AF-sponsored requirements documents, with the exception of Urgent Needs and AF Form 1067 Mod Proposals.

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 for teams writing ***JCIDS documents.*** To comply with JCIDS guidance, for any documents subject to JCIDS oversight, the Sponsor's team lead and the Acquisition POC must be RMCT Level B certified. All other team members must complete RMCT Level A as a minimum, and are highly encouraged to be RMCT Level B certified.

- *Refer to the **Section 3** of this Guidebook for further information on Requirements Manager Certification Training (RMCT).*

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

- Document Team Lead. The Sponsor designates an appropriately experienced requirements 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/A5R and/or SAF/SP (for SMC programs) provide assistance to the Sponsor and AFGK in identifying the appropriate acquisition POC(s) to participate on the document writing team.*

- HAF Facilitator(s). A representative from AF/A5R (normally the A5R SME and/or Sponsor Policy rep) will often assist the document writing team. In situations where an AF/A5R SME are unable to participate, AF/A5RP can provide training materials and other assistance, as needed. Additionally, AF/A5RP maintains checklists, guides, templates, best practices and tips to ensure consistency and standardization in AF document development. See the **AF/A5RP Portal page**.

- 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 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 below for sample document writing team membership.

Document Writing Team -- MEMBERSHIP
Core Membership: Team Lead (Sponsor rep), Acquisition POC (PM or Systems Engineer), Test, Intel, Communications, Logistics/MX, other service/agency users **HAF Facilitator(s):** AF/A5R SME (if available)
Support Membership: Resources**:** HAF Planning and Programming (Panel reps), SAF/FM, Manpower Acquisition and Test: SAF/AQ, AFMC/A5R, Program Office, AF/TEP, AFOTEC Supportability and Survivability: 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/A5RK (Cyber), AF/A5L (Electromagnetic Spectrum Survivability) Other: SAF/A6 (DODAF Architectures), AF/A9 (Risk Assessments), AF/A5RA-OAS Reps (Analysis) Policy & Process: AF/A5RP and Sponsor POC's, AF/A5R FCB rep (Joint Staff POC's)

- *Refer to Section 3 for further detail on Key Stakeholders and roles.*

Sample Plan of Action & Milestones (POAM) for Document Development:

- **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 to respond to corrective actions

- **Document Writing Event: 4-5 days** up to **7-10 days** for a CDD; virtual events or other approaches for document development 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 and Tailored Staffing: 5-10 days** for initial AFGK checks and cleanup followed by **14-21 days** for formal staffing and review. 21 days is the standard JCIDS timeline.

- **Comment Resolution: 30 days** (max). At the end of the 30 days, the Sponsor must submit an updated document and a report of any unresolved comments. This is the standard JCIDS timeline. Comment adjudication that drags on for months is not acceptable…

- **Validation Staffing:** tailored 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/A5R, or AF/A5 – and at least **10-14 days** for a decision memo signed by VCSAF or CSAF. AF/A5RP 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 another **10 days** to get a coordinated/signed JROCM

- *For further detail on procdural steps and timelines, refer to the applicable A5R Guidebook Volume for the specific document/process.*

Appendix 1 - GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Charter for the Air Force Capability Development Council (CDC)

HAF MD 1-7, *Deputy Chief of Staff for Strategy, Integration and Requirements (AF/A5)*

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

AFI 99-103, *Test and Evaluation*

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

CJCSI 5123, *Charter of the Joint Requirements Oversight Council* (JROC) and Implementation of JCIDS

Manual for the Operation of Joint Capabilities Integration and Development System

DoDD 5000.01, *Defense Acquisition System [under revision]*

DoDI 5000.02, Adaptive Acquisition Framework (AAF)

DoDI 5000.02T, *Operation of the Defense Acquisition System (DAS) [Transitional - under revision]*

AF/A5RA-OAS *CBA Handbook*

AF/A5RA-OAS *Measures Handbook*

AF/A5RA-OAS *AoA Handbook*

AF/A5RP Requirements Page on the AF Portal (*requires AF Portal sign-on to gain access)*:

 https://www.my.af.mil; navigate via "Organizations", then type in "A5RP Requirements".

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

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Requirements Process 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. 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.

Air Force Warfighter Integration Capability (AFWIC) – In this Guidebook, AF/A5A performs all "AFWIC" duties: The AFWIC concept is to centralize the Air Force's focus on innovation, concept development, capability development and future force design. The AFWIC explores and war-games innovative solutions, develop an integrated Family of Concepts, and lead capability development efforts across the Air Force. Through those efforts, AFWIC develops a single, multi-domain future force blueprint that will identify, guide, and prioritize future force development and resource alignment improving Air Force agility, readiness, and lethality in the joint fight

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 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."

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.

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 Unites (DRUs) may also be designated as Lead Commands. [Governed by AFPD 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. This decision directs execution of the AoA, and authorizes entry into the Materiel Solution Analysis Phase of acquisition.

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]

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Requirements Process Abbreviations and Acronyms

ACAT - Acquisition Category

ADM - Acquisition Decision Memorandum

AFGK - AF Gatekeeper

AoA - Analysis of Alternatives

APA - Additional Performance Attrribute

CBA - Capabilities-Based Assessment

CDC - Capability Development Council

CDD - Capability Development Document

CDM - Capability Decision Memo

CDWG - Capability Development Working Group

CI - Configuration Item

CIP - Critical Intelligence Parameter

COTS - Commercial off the Shelf

CPD - Capability Production Document (old term)

CRM - Comment Resolution Matrix

CTE - Critical Technology Element

DA – Decision Authority (as used in acquisition)

DCR - DOTmLPF-P Change Recommendation

DP - Development Planning

EMD - Engineering & Manufacturing Development

FCB - Functional Capabilities Board

FOC - Full Operational Capability

GOTS - Government off the Shelf

ICD - Initial Capabilities Document

IOC - Initial Operational Capability

IRSS - Information & Resource Support System

IS - Information System

JCA - Joint Capability Area

JCB - Joint Capabilities Board

JROC - Joint Requirements Oversight Council

JROCM - JROC Memorandum

JSD - Joint Staffing Designator

KM/DS - Knowledge Management & Decision Support (system)

KPP - Key Performance Parameter

KSA - Key System Attribute

LRIP - Low-Rate Initial Production

MDA - Milestone Decision Authority

MDD - Materiel Development Decision

MOE - Measure of Effectiveness

MOP - Measure of Performance

MOS - Measure of Suitability

MTA - Middle Tier of Acquisition (aka "804")

"804" is a reference to 10 USC, section 804

OAS - AF/A5RA Office of Aerospace Studies

OT&E - Operational Test and Evaluation

PM - Program Manager

RDM - Requirments Decision Memo

RFP - Request for Proposal

SME - Subject Matter Expert
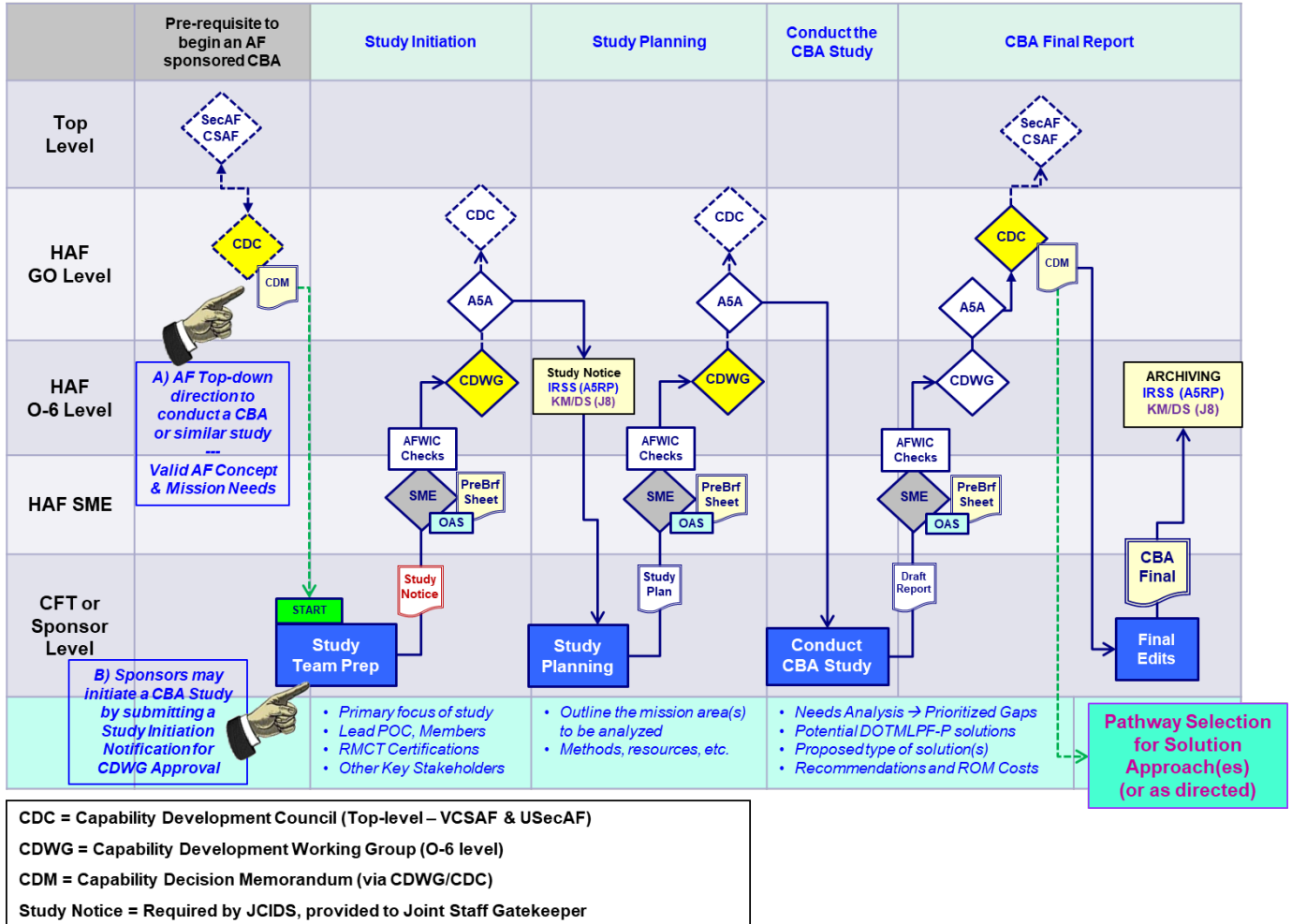
S&T - Science & Technology

SoS - System of Systems

SPR - Solution Pathway Review

T&E - Test and Evaluation

Appendix 2 - PROCESS GUIDE for CAPABILITY BASED ASSESSMENT (CBA)

Figure A2.1 CBA Process -- Overview

CDC = Capability Development Council (Top-level – VCSAF & USecAF)

CDWG = Capability Development Working Group (O-6 level)

CDM = Capability Decision Memorandum (via CDWG/CDC)

Study Notice = Required by JCIDS, provided to Joint Staff Gatekeeper

A2.1. Capabilities Based Assessment (CBA) or Similar Study. The CBA is an assessment of assigned roles, missions, functions and operations to identify capability requirements, associated gaps and proposed materiel and/or non-materiel solutions to reduce or mitigate gaps.

Purpose: The purpose of the CBA is to inform decisions about an appropriate path forward to address the capability requirements and reduce or eliminate any associated gaps. Sponsors are expected to establish effective dialog with all key stakeholders to fully define the scope of the operational deficiency.

- *NOTE: For further detail, refer to AF/A5RA-OAS CBA Handbook, available on the A5RP Portal Page.*

Study Team: Ideally, core membership for a CBA Study Team will be the appropriate AF/A5A Functional Integration Division Lead, and include representatives from the appropriate mission area, Lead Command, Operating/Implementing Command(s), HAF Division(s), AFMC office of SDP&E, representatives from other agencies/services, combatant commands, and others as needed.

- *NOTE: Sponsors must use Requirements Manager Certification Training (RMCT) certified requirements managers for the CBA/study and writing the Final Report. To comply with JCIDS guidance, Study Leads for CBA or any studies likely to result in development of JCIDS documents must be at least RMCT Level B (i.e. RQM 110 course). Study Sponsor/Lead should also complete CBA/study training provided by AF/A5RA-OAS, as well as the DAU online continuous learning module, CLR 250 Capabilities Based Assessment.*
  - *NOTE: Study Team planning, study activity and CBA/study document development (study initiation, study plan, and final report) must include direct assistance from AF/A5RA-OAS and AF/A5A. Study leads must be familiar with the AF/A5RA-OAS CBA Handbook as it represents the approved AF guidance and best practices for conducting the CBA/study.*

- *NOTE: All studies involving nuclear deterrence capabilities or missions must include direct assistance from the AF Nuclear Red Team (AFNRT). Due to the sensitive nature and limited distribution of AFNRT findings, study leads need to utilize an AFNRT advisor/consultant to inform the study. OPR is the AF Nuclear Weapons Center (AFNWC.NT.Workflow@us.af.mil).*

- *NOTE: MAJCOM/Agency POCs need to notify AF/A5RP before initiation or participation in any study or analysis activities, regardless of AF or non-AF sponsorship/leadership. Provide AF/A5RP with courtesy copies of any study initiation, guidance, study plan, and final report for any non-AF studies and analyses in which AF MAJCOM/Agency members are participating*

Studies Repository. The Joint Staff maintains a studies repository to facilitate visibility into, and potential reuse of, studies related to capability requirements and operational capability requirement documents.

- *NOTE: To comply with JCIDS direction, organizations conducting studies must provide results of any studies or analyses intended to support capability requirement documents to the studies repository. Refer to the JCIDS Manual for further detail.*

The CBA/study process consists of three major steps (and associated documentation produced by the Sponsor) as described below:

A2.1.1 Step 1) Study Initiation.

Study Initiation Notice. To comply with JCIDS guidance, regarding any study (e.g. CBA or similar) intended for or likely to drive submission of new capability requirements in the JCIDS process, Sponsors (working through the AF/A5R SME) must provide a Study Initiation Notice via IRSS for review and approval by the CDWG (or higher), followed by submission to the Joint Staff Gatekeeper.

- *NOTE: If a CBA (or other study) is in response to top down direction (e.g. Joint Staff, JCB/JROC, OSD, or CDWG/CDC), the designated MAJCOM/Agency Sponsor is still required to develop a Study Initiation Notice and submit it for CDWG (or higher) approval (as described in the following section) prior to proceeding with development of the CBA Study Plan or formal CBA activity.*

Purpose: The main purpose of a Study Initiation Notice is to inform the AF and Joint community, allow important stakeholders to participate, and to ensure the CBA/study informs important capability development decisions. To improve the quality of CBAs and other similar capability studies — and to manage the expectations for what the study will and will not answer—the following information should be addressed in the Study Initiation Notice.

Format/Content. The Study Initiation Notice is a memo, signed by the Sponsoring MAJCOM/Agency Director of Requirements (or designated representative). The notional length of a Study Initiation Notice is two to three pages, but it may be more or less depending upon the complexity of the issue.

1. Summary/Overview

- Per JCIDS, the Study Initiation Notice must contain the following elements:

    o Title of study, executive summary/purpose

    o Participating organizations and intended completion date

    o Study Sponsor/Lead POC contact information

    o Tier 1-3 JCAs, or lowest JCA tier related to primary focus of study

    o AF use only: Linkage to Family of Concepts (FoC), Design Blueprint (DB) and Capability Development Guidance (CDG)

2. Justification -- Answer the question - Why it is important to conduct this CBA/study now?

- Discuss why this specific mission area or bounded set of activities needs to be assessed at this time. Reference AF/A9 risk assessments, or other authoritative document (AF/CC signed flight plan, presidential/congressional direction, Air Force Strategic Master Plan, etc.). If this CBA/study does not link to documented sources, then provide a discussion of why this effort benefits the Air Force. The AF is short of analytic resources and the intent is to show why this is a 3-star appropriate piece of work that needs to be done now.

- Identify key dependencies with other efforts. Does/will other work answer some of the key questions? Does previous analysis scope out some aspects of the problem? Will this effort in turn defer part of the problem to subsequent studies that this effort will feed?

- Identify the expected next step(s), i.e. key decisions the CBA/study is intended to support.

3. Scope -- Answer the question - What is the proposed scope of the CBA/study?

- Identify what specific mission area or bounded set of activities will be addressed by the assessment and/or analysis, and why that scope is appropriate.

- Identify the timeframe(s) (near, mid, or far) in which this capability is anticipated to deliver, and if known, the operational scenarios and missions that will be examined.

- Identify the questions to be answered by the assessments and/or analysis, and what major questions will remain after this study is completed. These are very important pieces of the Study Initiation Notice and the questions should link back to the decision(s) identified above: what will the CBA/study answer that will inform those decisions?

4. Study Execution

- Provide a short synopsis (1-2 paragraphs) of the analytic approach/methodology. Literature search? Statistical analysis of past data? Campaign modeling? Basic physics first principles? SME voting? Major data sources: actual data, DIA projections, data call from industry, etc.? Typically there will be several approaches and data sources.

- Expected schedule (when will it start, when is it expected to be finished), and what resources (money and manpower) will be used to conduct the assessments and/or analysis.

- Identify key precursor products: Joint Concepts, JCAs related to the primary focus of the study, Service CONOPS, Family of Concepts (FoC), Design Blueprint (DB), baseline architectures, threats and how they affect the schedule / resources needed.

- Which organizations are proposed to be on the core team executing the CBA/study?

- Identify any key challenges to meeting the timeline. This is especially true if the CDWG, SDP&E, or CDC structure may be able to facilitate getting past the challenge.

- Identify the anticipated classification level of the assessment/analysis and study report

Approval of Study Initiation Notice and Issuance of Study Guidance (as required). Sponsors obtain CDWG (or higher) approval prior to proceeding with development of a CBA Study Plan. The approval decision and associated actions/guidance related to the study are documented in writing (e.g. capability decision memo, meeting minutes, email, staff summary, decision chart, etc.) and archived in IRSS.

- *NOTE: AF/A5R SME (in consultation with AF/A5RA-OAS) provides a review/assessment of the Study Initiation Notice and this review must be conducted prior to CDWG review/approval.*

Approval Authority. The CDWG is the review/approval authority for Study Initiation Notice. The CDWG Co-Chairs may elect to elevate the level of approval (e.g. AF/A5A, AF/A5, or CDC as appropriate).

- *NOTE: Approval includes both the AF decision and direction/guidance regarding 1) approval of the proposed study initiation and 2) approval to forward the Study Initiation Notice to Joint Staff (for dissemination via KM/DS), or to other organizations as applicable.*

Approval Criteria. In order to substantiate follow-on JCIDS requirements development activities, the Study Initiation Notice needs to address the following issues:

- Study Sponsor/Lead must be certified to at least RMCT Level B, i.e. the RQM 110 course.

- Problem statement, purpose, scope and schedule are clear and appropriate

- Timeframe and Operational Context to be used are consistent with strategy

- Key Stakeholders are identified and represent the correct set of skills for the study

- AF/A5RA-OAS POC and AF/A5R SME are identified for direct support to the Study Team

Study Termination Notice. If the CBA/study is terminated prior to providing any significant results, the Sponsor (working through the AF/A5R SME) must provide a Study Termination Notice (via IRSS) for review by the CDWG, followed by submission to the Joint Staff Gatekeeper. Include the following information in the Study Termination Notice:

- Include the date and title of study from the original Study Initiation Notice.

- Purpose/reason for cancellation, and Sponsor POC contact info.

A2.1.2 Step 2) Study Planning.

CBA Study Plan. A CBA Study Plan is developed to detail the approach to be followed in conducting the CBA/study. Additional guidance is available in the AF/A5RA-OAS *CBA Handbook*.

- *NOTE: To comply with JCIDS guidance, Sponsors must use RMCT certified requirements managers for development of the CBA Study Plan. Study Leads for CBA or similar studies likely to result in development of JCIDS documents must be certified at least RMCT Level B (i.e. RQM 110 course).*

- *NOTE: Sponsors and Study Teams conduct CBA planning and develop the CBA Study Plan with direct assistance from AF/A5RA-OAS.*

Entry Criteria (Prerequisites) for development of the CBA Study Plan. A CDWG (or higher) approved Study Initiation Notice is required prior to initiating development of the CBA Study Plan.

- *NOTE: If a CBA (or other study) is in response to top down direction (e.g. Joint Staff, JCB/JROC, OSD, or CDWG/CDC), the designated Lead Command/Sponsor is still required to develop a Study Initiation Notice and submit it for CDWG (or higher) approval (as described in 2.1.1 above) prior to proceeding with development of the CBA Study Plan or formal CBA activity.*

Approval of CBA Study Plan. The sponsoring MAJCOM/Agency POC submits the draft Study Plan and supporting materials (via IRSS) for CDWG (or higher) approval prior to proceeding with CBA/study activity. The approval decision and associated actions are documented in writing (e.g. capability decision memo, meeting minutes, email, staff summary, decision chart, etc.) and archived in IRSS.

- *NOTE: The AF/A5R SME (in consultation with AF/A5RA-OAS) conducts a review/assessment of the Study Plan and this review must be completed prior to CDWG review/approval.*

Approval Authority. The CDWG is the review/approval authority for the CBA Study Plan. The CDWG Co-Chairs may elect to elevate the level of approval (e.g. AF/A5A, AF/A5, or CDC as appropriate).

Approval Criteria. In order to substantiate follow-on JCIDS requirements development activities, the CBA Study Plan needs to address the following issues:

- Study Sponsor/Lead must be certified to at least RMCT Level B, i.e. the RQM 110 course.

- CBA/study planning n involved direct assistance from AF/A5RA-OAS.

- Format and Content consistent with the AF/A5RA-OAS *CBA Handbook*

- Problem statement, purpose, scope and schedule are clear and appropriate and defined

- Timeframe and Operational Context to be used are clear and appropriate

- Security classification level and clearance levels necessary for the study

- Team Members and Stakeholders represent the correct set of skills for the study

- AF/A5RA-OAS POC and AF/A5R SME are identified for direct support to the Study Team

Completion/Exit Criteria for the CBA Study Plan. A Study Plan approved by the CDWG (or higher) completes the CBA Study Plan development.

A2.1.3. Step 3) CBA/Study Activity and Final Report.

CBA Final Report. The CBA/study Final Report captures and presents the methodology and results of the assessments and analysis derived from the Study Guidance and Study Plan. Additional guidance is available in the AF/A5RA-OAS *CBA Handbook*.

- *NOTE: To comply with JCIDS guidance, Study Leads for CBA or similar studies likely to result in development of JCIDS documents must be certified at least RMCT Level B (i.e. RQM 110 course).*

- *NOTE: Sponsors and Study Teams conduct the CBA Activity and develop the Final Report with direct assistance from AF/A5RA-OAS.*

Entry Criteria (Prerequisites) for conducting the CBA/study. A CDWG (or higher) approved Study Plan is required prior to proceeding with the execution of any AF-led CBA or similar study.

- *NOTE: The CBA/study must be conducted in accordance with the approved Study Initiation Notice, and Study Plan including any additional guidance from the CDWG or CDC (or higher).*

Review of the Final Report. After the Sponsor/Study Team develops the CBA/study Final Report the sponsoring MAJCOM/Agency POC submits the document and any supporting materials (via IRSS) for CDWG review followed by CDC (or higher) review and approval/decision on a selected course(s) of action.

- *NOTE: The AF/A5R SME (in consultation with AF/A5RA-OAS) provides a review/assessment of the CBA/study Final Report and this review must be conducted prior to CDWG review.*

Review and Decision Authority. The CDC is the review/decision authority for the review of the CBA/study Final Report and selection of course(s) of action. The CDC Chair may elect to elevate the level of approval (e.g. CSAF or SecAF as appropriate).

- *NOTE: The review of the AF CBA/study results by the CDWG and CDC is not an "approval" (in the strict sense), but rather serves to establish the AF position on the results, and/or a decision on recommended alternative(s), and selected/preferred course(s) of action. The CDC may recommend alternative(s) different from those suggested in the study when such a decision would better serve the management and prioritization of AF Capability Development and Strategic Planning.*

Review Criteria. In order to substantiate follow-on JCIDS requirements development activities, the CBA/study needs to address the following issues:

- Study Sponsor/Lead must be certified as RMCT Level B (or higher).

- CBA/study activity and Final Report involved direct assistance from AF/A5RA-OAS.

- Identification and prioritization of gaps and the degree of gap closure needed (all, or only partial) and recommendations regarding which gaps may not need to be addressed at this time (i.e. which gaps area at an already acceptable level of risk).

- Rough estimation of the degree to which each gap could potentially be mitigated by recommendations concerning the changes to Tactics, Techniques and Procedures (TTPs).

- Rough estimation of the degree to which each gap could potentially be mitigated with changes in DOTmLPF-P (non-materiel or non-developmental materiel solutions) rather than pursuing a new "Big M" developmental materiel solution. This should include recommendations concerning any Joint DCRs or AF-only DCRs that should be developed.

- Recommendations about whether buying additional quantities of a previously fielded system would mitigate the gap. This should include recommendations concerning any Joint DCRs or AF-only DCRs that should be developed.

- Recommendations about whether S&T investments would be needed prior to initiation of any acquisition activities and concepts must be technically feasible within likely programmatic limits.

- Recommendations as to which gaps could be mitigated by making changes to ongoing acquisition efforts, and which ones may require a new materiel solution and should be included in an ICD.

- Identification of the key values and the trade space analysis that define the key values.

- Identification of the rough order of magnitude (ROM) cost estimates for each of the identified potential solutions (non-materiel or materiel).

- Identification of potential system dependencies on enabling capabilities, data and efforts (e.g. Intelligence Community data, infrastructure, sustainment, etc.).

- Identification and scope of additional information/analysis needed prior to initiation of any acquisition activities; to include ICD development or MDD request.

<u>Completion/Exit Criteria for the CBA/study Final Report.</u> A copy of the CBA/study Final Report (or study termination notice) reviewed by the CDWG and/or CDC (or higher) specifying the decision and/or recommendations for a way ahead/COA selection are documented in writing (i.e. capability decision memo) and archived in IRSS.

- The Sponsor POC submits the final version of the report (including any required edits) via IRSS and AF/A5RP submits a copy to the Joint Staff for archiving in the KM/DS Studies Repository.

- <u>CBA/study outcomes and course(s) of action</u>. The review of the CBA Final Report informs senior leader decisions in various AF processes (SPPBE, JCIDS, Acquisition, etc.) as to the course of action to take to address the results based on operational risk, affordability and numerous other factors. Potential outcomes may include (but are not limited to) any of the following:

  o Accept the operational risk, maintain status quo – no further JCIDS action
  o Conduct further analysis, market research, S&T investments, etc. (including direction to contact/work with appropriate office or organizations to support these efforts.)
  o Support advocacy for establishing a resourcing/funding strategy if one does not already exist (may include direction to contact/work with appropriate office or organization to support planning/programming actions and assignment to an appropriate resource allocation panel, Lead Command, program office, program element, etc.)
  o Endorsement of "non-materiel" solution approach, e.g. TTP change, organizational change, or changes to DOTmLPF-P via a formal Joint, etc., and funding/resourcing strategies, etc. (including direction to contact/work with appropriate office or organizations, proceed to SPR (submitted to AFGK for approval prior to convening the document writing team), etc.)
  o Endorsement of materiel/acquisition solution approach, including approval to proceed with development of strategies for acquisition and requirements, and to identify appropriate documentation and funding/resourcing strategies, etc. (including direction to contact/work with appropriate office or organizations, proceed to SPR request (submitted to AFGK for approval prior to convening the document writing team), etc.)