

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 10-601

31 JULY 2006



Operations

**CAPABILITIES-BASED REQUIREMENTS  
DEVELOPMENT**

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OPR: HQ USAF/A5RD

Certified by: HQ USAF/A5R  
(Maj Gen Stanley Gorenc)

Supersedes AFI10-601, 30 July 2004

Pages: 74

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This Air Force Instruction (AFI) implements Air Force Policy Directive (AFPD) 10-6, *Capabilities-Based Planning & Requirements Development*, Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01, *Joint Capabilities Integration and Development System*, Chairman of the Joint Chiefs of Staff Manual (CJCSM) 3170.01, *Operation of the Joint Capabilities Integration and Development System*, and CJCSI 6212.01, *Interoperability and Supportability of Information Technology Systems and National Security Systems*. It establishes the guidelines, policies and procedures for defining, developing, documenting, validating, approving, and managing Air Force capabilities-based requirements in support of the *Defense Acquisition Management Framework*. This AFI must be used with the policies in Department of Defense Directive (DoDD) 5000.1, *The Defense Acquisition System*, DoD Instruction (DoDI) 5000.2, *Operation of the Defense Acquisition System* (collectively called the DoD 5000-series), and National Security Space (NSS) Acquisition Policy 03-01, *Guidance for DoD Space System Acquisition Process*. This AFI must be used in conjunction with AFI 63-101, *Operations of Capabilities-Based Acquisition System*, AFI 10-602, *Determining Mission Capability and Supportability Requirements*, AFI 10-604, *Capabilities-Based Planning* and AFI 99-103, *Capabilities-Based Test and Evaluation*. This AFI applies to all Air Force personnel who develop, review, approve, manage, or use documents in the Air Force Capabilities-Based Requirements Development Process. This instruction applies to all unclassified, collateral, compartmented and special access programs. Adherence is mandatory, except when statutory requirements, DoD or Joint Staff (JS) directives override. If there is any conflicting guidance between this AFI and DoD 5000-series, NSS 03-01, CJCSI 3170.01, CJCSM 3170.01, the latter (DoD 5000-series, NSS 03-01, or CJCSI/M 3170.01) shall take precedence. Any organization may supplement this instruction. Send proposed supplements or recommended changes to this instruction to Headquarters (HQ) USAF/A5R, 1480 Air Force Pentagon, Washington, DC 20330-1480; email: [reqmnts@pentagon.af.mil](mailto:reqmnts@pentagon.af.mil). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFPD 37-1, *Information Management*, and AFMAN 37-123, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://afrims.amc.af.mil>.

**SUMMARY OF CHANGES**

The most significant changes to this AFI are discussions on Joint Capability Documents, Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) Change Recommendations (DCR), deletion of “Stages” associated with Initial Capability Documents, introduction of Air Force Capabilities Document (AFCD) and the process to transition from capability-based planning to capability-based requirements development.

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## Chapter 1

### VISION & IMPLEMENTATION CONCEPTS

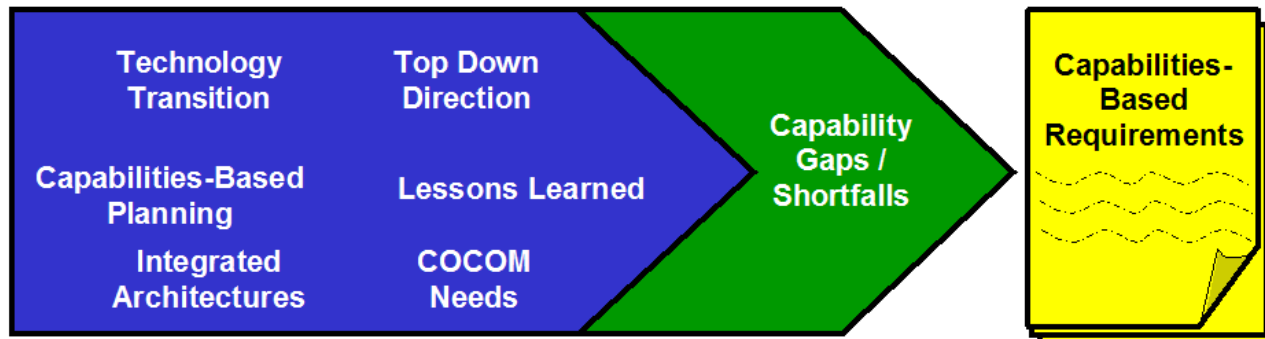
**1.1. Vision.** The intent of this instruction is to facilitate rapid development and fielding of affordable and sustainable operational capabilities needed by the combatant commander. The primary goal is to fulfill stated defense strategy needs with effects based, capabilities-focused materiel and non-materiel solutions. The overarching strategic guidance detailed in the National Security Strategy, National Defense Strategy (NDS), National Military Strategy, planning guidance outlined in the Quadrennial Defense Review (QDR), Strategic Planning Guidance, Joint Programming Guidance, Transformation Planning Guidance, and the family of Joint Operations Concepts (JOpsC) lays the foundation for the Air Force's needed capabilities. Capabilities are employed to achieve desired effects in support of these strategies. The Air Force must be innovative and flexible in the way it resources current and future defense strategies. The Air Force must be able to integrate functions such as strategic planning, capabilities-based planning, capabilities-based requirements development, acquisition and sustainment activities, and program and budget execution.

**1.2. Joint Capabilities Integration and Development System (JCIDS).** The Air Force capability development process is closely linked and complies with its joint overarching guidance, JCIDS. The JCIDS process is integrated with the acquisition process and exists to identify, develop, and validate defense-related requirements. JCIDS implements a capabilities-based approach that leverages the expertise of all government agencies and industry to identify improvements to existing capabilities and to develop new warfighting capabilities. The process validates warfighting capability needs while considering the full range of materiel and non-materiel solutions. New capabilities must be defined within the "art of the possible" and grounded within real world constraints of time, technology and affordability. Within DoD there is a distinct separation between the requirements authority and acquisition authority, which requires early and continued collaboration between both communities in order for the processes to work effectively together. As a collaborative effort, Air Force-sponsored JCIDS documents (independent of acquisition category level) are vetted through the Joint Staff Functional Capabilities Board (FCB) review process, as described in CJCSI 3170.01 and CJCSM 3170.01. To implement a capabilities-based approach, the FCB uses the family of JOpsC and Joint Capability Areas to establish a common understanding of how a capability will be used, who will use it, when it is needed and why it is needed to achieve a desired effect. Each capability should be assessed based on the effects it seeks to generate and the associated operational risk of not having it. The Joint Staff, Vice Director J-8, in the capacity of the Gatekeeper determines the capability proposal's Joint Potential Designator (JPD), which specifies JCIDS validation, approval and interoperability expectations.

**1.3. Acquisition Category (ACAT) Levels.** ACATs are described in DoDI 5000.2, *Operation of the Defense Acquisition System*. The three ACAT Levels (ACAT I, II, & III) are established to aid decentralized decision-making and to comply with Congressional and DoD direction. The Service component, with the help of the requirements sponsor, determines the ACAT level during capabilities development. Acquisition categories for systems are usually based on total research, development, test and evaluation (RDT&E) or procurement costs, but may also be designated at the discretion of the Milestone Decision Authority (MDA). An ACAT and MDA table can be found at: <https://www.xo.hq.af.mil/xor/xord/dod5000.htm>.

**1.4. Air Force Capabilities-Based Requirements Development.** Figure 1.1. depicts various elements that influence and define Air Force capabilities-based requirements development. Each of these elements identifies potential and core capabilities that the Air Force may invest in and field in the future.

**Figure 1.1. Contributing Elements to Air Force Capabilities-Based Requirements**



1.4.1. Capabilities-Based Planning (CBP). CBP is planning under uncertainty to provide capabilities suitable for a wide range of challenges and circumstances, all designed to achieve certain battlespace effects. The Air Force uses a capabilities-based planning process (the AF/A5X led Air Force's Capabilities Review & Risk Assessment [CRRA]) based on subjective, operational expertise and objective analysis to identify required capabilities and families of related capabilities, or capability objectives. JCIDS analysis and AF/A5X capabilities-based planning are primary contributors to the Air Force requirements development process, but top-down direction, urgent warfighter needs, technological opportunities, and experiments and demonstrations provide other means for identifying the need for a new capability. Refer to AFI 10-604 for details on Air Force CBP and CJCSI 3170.01 and CJCSM 3170.01 for details on JCIDS analysis.

1.4.2. Integrated Architectures. When developed in accordance with the DoD Architecture Framework, integrated architectures provide a consistent, complete, accurate, comparable and reusable description of the operational activities, skills, organizations, systems, systems functions and information that combine to provide capabilities. Integrated architectures accurately capturing the interrelationship of systems, operational activities and capabilities provide a basis for CBP, including the determination of gaps and shortfalls and the utility of proposed solutions.

1.4.3. Top-Down Direction. Higher authority may direct a sponsor to initiate the development and fielding of a new capability. Written direction from the Chief of Staff of the United States Air Force (CSAF) or higher authority fulfills the AFPD 10-6 requirement for identifying a capability need. However, the designated requirements sponsor is still responsible for conducting appropriate analysis and producing the capabilities-based requirements documents. In addition, the JCIDS process may direct multiple materiel solutions due to a system of systems (SoS) or a family of systems (FoS) approach that could result in driving top-down, capabilities-based requirements.

1.4.4. Combatant Commander's Needs. A Combatant Commander's need may identify a capability gap/shortfall (perhaps identified in their Integrated Priority List) that may be satisfied through the normal acquisition process or through the Rapid Response Process (RRP), as described in AFI 63-114, *Rapid Response Process*, and Attachment 3. For a normal acquisition, the Combatant Commander may perform the functional solution analysis (FSA) with internal resources and submit a completed Initial Capabilities Document to the Joint Staff for approval. However, the Combatant Commander



normally forwards a need to the force providing Service component. In turn, the sponsoring MAJCOM works with AF/A5X to validate the need and with AF/A5R to evaluate the need for an appropriate JCIDS document.

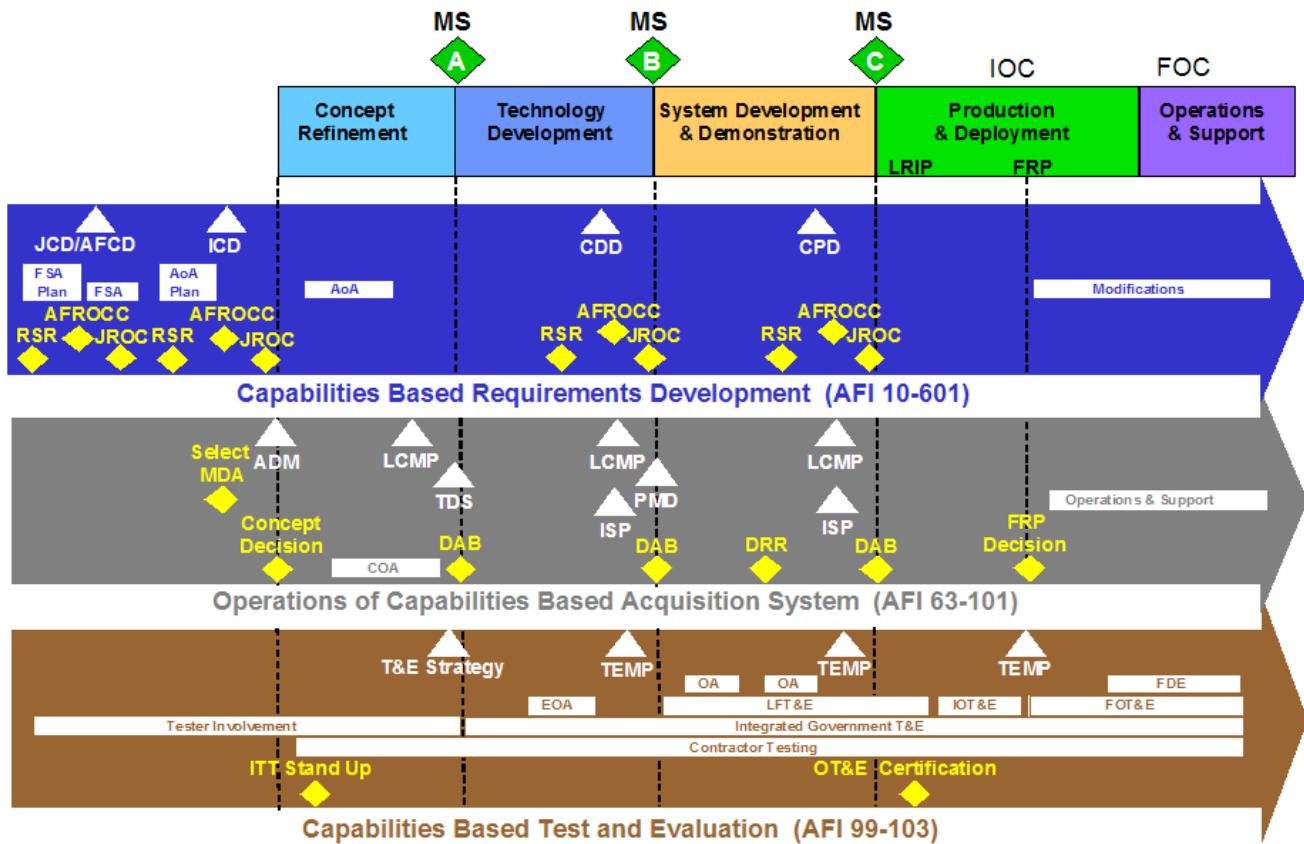
1.4.5. **Technology Transition Activities.** Throughout the capabilities-based requirements development process, the Air Force maximizes efforts to provide operators with capabilities built on superior and affordable technology. Current sources for capitalizing on technology transition are Advanced Technology Demonstrations (ATDs), Advanced Concept Technology Demonstrations (ACTDs), Joint and Air Force Battlelab experiments, operational exercises, wargaming, DoD and Air Force laboratory and research projects, and commercial sources identified within the Defense Science and Technology (S&T) Program. Evaluation results can lead to a sponsor developing an appropriate JCIDS document to facilitate technology transition.

1.4.6. **Air Force Lesson Issue Resolution Program (AFLIRP).** AFLIRP assigns Lessons Learned issues to Functional HAF and/or MAJCOM OPR's for validation, decisions and resolutions via programmatic and budgetary recommendations and DOTMLPF actions, to include development of DOTMLPF Change Recommendations (see [Chapter 7](#)). The AFLIRP monitors recommended corrective actions to conclusion and implementation. The program includes an AFLIRP Board which is an Air Force organizational body chaired by the AF/CVA responsible for addressing identified lessons and issues of critical importance to the Air Force. The AFLIRP Board is aligned with the AEF cycle, meets 3 times a year, and members include HAF-2 Letters and MAJCOM CVs. The board is supported by the AFLIRP Group (O-6's), chaired by AF/ D A9, and an AFLIRP Panel (AO level), chaired by AF/A9L.

**1.5. Implementation.** The Air Force requirements are driven by desired effects and needed capabilities. All stakeholders in the acquisition framework must know why the Air Force needs a particular capability, how and where it will be used, who will use it, when it is needed, and how it will be supported and maintained. For a materiel solution, fielding an operational capability starts with sound strategies for requirements, acquisition, test and evaluation (T&E) and support and sustainment. To be viable, these strategies must be developed in concert and require early and ongoing collaboration among operators, developers, acquirers, testers, sustainers and operations analysts. No one strategy can stand alone and still be viable since all are interdependent and require the integration of the others to be effective.

1.5.1. **Collaboration.** Expanding upon the JCIDS collaborative effort, there are three mutually supporting Air Force processes that facilitate the development and sustainment of operational capabilities: capabilities-based requirements development as described in this instruction; capabilities-based acquisition as described in AFI 63-101, *Operations of Capabilities-Based Acquisition System* (National Security Space Acquisition Policy 03-01 [NSS 03-01], *Guidance for DoD Space System Acquisition Process*, for applicable space programs); and seamless verification as described in AFI 99-103, *Capabilities-Based Test and Evaluation*. These processes are interdependent and require collaboration to rapidly deliver new capabilities to the operator. The three communities must use the guidance in all three instructions to integrate their efforts and create synergy. [Figure 1.2](#) depicts the integration of the three processes in relation to the overarching DoDI 5000.2 acquisition framework. Initiative specifics (i.e., ACAT level, JPD, etc.) may vary the actual steps executed within each process.

Figure 1.2. Integration of Requirements, Acquisition, and T&E Processes



1.5.2. Capabilities-Based Acquisition System. The primary goal of the acquisition system is to rapidly deliver affordable and sustainable capability that meets the operator’s needs. To achieve this goal, all stakeholders must collaborate in planning and execution activities that lead to developing, fielding and sustaining new operational capabilities. After required capabilities and performance attributes are defined and approved, they are used to guide development, test and evaluation, production, procurement, deployment, and sustainment of the new capability. Working with the operator, the acquirer balances cost, schedule, and performance in response to approved capabilities-based requirements documents.

1.5.2.1. Evolutionary Acquisition (EA). Evolutionary acquisition is the preferred DoD strategy for rapidly acquiring needed capability based on mature technologies. An evolutionary acquisition approach delivers capability in increments, recognizing up front the need for future capability improvements. The objective is to balance needs and potential capability with resources. The success of the strategy depends on consistent and continuous definition of capabilities-based requirements, and the maturation of technologies that lead to the disciplined development of systems that provide increasing capability.

1.5.2.2. Development Approaches. There are two approaches to evolutionary acquisition: spiral development and incremental development. In spiral development, a desired capability is identified, but the end-state requirements are not known at program initiation, and the requirement is met over time by developing an unspecified number of increments. Incremental development differs from spiral development in that a desired capability is identified, an end-state requirement is



known, but the requirement is met over time by developing several increments, each dependent on available mature technology. The operator, working with the acquisition community, must consider the relative importance of each increment of capability, its projected timeline, and the anticipated cost necessary to achieve the desired end-state capability.

1.5.3. **Integrated Test and Evaluation.** The overarching functions of T&E are to determine the operational capabilities and limitations of systems, to reduce risks, and to identify and help resolve deficiencies as early as possible. Integrated T&E combines developmental and operational test objectives to the maximum extent possible and provides assurance that systems will satisfy mission requirements in operational environments. Testers contribute their knowledge to the requirements and acquisition communities by verifying performance and mitigating risks in fielding new capabilities.

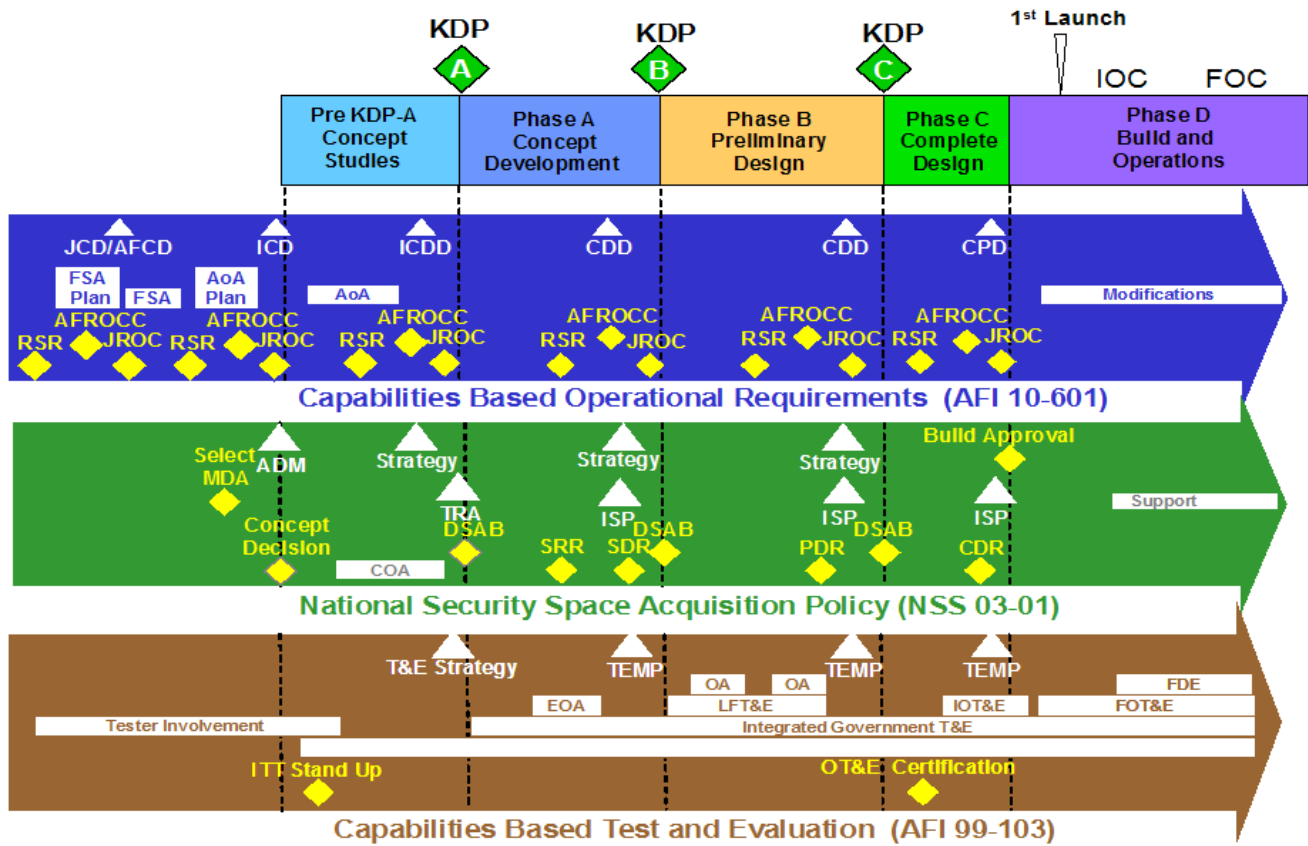
## **1.6. Space-Related Capabilities-Based Requirements Development.**

1.6.1. **Space-Related Capabilities-Based Requirements Policy.** Space system acquisitions are primarily governed by NSS 03-01. **Figure 1.3.** depicts the integration of the three processes in relation to NSS 03-01 acquisition framework. Since DoDI 5000.2 does not apply in many space-related capabilities, but the 3170 process does apply, some acquisition steps differ in timing. However, Air Force space-related capabilities-based requirements development is subject to AFI 10-601 processes and procedures.

1.6.2. **JCIDS Documents and Key Decision Points.** Although the NSS 03-01 uses Key Decision Points (KDP) instead of Milestones, the timing of JCIDS documents relative to KDPs is similar, but there are some subtle differences. An Initial Capabilities Document is required to support the Analysis of Alternatives and concept refinement activities prior to a KDP A decision. In addition, NSS 03-01 requires an approved initial Capability Development Document (iCDD) prior to KDP A. The iCDD will be updated after KDP A and will be used as the Capability Development Document (CDD) required to support a KDP B decision. The CDD will be updated again to incorporate what was learned during Phase B of the system acquisition and document refined thresholds and objectives for system attributes and key performance parameters (KPPs) and support KDP C. A Capability Production Document will be generated and validated/approved in time to support the Build Approval (low-rate initial production [LRIP] decision meeting for production-focus model).

1.6.3. **Validation and Approval Authority.** NSS 03-01 does not use the DoDI 5000.2 Acquisition Categories (ACAT I, II, III); instead it uses the equivalent dollar thresholds (or “special interest” designation) to identify Major Defense Acquisition Programs (MDAPs) (ACAT I) and non-MDAP. The DoDI 5000.2 ACAT levels and their associated dollar threshold values are used to determine the validation and approval authority levels for space-related requirements. Space acquisition programs can be ACAT I, ACAT II or ACAT III equivalent efforts. A space acquisition program should identify its ACAT equivalent level during the JCIDS validation and approval process.

Figure 1.3. Integration of Requirements, Space Acquisition, and T&E Processes

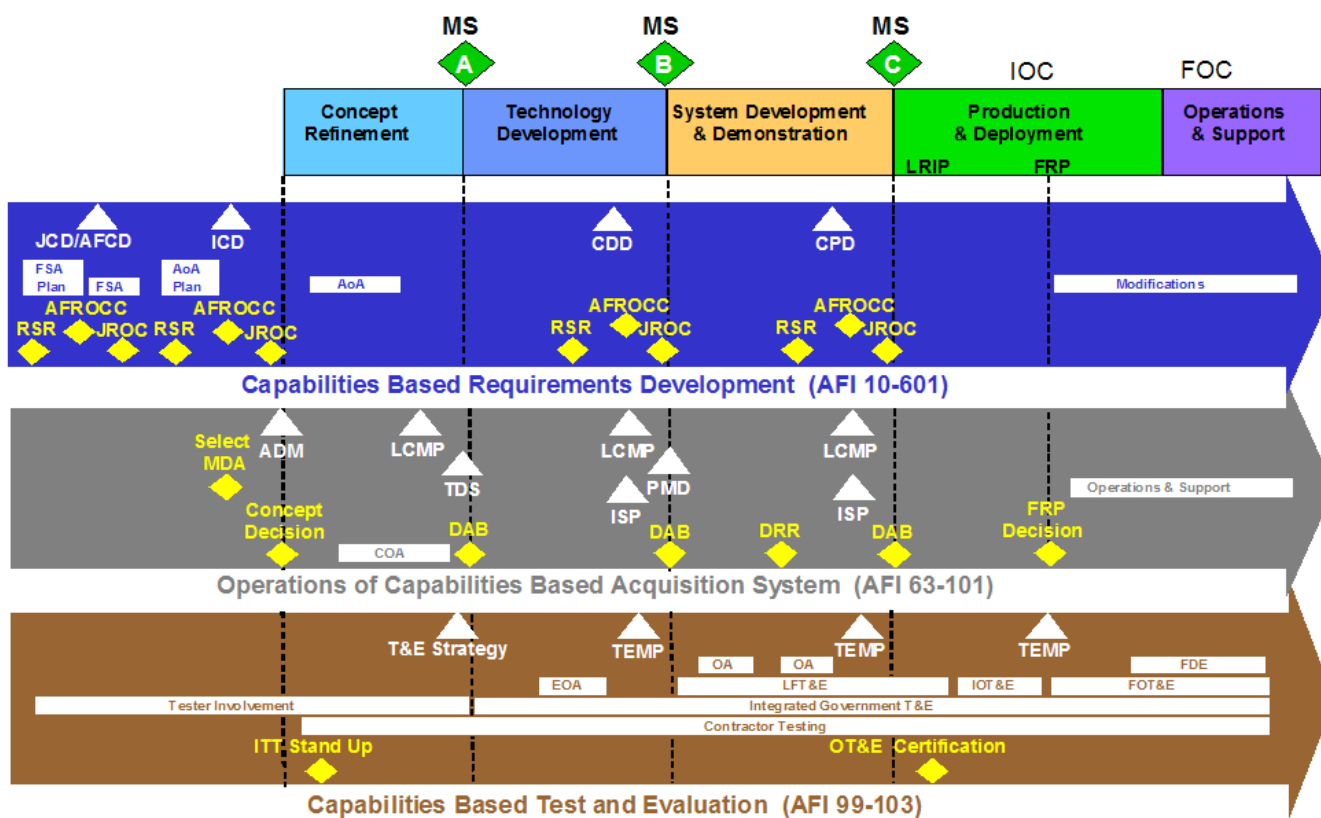


Chapter 2

OVERVIEW: AIR FORCE CAPABILITIES-BASED REQUIREMENTS DEVELOPMENT PROCESS

**2.1. Purpose.** This chapter details the Air Force capabilities-based requirements development process and provides guidance for Air Force requirements strategy, document preparation, validation, approval, and archiving. With the exception of the Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) Change Recommendation (DCR), capabilities-based requirements documents are developed to support acquisition activity as depicted in **Figure 2.1**. Within the Air Force, the MAJCOM or agency responsible for a capability or mission (referred to as the sponsor) normally develops requirements documents. In most cases, the sponsor determines when a specific requirements document is needed. However, the Office of the Secretary of Defense (OSD), the Joint Staff, or the Air Force Requirements for Operational Capabilities Council (AFROCC) may also direct development of a capabilities-based requirements document. This tasking will be directed to the appropriate Air Force sponsor.

Figure 2.1. Requirements / Acquisition / Test Documents Relationship



**2.2. Capabilities-Based Requirements Documents.** JCIDS directs the use of five types of documents for capabilities-based requirements. These are the Joint Capabilities Document (JCD), the Initial Capabilities Document (ICD), the Capability Development Document (CDD), the Capability Production Document (CPD), and the DOTMLPF Change Recommendation (DCR). Details on the use, content, and

format of JCIDS documents are located in CJCSI 3170.01 and CJCSM 3170.01. Additionally, the Air Force has established several alternative means for documenting capabilities-based requirements that are suitable in some situations. These are the Air Force Capabilities Document (AFCD), the Combat Capability Document (CCD), and the AF Form 1067, Modification Proposal.

2.2.1. Joint Capabilities Document (JCD). A JCD captures the results of a Functional Area Analysis (FAA) and a Functional Needs Analysis (FNA). The FAA identifies a set of capabilities that support a defined mission area utilizing associated Family of Joint Future Concepts, Concept of Operations (CONOPS) or Unified Command Plan-assigned missions. Analyzing what is required across all functional areas to accomplish the mission identifies the capabilities. The FNA compares the capability needs to the capabilities provided by existing or planned systems and identifies the gaps/shortfalls or redundancies. The JCD will be used as a baseline for one or more FSAs leading to the appropriate ICD or Joint DCR. A JCD can be developed by combatant commands, FCBs and combat support agencies with designated functional management roles. Air Force sponsors may develop a JCD if they have pre-coordinated with the applicable FCB to ensure they are not duplicating work. MAJ-COM sponsors will develop a JCD only when directed by AF/A5R. The activities associated with the development and coordination of a JCD are described in CJCSI 3170.01 and CJCSM 3170.01. Sponsors should consult with AF/A5RD if given responsibility for a JCD.

2.2.2. Initial Capabilities Document (ICD). An ICD documents the need for a materiel approach, or an approach that is a combination of materiel and non-materiel, to satisfy one or more specific capability gaps/shortfalls. It may build on an existing JCD or AFCD by documenting the results of an FSA for one or more capability gaps/shortfalls. If there is no predecessor JCD or AFCD, the ICD will document the results of a sponsor conducted FAA, FNA, and FSA. The ICD summarizes the analyses and identifies one or more approaches (materiel and non-materiel) that may deliver the required capability. The outcome of an ICD could be one or more DCRs or CDDs.

2.2.3. Capability Development Document (CDD). A CDD captures the information necessary to develop a proposed program, normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable and technically mature capability.

2.2.4. Capability Production Document (CPD). A CPD addresses the production elements specific to a single increment of an acquisition program.

2.2.5. DOTMLPF Change Recommendation (DCR). DCRs are generated by combatant commands, Services or agencies when it is necessary to change DOTMLPF resources to meet a capability gap/shortfall. The DCR focuses primarily on transformation efforts in the areas of doctrine, organization, training, materiel, leadership and education, personnel and facilities as well as policy. The DCR process focuses on changes that are primarily non-materiel in nature, although there may be some associated materiel changes (commercial or non-developmental) required. A DCR is normally developed when an ICD recommends a non-materiel approach, but may also result from an innovation, new technologies, experimentation, testing, capability reviews, combatant commanders' integrated priority lists, warfighting lessons learned, etc. **Chapter 7** contains instructions on the development and coordination of the DCR. For additional information on DCRs, see CJCSI 3170.01 and CJCSM 3170.01.

2.2.6. Air Force Capabilities Document (AFCD). An AFCD is normally generated by the sponsor as a result of the Air Force capability-based planning process and lays the foundation for additional analysis and discovery. An AFCD captures results of the broad FAA and FNA conducted during the AF/

A5X led capabilities-based planning process or an internal MAJCOM/Field Operating Agency (FOA)/Direct Reporting Unit (DRU) capabilities-based planning process. In most cases, the results of the FAA/FNA will be presented to the appropriate FCB to determine joint applicability. If it is determined that the FAA/FNA are not of joint interest and a JCD is not an appropriate course of action, the sponsor will proceed with the development of an AFCD if directed by A5R. An AFCD is not required prior to the development of all ICDs. Its primary purpose is to identify a broad set of Air Force capabilities and capability gaps/shortfalls that will require one or more FSAs. After the AFCD is validated by the AFROCC and approved by AF/A5R, the designated sponsor or sponsors develop an FSA study plan, which must be approved by the AFROCC prior to commencing the FSA. FSAs will include DOTMLPF analysis to identify one or more approaches (ICD, DCR, etc.) that may deliver the required capability.

2.2.7. **Combat Capability Document (CCD).** A CCD is a capabilities-based requirements document used by the Air Force in lieu of an ICD, CDD and CPD to support fielding an *interim* solution to a warfighter's urgent capability needs. A CCD activates the Air Force Rapid Response Process (as per AFI 63-114, *Rapid Response Process*) and supports fielding a short-term solution. The Lead MAJCOM should follow-up by processing the required JCIDS documents (ICD/CDD/CPD) for the long-term solution, sustainment activities, or to transition the CCD solution into a permanent program. CCDs are only used when other capabilities-based requirements documentation does not exist. **Attachment 3** contains instructions and criteria on the development, coordination, and approval of a CCD.

2.2.8. **AF Form 1067 Modification Proposal.** An AF Form 1067 documents the submission, review, and approval of requirements for modifications to fielded Air Force systems. **Chapter 8** contains instructions and criteria on the development, coordination, and approval of a Form 1067. AFI 63-1101, *Modification Management*, contains additional information on the modification process.

**2.3. Document Development, Review and Approval.** The following paragraphs describe the Air Force process for developing, coordinating, and approving JCIDS documents and the AFCD. This process complements, but does not replace, the JCIDS process established in CJCSI 3170.01 and CJCSM 3170.01. Refer to **Attachment 3** for procedures on processing a CCD, **Chapter 7** for DCR processes and **Chapter 8** for AF Form 1067 processes.

2.3.1. **Requirements Strategy Development.** The Air Force process is based on development and execution of a viable requirements strategy. The requirements strategy supports capability development by establishing the path and resources necessary to successfully advance through each acquisition phase and develop higher quality documents. Each strategy is tailored based on where the initiative is in the acquisition phase, and addresses strategy elements such as: joint interoperability/implications, funding, schedule, testing, sustainment, training, analysis, intelligence supportability, potential challenges and constraints, etc. The sponsor develops the requirements strategy in collaboration with Air Force acquisition, test, and logistics communities, as well as other appropriate stakeholders (e.g., combatant command, FCB Working Group, Services, Office of the Secretary of Defense/Program Analysis and Evaluation [OSD/PA&E]).

2.3.2. **Air Force Requirements Strategy Review (RSR).** Once the strategy is developed, the sponsor conducts a RSR with AF/A5R. The RSR is mandatory for all Air Force sponsored documents. During the RSR, AF/A5R reviews the requirements strategy, evaluates operator needs, ensures necessary Air Force/Agencies, OSD, Joint Staff and Services are involved, and provides any necessary guidance

to support the most effective acquisition approach. The RSR should occur at least 30 days before the High Performance Team (HPT) meeting to allow for AF/A5R directed requirements strategy changes. The RSR briefing is coordinated with an assigned AF/A5RD HPT facilitator and HQ USAF Subject Matter Expert (SME). After AF/A5R approval, AF/A5RD archives a copy of the RSR briefing and RSR minutes in the Air Force Requirements Document Library. RSR scheduling, procedures and briefing templates are located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

2.3.3. Air Force High Performance Team (HPT). An AF/A5RD facilitated HPT must be used to develop capabilities-based requirements documents unless waived by AF/A5R at the RSR. An HPT consists of a lead (normally the sponsor), core and support team members. During the RSR, AF/A5R approves the core team (ideally 7 - 11 members, consisting of SMEs from the Air Force, government agencies, and other Services as required). Support team membership provides “reach-back” expertise in areas not represented by the core team. The HPT accelerates the documentation process and increases the potential for a quality document. Its overarching objective is to capture, articulate, and document the operator’s requirements in minimum time, while achieving stakeholder buy-in. The HPT leverages the expertise of all stakeholders by inviting them to participate in the development of the document. The HPT lead maintains responsibility for the document throughout the review and approval process. Documents generated by an AF/A5RD-facilitated HPT are allowed to conduct simultaneous Air Force, Joint Staff, Service, and Agency coordination, whereas, non-HPT documents are staffed sequentially. HPT membership and staffing process information is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

2.3.4. Document Review. Initiation of document review is dependent on the sponsor’s requirements strategy. Once a document enters review, it follows established procedures and timelines outlined in **Attachment 2** of this instruction and on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>. Note: AF/A5R has delegated Air Force Flag level review tasking authority to AF/A5RD for all JCDs, AFCDs, DCRs, ICDs, CDDs, and CPDs. To accomplish this task, AF/A5RD sub-tasks other HQ USAF organizations and directs them to execute the staffing process to obtain the HQ USAF and Secretariat positions.

2.3.5. Document Validation. The validation phase is the formal review process of a capabilities-based requirements document by the AFROCC or Joint Requirements Oversight Council (JROC) to confirm the capability need and operational requirement. The validation authority for an Air Force capabilities-based requirements document is based on its JPD (JROC Interest, Joint Integration, Joint Information or Independent), as illustrated in **Table 2.1**. The JCIDS gatekeeper assigns the JPD for all ICDs, CDDs and CPDs. All JCDs and Joint DCRs are designated JROC Interest. For additional information on JPD designations, see CJCSI 3170.01 and CJCSM 3170.01.

2.3.5.1. AFROCC Validation. The AFROCC reviews and provides Air Force validation for all Air Force sponsored DCRs, JCDs, AFCDs, ICDs, CDDs, and CPDs. AFROCC decisions and recommendations are documented in an AFROCC Memorandum (AFROCCM) signed by the AFROCC Chairman or AF/A3/5. The following list depicts the Air Force capabilities-based requirements that are not validated by the AFROCC:

2.3.5.1.1. AF Form 1067, *Modification Proposal*.

2.3.5.1.2. Information Technology/National Security Systems (IT/NSS) Requirements Documents defining Communications and Information capabilities processed IAW AFI 33-103, *Requirements Development and Processing*.



2.3.5.1.3. Combat Capability Documents.

2.3.5.2. JROC Validation. The JROC reviews and provides JCIDS validation for all ACAT documents with a JPD of JROC Interest. JROC decisions and recommendations are documented on a JROC Memorandum (JROCM) signed by the JROC Chairman.

**Table 2.1. Validation and Approval Authority.**

	JROC Interest			Joint Integration			<u>Joint Information Independent</u>		
	ACAT I	ACAT II	ACAT III	ACAT I	ACAT II	ACAT III	ACAT I	ACAT II	ACAT III
<b>Air Force Validation</b>	AFROCC	AFROCC	AFROCC	AFROCC	AFROCC	AFROCC	AFROCC	AFROCC	AFROCC
<b>Joint Staff Validation</b>	JROC	JROC	JROC						
<b>Joint Staff Approval</b>	JROC	JROC	JROC						
<b>AF Approval</b>				CSAF	A3/5	AF/A5R	CSAF	A3/5	AF/A5R

2.3.6. Document Approval. Approval confirms the validation process is complete and provides the official sanction of the identified capability described in the document. The approval level is dependent upon ACAT level and JPD (Table 2.1). Following AFROCC validation, document coversheets will be signed by the appropriate authority to designate Air Force approval.

2.3.6.1. JROC Interest Documents. Following AFROCC validation, Air Force sponsored JROC Interest documents will be simultaneously staffed for FCB review and to the appropriate Air Force authority for signature. The JROC is the final approval authority for all JROC Interest capabilities-based requirements documents. JROC approval is documented in a JROCM signed by the JROC Chairman.

2.3.6.2. Joint Integration, Joint Information or Independent (ACAT I). CSAF is the approval authority. AF/A5RD will staff the document to CSAF following AFROCC validation.

2.3.6.3. Joint Integration, Joint Information or Independent (ACAT II). AF/A3/5 is the approval authority. AF/A5RD will staff the document to AF/A3/5 following AFROCC validation.

2.3.6.4. Joint Integration, Joint Information or Independent (ACAT III). AF/A5R is approval authority. AF/A5RD will staff the document to AF/A5R following AFROCC validation.

**2.4. Waiver Authority.** AF/A5R is the waiver authority for the provisions in this instruction and will consider requests on a case-by-case basis. Waiver requests shall contain compelling justification and must be submitted through AF/A5RD.

**2.5. Air Force Requirements Document Library.** AF/A5RD maintains the Air Force’s Requirements Document Library. The library consists of an electronic repository for approved Air Force capabilities-based requirements documents and their supporting staffing documentation. After document processing is complete, AF/A5RD archives the approved document into the Air Force Requirements

Document Library. More information on the Air Force Requirements Library and its supporting database program is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**2.6. Joint Staff JCIDS Document Publication and Archiving.** All approved JCIDS documents (up to Secret), regardless of ACAT or JPD, are posted to the Knowledge Management/ Decision Support (KM/DS) tool; an electronic staffing and repository tool for JCIDS documents. To ensure accuracy between the Air Force Requirements Document Library and KM/DS, the Air Force Document Librarian ensures documents are archived in both libraries. KM/DS is on the classified network at <https://jrockmds1.js.smil.mil/guestjrcz/gBase.homepage>.

## Chapter 3

### ROLES AND RESPONSIBILITIES

**3.1. Purpose.** This chapter defines the authority, roles, and responsibilities for organizations involved with defining, developing, documenting, validating, approving, and managing Air Force capabilities-based requirements.

**3.2. Authority.** The Chairman of the Joint Chiefs of Staff (CJCS) is the chairman of the JROC, and as such, is the requirements validation and approval authority for all ACAT I and JROC Interest programs. This responsibility has been delegated to the Vice Chairman of the Joint Chiefs of Staff (VCJCS). The Deputy Chief of Staff for Air, Space and Information Operations, Plans and Requirements (AF/A3/5) is responsible for Air Force capabilities-based requirements development. The oversight for the Air Force capabilities-based requirements development process and procedures has been delegated to the Director of Operational Capability Requirements (AF/A5R).

**3.3. Roles and Responsibilities.** The roles and responsibilities for organizations affecting the Air Force capabilities-based requirements development process are defined in subsequent paragraphs. This list is not exhaustive. Other organizations not specified in this document may provide expertise in certain situations to assist in the production of Air Force capabilities-based requirements documents.

#### 3.3.1. Under Secretary of the Air Force (SAF/US)

3.3.1.1. Serves as the Air Force Service Acquisition Executive for space programs.

3.3.1.2. Integrate the needs and requirements of the DoD Components into space plans and major space program requirements documents. Resolve issues with the DoD Components and then submit architectures and requirements to the JROC for validation. Adjudicate unresolved requirements and interoperability issues through the JROC. Provide space plans to the JROC for information.

3.3.1.3. As appropriate, participates in HPTs to ensure capabilities-based requirements documents reflect technical feasibility and conform with acquisition policies.

3.3.1.4. Prepare the annual National Security Space Plan in consultation with the Heads of DoD Components and the Deputy Director of National Intelligence for Management (DDNI/M).

#### 3.3.2. Assistant Secretary of the Air Force, Acquisition (SAF/AQ)

3.3.2.1. Serves as the Air Force Senior Acquisition Executive for non-space programs and as the Air Force Senior Procurement Executive.

3.3.2.2. Leads, integrates and sets Acquisition policy, processes and programs across the Air Force to facilitate rapid delivery of intended capability, support and/or services to the operator.

3.3.2.3. Participates in HPTs to ensure capabilities-based requirements documents conform to acquisition policies.

3.3.2.4. Establishes a rapid response process to satisfy urgent and compelling operator needs (See AFI 63-114, *Rapid Response Process*).

3.3.2.5. Oversees the Air Force modification process.

3.3.2.6. Ensures acquisition community works collaboratively with the capabilities development community during the development of Analysis of Materiel Approaches (AMA), Analysis of Alternatives (AoA), development of Course of Action (COA), and development of all ICDs, CDDs, and CPDs. See AFI 63-101, *Operations of Capabilities-Based Acquisition System*.

### 3.3.3. Deputy Chief of Staff, Logistics, Installations & Mission Support (HQ USAF/A4/7)

3.3.3.1. Ensures capabilities-based requirements documents contain executable supportability and sustainment strategies and requirements for effective fielding.

3.3.3.2. Supports requirements strategy development and participates in HPTs to ensure logistics and sustainment issues are addressed to provide long-term viability of the capability.

3.3.3.3. Ensures Air Force Chemical, Biological, Radiological, Nuclear and high yield Explosives (CBRNE) Defense Systems concerns are addressed in all Joint Requirements Office (JRO) capabilities-based requirements documents and provides a copy of approved JRO capabilities-based requirements documents to HQ USAF/A5R.

3.3.3.4. Provide supportability and sustainment guidance and requirements in AFI 10-602, *Determining Mission Capability and Supportability Requirements*.

### 3.3.4. Directorate of Test & Evaluation (HQ USAF/TE)

3.3.4.1. Functions as chief T&E advisor to Air Force leadership.

3.3.4.2. Supports requirements strategy development and ensures appropriate (direct and/or designated) participation in HPTs to ensure capabilities-based requirements are measurable and testable.

3.3.4.3. Supports the operational, acquisition, and sustainment communities' efforts to acquire and maintain operationally effective, suitable, and survivable systems.

3.3.4.4. Provides operational users with information needed to develop new doctrine and requirements, and refine tactics, techniques, and procedures.

3.3.4.5. Provides feedback on test results of developmental programs to SAF/AQ/US and AF/A3/5 staff.

### 3.3.5. Office of the Secretary of the Air Force, Warfighting Integration and Chief Information Officer (SAF/XC) (HQ USAF/A6)

3.3.5.1. Reviews and ensures enterprise and system architectures are properly addressed in capabilities-based requirements documents and champions architecture-based approaches to capabilities-based planning activities (See AFI 33-124, *Enterprise Information Technology Architectures*).

3.3.5.2. Responsible for Air Force Spectrum Certification Compliance for all applicable systems that require spectrum access and allocation.

3.3.5.3. Responsible for developing policy and integrating the process for Air Force Innovation activities, such as Battlelabs, ACTDs and experimentations.

3.3.5.4. Establishes policy for modeling and simulation (M&S) efforts to include those performed in support of capabilities-based requirements development and simulation-based acquisition.

- 3.3.5.5. Ensures effective and efficient information technology management as required by Congressional statutory and DoD regulatory requirements, e.g., the Clinger-Cohen Act and DoD 5000-series. Provides Air Force policy and guidance on ensuring approved Information Assurance Strategies are addressed in capabilities-based requirements documents.
- 3.3.5.6. Provides Air Force policy and guidance on ensuring approved Information Assurance Strategies are addressed in capabilities-based requirements development.
- 3.3.5.7. Serves as Air Force lead for net-centric operations implementation through policies, program oversight and resource allocation recommendations.
- 3.3.5.8. Supports requirements strategy development and ensures appropriate (core or support) participation in HPTs to ensure C4ISR and operational support capabilities-based requirements are architecture-based; net-centric compliant; and horizontally integrated; and provides IT life-cycle management expertise.
- 3.3.5.9. Responsible for developing policy and guidance for the IT Lean Reengineering process that provides an alternative method for acquiring small Information Technology programs (COTS/GOTS and enhancements). Maintains the IT Lean Community of Practice located at: <https://wwwd.my.af.mil/afknprod/ASPs/CoP/OpenCoP.asp?Filter=OO-SC-AF-47>.
- 3.3.6. Deputy Chief of Staff for Air, Space and Information Operations, Plans and Requirements (HQ USAF/A3/5)
- 3.3.6.1. Provides oversight for Air Force capabilities-based planning and requirements development processes and procedures. Delegates process authority to AF/A5X and AF/A5R, respectively.
- 3.3.6.2. Ensures Air Force doctrine guides capabilities-based requirements, policies, plans, programs, and strategies.
- 3.3.6.3. Participates in HPTs to provide HQ USAF subject matter expertise. Can participate as HPT lead, core, or support member.
- 3.3.7. Assistant Chief of Staff for Intelligence (HQ USAF/A2)
- 3.3.7.1. Provides Air Force policy guidance on intelligence issues associated with force modernization-associated programs, activities, or initiatives IAW AFI 14-111, *Intelligence in Force Modernization*.
- 3.3.7.2. Ensures all capabilities-based requirements documents are reviewed for accurate assessment of threat and documentation of intelligence supportability and infrastructure requirements.
- 3.3.7.3. Manages Air Force Intelligence Requirements Certification process IAW CJCSI 3170.01, CJCSM 3170.01, CJCSI 3312.01 and CJCSI 6212.01. Reviews, validates and forwards requests for Joint Military Intelligence Requirements Certification to the Director of Central Intelligence Mission Requirements Board (MRB) for approval.
- 3.3.8. Directorate of Operational Capability Requirements (HQ USAF/A5R)
- 3.3.8.1. Lead for AF/A3/5 on all Air Force capabilities-based requirements that may result in RDT&E and procurement appropriations. Provides Air Staff subject matter expertise for approved/validated capability needs resulting from capability gaps/shortfalls identified by the capabilities-based planning process.

- 3.3.8.2. Chairs the AFROCC.
  - 3.3.8.3. Manages the HQ USAF capabilities-based requirements processes governed by CJCSI 3170.01 and CJCSM 3170.01, which support acquisition policies described in NSS 03-01 and the DoD 5000-Series documents. Responsible for the standardization and quality of Air Force capabilities-based requirements processes and products.
  - 3.3.8.4. Prepares Vice Chief of Staff of the United States Air Force (VCSAF) for JROC decision meetings. Supports JCB decision meetings and serves as the primary Air Force representative on the Joint FCBs in support of the JROC mission.
  - 3.3.8.5. Sponsors and coordinates all Air Force ACAT I/IA and JROC Interest programs through the JROC process once the document is validated by the AFROCC.
  - 3.3.8.6. Coordinates Air Force position for all JROCMs that are associated with capability documents, regardless of Service or ACAT level.
  - 3.3.8.7. Assists in the formal transfer of capability responsibility to SAF/AQ, SAF/US, or an HQ USAF directorate for program development and procurement.
  - 3.3.8.8. Coordinates with other HQ USAF directorates to resolve requirements and programmatic issues for all programs, including special access programs (SAPs).
  - 3.3.8.9. Ensures other Services' requirements receive applicable Air Force functional review.
  - 3.3.8.10. Coordinates all Air Force capabilities-based requirements documents with the other Services/Agencies and Joint Staff organizations.
  - 3.3.8.11. Provides RSR oversight and approves all requirements strategies.
  - 3.3.8.12. Maintains tasking authority to instruct responsible organizations within the HQ USAF, Secretariat, MAJCOMs, and Agencies to review and staff capabilities-based requirements documents and comment resolution matrices (CRMs).
  - 3.3.8.13. Facilitates the HPT process, approves HPT membership, and provides HPT lead and membership training.
  - 3.3.8.14. Reviews and facilitates staffing and coordination for all capabilities-based requirements documents.
  - 3.3.8.15. Reviews and validates underlying capabilities analysis done in Analysis of Alternatives (AoAs) and FSAs to ensure studies are operationally relevant.
- 3.3.9. Directorate of Operational Plans and Joint Matters (HQ USAF/A5X)
- 3.3.9.1. Attends the AFROCC to facilitate the cross-flow of information between AF/A5R and AF/A5X.
  - 3.3.9.2. Provides Air Force future operational concepts crafted within a joint context as input to effects and capabilities development.
  - 3.3.9.3. Supports future Air Force capabilities development through exploration of concepts and capabilities in wargaming.
  - 3.3.9.4. Participates in requirements strategy development and review for JCDs, AFCDs and ICDs. Provides AF/A5X CONOPS SMEs, as required.



- 3.3.9.5. Provides support HPT members, as appropriate, for capabilities-based requirements document development.
- 3.3.10. Deputy Chief of Staff, Strategic Plans & Programs (HQ USAF/A8)
- 3.3.10.1. Provides strategic planning and programming guidance in accordance with SECAF and CSAF approved priorities through the Air Force Strategic Plan, Air Force Roadmap, and the Annual Planning and Programming Guidance (APPG).
- 3.3.10.2. Provides policy direction and oversight in AFPD 90-11, *Planning System*, to facilitate MAJCOM/FOA/DRU strategic planning and development of the Air Force Roadmap.
- 3.3.10.3. Coordinates planning process executed by MAJCOMs/FOAs/DRUs that evaluates and incorporates future warfighting concepts.
- 3.3.10.4. Ensures the Air Force POM balances Air Force leadership capability review priorities with fiscal reality and includes guidance in the APPG.
- 3.3.10.5. Coordinates inputs from HAF and MAJCOMs for A8 support and advocacy in Joint Staff and OSD-led analysis and assessments.
- 3.3.10.6. Ensures CBP products are integrated across overall USAF strategic planning process, joint and OSD planning and analysis process and POM development process.
- 3.3.11. Air Education and Training Command (AETC)
- 3.3.11.1. Focal point for developing, conducting, and evaluating initial skills training, advanced technical training, graduate academic education programs and conducting flying training.
- 3.3.11.2. Coordinates on all Air Force capabilities-based requirements documents and other Service requirements documents with Air Force training implications.
- 3.3.11.3. Provides HPT member (core or support as appropriate) responsible for training input to all Air Force (and some joint) capabilities-based requirements documents.
- 3.3.12. Air Force Operational Test and Evaluation Center (AFOTEC)
- 3.3.12.1. Manages and conducts Air Force Operational Test and Evaluation (OT&E) in accordance with AFI 99-103.
- 3.3.12.2. Supports analysis and planning processes as requested to understand current and future operational needs.
- 3.3.12.3. Assists in developing Air Force capabilities-based requirements documents as a core team member of the HPT.
- 3.3.12.4. Reviews all capabilities-based requirements documents and operational concepts of employment for OT&E issues.
- 3.3.12.5. Participates in AoAs, Air Force CONOPS Risk Assessment Team conferences, concept decisions and studies, Technology Development Strategies, T&E strategies, and acquisition option development down select as necessary.
- 3.3.12.6. Uses, but is not limited to, capabilities-based requirements documents and AoAs as a basis for planning, conducting and reporting the OT&E and assessing operational impacts of systems.

### 3.3.13. Lead Command/Field Operating Agency (FOA)/Direct Reporting Unit (DRU)

3.3.13.1. Sponsors capabilities-based requirements documents for capabilities needed to accomplish the Air Force mission.

3.3.13.2. Participates in and coordinates on requirements strategy reviews and provides SMEs as required.

3.3.13.3. Develops and conducts analysis to support Air Force and joint requirements.

3.3.13.4. Participates in HPTs (as HPT lead, and/or core and support member - as necessary) for document development and provides consultation to AF/A5R on HPT lead determination.

3.3.13.5. Provides a focal point to facilitate command-wide review of capabilities-based requirements documents.

3.3.13.6. Assists Air Force CONOPS organization in identifying and prioritizing capability gaps/shortfalls through the capabilities-based planning process.

3.3.13.7. Provides stakeholder requirements inputs to the HPT lead and supports the briefings required at the RSR, AFROCC, and JROC.

3.3.13.8. Ensures weapon systems are developed in compliance with US Arms Control Treaty obligations.

3.3.13.9. Submits CCDs to AF/A5R to initiate the rapid response process described in AFI 63-114 and [Attachment 3](#).

3.3.13.10. Documents the architecture and M&S required for the capability's acquisition, operations, test, training, and sustainment.

3.3.13.11. For intelligence-sensitive programs/initiatives, meets with the supporting intelligence representative to assess, in accordance with AFI 14-111 and AFI 14-205, the extent of intelligence infrastructure support that is required for the capability to be fully implemented at initial operational capability (IOC) and through sustainment.

3.3.13.12. Ensures Air Force Human Systems Integration (HSI) concerns are addressed in all capabilities-based development documents.

### 3.3.14. Operating Command

3.3.14.1. Provides a focal point to facilitate command-wide review of capabilities-based requirements documents.

3.3.14.2. Provides core/support HPT members as appropriate for capabilities-based requirements document development.

3.3.14.3. Develops and conducts analyses to support Air Force and joint requirements.

### 3.3.15. Implementing Command (Air Force Materiel Command (AFMC) and/or Air Force Space Command (AFSPC))

3.3.15.1. Provides core HPT members as appropriate for capabilities-based requirements document development.

3.3.15.2. Assists the lead command in developing and preparing AoAs and performing or contracting for concept studies funded by requesters.

- 3.3.15.3. Ensures M&S requirements are addressed within capabilities-based requirements.
- 3.3.15.4. Provides assistance and guidance in sustainment planning and execution.
- 3.3.15.5. Coordinates on all capabilities-based requirements documents.
- 3.3.16. Air Reserve Components (Air Force Reserve & Air National Guard)
  - 3.3.16.1. Sponsors capabilities-based requirements documents for capabilities needed to accomplish assigned missions.
  - 3.3.16.2. Participates in and coordinates on requirements strategy reviews and provides SMEs as required.
  - 3.3.16.3. Develops and conducts analyses to support Air Force and joint requirements.
  - 3.3.16.4. Provides core/support HPT members as appropriate for capabilities-based requirements document development.
  - 3.3.16.5. Provides a focal point to coordinate capabilities-based requirements documents with appropriate commands/agencies during document development and resolution of comments.
  - 3.3.16.6. HQ USAF/REOR works in concert with AF/A5R and is the Air Force Reserve office of primary responsibility for capabilities-based requirements at the HQ USAF level.
  - 3.3.16.7. NGB/A5R works in concert with AF/A5R as the ANG office of primary responsibility for capabilities-based requirements at the HQ USAF level.
  - 3.3.16.8. Assists in developing solutions to warfighter urgent operational needs when needed..
- 3.3.17. Studies & Analyses, Assessments and Lessons Learned (HQ USAF/A9)
  - 3.3.17.1. Leads USAF analytic policy development and implementation with regard to analytic processes and methodologies necessary to support capabilities-based requirements development.
  - 3.3.17.2. Advocates for analytical (including M&S) resources and provides technical advice, guidance, and recommendations on Air Force analysis-related modeling and simulation issues to ensure defensibility of capabilities-based requirements development-produced analysis.
  - 3.3.17.3. Guides MAJCOM/ FOA/ DRU and Air Force support activities in structuring analyses to support solutions and alternatives, and capabilities-based requirements development analytic activities.
  - 3.3.17.4. Provides insights to capabilities-based requirements development through oversight of the centralized integration and coordination of studies and analyses among all Air Force analytic providers.
  - 3.3.17.5. Maintains permanent membership on the AFROCC and Executive AFROCC. Serves as the analytic advisor to the AFROCC Chairman for special and designated programs.
  - 3.3.17.6. Executive Agent for oversight of the Air Force Lesson Issue Resolution Program (AFLIRP).
- 3.3.18. Air Force Materiel Command/Office of Aerospace Studies (AFMC/OAS)

3.3.18.1. Assists lead command and field agencies with the development of all Air Force AoAs (and FSAs, if requested by sponsor) to ensure quality, consistency and value. Provides procedural guidance for AoAs and serves the director in all reasonable aspects of the AoA.

3.3.18.2. Provides technical reviews and assessments on all Air Force AoAs (and FSAs, if requested by sponsor or AFROCC) prior to AFROCC review.

3.3.18.3. Assists in developing a process and methodology for identifying intelligence cost requirements early in all life cycle cost elements.

### 3.3.19. Air Force Cost Analysis Agency (AFCAA)

3.3.19.1. Assists SAF/FMC in the assessment/review of cost estimates for Major Defense Acquisition Programs (MDAP), Major Automated Information Systems (MAIS), and Pre-MDAP/MAIS (defined as programs expected to exceed MDAP/MAIS thresholds.)

3.3.19.2. Provides guidance and policy for Air Force costing and assists with the cost development process as the independent cost agency. Responsible for the development of the independent Component Cost Analysis (CCA), and ensures early AFCAA participation early in the cost development process.

3.3.19.3. Supports AoA study teams by providing Air Force cost guidance and participating in AoA efforts, including meetings, interim status reviews and final reviews, cost estimation and sufficiency reviews.

**3.4. Air Force Requirements for Operational Capabilities Council (AFROCC).** The AFROCC, an instrument of the CSAF and Secretary of the Air Force (SECAF), reviews, validates, and recommends approval of all Air Force capabilities-based requirements. The AFROCC ensures Air Force capabilities-based requirements documentation is prepared in accordance with Air Force and Joint Staff guidance, complies with established standards, and accurately articulates valid Air Force capabilities-based requirements. The AFROCC reviews Air Force FSA study plans directed by JCDs, AFCDs and for initiatives forecast to become ACAT I programs. For follow-on capabilities-based requirements documents, the AFROCC validates all Air Force-developed AoA Study Plans, interim status (when appropriate), and final results. It is chaired by AF/A5R and is composed of MAJCOM requirements principals, Secretariat, and HQ Air Force representatives. AFROCC membership and functions are outlined in the AFROCC Charter on the AF/A5RD web sites at: <https://www.xo.hq.af.mil/xor/xord/> and [www.afreqs.pentagon.smil.mil](http://www.afreqs.pentagon.smil.mil).

3.4.1. Executive AFROCC. An Executive session brings all permanent members (normally O-7/O-8 level) together to review the AF/A5X led capabilities-based planning process results and assign responsibility for conducting further analyses (FAA/FNA/FSA, as necessary) and/or developing capabilities-based requirements documents associated with Air Force capabilities-based planning process tasking and other requirements issues as appropriate. The AFROCC normally meets in Executive session once per year.

3.4.1.1. Pre-Executive AFROCC Activities. To facilitate the transition from capabilities-based planning to capabilities-based requirements development, AF/A5X, AF/A5R, Air Staff and the MAJCOMs will collaborate to draft and refine the AF/A5X capabilities-based planning process guidance that will result in development of capabilities-based requirements documents. This collaboration will support senior level review (typically beginning with presentation to the O-6 level). AF/A5R-J will facilitate a presentation of AF/A5X analysis and proposed capabili-

ties-based requirements documents to the applicable FCBs. The purpose of this presentation is to prevent duplication of effort, obtain Joint and other Service buy-in and/or obtain FCB approval to proceed.

3.4.1.2. Assignment of Capabilities-Based Planning Related Tasks. After FCB review and guidance, formal taskings will be prepared for assignment by AF/A3/5 through the Executive AFROCC. To complete the transition to capabilities-based requirements development, the Executive AFROCC will assign only those taskings directing the development of capabilities-based requirements documents. Tasking will include OPRs, OCRs, and suspense dates.

3.4.1.3. Status Reporting. At a minimum, AF/A5R will report the status of Executive AFROCC taskings on a quarterly basis. AF/A5RD will prepare the report (to AF/A5X) for AF/A5R approval.

3.4.2. AFROCC Special Session. The AFROCC Special Session reviews and validates all Air Force capabilities-based requirements having a classification level higher than Secret (e.g., TS, SCI, SAP/SAR) in a manner similar to the regular session AFROCC.

**3.5. Functional Capabilities Boards (FCBs).** FCBs are established according to functional areas to assist the JCB and JROC. The JROC determines which FCBs will be established, disbanded or combined. The JROC also determines which specific area(s) are assigned to each FCB and the lead organization(s) responsible for sponsoring the FCB. FCBs and FCB working groups provide the analytical underpinning for developing and refining issues that support JROC recommendations. This includes participating in strategy and planning development, programming and resourcing activities and a variety of feedback avenues. AF/A5R-J works as the lead Air Force organization to ensure Air Force interests are represented throughout the JROC process. For additional information on FCBs, refer to CJCSI 3137.01, *The Functional Capabilities Board Process*, CJCSI 3170.01, and CJCSM 3170.01. Copies of these documents are located on AF/A5RD web sites at: <https://www.xo.hq.af.mil/xor/xord/> and [www.afreqs.pentagon.smil.mil](http://www.afreqs.pentagon.smil.mil).

**3.6. Joint Capabilities Board (JCB).** The JCB functions to assist the JROC in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all JCIDS documents prior to their submission to the JROC. AF/A5R-J tracks and facilitates issues through the JCIDS process and prepares the Air Force principals for JCB participation. Guidance on the JCB is provided in CJCSI 5123.01, *Charter of the Joint Requirements Oversight Council*, and a copy of the instruction is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

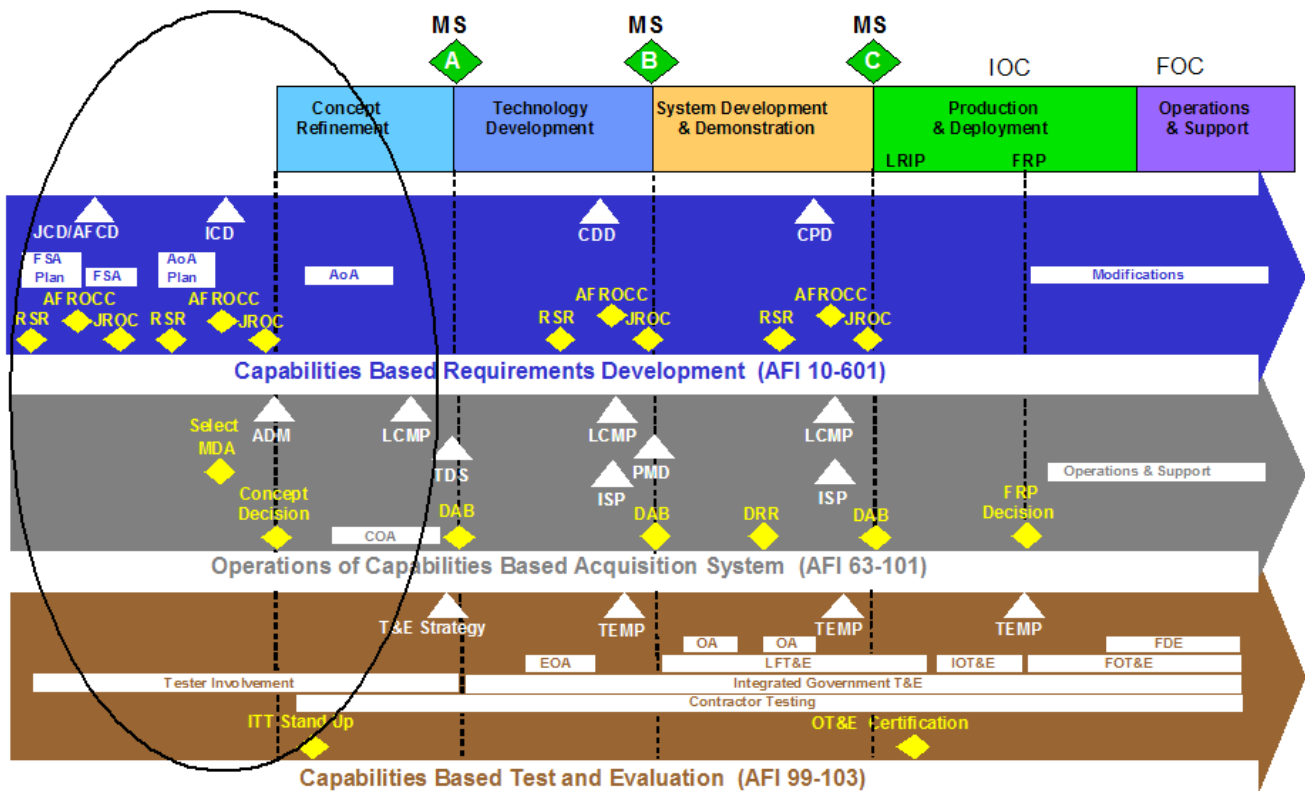
**3.7. Joint Requirements Oversight Council (JROC).** The JROC reviews, validates and approves documents designated as JROC Interest and supports the acquisition review process. The JROC, at its discretion, may review any capabilities-based requirements document or any other issues that may have joint interests or impacts. The JROC also reviews programs at the request of the Secretary of Defense, Deputy Secretary of Defense, USD(AT&L), USecAF (as DoD Executive Agent for Space) or the Director of National Intelligence to resolve contentious and high interest issues. AF/A5R-J tracks and facilitates issues through the JCIDS process and prepares the VCSAF for JROC participation. Guidance on the JROC is provided in CJCSI 5123.01, and a copy of the instruction is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

Chapter 4

REQUIREMENTS ACTIVITIES TO SUPPORT MILESTONE A ACQUISITION DECISION

**4.1. Purpose.** This chapter provides a high-level description of capabilities-based requirements process activities and capabilities-based documents necessary to support a Milestone A acquisition decision (Figure 4.1.). The AFCD and JCD are capability-based documents and lay the foundation for additional analysis and development of one or more ICDs and/or DCRs. An AFCD or JCD is developed only when deemed appropriate by the sponsor or when directed by AF/A5R or an FCB. An ICD builds upon an AFCD or JCD or it may be developed independently. The ICD directly supports the Concept Refinement phase, Analysis of Alternatives (AoA), the Technology Development Strategy (TDS), the Milestone A acquisition decision, and subsequent Technology Development activities.

Figure 4.1. Activities to Support Milestone A Acquisition Decision.



**4.2. JCD and AFCD.** Both the JCD and AFCD define the capability required and the capability gap/shortfall, and assign responsibility for follow-on FSAs. Both are very broad in nature with the JCD having joint applicability while the AFCD is primarily Air Force-focused. Analyzing what is required across all functional areas to accomplish the mission (i.e., FAA) identifies the capabilities in the JCD/AFCD. Comparing the capability needs to the capabilities provided by existing or planned systems (i.e., FNA) identifies the gaps/shortfalls or redundancies. Both the JCD and AFCD provide a baseline for one or more FSAs leading to development of appropriate ICD(s) or DCR(s). Neither can be used as the sole basis for the development of a CDD or CPD. The activities associated with the development and coordination of a JCD are described in CJCSI 3170.01 and CJCSM 3170.01. The content and format of the



AFCD is generally the same as a JCD. The primary difference being FSAs are assigned to Services or COCOMs in a JCD while FSAs are assigned to MAJCOMs/FOAs/DRUs in an AFCD. As stated earlier, both the JCD and AFCD document the results of the FAA and a FNA and assign responsibilities for follow-on FSAs. Further details on the FAA, FNA, and FSA are provided in CJCSM 3170.01 and the AFMC/OAS FSA Handbook at: <http://www.oas.kirtland.af.mil/>.

4.2.1. Strategy Development. The sponsor must accurately scope the capabilities required and capability gaps/shortfalls based on analysis, credible data, timing, and technology constraints. The strategy maps the details necessary for developing a JCD or an AFCD and describes the resources and communities necessary to support the process. Prior to initiating either document, the sponsor will notify the appropriate FCB Working Group (through the AF/A5R-J representative) to prevent duplication of effort and gather functional impacts and constraints. The FCB Working Group assists the sponsor in determining joint potential, and determining the appropriate organizations (i.e., other Services, agencies, etc.) necessary to involve in the process. It is imperative the sponsor develops the JCD or AFCD in collaboration with the FCB Working Group, Services, AF/A5X, HQ USAF SMEs, as well as the appropriate MAJCOMS/Agencies, and other organizations to ensure stakeholders are actively informed and involved from the beginning. Sponsors cannot develop a JCD until after they have pre-coordinated with the combatant commands and/or FCBs. In addition, consideration must be given to the focus and depth of analysis that will be needed to support the development of the FSA plan and subsequent documents (ICDs and/or DCRs). Specific guidance on JCD/AFCD development, JCD/AFCD document review, and Air Staff contact information is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.2.2. JCD and AFCD Requirements Strategy Review. AF/A5R approves the strategy for JCD and AFCD development. To obtain approval, the sponsoring organization briefs AF/A5R on the requirements strategy. The RSR briefing should occur at least 30 days before commencing an HPT. Additional guidance for RSR presentations and HPT scheduling requests is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.2.3. JCD and AFCD HPT. Following strategy approval, the sponsor ensures final preparations are completed for the JCD or AFCD HPT. Additional guidance for preparation and execution of an HPT is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.2.4. AFCD Processing. AFCDs are Air Force products and are only reviewed within the Air Force. Once Air Force review is complete, the sponsor presents the AFCD to the AFROCC for validation and approval. Upon approval, AF/A5RD forwards a copy of the AFCD to the FCB Working Group (for information purposes) and archives the approved document in the Air Force Requirements Document Library. Follow the review and approval process for AFCD presented in **Attachment 2** and the specific coordination timelines located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**4.3. ICD.** The ICD documents the need for a materiel approach, or an approach that is a combination of materiel and non-materiel, to satisfy specific capability gaps/shortfalls. The outcome of an ICD could be one or more DCRs or CDDs or, in some cases, CPDs, or a combination of these documents.

4.3.1. Pre-ICD Activities. The ICD is developed from the results of the FAA, FNA and FSA. An FSA may be initiated by a MAJCOM/FOA/DRU sponsor or may be downward directed through an AFCD or JCD. The FSA consists of three primary parts: (1) DOTMLPF analysis which determines if a materiel solution is necessary; (2) Ideas for Materiel Approaches (IMA), which is a collaborative

effort to ensure all possible approaches are considered; and (3) Analysis of Materiel Approaches (AMA), which helps decision makers select the most cost-effective approach to satisfy the gaps/shortfalls. Additional information regarding the FSA is available CJCSM 3170.01 and the AFMC/OAS web site at: <http://www.oas.kirtland.af.mil/>.

4.3.2. ICD Requirements Strategy Development. The strategy maps the details necessary for developing an ICD and describes the resources and communities necessary to support the process. The sponsor develops the requirements strategy in collaboration with Air Force acquisition, test, and logistics communities (and other appropriate SMEs). Strategy development includes sponsor's interaction with other Services and agencies. For potential ACAT I initiatives, the sponsor (through the Air Staff SME) collaborates with OSD/PA&E. Continuous collaboration ensures the requirements strategy addresses required capabilities identified in applicable Joint and Air Force Operating Concepts, capabilities-based planning documents, and other pertinent guidance. In addition, consideration must be given to the focus and depth of analysis that will be needed to support the development of the ICD and AoA Study Plan. Additional guidance on strategy development is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.3.3. ICD Requirements Strategy Review. AF/A5R approves the requirements strategy for ICD development. To obtain approval, the sponsoring organization briefs AF/A5R on the requirements strategy. The RSR briefing should occur at least 30 days before starting an HPT. Additional guidance for RSR presentations and HPT scheduling requests is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.3.4. ICD HPT Planning. Following strategy approval, the sponsor ensures final preparations are completed for the ICD HPT. Additional guidance for preparation and execution of an HPT is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.3.5. ICD Processing. ICDs are coordinated per **Attachment 2**. The level of review beyond the AFROCC is dependent upon the document's JPD (**Table 2.1.**). Follow the review and approval process for ICDs presented in **Attachment 2** and the specific coordination timelines located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

4.3.6. ICD Guidelines. To develop the ICD, sponsors will use the format and guidelines described in CJCSI 3170.01, CJCSM 3170.01 and the AF/A5RD web site.

**4.4. Post-ICD Activities.** An approved ICD and AoA Study Plan (if necessary) are required for the sponsoring organization to conduct Concept Refinement in support of Milestone A. The collaborative effort initiated during requirements strategy development continues throughout the Pre-Milestone A phase and directly supports the AoA and the TDS. Additional activities supported by the ongoing collaborative effort are Courses of Action (COA) and acquisition strategy development, test strategy development, and sustainment/supportability strategy development. Concept Refinement ends at Milestone A when the MDA agrees to and documents the MAJCOM's preferred solution to fulfill the capability need.

4.4.1. Analysis of Alternatives (AoA). In the case of a potential ACAT I proposal, an AoA must be conducted in accordance with DoDI 5000.2. The AoA helps decision makers select the most cost-effective alternative to satisfy an operational capabilities-based requirement. The AoA assesses a program's desirability and affordability and helps justify the need for initiating or continuing an acquisition effort. An AoA is an analysis of the operational effectiveness and estimated life cycle costs of alternative materiel solutions. It is required for all ACAT I programs and may be directed for

ACAT II or III programs. Air Force AoAs must not only make the case for having identified the most cost-effective alternative, they must also make a compelling statement about the military utility of the capability needed. Additional guidance on formats, timelines and support is available on the AFMC/OAS web site at: <http://www.oas.kirtland.af.mil/>.

4.4.1.1. AoA Execution and Review. The sponsor is responsible for executing the AoA with the assistance from AFMC/OAS. The AoA study team is composed of members from the MAJCOM staff, HQ USAF, support Commands, AFMC/OAS, Services, and others as necessary and led by the designated Study Director. OSD/PA&E and Air Force Cost Analysis Agency (AFCAA) participation from the early stages of planning on the AoA team is required. The AFROCC reviews and approves the AoA Study Plan, interim status, and final reports in accordance with the AFROCC Charter. Results of AoAs, if requested, are reviewed by the appropriate FCB Working Group to ensure that the refined concept or approach continues to meet operator's capability needs. The AFROCC may direct AoA results to be presented to the Air Force Council as appropriate. If the nature of the AoA is extremely technical or high-visibility, either the requirements sponsor or the AFROCC may request a formal technical assessment by the Technical Review Group (TRG), which is chaired by the Director of Studies & Analyses, Assessments and Lessons Learned (HQ USAF/A9).

4.4.1.1.1. AoA Study Plan. The AoA study team develops a study plan of sufficient detail to address the issues established by the MDA and to ensure a rigorous analysis process. Time and effort spent on the study plan before beginning the analysis helps ensure a high-quality AoA, on schedule and within budget. Sponsors will coordinate proposed briefings with AFMC/OAS prior to presentation to the AFROCC for validation. The Air Staff SME (normally from within AF/A5R) will staff a memorandum to the AF/CV to release AFROCC-validated AoA Study Plans to OSD/PA&E and the MDA. OSD/PA&E evaluates all ACAT I study plans, and others as requested, prior to beginning the analysis. Additional guidance is available in the AoA Handbook located on the AFMC/OAS web site at: <http://www.oas.kirtland.af.mil/>.

4.4.1.1.2. AoA Final Report. After the final report has been prepared and coordination with AoA stakeholders has been completed, sponsors will coordinate proposed briefings and the final report with AFMC/OAS prior to presentation to the AFROCC for validation. After AFROCC validation, the sponsor forwards the report to the Air Staff SME (normally from within AF/A5R), who will staff a memorandum to the AF/CV to release the AFROCC-validated AoA final results to OSD/PA&E and the MDA. Final AoA reports must be provided to OSD/PA&E (at least 60 days before the acquisition board for Milestone A or KDP A decision) for sufficiency assessment. The sponsor supplies the final AoA report to AF/A5RD to be archived in the Air Force Requirements Document Library. Upon request, AoA reports must be submitted to the Lead FCB (via the JCIDS Gatekeeper). The lead FCB reviews the report to ensure that the refined concept or approach continues to meet the operator's capability needs.

4.4.1.1.3. AoA to Support Milestone B/C. Before Milestone B or C, the MDA may require a new AoA, or an update to a previous AoA, to account for any factors that were omitted or may have changed during the preceding acquisition phase. Staffing of these AoAs to AF/CV for release to OSD will be accomplished in the same manner as the original AoA Study Plan and final results.

4.4.2. **Other Analyses.** When an AoA is not required or directed, the sponsor, in coordination with the MDA, will determine the level of analyses needed to support Concept Refinement and the Milestone A decision. The analytic effort should be commensurate with the overall program cost.

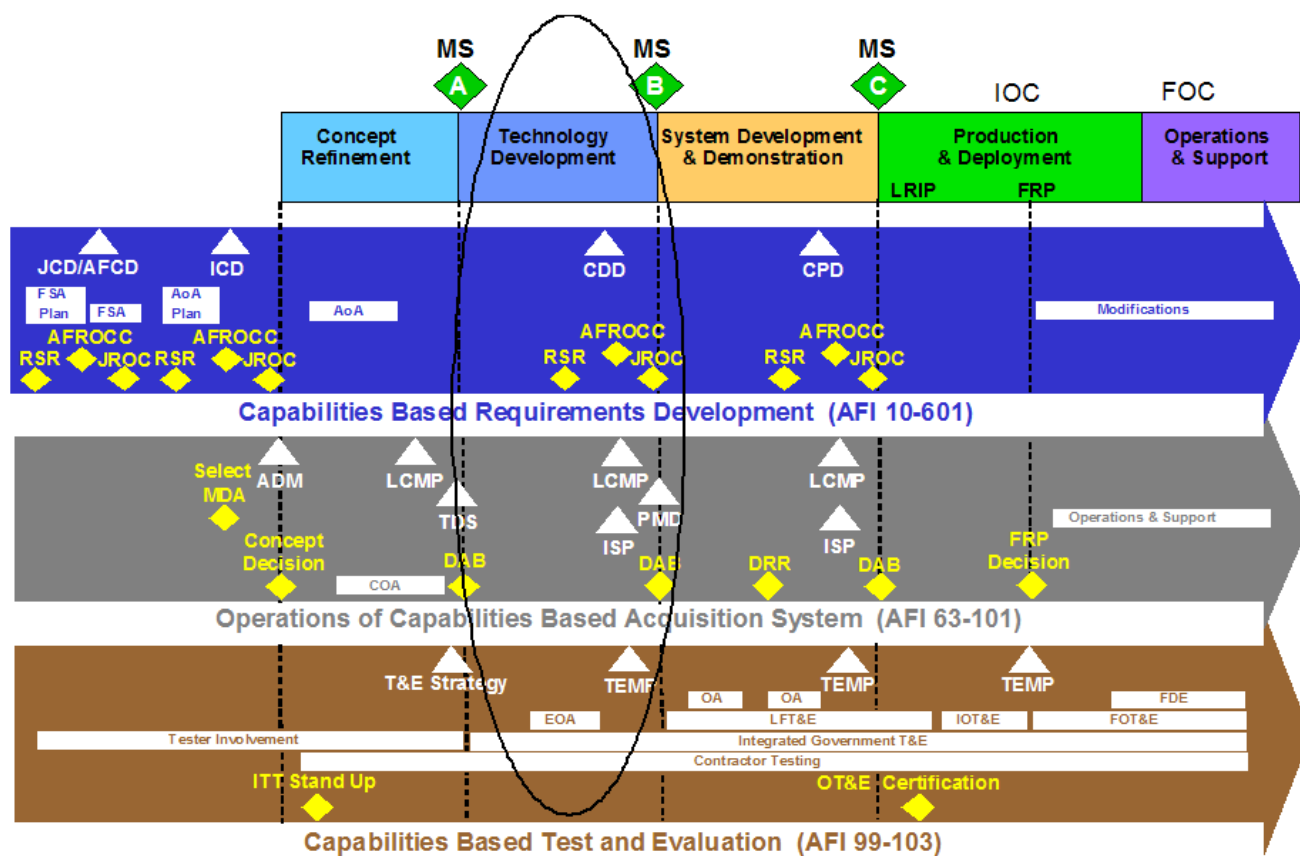
4.5. **Changes to the ICD.** The ICD is not normally updated.

Chapter 5

REQUIREMENTS ACTIVITIES TO SUPPORT MILESTONE B ACQUISITION DECISION

**5.1. Purpose.** This chapter provides a high-level description of the capabilities-based requirements process activities conducted to support a Milestone B acquisition decision (Figure 5.1). These activities include the requirements strategy development, RSR, and HPT activities leading to a CDD. The results of the AoA (or other analyses if an AoA was not required) and technology development provide the basis for development of the CDD and the rationale for adopting either an evolutionary acquisition or a single-step-to-full-capability strategy (traditional acquisition strategy). An approved CDD is required at Milestone B.

Figure 5.1. Activities to Support Milestone B Acquisition Decision.



**5.2. Requirements Strategy Development.** The requirements strategy lays the foundation for CDD development and supports the System Development and Demonstration phase for a single increment. The sponsor continues the collaboration initiated in ICD development with Air Force acquisition, test, and logistics communities (and other appropriate SMEs). Strategy development includes sponsor’s interaction with other Services and agencies. For potential ACAT I programs, the sponsor continues collaborating with OSD/PA&E. The preferred materiel solution is based on analysis and mature technologies demonstrated during the Technology Development phase. The sponsor applies lessons learned during the Concept Refinement and Technology Development phases plus any other appropriate risk reduction

activities such as experimentation, T&E, and capability/schedule tradeoffs. Additional guidance on strategy development is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**5.3. Requirements Strategy Review.** AF/A5R approves the requirements strategy before initiating the CDD. To obtain approval, the sponsoring organization briefs AF/A5R on the requirements strategy. The RSR briefing should occur at least 30 days before commencing/reconvening the HPT. Additional guidance for RSR presentations and HPT scheduling requests is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**5.4. HPT Planning.** Following strategy approval, sponsor ensures that final preparations are completed for the HPT. Additional guidance for preparation and execution of an HPT is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**5.5. CDD Guidelines.** The CDD supports a single affordable increment of useful military capability based on a mature technology and defines the information necessary to support program initiation. It provides the operational KPPs, Key System Attributes (KSAs) and other attributes necessary to design and sustain the proposed system. It captures the evaluation of different materiel solutions and recommends the best approach to achieve the needed capability. It discusses the overall acquisition strategy, describes the current increment and provides an outline of the overall program strategy. For evolutionary acquisition programs, the CDD outlines the increments delivered to date, the current increment and future increments (if any) of the acquisition program to deliver the full desired capability. A validated and approved CDD is required before each Milestone B decision. If the performance characteristics of subsequent increments of a CDD can be captured in an annex or within the document, then it may be appropriate to update an existing CDD for each increment rather than rewriting the entire document. For CDD development, follow guidelines and format as described in CJCSI 3170.01, CJCSM 3170.01 and on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

5.5.1. AoA to Support Milestone B. Before Milestone B, the MDA may require a new AoA or an update to a previous AoA to account for any factors that may have changed during the preceding phase. AoAs are tailored based on direction from decision-makers. For Milestone B, AoAs may be done for reasons such as systems and technology refinements, capability/technology insights, interoperability and supportability, operational risk and operational effectiveness updates, threat and survivability updates, sensitivity to cost and performance drivers, and compliance with the Clinger-Cohen Act for IT systems.

5.5.2. Performance Attributes. The CDD provides performance and support-related attributes with threshold and objective values, including KPPs and KSAs. The KPP values apply only to the current increment or, in a single-step-to-full-capability approach, to the entire system. Follow guidelines and format as described in CJCSM 3170.01 and this AFI for CDD development.

**5.6. CDD Requirements Correlation Table (RCT).** Specific to Air Force-generated CDDs, the RCT is a summary of the all desired capability characteristics listed as threshold and/or objective values within the CDD text. The RCT consists of three separate tables. It includes the Air Force unique KSA table and expands on the KPP and Attribute tables already required by CJCSM 3170.01. It lists operator identified KPPs and attributes, their accompanying threshold and objective values, the supporting rationale justifying each of these values, and the paragraph number where supporting text is documented in the CDD. The primary objective of the RCT is to provide a concise summary to ensure decision makers have the



necessary information to make informed conclusions and/or decisions. It also provides operator identified KPPs for inclusion in the performance section of the Acquisition Program Baseline (APB). The RCT is mandatory for all Air Force-generated CDDs and CDD Annexes.

5.6.1. RCT Structure. The RCT consists of three separate tables: Key Performance Parameter (**Table 5.1.**), Key System Attribute (**Table 5.2.**), and Attribute (**Table 5.3.**).

5.6.1.1. KPP Table. KPPs are those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the key characteristics as defined in the Family of Joint Operations Concepts. Failure to meet a KPP attribute may result in restructuring of the initiative. The CDD generally contains sufficient KPPs to capture the minimum operational effectiveness, suitability and supportability attributes needed to achieve the overall desired capabilities for the system during the applicable increment.

5.6.1.2. KSA Table. KSAs are unique to Air Force sponsored CDDs and CPDs. KSAs provide decision makers and the acquisition community with an additional level of prioritization. The KSA table contains only those few KSAs that capture the operational effectiveness the operator considers extremely important to achieve overall desired capabilities during the applicable increment.

5.6.1.3. Attribute Table. The attribute table contains attributes that contribute significantly to the desired operational capability during the applicable increment. Attributes are used to guide decision makers in making tradeoffs between threshold and the objective levels of the stated attributes.

5.6.2. RCT Format. All three tables have a similar format with the exception of the subject column (e.g., KPP, KSA, and Attribute). The KPP and KSA tables must be within the text of the document and the Attribute table can be placed within the document or added as an appendix. The KPP table contains an additional column to show relationships to the Capstone Concept for Joint Operations (CCJO) key characteristics. Additional guidance on joint concepts, to include CCJO, is located on the Future Joint Warfare web site at <http://www.dtic.mil/futurejointwarfare>. The following information is required in each column for all three tables.

5.6.2.1. Paragraph #. Identify the paragraph where text for KPP/attribute is located within CDD.

5.6.2.2. Capstone Concept for Joint Operations (CCJO) Attribute. Identify the CCJO attribute being supported, if applicable.

5.6.2.3. KPP/KSA/Attribute. Depending on the table (e.g., KPP, KSA, and Attribute), identify the KPP/attribute for which the threshold and objective is listed in the CDD text.

5.6.2.4. Development Threshold. Insert the minimum acceptable operational value below which the utility of subject KPP/attribute becomes questionable. Some attribute threshold values in the CDD may be listed as "To Be Determined" (TBD), and as the program matures, are codified and documented in the CPD.

5.6.2.5. Development Objective. Insert the desired operational objective value associated with subject KPP/attribute, beyond which any gain in utility does not warrant additional expenditure. The objective value is an operationally significant increment above the threshold. An objective value may be the same as the threshold when an operationally significant increment above the threshold is not significant or useful.

5.6.2.6. Rationale/Analytical References. Briefly summarize (4 bullets or less) the rationale/analytical references of subject KPP/KSA/attribute as provided within the text of the CDD. Address the specific studies, analysis, threat assessments, modeling, or other reference sources (including informed military judgments) that justify and substantiate the threshold value.

**Table 5.1. CDD KPP RCT Format.**

Para. #	CCJO key characteristics	Key Performance Parameter	Development Threshold	Development Objective	Rationale & Analytical References
		KPP 1	Value	Value	
		KPP 2	Value	Value	
		KPP 3	Value	Value	

**Table X.X. Key Performance Parameter Table**

**Table 5.2. CDD KSA RCT Format.**

Para. #	Key System Attributes	Development Threshold	Development Objective	Rationale & Analytical References
	KSA 1	Value	Value	
	KSA 2	Value	Value	
	KSA 3	Value	Value	

**Table X.X. Key System Attribute Table**

**Table 5.3. CDD Attribute RCT Format.**

Para. #	Attributes	Development Threshold	Development Objective	Rationale & Analytical References
	Attribute 1	Value	Value	
	Attribute 2	Value	Value	
	Attribute 3	Value	Value	

**Table X.X. Attribute Table**

**5.7. CDD Processing.** CDDs are coordinated per [Attachment 2](#). The level of review beyond the AFROCC is dependent upon the document's JPD ([Table 2.1](#)). Follow the review and approval process for CDDs presented in [Attachment 2](#) and the specific coordination timelines located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**5.8. Post-CDD Activities.** When approved, the CDD supports a Milestone B decision, updates architectures, and guides post-Milestone B activities. Each increment of an evolutionary acquisition program normally has a new or updated CDD and a separate Milestone B decision. The sponsor recommends and the requirements approval authority approves whether the CDD for a follow-on increment(s) will be an entirely new CDD, or whether an annex to the existing CDD is sufficient.

## 5.9. Changes to the CDD.

5.9.1. CDD Update. Within one acquisition increment, or in a follow-on increment, the need may arise to refine (update) an approved CDD in order to accurately document changes that have occurred before and/or during System Development and Demonstration. CDD updates are often a result of unforeseen program events (i.e., altering KPPs, budget cuts, significant schedule delays, technology maturity, leadership intervention, acquisition strategy changes, etc.). Sponsors may update the CDD before or after Milestone B. Document preparation, format, review, validation, approval, and archiving of subsequent updates are normally the same as the original CDD. AF/A5R determines the Air Force level of review and approval authority required for CDD updates. Additional information on CDD updates is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

5.9.1.1. JROC Interest CDDs. Any change impacting a KPP in an approved CDD having a JPD of JROC Interest must be approved by the JROC. The AFROCC will validate KPP changes prior to forwarding them for JROC consideration. Non-KPP changes must also be approved by the JROC unless the JROC has specifically delegated approval authority for non-KPP changes elsewhere. Changes requiring JROC approval are normally submitted for the complete JCIDS review process. However, sponsors may request to bypass the staffing process and proceed directly to the JROC. The Lead FCB will evaluate the change and determine if staffing is required. If additional staffing is not required, the FCB will work with the sponsor to prepare the change for JROC approval.

5.9.1.2. Independent, Joint Information, and Joint Integration CDDs. The Air Force may approve any change to CDDs having a JPD of Independent, Joint Information, or Joint Integration. AF/A5R will determine the level of review and approval authority for proposed changes to these CDDs on a case-by-case basis. The AFROCC will validate any KPP change.

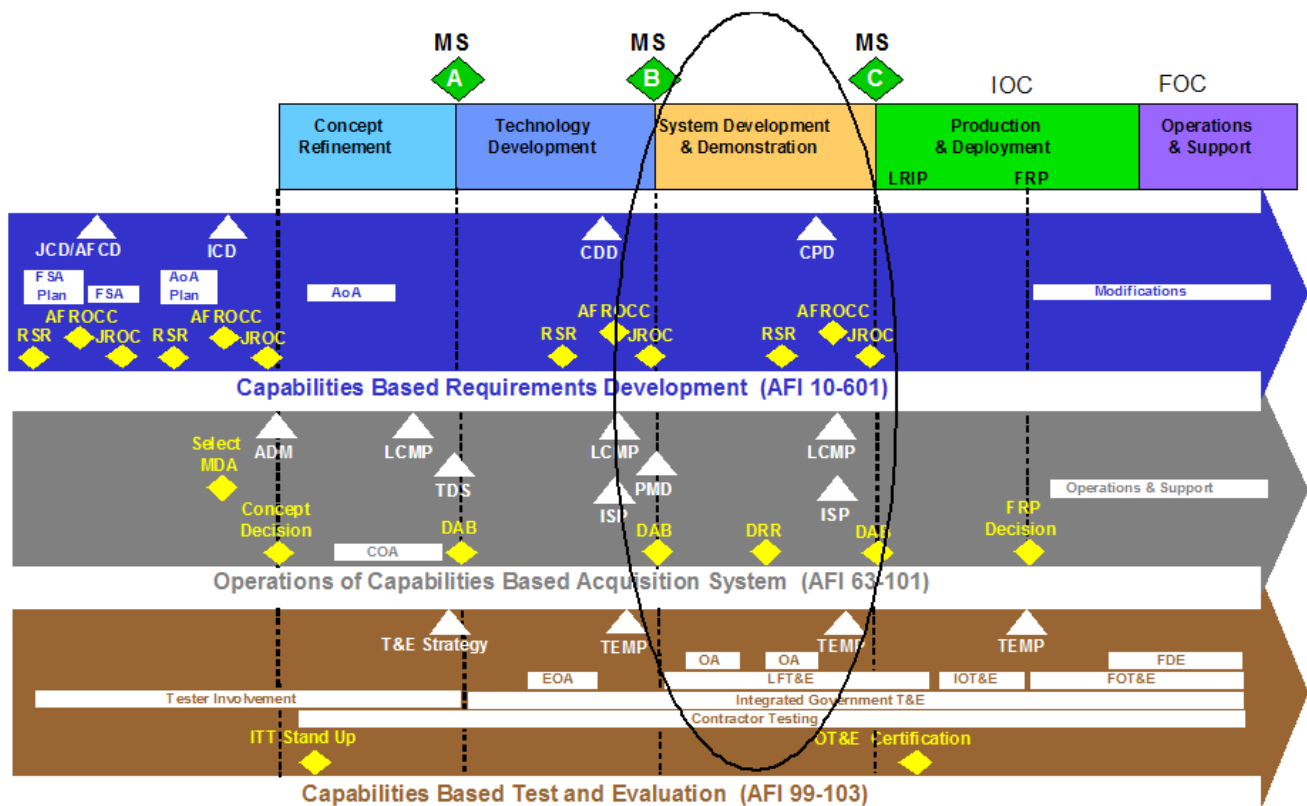
5.9.2. CDD Annex. Within one acquisition increment, or in a follow-on increment, the need may arise to add capability to an approved (original) CDD. If the increment or follow-on increment is consistent with the strategy described in the original CDD, and the only change is to add capability (and any necessary supporting information) to the original CDD, an annex to the original CDD may be written and approved, as appropriate. In a CDD annex, the sponsor inserts only the new (additional) information into the appropriate sections of the document. All sections of the annex unchanged from the original CDD display the words “No Change” in that section. The original CDD accompanies the annex during document review and AF/A5R determines the level of review and approval authority required. Additional information on CDD updates is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

## Chapter 6

## REQUIREMENTS ACTIVITIES TO SUPPORT MILESTONE C ACQUISITION DECISION

**6.1. Purpose.** This chapter provides a high-level description of capabilities-based requirements process activities conducted to support a Milestone C acquisition decision (Figure 6.1). These activities include the requirements strategy development, RSR, and HPT activities leading to a CPD. The CPD directly supports the Production & Deployment and Operations & Support phases. The results of the AoA (or other analyses if an AoA was not required), the Design Readiness Review, APB, system demonstrations, and early test results provide the basis for development of the CPD. An approved CPD is required for a Milestone C decision.

**Figure 6.1. Activities to Support Milestone C Acquisition Decision.**



**6.2. Requirement Strategy Development.** The requirements strategy lays the foundation for CPD development and supports the Production and Deployment Phase for a single increment. The sponsor continues the collaboration initiated in CDD development with Air Force acquisition, test, and logistics communities (and other appropriate SMEs). Strategy development includes the sponsor's interaction with other Services and agencies. The sponsor applies lessons learned, findings of design reviews, test results to refine performance attributes for a single increment. The requirements strategy establishes operational performance expectations for the capability to be produced and fielded. Additional guidance on strategy development is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**6.3. Requirements Strategy Review.** AF/A5R approves the requirements strategy before initiating the CPD. To obtain approval, the sponsoring organization briefs AF/A5R on the requirements strategy. The RSR briefing should occur at least 30 days before starting an HPT. Additional guidance for RSR presentations and HPT scheduling requests is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**6.4. HPT Planning.** Following RSR approval, sponsor ensures that final preparations are completed for the HPT. Additional guidance for preparation and execution of an HPT is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**6.5. CPD Guidelines.** The CPD provides firm, measurable, and testable requirements for the Production and Deployment Phase of an acquisition program. The ICD, AoA (if applicable), CDD, testing results, and design reviews guide CPD development. A CPD is finalized after Design Readiness Review (DRR) and is validated and approved prior to the Milestone C decision. The CPD captures the information necessary to support production and sustainment of an increment of capability. The CPD refines the KPPs, KSAs, and other performance attributes that were approved in the CDD to guide Production and Deployment. Follow guidelines and format for CPD development as described in CJCSI 3170.01, CJCSM 3170.01, and located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

6.5.1. AoA to Support Milestone C. Before Milestone C, the MDA may require a new AoA or an update to a previous AoA to account for any factors that may have changed during the preceding phase. AoAs are tailored based on direction from the MDA and stakeholders. For Milestone C, AoAs may be done for reasons such as manufacturing capability, system bed-down and employment, force structure optimization, interoperability and supportability, and operational risk and operational effectiveness updates, threat and survivability updates, sensitivity to cost and performance drivers.

6.5.2. Performance Attributes. The CPD provides performance and support-related attributes, with threshold and objective values, including KPPs and KSAs. The KPP values apply only to the current increment or, in a single-step-to-full-capability approach, to the entire system. Follow guidelines and format as described in CJCSM 3170.01 and this AFI for CPD development.

**6.6. CPD Requirements Correlation Table (RCT).** Specific to Air Force-generated CPDs, the RCT is a summary of all the desired capability characteristics listed as threshold and/or objective values within the CPD text. The RCT consists of three separate tables. It includes the Air Force unique KSA table and expands on the KPP and Attribute tables already required by CJCSM 3170.01. It lists operator identified KPPs and attributes, their accompanying thresholds and objectives values, the supporting rationale justifying each of these values, and the paragraph number where supporting text is documented in the CPD. The primary objective of the RCT is to provide a concise summary to ensure decision makers have the necessary information to make informed conclusions and/or decisions. It also provides operator identified KPPs for inclusion in the performance section of the APB. The RCT is mandatory for all Air Force-generated CPDs and CPD Annexes.

6.6.1. RCT Structure. The RCT consists of three separate tables: Key Performance Parameter ([Table 6.1](#)), Key System Attribute ([Table 6.2](#)) and Attribute ([Table 6.3](#)).

6.6.1.1. KPP Table. KPPs are those system attributes considered most critical or essential for an effective military capability. The CPD generally contains sufficient KPPs to capture the minimum operational effectiveness, suitability and supportability attributes needed to achieve the overall

desired capabilities for the system during the applicable increment. The KPPs contained in a CPD should be consistent with the KPPs specified in the CDD. Failure to meet a KPP threshold may result in a reevaluation or reassessment of the program or a modification of the production increments.

6.6.1.2. KSA Table. KSAs are unique to Air Force sponsored CDDs and CPDs. KSAs provide decision makers and the acquisition community with an additional level of prioritization. The KSA table contains only those few KSAs that capture the operational effectiveness the operator considers extremely important to achieve overall desired capabilities during the applicable increment.

6.6.1.3. Attribute Table. The attribute table contains attributes that contribute significantly to the desired operational capability during the applicable increment. Attributes are used to guide decision makers in making tradeoffs between threshold and the objective levels of the stated attributes.

6.6.2. RCT Format. All three tables have a similar format with the exception of the subject column (e.g., KPP, KSA, and Attribute). The KPP and KSA tables must be within the text of the document and the Attribute table can be placed within the document or added as an appendix. The KPP table contains an additional column to show relationships to the CCJO key characteristics. The following information is required in each column for all three tables.

6.6.2.1. Paragraph #. Identify the paragraph where text for KPP/attribute is located within CPD.

6.6.2.2. Capstone Concept for Joint Operations (CCJO) Attribute. Identify the CCJO attribute being supported, if applicable.

6.6.2.3. KPP/KSA/Attribute. Depending on the table (e.g., KPP, KSA, and Attribute), identify the KPP/attribute for which the threshold and objective is listed in the CPD text.

6.6.2.4. Production Threshold. Insert the minimum acceptable operational value associated with subject KPP/attribute, below which the utility of the subject attribute becomes questionable. At this point in the program the production value is a known value; therefore no value is listed as a "TBD."

6.6.2.5. Production Objective. Insert the desired operational objective value associated with subject KPP/attribute, beyond which any gain in utility does not warrant additional expenditure. The objective value is an operationally significant increment above the threshold.

6.6.2.6. Rationale/Analytical References. Briefly summarize (four bullets or less) the rationale/analytical references of subject KPP/KSA/attribute as provided within the text of the CPD. Address the specific studies, analysis, threat assessments, modeling, or other reference sources (including informed military judgments) that justify and substantiate the threshold value.



**Table 6.1. CPD KPP RCT Formats.**

Para. #	CCJO key characteristics	Key Performance Parameter	Production Threshold	Production Objective	Rationale & Analytical References
		KPP 1	Value	Value	
		KPP 2	Value	Value	
		KPP 3	Value	Value	

**Table X.X. Key Performance Parameter Table**

**Table 6.2. CPD KSA RCT Formats.**

Para. #	Key System Attributes	Production Threshold	Production Objective	Rationale & Analytical References
	KSA 1	Value	Value	
	KSA 2	Value	Value	
	KSA 3	Value	Value	

**Table X.X. Key System Attribute Table**

**Table 6.3. CPD Attribute RCT Formats.**

Para. #	Attributes	Production Threshold	Production Objective	Rationale & Analytical References
	Attribute 1	Value	Value	
	Attribute 2	Value	Value	
	Attribute 3	Value	Value	

**Table X.X. Attribute Table**

**6.7. CPD Processing.** CPDs are coordinated per [Attachment 2](#). The level of review beyond the AFROCC is dependent upon the document’s JPD ([Table 2.1](#)). Follow the review and approval process for CPDs presented in [Attachment 2](#) and the specific coordination timelines located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**6.8. Post-CPD Activities.** When approved, the CPD supports a Milestone C decision, updates architectures, initiates production actions, and guides post-Milestone C activities.

**6.9. Changes to the CPD.**

6.9.1. CPD Update. The CPD is always specific to a single production increment and is normally not revised. However, the need may arise to update an approved CPD in order to accurately document changes that have occurred prior to and/or during Production and Deployment. Document preparation, format, review, validation, approval, and archiving of subsequent updates are the same as the original CPD. AF/A5R determines the Air Force level of review and approval authority required for CPD updates.

6.9.1.1. JROC Interest CPDs. Any change impacting a KPP in an approved CPD having a JPD of JROC Interest must be approved by the JROC. The AFROCC will validate KPP changes prior to forwarding them for JROC consideration. Non-KPP changes must also be approved by the JROC

unless the JROC has specifically delegated approval authority for non-KPP changes elsewhere. Changes requiring JROC approval normally are submitted for the complete JCIDS review process. However, sponsors may request to bypass the staffing process and proceed directly to the JROC. The Lead FCB will evaluate the change and determine if staffing is required. If additional staffing is not required, the FCB will work with the sponsor to prepare the change for JROC approval.

6.9.1.2. Independent, Joint Information, and Joint Integration CPDs. The Air Force may approve any change to CPDs having a JPD of Independent, Joint Information, or Joint Integration. AF/A5R will determine the level of review and approval authority for proposed changes to these CPDs on a case-by-case basis. The AFROCC will validate any KPP change.

## Chapter 7

### REQUIREMENTS ACTIVITIES TO SUPPORT DOTMLPF CHANGE RECOMMENDATION (DCR)

**7.1. Purpose.** This chapter provides a high-level description of capabilities-based requirements process activities conducted to support obtaining non-materiel solutions through the development of a DOTMLPF Change Recommendation (DCR). These activities include the requirements strategy development, RSR, and HPT activities leading to a DCR. The DCR focuses primarily on transformation efforts in the areas of doctrine, organization, training, materiel, leadership and education, personnel and facilities as well as policy. DCRs are generated by combatant commands, Services or agencies when it is necessary to change DOTMLPF resources to meet a capability gap/shortfall. The DCR process focuses on changes that are primarily non-materiel in nature, although there may be some associated materiel changes (commercial or non-developmental) required. DCRs may request additional numbers of existing commercial or non-developmental items. Both the Joint DCR and Air Force specific DCR are capability documents that can be used for justification during POM activities. Both the Joint DCR and Air Force specific DCR have a goal for implementation of less than 18 months from date of approval. Air Force DCRs are used when the DOTMLPF approach affects only Air Force assets.

**7.2. Pre-DCR Activities.** A DCR may be recommended by a number of sources (e.g., experimentation, Joint or Service assessments, review of existing JCIDS documents, an FSA, COCOM issues and warfighter lessons learned). Review of the recommendation and results of associated analysis will be used to evaluate the appropriate course of action. If a non-materiel approach is determined to provide the most cost-effective approach to satisfy capability gaps/shortfalls, a DCR requirements strategy will be developed.

**7.3. Requirements Strategy Development.** The strategy maps the details necessary for developing the DCR and describes the background, concepts influenced by the proposal, analysis methodology, findings and implementation plans for each of the DOTMLPF elements. The sponsor develops the requirements strategy in collaboration with the source of the recommendation, implementing organizations, resource managers and other appropriate SMEs. Strategy development includes sponsor's interaction with other Services and agencies, as necessary. For potential Joint DCRs, the sponsor (through the Air Staff SME and AF/A5R-J) collaborates with the appropriate FCB to ensure early involvement and support. Additional guidance on strategy development is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**7.4. Requirements Strategy Review.** AF/A5R approves the requirements strategy before initiating the DCR. To obtain approval, the sponsoring organization briefs AF/A5R on the requirements strategy. The RSR briefing should occur at least 30 days before starting an HPT. Additional guidance for RSR presentations and HPT scheduling requests is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**7.5. HPT Planning.** Following RSR approval, sponsor ensures that final preparations are completed for the HPT. Additional guidance for preparation and execution of an HPT is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**7.6. DCR Guidelines.** Follow guidelines and format for DCR development as described in CJCSI 3170.01, CJCSM 3170.01, and located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**7.7. DCR Processing.** DCRs are coordinated per **Attachment 2**. The level of review beyond the AFROCC is dependent upon the document's joint applicability, which will be determined upon submission to the Gatekeeper during Phase 1 Review. DCRs designated as Air Force specific will be validated by the AFROCC; AF/A5R will determine the appropriate approval authority based on content and impact. Joint DCRs will be reviewed by the JROC and approved by CJCS. Follow the review and approval process for DCRs presented in **Attachment 2** and the specific coordination timelines located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

### **7.8. Post-DCR Activities.**

7.8.1. Joint DCRs. Joint DCRs that have been approved for implementation will be assigned to the JCB for oversight and monitoring of implementation. The JCB provides substantive oversight of DOTMLPF actions to ensure that implementation activities within each aspect of the seven critical considerations remain focused on achieving the integrated result described in the recommendation. The Director, Joint Staff/J-8 (DJ-8), the respective joint DOTMLPF functional process owner and the sponsor will work together to create an implementation plan and timeline. The key implementation tasks identified in the approved recommendation serve as a starting point for this plan and timeline. The DJ-8, in coordination with the joint DOTMLPF functional process owners, will ensure that each task is completed in accordance with the timeline and provide status and visibility into the process to senior leaders. The status of all ongoing implementation activities, are provided to the JCB at regularly scheduled sessions.

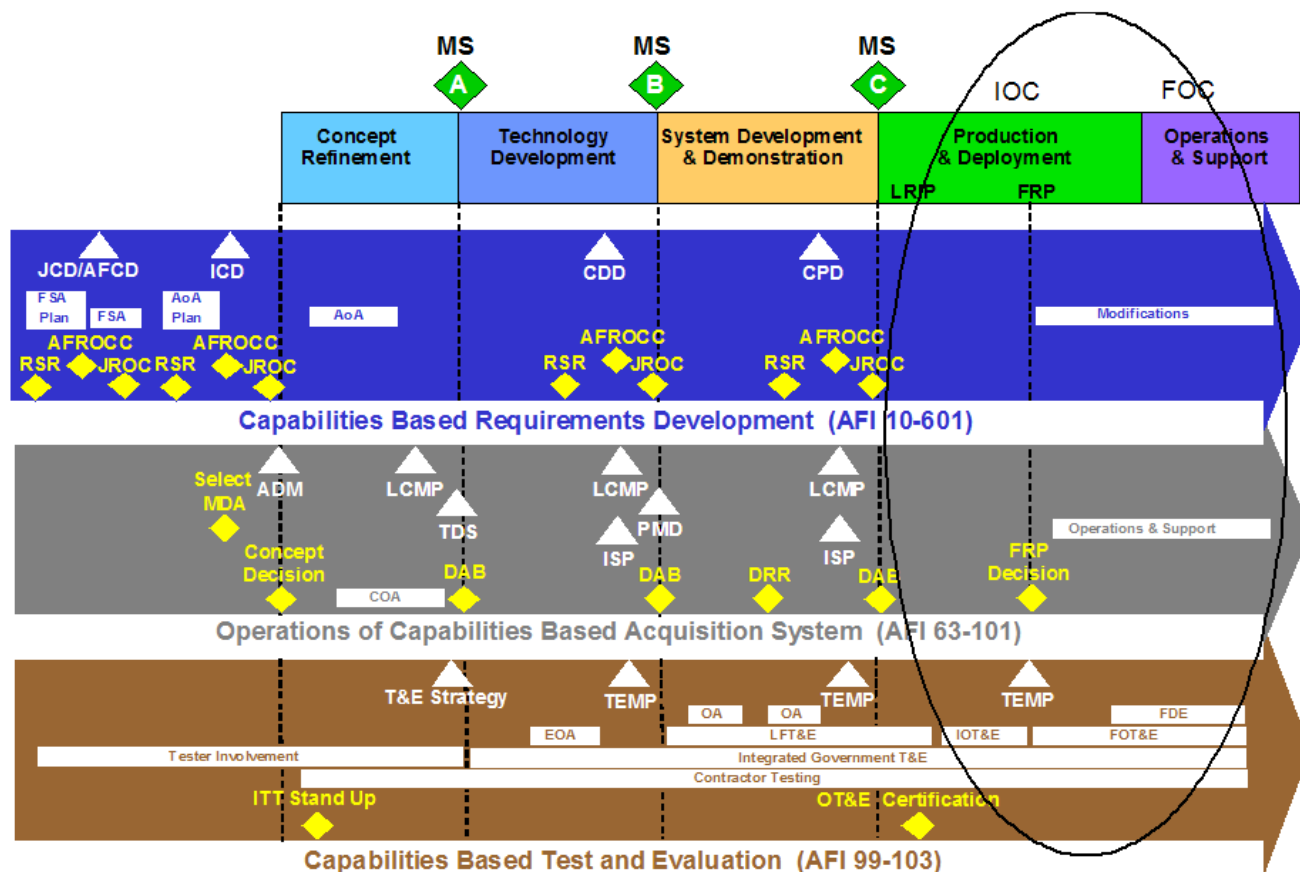
7.8.2. Air Force DCRs. DCRs that have been approved for implementation by AF/A5R will be assigned to the AFROCC for oversight and monitoring of implementation. Air Staff SMEs will assist the sponsoring MAJCOM/DRU/FOA in creating an implementation plan and timeline. The sponsor, in coordination with Air Staff SMEs and process owners, will ensure that each task is completed in accordance with the timeline. The status of all ongoing implementation activities, are provided to the AFROCC on a semi-annual basis.

Chapter 8

REQUIREMENTS ACTIVITIES TO SUPPORT MODIFICATIONS

**8.1. Purpose.** This chapter provides a description of the capabilities-based requirements process activities conducted to support modifications (Figure 8.1). It outlines the requirements activities required to support the management of modifications for Air Force fielded and managed systems.

Figure 8.1. Activities to Support Modifications.



**8.2. Sustainment.** A new ICD, CDD, CPD, or AF Form 1067 is not required to retain or restore capabilities of fielded systems that have an approved requirements/JCIDS document. For example, subsystems such as radar, avionics, self protection devices, etc., that have approved performance threshold/objective parameters but are no longer able to meet those parameters, can be updated or replaced to meet threshold/objective values under the authority of the approved requirements/JCIDS document.

**8.3. Modifications.** A modification is defined as an alteration to a configuration item (CI) that, as a minimum, changes the form, fit, function and/or interface of the item. Modifications to CIs are implemented via modification kits and consist of Group A and Group B items. Group A items are parts or components (including software) permanently or temporarily installed in a CI to support, secure, interconnect or accommodate the equipment in a Group B kit. Group B items are parts or components (including software) that complete a modification when installed in the CI, and are normally readily removable. AFI

63-1101, *Modification Management*, further defines and describes the modification process and provides guidance and procedures for managing modifications. An AF Form 1067 cannot be used for any modification that introduces or modifies the Net Ready-Key Performance Parameter (NR-KPP). For a complete description of NR-KPP requirements, refer to CJCSI 6212.01.

8.3.1. Permanent Modifications. Permanent modifications are managed as acquisition programs and therefore must satisfy approved requirements (**Table 8.1**).

8.3.1.1. AF Form 1067. An AF Form 1067, *Modification Proposal*, documents the submission, review, and approval of requirements for permanent modifications estimated to cost no more than ten percent of the minimum threshold dollar values for ACAT II designated programs as described in DoDI 5000.2, Enclosure 2. When estimated expenditures exceed 10% of ACAT II minimum threshold dollar values (e.g. \$14M RDT&E or \$66M procurement funding in FY2000 constant dollars); an AF Form 1067 may not be used. Unless requirements were previously established in an approved CDD, CPD, or legacy requirements document, the sponsor must prepare new JCIDS documents (ICD, CDD and CPD, as required).

8.3.1.2. AF Form 1067 Approval. The Lead MAJCOM and Program Manager (PM) for a system must approve AF Form 1067s for permanent modifications. Modifications projected to cost in excess of \$30M in FY 2000 constant dollars are also approved by AF/A5R to ensure proper reprogramming actions are completed. In this case, the MAJCOM requirements principals submit the completed AF Form 1067 to AF/A5R accompanied by a transmittal memo and a table containing thresholds and objectives for all attributes required for the modification along with their supporting rationale and analysis (use CPD RCT attribute table as guide for AF Form 1067 table). AF/A5RD coordinates AF Forms 1067 (using established JCIDS timelines) with appropriate Air Staff organizations prior to AF/A5R review and approval.

8.3.2. Temporary Modifications. Temporary modifications change the configuration of a system for flight or ground test purposes or to support the accomplishment of a specific mission. Approved AF Forms 1067 can be used as the capabilities-based requirements documentation for a temporary modification to a system.

8.3.3. In-Production Systems. An AF Form 1067 is applicable only to items that have been delivered to the government under DD-250. Modifications or configuration changes to undelivered items do not require a new or updated capabilities-based requirements document unless the change is driven by a change to the underlying requirement. If some articles of the in-production system have been delivered and the modification will also be made to the delivered articles, document capabilities-based requirements for modifying the government owned items with an AF Form 1067, ICD, CDD, or CPD, as appropriate.



**Table 8.1. Modification (\$) Thresholds**

<b>Modification (\$)</b> Amounts	<b>Requirements Document</b>	<b>Approval Authority</b>
< 10% of ACAT II Minimum Thresholds * & < \$30M total expenditure **	AF Form 1067	Lead MAJCOM & PM
< 10% of ACAT II Minimum Thresholds * & > \$30M total expenditure **	AF Form 1067 with RCT for KSAs & Attributes (use CPD RCT format)	HQ USAF/A5R
> 10% of ACAT II Minimum Thresholds *	ICD, CDD, CPD	See <a href="#">Table 2.1.</a>

\* Consideration must be given to both RDT&E and procurement amounts

\*\* Total dollar amounts are based on FY 2000 constant dollars

**8.4. Forms Adopted.** AF Form 1067, *Modification Proposal*, DD Form 250, *Material Inspection And Receiving Report*.

CARROL H. CHANDLER, Lt Gen, USAF  
DCS, Air, Space & Information  
Operations, Plans & Requirements

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

Title 10, United States Code, *Armed Forces*, §139, §2366, §2399, and §2400

DoD C4ISR *Architecture Framework*

DoDD 5000.1, *Defense Acquisition System*

DoDI 5000.2, *Operation of the Defense Acquisition System*

CJCSI 3137.01, *The Functional Capabilities Board Process*

CJCSI 3170.01, *Joint Capabilities Integration and Development System*

CJCSM 3170.01, *Operation of the Joint Capabilities Integration and Development System*

CJCSI 3470.01, *Rapid Validation and Resourcing of Joint Urgent Operational Needs (JUONS) in the Year of Execution*

CJCSI 5123.01, *Charter for the Joint Requirements Oversight Council*

CJCSI 6212.01, *Interoperability and Supportability of Information Technology and National Security Systems (IT and NSS)*

Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*

*Air Force Enterprise Architecture Framework*

*Air Force Requirements for Operational Capabilities Council Charter*

AFDD 1-2, *Air Force Glossary*

AFPD 10-6, *Capabilities-Based Planning & Requirements Development*

AFPD 10-9, *Lead Operating Command Weapon Systems Management*

AFPD 10-28, *Air Force Concept Development*

AFPD 37-1, *Air Force Information Management*

AFPD 90-11, *Planning System*

AFI 10-602, *Determining Mission Capability and Supportability Requirements*

AFI 10-604, *Capabilities-Based Planning*

AFI 10-2303, *Battlelabs*

AFI 14-111, *Intelligence in Force Modernization*

AFI 14-205, *Geospatial Information & Services*

AFI 16-1002, *Modeling and Simulation (M&S) Support to Acquisition*

AFI 33-103, *Requirements Development and Processing*

AFI 33-108, *Compatibility, Interoperability, and Integration of Command, Control, Communications, and Computer (C4) Systems*

AFI 33-124, *Enterprise Information Technology Architectures*

AFI 63-101, *Operations of Capabilities-Based Acquisition System*

AFI 63-114, *Rapid Response Process*

AFI 63-1101, *Modification Management*

AFI 99-103, *Capabilities-based Test and Evaluation*

AFMAN 37-123, *Management of Records*

NSS Acquisition Policy 03-01, *Guidance for DoD Space System Acquisition Process*

### ***Abbreviations and Acronyms***

**ACAT**—Acquisition Category

**ACTD**—Advanced Concept Technology Demonstration

**ADM**—Acquisition Decision Memorandum

**AFCD**—Air Force Capabilities Document

**AFLIRP**—Air Force Lesson Issue Resolution Program

**AFROCC**—Air Force Requirements for Operational Capabilities Council

**AFROCCM**—Air Force Requirements for Operational Capabilities Council Memorandum

**AMA**—Analysis of Materiel Approaches

**AoA**—Analysis of Alternatives

**APB**—Acquisition Program Baseline

**ATD**—Advanced Technology Demonstration

**CBRNE**—Chemical, Biological, Radiological, Nuclear and High Yield Explosives

**CCD**—Combat Capability Document

**CCJO**—Capstone Concept for Joint Operations

**CDD**—Capability Development Document

**CDR**—Critical Design Review

**CI**—Configuration Item

**CJCS**—Chairman, Joint Chiefs of Staff

**CJCSI**—Chairman, Joint Chief of Staff Instruction

**CJCSM**—Chairman, Joint Chief of Staff Manual

**COA**—Course of Action

**CONOPS**—Concept of Operations

**CPD**—Capability Production Document

**CRM**—Comment Resolution Matrix

**CRRA**—Capabilities Review and Risk Assessment

**CSAF**—Chief of Staff of the United States Air Force

**DAB**—Defense Acquisition Board

**DCR**—DOTMLPF Change Recommendation

**DIA**—Defense Intelligence Agency

**DJ-8**—Director, Joint Staff/J-8

**DoD**—Department of Defense

**DOTMLPF**—Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, & Facilities

**DRR**—Design Readiness Review

**DRU**—Direct Reporting Unit

**DSAB**—Defense Space Acquisition Board

**EA**—Evolutionary Acquisition

**EBO**—Effects-Based Operations

**EOA**—Early Operational Assessment

**FAA**—Functional Area Analysis

**FCB**—Functional Capabilities Board

**FDE**—Force Development Evaluation

**FNA**—Functional Needs Analysis

**FOA**—Field Operating Agency

**FOC**—Full Operational Capability

**FoS**—Family of Systems

**FOT&E**—Follow-On Operational Test and Evaluation

**FRP**—Full Rate Production

**FSA**—Functional Solutions Analysis

**FY**—Fiscal Year

**HSI**—Human Systems Integration

**HPT**—High Performance Team

**ICD**—Initial Capabilities Documents

**iCDD**—Initial Capabilities Development Document

**IOC**—Initial Operational Capability

**IOT&E**—Initial Operational Test and Evaluation  
**IRSS**—Information & Resource Support System  
**ISP**—Information Support Plan  
**IT**—Information Technology  
**ITT**—Integrated Test Team  
**IT/NSS**—Information Technology/ National Security System  
**JCB**—Joint Capabilities Board  
**JCD**—Joint Capabilities Document  
**JCIDS**—Joint Capabilities Integration and Development System  
**JIC**—Joint Integrating Concept  
**JOC**—Joint Operating Concept  
**JOpsC**—Joint Operations Concepts  
**JS**—Joint Staff  
**JPD**—Joint Potential Designator  
**JRO**—Joint Requirements Office  
**JROC**—Joint Requirements Oversight Council  
**JROCM**—Joint Requirements Oversight Council Memorandum  
**JUON**—Joint Urgent Operational Need  
**KDP**—Key Decision Point  
**KIP**—Key Interface Protocol  
**KM/DS**—Knowledge Management/Decision Support  
**KPP**—Key Performance Parameter  
**KSA**—Key System Attribute  
**LCMP**—Life Cycle Management Plan  
**LFT&E**—Live Fire Test & Evaluation  
**LRIP**—Low-Rate Initial Production  
**MAJCOM**—Major Command  
**MDA**—Milestone Decision Authority  
**MDAP**—Major Defense Acquisition Program  
**M&S**—Modeling and Simulation  
**MS**—Milestone  
**NDI**—Non-Developmental Items

**NR-KPP**—Net-Ready Key Performance Parameter

**NSS**—National Security Space

**NSS**—National Security System

**OA**—Operational Assessment

**ORD**—Operational Requirements Document

**OSD**—Office of the Secretary of Defense

**OSD/PA&E**—Office of the Secretary of Defense/Program Analysis and Evaluation

**OT&E**—Operational Test and Evaluation

**PM**—Program Manager

**PMD**—Program Management Directive

**POC**—Point of Contact

**PDR**—Preliminary Design Review

**QDR**—Quadrennial Defense Review

**RCT**—Requirements Correlation Table

**RDT&E**—Research, Development, Test and Evaluation

**RRP**—Rapid Response Process

**RSR**—Requirements Strategy Review

**S&T**—Science and Technology

**SAP**—Special Access Program

**SDR**—System Design Review

**SECAF**—Secretary of the Air Force

**SME**—Subject Matter Expert

**SoS**—System of Systems

**SRR**—System Requirements Review

**T&E**—Test and Evaluation

**TBD**—To Be Determined

**TDS**—Technology Development Strategy

**TEMP**—Test and Evaluation Master Plan

**TRA**—Technology Readiness Assessment

**UJTL**—Universal Joint Task List

**UON**—Urgent Operational Need

**USD (AT&L)**—Under Secretary of Defense (Acquisition, Technology and Logistics)



**USecAF**—Under Secretary of the Air Force

**VCJCS**—Vice Chairman of the Joint Chiefs of Staff

### *Terms*

**NOTE:** The purpose of this glossary is to help the reader understand the terms listed as used in this publication. It is not intended to encompass all terms. See pertinent Joint and Air Force specific publications for standardized terms and definitions for DoD and Air Force use.

**Acquisition Category (ACAT)**—Categories established to facilitate decentralized decision-making and execution, and compliance with statutorily imposed requirements. The categories determine the level of review, decision authority, and applicable procedures. DoDI 5000.2, Enclosure 3, provides the specific definition for each acquisition category.

**Acquisition Program Baseline (APB)**—Each program's APB is developed and updated by the program manager and will govern the activity in the phase succeeding the Milestone for which it was developed.

**Advanced Concept Technology Demonstration (ACTD)**—One of three technology transition mechanisms; the other two are ATDs and experiments. ACTDs are used to determine the military utility of proven technology and to develop the concept of operations that will optimize effectiveness. ACTDs are not themselves acquisition programs, but are designed to provide a residual, usable capability upon completion, and/or transition into acquisition programs.

**Advanced Technology Demonstration (ATD)**—One method of technology transition. ATDs are used to demonstrate the maturity and potential of advanced technologies for enhanced military operational capability or cost effectiveness, and reduce technical risks and uncertainties at the relatively low costs of informal processes.

**AF Form 1067 Modification Proposal**—An AF Form 1067 documents the submission, review, and approval of requirements for modifications to fielded Air Force systems.

**Air Force Capabilities Document (AFCD)**—The AFCD is primarily a planning document, which is normally generated as a result of the Air Force capability-based planning process. Although not recognized by the Joint Staff as a formal JCIDS document, the AFCD is capability-based and lays the foundation for additional analysis and development of JCIDS documents. The AFCD defines the capability required, capability gap/shortfall and assigns responsibility for follow-on functional solution analyses.

**Analysis of Alternatives (AoA)**—The evaluation of the operational effectiveness and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables.

**Approval**—The formal or official sanction of the identified capability described in the capability documentation. Approval also certifies that the documentation has been subject to the uniform process established by the DoD 5000 series.

**Architecture**—The structure of components, their relationships, and the principles and guidelines governing their design and evolution over time.

**Attributes**—Characteristics so significant they must be verified by testing or analysis. Whenever possible, attributes should be stated in terms that reflect the capabilities necessary to operate in the full

range of military operations and the environment intended for the system, family of systems (FoS), or system of systems (SoS). These statements will guide the acquisition community in making tradeoff decisions between the threshold and objective values of the stated attributes. Operational testing will assess the ability of the system(s) to meet the production threshold values.

**Capability**—The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. It is defined by an operational user and expressed in broad operational terms in the format of a joint capabilities document, initial capabilities document or a joint DOTMLPF change recommendation. In the case of materiel proposals, the definition will progressively evolve to DOTMLPF performance attributes identified in the capability development document and the capability production document.

**Capability Development Document (CDD)**—A document that captures the information necessary to develop a proposed program(s), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable, and technically mature capability.

**Capability Gap**—The inability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. The gap may be the result of no existing capability, lack of proficiency in existing capability, or lack of sufficiency in existing capability.

**Capability Production Document (CPD)**—A document that addresses the production elements specific to a single increment of an acquisition program.

**Capability Shortfall**—A lack of full military utility needed by an operational user to effectively execute a task.

**Capstone Concept for Joint Operations (CCJO)**—The CCJO heads the family of joint operations concepts that describe how joint forces are expected to operate across the range of military operations in 2012-2025. Its purpose is to lead force development and employment primarily by providing a broad description of how the future joint force will operate. Service concepts and subordinate joint concepts will expand on the CCJO solution. Experimentation will test the concepts and offer recommendations for improvements across doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) and policy.

**Combat Capability Document (CCD)**—A CCD is a capabilities-based requirements document used by the Air Force in lieu of an ICD, CDD and CPD to support fielding an *interim* solution to a warfighter's urgent capability needs.

**Combatant Commander**—A commander of one of the unified or specified combatant commands established by the President.

**Concept of Operations (CONOPS)**—A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations.

**Course of Action (COA)**—The COA is a planning and decision process that culminates in a MAJCOM decision. The COA includes a series of alternative program choices developed by the MDA or designate, presented to a MAJCOM commander and that once a specific COA is selected, becomes a formal agreement between the MDA and the operator (MAJCOM Commander) that clearly articulates the performance, schedule, and cost expectations of the program. The COA provides the basis for the Technology Development Strategy during the Technology Development Phase.

**DD Form 250**—The DD Form 250 (Material Inspection and Receiving Report) is a multipurpose report used to: (1) provide evidence of acceptance at origin/destination; (2) provide evidence of Government contract quality assurance at origin/destination; (3) supply packing list(s); (4) document shipping/receiving; (5) as a contractor invoice; and (6) commercial invoice support.

**DoD Components**—The DoD components consist of the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the combatant commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, DoD Field Activities, and all other organizational entities within the Department of Defense.

**Effects-Based Operations (EBO)**—Military actions and operations designed to produce distinctive and desired effects through the application of appropriate movement, supply, attack, defense, and maneuvers. Effects-based operations focus on functional, systemic, and psychological effects well beyond the immediate physical result of a tactical or operational event. Furthermore, it is equally concerned with military actions and operations that trigger additional effects beyond those desired.

**Experiments**—Experiments test candidate technologies alone and as components in new systems and are a critical part of the development of a new technology. Experiments facilitate the transition of a device from operation in the laboratory to operation as a component or system in the field.

**Evolutionary Acquisition (EA)**—DoD's preferred strategy for rapid acquisition of mature technology for the user. An evolutionary approach delivers capability in increments (in either spiral development or incremental development), recognizing up-front the need for future capability improvements. (See paragraph 1.5.2.1. for additional information)

**Family-of-Systems (FoS)**—A set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capabilities. The mix of systems can be tailored to provide desired capabilities, dependent on the situation.

**Functional Area Analysis (FAA)**—An FAA identifies the operational tasks, conditions and standards needed to achieve military objectives. It uses the national strategies, the family of Joint Operations Concepts (JOpsC), Integrated Architectures (as available), Air Force CONOPS, and the Universal Joint Task List (UJTL) as input. Its output is the tasks to be reviewed in the follow-on functional needs analysis. The FAA includes cross-capability and cross-system analysis in identifying operational tasks, conditions and standards. The FAA should be conducted as a collaborative effort.

**Functional Capabilities Board (FCB)**—A permanently established body that is responsible for the organization, analysis, and prioritization of joint warfighting capabilities within an assigned functional area.

**Functional Needs Analysis (FNA)**—It assesses the ability of the current and programmed joint capabilities to accomplish the tasks that the FAA identified, under the full range of operating conditions and to the designated standards. Using the tasks identified in the FAA as primary input, the FNA produces as output a list of capability gaps/shortfalls that require solutions, and indicates the time frame in which those solutions are needed. The sponsor leads the FNA.

**Functional Solution Analysis (FSA)**—It is an operationally based assessment of all potential DOTMLPF approaches to solving (or mitigating) one or more of the capability gaps/shortfalls identified in the FNA. On the basis of the capability needs, potential solutions are identified, including (in order of priority) integrated DOTMLPF changes that leverage existing materiel capabilities; product improvements to existing materiel or facilities; adoption of interagency or foreign materiel solutions; and

finally, initiation of new materiel programs. Identified capability gaps/shortfalls or redundancies (excess to the gap/shortfall) establish the basis for developing materiel approaches in ICD and/or DOTMLPF approaches through CJCSI 3180.01, *Joint Requirements Oversight Council (JROC) Programmatic Processes for Joint Experimentation and Joint Resource Change Recommendations*.

**Full Operational Capability (FOC)**—The full attainment of the capability to effectively employ a weapon system, item of equipment, or system of approved specific characteristics, which is manned and operated by a trained, equipped, and supported military unit or force. FOC is not necessarily a date; it defines the criteria necessary to declare full operational capability.

**Full-Rate Production**—Production of economic quantities following stabilization of the system design and prove-out of the production process.

**Gatekeeper**—That individual who makes the initial joint potential designation of JCIDS proposals. This individual will also make a determination of the lead and supporting FCBs for capability proposals. The Gatekeeper is supported in these functions by USJFCOM, J-6, J-7, and the FCB Working Group leads. The Vice Director, J-8 serves as the Gatekeeper.

**Human Systems Integration**—Includes the integrated and comprehensive analysis, design and assessment of requirements, concepts and resources for system manpower, personnel, training, safety and occupational health, habitability, personnel survivability and human factors engineering.

**Implementing Command**—The command (usually Air Force Materiel Command or Air Force Space Command) providing the majority of personnel in direct support of the program manager responsible for development, production, and sustainment activities.

**Increment**—A militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed, and sustained. Each increment of capability will have its own set of threshold and objective values set by the user.

**Information Assurance (IA)**—Information operations and technology that protects and defends information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation and includes restoration through protection, detection, and reaction capabilities.

**Information & Resource Support System (IRSS)**—IRSS is a web-based Air Force-wide system, which supports Air Force CONOPS capabilities-based planning, speeds up the development and processing of Air Force requirements documents, and provides the much-needed links between planning and programming.

**Information Support Plan (ISP)**—Used by program authorities to document the IT and NSS needs, objectives, interface requirements for all non-ACAT and fielded programs. ISPs should be kept current throughout the acquisition process and formally reviewed at each Milestone, decision reviews and whenever the operational concepts, and IT and NSS requirements change (ref: CJCSI 6212.01).

**Information Technology (IT)**—Any equipment or interconnected system to subsystems of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, or reception of data or information. Information technology includes computers, ancillary equipment, software, firmware, and similar procedures, services (including support services), and related resources. Information technology does not include any equipment that is acquired by a federal contractor incidental to a federal contract.

**Initial Capabilities Document (ICD)**—Documents the need for a materiel solution to a specific capability gap/shortfall derived from an initial analysis of alternatives executed by the operational user and, as required, an independent analysis of alternatives. It defines the capability gap/shortfall in terms of the functional area, the relevant range of military operations, desired effects, and time.

**Initial Capability Development Document (iCDD)**—The iCDD is a Space Acquisition unique document required to support the NSS 03-01 acquisition process. In addition to the ICD and the AoA, it is used to support key decision point (KDP) A. The iCDD is intended to identify KPPs to ensure that warfighter input is received before critical decisions are made through the design process. Waiting until KDP-B to get a JROC approved CDD runs the risk of design decisions being made without warfighter involvement. Unlike other versions of the CDD, not all architectural views are required and there may be some areas listed as TBD.

**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. It is normally defined in the CDD. *NOTE:* IOC will be event-driven and not tied to a specific future date.

**Integrated Architectures**—An architecture consisting of multiple views or perspectives (operational view, systems view, and technical view) that facilitates integration and promotes interoperability across family of systems and systems of systems and compatibility among related architectures.

**Intelligence-Sensitive**—Any program/initiative that consumes, processes or produces intelligence information, thereby requiring threat or intelligence infrastructure support, and which will be measured and evaluated by a program or project office in terms of cost, performance, and impact on warfighter capabilities and fielding, shall be considered intelligence-sensitive.

**Interoperability**—The ability of systems, units or forces to provide data, information, materiel and services to and accept the same from other systems, units or forces and to use the data, information, materiel and services so exchanged to enable them to operate effectively together. NSS and IT interoperability includes both the technical exchange of information and the end-to-end operational effectiveness of that exchanged information as required for mission accomplishment.

**Joint Capabilities Board (JCB)**—The JCB functions to assist the JROC in carrying out its duties and responsibilities. The JCB reviews and, if appropriate, endorses all JCIDS and DOTMLPF proposals prior to their submission to the JROC. The JCB is chaired by the Joint Staff, J-8, Director of Force Structure, Resources, and Assessment. It is comprised of Flag Officer/General Officer representatives of the Services.

**Joint Capabilities Document (JCD)**—The JCD identifies a set of capabilities that support a defined mission area as identified in the Family of Joint Future Concepts, concept of operations (CONOPS), or Unified Command Plan-assigned missions. The capabilities are identified by analyzing what is required across all functional areas to accomplish the mission. The gaps/shortfalls or redundancies are then identified by comparing the capability needs to the capabilities provided by existing or planned systems. The JCD will be used as a baseline for one or more initial capabilities documents or joint doctrine, organization, training, materiel, leadership and education, personnel and facilities change recommendations, but cannot be used for the development of capability development or capability production documents. The JCD will be updated as changes are made to the Family of Joint Future Concepts, CONOPS or assigned missions.



**Joint Functional Concept (JFC)**—An articulation of how a future Joint Force Commander will integrate a set of related military tasks to attain capabilities required across the range of military operations. Although broadly described within the Joint Operations Concepts, they derive specific context from the Joint Operating Concepts and promote common attributes in sufficient detail to conduct experimentation and measure effectiveness.

**Joint Integrating Concept (JIC)**—An articulation of how a future Joint Force commander will integrate capabilities to generate effects and achieve an objective. A JIC includes an illustrative CONOPS for a specific scenario and a set of distinguishing principles applicable to a range of scenarios. JICs have the narrowest focus of all concepts and distill JOC and JFC-derived capabilities into the fundamental tasks, conditions and standards required to conduct a capabilities-based assessment.

**Joint Operating Concept (JOC)**—An articulation of how a future Joint Force Commander will plan, prepare, deploy, employ, and sustain a joint force against potential adversaries' capabilities or crisis situations specified within the range of military operations. Joint Operating Concepts guide the development and integration of Joint Function Concepts (JFCs) to provide joint capabilities. They articulate the measurable detail needed to conduct experimentation and allow decision makers to compare alternatives.

**Joint Operations Concepts (JOpsC) Family**—A concept is a notion or statement of an idea--an expression of how something might be done. A concept may, after further development, experimentation, assessment and refinement, lead to an accepted way of doing something. The JOpsC family includes the CCJO, Joint Operating Concepts (JOCs), Joint Functional Concepts (JFCs), and Joint Integrating Concepts (JICs). In all cases, subordinate concepts within the JOpsC family are compatible with and supportive of the CCJO.

**Joint Potential Designator (JPD)**—A designation assigned by Vice Director J-8 to specify JCIDS validation, approval, and interoperability expectations.

1. "JROC Interest" designations will apply to all ACAT I/IA programs and ACAT II and below programs designated as JROC Interest. This designation may also apply to intelligence capabilities that support DoD and national intelligence requirements. These documents will be staffed through the JROC for validation and approval. All JCDs, Joint DCRs will be designated as JROC Interest.
2. "Joint Integration" designations will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force and an expanded review is not required, but C4 interoperability, intelligence, or munitions certification is required. Once the required certification(s) are completed, Joint Integration proposals are validated and approved by the sponsoring component.
3. "Joint Information" designations will apply to ACAT II and below programs with the purpose of keeping the Services and combatant commands informed of ongoing efforts for programs that do not reach the threshold for JROC Interest or Joint Integration. Joint Information Programs will undergo a single stage review for concurrence on the assignment of the Joint Information JPD. Based upon this review, the FCB will continue processing as a Joint Information Program or elevate the program to a JROC Interest or Joint Integration JPD. Joint Information Programs will be validated and approved by the sponsoring component.
4. "Independent" designations will apply to ACAT II and below programs where the concepts and/or systems associated with the document do not significantly affect the joint force, an expanded



review is not required, and no certifications are required. Once designated, these documents are returned to the sponsoring component for validation and approval.

**Joint Requirements Oversight Council Memorandum (JROCM)**—Official JROC correspondence generally directed to an audience(s) external to the JROC -- usually decisional in nature.

**Key Decision Point (KDP)**—Major decision point that separates the phases of a space system acquisition program.

**Key Performance Parameter (KPP)**—Those attributes or characteristics of a system that are considered critical or essential to the development of an effective military capability and those attributes that make a significant contribution to the key characteristics as defined in the Family of Joint Operations Concepts. Failure to meet a KPP attribute may result in restructuring of the initiative.

**Key System Attribute (KSA)**—An attribute or characteristic considered essential for an effective military capability during an increment. KSAs provide decision makers with an additional level of capability prioritization below the KPP level. Generally, KSAs are the top 8 to 10 attributes that are considered as potential KPPs but do not meet full KPP criteria.

**Knowledge Management/Decision System (KM/DS)**—An electronic staffing and repository tool the Joint Staff uses for development and staffing of JCIDS documents.

**Lead Command**—The command that serves as operators' interface with the PM for a system as defined by ACPD 10-9, not to be confused with the MAJCOM designated by HQ USAF/A5R as OPR for authoring a capabilities-based requirements document.

**Low-Rate Initial Production (LRIP)**—Production of the system in the minimum quantity necessary (1) to provide production-configured or representative articles for operational tests pursuant to Title 10 §2399; (2) to establish an initial production base for the system; and (3) to permit an orderly increase in the production rate for the system sufficient to lead to full-rate production upon the successful completion of operational testing.

**Materiel Solution**—A defense acquisition program (non-developmental, modification of existing systems, or new program) that satisfies identified operator capabilities.

**Milestones**—Major decision points that separate the phases of an acquisition program.

**Milestone Decision Authority (MDA)**—The individual designated, in accordance with criteria established by the USD(AT&L), by the ASD(C3I) for Automated Information System acquisition programs or by the USecAF for space programs to approve entry of an acquisition program into the next phase.

**Militarily Useful Capability**—A capability that achieves military objectives through operational effectiveness, suitability and availability, which is interoperable with related systems and processes, transportable and sustainable when and where needed and at costs known to be affordable over the long term.

**Modification**—An alteration to a configuration item applicable to aircraft, missiles, support equipment, ground stations software (imbedded), trainers, etc. As a minimum, the alteration changes the form, fit, function or interface of the item. A weapon system is defined as a combination of elements that function together to produce the capabilities required to fulfill a mission need, including hardware, equipment, software, and all Integrated Logistics Support elements, but excluding construction or other improvements to real property.

**Net-Ready Key Performance Parameter (NR-KPP)**—The NR-KPP assesses information needs, information timeliness, information assurance, and net-enabled attributes required for information exchange and use. The NR-KPP consists of measurable and testable characteristics and/or performance metrics required for the timely, accurate, and complete exchange and use of information to satisfy information needs for a given capability. The NR-KPP is comprised of the following elements: compliance with the Net-Centric Operations and Warfare (NCOW) Reference Model (RM); compliance with applicable Global Information Grid Key Interface Profiles (KIP); verification of compliance with DoD information assurance requirements; and supporting integrated architecture products required to assess information exchange and use for a given capability. The NR-KPP is documented in the following requirements documents: CDD, CPD, and Operational Requirements Document (ORD) Updates.

**Objective**—The desired operational goal associated with a performance attribute, beyond which any gain in utility does not warrant additional expenditure. The objective value is an operationally significant increment above the threshold. An objective value may be the same as the threshold when an operationally significant increment above the threshold is not significant or useful.

**Operating Command**—Those commands operating a system, subsystem, or item of equipment.

**Operator**—An operational command or agency that employs acquired systems for the benefit of users. Operators may also be users.

**Operational Test and Evaluation (OT&E)**—**1.** The field test, under realistic combat conditions, of any item of (or key component of) weapons, equipment, or munitions for the purpose of determining the effectiveness and suitability of the weapons, equipment, or munitions for use in combat by typical military users; and the evaluation of the results of such test. (Title 10 §139(a)(2)) **2.** Testing and evaluation conducted in as realistic an operational environment as possible to estimate the prospective system's operational capabilities and limitations. In addition, OT&E provides information on operational effectiveness and suitability, organization, personnel requirements, doctrine, and tactics. It may also provide data to support or verify material in operating instructions, publications, and handbooks. *NOTE:* The term OT&E is often substituted for IOT&E, QOT&E, or FOT&E, and depending on the context, has the same meaning as those terms.

**Operational View (OV)**—A view that describes the joint capabilities that the user seeks and how to employ them. The OVs also identify the operational nodes, the critical information needed to support the piece of the process associated with the nodes, and the organizational relationships.

**Procurement**—Procurement appropriations fund those acquisition programs that have been approved for production (to include low rate initial production (LRIP) of acquisition objective quantities), and all costs integral and necessary to deliver a useful end item intended for operational use or inventory upon delivery.

**Program Executive Officer (PEO)**—A military or civilian official who has primary responsibility for directing several MDAPs and for assigned major system and non-major system acquisition programs.

**Program Management Directive (PMD)**—The official Air Force document used to direct acquisition or modification responsibilities to appropriate Air Force MAJCOMs/FOAs/DRUs for the development, acquisition, modification or sustainment of a specific weapon system, subsystem, or piece of equipment. It is used throughout the acquisition cycle to terminate, initiate, or direct research for development, production, or modifications for which sufficient resources have been identified. States program unique requirements, goals, and objectives, especially those to be met at acquisition Milestone B or later, or other program review.

**Program Manager (PM)**—As used in this instruction applies collectively to System Program Director, Product Group Manager, Single Manager, or acquisition program manager. The PM is the designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM shall be accountable for credible cost, schedule, and performance reporting to the MDA.

**Rapid Response Process (RRP)**—An expedited process for documenting and staffing materiel solutions to urgent, time-sensitive requirements. The process is fully described in AFI 63-114, *Rapid Response Process*.

**Requirements Correlation Table (RCT)**—A three-part table, specific to Air Force-generated CDDs and CPDs, which provides an audit trail of the performance attributes and desired capabilities identified in the text of these documents. The RCT lists operator-identified performance attributes and capabilities with accompanying thresholds and objectives; identifies operator recommended KPPs; provides supporting rationale justifying each threshold obtained from the AoA or concept studies; and provides a concise summary to ensure decision makers have the necessary data to make informed decisions.

**Sponsor**—The organization responsible for documentation, periodic reporting, and funding actions necessary to support needed capabilities (e.g., MAJCOM, FOA, DRU, etc.)

**System-of-Systems (SoS)**—A set or arrangement of interdependent systems that are related or connected to provide a given capability. The loss of any part of the system will degrade the performance or capabilities of the whole.

**Systems View (SV)**—A view that identifies the kinds of systems, how to organize them, and the integration needed to achieve the desired operational capability. It will also characterize available technology and systems functionality.

**Technical View (TV)**—A view that describes how to tie the systems together in engineering terms. It consists of standards that define and clarify the individual systems technology and integration requirements.

**Test and Evaluation Master Plan (TEMP)**—Documents the overall structure and objectives of the T&E program. It provides a framework within which to generate detailed T&E plans and it documents schedule and resource implications associated with the T&E program. The TEMP identifies the necessary developmental, operational, and live-fire test activities. It relates program schedule, test management strategy and structure, and required resources to: critical operational issues; critical technical parameters; objectives and thresholds documented in the requirements document; and Milestone decision points.

**Threshold**—A minimum acceptable operational value below which the utility of the system becomes questionable.

**User**—An operational command or agency that receives or will receive benefit from the acquired system. Combatant commanders and their Service component commands are the users. There may be more than one user for a system. Because the Service component commands are required to organize, equip, and train forces for the combatant commanders, they are seen as users for systems. The Chiefs of the Services and heads of other DoD components are validation and approval authorities and are not viewed as users.

**Validation**—The review of documentation by an operational authority other than the user to confirm the operational capability. Validation is a precursor to approval.

## Attachment 2

### DOCUMENT REVIEW

**A2.1. Document Review and Approval.** Sponsors are responsible for ensuring a full review of draft capability-based requirements documents, resolution of issues identified during this review, and submitting documents for validation and approval. For JCIDS documents, the extent of this review and designation of the validation and approval authority is determined by the JPD assigned to the document and the ACAT level of the program supported by the document. Since this information is subject to frequent change, current staffing flowcharts and guidance for the staffing process are located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**A2.2. Information and Resource Support System (IRSS).** IRSS is an automated tool designed to facilitate development, staffing, and archiving of operational-capabilities requirements documents. Sponsors will submit documents and taskings via IRSS to AF/A5R-JC for Air Staff Review, Joint Review, AFROCC validation, and JROC approval and to track the history of document development. AF/A5R-JC will forward documents and tasking to appropriate Air Staff and Joint Staff offices. After a document is approved, the IRSS librarian will archive the document and all related information within IRSS. Detailed information on IRSS procedures and conventions is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**A2.3. Air Force Points of Contact.** Each MAJCOM/Agency responsible for reviewing capabilities-based requirements documents will establish a single office with responsibility for receiving documents for comment, distributing the document within their organization, and consolidating and returning comments. For HQ USAF, AF/A5R-JC is the single point of contact for document reviews, and AF/A5R has delegated authority to AF/A5R-JC to staff the document to the appropriate level for HQ USAF and Secretariat review on all JCDs, DCRs, AFCDs, ICDs, CDDs, and CPDs. A listing of applicable agencies and offices to be included in the Air Force review is located on the AF/A5RD web site at: <https://www.xo.hq.af.mil/xor/xord/>.

**A2.4. Air Force Review.** Normally, there is a single round of Air Force review and comment on a capabilities-based requirements document. The intent is for this review to be at the O-6 level, but organizations may elevate the document to the appropriate level within their chain of command as they see fit. The normal review cycle is 21 calendar days; sponsors must provide justification if a shorter review time is needed.

**A2.5. Joint Staff Review/Certifications.** Sponsors will submit all draft JCIDS documents through AF/A5R-JC to the JCIDS Gatekeeper for joint review. The Vice Director, J-8 serves as the JCIDS Gatekeeper. Documents developed by an AF/A5R facilitated HPT may be submitted for simultaneous Air Force and Joint Staff review. The Gatekeeper will designate a lead and any supporting FCBs with responsibility for the document and formally assign a JPD to the document. JPD designations are described in CJCSM 3170.01 and determine the level of joint involvement in the review, certification, validation, and approval of a document. **Table A2.1.** depicts the certifications required prior to approval of a JCIDS document. AFCDs, CCDs, and AF Forms 1067 are not submitted for the Gatekeeper process or Joint Staff review.

**Table A2.1. Document Certification/Validation Authority.**

Certification/ Validation	JROC Interest	Joint Integration	Independent/ Joint Information	Documents
Threat Validation	DIA	DIA	Service	JCD, ICD, CDD, & CPD
Intelligence *	JS/J-2	JS/J-2	-	JCD, ICD, CDD, & CPD
Insensitive Munitions**	JS/J-8	JS/J-8	-	CDD & CPD
Interoperability & Supportability	JS/J-6	JS/J-6	-	CDD & CPD

\* For programs that consume, produce, process, or handle intelligence data

\*\* Applies to munitions programs only

A2.5.1. JROC Interest documents receive a Joint Phase 1 review (conducted at the O-6 level and above as designated by the reviewing organization). Following resolution of comments, these documents are presented to the AFROCC for Air Force validation. Following the AFROCC, JROC Interest documents with unresolved critical comments from Phase 1 review, or if directed by the document's lead FCB, are submitted for a Joint Phase 2 review (conducted at the flag level). Applicable certifications are then granted based on resolution of Phase 1 and, if necessary, Phase 2 comments. Upon attaining applicable certifications, documents are submitted for FCB and JCB review and JROC approval.

A2.5.2. Joint Integration documents undergo a three stage certification process. Stage I review is conducted in the same way as the Phase 1 review for a JROC Interest document. A Stage II review is required only if there are unresolved critical comments from Stage I or if directed by the document's lead FCB. Both Stage I and Stage II reviews are conducted at the O-6 level for Joint Integration documents. After resolution of all critical comments from previous stages, the sponsor requests final certifications. This is Stage III of the process. All certifications for Joint Integration documents must be obtained prior to AFROCC review and validation."

A2.5.3. Joint Information documents undergo a single stage of joint review for informational purposes and for concurrence on the assigned JPD. Based on this review, the JPD may be changed to Joint Integration or JROC Interest. Comments submitted during the single joint review on the content of Joint Information documents need not be addressed. Joint Information documents do not require any joint certifications and are validated and approved by the Air Force.

A2.5.4. Independent documents do not undergo joint review. No joint certifications are required and they are validated and approved by the Air Force.

**A2.6. Review of Non-Air Force Sponsored JCIDS Documents.** The Joint Staff J-8 forwards all JCIDS documents with a JPD of JROC Interest, Joint Integration, or Joint Information to AF/A5R-JC for Air Force review. Once received, AF/A5R-JC forwards the document via IRSS to all Air Staff and MAJCOM mandatory addressees listed on the Air Force Staffing Distribution list. After review, AF/A5R



approves the Air Force position on the document and recommends the level of Air Force participation to the sponsoring Service. These documents are normally staffed only once to the Air Force for review and comment, but a Phase 2 review may be required if there are unresolved issues from the initial joint review or if directed by the document's lead FCB.

**A2.7. Document Coordination and Commenting.** Lack of a response from any Air Force agency tasked to review a capabilities-based requirements document by the designated suspense date is considered concurrence (tasking agencies are not required to accept late comments). Document reviewers will submit comments and identify the significance of the comment as "Critical," "Substantive," or "Administrative" using descriptions below for reference. Convincing support for critical and substantive comments will be provided in the comment matrix.

A2.7.1. Critical. A critical comment indicates non-concurrence with the document until the comment is satisfactorily resolved. Critical comments are restricted to Cost/Schedule/Performance Attributes, particularly KPPs and KSAs, Concept of Operations, and other fundamental issues (such as sustainment, security, or violation of policies and directives) that would bring into question the rationale for the document to be approved. Documents with unresolved critical comments will not go to the AFROCC unless approved by AF/A5R. Document reviewers will not make critical comments on issues not related to their area of responsibility (substantive comments are allowed assuming commenter has expertise outside their current area of responsibility).

A2.7.2. Substantive. A substantive comment addresses a section in the document that appears to be, or is potentially unnecessary, incorrect, misleading, confusing, or inconsistent with other sections. Substantive comments do not lead to document non-concurrence, but the document sponsor must consider all substantive comments for incorporation.

A2.7.3. Administrative. An administrative comment addresses typographical, format, or grammatical errors. The sponsor should consider all administrative comments.

**A2.8. Comment Resolution.** Document sponsors will consolidate all critical and substantive comments into two CRMs; one CRM contains comments from Air Force organizations, and the second CRM contains comments from the Joint Phase 1 review. A third CRM will be used if a Joint Phase 2 review is required. Sponsors will use the CRMs to document actions taken in response to each comment. The document sponsor must show the rationale for not fully accepting a critical or substantive comment. The document sponsor resolves all critical comments before submitting the document for AFROCC review, unless otherwise approved by AF/A5R.

A2.8.1. Comment Resolution Timing. Per JS/J8 direction, the comment resolution period is 15 calendar days. If the comment resolution period is deemed excessive, AF/A5R may direct re-staffing.

A2.8.2. Resolving Critical Comments. Resolve comments at the lowest possible level. If the document sponsor disagrees with a critical comment or the resolution requires a subjective response from the sponsor, contact the comment originator to work toward a mutually agreeable resolution. The method, point of contact (POC) and date of resolution must be documented in the CRM (e.g. "via telecon with Maj Smith on xx date"). If the resolution merely requires the substitution or addition of commenter provided wording, sponsor resolution should indicate the comment was accepted ("A") and state that the recommended wording was accepted in its entirety--the comment originator need not be contacted.



A2.8.2.1. Adjudication Procedures. If a critical comment cannot be resolved, the issue is elevated as required to achieve final resolution. The intent of the adjudication process is to prevent a single office/individual from holding up the document indefinitely. If the document sponsor cannot adjudicate the comment with the comment originator, the issue is raised to the O-6 level for adjudication. If the comment cannot be resolved at the O-6 level, the document sponsor requests AF/A5RD support in adjudicating the comment. AF/A5RD presents the issue to AF/A5R (as necessary). In rare instances, the comment may remain open and be adjudicated at the AFROCC. For adjudication issues with other Services or the Joint Staff, the Air Staff SME assists the document sponsor in working the issue with the applicable FCB Working Groups. In rare cases, unresolved issues may be submitted to the FCB, JCB, or JROC for resolution.

**A2.9. Document Completion.** A signed JROCM documents approval of a JROC Interest capabilities-based requirements document. A signed AFROCC Memorandum (AFROCCM) documents approval of a Joint Integration, Joint Information, or Independent document, an Air Force DCR or an AFCD. (CSAF approves documents supporting ACAT I programs; AF/A3/5 approves documents supporting ACAT II programs; AF/A5R approves documents supporting ACAT III programs, AFCDs and Air Force DCRs.) After document approval, the document sponsor will provide the final version to AF/A5R-JC via IRSS. AF/A5R-JC is responsible for entering the document and all supporting material into the Requirements Document Library. AF/A5R-JC also forwards a copy to the J-8 Gatekeeper for archiving in KM/DS.

### Attachment 3

#### RESPONDING TO WARFIGHTER URGENT OPERATIONAL NEEDS (UON)

This attachment details capabilities-based requirements activities associated with addressing Warfighter Urgent Operational Needs to include the use of Air Force Combat Capability Documents (CCD). Acquisition activities associated with this process to include the Rapid Response Process (RRP) are described in AFI 63-114.

**A3.1. Warfighter Urgent Operational Needs.** The Air Force has established a process (**Figure A3.1.**) to rapidly field capabilities to satisfy Warfighter Urgent Operational Needs. Generally, these are needs identified during conflict or crisis situations that are life threatening or combat mission threatening, that are unforeseen military requirements and must be resolved as soon as practical. This process is intended to field readily available systems through accelerated means. It is not intended to be used for requesting non-materiel solutions or force deployments although it may result in identifying a non-materiel approach as the most effective solution.

A3.1.1. Process Flow. **Figure A3.1.** depicts the sequence of events associated with this process. In general, this is the same sequence of events that would occur in a normal capability-based planning, requirements and acquisition process. The difference is that the urgency of the need increases the emphasis on accomplishing each step expeditiously and implementing readily available solutions. Although **Figure A3.1.** and the more detailed discussions below depict a sequential process, actions should be taken in parallel wherever possible. Representatives from the warfighter, lead MAJCOM, Air Staff Offices, and the program manager must work closely together to meet desired timelines.

A3.1.2. Web site Information. Current procedures, templates, contact information and other process information is located on the Air Force Rapid Response Process web site at <https://www.safaq.hq.af.mil/mil/rrp/> or <http://oadev.hq.af.smil.mil/saf/aq/rrp/site>.

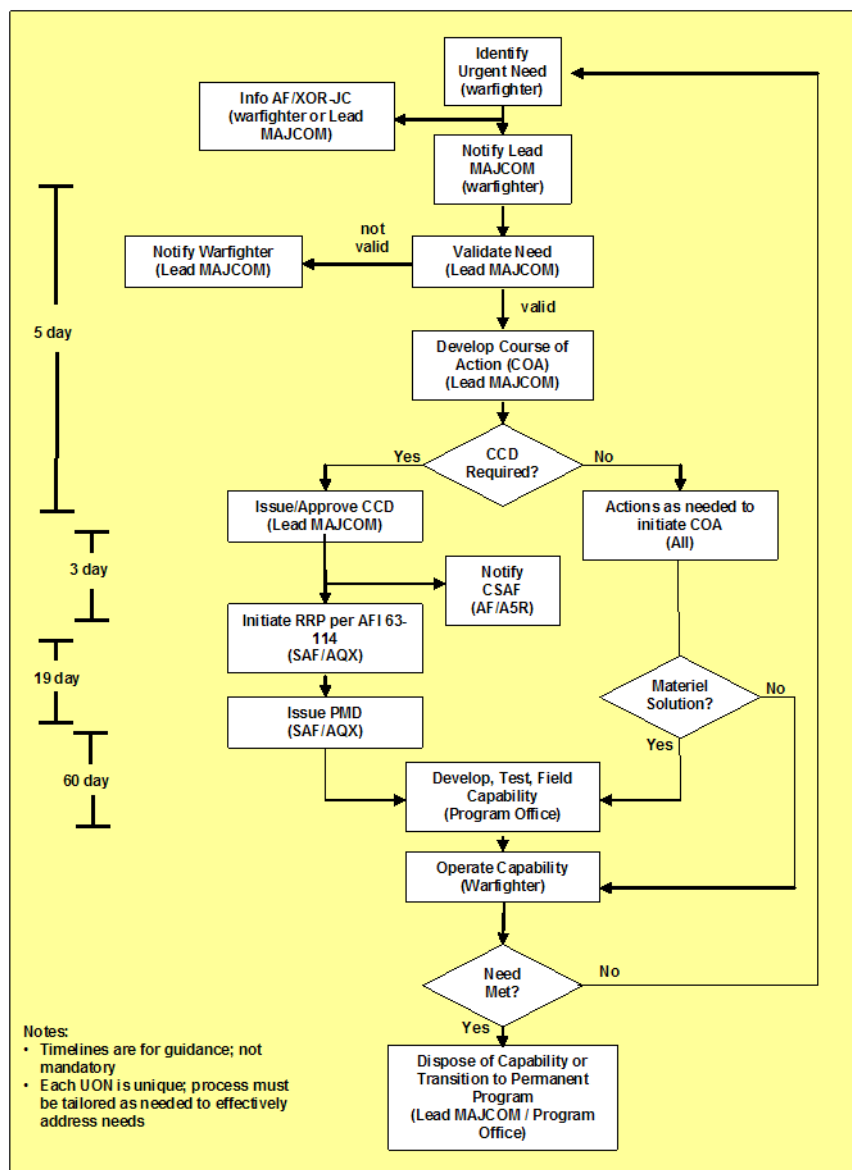
A3.1.3. Points of Contact.

A3.1.3.1. AF/A5R is the single Air Staff POC for capability-based requirements activities associated with this process. This includes receipt and Air Staff distribution of warfighter UONs and CCDs and tracking UON related activities for CSAF. Upon receipt of a Lead MAJCOM CCD, AF/A5R has three calendar days to staff an information package to the CSAF.

A3.1.3.2. SAF/AQXA is the single POC for the Secretariat staff for capability-based acquisition activities associated with this process. This includes determination of an appropriate acquisition strategy in accordance with the Rapid Response Process (RRP) as described in AFI 63-114.

A3.1.3.3. ACC, AMC, AFSOC, and AFSPC are lead MAJCOMs for addressing UONs. Each lead MAJCOM will identify a single OPR for processing UONs and tracking UON related activity within its MAJCOM. Contact information for MAJCOM OPRs is maintained on the Air Force Rapid Response Process Website web site at: <https://www.safaq.hq.af.mil/mil/rrp/> or <http://oadev.hq.af.smil.mil/saf/aq/rrp/site>.

Figure A3.1. Warfighter Urgent Operational Needs Process.



A3.1.3.4. AFMC will identify a single OPR for coordinating AFMC assistance in identifying solutions to warfighter UONs. Contact information for this OPR will be maintained on the Air Force Rapid Response Process web site at: <https://www.safaq.hq.af.mil/mil/rrp/> or <http://oadev.hq.af.smil.mil/saf/aq/rrp/site>.

**A3.2. Requirements Activities Associated with UON Identification.** The Air Force UON process begins when a Warfighting Commander identifies a capability gap/shortfall that could result in loss of life and/or prevent mission accomplishment and requests Air Force assistance. The request must come from a Joint Force Commander or Air Force Component Commander or the commander's representative. UONs outside the scope of Air Force responsibility should be submitted to Joint Staff J-8 for solution under joint processes described in CJCSI 3470.01. UONs for Air Force action should be sent to the appropriate lead MAJCOM (ACC, AMC, AFSOC or AFSPC) for resolution. ACC is the lead for UONs

associated with air combat capabilities, air-breathing ISR capabilities, and combat support capabilities. AMC is the lead MAJCOM for air mobility capabilities. AFSOC is lead for special operations capabilities, and AFSPC is lead for space related capabilities. Lead MAJCOMs must ensure AF/A5R is aware of any UONs they receive.

A3.2.1. UON Format. A suggested format (**Attachment 3A**) for submission of a UON is provided with this attachment. The warfighter is encouraged to provide as much information as possible including possible or preferred solutions. However, this submission should clearly spell out the needed capability and identify any constraints that might affect the choice of a solution.

A3.2.2. Early Notification. To facilitate mutual understanding of the need and expeditious identification of a satisfactory solution, warfighters are encouraged to contact the appropriate lead MAJCOM as early as possible if a UON submission is being considered.

A3.2.3. UON Validation. The lead MAJCOM is responsible for validating the warfighter's request as a UON. To be valid, the warfighter's request must identify a capability shortfall that is life threatening or combat mission threatening in a current crisis or conflict. If the request is not valid, the lead MAJCOM will notify the requestor and AF/A5R within five calendar days. If the warfighter's request identifies a valid UON, the lead MAJCOM will determine the most effective approach to meeting the need.

**A3.3. Requirements Activities Associated with Identifying a UON Solution.** The lead MAJCOM is responsible for determining the most expeditious and effective solution to address a valid UON.

A3.3.1. Course of Action. Developing a solution must include identifying the entire course of action needed to deliver the required capability to the warfighter. This course of action must not only identify a technical solution, but also the funding, acquisition, test and evaluation, and requirements strategies needed to field a capability (**Figure A3.2.**). The selected course of action should provide the minimum number of articles to the warfighter's theater of operations needed to satisfy the UON. This process is not intended for equipping forces worldwide or modifying an entire fleet. The lead MAJCOM should notify the requestor and AF/A5R of the selected course of action or status of the MAJCOMs response within five calendar days of receipt of a warfighter's UON.

A3.3.2. Early Air Staff Involvement. Lead MAJCOM's should consider seeking early Air Staff involvement when developing a course of action (**Figure A3.2.**), especially if the warfighter's UON is likely to result in a CCD as described below or if Air Staff assistance is likely to be needed for activities such as sourcing funds, reprogramming activity, or Congressional new start notification. One approach is for the Lead MAJCOM to contact AF/A5R and schedule a video or telephone conference to discuss the urgent operational need in detail with all key stakeholders. This forum, referred to as a preliminary CCD meeting, can expedite the solution by identifying and addressing potential problems early.

Figure A3.2. Identify Solution Sub-Process.

Course of Action Components				
Technical Solution	Funding Strategy	Acquisition Strategy	Test & Eval Strategy	Requirements Strategy
<ul style="list-style-type: none"> <li>•Non-materiel</li> <li>•Modifications</li> <li>•Off the shelf</li> <li>•Program acceleration</li> <li>•New acquisition</li> </ul>	<ul style="list-style-type: none"> <li>•Source from same PE</li> <li>•Off-set from other program</li> <li>•Reprogramming action</li> <li>•New start notification</li> </ul>	<ul style="list-style-type: none"> <li>•Rapid Response Process</li> <li>•Normal acquisition</li> <li>•Equipment purchase</li> </ul>	<ul style="list-style-type: none"> <li>•DT&amp;E</li> <li>•OT&amp;E</li> <li>•Seek Eagle</li> </ul>	<ul style="list-style-type: none"> <li>•Existing CDD, CPD, ORD</li> <li>•AF Form 1067</li> <li>•CCD</li> <li>•JCIDS</li> </ul>

A3.3.3. Technical Solution. The Lead MAJCOM should identify and evaluate one or more potential solutions to the UON. Ensure the solution will provide all components and connectivity needed for an effective end-to-end capability. For instance adding a communications system to an aircraft is not effective if there is no compatible system at the other end of the communications link. In many, cases an acceptable solution is readily identified. However, Air Staff, AFMC and AFSPC program offices, labs, other DoD components and the requestor are potential sources of alternatives and should be consulted when needed. Delivering required capabilities in time to meet the warfighters need date is the prime consideration in selecting a solution, but MAJCOMs should also consider risk, affordability, supportability, technical maturity, compatibility with existing systems and concepts, compatibility with other planned modernizations, and any user constraints. Consider the following possibilities when developing solutions.

A3.3.3.1. Non-materiel solutions such as changes to training practices, tactics, or operational or employment concepts.

A3.3.3.2. Permanent or temporary (T-1) modifications to an existing system

A3.3.3.3. Integrating a new munition or sub-system on an existing system.

A3.3.3.4. Purchasing additional articles of a fielded system or an off the shelf purchase of a government owned or commercial system.

A3.3.3.5. Accelerating delivery of an already planned system or capability.

A3.3.3.6. Procuring a new system through the Rapid Response Process.

A3.3.3.7. In some cases, a rapid response may not be feasible despite the urgency of the need. In these cases consider deferring the need to a normal capability development and acquisition process or continuing investigation and technology development until a solution becomes available. These approaches should consider whether the solution would still be needed when it finally becomes available.

A3.3.4. Funding Strategy. There is no dedicated funding source to address warfighter UONs. The lead MAJCOM is responsible for sourcing funds and should give UONs priority over other funding requirements. A funding strategy must include sustainment of the proposed capability until it is terminated or transitions to a program of record. The Program Element for systems or missions affected

by the UON should be considered the primary source of funding. If this is not feasible, the lead MAJCOM may need assistance from SAF/AQXR, SAF/FMBI, and appropriate program offices, Program Executive Officers, and Air Staff Program Element Monitors to source and ensure availability of funds from investment appropriations (i.e., 3600, 3010, 3080, etc. appropriations) even when the RRP is not implemented. Lead MAJCOMs do not normally have sufficient insight into these accounts to identify under-executing programs that might provide the best funding solution without outside assistance. The pre-CCD meeting is an effective forum to initiate discussions concerning funding issues. See AFI 63-114 for additional details on funding strategies.

A3.3.5. Acquisition Strategy. The lead MAJCOM should work with applicable program offices and SAF/AQXR to determine an appropriate acquisition strategy. The Rapid Response Process (RRP) is used by the Air Force to accelerate fielding of critical systems to meet theater-specific needs during wartime or crisis situations. It is initiated only when the lead MAJCOM issues a CCD and certain criteria are met as described below. Details on the RRP are provided in AFI 63-114. AFI 63-1101 describes modification processes. See AFI 63-101 if neither RRP nor a system modification is suitable.

A3.3.6. Test and Evaluation Strategy. The lead MAJCOM should work with applicable program offices and AF/TE to determine an appropriate test and evaluation strategy. Consider requesting a temporary increase in the resource priority rating for the proposed solution in accordance with AFI 16-301, *US Air Force Priority System for Resource Management*, if needed to access test resources. Reference AFI 63-104, the SEEK EAGLE Program, if aircraft-stores certification will be required.

A3.3.7. Requirements Strategy. Any acquisition activity intended to address a warfighter's UON must be based on valid and approved capability-based requirements. The type of documentation depends on the acquisition approach. Requirements for temporary or permanent modifications to existing systems can be documented with an AF Form 1067. If a requirement already exists for the intended solution such as through an approved CDD or CPD, no additional requirements document is needed. Accelerating a previously planned acquisition may be accomplished by providing direction to the appropriate acquisition activity. If no requirement exists and a new acquisition is called for, a CCD may be appropriate. If a rapid response is not possible and the lead MAJCOM wishes to pursue the requested capability, normal JCIDS documentation (ICD, CDD and CPD) must be developed.

A3.3.7.1. Combat Capability Document (CCD). A CCD is a capability-based requirements document used by the Air Force in lieu of an ICD, CDD and CPD to support fielding an interim solution to a warfighter's urgent operational need. It provides the requirements basis for the Air Force Rapid Response Process (RRP) described in AFI 63-114. The CCD and RRP lead to a short-term solution with only the number of articles required to address the UON. The lead MAJCOM will follow-up by processing the required JCIDS documents (ICD, CDD and CPD) for a long-term solution, sustainment activities, or to transition the CCD solution into a permanent program.

A3.3.7.1.1. CCD Criteria. A CCD and the Air Force RRP may be used only when the following criteria are met:

A3.3.7.1.1.1. The capability can be fielded in time to impact an ongoing conflict or crisis situation; use fielding within approximately 60 days of program start as a guide.

A3.3.7.1.1.2. The capability is needed by a warfighting commander to address a critical capability gap or shortfall that could result in loss of life and/or prevent mission accomplishment.



A3.3.7.1.1.3. The capability must be supportable and sustainable with the existing support structure.

A3.3.7.1.1.4. The envisioned program must be technically and technologically feasible and affordable.

A3.3.7.1.1.5. A viable concept to field, provide training, employ, support and sustain the required capability must exist.

A3.3.7.1.1.6. Capabilities that require extensive RDT&E do not normally qualify.

A3.3.7.1.2. CCD Preparation and Submission. In many cases, a warfighter's UON can be satisfied without a CCD. A CCD is prepared only by the lead MAJCOM and only when it is needed to implement the proposed response to a UON. A CCD is prepared using the format provided in this Attachment and is approved by the Lead MAJCOM commander. The Lead MAJCOM requirements principal will submit approved CCDs to AF/A5R. AF/A5R forwards the CCD to CSAF and to SAF/AQX to initiate the RRP, and to other Air Staff offices as needed.

A3.3.7.1.3. Unfunded CCDs. Under most circumstances, a viable funding strategy is developed as an integral part of the course of action responding to a UON; funding must be identified before implementing a solution. If the lead MAJCOM commander approves the requirement and deems there may be a corporate claim for funding (e.g., scope of acquisition obligates other MAJCOMs or the corporate Air Force should share in the financial burden), an unfunded CCD may be submitted directly to CSAF. The intent is to avoid prematurely terminating effective solutions, but this option is rarely used. MAJCOMs will notify AF/A5R as soon as possible when they intend to submit an unfunded CCD. (AFSOC works investment and RDT&E funding issues directly with HQ USAF and/or AFMC prior to submission of CCD.) All CCD requests must also address funding for CCD program sustainment. Submission of an unfunded CCD may result in CSAF directing funding from submitting MAJCOM's appropriations (or taking offsets). If the CSAF does not concur with the CCD being a corporate claim, it is returned to the submitting MAJCOM/CC for action. For more detailed funding information, refer to AFI 63-114.

A3.3.7.2. AF Form 1067. When an AF Form 1067 establishes requirements to satisfy a UON, Block 9 of the form will contain the statement "This modification is needed to address an Urgent Operational Need." and reference the specific request.

A3.3.7.3. SEEK EAGLE Request. Requirements for aircraft-stores certifications should be documented through a SEEK EAGLE Request as described in AFI 63-104. For urgent operational needs, the lead MAJCOM should request a quick reaction certification.

**A3.4. Requirements Activities Associated with Authorizing a UON Solution.** Solutions involving an acquisition are initiated through a Program Management Directive issued by SAF/AQ. The lead MAJCOM requirements originator will monitor and assist as necessary. Lead MAJCOMs will establish internal procedures for documenting and managing temporary modifications in accordance with AFI 63-1101.

**A3.5. Requirements Activities Associated with Developing, Testing, and Fielding a UON Solution.** Solutions involving an acquisition are normally developed, tested, and fielded by an AFMC or AFSPC program office. The Lead MAJCOM requirements originator will monitor and assist as necessary.

**A3.6. Requirements Activities Associated with Operating a UON Solution.** After the UON solution is fielded, the lead MAJCOM will continue to work with the warfighter to ensure capability meets the original need. Feedback from the warfighter will be useful in determining the long-term disposition of the fielded solution.

**A3.7. Requirements Activities Associated with Sustaining or Disposing of a UON Solution.** The process described in this attachment is intended to field an interim solution to meet a warfighters urgent need. However, the lead MAJCOM may elect to sustain the solution and transition the interim capability into a permanent program. In making this determination, MAJCOMs should consider whether the need for a capability will still be present beyond the current conflict, the overall effectiveness of the solution, and the compatibility of the solution with other systems and architectures. MAJCOMs should begin planning as early as possible for the ultimate disposition on UON solutions.

A3.7.1. Transition to a Permanent Program. The lead MAJCOM must process the appropriate JCIDS documents (ICD, CDD and CPD) to establish requirements for a permanent program. It may be appropriate to request an ICD waiver and proceed directly to a CDD or CPD based on the demonstrated utility of the solution in actual operations. Requirements for permanent modifications may be documented with an AF Form 1067 within the criteria described in [Attachment 2](#) and no further JCIDS documentation is needed.

A3.7.2. Disposal. The lead MAJCOM should notify the program manager if the capability will not be retained beyond the immediate crisis. At the end of its useful life, the capability will be demilitarized and disposed of in accordance with all legal and regulatory requirements. See DoDI 5000.2.

**Attachment 3A**  
**WARFIGHTER URGENT OPERATIONAL NEEDS**  
*Suggested Format*

**NOTE:** This is NOT a mandatory format; lead MAJCOMs will respond to a warfighter commander request regardless of how the request is formatted or transmitted. Requests should focus on identifying a capability gap or shortfall and any constraints that might impact selection of a solution. It is the Lead MAJCOM's responsibility to determine the best solution for filling the capability gap/shortfall. To ensure full understanding of the need and realistic expectations, the warfighter should contact the lead MAJCOM as early as possible when considering submission of a UON.

PRECEDENCE: IMMEDIATE

FROM: Warfighting Commander

ACTION: Lead MAJCOM (ACC/A8 for CAF issues; AMC/A5 for MAF issues; AFSPC/A5 for Space issues; and AFSOC/A5 for Special Forces issues)

INFO: HQ USAF/A3/5/A5R, SAF/AQ/FM/US/AQX/FMB/AQXA, HQ AFMC/A9C, ACC/A8X, AMC/A58, AFSOC/A5R, AFSPC/A5X, AETC/XPT, AFC2ISRC/A5 and other appropriate offices (including appropriate COCOM agencies: e.g., CENTCOM/J3).

E-mail copy to: [AFA5R.workflow@pentagon.af.mil](mailto:AFA5R.workflow@pentagon.af.mil)

CLASSIFICATION: As required

SUBJECT: URGENT OPERATIONAL NEED FOR (title of deficiency; if possible use an unclassified title)

1. MISSION DESCRIPTION: Identify the operation and theater being supported. Identify the general mission area where the urgent operational deficiency exists (e.g., electronic combat, aircrew chemical defense, command and control, precision strike). If applicable, identify the specific system or platform (e.g., B-52, F-15, JDAM) associated with the request.
2. REQUIRED CAPABILITY: Describe in broad terms the relevant capability or capabilities needed to address the mission area identified in the previous paragraph. This should include desired effects and outcomes as well as the tasks and functions that must be performed.
3. URGENT OPERATIONAL NEED: Describe the capability shortfall or gap as specifically as possible to include the tasks or functions that cannot be accomplished or that are unacceptably limited. Identify whether the gap is due to no existing capability, deficiency in a fielded capability, or an effective capability fielded in insufficient quantities.
  - 3A. KEY CHARACTERISTICS: If applicable, describe any key characteristics required for the solution and the minimum level of performance for these characteristics. Speed, range, payload, accuracy, reliability, interoperability, and mission availability are examples of characteristics. If multiple characteristics are provided, they should be prioritized based on their value to the warfighter.
  - 3B. PRIORITY. Describe how this urgent need ranks in priority compared to other urgent needs identified by the commander that have not yet been delivered.

3C. IMPACT IF CAPABILITY NOT PROVIDED: Discuss the risks to human life and mission success and how these risks will be mitigated if the requested capability is not provided.

4. CONSTRAINTS. Identify constraints, qualifications, or circumstances that could impact the design or selection of a solution.

4A. THREAT AND OPERATIONAL ENVIRONMENT: Describe in general terms the operational environment in which the capability will be used and the manner in which it will be employed including any biological, chemical, electromagnetic, or climatological considerations.

4B. INTEROPERABILITY: Identify and discuss any interoperability considerations for the solution such as systems and interfaces through which it will exchange information. Availability or limitations on command, control, communications and intelligence support; mission planning data: weather, oceanographic and astrogeophysical support should be discussed. Identify any other systems with which the solution must interact.

4C. TIMEFRAME: Identify the required IOC date. If possible, avoid using terms such as ASAP. If known, identify how long the capability will be needed.

4D. OTHER CONSTRAINTS: Discuss any other constraints including (but not limited to) arms control treaties; logistics support; life-cycle sustainment issues; availability of transportation, manpower; training, any human factors, safety, technology protection, system security engineering, health hazards, and potential non-military sensitivities.

5. RECOMMENDATIONS: Briefly discuss any materiel or non-materiel solutions considered by the warfighter. If the warfighter has identified a preferred or recommended solution, it should be provided in this paragraph.

6. POINTS OF CONTACT (POCs): Identify one or more POCs familiar with the urgent need. Provide name, grade, office symbol, phone number (DSN and/or Commercial) and email address (NIPRNET and SIPRNET).

If classified, include classification source and declassification instructions.

**Attachment 3B**  
**COMBAT CAPABILITY DOCUMENT (CCD)**  
*Mandatory Format*

PRECEDENCE: IMMEDIATE

FROM: Submitting Lead MAJCOM requirements principal (ACC/A8, AMC/A5, AFSOC/A5, or AFSPC/A5)

ACTION: HQ USAF/A5R WASHINGTON DC//

INFO: HQ USAF/CSAF/A3/5/A5R/, SAF/AQ/FM/US/AQX/FMB/AQXA, HQ AFMC/A9C, ACC/A8X, AMC/A58, AFSOC/A5R, AFSPC/A5X, AETC/XPT, AFC2ISRC/A5 and the organization that submitted the urgent need.

E-mail copy to: [AFA5R.workflow@pentagon.af.mil](mailto:AFA5R.workflow@pentagon.af.mil)

CLASSIFICATION: As required (Note: a CCD identifies a wartime shortfall and should normally be handled via classified channels even though it may be unclassified)

SUBJECT: COMBAT CAPABILITY DOCUMENT (CCD) FOR (title of the capability or system required by the CCD; if possible use an unclassified title)

1. CAPABILITY DISCUSSION: Reference the urgent need identified by the warfighter and cite the operation and theater being supported. Identify the general mission area where the urgent operational deficiency exists (e.g., electronic combat, aircrew chemical defense, command and control, precision strike). Describe in broad terms the relevant capability or capabilities needed to address the mission area, and describe the capability shortfall or gap as specifically as possible to include the tasks or functions that cannot be accomplished or that are unacceptably limited. Identify whether the gap is due to no existing capability, deficiency in a fielded capability, or an effective capability fielded in insufficient quantities.

1A. PRIORITY. Describe how this requirement ranks in priority compared to other CCD submitted by the MAJCOM that have not yet been delivered.

1B. IMPACT IF CAPABILITY NOT PROVIDED: Discuss the risks to human life and mission success and how these risks will be mitigated if the requested capability is not provided.

2. CONSTRAINTS. Identify constraints, qualifications, or circumstances that could impact the design of a solution.

2A. THREAT AND OPERATIONAL ENVIRONMENT: Describe in general terms the operational environment in which the capability will be used and the manner in which it will be employed including any biological, chemical, electromagnetic, or climatological considerations.

2B. INTEROPERABILITY: Identify and discuss any interoperability considerations for the solution such as systems and interfaces through which it will exchange information. Availability or limitations on command, control, communications and intelligence support; mission planning data, weather, oceanographic and astrogeophysical support should be discussed. Identify any other systems with which the solution must interact.

2C. TIMEFRAME: Identify the required IOC date. If possible, avoid using terms such as ASAP. If known, identify how long the capability will be needed.

2D. OTHER CONSTRAINTS: Discuss any other constraints including (but not limited to) arms control treaties; logistics support; life-cycle sustainment issues; availability of transportation, manpower; training; any human factors, safety, technology protection, system security engineering, health hazards, and potential non-military sensitivities.

3. ANALYSIS SUMMARY: Provide a very brief summary of the materiel and non-materiel alternatives that were considered and why the requested solution was picked.

4. SOLUTION SUMMARY: Describe the proposed system and clearly state what is to be developed and acquired. If more than one system is needed to provide the requested capability, they should all be described in this section.

4A. KEY CHARACTERISTICS: If applicable, describe any key characteristics required for the solution and the minimum level of performance for these characteristics. Speed, range, payload, accuracy, reliability, interoperability and mission availability are examples of characteristics. If multiple characteristics are provided, they should be prioritized based on their value to the warfighter.

4B. CONOPS: Briefly describe the concept for operating and maintaining the system and for providing training.

4C. FAMILY OF SYSTEMS/SYSTEM OF SYSTEMS SYNCHRONIZATION. Describe any sequencing or scheduling considerations if multiple systems are being developed.

4D. SUPPORTABILITY. Describe any unique supportability requirements for the system to include information requirements, intelligence requirements, and electromagnetic spectrum allocation.

4E. DOTMLPF CONSIDERATIONS. If applicable, describe any DOTMLPF changes that must be implemented as part of the overall solution.

5. IOC. Describe what assets must be provided for an IOC.

6. FUNDING. Describe the cost of the program broken down by appropriation and year. State whether a funding strategy has been identified. Describe the proposed source and impact of funding actions.

7. POINTS OF CONTACT (POCs). Identify one or more POCs at the lead MAJCOM and the need originator (warfighter) familiar with the CCD. Provide name, grade, office symbol, phone number (DSN and/or Commercial) and email address (NIPRNET and SIPRNET).

If classified, include classification source and declassification instructions.