AF/A5R
REQUIREMENTS DEVELOPMENT GUIDEBOOK

Volume 4

Requirements Activities to Support

Modification Proposals (use of AF Form 1067)

8 April 2020, Version 4.2b

Requirements Integration Division

AF/A5RP, Pentagon 5C858

PREFACE

This Guidebook is one in a series of AF/A5R developed guides describing the Air Force process for validation of *operational capability requirements* in support of overarching Capability Development efforts and in compliance with the main processes for "Requirements" via the Joint Capabilities Integration and Development System (JCIDS), for "Acquisition" via the Defense Acquisition System (DAS), and for "Resourcing" via the Air Force Strategy, Planning, Programming, Budgeting and Execution (SPPBE). **This guidebook describes the specific requirements activities to support the modification proposal process.**

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

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

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

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

OPR: Mr. James "Trip" Weyer, james.e.weyer.civ@mail.mil, 703-695-6244 (DSN 225)

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

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

CHANGE SUMMARY

Change Summary	Date
Initial Release: Revised the Guidebook Volumes to align policy and guidance under new Vol 1, as the "Capstone Guidebook" and separate the procedural guidance and other best practices in subsequent guidebook volumes and handbooks - Vol 1, Policy and Guidelines (revised previous Vol 1, refined all policy info) - Vol 2, Urgent Needs (major updates, revised the transition review portion) - Vol 3, JCIDS Deliberate Process (split out from Vol 1, reorganized layout) - Vol 4, Modification Proposals (split out from Vol 1, minor edits)	3 Oct 2017
• Admin changes to reflect AF/A5RP (without the dash) and integration with A5RJ	20 March 2018
• Admin changes to reflect new AF/A5 and AF/A8 • Increased the cost estimate amount for modifications • Added Delegation of Requirements Authority • Provided more guidance for permanent modifications option 2	31 Oct 2018 Version 3.0
• Admin updates and errata changes (red line) • Updates to include info related to 804, Middle Tier of Acquisition • Updates to clarify the delegation to MAJCOM (mods below $100M)	2 April 2019 Ver 3.01
• Typos on page 5, corrected references to AFI 63-101, Chapter 9 and deleted reference to AFI 63-131	9 April 2019
• Edits to clarify expectation to follow the guidebooks (vice "comply with") • Clarifications to process for HAF level review, descriptions of permanent mod categories and proper format/content for the Mod Proposal Addendum	1 Aug 2019
• Updated the references to HAF MD 1-56 (A5/8) which has been replaced by HAF MD 1-7 (AF/A5) • Updated references to reflect that the Office of Aerospace Studies (OAS) is now designated as AF/A5RA	4 Dec 2019 Ver 4.1
• Update references to DoDI 5000.02, new version is "Adaptive Acquisition Framework", the old version is retained in "Transitional" status…	30 Jan 2020 Ver 4.2
• Added new language to clarify staffing procedures and add a feasibility review for mod proposal addendums when submitted for HAF-level review • Note: retained red-line changes from version 4.2 as well	8 April 2020 Ver 4.2b

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SECTION 1. INTRODUCTION

1.1. Overview and Background. This section outlines the requirements activities to support the management of modifications to fielded (in service) systems managed by the Air Force under the acquisition policies and procedures described in *AFI 63-101/20-101, Chapter 9*. (OPR is SAF/AQX)

"Modification" Defined. AFI 63-101 defines a modification as an alteration to an in service configuration item (CI) that, as a minimum, changes its form, fit, function, or interface (F3I).

- *NOTE: In-Service (already fielded) systems are those that have been delivered to and accepted by the Air Force via a DD Form 250, Material Inspection and Receiving Report, or in the case of software, systems approved for full deployment (i.e., items already in use in the Air Force).*

Applicability. The following provides some examples of things that are not considered modifications (and therefore do not follow the procedures in this section.) For more detail, refer to AFI 63-101.

- *O&M funded parts replacement that does not alter F3I – Not a "Mod." (This would be considered routine maintenance, and would follow standard maintenance procedures.)*

- *Purchase of aircrew equipment, ground support equipment or similar devices – Not a "Mod." (Mods are physical changes to fielded systems, ask the question – what is being modified?)*

- *Replacement for an entire stand-alone piece of equipment or system – Not a "Mod" (Replacing an entire item/system… again, ask the question – what is being modified?)*

- *Design changes to items still under development/production (prior to fielding) - Not a "Mod." (This would be an engineering change, and follows the acquisition management process.)*

- *Procurement or purchase of new (stand-alone) "off the shelf" items – Not a "Mod." (This would probably be a simple purchase order, via contracting, Government Purchase Card, etc.)*

- *Software development using IT-Box documents – Not a "Mod." (Follow the IT-Box governance)*

1.2. Types of Modifications. Modifications may be installed as either temporary or permanent alterations as described below.

Temporary Modifications. Temporary modifications change the configuration of an item to enable short-term operational mission accomplishment (T-1), or to conduct test and evaluation (T&E) of new and modified equipment (T-2). When the temporary modification is no longer needed, it is removed and the item is returned to its permanent configuration.

- *NOTE: T-2 Test mods are managed by the acquisition program manager and do not typically require review or approval by a requirements decision authority.*

Permanent Modifications. Permanent modifications change the configuration of an item for operational effectiveness, suitability, survivability, and/or to reduce ownership costs of a fielded weapon system, subsystem, or item.

- *NOTE: Per AFI 63-101, permanent modifications are normally installed across the entire inventory of the host weapon system or product line. However, when necessary to support operational mission requirements, permanent modifications may be installed on a subset of the host weapon system or product line inventory with the approval of the lead command, applicable Program Manager, and the requirements validation/approval authority as described in this Guidebook.*

SECTION 2. GUIDANCE FOR MODIFICATIONS AND USE OF AF FORM 1067

2.1. Approval and Use of AF Form 1067. The AF Form 1067, *Modification Proposal,* is used to document the submission, review and approval of modification proposals (detailed instructions for completion of the AF Form 1067 are located in AFI 63-101.) The Approval Authority and required documentation for modification proposals is determined based on the estimate for the total amount of funding required (total of all expenditures, as indicated in Blocks 25 and 30 of the AF Form 1067), per **Table 2.1** and the following additional guidance:

Lead Command Approval Authority. For modification proposals estimated to cost less than $100M (total cost, as indicated in Blocks 25 and 30 of the AF Form 1067), the Lead Command may review and certify/approve the modification proposal using the AF Form 1067, and the procedures described in AFI 63-101 and any MAJCOM/Agency internal procedures, as applicable.

HAF-level Review and Approval. For modification proposals estimated to cost $100M or more (total cost, as indicated in Block 30 of the AF Form 1067), HAF-level review and approval is required in addition to the MAJCOM certification/approval, as described in the table below and in **section 2.2**.

- *NOTE: When HAF-level review is required (i.e. for modification proposals of $100M or more) the MAJCOM/Agency and Program Manager must ensure the modification effort does not commence until HAF-level approval is obtained via written decision (memo, staff summary, decision chart, etc.)*

- *NOTE: This process is provided to allow Sponsors to take full advantage of tailoring and streamlining (in lieu of going through the full JCIDS process for development of an ICD and/or CDD, for example). This process works best when Sponsors fully develop the Modification Proposal Addendum (as described below), which is essential to enable it to be used as a "Service equivalent" to the JCIDS Capability Development Document (CDD).*

Table 2.1. Modification Approval Table

If total cost estimate is:	Then the documentation and approval is:
Less than $100M (total cost, as shown on AF Form 1067, Blocks 25 and 30)	1) AF Form 1067 certified/approved by Lead Command IAW AFI 63-101, and any MAJCOM/Agency internal procedures, as applicable
$100M or more (total cost, as shown on AF Form 1067, Blocks 25 and 30)	1) AF Form 1067 certified/approved by Lead Command IAW AFI 63-101, and any MAJCOM/Agency internal procedures, as applicable *plus…* 2) AF Modification Proposal Addendum signed by MAJCOM/Agency Director of Requirements (refer to section 2.3. below) *and then…* 3) Decision Memo signed by AF/A5R (or higher) (for additional detail on HAF-level review and approval procedures, refer to section 2.2. below)

2.2. HAF-level Review and Approval Procedures. For modification proposals estimated to cost $100M or more (total cost, as indicated in Blocks 25 and 30 of the AF Form 1067), MAJCOM/Agency submits an AF Modification Proposal Addendum signed by the MAJCOM/Agency Director of Requirements (as described in **section 2.3** below) along with the associated Lead Command certified/approved AF Form 1067 and any necessary or requested supporting materials to AF/A5RP via IRSS, for HAF-level review. AF/A5A review –

potentially at Capability Development Council (CDC) level – is also needed to ensure that the proposed modification request fully supports the efforts in the Capability Development Guidance (CDG).

- Pre-coordination with AF/A5RP (similar in purpose to the solution pathway review). Sponsors are encouraged to contact AF/A5RP early in the development of their package for HAF-level review. It is important for Sponsors to understand the constraints to using the AF Form 1067 and the details necessary for approval of the Modification Proposal Addendum (in lieu of needing to develop a CDD, for example). Submitting a package with missing, incomplete or insufficient information is the main reason for packages being delayed at the HAF.

- AFGK Review and Tailored Staffing. AF/A5RP and the AF/A5R SME review the modification proposal package and (in coordination with SAF/AQX and other acquisition stakeholders) determine the appropriate level of AF and Joint review and approval, and whether any additional documentation or review is necessary to support validation of the requirements in the modification proposal.

- Feasibility Review. During tailored staffing of the mod proposal package, AFMC/A5R reviews the package in consultation with the assigned program office. This review covers the entire package including the mod proposal addendum and any associated system attributes (e.g. KPP, KSA, etc.) to ensure feasibility with respect to cost, schedule and quantity. Note. The Program Manager is required to add a feasibility statement to the AF Form 1067 (in Block 39, this is mandatory per acquisition policy) -- the additional review mentioned here, is to make sure the PM feasibility attestation on the Form 1067 is still accurate/relevant, before proceeding with validation staffing for the mod proposal package by the HAF-level requirements decision authority. AFMC/A5R provides written record of this review via email to AF/A5RP.

- Decision/Approval. HAF-level decisions regarding validation and approval of modifications proposals are documented in writing (e.g. memo, staff summary, decision chart, etc. approved by AF/A5R or higher) and archived in IRSS.

  - *NOTE: Review and approval for modifications to Common Support Equipment (CSE) is delegated to AFMC, and are therefore not subject to these procedures. Contact AFMC/A5R.*

2.2.1. Modification Categories. To facilitate the HAF-level review and approval, the Sponsor must coordinate with the program office, the Implementing Command headquarters requirements office (i.e. AFMC/A5R or AFSPC/A5X as appropriate) and other stakeholders to further identify the applicable category that best describes the modification for the appropriate approval action as follows:

Temporary (T-1) (Short Term Mission):

- Examples. Short Term Mission (T-1):

  - T-1 Modification to a fielded system to respond to a validated urgent need request

- Approval Criteria (T-1 mods): The modification proposal must specifically indicate the traceability to current/ongoing mission requirements (as documented in a validated UON/JUON/JEON, etc.) with applicable performance parameters, system attributes, and minimums or threshold values that are to be achieved. The proposal must also specify a target quantity and timeframe or duration for the requirement. Extensions beyond the approved quantity and/or timeframe will typically require a revalidation.

  - *NOTE: Per AFI 63-101, T-1 (short term mission) modifications shall not be used 1) due to a lack of appropriate modification funding (e.g. long term sustainment) or 2) in an attempt*

to circumvent the process associated with permanent modifications, as prescribed in this Guidebook and AFI 63-101.

- <u>Completion</u>: An AF decision (approved by AF/A5R or higher) indicating validation of the modification as a Temporary (T-1) (short term mission requirement) and archived in IRSS completes the HAF-level review and approval process.

Permanent - Category 1. (No requirements changes). Modifications which are necessary to retain or restore performance levels as indicated in previously validated capability requirements (e.g. those mods that can trace to an existing requirement and can be accomplished within the existing validated threshold and objective values) are considered "within scope" of the previously validated requirements and therefore do not normally require any new/additional JCIDS documentation or validation beyond approval of the AF Form 1067 and the associated Mod Proposal Addendum.

- <u>Permanent - Category 1 Examples</u>. Not proposing any new attributes, and the modification activity requires no changes to existing threshold or objective values:
  - Example: Replacement of a component no longer capable of meeting threshold value (and the existing validated threshold value is still sufficient to meet the need).
    - *NOTE: If a new component comes with increased performance and the Sponsor wants to "re-baseline" the threshold/objective value to reflect the new performance, then that would be considered a "Category 2", as described below. (This may facilitate support for sustainment of the new performance level.)*
  - Example: Upgrade to achieve an existing validated objective value that was previously not within the acceptable cost or risk trade space
  - Example: Upgrade to add functionality that was previously validated, but not fielded in the system at the time of production due to cost-schedule-performance trades
- <u>Permanent - Category 1 Approval Criteria</u>: The modification proposal must specifically indicate the traceability to existing, validated requirements (as documented in a previously validated ORD, ICD, CDD/CPD, UON/JUON/JEON, etc.) with applicable performance parameters, system attributes, and minimums or threshold values that are to be achieved by the modification.
- <u>Completion</u>: An AF decision (approved by AF/A5R or higher) indicating validation of the modification as a Permanent - Category 1 (within the scope of existing validated requirements) and archived in IRSS completes the HAF-level review and approval process.

Permanent - Category 2. (Requirements updates/changes, no "new" requirements). Modifications which are necessary to enhance performance levels beyond the scope of previously validated requirements (e.g. those mods that can trace to an existing requirement but there is a need for a revised/increased threshold value) are considered "out of scope" requirements and therefore require an update/change validation by an appropriate AF or Joint validation authority.

- <u>Permanent - Category 2 Examples</u>. No new attributes, but requires change(s) to previously validated attribute(s) or threshold/objective values:
  - Example: Replacement of a required capability/component due to obsolescence, and the replacement is available with a substantial increase in performance, and the Sponsor wants to "re-baseline" to a new threshold/objective value

- o Example: Upgrade necessary due to a change in Operational Context or Threat, that requires increasing the threshold value for a validated/existing attribute

- o Example: Upgrade to add functionality that was previously validated as an APA, but not fielded in the system at the time of production due to cost-schedule-performance trades and now the situation requires the capability and the Sponsor wants to make it a KSA

- Permanent - Category 2 Approval Criteria: This determination requires close coordination between AF/A5RP and SAF/AQX (along with other acquisition stakeholders) to determine the appropriate/acceptable requirements documentation and level of approval to support the acquisition decision(s) for the modification program.

  - o *NOTE: JCIDS procedures allow Service validation authority (i.e. HAF-level) to approve changes/updates to previously validated documents, depending on the scope of the delegated authority per the original validation memo.*

  - o *NOTE: Changes affecting KPP Thresholds (or other areas specified per the original validation memo) for programs designated as JCB/JROC Interest will typically need to return to the JCB/JROC for revalidation.*

  - o *NOTE: Changes affecting any Joint Certifications or Endorsements may need to be submitted to the Joint Staff to determine if a new/updated certification or endorsement is necessary. AF/A5RP manages coordination via the Joint Staff Gatekeeper, as required.*

- Completion: If validated as a Category 2 Permanent Modification, then an update/change validation memo (signed by the appropriate AF or JCIDS validation authority) archived in IRSS completes the HAF-level review and approval process. AF/A5RP also provides a copy of the update/change revalidation memo to the Joint Staff Gatekeeper for archiving in KM/DS.

Permanent - Category 3. (New Requirement). Modifications which are necessary to add new attributes beyond previously validated requirements (e.g. those mods that require a completely new attribute) are considered "new requirements" and therefore require new validation and approval by an appropriate AF or Joint validation authority.

- Permanent - Category 3 Examples. New attributes, as such require formal validation by an appropriate AF or JCIDS validation authority:

  - o Upgrade necessary due to a significant change Operational Context or Threat, that requires validation of a new performance attribute and threshold/objective values

  - o Upgrade to add functionality for a new mission area which requires a new capability/functionality not previously part of the system design

- Permanent - Category 3 Approval Criteria: If the modification is a Permanent - Category 3 Modification, there may be several options (see below), depending on the details of the proposal. This determination requires close coordination between AF/A5RP and SAF/AQX (along with other acquisition stakeholders) to determine the appropriate/acceptable requirements documentation and level of approval to support the acquisition decision(s) for the modification program.

  Option 1. If the modification is below the level of JCB/JROC interest (i.e. if there is no significant impact to the joint force) or if it would be a smaller ACAT III level program, then it may be appropriate to approve the modification proposal as a change/update to a previously validated JCIDS document to address updates/changes and new requirements.

- ▪ *NOTE: JCIDS procedures allow service validation authority (i.e. HAF-level) to approve changes/updates to previously validated documents, depending on the scope of the delegated authority per the original validation memo.*

- ▪ *NOTE: Changes or new requirements impacting the Joint Certifications or Endorsements may need to be submitted to the Joint Staff to determine if a new/updated certification or endorsement is necessary. AF/A5RP manages coordination via the Joint Staff Gatekeeper, as required.*

- ▪ *It might also be advisable to pursue Middle Tier of Acquisition "804" authority and use the AF Form 1067 and Mod proposal Addendum as a starting point for development of an appropriate requirements document. Refer to A5R Guidebook Vol 5.*

Option 2. If it is determined that the modification requires a new separate JCIDS document (e.g. not a simple update to a previous document, larger ACAT II level or JCB/JROC Interest program), then it may be appropriate to pursue a waiver for an ICD and AoA, and proceed to development of a CDD Annex or possibly a stand-alone CDD to establish the requirements for the program.

- • *It might also be advisable to pursue Middle Tier of Acquisition "804" authority and use the AF Form 1067 and Mod proposal Addendum as a starting point for development of an appropriate requirements document. Refer to A5R Guidebook Vol 5.*

Option 3. If the modification program will be an ACAT I level or designated Major Defense Acquisition Program (subject to <u>formal</u> DoDI 5000.02 oversight), it will likely be necessary to proceed to the formal CBA/ICD path to begin validation of the requirements for the program.

- • <u>Completion</u>: Appropriate determination and/or direction to the sponsoring MAJCOM/Agency (as described in the options above) and specified in writing and approved by the appropriate AF authority, archived in IRSS completes the HAF-level review and approval process.

2.3. AF Modification Proposal Addendum. The AF Modification Proposal Addendum is a memorandum addressed to AF/A5R, signed by an appropriate MAJCOM/Agency Director of Requirements (or designated representative) and contains the following sections (as a minimum):

<u>Title/Subject line</u>: AF Modification Proposal Addendum to [name of program/system, previous JCIDS document]. The title should clearly link this modification effort to the previously validated requirements of a currently fielded AF system.

<u>Category</u>: Indicate the category, as applicable (as described in section 2.2 above)

<u>References</u>: List relevant predecessor validation document(s) (JROCM, AF Memo, UON, etc.)

<u>Operational Context/Threat.</u> Provide a summary of any changes/updates that have occurred in operating concept, CONOPS, mission profiles or threat assessments that are driving the need for this modification. If not applicable, indicate "no change."

<u>Capability Gap(s).</u> Provide a summary of relevant (previously validated) capability requirements along with any required/proposed changes to mission/operational requirements (if applicable) and describe the associated gaps being addressed in the Modification Proposal. Address the risk assessment and traceability to CBA (or similar study) or other source used to identify the gap(s) and risk.

- ▪ *NOTE: requirements must be traceable to AF assigned roles, missions, and functions or other drivers (e.g. top-down direction, external compliance direction, etc.) and consistent with approved concepts of operations (CONOPs).*

<u>Performance Attributes (KPP, KSA, etc.)</u> Provide a summary of any required changes to previously validated attributes being addressed in the Modification Proposal. If not applicable (i.e. for Permanent-Category 1, enter "no changes" and indicate traceability the existing/validated requirements attributes.) *For all category 2 or category 3 proposals, provide KPP/KSA tables summarizing newly specified attributes* with threshold/objective values, similar to the format used for a CDD. If detail associated with each attribute cannot be adequately captured in a table, provide additional detail in narrative format.

- *NOTE: KPP, KSA tables or narrative are required to support validation and approval decisions for all CAT 2 and CAT 3 proposals – it is essential that the addendum provide detailed descriptions, with solid rationale and analytical references for any updated or new requirements that need to be validated to support the modification proposal. All attributes must be traceable to legitimate mission needs and approved concepts of operations (CONOPs).*
- *NOTE: Sponsors should also indicate any attributes that might require joint review or validation (e.g. Joint KPPs, Joint Performance Requirements (JPRs), Net-Ready or Joint Interoperability, or other service and CCMD needs).*

<u>Program Summary.</u> Provide a summary of the overall approach for funding strategy/sources, schedule (for fielding) including IOC and FOC target dates, and total quantities required/planned. Identify related interdependencies with other systems or programs which must be satisfied to provide a successful capability solution.

- *NOTE: Schedule and Quantity should balance operational need and affordability (this will be considered part of the validation/approval, along with the performance attributes, etc.)*

<u>Other Issues.</u> Identify any other significant issues that need to be resolved in support of this modification proposal. Address any impacts to mandatory KPPs, interoperability supportability or other AF or Joint Certifications that may require additional review/approval.

APPENDIX 1 - GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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

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

AFI 63-146 (in draft), *Middle Tier of Acquisition*

CJCSI 5123.01H, *Charter of the Joint Requirements Oversight Council and Implementation of the Joint Capabilities Integration and Development System [JCIDS]*

Manual for the Operation of Joint Capabilities Integration and Development System

DoDI 5000.02, *Adaptive Acquisition Framework*

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

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

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

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

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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 AF specific publications for standardized terms and definitions for DoD and AF use.

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

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

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

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

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

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

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

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

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

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

Validation – The review and approval of capability requirement documents by a designated validation authority. The JROC is the ultimate validation authority for capability requirements unless otherwise delegated to a subordinate board or to a designated validation authority in a Service, CCMD, or other DOD Component. [CJCSI 5123/CJCSI 3170]

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Abbreviations and Acronyms

ACAT—Acquisition Category	**MDA**—Milestone Decision Authority
ADM—Acquisition Decision Memorandum	**OAS**—AF/A5RA Office of Aerospace Studies
CI—Configuration Item	**OT&E**—Operational Test and Evaluation
CPD—Capability Production Document	**PM**—Program Manager
IRSS—Information & Resource Support System	**RDM** – Requirments Decision Memo
KPP—Key Performance Parameter	**SME**—Subject Matter Expert
KSA—Key System Attribute	**T&E**—Test and Evaluation

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