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REQUIREMENTS DEVELOPMENT
PROCESS



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This publication implements the 1 AF Requirements Development Process and provides guidance and procedures to the Continental United States North American Aerospace Defense Command Region (CONR), First Air Force (1 AF) Air Forces Northern & Air Forces Space (AFNORTH & AFSPACE). These procedures enable associated organizations to document gaps in operational capability and obtain solutions to fulfill mission objectives. It applies to individuals at all levels who directly support the Homeland Defense, Civil Support, and Theater Security Cooperation missions of 1 AF, including the Air Force Reserve and Air National Guard, except where noted otherwise. This publication may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility listed above for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility listed above using the Air Force Form 847, Recommendation for Change of Publication; route AF Forms 847 from the field through the appropriate chain of command. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, Records Management and Information Governance Program, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Management System. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Throughout this document, the short title "1 AF" will be used to reference the CONR-1 AF (AFNORTH & AFSPACE) organization.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. There are significant changes in roles and responsibilities, process, and documentation reflected throughout this instruction. There have also been additions and deletions to the several internal and external processes utilized by 1 AF to satisfy gaps in operational capability. Finally, examples and additional references have been added to further clarify the mandatory requirements development process at all levels.

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SCOPE, OBJECTIVE, AND MANAGEMENT

- **1.1. Scope.** This instruction is applicable to 1 AF, 601st Air Operations Center (AOC), Eastern Air Defense Sector (EADS), Western Air Defense Sector (WADS), Alaska Air Defense Sector (AADS), 101st Air Communications Squadron (ACOMS), Aerospace Control Alert (ACA) units, Civil Air Patrol United States Air Force (CAP USAF) personnel, and other organizations directly supporting the Homeland Defense, Civil Support, and Theater Security Cooperation missions of 1 AF.
- **1.2. Objective.** The objective of this instruction is to describe the Requirements Development Process (RDP) in its entirety as it applies to 1 AF and its subordinate units. It differentiates between processes 1 AF controls (Internal), and processes others control (External) that 1 AF influences through collaboration and information sharing. While the focus of this document is the 1 AF RDP, all of these processes, both internal and external, affect efforts to fulfil requirements and close gaps in capability.
 - 1.2.1. Internal Processes (1 AF Controls):
 - 1.2.1.1. 1 AF/Requirements Development Process (RDP).
 - 1.2.1.2. Commander Directed Requirements.
 - 1.2.1.3. 1 AF Strategic Plan.
 - 1.2.1.4. Enterprise Disconnects & Initiatives.
 - 1.2.1.5. Unfunded Operational Support Requirements Process (UFR).
 - 1.2.1.6. 1 AF Development Security Operations (DevSecOps) Working Group (DWG).
 - 1.2.1.7. Capability Based Assessment (CBAs).
 - 1.2.1.8. Strategy, Policy, and Assessments.
 - 1.2.2. External Processes (Other Entities Control):
 - 1.2.2.1. Battle Control Center (BCC) Weapons System Council (WSC).
 - 1.2.2.2. Battle Management Advisory Group (BMAG).
 - 1.2.2.3. Air Combat Command (ACC) Program Objective Memorandum (POM).
 - 1.2.2.4. The Annual Joint Assessment (AJA).
 - 1.2.2.5. Master Gap List (MGL).
 - 1.2.2.6. Integrated Priority List (IPL).
 - 1.2.2.7. Joint Capabilities Integration and Development System (JCIDS).
 - 1.2.2.8. Joint Urgent/Emerging Operation Needs (JUON/JEONs).
 - 1.2.2.9. Joint Capability Technical Demonstration (JCTD).
 - 1.2.2.10. National Guard and Reserve Equipment Appropriation (NGREA).
 - 1.2.2.11. Joint Test & Evaluations (JT&E).

- 1.2.2.12. National Capital Region (NCR) Integrated Air Defense System (IADS) Capabilities Working Group (CWG)/Requirements Working Group (RWG).
- 1.2.2.13. Battle Control System Fixed (BCS-F) CWG/RWG.
- 1.2.2.14. Rapid Defense Experimentation Reserve (RDER).
- **1.3. 1 AF Requirements Development Process (RDP) Management.** The objective of the 1 AF RDP is to identify, validate and prioritize gaps in capability across the enterprise to bring fully funded solutions to the warfighter. The RDP ensures that capability gaps are identified and fully articulated, validated against operational necessity, and prioritized against operational utility while respecting fiscal realities.
 - 1.3.1. Functional Management. 1 AF/A8X manages the RDP and is responsible for managing the "Gap Tracker" on the 1 AF Portal https://usaf.dps.mil/sites/1AF/Staff/Dirs/A5-A8/A8/Lists/Gap%20Tracker/AllItems.aspx (CAC Required), and for making changes to the master 1 AF Form 42.
 - 1.3.2. Enterprise Working Group (EWG). The EWG is chaired by 1 AF/A8C and is comprised of action officers (AOs), warfighters, and support squadron representatives from 1 AF and the organizations identified in **para 1.1** The EWG is the "on-ramp" to the RDP and is responsible for ensuring identified capability gaps are fully articulated and properly formatted using the 1 AF Form 42 and accompanying AF Form 1067 (if applicable). The EWG reports its findings and validation recommendations to the RWG chair.
 - 1.3.3. Requirements Working Group (RWG). The RWG is chaired by 1 AF/A8X and is comprised of 1 AF Directorate level requirements personnel. The RWG is responsible for reviewing products and validation recommendations from the EWG and seeking validation from the appropriate 1 AF Director/O-6. The end product of the RWG is a fully validated operational requirement. Once requirements are validated, the RWG is responsible for recommending priorities to the Requirements Oversight Council (ROC) and ensuring actions are taken to resolve open issues until the requirement is closed out.
 - 1.3.4. Requirements Oversight Council (ROC). The ROC is a 1 AF staff O-6 level council, chaired by the Director, 1 AF/A5/8. The ROC is responsible for prioritizing validated requirements as well as recommending funding strategies, integration, and sustainment efforts, and engagement with external requirements processes. The ROC will also finalize POM priorities and ensure accurate, vetted, substantiating information is captured prior to ACC submission. The ROC Chair will present the ROC's prioritized list to the 1 AF/CV who will adjudicate and coordinate with the 1 AF/CC for approval. 1 AF/A8 will forward the approved list to NORAD and United States Northern Command (N&NC) for incorporation into the MGL (February) and to ACC for POM consideration (September). The ROC is also responsible for "closing" all fielded requirements.

 Note: The February and September time-frames for MGL and POM submissions are approximate and are controlled by N&NC and ACC respectively.

ROLES AND RESPONSIBILTIES

- **2.1. Overview.** This chapter explains the duties and responsibilities of each organization or individual involved with defining, developing, documenting, validating, approving, and managing gaps in capability and requirements as part of the 1 AF RDP.
- **2.2. The Warfighter.** The warfighter is defined as "any individual that is executing the operational mission on behalf of their respective unit." The warfighter will identify any gap in capability experienced while executing the mission that has been leveraged upon them by HHQ (1 AF). The tool used to identify gaps in capability is the 1 AF Form 42 *Capability Gap Identification Form.*
 - 2.2.1. The warfighter will ensure that the 1 AF Form 42 is filled out and submitted IAW **para** 3.2 of this instruction.
 - 2.2.2. The warfighter should ensure that the identified gap in capability is reflected in the submitting unit's Defense Readiness Reporting System (DRRS) input to ensure the greatest chance of success. Whether or not a gap in capability is reflected on the submitting unit's DRRS report will have direct impact on a requirement's validation and prioritization decision.
- **2.3. 1 AF/A8C Integrated Command, Control, and Communications (C3) Systems.** 1 AF/A8C personnel are the warfighter advocate and operational subject matter experts (SME) for integrated C3 systems and serve as the EWG Chair.
 - 2.3.1. A8C personnel are responsible for collaborating with warfighters and AOs at all levels to ensure that the 1 AF Form 42 fully captures the identified gap in capability and is formatted in the language and style required by higher authority.
 - 2.3.2. A8C is responsible for pre-coordinating AF Form 1067s with the appropriate directorate(s) at ACC should they be required. Once pre-coordination is accomplished, A8C will generate the AF Form 1067 for submission to ACC.
 - 2.3.3. A8C is also responsible for engagement at the AO and decision level with other external requirements processes such as the NCR-IADS CWG/RWG and the BCS-F CWG/RWG.
 - 2.3.4. 1 AF/A8C is the Commander, Air Force Forces (COMAFFOR) delegated authority for programs developed through the DevSecOps process. 1 AF/A8C personnel shall act as Product Owner for these types of developmental opportunities and the identified Program Element Office (PEO) shall act as Product Manager (These roles are described in DoDI 5000.87/AFI 63-150).
 - 2.3.5. Finally, and perhaps most importantly, A8C is responsible for continuously engaging the warfighter and subordinate units regarding the functionality and utility of fielded and integrated operational C3 systems.
- **2.4.** 1 AF/A8X Strategic Requirements. 1 AF/A8X is the OPR for the RDP, serves as the Chair of the RWG, and is responsible for obtaining validation of fully vetted gaps in capability.

Note: An identified gap in capability does not become a "requirement" until it is validated by the appropriate 1 AF Director/O-6 or is directed by the 1 AF/CC.

- 2.4.1. A8X will record capability gap submissions in the A8X Gap Tracker, and coordinate completed 1 AF Form 42/AF Form 1067 with the responsible 1 AF Director/O-6 for review and validation.
- 2.4.2. A8X will ensure 1 AF directorate action officers and/or RWG/EWG representatives continuously update the Gap Tracker with pertinent information as projects progress through the RDP.
- 2.4.3. A8X will cross-reference the DRRS to assist in requirement validation and review other related documentation to identify long-term doctrine, organization, training, materiel, leadership, personnel, facilities, and policy (DOTMLPF-P) deficiencies. A8X will coordinate any DRRS issues with the appropriate 1 AF Directorate during the RWG.
- 2.4.4. A8X will coordinate with N&NC J8 to incorporate new requirements into the N&NC Master Gap List (MGL). The MGL is the basis for completing the Combatant Commander (CCDR) Annual Joint Assessment (AJA) and culminating product, the Integrated Priority List (IPL).
- 2.4.5. A8X will coordinate with 1 AF/FM and external agencies as appropriate to identify funding solutions and align program funding with validated requirements.
- 2.4.6. A8X will coordinate with 1 AF/A1M to review and validate any Unit Manning Personnel requirements.
- 2.4.7. A8X will assist the 1 AF/CC in prioritizing unfunded operational support requirements (UFR) which are not supported under any Program Element (PE).
- 2.4.8. 1 AF/A3 Air, Space, and Information Operations. The Director, 1 AF/A3 is the validation authority for all operational C3 requirements. A3 will request an appropriate validating authority be assigned by the RWG chair if the capability gap's area of focus falls outside the A3 area of expertise.
- 2.4.9. The 1 AF/A3 Director will validate/invalidate identified gaps in capability by signing the 1 AF Form 42 and checking the appropriate box. Any gaps deemed "Invalid" will be returned to the RWG chair with comments and further direction.
- **2.5.** 1 AF/A6 Communications and Cyber Forces. 1 AF/A6 is responsible for preparing a technical solution and costing (TS&C) analysis for all validated requirements, ensuring the proper cybersecurity and net-readiness/integration requirements are addressed/built into the system from the onset, and then submitting the final TS&C for review at the 1 AF RWG.
 - 2.5.1. Prior to submitting the final product, 1 AF/A6 will coordinate with the EWG to ensure the TS&C meets the intent of the requirement and can be implemented. **Note:** It is especially important that the various unit Support Squadrons be included in this engagement with the EWG in order to evaluate solution efficacy and impact to the unit if fielded.
 - 2.5.2. 1 AF/A6 will coordinate with 1 AF/A8 to ensure TS&C information is documented in the Gap Tracker, 1 AF Form 42, and AF Form 1067 as applicable.
 - 2.5.3. Gaps pertaining to National Airspace System (NAS) Defense Program (NDP) equipment and/or services described in Federal Reimbursable Agreement AJW-OM-AWA-20-WA-003027 will be processed in memorandum format through 1 AF/A6CD and coordinated with 1 AF/A8C. Once internal coordination is complete, 1 AF/A6CD will forward

- documentation to ACC/A3AJ Long Range Radar Joint Program Office (LRR/JPO) for inclusion in the "Budgeting and Fee for Service" process within the Federal Aviation Administration's NDP management office. Specifically, these services are further defined/described as follows:
 - 2.5.3.1. Voice Services (Ground-to-Ground). Voice circuits provided are: Continental U.S. North American Aerospace Defense Command Region (CONR) Hotline, Big Voice Radio Circuit, ScramNet Hotline, Voice Page Hotline, Air Route Traffic Control Center (ARTCC) to sector Hotline (ASHL), and the Voice Liaison Hotline.
 - 2.5.3.2. Radio Services (Ground-to-Air). Radio equipment installed at Federal Aviation Administration (FAA) and other facilities provide external customers and FAA with tactical air-to-ground communications.
 - 2.5.3.3. Radar Data (Search/Beacon; Long/Short). Radar Data services are provided to internal and external customers and consist of primary and secondary surveillance data. Radar data is derived from Enroute and Terminal Radar facilities.
 - 2.5.3.4. Air Movement Data (Flight Plans). Aircraft Movement Data provided to internal and external customers consists of Visual Flight Rules (VFR), Instrument Flight Rules (IFR), and Aircraft Movement Data (AMD), Traffic Situation Display, Flight Management Systems, etc.
 - 2.5.3.5. Data Communications (FAA Telecommunications Infrastructure (FTI) and direct circuits). FTI provides the majority of telecommunications connectivity for FAA services provided to external customers.
- **2.6. 1 AF/Financial Management (FM).** 1 AF/FM will provide guidance to the RWG/ROC for resource allocation based on current programmed funds.
 - 2.6.1. 1 AF/FM will coordinate with 1 AF/A8X, A5/8, ROC, and external agencies as appropriate to identify funding solutions for all validated requirements.
 - 2.6.2. If it is determined that a sector, unit, or directorate can fund the solution from local resources, 1 AF/FM in conjunction with the ROC will present the proposed solution to the 1 AF/CC for approval and implementation.
 - 2.6.3. 1 AF/FM will report UFRs which are not supported under any Program Element (PE), to 1 AF/A8 for prioritization by the 1 AF/CC. **Note:** External funding processes should be exhausted before seeking internal funding for mission capabilities normally funded by a force provider.
- **2.7. 1 AF/A1 Readiness/Manpower.** A1/A1M will aid functional managers and senior leaders in determining and/or validating manpower requirements as missions evolve and advise them on the manpower impact of organizational changes and force structure resizing or realignment proposals. A1M will quantify validated requirements on the Unit Manning Document as unfunded in conjunction with the POM submission.
- **2.8. 1 AF/CC.** The 1 AF/CC may initiate action on any requirement deemed operationally necessary that hasn't already been identified at the warfighter level. The 1 AF/CV is the final approval authority for the prioritization of all validated operational requirements submitted to HHQ for funding consideration and for those that are unfunded. (UFRs not supported under any program element).

1 AF REQUIREMENTS DEVELOPMENT PROCESS

- **3.1. 1 AF Requirements Development Process (RDP) Overview:** The purpose of the RDP is to enable 1 AF and subordinate units to document gaps in capability and obtain material solutions to fulfill mission objectives. The Enterprise Working Group (EWG) is the on-ramp to the RDP, and the Requirements Oversight Council (ROC) is the off-ramp. The same process used to introduce and validate a gap in capability is the process used to close out a requirement. The "Gap Tracker" is the depository for all identified gaps in capability and associated information regarding status and progress, and is located on the 1 AF/A8 homepage on the N&NC Portal.
 - 3.1.1. Refer to the <u>1 AF RDP Narrative</u> in Attachment 2 for clarification on this figure.

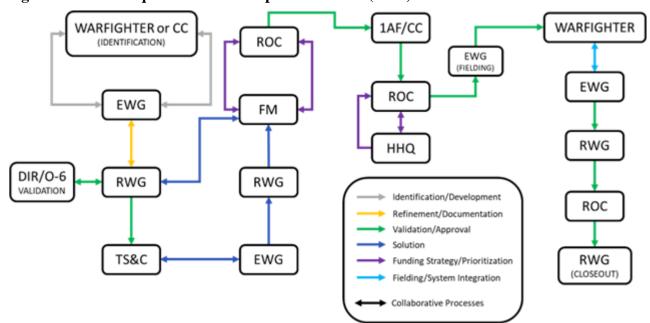


Figure 3.1. The Requirements Development Process (RDP).

- **3.2. 1 AF Form 42** *Capability Gap Identification*. The warfighter must use the 1 AF Form 42 (**Attachment 4**) to identify a gap in capability. The fillable PDF version of the form is available on the e-Publishing website at http://www.e-Publishing.af.mil for downloading. Refer to the instructions in **Attachment 3** for assistance in completing the form. Submit a completed 1 AF Form 42 via email to the 1 AF/A8 OMB: **afnorth.a8.omb@us.af.mil**. This email submission will initiate the RDP outlined in **para 3.4**.
 - 3.2.1. The 1 AF Form 42 should be as descriptive as possible. The warfighter must fill out all blocks of the Form 42 with as much information as necessary to fully describe the identified gap in capability, constraints, proposed solutions, and impact if not fielded. **Note:** Identify mission directives, instructions, CONOPS, CONPLANS, or any other official guidance that can be used to tie the identified gap in capability to successful mission accomplishment.
 - 3.2.2. The Form 42 will be refined during the EWG process to ensure required language and formatting are adhered to. Do not provide a "shopping list of things." Instead, describe the

- gap (for example, what part of the mission tasking cannot be accomplished efficiently and/or effectively with current resources), impact, and (if known) a recommended solution.
- 3.2.3. Mandatory: The warfighter is responsible for ensuring that the 1 AF Form 42 is signed by the Title 10 CC of the requesting organization. If the submission is from an air defense sector, all sectors mentioned in **para 1.1** "Scope" must coordinate, and their respective Title 10 CC must sign the Form 42 to ensure continuity across the enterprise.
- **3.3. 1 AF/A8 Gap Tracker.** The 1 AF/A8 Gap Tracker is where 1 AF/A8 will post the 1 AF Form 42 and any supporting documentation and narratives. 1 AF/A8 will record all updates and modifications to the Form 42 in the corresponding Gap Tracker entry. The Form 42 and accompanying AF Form 1067 (if applicable) will remain posted on the Gap Tracker until the requirement is closed out, after which 1 AF/A8 will archive it. **Note:** To obtain access to the 1 AF/A8 Gap Tracker, ensure you have an active N&NC Portal Account and submit your request to the 1 AF/A8 OMB: **afnorth.a8.omb@us.af.mil**.
- **3.4.** The Requirements Development Process (RDP). The warfighter initiates the RDP by sending the initial 1 AF Form 42 to 1 AF/A8 IAW para **3.2**, **1** AF/A8X will post the Form 42 in the Gap Tracker and forward it to the EWG Chair.
 - 3.4.1. Enterprise Working Group (EWG). The EWG is chaired by 1 AF/A8C and comprised of 1 AF AOs and requirements representatives/AOs from the organizations outlined in **para 1.1** 1 AF/A8X submits the Form 42 to the EWG as "new business" for adjudication and validation recommendation. The EWG chair will ensure all documentation related to new business is supplied to the EWG participants prior to the regularly scheduled meeting. The desired end products of the EWG are a properly formatted and vetted 1 AF Form 42, AF Form 1067 (if necessary), and a validation recommendation to the RWG. The EWG will also determine if it is necessary to engage any process outside the RDP.
 - 3.4.1.1. The 1 AF Form 42 is the vehicle, and the EWG is the forum, that the warfighter MUST use to identify all gaps in capability. 1 AF AOs and the supported warfighters will exchange feedback at the EWG to document the capability gap and ensure proper formatting/endorsements are obtained. (See example below, and the guidelines in **para 3.2**X) At this stage, it will be determined if an accompanying AF Form 1067 should be generated. If so, 1 AF/A8C will generate the AF Form 1067 IAW **para 2.3.2** and attach it for routing in tandem with the 1 AF Form 42.

Table 3.1. Example-of how EWG Collaboration Might Go.

Example- The following is an example of how EWG collaboration might go. It is fictitious, simplistic, and for illustrative purposes only.

*Warfighter: We need 44 Fisher Space Pens*TM. (\$1047.20 total)

(This is an example of a "Want or Need" Statement NOT a Gap in Capability)

EWG: What task is the mission requiring of you that you cannot accomplish with the equipment you have been provided?

Warfighter: Operators are required to physically check off a checklist.

EWG: What are the constraints that apply to this situation?

Warfighter: The operator must be able to write while upside down, in zero gravity, or under water.

EWG: If we understand you correctly; "The operators lack the capability to annotate a checklist while upside down, in zero gravity, or under water."

(This is an example of a "Capability Gap" statement)

Warfighter: That is correct.

EWG: What mission directive(s) have exposed this lack of capability?

Warfighter: CONPLAN 4, para 5.9.7.4.5 "Checklist adherence under adverse conditions" states that operators must "physically annotate all checklists while operating in any physical environment to include outer space or ocean depths." Standard writing instruments will not function IAW this directive.

EWG: What is the impact of the operator not having this capability?

Warfighter: Mission failure during periods of zero gravity or undersea activity.

EWG: The EWG concurs that since standard writing instruments will not function under these adverse conditions, an alternative solution must be identified. We recommend that the RWG pursue validation of this gap in capability. As soon as all Title 10 O-6/CC agree that this gap in capability exists across the enterprise, we will send it to the RWG for validation and technical solution. An AF Form 1067 is NOT required in this instance since it does not impact a system of record. This also does not meet the need to engage any processes outside the 1 AF RDP. Have you entered this capability gap in DRRS?

Note: This example, while simplistic in nature, highlights the difference between an operator perceived "requirement" and a mission execution induced "gap in capability". While the capability gap is VALID, it was originally submitted as a shopping list of things (44 Fisher Space PensTM). Identified gaps in capability can often result in a much different solution. Although not always the case, it is important to describe a gap in capability from a perspective of "what can't you do that mission directives require" while identifying all constraints to arrive at the best possible solution.

- 3.4.1.2. As stated in **para 3.4.1.1**, the situation may require the creation of an AF Form 1067, which requires 1 AF AOs to coordinate with the appropriate offices at ACC/A3, A5, or A6. 1 AF AOs will contact ACC to determine if this step is necessary. If so, the 1 AF AOs must coordinate the AF Form 1067 with ACC prior to submission to the RWG for validation and follow-on submission to ACC.
- 3.4.1.3. 1 AF/A8C will submit gaps in capability with "Valid" recommendation to the RWG for validation. 1 AF/A8C will return gaps deemed "Invalid" to the warfighter with

- justification for re-submission/termination by the requesting warfighter(s). 1 AF/A8C will ensure that "Invalid" recommendations are briefed at the RWG for awareness, but they will not be considered for validation.
- 3.4.2. Requirements Working Group (RWG). The RWG is chaired by 1 AF/A8X and comprised of 1 AF directorate level stakeholders. The EWG Chair submits capability gaps that are recommended valid as "new business" to the RWG for validation. The RWG chair will provide all documentation related to new business to RWG members NLT three duty days in advance of the regularly scheduled meeting. The purpose of the RWG is to review/amend Forms 42 and 1067 submissions, review capabilities-based assessments (CBA) and options for funding, develop courses of action (COA), and assign tasks as necessary with the goal of validating and prioritizing identified gaps in capability.
 - 3.4.2.1. The RWG will submit a properly documented capability gap with a validation recommendation to the appropriate 1 AF Directorate O-6 for validation and signature. A capability gap becomes a "Requirement" once signed by the Directorate O-6. If the EWG requires an out-of-cycle validation, the RWG Chair may obtain the necessary agreements and submit the requirement for signature. 1 AF/A8X will ensure that all out-of-cycle validations are briefed at the next regularly scheduled RWG meeting.
 - 3.4.2.2. Director validated Form(s) 42/1067 is/are returned to 1 AF/A8X for recording in the Gap Tracker. 1 AF/A8X will accomplish further coordination with 1 AF/A6 if a technical solution is required, or with 1 AF/FM if the validated requirement can move directly to funding determination. 1 AF/A8C will submit signed/validated 1067's to the appropriate office at ACC for further action. The RWG Chair will return any capability gap deemed "invalid" by the RWG and/or the Directorate O-6 to the EWG Chair with comments and further direction.

Table 3.2. Continuing Example-of how EWG Collaboration Might Go.

Example-(continuing the previous example)

EWG Chair: The warfighter has submitted an enterprise-wide gap in capability that we recommend you validate as an operational requirement. The capability gap statement is as follows: "As directed by CONPLAN 4 para 5.9.7.4.5 Checklist adherence under adverse conditions, Operators lack the capability to physically annotate a checklist while upside down, in zero gravity, or under water." Since a standard writing instrument will not perform in these environments, the proposed solution is to acquire 44 Fisher Space PensTM for distribution to the operators. The impact if not fielded is mission failure during periods of zero gravity or undersea activity.

RWG: The RWG concurs with the capability gap statement and recommends it be validated as an operational requirement that demands an enterprise-wide solution. The RWG chair or their representative will coordinate with the appropriate 1 AF O-6 for validation signature. Once the signature is obtained the appropriate updates will be made to the Gap Tracker and if necessary, forwarded to 1 AF/A6 for TS&C.

(A technical solution will be pursued here for illustrative purposes)

3.4.3. Technical Solution and Costing (TS&C). A validated and signed Form 42 or 1067 requiring a technical solution will be forwarded to 1 AF/A6 in order to identify potential solutions and associated costs. The RWG will work with 1 AF/A6 to identify a mutually agreeable timeline for a completed product. 1 AF/A6 will document the Form 42 once a TS&C has been identified and submit it to the EWG/RWG for review and concurrence before submission to the ROC. The RWG will forward the requirement to 1 AF/FM if no TS&C is needed.

Table 3.3. Continuing Example-of how EWG Collaboration Might Go.

Example-(continuing the previous example)

RWG Chair: Request A6 develop a TS&C for this enterprise-wide operational requirement and provide it to the RWG. The warfighter's proposed solution, as outlined in the attached 1 AF Form 42, is 44 Fisher Space PensTM to be distributed to the operators in each sector.

Note: The exact timeline for return of the TS&C will be different for each project. An appropriate timeline will be negotiated between the RWG and A6 and shall be adhered to.

1 AF/A6: A6 will evaluate the requirement and provide a TS&C within the agreed upon timeline.

Note: At this point, 1 AF/A6 will determine the best possible solution, with costing estimates, that addresses the gap in capability as identified in the 1 AF Form 42.

1 AF/A6: We have analyzed the requirement and have determined that the best course of action is to provide the sectors with 4ea, 12 count boxes of grease pencils at a total cost of \$50.40. This solution addresses the identified gap in capability, complies with mission directives, and satisfies fiscal responsibility concerns. This solution will cost \$996.80 per sector less than the desired Fisher Space Pen^{TM} solution. This solution has been documented on the 1 AF Form 42, coordinated with the EWG, and returned to the RWG for consideration.

RWG Chair: The RWG concurs with the TS&C and will forward to 1 AF/FM for funding consideration and strategies.

Note: While simplistic in its presentation, the example above illustrates how an identified gap in capability, when put through the RDP, will yield a solution that addresses the stated capability gap. While admittedly different from what the warfighter proposed, this is the purpose of the RDP; to identify a gap in capability while applying operational and technical knowledge & expertise to arrive at the best possible solution, using the most appropriate process (internal or external), while considering constraints applied by mission directives, technical capability, and fiscal realities. While we might all agree that a grease pencil is not as desirable as a Fisher Space PenTM, it is perhaps the most appropriate solution when considering all constraints provided and our responsibility to be good stewards of taxpayer dollars. Carefully and completely identifying ALL constraints will inform a logical outcome.

3.4.4. Funding Determination. The RWG will forward validated requirements directly to 1 AF/FM if no TS&C is required. If a TS&C is required and the EWG/RWG has approved it, the RWG will forward the completed Form(s) 42/1067 to 1 AF/FM for review and funding recommendation. Based on this recommendation, and through coordination with the RWG, ROC, and 1 AF/A5/8, 1 AF/A8 or FM will send the requirement into one or more of several different funding processes. 1 AF/A8X will update funding progress and timelines on the corresponding Gap Tracker entry and brief the EWG as appropriate.

- 3.4.5. Requirements Oversight Council (ROC). The purpose of this meeting is to present O-6 level leadership with validated and prioritized requirements derived from the EWG/RWG process. The Director, 1 AF/A5/8 will chair the ROC when convened. Participants include 1 AF Directors, command staff, and sector/AOC leadership at the O-6 level as requested. The council will discuss integration and sustainment strategies and may also make decisions regarding any outstanding deliberative issues from the EWG and RWG. The primary goal of the ROC is to finalize POM and MGL inputs and ensure accurate, vetted, substantiating information is captured prior to submitting to higher headquarters.
- **3.5. Command Engagement.** Following the results of the ROC, the A5/8 Director or their representatives will conduct face-to-face or VTC cross-talks with HHQ (N&NC, NGB, and ACC) strategic level counterparts detailing 1 AF requirement priorities. These visits/cross-talks will facilitate submission to HHQ year of execution funding requests. 1 AF/A5/8 will present results and any after action reports to the ROC and ultimately, the 1 AF/CC upon completion of these visits/cross-talks. The 1 AF/CC will provide input, make adjustments, and is the final approval authority for any list of prioritized requirements. 1 AF/A8 will send the 1 AF/CC approved list of 1 AF priorities to HHQ where they will compete for funding.
- **3.6. Fielding.** Validated requirements with vetted solutions that achieve full funding and sustainment will be fielded to the warfighter and accepted for operational use in a manner appropriate to the specific project and IAW applicable HHQ Directives and Instructions. This process can take anywhere from several months to several years depending on the scope of the project and the funding/fielding approach that is adopted. The EWG will begin the process of closing out the requirement once a solution is fielded. This process mirrors the RDP, culminating in ROC approval of closing out the fielded requirement.
- **3.7. Frequency of Submissions.** Warfighters should submit identified gaps in capability as they are discovered. 1 AF will not initiate data calls to solicit new information from the enterprise. If a commander or director is unsure if a capability gap warrants submission into the RDP or questions a solution or funding strategy for a requirement, they should contact 1 AF/A8X.
- **3.8. Feedback Process.** The EWG chair will provide feedback to the requesting warfighter once the initial 1 AF Form 42 is reviewed, and again upon validation/invalidation with justification. Warfighters may view updates to identified gaps in capability via the Gap Tracker. They may also discuss capability gaps at the EWG, with 1 AF/A8X, A8C or other requested parties based on availability. The warfighter may also request feedback from their assigned OPR at any time during the process.

1 AF INTERNAL PROCESSES

- **4.1. Overview.** This chapter briefly outlines internal processes that 1 AF controls that are outside the RDP and may impact successful requirements development.
- **4.2. Commander Directed Requirements.** The 1 AF/CC may ascertain that capability gaps exist and direct that their staff work the gap as a formal requirement. Before any directorate begins work on the gap, the Commander's comments must be captured on a 1 AF Form 42 and provided to the Chief of Staff (COS) for adjudication, finalization, and signature. This step ensures accuracy and intent are articulated. The requirement will be worked through the standard RDP once signed (COS or higher). **Note:** The CONR-1 AF (AFNORTH & AFSPACE) Strategic Plan is a valid source for Commander Directed Requirements. However, data from the Strategic Plan will need to be transferred to a 1 AF Form 42 for proper routing through the COS and then the RDP.
- **4.3. 1 AF Strategic Plan.** The Strategic Plan describes how the enterprise will achieve priorities through the execution of discrete tasks that support specified objectives and five distinct Lines of Effort (LOEs). These LOEs are designed to operationally accomplish the 1 AF/CC's Mission, Vision, Intent, and Priorities. LOEs are not in prioritized order, however, the specified tasks and objectives that support an LOE are prioritized to inform execution of resources and where risks can be assumed. The tasks are identified in a separate annex to the Strategic Plan. They will be routinely issued, executed, measured, assessed, and modified in the enterprise's battle rhythm events. It is at the specified task level where specific initiatives live, that leaders and teams are assigned and where progress is measured. Units that desire to add/modify/delete items to the 1 AF Strategic Plan should submit requests to 1 AF/A8C via the **afnorth.a8.omb@us.af.mil**. 1 AF/A8C will staff all submissions through the appropriate internal 1 AF channels. **Note:** For more information about the 1 AF Strategic Plan, visit the following link on the N&NC Portal: https://usaf.dps.mil/sites/1AF/Communities/SitePages/Strategic-Plan-Dashboard.aspx.
- **4.4.** Unfunded Operational Support Requirements (UFR). Validated requirements that have not been funded via traditional means will be prioritized by the ROC, approved by the 1 AF/CC and submitted to 1 AF/FM as a UFR. While timelines can be fluid, UFRs are typically submitted in February of any given year, must be executable (obligated) by July of that same year and must meet legal parameters for Operations and Maintenance (O&M) funds only. Cost is not the only factor in determining which UFRs will receive funding. Mission priority, mission risk, and overall effect on the C-NAF Enterprise are considered.
 - 4.4.1. Unfunded Requirements Board (URB). The URB is a senior staff level board, chaired by the 1 AF/CV that determines the most effective use of resources across the Enterprise.
 - 4.4.2. Priorities. Each UFR must be categorized as priority 1-5 by the requestor. Final priority validation will be made at the URB. Priority definitions are:
 - 4.4.2.1. Priority 1: Single Point Mission Failure. Failure of existing system will result in immediate mission termination or failure. No mitigation plan available.
 - 4.4.2.2. Priority 2: Safety. Current system or environment exposes personnel to risk of death, injury or illness. Requires 1 AF/SE concurrence.

- 4.4.2.3. Priority 3: Security. Current situation/system exposes organization to penetration, inadvertent release of protected information, or physical security vulnerability. Requires 1 AF/A4/A6 concurrence.
- 4.4.2.4. Priority 4: Mission Degradation. System currently working in a less than optimum manner or failure of system would result in immediate mission degradation (not failure). Mitigation plan(s) available.
- 4.4.2.5. Priority 5: Mission Enhancement. Upgrades to mission systems or working environments which enhance current or planned mission execution or quality of life. **Note:** UFRs are a byproduct of the 1 AF RDP and are not submitted as stand-alone requirements. Validated requirements that cannot be funded through traditional funding processes are prioritized, approved, and submitted by 1 AF Staff as a UFR for funding consideration either internally or through the HHQ UFR processes.
- **4.5. 1 AF DevSecOps Working Group** (**DWG**). The DWG is an enterprise-wide working group chaired by 1 AF/A8C charged with maintaining awareness of minimum viable product (MVP) and minimum viable capability releases (MVCR) IAW the Software Acquisition Pathway in DoDI 5000.87. The goal of the DWG is to shape the end-state software environment as software solutions evolve capability. 1 AF/A8C is responsible for assembling and managing a group of SMEs from across the enterprise with the intent to establish and maintain DevSecOps connections from the warfighter to the software developer. Near and long-term outcomes of the DWG include but are not limited to:
 - 4.5.1. Informs content of Capability Needs Statements (CNS).
 - 4.5.2. Setting development priorities.
 - 4.5.3. MVP releases via the Product Owner (1 AF/A8C).
 - 4.5.4. Recommendations to the Product Manager (PM) concerning MVCRs.
 - 4.5.5. New features and capabilities released post MVCR via the continuous integration and continuous delivery (CI/CD) process.
 - 4.5.6. Co-development of Tactics, Techniques, and Procedures (TTPs) & training for employing emerging software technologies.
 - 4.5.7. Ensure integration and deconfliction of emerging and fielded capabilities.
- **4.6. Strategy, Policy, and Assessment Review.** 1 AF/A8 reviews: (1) strategy documents such as the National Security Strategy and the National Military Strategy, (2) CONPLANs and other documents that encompass the roles and responsibilities of AFNORTH & AFSPACE Warfighters, (3) completed assessments or inspections, lessons learned, and after-action reports from exercises, contingencies, and real-world events to identify current and future capability gaps within the AFNORTH & AFSPACE enterprise. 1 AF/A8 advocates for exercises that expose capability gaps and test solutions at all levels within the Enterprise.

EXTERNAL PROCESSES

- **5.1. Introduction.** The purpose of the 1 AF Requirements Development Process is to identify, validate and prioritize gaps in capability across the enterprise for submission to the ACC POM, or to N&NC to influence the CCMD Integrated Priority List (IPL). 1 AF/A8 may access other processes to close gaps identified by the warfighter. For example, if fast-tracking a capability is desired, 1 AF/A8 may use the Urgent Operational Needs process. The 1 AF/A8 Strategic Programs office explores and works to develop, emergent capabilities to close gaps. In addition, 1 AF works with the NGB, Inter-Agency partners, DoD & Sister Services, and academia to find/develop solutions for capability gaps. With such entities, 1 AF seeks advocacy, collaborates, and shares information as appropriate to conduct research to discover solutions that may satisfy our requirements. The following paragraphs outline the various external processes and entities that may impact 1 AF's ability to satisfy a warfighter's operational requirements.
- **5.2.** Battle Control Center (BCC) Weapon System Council (WSC). The BCC WSC was created to address and seek resolution for the challenges and issues affecting the four ANG BCC units (298 Air Defense Group (Pacific Air Defense Sector) HI, 176 Air Defense Squadron (Alaska Air Defense Sector) AK, 225 Air Defense Group (Western Air Defense Sector) WA, 224 Air Defense Group (Eastern Air Defense Sector) NY) and functions. The WSC seeks to identify issues, reach consensus, and advocate to the Chief, National Guard Bureau (CNGB), other National Guard Bureau leaders, NORAD Region leaders and staff, active duty and any other functional offices. The council will take action so that units' capabilities are properly employed and can most efficiently and effectively maintain their combat readiness, enhance Total Force capability, and improve quality of life. The WSC, through the Chair, will support the intent of Air Combat Command's BCC Battle Management Advisory Group (BMAG). The BCC WSC ultimately strives to guarantee the highest possible state of combat readiness by representing the ANG men and women supporting the N&NC, United States Pacific Command (USPACOM) operational missions, state-tasked missions, and to be an advocate for:
 - 5.2.1. Key issues and concerns related to overall operation, maintenance, cyberspace defense, manning, and structure of BCC units in the ANG, ACC, and Pacific Air Forces.
 - 5.2.2. Enhanced and adequate support equipment and necessary weapon system improvements.
 - 5.2.3. Proper allocation of resources to meet operational objectives.
 - 5.2.4. Alignment with USAF TAC C2 initiatives for the purpose of accelerating solutions that bring substantial capability to the Homeland Defense mission.
- **5.3. Battle Management Advisory Group (BMAG).** The BMAG provides steering and vision for acquisition, modification, upgrade, and sustainment of BCC systems as established by the BCC Systems Concept. The BMAG's intent is to emulate the Integrated Weapon Systems Management (IWSM) single manager concept and to provide end-to-end system management and oversight for the BCC, including USAF NCR/IADS elements, and provide for a consolidated BCC requirements process that effectively integrates the disparate parts of the BCC into a highly managed system of systems. Though direct authority over intra-BCC requirements processes does not rest with the BMAG, the BMAG does include appropriate authorities to develop BCC weapon system vision

and provide consensus-based steering of BCC development efforts via recommendations to execution authorities. To this end, the BMAG will provide updates to the BCC Capability Development Roadmap and recommendations to any follow-on Air Force level weapon system planning activities.

- **5.4. Air Combat Command (ACC) Program Objective Memorandum (POM).** The POM is the service-level entry point for Congressional budget authorities. The 1 AF/CC, via 1 AF/A8, provides operationally validated and prioritized requirements to ACC for consideration in the POM. ACC then prioritizes all submissions received across the MAJCOM and forwards them to HAF for consideration. Not all submissions are guaranteed selection for the HAF POM due to overall Air Force priorities, and fiscal constraints.
 - 5.4.1. 1 AF/A8 will coordinate with 1 AF directorates and HHQ for POM-related issues and submissions to ensure that all costs are analyzed for out-year solutions.
 - 5.4.2. HAF/OSD POM submissions are ultimately considered during the Program Budget Review (PBR), the President's Budget (PB), and ultimately, the congressionally approved budget. **Note:** For more information regarding the HAF POM process, reference AFI 65-601, Volume 3, *The Air Force Budget Corporate Process*.
- **5.5.** The Annual Joint Assessment (AJA). The AJA is the first step of the Joint Strategic Capabilities Plan (JSCP), the Chairman's process for meeting statutory responsibilities. The AJA Survey requests comprehensive senior military leader assessments from Service Chiefs (SC) and Combatant Commanders (such as the N&NC CCDR) of their ability to meet Title 10 and Unified Command Plan responsibilities and support the National Military Strategy within their area of responsibility or functional area (AOR/FA). The AJA consists of multiple parts that may change annually, based on Chairman of the Joint Chiefs of Staff (CJCS) guidance. One of the primary elements created within the AJA is the N&NC IPL which is derived from the N&NC MGL.
 - 5.5.1. NORAD & USNORTHCOM (N&NC) Master Gap List (MGL): The MGL is a source document with current description, impact, references, mitigation plans, and status of all N&NC capability gaps. The items in the MGL are not prioritized, but simply placed in alphabetical order. The goal of the MGL is to maintain and track all capability gaps to resolution (mitigated or risk accepted) across the two commands. 1 AF/A8 submits entries to the MGL. 1 AF/A8 will gather and process data received from the enterprise through the 1 AF RDP, and forward it to N&NC, usually in February. N&NC usually updates and validates the MGL in July. However, the MGL process is continuous and as new information becomes available, the data for these requirements is updated. The MGL serves as a primary resource for development of the IPL within the N&NC AJA.
 - 5.5.2. NORAD & USNORTHCOM (N&NC) Integrated Priority List (IPL). The purpose of the IPL is to provide visibility for those few key problem areas which, in the judgment of CCDR N&NC, require the highest-priority attention from DoD in finding solutions. The IPL is approved as part of the AJA by the CCDR. Due to operational priorities and fiscal realities, not all MGL items are guaranteed to make the IPL.
- **5.6.** Joint Capabilities Integration and Development System (JCIDS). JCIDS is established as the primary means for the Joint Requirements Oversight Council (JROC) to fulfill its statutory responsibilities to the Chairman of the Joint Chiefs of Staff (CJCS). These responsibilities include

assessing joint military capabilities, and identifying, approving, and prioritizing gaps in these capabilities, to meet applicable requirements in the National Defense Strategy (NDS).

- 5.6.1. Urgent Operational Needs (UON). UONs are capability requirements identified as impacting an ongoing or anticipated contingency operation. If left unfulfilled, UONs result in capability gaps potentially resulting in loss of life or critical mission failure. When validated by a single DoD component, these are known as DoD component UONs.
- 5.6.2. Joint Urgent Operational Need (JUON). UONs that are identified by a Combatant Commander (CCDR), Chairman Joint Chiefs of Staff (CJCS), or Vice Chairman Joint Chiefs of Staff (VCJCS) as inherently joint and impacting an ongoing contingency operation.
- 5.6.3. Joint Emergent Operational Need (JEON). UONs that are identified by a CCMD, CJCS, or VCJCS as inherently joint and impacting an anticipated contingency operation. **Note:** For more information on engaging the JCIDS processes, refer to the JCIDS Manual: https://intellipedia.intelink.gov/wiki/Joint Capabilities Integration and Development-System (DoD CAC Required), and DoDI 5000.81, *Urgent Capability Acquisition*.
- **5.7. Joint Capability Technical Demonstration (JCTD).** The Joint Capability Technology Demonstration (JCTD) Program is designed to address Combatant Command (CCMD) and Joint warfighting operational gaps by executing prototypes & experiments, reducing technical risk, and conducting operational demonstrations to assess military utility against urgent / emergent warfighter needs. The JCTD program serves as the vehicle for COCOMs and Services to address strategic priority areas that present significant risk and suffer from inadequate investment in the Department as identified by the Chairman's Gap Assessment, Quadrennial Defense Review, Strategic Defense Reviews, and other senior level guidance. Technical Demonstrations (TDs) address Joint and Combined Warfighter requirements through experimentation, prototyping, and demonstration to provide immediate capability for Warfighter use and accelerate transition into long-term Service Programs of Record (PoR). **Note:** The JCTD and TD programs belong to the Office of the Under-Secretary of Defense for Research and Experimentation (OUSD R&E) and are requirements fulfillment avenues.
- **5.8. Joint Test and Evaluation (JT&E).** The primary objective of the Joint Test and Evaluation (JT&E) Program is to rapidly provide non-material solutions to operational deficiencies identified by the joint military community. The program achieves this objective by developing new TTPs and rigorously measuring the extent to which their use improves operational outcomes. The JT&E Program also develops operational testing methods that have joint application. The JT&E Program uses two test methods: the Joint Test and the Quick Reaction Test (QRT), which are all focused on the needs of operational forces.
 - 5.8.1. The Joint Test is, on average, a 2-year project preceded by a 6-month Joint Feasibility Study. A Joint Test involves an in-depth, methodical test and evaluation of issues and seeks to identify their solutions.
 - 5.8.2. QRTs are intended to solve urgent issues in less than a year. **Note:** For more information on the JT&E Program, refer to AFI 99-106, *Joint Test and Evaluation Program*.
- **5.9. National Guard and Reserve Equipment Appropriation (NGREA).** Congress established NGREA to ensure Army and Air National Guard and Reserve components maintain readiness and force relevance by resourcing key capability upgrades.

- 5.9.1. Warfighters identify and document requirements at annual conferences such as the Air Reserve Component Weapons and Tactics (ARC WEPTAC) and Domestic Capability Priorities (DCP) conferences. A representative from the tactical level unit will brief critical capability gaps to senior Air Guard and Air Reserve leaders.
- 5.9.2. Once adjudicated, NGB/A5 publishes the full list of critical, essential, and desired capability requirements in yearly Modernization and DCP books (aka Mod Book). These books are publicly available from NGB/A5 and are forwarded to industry, Air Force, the Office of the Secretary of Defense (OSD), and Congress. NGREA appropriations, approved by the CNGB and Congress, are built from critical capability requirements listed in these books, ensuring NGREA is only spent on the most urgent requirements.
- 5.9.3. As a general practice, NGB/A5 does not conduct data calls or submit candidates outside of the published books. Because NGREA is coded as "procurement" (0350), it expires after 3-years if not obligated. By OSD policy, funds should be obligated at a rate of 80% within the first year of receipt, 90% by the end of the second FY, and 100% by the end of the third FY.
- 5.9.4. 1 AF advises warfighters on NGREA submissions and participates in the ARC WEPTAC and DCP conferences. 1 AF/A8 is in constant coordination with NGB/A5. **Note:** To ensure the highest degree of success and to better inform force providers of potential sustainment requirements, units are highly encouraged to ensure NGREA submissions are validated by 1 AF as operationally necessary.
- **5.10.** National Capitol Region (NCR) Integrated Air Defense System (IADS) Requirements Working Group (RWG). The NCR IADS RWG is an Action Officer level collaborative effort with specific focus on the USAF systems resident in the NCR-IADS headquartered at the Joint Air Defense Operations Center (JADOC) at Joint Base Anacostia- Bolling, Washington, DC (JBAB). ACC/A5Y is the OPR. This is an action-level working group established for the purpose of validating and prioritizing all USAF C3 systems operational, support, and product improvement requirements. The first step in this process is the Capabilities Working Group (CWG). The CWG OPR is ACC/A3C, delegated to 1 AF/A8C. The next step is the RWG run by ACC/A5YG. The final product of the RWG is a prioritized list of operational requirements, with their associated business cases, obtained through consensus of the working group for presentation to the Requirements Review Board (RRB). The 1 AF OPR for these processes is 1 AF/A8C.
- **5.11.** Battle Control System Fixed (BCS-F) Requirements Working Group (RWG). The BCS-F RWG is an action officer level working group established to collect, prioritize, and manage all BCS operational and product improvement requirements. Since no single entity owns the entire requirement, the RWG will serve as a first-level agency that resolves requirements-related issues at the action officer level. To match pace with the incremental acquisition process, the RWG will also serve as an initial clearinghouse for requirements proposed by the community that fall out of the normal requirement documentation coordination cycle. The RWG final product is a prioritized list of operational requirements, with their associated business case analysis (BCA), obtained through consensus of the working group for presentation to the RRB. The 1 AF OPR for the BCS-F RWG is 1 AF/A8C.
- **5.12. Rapid Defense Experimentation Reserve (RDER).** Secretary of Defense program to encourage prototyping and experimentation as part of a campaign of learning. The RDER initiative will form the basis of a multi-year effort to facilitate rapid innovation and experimentation through coordination and cooperation across DoD to build technical and

operational capability-based prototypes and experimentation. The goal of these experiments is to facilitate more rapid modernization. Experimentation results will feed back into further development of the Joint Warfighting Concepts as well as inform the JROC Function Capability Boards.

- 5.12.1. Experiments should connect to the Joint Warfighting Concept priority areas: Integrated Fires, Command and Control, Contested Logistics, and Information Advantage.
- 5.12.2. Technical and operational prototype demonstrations, priority mission areas are: Fully Networked C3 / JADC2, Time Sensitive Targets / Kill Chain Closure, Integrated Fires, Contested Logistics, Assured Position, Navigation, and Timing, Electromagnetic Spectrum Dominance, Persistent ISR, Information Dominance, Cyber Effects Operation, Rapid Precision Strike
- 5.12.3. The Under Secretary of Defense for Research and Engineering (OUSD(R&E)) will lead the RDER effort.

SUPPORTING PROCESSES

- **6.1. Introduction.** This chapter outlines processes that are tangential, but not necessarily directly related to operational capability. C4/IT, Facility, ACA Infrastructure Standard Requirements, Civil Air Patrol (CAP), National Security Emergency Preparedness (NSEP) and Theater Security Cooperation (TSC) have distinct funding channels. Funding for the above activities is processed by 101 ACOMS, 1 AF/A4, CAP, NSEP and 1 AF/A5/8 respectively and may be brought into the RDP as required at the EWG level.
- **6.2.** Command, Control, Communications, Computers, Information Technology (C4/IT) Equipment Requirements. If a capability gap in C4/IT equipment arises at the Killey Center for Homeland Operations (1 AF Headquarters) or the 101 AOG/601 AOC campus, submit a ticket with 101 ACOMS Communications Focal Point (CFP) through vESD. Tickets will be tracked and followed up by working with Directorate Cyber Liaisons/CSTs at the Killey Center and CFP at the 101 AOG/601 AOC. For organizations outside the Killey Center or 601 AOC, contact your local organizational equivalent.
- **6.3. Facility Projects.** Installations and Mission Support requirements submissions follow a different process from the RDP. 1 AF/A4 is the process owner for facilities requirements, management and administration for maintenance and repairs for the headquarters buildings (1 AF, ACOMS and 601 AOC), and projects involving EADS, WADS and the JADOC. Facilities requirements include new construction and renovation as well as space utilization, new mission requirements, tests, and demonstrations that will impact facility use. Facility changes are vetted, and requirements are validated through the 1 AF/A4 Facilities Requirements Board (FRB). Reference the CONR-1 AF (AFNORTH & AFSPACE) Standards and Procedures Handbook for more information.
 - 6.3.1. Military Construction (MILCON). 1 AF/A4 compiles requirements information on large-scale construction projects supporting 1 AF and submits to N&NC/J42 for inclusion into the N&NC Theater Posture Plan. 1 AF/A4 also coordinates with Force Providers and 1 AF/A8 for submission of MILCON requirements into the Air Force Future Years Defense Program (FYDP). For MILCON requirements, contact 1 AF/A4 via email at afnorth.a4.omb@us.af.mil once the requirement has been initiated through local organizational equivalent chain of command.
 - 6.3.2. Contract Review Board (CRB). The purpose of the 1 AF/A4 CRB is to establish a forum to provide oversight of major acquisitions and ensure AFNORTH & AFSPACE complies with Department of Defense (DoD) policies for contracts. The CRB is comprised of functional expertise from contracting (1 AF/A4K), staff judge advocate (1 AF/JA), comptroller (1 AF/FM), personnel/manpower (1 AF/A1) and the Requiring Activity's Director. This review board is hosted by 1 AF/A4 who determines frequency and timing.
 - 6.3.3. Air Control Alert Infrastructure (ACA) Requirements Standard and Gap Analysis Working Group (GAWG). With the publication of the ACA Infrastructure Standard in September 2014, all steady-state and provisional ACA operating locations now have a tool to pinpoint requirements, guide infrastructure maintenance and plan for capital improvements.

Programmers will use the ACA Standard to guide the planning and execution of future construction.

- 6.3.4. 1 AF/A4C hosts a semiannual (March and November) ACA Gap Analysis Working Group (GAWG) to assist the ACA Warfighters in managing their requirements and capability gaps. The ACA GAWG consists of AFFOR and Special Staff subject matter experts/decision makers. The team coordinates ACA Infrastructure Standard requirements with their unit counterparts to validate, categorize, and prioritize requirements and capability gaps. ACA units may use current Alert Force Operational Assessment (AFOA) inspection findings to substantiate requirements and capability gaps. The resulting product is submitted to the EWG for awareness and potential action (if validation and funding strategies are required) through the RDP. In some cases, a requirement may be funded through the NGREA process outlined in para 5.9.
- **6.4.** Civil Air Patrol (CAP). 1 AF advocates within the POM process for two program elements involving both Civil Air Patrol (CAP) and CAP-USAF. Both organizations have distinct Program Elements (PE) within ACC. CAP-USAF monitors and serves as the primary subject matter experts for the CAP budget within the POM cycle. 1 AF will advocate as required, for both CAP and CAP-USAF funding issues related to 1 AF activities.
- **6.5.** National Security Emergency Preparedness (NSEP). The funding for NSEP is provided through the 1 AF budget. NSEP will provide strategic requirements through the RDP to ensure 1 AF/CC visibility and prioritization.
- **6.6. Theater Security Cooperation (TSC).** The funding for TSC is provided through the 1 AF budget, N&NC and OSD. If TSC has strategic requirements, they may submit through the RDP to ensure 1 AF/CC visibility and prioritization.

KIRK S. PIERCE, Lt Gen, USAF Commander

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 10-601, Operational Capability Requirements Development, 26 April 2021

AFI 65-601, Volume 3, The Air Force Budget Corporate Process, 28 October 2018

AFI 33-322, Records Management and Information Governance, 27 July 2021

Battle Management Advisory Group Charter, 19 October 2018

CJCSI 3170.01G, Joint Capabilities Integration and Development System (JCIDS), 23 Jan 2015

CONR-1 AF Strategic Plan, February 2020

DAFI 99-106, Joint Test and Evaluation Program, 13 Feb 2022

DoDI 5000.81, Urgent Capability Acquisition, 31 December 2019

DoDI 5000.87, Software Acquisition Pathway, 02 October 2020

National Capital Region Integrated Air Defense System (NCR-IADS) Charter, August 2010

Prescribed Forms

1 AF Form 42, Capability Gap Identification

Adopted Forms

DAF Form 847, Recommendation for Change of Publication

AF Form 1067, Modification Proposal

Abbreviations and Acronyms

AADS—Alaska Air Defense Sector

ACA—Aerospace Control Alert

ACOMS—101 Air Communications Squadron

AFOA—Alert Force Operational Assessment

AJA—Annual Joint Assessment

AO—Action Officer

AoA—Analysis of Alternatives

AOC—Air Operations Center

AOR—Area of Responsibility

ARC—Air Reserve Component

BCC—Battle Control Center

BCS-F—Battle Control System – Fixed

BMAG—Battle Management Advisory Group

C3—Command, Control & Communications

C4/IT—Command, Control, Communications, Computers, Information Technology

CAP USAF—Civil Air Patrol

CBA—Capability Based Assessment

CCDR—Combatant Commander

CFP—Communications Focal Point

CI/CD—Continuous Innovation, Continuous Delivery Process

CIPS—Cyberspace Infrastructure Planning System

CJCS—Chairman, Joint Chiefs of Staff

CNGB—Chief, National Guard Bureau

COA—Course of Action

COS—Chief of Staff

CRB—Contract Review Board

CWG—Capabilities Working Group

DCP—Domestic Capability Priorities

DRRS—Defense Readiness Reporting System

DSCA—Defense Support to Civil Authorities

EADS—Eastern Air Defense Sector

EWG—Enterprise Working Group

FA—Functional Area

FRB—Facilities Requirements Board

GAWG—Gap Analysis Working Group

HAF—Headquarters Air Force

IADS—Integrated Air Defense System

IPL—Integrated Priority List

JADOC—Joint Air Defense Operation Center

JCIDS—Joint Capabilities Integration and Development System

JCSP—Joint Strategic Capabilities Plan

JCTD—Joint Capability Technical Demonstration

JEON—Joint Emerging Operational Need

JROC—Joint Requirements Oversight Council

JT&E—Joint Test & Evaluations

JUON—Joint Urgent Operational Need

LRR/JPO—Long Range Radar Joint Program Office

MGL—Master Gap List

MVP—Minimum Viable Product

MVCR—Minimum Viable Capability Release

NCR—National Capital Region

NDP—National Aerospace System (NAS) Defense Program

NDS—National Defense Strategy

NGREA—National Guard and Reserve Equipment Appropriation

NSEP—National Security Emergency Preparedness

OUSD R&E—Office of the Under-Secretary of Defense for Research and Experimentation

OMB—Organizational Mailbox (e-mail)

OPR—Office of Primary Responsibility

OSD—Office of the Secretary of Defense

PB—President's Budget

PBR—Program Budget Review

PE—Program Element

PEO—Program Element Office

POM—Program Objective Memorandum

QRT—Quick Reaction Test

RDP—Requirements Development Process

ROC—Requirements Oversight Council

RRB—Requirements Review Board

RWG—Requirements Working Group

SC—Service Chiefs

SME—Subject Matter Expert

TSC—Theater Security Cooperation

TS&C—Technical Solution & Costing

UFR—Unfunded Operational Support Requirements

WADS—Western Air Defense Sector

WEPTAC—Weapons and Tactics

WSC—Weapon System Council

Terms

Capability—the means to execute a specified or implied task.

Gap—a mission-related capability not possessed by a Warfighter.

Product Manager—(DevSecOps)–Accountable for collecting and prioritizing operator requirements in order to guide the software team. Coordinates with the product manager to capture user feedback and participate in product demos. Determines if features have met thresholds to be released as Minimum Viable Product (MVP) deployments for user assessment.

Product Owner—(DevSecOps)—Aides in software design and development by working closely with the user community to ensure that the requirements reflect the needs and priorities of the user community and align to the mission objectives. Defines long-term product vision. Coordinates with the System Program Office (SPO) to prioritize efforts to achieve this vision. Makes recommendations when MVP deployments have met thresholds for Minimum Viable Capability Release (MVCR) fielding for user operations.

Requirement—a validated gap in capability that identifies the inability of the warfighter to execute a specified/implied task. When mission tasks exceed mission capability, a requirement exists which presents a certain amount of risk until eliminated. The requirement may be the result of no existing capability, lack of proficiency or sufficiency in an existing capability, or the need to upgrade / replace an existing capability. Requirements are exposed during mission analysis, mission planning, training exercises, and mission execution. They are identified with respect to mission tasking (Directives, Instructions, CONOPS / CONPLAN / etc.), the Mission Essential Task List (METL), risk, and impact.

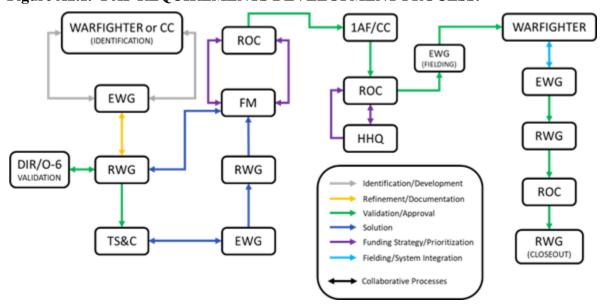
Request—a 1 AF Form 42 documenting a gap in capability, submitted through the Requirements Development Process.

Warfighter—any individual/entity that is executing the operational mission on behalf of their respective unit with directive tasks necessary to complete a mission. Combatant commanders, their Service component commands, and subordinate units are the warfighters. There may be more than one warfighter for a capability. For the purposes of this document, warfighters include members of 1 AF, 601 AOC, EADS, WADS, JADOC, 101 ACOMS, ACA units, and other organizations directly supporting the missions of 1 AF.

1 AF REQUIREMENTS DEVELOPMENT PROCESS

A2.1. 1 AF Requirements Development Process.

Figure A2.1. 1 AF REQUIREMENTS DEVELOPMENT PROCESS.



A2.2. 1 AF RDP Narrative. A2.3. The 1 AF RDP begins with "Identification." This is either a 1 AF/CC Directed requirement (worked through the RDP once captured) or a collaboration between the Warfighter and the EWG to identify the gap in capability that is preventing the warfighter from accomplishing mission directives. The EWG then refines the capability gap and ensures that all necessary documentation and any required pre-coordination with HHQ is accomplished. When all documentation is complete, the EWG submits the identified capability gap to the RWG with a validation recommendation. The RWG will then work with the appropriate 1 AF Director/O-6 to validate the gap in capability as an "Operational Requirement." Valid requirements are then sent to either 1 AF/FM (if no technical solution is required) or, if needed, 1 AF/A6 for a TS&C. Once a TS&C is developed, it is socialized with the EWG to ensure that it satisfies the requirement and can be implemented. Verified solutions then move from the EWG, through the RWG and on to 1 AF/FM for a funding recommendation. 1 AF/FM then collaborates with the RWG/ROC on funding strategies and requirements prioritization. Once the ROC prioritizes valid requirements and identifies any UFRs, they will send these prioritized lists to the 1 AF/CC for approval. When the prioritized lists are approved, the ROC, via 1 AF/A8, will collaborate with HHQ on funding and execution. When a requirement achieves full funding and sustainment it will be sent to the warfighter through the EWG for fielding and integration. Once fielding & integration is complete, the RDP is re-engaged to confirm the requirement has been satisfied. **Note:** At any point in the process, the capability gap OR requirement can be returned to earlier points in the process for clarification, refinement, or termination. Only the validating authority may terminate a validated requirement.

1 AF FORM 42 INSTRUCTIONS FOR COMPLETION

- **A3.1.** Part 1 Request For Action. Date Select date form is first filled out.
 - A3.1.1. Section 1: Initiating Organization Enter the organization name and location.
 - A3.1.2. Section 2: Initiating Action Officer Contact Information Enter Action Officer Name, Rank, DSN and Commercial Phone Numbers.
 - A3.1.3. Section 3: 1AF AO Contact Information Enter the name, DSN, and Commercial phone number of the 1AF Action Officer.
 - A3.1.4. Section 4: Title Enter the title of the capability gap.
 - A3.1.5. Section 5: Capability Gap Describe capability gap IAW 1AFI 10-601 Para 3.2.
 - A3.1.6. Section 6: Constraints Describe constrains that must be observed IAW 1 AFI 10-601 Para 3.2.
 - A3.1.7. Section 7: Impact Describe the impact to mission if this capability is not fielded IAW 1AFI 10-601 Para 3.2.
- **A3.2.** Part 2 Unit Endorsements. Include unit O-6 or equivalent signature. If submission is from an Air Defense Sector, all Sector Title 10 CCs must sign to ensure Enterprise Continuity.
- A3.3. Part 3 Requirements Development Process (RDP) Endorsements / Validation.
 - A3.3.1. Section 1: Requirements Development Process (RDP) Endorsements 1 AF complete as indicated.
 - A3.3.2. Section 2: Validation.
 - A3.3.2.1. Validation authority select appropriate block A, B, or C.
 - A3.3.2.2. Section 2 D, E and F Validation Authority Complete as indicated.
 - A3.3.3. Section 3: RDP Endorsements -1 AF complete as indicated.
- **A3.4. Requirements Oversight Council (ROC) Endorsement** ROC Chair complete as indicated.
- **A3.5. CONR-1 AF Command Endorsement** For command directed requirements, 1 AF/CC Complete as indicated.
- **A3.6.** Closeout ROC Chair complete as indicated.
- **A3.7.** Continuation Pages 1 and 2 For continuation of narrative sections or for other amplifying information.

1 AF FORM 42 CAPABILITY GAP IDENTIFICATION

Figure A4.1. 1 AF FORM 42 CAPABILITY GAP IDENTIFICATION (Page 1 of 4).

			PAGE 1 OF 4
10	CAPABILITY GA	AP IDENTIFICATION	
ART 1 - REQUEST FOR ACTION			DATE:
1. INITIATING ORGANIZATION	2. INITIATING ACTION O	FFICER CONTACT INFORMATION 3.	IAF AO CONTACT INFORMATION
4. TITLE			
5. CAPABILITY GAP (what capacity is locking the	it the mission requires of you? (As aim	tated by ARI, OPORD, etc.) is the deficiency iden	effed in DRRS07 Continued in Part 7
CONSTRAINTS / ASSUMPTIONS / PROPI	OSED SOLUTIONS		Continued in Part 1
0. Consideration recommendation	0000 0000110		(a -)
7. IMPACT (State: "Impact to Mission" if this ca	pablity gap is not remedied)		Continued in Part
Part 2 – UNIT ENDORSEMENTS (#reque	ist is from an Air Defense Sector,	ALL Sector Title 10 CC's must Coord & S	ign to ensure Enterprise Continuity)
LOCATION ENDORSING OF	FFICIAL E-SIGN	N/A REMARKS	
SELECT UNIT •			
SELECT UNI -			
SELECT UNIT -			
SELECT UNIT -			
SELECT UNIT •			
SELECT UNIT -		g = 0	

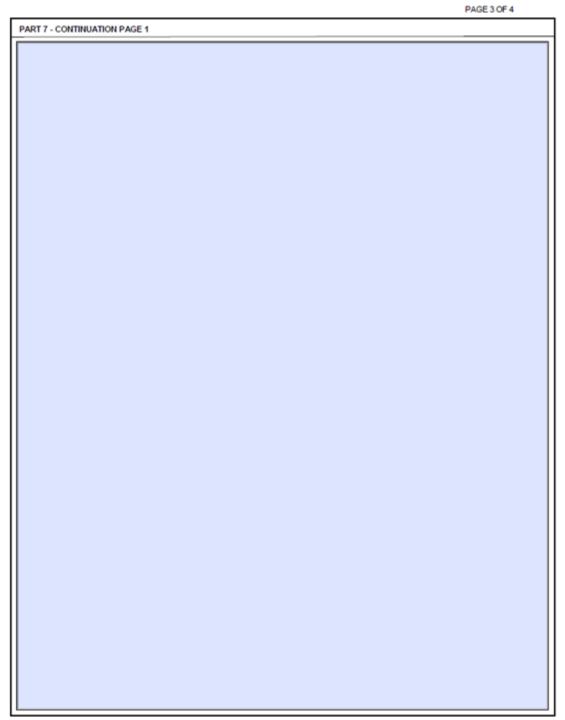
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Figure A4.2. 1 AF FORM 42 CAPABILITY GAP IDENTIFICATION (Page 2 of 4).

PAGE 2 OF 4								
Part 3 – REQUIREMENTS DEVELOPMENT PROCESS (RDP) ENDORSEMENTS / VALIDATION (RFC= RETURN FOR COMMENT)								
1. TO:	ACTION	E-SIGN	REMARKS					
1AF/A8X	RECORDED IN GAP TRACKER							
_		TO AND THE PARTY OF THE PARTY O						
1AF/A8C EWG CHAIR	VALID INVALID R	FC						
_		10.00						
1AF/A8X RWG CHAIR	VALID INVALID R	FC						
AF FORM 1067	REQUIRED N/A IN	PRE-COORD W / ACC						
2. VALIDATION (Appropriate	Director/O-6 Level Validation authority determined by	RWG Chair)						
A. PROPOSED R	EQUEST IS VALIDATED AS AN ORGANIZATI	ONAL REQUIREMENT WHICH REQU	IRES ACTION					
B. PROPOSED R	EQUEST IS DISAPPROVED AND IS NOT AN	ORGANIZATIONAL REQUIREMENT V	VHICH REQUIRES ACTION					
C PROPOSED R	EQUEST IS RETURNED TO INITIATOR FOR	MORE INFORMATION / CLARIFICATI	ON					
D. DATE	E. NAME, GRADE, TITLE, and DSN	F. SIGNATURE						
3. RDP ENDORSEMENTS (0	Continued)							
TO:	ACTION	E-SIGN	REMARKS					
1AF/A8X	GAP TRACKER UPDATED							
		in w						
1AF/A8C	AF FORM 1067 COMPLETE (Frequired)							
1AF/A6	TS&C COMPLETE							
124720	(SEE ATTACHMENT)							
1AF/A8C EWG CHAIR	TS&C CONCUR TS&C NOR	I-CONCUR						
EWG CHAIR L		max >						
1AF/FM	FUNDING DETERMINATION COMPLETE (SEE ATTACHMENT)							
	, , , , , , , , , , , , , , , , , , , ,							
Part 4 - REQUIREMENT	TS OVERSIGHT COUNCIL (ROC) ENDORSEM	MENT						
INITIATE FUNDIN	NG / FIELDING / INTEGRATION ACTIONS	NON-CONCUR						
A. DATE	B. NAME, GRADE, TITLE, and DSN	C. SIGNATURE						
Bud E COUR LIE CO	WHAT ENDODGENERAL TO THE TOTAL TO THE T							
	MMAND ENDORSEMENT (As Required, or Their	representative)						
CONCUR	NON-CONCUR	a ciauties						
A. DATE	B. NAME, GRADE, TITLE, and DSN	C. SIGNATURE						
Part 6 – CLOSEOUT (ROC Chair or Their Representative) REQUIREMENT FIELDED								
A. DATE	B. NAME, GRADE, TITLE	C. SIGNATURE						
		-						

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Figure A4.3. 1 AF FORM 42 CAPABILITY GAP IDENTIFICATION (Page 3 of 4).



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Figure A4.4. 1 AF FORM 42 CAPABILITY GAP IDENTIFICATION (Page 4 of 4).



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