



Air Force Life Cycle Management Center
Standard Process for
Life Cycle Risk & Issue Management
in Acquisition and Sustainment Programs

Process Owner: AFLCMC/AZA

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Record of Changes. Minor changes are annotated by changing the second digit, i.e., the first minor change after the basic document would be recorded as “1.1”. Major changes are annotated by changing the first digit, i.e., the first major change after release of the basic document would be numbered as “2.0”.

Record of Changes		
Version	Effective Date	Summary
1.0	21 NOV 13	Process Standard approved by Standards and Process (S&P) Board on 7 NOV 13.
1.1	28 MAY 2014	Added Qualitative metric (para 5.2.3 and subs). Reviewed and approved by S&P Board on 15 MAY 2014.
1.2	10 JUL 2015	Conducted annual review; no changes required.
1.3	29 FEB 2016	Replaced metric (para 5.2.3) with a summary of risk mgmt inspection findings as directed at 24 FEB 2016 S&P Board. Minor admin and references updates also made.
1.4	17 NOV 2016	Fact of life changes due to SAF/AQ implementation of government owned risk tracking tool in place of continued use of commercial software and minor revisions to align to revised Standard Process (SP) S01.
1.5	17 NOV 2017	Fact of life changes due to AFI 63-101/20-101 revision including changes to SharePoint URLs, linkage to new AFLCMC SPs, Guides, and sustainment information. Approved at 17 NOV 2017 S&P Board.
1.6	15 NOV 2018	Fact of life changes to address National Defense Authorization Act FY16 Sec 804 emphasis and changes to SharePoint URLs, linkage to new AFLCMC SPs, Guides, and sustainment information. Approved at 15 NOV 2018 S&P Board.
1.7	21 NOV 2019	Minor fact of life changes and a references middle tier acquisitions. Approved at 21 NOV 2019 S&P Board.
2.0	21 JAN 2021	Updated due to multiple DoD and Air Force acquisition policy updates and terminations. OPR reassigned from AFLCMC/AZE to AFLCMC/AZA. Approved by 21 JAN 2021 S&P Group.
2.1	20 JAN 2022	Deleted references to Program Sufficiency Reviews (PSR) due to PSR Guide being rescinded. Updated other governance references to maintain compliance. Added Air Force Program Executive Office (AFPEO) waiver process for alternative risk management tool use. Typographical corrections made.

3.0	15 SEP 2022	<p>Updated as a new version to:</p> <ol style="list-style-type: none"> 1. Changed title to use Life Cycle Risk Management (LCRM); DoD and DAF standard term for Risk & Issue Management. 2. Changed title to indicate LCRM is life cycle process for both acquisition and sustainment programs. Delete references to Enterprise Risk Management Service (ERMS) due to its termination by SAF/AQXS. 3. Revised procedures to include use by sustainment programs; allow selection of Risk Management tools that are applicable for program needs; and encourage implementation for Digital Transformation. 4. Removed Integrated Risk Assessment (IRA) process because IRAs, to include Schedule and Cost Risk Assessments, are in DAFPAM 63-128 (03 FEB 2021). 5. Approved at 15 SEP 2022 SP&P Group.
3.1	21 SEP 2023	<p>Fact of life changes due to AFI 63-101/20-101 revision. Numerous administrative updates and formatting update. Relocated RIM activities in section 1 to section 4. Removed Attachment B Memo, due to removal of AFERMS requirement. Updated linkages to supporting document locations. Added reference to Digital Material Management (DMM) supporting the Risk Management Plan (RMP) in section 7. Approved at 21 SEP 2023 S&P Board.</p>
3.2	19 SEP 2024	<p>Section 7.1 Risk Identification Methodologies added:</p> <ol style="list-style-type: none"> 1) Added weather environmental threat report 2) Added Acquisition Business Intelligence 3) Security Risk Assessment <p>Replaced RIM with LCRM and reworded as needed. Added references and links for Risk Management Tool in PMRT and Augmented Intelligence (AI). Updated AFI 63-101/20-101 to 16 FEB 2024 release. Updated DOD RIO Guide to SEP 2023 release. Numerous clarifications from CRM input. Added 8.2.4 SCRUM SP reference and link. Updated the definition of Concern per DAFPAM 63-128, Para 12.1.3.2 Approved at 19 SEP 2024 SP&P Group.</p>

1.0 Description

- 1.1 The *Air Force Life Cycle Management Center Standard Process for Life Cycle Risk Management in Acquisition and Sustainment Programs* supplements Department of Defense (DoD), Department of the Air Force (DAF), Air Force Materiel Command (AFMC) and Air Force Life Cycle Management Center (AFLCMC) governances applicable to Life Cycle Risk Management (LCRM) for systems acquisition and sustainment. LCRM is a fundamental program consideration that begins during the initial capability needs discussions and continues throughout sustainment. This SP focuses on LCRM as a systems engineering process critical for program management, acquisition, and sustainment.
- 1.2 LCRM is an iterative process of risk management planning, risk identification, risk analysis, risk handling planning & implementation, and risk tracking (Department of the Air Force PAMphlet (DAFPAM) 63-128, Fig 12.1). “Risk management touches on all aspects of program management to include cost, schedule, performance, technical, product data access, technology protection, cybersecurity, production, sustainment, logistics planning, and other appropriate areas” (DAFPAM 63-128, Para 12.1.4.2.1). LCRM supports the achievement of meeting or exceeding program goals, objectives, and expectations by providing decision makers with the best available risk and issue information.

2.0 Purpose

- 2.1 IAW DoDI 5000.02 and DAFI 63-101/20-101, Program Managers (PM) pursue comprehensive, integrated risk analysis throughout the life cycle and prepare/maintain a Risk Management Plan (RMP).
 - 2.1.1 The DoD performs LCRM to identify risks and issues and assess the likelihood and impact of negative events. Accurate and organized LCRM provides PMs with confidence to achieve program objectives within cost, schedule, scope, quality and resources. Program LCRM strategy is documented in the RMP and supports the PM response to negative events.
- 2.2 LCRM and Opportunity Management (OM) are separate processes. DAF and AFMC governances do not address OM, although the *Department of Defense Risk, Issue and Opportunity Management Guide for Defense Acquisition Programs* (DoD RIO Guide) does. Programs that choose to conduct OM should consult DoD governances and resources (i.e., DoD RIO Guide, Defense Acquisition University).
- 2.3 This SP supplements the governance in Section 10.1 to ensure AFLCMC organizations can connect the multiple governance documents and specifically execute the governance without repeating the governance in this SP. This process has three purposes for AFLCMC programs regardless of Program Executive Office (PEO) portfolio:
 - 2.3.1 Document this AFLCMC SP and the employment of tools for managing risks and issues.

- 2.3.2 Serve as the 'Just-in-Time' reference and recommended 'Start Here' document for an AFLCMC program that is either creating or revising all or part of its LCRM program.
- 2.3.3 Introduce the AFLCMC workforce to the unique aspects of applying LCRM to programs managed in AFLCMC.

3.0 Entry/Exit Criteria, Inputs and Outputs

3.1 Entry Criteria

- 3.1.1 Strategic planning that supports a request for an Acquisition Decision Memorandum initiating a program at Milestone A or appropriate entry point across all program categories and types.
- 3.1.2 A lead command certified or approved modification (i.e., AF Form 1067, Part V).

3.2 Exit Criteria

- 3.2.1 Risks and issues are managed throughout the life cycle of a program. LCRM for a system process ends at disposal or discontinuation.
- 3.2.2 As a program transitions from one life cycle phase into another or into a new program, approved Risk Handling Plans (RHPs) for risks and Corrective Action Plans (CAPs) for issues will be transitioned into the next phase or program for continued monitoring and action. The criterion is closed once the RHPs and CAPs have been transitioned.

3.3 Inputs

- 3.3.1 Program requirements
- 3.3.2 Outputs/Results from tools, methodologies and/or assessments for revealing, quantifying or analyzing program risks
- 3.3.3 Program Management plans that are system or process specific (e.g., Systems Engineering Plan, Life Cycle Sustainment Plan)
- 3.3.4 Contract deliverables
- 3.3.5 Contractor Risk Management Plan (CRMP)
- 3.3.6 Contractor-identified/-managed risks and issues
- 3.3.7 Risks/Issues identified during Analysis of Alternatives (AoA)
- 3.3.8 DoD, DAF and AFMC governance related to risk management
- 3.3.9 MIL-STD-882E hazard determinations and legacy system safety risks/issues for system hardware and software, system interfaces, intended use or application, and operational environment.

3.4 Outputs

- 3.4.1 Program RMP
- 3.4.2 Risks and issues identified. Applicable RHPs for risks and CAPs for issues developed.

- 3.4.3 LCRM risk matrix using likelihood and standard [Air Force] AF consequence criteria (DAFI 63-101/20-101, Fig A3.1, Tables A3.1-A3.4).
- 3.4.4 The LCRM risk matrix top row to convey an issue and standard [Air Force] AF consequence criteria (DAFI 63-101/20-101, Fig A3.1, Tables A3.1-A3.4).
- 3.4.5 Risk burn-down charts showing the actual and projected completion of risk handling or issue corrective action activities over a specified time period (i.e., semi-annual, between decision points or reviews).
- 3.4.6 Quantified risk/issue data in schedule and cost analyses that support annual Program Office Cost Estimates (POE) and other cost estimates.

4.0 Process Workflow and Activities. This section summarizes the LCRM process and its iterative nature.

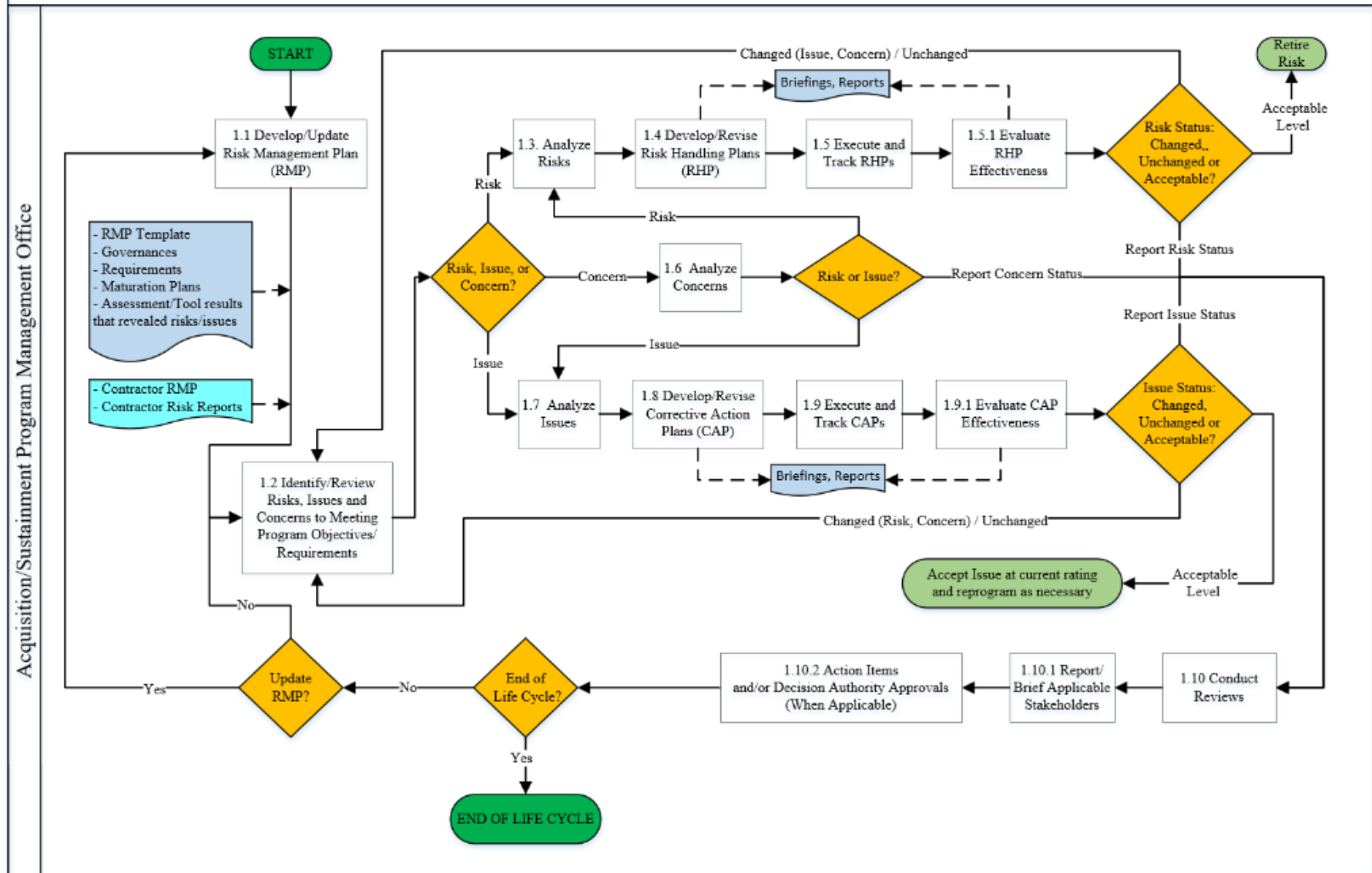
- 4.1 LCRM Process Flowchart; Figure 1. This is a block-diagram depiction of the LCRM process detailed in the Work Breakdown Structure (Attachment B).
- 4.2 LCRM Process Work Breakdown Structure (Attachment B). This is the detailed breakdown of the LCRM process.
- 4.3 Program offices shall perform the following LCRM activities to meet or exceed program goal, objectives, and expectations:
 - 1) Execute rigorous and continuous LCRM practices from the start of acquisition planning throughout program execution.
 - 2) Manage risks and issues within defined cost, performance, schedule and technical constraints in accordance with applicable governance.
 - 3) Utilize a Risk Management (RM) tool(s) capable of tracking all program risks and issues.
 - a) For AFLCMC programs that are part of an Air Force Program Executive Officer (AFPEO) portfolio:
 - i) The RM tool shall satisfy the criteria in Attachment A.
 - ii) The PM shall identify the tool in the program RMP and detail how the RM tool(s) satisfies the criteria in Attachment A.
 - b) For AFLCMC programs managed by another Service and/or Major Command (MAJCOM):
 - i) Use the managing organization's RM tool.
 - ii) Identify the RM tool(s) in the AFLCMC program's RMP.
 - 4) Document the program LCRM process, procedures, strategy and tool in a RMP developed by a multi-functional team. This is to be conducted during program initiation and reviewed periodically throughout the program life cycle.
 - 5) Conduct pre-award risk workshops to identify program execution risks as part of acquisition strategy development process.

- 6) Conduct risk assessments to quantify and analyze cost, performance and schedule impacts. This includes:
 - a) Analyses and assessments in support of the annual POE.
 - b) Independent Technical Risk Assessments (ITRAs), Technical Risk Assessments, Technical Reviews, as part of the Adaptive Acquisition Framework (AAF). Note that ITRAs are required for certain programs and program teams should follow the most recent DOD ITRA guidance.
 - c) Other types of assessments as necessary. Section 7.1 provides a list of assessments a program may use. The PM and functional leads are responsible for determining which assessments are necessary.
- 7) Ensure execution and oversight of Risk Handling Plans (RHPs) and Corrective Action Plans (CAPs).

5.0 Measurement

- 5.1 Process Results. The ultimate measure of success for LCRM in acquisition and sustainment programs is the successful execution of all objectives within cost, schedule and performance constraints during the program life cycle. Long-term risks, risks with various interval lengths, and risk velocity from program initiation to program completion impede effective LCRM. Iterative, periodic assessments for the analysis and quantification of risk impacts provide program managers with information for a better understanding of program status and effects on cost, schedule and performance.
- 5.2 Process Evaluation.
 - 5.2.1 LCRM is a continuous, iterative process with each risk, issue and concern moving at its own pace; therefore, this SP does not require a standardized time interval for data collection.
 - 5.2.2 When briefing or reporting LCRM RHP/CAP updates since a previous review, summarize the latest RHP/CAP updates. Emphasize any risk, issues or concerns with changes to likelihood or consequence.
 - 5.2.3 Because of the technical aspects of LCRM, programs shall conduct Independent Technical Risk Assessments (ITRA) per DoDI 5000.88 and per AFMCI 63-1201, para 2.2.1 through 2.2.1.2.5. Waiver and exemption criteria are in AFMCI 63-1201, attachment 4, para A4.1 through A4.4.

Figure 1. Life Cycle Risk Management Process Flowchart



6.0 Roles and Responsibilities. The following roles and responsibilities are in addition to those identified in DAFI 63-101/20-101.

6.1 Program Manager

- 6.1.1 Owns the program LCRM process. The PM uses rigorous, continuous risk management practices to oversee LCRM process execution. The PM is the person with the authority, duty, and responsibility to lead and manage the program of record; also known as: Senior Materiel Leaders, Materiel Leaders, or system PM.
 - 6.1.1.1 Conduct recurrent reviews. The frequency (i.e., annual, monthly, weekly, ad hoc) of a review is dependent on factors such as its specific type, purpose, scope, and mandatory requirements. The maximum interval between any two reviews, regardless of their types or frequencies, is thirty (30) calendar days. (Attachment B, WBS 1.10)
 - 6.1.1.2 Determine whether the likelihood and/or consequence criteria (DAFI 63-101/20-101, Tables A3.1 through A3.4) are adequate for the program type and life cycle phase. If not:
 - 6.1.1.2.1 Develop appropriate alternate criteria that uses the likelihood and consequence criteria scales. Use the tailoring procedures in DAFI 63-101/20-101, Para 1.4.2 through 1.4.2.2.
 - 6.1.1.2.2 Request alternate criteria approval from the Milestone Decision Authority (MDA).
 - 6.1.1.2.3 Include approved alternate criteria in the RMP and other applicable documents (i.e., Acquisition Strategy Plan, Systems Engineering Plan).
 - 6.1.2 Ensure the program LCRM process is accurately documented in the RMP.
 - 6.1.2.1 Include the prime contractor's RMP as an attachment.
 - 6.1.2.2 Include MDA-approved alternate criteria and evidence of MDA approval.
 - 6.1.2.3 For programs managed by another service and/or MAJCOM, address how joint/shared LCRM will be accomplished in the managing organization's RMP.
 - 6.1.3 Justify the selected risk management tool to the AFPEO and ensure satisfaction of the criteria in Attachment A, Section A2.
 - 6.1.4 Initiate periodic risk analyses and assessments, particularly those in conjunction with POEs and ITRAs, for programs with scheduled activities.
 - 6.1.4.1 Arrange for Cost and Schedule analysis support.
 - 6.1.4.2 Request independent Subject Matter Expert (SME) support as needed.
 - 6.1.5 Communicate risk, issues and concerns associated with the program to the MDA and PEO, Air Force and other service PEOs, per DAFI 63-101/20-101, Para 4.5.1.3.
 - 6.1.6 Track risks, issues and concerns in the risk management tool.
 - 6.1.7 Ensure program personnel complete appropriate risk management training.
- 6.2 Program Executive Officer. This includes AFPEOs and other service PEOs.

- 6.2.1 Consider risks, issues and concerns relevant to enterprise- and portfolio-level decisions and LCRM, to include those which are compounded.
- 6.2.2 Perform MDA duties and responsibilities when either acting or delegated.
- 6.3 Functional Leads. Unless denoted otherwise, this section pertains to all functional leads at the Life Cycle Management Center, PEO, and program levels.
 - 6.3.1 Ensure personnel are trained in risk management and how to assess risk in their functional area; including the approved RM tool and unique functional-area tools and methodologies. Methodology and tool examples are in Section 7.0.
 - 6.3.2 Communicate risks, issues and concerns associated with their functional area to the PEO and PM as applicable.
 - 6.3.3 Participate in LCRM-related reviews, analyses/assessments and workshops.
 - 6.3.4 Incorporate functional-area risks, issues and concerns into the risk management program and tool at the appropriate level.
- 6.4 Program Office Personnel
 - 6.4.1 Identify potential risks, issues and concerns and report them to leadership. This includes risks, issues and concerns identified during risk assessments.
 - 6.4.2 Analyze and assess risks, issues and concerns – both actual and potential – to determine likelihood and consequence(s) of occurrence.
 - 6.4.3 Participate in LCRM-related reviews, analyses/assessments and workshops.
 - 6.4.4 Complete assigned LCRM activities, including actions in RHPs and CAPs.
 - 6.4.5 Manage LCRM activities when assigned as a Risk and/or Issue Owner. This includes development and execution of RHPs and CAPs. When assigned as a joint risk/issue co-owner, ensure the risk/issue statement and RHP/CAP are adequate, appropriate and reflect the program perspective.
 - 6.4.6 Participate in and complete appropriate risk management training. This includes the risk management process; analysis/assessment; functional-unique tools and methodologies; use of the approved risk management tool.
- 6.5 AFLCMC/FM-FZ Director; or Delegated Cost Chief at Operating Locations
 - 6.5.1 Provide cost and schedule analysis support to programs when requested by the PM. This includes resources (i.e., personnel, tools) for POEs.
 - 6.5.2 Ensure all applicable risks and issues are incorporated into POEs, and that appropriate tools and methodologies were used to quantify those risks and issues.
 - 6.5.3 Approve POEs in accordance with the *AFLCMC Standard Process for Annual Program Cost Estimates* (Para 10.1.5).
- 6.6 AFLCMC/AZA Systems Integration Technical Expert
 - 6.6.1 Designated as the AFLCMC Life Cycle Risk Management Technical Expert.
 - 6.6.2 Designated as the Process Owner for this SP.
 - 6.6.2.1 Manages the LCRM process for AFLCMC

- 6.6.2.2 Maintains and coordinates process changes
- 6.6.2.3 Leads process-related improvement and change events
- 6.6.3 Advises AFLCMC leadership and programs on LCRM policies and processes, RM tools, and applicable training.
- 6.6.4 Manages and provides training and workshops regarding LCRM, RMPs, RHPs, CAPs, and how to conduct analyses and assessments. This includes managing course content and facilitating workshops when requested by PMs.
- 6.6.5 Advises programs on risk management topics, to include those identified in para 6.6.4 above.
- 6.6.6 Manages the LCRM SharePoint sites for AFLCMC and AFLCMC/AZA.
- 6.6.7 Provides Independent Technical Risk Assessment (ITRA) support to PMs for LCRM.

7.0 Methodologies and Tools. Various methodologies and tools are used throughout LCRM and some are specific to revealing risks and issues, while others are for analysis, assessment, tracking and/or reporting. This section is neither an all-inclusive list, nor justifies the exclusion of unlisted methodologies and tools a program is required to use. PMs are responsible for using methodologies and tools required for their programs and encouraged to implement Digital Materiel Management (DMM) solutions to the RMP as practicable.

7.1 Risk Identification Methodologies. These methodologies are used to reveal risks and issues in various aspects of acquisition and sustainment programs. This list is not all inclusive. Program areas such as Program Protection Planning (PPP) must be assessed per DAFI 63-101/20-101 (Chapter 6), although no one specific ‘tool’ is available to determine and assess overall lifecycle risks. None of these processes, alone or in combination, are capable of revealing all risks and issues in a program. Program offices still need knowledgeable personnel that are continually assessing program aspects and changes to identify risks and issues.

- 1) Independent Technical Risk Assessment (ITRA)
- 2) Manufacturing Readiness Assessment (MRA)
- 3) Technical Readiness Assessment (TRA)
- 4) Human Systems Interface Assessment
- 5) Logistics Health Assessment (LHA)
- 6) Safety Inspections and Assessments
- 7) Schedule Health Assessment (SHA)
- 8) Schedule Risk Assessment (SRA)
- 9) Supply Chain Risk Assessment
- 10) Cybersecurity Assessment
- 11) Weather Environmental Threat (WET) Report
- 12) [Acquisition Business Intelligence \(ABI\)](#)
- 13) Security Risk Assessment

7.2 Risk Identification Tools

7.2.1 Risk Probability Consequence Screening – Excel (Risk_PCS-X)

7.2.2 Systems Engineering Toolset (SET)

7.2.3 Augmented Intelligence (AI) – NIPRGPT (<https://v1.niprgpt.mil/>)

7.3 Risk & Issue Analysis Tools. These tools are typically used for statistically analyzing cost and schedule impacts to a program if a risk becomes an issue. Cost analysis tools are managed by the financial management functional community. The DAF does not have a central management office or readily available tools for schedule analysis; therefore, programs generally oversee and rely on prime and/or third-party contractors to supply tools and conduct analysis. Prior to using any tool, ensure it has a current Authority to Operate (ATO) on DAF networks/systems at the appropriate clearance level. The following tools are examples of commercially available products. This is neither an endorsement nor a mandate that programs use these products.

7.3.1 Crystal Ball (Cost)

7.3.2 Open Plan Professional (Schedule)

7.3.3 Full Monte v3.x (Schedule)

7.3.4 Microsoft Project (Schedule)

7.4 Risk Management (RM) Tools. RM tools are used to manage and track risks, issues and concerns in acquisition and sustainment programs. The AFLCMC recommended RM tool for program teams is RMT (Risk Management Tool), which can be accessed in the Project Management Resource Tools (PMRT) with the source link cited in Section 10.4 below. Other available RM tools include commercial-off-the-shelf products (e.g. Active Risk Manager (ARM) sold by Riskconnect) or contractor-proprietary products (e.g. BORIS used at Boeing). The Acquisition Center of Excellence (ACE) maintains an [ACE Risk Management Site](#) of RM Tool recommendations for LCRM, including Supply Chain Risk Management (SCRM) tools and resources. It is imperative that PMs choose a RM tool that:

7.4.1 Can be used to manage and track risks, issues and concerns to the program office and its program(s);

7.4.2 Meets needs for successful risk management execution; and

7.4.3 Complies with the criteria in Attachment A.

8.0 Training Delivery Approach

8.1 Training Plan. Training is continually reviewed and updated to remain current and compliant with applicable governance. Updates to this SP are incorporated into the AFLCMC Risk Management SharePoint site and AFLCMC/AZA training.

8.2 Available Training

8.2.1 AFLCMC/AZA. The Acquisition Center of Excellence provides risk management training during Focus Weeks, [Pre-Award Risk Workshops](#), [Post-Award Risk Assessments](#), and when requested by programs. The ACE products and services includes an augmented intelligence risk workshop.

- 8.2.2 Air Force Institute of Technology
 - 8.2.2.1 [Introduction to Life Cycle Risk Management \(SYS 118\)](#); e-Learning
 - 8.2.2.2 [Life Cycle Risk Management \(SYS 208\)](#); In-Residence or On-site
- 8.2.3 [Defense Acquisition University](#)
 - 8.2.3.1 Introduction to Risk, Issue, and Opportunity Management Credential (CACQ 004); Online
 - 8.2.3.2 Program Management Tools Course Part I (PMT 2570V); Online
 - 8.2.3.3 Risk Management (PMT 0170); Online
 - 8.2.3.4 Integrated Risk Management (CLM 093); Online
 - 8.2.3.5 Risk Management Framework for Practitioners (ISA 220); Online
- 8.2.4 Reference the AFLCMC SCRMC Standard Process, Section 8.0 for available training opportunities or the [AFLCMC SCRMC SharePoint](#).
- 8.2.5 Functional Training. Contact the applicable AFLCMC functional directorate (e.g., AQ-AZ, EN-EZ, FM-FZ, LG-LZ) for specific training.
- 8.2.6 Tool and Methodology Training. Contact the applicable government office or commercial vendor.

9.0 Definitions, Guiding Principles and/or Ground Rules & Assumptions

- 9.1 This SP applies to LCRM for acquisition and sustainment programs rather than Operational Risk Management. Therefore, this SP is subordinate to DAFI 63-101/20-101, and not to AFI 90-802.
- 9.2 This SP does not address risk management procedures in the AoA and Capability Development processes. However, risks, issues and concerns identified in those processes should be initial influences in a program's LCRM process and RMP.
- 9.3 Significant resources (i.e., personnel, tools) can be involved in managing risk. PMs, functional leads, program office personnel, and contractors must be actively involved in the LCRM process for it to be effective.
- 9.4 Definitions:
 - 9.4.1 **Risk:** "A future event that may cause a negative outcome or an execution failure in a program with defined performance, schedule and cost constraints." Its likelihood of occurrence is "greater than 5 percent...[and] less than 100 percent certain." (DAFPAM 63-128, Para 12.1.3.1)
 - 9.4.2 **Issue:** "A negative event that has occurred [or is certain to occur], and has a detrimental impact on at least one dimension of consequence (performance, schedule or cost)." (DAFPAM 63-128, Para 12.1.3.3)
 - 9.4.3 **Concern:** "A potential, negative future event for which the cross-functional LCRM team does not have sufficient information to quantify a likelihood and/or consequence." (DAFPAM 63-128, Para 12.1.3.2)

- 9.4.4 **Risk/Issue Color Rating:** Risks and issues are categorized with a color-rating system. Color ratings align with the LCRM Risk Matrix blocks and their corresponding likelihood and consequence criteria in DAFI 63-101/20-101, Attachment 3.
- 9.4.4.1 **High:** The risk/issue is depicted as red. RHPs/CAPs are mandatory for all risks and issues at this level.
 - 9.4.4.2 **Moderate:** The risk/issue is depicted as yellow. RHPs/CAPs are required for all risks and issues at this level.
 - 9.4.4.3 **Low:** The risk/issue is depicted as green. Risks and issues at this level are regularly tracked. A RHP/CAP is optional.
- 9.4.5 **Risk Management Planning:** “Is the foundation of the LCRM process and key to successful program execution. It links a program’s risk management effort to life cycle planning by answering “who, what, where, when, and how” risk management is performed.” (DAFPAM 63-128, Para 12.2.2.1) It consists of the up-front activities for program execution success.
- 9.4.6 **Risk and Issue Management Plan (RMP):** Documentation that “explains the strategy by which the program coordinates and integrates its LCRM effort.” It “is a strategic document providing an overarching [risk and issue management] plan” (DAFPAM 63-128, Para 12.2.2.2.2). The RMP may be a stand alone document or “incorporated into appropriate planning documents, and linked to risk management activities described in other planning documents (e.g., IMS, SEP, Acquisition Strategy) as necessary” (DAFPAM 63-128, Para 12.2.2.2.3). The RMP provides detailed information and direction necessary to conduct effective risk management for this project. The RMP also provides effective risk management methods and processes, and assigns responsibility for the implementation of various aspects of risk management. AFMC has created a tailorable RMP template (Para 10.3).
- 9.4.7 **Risk Handling Plan (RHP):** A formal action plan for reducing a risk to an acceptable level. Each RHP is unique to a specific risk. RHPs include a milestone schedule, closure criteria, and optional Technical Performance Measures (TPMs). A RHP employs one or more risk management strategies; Accept, Avoid, Eliminate, Mitigate, Share or Transfer.
- 9.4.8 **Corrective Action Plan (CAP):** A formal action plan for reducing an issue to an acceptable level. Each CAP is unique to a specific issue. CAPs include a milestone schedule, closure criteria, and optional TPMs. A CAP employs one or more corrective action options; Avoid, Control, Ignore or Transfer.
- 9.4.9 **Contingency Plan:** A formal plan for two types of risk.
- 9.4.9.1 **High Risk Contingency Plan (CP-HR):** This plan is for a high risk that a PM determines “is acceptable in the face of the outcome” (DAU, CACQ 004, Module 7). Although the risk could become an issue, accepting it provides a greater benefit to the program.
 - 9.4.9.2 **External Risk Contingency Plan (CP-ER):** This plan is “for external risks that are outside [the] immediate control” of the PM (DoD RIO Guide, Para 2.2.2).

- 9.4.9.3 A Contingency Plan is more robust than a RHP. Both contain the same information (refer to Para 9.4.7). There are two differences. First, the contingency plan has more robust monitoring activities. Second, it contains a preemptive CAP in case the risk becomes an issue.
- 9.4.10 **Risk and Issue Tiering:** Risks and issues may be associated with and/or managed at different levels within an enterprise (e.g., PEO, program office, team). Tiering identifies the highest level a risk/issue impacts and which level is assigned as the Risk/Issue Owner. If a tiering scheme is used, it must be documented in the RMP. A notional scheme could be: PEO, Tier 1 (T-1); Program/Contract, Tier 2 (T-2); Functional, Tier 3 (T-3); and Integrated Product Team, Tier 4 (T-4).
- 9.4.11 **Watch List:** A list of concerns and risks that are being tracked although none have a RHP.
- 9.4.12 **Relevant Stakeholder:** Individuals and/or organizations involved in LCRM in terms of any of the following:
- Establishing a collaborative environment for free and open LCRM discussion;
 - Reviewing the LCRM strategy, process & procedures, and the RMP;
 - Identifying, analyzing and handling risks, issues & concerns;
 - Communicating and reporting LCRM outputs.
- 9.4.13 **Risk Review Board:** A board convened of relevant stakeholders. Board duties include approving new risks; retiring risks; and proactively managing, tracking and communicating risk, issues & concerns. Membership should be determined by program size and tier of the risks, issues, and concerns to be reviewed. In addition to relevant stakeholders, a risk review board should consist of a Chairperson, Risk Manager (also serves as secretariat), and risk/issue owners. Program-level boards are to include the PM (Chair), Risk Manager (Secretariat), functional leads and risk/issue owners. Functional boards will be chaired by the functional lead (i.e., Chief Engineer chairs technical risk review boards). Review frequency aligns with Para 6.1.1.1 above and the LCRM Standard Process WBS (Attachment B, WBS 1.10 and 1.10.1).

10.0 References to Governance, Sources and Assistance

10.1 Governance

- 10.1.1 [Department of Defense Risk, Issue, and Opportunity Management Guide for Defense Acquisition Programs](#) (DoD RIO Guide), SEP 2023
- 10.1.2 [DAFI 63-101/20-101](#), *Integrated Life Cycle Management*, 16 FEB 2024
- 10.1.3 [DAFPAM 63-128](#), *Integrated Life Cycle Management*, 3 FEB 2021
- 10.1.4 [AFMCI 63-1201](#), *Integrated Life Cycle Systems Engineering and Technical Management*, 02 DEC 2022
- 10.1.5 [Air Force Life Cycle Management Center \(AFLCMC\) Standard Process for Annual Program Office Cost Estimate](#), 16 MAR 2023

10.2 AFLCMC Life Cycle Risk Management Resources

- 10.2.1 [Risk Management](#) – AFLCMC/AZA

- 10.2.2 [Schedule Risk Assessment](#) (SRA) – AFLCMC/AZA
- 10.2.3 [Systems Engineering Toolset](#) (SET) – AFLCMC/EZSI
- 10.2.4 [Supply Chain Risk Management](#) (SCRM) – AFLCMC/LG-LZ
- 10.3 [AFMC Risk Management Plan \(RMP\) Template](#)
- 10.4 [Program Management Resource Tools](#) (PMRT)
- 10.5 [ASSIST](#) Website
 - 10.5.1 DI-MGMT-81808, *Contractor's Risk Management Plan*
 - 10.5.2 DI-MGMT-81809, *Risk Management Status Report*
 - 10.5.3 MIL-STD-882E, *System Safety*, 10 FEB 2022

Attachment A

Life Cycle Risk Management Tool Guidelines

- A1. Program Managers (PMs) are required to develop and approve the Risk Management Plan (RMP). The Risk Management (RM) tool(s) used for managing risks and issues for the acquisition and/or sustainment program should be clearly cited in the RMP and consistent with the Air Force Program Executive Officer (AFPEO) direction for Life Cycle Risk Management (LCRM).
1. The recommended RM tool for AFLCMC PMs is Risk Management Tool (RMT). The RMT capability was launched within the PMRT (Project Management Resource Tools) suite of resources in 2024. RMT includes all of the required capabilities listed in A2. Access RMT through PMRT at <https://pmrt.cce.af.mil/>
- A2. A risk management tool must satisfy the following criteria to be considered acceptable for unclassified use by a program:
1. Archive risks and issues in a manner in which data and information are accessible throughout the program life cycle to include post-disposition. This includes capabilities to retrieve and use historical data, information and artifacts from retired risks and issues.
 2. Document and track the creation of and changes to risks and issues (i.e., risk history). This includes risk/issue ID number, creation/change dates, person approving the creation/change, and person making the creation/change.
 3. Use the Life Cycle Risk Management Risk Matrix (DAFI 63-101/20-101, Fig A3.1).
 4. Use the top row of the LCRM Risk Matrix to convey an issue with assessed consequence.
 5. Display risks and issues as either high (red), moderate (yellow) or low (green) based on the LCRM Risk Matrix.
 6. Use the LCRM Likelihood Criteria (DAFI 63-101/20-101, Table A3.1)
 7. Use the Standard [Air Force] AF Consequence Criteria (DAFI 63-101/20-101, Attachment 3).
 - a. Performance Criteria (Table A3.2)
 - b. Schedule Criteria (Table A3.3)
 - c. Cost Criteria (Table A3.4)
 8. Simultaneously track all risk and issue ratings related to cost, performance and schedule consequences.
 9. Display an LCRM risk matrix (5x5)
 - a. Aggregated views of
 - 1) All active risks
 - 2) All active risks based on rating; high (red), moderate (yellow), low (green)
 - 3) All active risks based on consequence; cost, performance, schedule
 - b. A view of selected active risks.
 10. Display an issue using only the top row of the LCRM risk matrix
 - a. Aggregated views of
 - 1) All active issues
 - 2) All active issues based on rating; high (red), moderate (yellow), low (green)
 - 3) All active issues based on consequence; cost, performance, schedule

Attachment A

Life Cycle Risk Management Tool Guidelines

- b. A view of selected active issues
11. Have the capability to manage and track Risk Handling Plans (RHPs) for risks with sufficient data, mitigation steps and success criteria to create burn-down charts for showing progress and activity completion (i.e., start date, projected completion date, actual completion date).
 12. Have the capability to manage and track Corrective Action Plans (CAPs) for issues with sufficient data, mitigation steps and success criteria to create burn-down charts for showing progress and activity completion (i.e., start date, projected completion date, actual completion date).
- A3. For RM of classified risks and issues, use at a specific classification level or multiple levels may restrict the ability for a RM tool to comply with the criteria in section A2. When selecting a RM tool for classified use, Programs Managers shall select a tool that satisfies as many of the unclassified use criteria above as possible. For criteria which cannot be satisfied, the PM must justify the non-compliance to the AFPEO, and include the justification in the RMP. The justification shall include the impacted criterion/criteria; reason(s) for non-compliance; and corrective actions or alternatives that satisfy the impacted criterion/criteria. An example could be that 'RM tool X' is unable to display AF standard risk and issue matrices (criteria 8 through 9.b) when used at a specific classification level. This is due to classification requirement Y in [name of policy]. Therefore, the program will have to generate the matrices by hand based on applicable risk/issue data.

Attachment B

Life Cycle Risk Management (LCRM) Standard Process

Work Breakdown Structure (WBS) Format

Click the icon to open the LCRM Standard Process WBS in Microsoft Excel.



LCRM_Std_Process_
WBS_Atch-B.xlsx.xlsx