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This Air Force Instruction (AFI) implements the Risk Management (RM) guidance within Air Force Policy Directive (AFPD) 90-8, *Environment, Safety, and Occupational Health Management and Risk Management*. This AFI provides an overarching framework for Air Force RM (AF RM) and establishes the requirement to integrate and sustain RM throughout the AF as a risk reduction process to assist leaders in identifying and controlling safety and health hazards in making informed decisions. It assigns responsibilities for AF RM Process elements and contains AF RM Process management information for the Safety and Occupational Health program. Via formal memorandum dated 12 May 2010, the Assistant Secretary of the Air Force, Installations, Environment and Logistics (SAF/IE), delegated authority to the AF Chief of Safety (AF/SE) for DODI 6055.1, *DoD Safety and Occupational Health Program*, Enclosure E3.2 guidance as related to the AF RM Process. HQ AF (HAF) staffs, Major Commands (MAJCOMs), Direct Reporting Units (DRUs), Field Operating Agencies (FOAs), Numbered AFs (NAFs) and Component Numbered AFs (CNAFs) are responsible for establishing and sustaining AF RM according to the process elements described in this AFI. This publication applies to all Air Force units, agencies and personnel (military and civilian), to include Air Force Reserve Command (AFRC), and Air National Guard (ANG).

Although interrelated, this publication does not address AF RM guidelines, policies, and procedures specifically tied to Acquisition and Sustainment Life Cycle Management, Anti-terrorism, Integrated Defense RM Process (IDRMP), Installation Emergency Management (EM) RM. AF RM concerns related to Integrated Life Cycle Management (ILCM) guidelines, policies, and procedures for the development, review, approval, or management of systems, subsystems, end-items and services are addressed in AFI 63-101, *Acquisition and Sustainment Life Cycle Management*, and related publications. All AF RM issues related to acquisition and test efforts are addressed in AFI 63-101 and will be coordinated with the Assistant Secretary of the Air Force for Acquisition (SAF/AQ). AF RM concerns related to Anti-terrorism reside in AFI 10-245 (AF/A7S). IDRMP is addressed in AFI 31-101 (AF/A7S), Integrated Defense. AF RM concerns related to the Installation Emergency Management Program reside in AFI 10-2501 (AF/A7C). Additionally, this AFI does not address the risk assessment applied to the Annual Planning and Programming Guidance, the Air Force Requirements Oversight Council, and similar strategic-level applications developed by AF/A9, with the process stakeholders, which link to the Chairman of the Joint Chief of Staff (CJCS) Integrated Risk Matrix and the Air Force's related Risk Criteria. Per Department of Defense Instruction (DoDI) 6055.1, this AFI excludes explosive safety covered under Department of Defense (DoD) 6055.9-STD, *DoD Ammunition and Explosive Safety Standards*, fire prevention and protection covered under DoD Instruction 6055.6, *DoD Fire and Emergency Services (F&ES) Program*, and AFI 32-2001, *Fire Emergency Services Program*. Specific questions on any of the above topic areas should be directed to the appropriate subject matter experts and agencies as appropriate.

This AFI may be supplemented at any level, but all supplements must be routed to AF/SE, **afse.workflow@pentagon.af.mil** for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) (DSN: 246-1562/0675) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**.

(AFSPC) This supplement implements Air Force Instruction (AFI) 90-802, *Risk Management*. It applies to all AFSPC personnel and subordinate units. This supplement does not apply to Air Force Reserves (AFRC) or Air National Guard (ANG) personnel. Unit supplements must be routed to HQ AFSPC/SE for coordination prior to publication. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) Form 847, *Recommendation for Change of Publication*; route the AF Form 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with (IAW) Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. All references to the term "Operational RM" (ORM) have been removed and replaced with the term "Risk Management" (RM) to emphasize the importance of hazard and risk mitigation and management in all aspects of the AF, not just ***Operations***. In addition, all references to the term "Program" have been replaced with the term "Process" to support the premise that RM is a systemic process and tool to enhance risk mitigation practices in order to prevent the accidental loss of personnel, facilities, weapon systems, and equipment during peacetime and wartime, rather than simply a program to be managed. Several revisions were made to standardize the AF RM Process with sister service RM processes, terms and applications. Primary changes include: 1) The 6-Step AF RM Process was modified to a 5-Step RM Process; 2) The RM principles were modified; 3) The levels of RM were reduced to "Deliberate" and "Real-Time"; 4) Paragraph 9 and subsections were added on Real-Time RM (RTRM) and "ABCD" mnemonic. Section B outlines specific waiver procedures and better defines all agency responsibilities for the AF RM Process. Section C outlines the AF RM Core Concepts and Processes. Section D better defines RM training requirements.

(AFSPC) This document has been substantially revised to align with AFI 90-802 and must be reviewed in its entirety. Use of the AFSPC Risk Management SharePoint site has been incorporated to provide a venue for efficient cross-tell of Risk Management (RM) information. NAF and Center RM requirements have been incorporated with wing requirements.

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Section A—AF RM Overview

1. RM Definition and Tenets:

1.1. **RM Definition.** RM is a decision-making process to systematically evaluate possible courses of action, identify risks and benefits, and determine the best course of action (COA) for any given situation. RM enables commanders, functional managers, supervisors, and individuals to maximize capabilities while limiting risks through application of a simple, systematic process appropriate for all personnel and functions in both on- and off-duty situations. Appropriate use of RM increases an organization's and individual's ability to safely and effectively accomplish their mission/activity while preserving lives and precious resources.

1.2. **RM Tenets:**

1.2.1. Risk is inherent in all missions, operations and activities, both on- and off-duty.

1.2.2. Risk can be effectively mitigated if understood and appropriate action is taken.

1.2.3. All personnel are responsible for utilizing RM concepts, tools and techniques.

1.2.4. The RM process outlined herein applies to risk-related decisions when such decisions are not governed via separately established requirements/guidelines (i.e., statutes, regulations, or DoD/AF policy/guidance that address personnel health and safety or environmental matters and dictate particular decisions or outcomes within these requirements/guidelines).

2. RM Goals:

2.1. Enhance mission effectiveness at all levels, while preserving assets and safeguarding health and welfare.

2.2. Create an Air Force cultural mindset in which every leader, Airman, and employee is trained and motivated to manage risk in all their on- and off-duty activities.

2.3. Integrate RM into mission and activity planning processes, ensuring decisions are based upon risk assessments of the operation/activity.

2.4. Identify opportunities to increase AF warfighting effectiveness in all environments, and ensure success at minimal cost of resources. The RM Process shall be institutionalized and be an inherent part of all military operations to address safety, occupational and environmental health risks.

3. RM Foundations:

3.1. Essential concepts of AF RM:

3.1.1. RM is a comprehensive system for improving individual and organizational performance in all functional areas, operations and activities, both on- and off-duty.

3.1.2. RM must be tailored to meet the unique mission needs and operational requirements of each organization and personnel within the organization.

3.1.3. RM provides the process and tools to develop and enhance awareness and understanding of at-risk activities and behavior of personnel both on- and off-duty. These processes and tools help create effective risk assessments that identify potential hazards and effective strategies to mitigate or eliminate the hazards.

3.1.4. Effective RM has the added advantage of not only identifying risks, but also identifying areas where regulatory guidance or standard operating procedures may be overly restrictive or inconsistent with mission/activity requirements. In this event, a comprehensive risk assessment may be used to support solicitation of waivers, variances, or changes, but will not in itself constitute authority to violate or deviate from any directive, policy, standard, or other applicable regulatory guidance.

3.2. RM does not:

3.2.1. Inhibit flexibility, initiative or accountability in any chosen course of action.

3.2.2. Remove risk altogether or support a "Zero Defect" mindset. RM provides decision makers with the tools and strategies necessary to make the appropriate decision for a given set of circumstances.

3.2.3. Take the place of training, practice, drills, rehearsals, tactics, techniques and procedures associated with a specific event and/or action.

3.2.4. Override or supersede compliance with federally mandated Department of Defense (DoD), OSHA standards, federal environmental cleanup standards, AF standards/criteria, or any risk-based statutory and regulatory requirements that apply and dictate the outcome of such requirements. The AF does not have authority to grant exemptions and waivers for statutory and regulatory requirements that have risk related exposure elements or standards. All other waivers, variances, or change requests must be properly vetted through appropriate agencies for approval. In addition, the RM does not sanction or justify violations of any law.

Section B—AF RM Process Management

4. Responsibilities: The following responsibilities reinforce or are additive to those defined in the RM section of AFPD 90-8:

4.1. The Assistant Secretary for Air Force Installations, Environment and Logistics (SAF/IE):

4.1.1. IAW Headquarters AF Mission Directive (HAFMD) 1-18, *Assistant Secretary of the Air Force (Installations, Environment and Logistics),* has authority over the AF RM Process as outlined in DoD Instruction (DODI) 6055.1, *DoD Safety and Occupational*

Health (SOH) Program. This responsibility may be re-delegated IAW HAFMD 1-18, paragraph 4, as necessary to meet the intent of DODI 6055.1.

4.1.2. Ultimately determines how the RM Process and associated elements outlined herein apply to the AF functional areas within SAF/IE authority under AF Mission Directive (HAFMD) 1-18.

4.2. The Air Force Chief of Safety (AF/SE) will:

4.2.1. Serve as the lead agent for the overall cross-functional integration and sustainment effort of AF RM processes and procedures (not associated with Acquisition and Sustainment ILCM) into the HQ US Air Force (HAF) staff and all subordinate AF MAJCOMs, units and agencies.

4.2.2. Designate an overall AF RM Process Manager within the AF Safety Center (AFSEC) who will:

4.2.2.1. Be trained IAW Section D of this publication.

4.2.2.2. Incorporate advancements and innovations in RM into the AF RM Process as warranted.

4.2.2.3. Work with all subordinate RM Process Managers (MAJCOM, DRU, FOA, NAF and CNAF) to develop and provide policy, plans, tools, techniques and processes that support and ensure AF RM integration and sustainment within all functional areas.

4.2.2.4. Chair the AF RM Working Group as outlined in paragraph 4.4.

4.2.2.5. Develop and provide final guidance and oversight of all matters pertaining to the formulation, review and execution of policies, plans, tools and techniques relative to the AF RM Process necessary to support AF-wide integration and sustainment of RM.

4.2.2.6. Ensure that inputs are provided to Air Education and Training Command (AETC), Air University (AU), and the United States AF Academy (USAFA) for RM related course development, integration and sustainment.

4.2.2.6.1. Any and all changes to training courseware that affect AF-level changes to accessions training, professional military education (PME), continuation training, technical training, etc., need to be properly coordinated with AETC, AU, and USAFA curricula managers (as appropriate). In addition, changes need to be coordinated through AF/A1DL via the Air Force Learning Committee (AFLC) as outlined in paragraph 7.5 of AFI 36-2201, *Air Force Training Program*.

4.2.2.6.2. IAW AFI 36-2201, revisions that impact any courseware hosted by AETC via the Advanced Distributed Learning Service (ADLS) will be coordinated with the Air Education and Training Command, Directorate of Operations Advanced Distributed Learning Branch (AETC/A3IA).

4.2.2.7. IAW AFI 90-201, *The Air Force Inspection System*, develop and publish, a Consolidated Unit Inspection (CUI) Checklist for HAF-level Compliance Inspections (CI) and a Self -Assessment Checklist (SAC) for unit-level (wing or wing-equivalent)

inspections. These checklists will cover compliance requirements of the AF RM Process directed in AFPD 90-8, this AFI and other AFI's (i.e., AFI 91-202, *The US Air Force Mishap Prevention Program*, etc.) that incorporate mandated RM processes or procedures within their specific functional area.

4.2.2.7.1. Approved HAF-level CI checklists and Unit-level SACs will be published to the AF Checklist service site or the Management Internal Control Toolset (MICT) site, as appropriate. Changes or updates to these checklists will be coordinated with the AF Inspection Agency (AFIA) and/or MICT administrators. These sites can be located via the AF Portal. Maintenance and disposition of inspection checklists will be as prescribed by the AF Records Information Management System records disposition schedule. ***Note:*** *All AF RM checklists are subject to change and must be reviewed periodically and before each SAV or process review for accuracy.*

4.2.2.8. Conduct RM process staff assistance visits (SAVs) at the MAJCOM level when requested to ensure compliance, standardization and functional application of RM processes as related to AF RM policy and guidance.

4.2.2.8.1. SAVs will only be conducted in conjunction with commander requested MAJCOM-level Safety SAVs or to support commander directed SAVs of their RM processes.

4.2.2.8.2. Authorized AF RM inspection checklists (as referenced in paragraph 4.2.2.7) must be used to ensure standardization of RM practices and requirements to maximum extent possible.

4.2.2.9. Support collection and distribution of RM feedback and lessons learned as appropriate and as directed IAW paragraph 4.8.6.

4.2.2.10. Maintain approved waiver requests to this AFI as outlined in paragraph 5 and subsections.

4.3. Other HAF agency responsibilities to support the AF RM Process are as follows:

4.3.1. AF/A1 will provide guidance to integrate RM processes, principles, and techniques into training and educational programs as appropriate.

4.3.2. AF/A8 will ensure the AF strategic plan and program guidance incorporates RM principles as appropriate.

4.3.3. SAF/AQ will ensure that acquisition guidance incorporates RM principles as dictated by this publication in addition to specific ILCM RM guidance related to acquisition, test and logistics efforts as outlined in paragraph 4.12.

4.3.4. SAF/FM will ensure fiscal guidance incorporates RM principles as appropriate.

4.4. The Air Force RM Working Group will:

4.4.1. Assist in developing AF RM policy, requirements, and overall strategy by identifying AF, MAJCOM and specific organizational RM requirements.

4.4.2. Facilitate the exchange of crosstell and lessons-learned information between MAJCOMs and equivalent organizations.

4.4.3. Be chaired by the AF RM Process Manager and be comprised of representatives from SAF/IE and each MAJCOM including AFRC, ANG, and USAFA. Other HAF agencies, DRUs, FOAs, NAFs, and CNAFs will serve as on-call members of the group and will participate as required.

4.4.4. Meet at least annually (on-site, telecom or video teleconference (VTC) as appropriate); additional meetings will be scheduled as required by the AF RM Process Manager in coordination with AF RM Working Group representatives. Working group and supporting agency representatives will be unit-funded for any temporary duty requirements supporting these meetings.

4.5. MAJCOM commanders or equivalents will:

4.5.1. Serve as the principal advocate for RM and key decision-maker in allocating MAJCOM or equivalent assets to control and/or accept risk when mission benefits dictate.

4.5.2. Appoint a MAJCOM-level (or equivalent) RM Process Manager to be their command-wide advocate for RM and to act as the primary command liaison with the AF RM Process Manager, AF RM Working Group and subordinate RM Instructors/Advisors on all RM related issues.

4.5.2. **(AFSPC)** HQ AFSPC/SE is the RM Process Manager (PM) for the command.

4.5.3. Ensure subordinate wing commanders and/or equivalents appoint RM Instructors/Advisors to address wing/unit-level, on- and off-duty RM processes and concerns.

4.5.4. Ensure that MAJCOM inputs are provided via their MAJCOM RM Process Manager to the AF RM Working Group for RM related course development and integration within AETC, AU and USAFA.

4.5.5. Integrate RM principles, concepts, and techniques into command-level education and training programs (i.e., squadron commanders' course, supervisors' course, etc.).

4.5.6. In addition to mission-related RM concepts, emphasis must be placed on the active role of commanders and supervisors in regards to on- and off-duty RM and their personal interactions with subordinates.

4.6. MAJCOM RM Process Managers will:

4.6.1. Serve as the MAJCOM Subject Matter Expert (SME) for all RM related issues.

4.6.2. Serve as the MAJCOM's primary member on the AF RM Working Group and liaison with the AF RM Process Manager and subordinate RM POCs for all command-related RM concerns; ensure MAJCOM conformance with the overall AF RM Process.

4.6.3. As necessary, develop command-specific RM policies, guidance supplements, requirements, and overall command RM strategy in-line with AF RM Policies and AF RM Working Group guidance to meet unique command situations and circumstances. These efforts must facilitate continued integration and sustainment of RM across all functional areas of the command to include both on- and off-duty activities. MAJCOM specific RM policies, guidance supplements and/or processes will be coordinated with the

AF RM Process Manager and shared with the AF RM Working Group to enhance cross-tell and standardization of RM processes AF-wide.

4.6.4. Ensure all subordinate wing and/or unit-level RM Instructors/Advisors receive AF and MAJCOM specific RM guidance in a timely manner.

4.6.5. Conduct (as time and resources permit) RM process SAVs at the wing or sub-organization levels as requested by unit commanders. Focus of such visits should seek to ensure compliance, standardization and functional application of RM processes in conjunction with addressing the specific needs of the unit or agency. These SAVs can be delegated to sub-organizations and personnel as necessary to meet the intent of this paragraph. See paragraphs 4.2.2.7.1. for additional guidance on inspection checklists and the maintenance and disposition of these checklists.

4.6.6. As necessary and IAW AFI 90-1601, *Air Force Lessons Learned Program*, work with MAJCOM lessons learned (L2) agencies/offices (normally associated with A9L) to link AF Lessons Learned Program (AFL2P) processes with MAJCOM RM lessons learned/observations.

4.6.7. Provide/maintain periodic RM refresher briefings/presentations to/for unit personnel, as directed by the commander IAW paragraph 4.8.5. and as outlined under paragraph 11.3.2. and subsections.

4.6.8. Support collection and distribution of RM feedback and lessons learned as appropriate and as directed IAW paragraph 4.8.6.

4.6.8. **(AFSPC)** HQ AFSPC RM PM will facilitate the exchange of success stories, cross-tell information, lessons-learned, and training material within the command through management of the AFSPC Risk Management SharePoint site (**https://eis.af.mil/cs/afspcrm/default.aspx**).

4.6.9. Process MAJCOM and sub-organization waiver requests to this AFI IAW paragraph 5 and subsections.

4.7. AETC, AU, and USAFA will:

4.7.1. Where appropriate, integrate AF RM principles, processes, tools and techniques into curricula for education and training programs, including accession training, PME, continuation education, and technical training. RM education and training will begin with initial awareness and progress in a building-block manner that is supportive of the goals outlined in this AFI.

4.7.2. Ensure their MAJCOM-level Process Managers work in conjunction with appropriate AETC, AU and USAFA training curricula managers and the AF RM Process Manager to coordinate all courseware/curricula changes related to the AF RM Process as outlined in paragraph 4.2.2.6. and subsections.

4.7.2.1. Curriculum integration will be tailored to meet the unique mission of the school or program in consideration of the goals outlined in AFPD 90-8 and this AFI.

4.7.2.2. The AETC LeMay Center/CC will support the integration of RM concepts and principles into new and existing doctrine where mission supportive and directly applicable to the war fighter.

4.8. All Commanders/Directors and equivalents will:

4.8.1. Be trained IAW Section D.

4.8.2. Ensure all subordinate personnel, supervisors, RM Process Managers, Instructors/Advisors are trained IAW Section D.

4.8.3. Ensure RM is incorporated into job safety training outlines (JSTOs) and on-the-job (OJT) awareness training IAW AFI 91-202, and paragraphs 11.33. & 12.4 of this AFI.

4.8.4. Ensure RM principles, processes, tools and techniques are established, as appropriate, to address specific operations, missions, and activities (on- and off-duty). As a minimum these processes, procedures and tools should:

4.8.4.1. Be standardized across similar operations, missions, and activities whenever possible.

4.8.4.2. Identify and clearly establish specific risk acceptance authority levels and thresholds for elevating risk acceptance decisions for operations and activities. These levels can vary depending upon specific operations/activities, units, personnel involved, etc. The intent is to ensure that as risk levels increase, risk acceptance and associated Go/No-Go decisions are elevated to obtain appropriate commander/supervisory oversight and approval.

4.8.4.3. Be designed to provide commanders, supervisors, and personnel with meaningful data to help improve local RM processes and provide for more effective risk mitigation efforts.

4.8.5. Ensure assigned personnel receive periodic RM refresher briefings/presentations as directed under Section D, paragraph 11.3.2. This responsibility may be delegated as necessary to meet the intent of this AFI.

4.8.6. Ensure that organizational and personal application of RM principles, processes, tools and techniques are evaluated following any significant mishap or event that affects the organization or individuals within the organization. Such evaluations will be utilized to identify and provide effective RM lessons learned for future application both in and outside the organization. When lessons learned or observations have potential impact to AF-wide or joint military operations or activities, they should be considered for submission to the AFL2P, and the Joint Lessons Learned Information System (JLLIS), IAW AFI 90-1601, and the Chairman of the Joint Chief of Staff Instruction (CJCSI) 3150.25D, *Joint Lessons Learned Program (JLLP).*

4.9. Wing commanders or equivalents will:

4.9. **(AFSPC)** Applies to AFSPC NAFs and Centers. Additionally, subparagraph references to wing requirements apply to AFSPC NAFs and Centers.

4.9.1. Serve as the principal advocates for RM and key decision-makers in allocating wing assets to control and/or accept risk when mission benefits dictate.

4.9.2. Determine the appropriate wing (or equivalent) organization, office or individual to facilitate and monitor RM principles, processes, policies and techniques as required by MAJCOM and/or wing-level policy. This organization, office or individual will serve as

the central hub for all wing-related RM issues and act as the principal liaison with the MAJCOM RM Process Manager.

4.9.2. **(AFSPC)** Provide name and contact information of designated RM liaisons/instructors/advisors through NAF/Center PM (where applicable) to HQ AFSPC/SE (**se.wf@us.af.mil**) within 30 days of selection.

4.9.3. Designate RM Instructors/Advisors, as necessary to ensure RM principles, processes, tools and techniques are applied effectively within the wing to address unique mission needs and off-duty activities.

4.9.3.1. As a minimum, one primary RM Instructor/Advisor will be appointed at each wing (or equivalent agency). Additional RM Instructors/Advisors may be assigned within subordinate units at the discretion of the wing commander (or equivalent) and in coordination with subordinate commanders as necessary.

4.9.3.2. If only one RM Instructor/Advisor is designated for the wing (or equivalent agency), that individual will also serve as the principle wing RM liaison as outlined in paragraph 4.9.2.

4.9.3.3. Exception: Wings that cannot support this manning/resource requirement will submit a waiver request through the MAJCOM RM Process Manager to MAJCOM/CV for approval as outlined in paragraph 5. Waivers will not exceed 12 months and must be revalidated prior to MAJCOMs granting additional waivers.

4.10. All RM Instructors/Advisors (HAF, MAJCOM, DRU, FOA, NAF, CNAF, Wing and/or Unit-level) will:

4.10. **(AFSPC)** Applies to Centers.

4.10.1. Be trained IAW Section D.

4.10.2. Comply with all RM process guidance as dictated by senior RM Process Managers as appropriate.

4.10.3. Provide Real-Time RM expertise and risk assessment capability to leadership, personnel, and organizations within their functional area of responsibility.

4.10.3.1. Formal risk assessments should be accomplished utilizing the AF Form 4437; *Deliberate Risk Assessment Worksheet,* or equivalent to ensure the assessment is properly documented for future evaluation and reference.

4.10.4. Liaise with appropriate RM offices and RM Process Managers as necessary to integrate current RM principles, processes, tools and techniques into RM training at the functional level. They must tailor this training to meet the unique mission(s) of their organization and personnel in consideration of the guidance outlined in this AFI.

4.10.5. Provide/maintain periodic RM refresher briefings/presentations to/for unit personnel, as directed by the commander IAW paragraph 4.8.5. and as outlined under paragraph 11.3.2. and subsections.

4.10.6. Support collection and distribution of RM feedback and lessons learned as appropriate and as directed IAW paragraph 4.8.6.

4.10.7. **(Added-AFSPC)** Facilitate the exchange of risk assessments, cross-tell information, lessons-learned, RM Tools, and training/briefing material within the command through the AFSPC Risk Management SharePoint site (**https://eis.af.mil/cs/afspcrm/default.aspx**).

4.10.8. **(Added-AFSPC)** Advocate RM within their organizations. Examples include, but are not limited to:

4.10.8.1. **(Added-AFSPC)** Identification of RM applicability in process/program management meetings/communications.

4.10.8.2. **(Added-AFSPC)** RM recommendation(s) when found inadequate during mishap investigations.

4.10.8.3. **(Added-AFSPC)** Effective RM facilitation and instruction throughout the unit.

4.10.8.4. **(Added-AFSPC)** Identification of potential RM candidate processes/programs to unit leadership.

4.10.8.5. **(Added-AFSPC)** Unit program/plan reviews to ensure effective use of RM.

4.10.8.6. **(Added-AFSPC)** Identification and sharing of successful RM efforts throughout the unit and Command.

4.10.8.7. **(Added-AFSPC)** Recognition of deserving individuals/organizations for effective RM integration in their unit programs/processes.

4.11. Air Force Career Field Managers will:

4.11.1. Integrate RM principles, processes, tools and techniques into career field education and training plans where possible and it is mission supportive to do so.

4.12. Testing, Acquisition and System Safety Managers will:

4.12.1. Be trained IAW Section D (as applicable) and required and/or specialized test, acquisition and system safety RM training as dictated by SAF/AQ and/or MAJCOM specific guidance.

4.12.2. Apply overarching RM principles and practices to acquisition and system safety RM principles and practices in the development and sustainment of weapon systems as part of acquisition systems engineering and system safety processes outlined by SAF/AQ and AF Materiel Command (AFMC) IAW HAFMD 1-10, *Assistant Secretary of the Air Force (Acquisition),* AFI 63-101, *Acquisition and Sustainment Life Cycle Management,* MIL-STD-882E, *Standard Practice for System Safety,* AFI 91-202, *The US Air Force Mishap Prevention Program*, and other associated guidance.

4.12.3. As part of the testing and fielding of a new or modified weapon system, provide systems safety information to testers, operators, and maintainers on all potential or identified hazards, implemented mitigation measures, and accepted residual risks associated with the system.

4.12.4. Assist weapon system testers, operators, and maintainers in the application of RM to those weapon systems, to include the assessment of hazards and potential mitigation measures.

4.13. All AF Personnel will:

4.13.1. Be trained in RM Fundamentals and receive/review periodic RM refresher training/ presentations as outlined in Section D.

4.13.2. Utilize sound RM principles, processes, tools and techniques to assess and mitigate risks associated with both on- and off-duty activities. All Airmen are encouraged to enter observations that contain potential lessons learned into the AFL2P and JLLIS for coordination through the AF Lessons Process (AFLP) and/or inform the local chain of command as appropriate IAW AFI 90-1601.

4.13.3. Apply RM principles in conjunction with effective "Wingman" concepts and "Personal RM (PRM)" principles to promote proactive mishap prevention both on- and off-duty.

5. Waivers to this AFI:

5.1. Affected organizations shall process a waiver request when it is impractical or impossible to meet the requirements or procedures outlined in this AFI for any reason. Waivers are temporary and will be granted for periods not to exceed 12 months. Exemptions (permanent relief from requirements or procedures) to this AFI will not be granted.

5.1.1. Waivers will be coordinated through Major Command (MAJCOM) RM process managers to MAJCOM vice commanders (MAJCOM/CVs), who will either disapprove/return to unit, or recommend approval/forward to the AF/SE for final approval, unless otherwise specified within this AFI.

5.1.2. Waiver authority may be re-delegated as necessary to meet the intent of this AFI. Any re-delegation of this authority shall not be effective unless in writing.

5.1.3. Waiver requests will be formatted IAW the guidance in Attachment 2. A consolidated waiver request may be submitted for multiple units/agencies when the requested waiver action is identical for these units/agencies.

5.2. Approved waivers: The AF RM Process Manager, MAJCOM RM Process Manager and affected organization(s) will maintain a master file of approved waiver requests as long as they are in effect and for one year thereafter.

5.3. Waiver renewals: Affected organizations will submit a brief justification for waivers requiring renewal. Waiver renewals will not exceed 12 months.

Section C—AF RM Core Concepts and Processes

6. RM Principles: Four principles govern all actions associated with RM. These principles are the cornerstone of effective RM and are applicable 24-hours a day, 7-days a week, 365-days a year (24-7-365) by all personnel, for all on- and off-duty operations, tasks and activities.

6.1. **Accept no unnecessary risk.** Unnecessary risk comes without a commensurate return in terms of real benefits or available opportunities; it will not contribute meaningfully to

mission or activity accomplishment and needlessly jeopardizes personnel or other assets. All AF missions and daily routines involve risk. The most logical choices for accomplishing a mission are those that meet all mission requirements while exposing personnel and resources to the lowest acceptable risk; take only those risks that are necessary to accomplish the mission or task. However, we cannot and should not be completely risk averse; even high risk endeavors may be undertaken when there is a well founded basis to believe that the sum of the benefits exceeds the sum of the costs. Balancing benefits and costs is a subjective process and tied intimately with the factors affecting the mission or activity; therefore, personnel with prior knowledge and experience of the mission or activity must be engaged whenever possible in making risk decisions to ensure a proper balance is achieved.

6.2. **Make risk decisions at the appropriate level.** Although anyone can make a risk decision that impacts their personal well being, some risk acceptance decisions must be made by an appropriate decision making authority that can effectively allocate resources and implement controls to mitigate or eliminate risks associated with an operation/activity. Making risk decisions at the appropriate level also establishes clear accountability. Leaders and individuals must be aware of how much risk they can accept and when to elevate RM decisions to a higher level. Those accountable for the success or failure of the mission or activity must be fully engaged in the risk decision process.

6.3. **Integrate RM into operations, activities and planning at all levels.** Integrate RM into planning at all levels and as early as possible. This provides the greatest opportunity to make well informed risk decisions and implement effective risk controls. To effectively apply RM, commanders, supervisors, and personnel must dedicate time and resources to integrate RM principles into planning, operational processes and day-to-day activities. Risk assessments of operations and activities are most successful when they are accomplished in the normal sequence of events (the pre-planning of a mission or activity) by individuals directly involved in the event, and not as a last minute or add-on process. Any amount of pre-planning that can be accomplished, even in a time constrained environment, is better than no planning at all.

6.4. **Apply the process cyclically and continuously.** RM is a continuous process applied across the full spectrum of military training and operations, base operations functions, and day-to-day activities and events both on- and off-duty. It is a cyclic process that is used to continuously identify and assess hazards, develop and implement controls, evaluate outcomes and provide feedback to our Airmen to save lives and preserve combat resources.

7. RM Levels: The principles, goals and fundamental concepts of RM highlight the universal application of RM concepts both on- and off-duty. There are two primary levels of RM (Deliberate, & Real-Time) that dictate the level of effort and scope that should normally be undertaken when evaluating risk(s). **Figure 1** depicts the basic relationship of these levels and how they relate across the strategic (long-term) and tactical (short-term) spectrums. The controls/resources and issues shown below the RM levels are examples of resources and impacts that might apply across the planning and execution timelines. As the diagram shows, Deliberate and Real-Time RM are interrelated when making RM decisions; they are separated only at the point where the planning phase transitions to the execution phase of the mission/activity. A strong, effective RM process involves careful and Deliberative planning coupled with effective, Real-Time RM. This full spectrum approach ensures comprehensive risk mitigation and the likelihood of mission/activity success.

Figure 1. Relationship of RM Levels.

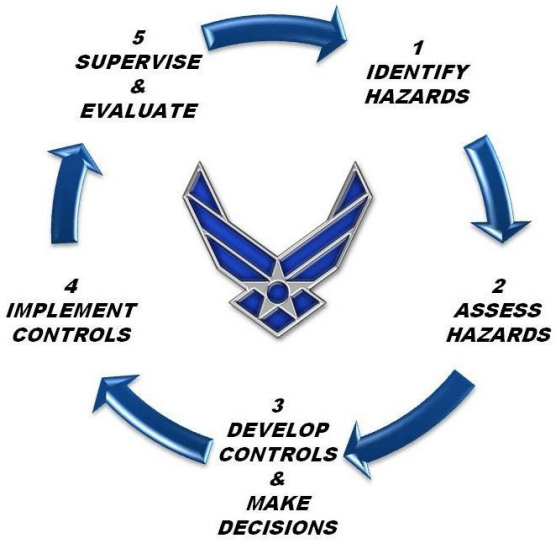
7.1. **Deliberate:** Deliberate RM refers to pre-mission/activity planning and normally involves the full formal application of the complete 5-Step RM Process outlined in paragraph 8. This process can range from an in-depth planning process involving thorough hazard identification (ID), detailed data research, diagram and analysis tools, formal testing, and long term tracking of the risks associated with an operation, activity or system, down to normal day-to-day operations/activity planning that utilize the same 5-Step RM Process, but require less time and resources to complete. Generally associated with strategic-level planning, in-depth RM planning is reserved for complex operations/systems, high priority/high visibility situations or circumstances in which hazards are not well understood. In-depth RM planning is normally implemented well in advance of the target system, mission, event, or activity, and is normally reserved for more complex and riskier efforts (i.e. large troop/unit movements, airshow planning, system development, tactics & training curricula development, scheduled vacations, organized camping/hiking activities, scheduled home repairs, etc.). As the situation, operation or activity becomes less complex, familiar and/or closer to execution, Deliberate RM planning becomes simplified and the focus shifts to ensuring near-term hazards and mitigation strategies are considered. Across the spectrum of Deliberate RM, we must always include the experience, expertise and knowledge of experienced personnel to identify known hazards/risks and strategies to effectively mitigate risks for the specific mission, activity or task in both on- and off-duty situations. Although pre-planning is always desired for any situation, we must also consider how we deal with RM once we begin the execution phase of an activity.

7.2. **Real-Time:** This level of RM is always associated with RM decisions made in "Real-Time" during the "execution" or tactical phase of training, operations, emergency/crisis response situations, or off-duty activities where there is normally little or no time to conduct formal/Deliberative RM planning. It is usually an informal, mental risk assessment that is done "on the fly" (i.e. short notice taskings, weather/natural phenomena driven activities, emergency responses, spontaneous off-duty activities, etc.) using basic RM process steps to identify and mitigate hazards in the new or changing situation. As time is normally constrained or limited in these situations, Deliberate RM planning (paragraph 8) is impractical. In Real-Time situations it is imperative that individuals are able to efficiently and effectively apply RM concepts to mitigate risks. To enhance recall of critical RM steps,

the Air Force has adopted an easy to remember mnemonic (ABCD) to assist personnel in making sound RM decisions during "Real-Time". Paragraph 9 provides a description of the AF RTRM Process that is appropriate during the "execution" of a mission or activity and/or time constrained situations.

8. 5-Step RM Process: RM is a continuous, systematic decision-informing process consisting of five primary steps (**Figure 2**) that define the formal RM process primarily associated with Deliberative RM planning and forms the basis for Real-Time RM considerations. The following is a brief description of the 5-Step RM Process.

Figure 2. 5-Step RM Process.



8.1. **(Step 1) Identify the Hazards**: Step one of the RM process involves application of appropriate hazard identification techniques in order to identify hazards associated with the operation or activity. Hazards can be defined as any real or potential condition that can cause mission degradation; injury, illness, death to personnel or damage to or loss of equipment/ property. Key aspects of this step include:

8.1.1. Mission/Task Analysis: Review current and planned operations and/or tasks associated with the mission or activity.

8.1.2. List Hazards: Identify and list hazards and/or factors that may lead to dangers and risks associated with the operation or activity.

8.1.3. List Causes: List the causes associated with each identified hazard, and try to identify the root cause(s) against which to apply RM strategies.

8.2. **(Step 2) Assess the Hazards:** The assessment step involves the application of quantitative and/or qualitative measures to determine the probability and severity of negative effects that may result from exposure to hazards/risks and directly affect mission or activity success. This process can be formalized or intuitive. Key aspects of this step include:

8.2.1. Assess Hazard Exposure: Evaluate the time, proximity, volume or repetition involved to determine the level of exposure to hazards.

8.2.2. Assess Hazard Severity: Determine severity of the hazard in terms of potential impact on personnel, equipment, or mission/activity.

8.2.3. Assess Probability: Determine the probability that the hazard will cause a negative event of the severity assessed above. Probability may be determined through estimates or actual numbers (if available).

8.2.4. Assess Risk Levels: Determine the level of risk associated with the hazard as it relates to Severity and Probability. The level of risk will vary from "extremely high" as associated with frequent exposure and catastrophic effects to "low" as associated with unlikely exposure and negligible effects.

8.2.5. Complete Risk Assessment: Combine severity and probability estimates to form a risk assessment for each hazard. By combining the probability of occurrence with severity, a matrix is created where intersecting rows and columns define a Risk Assessment Matrix. **Figure 3** provides one example of a Risk Assessment Matrix; color coding, coupled with numeric values is one way to ensure the matrix is readable in both color and grayscale formats. Risk Assessment Matrices can take different forms and must be designed to fit the organization or situation as warranted. Note: *A complete and in-depth description of the Risk Assessment Matrix can be found in AFPAM 90-803.*

Figure 3. Sample Risk Assessment Matrix.

Risk Assessment Matrix			PROBABILITY				
			Frequency of Occurrence Over Time				
			A Frequent (Continuously experienced)	B Likely (Will occur frequently)	C Occasional (Will occur several times)	D Seldom (Unlikely; can be expected to occur)	E Unlikely (Improbable; but possible to occur)
SEVERITY / Effect of Hazard	Catastrophic (Death, Loss of Asset, Mission Capability or Unit Readiness)	I	EH	EH	H	H	M
	Critical (Severe Injury or Damage, Significantly Degraded Mission Capability or Unit Readiness)	II	EH	H	H	M	L
	Moderate (Minor Injury or Damage, Degraded Mission Capability or Unit Readiness)	III	H	M	M	L	L
	Negligible (Minimal Injury or Damage, Little or No Impact to Mission Readiness or Unit Readiness)	IV	M	L	L	L	L
			Risk Assessment Levels				
			EH=Extremely High	H=High	M=Medium	L=Low	

8.3. **(Step 3) Develop Controls & Make Decisions**: Step three involves the development and selection of specific strategies and controls that reduce or eliminate risk. Effective mitigation measures reduce one of the three components (Probability, Severity or Exposure) of risk. Risk mitigation decisions must be made at the appropriate level for the identified risk. The higher the risk, the higher the decision-level needs to be to ensure that an appropriate

analysis of overall costs to benefits has been carefully weighed. Keep in mind there is no "cookie-cutter" approach or specific standard for establishing levels of RM decision authority across the Air Force. However, it is critical that leadership/decision makers ensure that the levels of decision authority are aligned appropriately for mission requirements and experience levels of the personnel conducting operations/activities under their responsibility. It is possible for decision-levels to vary within a command for differing operations/activities if training requirements, mission sets or activities are divergent enough to warrant separate standards (i.e., AETC, AF Special Operations Command (AFSOC), etc.). Decision-makers must ultimately choose the most mission supportive risk controls, consistent with RM principles that provide the best solution for the given hazards. Risk decisions must never be delegated to a lower level for convenience or when the situation dictates senior-level involvement; exceptions may be considered in time critical situations where delays might endanger lives, resources or equipment. Key aspects of this step include:

8.3.1. Identify Control Options: Starting with the highest-risk hazards as assessed in Step 2, identify as many risk control options as possible for all hazards. Each hazard should have one or more controls that can effectively eliminate, avoid, or reduce the risk to an acceptable level.

8.3.2. Determine Control Effects: Determine the effect of each control on the risk(s) associated with the hazard. With controls identified, the hazard should be re-assessed taking into consideration the effect the control will have on the severity and or probability. This refined risk assessment determines the residual risk for the hazard (assuming the implementation of selected controls). At this point, it is also appropriate to consider the cost (personnel, equipment, money, time, etc.) of the control and the possible interaction between controls; do they work together?

8.3.3. Prioritize Risk Controls: For each hazard, prioritize those risk controls that will reduce the risk to an acceptable level. The best controls will be consistent with mission objectives and optimize use of available resources (manpower, material, equipment, funding, time).

8.3.4. Select Risk Controls: For each identified hazard, select those risk controls that will reduce the risk to an acceptable level. As in prioritizing controls, the best controls will be consistent with mission/activity objectives and optimum use of available resources (outlined above).

8.3.5. Make Risk Control Decision: Analyze the level of risk for the operation/activity with the proposed controls in place. Determine if the benefits of the operation/activity now exceed the level of risk the operation/activity presents. Be sure to consider the cumulative risk of all the identified hazards and the long term consequences of the decision. If the cost of the risk(s) outweighs the benefits, re-examine the control options to see if any new or modified controls are available. If no additional controls are identified, inform the next level in the chain of command that, based on the evaluation, the risk of the mission exceeds the benefits and should be modified. When notified of a situation in which risk outweighs the benefit, the next level in the chain of command must assist and implement required controls, modify/cancel the mission, or accept the identified risks based on a higher level of the risk-benefit equation. Keep in mind that as

circumstances change for a given mission/activity, the benefit-to-risk comparison must also be made to ensure that previous "Go/No-Go" decisions are valid.

8.4. **(Step 4) Implement Controls**: Once control measures have been selected, an implementation strategy must be developed and carried out. The strategy must identify the: who, what, when, where and cost(s) associated with the control measure. For mission-related controls, accountability must be emphasized across all levels of leadership and personnel associated with the action so that there is clear understanding of the risks and responsibilities of commanders and subordinates alike. There must always be accountability for acceptance of risk regardless of circumstances. Key aspects of this step include:

8.4.1. Make Implementation Clear: Provide a roadmap for implementation, a vision of the end state, and describe successful implementation. The control measure must be deployed in a method that ensures it will be understood by the intended audience.

8.4.2. Establish Accountability: Accountability is a critically important area of RM. The accountable person is the one who makes the decision (approves the control measures), and hence, the right person (appropriate level) must make the decision. Also, be clear on who is responsible at the unit or execution level for implementation of the risk control. Individuals involved in a specific RM process must be aware of who is responsible and accountable at each stage of an operation/activity and when (if possible) decisions will be elevated to the next level.

8.4.3. Provide Support: To be successful, command/leadership must be behind the control measure(s) put in place. Provide the personnel and resources necessary to implement the control measures. Incorporate sustainability from the beginning and be sure to deploy the control measure along with a feedback mechanism that will provide information on whether the control measure is achieving the intended purpose.

8.5. **(Step 5) Supervise & Evaluate:** The RM process continues throughout the life cycle of the system, mission, or activity. Leaders and supervisors at every level must fulfill their respective roles to ensure controls are sustained over time. Once controls are in place, the process must be periodically reevaluated to ensure controls remain effective and mission supportive over time. Key aspects of this step include:

8.5.1. Supervise: Monitor the operation/activity to ensure:

8.5.1.1. The controls are effective and remain in place.

8.5.1.2. Changes which require further RM are identified.

8.5.1.3. Action is taken when necessary to correct ineffective risk controls and reinitiate the RM steps in response to new hazards.

8.5.1.4. Risk and controls are re-evaluated anytime the personnel, equipment, or mission/activity change or new actions are anticipated in an environment not covered in the initial RM analysis.

8.5.1.5. There is continuity of selected RM controls during leadership changes. Ensuring outgoing leaders share knowledge, experiences, and lessons with incoming leaders provides positive transition of risk acceptance and less volatility to the operation or activity when these changes occur.

8.5.2. Evaluate: The RM process review/evaluation must be systematic. After assets are expended to control risks, a cost benefit review must be accomplished to see if risk and cost are in balance. Significant changes in the system are recognized and appropriate RM controls are reapplied as necessary to control the risks. Effective review/evaluation will also identify whether actual costs are in line with expectations and how the controls have affected mission performance (good or bad). Other considerations:

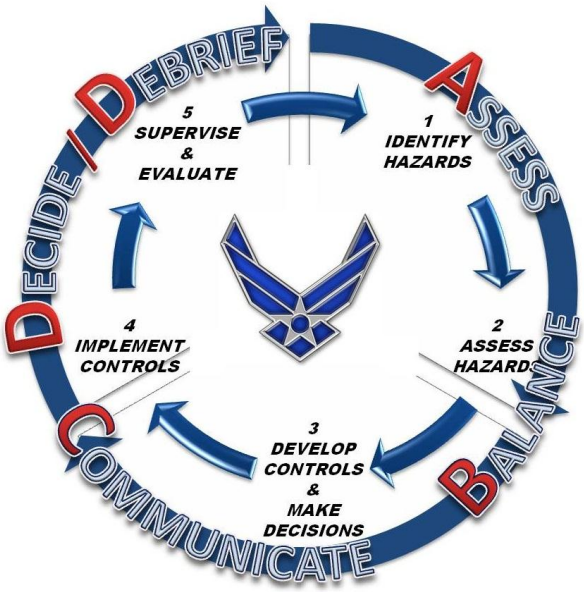
8.5.2.1. It is unlikely that every risk analysis will be perfect the first time. When risk analyses contain errors of omission or commission, it is important that those errors be identified and corrected.

8.5.2.2. Measurements are necessary to ensure accurate evaluations of how effectively controls eliminate hazards or reduce risks. When available, After-Action reports, surveys, and in-progress reviews are excellent tools for measurements. To be meaningful, measurements must quantitatively or qualitatively identify reductions of risk, improvements in mission success, or enhancement of capabilities.

8.5.3. Feedback: A review by itself is not enough; a feedback system must be established to ensure that the corrective or preventative action taken was effective and that any newly discovered hazards identified during the mission/activity are analyzed and corrective action taken. Feedback informs all involved as to how the implementation process is working and whether or not the controls were effective. Feedback can be in the form of briefings, lessons learned, cross-tell reports, benchmarking, database reports, etc. Without this feedback loop, we lack the benefit of knowing if the previous forecasts were accurate, contained errors, or were completely incorrect. Commanders, supervisors and individuals must work with appropriate RM Process Managers, Instructors/Advisors to ensure effective RM feedback and crosstell is collected and distributed to enhance future operations, and activities. Coordinating observations and lessons learned within the AFL2P process and JLLIS, IAW AFI 90-1601, and CJCSI 3150.25D, should be encouraged. Note: *For a complete explanation of the 5-Step RM Process refer to AFPAM 90-803.*

9. Real-Time RM (RTRM) Process or ABCD Model: The 5-Step RM Process is the cornerstone of all RM decisions and lays the framework for conducting formalized risk assessments normally associated with the Deliberative level of RM. Although RTRM is also founded on the 5-Step RM Process, streamlining the steps is essential in situations where risk decisions need to be made quickly and in Real-Time. The RTRM Process or ABCD model provides individuals with an easy to remember mnemonic that walks them through the essential steps of the RM wheel to: "**A**ssess the situation, **B**alance controls, **C**ommunicate, and **D**ecide & **D**ebrief the RM decision: **ABCD**." This simple and easy to remember memory jogger provides individuals with a means to evaluate risks and formulate mitigation strategies in a short time and can be easily applied in both on- and off-duty situations. Figure 4 provides a graphic example of the relationship between the 5-Step RM Process and RTRM using the ABCD model.

Figure 4. The 5-Step RM Process as related to the RTRM / ABCD Model.



9.1. **Assess the Situation:** Assessing risk in a time-critical environment typically occurs when a planned activity is already underway or when the complexity or perception of overall risk is low. Effective assessment requires the key elements of hazard/risk identification and understanding the negative effects associated with those hazards/risks. It is essential for individuals to seriously consider the activity or action in which they are about to engage and choose appropriate mitigation strategies to meet the hazards they identify. In RTRM, a complete assessment of the situation requires three stages of situational awareness (SA) in a relatively short time: (a) Perception of what is happening, (b) Integration of information and goals, and (c) Projection into the future. Unlike Deliberate RM, where there is ample time to assess potential situations, it is an individual's ability to discern the situation and apply available resources quickly and effectively that can mean the difference between success or failure. This first step of the RTRM/ABCD model effectively combines the first two steps of the 5-Step RM Process.

9.2. **Balance Controls:** The second step of the RTRM/ABCD model is specifically tied to making risk control decisions (Step 3 of the 5-Step RM Process) to mitigate or eliminate the risks identified in assessing the hazards of the activity. After assessing the situation, personnel must consider all available controls (resources) to facilitate mission or activity success and how to manage them effectively. Controls/resources can vary in scope and availability from situation to situation. The better prepared individuals are prior to an activity, the more likely they will have more controls/resources available to create multiple redundancies or "blocks" to effectively eliminate or mitigate potential risks in Real-Time. As an example, this equates to having a good understanding of the situation, being properly trained, wearing correct Personal Protective Equipment (PPE), knowing personal limitations, and having a "Wingman" to support their effort(s). Each of these controls/resources serves as a layer of protection and enhances a decision maker's ability to effectively balance risk vs.

reward through proper preparation and understanding of the situation and options. When making these considerations it is also essential that Airmen communicate with their team and leadership to ensure all options and resources are effectively utilized in making a sound yet timely risk decision.

9.3. **Communicate:** The third step of the RTRM/ABCD model is to communicate. This communication can take various forms such as Real-Time communication with leadership to discuss problems and/or intentions, internal team/crew communication to discuss Real-Time hazards and mitigation options, or an individual internalizing their current situation and taking time to evaluate if they are heading down the right path. This step assumes individuals and/or teams carefully consider options and controls available to them in Real-Time situations, and that they are aware of how perception and communication skills change in unanticipated and changing environments. Perception and communication skills are adversely affected as individuals become increasingly stressed and lose SA. Feeling undo pressure to succeed or to continue with a plan when anticipated conditions require "mid-stream" changes can have similar effects on individuals and/or team members as they try to compensate. In these high stress situations, communication skills diminish as individuals channelize attention and lose awareness of the overall situation; they can experience tunnel vision and be unable to multitask effectively to deal with the changing circumstances. Understanding this, individuals and teams who are thrust into these situations can better prepare, anticipate and identify if they or others are losing SA and make corrections. This awareness enables individuals to more effectively communicate with teammates and leadership in Real-Time situations, and allows them to take a step back and reevaluate options. Asking questions such as: "Who needs to know about the situation?" "Who can help or assist?" "Who can provide back-up?" or "Can this be done differently" are just a few examples of the considerations that must be made prior to implementing a mitigation strategy in Real-Time.

9.4. **Decide & Debrief:** The final step of the RTRM/ABCD model is to make the decision to continue, modify or abandon the mission/activity based upon Real-Time circumstances and conditions. Unlike step 4 of the 5-Step RM Process where an implementation strategy is carefully developed and carried out through identification of the who, what, when, where and cost associated with the control prior to an activity, Real-Time RM relies on the individual or small group taking immediate or near immediate action to mitigate risk(s) in Real-Time. This aspect alone can make Real-Time RM decisions riskier than deliberate RM decisions. Individuals must realize this and make every effort to deliberately weigh risk decisions before taking action to ensure they are selecting the best course of action (COA).

9.4.1. Sometimes the original plan must be modified or changed to account for unforeseen issues in order to assure success. Although minor changes or modifications to a plan or strategy may be easily implemented, others may require higher authority (if available) to properly weigh the risk and determine the best COA. Accountability under these circumstances rests solely with the individual(s) involved in the activity and it is their responsibility to fully understand the scope and limits of their Go/No-Go decision and act accordingly. As such, the acceptance of risk and associated consequences needs to be taken seriously with the understanding that any adverse outcome from a selected COA may not only affect the individual, but greatly impact loved ones, co-workers and ultimately their valuable contribution to the AF mission. Although the goal for any

mission or activity is to operate safely and achieve success, all Airmen must consider the possibility of abandoning the mission or activity if the situation appears too risky or too costly to continue and there are no reasonable options or strategies to change/alter the circumstances in the time remaining to conduct the mission/activity.

9.4.2. As with the formal 5-Step RM Process, it is essential that both leadership and personnel involved in a mission/activity ensure that the feedback loop or "Debrief" aspect of the "D" is performed. This vital process step ensures individuals follow through and complete the ABCD mnemonic loop by identifying what worked, what did not work, and ensures documented lessons learned are disseminated. Debriefs will improve performance, mitigate risks in future activities, and are essential in completing the ABCD loop. Asking questions such as: "Was our assessment accurate?" "Were we lucky?" "How well did we use the controls/resources?" "Was the communication effective?" and "What can we do to improve the events in the future?" are a few examples of questions that leaders, crews/teams, and individuals can ask in debriefs to ensure future activities are improved and risks are reduced. Note: *For a more complete explanation of the RTRM/ABCD model process refer to AFPAM 90-803.*

9.5. **Knock-it-off & Time-out Concepts:** Integral to Real-Time RM are the concepts of "Knock-it-off" and "Time-out" during an ongoing operation/activity. These concepts are essential to ensuring that all personnel have a voice in any situation to identify concerns or to inform others of a developing hazardous situation. Verbalizing either of these terms sends a message to those involved in a specific action to stop, take a moment to reset and revaluate the current situation. The terms should be integrated as an essential part of all on- and off-duty operations/activities. Key aspects of these two terms include:

9.5.1. All Airmen (regardless of rank or position) are empowered to use these terms without any fear of repercussions.

9.5.2. When either term is used, all current actions are immediately halted and the situation is stabilized to a safe position in order to evaluate what the specific concern is; this is non-negotiable and cannot be overridden by command authority.

9.5.3. After the Knock-it-off or Time-out call, a clear determination is made whether the current action may be continued safely, requires change or must be terminated based upon the perceived concern(s)/hazard(s).

9.5.4. The alerts provided by these terms do not prevent actions from continuing, once safety and risk concerns are addressed, but provide all personnel with an avenue to effectively mitigate risk through immediate intervention in any evolving operation/activity.

Section D—AF RM Training

10. Training Resources: 10.1 AF RM Fundamentals training will be completed through one of the following options:

10.1.1. Approved formal accessions courses or other training courses that incorporate required AF RM Fundamentals requirements/objectives into curricula, or incorporate the completion of the AF RM Fundamentals computer-based training (CBT) course as outlined in paragraph 10.1.2 as part of the course curricula.

10.1.2. Approved AF RM Fundamentals CBT course accessed through the Advanced Distributed Learning Service (ADLS), or other learning management system (LMS) as determined by AFSEC.

10.1.3. Approved stand-alone CBT courseware media (Compact Disc (CD) or Digital Video Disc (DVD) based). This option is authorized for personnel without web-based access to the training site(s) indicated above, or for AF personnel without Common Access Card (CAC) enabled computers.

10.1.4. Mass briefing format using approved ADLS, alternate LMS, or stand-alone CBT RM courseware or approved equivalent for the presentation. Mass training must be led by an authorized RM Process Manager or RM Instructor/Advisor when available; commander approved alternate instructors may be substituted as necessary to accommodate this method. Requests for approval of alternate/equivalent courseware for mass briefing presentations will be coordinated through MAJCOM RM Process Managers and the AF RM Process Manager.

10.2. AF RM Application and Integration (A&I) course training will be completed through one of the following options:

10.2.1. Classroom-based instruction hosted at AFSEC, AFSEC instructor-led road show course at a host base facility, or host base-led instruction by properly trained RM Process Managers or Instructors/Advisors; commander approved alternate instructors may be substituted as necessary to accommodate this method.

10.2.1.1. Course leaders will utilize only approved AFSEC courseware materials obtained from the AFSEC Media and Force Development Division's Training Development Branch (AFSEC/SEMD). If training is contracted, MAJCOMs or sub-organizations will establish a formal contract agreement or memorandum of agreement (MOA) with the contractor that includes this requirement.

10.2.1.2. Requests for AFSEC road show courses and instruction must be coordinated through MAJCOM training managers and the AFSEC Media and Force Development Division (AFSEC/SEM). Requests will be approved/disapproved on a case-by-case basis.

10.2.2. Via ADLS, other LMS, or stand-alone courseware media as determined by AFSEC.

10.3. All other approved AF RM training courses (i.e., supervisor, senior leader courses, etc.) via ADLS, other LMS, or stand-alone courseware media as determined by AFSEC.

11. Training Requirements:

11.1. Commanders and Supervisors (Officers and NCOs):

11.1.1. Will be trained in AF RM Fundamentals as outlined in paragraph 10.1 and 11.3.

11.1.2. Should complete appropriate supervisory, senior leader, and associated RM courses IAW paragraph 10.3.

11.2. RM Process Managers, Instructors/Advisors will:

11.2.1. Be trained in RM Fundamentals as outlined in paragraph 10.1 and 11.3.

11.2.2. Complete the AF RM A&I course as outlined in paragraph 10.2. This training is a mandatory, one-time requirement for all officially designated RM Process Managers and Instructors/Advisors, and must be completed at the earliest opportunity but no later than six months after RM duty assignment.

11.2.3. Exceptions: If the sixth month training window cannot be met for any reason, wings and/ or subordinate units will submit a training extension waiver request as outlined in paragraph 5.

11.3. All AF personnel will:

11.3.1. Be trained in AF RM Fundamentals via one of the options outlined in paragraph 10.1.

11.3.1.1. This training is a mandatory, one-time requirement and must be completed by all personnel as follows:

11.3.1.1.1. New or incoming personnel: no later than 60 days of report to first permanent duty station/assignment; (120 days of initial duty station/assignment for AFRC and ANG personnel). AF RM Fundamentals training completed in conjunction with any formal accessions or other training course as outlined in paragraph 10.1.1. (prior to first duty station/assignment) satisfies this requirement.

11.3.1.1.2. Currently assigned personnel: Those who have successfully completed any previous version of the AF RM Fundamentals course (i.e., ORM Fundamentals course) and have documented this training IAW paragraph 12 of this AFI are not required to re-accomplish the course. Those who have not completed the AF RM Fundamentals course or any previous version, as outlined above, must complete the RM Fundamentals Course as soon as practical, but no later than 120 days of training discrepancy notification.

11.3.2. Periodically receive and/or review RM refresher briefings/presentations as directed by MAJCOM, wing or unit-level commanders. Personnel that cannot attend the live RM refresher briefing/presentation should review the briefing/presentation at their earliest opportunity IAW 11.3.2.3.

11.3.2.1. RM refresher topics, briefings and/or presentations will be at the discretion of the commander and should focus on specific on- and off-duty concerns of the MAJCOM, wing or unit as appropriate; use of real-world and unit-specific examples of RM successes and failures is highly encouraged. RM topics should integrate with current AF and MAJCOM RM focus areas wherever possible.

11.3.2.2. To diminish impact on Airmen's time, RM briefings/presentations should be accomplished at Wing Safety Days, Wingman Days, Training Days, Commander's Calls, Focus Groups, etc., whenever possible.

11.3.2.3. Unit RM Process Managers or Instructors/Advisors should maintain a repository of the RM refresher briefings/presentations for unit personnel to review if they cannot attend the live refresher briefing/presentation. Briefings/presentations should be retained for a minimum of 12 months from the date of presentation.

11.3.2.3. **(AFSPC)** Upload briefings/presentations to the AFSPC Risk Management SharePoint site (**https://eis.af.mil/cs/afspcrm/default.aspx**) to facilitate information cross-tell.

11.3.3. Receive specific on-the-job (OJT) RM awareness training upon initial duty assignments and prior to starting work at that assignment, or when work conditions or tasks change. Documentation of this training will be IAW paragraph 12.4.

11.3.4. Exceptions: None.

12. Training Documentation:

12.1. It is the responsibility of all personnel to ensure that all required AF RM training is properly documented within their official training records.

12.2. Successful completion of RM training (other than OJT RM awareness training; see paragraph 11.3.3.) will be documented IAW AFI 36-2201, Chapter 7 as appropriate. Preferred methods of tracking RM training are as follows:

12.2.1. ADLS via automated record tracking (as applicable).

12.2.2. Alternate LMS via automated record tracking (as applicable).

12.2.3. Designated unit training personnel and wing/unit level training agencies via locally established training and accountability measures.

12.3. Maintenance and disposition of training records will be as prescribed by the records disposition Table & Rules as appropriate.

12.4. All OJT RM awareness training will be documented IAW AFI 91-202 and the records disposition schedule Table & Rules as appropriate.

TERRY A. YONKERS
Assistant Secretary
(Installations, Environment & Logistics)

(AFSPC)

MICHAEL F. NAHORNIAK, Colonel, USAF
Director of Safety

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DODI 6055.1, *DoD Safety and Occupational Health (SOH) Program,* August 19, 1998

CJCSI 3150.25D, *Joint Lessons Learned Program (JLLP),* 10 October 2008

HAFMD 1-10, *Assistant Secretary of the Air Force (Acquisition), 8 April 2009*

HAFMD 1-18, *Assistant Secretary of the Air Force (Installations, Environment and Logistics),* 4 March 2009

AFPD 90-8, Environment, *Safety, and Occupational Health Management and Risk Management*, 2 February 2012

AFI 36-2201, *Air Force Training Program,* 15 September 2010

AFI 63-101, *Acquisition and Sustainment Life Cycle Management,* 17 April 2009

AFI 91-202, *The US Air Force Mishap Prevention Program*, 5 August 2011

AFI 90-1601, *Air Force Lessons Learned Program,* 22 September 2010

(Added-AFSPC) AFI 90-802, *Risk Management*, 11 February 2013

AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*, 11 February 2013

MIL-STD-882E, *Department of Defense Standard Practice for System Safety,* 11 May 2012

SAF/IE Re-delegation of Authority Memorandum, 12 May 2010

Prescribed Forms

AF Form 4437, *Deliberate Risk Assessment Worksheet*

Adopted Forms

AF Form 55, *Employee Safety and Health Record*

AF Form 847, *Recommendation for Change of Publication*

Acronyms and Abbreviations

A&I—Application and Integration

ABCD—Assess, Balance, Communicate, Decide & De-brief

ADLS—Advanced Distributed Learning Service

AETC—Air Education and Training Command

AETC/A3IA—Air Education and Training Command, Directorate of Operations Advanced Distributed Learning Branch

AF—Air Force

AF/A1DL—Air Force Learning Division, Directorate of Force Development

AFI—Air Force Instruction

AFIA—Air Force Inspection Agency

AFL2P—Air Force Lessons Learned Program

AFLC—Air Force Learning Committee

AFLP—Air Force Lessons Process

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPAM—Air Force Pamphlet

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFSEC—Air Force Safety Center

AFSEC/SEA—Air Force Safety Center, Analysis and Integration Division

AFSEC/SEM—Air Force Safety Center, Media and Force Development Division

AFSEC/SEM—Air Force Safety Center, Media and Force Development Division, Training Development Branch

AFSOC—Air Force Special Operations Command

AF/SE—United States Air Force Chief of Safety

(Added-AFSPC) AFSPC—Air Force Space Command

AFTTP—Air Force Tactics, Techniques & Procedures

ANG—Air National Guard

AU—Air University

CAC—Common Access Card

CBT—Computer Based Training

CD—Compact Disc

CI—Compliance Inspection

CJCS—Chairman of the Joint Chief of Staff

CJCSI—Chairman of the Joint Chief of Staff Instruction

CNAF—Component Numbered Air Force

COA—Course of Action

CONOPS—Concept of Operations

CRM—Cockpit Resource Management or Crew Resource Management

DoD or DOD—Department of Defense

DODI—Department of Defense Instruction

DVD—Digital Video Disc

DRU—Direct Reporting Unit

FOA—Field Operating Agency

HAF—Headquarters Air Force

HAFMD—Headquarters Air Force Mission Directive

HQ—Headquarters

ILCM—Integrated Life Cycle Management

IAW—In Accordance With

JLLIS—Joint Lessons Learned Information System

JLLP—Joint Lessons Learned Program

L2—Lessons Learned

LMS—Learning Management System

MAJCOM—Major Command

MAJCOM/CV—Major Command Vice Commander

MFR—Memorandum For Record

MRM—Maintenance Resource Management

NAF—Numbered Air Force

NCO—Non-Commissioned Officer

OJT—On-the-job

OPR—Office of Primary Responsibility

ORM—Operational Risk Management

PME—Professional Military Education

PPE—Personal Protective Equipment

PRM—Personal Risk Management

RM—Risk Management

RMIS—Risk Management Information System

RDS—Records Disposition Schedule

RTRM—Real-Time Risk Management

SAF—Secretary of the Air Force

SA—Situational Awareness

SAF/AQ—Assistant Secretary of the Air Force Acquisition

SAF/FM—Assistant Secretary of the Air Force Financial Management

SAF/IE—Assistant Secretary of the Air Force Installations, Environment and Logistics

SAV—Staff Assistance Visit

SEA—Analysis and Integration Division

SME—Subject Matter Expert

SOH—Safety and Occupational Health

SOP—Standard Operating Procedure

TFTERP—Total Force Training and Education Review Process

USAFA—United States Air Force Academy

VTC—Video Teleconference

WWW—Worldwide Web

Terms

Air Force Risk Management Process Manager—Individual assigned by the AF/SE to act as the primary AF Process Manager for the overall AF RM Process. Provides oversight of the AF RM Process and is responsible for guidance and process direction to all HAF, DRU, FOA and MAJCOM RM Process Managers.

Component—Numbered Air Force (CNAF)—An operationally-oriented organization and serves as the AF component headquarters for a Unified Combatant Command, or subordinate unified command, when appropriate. The CNAF includes an Air Operations Center to provide command and control, and an "A-Staff" to provide administrative and logistical support to assigned resources. With the exception of USAFCENT, a CNAF has two designations, both the Numbered Air Force designation (i.e., 13th Air Force), and a functional component designation (i.e., U.S. Pacific Command, or USPACOM).

Lead Agent—Office or agency that has primary oversight of their AF-level program to include oversight and development of guidance, policies, courseware, tools and/or techniques specific to their area of responsibility. SAF/AQ is the Lead Agent for Integrated Life Cycle Management (ILCM), acquisition, test and systems safety RM-related issues, while AF/SE is the Lead Agent for mission and personal RM-related issues and concerns.

Lessons Learned—An observation that, when validated and resolved, results in an improvement in military operations or activities at the strategic, operational, or tactical level and results in long-term, internalized change to an individual or an organization.

Personal Risk Management (PRM)/Personal Leadership—The concept of taking personal responsibility for actions and applying sound RM principles before initiating any on- or off-duty activity. PRM considers risk decisions, mitigation strategies and impacts to self and others.

Principal Advocate—Office or agency that has primary responsibility for ensuring AF RM principles, processes, tools and techniques are incorporated into functional areas within their agency and sub organizations and staffs. Principal advocates do not develop primary guidance, policies, courseware, tools and/or techniques pertaining to AF RM; they simply act as the liaison between their agency and the AF RM Process Manager.

Risk—The probability and severity of loss or adverse impact from exposure to various hazards.

Risk Assessment—The process of detecting hazards and their causes, and systematically assessing the associated risks.

Risk Management (RM)—The systematic process of identifying hazards, assessing risk, making control decisions, implementing control decisions and supervising/reviewing the activity for effectiveness.

Risk Management Instructors/Advisors—MAJCOM, Wing, or Unit-assigned personnel who act as primary RM Instructors/Advisors for their functional area(s) of responsibility. They are responsible for providing RM expertise and functional-level RM training as necessary for their organization.

Risk Management Process Manager (HAF, DRU, FOA and MAJCOM)—Individual assigned by each HAF, DRU, FOA or MAJCOM commander to act as the primary RM Process Manager for their organization. They are Primary members of the AF RM Working Group and act as the commander's/director's direct liaison to the AF RM Process Manager. In addition, they coordinate directly with all sub-organizations and assigned RM Instructors/Advisors to promote the AF RM Process, as necessary.

System—A composite, at any level of complexity, of personnel, procedures, materials, tools, equipment, facilities, and software. The elements of this composite entity are used together in the intended operational or support environment to perform a given task or achieve a specific mission requirement.

System Safety—The application of engineering and management principles, criteria, and techniques to achieve acceptable mishap risk, within the constraints of operational effectiveness and suitability, time, and cost, throughout all phases of the system life cycle. (Military Standard 882D).

Wingman concept—The Wingman concept stems from a time-honored tradition within the Air Force flying community that essentially says a lead pilot will never lose his/her Wingman. It is a promise, a pledge, a commitment between Airmen who fly. Coupled with essential RM concepts and principles, the goal of the Air Force is to cultivate and instill this same culture of commitment between all Airmen and Air Force civilians across the Total Force via the Wingman concept.

Attachment 2

WAIVER REQUEST FORMAT

Table A2.1. Waiver Request Format.

Waivers requests will be submitted in formal memorandum format on unit letterhead and contain the following information:
1. Date
2. Memorandum For: MAJCOM/CV or AF/SE (dependent upon request)
3. From: Submitting Organization (Office symbol, address)
4. Subject (waiver request to…)
5. Reference: Include chapter, paragraph and line number or Table/Figure number
6. Proposed waiver request
7. Background (unique circumstances or history leading to request
8. Discussion (rationale for wavier and any proposed workarounds)
9. Recommendation (include unit(s) to which waiver applies and duration of waiver)
10. POC (Name, office symbol, DSN, and email)