BY ORDER OF THE COMMANDER
AIR FORCE LIFE CYCLE MANAGEMENT CENTER

AIR FORCE INSTRUCTION 91-202

AIR FORCE MATERIAL COMMAND Supplement

AIR FORCE LIFE CYCLE MANAGEMENT CENTER Supplement

22 FEBRUARY 2023

Safety

THE US AIR FORCE MISHAP PREVENTION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.e-Publishing.af.mil

RELEASABILITY: There are no releasability restrictions on this publication

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OPR: AFLCMC/SES

Certified by: AFLCMC/SES (Mr. Michael L. Kinane)

Supersedes: AFI91-202 AFLCMCSUP, 10 April 2018

Pages: 14

AFI 91-202, 12 March 2020, and AFI 91-202_AFMCSUP, 31 March 2022 are supplemented as follows:

This supplement expands the guidance provided in AFI 91-202 and AFI 91-202_AFMCSUP, *The US Air Force Mishap Prevention Program*. It does not apply to Air National Guard (ANG) or Air Force Reserve Command (AFRC) units. Send comments and suggestions about this publication for improvements on AF Form 847, *Recommendation for Change of Publication*, to the Office of Primary Responsibility (OPR). Ensure that all records created as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System.

1.6.12. AFLCMC Program Executive Officers (PEO), Directors and Senior Materiel Leaders/Division Chiefs execute commander safety responsibilities within their organizations. Due to the geographically-dispersed nature of AFLCMC (e.g. a single Division in multiple locations), PEOs/Directors may combine co-located Divisions for safety support purposes.

1.6.12.1.1. **(Added)** The AFLCMC leaders fulfilling commander safety responsibilities will coordinate traditional safety program elements (i.e., aviation, occupational, and weapons safety) through their installation safety office. Acquisition specific safety program elements (e.g., system safety and test safety) will be coordinated directly with the AFLCMC Safety Office.

1.6.13.10.1. **(Added)** Air Force Life Cycle Management Center (AFLCMC) Aviation Safety (SEF) will request an update of the Safety Investigation Board (SIB) List semi-annually in order to: (a) maintain a list of qualified SIB members who have completed the formal training requirements according to DAFI 91-204 and discipline-specific manuals (e.g., AFMAN 91-221, AFMAN 91-222, DAFMAN 91-223, DAFMAN 91-224); and (b) supply a copy to MAJCOM/SE, when requested.

1.6.13.11.1. **(Added)** Air Force Safety Automated System (AFSAS) accounts will only be granted to assigned and appointed personnel with a legitimate need. Appointment letters and proof of training justifying access to AFSAS shall be kept on file by AFLCMC/SE. Other personnel with a legitimate need for AFSAS information should request that information from their organization's safety manager or Unit Safety Representative (USR) and receive appropriate training for the information. If no Safety Manager exists at the unit, contact AFLCMC/SE for this.

1.6.17.11. The SSM will accomplish the administrative functions necessary to conduct a successful SSG/SSWG. The assigned SSM should review AFMCPAM 91-201, *System Safety Group Guide*, prior to initiating SSG duties to ensure completeness of the meeting content. The SSM shall ensure that meeting minutes are developed and distributed to the SSG members, advisors, and attendees. These minutes shall be signed by the SSG chairperson and filed in the official program office records.

1.6.18.1. The CSSM will be Acquisition Professional Development Program (APDP) Engineering & Technical Management (Practitioner). The CSSM reports to the Director of Safety.

1.6.18.5. AFLCMC/SE provides quarterly safety manager meetings with AFLCMC system safety personnel to cover refresher training, cross-tell items, and new developments in system safety.

1.6.18.6. The AFLCMC/SES CSSM delegates responsibility to coordinate on the safety portions of PESHEs for programs managed at an AFLCMC Operating Location (OL) to the System Safety Site Senior Functional (SSF) at that location. Ensure program accepted mishap risks and those that require logging in the AFLCMC High/Serious Risk Tracking System are kept current.

1.6.18.7. AFLCMC/SE shall develop and maintain a High/Serious Risk Tracking System database that allows AFMC/SE, AF/SE, and others, as required, to view current status of AFLCMC safety risks accepted by the CAE/PEO. The database shall be made available on the AFLCMC/SE System Safety SharePoint site.

1.6.18.8.1.4. Any case where there is question as to the correct risk decision authority for an identified system safety risk, contact the CSSM who will coordinate with the appropriate MAJCOM, HQ AF, and/or SAF/AQ policy authorities to obtain and provide center policy direction on the most appropriate coordination and path consistent with USAF and DoD policies to ensure risk acceptance packages are coordinated and accepted by the proper organizations/authorities.

1.6.22.24. If the host has not initiated such an agreement, the AFLCMC tenant organization will formally request support from the host installation IAW AFI 25-201, *Intra-Service Intra-Agency, and Inter-Agency Support Agreements Procedures* and this supplement. A copy of the signed agreement (e.g., host tenant support agreement, memorandum of agreement, or memorandum of understanding) must be maintained by the AFLCMC organization as an official record. The unit Commander or Senior Site Lead (SSL) as appropriate will engage the host installation command as necessary to produce a formal agreement. A single agreement encompassing all AFLCMC units at a single installation/location will suffice. AFLCMC Commanders/SSLs will communicate disputes and impasses up their chain of command for resolution as outlined in AFI 25-201.

2.1. All AFLCMC safety manpower requests or changes must be coordinated with the AFLCMC Safety Office.

2.1.7.1.1. **(Added)** Once training is completed, the newly trained SSE/SSM will send a copy of their training certificate to AFLCMC/SES.

2.1.9. AFLCMC/SE is a non-typical safety staff with a global system safety mission enabling acquisition with geographically separated personnel.

2.1.9.1. **(Added)** The AFLCMC/SE Chief of System Safety is the Center System Safety Manager (CSSM). The CSSM is the Center Senior Functional (CSF) for system safety. The CSSM reports to the Center Director of Safety.

2.1.9.2. **(Added)** AFLCMC/SES OL. The representative of AFLCMC/SES at a geographically separated location is the system safety site senior functional (SSF) at their OL. AFLCMC/SES OL Hanscom AFB MA, AFLCMC/SES OL Hill AFB UT, AFLCMC/SES OL Robins AFB GA, and AFLCMC/SES OL Tinker AFB OK will be manned, at a minimum, by SSFs belonging to AFLCMC/SES. The AFLCMC/SES SSFs will provide broad oversight of acquisition system safety activities at their locations in support of AFLCMC/SES. SSFs are not responsible for other safety disciplines (e.g. occupational, aviation, weapons) which are supported by the installation safety office. SSFs do not execute program specific system safety duties. Program offices are responsible to execute their system safety responsibilities with organic resources. The SSFs are the technical authority for system safety engineering, standardization of system safety processes, assisting the implementation of AFLCMC system safety efforts across the AFLCMC directorates at their location, and will perform an administrative function by helping in the identification and training of program office SSMs. The AFLCMC/SES SSFs report to the CSSM and are responsible for the following as CSSM designated staff members:

2.1.9.2.1. **(Added)** Oversee the day-to-day system safety activities within AFLCMC programs at their OL.

2.1.9.2.2. **(Added)** Standardize the organic system safety processes within AFLCMC programs at their OL.

2.1.9.2.4. **(Added)** Collect program-level responses for their OL to AFLCMC/SE tasks. Collected responses for tasks that were issued through the AFLCMC directorates should be provided to the SSFs to consolidate for directorate responses to AFLCMC/SE tasks.

2.1.9.2.5. **(Added)** Support SSGs for AFLCMC programs at their OL. The SSFs will provide an assessment of each SSG they support to the CSSM, OSF, and the SSG program leadership.

2.1.9.2.6. **(Added)** Provide safety support to HRB/MSTG activities, CCBs, SSWGs, and other acquisition activities that should involve system safety.

2.1.9.2.7. **(Added)** Review and coordinate SSG Charters, PESHEs, and other documents.

2.1.9.3. **(Added)** The Organizational Senior Functionals (OSFs) for system safety are the assigned AFLCMC/SES representatives that directly support the directorate PEO, provide supervision of 0803s and oversight of the SSEs/SSMs, and system safety support of the programs in the PEO's portfolio. The 96 TW/SES provides system safety support to the Armament Directorate (EB) at Eglin AFB; the 96 TW/SES Chief of System Safety will function as the EB OSF, as required. AFLCMC/SES OSFs report to the CSSM.

2.1.9.4. **(Added)** AFLCMC/SES SSEs (0803s) are the assigned representatives that directly support one or more key programs in a directorate. AFLCMC/SES will assign SSEs (0803s) to support designated programs at AFLCMC locations. These SSEs report to and are supervised by their respective OSF.

2.1.9.5. **(Added)** AFLCMC/SES OSFs may assign SSEs to act as the deputy OSFs for directorate system safety programs. These deputy OSFs are designated as Directorate Deputy OSFs. These deputy OSFs support the programs and SSM/SSE personnel assigned to their PEO and provide a conduit to the AFLCMC Safety Office. The deputy OSF will have direct lines of communication to the PEO and the PEO's Director of Engineering (DOE) to advise on system safety matters for the directorate and perform duties as assigned.

2.2. Each PEO/Director and Division Chief will. Appoint a primary and alternate unit safety representative for Occupational Safety, Additional Duty Weapons Safety Representative (ADWSR), and a Squadron Assigned Flight Safety Officer (SAFSO) as applicable where a safety discipline mission exists within their organization, but does not have a full-time safety professional in that discipline. The PEO/Directors and Division Chiefs will send appointment letter(s) to their host installation safety office and the AFLCMC Safety Office at Wright-Patterson AFB (WPAFB). Respective workflow e-mail should be used to deliver these appointment letters. The AFLCMC/SE workflow manager should forward a courtesy copy to affected safety managers as appropriate (e.g., the AFLCMC safety discipline Chief(s), the AFLCMC SSFs, etc). AFLCMC/SES SSEs/SSMs shall not serve as USRs.

2.3.1. The AFLCMC Director of Safety will provide a Commander Orientation to AFLCMC Commanders without their own safety staff and for newly assigned AFLCMC PEOs.

3.1.1. **(Added)** Center safety offices are not required to perform evaluations, assessments, and inspections IAW AFI 91-202, Table 3.1. However, the AFLCMC safety office conducts safety assessments and inspections as deemed necessary and appropriate by the AFLCMC Director of Safety, or where there is no installation host safety office or full-time AFLCMC safety professional assigned. Assessments and inspections will be performed at these locations at a minimum frequency of every 24 months.

3.4. The AFLCMC Safety Office will. Develop a fiscal year schedule of assessments to be performed at locations deemed necessary according to a risk-based sampling strategy. Full-time AFLCMC safety professionals will perform these assessments within the safety discipline(s) they are qualified for in unit(s) with a mission in their discipline that does not have a full-time safety professional assigned. AFLCMC/SE will provide a copy of the assessment to the unit commander or commander equivalent, the affected unit functional manager(s), the host installation safety office, if applicable, and the discipline safety manager(s) in the AFLCMC Safety Office.

3.4.1. Flying units will use the AFLCMC/SEF SharePoint site or give access to AFLCMC/SEF representatives to the unit's SharePoint site, to file-share their most up-to-date safety program products.

3.6. Full-time safety professionals will not perform inspections beyond their qualifications. Safety professionals must be qualified in the discipline(s) they are inspecting as required in AFI 91-202, paragraph 3.6.1. Full-time AFLCMC safety professionals will perform these annual inspections within only the safety discipline(s) they are qualified, for their subordinate AFLCMC unit(s) with a mission in that discipline that does not have a full-time safety professional assigned. They will provide a copy of the inspection to the unit commander or commander equivalent, the affected unit functional manager(s), the host safety office, if applicable, and a courtesy copy to the discipline safety manager(s) in the AFLCMC Safety Office.

3.6.1. The AFLCMC Director of Safety will develop and publish an annual fiscal year inspection schedule and distribute the schedule to units no later than 15 September for the upcoming fiscal year.

7.3.1.1. **(Added)** Flying units at non-AF hosted airfields will submit equivalent Plans and associated memorandums approved per DAFI 91-212 for annual review. Courtesy copy the AFLCMC/SEF workflow when submitting documentation per paragraph 7.3.1..

8.4.1. GSUs will send a copy of their USR appointment letter to AFLCMC/SE workflow at **aflcmc.se@us.af.mil**.

8.4.1.1. **(Added)** GSU USRs will be trained within 30 days of appointment by the AFLCMC Occupational Safety Manager. A completion certificate will be sent to the individual trained.

8.5.3.1. **(Added)** GSU USRs will ensure that all AF Form 978s will be sent to the AFLCMC Occupational Safety Manager within 5 days of notification of a mishap. Send completed AF Form 978s to AFLCMC/SE workflow at **aflcmc.se@us.af.mil**.

9.4.6. The AFLCMC Weapons Safety Manager (WSM) will advise AFLCMC Commanders without their own safety staff and each PEO assigned to AFLCMC within 60 days of their arrival or appointment regarding explosives safety waivers, exemptions, deviations, and compensatory measures as well as the associated risk for each. When applicable, this presentation will be made as part of the Commander Orientation/Immersion IAW AFI 91-202, paragraph 2.3.1.

11.1.1.2. For the purposes of Chapter 11, "safety personnel" refer to civil service, military, and government-support contractor personnel assigned or employed to perform the duties of system safety engineering and management. Program Managers will appoint SSM(s) in writing for specific AFLCMC program(s) and send to AFLCMC/SES.

11.1.4. Program Managers of startup programs should contact AFLCMC/SES for assistance in assessing the size and complexity of their program's system safety effort when determining the number of personnel required to accomplish this effort. Program managers for new workload should ensure they have properly identified their system safety requirements with AFLCMC/DP so that positions for their efforts are added to the SE UMD and AFLCMC/SE can then meet the program's SSE (0803) manpower needs.

11.1.4.1. PMs should consult their directorate system safety OSF to determine system safety labor requirements for their program throughout the program lifecycle.

11.2.3.7. **(Added)** Any hazards identified using MIL-STD-882 processes for a modification that impacts form, fit, or function shall be assessed for mishap risks. These assessments shall be maintained by the program office as an official record.

11.3.1. All AFLCMC High or Serious safety risk packages will have a written system safety risk assessment (SSRA) that includes the content of AFI 91-202, paragraph 13.9. An SSRA may be used for an Airworthiness Risk Assessment (AWRA), but an AWRA will not be used where an SSRA applies. Hazard analyses formats determined by contract data requirements and data item descriptors should not be confused with risk acceptance package format.

11.3.2. When a program identified as either Middle Tier Acquisition (under DoDI 5000.80/DAFI 63-146) or Software Acquisition Pathway (under DoDI 5000.87/DAFI 63-150) generates a Serious or High risk, the sub-program manager will provide a risk assessment package to the overall System Program Manager before obtaining signature by the designated Decision Authority.

11.3.3.2. AFLCMC programs will express risk using MIL-STD-882E Tables I, II, and III. For quantitative assessments the values shown in **Table 11.1** (Added) may be used. Any tailoring of risk matrices for specific program requirements (i.e. joint programs like F-35) or airworthiness certification requirements (i.e. Federal Aviation Administration (FAA) civil certification, USAF airworthiness requirements) shall be done IAW AFI 63-101/20-101 and this publication. Contact AFLCMC/SES for assistance in tailoring to the specific program requirements and expected system usage.

Table 11.1. (Added) Representative AFLCMC Quantitative Thresholds for Probability Levels.

QUANTITATIVE THRESHOLDS			
Description	**Level**	**Frequency per Flight Hour (FH) or Sortie or Use**	**Frequency per 100K FH or 100K Sorties or 100K Uses**
Frequent	**A**	Frequency ≥ 10^{-3}	Frequency ≥ 100
Probable	**B**	10^{-4} ≤ Frequency < 10^{-3}	10 ≤ Frequency < 100
Occasional	**C**	10^{-5} ≤ Frequency < 10^{-4}	1 ≤ Frequency < 10
Remote	**D**	10^{-6} ≤ Frequency < 10^{-5}	0.1 ≤ Frequency < 1
Improbable	**E**	Frequency < 10^{-6}	Frequency < 0.1
Eliminated	**F**	Frequency = 0	Frequency = 0

11.3.3.2.2. **(Added)** Hazard analyses and reports that are delivered to the program office using the civil aviation conventions of the Society of Automotive Engineers (SAE) Aviation Recommended Practice (ARP) 4761, *Guidelines and Methods for Conducting the Safety Assessment Process on Civil Airborne Systems and Equipment*, or earlier versions of MIL-STD-882 shall have the contractor-reported Risk Assessment Codes (RACs) translated to the MIL-STD-882E RACs for risk acceptance purposes.

11.3.3.2.3. **(Added)** The PM has the prerogative to qualitatively assess and elevate a risk acceptance to a greater risk acceptance authority, regardless of quantitative values (e.g., high visibility issues - Medium elevated to Serious for PEO acceptance, or Serious elevated to High with PEO concurrence for CAE acceptance.) These risk acceptance packages will be coordinated, as required, for the higher acceptance authority.

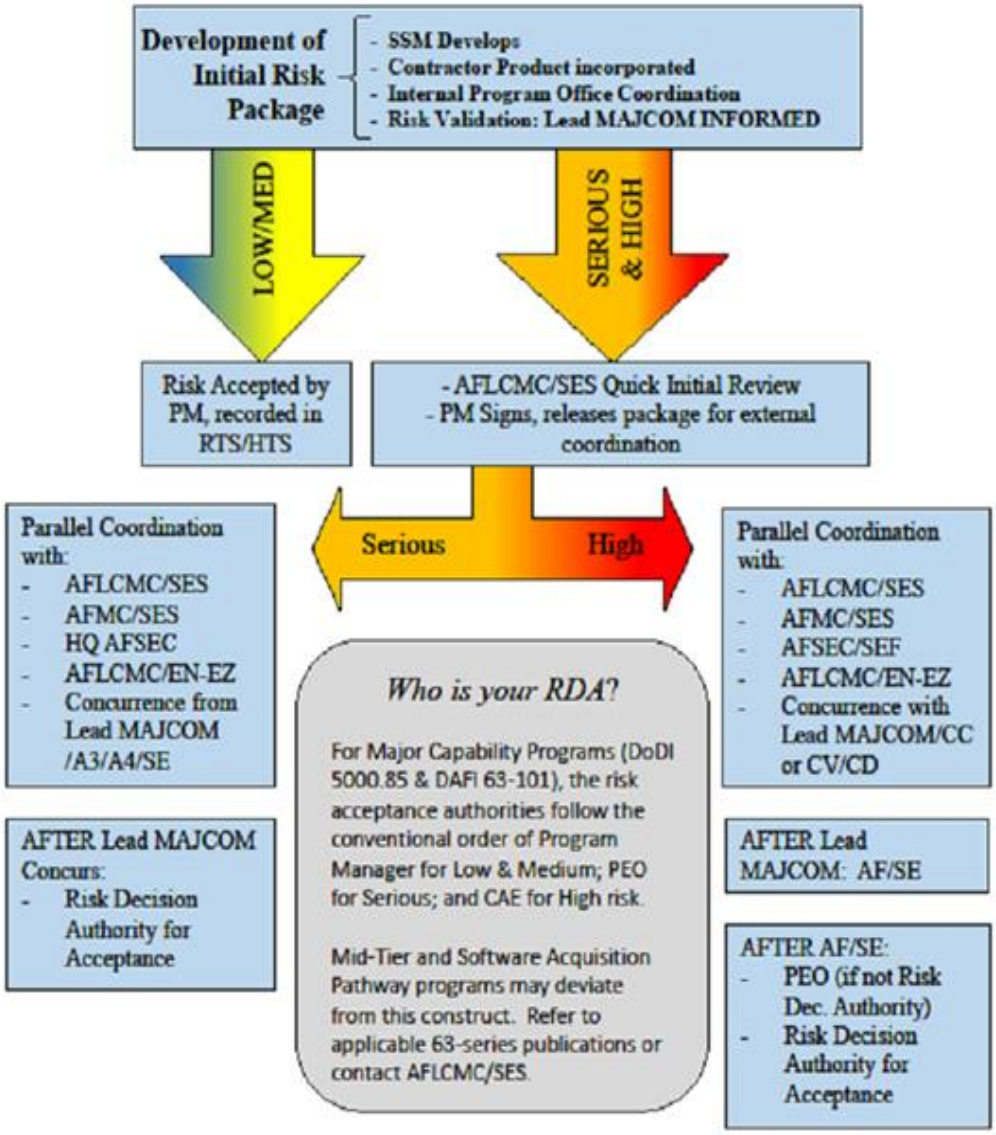
11.3.3.2.4. **(Added)** A summary listing and the status of each High and Serious mishap risk should be identified in the program's PESHE along with a reference to where the detailed hazard analyses and Hazard Tracking Log (HTL) are located.

11.3.4.1.1.1. **(Added)** Risk package development and coordination will be per the outline below and as pictorially shown in **Figure 11.1** (Added). Coordination of all risk acceptance packages for High mishap risks shall be accomplished using a staff summary sheet. High mishap risk acceptance packages shall be submitted to AFLCMC/SES for review prior to distribution to organizations outside of AFLCMC for coordination. AFLCMC/SES will coordinate on the official risk acceptance package prior to AFMC/SES.

11.3.4.1.1.2. **(Added)** Mishap risks for systems that interface with, or transport, armaments shall include the Non-Nuclear Munitions Safety Board (NNMSB), or Nuclear Weapons System Safety Group (NWSSG), as applicable, in the written risk acceptance coordination. Risks involving non-nuclear weapons systems shall coordinate with the Armament Directorate (AFLCMC/EB) and NNMSB. Risks involving nuclear weapons systems shall coordinate with the AF Nuclear Weapons Center (AFNWC) and NWSSG.

11.3.4.1.1.3. **(Added)** The SSM acts as the Action Officer for the safety risk package coordination. The risk acceptance will occur on a formally drafted memorandum, signed by the risk decision authority. Risk package development and coordination will be per the procedures in **paragraph 11.3.4.1**, and **Figure 11.1**, of this supplement.

Figure 11.1. (Added) AFLCMC Safety Risk Coordination Process.



11.3.5.1.1.1. **(Added)** Risk package development and coordination will be per the outline below and as pictorially shown in **Figure 11.1** (Added). Coordination of all risk acceptance packages for Serious mishap risks shall be accomplished using a staff summary sheet. Serious mishap risk acceptance packages shall be submitted to AFLCMC/SES for review prior to distribution to organizations outside of AFLCMC for coordination. AFLCMC/SES will coordinate on the official risk acceptance package prior to AFMC/SES, as required.

11.3.5.1.1.2. **(Added)** Mishap risks for systems that interface with, or transport, armaments shall include the Non-Nuclear Munitions Safety Board (NNMSB), or Nuclear Weapons System Safety Group (NWSSG), as applicable, in the written risk acceptance coordination. Risks involving non-nuclear weapons systems shall coordinate with the Armament Directorate (AFLCMC/EB) and NNMSB. Risks involving nuclear weapons systems shall coordinate with the AF Nuclear Weapons Center (AFNWC) and NWSSG.

11.3.5.1.1.3. **(Added)** The SSM acts as the Action Officer for the safety risk package coordination. The risk acceptance will occur on a formally drafted memorandum, signed by the risk acceptance authority. Risk package development and coordination will be per the procedures in **paragraph 11.3.5.1**, and **Figure 11.1**, of this supplement

11.3.5.3.1. **(Added)** The platform risk may be lower than the subsystem/commodity risk (i.e. an engine Serious risk may only be a platform Medium risk for multi-engine applications). AFLCMC/SES will adjudicate disagreements between directorates as to which reporting case is applicable.

11.4.1.3. **(Added)** The Program Manager will form a System Safety Group (SSG), as applicable, not later than Milestone B and document the SSG in a SSG Charter. AFLCMC/SES should review each new or revised SSG Charter and coordinate on the final before Chairperson approval.

11.4.2.1. **(Added)** The fleet safety assessment is typically presented to the SSG by HQ AFSEC/SEF for aircraft programs. If HQ AFSEC cannot support the SSG then the program office should develop a fleet safety assessment using Air Force Safety Automated System (AFSAS) data. If a briefing contains Privileged Safety Information (PSI), the briefer will ensure all in attendance are properly cleared and have had the annual PSI training for access, and a signed NDA on file with AFLCMC/SE.

11.12.1. **(Added) Safety Certifications.** SSE/SSMs on AFLCMC programs shall also be involved with certification planning, tasking, document development/review, and program process integration for AFI 91-208, Hazards of Electromagnetic Radiation to Ordnance (HERO) Certification and Management.

16.1. IAW DODI5000.89_DAFI99-103 9 DECEMBER 2021, 3.12. Independent government technical and safety personnel must examine the technical and safety aspects of T&E plans that involve government resources (personnel, equipment, or facilities) prior to commencement of test activities. All test organizations must establish procedures for when and how these reviews are accomplished.

16.1.1.1. **(Added)** This process also applies to AFLCMC organizations that execute testing using the alternate LDTO construct where the contractor test organizations are the test execution organization.

16.3.4.7. **(Added)** AFLCMC test managers will ensure documented signatures with specific mishap accountability are coordinated with all host units and detailed on the AFLCMC Form 5028 used for the safety review. Minimum acceptable coordination at a host installation is the Wing Chief of Safety

16.4.1. **(Added)** The test safety review process in AFLCMC depends on LDTO designation.

16.4.2. **(Added)** AFLCMC programs that designate an AFTC organization as LDTO will comply with AFI 91-202_AFTCSUP and base-specific supplements. AFLCMC programs that use a Center Test Authority (CTA) Operating Location (OL) as their approved LDTO will follow AFLCMC test processes and comply with safety requirements in this instruction.

16.4.2.1. **(Added)** AFLCMC/SES-OL SSF will conduct the safety review for these tests.

16.4.2.2. **(Added)** If the AFLCMC/SES-OL SSF is unable to accomplish the safety review (elevated risk, complexity, schedule, independence to test, etc.), the safety review authority returns to AFLCMC/SET.

16.4.3. **(Added)** AFLCMC program offices that elect an alternate-LDTO option per DODI5000.89_DAFI99-103_AFMCSUP, most frequently used when a program office acts as LDTO, will have AFLCMC/SET chair the corresponding safety review. However, for AFLCMC testing of ground equipment not resident on an aircraft, the AFLCMC/SES-OL SSF geographically co-located with the executing program office may conduct the safety review for these tests.

16.4.3.1. **(Added)** If a program office has other than low test risk, AFTC is responsible for providing an approved LDTO (DODI 5000.89_DAFI 99-103_AFMCSUP), and approval must be coordinated as early as possible with AFMC/A3F using the AFMC Form 42. The Center Test Safety Office remains available for consultation on all test planning. The following process will apply:

16.4.3.1.1. **(Added)** The program office test team will ensure safety requirements are integrated into the test plan during test and safety planning or augment as needed. Test teams are highly encouraged to leverage safety trained personnel in their program, supporting their directorate, or at the test location to ensure thorough safety requirements are identified.

16.4.3.1.2. **(Added)** Safety oversight of the executing test agency will remain with the program office as the TEA and their test manager will ensure a safety review is supported IAW AFI 91-202_AFMCSUP, paragraph 16.6. Coordination with the host installation safety office is the responsibility of the program office.

16.4.4. **(Added)** The 645 AESG and AFLCMC/WII Det 3, as an approved LDTO, will write or supplement an internal test safety review process to be approved by AFLCMC/SE, or will follow this supplement.

16.4.5. **(Added)** Initial safety planning should begin in conjunction with initial test planning to ensure safety considerations are incorporated early. The initial safety planning and review should include a comprehensive look at the test to identify any areas of potentially elevated risk that may need to have LDTO involvement as well as any system boundaries the test impacts. AFLCMC/SET or the SSF associated with the CTA OL office conducts the initial review. Initial reviews can support LDTO designations.

16.4.5.1. **(Added)** Coordination with host safety office occurs during the initial safety planning to ensure enough time and details are provided to the host safety office. Although there is benefit for a host safety office to understand the test plan, the primary purposes for coordination are determination of mishap accountability, identification of local mishap response plans and identification of all assets at risk.

16.4.5.2. **(Added)** Test plan and safety plan/annex authors will assess legacy system hazards for the system under test (SUT) when induced through specific test procedures in addition to any specific test hazards developed during Test Hazard Analysis (THA). Specific subject areas (operations, maintenance, logistics, explosives, engineering disciplines, etc.) may require consultation from SMEs. Safety reviewers will ensure specific coordination from SMEs is documented.

16.4.5.3. **(Added)** As the safety review matures and the test plan becomes stable, the safety review will move to final review stage. The final safety review typically occurs within 30 days prior to commencing test. The final review includes the actual SRB (if required) and ends with the responsible safety reviewer signing the safety review form. The completed AFLCMC Form 5028 should accompany a memorandum to the TEA, or Test Director, stating the outcome of the SRB.

16.4.6. **(Added)** The LDTO, as prescribed in DODI5000.89_DAFI99-103, ensures an independent, governmental review of the test plan is accomplished before testing. When a program office acts as the LDTO or contracts a test through an outside organization which is not an AFMC-approved LDTO (alternate LDTO), the program office must coordinate for an independent technical and safety review of the test program. AFLCMC is authorized to execute testing, however it is not the Air Force center of expertise for test. When executing alternate LDTO testing, program offices should pursue every test strategy feasible to keep test efforts at a Low safety risk. AFLCMC is not resourced in many areas to mitigate or manage elevated-risk testing (Medium and High). In the event a program office is unable to shift test oversight/execution of elevated safety risk testing to AFTC or mitigate hazards to a Low risk rating, then the owning PEO will approve, via memorandum, the Medium risk test program and provide formal notification to the AFLCMC/CC. High safety risk testing will be approved IAW 16.7.1.1 of this chapter. During test planning, program offices should not assume their testing is Low risk until analytically verified. Areas of potential elevated test risk for AFLCMC include, but are not limited to: aircraft flights with changes to flying qualities, stall and/or departure, armament configurations, modified life support systems, flight envelope expansion, flutter testing, high speed testing of legacy aircraft up to envelope limits, rejected takeoffs or other high-energy landing events; tests involving high energy devices or hazardous materials; aircraft flight where the aircraft or a flight critical or safety critical system is under evaluation; tests involving weapons or other potentially expendable, releasable, or explosive items; tests involving human evaluation. Activities with potential elevated risk require a formal SRB.

16.5.3.6.1. **(Added)** All restrictions, limitations, or special procedures should be documented in the PM's safety release as a function of communicating mitigations and control measures employed to reduce risk as much as practical.

16.6.5.1. THAs will be accomplished on a test hazard analysis worksheet (Attachment 4 in AFI 91-202_AFMCSUP), a similar form provided by AFLCMC/SET, or other form approved by AFLCMC/SE. THA documentation will be included in the test plan or safety plan/safety annex.

16.6.5.2. AFLCMC tests, under the alternate LDTO construct, will document the information required on a safety review form. AFLCMC/SET maintains several approved formats. This information in AFI 91-202_AFMCSUP, paragraph 16.6.5.2 will be listed on this form if not specifically spelled out in a safety plan. Mishap accountability will be documented on this form. AFLCMC test organizations will document host safety office coordination by having the wing Chief of Safety (or equivalent), at a minimum, sign the safety review form before the final safety review and safety reviewer signature are complete. The host safety office signature fulfills the requirement of AFI 91-202_AFMCSUP, paragraph 16.3.5.7 and DAFI 91-204_AFMCSUP, paragraph 5.3.1.

16.7.1.2. Under the alternate LDTO construct, the PEO will approve any Medium risk tests, and notify AFLCMC/CC in writing of the approval. Exception: 645 AESG and AFLCMC Det 3 units will have Medium risks tests accepted as defined by their respective OIs.

16.7.1.3. Under the alternate LDTO construct, AFLCMC Squadron Commanders or Program Managers will approve Low risk testing.

16.11.3. Under the alternate LDTO construct, when a contractor executes an AFLCMC test as the Executing Test Organization (where government assets are at risk), the Program Office responsible for oversight of the contractor operations will ensure all test safety requirements and reviews are met and will maintain oversight of the contractor test execution.

16.11.3.1. **(Added)** When a contractor-authored test plan is used, any substantiating safety information not defined by the contractor, yet required by AFI will be included in a separate safety annex to the test plan by the program office under the alternate LDTO construct.

JOHN KURIAN Colonel, USAF
Vice Commander
Air Force Life Cycle Management Center

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 91-202, *The US Air Force Mishap Prevention Program*, 12 March 2020

AFI 91-202_AFTCSUP, *AFTC Test Safety Review Policy,* 23 November 2022

DAFI 91-204, *Safety Investigations and Reports*, 10 March 2021

DODI5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation*, 9 December 2021

Prescribed Forms

AFLCMC Form 5028, *Test Project Technical and Safety Review*

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ANG—Air National Guard

AF—Air Force

AFB—Air Force Base

AFI—Air Force Instruction

AFLCMC—Air Force Life Cycle Management Center

AFMAN—Air Force Manual

AFNWC—Air Force Nuclear Weapons Center

AFSAS—Air Force Safety Automated System

AFTC—Air Force Test Center

APDP—Acquisition Professional DevelopmentProgram

ARP—Aviation Recommended Practice

CAE—Component Acquisition Executive

CCB—Configuration Control Board

CTA—Center Test Authority

CSF—Center Senior Functional

CSSM—Center System Safety Manager

DOE—Director of Engineering

FAA—Federal Aviation Administration

GSU—Geographically Separated Unit

HTL—Hazard Tracking Log

LDTO—Lead Developmental Test Organization

NNMSB—Non-Nuclear Munitions Safety Board

NWSSG—Nuclear Weapons System Safety Group

OL—Operating Location

OSF—Organization Senior Functional

PEO—Program Executive Officer

PESHE—Programmatic Environment, Safety, and Occupational Health Evaluation

PM—Program Manager

SAE—Society of Automotive Engineers

SAFSO—Squadron Assigned Flight Safety Officer

SME—Subject Matter Expert

SPO—System Program Office

SRB—Safety Review Board

SSE—System Safety Engineer

SSF—Site Senior Functional

SSG—System Safety Group

SSM—System Safety Manager

SSWG—System Safety Working Group

SUT—System Under Test

THA—Test Hazard Analysis

UMD—Unit Manning Document

USR—Unit Safety Representative

WPAFB—Wright-Patterson AFB

WSM—Weapons Safety Manager