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Safety

SAFETY INVESTIGATIONS AND REPORTS

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This instruction provides policy guidance that is common to investigating and reporting all US Air Force mishaps. Four safety manuals supplement this AFI and provide detailed guidance to discipline specific mishaps. AFMAN 91-221, *Weapons Safety Investigations and Reports*, provides additional guidance for investigating and reporting nuclear, guided missile, explosives and chemical agents, and directed energy mishaps. AFMAN 91-222, *Space Safety Investigations and Reports*, provides additional guidance for investigating and reporting space mishaps. AFMAN 91-223, *Aviation Safety Investigations and Reports*, provides additional guidance for investigating and reporting aviation mishaps. AFMAN 91-224, *Ground Safety Investigations and Reports*, provides additional guidance for investigating and reporting afloat, motor vehicle, off-duty military, and ground and industrial mishaps. AFI 91-204 implements AFD 91-2, *Safety Programs*, and DODI 6055.7, *Accident Investigation, Reporting and Record Keeping*. AFI 91-204 applies to commanders, managers, supervisors, and safety staffs at all levels, all persons who investigate and report Air Force mishaps, and those persons who handle such reports. This instruction provides guidance regarding the control and use of privileged safety reports and information. Failure to observe the prohibitions and mandatory provisions in **Chapter 3** by active duty Air Force members, USAFR members on active duty or inactive duty for training, and ANG members in federal status, is a violation of Article 92, Uniform Code of Military Justice (UCMJ). Violations by civilian employees may result in administrative disciplinary actions without regard to otherwise applicable criminal or civil sanctions for violations of related laws. This regulation implements North Atlantic Treaty Organization (NATO) Standardization Agreements (STANAG) 3101, *Exchange of Safety Information Concerning Aircraft and Missiles*, 3102, *Flight Safety Co-operation in Common Ground/Air Space*; 3531, *Safety investigation and Reporting of Accident/Incidents Involving Military Aircraft and/or Missiles*; and 3750, *Reporting and Investigation of Traffic Incidents*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFMAN 37-123, *Management of Records* and disposed of IAW Air Force Records Disposition Schedule (RDS) located at <https://webrims.amc.af.mil>.

Send major command (MAJCOM) supplements to HQ USAF/SE, 9700 G Avenue SE, Kirtland AFB NM 87117-5670, for approval before publication.

See **Attachment 1** for a Glossary of References and Supporting Information.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This revision adds four discipline specific safety manuals (AFMAN 91-221, *Weapons Safety Investigations and Reports*, AFMAN 91-222, *Space Safety Investigations and Reports*, AFMAN 91-223, *Aviation Safety Investigations and Reports*, and AFMAN 91-224, *Ground Safety Investigations and Reports*) to the safety investigating and reporting process. AFI 91-204 provides the policy guidance that is common to all safety investigations and reports. The discipline specific safety manuals provide guidance unique to weapons, space, aviation, and ground mishaps. Discussion of Accident Investigation Boards has been expanded to include legal investigations (1.1.2.) Mishap categories have been restructured to align with the categories in DODI 6055.7 (1.6.). Class D Mishaps includes the previous Class X and L events (1.8.4.). Class E Events now include Hazardous Air Traffic Reports (HATR) and High Accident Potential (HAP) Events (1.8.5.). Mishap costs for depot level repairs are derived from the exchange cost or an estimated cost of repair based on actual damage (1.9.1.2.). Responsibilities for the Air Force Surgeon General, the Convening Authority, and the Interim Safety Board have been added (Chapter 2). Guidance for releasing privileged safety reports and information to foreign military organizations has changed (3.3.3.7.). Information on determining the appropriate action agencies for mishap recommendations has been added (5.11.17.). Some safety report tab designations have changed (Table 6.1.). The abbreviated formal report has been eliminated. Managing other recommendations of significance has changed and is dependent on safety discipline (7.5.). The AF Form 711A, *USAF Safety Report Checklist and Index*; AF Form 711B, *USAF Mishap Report*; AF Form 711C, *Aircraft/UAV Maintenance and Materiel Report*; AF Form 711D, *Nuclear Mishap/Incident Report*; and AF Form 739, *Injury and Occupational Illness Log for Military and Civilian Personnel* have been revised or created. The AF Form 711F, *Nuclear Accident/Incident Report*; AF Form 711GC, *Life Science Report of a Class C Physiological Mishap*; AF Form 711h, *USAF Mishap Report Checklist and Index*; and AF Form 711I, *USAF Mishap Report Index Tab Part One-Facts* have been made obsolete.

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Chapter 1

GENERAL INFORMATION

1.1. Purpose of Safety Investigations and Reports.

1.1.1. Safety investigations and reports are conducted and written solely to prevent future mishaps. Safety investigations take priority over any corresponding legal investigations, except Friendly Fire mishaps (paragraph 4.11.1.). Conduct safety and legal investigations separately to protect privileged safety information in the safety report. Privileged safety information will be used solely for mishap prevention.

1.1.2. Legal investigations provide a publicly releasable report of the facts and circumstances surrounding a mishap. Legal investigations may include a statement of opinion on the cause of the accident, gather and preserve evidence for claims, litigation, disciplinary and adverse administrative actions, and for all other purposes. An Accident Investigation Board (AIB) is one type of legal investigation and is convened for many space, aircraft, unmanned aerial vehicle (UAV), and missile mishaps IAW AFI 51-503, *Aerospace Accident Investigations*. A Commander Directed Investigation (CDI) is another type of legal investigation that may be convened for mishaps that are not space, aircraft, UAV, or missile mishaps.

1.2. Waivers to this Instruction. Waivers to this instruction will be requested through the MAJCOM/SE to HQ USAF/SE.

1.3. Mishaps and Events that Require Safety Investigations and Reports.

1.3.1. A mishap is an unplanned occurrence, or series of occurrences, that results in damage or injury as described in paragraph 1.3.1.1. and meets Class A, B, C, or D mishap reporting criteria IAW paragraph 1.8. All mishaps require a safety investigation and report.

1.3.1.1. Damage or injury includes: damage to DOD property; occupational illness to DOD military or civilian personnel; injury to DOD military personnel on- or off-duty; injury to on-duty DOD civilian personnel; damage to public or private property, or injury or illness to non-DOD personnel caused by Air Force operations.

1.3.2. An event is an unplanned occurrence, or series of occurrences, that does not meet mishap reporting criteria as defined in paragraph 1.3.1. Class E events require a safety investigation and report.

1.3.3. Exceptions to mandatory reporting requirements. The following occurrences do not need to be reported under this instruction. However, other instructions may require their reporting and the absence of a requirement for a safety report does not relieve the need to conduct an investigation.

1.3.3.1. Damage or injury by direct action of an enemy or hostile force. This does not include suspected cases of Friendly Fire, which may involve a safety investigation and report IAW paragraph 4.11.1.

1.3.3.2. Intentional, controlled, in-flight jettison or release of canopies, cargo, doors, drag chutes, hatches, life rafts, auxiliary fuel tanks, aerial refueling hoses, missiles, drones, rockets, explosive munitions, and externally carried equipment nonessential to flight. Includes intentional activation of flares, manually or by automatic countermeasure systems, with normal system function and no

damage to property on the ground. NOTE: Report intentional jettison of missiles, drones, rockets, and munitions when the reason for jettison is their malfunction. Report all release of missiles or explosives that impact off range.

1.3.3.3. Except when required to be reported as a Class E event, a report is not required for replacement of component parts due to normal wear and tear when all associated damage is confined to that component part. This "normal wear and tear" reporting exemption only applies to items that are normally used until they fail or until pre-determined wear limits are reached. If damage is not confined to the component part, all associated damage costs must be added to determine if the occurrence is a reportable mishap. Aircraft subsystems (such as engines, engine modules, APUs, landing gear, and gearboxes) are assemblies and NOT component parts. Flight line replaceable engine components and electronic boxes, tires, pump motors, and drag braces are examples of component parts.

1.3.3.4. Injuries associated with non-occupational diseases, when the disease, not the injury, is the proximate cause of the lost time, such as diabetes and its resultant complications like loss of vision. Complications of the injury (such as the infection of a cut aggravated by a work-related activity) that result in lost time are reportable.

1.3.3.5. Attempted or consummated suicide, homicide, or intentionally self-inflicted injuries, e.g., Russian roulette.

1.3.3.6. Injuries resulting from altercations, attack, or assault, unless incurred in the performance of official duties when an attack or assault would not be a felony, such as a medical provider assaulted by an incompetent patient.

1.3.3.7. Injuries sustained before entry into military service or employment by the US Government, unless specifically aggravated by current tenure of service.

1.3.3.8. Hospitalization for treatment where the patient is retained beyond the day of admission solely for administrative reasons. Hospitalization for observation or administrative reasons not related to the immediate injury or occupational illness.

1.3.3.8.1. Observation and/or Diagnostic Procedure. Hospitalization or restriction from assigned work activities for observation or diagnosis is not a "lost time case," "no lost time case," or "first aid case" provided no treatment or medication is given for the suspected injury or occupational illness and competent medical authority determines the individual could have returned to his or her normal job without impairment or disability. This classification also applies where an individual is temporarily restricted from regularly assigned duties to prevent exceeding time-weighted exposure limits.

1.3.3.9. Injuries that result from the following:

1.3.3.9.1. Pre-existing musculoskeletal disorders unless aggravated or accelerated by Federal employment.

1.3.3.9.2. Minimum stress and strain (simple, natural, and nonviolent body positions or actions, as in dressing, sleeping, coughing, or sneezing.) Those are injuries unrelated to mishap-producing agents or environments normally associated with active participation in daily work or recreation.

1.3.3.10. Injuries or fatalities to persons in the act of escaping from or eluding military or civilian custody or arrest.

1.3.3.11. Death due to natural causes that are unrelated to the work environment. NOTE: Report the following deaths by natural causes:

1.3.3.11.1. An aircrew member during flight.

1.3.3.11.2. A missile crewmember on alert.

1.3.3.11.3. A training-related death.

1.3.3.12. Intentional or expected damage to DOD equipment or property incurred during authorized testing or combat training, including missile and ordnance firing or destruction of DOD property to prevent capture by an enemy or hostile force.

1.3.3.12.1. Intentional electro-explosive device activation when part of it is a normal missile test or launch sequence, the launch is aborted, and there is no other reportable damage.

1.3.3.12.2. Expected damage or destruction of equipment, pallets, parachutes, etc., during air-drop operations.

1.3.3.12.3. Damage to or destruction of Air Force equipment or property during authorized testing, including missile and ordnance firing, and UAVs used as targets or on critical profile missions, provided all of the following conditions exist:

1.3.3.12.3.1. The extent of the damage or destruction was an expected or desired result of the test.

1.3.3.12.3.2. The damage or destruction occurred at planned times and for anticipated reasons.

1.3.3.13. Foreign object damage (FOD) to aircraft, air-breathing missiles, or drone/UAV engines discovered during scheduled engine disassembly (e.g., depot engine overhaul for maximum operating time, not for known or suspected FOD). NOTE: FOD may be reportable under TO 00-35D-54, *USAF Deficiency Reporting and Investigating System*.

1.3.3.14. Property damage, death, or injury as a result of vandalism, riots, civil disorders, sabotage, terrorist activities, or criminal acts (where injury or property damage is intentional, e.g., arson).

1.3.3.14.1. Motor vehicle mishaps. Although motor vehicle mishaps often result from some form of misconduct, e.g., speeding, driving while intoxicated, and reckless driving, they will be reported.

1.3.3.15. Adverse bodily reactions resulting directly from the use of drugs under the direction of competent medical authority.

1.3.3.16. Death or injury resulting solely from illegal use of drugs or other substances.

1.3.3.17. Normal residual damage as a result of a missile launch.

1.3.3.18. Injury or occupational illness to contractor personnel or damage to contractor property or equipment unless caused by DOD operations.

1.3.3.19. ANG state employee (Title 5) injury or illness on- or off-duty unless their injury or illness mishap involved Air Force personnel, contractor operations, or property.

1.3.3.20. Injuries or illness from animal, insect, or reptile bites to military personnel while off-duty.

1.3.3.21. Natural phenomena ground mishaps where adequate preparation, forecasting, and communication actions were taken and there were no injuries to DOD personnel.

1.4. Acting on Critical Safety Information. If safety personnel or investigators discover information that seriously impacts the operations of a weapons system, the continuation of an exercise, or other operations; immediately notify the convening authority by telephone and follow up with a confirming message, regardless of whether or not such information is associated with a mishap currently under investigation. Convening Authority Safety Offices will take action IAW paragraph [2.6.7](#).

1.5. Accounting for Losses. The Air Force records each mishap to the command (MAJCOM) that experienced the loss of an owned asset (property). For statistical purposes, the occurrence is recorded as a mishap in that command (or in the Air Force at large, when applicable) regardless of any determination as to the responsibility for the mishap. Generally, the mishap is recorded in the command that has investigative responsibility for the mishap ([Chapter 4](#)). Mishap accounting in no way implies blame or mishap responsibility. NOTE: For purposes of this instruction, the term "MAJCOM" includes ANG, DRUs, and FOAs.

1.6. Mishap Categories. The Air Force categorizes mishaps based upon the materiel involved (e.g., space systems, weapons, aircraft, motor vehicles, commercial carrier, person, etc.) and the state of the involved materiel (e.g., launch, orbit, existence of intent for flight, on- or off-duty, etc.) when the mishap occurs. Mishap categories and subcategories are defined below and diagrammed in [Figure 1.1](#). For the purposes of reporting and data collection, select the one category and subcategory that best defines the mishap under investigation. Normally mishaps involve only one category and subcategory; however, cross categories and subcategories may also apply, see paragraph [1.6.3](#).

1.6.1. Specific Mishap Categories.

1.6.1.1. Nuclear. An Air Force mishap involving radioactive materiel.

1.6.1.1.1. Nuclear Weapon. A mishap that involves destruction of, or serious damage to, nuclear weapons, nuclear weapons systems, or nuclear weapons components, resulting in an actual or potential threat to national security or life and property. Reportable nuclear surety violations and damage to support equipment unique to a nuclear weapon system will be reported under this subcategory.

1.6.1.1.2. Reactor and Radiological. Mishaps involving fissile materiel used in a self-supporting chain reaction (i.e., nuclear fission) to produce heat and/or radiation for both practical application and research and development.

1.6.1.2. Space. An Air Force mishap involving a space system and/or unique space support equipment.

1.6.1.2.1. Pre-Launch. Space mishaps occurring during ground handling, processing, and transportation operations.

1.6.1.2.2. Launch. Space mishaps occurring during launch vehicle operations, including upper stages. This includes payloads that do not obtain orbit and range safety system failures.

1.6.1.2.3. Orbit. Space mishaps occurring during spacecraft operation after separation from all launch vehicle components, including upper stages and transfer motors.

1.6.1.3. Aviation. An Air Force mishap involving a DOD aircraft or DOD UAV.

1.6.1.3.1. Aircraft Flight. Any mishap in which there is intent for flight and reportable damage to a DOD aircraft. Explosives and chemical agents or guided missile mishaps that cause damage in excess of \$20,000 to a DOD aircraft with intent for flight are categorized as aircraft flight mishaps to avoid dual reporting. This is the only aviation mishap subcategory that contributes to the flight mishap rate.

1.6.1.3.2. Aircraft Flight-Related. Any mishap in which there is intent for flight and no reportable damage to the DOD aircraft itself, but the mishap involves a fatality, reportable injury, or reportable property damage. A missile or UAV that is launched from a DOD aircraft, departs without damaging the aircraft, and is subsequently involved in a DOD mishap is reportable as a guided missile mishap or UAV mishap, respectively.

1.6.1.3.3. Aircraft Ground Operations. Any mishap in which there is no intent for flight and which results in damage to a DOD aircraft, a fatality, reportable injury, or reportable property damage. Damage to an aircraft when it is being handled as cargo or to aircraft components when not attached to the airframe is a ground and industrial, industrial aviation mishap.

1.6.1.3.4. Unmanned Aerial Vehicle (UAV). Any mishap involving a DOD UAV as defined in this instruction, but not involving a DOD aircraft. Damage to a DOD UAV, when it is being handled as cargo, is a ground and industrial, industrial aviation mishap.

1.6.1.4. Guided Missile. An Air Force mishap involving guided missiles or unique missile support equipment. Missiles that are damaged or destroyed after launch from an aircraft, but cause no aircraft damage, will be classified as a guided missile mishap.

1.6.1.5. Explosives and Chemical Agents. An Air Force mishap fitting one of the subcategories below.

1.6.1.5.1. Explosives. A mishap resulting in damage or injury from:

1.6.1.5.1.1. An explosion or functioning of explosive materials or devices (except as a result of enemy action).

1.6.1.5.1.2. Inadvertent actuation, jettisoning, and releasing or launching of explosive devices.

1.6.1.5.1.3. Impacts of ordnance off-range.

1.6.1.5.2. Chemical Agent. Any unintentional or uncontrolled release of a chemical agent when:

1.6.1.5.2.1. Reportable damage occurs to property from contamination or costs are incurred for decontamination.

1.6.1.5.2.2. Individuals exhibit physiological symptoms of agent exposure.

1.6.1.5.2.3. The agent quantity released to the atmosphere is such that a serious potential for exposure is created by exceeding the applicable maximum allowable concentration-time levels for exposure of unprotected workers or the general population or property.

1.6.1.6. Directed Energy. An Air Force mishap fitting one of the subcategories below.

1.6.1.6.1. Directed Energy Weapon. A mishap involving a directed energy weapon and/or unique directed energy weapon support equipment.

1.6.1.6.2. Directed Energy Device. A mishap involving a directed energy device. An example would be damage to an optical device by an aircraft laser range finder.

1.6.1.7. Afloat. An Air Force mishap occurring on board, or as the result of, a DOD vessel. This also includes DOD diving or swimmer operations. This term includes mishaps occurring while loading and/or off-loading or receiving services at dockside and mishaps occurring up to the high water mark during amphibious or inshore warfare training operations. It applies also to all injuries to DOD personnel occurring on board, whether or not job-related. Fatalities and/or injuries occurring on board that result from shipyard, repair facility, or private contractor operations are not afloat mishaps.

1.6.1.8. Motor Vehicle. An Air Force mishap involving the operation of a motorized land vehicle operated by Air Force personnel. An Air Force mishap involving the operation of a DOD-owned or leased motorized land vehicle by non-Air Force personnel while operationally controlled by a DOD component. Fatalities or injuries to pedestrians or bicyclists involving moving motor vehicles are included in this category. This category does not include ground and industrial mishaps such as injuries occurring while loading or unloading, mounting or dismounting a non-moving vehicle; cargo damaged by weather; damage to a properly parked DOD vehicle, unless caused by an operating DOD vehicle. Additionally, damage to an Air Force vehicle caused by objects thrown or propelled into it by weather or natural phenomena, or by fire when no collision occurred; or damage to an Air Force vehicle when it is being handled as cargo and not operating under its own power and is properly parked, are not categorized as motor vehicle mishaps. Motor vehicle mishaps are divided into the following subcategories:

1.6.1.8.1. Government Motor Vehicle (GMV). A motor vehicle mishap involving the operation of a GMV as defined in this instruction.

1.6.1.8.2. Government Vehicle Other (GVO). A motor vehicle mishap involving the operation of a GVO as defined in this instruction, but not involving a GMV.

1.6.1.8.3. Private Motor Vehicle (PMV). A motor vehicle mishap, regardless of the identity of the operator, that does not involve a GMV or GVO, but results in a fatality or lost time case injury (involving days away from work) to military personnel on- or off-duty or to on-duty civilian personnel, or reportable damage to DOD property. Fatalities and injuries to bicyclists and pedestrians in the traffic environment are included in this category.

1.6.1.9. Off-Duty Military. An Air Force mishap that results in a fatality or injury to off-duty DOD military personnel whether or not on an DOD installation, excluding PMV mishaps. NOTE: A mishap involving on- and off-duty military personnel will not be categorized as an off-duty military mishap.

1.6.1.9.1. Sports and Recreation. Mishaps involving injuries that occur during participation in some form of sporting or recreational activity. Examples of sports and recreational activities

include softball, weight lifting, handball, golf, football, sight seeing, dancing, auto racing, bicycling, motorcycles driven off-road, off-duty parachuting/sky diving, and flying private planes, ultra lights, and gliders.

1.6.1.9.2. Miscellaneous. Off-duty military mishaps that do not fit into the sports and recreation subcategory.

1.6.1.10. Ground and Industrial. An Air Force mishap that does not meet the mishap category definition of nuclear, space, aviation, guided missile, explosives and chemical agents, directed energy, afloat, motor vehicle, or off-duty military as defined by this instruction.

1.6.1.10.1. Fire. A mishap with reportable damage to real property or equipment or reportable injury to Air Force personnel resulting from fire, but does not involve a DOD aircraft or DOD UAV weapon system, or explosives. This mishap subcategory also includes non-Air Force personnel when Air Force property or equipment fires cause injury.

1.6.1.10.2. Combat Training. Mishaps involving property damage or reportable injury during participation in base exercises, combat simulated exercises, obstacle/confidence courses, and inspector general exercises that test combat capability.

1.6.1.10.3. Physical and Athletic Conditioning. Mishaps involving injuries that occur during participation in some form of duty related athletic or recreational sport activities designed to develop an Air Force member's physical ability or to maintain or increase individual/collective combat and/or peacekeeping skills. Examples are: firefighter injured during weight-lifting or basketball game to maintain physical conditioning; Air Force fitness testing, compulsory sport exercises, unit formation activities, physical fitness activities during professional military education courses, or individual physical workout to meet Air Force physical fitness standards.

1.6.1.10.4. Contractor. A mishap resulting from contractor operations that involves injury to Air Force personnel and/or damage to DOD resources.

1.6.1.10.5. Natural Phenomena. Mishaps resulting from wildlife or environmental conditions of such a magnitude that they could not have been predicted or prepared for or for which all reasonable preparations had been taken. Do not report natural phenomena ground and industrial mishaps where adequate preparation, forecasting, and communication actions were taken and there were no injuries. However, report military and civilian occupational injuries resulting from these mishaps as ground and industrial mishaps.

1.6.1.10.6. Industrial Space. Mishaps occurring in the industrial environment that involve space systems (pre-launch) or unique space support equipment. As defined in paragraph [1.6.1.2.](#), these mishaps will always be categorized as space mishaps. Use this subcategory for cross-categorization to ground and industrial only.

1.6.1.10.7. Industrial Aviation. Mishaps occurring in the industrial environment that: involve a DOD aircraft or UAV when being handled as cargo; or involve DOD aircraft or UAV components not attached to the fuselage/airframe. Additionally, use this subcategory as a cross category for aviation mishaps where maintenance or operations in the industrial environment result in a reportable mishap.

1.6.1.10.8. Industrial Weapons. Mishaps occurring in the industrial environment that involve weapons (i.e., nuclear, guided missile, explosives and chemical agents, or directed energy) or

associated unique support equipment. Examples include bomb fin damage during handling or injury to a worker during a MJ-1 bomb lift operation.

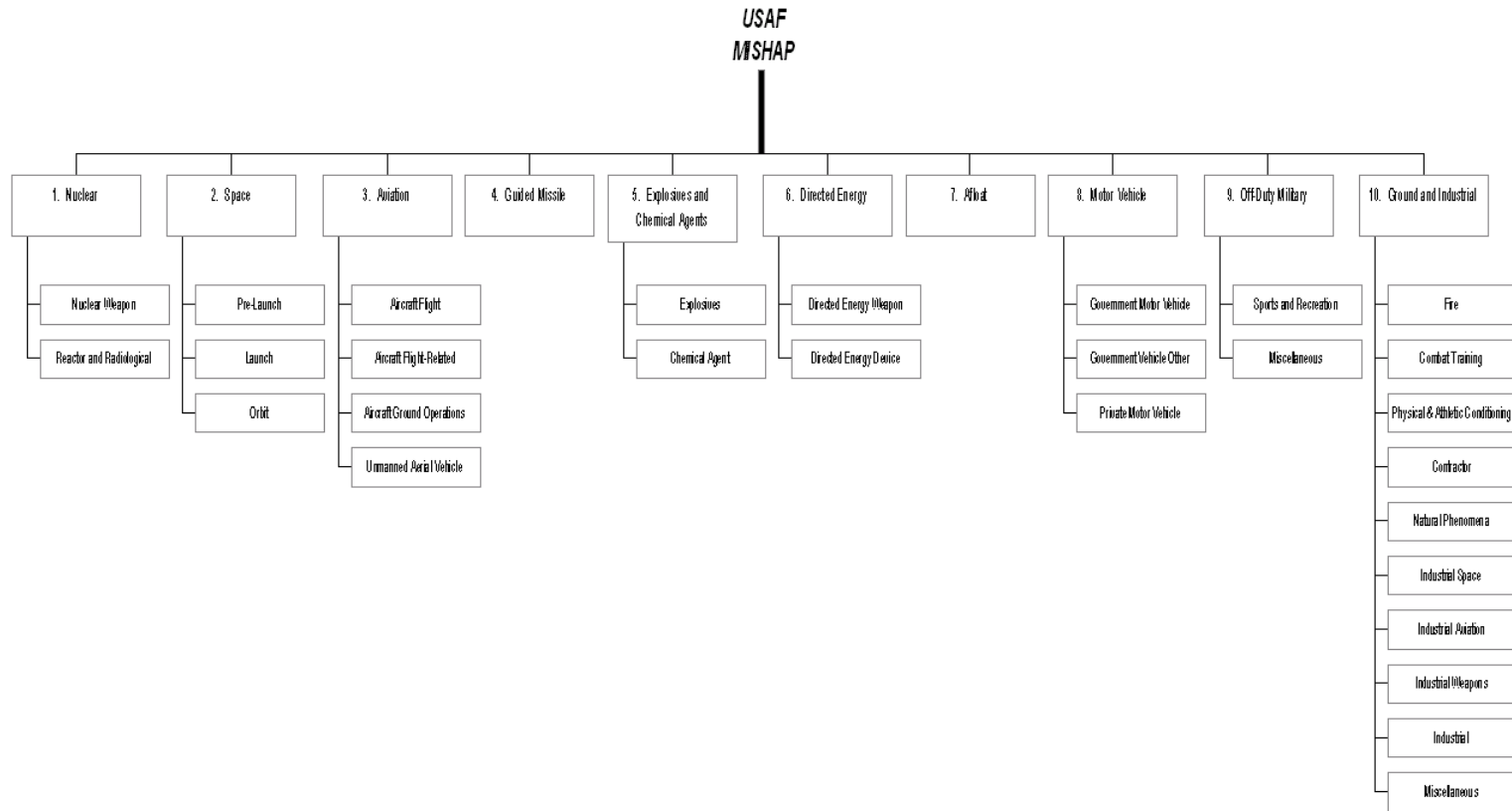
1.6.1.10.9. Industrial. A ground and industrial mishap that occurs in the work environment that does not meet the mishap subcategory definition of fire, combat training, physical and athletic conditioning, contractor, natural phenomena, industrial space, industrial aviation, or industrial weapons as defined by this instruction. The work environment, as defined in 29 Code of Federal Regulations 1960, is "The establishment and other locations where one or more Air Force employees are working or are present as a condition of their employment; this would include those areas or locations where persons are TDY for training purposes. The work environment includes not only physical locations, but also the equipment or materials used by the employee during the course of his or her work."

1.6.1.10.10. Miscellaneous. A ground and industrial mishap that does not meet the mishap subcategory definition of fire, combat training, physical and athletic conditioning, contractor, natural phenomena, industrial space, industrial aviation, industrial weapons, or industrial as defined by this instruction. Also included in this subcategory are reportable mishaps occurring while using a commercial carrier such as a commercial bus, airplane, or taxicab.

1.6.2. Multiple Occurrence Mishaps. Damaging occurrences that happen in logical succession are considered to occur in a single mishap and will result in a single safety investigation, unless there is clearly no possible initiating or sustaining relationship between occurrences. An emergency vehicle responding to a mishap that collides with another motor vehicle is a separate mishap. MAJCOM/SE should contact HQ USAF/SE for resolution of questions regarding whether occurrences constitute a single or separate mishaps.

1.6.3. Mishaps Involving Multiple Categories. Occasionally mishaps have characteristics that fit two or more mishap categories. In these cases, for the purposes of reporting and data collection, use the mishap category hierarchy to select the one primary category/subcategory and up to two cross categories/subcategories that define the mishap under investigation. Paragraph 1.6. and Figure 1.1. depict the mishap category hierarchy. The category/subcategory appearing first in the hierarchy that describes the mishap under investigation is the primary mishap category/subcategory. Similar logic is used for selecting cross categories/subcategories. For example, an inadvertent release of a conventional weapon from an aircraft in flight that does not damage the aircraft would be categorized as an aviation, aircraft flight-related mishap with, explosives and chemical agents, explosives involvement. An inadvertent initiation and launch of an ejection seat during ground maintenance would be categorized as aviation, aircraft ground operations mishap with, explosives and chemical agents, explosives, ground and industrial, industrial aviation involvement. Lastly, the drop of a conventional weapon being loaded onto an aircraft that does not explode but injures personnel would be categorized as an aviation, aircraft ground operations mishaps with, explosives and chemical agents, explosives, ground and industrial, industrial weapons involvement.

Figure 1.1. Mishap Categories.



1.7. Non-USAF Mishaps. Paragraph 1.6. and Figure 1.1. are concerned with Air Force mishaps and their categorization. However, periodically the Air Force investigates mishaps that DO NOT fit the definition of an Air Force mishap. The Air Force generally investigates non-USAF mishaps because of an existing agreement with the involved party or because it has unique expertise, an interest in the mishap, and has agreed to lead an investigation. For example, the Air Force, by way of an existing Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU), may have previously agreed to investigate any mishap involving the equipment of a foreign nation occurring on US soil. Non-USAF mishap categories are defined below and diagrammed in Figure 1.2. For the purposes of reporting and data collection, select the one category that best defines the mishap under investigation. NOTE: Non-USAF mishaps fall into one of three categories while USAF mishaps fall into one of ten DOD categories previously discussed in paragraph 1.6. and diagrammed in Figure 1.1.

1.7.1. Non-USAF Aviation. Aviation mishaps involving:

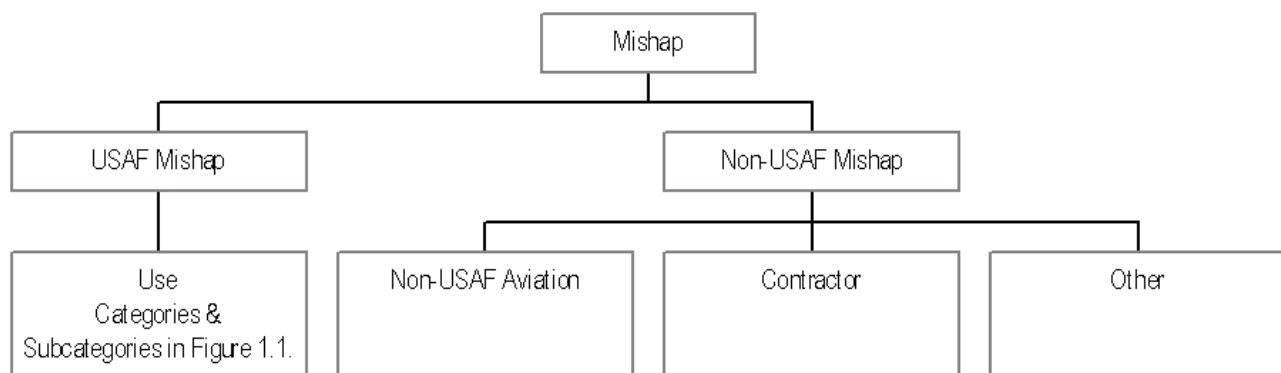
1.7.1.1. A non-DOD aircraft or non-DOD UAV, regardless of the existence of intent for flight, that only results in damage to non-USAF equipment or injury to non-USAF personnel. An Air Force pilot who is uninjured during a successful ejection from a foreign-owned, single-seat fighter that is subsequently destroyed is categorized as a non-USAF aviation mishap since there was no damage to Air Force equipment or injury to Air Force personnel.

1.7.1.2. A DOD aircraft or DOD UAV, regardless of the existence of intent for flight, resulting in damage or injury to the Air Force (paragraph 1.3.1.1.) and another DOD component is responsible for reporting. An Air Force person killed in an aircraft belonging to another DOD component, typically would be investigated and reported by the DOD component owning the aircraft. However, if the Air Force wrote its own limited report, usually to document and report the loss of life, it would be categorized as a non-USAF aviation mishap.

1.7.2. Contractor. Instances where contractor operations on government property during the execution of a government contract result in significant damage to contractor-owned equipment or injury to contract employees but not reportable damage to DOD property or injury to DOD personnel.

1.7.3. Other. Mishaps that do not fit into the non-USAF aviation or contractor categories.

Figure 1.2. Non-USAF Mishap Categories.



1.8. Mishap and Event Classifications. Classify mishaps by total direct mishap cost and the severity of injury/occupational illness. EXCEPTION: Classify Class D mishaps and Class E events according to the definitions below. Calculate direct cost of a mishap IAW paragraph 1.9. NOTE: Severity of injury/occupational illness, NOT injury/occupational cost, is used to classify mishaps.

- 1.8.1. Class A Mishap. A mishap resulting in one or more of the following:
 - 1.8.1.1. Direct mishap cost totaling \$1,000,000 or more.
 - 1.8.1.2. A fatality or permanent total disability.
 - 1.8.1.3. Destruction of a DOD aircraft (**Attachment 1**). NOTE: A destroyed UAV is not a Class A mishap unless the criteria in paragraphs 1.8.1.1. or 1.8.1.2. are met.
- 1.8.2. Class B Mishap. A mishap resulting in one or more of the following:
 - 1.8.2.1. Direct mishap cost totaling \$200,000 or more but less than \$1,000,000.
 - 1.8.2.2. A permanent partial disability.
 - 1.8.2.3. Inpatient hospitalization of three or more personnel. Do not count or include individuals hospitalized for observation, diagnostic, or administrative purposes that were treated and released.
- 1.8.3. Class C Mishap. A mishap resulting in one or more of the following:
 - 1.8.3.1. Direct mishap cost totaling \$20,000 or more but less than \$200,000.
 - 1.8.3.2. An injury resulting in any loss of time from work beyond the day or shift on which it occurred; or occupational illness that causes loss of time from work at any time.
 - 1.8.3.3. An occupational injury or illness resulting in permanent change of job.
- 1.8.4. Class D Mishap. Class D criteria are used for nuclear, space, guided missile, explosives and chemical agents, directed energy, afloat, motor vehicle, off-duty military, and ground and industrial occurrences (all mishap categories in **Figure 1.1.** except aviation) resulting in one or more of the following:
 - 1.8.4.1. Direct mishap cost totaling \$2,000 or more but less than \$20,000.
 - 1.8.4.2. A nonfatal injury that does not meet the definition of a Class C and results in medical treatment greater than first aid and/or any occupational injury or illness reported on Form CA-1, *Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation*; Form CA-2, *Notice of Occupational Disease and Claim for Compensation*; Form CA-16, *Authorization for Examination and/or Treatment*; Form LS-1, *Request for Examination and/or Treatment*, Form LS-201, *Notice of Employee's Injury or Death*; or the Form LS-202, *Employer's First Report of Injury or Occupational Illness*.
- 1.8.5. Class E Events. These occurrences do not meet reportable mishap classification criteria, but are deemed important to investigate/report for mishap prevention. Class E reports provide an expeditious way to disseminate valuable mishap prevention information.
 - 1.8.5.1. Hazardous Air Traffic Report (HATR) Events. Any air traffic or movement area hazardous occurrence that endangers the safety of an aircraft or UAV.
 - 1.8.5.2. High Accident Potential (HAP) Events. Any hazardous occurrence that has a high potential for becoming a mishap that does not fit the definition of a HATR.

1.8.5.3. Wildlife Strike (BASH) Events. Any wildlife strike to an aircraft or UAV that does not meet Class A, B, or C mishap reporting criteria.

1.8.5.4. Other occurrences as directed in the discipline specific safety manuals (AFMAN 91-22X).

1.9. Mishap Costs. It is DOD policy to determine the total direct mishap cost in order to provide a factual basis for the allocation of resources in support of DOD mishap prevention programs. Direct mishap costs ONLY include property damage costs (DOD and Non-DOD) and environmental cleanup costs.

1.9.1. Determining DOD Property Damage Costs. This includes damage to materiel and the cost of labor to repair the materiel.

1.9.1.1. Field Level Repair.

1.9.1.1.1. Materiel Cost. If an item is repaired locally by unit personnel, calculate the cost of the materials used to repair the item.

1.9.1.1.2. DOD Labor Costs (DOD military and civilian personnel). Determine the number of hours of labor to repair the damaged materiel. Obtain the hourly rate from:

<http://afsafety.af.mil/>, Labor Rates for Safety Reporting. The hourly rate is for DOD military and civilian personnel. Multiply the number of hours of labor expended by DOD personnel by the hourly rate.

1.9.1.1.3. Contractor Repairs.

1.9.1.1.3.1. No Warranty. Use the actual cost charged to the government for repairs performed by contractors.

1.9.1.1.3.2. Warranty In Place. Costs to repair damage must be reported even if the Air Force is reimbursed or if the repair is accomplished under warranty. Contact the Single Manager (SM) to determine the damage costs as if no warranty or reimbursement existed.

1.9.1.2. Depot Level Repair.

1.9.1.2.1. Materiel. Obtain the exchange cost for each damaged stocklisted item from the Air Force Master Item Identification Data Base (D043A) or the SM. If the sum total of the exchange costs is equal to or greater than \$1,000,000, obtain an estimated cost of repair based upon actual damage from the depot/repair facility. Report this estimated cost. If the sum total of the exchange costs is less than \$1,000,000, report this cost. If the depot/repair facility cannot provide an estimated cost of repair based upon actual damage, use exchange cost from D043A or the SM. The Base Supply Representative has access to D043A.

1.9.1.2.2. Depot Labor Costs. Determine the number of hours of labor to repair the damaged materiel. Obtain the hourly rate from: <http://afsafety.af.mil/>, Labor Rates for Safety Reporting. The hourly rate is for depot level personnel. Multiply the number of hours of labor expended by depot personnel by the hourly rate.

1.9.1.2.3. Contractor Repairs.

1.9.1.2.3.1. No Warranty. Use the actual cost charged to the government for repairs performed by contractors.

1.9.1.2.3.2. Warranty In Place. Costs to repair damage must be reported even if the Air Force is reimbursed or if the repair is accomplished under warranty. Contact the SM to determine the damage costs as if no warranty or reimbursement existed.

1.9.1.3. Destroyed Assets.

1.9.1.3.1. Determining destroyed aircraft/UAV cost. If the aircraft/UAV is destroyed, obtain flyaway cost from AFI 65-503, *US Air Force Cost and Planning Factors*, Table A10-1, Unit Flyaway Costs. Table A10-1 is available at: <http://www.e-publishing.af.mil/>, AFI 65-503, Table A10-1 (utilize hyperlink). Get the unit flyaway cost and contact the SM to get the cost of all modifications done to the aircraft/UAV up to the mishap date. For aircraft and UAVs not listed, contact the appropriate SM for cost information. NOTE: An aircraft/UAV that is damaged but will not be repaired is not automatically a destroyed aircraft/UAV. In this case, calculate repair cost IAW **1.9.1.1.** and **1.9.1.2.**

1.9.1.3.2. Other destroyed or lost assets with no item to exchange. Use the standard (unit) cost from D043A or the Single Manager (SM). The Base Supply Representative has access to D043A.

1.9.2. Determining Costs to Non-DOD Property Damage. If Air Force operations result in damage of non-DOD property, calculate and report the damage cost. Determine non-DOD property damage costs using the following priority:

1.9.2.1. Legal office claims officer's damage statement.

1.9.2.2. Official estimates, such as from security police reports, civil police reports, and/or logistics readiness offices.

1.9.3. Determining Environmental Clean-Up Costs. Obtain these costs from the local civil engineering environmental section. The end cost of this type of clean up may not be available inside the nominal 30 day investigation timeframe. Use the best estimate available at the time of the final message. Environmental clean up costs include costs for:

1.9.3.1. Clean up.

1.9.3.2. Environmental decontamination.

1.9.3.3. Restoration of private and government property.

1.10. Mishap Injury and Occupational Illnesses. Report the type of person (**1.10.1.**) and the severity of injury/occupational illness (**1.10.2.**). The type of person and severity of injury/occupational illness are based on DODI 6055.7, Table E7.T1.

1.10.1. Type of person: rated officer, nonrated officer, enlisted, cadet, DOD civilian, DOD contractor, Foreign Nationals, or non-DOD civilian. NOTE: Foreign Nationals include military (rated or non-rated) officer, military enlisted, or civilian.

1.10.2. Severity of injury or occupational illnesses: fatality, permanent total disability, permanent partial disability, lost time case, or no lost time case. (See **Attachment 1** for definitions.) For lost time cases, also report the number of days hospitalized and the number of days of lost time beyond the days hospitalized. In cases when the actual number of days hospitalized or lost time is not known at the time the safety report is submitted, the best official estimates made by a competent medical authority will be used.

1.11. Recording Injuries and Occupational Illnesses. Use the AF Form 739, *Injury and Occupational Illness Log for Military and Civilian Personnel*, for recording injuries and occupational illnesses meeting Class A, B, C, or D criteria. See AFMAN 91-224, Chapter 6, for specific guidance.

1.12. Obtaining and Using Health Information.

1.12.1. Health Insurance Portability and Accountability Act (HIPPA). This act is implemented by DOD 6025.18-R, *DOD Health Information Privacy Regulation*. Mishap investigation and reporting requires acquisition of information from the medical community.

1.12.2. Safety officials at all levels are responsible to establish a liaison with the local medical agencies to ensure an information flow has been established (paragraph 2.3.). Chapter 7, of DOD 6025.18-R, directive provides for release of information for safety related mishap investigation and reporting as required by laws and directives encompassing public health and safety.

1.12.3. Safeguarding Protected Information. Disclosure rules are identified in Chapter 8, DOD 6025.18-R.

Chapter 2

RESPONSIBILITIES

2.1. General Information. The guidelines in this chapter establish investigating and reporting responsibilities for Air Force mishaps and events.

2.2. The Air Force Chief of Safety (HQ USAF/SE). The Air Force Chief of Safety (HQ USAF/SE) will:

2.2.1. Establish requirements and policies to ensure Air Force mishaps are reported and investigated IAW AFD 91-2.

2.2.2. Establish requirements and policies to ensure Air Force mishaps, events, and other information that may serve as mishap precursors are reported and investigated sufficiently to serve the needs of a robust mishap prevention program.

2.2.3. Provide technical and investigative expertise to safety investigations as directed by this instruction.

2.2.4. Establish policies and programs to validate the results of safety investigations and to manage Class A and B safety investigation recommendations to their appropriate conclusions. Determine whether to close recommendations or leave them open for future action.

2.2.5. Maintain records of Air Force safety investigations as directed by Public Law and as necessary for Air Force mishap prevention purposes.

2.2.6. Establish policies and procedures to release safety investigation information to agencies outside Air Force safety channels.

2.2.7. Prepare a Memorandum of Final Evaluation (MOFE) on each formal report regardless of mishap class, and all Class A and B final message reports when the formal report is waived. Ensure MOFE is disseminated to MAJCOM/SEs.

2.2.8. Develop joint/combined investigation policy/doctrine in coordination with other services/nations.

2.3. The Air Force Surgeon General (AF/SG). The Air Force Surgeon General (AF/SG) will ensure medical personnel provide medical related information, relevant to the investigation, to safety investigators to support the Air Force mishap and investigation process.

2.4. MAJCOM Commanders. MAJCOM Commanders will:

(NOTE: For purposes of this instruction, the term "MAJCOM" includes ANG, DRUs, and FOAs).

2.4.1. Establish policy and procedures to ensure mishaps assigned under the provisions of this instruction are properly investigated and reported.

2.4.2. Establish policies and programs to validate the results of safety investigations and track safety investigation recommendations to their appropriate conclusions.

2.4.3. Ensure action is taken on all open recommendations on which the command is the action agency.

2.4.4. Ensure all appropriate agencies and organizations within their command review each MOFE, to determine whether any of the deficiencies leading to the mishap apply to their commands.

2.4.5. Ensure all mishaps that occur when operations of government contractors result in reportable damage or injury to the Air Force (paragraph 1.3.1.1.), even if the government is wholly or partially repaid, are investigated and reported according to this instruction, AFI 10-220(I), *Contractor's Flight and Ground Operations*, and AFPAM 91-210, *Contract Safety*. This includes non-accepted equipment (non-delivered equipment for which the Government has assumed responsibility; DD Form 250, *Material Inspection and Receiving Report*, HAS NOT been executed).

2.4.6. Ensure government contracts/lease agreements determine convening authority prior to executing the contract/lease agreement.

2.4.6.1. The contract/lease agreement will ensure:

2.4.6.1.1. The contractor will notify the Air Force and the contract management authority when reportable damage or injury to the Air Force (paragraph 1.3.1.1.) occurs.

2.4.6.1.2. The contractor will support and comply with the safety investigation and report requirements of this instruction.

2.4.6.1.3. A record of all mishaps involving Air Force resources will be entered into the Air Force safety reporting system. This record includes required safety reports submitted IAW this instruction.

2.4.6.1.4. A record of mishaps involving other DOD resources will be forwarded to the involved agencies with an information copy to HQ USAF/SE. This record includes all mishap information.

2.4.6.1.5. When a mishap involves a contract managed by the Defense Contract Management Agency (DCMA), DCMA safety personnel will review the final message safety report and send their response back to HQ AFSC (paragraph 7.2. and 7.2.3.).

2.4.6.1.6. The contract discusses toxicology testing in the event of an Air Force mishap.

2.4.6.2. Ensure contract/lease agreements for aerospace vehicles state: The Air Force is responsible for the investigation of mishaps involving aerospace vehicles. The Air Force is authorized to investigate mishaps involving non-accepted Air Force aerospace vehicles.

2.4.7. Notify Air Force Nuclear Weapons and Counter Proliferation Agency and the Defense Threat Reduction Agency Nuclear Surety Office if nuclear weapon mishaps require design agency evaluation.

2.4.8. Report significant events or trends that could have adverse effects on nuclear safety, security, or reliability of nuclear weapons systems.

2.5. AFMC and AFSPC Commanders (in addition to MAJCOM/CC Requirements). AFMC and AFSPC Commanders (in addition to MAJCOM/CC Requirements) will:

2.5.1. Provide cost analysis data to support Air Force safety investigations. Ensure engine/engine module/shop replacement unit (SRU) mishap cost data (materiel and labor) is provided to the safety investigator within 15 days for Class A mishaps and within 30 days for all other mishap classes. The 15 and 30 day timelines begin when the depot receives the requested information/materiel.

2.5.2. Provide technical assistance in response to Deficiency Reports (DR) to support Air Force safety investigations. Ensure technical assistance is provided to the safety investigator within 15 days for a Category I DR and 30 days for a Category II DR. The 15 and 30 day timelines begin when the depot receives the information/materiel. Category I DRs are normally submitted for Class A mishaps and Category II DRs are normally submitted for Class B and C mishaps. See TO 00-35D-54 for more information.

2.5.3. Ensure the appropriate SM for the weapon system or items involved, receive and review MOFEs applicable to their systems and initiate publications or hardware changes as required. Maximize mishap prevention by transferring useful information from one weapon system to another.

2.6. The Convening Authority. The Convening Authority will:

2.6.1. Determine the scope and size of the safety investigation.

2.6.2. Ensure ongoing safety investigations issue required safety reports IAW **Table 6.2**.

2.6.3. Ensure all safety reports prepared and transmitted via the Defense Messaging System (DMS) when AFSAS is not available (paragraph **6.1.**) will be entered into AFSAS as soon as possible. This includes changes made to safety reports.

2.6.4. Ensure safety investigations cover all relevant mishap factors and meet the requirements of the Air Force mishap prevention program.

2.6.5. Forward formal safety reports as required. If more information is found after a formal report has been submitted, the convening authority will send this information to the same addressees who received the formal report.

2.6.6. Authorize the release of non-privileged information to news media, relatives, and other agencies through the legal board president, Survivor Assistance Program point of contact, Family Liaison Officer, or Public Affairs representative as appropriate.

2.6.7. Upon receiving notification of a critical safety concern (paragraph **1.4.**), take the following actions:

2.6.7.1. Notify other action agencies, the appropriate SM for the weapon system or items involved, the weapons system lead command, (AFPD 10-9, *Lead Operating Command Weapon Systems Management*) and HQ AFSC. These action agencies must evaluate the nature and seriousness of the information, determine the proper response, and issue required instructions.

2.6.7.2. Ensure the SM has access to specific technical information and other critical information as it becomes available so the SM can meet Operational Safety, Suitability, and Effectiveness (OSS&E) responsibilities required by AFI 63-1201, *Assurance of Operational Safety, Suitability, & Effectiveness*.

2.6.7.3. Ensure originating units send critical safety hazard information to appropriate agencies IAW AFI 11-215, *Flight Manuals Program (FMP)*, and TO 00-5-1, *AF Technical Order System*.

2.6.7.4. Forward to AFSC/SEF as quickly as practical all critical safety information related to military variants of civil aircraft and commercial-off-the-shelf aircraft. HQ AFSC/SEF will ensure all such information contributing to the promotion of aviation safety is forwarded to the Administrator of the Federal Aviation Administration and/or the Chairperson of the National Transportation Safety Board for appropriate action.

2.7. The Commander of the Active Duty Air Force installation nearest a mishap. The Commander of the Active Duty Air Force installation nearest a mishap will:

2.7.1. Respond to a mishap involving DOD assets IAW AFI 10-2501, *Full Spectrum Threat Response (FSTR) Planning and Operations*, and AFMAN 32-4004, *Emergency Response Operations*. Air Reserve Component installations, if nearest the mishap, will respond with available resources to the maximum extent possible, in coordination with the responding active duty installation. NOTE: All mishap response and SIB support MOA/MOUs between active duty and ARC units will be established by the active duty installation and maintained by the MAJCOM/SE, HQ AFRC/SE, and ANG/XO.

2.7.2. Provide logistical and investigative support as required.

2.7.3. Appoint an On-Scene Commander (OSC) IAW AFI 10-2501.

2.7.4. Appoint an Interim Safety Board (ISB).

2.7.5. Ensure toxicology testing is immediately considered following a mishap, if required or deemed necessary. Accomplish promptly and IAW applicable directives (AFI 44-120, *Drug Abuse Testing Program*, for military personnel and *The Air Force Civilian Drug Testing Plan* for civilian personnel). *The Air Force Civilian Drug Testing Plan* is available from the civilian personnel office.

2.7.5.1. Military Members. For all classes and categories of mishaps, commanders have the discretion to test involved military members whose actions or inactions, in their judgment, may have been factors in the mishap sequence. However, for all Class A and B aviation mishaps, commanders must test all military crewmembers on the flight orders (includes UAV controllers). Because the evidence is perishable, commanders should test all military crewmembers on the flight orders (includes UAV controllers) for aviation mishaps that have the potential of meeting the Class B threshold.

2.7.5.2. DOD Civilians. DOD civilians will be subject to testing when their action or inaction may have contributed to the mishap subject to the limitations and guidance in *The Air Force Civilian Drug Testing Plan*.

2.7.5.3. Government Contract Employees. Government Contract Employees (includes UAV controllers) will be tested IAW the terms and conditions of the applicable contract or if they consent, when their actions or inaction in the commander's judgment may have been a factor in the mishap sequence.

2.7.5.4. Blood testing is superior and the preferred method for all categories of safety investigations over urine testing since it provides an opportunity to determine the concentration of the substance and thus the expected performance decrement. Also, not all substances are excreted in the urine. Blood will be used for toxicological testing of military members for aviation safety investigations and is the preferred method for all safety investigations. Coordinate with the Civilian Personnel Office or Contracting Officer before requiring blood samples from DOD civilian or contractor employees. All blood samples will be sent to the Armed Forces Institute of Pathology (AFIP). Rely on chain of custody procedures in AFI 44-120 or *The Air Force Civilian Drug Testing Plan* in order to ensure sample testing accuracy. Toxicological analyses should be directed toward controlled substances, as well as any medications, as indicated by the medical history and environmental substances (such as carbon monoxide) as indicated by the nature of the mishap or event.

2.7.6. Make the Appropriate Military Notifications:

2.7.6.1. Inform the public affairs (PA) officer of non-privileged information. Release safety information only as authorized by this instruction.

2.7.6.2. Notify the home installation commander of all casualties, both military and civilian, and ensure the casualties are reported as outlined in AFI 36-3002, *Casualty Services*.

2.7.6.3. Notify the departure and destination bases for aviation mishaps (or the departure base for missile mishaps) and the commander of the unit that had the mishap.

2.7.6.4. Notify the home installation of the persons involved in a United States Army (USA), United States Navy (USN), United States Marine Corps (USMC), or United States Coast Guard (USCG) mishap or, if the home installation is unknown, the nearest installation of the responsible service.

2.7.6.5. Notify AFIP, whenever there is a fatality of an Air Force member.

2.7.6.6. Notify the Air Force Communications Agency's Hammer ACE (Adaptive Communications Element) if communications support is deemed necessary. Hammer ACE is funded to provide services to safety investigations at no cost to MAJCOMs or Air Force wings.

2.7.6.7. Notify the Military Traffic Management Command, when a mishap involves explosives or other dangerous articles being transported or handled by a commercial motor or rail carrier under Department of Transportation (DOT) regulations.

2.7.6.8. Notify local Command Post (Command Post may have reporting requirements IAW AFI 10-206, *Operating Reporting*).

2.7.7. Make the Appropriate Civilian Notifications:

2.7.7.1. Notify the nearest National Transportation Safety Board (NTSB) regional or field office or the nearest Federal Aviation Administration (FAA) Air Traffic facility if a civil aircraft is involved in a mishap on their installation.

2.7.7.2. Notify the FAA at FAA/AST Combined Operations Center if licensed commercial space systems are involved in the mishap. During launch of a commercial space vehicle from an Air Force facility, the on-site FAA/AST representative will fulfill this notification requirement and up-channel as required.

2.7.7.3. Notify the nearest Occupational Safety and Health Administration (OSHA) area or regional office when an on-duty mishap results in an Air Force civilian employee fatality or involves the inpatient hospitalization of three or more people (one of which must be a DOD civilian employee) within 8 hours of the on-duty mishap. If unable to contact the nearest OSHA area or regional office within required 8-hour time frame, contact the OSHA 24-hour toll-free hot line ([Attachment 2](#)). Although outside OSHA's investigative jurisdiction, overseas locations are required to notify HQ AFSC/SEG of these types of incidents.

2.7.7.4. Notify federal and state Environmental Protection Agency (EPA) officials of environmental hazards associated with the mishap.

2.7.7.5. Notify appropriate medical or law enforcement authorities as soon as possible in case of non-Air Force injury or property damage.

2.8. The On-Scene Commander. The On-Scene Commander will:

- 2.8.1. Be responsible for safety, security, medical, fire protection, legal support, and care of personnel IAW AFI 10-2501. NOTE: When the mishap occurs outside a military installation, civil authorities may assume control of the mishap site. Coordinate with the servicing legal office before establishing a National Defense Area (NDA).
- 2.8.2. Work with the Disaster Control Group (DCG) and provide a briefing to the ISB, SIB, and AIB or CDI on all known hazards and personal protective equipment (PPE) requirements before allowing them access to the site. OSCs must ensure personnel are properly trained and equipped to enter any site where hazardous materials (including blood-borne pathogens) pose a threat to their safety.
- 2.8.3. Grant access to the mishap site to properly designated personnel when the site is safe.
- 2.8.4. Transfer custody of wreckage and other physical evidence to the ISB/SIB president, but retain control of site during investigation up through and including site restoration.
- 2.8.5. Coordinate requests for host installation DCG assets needed for follow-on investigative support.
- 2.8.6. Be responsible for safety and security of the mishap area until relieved by higher authority or the organization having physical possession of the asset at the time of the mishap.

2.9. The ISB President. The ISB President will:

- 2.9.1. Preserve evidence.
- 2.9.2. Identify witnesses and conduct interviews.
- 2.9.3. Gather factual data.

2.10. Commander of the mishap unit. Commander of the mishap unit will (applies when the mishap unit and the mishap location are not co-located):

- 2.10.1. Coordinate with the commander of the Air Force installation nearest to the mishap to ensure the appropriate notifications in paragraphs 2.7.6. and 2.7.7. are accomplished.
- 2.10.2. Appoint an ISB at the mishap unit to perform local ISB duties
- 2.10.3. Ensure toxicology testing is performed IAW paragraph 2.7.5.

2.11. Unit Chiefs of Safety. Unit Chiefs of Safety will:

- 2.11.1. Ensure individuals with access to safety or mishap information, privileged or otherwise, know the limitations placed on their uses and the requirements for protecting such materials.
- 2.11.2. Maintain a current roster of personnel trained and qualified to perform ISB/SIB duties for weapons, space, aviation, and ground mishaps.

2.12. Deployed Unit Safety Officers (safety personnel deployed with DOD assets or an established safety office overseas in an AOR). Deployed Unit Safety Officers (safety personnel deployed with DOD assets or an established safety office overseas in an AOR) will:

- 2.12.1. Notify the COMAFFOR safety office, who will, in turn, notify and coordinate with the MAJ-COM that owns the asset (property) or personnel involved in the mishap.

2.12.2. Ensure compliance with the requirements set forth in this instruction as the "nearest Air Force installation" with regards to responding to a mishap. NOTE: Ultimate investigating and reporting responsibilities remain with the owning convening authority.

2.12.3. Coordinate with the appointed safety investigator to compile the mishap data that can be collected locally and forward it to the owning unit for mishap report completion, as required.

2.13. Base Contracting Office. Base Contracting Office will ensure contracts and lease agreements require contractors and subcontractors (e.g., contract aircraft maintenance) to promptly report pertinent facts regarding mishaps involving reportable damage or injury to the Air Force (paragraph [1.3.1.1.](#)), and to cooperate IAW this instruction, in any Air Force safety investigation. Cooperation should include toxicology testing (paragraph [2.7.5.](#)).

Chapter 3

PRIVILEGED SAFETY INFORMATION

3.1. General Information. All safety reports contain privileged safety information, but not all information in a safety report is privileged. EXCEPTION: The preliminary message, HATRs, Wildlife Strike Reports, and non-DOD aviation safety reports do not contain privileged safety information. Also ground and industrial, and explosive and chemical agents safety reports regarding mishaps that occurred before 3 Oct 00 do not contain privileged safety information (paragraph 3.4.). This chapter identifies privileged safety information and directs how to handle it. This chapter also describes the promise of confidentiality and states how to use it during an investigation. Finally, this chapter states how privileged safety reports and privileged safety information can be used after a safety report is completed.

3.2. Identifying and Handling Privileged Safety Information. Privileged safety information refers to information that is exempt by statute or case law from disclosure outside the Air Force safety community. The military safety privilege is judicially recognized and protects the investigative process. The Air Force treats this information confidentially to ensure commanders quickly obtain accurate mishap information thereby promoting safety, combat readiness, and mission accomplishment. NOTE: Safety investigations of non-DOD aviation mishaps are conducted using this instruction as guidance and do not contain privileged safety information.

3.2.1. Privileged information includes:

3.2.1.1. Findings, conclusions, causes, recommendations, analysis, and the deliberative process of all safety investigators. Diagrams and exhibits if they contain information which depicts the analysis of safety investigators. This includes draft versions of the above materiel.

3.2.1.2. Information given to safety investigators pursuant to a promise of confidentiality (paragraph 3.2.5.).

3.2.1.3. Computer generated videotape animations, simulations, or simulator reenactments in which safety investigator analysis is incorporated. Animations made exclusively from recorder data (including Military Flight Operations Quality Assurance (MFOQA) data) are not privileged.

3.2.1.4. Photographs, films, and videotapes, which are staged, reconstructed, or simulated reenactments of possible or probable scenarios developed by or for the analysis of the safety investigator.

3.2.1.5. Any Life Science Materiels, including photographs with markings or other indicators, that contain analysis by a safety investigator. For example, 72-hour and 14-day histories, interview narratives obtained during the post-mishap physical examination, or any other interviews obtained by a safety investigator.

3.2.2. Prohibited Uses of Privileged Safety Reports and Information. These prohibitions apply to Part 2 of formal safety reports, status and final safety messages, and any other reports or documents containing privileged safety information.

3.2.2.1. Air Force employees, military members, and government contractors, will not wrongfully use, permit the use of, gain access to, or allow access to the privileged information in any safety report, or portions thereof, for other than officially authorized mishap prevention purposes.

3.2.2.2. Violations of the prohibitions in paragraphs 3.1. through paragraph 3.4. of this instruction are punishable under Article 92(1), UCMJ and may be grounds for disciplinary actions according to civilian personnel regulations, or may lead to contract actions.

3.2.2.3. The Air Force does not use privileged safety information as evidence for punitive, disciplinary, or adverse administrative actions, for determining the misconduct or line-of-duty status of any person, in flying evaluation board hearings or reviews, to determine liability or liability in claims for or against the United States, or in any other manner in any action by or against the United States.

3.2.3. Controlling and Handling Privileged Safety Reports and Information. Personnel having access (authorized access or unauthorized access) to privileged safety reports and information have a duty to control the reports to prevent their use for anything other than mishap prevention. When these reports and information are no longer needed for mishap prevention purposes, dispose of IAW the Air Force *Records Disposition Schedule (RDS)* located at <https://webrims.amc.af.mil>.

3.2.4. Privileged Safety Information and Safety Reports. Safety reports are for official use only (FOUO) if they are not classified. However, not each document in the report is FOUO. The factual documents in Part 1 of formal safety reports are not FOUO and should not be marked as such (paragraph 3.2.6.1.).

3.2.5. Promise of Confidentiality.

3.2.5.1. Purpose. The Air Force gives a promise of confidentiality to encourage frank and open communications with individuals who provide witness statements (to a safety investigator) and with government contractors, who built, designed, or maintained the equipment and participate in the safety investigation. However, if an individual provides a false statement to a safety investigator under a promise of confidentiality, that statement (and any other information that witness gave to the safety investigator) loses its privileged status and can be used to support disciplinary and/or adverse administrative actions.

3.2.5.2. Promises of Confidentiality Authorized. Promises of confidentiality are only authorized in investigations of Air Force nuclear, space, aviation, guided missile, and directed energy mishaps. However, there may be occasions, such as mishaps involving complex systems, military-unique items (such as armored vehicles), or military-unique operations or exercises, where a witness or involved contractor will not provide a statement or information without a promise of confidentiality. When this appears to be the case, contact HQ USAF/SE for approval to grant confidentiality to that (those) witness(es).

3.2.5.3. Promises of Confidentiality Not Authorized. Promises of confidentiality are not authorized for explosives and chemical agents, afloat, motor vehicle, off-duty military, and ground and industrial mishaps (see the exception for complex systems, military-unique items, or military-unique operations or exercises in paragraph 3.2.5.2.). Promises of confidentiality are also not authorized for HATRs.

3.2.5.4. Persons Authorized to Make Promises of Confidentiality. Only members of a designated ISB/SIB (or a SIO) may offer promises of confidentiality and only during safety investigations where promises of confidentiality are authorized. When conducting safety investigations in which promises of confidentiality are authorized, the safety investigators have the discretion to decide who will be offered a promise of confidentiality. The investigators' decision should be based upon a witness or contractor's reluctance to cooperate, involvement in the mishap sequence, or apparent

self-interest in not disclosing information. A promise of confidentiality will not be given on a blanket basis to every witness.

3.2.5.5. Persons to Whom Promises of Confidentiality May be Offered. Promises of confidentiality may be offered to any witness and contractors who built, designed or maintained the equipment in order to encourage their full cooperation and candid statements.

3.2.5.6. Non-privileged Witness Statements. If witnesses provide a statement without a promise of confidentiality, ensure they are informed that their statement will be provided to the legal investigation (if applicable) and/or may be released to the public pursuant to a Freedom of Information Act (FOIA) request.

3.2.6. Marking and Documenting Safety Information.

3.2.6.1. The cover and individual pages of documents containing privileged information will be clearly marked with the warning statement (FOR OFFICIAL USE ONLY) in **Figure A3.1**. All media containing privileged information (audiotapes, videotapes, animations, simulations, computer generated profiles, etc.) will be clearly marked with the warning statement in **Figure A3.1**. See paragraph **3.2.7** for further information on email. Part 1 (Factual Information and Releasable Material) of a formal report will not be marked with the warning statement in **Figure A3.1**.

3.2.6.2. Promises of Confidentiality. If a promise of confidentiality is offered and accepted, it must be documented. Use the sample witness statement format in **Figure A3.2** for written statements. Read, record, and transcribe the statement in **Figure A3.3** for recorded interviews of witnesses. Use **Figure A3.6** to document that contractor personnel (those personnel not serving as technical experts to a SIB) acknowledge and understand the limitations on the use of privileged safety information and media. Use **Figure A3.7** to document promises of confidentiality to contractor representatives serving as technical experts for a SIB. Use **Figure A3.8** as a cover sheet for confidential technical reports and analysis provided by contractors.

3.2.6.3. Non-privileged Witness Statements. If witnesses or contractors provide a statement without a promise of confidentiality, it must be documented by using the sample witness statement format in **Figure A3.4** for written statements. Read, record, and transcribe the statement in **Figure A3.5** for recorded interviews.

3.2.6.4. For all written witness statements (privileged and non-privileged) reproduced for other government agencies/bodies (e.g., the legal board), ensure the appropriate signed, dated memorandum (**Figure A3.2** or **Figure A3.4**) from **Attachment 3** is included as the first page of the reproduced statement.

3.2.7. Transmitting Safety Information.

3.2.7.1. To protect the privileged status and to ensure the correct handling of safety reports, originating organizations will use the Air Force Safety Automated System (AFSAS) reporting system to transmit messages. AFSAS is a user ID and password system ensuring the protection of privileged information. If AFSAS is not available (paragraph **6.1**) use DMS and the addressing requirements of this instruction. All DMS safety messages containing privileged safety information or Privacy Act information must be digitally signed and encrypted.

3.2.7.2. If AFSAS and DMS are not available, or not practical, use one of the following ways to send privileged safety reports and information:

3.2.7.2.1. Password protect the privileged safety report or information and then email the document. Send the applicable password in a separate message or by another mode of transmission.

3.2.7.2.2. Fax the document ensuring that the recipient will receive the faxed document immediately upon receipt.

3.2.7.2.3. Intrabase. This includes wide area networks or local area networks served by a single network control center. The transmitting and receiving units will use appropriate limited-use, Privacy Act, and FOUO markings as required and may be transmitted unencoded and unencrypted.

3.3. Authorized Use and Release of Privileged Safety Reports and Information. In order to help ensure courts honor the assertion of privilege, the rules described in this paragraph must be followed. The Air Force ensures privileged safety reports and information are used only by persons and agencies whose duties include relevant mishap prevention responsibilities (paragraphs 3.3.2. and 3.3.3.). All personnel and agencies authorized access to privileged safety reports and information will follow the policy in paragraphs 3.2.2. and 3.2.3. Only HQ USAF/SE approves release of privileged safety information outside the Air Force, even to members of Congress or officials of the Department of Justice. Unique circumstances described in paragraphs below allow certain authorized individuals to release privileged information outside the Air Force. Privileged safety information remains Air Force property. Questions regarding access to privileged safety information should be referred to HQ AFSC/JA. Access is limited to information that is necessary for and consistent with mishap prevention. Whenever privileged safety information is requested, first determine whether or not mishap prevention goals can be met by sanitizing the information (paragraph 3.3.1.). If the answer is no, then provide only the necessary information to the authorized persons or agencies with the restrictive markings affixed.

3.3.1. Sanitizing Privileged Safety Reports. Sanitizing reports or extracts from reports means obscuring the relationship between the identity of a mishap and the findings, conclusions, causes, recommendations, deliberative processes resulting from the investigation, and statements made under a promise of confidentiality. Wing safety officers or their designated representatives (that are properly trained) may sanitize privileged safety reports and other media for unit use and for use by authorized contractor personnel. Some mishaps, because of widespread publicity or unique circumstances, cannot be fully sanitized. When a report is sanitized, the findings, causes, recommendation, conclusions, or opinions of the investigation are no longer privileged. Sanitizing a report involves separating the following identifying information from related safety investigator findings, causes, recommendations, conclusions, or opinions:

3.3.1.1. Date and place of the mishap.

3.3.1.2. Aircraft, UAV, missile, vehicle, or weapon serial number.

3.3.1.3. Names and social security numbers (SSN), if included, of persons involved.

3.3.1.4. Any other detail identifying the mishap.

3.3.1.5. Remove identifying information and markings identifying the documents as privileged or FOUO before reproducing sanitized reports or extracts of reports.

3.3.2. Limiting Release within the Air Force. When their duties include mishap prevention and when it is necessary to develop, take, or review preventive actions, the following Air Force officials may

obtain access to privileged safety information: members of flying, space, missile, or maintenance organizations; those who command, supervise, and train air, space, and missile crews and maintenance personnel; HQ AFSC personnel, convening authority staff, duly appointed safety investigators, those who are appointed to assist safety investigators, safety officers and staff, aerospace physiologists, aviation psychology consultants, flight surgeons, and airfield operations personnel. The guidance in paragraphs 3.2.2., 3.2.3., and 3.3. WILL BE followed.

3.3.2.1. MAJCOM, NAF/Center or unit Chiefs of Safety are authorized to disclose privileged safety information to USAF members authorized access to the information (paragraph 3.3.2.).

3.3.2.2. AIB investigators, with a safety need to know, (e.g., pilots, commanders, operations personnel) may have access to privileged safety information from the corresponding safety investigation, only after final approval of the AIB report. AIB investigators must first coordinate with the convening authority JA and SE if the AIB report has not been released to the public. The convening authority will determine if access is appropriate before next-of-kin are briefed following a fatal mishap.

3.3.2.3. Part 1 of the two-part formal safety report and certain factual information is given to the legal board president (paragraph 5.14. and the discipline specific safety manual AFMAN 91-22X).

3.3.2.4. HQ AFSC/JA may release the factual portions of privileged safety reports to offices and organizations within the Air Force for official purposes.

3.3.2.5. Other Air Force officials such as the SJA (other than HQ AFSC/JA), criminal investigative agencies such as the Air Force Office of Special Investigations (OSI), Security Police, Historian (HO), and PA do not normally receive privileged safety information because of possible conflicts of interest and because use of such information by such officials would not be for mishap prevention purposes.

3.3.2.6. ANG Personnel. Apply the test for releasing privileged safety information that is described in paragraph 3.3. Do not withhold privileged safety reports from ANG personnel who have a need to know when sanitized information is not adequate to develop, take, or review corrective action. Person having a need to know include, but are not limited to, those involved in mishap; whose duties included the preparation dispatch, or internal distribution of safety reports; and those who act in response to mishap prevention recommendations. Releasing information under this paragraph does not constitute release outside the Air Force.

3.3.3. Limiting Release Outside the Air Force. The interaction between the Air Force and other entities requires some direct communication. In certain cases, the Air Force has agreed to exchange privileged safety information with other DOD agencies solely for mishap prevention purposes. Also, the Air Force shares certain mishap prevention information in the interests of the general safety community. The guidance in paragraphs 3.2.2., 3.2.3., and 3.3. WILL BE followed.

3.3.3.1. Responding to Subpoenas and Legal Process. Upon receipt of a legal process requiring participation in a court proceeding, including depositions and requests for production of documents, contact HQ AFSC/JA and the nearest Air Force base legal office. Fax a copy of the legal process to AFLSA/JACT. Encourage requesters to ask the MAJCOM/JA for the AFI 51-503 accident report if one has been prepared.

3.3.3.2. Responding to FOIA Requests. FOIA requests under Title 5, United States Code, section 552 (5 U.S.C. 552). Send requests to HQ AFSC/JA.

3.3.3.3. Historical Safety Reports. HQ USAF/SE/SED may release the findings of a Safety Board, contained in historical safety reports prepared IAW DODI 6055.7 (or its predecessors), provided no national defense or safety interest exists. For the purpose of this provision, historical reports shall be defined as those concerning mishaps more than 25 years old.

3.3.3.4. Safety Reports Where a Promise of Confidentiality is Not Authorized IAW DODI 6055.7, paragraph E4.5.3.3.1. HQ USAF/SE/SED is designated by the Secretary of the Air Force to assert the privilege to oppose any court-ordered release of privileged safety information for all investigations where promises of confidentiality are not authorized. Further, upon determination by HQ USAF/SE/SED that no safety or national defense interest is jeopardized, HQ USAF/SE/SED may authorize the release of safety investigation findings. See paragraph 3.2.5.3. for investigations where safety investigators are not authorized to grant promises of confidentiality.

3.3.3.5. Limiting Release to Contractors. Contractors may need access to privileged safety information when they are performing an Air Force function involving mishap prevention. When contractors need access to privileged safety information, the appropriate memorandum in **Figure A3.6.** or **Figure A3.7.** must be used and kept on file with the individual authorizing access to the information. Contractors will not release the information outside contractor safety channels; for example, privileged safety information will not be released to the general counsel's office or public relations personnel. The number of contractor employees who have access to the information shall be strictly limited to only those individuals who have a need to know the information in order to enhance the safety of the Air Force weapon systems. After a project is complete, contractors will not maintain the information in their files. Contractors must understand and agree to their responsibilities to treat such information as confidential. The guidance in paragraphs 3.2.2., 3.2.3., and 3.3. WILL BE followed.

3.3.3.5.1. Contractors who built, designed, or maintained equipment involved in mishaps send representatives to support Air Force SIBs at the request of the Air Force. SIB presidents and safety investigators will ensure those representatives understand that the Air Force may at the contractor's request extend a claim of privilege over documents provided by the contractor representatives to the SIB when the Air Force maintains sole possession or control. A claim of privilege may not be sustained over notes, documents, and other matter produced during the SIB investigation by the contractor but retained by the contractor representatives. Grant these contractors access to privileged safety information only if it is essential to assist the SIB.

3.3.3.5.2. Contractors providing weapon system maintenance support are performing an Air Force function. Advise them that such disclosure is necessary for fulfillment of contractual obligations. The wing chief of safety, MAJCOM/SE, or HQ AFSC may provide the contractors safety reports for this function.

3.3.3.5.3. Air Force operations conducted at contractors' facilities require privileged safety information handling.

3.3.3.5.4. Contractors providing weapon system crew training are performing an Air Force function, and need information from safety reports, videos, and other similar media to build training scenarios. The wing chief of safety, MAJCOM/SE, or HQ AFSC may provide the contractors safety reports for this function.

3.3.3.5.5. Contractors who instruct safety programs in mishap investigation or safety program management contracted by the Air Force or ARC, require access to privileged safety information.

3.3.3.5.6. HQ USAF/SE/SED may authorize the release of privileged safety information to contractors who build, design, or maintain Air Force weapon systems or their components provided release of that privileged safety information is used solely to enhance those weapon systems, i.e., a safety purpose is served. This includes Space System Contractors, Space Technical Support Contractors, Advisory & Assistance Services (A&AS), and Federally Funded Research & Development Centers (FFRDC) when they are performing an Air Force function.

3.3.3.6. Limiting Release to Other Services and DOD Agencies. Other US military services and DOD agencies responsible for flying, supporting or maintaining Air Force aircraft may receive comparable privileged safety information when needed for mishap prevention. Joint project or program offices may share privileged safety information with members of other DOD agencies working on the same project or program without prior approval from HQ AFSC/JA. Approval authority for exchanging formal safety reports with other military services is HQ USAF/SE/SED or HQ AFSC/JA.

3.3.3.7. Limiting Release to Foreign Military Organizations. Release of privileged safety information to NATO military organizations is governed by NATO STANAGs 3101, *Exchange of Safety Information Concerning Aircraft and Missiles*, and 3531, *Safety Investigation and Reporting of Accidents/Incidents Involving Military Aircraft and/or Missiles*. Many other foreign military organizations have MOAs/MOUs with HQ USAF/SE discussing the release of safety information.

3.3.3.8. Limiting Release of Nuclear Safety Reports to Agencies outside the Air Force. HQ USAF/SE may approve the release of extracts of nuclear safety reports to US governmental agencies with statutory jurisdiction, such as the Defense Threat Reduction Agency (DTRA); and operations offices or authorized contractors of the Department of Energy. The MAJCOM commander may provide DULL SWORD reports about weapons and common equipment deficiencies to the unified commander as deemed appropriate and necessary for the theater commander to accomplish his or her role in nuclear surety. Send this information by inclusion of the appropriate unified command address in the message report as provided by the MAJCOM supplement to this instruction. The unified commander ensures the information is treated as privileged information and not released or distributed outside the respective headquarters without first obtaining permission from HQ USAF/SE. The Air Force releases this information only to reach its nuclear surety goals.

3.3.3.9. Limiting Release to NTSB and FAA. AFJI 91-206, *Participation in a Military or Civil Aircraft Accident Safety Investigation* governs the release of safety information to the NTSB and FAA for aviation mishaps. For other mishaps, use AFJI 91-206 as a guide.

3.3.3.10. Limiting Release to NASA and National Reconnaissance Office (NRO). Applicable space safety reports will be distributed to NASA and NRO upon completion.

3.4. Handling and Disclosing Reports on Ground and Industrial, and Explosives and Chemical Agents Mishaps that occurred before 3 Oct 00.

3.4.1. The purpose of these reports is mishap prevention. The reports were normally considered general-use reports in that witnesses were not promised confidentiality, and the reports were not consid-

ered privileged. However, they are FOUO and are handled according to DODI 5400.7-R/AF Supplement, *DOD Freedom Of Information Act Program*.

3.4.2. Do not disclose the identities of involved personnel in educational or promotional materials.

3.4.3. These reports can be released outside the Air Force safety community and outside the Air Force once Privacy Act information, findings, and recommendations are removed. The installation chief of safety is the release authority for providing these reports to other Air Force personnel. The reports may not be used for any purpose other than mishap prevention, with the exception that the complete report may be released to Air Force claims personnel to assist them in evaluating claims for damages filed against the Air Force. When release will be made outside the Air Force, HQ AFSC/JA is the release authority.

3.4.4. To control reports retain only one copy of each safety report at wing or base, intermediate command, and MAJCOM safety offices. Air Force and unified command agencies may view these reports for official purposes, but they do not release copies without approval of the appropriate disclosure authority. Advise personnel viewing these reports that findings of cause, conclusions, recommendations, corrective actions, and witness statements taken by safety investigators in the course of the investigation are used primarily for mishap prevention purposes. (AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*, provides guidance on the Air Force relationship with OSHA.) Refer all requests for release to HQ AFSC/JA.

3.4.5. Upon written request, HQ AFSC/JA provides the releasable portions of ground and explosive safety reports to the requester.

Chapter 4

DETERMINING INVESTIGATIVE RESPONSIBILITY

4.1. General Information. The Air Force generally assigns mishap investigative responsibilities to the command (MAJCOM) that experienced the loss of an owned asset (property). The command (MAJCOM) with investigative responsibility may or may not have Operation Control (OPCON) over the asset (property). In some cases, mishaps may involve assets or individuals from multiple agencies. Follow the guidance in this chapter to determine investigative responsibility.

4.2. Convening Authority Determination. The convening authority is the individual who has the authority to order a safety investigation. The MAJCOM/CC of the organization that owns the asset is considered to be the convening authority unless: HQ USAF/SE assumes investigative responsibility, another MAJCOM/CC assumes investigative responsibility (with the concurrence of the owning organization and HQ USAF/SE), or investigative responsibility is delegated to a lower level of command.

4.2.1. For all on-duty Class A, all nuclear Class A, and all NUCFLASH or BROKEN ARROW mishaps, the MAJCOM/CC is the convening authority. This authority will not be delegated to a subordinate commander. EXCEPTION: ARC Class A mishaps that are not aviation mishaps (paragraph 4.5.)

4.2.2. For all other mishaps and events, convening authority may be delegated to an appropriate level of command.

4.3. Mishaps Involving Multiple Commands. Involved MAJCOM/CCs will determine which command will assume investigative responsibility and advise HQ USAF/SE within 24 hours. In general, the command whose asset initiated the mishap will assume investigative responsibility. If mishap initiation is initially unclear, the command sustaining the highest level of loss in the mishap will assume investigative responsibility. MAJCOM/CC may determine other compelling reasons exist for assigning investigative responsibility differently. If MAJCOMs cannot reach agreement, HQ USAF/SE will determine mishap investigation responsibility.

4.4. Mishaps Involving Multiple Services. For a multi-service or joint operational mishap, activate *Memorandum of Understanding Among the US Army, Air Force and Naval Safety Centers, Headquarters Marine Corps (Safety Division) and the US Coast Guard Health and Safety Directorate for Safety Investigation and Reporting of Joint Service Mishaps*. MAJCOM/SE should contact HQ USAF/SE if there are questions.

4.5. Mishaps Involving Air Reserve Component Assets. The convening authority for all ARC Class A aviation mishaps is the gaining MAJCOM/CC. For all other mishaps and events, convening authority is determined by the AFRC/CC or NGB/CF as applicable.

4.6. Mishaps Involving NATO Systems or Personnel. Investigate and report mishaps involving Air Force aircraft, space vehicles, or missiles according to this instruction. Comply with NATO STANAG 3102, *Flight Safety Co-operation in Common Ground/Air Space*, 3318, *Aeromedical Aspects of Aircraft Accident/Incident Investigation*, 3531, *Safety Investigation and Reporting of Accidents/Incidents Involving Military Aircraft and/or Missiles*, and Air Standard 85/02A, *Investigation of Aircraft/Missile Acci-*

dents/Incidents. The investigation required under STANAG 3531 is in addition to, and conducted separately from, the investigation required by this instruction.

4.7. Mishaps Involving Non-NATO Foreign Military Equipment or Personnel in CONUS. It is desirable to conduct only one safety investigation that has the full support and participation of all involved nations. However, separate investigations are authorized if necessary due to law, agreement, or procedure.

4.7.1. When a mishap/event involves only foreign military assets and/or personnel, the foreign nation military authorities are responsible for the investigation. The USAF generally reserves the right to participate as an observer on the foreign safety investigation or, if no investigation is conducted, the right to conduct its own safety investigation.

4.7.2. When a mishap/event involves a foreign military aircraft and a US civilian aircraft in the CONUS, the NTSB has priority over the investigation. See paragraph 4.8.

4.7.3. When a mishap/event involves both USAF and foreign assets and/or personnel (military or civilian), the Air Force will conduct a safety investigation. Depending on the circumstances the NTSB may take priority over the investigation.

4.8. Mishaps Involving Civil Aviation or Commercial Spacelift and/or Federal Air Traffic Services.

4.8.1. The NTSB investigates mishaps involving both Air Force and civil aircraft that occur within US jurisdiction. The Air Force may send an observer to the NTSB investigation and/or may conduct a separate investigation. However, the NTSB has priority over all evidence.

4.8.2. Air Force mishaps that occur within US jurisdiction involving commercial spacelift may be investigated by the NTSB, the FAA/AST, and the commercial vendor depending on the extent of the mishap. The Air Force may send an observer to any of these investigations and/or may conduct a separate investigation. If the NTSB leads the investigation, the NTSB has priority over all evidence. See AFMAN 91-222 for more information.

4.8.3. See AFJI 91-206 for guidance on NTSB, FAA, and Air Force cooperation in these investigations.

4.9. Mishaps Involving Contractors.

4.9.1. Government contractor involvement.

4.9.1.1. If the Air Force administers the contract and the mishap involves reportable damage or injury to the Air Force (paragraph 1.3.1.1.), the MAJCOM/CC administering the contract is the convening authority. Convening authority may be delegated IAW paragraph 4.2. The convening authority will ensure the mishap is investigated and reported IAW this instruction and the terms of the contract.

4.9.1.2. If the Air Force administers the contract and the mishap involves reportable damage or injury to another DOD agency (paragraph 1.3.1.1.), the MAJCOM/CC administering the contract will ensure all mishap information is sent to the involved agency with an information copy to HQ AFSC.

4.9.1.3. If another DOD agency administers the contract and the mishap involves reportable damage or injury to the Air Force (paragraph 1.3.1.1.), the contracting command (MAJCOM who

owned the resources) will ensure the mishap is investigated and reported according to this instruction.

4.9.2. Mishaps Involving Non-Accepted Air Force Aerospace Vehicles. The MAJCOM/CC who negotiates the contract for the aerospace vehicle is the convening authority. Convening authority may be delegated IAW paragraph 4.2. The convening authority is responsible for the safety investigation and reporting, although the aerospace vehicle may not be under the operational control of the Air Force. The aerospace vehicle loss is recorded as a mishap to the Air Force at large (paragraph 1.5.).

4.9.3. Mishaps involving Aerospace Vehicles Leased to a Non-DOD Organization for Modification, Maintenance, Repair, Test, Contract Training, or Experimental Project for a DOD Component, when the Government has assumed Ground and Flight Risk. The MAJCOM/CC who negotiates the contract for the aerospace vehicle is the convening authority. Convening authority may be delegated IAW paragraph 4.2. The convening authority is responsible for the safety investigation and reporting, although the aerospace vehicle may not be under the operational control of the Air Force. The aerospace vehicle loss is recorded as a mishap to the Air Force at large (paragraph 1.5.).

4.9.3.1. HQ AFMC normally negotiates all aircraft and engine leases. If another agency negotiates a lease, the agency and HQ AFMC shall determine whom the convening authority will be prior to executing the lease.

4.9.4. Other Aerospace Vehicle Contractor Mishaps. If a mishap involves government-furnished or leased aerospace vehicles, or new production aerospace vehicles (accepted by the Air Force on a DD Form 250, *Material Inspection and Receiving Report*, but not yet delivered), the MAJCOM/CC of the command negotiating the contract/lease is the convening authority unless otherwise specified in the contract/lease agreement. In cases where contract/lease agreements specify investigative jurisdiction, follow the terms of such agreements. In no case will a non-Air Force agency have safety investigation jurisdiction.

4.10. Civilian Occupational Mishaps.

4.10.1. OSHA officials may accompany Air Force safety investigators as observers, or they may conduct a separate investigation of occupational mishaps involving either a DOD civilian fatality or the inpatient hospitalizations of three or more civilian personnel (one of which must be an on-duty DOD civilian employee). Ensure Air Force personnel accompany OSHA officials.

4.10.2. OSHA will be notified when an on-duty mishap resulting in an Air Force civilian employee fatality or involving the inpatient hospitalization of three or more people (one of which must be a DOD civilian employee) within 8 hours of an on-duty mishap (paragraph 2.7.7.3.).

4.11. Special Circumstances.

4.11.1. Mishaps Involving Friendly Fire. For all mishaps falling within the definition of Friendly Fire, the combatant commander will convene a legal investigation to determine the facts of the incident and guide further actions. In consultation with the combatant commander, service or other commanders may convene a safety investigation as required.

4.11.2. Mishaps Involving Potential Criminal Acts. If safety investigators discover evidence of criminal acts causal to the mishap, they must immediately stop the investigation and report this fact to the convening authority. The convening authority will, after coordinating with HQ USAF/SE, determine

whether the safety investigation should continue or be suspended, and ensure that an appropriate legal investigation is initiated. Safety investigators should contact HQ AFSC/JA to discuss this issue.

4.11.2.1. If the convening authority decides to suspend the safety investigation, investigators will give all non-privileged materiel to the legal investigators and provide them with the names of all known witnesses. Alert the criminal investigator if the safety investigator or SIB has interviewed any witnesses.

Chapter 5

SAFETY INVESTIGATIONS

5.1. General Information. The convening authority determines the depth of investigative effort required for each mishap, subject to this instruction and the appropriate discipline specific safety manual (AFMAN 91-22X). Several factors influence the depth of investigative effort required: severity of injury or occupational illness, future mishap potential, and whether another agency's investigation will produce a report the Air Force can use for mishap prevention. Other agencies, such as the local police or NTSB, may investigate mishaps that occur within their jurisdiction. A separate Air Force investigation will be completed when required by this instruction, however, the safety investigator may use the other agencies' reports and information when applicable.

5.2. Investigation Timeline. The safety investigation should be completed within 30 days of the mishap. The investigation should place a greater priority on a complete and accurate safety report than on trying to finish in the 30 day timeline. If the investigation cannot be completed within this 30 day period, the SIB/SIO will request an extension from the convening authority. The convening authority will send a copy of their extension approval to HQ AFSC. EXCEPTION: There may be standing agreements for certain types of mishaps where the 30 day suspense is extended (see the discipline specific safety manual (AFMAN 91-22X)).

5.3. Investigation Funding.

5.3.1. Local Support. The commander of the Air Force installation hosting the SIB funds all in-house support even if the host installation is not assigned to the investigating MAJCOM. See paragraph [5.3.5](#) for expenses that exceed the resources of the host installation.

5.3.2. TDY Travel. Each MAJCOM, via their respective wings/units, funds TDY of its assigned personnel who are Air Force SIB members or technical experts, according to AFI 65-601, Volume 1, *Budget Guidance Procedures*. TDY SIB members should be placed on full per diem for the duration of the SIB. Dual billeting and rental car should be authorized. For joint service boards, each service funds its own members' TDY. The investigating MAJCOM funds travel costs of members from another service appointed to an Air Force SIB. Observers to an Air Force SIB fund their own TDY.

5.3.3. Contractor support. Normally contractors will always travel via their own funding. To provide easier access to the base and its facilities required during the investigation, the contractor may request a Letter of Identification from the Contracting Officer. The convening authority will honor these requests. The Letter of Identification will not have a fund cite, i.e., no cost to the government. Joint Travel Regulations, Volume 2, Appendix E, Part I, paragraph D and E are applicable.

5.3.4. Other Support. The convening authority funds leasing of special equipment/vehicles, leased communications, and other contractual services. For technical assistance and laboratory analysis (paragraph [5.5](#)) from non-Air Force specialist, the convening authority or SM may have to provide funding to obtain a response.

5.3.5. Cost Overruns. Request an operating budget authority (OBA) adjustment per AFI 65-601, Volume 2, *Budget Management for Operations*, if investigation costs cannot be financed through reprogramming within the OBA.

5.4. Investigation Options. The size and membership of the investigation depends on the category and complexity of the mishap being investigated. The investigation must have the correct complement of members to properly complete the investigation. Investigations may be made up of multiple members (SIB), or a single member (SIO). Refer to the discipline specific safety manual (AFMAN 91-22X) for requirements. The SIB will inform the convening authority of all members of the investigation (SIB members, observers, and technical experts).

5.4.1. Safety Investigation Boards (SIB). SIBs are made up of multiple members assigned to investigate a mishap. Contractor representatives will not be members of a SIB. They are technical experts providing assistance to a SIB.

5.4.1.1. At least one SIB member must be equal to or senior in rank to the senior person directly involved in the mishap. Normally, the SIB president is the senior SIB member.

5.4.1.2. Select SIB members who do not have a personal interest in the investigation and who are able to act impartially. SIB members will be selected from outside the mishap wing whenever possible.

5.4.1.3. Select a SIB member qualified in safety investigation for each safety discipline involved in the mishap.

5.4.1.4. Do not assign foreign exchange officers or other foreign officers serving with the USAF as formal SIB members. This exclusion does not apply to HQ AFSC SIB representatives. Comply with provisions in standing international agreements.

5.4.1.5. ARC participation in SIBs. Convening authority may appoint Reservists/Air National Guardsmen to SIBs with the concurrence of the AFRC/National Guard Bureau (NGB). Ensure SIB duties do not create a conflict of interest with the individual's civilian occupation or interests.

5.4.1.5.1. AFRC. Air Reserve Technicians may elect to participate in either military or civilian status, as appropriate. Traditional reservists will be in a military status.

5.4.1.5.2. ANG. ANG personnel may elect to participate in either military or technician status, as appropriate.

5.4.1.6. All safety investigations involving ARC assets that are conducted by a SIB shall be permitted to have at least one member selected by the AFRC or NGB, as applicable.

5.4.2. Single Investigating Officer (SIO). Depending on the circumstances of the mishap, an individual investigator may be appointed to conduct the investigation.

5.4.3. Air Force Participation in Non-Air Force Investigations. When Air Force representation to another Service's investigation is desired, HQ AFSC will contact the MAJCOM(s) that can best meet the requirement. The MAJCOM/SE will coordinate the selection with HQ AFSC. Once HQ USAF/SED approves the nominee, HQ AFSC will provide a fund site to the MAJCOM and establish direct communication with the individual. Air Force representatives to Joint Safety Investigations should be graduates of formal Air Force safety training courses.

5.4.4. Participation in Air Force Investigations by Non-Air Force Personnel. Sometimes a mishap involves weapon systems or equipment common to another US military service or agency (FAA, NASA, etc.). In these cases personnel from the other service or agency may request to observe the Air Force investigation. HQ AFSC forwards these requests to the convening authority. Refer to AFJI 91-206 and applicable MOA/MOUs for interagency involvement. Observers are authorized to

observe SIB activities and may participate to the extent authorized by the SIB president and published guidance. An observer is not a member of the Air Force SIB. Non-DOD observers may not participate in interviews where a witness is given a promise of confidentiality or in the safety investigators' analysis. EXCEPTION: For NTSB and FAA observers, see AFJI 91-206.

5.5. Obtaining and Using Technical Assistance and Laboratory Analysis. When the investigation is beyond the expertise of the SIB/SIO, request technical assistance.

5.5.1. For all Class A and B mishaps, technical assistance and laboratory analysis will be requested through HQ AFSC IAW published convening authority procedures. For all other mishap classes, technical assistance and laboratory analysis is available through HQ AFSC. NOTE: See [Attachment 2](#) for technical assistance contact information.

5.5.2. Using Technical Experts.

5.5.2.1. Technical experts supporting an investigation are under the control and authority of the SIB president or SIO. This applies to DOD military and civilian personnel as well as contractor representatives.

5.5.2.2. Upon completion of their investigations, technical experts must provide a written report (signed paper copy and an electronic copy) detailing results of their work. A specific report format is not required, but the format in [Figure 5.1](#) is suggested.

5.5.2.3. SIB presidents and SIOs must ensure a "non-disclosure statement" on protection of privileged data is prepared ([Figure A3.7](#)) and endorsed by all non-Air Force SIB members (e.g., contractors, NTSB, FAA, etc.) offered a promise of confidentiality or provided access to privileged information. NOTE: See paragraph [3.2.5.2](#) for safety investigations where a promise of confidentiality is authorized. This memorandum is not required from Air Force civilian employees.

5.5.3. Reports from Technical Experts.

5.5.3.1. All technical experts are encouraged to summarize observations, analysis, and conclusions based solely on physical evidence and other factual information. The SIB/SIO will thoroughly review all reports from technical experts to ensure they do not contain privileged information.

5.5.3.2. Technical experts may also provide analysis and conclusions regarding privileged information (paragraph [3.2.5.5](#) and [3.3.3.5.1](#)). See [Figure A3.8](#) for the cover sheet on privileged reporting.

5.5.3.3. If conflicting reports from different technical experts or laboratories are received, include both reports in the formal report. In the investigative narrative, provide rationale explaining why one report was determined to be more applicable and why opposing views were discounted.

Figure 5.1. Suggested Technical Analysis Summary Format.

Mishap System: Type and serial number

Mishap Date:

Investigator: Name, organizational address, and phone numbers.

INTRODUCTION: Intent of the report or analysis; purpose.

BACKGROUND: Not always required. If used, a statement of the mishap scenario, limited to facts.

EVALUATION: Investigator analysis.

DETERMINATION: Investigator observations, opinions and conclusions about the analysis performed. Describe strong and weak points of analysis if appropriate. Do not include any opinion as to whether or not a particular failure contributed to or caused the mishap. (This does not preclude stating an opinion that a failure would likely create a certain condition, even if the mishap was inevitable under such a condition. For example, an opinion could be expressed that a widget failure would have caused trim to move to the full nose up position, without making the connecting statement that such a trim position would inevitably cause a crash.) If any analysis or conclusions are based on privileged information the report must be marked with privileged warning statement in [Figure A3.1](#).

5.6. Controlling Information Collected by the SIB/SIO. SIB presidents/SIOs will ensure that all information, privileged or not, collected by safety investigators, is not released outside safety channels except in accordance with this instruction or upon approval of the convening authority. The SIB president/SIO is the final point of release for all information (including electronic/digital media, photographs, etc.) from the safety investigation.

5.6.1. SIB presidents/SIOs will ensure that everyone working on their team is briefed on the restrictions. Every member of a safety investigation team that produces a formal report ([Table 6.2](#).) will sign the memorandum at [Figure 5.2](#), acknowledging the guidance and restrictions placed on information gathered during a safety investigation. The memorandum will be filed in Tab A of the formal report.

Figure 5.2. Memorandum Documenting Guidance to Investigators on Controlling Information.

1. The members, whose names and signatures appear below, of the safety team formed to investigate the mishap on (date of mishap) involving (aircraft/vehicle/equipment/etc.) have been advised by (name of board president/SIO) of the following:
 - a. This investigation is being conducted under the provisions of AFI 91-204 for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent future mishaps.
 - b. It is very important that the investigating team avoid: tainting potential witnesses for this or any subsequent investigation; contributing to speculation about mishap causes; or releasing potentially offensive images to friends and/or families of those involved in a mishap.
 - c. All information, privileged or not, collected by safety investigators, will not be released outside safety channels except in accordance with AFI 91-204 or upon approval of the convening authority. The SIB president is the final point of release for all information (including electronic/digital media, photographs, etc.) from the safety investigation.
2. We understand and acknowledge the guidelines for controlling information collected by safety investigators.

5.7. Investigative Evidence.

5.7.1. Impounding Air Force Materiel/Wreckage. ISB/SIB/SIO have inherent priorities over other activities and investigations connected to the mishap, including the right to impound Air Force property involved in the mishap. Group commanders or higher are required to act on their impoundment requests. However, safety of personnel (to include emergency response forces) and control of hazardous materials always take precedence over safety investigations, even at the risk of losing evidence. An installation commander in coordination with the ISB president or SIB president may choose to remove wreckage interfering with essential mission activities or causing a hazard at the mishap scene. Wreckage may need to be removed or destroyed to prevent interference with operations or vital civil functions. If wreckage must be moved prior to the arrival of the SIB/SIO, thoroughly document the site (photographs, video) prior to moving if time permits.

5.7.2. Life Science Evidence. This includes the physical exam, laboratory and radiological testing of survivors, personal equipment, life support equipment, medical/dental/mental health/OB/GYN/substance abuse/family advocacy charts and past histories and initial medical interviews, and other information which points to the mental and physical capability of the personnel involved in the mishap. Human remains are also evidence. The SIB medical member should be aware of where all remains are and what their status is, i.e., awaiting autopsy, return to family, etc. Consult the mortuary officer of the supporting base to determine if civil authorities have jurisdiction over human remains. The mortuary officer should have an MOA/MOU with civil authorities according to AFI 34-242, *Mortuary Affairs Program*. Safety personnel, ISB and SIB medical members shall ensure AFIP is notified and given contact information for civil authorities exercising jurisdiction over human remains when a fatal mishap occurs.

5.7.3. Witnesses. Use the following guidelines for witnesses:

5.7.3.1. Do not administer truth serums, hypnotic techniques, drugs, or polygraph tests. If a witness provides a statement while under medication, add a notation to their statement.

5.7.3.2. If a witness refuses to testify, contact the MAJCOM/JA.

5.7.3.3. Do not have witnesses testify under oath. Ensure witnesses understand that they are obliged to give honest, good faith testimony. See paragraph 3.2.5. for a discussion on the promise of confidentiality.

5.7.3.4. If a safety investigator believes Air Force personnel questioned in the investigation may be guilty of criminal misconduct, refer to paragraph 4.11.2.

5.7.3.5. Interviewing witnesses suspected of criminal misconduct. If, after suspending a safety investigation because of potential criminal acts, the convening authority decides to continue the safety investigation, safety investigators may have to interview witness(es) suspected of criminal misconduct. Contact HQ AFSC/JA if the SIB is required to interview suspected criminals.

5.7.3.6. Retaining Access to Participants. Safety investigators may need frequent access to or multiple interviews with participants in a mishap. Commanders will make all participants available to the investigation upon request of the SIB president/SIO. The SIB president/SIO will advise the commander when participants are no longer needed.

5.7.3.7. Returning Participants to Duty. Safety investigators make no determinations regarding the fitness of participants to be returned to normal duties. Commanders decide if and when participants are to be returned to duty.

5.7.3.8. Commercial Space Launch Mishap. Refrain from interviewing witnesses until the FAA/NTSB representative has arrived, unless there is a compelling reason to take the witness' statement(s) immediately.

5.7.4. Disposing of Evidence.

5.7.4.1. Operational assets. Once the investigation has recovered all necessary evidence from the asset involved in the mishap, the safety investigator will, at an appropriate time, advise the convening authority (after coordinating with the legal board if required) when the asset can be turned over to the operating unit. The legal board is responsible for operational assets given to them by the SIB. The convening authority is the final authority to release the asset to the operating unit. EXCEPTION: All wreckage from Class A space, aviation, and guided missile mishaps require a formal release from AFLSA/JACT before being released to the operating unit.

5.7.4.2. Wreckage.

5.7.4.2.1. After the SIB has gathered all necessary information from the wreckage, and there is a legal investigation, transfer custody of the wreckage to the legal board president in writing IAW AFMAN 91-22X.

5.7.4.2.2. Release wreckage not needed in support of depot, laboratory, or the legal investigation to the host installation commander in writing for storage until the wreckage is released for disposal. AFLSA/JACT is the release authority for Class A space, aviation, and guided missile mishaps. The host legal office is the release authority for all other mishaps.

5.7.4.2.3. All reasonable actions must be made to remove and properly dispose of wreckage. Special care must be given to the removal of all wreckage on private or state owned property.

5.7.4.3. Other Evidence.

5.7.4.3.1. For Class A mishaps, or when notified there will be a legal board for other mishaps, provide all non-privileged evidence (photographs, videotapes, data, documentation, and other evidence) to the legal board in writing IAW AFMAN 91-22X. The legal board will be responsible for final disposition of all materiel released to them by the SIB. For other than Class A mishaps, when there is no legal board, contact the host installation staff judge advocate for guidance on disposing of materiel that may be needed in potential claims or litigation. If there are no such requirements, reproduce enough copies for the safety report and then return the original documents and records used by the SIB to their proper custodian.

5.7.4.3.2. In the case of fatalities, the disposition of human bodies and human tissue is dependent on who has legal jurisdiction over the remains; often this may be a local civilian coroner or medical examiner. Work with Mortuary Affairs and the local JA to clarify jurisdiction and disposition of human remains.

5.8. Identifying Hazards.

5.8.1. The requirements in this section apply to all Class A and B mishaps. These same requirements can be applied to other occurrences if desired.

5.8.2. Identify and document hazards that played a role in the mishap sequence. Hazards are defined as "any real or potential condition that can cause injury or occupational illness to personnel; damage to or loss of a system, equipment or property; or damage to the environment." Determine whether individuals or management addressed these hazards during preparation and execution of the mishap sequence.

5.9. Determining and Documenting Findings.

5.9.1. Findings are based on the weight of evidence, professional knowledge, and good judgment.

5.9.2. Each finding is a single event or condition. Each finding is an essential step in the mishap sequence, but each finding is not necessarily causal. Do not include any more information than is necessary to explain the event.

5.9.3. Each finding must have a logical connection to preceding findings. If no logical relationship exists, the sequence of the mishap has not been correctly described.

5.9.4. Ensure critical events required to sustain the mishap sequence have not been omitted. Conversely, do not include events interesting to the reader, but not necessary to sustain the mishap sequence.

5.9.5. In some cases the sequence begins long before the actual mishap sequence with such things as design problems, improperly written directives, or an inadequate training program.

5.9.6. Ensure the sequence continues to the point where all damage or injury has occurred and the initial rescue or recovery actions are completed.

5.9.7. Include injuries occurring in the mishap, at the appropriate chronological point in the event sequence. For example, insert ejection injury events occurring before the aircraft-ground impact finding at the proper chronological point. Injuries or fatalities suffered by persons on the ground following a crash would be at the end of the main sequence, (e.g., "the Range Safety Officer successfully initi-

ated the self-destruct sequence; debris from the launch booster crashed into a fishing boat, fatally injuring two people" or "the pilot ejected successfully; the aircraft crashed in a parking lot adjacent to the runway, fatally injuring two persons").

5.9.8. Findings are arranged in chronological order. Number the findings consecutively. Precede each number with the word "Finding" (e.g., Finding 1, Finding 2, etc.).

5.9.9. Write findings as full sentences, not bullet points. Use past tense, since the events occurred in the past. (Example: Incorrect – Crew chief clears pilot from chocks and the pilot taxis to runway. Correct – The crew chief cleared the pilot from the chocks and the pilot taxied to the runway.)

5.9.10. When the safety investigator cannot pinpoint a correctable event in a sequence, list as much of the sequence as can be supported and insert a statement relating to the undetermined area. If there are supportable alternatives identify them as such and list them. Show them as subordinate to the applicable finding by using a format such as "event X most likely occurred due to one or more of the following reasons."

5.9.10.1. The reasons should be listed from most probable to least probable.

5.9.10.2. Do not list all of the possible alternatives that could have existed merely because they cannot be eliminated. Place this sort of conjecture in the analysis and narrative.

5.9.11. Do not include people's names, names of Air Force bases or companies in the findings. Use terms as "the aircraft," "the flight lead," "the wingman," "the F-16 pilot," "the pilot," "the crew," "the instructor loadmaster," "the evaluator boom operator," or "the crewchief." NOTE: Do not use the term mishap in front of the object, i.e., mishap aircraft, mishap pilot, mishap crewchief. Be specific, but do not include supporting evidence in the findings. The report narrative includes supporting evidence and conclusions.

5.9.12. Findings shall not include new materiel not addressed in the narrative. If the finding is not identifiable in the narrative, you have not written the narrative completely.

5.9.13. After developing the findings, apply the following "Findings Test" for validation:

5.9.13.1. Is the Finding necessary to sustain the mishap sequence?

5.9.13.2. Is the Finding a single event or condition?

5.9.13.3. Is the Finding specific enough without including supporting evidence?

5.9.13.4. Does the Finding logically connect to the preceding finding? Read the last finding; ask "why"? Does the finding above answer the "why"? Continue for each finding.

5.9.13.5. Is the Finding relevant or simply interesting to the reader?

5.10. Determining and Documenting Causes.

5.10.1. A cause is a deficiency, which if corrected, eliminated, or avoided, would likely have prevented or mitigated the mishap damage or significant injury. Cause does not imply blame. The intent is to identify the point where corrective action is needed.

5.10.2. Findings that sustained the mishap sequence, but were normal to the situation as it developed are not causal. In most instances a causal finding is correctable by commanders, supervisors, or individuals.

5.10.3. Apply the reasonable person concept when determining a cause. If a person's performance or judgment was reasonable considering the mishap circumstances, do not assign cause. It is not appropriate to expect extraordinary or uniquely superior performance in such cases. Human factors (physiological or psychological) may be causal even though they are reasonable. These are often the unavoidable effects of a preceding cause.

5.10.4. Do not list a party as causal for not taking an action unless they should reasonably have been expected to take such action, but they did not. Similar rationale applies to lack of a system or procedure. Do not list failure to provide a system or procedure as causal unless a party should reasonably have been expected to do so given the information available prior to the mishap.

5.10.5. Not every finding is causal. Some are effects or the expected result of a previously identified cause even though their inclusion sustains the sequence leading to the mishap. An engine flameout precipitated by a fuel boost pump failure is the expected result of the boost pump failure and is not causal. The boost pump failure may have been a result of an even earlier cause such as a bearing failure.

5.10.6. Environmental conditions such as a bird strike, lightning, high wind, solar wind, meteorites, or flood, may be causal only if all reasonable avoidance and damage/injury mitigation actions were taken.

5.10.7. An individual, group or organization is virtually always responsible for a failure. Publications or objects should almost never be found causal. Rather, the party responsible for ensuring the publications are correct or the party responsible for ensuring an object does not fail with catastrophic consequences is causal, unless the party took all reasonably expected actions. In such cases, there may be process or organizational failures, and appropriate parties may be identified as responsible for these failures.

5.10.7.1. The intent of identifying causal parties in an investigation is to identify the point where corrective action is needed, not to place blame. As such, safety investigators need to ensure they identify the correct causal agent. This can be done by asking "Why" something occurred until the investigator comes to a "dead end."

5.10.8. Occasionally, an investigator may not be able to conclusively determine a specific causal event. In these special cases, the investigator may choose to list two or three most probable causes for each option. In rare instances the causal event may be unknown.

5.10.9. Causal findings should always be worded in active voice, clearly identifying the actor(s) and causal action (deficiency), along with any necessary explanation. Examples: Passive – No safety pins were installed in the widget. Active – The crew chief failed to install safety pins in the widget as required by tech orders. Passive – Mission planning did not cover en-route obstacles. Active – The crew failed to address en-route obstacles in mission planning as required.

5.10.10. Identify causal findings by adding the word "CAUSE" to the beginning of the finding statement. Do not list causes under a separate heading. Word a causal finding as a clear and simple statement of a single condition or event.

5.10.11. Causal findings should identify the causal agent ("Who") and the action taken ("What"). Why the action (or lack of action) occurred should be fully explained in the narrative and may be included in the causal finding if appropriate.

5.10.12. After determining the causal findings, apply the following "Cause Test" for validation:

- 5.10.12.1. Is the Causal Finding correctable by commanders, supervisors or individuals?
- 5.10.12.2. Is the Causal Finding a clear and simple statement of a single condition or event?
- 5.10.12.3. Is the Causal Finding in the active voice and does it follow the format: Who did what to whom/what and why?
- 5.10.12.4. If the Causal Finding is an effect or an expected result of a previously identified cause, even though its inclusion sustains the mishap sequence, it is not causal.

5.11. Determining and Documenting Recommendations.

5.11.1. Recommendations are feasible and effective solutions to eliminate identified hazards, or if the hazard cannot be eliminated, to mitigate the hazard's potential consequences. With few exceptions, all safety investigations (including Class E reports) should include recommendations to prevent or mitigate future mishaps. If no recommendations are made, investigators will explain their rationale in the report narrative.

5.11.2. Developing feasible and effective recommendations is a methodical process, which seeks to identify risk mitigation alternatives. It is essential to know precisely what deficiency, or identified hazard, one is addressing and to stay focused on it.

5.11.3. Developing sound recommendations also requires recognition of the "order of precedence" concept, which recognizes that not all risk mitigation alternatives are equal. Design fixes are the most preferable solution because they can often completely eliminate the hazard, but these types of fixes often have the highest upfront costs. They may require unacceptable operational constraints so additional alternatives must be considered. Along with design fixes, one should look for potential fixes that incorporate safety and warning devices. Lastly, look at changes to procedures and training.

5.11.4. All recommendations should target one or more of the hazards identified during the investigation. It is also sometimes prudent to make two or more recommendations against one hazard. In all cases use the order of precedence to develop risk mitigation alternatives. As an example, to eliminate or mitigate the identified hazard of "pilot's failure to command landing gear extension," which results in a gear-up landing of a training aircraft, one might consider the following:

5.11.4.1. Design: Implement a fixed gear.

5.11.4.2. Incorporate Safety Devices: Implement an auto-extend system.

5.11.4.3. Provide Warning Devices: Implement cockpit warning lights, warning tone or voice.

5.11.4.4. Develop Training and Procedures: Improve the written checklist, or its use via training with instructors and in simulators.

5.11.5. Based upon the specific information discovered during the investigation, selected alternatives should be formulated into feasible and effective recommendations and other alternatives discarded. The purpose of using the 'order of precedence' is to ensure investigations consider the entire range of available options and not just the cheap and easy ones – which usually have the least mishap prevention value.

5.11.6. A great deal of debate usually surrounds what is feasible and effective. Sometimes a risk mitigation alternative is technically feasible and effective, but it is clearly not economically feasible or has unacceptable mission consequences. In this case, discard the alternative. In other cases it may not

be clear that an alternative is either technically feasible or economically feasible. In these cases, include a recommendation for formal evaluation.

5.11.7. Most causal findings should have recommendations for future prevention or mitigation, although exceptions are permitted. Likewise, findings that are not causal may also have recommendations written against them.

5.11.8. Recommendations may also vary in scope. Some actions can be taken at unit level. Other recommendations require MAJCOM or other agency actions.

5.11.9. If a recommendation depends on tests or analyses that are incomplete when the report is transmitted, explain this and provide a reference to the tests or analyses (such as deficiency report, study, or contract number).

5.11.10. Recommendations should require the action agency to correct a deficiency rather than to implement a particular solution. The action agency normally has greater expertise than the investigators and should be given the opportunity to develop the optimal solution for a problem. The following examples illustrate this point: Poor – Move the right engine fire pushbutton to the right side of the cockpit. Better – Implement changes to the engine fire pushbuttons to help preclude engine shutdown errors.

5.11.11. Avoid recommendations that only require a study or evaluation. Action should be required based upon results of any recommended study. In most cases, it is not necessary to recommend a study or evaluation, since studies or evaluations are implicit in the process. The recommendation can simply require corrective action. Examples: Poor – Evaluate the feasibility of changes to the anti-lock system. Better – Implement changes to the anti-lock system to prevent loss of feedback.

5.11.12. General, vague, sweeping, or open-ended recommendations that cannot be closed by the action agency are not appropriate. Write recommendations that have a definitive closing action.

5.11.13. Do not recommend briefing personnel on the mishap. Such a briefing is a basic commander responsibility and a normal function of safety offices at all levels of command.

5.11.14. Do not recommend reminding personnel of the importance of simply doing their jobs properly. However, recommendations to place CAUTIONS and WARNINGS in TOs guidance relating the adverse consequences of not doing one's job properly may be appropriate. Recommendations for specific action such as refresher training, implementing in-process inspections, etc., to ensure job duties are being properly performed, may also be appropriate since they are specific and can be closed.

5.11.15. Number recommendations consecutively and precede each number by the word "Recommendation." (e.g., Recommendation 1, Recommendation 2, etc.). Include only one statement for each recommendation. Rather than sub-grouping recommendations (e.g., 1a, 1b, 1c, etc.) use a new recommendation number.

5.11.16. Recommendations to Change Publications.

5.11.16.1. Recommendations may be made to change publications, technical orders, flight manuals, or checklists. Submit AF Form 847, *Recommendation for Change of Publication* (flight publications), according to AFI 11-215, *Flight Manuals Program*. Submit AFTO Form 22, *Technical Manual Change Recommendation and Reply*, according to TO 00-5-1, *Air Force Technical Order System*. Utilize local base support personnel (Stan Eval and/or QA) for assistance in completing

the forms. If the proposed change is time sensitive, use the emergency critical safety hazard message format in AFI 11-215 or the emergency report format in TO 00-5-1.

5.11.16.2. Obtain tracking number from MAJCOM Stan Eval for AF Forms 847 and unit QA for AFTO Forms 22. Place the tracking number, the mishap event number, and the mishap's AFSAS number (if mishap is reported via AFSAS) on submitted Forms 847 or 22, to ensure these recommendations receive the appropriate levels of review. Also, place the tracking number after corresponding recommendation in the final message/report. Submit completed forms to the MAJCOM Stan Eval or LG Command Control Point (CCP), as applicable after the investigation is complete (paragraph 6.5.).

5.11.16.3. In all cases, protect privileged safety information by sanitizing (paragraph 3.3.1.) the "reason for recommended change" section of AFTO Form 22 or AF Form 847. The SIB/SIO will place copies of the submitted forms in the applicable formal report tab.

5.11.17. Determining the appropriate action agencies for each recommendation.

5.11.17.1. Assign action agencies for all recommendations. An office of primary responsibility (OPR) is required for every recommendation. Although an office of collateral responsibility (OCR) is not required, they are appropriate for many recommendations. List only one OPR per recommendation. More than one OCR may be listed for an individual recommendation. Limit OPR and OCR assignment to two or three-digit organizational levels to ensure proper management level attention.

5.11.17.2. Assign OPRs and OCRs based upon the lead command and user command philosophy. The Air Force assigns responsibility for overall management of each system to a "lead command" to ensure that all requirements associated with every system receive comprehensive and equitable consideration. This lead command provides primary input into the process of developing and maintaining a force structure with a balance of complementary capabilities, and it establishes a basis for rational allocation of scarce resources among competing requirements. See AFPD 10-9, for more information.

5.11.17.3. Normally, if a recommendation requires funding to effect changes to a weapon system (e.g., performing risk analyses or engineering studies, developing aircraft or component modifications, obtaining new test or support equipment, etc.), assign the appropriate office for the mishap weapon system, within the lead command as OPR. If the lead command only provides funds for the effort and another organization is responsible for performing or managing the work, assign these organizations as OCRs. For example: Implement changes to the B-1 to reduce the probability of encountering "hot brake" temperatures. OPR: ACC/DRA OCR: OC-ALC/LAB. In this example ACC/DRA is assigned as OPR because, as the appropriate office in the lead command, they would be responsible to arrange for the funding required to effect changes to the aircraft. Assuming that funding is provided, the B-1 system program office at OC-ALC/LAB is assigned as OCR since they would either perform the required work in-house or manage the contracted effort.

5.11.17.4. Not all funding comes from the lead command. Sometimes it is possible for a system program office, item management office, laboratory or other organization to fund efforts through separate budgets. If a recommendation does not require funding from the lead command to effect changes to a weapon system (e.g., performing risk analyses or engineering studies, developing and obtaining preferred spares, developing inspection techniques and procedures, simple modifica-

tions and testing of software in conjunction with scheduled updates, limited flight and ground testing, etc.), assign the appropriate office that has the funding as OPR. Assign OCRs as required.

5.11.17.5. Although changes to training programs, training equipment, and publishing new or changed paper documents (e.g., Air Force Policy Directives, Air Force Instructions, flight manuals, technical orders, etc.), require funding, assign the organization responsible for controlling the content of these products as OPR. Assign OCRs as required.

5.11.17.6. Sometimes the responsibility for a recommendation lies outside the Air Force (e.g., the FAA for various air traffic control issues). Since the Air Force may not have the authority to task such agencies to perform recommended actions, do not assign non-Air Force agencies as OPRs or OCRs. In these cases, write the recommendation as an Air Force action and assign the appropriate Air Force organization as OPR. This Air Force organization is typically responsible for interaction with or contractual oversight of the outside agency and will ensure proper recommendation evaluation and disposition. Assign OCRs as required.

5.11.17.7. Field Operating Agencies (FOA) normally accomplish Air Force-level actions, not the Air Staff itself. Therefore, assign the appropriate Field Operating Agencies as OPRs and OCRs, not the Air Staff. For example, air traffic issues are managed by the Air Force Flight Standards Agency (AFFSA), not the Deputy Chief of Staff for Air and Space Operations (HQ USAF/XO). Similarly, Air Force Civil Engineer Support Agency (AFCESA) is the manager for civil engineering issues in the Air Force.

5.11.17.8. Coordinate all recommendations with their proposed action agencies. Safety investigators must ensure they have correctly identified all OPRs and OCRs by making positive contact with each of them (call or email them) prior to publishing the formal report and/or final message. If circumstances prevent making positive contact with all action agencies, coordinate with the convening authority safety office to ensure proper action agencies have been identified.

5.12. Determining and Documenting Other Findings and Recommendations of Significance (OFS, ORS). Guidance for developing and documenting primary findings and recommendations applies similarly to OFSs and ORSs.

5.12.1. Other Findings of Significance (OFS) are findings that the safety investigators believe could contribute to future mishaps and/or which warrant command attention, but were not part of the mishap sequence. OFS should be listed following the mishap recommendations in message and formal reports.

5.12.2. Other Recommendations of Significance (ORS) are recommendations resulting from OFS. Each OFS will be followed by its corresponding ORS. Assign an OPR(s) to each ORS.

5.13. Releasing Investigative Information. It is Air Force policy to keep the public informed of Air Force mishaps and safety investigations and to release non-privileged information, both favorable and unfavorable. Air Force policy complies with the requirements of Title 10, United States Code, Section 2254(b) regarding the public disclosure of certain non-privileged aircraft accident investigation information. The SIB president is the final point of release for all information (including electronic/digital media, photographs, etc) from the SIB, but will not communicate directly with the media or other members of the public. The release of non-privileged information to news media, relatives, and other agencies is through

the AIB president, Survivor Assistance Program point of contact, Family Liaison Officer, or Public Affairs representative as appropriate.

5.13.1. The convening authority or designated information officer releases factual information about a mishap, including photographs, only as directed in AFPD 35-1, *Public Affairs Management*, and AFI 51-503. Federal statute does not permit officials involved in the safety investigation to be the officials releasing the information to the media or other members of the public.

5.13.2. The AIB, in accordance with AFI 51-503, can release factual mishap information upon request. If an AIB is not formed, the local commander, through the public affairs or legal office, will release factual information. Information will not be released if it will jeopardize national defense, impede an ongoing or pending investigation (including the SIB or AIB), or if it is privileged safety information. The SIB president will coordinate with the AIB president as to whether the release of information will impede the SIB's investigation.

5.13.3. Following mishaps where AFI 51-503 does not apply (nuclear, explosives and chemical agents, directed energy, afloat, motor vehicle, off-duty, ground and industrial) the convening authority through the public affairs or legal office may release factual information. Information will not be released if it will jeopardize national defense, impede an ongoing or pending investigation (including the SIB or legal investigation) or if it is privileged safety information. The SIB president will coordinate with the legal board president as to whether the release of information will impede the SIB's investigation.

5.14. Coordinating with the Legal Board.

5.14.1. The SIB president provides Part 1 of the formal report and certain factual information to the legal board president as soon as possible (prior to completion of the investigation). See discipline specific safety manual for further guidance.

5.14.2. Persons occupying full-time safety positions routinely examine privileged documents. They are not permitted to serve on legal investigations as long as they are performing full-time safety duties. Legal investigators will not attend SIB/SIO proceedings, or meetings, or have access to or discuss any Part 2 privileged information with the SIB/SIO or Air Force safety officials. This prohibition also applies to the briefing given to the convening authority on the safety investigation results.

5.14.3. ISB/SIB/SIO members will not be witnesses for other boards investigating the same mishap except to provide Part 1 factual information or to provide purely factual information within their knowledge that is not otherwise available.

5.14.4. ISB/SIB/SIO members and technical advisors will not act as investigators or technical advisors for a legal investigation of the same mishap.

Chapter 6

REPORTS AND BRIEFINGS

6.1. General Information. Safety reports include message reports (preliminary, status, and final), formal reports, and injury and occupational illness forms and logs. Whenever possible safety reporting will be via the Air Force Safety Automated System (AFSAS). Use the following URL for AFSAS:

<https://sas.kirtland.af.mil/>. If AFSAS is not available, safety reporting will be via DMS IAW the discipline specific safety manual (AFMAN 91-22X). The type of safety report required and the timeline to report mishaps and brief the convening authority (if a briefing is required) is in **Table 6.2**. Briefing investigation results is covered in paragraph **6.4**. The convening authority will determine what investigations can be briefed to the NAF/CC and COMAFFOR (paragraph **6.4.1**.) and what investigations will be briefed to the convening authority. Aviation mishaps involving fatalities or other mishaps when requested, require a briefing to the CSAF and SECAF. HQ AF/SEI will be the focal point for scheduling all briefings to the CSAF and SECAF. If a final message or formal report needs to be changed after it is completed, all primary SIB members must reconvene as only the primary SIB members are authorized to change the report. The discipline specific safety manuals (AFMAN 91-22X) provide guidance on primary SIB members.

6.1.1. Report classified mishap information (the classified portion of safety reports) via DMS. Report the unclassified portion of the report into AFSAS with classified data masked.

6.1.2. The mishap event number is vital to tracking safety reports and serves as the single common worldwide identifier. The mishap event number and the mishap's AFSAS number (if mishap is reported via AFSAS) will be included on all safety reports and referred to in all related correspondence, and DRs. Consult the discipline specific safety manual (AFMAN 91-22X) for guidance on determining the mishap event number.

6.2. Safety Message Reports. These safety reports are licensed as a part of the "Mishap Message Reports" group (RCS: HAF-SE(AR)9402). Produce safety messages during declared or war emergency conditions (emergency status code C2) IAW AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*.

6.2.1. Guidelines

6.2.1.1. Messages will be marked with appropriate privileged markings IAW paragraph **3.2.6**.

6.2.1.2. **Table 6.2** and the discipline specific safety manual (AFMAN 91-22X) provides message reporting requirements.

6.2.1.3. Message Reports During MINIMIZE. During emergency condition MINIMIZE, send only the following messages by electronic transmission:

6.2.1.3.1. Preliminary and status messages on nuclear mishaps and safety deficiencies resulting in a significant degradation of nuclear surety or having a serious operational impact (such as a possible code compromise).

6.2.1.3.2. Preliminary and status messages on Class A and B on-duty mishaps.

6.2.1.3.3. Send all other messages by first-class mail within 7 working days of the established timeline until MINIMIZE is canceled. MAJCOMs may consolidate messages from their units and subsequently mail them to addressees outside their command within 15 working days.

6.2.2. Preliminary Message. The first electronically transmitted safety message advising of a non-nuclear occurrence is titled Preliminary Message (NOTE: OPREP-3 Reports do not satisfy this requirement). Preliminary messages are fully releasable (factual information only).

6.2.3. Status Messages: Status messages are sent to explain report delays/extensions and relay new information discovered since the previous message. Status messages may include investigative conclusions such as what areas are considered to be factors and areas considered unlikely to be factors. If the status message is explaining a safety report delay/extension, explain the reason for the delay and the expected completion date. Safety investigators may send status messages as they deem necessary. Required status messages are listed in **Table 6.2**. Status messages are normally privileged.

6.2.3.1. The convening authority's safety staff will closely follow mishaps that have damage estimates close to the threshold limits or injuries/occupational illnesses that have the potential for improving or worsening.

6.2.3.2. A status message is required when a mishap class or category changes, e.g., due to updated damage cost figures, a subsequent death from mishap injuries, or erroneous initial categorization.

6.2.3.2.1. When a mishap classification increases, issue a status message within 1 day.

6.2.3.2.2. When a mishap classification decreases, issue a status message within 10 days.

6.2.4. Final Message. This message provides a narrative of the mishap/event sequence, states the mishap cause, and recommends preventive actions. It contains the investigation, analysis, and conclusions of the safety investigator. It is written so the reader clearly understands how the findings and causes were determined and clearly states the role of the individuals found causal in the mishap sequence. Include logic in how the recommendations were chosen as well as OPR/OCRs for the recommendations. The message may also include other findings and recommendations of significance, which do not relate directly to the causes of the mishap, but can be of value in risk management and mishap prevention. The final message is privileged. Complete the investigation and prepare the final message within the specified time limits in **Table 6.2**. The convening authority will release the final message after the investigation is complete (paragraph 6.5.). The convening authority may delegate this responsibility to the SIB/SIO. DO NOT delay release of the final message for internal command staffing.

6.3. Formal Reports. Formal reports present detailed factual and analytical information about mishaps. They are made up of Air Force Form 711-series forms and attached exhibits. All forms in the Air Force Form 711-series are licensed as "Safety Investigation Reports" (RCS: HAF-SE(AR) 9404). Formal reports will be released during declared or war emergency conditions (emergency status code C2) IAW AFI 33-324.

6.3.1. Privileged formal reports contain two parts: Part 1, Factual Information and Releasable Material; and Part 2, Board Conclusions and Non-Releasable Material. There may also be some supplemental information such as Comments Messages for MOFE, the MOFE, and any other significant information that was received after the MOFE is released. Part 1 contains factual information that may be disclosed outside the Air Force; Part 2 contains privileged safety information and will not be dis-

closed outside Air Force safety channels. **Table 6.1.** contains tab designations of Part 1 and Part 2. Tab E is reserved as a discipline specific Tab; see discipline specific safety manual (AFMAN 91-22X).

Table 6.1. USAF Mishap Report Tabs.

TAB	USAF SAFETY REPORT
	Part 1 – Factual Information and Releasable Material
A	Distribution Memorandum and Safety Investigator Information
B	USAF Mishap Report (Air Force Form 711B)
C	Preliminary Message Report
D	Maintenance Report, Records, and Data
E	Reserved (See discipline specific safety manual (AFMAN 91-22X))
F	Weather and Environmental Records and Data
G	Personnel Records
H	Egress, Impact, and Crashworthiness Analysis
I	Deficiency Reports
J	Releasable Technical Reports and Engineering Evaluations
K	Mission Records and Data
L	Data From On-Board Recorders
M	Data From Ground Radar and Other Sources
N	Transcripts of Voice Communications
O	Any Additional Substantiating Data and Reports
P	Damage and Injury Summaries
Q	Legal Board Transfer Documents
R	Releasable Witness Testimony
S	Releasable Photographs, Videos, and Diagrams
	Part 2 – Board Conclusions and Non-Releasable Material
T	Investigation, Analysis, and Conclusions
U	Witness Testimony Provided Under a Promise of Confidentiality
V	Other Supporting Privileged Products
W	Technical Reports and Engineering Evaluations Provided Under a Promise of Confidentiality
X	Privileged Photographs, Videos, and Diagrams
Y	Life Sciences and Medical Reports
Z	SIB Final Products

6.3.2. MAJCOMs or HQ AFSC may direct preparation of a formal report for any mishap, even under circumstances where this instruction does not specifically require one.

6.3.3. Formal reports will be formatted and assembled IAW with the discipline specific safety manual AFMAN 91-22X.

6.3.4. Distributing the Formal Report

6.3.4.1. The convening authority will distribute privileged formal reports to those in the Air Force with a need to know. Distribute the formal report to addressees as listed in the discipline specific safety manual (AFMAN 91-22X). If there is a requirement to brief the convening authority, do not distribute the formal report prior to that briefing. Do not provide copies or extracts to agencies outside the Air Force. If an agency outside the Air Force needs a copy of the formal report for mishap prevention, corrective actions, or other purpose, notify HQ AFSC/JA by message or telephone before sending copies to these organizations.

6.3.4.2. Do not produce "information only" copies of formal reports.

6.3.4.3. The SIB president may keep a complete copy of the formal report (for briefing purposes) for 60 days. List this copy on the distribution memorandum and return it to the MAJCOM safety office for disposition.

6.3.4.4. Formal reports will be maintained IAW AFMAN 37-123, *Management of Records* and disposed of IAW Air Force Records Disposition Schedule (RDS) located at <https://webrims.amc.af.mil>.

6.4. Briefing Investigation Results. Once the SIB completes the investigation and finalizes the formal report and the final message, the SIB will provide briefings at the discretion of the convening authority. All briefings will be given with no prior screening of content. Board independence is critical to the integrity of the SIB process. Historically, SIB independence is a Congressional interest item, periodically reviewed by GAO and DOD/IG. The convening authority will dictate briefing attendance.

6.4.1. When the MAJCOM is the convening authority and with MAJCOM/CC approval, the SIB may brief the NAF/CC (or equivalent such as the Air Warfare Center Commander) and the affected COMAFFOR for a contingency mishap, for INFORMATIONAL PURPOSES ONLY, prior to briefing the MAJCOM/CC. All other briefings or disclosures of the report content, are prohibited.

6.4.1.1. The NAF/CC (and COMAFFOR) and those invited per this instruction to the informational briefing will not direct changes to the SIB report or direct further investigation. The briefing must be free from the appearance of undue command influence that advice and directions can sometimes create.

6.4.1.2. Except as noted below, the only personnel authorized to attend the informational NAF/CC briefing are the NAF/CC, and with NAF/CC concurrence, the NAF/SE and the mishap wing commander. In the case of an ANG mishap, in addition to the above authorized attendees, the Director of the Air National Guard, and the mishap units's state Adjutant General may attend. In the case of an AFRC mishap, in addition to the above authorized attendees, the mishap AFRC NAF/CC may attend. For COMAFFOR information briefings, authorized attendees are the COMAFFOR, and with COMAFFOR concurrence, the AFFOR/SE, and the mishap air expeditionary wing commander.

6.4.1.3. In instances where the convening authority has been delegated, there will be no intermediate or informational briefings prior to briefing the convening authority.

6.4.2. Safety investigation briefings will be afforded the same protection given the formal report. The following format is a guide to building the briefing:

- 6.4.2.1. Title Slide. Include mishap type, unit, vehicle or materiel, date, time of occurrence, and SIB president.
- 6.4.2.2. SIB Composition. Show SIB members as well as technical experts consulted and used at the mishap scene.
- 6.4.2.3. Overview. In bullet format present the basic circumstances of the mishap and give the bottom line cause(s) of the mishap.
- 6.4.2.4. Personnel Background. Give a chronological list of assignments for personnel involved and their experience. Include skill and training qualifications. List the member's name on the slide. Consider a subjective appraisal of the personnel if appropriate.
- 6.4.2.5. Mishap Sequence. Use as many slides as necessary. Map/route segments, vertical view of maneuvers, artist's conceptions, or models can be helpful. Explain what should have happened if things had gone right, who was in charge, the rules of engagement and if they were followed, where things went wrong and what the involved persons should have done.
- 6.4.2.6. Areas Investigated and Determined Not To Be a Factor. Do not dwell on these. A listing is usually adequate.
- 6.4.2.7. Areas Found To Be Factors in the Mishap. Discuss each in detail in follow-up slides. Be sure to discuss training, supervision, discipline, tactics, and weather, as appropriate.
- 6.4.2.8. Findings and Causes. Use the number of slides necessary without overcrowding.
- 6.4.2.9. Conclusions and Recommendations. Use the number of slides necessary without overcrowding.
- 6.4.2.10. Other Findings and Recommendations of Significance. Number sequentially. Place "Other Finding of Significance One" followed by "Other Recommendation of Significance One."
- 6.4.2.11. Comments. Convening authority comments.
- 6.4.2.12. Backup slides as determined by the SIB president. May include:
 - 6.4.2.12.1. 72-Hour and 14-Day Medical History. Be prepared to brief the 72-hour and 14-day history.
 - 6.4.2.12.2. Maintenance History on Aircraft or Vehicle. Include significant write-ups, Time Compliance Technical Orders (TCTO), and materiel problems.
 - 6.4.2.12.3. Any other pertinent information that supports the findings, conclusions, and recommendations.

Table 6.2. Reporting and Briefing Schedule.

If mishap/event is a:	Then submit/brief:	Not later than:
Class A, B, or other investigation requiring a formal report	Preliminary Message	8 hours post-mishap
	Status Message	10 days post-mishap
	Convening authority briefing (if required)	45 days post-mishap -OR- 15 days after completing investigation if an extension was approved
	Final Message	3 days after convening authority briefing -OR- 30 days post mishap if no briefing to convening authority (NOTE 1)
	Formal Report	3 days after convening authority briefing -OR- 30 days post mishap if no briefing to convening authority (NOTES 1 and 3)
	Comments Message for MOFE	30 days after transmittal of Final Message
Class C	Preliminary Message	72 hours post-mishap (NOTE 2)
	Final Message	30 days post-mishap (NOTE 1)
Class D		(NOTE 2)
Class E	Final Message	30 days post-event (NOTES 1 and 2)

NOTES:

1. If the investigation will not be complete (paragraph 6.5.) within the 30-day timeframe, transmit a status message on day 30 and every 30 days until the investigation is complete. Include estimated date of investigation completion.
2. See discipline specific safety manual (AFMAN 91-22X).
3. Class A and B off-duty military mishaps normally do not require a formal report. See AFMAN 91-224 for additional guidance.

6.5. Convening Authority Actions. The convening authority has two options upon the completion of an investigation. The investigation is considered complete when the final message, formal report (if required), and briefing to the convening authority (if required) are accomplished.

6.5.1. Accept the report as written and release the final message and formal report (if a formal report was required). DO NOT delay release of the final message or formal report for internal command staffing.

6.5.2. Direct the SIB president and its members to conduct additional investigations. The convening authority will provide additional guidance to the SIB to ensure the report fulfills the purpose, intent, and requirements of the Air Force Mishap Prevention Program.

6.5.2.1. After the SIB re-examines the areas identified by the convening authority and completes their reinvestigation, the convening authority will have the same two options outlined above. Once this sequence is completed, the convening authority will release the final message. DO NOT delay release of the final message or formal report for internal command staffing.

6.6. Notifying Person(s) Found Causal in Formal Reports. When a formal report mentions a USAF individual (military member or civilian employee) as causal in the findings, that individual (i.e., causal individual) will be given an opportunity to submit a witness statement commenting on the findings. This statement is in addition to any other witness statements or testimony provided by the individual. The statement is considered privileged safety information and will be handled and protected IAW this instruction. Use the guidelines below to notify causal individuals and forward their comments:

6.6.1. Use the memorandum in **Figure 6.1.** to notify the causal individual(s).

6.6.2. Once the convening authority accepts the formal report and releases the final message, the convening authority will send a copy of the memorandum to the mishap unit safety office. Individuals must not be notified until after the SIB out briefs the convening authority and the final message is released. The mishap unit (wing or equivalent) Chief of Safety will notify the causal individual(s).

6.6.3. The causal individual(s) may use only the final message to make additional comments. The individual(s) will not be allowed access to the formal report. The individual(s) may not remove the final message from the safety office nor copy portions of any of the safety reports pertaining to the mishap naming that individual causal.

6.6.4. The individual(s) has 15 days to submit the statement back to the mishap unit (wing or equivalent) safety office. The individual(s) must submit a statement, though the statement may simply acknowledge the opportunity to comment and decline to do so.

6.6.5. The unit (wing or equivalent) Chief of Safety will forward any statements to the convening authority SE and a copy to HQ AFSC for use in preparation of the MOFE.

6.6.6. If the causal individual is attached or assigned to another MAJCOM, the convening authority sends a copy of the final message and the memorandum in **Figure 6.1.** to the person's immediate commander with a cover memorandum. Provide information copies to the individual's MAJCOM/SE. The cover memorandum should caution the commander against taking any disciplinary or other adverse action based upon the safety investigation and instruct the commander to:

6.6.6.1. Notify the person of their opportunity to review relevant findings and to provide a witness statement within 15 days.

6.6.6.2. After obtaining causal individual's statement forward it HQ AFSC with a copy to the convening authority.

6.6.7. Notifying Non-Air Force Military Personnel and Civilians Outside Air Force Jurisdiction. Non-Air Force personnel are not offered the opportunity to review Air Force safety investigation messages or formal reports, nor to submit witness statements in these cases. This includes Air Force personnel serving outside the Air Force, such as with the Defense Logistics Agency or NATO. EXCEPTION: Those Non-Air Force personnel assigned to fly Air Force aircraft and afforded safety privilege IAW paragraph 3.3.3., are authorized to submit an witness statement as long as they still meet the previously mentioned criteria.

Figure 6.1. Opportunity To Submit Additional Comments.

MEMORANDUM FOR (Individual's Rank and Name)

FROM: (Rank and Name), SIB President

SUBJ: Opportunity to Submit Additional Comments

1. The SIB investigating the mishap involving (Aircraft Type and Tail Number), which occurred on (Date), named you in its safety investigation report.
2. A copy of the final message is available for your review at (Location). You cannot remove the message from that office nor reproduce any portion of it. The message is for official use only, and information contained therein is privileged, not releasable in whole or in part to persons or agencies outside the US Air Force without the express approval of the disclosure authorities specified in AFI 91-204.
3. You are required to indorse the original of this memorandum indicating receipt and your intention to either decline commenting on the findings or provide an additional comment. If you provide an additional comment, it is privileged and becomes part of the safety investigation report. It shall be used solely to determine all factors relating to the mishap and, in the interest of mishap prevention, to preclude recurrence. Your statement will be considered by the HQ Air Force Safety Center during the mishap review process.
4. If you decide to provide a Witness Statement, deliver one signed, reproducible copy to (Location), not later than (Date).

SIB President Signature Block

1st Ind, (Convening Authority)

Receipt acknowledged.

Intention:

- a. _____ I decline commenting on the safety investigation message findings.
- b. _____ I will submit a statement commenting on the safety investigation message findings and furnish it as instructed not later than (Date-individual is given 15 days to make comments).

Signature Block of Witness

FOR OFFICIAL USE ONLY.

This contains privileged, limited-use safety information. Unauthorized use or disclosure can subject you to criminal prosecution, termination of employment, civil liability, or other adverse actions. See AFI 91-204, **Chapter 3** for restrictions. Destroy in accordance with AFMAN 37-139 when no longer needed for mishap prevention purposes.

(SAMPLE)

Chapter 7

FOLLOW-UP ACTIONS

7.1. General Information. Follow-up actions start after the release of the final message. All concerned agencies and organizations have a continuing responsibility for managing the preventive action process. Reviewing authorities for safety reports include HQ AFSC, higher levels in the chain of command (e.g., NAF/Center and MAJCOM), and action agencies outside the command. For each report, the reviewing authority is tasked to assess the final message or formal report and determine the adequacy of the overall safety report, investigation, findings, causes, and recommendations (including OPR/OCR assignments).

7.2. Review Process. Organizations will review the final message or formal report and send their response (Comments Message for MOFE, [Table 6.2.](#)) back to HQ AFSC. The following organizations review the formal report:

7.2.1. The convening authority, lead command of the weapons system (AFPD 10-9), and subordinate elements specified by the investigating MAJCOM commander.

7.2.2. Agencies with technical or logistic support responsibility.

7.2.3. Air Force agencies outside the investigating command if their functions were involved in the mishap (e.g., HQ AFFSA/XA for air traffic services and airfield management, DCMA for mishaps involving contracts managed by DCMA).

7.2.4. Each MAJCOM tasked for action in the mishap recommendations. OPRs for recommendations may include organizations both within and external to the chain of command of the mishap organization. Air component commanders of unified commands if tasked for action.

7.2.5. Air component commanders of unified commands when the mishap occurred during contingency operations. NOTE: The unified command staff offices must agree to safeguard the information according to rules contained in this instruction.

7.2.6. If during the review process the convening authority or higher authority learns facts that were not available to safety investigators or that shed new light on the published findings, causes, and recommendations, he or she may do one of the following:

7.2.6.1. Reopen the safety investigation.

7.2.6.2. Include the new facts in the Comments Message for MOFE ([Table 6.2.](#)).

7.2.6.3. Amend the final message with a status report if there is no formal report.

7.2.7. Commanders at each level must take preventive actions within their areas of responsibility. If an investigation is inadequate or poorly documented, the convening authority may return the report for additional work.

7.3. Memorandum of Final Evaluation (MOFE). At the completion of the review process, HQ AFSC will publish the MOFE. HQ AFSC prepares a MOFE on each formal report regardless of mishap class. A MOFE will also be prepared for Class A and B final message reports when the formal report is waived. Exceptions to this are detailed in discipline specific safety manuals.

7.3.1. HQ AFSC will consider inputs from the following in preparation of the MOFE:

7.3.1.1. Convening authority.

7.3.1.2. Lead command of weapons system (AFPD 10-9).

7.3.1.3. Designated action agencies.

7.3.1.4. Commander of the mishap wing.

7.3.1.5. Statements of person(s) found causal in the formal report.

7.3.1.6. Unsolicited comments. Agencies and organizations reviewing the final message report may comment on the investigation, findings, causes, and recommendations even though they are neither in the chain of command nor a designated action agency.

7.3.2. The MOFE is prepared by HQ AFSC and is an evaluation of the formal report/final message, the reviews and comments provided by the convening MAJCOM and all other inputs as listed in paragraph 7.3.1. The MOFE may make changes to the findings, causes, and recommendations (including OPR/OCR assignments).

7.3.2.1. If the MOFE adds a person to a causal finding or significantly changes a person's role in the findings, HQ AFSC will notify the individual's MAJCOM and unit safety office and will provide the individual an opportunity to submit a witness statement, following the procedures in paragraph 6.6.

7.3.3. HQ USAF/SE will transmit the MOFE to all final message report recipients. When transmitted, the MOFE becomes the official Air Force position on findings, causes, and recommendations.

7.4. Managing Recommendations Validated through the MOFE.

7.4.1. HQ USAF/SE validates recommendations in the MOFE. Once recommendations are validated and assigned in the MOFE, they become a part of the system of record keeping mandated by public law and required of each service by DODI 6055.7.

7.4.2. Recommendations are assigned to action agencies and given suspense dates. The suspense date is the date action agencies must report on completed actions or on progress toward completed actions. The action agency will give any identifying data to HQ AFSC to monitor progress of actions (paragraph 7.4.5.).

7.4.3. HQ AFSC manages the disposition of each open recommendation until final action is completed. Agencies and organizations that decline to take action on SIB or HQ USAF/SE recommendations will provide detailed rationale to HQ AFSC. AFSAS users may track open recommendations and input rationale and/or status reports directly into the system. HQ USAF/SE will determine whether to close the recommendation or leave it open for future action. If the recommendation is left open, HQ USAF/SE will provide feedback to the applicable OPRs.

7.4.4. The following are examples of acceptable updates toward closing actions:

7.4.4.1. Actions planned or taken.

7.4.4.2. Results of development or testing.

7.4.4.3. Significant problems encountered.

7.4.4.4. Delays experienced.

7.4.4.5. Rationale for decision made, to include details of supporting risk analysis.

7.4.4.6. Concurrence and non-concurrence by other agencies.

7.4.5. The following examples are acceptable closing actions:

7.4.5.1. Recommended changes to all applicable publications were issued.

7.4.5.2. Recommended modifications to all applicable systems or items were completed.

7.4.5.3. Recommended studies or evaluations were completed, conclusions were validated, and actions on all validated requirements were completed. In these cases, the OPR shall include detailed rationale, to include a risk analysis, to support their conclusions.

7.4.5.4. Recommended actions were determined not feasible due to cost, operational constraints, or programmed removal of the system or item from service.

7.4.6. Follow Up Actions for Publication Recommendations. MAJCOM/SE will brief and advocate for SIB recommendations at the flight manual and technical order review boards. For Class A and B mishaps, if recommended changes are disapproved by the flight manual or technical order review boards, MAJCOM/SE will ensure the appropriate directorate (DO/LG) is aware of the disapproval and concurs with the review board's action. Forward copies of completed changes to AFSC/SEFM for AF/SE review.

7.4.7. MAJCOM/DRU/FOA/ANG will establish a Mishap Review Panel (MRP) or equivalent process (e.g., Materiel Safety Task Group or System Safety Group) for all safety disciplines to ensure mishap recommendations are methodically addressed. The MRP or similar process will meet once every six months. A consolidated recommendation status report is due to HQ AFSC on 15 Nov and 15 May every year. The report will be compiled using data as of 30 Sep and 30 Mar each year (end of FY and end of second quarter). This report will cover all disciplines. This report is a way of ensuring these responsibilities are completed. It also advises all parties of the status of open recommendations.

7.5. Managing All Other Recommendations. HQ AFSC does not normally prepare a MOFE for Class C and D mishaps without a formal report, and Class E events. MAJCOMs will establish an internal program to effectively manage final disposition of recommendations and ORSs resulting from these mishaps and events. Class A and B ORSs will be managed IAW the discipline specific safety manual (AFMAN 91-22X). MAJCOM/SEs should notify HQ USAF/SE of Class C, D, and E recommendations/ORSs that have broad applicability. After evaluation and concurrence, HQ AFSC will manage these broad recommendation/ORSs for final disposition.

7.6. Forms.

7.6.1. Forms prescribed.

7.6.1.1. AF Form 190, *Occupational Illness/Injury Report*

7.6.1.2. AF Form 711A, *USAF Safety Report Checklist and Index.*

7.6.1.3. AF Form 711B, *USAF Mishap Report.*

7.6.1.4. AF Form 711C, *Aircraft/UAV Maintenance and Materiel Report*

7.6.1.5. AF Form 711D, *Nuclear Mishap/Incident Report.*

7.6.1.6. AF Form 739, *Injury and Occupational Illness Log for Military and Civilian Personnel.*

7.6.2. Forms adopted.

- 7.6.2.1. DD Form 250, *Material Inspection and Receiving Report*.
- 7.6.2.2. Form CA-1, *Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation*.
- 7.6.2.3. Form CA-2, *Notice of Occupational Disease and Claim for Compensation*.
- 7.6.2.4. Form CA-16, *Authorization for Examination and/or Treatment*.
- 7.6.2.5. Form LS-201, *Notice of Employee's Injury or Death*.
- 7.6.2.6. Form LS-202, *Employer's First Report of Injury or Occupational Illness*.

KENNETH W. HESS, Major General, USAF
Chief of Safety

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DODD 3150.8, *DOD Response to Radiological Accidents*

DODR 5400.7/Air Force Supplement, *DOD Freedom Of Information Act Program*

DODI 6055.7, *Accident Investigation, Reporting and Record Keeping*

DOD 6025.18-R, *DOD Health Information Privacy Regulation*

CJCSM 3150.01A, *Joint Reporting Structure General Instructions*

CJCSM 3150.03A, *Joint Reporting Structure Event and Incident Reports*

Joint Federal Travel Regulations, Volume 1, *Uniformed Service Members*

Joint Travel Regulations, Volume 2, *Department of Defense Civilian Personnel*

Air Standard 85/02A, *Investigation of Aircraft/Missile Accidents/Incidents*

NATO STANAG 3101, *Exchange of Safety Information Concerning Aircraft and Missiles*

NATO STANAG 3102, *Flight Safety Co-operation in Common Ground/Air Space*

NATO STANAG 3318, *Aeromedical Aspects of Aircraft Accident/Incident Investigation*

NATO STANAG 3531, *Safety Investigation and Reporting of Accident/Incidents Involving Military Aircraft and/or Missiles*

NATO STANAG 3750, *Reporting and Investigation of Traffic Incidents*

AFPD 10-9, *Lead Operating Command Weapon Systems Management*

AFI 10-206, *Operational Reporting*

AFI 10-220(I), *Contractor's Flight And Ground Operations*

AFI 10-601, *Mission Needs and Operational Requirements Guidance and Procedures*

AFI 10-2501, *Full Spectrum Threat Response (FSTR) Planning and Operations*

AFI 11-215, *Flight Manuals Program (FMP)*

AFI 11-401, *Flight Management*

AFI 13-202, *Overdue Aircraft*

AFI 31-401, *Information Security Program Management*

AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*

AFMAN 32-4004, *Emergency Response Operations*

AFI 33-212, *Reporting COMSEC Deviations*

AFI 33-324, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*

AFI 34-217, *Air Force Aero Club Program*
AFMAN 34-232, *Aero Club Operations*
AFI 34-242, *Mortuary Affairs Program*
AFI 34-1101, *Assistance to Survivors of Persons Killed in Air Force Aviation Mishaps and Other Incidents*
AFPD 35-1, *Public Affairs Management*
AFI 36-3002, *Casualty Services*
AFMAN 37-123, *Management of Records*
AFI 37-138, *Records Disposition-Procedures and Responsibilities*
AFMAN 37-139, *Records Disposition Schedule*
AFI 40-201, *Managing Radioactive Materials in the US Air Force*
AFI 44-120, *Drug Abuse Testing Program*
AFI 48-125, *The US Air Force Personnel Dosimetry Program*
AFI 51-503, *Aerospace Accident Investigations*
AFI 63-1201, *Assurance of Operational Safety, Suitability, & Effectiveness*
AFI 65-503, *US Air Force Cost and Planning Factors*
AFI 65-601 Volume 1, *Budget Guidance and Procedures*
AFI 65-601 Volume 2, *Budget Management for Operations*
AFPD 91-2, *Safety Programs*
AFI 91-101, *Air Force Nuclear Weapons Surety Program*
AFI 91-109, *Air Force Nuclear Reactor Program*
AFI 91-110, *Nuclear Safety Review and Launch Approval for Space or Missile Use of Radioactive Material and Nuclear Systems*
AFI 91-202, *The US Air Force Mishap Prevention Program*
AFJI 91-206, *Participation in a Military or Civil Aircraft Accident Safety Investigation*
AFPAM 91-210, *Contract Safety*
AFPAM 91-211, *USAF Guide to Aviation Safety Investigation*
AFPAM 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Techniques*
AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*
AFI 99-151, *Air-Launched Missile Analysis Group (ALMAG)*
TO 00-5-1, *AF Technical Order System*
TO 00-35D-54, *USAF Deficiency Reporting and Investigating System.*

TO 1-1-638, *Repair and Disposal of Aerospace Vehicles*

Abbreviations and Acronyms

A&AS—Advisory & Assistance

AF—Air Force

AFCESA—Air Force Civil Engineer Support Agency

AFFN—Air Force Foreign Nationals

AFFOR—Air Force Forces

AFFSA—Air Force Flight Standards Agency

AF/SE—Air Force Chief of Safety

AF/SEI—Issues Division, Office of the Chief of Safety

AFI—Air Force Instruction

AFIP—Armed Forces Institute of Pathology

AFJI—Air Force Joint Instruction

AFLSA—Air Force Legal Services Agency

AFLSA/JACT—Air Force Legal Service Agency Tort Claims and Litigation Division

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFOSH—Air Force Occupational and Environmental Safety, Fire Protection, and Health

AFOTEC—Air Force Operational Test and Evaluation Center

AFPAM—Air Force Pamphlet

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFSAS—Air Force Safety Automated System

AFSC—Air Force Safety Center or Air Force Specialty Code

AFSCN—Air Force Satellite Control Network

AFSC/JA—Assistant for Legal Matters

AFSC/SEF—Aviation Safety Division

AFSC/SEG—Ground Safety Division

AFSC/SEP—Plans and Programs Division

AFSC/SES—Space Safety Division

AFSC/SEW—Weapons Safety Division

AFSPC—Air Force Space Command

AIB—Accident Investigation Board
AIG—Addressee Indicator Group
AM—Airfield Management Personnel
AMIC—Aircraft Mishap Investigation Course (AMIC)
ANG—Air National Guard
AOR—Area of Responsibility
APU—Auxiliary Power Unit
ARC—Air Reserve Component
ATC—Air Traffic Control
BASH—Bird/Wildlife Aircraft Strike Hazard
BP—Board President
CA—Convening Authority
CC—Commander
CD-R—Compact Disk-Recordable
CDI—Commander Directed Investigation
CFR—Code of Federal Regulations
CMA—Controlled Movement Area
COMAFFOR—Commander, Air Force Forces
CONTRIB—Contributing
CONUS—Continental United States
COP—Continuation Of Pay
COS—Chief of Safety
CPO—Civilian Personnel Office
CSAF—Chief of Staff, United States Air Force
CVR—Cockpit Voice Recorder
DAACO—Drug and Abuse Control Officer
DAF—Department of the Air Force
DB—Data Base
DCG—Disaster-Control Group
DCMA—Defense Contract Management Agency
DD FORM—Department of Defense Form
DED—Directed Energy Device

DEW—Directed Energy Weapon
DMS—Defense Message System
DO—Doctor of Osteopathy
DOD—Department of Defense
DODD—Department of Defense Directive
DODI—Department of Defense Instruction
DODR—Department of Defense Regulation
DOT—Department of Transportation
DR—Deficiency Report
DRU—Direct Reporting Unit
DSN—Defense Switched Network
DTRA—Defense Threat Reduction Agency
EAG—Engineering Analysis Group
ECM—Electronic Countermeasures
ECP—Engineering Change Proposal
ENJJPT—Euro NATO Joint Jet Pilot Training Program
EPA—Environmental Protection Agency
EPAF—European Participating Air Forces
EPU—Emergency Power Unit
FA—First Aid
FAA—Federal Aviation Administration
FAA/AST—Federal Aviation Administration/Associate Administrator of Space Transportation
FAX—Facsimile Machine
FDR—Flight Data Recorder
FEBA—Forward Edge of the Battle Area
FFRDC—Federally Funded Research & Development Centers
FOA—Field Operating Agency
FOD—Foreign Object Damage
FOIA—Freedom of Information Act
FOUO—For Official Use Only
FSAT—Full Scale Aerial Target
FSNCO—Flight Safety Non Commissioned Officer

FSO—Flight Safety Officer
FT—Fatal (injury)
FY—Fiscal Year
GAO—General Accounting Office
GMV—Government Motor Vehicle
GS—General Schedule
GSA—General Services Administration
GSU—Geographically Separated Unit
GVO—Government Vehicle Other
HATR—Hazardous Air Traffic Report
HE—High Explosive
HIPPA—Health Insurance Portability and Accountability Act
HMMWV—High Mobility Multipurpose Wheeled Vehicle
HO—Historian
HRO—Human Resources Office
HQ—Headquarters
IAW—In Accordance With
ICAO—International Civil Aviation Organization
ID—Identification
IFSD—In Flight Shutdown
IG—Inspector General
IO—Investigating Officer
ISB—Interim Safety Board
JA—Judge Advocate
LT—Lost Time (case)
MAAF—Mishap Analysis and Animation Facility
MAJCOM—Major Command
MC—Mission Capability
MDS—Mission Design Series
MD—Medical Doctor
MEN—Mishap Event Number
MFOQA—Military Flight Operations Quality Assurance

MGCS—Missile Guidance Control Set
MINA—Mishap Investigation Non-Aviation
MK—Mark
MOA—Memorandum of Agreement
MOFE—Memorandum of Final Evaluation
MOU—Memorandum of Understanding
MRP—Mishap Review Panel
MSE—Missile Support Equipment
NAF—Nonappropriated Fund or Numbered Air Force
NASA—National Aeronautics and Space Administration
NATO—North Atlantic Treaty Organization
NDA—National Defense Area
NGB—National Guard Bureau
NGB/CF—Director, Air National Guard
NL—No Lost Time (case)
nm—Nautical Mile
NRO—National Reconnaissance Office
NTSB—National Transportation Safety Board
NWCA—Nuclear Weapons and Counter Proliferation Agency
OBA—Operating Budget Authority
OCR—Office of Collateral Responsibility
OMB—Office of Management and Budget
OPCON—Operational Control
OPR—Office of Primary Responsibility
OPREP—Operational Report
ORS—Other Recommendations of Significance
OSC—On-Scene Commander
OSI—Office of Special Investigation
OSHA—Occupational Safety and Health Administration
OSS&E—Operational Safety, Suitability, and Effectiveness
OT&E—Operational Test and Evaluation
OWCP—Office of Workers' Compensation Program

PA—Public Affairs
PCS—Permanent Change of Station
PDO—Publishing Distribution Office
PEO—Program Executive Offices
PH—Public Health
PME—Professional Military Education
PMV—Private Motor Vehicle
PP—Permanent Partial (disability)
PPE—Personal Protective Equipment
PT—Permanent Total (disability)
QA—Quality Assurance
R&D—Research and Development
RAV—Risk Assessment Values
RCN—Remote Control Number
RCS—Report Control Symbol
RDS—Records Disposition Schedule
ROA—Remotely Operated Aircraft
ROTC—Reserve Officer Training Corps
RPV—Remotely Piloted Vehicle
SAF—Secretary of the Air Force
SAS—Safety Automated System
SCCS—Space Command and Control Systems
SE—Chief of Safety
SECAF—Secretary of the Air Force
SES—Senior Executive Service
SIB—Safety Investigation Board
SIO—Single Investigation Officer
SJA—Staff Judge Advocate
SM—Statute Mile or Single Manager
SORTS—Status of Resources and Training System
SPO—System Program Office
SRU—Shop Replacement Unit

SSE—Space Support Equipment
SSN—Social Security Number
STANAG—Standardization Agreement
STAN/EVAL—Standardization/Evaluation
TCTO—Time Compliance Technical Order
TDPFO—Temporary Duty Pending Further Orders
TDR—Teardown Deficiency Report
TDY—Temporary Duty
TED—Transfer Effective Date
TO—Technical Order
UAV—Unmanned Aerial Vehicle
UCAV—Unmanned Combat Aerial Vehicle
UCMJ—Uniform Code of Military Justice
UR—Unsatisfactory Report
URL—Universal Resource Locator
US—United States
USA—United States Army
USAF—United States Air Force
USAFR—United States Air Force Reserve
USC—United States Code
USCENTAF—United States Central Command Air Forces
USCG—United States Coast Guard
USMC—United States Marine Corps
USN—United States Navy
USSOUTHCOM—United States Southern Command
VP—Vice President
WB—Wage Board
YOP—Youth Opportunity Program

Terms

AERO CLUB AIRCRAFT—These are all aircraft assigned to the respective Aero Club. The Aero Club through, purchase, lease, or loan from the government may have acquired these aircraft. Aero Clubs are authorized excess DOD and General Service Administration (GSA) aircraft on a loan basis.

AEROSPACE VEHICLES—DOD aircraft, UAVs, missiles, and space vehicles.

AFLOAT MISHAP—An Air Force mishap occurring on board, or as the result of, a DOD vessel. This also includes DOD diving or swimmer operations. This term includes mishaps occurring while loading and/or off-loading or receiving services at dockside and mishaps occurring up to the high water mark during amphibious or inshore warfare training operations. It applies also to all injuries to DOD personnel occurring on board, whether or not job-related. Fatalities and/or injuries occurring on board that result from shipyard, repair facility, or private contractor operations are not afloat mishaps.

AIRFIELD OPERATIONS PERSONNEL—Air traffic control (ATC) and airfield management (AM) personnel.

AIR FORCE AT LARGE—Used for recording losses. Mishaps involving exchange students, military members in a non-pay status while waiting for appellate review if they have no written or verbal orders to return to an Air Force installation, prior service personnel on leave before reporting to initial permanent duty assignment, etc., are recorded to the Air Force at large. Also used for recording losses of non-accepted Air Force aerospace vehicles (paragraph 4.9.2.) and aerospace vehicles leased to a non-DOD organization for modification, maintenance, repair, test, contract training, or experimental project for a DOD component, when the Government has assumed ground and flight risk (paragraph 4.9.3.).

AIR FORCE LAUNCH—Any space launch operation conducted with significant oversight or insight by the Air Force and not subject to licensing requirements of 14 CFR Part 415. The Air Force may or may not be the space system owner.

AIR RESERVE COMPONENTS (ARC)—All units, organizations, and members of the ANG and AFRC (10 U.S.C. 261) on active duty, on active duty for training, or in drill status, and ANG and AFRC technicians; include ANG and AFRC property and equipment. Military status starts upon beginning duty for military pay and ends when duty stops. All references to Air Force military personnel and property also apply to ARC military personnel and property.

AIRCRAFT FLIGHT MISHAP—Any mishap in which there is intent for flight and reportable damage to a DOD aircraft. Explosives and chemical agents or guided missile mishaps that cause damage in excess of \$20,000 to a DOD aircraft with intent for flight are categorized as aircraft flight mishaps to avoid dual reporting. This is the only aviation mishap subcategory that contributes to the flight mishap rate.

AIRCRAFT FLIGHT-RELATED MISHAP—Any mishap in which there is intent for flight and no reportable damage to the DOD aircraft itself, but the mishap involves a fatality, reportable injury, or reportable property damage. A missile or UAV that is launched from a DOD aircraft, departs without damaging the aircraft, and is subsequently involved in a DOD mishap is reportable as a guided missile mishap or UAV, respectively.

AIRCRAFT GROUND OPERATIONS MISHAP—Any mishap in which there is no intent for flight and which results in damage to a DOD aircraft, a fatality, reportable injury, or reportable property damage. Damage to an aircraft when it is being handled as cargo or as aircraft components when not attached to the airframe is a ground and industrial, industrial aviation mishap.

AVIATION MISHAP—An Air Force mishap involving a DOD aircraft or DOD UAV.

BROKEN ARROW—Accidental, unauthorized, or unexplained events and the following: accidental or unauthorized launching, firing, or use by US forces or US supported allied forces of a nuclear capable weapons system; an accidental, unauthorized, or unexplained nuclear detonation; non-nuclear detonation (no nuclear yield) or burning of a nuclear weapon or nuclear component; radioactive contamination;

public hazard, actual or perceived; jettisoning of a nuclear weapon or nuclear component.

CAUSAL FINDING—Causal findings are those, which, singly or in combination with other causal findings, logically result in damage or injury. They are identified with the word "CAUSE" at the start of the text of the finding.

CAUSE—A cause is a deficiency, which if corrected, eliminated, or avoided, would likely have prevented or mitigated the mishap damage or significant injury.

CHEMICAL AGENTS—A chemical compound intended for use in military operations to kill, seriously injure, or incapacitate persons through its chemical properties. Excluded are riot control agents, chemical herbicides, smoke, and flame producing devices. Pesticides, insecticides, and industrial chemicals, unless selected by the DOD Components for chemical warfare purposes, are also excluded.

CHEMICAL AGENT MISHAP—Any unintentional or uncontrolled release of a chemical agent when: reportable damage to property from contamination or costs are incurred for decontamination; or individuals exhibit physiological symptoms of agent exposure; or the agent quantity released to the atmosphere is such that a serious potential for exposure is created by exceeding the applicable maximum allowable concentration-time levels for exposure of unprotected workers or the general population or property.

COMBAT TRAINING MISHAP—Mishaps involving property damage or reportable injury during participation in base exercises, combat simulated exercises, obstacle/confidence courses, and inspector general exercise that test combat capability.

COMPETENT MEDICAL AUTHORITY—Allopathic (MD), osteopathic (DO), and chiropractic practitioners, as well as podiatrists, optometrists, dentists, and clinical psychologists. The term competent medical authority includes these medical practitioners only to the extent of their operations within the scope of their practice as defined by state law and subject to regulation by the Secretary of Labor. Competent medical authority also includes nurse practitioners and physician assistants under supervision of licensed medical practitioners.

CONTRACTOR MISHAP—A mishap resulting from contractor operations that involves injury to DOD personnel and/or damage to DOD resources.

CONTROLLED MOVEMENT AREA—Any portion of the airfield requiring aircraft, UAV, vehicles, and pedestrians to obtain specific air traffic control approval for access (normally via two-way radio contact with the control tower). Controlled Movement Areas include, but are not limited to, areas used for takeoff, landing and as required for taxiing of aircraft.

CONVENING AUTHORITY—The individual who has the authority to order a safety investigation.

CRITICAL PROFILE—A mission profile exceeding system limitations based on system specifications or other program documentation.

DEPARTMENT OF DEFENSE AIRCRAFT—All manned weight-carrying devices supported in flight by buoyancy or dynamic action and are owned or leased by the DOD Components (including Reserve forces and National Guard) that are, as follows: operated and exclusively controlled or directed by a DOD Component; furnished by the Government, loaned, or on bailment to a non-DOD organization for modification, maintenance, repair, test, contractor training, or experimental project for a DOD Component, when the Government has assumed ground and flight risk. Includes aircraft under test by a DOD Component. (This includes aircraft furnished by a contractor or another Government Agency when

operated by a DOD aircrew in official status and a DD Form 250, *Material Inspection and Receiving Report*, has been executed to certify that the Department of Defense has accepted the aircraft.) Excludes aircraft leased, on bailment, or loaned to contractors, commercial airlines, other Government Agencies, or foreign governments, when the lessee has assumed risk of loss. Excludes civil aircraft owned by civil operators and accomplishing contract air missions for the DOD Components. Excludes factory-new production aircraft until successful completion of the post-production acceptance flight (mishaps that involve such aircraft are reported as contractor mishaps). Excludes flying club aircraft or privately owned aircraft on DOD installations.

DEPARTMENT OF DEFENSE CIVILIAN PERSONNEL—DOD Civil Service System employees (including Reserve component military technicians (dual status), unless in a military duty status), non-dual status technicians, and non-appropriated fund employees. To avoid dual reporting this excludes military personnel working part-time; Corps of Engineers Civil Works employees; Youth or Student Assistance Program employees; foreign nationals employed by the DOD Components; and Army-Air Force Exchange Service employees.

DEPARTMENT OF DEFENSE MILITARY PERSONNEL—All US military personnel on active duty or Reserve status under the provisions of 10 U.S.C. (reference (m)). National Guard personnel under the provisions of 32 U.S.C. (reference (n)); Service Academy cadets; Reserve Officer Training Corps cadets when engaged in directed training activities; foreign national military personnel assigned to the DOD Components.

DEPARTMENT OF THE AIR FORCE (DAF) CIVILIAN PERSONNEL—Includes Senior Executive Service (SES), general schedule (GS), and wage board (WB) employees, including ANG and AFRC technicians, unless in military duty status. Includes non-appropriated fund (NAF) employees who are not military personnel working part time. Includes Youth Opportunity Program (YOP) and Student Assistance Program employees. Includes foreign-national civilians employed by Air Force in direct or indirect hire status (Air Force Foreign Nationals (AFFN)). Foreign-national, direct-hire employees are the same as DAF civilian employees. Foreign-national, indirect-hire employees are the same as DAF civilian employees only when the Air Force has supervisory or work performance control. This includes Air Force responsibility for any compensation claims arising from employment injury.

DEPARTMENT OF THE AIR FORCE (DAF) MILITARY PERSONNEL—These are Air Force personnel on active duty with the Air Force or ANG and AFRC personnel on military duty status. Includes Air Force Academy cadets and Reserve Officer Training Corps (ROTC) cadets engaged in directed training activities. Includes members of other US military services serving on extended active duty with the Air Force or foreign-national military personnel assigned to the Air Force.

DESTROYED AIRCRAFT/UAV—Aircraft/UAV will be considered destroyed when the man-hours required to repair the aircraft/UAV exceed the maximum stated in the "major repair man-hours" column of TO 1-1-638, *Repair and Disposal of Aerospace Vehicles*. A damaged aircraft/UAV not repaired is not automatically a "destroyed" aircraft/UAV. The decision not to return a damaged aircraft/UAV to service is independent of the mishap class. When the aircraft/UAV will not be returned to service, classify the mishap damage according to the total estimated repair cost as if it had been returned to service. The SIB must submit detailed repair cost estimates through MAJCOM channels to HQ AFSC/SEF for validation if an aircraft/UAV will not be returned to service but is not considered destroyed.

DIRECTED ENERGY—An umbrella term covering technologies that relate to the production of a beam of concentrated electromagnetic energy or atomic or subatomic particles.

DIRECTED ENERGY DEVICE—A system using directed energy primarily for a purpose other than as a weapon. Directed-energy devices may produce effects that could allow the device to be used as a weapon against certain threats; for example, laser rangefinders and designators used against sensors that are sensitive to light. In this instance, characterize the mishap as a Directed Energy Device since the primary purpose of the mishap object was NOT as a weapon.

DIRECTED ENERGY DEVICE MISHAP—A mishap involving a directed energy device. An example would be damage to an optical device by an aircraft laser range finder.

DIRECTED ENERGY MISHAP—A directed energy weapon mishap or a directed energy device mishap.

DIRECTED ENERGY WEAPON—A system using directed energy primarily as a direct means to deny, disrupt, damage or destroy enemy equipment, facilities, and personnel.

DIRECTED ENERGY WEAPON MISHAP—A mishap involving a directed energy weapon and/or unique directed energy weapon support equipment.

DISABILITY—See permanent partial disability or permanent total disability.

EJECTION ATTEMPT—Completion of the action by the aircrew to initiate the ejection system, regardless of the outcome. For single motion systems, this only requires pulling the handle. For dual motion systems, both raising the sidearm and squeezing the trigger must be accomplished.

EJECTION SYSTEM—A mechanical device designed to forcefully separate the crew from the aircraft and return them to the earth's surface. Examples are an ejection seat, and extraction system, or a crew module.

ENGINE-CONFINED MISHAP—Applies when an aircraft or UAV turbine engine experiences reportable damage (\$20,000 or more), and damage is confined to the engine and integral engine components. Damage is considered confined to the engine if there is less than \$20,000 damage external to the engine. If the total cost of all damage external to the engine exceeds \$20,000, then the mishap is not Engine-Confined, regardless of the comparative extent of engine damage cost.

ENGINE FOD MISHAP—When objects external to the engine cause damage, the mishap is an Engine FOD mishap. When the damage is caused by an internal engine failure (including liberation of internal engine components such as bolts, rivets, bonded coatings, blades, vanes, abradable coatings, honeycomb seals, etc.), the mishap is not an Engine FOD mishap.

EVENT—An unplanned occurrence, or series of occurrences, that does not meet the reporting criteria of a mishap.

EXPLOSIVES—All items of ammunition; propellants (solid and liquid); pyrotechnics; explosives; warheads; explosive devices; and chemical agent substances and associated components presenting real or potential hazards to life, property, or the environment. Excluded are wholly inert items and nuclear warheads and associated devices, except for considerations of storage and stowage compatibility; and for considerations of blast, fire, and non-nuclear fragment hazards associated with the explosives.

EXPLOSIVES AND CHEMICAL AGENTS MISHAP—An Air Force mishap involving an explosive or chemical agent.

EXPLOSIVES MISHAP—Mishaps resulting in damage or injury from: an explosion or functioning of explosive materials or devices (except as a result of enemy action); inadvertent actuation, jettisoning, and

releasing or launching explosive devices; impacts of ordnance off-range.

FAA LICENSED LAUNCH—Any commercial launch that is not indemnified by the government and has been issued a license by FAA/AST.

FATAL INJURY—Injuries resulting in death, either in the mishap or at a later time, to include within 30 days subsequent to the medical discharge, retirement, or separation from the service, due to complications arising from mishap injuries.

FINDINGS—Findings are the conclusions of the safety investigator. They are statements, in chronological order, of each significant event or condition sustaining the sequence leading to the mishap.

FIRE MISHAP—A mishap with reportable damage to real property or equipment or reportable injury to Air Force personnel resulting from fire, but does not involve a DOD aircraft or DOD UAV weapon system, or explosives. This mishap subcategory also includes non-Air Force personnel when Air Force property or equipment fires cause injury.

FIRST AID CASE—For military members, any initial one-time treatment and any follow-up visit for observation of minor scratches, cuts, burns, and splinters, etc., that does not ordinarily require medical care. Such one-time treatment and follow-up visit for observation is considered first aid, even though provided by a physician or medical professional.

For DOD civilians, any initial one-time treatment and any follow-up visit for observation of minor scratches, cuts, burns, and splinters, etc., that does not ordinarily require medical care. Such one-time treatment and follow-up visit(s) for observation are considered first aid, even though provided by a physician or medical professional, as long as no leave or continuation of pay (COP) is charged to the employee and no medical expense is incurred.

NOTE: Use Office of Management and Budget (OMB) Bulletin 1220-0029, *Record Keeping Guidelines for Occupational Injuries and Illnesses*, as a guide for determining whether medical treatment or first aid was rendered.

FRIENDLY FIRE—A circumstance in which members of a US or friendly military force are mistakenly or accidentally killed or injured in action by US or friendly forces actively engaged with an enemy or who are directing fire at a hostile force or what is thought to be a hostile force.

GOVERNMENT MOTOR VEHICLE (GMV)—A motor vehicle that is owned, leased, or rented by a DOD Component (not individuals); primarily designed for over-the-road operations; and whose general purpose is the transportation of cargo or personnel. Examples of GMVs are passenger cars, station wagons, sport utility vehicles, vans, ambulances, buses, motorcycles, trucks, tractor-trailers, rental vehicles authorized by official travel orders, and General Service Administration (GSA) vehicles. Vehicles on receipt to, and operated by, non-DOD persons or agencies and activities such as the US Postal Service or the American Red Cross are not GMVs. Includes Air Force owned motor vehicles not identified as GVOs and General Services Administration (GSA) vehicles leased on a long- or short-term basis.

GOVERNMENT MOTOR VEHICLE (GMV) MISHAP—A motor vehicle mishap involving the operation of a GMV as defined in this instruction.

GOVERNMENT VEHICLE OTHER (GVO)—Vehicles designed primarily for off-the-highway operation such as construction tracked vehicles, forklifts, road graders, agricultural-type wheeled tractors, and aircraft tugs. Includes military combat/tactical vehicles; e.g., tanks, self-propelled weapons, armored

personnel carriers, amphibious vehicles ashore, HMMWV, and off-highway motorcycles.

GOVERNMENT VEHICLE OTHER (GVO) MISHAP—A motor vehicle mishap involving the operation of a GVO as defined in this instruction, but not involving a GMV.

GROUND AND INDUSTRIAL MISHAP—An Air Force mishap that does not meet the mishap category definition of nuclear, space, aviation, guided missile, explosives and chemical agents, directed energy, afloat, motor vehicle, or off-duty military as defined by this instruction.

GROUND MISHAP—For the purposes of this instruction, a mishap that falls into one of the following mishap categories: afloat, motor vehicle, off-duty military, or ground and industrial. NOTE: A ground mishap may involve materiel/equipment that is not traditionally thought of as happening on the ground (e.g., an off-duty military person flying a private plane).

GUIDED MISSILE—All missiles propelled through air or water that are unmanned, guided by internal or external systems, and self-propelled. This term includes individual major missile components such as stages, guidance and control sections, payloads other than nuclear reentry vehicles; system equipment required to place the missile in an operational status while at the launch or launch control facility or on the launching aircraft; and system equipment required to launch and control the missile. Examples are intercontinental ballistic missiles; surface-to-air, air-to-air, and air-to-surface guided missiles; and torpedoes. This term includes all missiles that are: owned in whole or in part by a DOD Component; operationally controlled by a DOD Component; on bailment or loan to a non-DOD Agency for modification, testing, or as an experimental project for a DOD Component; Under test by a DOD Component.

GUIDED MISSILE MISHAP—An Air Force mishap involving guided missiles or unique missile support equipment. Missiles that are damaged or destroyed after launch from an aircraft but cause no aircraft damage, will be classified as a guided missile mishap.

HAZARD—Any real or potential condition that can cause injury or occupational illness to personnel; damage to or loss of a system, equipment or property; or damage to the environment.

HIGH ACCIDENT POTENTIAL (HAP) EVENT—Any hazardous occurrence that has a high potential for becoming a mishap that does not fit the definition of a HATR.

IN-FLIGHT SHUTDOWN (IFSD)—Any engine shutdown in-flight, either due to an engine malfunction or by the aircrew following flight manual procedures.

ILLNESS AND/OR DISEASE—A non-traumatic physiological harm or loss of capacity produced by systemic, continued, or repeated stress or strain; exposure to toxins, poisons, fumes, etc., or other continued and repeated exposures to conditions of the environment over a long period of time. For practical purposes, an occupational illness and/or disease is any reported condition that does not meet the definition of injury.

INDUSTRIAL AVIATION MISHAP—Mishaps occurring in the industrial environment that: involve a DOD aircraft or UAV when being handled as cargo; or involve DOD aircraft or UAV component not attached to the fuselage/airframe. Additionally, use this subcategory as a cross category for aviation mishaps where maintenance or operations in the industrial environment result in a reportable mishap.

INDUSTRIAL MISHAP—A ground and industrial mishap that occurs in the work environment that does not meet the mishap subcategory definition of fire, combat training, physical and athletic conditioning, contractor, natural phenomena, industrial space, industrial aviation, or industrial weapons as

defined by this instruction. The work environment, as defined in 29 Code of Federal Regulations 1960, is "The establishment and other locations where one or more Air Force employees are working or are present as a condition of their employment; this would include those areas or locations where persons are TDY for training purposes. The work environment includes not only physical locations, but also the equipment or materials used by the employee during the course of his or her work."

INDUSTRIAL SPACE MISHAP—Mishaps occurring in the industrial environment that involve space systems (pre-launch) or unique space support equipment. As defined in paragraph 1.6.1.2., these mishaps will always be classified as space mishaps. Use this subcategory for cross-categorization to ground and industrial only.

INDUSTRIAL WEAPONS MISHAP—Mishaps occurring in the industrial environment that involve weapons (i.e., nuclear, guided missile, explosives and chemical agents, or directed energy) or associated unique support equipment. Examples include bomb fin damage during handling or injury to a worker during a MJ-1 bomb lift operation.

INJURY—A traumatic wound or other condition of the body caused by external force or deprivation (fractures, lacerations, sprains, dislocations, concussions, compressions, drowning, suffocation, exposure, cold injury, and dehydration), including stress or strain, which results from an unplanned event. The injury is identifiable as to the time and place of occurrence and member or function of the body affected, and is caused by a specific event or incident or series of events or incidents in a single day or work shift.

INTENT FOR FLIGHT—Intent for flight is considered to exist when aircraft/UAV brakes are released and/or takeoff power is applied for commencing an authorized flight. Intent for flight continues until either the fixed-wing aircraft/UAV taxis clear of the runway or, for helicopters and/or vertical takeoff and landing aircraft, the aircraft has alighted and the aircraft weight is supported by the landing gear. Clear of the runway means the entire aircraft/UAV is physically off the active runway. Hover taxi is considered flight.

JOINT SERVICE MISHAP—A single mishap involving two or more Services in which one or more Services experiences reportable injuries or damages.

LAUNCH MISHAP—Space mishaps occurring during launch vehicle operations, including upper stages. This includes payloads that do not obtain orbit and range safety system failures.

LAUNCH OPERATOR—A person or entity who conducts or proposes to conduct the launch of a launch vehicle. AFSPC often refers to a launch operator as one of its range users.

LOST TIME CASE—A nonfatal traumatic injury that causes any loss of time from work beyond the day or shift it occurred, or a nonfatal non-traumatic illness and/or disease that causes disability at any time.

MAJCOM—The term "MAJCOM " as used in this instruction includes ANG, DRUs, and FOAs.

MISHAP—A mishap is an unplanned occurrence, or series of occurrences, that results in damage or injury and meets Class A, B, C, or D mishap reporting criteria IAW paragraph 1.8. Damage or injury includes: damage to DOD property; occupational illness to DOD military or civilian personnel; injury to DOD military personnel on- or off-duty; injury to on-duty DOD civilian personnel; damage to public or private property, or injury or illness to non-DOD personnel caused by Air Force operations.

MISHAP COSTS—Direct mishap costs ONLY include property damage costs (DOD and Non-DOD) and environmental cleanup costs.

MISSILE SUPPORT EQUIPMENT(MSE)—Any component of ground launched missile systems

used to handle or transport missiles or missile components. MSE includes, but is not limited to, system unique vehicles, such as, payload transporters, transporter-erectors, missile guidance control set (MGCS) support trucks, emplacers, and Type I and Type II transporters (includes all equipment below grade in the launch facility).

MISSION CAPABILITY—This term encompasses the purpose and functions of the space system (sensors, transponders, etc.) throughout its intended system mean mission duration (the expected life of the space vehicle).

MOTOR VEHICLE MISHAP—An Air Force mishap involving the operation of a motorized land vehicle operated by Air Force personnel. An Air Force mishap involving the operation of a DOD-owned or leased motorized land vehicle by non-Air Force personnel while operationally controlled by a DOD component. Fatalities or injuries to pedestrians or bicyclists involving moving motor vehicles are included in this category. This category does not include ground and industrial mishaps such as injuries occurring while loading or unloading, mounting or dismounting a non-moving vehicle; cargo damaged by weather; damage to a properly parked DOD vehicle, unless caused by an operating DOD vehicle. Additionally, damage to an Air Force vehicle caused by objects thrown or propelled into it by weather or natural phenomena, or by fire when no collision occurred; or damage to an Air Force vehicle when it is being handled as cargo and not operating under its own power and is properly parked, are not categorized as motor vehicle mishaps. Motor vehicle mishaps are divided into the following subcategories: Government Motor Vehicle (GMV), Government Vehicle Other (GVO), and Private Motor Vehicle (PMV).

NATURAL PHENOMENA MISHAP—Mishaps resulting from wildlife or environmental conditions of such a magnitude that they could not have been predicted or prepared for or for which all reasonable preparations had been taken. Do not report natural phenomena ground and industrial mishaps where adequate preparation, forecasting, and communication actions were taken and there were no injuries. However, report military and civilian injuries resulting from these mishaps as ground and industrial mishaps.

NO LOST TIME CASE—A nonfatal injury or illness and/or disease that does not meet the definition of a lost time case (usually created by a compensation claim for medical expense) or first aid case.

NON-ACCEPTED EQUIPMENT/VEHICLES—Non-delivered equipment/vehicles for which the Government has assumed responsibility; DD Form 250, *Material Inspection and Receiving Report*, HAS NOT been executed.

NON-DAF CIVILIAN PERSONNEL—Persons employed by host-nation agencies, and doing work such as public works or general engineering on Air Force installations, are not Air Force employees. Their employer is the host-nation agency paying them, supervising them, and handling employee benefits. Indirect-hire employees are not the same persons as DAF civilian employees when a host government has supervisory control. This includes the host government's responsibility for insurance, compensation costs, and the like.

NON-RECOVERABLE IN-FLIGHT SHUTDOWN—Any engine shutdown in-flight, either due to an engine malfunction or by the aircrew following flight manual procedures whereby: the engine is unable to restart, or further investigation determines that a restart attempt would not have been successful, or further investigation determines that continued operation would have caused the engine to fail, or the aircraft cannot maintain level flight at a safe altitude as determined by the situation.

NONFATAL CASES WITHOUT LOST WORKDAYS—These are cases other than lost workday

cases where, because of injury or occupational illness, Air Force personnel were transferred to another job, required medical treatment greater than first aid, lost consciousness, or were diagnosed as having an occupational illness.

NUCLEAR CAPABLE UNIT—A unit or an activity assigned responsibilities for employing, assembling, maintaining, transporting, or storing war reserve nuclear weapons, their associated components and ancillary equipment.

NUCLEAR MISHAP—An Air Force mishap involving radioactive materiel.

NUCLEAR WEAPON—A complete assembly, in its intended ultimate configuration which, upon completion of the prescribed arming, fusing, and firing sequence, is capable of producing the intended nuclear reaction and release of energy. For the purpose of mishap categorization, also include unique support equipment associated with nuclear weapons.

NUCLEAR WEAPON COMPONENTS—Weapon components composed of fissionable or fissionable materials that contribute substantially to nuclear energy release during detonation.

NUCLEAR WEAPON MISHAP—A mishap that involves destruction of, or serious damage to, nuclear weapons, nuclear weapons systems, or nuclear weapons components resulting in an actual or potential threat to national security or life and property. Reportable nuclear surety violations and damage to support equipment unique to a nuclear weapon system will be reported under this subcategory.

NUCLEAR WEAPONS SURETY—Materiel, personnel, and procedures which contribute to the security, safety, and reliability of nuclear weapons and to the assurance that there will be no nuclear weapons mishaps, incidents, unauthorized weapon detonations, or degradation performance at the target.

NUCLEAR WEAPON SYSTEM—A combat delivery vehicle with its nuclear weapon or weapons and associated support equipment, non-combat delivery vehicles, facilities, and services.

NUCFLASH—Includes accidental, unauthorized, or unexplained occurrences meeting any of the following criteria: accidental, unauthorized, or unexplained actual or possible nuclear detonation by US forces or US-supported allied forces; accidental or unauthorized launch of a nuclear-armed or nuclear-capable missile by US forces or US-supported allied forces; unauthorized flight or deviation from an approved flight plan by a nuclear-armed or nuclear-capable aircraft of US forces or US-supported allied forces that could be perceived as a hostile act.

OBSERVATION AND/OR DIAGNOSTIC PROCEDURE—Hospitalization or restriction from assigned work activities for observation or diagnosis is not a "lost time case," "no lost time case," or "first aid case" provided no treatment or medication is given for the suspected injury or occupational illness, and competent medical authority determines the individual could have returned to his or her normal job without impairment or disability. This classification applies also where an individual is temporarily restricted from regularly assigned duties to prevent exceeding time-weighted exposure limits. This is not reportable if a competent medical authority provides no treatment or medication for the suspected injury or occupational illness or finds the person could have returned to normal assigned duties without impairment or disability.

OCCUPATIONAL ILLNESS—Any reported condition that does not meet the definition of injury. Any abnormal physical condition or disorder, other than one resulting from an occupational injury, resulting in adverse consequences and caused by occupational factors associated with employment. Includes all confirmed cases of acute and chronic illnesses or diseases caused by inhalation, absorption, ingestion or direct contact with suspect substances.

OFF-DUTY—DOD personnel are off-duty when they are not on-duty (see on-duty definition). Personnel participating in base team sporting activities or in a permissive temporary duty (TDY) status are off-duty. Reserve and National Guard personnel performing inactive duty training (drill) will be considered off-duty: when traveling to or from the place at which such duty is performed; or while remaining overnight, immediately before the commencement of inactive-duty training; or while remaining overnight between successive periods of inactive-duty training, at or in the vicinity of the site of the inactive-duty training, if the site of the inactive-duty training is outside reasonable commuting distance of the member's residence. NOTE: This definition is for mishap reporting purposes only and has no relation to compensability or line-of-duty determination.

OFF-DUTY MILITARY MISHAP—An Air Force mishap that results in a fatality or injury to off-duty DOD military personnel whether or not on a DOD installation, excluding private motor vehicle (PMV) mishaps. NOTE: A mishap involving on- and off-duty military personnel will not be categorized as an off-duty military mishap.

ON-DUTY—DOD personnel are on-duty when:

Physically present at any location where they are to perform their officially assigned work. Officially assigned work includes organization-sponsored events an employee is permitted to attend, regardless of location. This includes those activities incident to normal work activities that occur on DOD installations, such as lunch, coffee, or rest breaks, and all activities aboard military vessels. NOTE: Personnel walking to and from work place parking areas at the start and end of the duty day are in an on-duty status.

Being transported by DOD or commercial conveyance to perform officially assigned work. (This includes travel in PMVs or commercial conveyances while performing official duty, but not routine travel to and from work.)

On temporary duty. Personnel on assignment away from the regular place of employment are covered 24 hours a day for any injury or occupational illness that results from activities essential or incidental to the temporary assignment. Essential or incidental activities include travel between places of business or lodging and eating establishments, drugstores, barbershops, places of worship, cleaning establishments, bowling centers, officer and enlisted clubs, gymnasiums, and similar on-base non-appropriated fund (NAF) facilities and similar places required for the health or comfort of the member, are considered on-duty. However, when personnel deviate from the normal incidents of the trip and become involved in activities, personal or otherwise, that are not reasonably incidental to the duties of the temporary assignment contemplated by the employer, the person ceases to be considered on-duty for investigation and reporting purposes of injuries or occupational illnesses. Injuries or occupational illnesses to personnel resulting from activities unrelated to the temporary duty assignment or non-commander directed sports and recreation activities (e.g. jogging, golfing, basketball) will be reported as off-duty mishaps.

Military members are working in part-time Non-appropriated Fund (NAF) positions. NOTE: Use the NAF position series (instead of the military Air Force Specialty Code (AFSC) for safety reporting.

Taking part in compulsory physical fitness training, sporting events, and physical fitness evaluation activities (including cycle ergometric testing when permitted). On-duty compulsory fitness training and activities include directed sports activities at professional military education (PME) and formal training courses such as Basic Military Training, Technical Training Schools, Airman Leadership School, Squadron Officer School, and the Air Force Academy. These activities are considered on-duty

when a superior directs participation at a specific location and time. This includes supervision-directed physical conditioning activities when a mandatory location and time are designated. Air Force civilian employees authorized to participate in physical fitness activities during normal duty hours are also on-duty.

NOTE: The definitions above are for mishap reporting purposes only and have no relation to compensability or line-of-duty determination.

ORBIT MISHAP—Space mishaps occurring during spacecraft operation after separation from all launch vehicle components, including upper stages and transfer motors.

PERMANENT PARTIAL DISABILITY—An injury or occupational illness that does not result in death or permanent total disability, but in the opinion of competent medical authority, results in permanent impairment through loss or loss of use of any part of the body. **EXCEPTIONS:** Loss of teeth, fingernails, toenails; loss of fingertips or toe tips without bone involvement; repairable inguinal hernia; disfigurement; sprains or strains that do not cause permanent limitation of motion.

PERMANENT TOTAL DISABILITY—Any nonfatal injury or occupational illness that, in the opinion of competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful occupation and results in a medical discharge, retirement, separation. The loss, or the loss of use of both hands, both feet, both eyes, or a combination of any of those body parts as a result of a single mishap will be considered as a permanent total disability. For purposes of this instruction, any mishap resulting in injury severe enough for an individual to be in a non-medically induced coma is a permanent total disability. (**NOTE:** Upgrade injury to a fatal mishap if death occurs within 30 days of medical discharge, retirement, or separation from service due to complications arising from the mishap injury).

PHYSICAL AND ATHLETIC CONDITIONING MISHAP—Mishaps involving injuries that occur during participation in some form of duty related athletic or recreational sport activities designed to develop an Air Force member's physical ability or to maintain or increase individual/collective combat and/or peacekeeping skills. Examples are: firefighter injured during weight-lifting or basketball game to maintain physical conditioning; Air Force fitness testing, compulsory sport exercises, unit formation activities, physical fitness activities during professional military education courses, or individual physical workout to meet Air Force physical fitness standards.

PRE-LAUNCH MISHAP—Space mishaps occurring during ground handling, processing, and transportation operations.

PRIVATE MOTOR VEHICLE (PMV)—A non-commercial vehicle that is neither a GMV nor GVO. A vehicle normally registered for highway use.

PRIVATE MOTOR VEHICLE (PMV) MISHAP—A motor vehicle mishap, regardless of the identity of the operator, that does not involve a GMV or GVO, but results in a fatality or lost time case injury (involving days away from work) to military personnel on- or off-duty or to on-duty civilian personnel, or reportable damage to DOD property. Fatalities and injuries to bicyclists and pedestrians in the traffic environment are included in this category.

PROPERTY DAMAGE—Damage to facilities, equipment, property, materiel, or resources. If the occurrence meets mishap reporting criteria, then the cost of environmental cleanup shall be included in property damage costs. **NOTE:** For mishap reporting purposes, inadvertent releases of ozone depleting substances are reported when they meet mishap reporting criteria.

RADIOLOGICAL MISHAP—See reactor and radiological mishap.

REACTOR AND RADIOLOGICAL MISHAP—Mishaps involving fissile materiel used in a self-supporting chain reaction (i.e., nuclear fission) to produce heat and/or radiation for both practical application and research and development.

REACTOR SYSTEM—A nuclear reactor with any associated nuclear or non-nuclear systems.

RECOMMENDATIONS—Recommendations are feasible and effective solutions to eliminate identified hazards, or if the hazard cannot be eliminated, to mitigate the hazard's potential consequences. Actions likely to prevent a similar mishap or reduce its effects.

REMOTELY PILOTED VEHICLES (RPV)—An unmanned vehicle whose primary maneuvering control is normally provided from a source external to the vehicle itself. An RPV may be used as a target, attack, reconnaissance, Electronic Countermeasures (ECM), or test bed-carrying vehicle. Full-scale RPVs are aircraft modified to the remotely piloted configuration. Sub-scale RPVs are RPVs that are not full scale. RPVs are UAVs (see definition of UAV).

SAFETY INVESTIGATOR—An individual authorized and qualified to investigate a safety occurrence. Examples include members of an ISB or SIB, an SIO, and members of a safety staff.

SAFETY REPORT—Safety reports include message reports (preliminary, status, and final), formal reports, and injury and occupational illness forms and logs.

SINGLE MANAGER—The single individual specifically designated, under the integrated weapon system management architecture, to be responsible for the life cycle management of a system or end-item. The Single Manager is the program manager vested with full authority, responsibility, and resources to execute and support an approved Air Force program. A list of the Single Manager organizations and MDSs is available at:

<http://afsafety.af.mil/AFSC/RDBMS/Flight/SIB-Support/Formal%20Report%20Files/TableA31andMDSLlists.xls>

SPACE ANOMALY—An on-orbit malfunction of a space system, or a deviation from what is consistent with normal operations, that does not meet the criteria of a mishap. An anomaly will be initially investigated using the anomaly resolution process.

SPACE BOOSTER—A space vehicle designed to propel or carry another space vehicle from the earth's surface or from orbit to a desired point and velocity in space. This term includes engines, rocket motors, upper stages, fuel tanks, and guidance and control sections.

SPACE COMMAND AND CONTROL SYSTEMS (SCCS)—Systems required to provide telemetry, tracking, commanding, mission data dissemination, data processing, communication and range support for space vehicles. SCCS examples include the common user Air Force Satellite Control Network (AFSCN) and other program-dedicated networks.

SPACE MISHAP—An Air Force mishap involving a space system and/or unique space support equipment.

SPACE SYSTEMS—Any system used for space operations or support. Space system is a generic term used to encompass all ground, space and link segment systems and their components. This includes space vehicles, unique space support equipment, and space command and control systems.

SPACE VEHICLE—A vehicle designed to orbit or travel beyond the earth's atmosphere or a system

designed to lift other space vehicles into orbit. Examples of space vehicles include boosters (launch vehicles), spacecraft (satellites, orbiters, payloads) and reusable spacecraft. Intercontinental Ballistic Missiles are not considered space vehicles.

SPACECRAFT—A space vehicle designed to operate in space and launched by a booster. The term includes satellites, orbiters and payloads and their associated subsystems.

SPORTS AND RECREATION MISHAP—Mishaps involving injuries that occur during participation in some form of sporting or recreational activity. Examples of sports and recreational activities include softball, weight lifting, handball, golf, football, sight seeing, dancing, auto racing, bicycling, motorcycles driven off-road, off-duty parachuting/sky diving, and flying private planes, ultra lights, and gliders.

TOXOID—A toxin that has been treated (commonly with formaldehyde) as to destroy its toxic property but that still retains its antigenicity, i.e., the toxin still has the capability of stimulating the production of antibodies and thus of producing an active immunity.

TRAINING RELATED DEATH—A death associated with a non-combat military exercise or training activity that is designed to develop a military member's physical ability or to maintain or increase individual/collective combat and/or peacekeeping skills, and is due to either a mishap or the result of natural causes occurring during or within one hour after any training activity where the exercise or activity could be a contributing factor. NOTE: The cause of death must be attributed to the mandatory physical exercise as determined by a competent medical authority.

UNIQUE SPACE SUPPORT EQUIPMENT (SSE)—Systems, equipment and facilities required for processing, handling or transporting space systems and their components. SSE examples include space-unique support vehicles, payload or launch vehicle ground transporters, vehicle assembly equipment, launch pad facility and its associated equipment, equipment required for test and checkout, and equipment for space system recovery. Components or equipment commonly used in non-space applications, and not specifically configured for space related use, are not considered SSE.

UNMANNED AERIAL VEHICLE (UAV)—All unmanned DOD weight-carrying devices supported in flight by buoyancy or dynamic action and are owned or leased by the DOD Components, including aerostat balloons, that are, as follows: operated and exclusively controlled or directed by a DOD Component; furnished by the Government or on bailment to a non-DOD organization for modification, maintenance, repair, test, contract training, or experimental project for a DOD Component, when the Government has assumed ground and flight risk; under test by a DOD Component. (This includes UAVs furnished by a contractor or another Government Agency when operated by a DOD crew in official status and a *DD Form 250, Material Inspection and Receiving Report*, has been executed to certify that the DOD has accepted the vehicle.) UAVs covered by this instruction include, but are not limited to, the following: Tactical UAVs, such as the RQ-1 Predator or RQ-4 Global Hawk; Full Scale Aerial Target Remotely Piloted Vehicles (FSAT RPVs), such as the QF-4; Subscale RPVs, such as the BQM-34 Firebee or MQM-107 Streaker; Buoyant UAVs, such as a tethered aerostat; Remotely Operated Aircraft (ROA), and Unmanned Combat Aerial Vehicles (UCAV). When an FSAT RPV is carrying a person, it is a DOD aircraft, not a UAV.

UNMANNED AERIAL VEHICLE MISHAP—Any mishap involving a DOD UAV as defined in this instruction, but not involving a DOD aircraft. Damage to a DOD UAV, when it is being handled as a commodity or cargo, is a ground and industrial, industrial aviation mishap. See AFI 99-151, *Air-Launched Missile Analysis Group (ALMAG)*, for additional guidance on investigating specific types of air-launched missile anomalies and failures.

WEAPONS MISHAP—For the purposes of this instruction, a mishap that falls into one of the following mishap categories: nuclear, guided missile, explosives and chemical agents, or directed energy. NOTE: A weapons mishap may involve materiel/equipment that is not traditionally thought of as a weapon (e.g., fissile materiel used in a self-supporting chain reaction to produce heat for practical application).

Attachment 2**ORGANIZATION CONTACT INFORMATION****A2.1. Contact Information within HQ AFSC.****HQ AFSC/JA (Staff Judge Advocate)**

9700 G Avenue SE
Kirtland AFB NM 87117-5670
DSN 246-0626/1193 or (505) 846-0626/1193
FAX DSN 263-5798 or (505) 853-5798

HQ AFSC/SEFL (Life Sciences/Human Factors)

9700 G Avenue SE
Kirtland AFB NM 87117-5670
DSN 246-0830/0880/0853, (505) 846-0830/0880/0853

HQ AFSC Technical Assistance

DSN 246-5867 or (505)-846-5867
After hours contact the Kirtland AFB Command Post at DSN 246-3776/6395 or (505)-846-3776/6395, and ask for the HQ AFSC Technical Assistance Duty Officer.
Alternatively, call the Kirtland AFB operator at 877-809-6989 (toll free), ask to be connected to the Command Post and then ask for the HQ AFSC Technical Assistance Duty Officer.

A2.2. Contact Information outside HQ AFSC.**AFIP**

Armed Forces Institute of Pathology
14th Street & Alaska Ave.
Washington DC 20306-6000
<http://www.afip.org/>
DSN 285-0100 or (301) 319-0100

AFLSA/JACT

DSN 426-9055 or (703) 696-9055
FAX DSN 426-9099 or (703) 696-9099

Air Force Nuclear Weapons and Counter Proliferation Agency (NWCA)

1551 Wyoming Blvd SE
Kirtland AFB, NM 87117

(505) 853-8138

Defense Contract Management Agency (DCMA)

HA SCMA Aircraft Operations

6350 Walker Lane, Suite 300

Alexandria, VA 22310

DSN 328-1309 or (709) 428-1309

Defense Threat Reduction Agency NSO (DTRA)

1680 Texas St SE

Kirtland AFB, NM 87118

(505) 846-8436

FAA (FAA Combined Operations Center)

(202) 267-3333

SAF/FMC (Air Force Cost Analysis Agency)

<http://www.e-publishing.af.mil/>, AFI 65-503, Table A10-1

DSN 222-6001 or (703) 692-6001

DSN 224-0453

HQ AFCA/GCG (Hammer ACE)

203 W. Losey St. Rm 2015

Scott AFB IL 62225-5421

<https://www.afca.scott.af.mil/hammer-ace/>

DSN 576-3431 or (618) 256-3431

After hours contact Scott AFB Command Post DSN 576-5891 or (618) 256-5891

Military Traffic Management Command

Movement Control Center

DSN 826-8220 or (757) 878-8220

OSHA

24-hour toll-free hot line 1-800-321-OSHA (1-800-321-6742)

Attachment 3**PRIVILEGED SAFETY INFORMATION****Figure A3.1. Sample Privileged Warning Statement.**

FOR OFFICIAL USE ONLY.

This contains privileged, limited-use safety information. Unauthorized use or disclosure can subject you to criminal prosecution, termination of employment, civil liability, or other adverse actions. See AFI 91-204, **Chapter 3** for restrictions. Destroy in accordance with AFMAN 37-139 when no longer needed for mishap prevention purposes.

Figure A3.2. Memorandum Documenting Promise of Confidentiality for Written Witness Statements.

1. I, (Name of Witness), (Grade), (Organization), have been advised by (Name of Investigator), a safety investigator of the mishap that occurred on (Date of Mishap) involving an (aircraft/space vehicle/missile type) of the following:

a. This investigation is being conducted under the provisions of AFI 91-204 solely for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent recurrence.

b. I understand I am providing a statement for a safety investigation and I acknowledge that a promise of confidentiality has been extended to me.

c. I understand that my confidential statement will not be made public and it will be used only by authorized officials solely for mishap prevention purposes. Additionally, my confidential statement will not be used as evidence to support any disciplinary action or any adverse administrative action such as a Flying Evaluation Board, line-of-duty status determination, pecuniary liability determination, or elimination from military service. I understand, however, that my statement can be released pursuant to a valid court order on behalf of the defendant in a criminal trial. I further understand that if my statement contains an intentional misrepresentation, then my statement will no longer be considered confidential and can be used to support disciplinary and/or administrative actions against myself and/or others.

d. Non-confidential witness statements may be released to the public pursuant to a Freedom of Information Act request. Only statements given under a promise of confidentiality are protected from release outside safety channels.

e. I understand that the chain of command will review the final mishap report, to include my confidential statement, but the chain of command may only use my statement for safety and mishap prevention purposes.

2. I understand the effect of this promise of confidentiality and I desire my written statement be treated as confidential.

Witness Signature Block

(SAMPLE)

Figure A3.3. Notice to Witness Documenting Promise of Confidentiality for Recorded Statements.

"I am (name) investigating the mishap involving (aircraft/space vehicle/missile type) that occurred on (date). This investigation is being conducted under the provisions of AFI 91-204 solely for the purpose of mishap prevention and to determine all factors relating to the mishap in order to prevent recurrence. You are hereby advised that, as a witness to this investigation, your statement is confidential and will not be made public. Only authorized officials will use your statement for the sole purpose of mishap prevention. Your statement may not be used as evidence by the Government to support any disciplinary actions or adverse administrative actions, such as a Flying Evaluation Board, a determination of line-of-duty status or pecuniary liability, or elimination from military service. The only exceptions to this would be that your statement could be released pursuant to a valid court order on behalf of a defendant in a criminal trial. If you make an intentional misrepresentation, then your statement will no longer be considered confidential and can be used to support disciplinary and/or administrative actions against yourself or others. Further you are advised that the chain of command will review the final mishap report, to include your confidential statement, but the chain of command may only use your statement for safety and mishap prevention purposes."

Transcripts of complete interviews must contain this advisory. In cases where witness testimony is summarized by the interviewer, it must be clear that the witness was advised of and understood this advisory.

Figure A3.4. Memorandum for Non-Privileged Written Witness Statements.

(Date)

1. I, (Name of Witness), (Grade), (Organization), have been advised by (Name of Investigator), a safety investigator of the mishap that occurred on (Date of Mishap) involving an (aircraft/space vehicle/missile type) of the following:

- a. This investigation is being conducted under the provisions of AFI 91-204 solely for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent recurrence. I understand I am being interviewed as a witness in a safety investigation and I acknowledge that a promise of confidentiality has not been extended to me.
- b. This witness statement can be released to any subsequent investigation of this mishap and may be released to the public pursuant to a Freedom of Information Act request.

Witness Signature Block

Figure A3.5. Notice to Witness that Recorded Statement is not Confidential.

"I am (Name of Investigator), a safety investigator of the mishap that occurred on (Date of Mishap) involving an (aircraft/space vehicle/missile type). This investigation is being conducted under the provisions of AFI 91-204 solely for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent recurrence.

A promise of confidentiality is not being extended to you. Your statement can be released to any subsequent investigation of this mishap and may be released to the public pursuant to a Freedom of Information Act request."

Figure A3.6. Contractor Statement of Understanding.

STATEMENT OF UNDERSTANDING

1. Protection of privileged safety information resulting from investigations of Air Force mishaps is essential in maintaining the integrity of the process whereby mishap information is obtained and evaluated. You, as an independent contractor or an outside agency to the USAF, are performing services that assist the mishap prevention program of the United States Air Force.
2. For this reason, you are being allowed access to privileged mishap reports that contain privileged safety information. Access is solely for the purpose of mishap prevention and no other use of the information by you or your firm is authorized. You are not to make any copies of the reports or disseminate the information outside your organization or to personnel in your organization that are not directly providing the services required by contract. You are expressly prohibited from providing this information to your general counsel's office, legal staff, or any personnel involved in litigation.
3. After you are finished with any document provided, you are required to return it to the Air Force. Retaining copies is not authorized.
4. I acknowledge receipt and understanding of the above and agree to abide by the conditions set forth.

(Signature Block)

Figure A3.7. Memorandum for Contractor Representatives Serving as Technical Experts to Safety Investigations.

MEMORANDUM FOR (Non-Air Force technical expert's name and company/organization)

FROM: (SIB President)

SUBJECT: Protection of USAF Privileged Safety Information

1. In response to my request for technical assistance, the Air Force and your employer have agreed that you will serve as a technical expert for the Safety Investigation Board (SIB) over which I preside. Unless you specifically identify information in any technical report you provide to the SIB as proprietary data or confidential analysis or opinion, it will be included in the releasable portion (Part 1) of the SIB's final report. If you want us to treat any part of your report as privileged information so we can protect it from disclosure outside the Department of Defense, you must specifically request such protection. In such case it will be included in the privileged portion (Part 2) of the formal safety report and will be used solely for mishap-prevention purposes.

2. The military safety privilege protects information provided under a promise of confidentiality and the deliberative process of the SIB. It enhances the SIB's ability to identify potential causes of mishaps quickly and accurately so we can prevent their recurrence. This process must have the highest degree of reliability to maintain combat readiness, national security, and public safety.

3. In accepting your appointment to serve as technical expert, you must also agree to safeguard our safety privilege. You may be given access to privileged information and you must not disclose to anyone, including your employer, any privileged information derived from our investigation. You will prepare only one copy of your technical report for the SIB. You will destroy or surrender to me any notes, documents, computer files, or other materials, produced or obtained during this investigation, if they contain privileged information. You must not make copies of any privileged documents (including analytical computer products, confidential tape recordings, and staged photographs) for use outside the proceedings of this board. You may not have a copy of Part 2 of the Board's final report or any part of a draft thereof. You must report to me (or, after the SIB is dissolved, to HQ Air Force Safety Center) any attempt by anyone, other than a SIB member or other duly authorized person, to obtain any confidential or deliberative information from you about this investigation.

4. Before beginning your service to this SIB, please sign and date the endorsement below. I will give you a copy of this memorandum.

(SIB President's signature block)

1st Endorsement

To:(SIB President)

I acknowledge understanding of the contents of this memorandum and receipt of a copy thereof, and I agree to comply with the duties and responsibilities stated therein.

(Technical expert's signature block)

(Date)

Figure A3.8. Cover Sheet Documenting Promises of Confidentiality to Contractors.

(Name of contractor) requests the Air Force safety investigation board/single investigating officer investigating the mishap involving an (mishap vehicle) on (date of mishap) handle the attached report and any supplemental information provided by our technical experts confidentially.

(Contractor's signature block)

(Date)

I hereby extend (name of contractor) a promise of confidentiality for the attached report and any supplemental information provided by your technical experts.

(SIB member/SIOs name)

Attachment 4

INSTRUCTIONS FOR AF FORM 711D, NUCLEAR MISHAP/INCIDENT REPORT

A4.1. The AF Form 711D, is available at: <http://www.e-publishing.af.mil/>. Use the AF Form 711D to document a nuclear mishap or nuclear incident.

A4.1.1. Item 1. Materiel Involved.

A4.1.1.1. Item 1A. War reserve bomb, warhead, or component. For nuclear weapons, provide the standard nomenclature, modification number, and serial number for each weapon involved. If only a nuclear component is involved, provide the illustrated parts breakdown nomenclature, part number, and serial number of the item involved; the next major assembly to which the component is installed; and the nuclear weapon supported (such as, CF1504 Cable Assembly, Part Number 123456-01, Stock Number 1234, MC3681 Shape Component, B61).

A4.1.1.2. Item 1B. Training Items. Self-explanatory.

A4.1.1.3. Item 1C. Support, test, and handling equipment. For support, test, handling, and other nuclear safety certified equipment listed at <https://www.mil.nwd.kirtland.af.mil/>, give the national stock number, part number, serial number (if applicable), and manufacturer's name.

A4.1.1.4. Item 1D. Carrier. For an aircraft or missile, give the MDS and serial number. During aircraft and missile flights, give the mission identification number; for ground vehicles, give the nomenclature and serial number; and for reentry vehicles, give the Mark (MK) number and serial number.

A4.1.2. Item 2. Type of Operation. Check the box reflecting the operation in progress at the time of the mishap or its discovery. Provide a full description if "other" is checked.

A4.1.3. Item 3. Damage. Describe the damage to the item and provide photographs, if possible.

A4.1.4. Item 4. Nuclear Materiel Information.

A4.1.4.1. Item 4A. Type and extent of contamination, measured intensities, rate of decay, and decontamination procedures established. Separate this portion of the report into sections, and discuss each factor individually.

A4.1.4.2. Item 4B. Disposition of nuclear materiel involved. Indicate shipping destination or when it was disposed of (if unknown, so state), and give any other actions taken or planned.

A4.1.5. Item 5. Aircraft, Missile, or System Information. Describe the aircraft, missile, or system (as appropriate) configuration at the time of the mishap or its discovery. For aircraft weapon systems, include the position of all weapon-related switches.

A4.1.6. Item 6. Miscellaneous Information. Provide details if a fire occurred. Provide details if the nuclear weapon's high explosive detonated. Include information on any component for which a materiel deficiency report was submitted according to TO 00-35D-54 (include the report control number). Give the technical order number, title, date, pages, and step numbers if technical order noncompliance occurred.

A4.1.7. Item 7. Factors Related to the Mishap. Provide factors related to the mishap, and include the findings and causes discussed in paragraphs [5.9](#) and [5.10](#).

Item 8. Comments. Use this paragraph for comments on the accident or incident, and ensure the comments are other than those included in Item 11 of the AF Form 711B. Include immediate, intermediate, continuing, or long-range corrective actions and the "get well" date in Item 11 of the AF Form 711B. Give the status of individuals under the Personnel Reliability Program and the positions they occupy (critical or controlled).