



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC

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9 January 2024

MEMORANDUM FOR DISTRIBUTION C\_\_\_  
MAJCOMs/FLDCOMs/FOAs/DRUs

FROM: AF/SE  
1400 Air Force Pentagon, Suite 5E1000  
Washington, DC 20330-1400

SUBJECT: Department of the Air Force Guidance Memorandum to DAFMAN 91-224,  
*Ground Safety Investigations and Reports*

By Order of the Secretary of the Air Force, this Department of the Air Force Guidance Memorandum immediately implements changes to DAFMAN 91-224, *Ground Safety Investigations and Reports*. Compliance with this memorandum is mandatory. To the extent its direction is inconsistent with other Department of the Air Force publications, the information herein prevails, in accordance with DAFI 90-160, *Publications and Forms Management*.

In advance of a rewrite of DAFMAN 91-224, the Attachment to this Memorandum is updated to provide guidance changes that are effective immediately. This publication is applicable to the United States Space Force (USSF) and terminology should be interpreted to be inclusive of the USSF, as appropriate.

This memorandum becomes void after one-year has elapsed from the date of this memorandum, or upon incorporation of an Interim Change or rewrite of DAFMAN 91-224, whichever is earlier.

SEAN M. CHOQUETTE  
Major General, USAF  
Chief of Safety

Attachment:  
Guidance Changes

**Attachment**  
***Guidance Changes***

**The below changes to DAFMAN 91-224, dated 21 January 2022, are effective immediately.**

1.3.4. Class E Events. There are no Class E events that require mandatory reporting.

1.3.5.2. Other. These are events that do not meet Class A-E mishap reporting criteria, or other reporting criteria contained in DAFI 91-204, DoDI 6055.07 or 29 CFR 1904. Reporting or recording these events is voluntary.

1.3.6. OSHA Recordable Events. These are events that do not meet DoDI 6055.07 reporting requirements but do meet 29 CFR 1904 recording requirements. These events will be reported in AFSAS as a Class D mishap in accordance with DoDI 6055.07, Figure 2. **(T-0)** Examples include work-related needlestick injuries and cuts from sharp objects that are contaminated, or injuries resulting from minimum stress and strain.

1.4.3.3. Loss of consciousness not due to physical injury. **(T-1)**

1.4.3.8. Thermal illnesses and injuries as identified in DAFI 48-151, *Thermal Stress Program*, to include dehydration, hypothermia, heat stress, heat stroke, exertional collapse associated with Sick Cell Trait (ECAST) and other similar type issues. **(T-1)**

1.4.5. Investigators requesting deletion due to a DoDI 6055.07 exemption or other exception to mandatory reporting will upload supporting documentation to the appropriate AFSAS exhibit. **(T-1)** Uploaded documents will be appropriately marked and clearly support the applicable reporting exemption or exception. **(T-1)** The requesting investigator will explain the justification for the deletion request in the AFSAS deletion justification field or upload the justification in MFR format to the “Investigation Products” AFSAS exhibit. **(T-1)** AFSEC/SEG will review justification and supporting documentation to ensure adherence to DoDI 6055.07 reporting requirements prior to approving Class A and B mishap deletion requests in AFSAS. **(T-1) Note:** MAJCOM/CCs do not have approval authority for Class A and B mishap deletion requests, without prior coordination with AFSEC/SEG.

6.2.3. Prior to releasing a preliminary message, the releasor will ensure the person and injury, or object damages, that are driving the initial mishap classification are entered in AFSAS. **(T-1)** For example, a preliminary message for a Class A fatal event will have a person as well as an associated fatal injury entered in AFSAS. **(T-1)** If the event is a property damage mishap, the known or estimated cost(s) will be entered in AFSAS in the appropriate area. **(T-1)**

**6.4. DoD Human Factors Analysis and Classification (HFAC) System Codes.** DoD HFAC system codes are useful to identify errors through analysis at the individual, supervisory and organizational levels. Codes should be made to fit the investigation, not the other way around. HFACs can be more comprehensively applied if analyzed at the conclusion of the investigation. The process of human factor analysis precedes applying codes. Coding is mandatory for Class A and B mishaps and optional for other mishap classes. **(T-1)** When used, ensure codes are supported in the related Factor(s). Consult with the CA or AFSEC Human Factors experts for coding assistance. **(T-1)** The current DoD HFAC System Guide is located on the AF Occupational Safety SharePoint® site.

6.8.1. The One-Liner will be made up of four parts, separated by a semi-colon, in the following order: Activity; What happened; What was damaged/broken/injured; What was the outcome. **(T-1)** Click on the “Mishap One-Liner: One-Liner Format and Examples” link on the AFSAS “General Mishap Information” page for examples. Do not include privileged information in the One-Liner. **(T-1)**

6.8.9. Acronyms and abbreviations.

6.8.9.1. Acronyms and abbreviations used in the one-liner will be in accordance with the Standardized Acronyms and Abbreviations hover help located in the AFSAS Event One Liner entry section on the General Information page and do not need to be defined on the Glossary of Acronyms page. **(T-1)**

6.8.9.2. All other acronyms and abbreviations used within the report will be defined on the Glossary of Acronyms page located in the Narrative section of the AFSAS report. **(T-1)**

6.8.9.3. Acronyms and abbreviations used in primary Recommendations or Other Recommendations of Significance will be spelled out in each recommendation in accordance with DAFI 91-204. **(T-1)**

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE  
MANUAL 91-224**



**21 JANUARY 2022**

**Safety**

**GROUND SAFETY INVESTIGATIONS  
AND REPORTS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**ACCESSIBILITY:** Publications and forms are available on the e-publishing web site at [www.e-publishing.af.mil](http://www.e-publishing.af.mil) for downloading or ordering.

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(Colonel Lawrence A. Nixon)

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This Department of the Air Force Manual (DAFMAN) implements Department of the Air Force Instruction (DAFI) 91-204, *Safety Investigations and Reports*. This manual provides ground, motor vehicle and afloat event guidance to support DAFI 91-204. It directs procedures specific to investigating and reporting Department of the Air Force (DAF) ground, motor vehicle and afloat mishaps. Requirements in this publication are mandatory, unless otherwise indicated. It applies to all Regular Air Force, US Space Force (USSF), Air Force Reserve (AFR) and Air National Guard (ANG) military and civilian personnel. For the purposes of this manual, Direct Reporting Units (DRUs), ANG, AFR and Field Operating Agencies (FOAs) are included in all references to Major Commands/Field Commands (MAJCOMs/FLDCOMs). This manual requires the collection and/or maintenance of information protected by the Privacy Act of 1974 authorized by Department of Defense Instruction (DoDI) 5400.11, *DoD Privacy and Civil Liberties Program*. The applicable System of Records Notice, OPM/GOVT-1, General Personnel Records, is available at <https://dpcl.d.defense.gov/privacy/SORNS.aspx>. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. This publication may be supplemented at any level, but all MAJCOM/FLDCOM supplements must be routed to the Occupational Safety Division, Air Force Safety Center (AFSEC/SEG) for coordination prior to certification and approval. The authorities to waive wing/delta/unit level

requirements in this publication are identified with a Tier (T-0, T-1, T-2, T-3) number following the compliance statement. See DAFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to AFSEC/SEG for variances/exemptions of non-tiered compliance items. The use of the name or mark of any specific manufacturer, commercial product, commodity or service in this publication does not imply endorsement by the DAF. Compliance with the attachment in this publication is mandatory.

## ***SUMMARY OF CHANGES***

This publication is substantially revised and must be completely reviewed. Major changes include clarifying guidance and procedures required for the updated and overhauled Air Force Safety Automated System (AFSAS). This rewrite also ensures compliance with DAFI 91-204 and removes duplication of information already cited in DoDI 6055.07, *Mishap Notification, Investigation, Reporting, and Record Keeping*. It includes the US Space Force and the responsibilities of its subordinate Field Commands and deltas. Additionally, it clarifies requirements for abbreviated reports and directive language for AF Form 978, *Supervisor Mishap Report*, and provides more clarity for occupational illnesses, such as rhabdomyolysis and exertional collapse associated with Sick Cell Trait (ECASST).

<b>Chapter 1—GENERAL INFORMATION</b>	<b>4</b>
1.1. Overview.....	4
1.2. Exceptions to Mandatory Reporting. ....	4
1.3. Accounting for Losses. ....	4
1.4. General Guidance Related to Reporting and Recording Occupational Injuries and Illnesses.....	5
<b>Chapter 2—ROLES AND RESPONSIBILITIES</b>	<b>8</b>
2.1. General Information.....	8
2.2. Expeditionary Safety Office. ....	8
2.3. Convening Authority (CA). ....	8
2.4. Medical Services.....	8
2.5. Installation Commander.....	9
<b>Chapter 3—INTERIM SAFETY BOARD (ISB) REQUIREMENTS</b>	<b>10</b>
3.1. General Information.....	10
3.2. ISB Interaction with the Disaster Response Force.....	10
3.3. Preserving and Gathering Evidence.....	11
3.4. ISB Membership for On-Duty Class A and Select On-Duty Class B Mishaps. ....	11
3.5. ISB Responsibilities.....	12

3.6.	Written and Verbal Witness Statements. ....	12
3.7.	Evidence and Wreckage.....	12
3.8.	Medical Evidence Preservation.....	13
3.9.	ISB President Hand-off Briefing. ....	13
<b>Chapter 4—SIB REQUIREMENTS</b>		<b>14</b>
4.1.	General Guidelines. ....	14
Table 4.1.	SIB Membership - Minimum Composition Requirements. ....	14
4.2.	Primary SIB Members. ....	14
4.3.	Secondary SIB Members. ....	16
4.4.	De-convening.....	17
4.5.	For all other mishaps.....	17
<b>Chapter 5—CONDUCTING THE SAFETY INVESTIGATION</b>		<b>18</b>
5.1.	General Information.....	18
5.2.	Investigation Timeline. ....	18
5.3.	Mishap Investigative Process.....	18
5.4.	Safety Investigations Involving Department of the Air Force and Other Services..	19
5.5.	Deficiency Reporting Procedures. ....	19
<b>Chapter 6—REPORTS</b>		<b>21</b>
6.1.	Overview.....	21
6.2.	Preparing Messages. ....	21
6.3.	Report Writing or Narrative.....	21
6.4.	DoD Human Factors Analysis and Classification (HFAC) System Codes.....	23
6.5.	Managing Exhibits. ....	23
6.6.	Exhibit Groups.....	23
6.7.	Exhibit Waivers. ....	26
6.8.	Other report requirements. ....	26
<b>Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION</b>		<b>29</b>

## Chapter 1

### GENERAL INFORMATION

**1.1. Overview.** This manual, in conjunction with Occupational Safety and Health Administration (OSHA) standards and regulations in Title 29, Code of Federal Regulations (CFR), Part 1904, *Recording and Reporting Occupational Injuries and Illness*; DoDI 6055.07; and DAFI 91-204 directs procedures and provides guidance specific to the investigation and reporting of the DAF Mishap Prevention Program. DAF occupational safety investigators will also use this manual for event reporting and investigation procedures when DAF personnel are involved in an event or DAF property is damaged. **(T-1)**

1.1.1. Safety personnel assigned to host installation safety office will review host tenant support agreements, memorandums of understanding and/or memorandums of agreement for additional investigation and reporting procedures. **(T-1)**

1.1.2. For the purposes of this manual, the term “Safety Investigation Board (SIB)” includes a single investigating officer (SIO) or any assembly of duly appointed investigators, to include an investigating officer.

**1.2. Exceptions to Mandatory Reporting.** In accordance with DoDI 6055.07, if the result of an event was intended, no reporting is required. However, criminal charges alone do not establish intent. Additional exceptions to mandatory reporting requirements are outlined in DAFI 91-204.

### **1.3. Accounting for Losses.**

1.3.1. In addition to the guidance provided in DAFI 91-204, the occupational safety professional shall accomplish the following:

1.3.1.1. Report a military or civilian injury or loss to the command the individual is permanently assigned to at the time of the event. **(T-1)** Use military personnel data records and civilian payroll records to determine the assigned command. **(T-1)** Air Reserve Component personnel are accounted to their parent unit regardless of status. The accounting installation will not always be the installation an asset (personnel or property) is assigned to at the time of the event, such as assets from a deployed unit.

1.3.1.2. Report an event involving an individual in permanent change of station status with temporary duty pending further orders, to the organization originating the initial orders until the individual signs in at the next permanent duty station. **(T-1)**

1.3.2. Department of the Air Force at Large. The Convening Authority (CA) will be determined in accordance with DAFI 91-204. Events involving DAF personnel assigned to non-DAF organizations, combatant commands, North Atlantic Treaty Organization, other entities outside the DAF, and military members in non-pay status while awaiting an appellate review (appellate leave) or court-martial shall be reported as DAF at Large. DAF at Large is not intended for personnel assigned to joint installations. In cases where the applicable CA cannot be determined, the Air Force Chief of Safety (AF/SE) will coordinate to identify investigative responsibility. **(T-1) Note:** DAF at Large events will be accountable at the DAF-level only.

1.3.2.1. Events involving DAF personnel assigned to Unified Commands will be investigated and reported in the Air Force Safety Automated System (AFSAS). **(T-1)**

Safety personnel responsible for reporting Unified Command level events shall have a secondary AFSAS account in order to input events; AFSEC is the administrator for Unified Command secondary AFSAS accounts. **(T-1)** Where a Unified Command does not have safety staff assigned who are responsible for conducting mishap investigations, AF/SE will coordinate to identify investigative responsibility. **(T-1)**

1.3.2.2. Select "Other" from the investigation owner pull-down menu when inputting a Non-DAF event into AFSAS to ensure the event is recorded as non-rate producing. **(T-1)** Reference DAFI 91-204 for Non-DAF event criteria.

1.3.3. When a mishap is an on-duty Class A or B, or an off-duty Class A, immediate telephonic notification will be made to the owning Numbered Air Force, MAJCOM/FLDCOM, DRU or FOA safety staff. **(T-1)** Regardless of mishap class, if it is suspected the mishap involves classified information, contact AFSEC/SEG, through the responsible MAJCOM/FLDCOM. **(T-1)**

1.3.4. Work-related Class E Mishaps. These are mishaps that do not meet minimum Class A - D mishap severity criteria as defined in DAFI 91-204. These injuries are unrelated to mishap-producing agents or environments normally associated with active participation in daily work or recreation. Class E mishaps will be reported in the AFSAS investigations module to allow for DAF-wide tracking and trending purposes in support of mishap prevention efforts or to meet OSHA recordkeeping requirements. **(T-0)** There are currently no Class E events that require mandatory reporting.

1.3.5. Incident. There are two categories of Incident Investigations.

1.3.5.1. Workplace Violence. Any act or threat of physical violence, harassment, intimidation or other threatening disruptive behavior that occurs at the work site. It ranges from threats and verbal abuse to physical assaults and even homicide. While these must be reported and recorded in AFSAS by the appropriate safety office to comply with 29 CFR Part 1904, they are not investigated by safety personnel. **(T-0)**

1.3.5.2. Other. Other incidents are unplanned events that do not meet Class A-E mishap reporting criteria, e.g., injuries to on-duty personnel resulting from minimum stress and strain (simple, natural and nonviolent body positions or actions, as in dressing, sleeping, coughing or sneezing), a civilian off-duty injury or other reporting criteria in DAFI 91-204. Reporting or recording these events is voluntary unless called for in accordance with 29 CFR Part 1904.

1.3.6. Needle Stick. Contaminated needle stick events will be reported in AFSAS as a Class D mishap in accordance with DoDI 6055.07, Figure 2. **(T-0)** Non-contaminated needle sticks may be reported in accordance with [paragraph 1.3.5.2](#) of this manual.

#### **1.4. General Guidance Related to Reporting and Recording Occupational Injuries and Illnesses.**

1.4.1. All on-duty Class A and B mishaps will be investigated in accordance with [Table 4.1](#) **(T-1)** This investigative requirement includes fatalities occurring during directed physical training, DAF fitness assessments and training related deaths. Also included are fatalities due to natural causes when the medical event occurs during or within one hour of any training activity where the exercise or activity could be a contributing factor. The SIB will remain intact



until the final conclusion(s) have been reached. **(T-1)** This serves two purposes: determining whether pre-existing medical conditions were causal, as determined by a competent medical authority, and to evaluate management related factors to the activity at the time of death. Final determination by a competent medical authority for medical related deaths due to heart attack, stroke, hyponatremia, rhabdomyolysis or other medical issues will terminate the mishap investigation. **(T-1)**

1.4.1.1. If at any time the SIB determines the loss meeting the Class A or B threshold was solely due to illness, the mishap investigation will be suspended. **(T-1)** The CA will transfer investigative responsibility to the owning Public Health organization. **(T-1)** Public Health will determine work-relatedness and take all necessary investigative actions in accordance with DAFI 91-204. **(T-1)**

1.4.1.2. Transferring investigative responsibility requires uploading documentation into the appropriate AFSAS Exhibit, which includes medical report or competent medical authority justification. Ensure all non-privileged information and evidence is physically transferred to the owning Public Health organization. **(T-1)** The safety professional will request mishap investigation deletion through AFSAS. **(T-1)** **Note:** Ensure any request for deletion for an occupational illness determination includes the related AFSAS Occupational Illness Module report number. **(T-1)**

1.4.2. Public Health will investigate and record occupational illnesses using the AFSAS Occupational Illness Module. **(T-1)**

1.4.3. Reference 29 CFR Part 1904.46 for definitions of on-duty injury and illness. Where further distinction is required, a competent medical authority will distinguish occupational illness from non-occupational illness. **(T-1)** Contact AFSEC/SEG as needed for assistance in making determinations related to injury versus illness. **(T-1)** **Note:** For flight-induced decompression illness reporting, reference DAFMAN 91-223, *Aviation Safety Investigations and Reports*. For clarity and consistency, the following work-related diagnoses will be reported as occupational illnesses:

1.4.3.1. Heart attack. **(T-1)**

1.4.3.2. Stroke. **(T-1)**

1.4.3.3. Loss of consciousness not due to physical injury, thermal illnesses and injuries as identified in AFI 48-151, *Thermal Injury Prevention Program* (to include dehydration, hypothermia, heat stress, heat stroke, exertional collapse associated with Sick Cell Trait (ECAST) and other similar type issues). **(T-1)**

1.4.3.4. Hyper/hypobaric chamber-induced decompression illness. **(T-1)**

1.4.3.5. Hearing loss. **(T-1)**

1.4.3.6. Chronic lower back pain and lumbago. **(T-1)**

1.4.3.7. Shin splints and stress fractures. **(T-1)**

1.4.4. AF Form 978, *Supervisor Mishap Report*. The AF Form 978 is designed for use within any safety discipline to capture injury and property damage mishaps. It shall be used to document ground mishaps/incidents. **(T-2)** The involved/injured personnel's supervisor shall complete the form, route it through the commander, and return it to the installation safety office

within five (5) workdays following notification. **(T-1)** The installation Occupational Safety Manager will ensure the form is reviewed to determine reportability or non-reportability with appropriate documentation. **(T-1) Exception:** Tenant units with fulltime safety staffs will review mishap data for their personnel. **(T-1)**

## Chapter 2

### ROLES AND RESPONSIBILITIES

**2.1. General Information.** This chapter establishes investigating and reporting responsibilities for DAF ground, motor vehicle and afloat events. See DAFI 91-204 for specific requirements regarding toxicology testing.

#### **2.2. Expeditionary Safety Office.**

2.2.1. When an event occurs during wartime or contingency operations, the applicable CA will ensure the event is investigated and reported. **(T-1)**

2.2.2. Expeditionary safety offices will perform the investigation and courtesy reporting functions; event accountability will be retained by the asset owner. **(T-1)** The entirety of a courtesy report will be completed by the investigating agency. **(T-1)** **Note:** When applicable, ensure close coordination between the expeditionary safety office and CA to ensure all required traveling CA SIB members are properly vetted for theater entry. **(T-1)**

2.2.3. Expeditionary safety office will comply with DAFI 91-204 and this publication. **(T-1)** If it does not, the owning safety office will coordinate with the expeditionary safety office until requirements are met. **(T-1)** Expeditionary safety offices will complete any required quality control checklist and forward it to the asset owner safety office prior to release. **(T-1)**

#### **2.3. Convening Authority (CA).**

2.3.1. Provide funding for the mishap investigation as directed in DAFI 91-204.

2.3.2. Receive an out-brief for all on-duty Class A and select Class B mishaps with the exception of mishaps in which the entire report has been waived by AFSEC. The out-briefing should occur within 15 days after the SIB completes the investigation. **Note:** SIB will work solely for the CA while accomplishing the requirements outlined in DAFI 91-204 and this manual. **(T-2)**

#### **2.4. Medical Services.**

2.4.1. Installation medical services will identify, investigate and report occupational illnesses. **(T-1)**

2.4.2. Installation medical services will provide injury data for assigned military personnel treated on and off-installation to all safety offices monthly. **(T-1)**

2.4.3. Installation medical services will provide medical information to the installation safety office in accordance with DAFI 91-204. **(T-1)**

2.4.4. Installation medical services will provide medical and human factors support to Interim Safety Board (ISB) or SIB, as required. **(T-1)**

2.4.5. Public Health will report all suspected or confirmed occupational illnesses in AFSAS. **(T-1)**

2.4.6. Public Health will maintain a record of all occupational illnesses in accordance with this manual. **(T-1)**

**2.5. Installation Commander.**

2.5.1. Will convene an ISB to organize and preserve evidence to mishaps within their area of responsibility before the arrival of the SIB. **(T-1)**

2.5.2. Will provide support to the ISB and SIB, as required, to include access to DAF network, local area network, and administrative and logistical support, e.g., copy machines, color printers, vehicles. **(T-2)**

2.5.3. Will ensure adequate facilities are identified and ready for use by an ISB and SIB. **(T-2) Note:** Host units are responsible for funding administrative, logistical and information system support required for a SIB, even if the host installation is not assigned to the investigating MAJCOM/FLDCOM.

## Chapter 3

### INTERIM SAFETY BOARD (ISB) REQUIREMENTS

**3.1. General Information.** The ISB will be convened by the installation commander to provide an organized evidence preservation response to mishaps within their area of responsibility before the arrival of the SIB. **(T-1)** The ISB members will be selected based upon their respective expertise within their normal professional specialty. **(T-1)** It is not within the ISB's charter to conduct analysis or identify mishap causes. The ISB lays the groundwork necessary to ensure a successful investigation process can be accomplished by the SIB. For further information on ISB duties and responsibilities, review the following paragraphs and DAFI 91-204.

#### **3.2. ISB Interaction with the Disaster Response Force.**

3.2.1. The Disaster Response Force is the DAF structure that responds to disasters or accidents, establishing command and control and supporting disaster operations. Reference AFI 10-2501, *Emergency Management Program*, and AFMAN 10-2502, *Air Force Incident Management System (AFIMS) Standards and Procedures*, for more information on the Disaster Response Force and the roles of the Incident Commander, Recovery Operations Chief and other force members.

3.2.2. Initial Response. The Incident Commander is the individual responsible for all incident activities, including the development of strategies and tactics, and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

3.2.3. The safety member of the Disaster Response Force may also be a member of the ISB. Regardless of additional roles, the safety member of the Disaster Response Force should act in the interest of the ensuing safety investigation.

3.2.3.1. It is essential Disaster Response Force safety members understand the priorities of the Incident Commander immediately following a mishap: rescue the injured, prevent or minimize fire damage to wreckage, remove wreckage obstructing essential air and ground traffic or rescue and firefighting services, and make the site safe. Access to the site for safety investigation purposes will be subordinate to those priorities. **(T-1)**

3.2.3.2. Once site access is approved and coordinated with the Incident Commander, the Disaster Response Force safety member should always keep two goals in mind: site and evidence preservation and identification of witnesses for the ISB.

3.2.3.3. The Disaster Response Force safety member shall diligently work with the Incident Commander to keep the mishap site as undisturbed as possible. **(T-1)** When conflicts arise, the Disaster Response Force safety member will ensure any changes to the mishap site are warranted and documented, e.g., photos, diagrams, maps. **(T-1)**

3.2.4. Recovery Phase. The recovery phase begins when first responders have completed emergency response and lifesaving actions. Once the emergency is over and recovery starts, control of the site is transferred from the Incident Commander to the Recovery Operations Chief, who is a subject matter expert in hazards or activities within the incident site. The Recovery Operations Chief should be the person in charge of the mishap site when the ISB

and SIB begins their evidence collection and investigation. The ISB President shall not assume the role of Incident Commander or Recovery Operations Chief. (T-1)

**3.3. Preserving and Gathering Evidence.** The ISB is not responsible for determining the mishap cause(s). The sole purpose of the ISB is to gather, preserve and protect evidence. The ISB will:

3.3.1. Notify the asset owning installation of the need to collect maintenance and personnel records. (T-2)

3.3.2. Impound any equipment which may be related to the mishap. (T-2) The items of interest to be impounded are typically found in the installation's Mishap Response Plan. Refer to DAFI 21-101, *Aircraft and Equipment Maintenance Management*, and DAFI 91-204 for further guidance.

3.3.3. Collect perishable fluids. (T-2)

3.3.4. Preserve integrity of the evidence. (T-2) Ensure only ISB members have access to the evidence pending turn over to the SIB. (T-2)

3.3.5. Identify possible witnesses and gather preliminary statements as appropriate. (T-2)

3.3.6. Photograph the mishap site. (T-2)

**3.4. ISB Membership for On-Duty Class A and Select On-Duty Class B Mishaps.** Contractor representatives will not be primary members of the ISB. (T-1) ISB requirements for select on-duty Class B mishaps will be determined by the CA or AFSEC/SEG on a case-by-case basis. (T-1)

3.4.1. ISB President. The ISB President should match the qualification requirements for the SIB President. However, they may be from within the mishap wing, delta or installation unit. This individual will ensure all ISB members are trained on privileged information restrictions in accordance with DAFI 91-204. (T-1)

3.4.2. ISB Investigating Officer (IO). The ISB IO is responsible for the daily management of ISB activities and preparation of preliminary and status messages. The ISB IO:

3.4.2.1. Will be an occupational safety professional GS-09 (0018 or 0803) or higher, or 7-skill level (1S0X1) or higher. (T-1)

3.4.2.2. Should be a graduate of the Mishap Investigation Non-Aviation (MINA) course, Aircraft Mishap Investigation Course (AMIC) or other formal military/civilian mishap-related investigation training.

3.4.3. The CA may appoint other technical experts for the ISB as needed to meet the needs of a specific mishap investigation, such as:

3.4.3.1. ISB Maintenance Member 7-skill level (or higher) when weapons system parts, maintenance or support equipment are involved.

3.4.3.2. ISB Medical Officer when medical and human factors are involved.

3.4.3.3. ISB Vehicle Maintenance Officer/Non-commissioned Officer (NCO) when a motor vehicle is involved.

3.4.3.4. ISB Security Forces traffic accident investigator when a motor vehicle is involved.

3.4.3.5. ISB Fire Protection and Prevention Representative GS-09 (0081) or higher, or 7-skill level (3E7X1 or higher) when a mishap is fire-related.

3.4.3.6. ISB Recorder. Should be a junior officer, NCO or civilian familiar with administrative procedures. Recorder may be a 1S0X1. Extensive experience in information technology is extremely valuable for this individual. A recorder facilitates a timely and orderly process of evidence collection and transfer.

**3.5. ISB Responsibilities.** The ISB will ensure the following actions are accomplished:

3.5.1. The ISB will not allow any piece of evidence, such as vehicle, equipment or training records, personnel files or maintenance logs to be reviewed, copied, tampered with, removed or modified by personnel not identified as an appointed ISB member, without prior coordination from the incoming SIB President or ISB President if the SIB President has not been appointed yet. **(T-1)**

3.5.2. The integrity of each piece of evidence is crucial to the success of the investigation and the DAF mishap prevention program. Record the name, office symbol, address, e-mail address and phone number of each person who provides evidence, such as photos, videos and/or training records to the investigation. **(T-1)** Document the source of information for any photographs or videos provided, including the date of the photograph or video. **(T-1)**

**3.6. Written and Verbal Witness Statements.**

3.6.1. The intent of an ISB witness statement is to capture witness recollection as soon as possible after the mishap. Promises of confidentiality are not authorized for afloat, motor vehicle, off-duty military and all ground mishaps. Exceptions for complex systems, military-unique items, or military-unique operations or exercises are outlined in DAFI 91-204. When these exceptions could apply, contact AFSEC/SEG or the AFSEC Office of the Staff Judge Advocate (AFSEC/JA), who will advise and forward any requests to AF/SE or the AFSEC Vice Commander (AFSEC/CV) for approval to grant confidentiality to those witnesses. **(T-1)**

**Note:** Templates for written and verbal witness statements are located on the AF Occupational Safety SharePoint® website.

3.6.2. All mishap participants will be kept separated to preclude collective reconstruction of the mishap. **(T-1)** Interviews or witness statement collection will be conducted on an individual basis, i.e., no group interviews. **(T-1)**

**3.7. Evidence and Wreckage.**

3.7.1. Ensure all materials and evidence associated with the mishap are collected and safeguarded in accordance with DAFI 91-204 and this manual. **(T-1)** If DoD aircraft are involved, refer to DAFI 91-204 and DAFMAN 91-223 for guidance. Ensure any materials or evidence collected is turned over to the SIB. **(T-1)** The ISB should create an inventory list and transfer it to the SIB. Coordinate with the appropriate group commander or designated impoundment authority to ensure vehicle and equipment impoundment is properly accomplished. **(T-1)** Immediately notify other installations with equipment or items related to the mishap for impoundment actions, as required. **(T-1)**

3.7.2. The ISB President will coordinate with the Incident Commander and Recovery Operations Chief to ensure access to the mishap site is closely controlled. **(T-1)** Only those with a legitimate need to be at the mishap site will be included on the entry access list. Non-

ISB or SIB members, who are granted temporary access to the mishap site, will be escorted by an ISB or SIB member who will ensure evidence is not contaminated or tampered with. **(T-1)**

3.7.3. Photographic and Video Evidence. Digital and video images can be effectively used as evidence. Photography at the site will be closely controlled to ensure no inadvertent release of potentially sensitive photographs to the public, e.g., human remains. Collect copies and keep a list of any photos and/or videos taken. **(T-2)** This listing should include, as a minimum, the location of the part(s) being photographed and a description of what was photographed.

3.7.3.1. All mishap-related photographs and videos taken by individuals who have authorized access to the mishap site shall be approved by the ISB via the CA prior to being considered for public release by the Public Affairs office. **(T-2)**

3.7.3.2. Incident Commander, Recovery Operations Chief and investigators should ensure no unauthorized photographs or videos are taken within the mishap site. The host installation will provide digital photography support. **(T-2)**

3.7.3.3. Personal cameras and cell phone photography may be used for non-privileged photos. For release authority of electronic images, refer to guidance in DAFI 91-204.

3.7.4. If wreckage or evidence must be moved prior to the SIB arrival, the ISB will document the scene as thoroughly as possible using mapping, still photographs and video as necessary. **(T-1)**

### **3.8. Medical Evidence Preservation.**

3.8.1. Ensure toxicology testing is accomplished in accordance with DAFI 91-204. **(T-1)** Ensure a toxicology panel is also conducted when exposure to hazardous chemicals is suspected. **(T-1)**

3.8.2. Obtain initial statements and information from witnesses and medical professionals, as applicable. **(T-1)**

3.8.3. Ensure evidence not associated with human remains is left undisturbed at the mishap site until the evidence is turned over to the SIB or when directed by the SIB President. **(T-1)**

3.8.4. Ensure complete medical, mental health, family advocacy, pharmacy and dental records are requested and/or collected and shipped to the SIB (as needed) for all involved personnel. **(T-1)** **Note:** Include EMS and response agency reports, as needed.

3.8.5. Ensure a request is submitted to the Armed Forces Medical Examiner for a molecular autopsy for any sudden death, such as a sudden cardiac death where the cause is not immediately apparent. **(T-1)**

**3.9. ISB President Hand-off Briefing.** Refer to DAFI 91-204, paragraph 7.4 for additional guidance.



## Chapter 4

### SIB REQUIREMENTS

#### 4.1. General Guidelines.

4.1.1. The CA will convene a SIB/SIO (per **Table 4.1**) for Class A and B mishaps. **(T-1)** The SIB is the primary vehicle for conducting a safety investigation for the purposes of mishap prevention. **Table 4.1** establishes the minimum SIB membership requirements. The CA may request a waiver to these requirements from AF/SE through AFSEC/SEG. **Note:** An AFSEC Representative may be appointed to on-duty Class A and select on-duty Class B SIBs as determined by AFSEC/SEG on a case-by-case basis.

4.1.2. All waiver requests to the minimum membership requirements will be sent to AFSEC/SEG in Memorandum for Record format in accordance with AFH 33-337, *The Tongue and Quill*. **(T-1)** Requested position to waive and adequate justification will be included. **(T-1)** A waiver template is located on the AF Occupational Safety SharePoint® site.

4.1.3. The SIB member duties prescribed by this manual take precedence over all other duties while the SIB is convened. SIB members will be relieved of all non-SIB duties while supporting the investigation. **(T-1)**

4.1.4. Board Presidents may request additional board members from the CA. If the CA concurs with the request, the CA will source these members. **(T-1)** The CA will identify additional members as necessary to thoroughly investigate and document a mishap. **(T-1)** **Note:** A CA may choose to convene a SIB for other than on-duty Class A and B mishaps.

**Table 4.1. SIB Membership - Minimum Composition Requirements.**

1	On-duty Class A	Board President Investigating Officer AFSEC Representative (as required) MAJCOM/FLDCOM (as required) Other Primary Members (as required) Recorder Human Factors Expert (fatality only)
2	Off-duty Class A, B, and On-Duty Class B	Single Investigating Officer Other Primary Members (as required)
3	Class C, D, and E	Single Investigating Officer

**4.2. Primary SIB Members.** Primary SIB members determine findings, causes and recommendations. Members are authorized to submit a minority report if they do not agree with the SIB President on the outcome of the investigation. Minority reports shall include reasons for disagreeing and will include suggested findings, causes and recommendations if different from those included in the report. **(T-1)** **Note:** Personnel deployed to combat billets in support of combat operations should not be tasked to perform Class A or B SIB duties. SIB responsibilities lie with the CA. Expeditionary safety personnel may perform ISB duties for Class A and B mishaps requiring formal boards until the arrival of the SIB.

4.2.1. For on-duty Class A mishaps, the SIB President:

- 4.2.1.1. Will be a minimum grade of O-6 or GS-15. **(T-1)**
- 4.2.1.2. Will be from outside the mishap wing, delta or installation unit. **(T-1)**
- 4.2.1.3. Serves as release authority at the request of the CA for information from the SIB and is responsible for transfer of custody of non-privileged information and evidence to any follow-on legal investigation. **(T-1)**
- 4.2.1.4. Requests technical assistance, if required, through MAJCOM/FLDCOM channels. **(T-1)**
- 4.2.1.5. Serves as decision authority for all findings, causes and recommendations. **(T-1)**
- 4.2.1.6. Interfaces with and releases factual information to legal investigators. **(T-1)**
- 4.2.1.7. Will be a graduate of the AFSEC Safety and Accident Investigation Board President Course. **(T-1)**
- 4.2.1.8. Will ensure all SIB members are trained on privileged information restrictions in accordance with DAFI 91-204. **(T-1)**
- 4.2.2. For select on-duty Class B mishaps, the SIB President:
  - 4.2.2.1. Will be a minimum grade of O-5 or GS-14. **(T-1)**
  - 4.2.2.2. Will refer to paragraphs [4.2.1.2](#) through [4.2.1.8](#) for additional requirements. **(T-1)**
- 4.2.3. For on-duty Class A and select on-duty Class B mishaps, the IO:
  - 4.2.3.1. Will manage daily SIB activities, investigations and preparation of messages and formal reports. **(T-1)**
  - 4.2.3.2. Will be from outside the mishap wing, delta or installation unit. **(T-1)**
  - 4.2.3.3. Will be an occupational or systems safety member GS-09 (0018 or 0803) or higher, or 7-skill level (1S0X1) or higher. **(T-1)**
  - 4.2.3.4. Will be a graduate of the MINA course, AMIC or other formal military and/or civilian mishap-related investigation training. **(T-1)**
- 4.2.4. Convening Authority (CA) SIB Representative. The CA will provide a representative to the SIB for on-duty Class A mishaps, complex, high interest off-duty Class A and select on-duty Class B mishaps, as determined by the CA. **(T-2)** The CA representative will act as the investigation process expert to guide the SIB investigation, analysis and report writing efforts. **(T-2)** The CA representative conducts refresher training of SIB procedures and are familiar with technical assistance resources, which may be required by the SIB.
- 4.2.5. AFSEC/SEG SIB Representative. AFSEC/SEG will provide a representative to the SIB for on-duty Class A mishaps, complex, high interest off-duty Class A and select on-duty Class B mishaps, as determined by AFSEC/SEG. **(T-1)** An AFSEC/SEG representative assigned to and on-site with the SIB is considered a primary member. AFSEC/SEG representatives that support a SIB telephonically are not primary members, but are considered required consultants to the SIB. The AFSEC/SEG representative (or AFSEC/SEG telephonic advisor in the absence of an on-site representative) should be the single point of contact with AFSEC for the duration of the investigation. AFSEC will fund the temporary duty (TDY) of their representative. **(T-1)**

4.2.6. The CA will appoint other members to the SIB as needed based on the circumstances and complexities of the specific mishap investigation, such as:

4.2.6.1. A SIB Maintenance Member when weapons system parts, maintenance, or support equipment are involved. **(T-1)** It is preferred to select a maintenance officer or Senior Non-commissioned officer who has graduated from AMIC or other formal military/civilian mishap-related investigation training. The SIB Maintenance Member's chief function is to assemble as much information as possible regarding the history of the mishap, which includes but is not limited to, automated maintenance records, training records of maintainers, impound equipment or similar type items.

4.2.6.2. A SIB Medical Officer when medical factors are involved. **(T-1)**

4.2.6.3. A SIB Bioenvironmental Engineer when environmental health factors are involved. **(T-1)**

4.2.6.4. A SIB Vehicle Maintenance Officer/NCO when a motor vehicle is involved. **(T-1)** **Note:** For On-duty Class A mishaps involving government motor vehicles, equipped with an electronic data recorder, the ISB or SIB will obtain electronic data recorder data in readable form. **(T-1)**

4.2.6.5. A SIB Department of the Air Force Operational, Test and Evaluation Center (AFOTEC) representative when AFOTEC-managed operational, test and evaluation procedures or equipment are involved. **(T-1)**

4.2.6.6. A SIB representative from other test organizations that may take part in investigations when they have test responsibilities. **(T-1)**

4.2.6.7. A SIB Security Forces traffic accident investigator for motor vehicle related mishaps. **(T-1)**

4.2.6.8. A SIB Fire Protection and Prevention Representative GS-11 (0081) or higher, or 7-skill level (3E7X1 or higher) when a mishap is fire-related. **(T-1)**

4.2.6.9. A SIB Human Factors member, including Aerospace Physiologists officers, Psychologists, Pilot Physicians, Aerospace and Operational Physiology Technicians (4M0X1), Human Factors Engineers and Aerospace Medicine Specialists. **(T-1)** **Note:** MAJCOM/FLDCOM Chief of Aerospace Medicine (SGP) or SE and/or AFSEC Human Factors Division (AFSEC/SEH) may act in an advisory capacity to assist the SIB in determining the most appropriate type of consultant. ARC units will request MAJCOM/FLDCOM support, as required, to assist with Human Factors-related mishaps. **(T-1)**

4.2.6.10. An Acquisition Program Office representative for system-related mishaps. **(T-1)** This office will provide an analysis of hazards that contributed to the mishap and recommendations for materiel risk mitigation measures, especially those that minimize human errors. **(T-1)**

**4.3. Secondary SIB Members.** Secondary SIB members assist with and/or observe the investigation, but are not authorized to submit a minority report.

4.3.1. SIB Recorder. Should be a junior officer, NCO or civilian familiar with administrative procedures. Recorder may be a 1S0X1.

4.3.2. Add other experts as appropriate for mishap areas not included in this list. The SIB will ensure a memorandum of acknowledgment for the protection of all data, including privileged data is prepared and endorsed by all contractor personnel provided access to privileged information. **(T-1)** See DAFI 91-204 for further information on contractor personnel. **Note:** When using expert consultants to assist the SIB in the mishap investigation when possible, do not contract with representatives of contractors or companies who design, manufacture or maintain equipment involved in the mishap. **(T-1)**

**4.4. De-convening.** Prior to de-convening, upload all available exhibits, including the investigation out-brief given to the CA. **(T-1)** The investigation narrative should be drafted with all available information, to include placeholders for results of analysis or wreckage recovery. Develop a plan that allows enough time to finish the investigation and complete the safety report and briefing. While de-convened, the SIB remains the members' primary responsibility and members will continue to monitor investigation-related activities. **(T-1)** **Note:** Members are not relieved of their investigative responsibilities. The SIB must reconvene to deliberate in person or via video/teleconference. **(T-1)**

4.4.1. Prior to de-convening for the scheduled out-brief, prepare the final message in AFSAS, but do not select "Submit for Release" to the CA. Notify the CA safety office once all exhibits have been uploaded and the final message prepared. The CA safety office will review all products for quality control purposes in accordance with DAFI 91-204. **(T-1)**

4.4.2. The SIB President or IO will keep an electronic copy of all working files, exhibits, etc. on a portable hard drive, DVDs or other suitable media regarding the mishap until the SIB de-convenes and the out-brief is complete. **(T-1)**

**4.5. For all other mishaps.**

4.5.1. Off-duty A and B mishaps. An occupational safety member, GS-09 (0018) or higher, or 7-skill level (1S0X1) or higher, may serve as the SIO for all ground, motor vehicle and afloat mishaps. Member will be a graduate of the MINA course, Introduction to Mishap Investigation course, AMIC or other formal civilian investigation training. **(T-1)**

4.5.2. Class C through E mishaps. An occupational safety member, GS-09 (0018) or higher or a task certified 5-skill level (1S0X1) may be selected to investigate Class C through E mishaps.

4.5.3. Mishaps occurring away from owning unit. The nearest safety office will complete the investigation and enter the courtesy report into AFSAS. **(T-1)**

## Chapter 5

### CONDUCTING THE SAFETY INVESTIGATION

**5.1. General Information.** Follow guidance in DAFI 91-204 as well as this manual when conducting investigations to determine reportability and the cause(s) of ground, motor vehicle and afloat mishaps.

**5.2. Investigation Timeline.**

5.2.1. Refer to DAFI 91-204 for guidance on reporting phases and exceptions. Guidance is also found on the SharePoint ® site.

5.2.2. The CA for any category or classification of a ground, motor vehicle and afloat mishap may send out an immediate message to facilitate one-time inspections, groundings and time compliance technical orders, if these are needed before the investigation and report are finalized.

**5.3. Mishap Investigative Process.**

5.3.1. Once appointed, the SIB will relieve the ISB as soon as possible, take control of the investigation and accept custody of all impounded evidence, lists of potential witnesses and other items relevant to the investigation. **(T-1)**

5.3.2. The SIB will provide timely, factual information to the CA for incremental release to the public through the Public Affairs office or designated official, when requested by the CA. **(T-1)**

5.3.3. The SIB shall maintain a working relationship with the Office of Special Investigations, Security Forces or similar type offices, to facilitate a thorough safety investigation. **(T-1)** Other items to accomplish and/or consider:

5.3.3.1. A legal investigation, e.g., Ground Accident Investigation Board, may run concurrently to a safety investigation. In those situations, safety investigations take priority over any corresponding legal investigation and the SIB has exclusive first rights to witnesses and all physical evidence. If possible, the SIB President should formally meet with the Ground Accident Investigation Board President and/or the legal advisor at the beginning of the investigation to establish a working relationship.

5.3.3.2. Review privileged information criteria but do not release or discuss privileged information with the legal investigator(s).

5.3.3.3. Determine a debris recovery strategy, if required.

5.3.3.4. Review the process for planning, coordinating, approving and executing tests that may alter or destroy evidence. **(T-1)**

5.3.3.5. Review the processes for control of information in order to:

5.3.3.5.1. Protect information from unauthorized release. **(T-1)** For requests to release information prior to the release of the Ground Accident Investigation Board report, consult the AFSEC Judge Advocate's office.

5.3.3.5.2. Maintain separation of factual and privileged information. **(T-1)**

5.3.4. The SIB will control information access to those with approved access and a valid need to know. **(T-1)**

5.3.5. The SIB will only release impounded information and evidence when no longer needed for investigation purposes and the requirements of the Ground Accident Investigation Board are met. **(T-1)**

5.3.6. The investigative process ends with the approval of the final message in AFSAS (unless a waiver is granted by the AF/SE). Once accepted by the CA, AFSEC will review the final message, issue a Memorandum of Final Evaluation for on-duty Class A and on-duty Class B mishaps, and track open recommendations until closure. **(T-1)**

**5.4. Safety Investigations Involving Department of the Air Force and Other Services.** If a mishap involves materiel, facilities or personnel from the DAF and another Service or the Coast Guard, the investigation will be convened under a single service's procedures but conducted jointly and with joint membership in accordance with DoDI 6055.07. **(T-0)**

5.4.1. Each Service reserves the right to conduct independent, concurrent safety investigations; however, the joint investigation takes precedence with regards to access to evidence and witnesses.

5.4.2. The CA for the investigation will be the DoD-component experiencing the greater loss, although other factors such as operational roles and degree of involvement will also be considered. **(T-0)** The convening DoD-component's safety investigation directives shall be used in investigating and reporting the mishap. **(T-0)**

5.4.3. The DoD-component determined to have ownership of the mishap will account for all fatalities, injuries and property damage in that DoD-component's statistics. **(T-0)**

5.4.4. Due to the unique deployed environment, the closest installation may not be the best suited mishap support installation to comply with DAFI 91-204 requirements. In these cases, Department of the Air Force Forces Chief of Safety (AFFOR/SE) will determine the best suited installation. **(T-1)** For Class A and B mishaps, AFFOR/SE will coordinate with the CA for release of involved assets. **(T-1)** Determinations regarding recovery operations and mishap site visits will be made by the battle space owner and the Air Expeditionary Wing/Delta Installation Control Center. **(T-1)** During this phase, images of the site made by intelligence, surveillance and reconnaissance assets should be captured and preserved.

## **5.5. Deficiency Reporting Procedures.**

5.5.1. If a SIB suspects an item may be deficient, submit a deficiency report in accordance with Technical Order (TO) 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution*. Do not attempt field disassembly of the exhibit. Do not reveal any SIB analysis in the report. **(T-1)**

5.5.2. Category I deficiency reports are normally submitted for Class A mishaps and Category II deficiency reports are normally submitted for Class B, C, D, and E mishaps. Reference TO 00-35D-54 for more information. Consider initiating a Category I deficiency report for Class B, C, D, and E mishap items, if a potential exists for the item to cause a future Class A mishap. If required, verbally request priority teardown of suspect components by coordinating with the Acquisition Program Office with engineering control of the component.

5.5.3. If assistance is required to determine where to send a deficiency report exhibit, contact AFSEC/SEG. In most cases, teardown and analysis will be conducted by a DoD facility. Do not directly contact contractors or vendors for teardown and analysis without first coordinating with the Acquisition Program Office or AFSEC/SEG. **(T-1)**

5.5.4. Handle and ship exhibits according to TO 00-35D-54. Use TO 2J-1-18, *Preparation for Shipment and Storage of Gas Turbine Engines*, which explains how to mark engines for teardown. **(T-1)** Ensure the mishap number is referenced in block 11 of the DD Form 2332, *Product Quality Deficiency Report Exhibit*. **(T-1)** Enter the deficiency report Control Number into the mishap narrative in AFSAS. **(T-1)**

5.5.4.1. Include exhibit disposition instructions in all deficiency reports, e.g., return exhibit to originator, convening MAJCOM/FLDCOM. **(T-1)** Do not dispose of exhibits sent from Class A mishaps or mishaps involving potential litigation until authorized by the Operations and International Law, Aviation and Admiralty Torts Division. **(T-1)** Store these exhibits at the facility that performed the analysis, or return the exhibit to the SIB or the host installation commander, as appropriate. **(T-1)**

5.5.4.2. Take follow-up actions to ensure exhibits were received and teardowns are progressing in a timely manner. **(T-1)**

5.5.5. Place a copy of all teardown reports, including all supporting documents, e.g., metallurgical analyses, photographs, test reports, provided in response to deficiency reports in the proper exhibit group. **(T-1)**

5.5.6. The CA safety office takes follow-up action if the final safety report was sent before receipts of all deficiency report responses are received. If final exhibit disposition instructions were not included in the original deficiency report, the CA safety office will provide them to the Acquisition Program Office. **(T-1)**

## Chapter 6

### REPORTS

**6.1. Overview.** Reports present both privileged and non-privileged safety information in a structured format. Exhibits are electronic copies of evidence used by SIBs in the course of the investigation. Exhibits are uploaded to the appropriate exhibit group in AFSAS. Reports include messages (preliminary, status and final). Prepare and submit reports in accordance with DAFI 91-204, this manual and AFSAS guidance. **(T-1)**

#### **6.2. Preparing Messages.**

6.2.1. Unless otherwise noted, AFSAS is the primary means for documenting and distributing all messages. If AFSAS is not available, mishap reporting may be delayed until it is accessible. If possible, safety reports should be written as unclassified. However, if classified information is relevant to the mishap, see DAFI 91-204, paragraph 8.11 for guidance. The classified appendices shall use the same formatting as the unclassified appendices. Ensure the non-classified exhibits reference the classified appendices.

6.2.2. Upon completion of the investigation, the SIB will ensure the final message for all on- and off-duty Class A and B mishaps is routed through AFSAS to the MAJCOM/FLDCOM Safety staff for review and release. **(T-1)** For all other mishaps, the CA may delegate release authority.

**6.3. Report Writing or Narrative.** AFSAS provides investigators a step-by-step process for entering relevant information and a framework for providing consistent and quality report requirements. It uses key information to create the narrative and streamline the entry process for investigators.

6.3.1. The narrative is the culmination of the investigation and provides a complete picture of what happened, how it happened and why it happened. It is based on the weight of evidence, professional knowledge and good judgment of the SIB. It includes the sequence of events, investigation conclusions, background information, factors, primary findings, primary recommendations, other findings of significance and other recommendations of significance. The analysis should clearly show how factors influenced the findings and causes and support the logic behind the recommendations. **Note 1:** The sequence of events will contain only facts, not analysis, and may be written in bullet format. **(T-1)** **Note 2:** Investigation conclusion will be a brief statement that only contains factors identified in the report. **(T-1)**

6.3.1.1. Reference DAFI 91-204 for guidance on determining cause and writing factors, findings and recommendations. Factors include detailed analysis of the actions or conditions that influenced the mishap. Include enough information so the reader can logically follow the SIB's rationale. Include references to specific technical orders, publications, training, personnel actions or inactions, results of technical analysis, quotes from interviews, human factors, etc. Use photographs or diagrams, as necessary.

6.3.1.1.1. When analyzing actions, organize factors as a discussion of how the action should have been accomplished, how it actually occurred during the mishap and how it contributed to the mishap. Finally, if it is known, explain why a difference between the way the action usually occurred, and the way it should have occurred.



6.3.1.1.2. When analyzing conditions (e.g., weather, fatigue), explain how and why the condition influenced the outcome of the mishap.

6.3.1.1.3. When analyzing publications (e.g., technical orders, DAFIs), explain what the publication currently states, how it is deficient and how it contributed to the mishap. Contrasting similar publications can be helpful in explaining why the publication was deficient.

6.3.1.2. The SIB must determine whether an action or condition was a factor or causal factor in the mishap. **(T-1)** If the SIB cannot narrow it down to a single most likely cause, identify the alternatives and state “Action X most likely occurred due to one or more of the following reasons.” List the most reasonable causes from most probable to least probable. It is not necessary to list every single possibility.

6.3.1.3. Non-factors worthy of discussion fall into one of three categories: areas uncovered that did not influence the mishap, but should be fixed due to the potential to be a factor in a future mishap; areas that were thoroughly investigated and subsequently ruled out as factors; and areas that may be considered an interest item to the CA.

6.3.1.3.1. When analyzing areas that could be a factor in a future mishap, explain the deficiency and why it could lead to a mishap. Include a sentence at the end of the narrative that states that this could be a factor in a future mishap.

6.3.1.3.2. When analyzing areas that were ruled out as factors, explain what the SIB investigated and why they determined it did not influence the mishap. Often the SIB will need to answer why other plausible scenarios were ruled out.

6.3.1.3.3. When analyzing areas that may be considered an interest item to the CA, use the methods described in paragraphs [6.3.1.1.1](#) through [6.3.1.1.3](#), as appropriate.

6.3.2. Findings. State findings in accordance with DAFI 91-204. **(T-1)**

6.3.3. Recommendations. The purpose of mishap investigations is to prevent recurrence. This is accomplished by identifying causal factors and developing abatement actions that effectively control the identified hazards or deficiencies. Causal factors identified at the supervisor or organization levels usually lead to more effective recommendations. Recommendations are a critical part of the report and every effort should be made to develop recommendations for findings. If no recommendations are made for Class A and B on-duty mishaps, investigators will explain their rationale in the Investigation Conclusions section of the report and choose the “no-recommendations” drop down box within AFSAS. **(T-1)** In many circumstances, even when a recommendation cannot be made, lessons learned can be disseminated to Department of the Air Force personnel as an awareness tool. **Note:** In the occasion the mishap unit (or appropriate person/agency) has already taken the proposed steps to prevent reoccurrence, the investigator will input the corrective action in the recommendation module and immediately close after the final message is approved. **(T-1)** This ensures that actions are recorded. Recording corrective actions are important for lessons learned should a similar mishap occur. When actions are recorded, safety professionals, functional managers and commanders are able to see what actions were implemented and study their effects.

6.3.3.1. Hierarchy of Controls. When developing recommendations, investigators will utilize the hierarchy of controls to ensure the most effective recommendations are

instituted. (T-1) The hierarchy of controls are listed from most effective alternative to least effective as follows:

6.3.3.1.1. Elimination. Physically remove the hazard exposure.

6.3.3.1.2. Substitution. Replace the hazard with a non-hazardous or less hazardous alternative.

6.3.3.1.3. Engineering Controls. Designed to remove the hazard at the source, before it comes in contact with the worker.

6.3.3.1.4. Administrative Controls. Change work processes, policies, procedures, schedules and other similar items to reduce hazard exposure.

6.3.3.1.5. Personal Protective Equipment. Protect the worker from the hazard using personal protective equipment.

6.3.3.2. Investigators will ensure adequate justification is provided to support and identify factors as well as associated recommendations. (T-1)

6.3.3.3. Investigators shall work with the respective recommendation OPR/Office of Collateral Responsibility to ensure the most feasible and effective level of the hierarchy of controls is instituted. (T-1)

**6.4. DoD Human Factors Analysis and Classification (HFAC) System Codes.** DoD HFAC system codes are useful to identify errors through analysis at the individual, supervisory and organizational levels. Codes should be made to fit the investigation, not the other way around. HFACs can be more comprehensively applied if analyzed at the conclusion of the investigation. The process of human factor analysis precedes applying codes. Coding is mandatory for Class A and B mishaps and may be used for other mishap classes. Consult with the CA HFAC experts for coding assistance. When used, ensure codes are supported and cited in the Narrative Factors, e.g., OPI's BAC was .27%, [*PC302 - Substance Effects*], or W1 purposefully ignored a caution in a TO, [*AV003 - Extreme Violation - Lack of Discipline*], and associated with the related causal findings. This provides a direct tie-in to the findings, causes and recommendations. The current DoD HFAC System Guide is located on the AF Occupational Safety SharePoint® site.

**6.5. Managing Exhibits.** When uploading exhibits, a single portable document format (pdf) is preferred, multiple pdfs are acceptable and, when necessary, multiple file types are permissible. If two or more files are combined into a single file, include a table of contents to aid reviewers.

**6.6. Exhibit Groups.** For Class A and B mishaps, most exhibit groups are required. However, for any other mishap class or event, investigators should upload information to any exhibit group when necessary to support their conclusions.

6.6.1. Technical and Engineering Reports. Technical and engineering reports are produced by subject matter experts and detail observations, such as what components are bent, broken or burned, etc., and whether the damage happened before, during or after the mishap. Reports may include the mechanism or cause of damage, conclusions and recommendations. Refer to DAFI 91-204 for details on technical reports and formatting.

6.6.1.1. Subject matter experts who provide reports must sign the appropriate Non-Disclosure Agreement. (T-1) Military and government civilians sign the "Non-Disclosure Agreement – Safety Investigation." Contractors sign the "Non-Disclosure Agreement -

Contractor Reps Serving as Tech Experts to SIBs.” Use the templates located on the AF Occupational Safety SharePoint® site.

6.6.1.2. SIBs should make every effort to have subject matter experts write non-privileged reports. A subject matter expert’s report is privileged if the analysis includes privileged input from the SIB, regardless of whether the report reveals that SIB analysis. If required/possible, experts can provide both non-privileged and privileged reports.

6.6.1.3. Include non-privileged factual data. Include medical, autopsy or coroner’s reports. Include technical specialist analysis of the mishap, as applicable, e.g., police or fire reports. If a SIB member writes one of these reports, mark the exhibit as reflecting Safety Privileged. Any data derived from these reports will be referenced in the Narrative.

6.6.2. Testimony and Statements. Testimony and statements are derived from interviews with witnesses or involved individuals. These include statements solicited by the SIB or unsolicited statements voluntarily provided by individuals. **Note:** A Privacy Act Warning Statement will accompany all recordings of voice communications. **(T-1)**

6.6.2.1. Transcribing interviews is a time-intensive task and should be started early in the investigation. If necessary, request additional personnel to help with transcription. SIBs must review and verify the accuracy of all transcripts. **(T-1)**

6.6.2.2. If information from an interview is referenced in the analysis it will be transcribed and included as an exhibit. **(T-1)** If testimony is not used to support the SIB’s analysis, it is not necessary to include it as an exhibit.

6.6.2.2.1. If non-privileged (no promise of confidentiality) testimony is not included as an exhibit, provide the audio recordings to any legal board. **(T-1)**

6.6.2.2.2. If interviews are transcribed, include the complete testimony. Do not summarize the witness’s testimony.

6.6.2.3. Label each transcription file with the date of the interview and who was interviewed, e.g., 20200504 Mishap Person 1 Interview.

6.6.2.4. Upload a signed Privileged or Non-Privileged Witness Agreement with each written statement or transcribed testimony. Use the most current documentation for interviews and written statements found on the AF Occupational Safety SharePoint® site. Label each Witness Agreement file with the date of the interview and who was interviewed, e.g., 20210504 Mishap Person 1 Witness Agreement.

6.6.3. Diagrams, Photographs and Videos. Include items that increase understanding by showing equipment layout, damage, impact areas, metal fractures, traffic pattern, etc.

6.6.3.1. Do not upload every photograph provided to the SIB. Only upload photographs that are relevant to the mishap and aid the reader in understanding the analysis and conclusions.

6.6.3.2. Do not unnecessarily show evidence of human injury, e.g., bloody car parts. Due to their sensitivity, upload photographs of deceased personnel or injuries in the Medical Information exhibit group only if they support findings or recommendations.

6.6.3.3. Label each image or name each file to aid reviewers. Labels (or file names) include name of item and where applicable, the direction the photograph is facing, e.g., Mishap Scene Looking West. Do not include privileged information in the label (or file name).

6.6.3.4. Photographs and videos are considered privileged if they are staged for SIB analysis and should be marked as reflecting Investigative Deliberations. Depictions of mishap sequence for a given set of assumptions made by the SIB or described in witness testimony are staged photographs. Pointing with a finger or other device at a portion of wreckage does not necessarily make a photograph staged.

6.6.3.5. Include photographs and videos relevant to the investigation, e.g., videos shot by eyewitnesses or surveillance videos. Not all photographs and videos received by the SIB will be relevant. If non-privileged photographs and videos are not included as exhibits, provide them to any legal board.

6.6.3.6. Include diagrams that add to the report such as location of wreckage, route of driver, etc. Ensure diagrams are self-explanatory and indicate direction with a northward pointing arrow. If practical, indicate scale. Use Civil Engineering plots, aerial photographs, topographical maps, etc. Do not include diagrams depicting the location of human remains in the Diagrams exhibit group. If they support findings or recommendations, upload such diagrams in the Medical Information exhibit group.

6.6.3.7. If applicable, include the final version of the releasable and/or privileged animations. Releasable animations are typically built with readily-available software tools, incorporate an intuitive visual presentation and are based on selected recorded data. Releasable animations are produced without any input or direction from the SIB and before their creators are exposed to privileged safety information.

6.6.4. Training Records. Include training records for all mishap members involved as applicable.

6.6.5. Medical Data. If uploading reports/records containing medical treatment or assessment data specifically requested by investigators, ensure the document is marked with the appropriate warning statement.

6.6.6. Class A and B SIBs will forward draft copies of the report as soon as available to the CA/SEG for review. Additionally, all on-duty Class A and select Class B SIBs will forward draft copies of the report to AFSEC/SEG for review. (T-1) Other SIBs may request a review by AFSEC/SEG. This review should normally be requested on or before day 25 of the investigation. The SIB should allow at least two duty days for the CA/SEG and AFSEC/SEG reviews. These reviews ensure compliance with DAFI 91-204 and this DAFMAN prior to CA out-briefing. They also ensure the analysis supports the SIB findings, cause(s), and recommendation(s).

6.6.6.1. Reviewers may not direct SIBs to change their conclusions, but may direct SIBs to provide more analysis to support conclusions.

6.6.6.2. Other than AFSEC involvement, the investigation will not be staffed outside of the CA safety office during this review process.

## 6.7. Exhibit Waivers.

6.7.1. Requests for Exhibit waivers will be initially approved through the applicable CA, then forwarded to AFSEC/SEG using the AFSAS Exhibit waiver function. **(T-1)** SIBs shall continue preparation of the Exhibits until receipt of an AFSEC/SEG approved waiver. **(T-1)**

6.7.2. Each Exhibit waiver request will be evaluated on a case-by-case basis, considering all completed message data, supporting material and other factors. **(T-1)**

6.7.3. Ensure the AFSAS Waiver Request Justification input includes confirmation that the CA has initially approved the Exhibit waiver request. **(T-1)** Additionally ensure any supporting documentation is uploaded into the Waiver Request Supporting Documentation field. **(T-1)**

## 6.8. Other report requirements.

6.8.1. The One-Liner will be made up of four parts, separated by a semi-colon, in the following order: Activity; What happened; What was damaged/broken/injured; What was the outcome. **(T-1)** Click on the “Mishap One-Liner: One-Liner Format and Examples” link on the AFSAS “General Mishap Information” page for examples. Commonly used acronyms in the one-liner will be in accordance with the approved acronyms list located on the AFSEC Occupational Safety SharePoint® site. Any additional acronyms used within the report will be defined the first time they are used in the Narrative, Findings or Recommendations. **(T-1)** Do not include privileged information in the One-Liner. **(T-1)**

6.8.2. For Class A and B motor vehicle mishaps, the investigator will address at a minimum licensing, mandated training, experience/history of the operator(s), condition of involved vehicle(s), traffic environment, road conditions, weather and law enforcement investigative results if an investigation is conducted. **(T-1)**

6.8.3. Persons and Objects will be identified in the following formats: **(T-1)** **Note:** Do not identify involved personnel by name. **(T-1)**

6.8.3.1. Persons. Nomenclature (Identifier, AFSAS Person number). After initial identification, persons will then be identified by their identifier throughout the report, including in all Findings. **(T-1)** For example, Worker 1 (W1, AFSAS Person 1) will be “W1.” **Note:** Actual names shall not be identified in Background Information, Persons Background Information, Person Alias, e.g., use Worker 1, W1 or Participant 1, P1, etc. **(T-1)**

6.8.3.2. Objects. Nomenclature (AFSAS Object number). After initial identification, the item will be identified by its nomenclature throughout the report, including in all Findings. **(T-1)** For example, 1400cc motorcycle (AFSAS Object 1) will be “motorcycle”; utility pole (AFSAS Object 2) will be “utility pole.” **Note:** When using plain language, use the minimum level of detail necessary to differentiate between multiple objects involved in the mishap.

6.8.3.3. Background Information. General background information is used to provide a reader with context and understanding of the systems, processes or organizations involved in the event. Persons background information provides details about people identified as factors or operators of equipment that caused or received damage. Object background information provides details about objects or equipment that were involved in the event.

**Note:** Actual names shall not be identified in the Background Information. **(T-1)** Only use Person Alias, e.g., use Worker 1, W1 or Participant 1, P1, etc.

6.8.4. Protecting Sensitive Medical Information. Unless the medical information sustains the mishap sequence or is critical to the analysis, information shall be reported in general terms within the report. **(T-1)** All sensitive information, including diagnoses, medications and relevant annotated molecular autopsy findings, shall be placed in the Medical Information Exhibit. **(T-1)**

6.8.4.1. If the member was treated after the mishap, the following statement(s) meets the intent to protect the member's sensitive medical information: "W1 was treated at a local hospital after the mishap and prescribed a pain-relieving medication" or "W1 was treated with greater-than-first-aid following the mishap."

6.8.4.2. If specific medical information is necessary to sustain the mishap sequence, the report can include that information detail, but should be limited to the minimum required information such as in the following example: "Sequence of Event – Two days prior to the mishap, W1 was prescribed pain medication due to a previous surgery. A competent medical authority advised W1 not to operate a vehicle while using this medication. Analysis: The use of this medication was contributory to W1 falling asleep while driving and colliding with the tree."

6.8.5. Active vs. Passive voice. The sequence of event and findings shall be written in past tense and "Active Voice." Refer to AFH 33-337 for additional guidance.

6.8.6. The CA, MAJCOM/FLDCOM, AFSEC/SEAR and/or AFSEC/SEG safety staffs may make non-substantive changes to mishap reports in order to improve quality.

6.8.7. Abbreviated Narrative. When authorized in accordance with this publication and deemed appropriate by the responsible Occupational Safety Manager, the investigator has the option of writing an abbreviated narrative. Writing an abbreviated narrative does not preclude the requirement to conduct a complete and thorough investigation. This abbreviated narrative shall include the sequence of event, investigation conclusions, and at least one causal factor and one causal finding. **(T-1)** The full narrative will include the sequence of event, investigation conclusions, background information, factors, primary findings, primary recommendations, other findings of significance and other recommendations of significance. **(T-1)** The abbreviated narrative will be comprehensive enough to match the complexity of the investigation. **(T-1)** It will include, at a minimum, who/what equipment was involved, what happened, when did it happen, and where did it happen. **(T-1)** Refer to the AF Occupational Safety SharePoint® site for templates. An abbreviated Narrative is acceptable for the following mishap classes and categories:

6.8.7.1. On-duty Class C sports, recreation and individual fitness mishaps where the investigator has reached the determination of "accepted risk."

6.8.7.2. Off-duty Class C mishaps.

6.8.7.3. Class D and E mishaps.

6.8.8. Ensure information inputted in AFSAS data fields, narrative and exhibits is accurate and consistent throughout the report.

JEANNIE M. LEAVITT, Major General, USAF  
Chief of Safety

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

AFH 33-337, *The Tongue and Quill*, 27 May 2015

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 10-2501, *Emergency Management Program*, 10 March 2020

AFI 48-151, *Thermal Injury Prevention Program*, 7 April 2016

AFMAN 10-2502, *Air Force Incident Management System (AFIMS) Standards and Procedures*, 13 September 2018

AFPD 91-2, *Safety Programs*, 3 September 2019

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 January 2020

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

DAFI 33-360, *Publications and Forms Management*, 1 December 2015

DAFMAN 91-223, *Aviation Safety Investigations and Reports*, 14 September 2018

DoDI 5400.11, *DoD Privacy and Civil Liberties Programs*, 29 January 2019

DoDI 6055.07, *Mishap Notification, Investigation, Reporting, and Record Keeping*, 6 June 2011

TO 00-35D-54, *USAF Deficiency Reporting, Investigation, and Resolution*, 1 September 2015

TO 2J-1-18, *Preparation for Shipment and Storage of Gas Turbine Engines*, 1 July 2017

29 CFR § 1904, *Recording and Reporting Occupational Injuries and Illnesses*

***Prescribed Forms***

None

***Adopted Forms***

AF Form 978, *Supervisor Mishap Report*

AF Form 847, *Recommendation for Change of Publication*

DD Form 2332, *Product Quality Deficiency Report Exhibit*

***Abbreviations and Acronyms***

**AFFOR/SE**—Air Force Forces Safety

**AF/SE**—Air Force Chief of Safety

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFOTEC**—Department of the Air Force Operational Test and Evaluation Center



**AFPD**—Air Force Policy Directive  
**AFR**—Air Force Reserve  
**AFSAS**—Air Force Safety Automated System  
**AFSEC**—Air Force Safety Center  
**AFSEC/JA**—Judge Advocate, Air Force Safety Center  
**AFSEC/SEG**—Occupational Safety Division, Air Force Safety Center  
**AFSEC/SEH**—Human Factors Division, Air Force Safety Center  
**AMIC**—Aircraft Mishap Investigation Course  
**ANG**—Air National Guard  
**CA**—Convening Authority  
**CFR**—Code of Federal Regulation  
**DAF**—Department of the Air Force  
**DAFI**—Department of the Air Force Instruction  
**DAFMAN**—Department of the Air Force Manual  
**DoD**—Department of Defense  
**DoDI**—Department of Defense Instruction  
**DRU**—Direct Reporting Unit  
**ECAST**—Exertional Collapse Associated with Sickle Cell Trait  
**FLDCOM**—Field Command  
**FOA**—Field Operating Agency  
**HFAC**—Human Factors Analysis and Classification  
**IO**—Investigating Officer  
**ISB**—Interim Safety Board  
**MAJCOM**—Major Command  
**MINA**—Mishap Investigation Non-Aviation  
**NCO**—Non-Commissioned Officer  
**OPR**—Office of Primary Responsibility  
**OSHA**—Occupational Safety and Health Administration  
**PDF**—Portable Document Format  
**SE**—Director/Chief of Safety or Safety Office  
**SGP**—Chief of Aerospace Medicine  
**SIB**—Safety Investigation Board

**SIO**—Single Investigating Officer

**TDY**—Temporary Duty

**TO**—Technical Order

**US**—United States

**USAF**—United States Air Force

**USSF**—United States Space Force

***Terms***

**Accounting Installation**—The installation of assignment of the asset damaged or personnel injured in the mishap.

**Courtesy Report**—A properly completed AFSAS mishap report conducted by the nearest safety staff, other than the owning safety staff responsible for the mishap asset (human, materiel or property), due to geographical separation of the mishap site from the responsible safety staff. The entirety of a courtesy report will be completed by the investigating agency.

**Note**—Other relevant definitions are found in the parent publication, DAFI 91-204.