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Safety

WEAPONS SAFETY INVESTIGATIONS AND REPORTS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This manual provides weapons unique guidance to support AFI 91-204, *Safety Investigation and Reports*. It directs procedures specific to investigating and reporting USAF weapons mishaps and events. It implements Air Force Policy Directive (AFPD) 91-2, *Safety Programs*. It 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. Send major command (MAJCOM) supplements to HQ USAF/SE, 9700 G Avenue SE, Kirtland AFB NM 87117-5670, for approval before publication. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at **https://webrims.amc.af.mil**.

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

(USAFE) AFMAN 91-221, 18 June 2004 is supplemented as follows: This supplement applies to all United States Air Forces in Europe (USAFE) units; it also applies to Air National Guard (ANG) and Air Force Reserve Command (AFRC) units that are activated and fall under operational control (OPCON) of USAFE. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records* and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at: **https://webrims.amc.af.mil**.

Chapter 1

GENERAL INFORMATION

1.1. General. This manual, in conjunction with AFI 91-204, provides guidance for investigating and reporting nuclear, guided missile, explosives and chemical agents, and directed energy mishaps. The sole purpose of these safety investigations is to prevent future mishaps. Investigations to gather evidence for claims, litigation, disciplinary and adverse administrative actions, and for all purposes other than mishap prevention are not covered by this manual.

1.1.1. Nuclear accidents, incidents, and deficiencies will be reported using the flagwords in paragraph **1.4.** In addition, if the event meets mishap criteria, a nuclear mishap investigation and report is required in accordance with this manual and AFI 91-204.

1.2. Mishap Category. Reference **Figure 1.1.** to determine if the mishap should be reported IAW this manual.

1.3. Mishap Severity Classification. Once it is determined that a mishap is reportable, classify the mishap according to its severity and/or cost using Class A, B, C, D, and E. Follow guidance in AFI 91-204 with the following additions:

1.3.1. When determining the mishap severity classification for nuclear mishaps, be sure to reference the appropriate security classification guide and mark the report appropriately.

1.4. Flagwords. Flagwords are used to identify nuclear accidents (BROKEN ARROW), incidents (BENT SPEAR), and deficiencies (DULL SWORD). Flagword definitions may be subjective and it is up to the investigator to determine the best flagword to describe the mishap. If the event status changes after submitting an original report, submit another report using the new flagword. Upgrade the flagword only when time-critical responses are required. Do NOT downgrade the flagword of nuclear mishap reports without the concurrence of HQ AFSC/SEW.

1.4.1. NUCFLASH: Includes accidental, unauthorized, or unexplained events meeting any of the following criteria:

1.4.1.1. Accidental, unauthorized, or unexplained actual or possible nuclear detonation by US forces or US-supported allied forces.

1.4.1.2. Accidental or unauthorized launch of a nuclear-armed or nuclear-capable missile by US forces or US-supported allied forces.

1.4.1.3. 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.

1.4.2. BROKEN ARROW: Accidental, unauthorized, or unexplained events that could not create the risk of war and the following:

1.4.2.1. Accidental or unauthorized launching, firing, or use by U.S. forces or U.S. supported allied forces of a nuclear capable weapons system.

1.4.2.2. An accidental, unauthorized, or unexplained nuclear detonation.

1.4.2.3. Non-nuclear detonation (no nuclear yield) or burning of a nuclear weapon or nuclear component.

1.4.2.4. Radioactive contamination.

1.4.2.5. Public hazard, actual or perceived.

1.4.2.6. Jettisoning of a nuclear weapon or nuclear component.

1.4.3. EMPTY QUIVER: Nuclear weapon is lost, stolen, seized, or destroyed. Loss includes, but is not limited to, intentional nuclear weapon jettisoning according to approved Air Force procedures, or inadvertent release of a nuclear component.

1.4.4. BENT SPEAR: Includes mishaps not in the accident category but meeting any of the following criteria:

1.4.4.1. Radioactive contamination from burning, theft, seizure, or destruction of a radioactive limited life component.

1.4.4.2. Evident damage to a nuclear weapon or nuclear component that requires major rework, replacement, or examination or re-certification by the DOE.

1.4.4.3. Events requiring immediate action in the interest of nuclear surety (such as render safety procedures or failed positive measures) or which could result in adverse national or international public reaction or premature release of information (such as attempted theft or seizure of a nuclear weapon). ***NOTE****: Includes damage to a nuclear weapon carrier that could lead to loss of, or damage to, nuclear components.*

1.4.4.4. An event indicating a nuclear weapon or nuclear warhead has been armed without proper authorization.

1.4.4.5. Events which could lead to a nuclear weapon system accident and thus warrant the informational interest of, or action by, any of the following agencies:

1.4.4.5.1. Appropriate Military Department or Service.

1.4.4.5.2. Office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs).

1.4.4.5.3. Office of the Assistant Secretary of Defense (Strategy and Threat Reduction).

1.4.4.5.4. Office of the Assistant Secretary of Defense (Public Affairs).

1.4.4.5.5. Federal Emergency Management Agency (within the CONUS).

1.4.4.5.6. Abnormal readings encountered during Non-Nuclear Verification procedures of Joint Test Assemblies.

1.4.5. DULL SWORD: Safety deficiencies not included in the accident or incident categories, but meeting any of the criteria listed below shall be reported. Recognizable failure modes where specific diagnostic and corrective actions are outlined in current technical data, including fair wear and tear, are not reportable. In addition, if damage or injury meets mishap criteria, a nuclear mishap investigation is required.

1.4.5.1. General Criteria:

1.4.5.1.1. Malfunction, failure, or anomaly that results in damage to the nuclear weapon system due to sources from electrical energy (e.g., lightning, over voltage, and power fluctuations). Report actual or suspected exposure of a nuclear weapon or nuclear component to sources of electrical or electromagnetic energy.

1.4.5.1.2. The single manager will report an event or trend with an item listed in the Master Nuclear Certification List (MNCL) located on the AAC/NW website at **https://wwwmil.nwd.kirtland.af.mil**, T.O. 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*, or T.O. 21-LG118A-12-1, *Peacekeeper Nuclear Surety Procedures* that could have an adverse effect on nuclear safety or certification of a nuclear weapon system.

1.4.5.1.3. Malfunction, failure, or anomaly involving the command and control system which results in indications (suspected, false, or actual) of critical function (release, launch, or arming) activation.

1.4.5.1.4. Exposure of a nuclear weapon, nuclear component, or nuclear weapon system to an abnormal environment (e.g., flood, earthquake, etc.) whereby there is a possibility of damage to the nuclear weapon. If there is any doubt as to the condition of the nuclear weapon, report the incident.

1.4.5.1.5. Malfunction, failure, or anomaly during operations or testing, which did, or could, result in a safety or coded device to arm or be left in an unsafe condition (e.g., Safety Control Switch, Safe and Arm devices).

1.4.5.1.6. Malfunction, failure, or anomaly that results in suspected or unconfirmed radioactive contamination.

1.4.5.1.7. Nuclear surety violations, where there is the potential to tamper with or damage the weapon or weapon system.

1.4.5.1.8. Violations involving nuclear weapon system safety rules (published in AFI 91-100 series).

1.4.5.1.9. Damage, malfunction, failure, or anomaly to items listed in the MNCL, T.O. 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*, or T.O. 21-LG118A-12-1, *Peacekeeper Nuclear Surety Procedures* that requires evaluation by the single manager, or that could have an adverse effect on nuclear safety of a nuclear weapon system.

1.4.5.1.10. Nuclear weapon system technical order procedure inadequacies or other problems that the unit perceives could lead to a violation of nuclear weapon system safety rules. ***NOTE:*** *When appropriate, report procedural deficiencies according to T.O. 00-5-1, Air Force Technical Order System, using AFTO Form 22.*

1.4.5.1.11. Minor damage to a nuclear weapon or nuclear component resulting from errors committed during the assembly, testing, loading, or transporting of the nuclear weapon while in Air Force custody (includes electrical components, mechanically activated components, explosives, or radioactive materials). ***NOTE:*** *Materiel deficiencies/failures (e.g., dents, scratches, scuffs, chips, rips, tears, cuts, splits, etc.) which are not safety related will be reported as applicable with T.O.s 00-35D-54, USAF Materiel Deficiency Reporting and Investigating System, 36-1-42, Technical Manual – Policies Governing Warranty Procedures for Air Force Vehicles, or 11N-5-1, Unsatisfactory Reports.*

1.4.5.1.12. Abnormal status of any indicator on a nuclear weapon according to applicable technical publication guidance.

1.4.5.1.13. Loss, theft, seizure, or destruction of a training weapon. ***NOTE:*** *For defects or failures involving a training weapon (such as TYPE 3A/5A),* submit an unsatisfactory report IAW T.O. 11N-5-1.

1.4.5.1.14. Malfunctions or failures to an intrusion detection systems monitoring equipment and software and/or any malfunctions or failures trends of the intrusion detection system occurring at a nuclear weapon operational, maintenance, or storage facility. ***NOTE:*** *Does not include false or nuisance alarms.*

1.4.5.1.15. Use of uncertified equipment/hardware or software on a nuclear weapon or weapon system that requires nuclear safety design certification.

1.4.5.1.16. When directed by MAJCOM or AFSC, and any problem or situation, in the commander's judgment, that affects nuclear safety.

1.4.5.2. Ground-Launched Missile Systems:

1.4.5.2.1. Loss or compromise (actual or suspected) of certified critical components listed in T.O. 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*, or T.O. 21-LG118A-12-1, *Peacekeeper Nuclear Surety Procedures*. The DULL SWORD should indicate whether loss or compromise has occurred and follow-on actions required to recertify compromised critical components or to conduct a code change for a compromised code. ***NOTES****: (1) Does not include momentary loss of Two-Person Concept control if the duration does not permit tampering with a certified critical component or removal of codes without detection. (2) HQ AFSC/SEW makes the final determination if appropriate action was taken, therefore if recertification procedures are not provided in appropriate technical orders, or doubt exists regarding what action to take, request guidance from HQ AFSC/SEW before submitting a DULL SWORD report.*

1.4.5.3. Aircraft and Air-Launched Missile Systems:

1.4.5.3.1. Inadvertent release, launch, or jettison of a training weapon or non-nuclear store from any nuclear-capable station of a nuclear certified aircraft.

1.4.5.3.2. Problems involving the positioning or securing of nuclear weapon loads on non-combat delivery vehicles (cargo aircraft) during air logistical operations. Specifically, consider unsafe conditions resulting from violations of, or inadequacies with, loading procedures, and defects or failures in the nuclear cargo restraint system.

1.4.5.3.3. Damage, malfunction, failure, or anomaly involving the missile's arming and control or propulsion system when mated with a nuclear warhead.

1.4.5.4. Nuclear Certified Support Equipment. Specific areas of concern include:

1.4.5.4.1. Stability, steering or brake system problems that affect the safe steering, stopping, towing, or holding in park of a tow or transport vehicle (cargo, loading, or lifting). ***NOTE:*** *Does not include minor problems such as dents, flat tires, corrosion, or electrical accessory malfunctions and failures resulting from fair wear and tear.*

1.4.5.4.1. **(USAFE)** Do not report traffic accidents where vehicle deficiencies are not a factor and nuclear weapons are not involved.

1.4.5.4.2. Defects or failures in vehicle structural members (including the pintle hooks and mounting structure, fifth wheels) that support the load or transmit the towing or braking force.

1.4.5.4.3. Inadequate restraint of loads attributed to trailer tiedown points or tiedown patterns.

1.4.5.4.4. Unsafe condition or improper operation of the hydraulic, mechanical, and structural components of lift vehicles (e.g., forklifts and K-loaders) resulting in unresponsive operation, uncontrolled raising or lowering, or improper cargo restraint.

1.4.5.4.5. Unsafe condition or improper operation of installed equipment lifting devices (e.g., overhead hoists, cranes, monorail hoist systems, and storage vaults) resulting in situations such as limit switch failure, over-speed operation, or uncontrolled raising or lowering operations.

1.4.5.5. Nuclear Certified Test Equipment:

1.4.5.5.1. Damage, malfunction, failure, or anomaly involving test equipment listed in the MNCL, discovered when verifying proper operation of critical function circuits, or when directly interfaced with nuclear or operationally certified critical components.

1.4.6. PINNACLE FADED GIANT. A nuclear reactor system or radiological accident, as defined by the following criteria:

1.4.6.1. Nuclear criticality or event resulting in significant damage to the reactor core, or a significant release of fission products from the reactor core.

1.4.6.2. Release of radioactive material such that had an individual been present for 24 hours, the individual could have received an intake of 25 roentgen equivalent man (rems) (five times the federal annual occupational limit of 5 rems).

1.4.6.3. Exposure of an individual's whole body to 25 rems or more of radiation; exposure of the eye to 75 rems or more of radiation; or exposure of any extremity to 250 rems or more of radiation.

1.4.6.4. Immediate public hazard or widespread coverage in news media.

1.4.7. BEELINE FADED GIANT: A nuclear reactor system or radiological incident, as defined by the following criteria:

1.4.7.1. Events or acts caused by humans or nature (e.g., fire, explosion, projectile impact, sabotage, earthquake, flood, tornado, hurricane, or riot), damaging a nuclear reactor system.

1.4.7.2. Exposure of an individual's whole body to 5 rems or more of radiation; exposure of the eye to 15 rems or more of radiation; or exposure of any extremity to 50 rems or more of radiation.

1.4.7.3. Release of radioactive material so that, had an individual been present for 24 hours, the individual could have received an intake in excess of 5 rems.

1.4.7.4. Possible public hazard, actual or perceived, or coverage in news media.

1.4.8. MISSING PENNY: A deviation from prescribed safety and security standards for a nuclear reactor system or radiological activity (i.e. a nuclear reactor system or radiological safety deficiency), as defined by the following criteria:

1.4.8.1. Release of radioactive material posing a threat to life, health, or property.

1.4.8.2. Uncontrolled release of radioactivity to radiologically unrestricted areas above the allowable limits specified in Title 10, *Code of Federal Regulation*s, Part 20 (10 CFR 20).

1.4.8.3. Exposure of any individual exceeding one occupational dose limit.

1.4.8.4. Violation of nuclear reactor safety limits (as identified in technical specifications) not resulting in an accident or incident.

1.4.8.5. Abnormal degradation in reactor fuel, fuel cladding, coolant boundary, or containment boundary resulting in a measurable release of radioactive material.

1.4.8.6. Operation of nuclear reactor with any safety system setting less conservative than specified in the technical specifications. This includes the limiting safety system settings (LSSS) and the reactor protective system (RPS) settings.

1.4.8.7. Automatic or manual scram as a result of exceeding the LSSS or RPS settings, or the actuation of an engineered safety feature relating to the safety of the public, operating personnel, or facility.

1.4.8.8. Nuclear reactor operation in violation of any limiting condition for operation (as specified in the technical specifications).

1.4.8.9. Malfunction of a reactor, experiment, or experimental facility safety system component that could or does render a required safety system (as identified in the technical specifications) incapable of performing its intended safety function. Do not report a malfunction discovered during normal surveillance tests or checks.

1.4.8.10. Unanticipated or uncontrolled change in reactivity greater than $1.00 (one dollar).

1.4.8.11. Condition which could or did result in operating the reactor or maintaining the decommissioned or entombed reactor in a manner less safe than conditions analyzed in the facility safety analysis report or other guidelines and restrictions.

1.4.8.12. Inadequate implementation of administrative or procedural controls which could create a credible possibility of an unsafe condition with regard to reactor operations or maintaining the integrity of the decommissioned or entombed reactor facility.

1.4.8.13. Event or condition (internal or external) posing a threat to the safety of the nuclear reactor (operational or decommissioned), or significantly hampering the ability of facility personnel to perform duties required for the safe operation of the reactor.

1.5. Mishap Costs. Use the guidance in AFI 91-204 with the following additions to determine mishap costs for mishap classification.

1.5.1. Dropped Weapons. For weapons or their components dropped a distance that exceeds the drop criteria in the specific item technical order, estimate the mishap cost at 15 percent of the item replacement cost in the current stock catalog for initial mishap class determination. Upgrade or downgrade the mishap class and report all changes when actual cost is determined. Upgrade or downgrade may be accomplished after completion of final evaluation.

1.5.2. Prelaunch Damage. Compute all ground-launch weapon pre-launch damage occurring without the weapon being launched, to include transportation and storage cost.

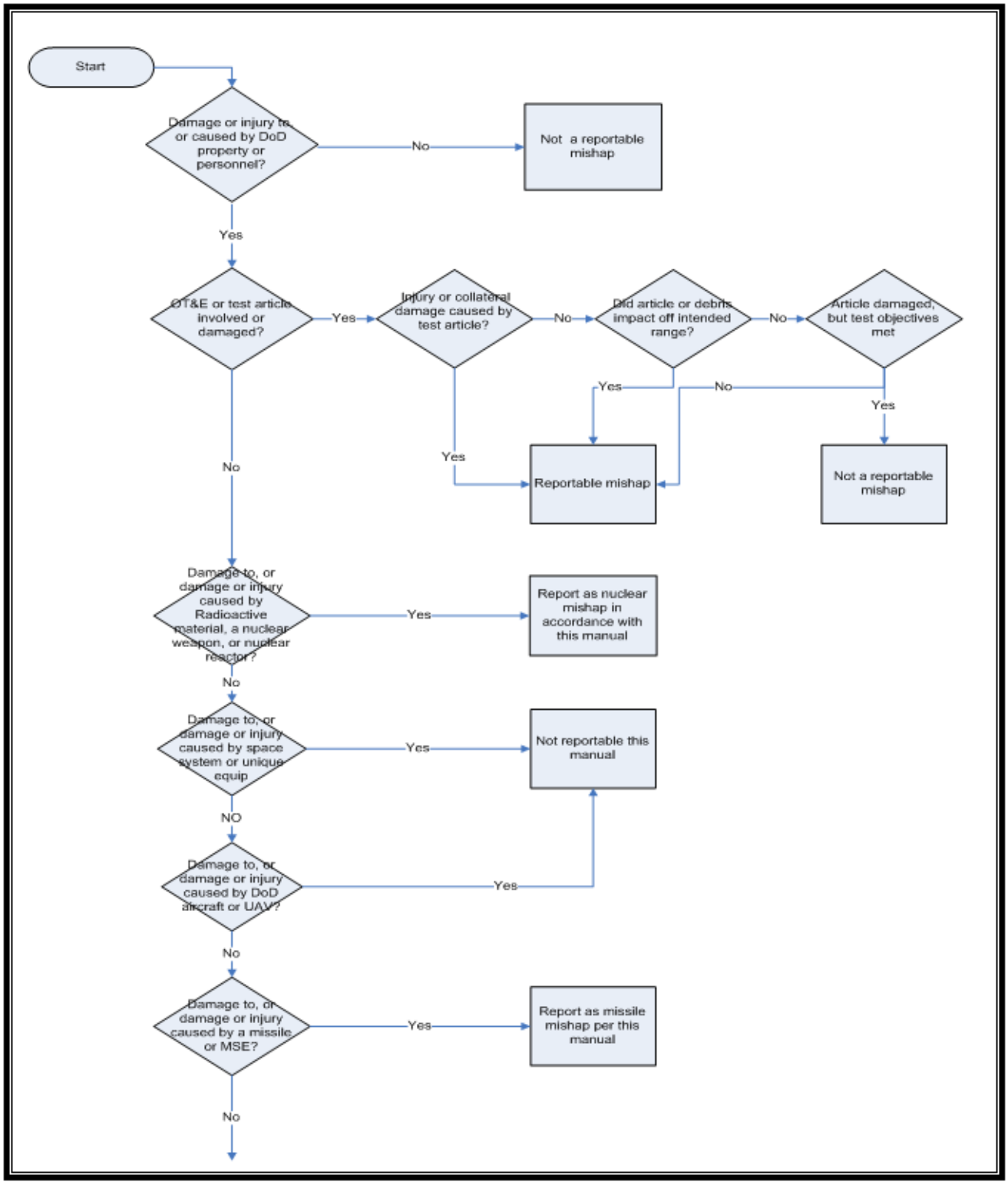
1.5.3. Unintentional Functioning. If the weapon or explosives functioned unintentionally (e.g., a bomb exploded), include the cost of the item (not including intentionally jettisoned items).

1.5.4. Intentional Functioning. If a weapon or explosive was intentionally functioned, do not include the cost of the item.

1.5.4.1. For test missions where recovery was expected, but not accomplished, include the cost of these items to determine classification, regardless of outcome of test.

1.5.5. Parachute-recovered Weapons. Include the repair/replacement costs of all components where recovery was expected, but not accomplished, related to abnormal events or clearly excessive damage. Abnormal events include torn parachutes, late recovery initiation, failure of a parachute to blossom or release, high winds, etc. Excessive damage includes buckling of the main fuselage, fire at impact, destruction of the payload section, etc. The cost of expected damage to parachute-recovered weapons resulting solely from surface impact during an otherwise normal recovery sequence is an operational expense and not reportable. Do not include cost of recovery since recovery is normally a mission objective for recoverable weapons.

Figure 1.1. Reportable Mishap Flow Chart.



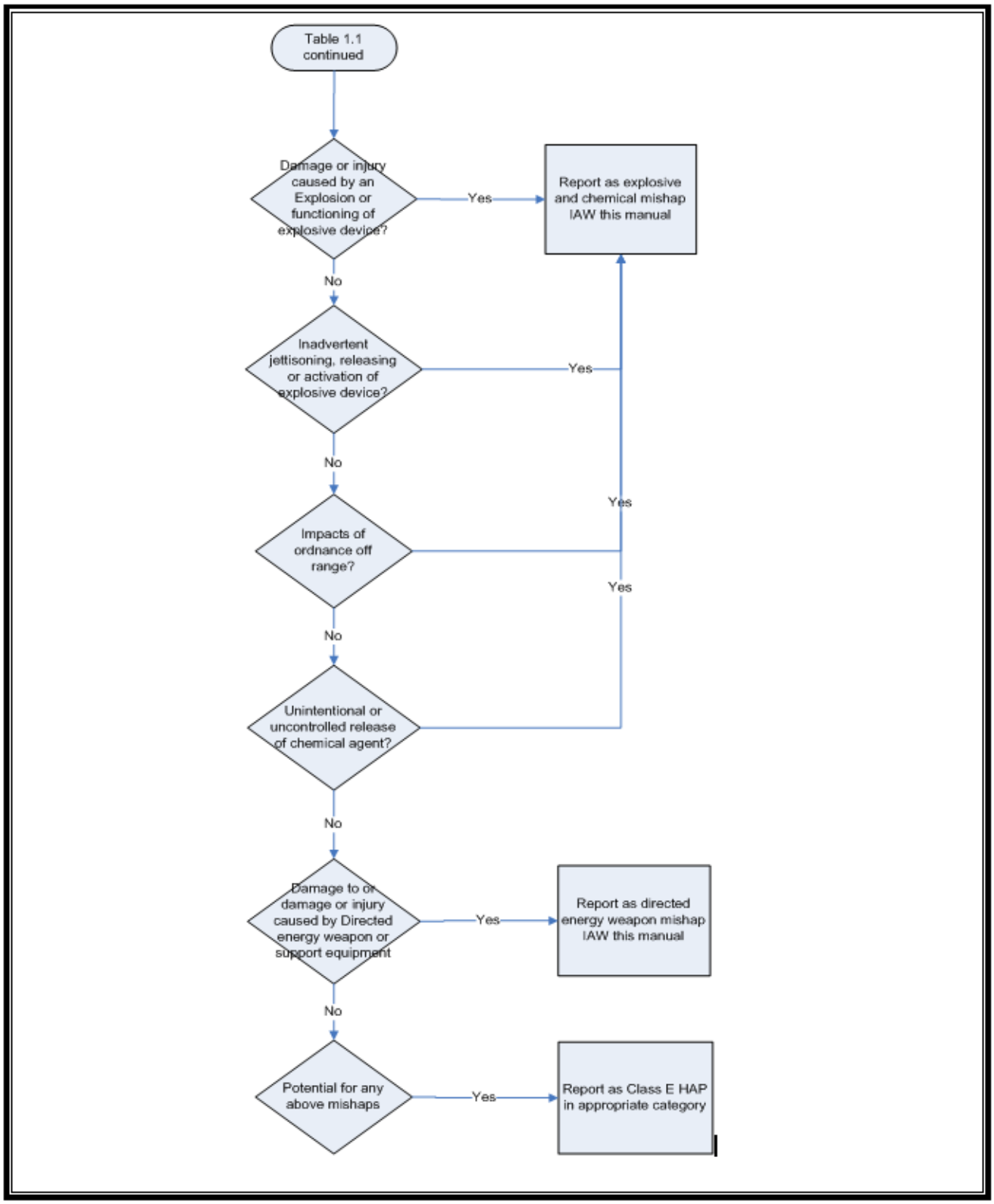


Table 1.1 continued
Damage or injury caused by an Explosion or functioning of explosive device?
Yes
Report as explosive and chemical mishap IAW this manual
No
Inadvertent jettisoning, releasing or activation of explosive device?
Yes
No
Impacts of ordnance off range?
Yes
Yes
No
Unintentional or uncontrolled release of chemical agent?
No
Damage to or damage or injury caused by Directed energy weapon or support equipment
Yes
Report as directed energy weapon mishap IAW this manual
No
Potential for any above mishaps
Yes
Report as Class E HAP in appropriate category

Chapter 2

INVESTIGATION AND REPORTING RESPONSIBILITIES

2.1. General Information. Follow guidance listed in AFI 91-204. There is no additional guidance specific to this manual.

Chapter 3

PRIVILEGED SAFETY INFORMATION

3.1. General Information. Follow guidance listed in AFI 91-204. There is no additional guidance specific to this manual.

Chapter 4

DETERMINING INVESTIGATIVE RESPONSIBILITY

4.1. General Information. Follow guidance listed in AFI 91-204. There is no additional guidance specific to this manual.

Chapter 5

SAFETY INVESTIGATIONS

5.1. General Information. Conduct the safety investigation using a Safety Investigation Board (SIB) or a Single Investigation Officer (SIO). Follow guidance listed in AFI 91-204, with the following additions.

5.2. Safety Investigation Requirements.

5.2.1. Class A. Class A mishaps may be investigated by Safety Investigation Board (SIB) or Single Investigating Officer (SIO). SIB members will be selected from outside the mishap wing whenever possible.

5.2.1.1. Recorder - officer or NCO familiar with office administrative procedures (required for Class A mishap investigations).

5.2.1.2. Required primary members:

5.2.1.2.1. SIB President or SIO Qualifications - Colonel (0-6), or above, and graduate of HQ AFSC Board President Course.

5.2.1.2.2. HQ AFSC Representative.

5.2.1.2.3. Investigating Officer with experience in weapon system and formally trained in mishap investigation techniques.

5.2.1.2.4. Technical expert on item involved.

5.2.1.3. Non-Required, SIB Members (primary or non-primary) as determined by the convening authority:

5.2.1.3.1. Weapon Operations Officer qualified in the operational use of the weapon.

5.2.1.3.2. Weapon Materiel Officer, a qualified maintenance officer with munitions experience, EOD officer or NCO, or nuclear safety officer

5.2.1.3.3. Weapons Safety Manager.

5.2.1.3.4. AFOTEC Representative.

5.2.1.3.5. Department of Energy (DOE) representative, if DOE-DoD agreements apply for the system involved.

5.2.1.3.6. Medical Officer.

5.2.1.3.7. Health physicist when radiation exposure is involved.

5.2.1.3.8. Bioenvironmental Engineer.

5.2.1.3.9. Munitions/Explosives Representative.

5.2.1.3.10. Security Forces Law Enforcement Officer/NCO.

5.2.1.3.11. Fire protection specialists (at least E-7 or GS-9).

5.2.1.3.12. Vehicle Maintenance Officer.

5.2.1.3.13. Representatives of the weapon system manager, test organizations, or program office representative, if these organizations decide to participate.

5.2.1.3.14. Weather Officer.

5.2.1.3.15. Representatives from other federal agencies, as advisors or consultants, if appropriate.

5.2.2. Class B. Class B mishaps may be investigated by SIO or SIB.

5.2.2.1. SIO Qualifications – Major (0-4), GS-12, or above (GS-11 for ARC), and graduate of a HQ AFSC safety investigation course. Not from same squadron/organization having the mishap.

5.2.2.2. SIB President Qualifications – Major (0-4), GS-12, or above (GS-11 for ARC). Not from same squadron/organization having the mishap.

5.2.2.3. Investigating Officer (IO) - experience in weapon system and formally trained in mishap investigation techniques.

5.2.3. Other Classes. Class C, D, and E - Single IO Qualifications:

5.2.3.1. Safety NCOs/civilians/officers.

5.2.3.2. Not from the same squadron.

5.2.3.3. Experience in weapon system or formally trained in mishap investigation techniques is preferred.

5.3. Operational Test and Evaluation (OT&E) Mishaps. Mishaps involving weapon test articles undergoing Operational Test and Evaluation (OT&E) will be reported per this manual. If test objectives were met, a mishap report is NOT required. Test mishaps may be investigated using a Safety Investigation Board (SIB), a Launch Analysis Group (LAG) or an Air-Launched Missile Analysis Group (ALMAG). ALMAG investigations will be handled IAW AFI 99-151, *Air-Launched Missile Analysis Group*. However, the report class will be determined IAW AFI 91-204 classification guidance for the direct cost of the loss incurred.

5.3.1. The convening authority will determine if Operational Test and Evaluation mishaps may be reported via LAG or ALMAG based upon the following:

5.3.1.1. The weapon, reflected energy, or its debris does not impact outside the predicted impact limit parameters.

5.3.1.2. The mishap does not result in collateral (secondary and unintended) damage or injury.

5.3.1.3. The responsible agency fully investigates the mishap to determine causes and recommended corrective actions.

5.3.1.4. The convening authority does not have a reason to believe that there is a conflict of interest with the ALMAG or LAG conducting the investigation.

5.3.2. The ALMAG/LAG report may replace the formal safety investigation report, however all safety message reporting (per **Table 6.1.**) is required. Classify mishaps per AFI 91-204.

5.3.3. The ALMAG/LAG investigators may not offer promises of confidentiality. If confidentiality is required to determine the cause(s) of a mishap, a safety investigation board must be convened under AFI 91-204 and a safety investigation report issued.

5.4. Obtaining and Using Technical Assistance. If technical assistance is required to conduct the safety investigation, follow these procedures:

5.4.1. The SIB should request technical assistance through the convening authority. The convening authority then contacts AFSC/SEW who will answer directly to the SIB.

Chapter 6

REPORTS AND BRIEFINGS

6.1. General. In addition to the requirements of this chapter, nuclear accidents, incidents, and deficiencies, will require the submission of a nuclear flagword report. Follow guidance listed in AFI 91-204, with the following additions.

6.1.1. Report submission schedule. Use **Table 6.1.**

6.1.2. Addressing Safety Reports. Use **Table 6.2.** and **Table 6.3.**

6.1.3. When weapons are common to other services such as in **Table 6.5.**, include other service safety agencies.

6.1.4. Route formal safety reports according to **Table 6.6.**

6.1.4.1. Use AF FORM 711A USAF Safety Report Checklist and Index located in AFI 91-204.

6.1.5. Use the proper security markings prescribed by AFI 31-401, *Information Security Program Management*, for classified messages.

6.1.6. Use the following examples for writing subject line of weapons reports:

6.1.6.1. CLASS A, NUCLEAR, NUCLEAR WEAPON, 20010307ZQKL005A.

6.1.6.2. CLASS B, GUIDED MISSILE, 19980307ZQKL003B

6.1.6.3. CLASS C, EXPLOSIVES AND CHEMICAL AGENTS, EXPLOSIVE, 19991225ZQKL123C.

6.1.6.4. CLASS D, EXPLOSIVES AND CHEMICAL AGENTS, EXPLOSIVE, 19981122ZQKL005D.

6.1.6.5. CLASS E, NUCLEAR, NUCLEAR WEAPON, 19990927FTFA005E.

6.1.7. Determining Mishap Event Number (MEN). The MEN is the mishap's single common worldwide identifier. Include the mishap event number in the subject line of all messages and refer to it in all related correspondence. Prepare the MEN IAW AFI 91-204, paragraph 6.1.2. and the following space specific guidance.

6.1.7.1. Date of Mishap [eight digits (YYYYMMDD)]. Use the local date, not the Zulu or Coordinated Universal Time (CUT) day.

6.1.7.2. Installation Code [four digits].

6.1.7.2.1. For mishaps that did not occur on a military base or property, use the base of the unit that experienced the loss.

6.1.7.3. Unit Control Number [four digits]. Use separate sets of four-character combinations (three digits and one letter) for unit control numbers. Assign the numbers consecutively for each mishap for each fiscal year. MAJCOMs may assign block numbers for those disciplines requiring them. The last space designates the mishap or event class (A, B, C, D, or E). (005A in the example in paragraph 6.1.2. of AFI 91-204).

6.2. Multiple Categories. When reporting multiple categories refer to appropriate manuals of AFI 91-204 to provide all required information and include necessary addressees in the reports.

6.2.1. The objectives for reporting nuclear, guided missile, explosives and chemical agents, and directed energy safety deficiencies are to prevent accidents and incidents, to minimize their effects if they should occur, and to reduce the occurrence of safety deficiencies. The requirement for reporting nuclear weapon system safety deficiencies supports the objectives of AFI 91-101, *Air Force Nuclear Weapons Surety Program*. The requirements for reporting nuclear reactor system and radiological safety deficiencies supports the objectives of AFI 91-109, *Air Force Nuclear Reactor Program* and AFI 40-201, *Management of Radioactive Materials in the Air Force*.

6.2.2. While the results of safety investigations play a direct role in the mishap prevention process; the indiscriminate use of statistical comparisons between units can jeopardize accurate reporting and are inappropriate due to the rare nature of mishaps. Do NOT make statistical comparisons of different commands or units using mishap reports as a source.

6.2.3. Because the criteria for the submission of safety deficiency reports are so broad, comparing nuclear safety statistics between commands and operating units may NOT provide accurate trend information for managerial analysis. Use safety deficiency reports only to identify potential problems and corrective measures. Do NOT publish statistical comparisons of different commands or units using safety deficiency reports as a source.

6.3. Preparing reports for weapons mishaps.

6.3.1. Class A and B mishaps require both message/AFSAS and formal reports. Report other class mishaps by message/AFSAS.

6.3.2. All nuclear safety reports are collectively licensed under RCS: HAF-SE(AR)9406. All other types of safety reports are licensed as a part of the "Mishap Reports" group (RCS: HAF-SE(AR)9402). Submit a formal AF Form 711-series report for all mishaps requiring formal reports. These formal reports are licensed as "Safety Investigation Reports", RCS: HAF-SE(AR)9404. All types must be filed during declared or war emergency conditions (emergency status code C-2).

6.3.2.1. MAJCOMs may supplement this list to include, as addressees, any internal organizations with a need-to-know. They may use AIGs to add addressees, within the command, as recipients of selected safety reports. Do not include addressees outside of MAJCOM AIG listings.

6.3.2.2. For unclassified safety information, use AL 9404//SE/SEW//. This AL may also be used for all reports under this instruction involving flight and ground mishaps if explosives are involved. The highest classification of information that may be transmitted using this AL is UNCLAS.

6.3.2.3. Do not use an AL for reports that contain little or no information of worldwide mishap prevention potential. Use routine handling procedures for AL addressees.

6.3.3. Send reports conveying significant safety information peculiar to the nuclear weapon system to other US Air Force MAJCOMs possessing like systems.

6.3.4. Whenever possible, mishap reports will be created using the Air Force Safety Automated System (AFSAS).

6.4. Preliminary Message.

6.4.1. Only the first electronically transmitted safety message advising of a mishap is titled Preliminary Report. (***NOTE****: OPREP-3 Reports do not satisfy this requirement*.) For Class A and B on-duty mishaps, send a fully releasable preliminary report within 8 hours (**Table 6.1.**).

6.4.2. Include purely factual information only. Ensure no privileged safety information is included (nothing based on witness testimony, board analysis, etc.).

6.4.3. Send it by military circuits. When military communications are not available, use commercial facilities to send basic mishap data and follow up with a copy by first class mail.

6.4.4. Include a narrative description of what happened (but not why), stating the best and most complete information available in simple and direct terms. Do not delay the report for lack of information. If complete data is not available, provide it in a status report.

6.5. Status Message:

6.5.1. Follow guidance in AFI 91-204. Additionally, an initial status message *must* be sent within 10 days for Class A and B on-duty mishaps (**Table 6.1.**). The purpose is to relay new information discovered since the preliminary message and to identify the investigating officer (by name, grade, organization, and position).

6.5.2. Status messages may be sent at any time to update information prior to final reports when awaiting results from deficiency reports, analyses, TOX tests, etc. The purpose is to relay the status of the mishap investigation and any new information discovered since the initial status report. Findings, causes, and recommendations may be made in a status report if a delay is anticipated in receiving results, but the investigator believes that enough information is available to reach a conclusion. In this case, issue a status report no later than 30 days after the mishap with as much information as is known. Publish a final report when the results are known and revise the status report's findings, causes, and recommendations, if required.

6.5.3. If new information is found and the information makes significant changes to the final message, send a message updating findings, causes, or recommendations.

6.6. Final Message. Follow guidance in AFI 91-204. Additionally:

6.6.1. Use the message format, except as noted.

6.6.2. Complete the investigation and prepare the final message within the specified time limits. The convening authority will release the final message unless this responsibility is delegated to the SIB or single investigator.

6.6.3. The principles for writing the narrative portion of the final report are the same as for the formal report below.

6.7. High Accident Potential (HAP) Reports.

6.7.1. HAP reports provide information on events and trends that did not cause damage, injury, or death, but have the potential to do so. HAP reports are Class E events that do not have a dollar cost.

6.7.2. HAP reports are a part of the "Mishap Reports" group (RCS: HAF-SE(AR)9402). If a HAP event involves materiel failure, malfunction, or design deficiency, the single manager forwards cor-

rective action taken or contemplated to HQ AFSC/SEW, HQ AFMC/SE, and the investigating MAJCOM by message within 60 days following the date of the associated deficiency report or combined mishap deficiency report. Replies to deficiency reports by the agency with engineering responsibility suffice for the ALC action message if the HAP's mishap event number is included.

6.8. Formal Reports.

6.8.1. All privileged safety formal reports have two parts: Part 1, Factual Information & Releasable Exhibits and Part 2, Board Conclusions & Protected Exhibits. Follow-up Actions will be placed with Supplemental Information.

6.8.2. Authenticating Formal Reports. Type each primary SIB member's name, grade, and position on the last page of the tab containing board analysis and conclusions. Have each concurring member, including Primary Members from other services on Joint Investigations, sign above it for authentication of the report or for any changes to the report. If the formal SIB report needs to be changed after it is completed and signed by the board, all primary members of the SIB shall be physically reconvened.

6.8.3. Controlling the Formal Report. Once the SIB completes the investigation and finalizes the hard copy report, the SIB will send all copies of the formal report to the convening authority. The convening authority safety office will control all hard copies of the report until the convening authority is briefed on the results of the investigation. Upon approval for release, the MAJCOM safety office will control the distribution of the report. MAJCOMs may set up different procedures to speed up the distribution process. Publish these procedures in the MAJCOM Supplement.

6.8.4. Forwarding Formal Reports.

6.8.4.1. The memorandum of transmittal (Figure A1.1) will list all addressees receiving copies of (or extracts from or attachments to) the report. Number and account for all copies of privileged reports by listing each addressee, including office symbol and copy number, in the "Distribution List" attachment to the memorandum of transmittal (for example, HQ ACC/SE, Harbor Center, 2 Eaton Street, Suite 402, Hampton VA 23669, copy 4 of 20). The memorandum of transmittal goes before all Tabs in Part 1 of the report. Include a statement signed by the SIB president, certifying the number of copies of the report listed are the only copies of the SIB report produced.

6.8.4.2. Distribution of privileged reports is restricted to those with a need to know in the Air Force or unified commands. 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 corrective actions or has statutory jurisdiction, request authorization from HQ AFSC/JA by message or memorandum before sending copies to these organizations.

6.8.4.3. AFSC or MAJCOMs may require additional copies to be sent to their headquarters to aid in staffing the report. After completing the command endorsement, MAJCOMs must destroy all but the file copy.

6.8.4.4. Send copies of the formal report to all Air Force agencies or organizations tasked in the recommendations. If investigators conclude action needs to be taken by an agency outside the convening authority's command, but cannot specifically identify where it must be accomplished, the convening authority's safety office will:

6.8.4.4.1. Locate the responsible agency and provide the investigating officer with a point of contact, or

6.8.4.4.2. Accept initial responsibility for the action by being tasked as OPR in the formal report. In this case, the convening authority's safety office should ensure an extra copy of the formal report is prepared and available for forwarding when the appropriate action agency and point of contact are determined.

6.8.4.5. If an Air Staff office is the action agency for a validated recommendation, the MAJCOM safety office will forward a copy of the report to AF/SEI for transmittal to the Air Staff office. MAJCOM safety offices forward reports directly to FOAs or DRUs.

6.8.4.6. HQ AFSC may request extra copies of reports for distribution to other agencies. Send these copies to HQ AFSC/JA, who will provide them to the proper agency.

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

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

6.8.4.9. Wing-level units or below destroy formal reports upon receipt of the Memorandum of Final Evaluation (MOFE) or Letter of Administrative Closure (LOAC). Numbered Air Forces and above destroy formal reports upon final close out of recommendations and when no longer needed for mishap prevention purposes. The convening authority may retain reports according to AFI 37-138. HQ AFSC/JA must approve retention of these reports for other than the convening authority.

6.9. Contents of the Narrative. See AFI 91-204 for information on documenting the investigation.

6.10. Preparing Formal Mishap Reports:

6.10.1. Prepare formal reports according to these instructions. Electronic CD-ROM may be used in accordance with AFI 91-204, Volume 1; use continuation pages, if needed.

6.10.2. Prepare the report using the title "(TYPE) Accident/Incident Report." Paper copies will be placed in 3-ring binder on plain, 8.5 by 11 inch white paper, printed on both sides. Provide an adequate level of detail by including or condensing all information provided in message. Where appropriate, include the photographs referenced in message. Refer to **Table 6.3.** for addressees for non-nuclear events. For nuclear events, use **Table 6.4.**.

6.10.3. Air Force mishap messages are subject to limited distribution. Moreover, safety reports that include confidential witness statements, findings, conclusions, causes, recommendations, analysis or the deliberations of the SIB or single investigating officer are privileged. Place the following warning between rows of slashes immediately before the subject line of all privileged messages and at the foot of each page:

FOR OFFICIAL USE ONLY.

THIS REPORT 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, VOLUME 1 FOR RESTRICTIONS.

6.10.4. *EXCEPTION:* Preliminary mishap messages ("8-hour" reports) are factual only, not privileged, and fully releasable unless controlled for other reasons, such as information security.

6.10.4.1. For classified messages add the proper security classification marking from AFI 31-401, and omit the notation "FOR OFFICIAL USE ONLY."

6.10.4.2. Special Markings. Do not stamp unclassified pages in Part 1 that have no privileged information with markings indicating special handling requirements or identifying them as "FOR OFFICIAL USE ONLY." Use the following markings on formal reports:

FOR OFFICIAL USE ONLY.

THIS CONTAILS 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 FOR RESTRICTIONS. DESTROY INACCORDANCE WITH AFMAN 37-139 WHEN NO LONGER NEEDED FOR MISHAP PREVENTION PURPOSES.

6.11. PART 1—FACTUAL INFORMATION & RELEASABLE MATERIAL:

6.11.1. TAB A: Distribution Letter and Safety Investigator Information. Include one copy of the orders appointing the SIB (or investigating officer). The orders must contain the full name; rank/grade, SSAN, organization, and complete official mailing address for each appointed person.

6.11.2. TAB B: USAF Mishap Report (AF Form 711-series)

6.11.2.1. Submit AF Form 711D, **Nuclear Mishap/Incident Report** included in AFI 91-204, with formal nuclear mishap reports involving: nuclear weapon reportable mishaps if nuclear material is involved. Submit with nuclear reactor system or radiological safety reports involving nuclear reactor system or radiological accidents, incidents, and mishaps if nuclear power systems, radioactive material, or radioactive sources are involved. See AFI 91-204 for completing AF Form 711D.

6.11.2.2. Submit AF Form 711B, **USAF Mishap Report**, on each guided missile, explosives and chemical agents, and directed energy mishap requiring a formal report. Place the form in Part 1 of the report. See AFI 91-204 for completing AF Form 711B.

6.11.3. TAB C: Preliminary Message Report. Place the fully releasable preliminary report in Tab C.

6.11.4. TAB D: Maintenance Reports, Records, and Data. Place any maintenance data pertaining to the weapon, explosive, or radiological material involved.

6.11.5. TAB E: Not used.

6.11.6. TAB F: Weather and Environmental Records and Data. If contributed to mishap.

6.11.7. TAB G: Personnel Records. Maintenance personnel and training records, QA reports and evaluations.

6.11.8. TAB H: Egress, Impact, and Crashworthiness Analysis. N/A.

6.11.9. TAB I: Deficiency Reports. Include all Product Quality Deficiency Reports (PQDR) submitted in conjunction with the mishap investigation. Include a copy of the submitted PQDR report containing the following information: Report Control Number (RCN), Cognizant Official, name of part (nomenclature), and part number.

6.11.10. TAB J: Releasable Technical Reports and Engineering Evaluations. If DoD personnel provided written reports, include them here. Do not provide a promise of confidentiality to DoD personnel. Include on-scene evaluations submitted by DoD personnel in this tab. Factual reports or information provided by a contractor, which the contractor's representative has determined does not require the promise of confidentiality, are placed in Tab R followed by a memorandum of acknowledgment. Joint ALC and contractor factual reports should also be placed in Tab R. Any analysis referring to privileged information (e.g., witness testimony, board conclusions, etc.) should be included in an addendum and placed in Tab T.

6.11.11. TAB K: Mission Records and Data. Forms and work orders associated with mishap item.

6.11.11.1. If private property is damaged, the Investigating Officer will draft a statement indicating the type of property damage involved (e.g. 20' x 30' x 15' deep crater in NW corner of property, 5 acres of grasslands destroyed, etc.) The statement will not contain damage cost estimates, but only describe the damage incurred. Additionally do not state the cause of the property damage (e.g. 5 acres of grassland destroyed by post impact fire). Statement should be no more than a brief description of the type and extent of damage to civilian personnel and property.

6.11.12. TAB L: Data from On-Board Recorders. N/A

6.11.13. TAB M: Data from Ground Radar and Other Sources. N/A

6.11.14. TAB N: Transcripts of Voice Communications. These are written transcripts of recorded voice communications, i.e. emergency response, 911 calls, etc. Because these transcripts are factual data, they often provide a basis for information in the factual summary of circumstances.

6.11.15. TAB O: Any Additional Substantiating Data and Reports. This is supporting data not otherwise defined. It can include local operating instructions (OI), directives, non-privileged witness statements and other forms. If the SIB cites a brief document (such as a three-page local OI), place it within this Tab. Do not mark, highlight, or extract a particular page to show the SIB's exact area of interest. (Highlighted pages are placed at Tab T.) For lengthy documents, it is sufficient to show a listing of documents or records reviewed by the SIB and their effective dates. Films or videotapes depicting the actual mishap sequence or mishap scene, but not containing any privileged safety material that are part of the formal report, should be located within this Tab. List the tape or film on the index page and give the original to the AFI 51-503 Accident Investigation Board (AIB) or AFI 51-507 Ground Accident Investigation Board, if any. Include any TCTOs or TOs in this Tab. However, if the publication is protected under the Arms Export Control Act (Title 22, U.S.C.Sec.2751 et seq.) or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App. 2401 et seq.) then contact the OPR to ascertain whether the material can be publicly released (i.e. Part 1). If not publicly releasable and still required for the report place the information in Tab V or W as required. Regardless, the publication may be released to the AIB or AFI 51-507 Ground Accident Investigation Board, if any.

6.11.16. TAB P: Damage & Injury Summaries. This lists the total damage to all government property, materiel, and equipment. Provide a detailed statement that includes acquisition, replacement or repair costs (as applicable) for all property, material or equipment damaged. Include nomenclature and national stock number (NSN) if available. Noting the exact cost of nuclear equipment or devices may classify the report.

6.11.17. TAB Q: AIB or AFI 51-507 Ground Accident Investigation Board, if any, Transfer Documents.

6.11.18. TAB R: Releasable Witness Testimony.

6.11.18.1. 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 the mishap and may be released to the public pursuant to a Freedom of Information Act request.

Witness Signature Block

6.11.18.2. 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. Where a promise of confidentiality has been extended, AFI 91-204 provides a sample witness statement format for use with witness statements.

6.11.18.3. Select only meaningful statements and testimony to include in this tab. It is not necessary to publish every statement taken from every individual interviewed. Place the statements and testimony of each individual together in chronological order with the earliest on top to make it easier to compare the individual's impressions.

6.11.18.4. Guided missile, directed energy weapon, and nuclear weapon investigations are authorized to offer promises of confidentiality to witnesses. A Promise of Confidentiality is NOT authorized for testimony made during explosives or weapons mishaps. Explosive or weapons mishaps other than nuclear weapon, guided missile, or directed energy must ask AF/SE permission before making a promise of confidentiality. If a witness or involved contractor will not provide a statement without a promise of confidentiality, contact HQ AFSC/SE for special approval to grant confidentiality to witnesses. See AFI 91-204 for further discussion on confidentiality and privileged witness statements.

6.11.19. TAB S: Releasable Photographs, Videos and Diagrams. Ensure diagrams are self-explanatory. Include only those diagrams that add to the report such as wreckage patterns or impact areas. Indicate direction with a northward pointing arrow on each diagram. If practical, indicate scale. Ensure the diagrams do not depict the location of human remains. Such diagrams should be placed in Part 2, Tab U to protect the privacy interests of the decedent's family.

6.12. PART 2—CONCLUSIONS AND NON-RELEASABLE MATERIAL:

6.12.1. TAB T: Investigation Analysis & Conclusions. This is the most important part of the report. It draws on all portions of the report to provide a complete picture of what happened. It is a thorough analysis of all evidence and the findings, causes, and recommendations. This section records the opin-

ions of the SIB, and it either accepts or rejects all scenarios or theories in the report. Only in the case of a minority report are there differing findings, causes, or recommendations. Life sciences recommendations related to causal findings will be included with the other SIB recommendations. Place all privileged status messages and the final CMR in this Tab. The layout should be as follows:

6.12.1.1. Executive Summary - provide a condensed version of the mishap report that encapsulates the mishap sequence, analysis, and board's primary findings, causes and recommendations. (This should be two or three pages in length.)

6.12.1.2. Mishap Sequence.

6.12.1.3. Investigation and Analysis.

6.12.1.4. Report Authentication & Minority Reports. Type each primary SIB member's name, grade, and position on the last page of the tab containing board analysis and conclusions. Have each concurring member, including Primary Members from other services on Joint Investigations, sign above it for authentication of the report or for any changes to the report. If the formal SIB report needs to be changed after it is completed and signed by the board, all primary members of the SIB shall be physically reconvened.

6.12.2. TAB U: Witness Testimony Provided Under a Promise of Confidentiality. Investigators take statements from all individuals involved in the mishap or who were eyewitnesses to it. A promise of confidentiality may be given to any witness whom the SIB determines should be extended such a promise for mishaps involving nuclear or directed energy weapons. A promise of confidentiality shall not be given on a blanket basis to every potential witness. The promise of confidentiality must be clearly understood by those witnesses extended the promise and they must be given the opportunity to waive any confidentiality. Non-privileged statements will be placed in Tab O. Investigators must read the following Promise of Confidentiality advisory to each witness, and must read it onto all tape recordings of interviews.

6.12.3. TAB V: Other Supporting Privileged Products.

6.12.4. TAB W: Technical Reports and Engineering Evaluations Provided Under a Promise of Confidentiality. If a contractor who built, designed, or maintained the equipment provides an engineering analysis under a promise of confidentiality, include the evaluation in this tab. If possible, include a factual summary in Tab R. Also include memorandums of acknowledgment on protection of privileged safety data signed by these contractors when their evaluations are included in privileged formal reports.

6.12.5. TAB X: Privileged Photographs, Videos and Diagrams. Well-defined photos help in mishap analysis. Use them to show damage, impact areas, metal fractures, flight path, vehicle travel, etc. Only include photographs aiding in understanding the mishap, and reference them in the analysis at Tab W. Use of scanned or color copies for reproduction in the formal report is preferred over pasting of actual photographs. Do not include photographs of deceased personnel in the safety report. Place an index of photographs at Tab X to aid reviewers. Do not refer to privileged safety information on the page captions or in comments on the index. Staged photographs are placed at Tab T near the related narrative. For example, include pictures of models showing flight paths in a midair collision at Tab T. Pointing with a finger or other device at a portion of wreckage does not make the photograph staged. Assembling or reconstructing damaged parts or aligning parts to show fire patterns or impact marks are examples of staged photographs. Depictions of cockpit indications for a given set of assumptions made by the SIB or described in witness testimony are staged photographs. When investigators

include privileged safety information on a transparent overlay, place the photograph with the overlay in Tab T and the photograph without the overlay in Tab S. Hold all photographs and videotapes taken by the SIB, except those staged for analysis, for use by the AIB or AFI 51-507 Ground Accident Investigation Board, if any. Place films or videotapes depicting the actual mishap sequence and containing privileged safety material that are part of the formal report with this tab. List the mishap tape or film on the index page. Video or computer animations or reenactments of a mishap prepared for or by the SIB are part of the SIB's analysis of the mishap. Reference these video simulations or reenactments on the Tab W index page and include the video simulation with the copy of the report sent to HQ AFSC/CC. All other copies of the video simulation should be destroyed when no longer needed by the SIB for analysis or briefing. HQ USAF/SE may authorize use of these SIB video simulations for mishap prevention purposes.

6.12.5.1. Whenever findings or recommendations involve deficiencies in or changes to technical orders, flight manuals, checklists, or directives, include applicable portions of the original publications in this tab. The SIB's conclusion that a particular paragraph of a document was or was not a mishap factor is privileged. Place highlighted pages or publication extracts revealing the deliberative process of the board in Tab T. Include copies of submitted AFTO Form 22, *Technical Manual (TM) Change Recommendation and Reply*, or AF Form 847, *Recommendation for Change of Publication*, as attachments to Tab T.

6.12.6. TAB Y: Life Sciences and Medical Reports. Any medical information, i.e. TOX tests, mental health evaluations, physical profiles, which the board deems appropriate to the investigation.

6.12.7. TAB Z: Investigation Final Products

6.13. Supplement. Follow-up Actions. This part is applicable for only the Convening Authority's copy and the HQ AFSC copy one of the formal report.

6.13.1. Tab 1. Statements of Persons Cited in Findings. Place the original and endorsed notification memorandums and any statements provided by persons found causal in a privileged safety investigation at this tab.

6.13.2. Tab 2. Comments to Final Message/Formal Report. Insert copies of required comments.

6.13.3. Tab 3. Memorandum of Final Evaluation (MOFE).

6.13.4. Tab 4. Investigation Reports from Other Organizations (NTSB, Law Enforcement, Foreign or other military services). Place applicable copies of any available reports that may assist personnel reviewing this mishap at a later date.

6.13.5. Tab 5. Significant additional information received after MOFE. On rare occasions, new information is uncovered after the MOFE is complete.

Table 6.1. Report Submission Schedule for Weapons, Explosives and Radiological Class A, B, C, D, and E Events.

Reports required by this table are in addition to OPREP-3 reports required by AFMAN 10-206.				
	If the mishap is a	**then submit**	**not later than**	**By**
1	Class A or B mishaps	Preliminary message report (see note 1)	within 8 hours.	Priority message (see note 2)
2		Status report (**Figure A3.1.**)	within 10 days and as required afterward	Message format (see notes 3, 4)
3		Final report (Figure A3.2)	within 30 calendar days or 3 workdays following Formal Report	Message format
4		Formal report (see notes 5, 6)	within 30 calendar days	AF Form 711-series
5		Convening Authority briefing (if required)	15 days after completing investigation	Convening Authority direction
6	Class C mishaps	Preliminary message report (see note 1)	72 hours	Message format
7		Status report (see note 3)	as required	
8		Final report (see notes 5, 6)	within 30 calendar days	
9		Formal report (when directed by MAJCOM or HQ USAF/SE)	within 30 calendar days	AF Form 711-series
10	Class D mishaps and Class E events	Final report (see notes 5, 6)	within 30 calendar days	Message format
11	OT&E	Preliminary message report	within 24 hours	Message format
12		Status report	every 30 days	
13		Final report (see notes 5, 6)	Within 75 days	
14		Formal report (when directed by MAJCOM or HQ USAF/SE)	within 75 calendar days	AF Form 711-series

NOTES:

1. Use non-privileged, unclassified format for preliminary report (**Figure A3.1.**).
2. Overseas commands use IMMEDIATE precedence.
3. Use **Figure A3.1.** format for initial status report. Include new information discovered since the preliminary report and identify SIB members. Remember to place the safety privilege

statement at the beginning of the message. Include the "For Official Use Only" statement unless classified—then use classification markings.

4. For subsequent reports, include information not previously reported in the initial status or preliminary report. It is not necessary to use the entire **Figure A3.1.** format for subsequent status reports. Only add information not previously reported. Use the **Figure A3.1.** format when modifying a previously transmitted message or final report.
5. If the investigation will not be complete within the timeframe, transmit a 30-day status message on day 30 and every 30 days until the investigation is complete. Include estimated date of investigation completion. For extension of due date, send request to the investigating MAJCOM/DRU/FOA with information copy to HQ AFSC/SEW.
6. Do not delay final reports awaiting testing results. If the results from testing significantly change the outcome of final report, reconvene the SIB (if necessary) and send a status report describing the changes. For extension of due date, send request to the investigating MAJCOM/DRU/FOA with information copy to HQ AFSC/SEW.

Table 6.2. Report Submission Schedule for Nuclear Accidents, Incidents, and Deficiencies.

Reports required by this table are in addition to OPREP-3 reports required by AFMAN 10-206.				
	If the mishap is a	**then submit**	**not later than**	**By**
1	Nuclear Accident (includes NUCFLASH, BROKEN ARROW, and EMPTY QUIVER)	Preliminary	within 8 hours.	Appropriate message priority (see notes 1, 2)
2		Supplemental report	Daily or as directed by HQ AFSC/SEW	Appropriate message priority (see notes 1, 2) Include 'Supplemental' in subject line
3		Final report	within 30 calendar days	Appropriate message priority (see notes 1, 2) Include 'Final' in subject line
4		Formal report	within 30 calendar days	AF Form 711-series
5		Convening Authority briefing (if required)	15 days after completing investigation	Convening Authority direction
6	Nuclear Incident	Preliminary BENT SPEAR	within 8 hours.	Appropriate message priority (see notes 1, 2)
7		Supplemental report	Daily or as directed by HQ AFSC/SEW	Appropriate message priority (see notes 1, 2) Include 'Supplemental' in subject line
8		Final report	within 30 calendar days	Appropriate message priority (see notes 1, 2) Include 'Final' in subject line
9		Formal report	within 30 calendar days	AF Form 711-series
10	Nuclear Deficiency	Preliminary or one time DULL SWORD	within 15 calendar days	Routine message precedence (see note 1) Include 'Preliminary' or 'One-Time' in subject line
11		Supplemental report	As req'd after preliminary report is submitted	Routine message precedence (see note 1) Include 'Supplemental' in subject line

Reports required by this table are in addition to OPREP-3 reports required by AFMAN 10-206.				
	If the mishap is a	**then submit**	**not later than**	**By**
12	Nuclear Deficiency	Final report	Within 90 days if not submitted as a one-time report	Routine message precedence (see note 1). Include 'Final' in subject line. Send requests for due date extensions to using MAJCOM and info HQ AFSC/SEW

NOTES:

1. Use non-privileged, unclassified format for preliminary report.
2. Overseas commands use IMMEDIATE precedence.

Table 6.2. (USAFE)

Line 12. Column "By": (See note 3).

NOTE: 3. (Added) Nuclear Deficiency Extension Requests. Requesting units will make all efforts to receive closure action prior to requesting an extension. Requests will be addressed to HQ USAFE, Ramstein AB GE//SEW// and "info" all other required addressees. Requests will be made within 90 calendar days of the deficiency being identified. The unit will submit a supplemental dull sword containing initial and all supplemental data on the deficiency. Add an extension request statement to Item 5, ADDITIONAL INFORMATION, preceded by "(new)" and followed by "(end)." Units requesting such extension will maintain Safety Directorate, Weapons Safety (HQ USAFE/SEW) issued extension approval document as a part of the unit's formal copy of the deficiency report. Extension request should justify why the extension is needed, pertinent maintenance data (parts on order, maintenance scheduled, etc.) and estimated completion date. After the initial extension is approved, the units will provide HQ USAFE/SEW and other required addressees with periodic status updates (every 90 days) in a supplemental format until the final report is submitted. There is no need for the unit to request multiple extensions after the initial extension is approved. Multiple supplemental reports issued on the same DULL SWORD will be numbered (***EXAMPLE:*** SUPPLEMENTAL 1 704 MUNSS DULL SWORD 05-004, SUPPLEMENTAL 2 704 MUNSS DULL SWORD 05-004, etc.), this will aid in the management and crossfeed of applicable information.

Table 6.3. Addressees for Guided Missile, Explosives and Chemical Agents, and Directed Energy Mishap Message (see note 6).

	A	B	C
	Organization (see note 1)	**Office Symbol**	**For**
1	HQ AFSC KIRTLAND AFB NM	CC/SEW	All mishaps (see note 2)
2	HQ USAF WASHINGTON DC	SEI/IL	
3	HQ AFSOC HURLBURT FLD FL	SE	
4	HQ AETC RANDOLPH AFB TX	SE	
5	HQ AMC SCOTT AFB IL	SE	
6	HQ PACAF HICKAM AFB HI	SE	
7	HQ AFMC WRIGHT-PATTERSON AFB OH	SE	
8	HQ ACC LANGLEY AFB VA	SE	
9	HQ AFSPC PETERSON AFB CO	SE	
10	HQ USAFA USAF ACADEMY CO	SE	
11	HQ USAFE RAMSTEIN AB GE	SE	
12	ANG ARLINGTON VA	XOSW	
13	HQ AFRC ROBINS AFB GA	SE	
14	MAJCOM concerned (gaining MAJCOM for ANG/AFRC) (see note 3)	as required	
15	Intermediate commands		
16	Home base of operator (if other than the organization submitting the report)		
17	Military base of departure		
18	344 TRS LACKLAND AFB TX	TTEB	
19	AAC (APGM) EGLIN AFB FL	WM	
20	HQ AFOTEC KIRTLAND AFB NM	SE	
21	USSTRATCOM COMMAND CENTER OFFUTT AFB NE	CL/OP/CL124/ OP11	
22	ANG ARLINGTON VA (see note 4)	XOSW	ANG mishaps
23	HQ AFRC ROBINS AFB GA	SE	AFRC mishaps
24	HQ AFMC WRIGHT-PATTERSON AFB OH	SE/DR	All mishaps involving material deficiencies, Tech Order changes, or AF Policy changes
25	AWS NORMAN OK	SE	Mishaps involving weather events or services

	A	B	C
	Organization (see note 1)	**Office Symbol**	**For**
26	ASC WRIGHT-PATTERSON AFB OH	CC/SE ENSA	Mishaps involving non-ballistic weapons support systems; ballistic weapon systems and/or components
27	OO-ALC HILL AFB UT	SEW/LME	
28	HQ AFSPC PETERSON AFB CO	SE	
29	ALC Safety and Materiel Safety Offices: OO-ALC HILL AFB UT WR-ALC ROBINS AFB GA OC-ALC TINKER AFB OK	 SE/LME/ YP-S SE/SEM SE/LARM	Weapon mishaps involving TO, materiel, vehicle, or equipment deficiency; and other mishaps involving deficiencies in these areas (see note 5)
30	AAC EGLIN AFB FL	SES	Mishaps involving conventional air-launched weapons
31	COMNAVSAFECEN NORFOLK NAS VA		Mishaps involving US Navy personnel or facilities and mishaps involving weapons common to USAF and USN (**Table 6.5.** and notes 1 and 3)
32	COMNAVAIRSYSCOM PATUXENT RIVER MD		Mishaps involving weapons common to USAF and USN (**Table 6.5.** and notes 1 and 3)
33	CDRUSASC FT RUCKER AL	CSSC-SE	Mishaps involving US Army personnel or facilities and mishaps involving weapons common to USAF and USA (**Table 6.5.**)
34	SECDEF WASHINGTON DC	USD (AT&L) (I&E)	Preliminary report for mishaps involving fatality, in-patient hospitalization of three or more persons, or property damage of $1,000,000 or more
35	SAF WASHINGTON DC	IE	Preliminary and final report for Class A and B mishaps
36	AFIP WASHINGTON DC	OAFM	Preliminary and final report for Class A and B mishaps involving injury or death.

	A	B	C
	Organization (see note 1)	**Office Symbol**	**For**
37	HQ AFCESA TYNDALL AFB FL	CEXF	Preliminary and final report for mishaps involving fire suppression or crash and rescue operations
38	DET 63 ASC INDIAN HEAD MD	CC	Mishaps involving EOD operations or activities
39	DEPT OF DEFENSE EXPLOSIVES SAFETY BOARD ALEXANDRIA VA	KT	Class A, B and C mishaps involving munitions, missiles, and explosives.
40	OC-ALC TINKER AFB OK	SE	All Class A and B aircraft factors mishaps (whether or not materiel were involved) and all other classes that identify material deficiencies or recommend TO or AF acquisition or logistics policy changes.
41	OO-ALC HILL AFB UT	SES	
42	SM-ALC MCCLELLAN AFB CA	SE	
43	WR-ALC ROBINS AFB GA	SE	
44	HQ ACC LANGLEY AFB VA	SE	
45	325FW TYNDALL AFB FL	SE	All Class A and B aircraft factors mishaps (whether or not materiel were involved) and all other classes that identify material deficiencies or recommend TO or AF acquisition or logistics policy changes.
46	53 WG EGLIN AFB FL	SE	
47	AAC EGLIN AFB FL	YOT	
48	HQ AFMC WRIGHT PATTERSON AFB OH	SEG	All mishaps involving AFMC managed systems, vehicles, and equipment
49	377ABW KIRTLAND AFB NM	SE	All DULL SWORD reports
50	OO-ALC HILL AFB UT	WM	All missile mishaps

NOTES:

1. Air Force Directory (AFDIR) 33-131, *Message Address Directory* was rescinded. Reference **http://www.nctc.navy.mil/** for current message addresses.
2. Include the aircraft system program director (SPD) or equivalent as an addressee when explosives or weapon mishaps involve aircraft armament systems.
3. Include MAJCOM/DRU/FOAs that are common users of the mishap weapon materiel as message addressees when exchange of information would enhance mishap prevention efforts. Also use the Address List (AL) for the weapon system if one exists. MAJCOM/DRU/FOAs may also add AIGs specific to their command.
   NOTE: If mishap base is not listed on the AL, investigating MAJCOM/DRU/FOA will retransmit message under appropriate AL(s).
4. ANG units will send copy of all messages to appropriate ANG State Headquarters and the Adjutant General (TAG).
5. Include the appropriate SPD and single manager as addressees when mishaps involve Air Force materiel deficiencies.
6. Use the Address List (AL) for the weapons system if one exists. MAJCOM/DRU/FOAs may add AIGs specific to their command.

AL 9380	A-10
AL 9381	C-17
AL 9383	C-5
AL 9384	F-111
AL 9385	Ground Safety
AL 9386	Helicopters
AL 9387	C-130
AL 9388	C-12
AL 9389	F-4
AL 9390	B-52
AL 9391	All flight mishap messages (Preliminary, status, and final)
AL 9392	Air Refueling

AL 9392	KC-135
AL 9393	F-22
AL 9394	T-1
AL 9395	T-38/F-5
AL 9397	T-37
AL 9398	C-141
AL 9399	F-16
AL 9401	T-39/C-21
AL 9404	Worldwide SE/SEW
AL 9405	Aero Clubs
AL 9406	B-1
AL 9407	F-15

Table 6.3. (USAFE)

Line 11. Column B.: /SEW/A4W.

Table 6.4. Addressees for Nuclear Safety Reports.

	A	B	C
	Organization	**Office Symbol**	**For**
1	HQ AFSC KIRTLAND AFB NM	CC/SEW	All Flagwords
2	MAJCOM or command concerned	As required	
3	NAF or intermediate command		
4	USSTRATCOM COMMAND CENTER OFFUTT AFB NE	CL/OP/CL124/ OP11	
5	HQ USAF WASHINGTON DC	SEI/IL/XON	All Nuclear Flagwords
6	HQ AFMC WRIGHT-PATTERSON AFB OH	SE/DRR/LGM	
7	AAC KIRTLAND AFB NM	NW/NWL/ NWW/NWS/ NWC	
8	HQ AFSFC LACKLAND AFB TX	SFO	Security related reports
9	HQ AFMOA BOLLING AFB DC	SGO	NUCFLASH, BROKEN ARROW, FADED GIANT, MISSING PENNY
10	AFIERA BROOKS AFB TX	SDR	FADED GIANT, MISSING PENNY
11	CNO WASHINGTON DC 2000 Navy Pentagon Washington, DC 20350-2000	CC	BENT SPEAR and DULL SWORD for security, command and control related reports involving E-6B aircraft configured to perform the ALCS mission
12	CINCPACFLT PEARL HARBOR HI 250 Makalapa Dr Pearl Harbor HI 96890-7000	CC	
13	COMNAVAIRPAC SAN DIEGO CA NAS North Island P.O. Box 357051 San Diego, CA 92135-7051	CC	
14	COMPATWINGSPAC BARBERS POINT HI Naval Air Station Barbers Point, HI 96862-4415	CC	

	A	B	C
	Organization	**Office Symbol**	**For**
15	COMSTRATCOMMWING ONE TINKER AFB OK 7641 Mercury Rd Tinker AFB OK 73145-8701	CC	
16	COMNAVSAFECEN NORFOLK VA Naval Safety Center 375 A St Norfolk VA 23511-4399	CC	
17	NAVAIRWARCENACDIV PATUXENT RIVER MD Naval Air Warfare Center Aircraft Division MS 2/516 (3d Floor) Patuxent River MD 20670-5304	I27102	BENT SPEAR and DULL SWORD for security, command and control related reports involving E-6B aircraft configured to perform the ALCS mission
18	OO-ALC HILL AFB UT	LMR/LME/ SEW	All ballistic missile component, system reentry systems, reentry vehicles or booster related reports
19	HQ AFIC LACKLAND AFB TX	SE/MMIVC	BENT SPEAR, DULL SWORD COMSEC or crypto equipment related reports
20	OO-ALC HEATH OH	LMG	DULL SWORD for ballistic missile related reports involving guidance systems, computer faults, or chromate leaks
21	377 ABW KIRTLAND AFB NM	SE	DULL SWORD for nuclear weapons or associated DOE test and handling equipment
21	896 MUNS NELLIS AFB NV	CC/MXGCQ	
22	898 MUNS KIRTLAND AFB NM		
23	DTRA KIRTLAND AFB NM	NSO	
24	AAC/NW KIRTLAND AFB NM	CC	
25	HQ AMC SCOTT AFB IL	DOA	All reports involving air logistical movements
26	HQ USAF WASHINGTON DC	XOF	All security reports involving air logistical movements

	A	B	C
	Organization	**Office Symbol**	**For**
27	MAJCOM owning		
28	MAJCOM of host base		
29	HQ AMC SCOTT AFB IL	SE/SP/XO TACC/ DOO	
30	WR-ALC ROBINS AFB GA	LESVA	All DULL SWORDS

Table 6.4. (USAFE) The following supplements Table 6.4. with theater requirements for Nuclear Safety Reports.

	A	B	C
2.1 (Added)	HQ USAFE Ramstein AB GE	SEW/A4W	All Flagwords
2.2 (Added)	HQ USAFE Ramstein AB GE	SFX or A7FX SFO or A7FO	Dull Swords: WS3, Weapon Maintenance Truck (WMT) or security related reports
31 (Added)	OL-EL, Ramstein AB, GE	ELO	All Flagwords relating to Non-US NATO nuclear certified equipment
32 (Added)	COMUSEUCOM Vaihingen GE	EPOC-NC2-MD -PCB (Positive Control Branch), ECJ5-W-NS and EPOC-JOC-XO	All Flagwords: Weapon Permissive Action Link switch or Code Management System equipment and security related reports
33 (Added)	HQ CPSG, San Antonio, Texas	ZI	All Flagwords: WS3 and WMT related
34 (Added)	ESC, Hanscom AFB, Massachusetts	FD	All Flagwords: WS3 security related

Table 6.5. Weapons Common to Other Services.

	A MISSILES	B ALC	C COMMON TO
1	AIM-7 (Sparrow)	WR-ALC	USN
2	AIM-9 (Sidewinder)	WR-ALC	USN
3	AIM-120 (AMRAAM)	WR-ALC	USN
4	AGM-88 (HARM)	WR-ALC	USN

Table 6.6. Routing of Nuclear, Guided Missile, Explosives and Chemical Agents, and Directed Energy Formal Safety Reports (see note 1).

	A	B	C
	Forward	**To (see note 1)**	**For**
1	Two copies of formal report by priority mail	HQ AFSC/SEW	Review, appropriate corrective action, and file.
2	One copy of formal report by priority mail	HQ USAF/SEI	Review appropriate action.
3	One copy of formal report	Organization to which person who had mishap is assigned (see note 2)	Review, appropriate corrective action, and return to MAJCOM safety office or convening authority for disposition within 90 days of mishap. MAJCOMs specify endorsement requirements and their suspense dates. They may grant extensions when warranted.
4		Organization that possessed weapon if different from organization in line 2	
5		Intermediate commands of units specified in lines 2 and 3	
6		MAJCOM concerned	Review, appropriate corrective action, and file. Forward proposed and completed actions to HQ AFSC/SEW within 90 days of mishap. Provide copies of endorsement to each formal report addressee.
7		ANG/XOS or HQ AFRC/SE if ANG or AFRC asset involved	
8		Gaining MAJCOM if ANG or AFRC asset involved	
9		Appropriate State Headquarters and the Adjutant General (TAG) if ANG aircraft involved	
10		ASC/SE/ENSA Wright-Patterson AFB OH 45433 if AGM-69, AGM-86, AGM-129, PQM-102, or QF-106 involved.	Review, appropriate corrective action, and file. Forward proposed and completed actions to HQ AFSC/SEW within 90 days of mishap. Provide copies of endorsement to each formal report addressee and HQ AFMC/SE.
11		OC-ALC/LAH Tinker AFB OK 73145 if AGM-65 involved.	
12		AAC/SES Eglin AFB FL 32544 if AGM-88, AIM-7, AIM-9, AIM-120.	

	A	B	C
	Forward	**To (see note 1)**	**For**
13		Air Logistics or Product Center system program director as specified in TO 00-25-115 for aircraft, weapons and explosives involved (notes 1, 3, and 4 apply)	Review and take appropriate corrective action. Forward action memorandum or Endorsement with a copy of TDR, photos, test results, and when established, MIP interim or closing action to HQ AFSC/SEW and a copy to AFMC/SE within 90 days of the mishap. See note 3.
14		Each agency or organization tasked in the primary recommendations (see note 4)	Review, appropriate corrective action, and file.
15		HQ AFMC/SE 4375 Chidlaw Rd Rm S154 Wright-Patterson AFB OH 45433	Review and take appropriate action. Endorsement concurrence will be in DB10. If AFMC disagrees with ALC or non-concurs, Endorsement will be provided to each formal report addressee and HQ AFSC/SEW.
16		AFWA/SE/XOO Scott AFB IL 62225 if deficiencies in weather services involved	Review, appropriate corrective action, and file. Endorse transmittal correspondence to HQ AFSC/SEW within 90 days of mishap,
17		HQ AFOTEC/SE Kirtland AFB NM 87117	and provide copies of endorsement to each formal report addressee.
18		OO-ALC/SES/WMCS Hill AFB UT 84056 if non-nuclear ammunition are involved	
19		SMC/AXZ 160 Skynet St, Ste 2315 Los Angeles AFB CA 90245-4683 if system or component of space system or space launch vehicle involved or if lift system or component of ballistic weapon system or ballistic weapon booster involved	
20		HQ AFSPC/SE Peterson AFB CO 80914 if system or component of space system or space launch vehicle involved or if lift system or component of ballistic weapon system or ballistic weapon booster involved.	Review, appropriate corrective action, and file.

	A	B	C
	Forward	**To (see note 1)**	**For**
21		ESC/SE Hanscom AFB MA 01731 if ground electronics subsystem involved	
22		AAC/WM 207 West D Ave, Ste 308 Eglin AFB, FL 32542-6844	
23		HQ AFMOA/SGPA Bolling AFB DC 20332-6188 (See note 5)	
24		HQ USAF/IL 1030 Air Force Pentagon Washington DC 20330-5006 All weapon mishaps	
25		WR-ALC/SE 245 Cochran Street, Ste C9 Robins AFB, GA 31098-1623 All tactical weapon mishaps	
26		Armed Forces Institute of Pathology Washington DC 20305 If fatality occurred (see note 2)	

NOTES:

1. Air Force Directory (AFDIR) 33-131, *Message Address Directory* was rescinded. Reference: **http://www.nctc.navy.mil/dpvs/dpvs.html/dpvs.html** for current message addresses. See AFDIR 37-135 for mail addresses.
2. Do not send a report to an agency outside the USAF. Prepare those copies of the report and send them to HQ AFSC/JA for forwarding.
3. ALC action correspondence is not required unless the safety report contains findings or recommendations involving materiel failure or malfunction, depot-level maintenance, design deficiencies, or technical order deficiencies.
4. For all mishaps requiring an action by an AFMC organization, send one copy to HQ AFMC/SE, as well as the tasked agency.
5. In mishaps with significant medical contribution or resulting in a medical condition or physical injury, send a copy of the formal report.

Chapter 7

FOLLOW-UP ACTIONS

7.1. General Information. Follow guidance listed in AFI 91-204, with the following additions.

7.1.1. Managing Preventive Action for Mishaps w/o Formal Reports. Class C, D, mishaps, and Class E events without a formal report do not go through the MOFE process. MAJCOMs must establish an internal program to effectively track and manage recommendations resulting from these mishaps.

7.1.1. **(USAFE)** HQ USAFE/SEW will issue a follow-up actions memorandum for all weapons class C, D mishaps and class E events. The incident unit will maintain a copy of this memorandum with the file copy of the mishap report until disposed of in accordance with the Air Force Records Disposition Schedule.

7.1.2. Operational Test and Evaluation (OT&E) Mishaps. For Class A and B OT&E mishaps, a Letter of Administrative Closure (LOAC) will be accomplished to document AF/SE coordination on report's recommendations.

GREG ALSTON, SES
Acting Chief of Safety

(USAFE)

JACK L. BRIGGS II, Colonel, USAF
Director of Safety

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 31-401, *Information Security Program Management*

AFI 37-138, *Records Disposition--Procedures and Responsibilities*

AFI 40-201, *Management of Radioactive Materials in the Air Force*

AFI 91-101, *Air Force Nuclear Weapons Surety Program*

AFI 91-109, *Air Force Nuclear Reactor Program*

AFI 91-204, *Safety Investigation and Reports*

AFI 99-151, *Air-Launched Missile Analysis Group*

AFMAN 37-123, *Management of Records*

AFMAN 37-139, *Records Disposition-Schedule*

AFPD 91-2, *Safety Programs*

T.O. 00-5-1*, Air Force Technical Order System*

T.O. 00-35D-54*, USAF Materiel Deficiency Reporting and Investigating System*

T.O. 11N-5-1*, Unsatisfactory Reports*

T.O. 21-LG118A-12-1, *Peacekeeper Nuclear Surety Procedures*

T.O. 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*

T.O. 36-1-42*, Technical Manual – Policies Governing Warranty Procedures for Air Force Vehicles*

Title 10, *Code of Federal Regulations,* Part 20

Abbreviations and Acronyms

AF—Air Force

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

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

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

AFSC/JA—Assistant for Legal Matters

AFSC/SEW—Weapons Safety Division

AFSPC—Air Force Space Command

AIB—Accident Investigation Board

AIG—Addressee Indicator Group

AL—Address List

ALMAG—Air-Launched Missile Analysis

ANG—Air National Guard

AOR—Area of Responsibility

APU—Auxiliary Power Unit

ARC—Air Reserve Component

BP—Board President

CA—Convening Authority

CC—Commander

CD-R—Compact Disk-Recordable

CDI—Commander Directed Investigation

CFR—Code of Federal Regulations

CONUS—Continental United States

COS—Chief of Safety

CPO—Civilian Personnel Office

CSAF—Chief of Staff, United States Air Force

DAF—Department of the Air Force

DB—Data Base

DCMA—Defense Contract Management Agency

DD FORM—Department of Defense Form

DED—Directed Energy Device

DEW—Directed Energy Weapon

DMS—Defense Message System

DOD—Department of Defense

DR—Deficiency Report

DRU—Direct Reporting Unit

DSN—Defense Switched Network

DTRA—Defense Threat Reduction Agency

ECM—Electronic Countermeasures

EPU—Emergency Power Unit

FA—First Aid

FAX—Facsimile Machine

FFRDC—Federally Funded Research & Development Centers

FOA—Field Operating Agency

FOIA—Freedom of Information Act

FOUO—For Official Use Only

FY—Fiscal Year

GAO—General Accounting Office

GMV—Government Motor Vehicle

GS—General Schedule

GSA—General Services Administration

GVO—Government Vehicle Other

HAP—High Accident Potential

HE—High Explosive

HQ—Headquarters

IAW—In Accordance With

ICAO—International Civil Aviation Organization

ID—Identification

IG—Inspector General

IO—Investigating Officer

ISB—Interim Safety Board

JA—Judge Advocate

LAG—Launch Analysis Group

LOAC—Letter of Administrative Closure

LSSS—Limiting Safety System Settings

MAJCOM—Major Command

MC—Mission Capability

MCNL—Master Nuclear Certification List

MDS—Mission Design Series

MEN—Mishap Event Number

MOA—Memorandum of Agreement

MOFE—Memorandum of Final Evaluation

MOU—Memorandum of Understanding

MSE—Missile Support Equipment

NAF—Numbered Air Force

NGB—National Guard Bureau

NGB/CF—Director, Air National Guard

NRO—National Reconnaissance Office

NTSB—National Transportation Safety Board

NW—Nuclear Weapons Directorate

NWCA—Nuclear Weapons and Counter Proliferation Agency

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

OT&E—Operational Test and Evaluation

OWCP—Office of Workers' Compensation Program

PA—Public Affairs

PDO—Publishing Distribution Office

PQDR—Product Quality Deficiency Reports

QA—Quality Assurance

RCN—Remote Control Number

RCS—Report Control Symbol

RDS—Records Disposition Schedule

RPS—Reactor Protective System

SAF—Secretary of the Air Force

SE—Chief of Safety

SECAF—Secretary of the Air Force

SIB—Safety Investigation Board

SIO—Single Investigation Officer

SM—Single Manager

SORTS—Status of Resources and Training System

SPO—System Program Office

SSN—Social Security Number

TCTO—Time Compliance Technical Order

TO—Technical Order

UR—Unsatisfactory Report

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

Terms

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.

BEELINE FADED GIANT—A nuclear reactor system or radiological incident as defined by the criteria in paragraph **1.4.7.**

BENT SPEAR—A reporting flagword identifying a nuclear weapon system incident. This includes mishaps not in the accident category but meeting any of the criteria in paragraph **1.4.4.**

BROKEN ARROW—A reporting flagword that identifies a nuclear weapon accident that could NOT create the risk of war, but meets the following criteria: nuclear detonation of a nuclear weapon; nonnuclear detonation (no nuclear yield) or burning of a nuclear weapon, nuclear warhead, or nuclear component; radioactive contamination from a nuclear weapon or nuclear component; jettison of a nuclear weapon or nuclear component; public hazard (actual or perceived) from a nuclear weapon, nuclear warhead, 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 D0D 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.

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.

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.

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.

DULL SWORD—A reporting flagword identifying a nuclear weapon safety deficiency. This includes mishaps not falling into the accident or incident categories, but meeting any of the criteria in paragraph **1.4.5.**

EMPTY QUIVER—The loss, theft, seizure, or destruction of a nuclear weapon or component. Loss includes, but is not limited to, intentional weapon jettisoning according to approved Air Force procedures or inadvertent release of a nuclear component.

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.

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.

FIRST AID CASE—For military members, any initial one-time treatment and any follow-up visit

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.

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.

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 materiel used by the employee during the course of his or her work."

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.

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 AFI 91-204. 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—Systems that are propelled through the air that are unmanned, guided by internal or external systems, self-propelled, and designed to deliver ordnance to a target or act as a target. This definition includes training missiles.

MISSILE MISHAP—Unplanned damage to or functioning of a missile; or damage, illness, or injury caused by a missile; or when the missile fails to complete its intended mission..

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).

MISSING PENNY—A deviation from prescribed safety and security standards for a nuclear reactor system or radiological activity as defined by the criteria in paragraph **1.4.8.**

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.

NUCFLASH—Includes accidental, unauthorized, or unexplained occurrences that could create the risk of war 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.

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 COMPONENTS—Weapon components composed of fissionable or fusionable materials that contribute substantially to nuclear energy release during detonation. Nuclear components include radioactive boosting materials.

NUCLEAR MISHAP—An Air Force mishap involving radioactive materiel.

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

NUCLEAR REACTOR SYSTEM ACCIDENT—An uncontrolled reactor criticality resulting in damage to the reactor core or significant release of fission products from the reactor core.

NUCLEAR REACTOR SYSTEM AND RADIOLOGICAL MISHAPS—Nuclear accidents, incidents, and deficiencies involving terrestrial nuclear reactor systems, nuclear power systems, and radioactive materials and sources.

NUCLEAR REACTOR SYSTEM INCIDENT—A nuclear reactor system mishap not meeting the criteria for an accident.

NUCLEAR REACTOR SYSTEM MISHAP—A generic term used to denote a nuclear reactor system accident or incident.

NUCLEAR REACTOR SYSTEM SAFETY DEFICIENCY—A situation, event, or condition involving a deviation from prescribed safety and security standards for a nuclear reactor system not meeting the criteria for an accident or incident.

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

materiels 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.

NUCLEAR WEAPON SYSTEM ACCIDENT—A serious nuclear weapon system mishap involving a nuclear weapon.

NUCLEAR WEAPON SYSTEM INCIDENT—A significant or unexpected event involving nuclear weapons, nuclear warheads, or nuclear components not meeting the criteria for an accident.

NUCLEAR WEAPON SYSTEM MISHAP—Nuclear accident, incident, and safety deficiency involving nuclear weapons, nuclear weapon systems, and associated equipment and procedures.

NUCLEAR WEAPON SYSTEM SAFETY DEFICIENCY—A situation, event, or condition which could (or did) degrade nuclear surety but did not meet the criteria for an accident or incident.

PINNACLE FADED GIANT—A nuclear reactor system or radiological accident involving nuclear criticality or event resulting in significant damage to the reactor core or a significant release of fission products from the reactor core. Also includes the release of radioactive material such that, had an individual been present for 24 hours, the individual could have received an intake five times the federal annual occupational limit. Also includes the exposure of an individual's whole body to 25 roentgen equivalent man (rem) or more of radiation; exposure of the eye to 75 rems or more of radiation; or exposure of the skin, feet, ankles, hands or forearms to 250 rems or more of radiation.

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.

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 in Table 7.4, Note 4 of AFI 91-204.

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 1 (USAFE)

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Abbreviations and Acronyms

NATO—North Atlantic Treaty Organization

USAFE—United States Air Forces in Europe

WMT—Weapon Maintenance Truck

WS3—Weapon Storage and Security System

Attachment 2

SAMPLE SAFETY MEMORANDUM

Figure A2.1. Sample Memorandum of Transmittal.

(Date)

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: Safety Investigation Board

SUBJECT: Class A Mishap Final Report, (MDS), (Serial Number), (Mishap Date), (Involved Wing), and (Location).

1. The Safety Investigation Board (SIB) forwards this report IAW AFI 91-204 and AFMAN 91-221.

2. The SIB provided the originals for the material found in Part 1 of the report to the AFI 51-503 Accident Investigation Board President or AFI 51-507 Ground Accident Investigation Board President, if any.

3. I have retained one copy for briefing purposes and certify that these (Total Number) copies are the only copies produced by the SIB.

(SIB President), (Rank), USAF

Safety Investigation Board President

DISTRIBUTION:

See Attached

(Sample Attachment)

DISTRIBUTION LIST

HQ AFSC/SE 9700 G Avenue, Suite 278 Kirtland AFB NM 87117-5670	Copy 1-3 of x
MAJCOM/SE Organizational Address	Copy 4 of x
NAF/SE Organizational Address	Copy x of x
Mishap Unit/SE Organizational Address	Copy x of x

Attachment 3

MESSAGE LOOK-UP TABLE

Figure A3.1. Message Values Common to All Mishap Categories.

ORGANIZATIONS	
ACC (Air Combat Command)	CBT (AF Operations Group)
AET (Air Education & Training Command)	CCE (AF Cost Analysis Agency)
AFE (US Air Forces in Europe)	CFH (AF History Support Office)
AFR (AF Reserve Command)	CMC (AF Communications Agency)
AMC (Air Mobility Command)	CSA (AF Studies and Analysis Agency)
ANG (Air National Guard)	EEC (AF Center for Environmental Excellence)
MTC (Air Force Materiel Command)	ESC (AF Civil Engineering Support Agency)
PAF (Pacific Air Forces)	FSA (AF Flight Standards Agency)
SAJ (US Strategic Command)	FMC (AF Frequency Management Agency)
SOC (AF Special Operations Command)	HRC (AF Historical Research Agency)
SPC (AF Space Command)	ICT (AF News Agency)
ZEC (AFELM US Central Command)	ISC (AF Inspection Agency)
ZLA (AFELM US Atlantic Command)	LCT (AF Legal Services Agency)
ZPA (AFELM US Pacific Command)	LMA (AF Logistics Management Agency)
ZSA (AFELM US Southern Command)	MEA (AF Mgmt Engineering Agency)
ZSD (AFELM US Transportation Command)	MOA (AF Medical Operations Agency)
ZVA (AFELM US Special Operations Command)	MSA (AF Medical Support Agency)
ACD (Air Force Academy)	MWR (AF Services Agency)
DOC (AF Doctrine Center)	OSI (AF Office of Special Investigations)
ESW (11th Wing)	OSP (AF Security Forces Agency)
TEC (AF Operational Test & Eval Center)	PCA (AF Pentagon Comm Agency)
USL (USAF At Large)	POA (AF Personnel Operations Agency)
AAG (AF Audit Agency)	REA (AF Real Estate Agency)
AIA (Air Intelligence Agency)	RBO (AF Review Boards Agency)
APC (AF Personnel Center)	RPC (Air Reserve Personnel Center)
AWS (Air Force Weather Agency)	SFT (AF Safety Center)
BDA (AF Base Conversion Agency)	SSE (Joint Services SERE Agency)

PHASE OF OPERATIONS	
Aircraft Maintenance	Missile Maintenance (LF)
AUR Container (Weapon Removal/Placement)	Weapons Maintenance (WSA)
Aircraft Weapons Loading	Weapons Maintenance (LF)
Back Shop Maintenance	Operational Use/Alert
EOD Operations	OT&E Flight Test
End-of-Runway Operations	Other
Flight Line Delivery/Return	Re-Warehousing
ICT Weapons Loading	Storage
Inspection/Receiving	Weapons Load Training
Transport/Handling (intrabase)	Transport (Air)
Facility Maintenance (Including LF)	Transport (Ground)
Missile Maintenance (WSA)	UXO (Unexploded Ordnance Handling)
	Weapons Build-Up

NUCLEAR			
CROSS CATEGORY		**SUBCATEGORY**	
Flight	Ground	Weapon	Reactor and Radiological

GUIDED MISSILE			
CROSS CATEGORY		SUBCATEGORY	
Flight	Ground	None	

EXPLOSIVES AND CHEMICAL AGENTS			
CROSS CATEGORY		**SUBCATEGORY**	
Flight	Ground	Explosives	Chemical Agents

DIRECTED ENERGY			
CROSS CATEGORY		SUBCATEGORY	
Flight	Ground	Weapons	Devices

COMPONENT	
AFFN (foreign civilian employee)	NAF (non-appropriated fund civilian)
CIV (non-Air Force civilian)	OTHER
DAFC (DAF civilian employee)	USAF (military)
DoD (non-Air Force military)	YOP (youth opportunity program & student assistance program employees)
FMIL (foreign military assigned to Air Force)	

OBJECT					
PROPERTY COMPONENT		**PROPERTY DESCRIPTION**	**OBJECT ACTIVITY AT TIME OF MISHAP**	**MAJOR SYSTEM THAT FAILED/WAS DAMAGED**	
Aircraft	Gun			Airframe	
Ammunition	ICBM Supp Eq		Disposal	Battery/Pwr	Other
Bomb	MHE	Use property	Handling	Canopy	Parachute
CADD/PADD	Missile	description	Maintenance	Dome	Propulsion
Chaff/Flare	Other	nomenclature from	Operational	Ejection Seat	RV
Demolition Exp	Pyrotechnics	Air Force	Other	Flight	Payload
Egress Item	Suspension Eq	publications when	Transport	Control	Telemetry
Gen Support Eq	Rocket	appropriate	Storage	Surfaces	Unintended
Grenade/Mine	Vehicle			Guidance	Initiation
GBS	Real Estate			Hoist	

PERSONNEL				
PERSONNEL IDENTIFICATION	**PERSONNEL ACTIVITY AT TIME OF MISHAP**		**FUNCTIONAL AREA**	**SAFETY EQUIPMENT**
Aircrew Member	Bystander	Monitor/Observer	Contractor	Ear protection
Bystander	Disposing	Operating	CE	Eye/face protect
Commander	Handling	Other	EOD	Foot protect
Driver	Inspecting	Training Transporting	Field Maint	Full body
EOD	Maintenance		Inspection/QA	Gloves
Escort			Loading	Harness
Operator			Missile Maint	Helmet/hardhat
Other			Ops	None
Passenger			Org Maint	Other
Range Officer			Other	Respirator
Safety Rep			Depot Maint	Restraint dev
Spectator			Safety	Safety belt
Spotter			Security	Seatbelt
Supervisor			Storage/Handling	
Team Chief			Support/Supply	
Team Member			Transportation	
Worker			Weapons Maint	

GRADE	
NOTE: This is not a true look-up table but a guide to the type of grade structures used.	
AFFN – FN1 (wage grade equivalent)	CC1-CC5 (trades and crafts child development)
FN2 (administrative)	OSI (OSI agent)
FN3 (management)	PS1-PS19 (patron service)
AS1-AS19 (administrative service)	ROTC (ROTC cadet)
CDT (academy cadet)	SES1-SES6 (senior executive)
E1-E9 (enlisted)	UA1-UA9 (universal/annual)
GM13-GM15 (general manager)	UNK (unknown)
GS1-GS15 (general schedule)	W1-W4 (warrant officer)
NA1-NA15 (trades and crafts)	WB1-WB19 (wage board)
NL1-NL15 (trades and crafts work leader)	WG1-WG19 (wage grade)
NS1-NS15 (trades and crafts supervisor)	WL1-WL19 (wage leader)
O1-O10 (officer)	WS1-WS19 (wage supervisor)

INJURY CLASS	
FT (Fatal)	OT (Other)
LT (Lost Time)	PP (Perm partial)
LW (Lost Workday(s))	PT (Perm total)
NL (No Lost Time)	TR (Treated and Released)
NO (None)	

BODY PARTS INJURED					
Abdomen	Chest	Foot	Head	Mouth/Teeth	Shoulder
Ankle Body, all	Eye	Face	Leg, lower	Neck	Thumb
Arm, lower	Elbow	Hip	Leg, upper	Other	Toe
Arm, upper	Finger	Hand	Knee	Ribs	Wrist
Back					

TYPE INJURY		
Abrasion	Dislocation	Laceration
Amputation	Drown/Suffocate	Other
Bruise	Electric Shock	Puncture
Burn	Electrocution	Rupture
Collapsed Lung	Fracture	Sprain
Concussion	Gunshot	Strain
Contusion	Internal Injury	Unknown
Crush		

SUBSTANCE TYPE	
Alcohol	None
Drugs, OTC (over-the-counter)	Other
Drugs, Other	Unknown
Drugs, Rx (prescription)	

Attachment 4

REPORT FORMATS

Figure A4.1. Format for Preliminary Reports.

Use this format for preliminary reports required by **Table 6.1.**. This format can be used for status reports. Preliminary (8-hour) report must not contain privileged information. If this format is used for an initial status report, include the Privileged markings.

From: Message originator.

To: List addressees from **Table 6.3.** or **Table 6.4.**.

Classification: Use the proper security markings prescribed by AFI 31-401 for classified messages.

Subject: REPORT TYPE, CLASS, CATEGORY, FLAGWORD (if applicable), SUBCATEGORY, and MISHAP EVENT NUMBER. Example: PRELIMINARY, CLASS D, NUCLEAR, NUCLEAR WEAPON, 20000313AWUB001D (Preliminary Class D for AGM-86).

Special Markings (if applicable)**.**

FOR OFFICIAL USE ONLY.

THIS REPORT 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, VOLUME 1 FOR RESTRICTIONS.

NOTE: For classified messages, "FOR OFFICIAL USE ONLY" does not apply. Omit the quotation "FOR OFFICIAL USE ONLY."

1. DD MMM YYYY/HHMM/weather conditions (if pertinent to mishap). Indicate when the mishap occurred or when it was discovered. Give the date, local time (24-hour clock), and weather conditions (if applicable). (e.g., 03 Mar 2001/1900/foggy, night)

2. Clear text name of base submitting report.

3: Location where the mishap was discovered. If on a military installation, give the name of the installation, specific location on base, and general function of the location or facility. If the event occurred off base, use street and highway references as well as the distance and compass direction from the nearest US military installation. GPS coordinates (ddd-mm.mm) may be used in place of street and highway references for remote locations.

4. Object Information

5.1. Nomenclature and name, weapon carrier MDS, serial number, building number and purpose, national stock number, part number, manufacturer's name, mishap individual duty position, as applicable. *NOTE*: Consult classification guide for nuclear messages.

5.2.1. Owning MAJCOM/DRU/FOA

5.2.2. NAF

5.2.3. Center/Wing (Wing-equivalent Groups)

5.2.4. Squadron

5.2.5. Unit

5.2.6. Base Code

5.3. Nature of mishap (damage, injury, death, violation). For radiological, describe type and extent of any contamination, measured intensities, rate of decay, or any other data helpful.

6. Personnel Information. Include known information about personnel fatalities and injuries. Do not include names due to next of kin notification considerations. Do not include SSNs on preliminary messages. Include information on crewmembers and bystanders.

6.1. Grade: Age: (N/A for Preliminary Report) AFSC:

6.2. Injury Class and Type:

6.3. For crewmembers include qualifications.

7. Narrative of circumstances. Give brief description of mishap. Provide strictly abbreviated, factual information. Do not include information implying cause or containing material gained through testimony from crewmembers or other witnesses. Describe extent of damage, e.g., “Building destroyed by fire or explosion,” “Missile destroyed,” etc. Include mission information.

8. Initial estimates of collateral damage and injury costs. Give estimates of damage to non-Air Force property and non-Air Force injury costs if applicable. Include status of on-going rescue and recovery operations, hazard containment, and security. Provide information on the level of media interest. Exact cost of nuclear equipment or devices may classify the report.

9. Interim Safety Board President and cognizant official and telephone number (DSN and commercial) and e-mail address.

Figure A4.2. Format for Safety Reports.

FROM: (ORIGINATOR)

TO: (See **Table 6.3.** or **Table 6.4.**)

CLASSIFICATION:

SUBJECT: REPORT TYPE, CLASS, CATEGORY, FLAGWORD (if applicable), SUBCATEGORY, and MISHAP EVENT NUMBER. Example: FINAL, CLASS D, NUCLEAR, NUCLEAR WEAPON, 20000313AWUB001E (Final, Class D for AGM-86).

***NOTE*:** For classified reports, see AFI 31-401.

***NOTE**:* Include Privacy Act Statement if Social Security Numbers are included in the message.

//////////

PRIVACY ACT WARNING

THIS MESSAGE CONTAINS INFORMATION PROTECTED FROM RELEASE BY FEDERAL STATUTE

//////////

FOR OFFICIAL USE ONLY.

THIS CONTAINS PRIVILEGED, LIMITED-USE SAFETY INFORMATION. UNAU-THO-RIZED USE OR DISCLOSURE CAN SUBJECT YOU TO CRIMINAL PROSECUTION, TER-MINATION OF EMPLOYMENT, CIVIL LIABILITY, OR OTHER ADVERSE ACTIONS. SEE AFI 91-204, VOLUME 1 FOR RESTRICTIONS.

DESTROY IN ACCORDANCE WITH AFMAN 37-139 WHEN NO LONGER NEEDED FOR MISHAP PREVENTION PURPOSES.

//////////

NOTE: For classified messages add the proper security classification marking from AFI 31-401 and omit the quotation "FOR OFFICIAL USE ONLY."

NOTE: For "*" entries, see **Attachment 2**.

1. Location of mishap:

1.1. Name of base or military property (such as Utah Test and Training Range) on which mishap occurred. If mishap occurred off base, state "off military property." Courtesy reporting should be accomplished by the nearest Air Force installation.

1.2. Duty Status: on duty or off duty.

1.3. State and country of mishap.

1.4. Latitude and longitude (degrees and minutes to two decimal places), for remote locations.

1.5. Date of the mishap.

1.6. Local Time.

1.7. Phase of Operations. *

2. Ownership:

2.1. MAJCOM/DRU/FOA.*

2.2. NAF.

2.3. Center/Wing (Wing-equivalent Group).

2.4. Group.

2.5. Squadron.

2.6. Unit.

2.7. Base Code. (Use the four-letter location code from SORTS)

3. Environmental factors:

3.1. Weather was a factor (Y or N).

3.2. Day or night.

3.3. Mishap did involve fire or explosion (Y or N).

4. Damage and injury cost estimates:

4.1. Mishap cost NONAF: Estimate of damage to non-Air Force property, including other DoD and non-DoD property.

4.2. AF cost damage: Cost of damage to Air Force property, including labor and materiel.

4.3. Cost total injury: Cost of injuries to Air Force personnel, including military and civilian.

4.4. Total mishap cost (sum of costs in items 4.1. through 4.3.).

5. Personnel involved: Give the following data on each person involved. If more than one person is involved, provide information in subparagraphs entitled “Person 1,” “Person 2,” etc. Repeat entry 5.X.1 through 5.X.12 for each person involved in the mishap. Number as 5.X.1 through 5.X.12.

5.X.1. SSN. **Mandatory** for military and DoD civilians involved.

5.X.1.1. Gender

5.X.1.2. Age

5.X.1.3. Grade*

5.X.1.4. Duty AFSC or job series.

5.X.2. Time on duty prior to mishap. Give time to nearest 10th hour from the time the individual reported to work until he or she was involved in the mishap.

5.X.3. Activity at time of mishap.*

5.X.4. Personnel Identification.*

5.X.5. Functional area.*

5.X.6. Organization assigned.

5.X.7. MAJCOM/DRU/FOA*.

5.X.7.1. NAF.

5.X.7.2. Center/Wing (Wing-equivalent Group).

5.X.7.3. Group.

5.X.7.4. Squadron.

5.X.7.5. Unit.

5.X.7.6. Base.

5.X.8. Component.*

5.X.9. TOX testing (positive, negative, pending, not suspected or not accomplished). If positive or not accomplished, explain in narrative. TOX test information must be identified in all mishaps.

5.X.9.1. Substance type.*

5.X.9.2. Substance level.

5.X.10. Injury class.*

5.X.10.1. Part of body injured.*

5.X.10.2. Type injury.*

5.X.11. Was individual training a factor in the mishap (Y or N)? Types of training include traffic safety, job task, life support, etc. If training was factor, answer following six questions:

5.X.11.1. Was individual trained and, if required, certified to perform task (Y or N)?

5.X.11.2. Was training program, as designed, adequate to perform task (Y or N)?

5.X.11.3. Did training, as administered, comply with established training program (Y or N)?

5.X.11.4. Were written instructions available (checklist, TO, etc.) (Y or N)?

5.X.11.5. Were written instructions used (Y or N)?

5.X.11.6. Were written instructions satisfactory (Y or N)?

5.X.12. Safety equipment. Select available safety equipment (maximum of three) from **Attachment 2**, and state if it was used (Y or N) and if it worked (Y or N). Use following format: seat belts/yes/yes; parachute/yes/no/; helmet/no/(blank).*

6. Property data. Give following data on each piece of property involved. If more than one piece of property is involved, provide information in subparagraphs entitled “Object 1,” “Object 2,” etc.

6.X.1. Property Component.* Repeat all of entry 6.1 for each item if more than one item or property type is involved. Number as 6.X.1 through 6.X.8.

6.X.1.1. *Organization assigned. If the organization is same as paragraph **2**, state “same as paragraph **2**.”

6.X.1.1.1 MAJCOM/DRU/FOA*.

6.X.1.1.2 NAF.

6.X.1.1.3 Center/Wing (Wing-equivalent Group).

6.X.1.1.4 Group.

6.X.1.1.5. Squadron.

6.X.1.1.6. Unit.

6.X.1.1.7. Base.

6.X.1.2. Vehicle or equipment serial number.

6.X.1.3. Object or vehicle activity at time of mishap.*

6.X.1.4. Was object destroyed (Y or N)?

6.X.1.5. Cost to repair or replace.

6.X.1.6. Mission-design-series (MDS).

6.X.1.7. Mishap within 10 miles of base (Y or N)?

6.X.1.8. Major system failing.*

6.X.1.9. Parts information. Repeat entries 6.1.9.1 through 6.1.10 as required for all failed parts. Number as

6.X.1.9.X through 6.X.1.10.X.

6.X.1.9.1. Failed part:

6.X.1.9.1.1. Failed part description.

6.X.1.9.1.2. Failed part number.

6.X.1.9.1.3. Failed part manufacturer.

6.X.1.9.1.4. Mishap event number from DR report.

6.X.1.10. Lot number (if applicable)

7. Narrative. Give a concise, chronological description of the facts and circumstances leading to the mishap. For areas not factors in the mishap, give details in narrative not included elsewhere in the report. Include enough information in final reports to show SIB or investigating officer reasoning in reaching findings and recommendations. In all cases, continue the sequence through point of occurrence (or discovery) for all damage and injury or until the event ends. For technical assistance on this item, contact HQ AFSC/SEW, DSN 246-6059, commercial (505) 846-6059. Specify in the narrative if an accident investigation was/was not convened and is being conducted.

8. Findings and causes. Repeat entries 8.1 through 8.X for the required number of findings and causes. Findings must not address new information that was not been previously discussed in the narrative. 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. Assess the risk based upon the tables of probability and severity from AFI 91-204.

9. Preventive action recommended or taken. Repeat entries 9.1 through 9.X as necessary.

10. Cognizant official, unit, office symbol, telephone number (DSN and commercial) and e-mail address.

Figure A4.3. Format for Nuclear Weapon System Safety Deficiency Reports (Dull Swords).

From: (originator)

To: (See **Table 6.4.**)

Classification: Use the proper security markings prescribed by AFI 31-401 for classified messages.

Subject: REPORT TYPE, REPORTING UNIT DESIGNATION, FLAGWORD, TWO-DIGIT CALENDAR YEAR OF OCCURRENCE, AND REPORTING UNIT'S SEQUENCE NUMBER**.**

NOTE: The reporting unit assigns sequence numbers consecutively from 1 October to 30 September of each year for each flagword category. If the deficiency occurs on 30 September and the report is prepared in October of the following year, number it according to the year of occurrence. Report all voided and unused DULL SWORD numbers to HQ AFSC/SEW as soon as possible.

Examples:

PRELIMINARY 509 BW DULL SWORD 96-001

SUPPLEMENTAL REPORT NO. 1, 5 BW DULL SWORD 96-008

FINAL 5 BW DULL SWORD 96-008

ONE-TIME 509 BW DULL SWORD 96-010

Special Markings. Insert the following 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 FOR RESTRICTIONS.

DESTROY IN ACCORDANCE WITH AFMAN 37-139 WHEN NO LONGER NEEDED FOR MISHAP PREVENTION PURPOSES.

//

***NOTE*:** For classified messages add the proper security classification marking from AFI 31-401 and omit the quotation "FOR OFFICIAL USE ONLY."

Item 1. DATE, TIME, LOCATION: Include the date, time, and location of the event. Example: 5 Mar 96; 0615 CST; Parking Stub B-5, Main Parking Area, Minot AFB, ND.

Item 2. MATERIAL INVOLVED: Include the nomenclature, national stock number (NSN), manufacturer (MFR), part number (P/N), serial number (S/N), and next higher assembly (NHA). If applicable, provide the Mission-Design-Series (MDS) or Mark (MK) number and S/N. Example: LAUNCHER, AIR-

CRAFT GUIDED MISSILE AND BOMB (CSRL); NSN: 1195-01-238-7385; P/N: 405-10003-510; S/N: 048; MFR: THE BOEING CO; MDS: B-52H; S/N: 60-026.

Item 3. NARRATIVE: Provide a detailed description of the chronological events and circumstances leading to the deficiency, including specific causes and damages. If applicable, include information on personnel involved, equipment in use, weather conditions, type of activity the operation was supporting, and technical order references. While ranks and Air Force specialty codes may be provided for clarity, do not identify personnel by name. Use the CATEGORY-AGENT-REASON (CAR) methodology to specify selections for accountable area (what), responsible agent (who), and reason (why). (e.g., MAINTENANCE - PERSON , SQDN, LGW - COMPLACENCY)

Item 4. CORRECTIVE ACTIONS, STATUS, and RECOMMENDATIONS: Include specific actions identified to correct the problem and if the actions were completed. Give rationale for those actions. Indicate if the situation is closed or remains open pending further action. When appropriate, provide recommended actions such as retraining or recertification, but do not include disciplinary actions.

Item 5. ADDITIONAL INFORMATION: Include significant information not already required which provides insight into the event. Identify any other reports submitted that relate to the event (e.g., previous DULL SWORD reports, product quality deficiency reports, etc.). If photographs were taken, provide a list of organizations receiving the photographs. ***NOTE:*** For weapon-related deficiencies, use guidance in TO 11N-5-1. Photographs for Air Force items will be requested by the evaluation agency on an as needed basis. Do not refer to the unit on the photographs.

Item 6. POINT OF CONTACT, REPORT PREPARER, REPORT APPROVER: Identify the individual to be contacted for technical assistance. Also identify the report preparer as well as the releasing official. Include names, ranks, duty titles, and phone numbers.