



Department of Defense INSTRUCTION

AD 6055.7
6055.7

AD-A272 354

April 10, 1989
NUMBER 6055.7



ASD(FM&P)

SUBJECT: Mishap Investigation, Reporting, and Recordkeeping

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- References:
- (a) DoD Instruction 6055.7, "Mishap Investigation, Reporting and Recordkeeping," December 16, 1981 (hereby canceled)
 - (b) Defense Safety and Occupational Health Program Policy Memorandum (SOHPPM 84-2), "Changes to 29 CFR 1960, 'Basic Program Elements for Federal Employees Occupational Safety and Health Program'," February 10, 1984 (hereby canceled)
 - (c) Defense Safety and Occupational Health Program Policy Memorandum (SOHPPM 84-3), "OSHA Reporting Requirements for DoD Civilian Fatalities," August 7, 1984 (hereby canceled)
 - (d) Defense Safety and Occupational Health Program Policy Memorandum (SOHPPM 84-4), "Department of Defense Fire Incident Reporting," September 1984 (hereby canceled)
 - (e) through (v), see enclosure 1

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A. REISSUANCE AND PURPOSE

This Instruction:

1. Reissues and updates reference (a).
2. Incorporates provisions of references (b), (c), (d), and (e) pursuant to DoD Directive 1000.3 (reference (f)) to update guidance for investigation, reporting, and recordkeeping on mishaps and occupational illnesses to:
 - a. Inform the Secretary of Defense on the loss of assets through mishaps.
 - b. Provide a factual basis for the allocation of resources in support of DoD mishap prevention programs.
 - c. Comply with the Occupational Safety and Health Administration's (OSHA) reporting requirements in accordance with E.O. 12196 (reference (g)) and OSHA Regulation (reference (h)).
3. Provides format and instructions for preparing reports to fulfill the needs generated by references (f), (g), (h), and DoD 6055.9-STD (reference (i)).
4. Centralizes the collection, analysis, and reporting of DoD fire loss data.
5. Continues the authorization to publish DoD 6055.7-M, "DoD Fire Incident Reporting Manual," (reference (j)) to standardize existing fire reporting systems of the Military Departments and the Defense Logistics Agency (DLA), and to prescribe reports compatible with the requirements of the Federal Emergency Management Agency (FEMA).

This document has been approved for public release and sale; its distribution is unlimited.

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6. Provides a catalog of charts for DoD program review data displays on aviation and ground safety statistics and common definitions of military aircraft categories (enclosure 6).

B. APPLICABILITY

This Instruction:

1. Applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Joint Staff, the Unified and Specified Commands, the Inspector General of the Department of Defense (IG, DoD), the Uniformed Services University of the Health Sciences (USUHS), the Defense Agencies, and DoD Field Activities (hereafter referred to collectively as "DoD Components"). The term "Military Services," as used herein, refers to the Army, Navy, Air Force, and Marine Corps.

2. Is not intended to modify DoD Instruction 0-7730.12 (reference (k)) or JCS Joint Reporting Structure (reference (l)).

C. DEFINITIONS

Terms used in this Instruction are defined in enclosure 2.

D. RESPONSIBILITIES

1. The Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P)), or designee, the Deputy Assistant Secretary of Defense (Family Support, Education and Safety) (DASD(FSE&S)), shall:

a. Represent the Secretary of Defense in matters concerning both the Department of Defense and the Department of Labor (DoL) regarding mishap reporting procedures.

b. Consolidate DoD Component inputs and submit an annual DoD report to the DoL.

c. Periodically adjust the cost criteria of this Instruction to reflect changing economic conditions.

d. As required, direct special emphasis programs to reduce losses due to mishaps in selected areas.

2. The Heads of DoD Components shall establish procedures, in accordance with subsection E.2., below, under the cognizance of a designated safety and occupational health official, and shall:

a. Collect, maintain, analyze, and report standardized property damage, injury, and occupational illness data in accordance with this Instruction. This process should include input of data from all available sources, including medical patient disposition forms and civilian employee compensation forms.

b. Ensure that effective corrective action is taken on identified mishap causal factors.

c. Ensure that historical safety data (lessons learned) are considered and used during the development and acquisition of new systems as required by DoD Instruction 5000.36 (reference (m)).

d. Furnish, upon request, to the ASD(FM&P) such information as may be required to evaluate DoD Component programs and develop DoD special emphasis programs. These reporting requirements shall be in compliance with DoD Directives 2750.5 and 5000.11 (references (n) and (o)).

e. Designate a focal point responsible for forwarding information relative to serious mishap reports, as required in enclosure 3.

3. The Secretary of the Navy, or designee, shall:

a. Develop and maintain DoD 6055.7-M (reference (j)), consistent with DoD 5025.1-M (reference (p)), for use at DoD installations for reporting fires and fire department responses.

b. Maintain a central DoD file of fire incident reports, including the standardization of all data elements.

c. Receive fire incident reports from DoD installations and prepare consolidated DoD reports for submission to the FEMA. Data elements and codes shall be registered and standardized in accordance with reference (o) as a prerequisite to report or central file development.

E. PROCEDURES

1. General. DoD Components shall adopt the mishap categories, classification criteria, and reporting formats and procedures contained in this Instruction. This does not inhibit DoD Components from collecting, classifying, and maintaining additional data for their individual mishap prevention needs.

2. Reporting and Recordkeeping. Minimum reporting and recordkeeping requirements for DoD mishaps follow:

a. Mishap Investigation Reports

(1) General

(a) All mishap reports are intended to be for official use only, but are protectable only as specified by DoD Directive 5400.7 (reference (q)).

(b) The proximate result of any mishap investigation is a document that provides the essential details of the mishap and, when appropriate, a summary of corrective actions taken or anticipated.

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(c) DoD Components shall establish procedures to ensure that all mishaps are investigated by a disinterested third party whenever possible and that the essential data are recorded. Inter-Service participation, as observers, is authorized and encouraged during the conduct of the investigations of mishaps involving systems common to more than one DoD Component. The extent of investigative effort should not be tailored to the severity of the mishap; rather, it should be tailored to identify the causal factors associated with the mishap.

(d) DoD Components shall develop qualification criteria for mishap investigators based on the complexity or severity of the mishaps involved.

(e) For civilian employee mishaps, refer to reporting requirements in OSHA 2014 (reference (r)).

(f) DoD Components shall provide for the review of mishap reports by appropriate levels of management, establish a system to identify problem areas, and ensure that corrective actions, validated and approved by competent authority, are monitored until corrective action is complete.

(2) Types of Mishap Investigation Reports. When a mishap occurs, there may be several reasons for recording data relating to the mishap. Two reasons are for future mishap prevention and for legal considerations. These separate objectives require separate reports. A description of these types of reports and their relationship to each other are explained in subparagraphs E.2.a(2)(a) through E.2.a(2)(c) below:

(a) Limited Use Safety Mishap Investigation Reports. These are close hold, internal communications of the Department of Defense whose SOLE purpose is prevention of subsequent DoD mishaps. They are required for all in flight mishaps and are authorized for use in certain other mishaps as explained in subparagraph E.2.a(2)3, below. This special category of investigative reports makes certain that all available information is obtained and analyzed.

1 Since much of this information is available only from persons directly or indirectly involved in the mishaps, a means must be provided to establish frank and open exchange of such information without fear of recrimination or other adverse action.

2 All persons who provide information to mishap investigators of this special category under a promise of confidentiality may be ensured that the Department of Defense will use its best efforts to honor the promise if the record containing the information becomes the subject of a request under the "Freedom of Information Act," (DoD Directive 5400.7, reference (q)), and will not voluntarily disclose this information.

3 In addition to flight mishaps, Limited Use Safety Mishap Investigation Reports may be used for mishaps involving other complex weapon systems, equipment, or military-unique items (such as ships and shipboard systems, guided missiles, laser devices, or armored vehicles), when the determination of causal factors is vital to the national defense. The selection of system categories to be included in this application of Limited Use Safety Mishap Investigation Reports is delegated to the DoD Components and shall be prescribed in the DoD Components' implementing documents.

4 The following restrictions are imposed on the handling of Limited Use Safety Mishap Investigation Reports:

a Reports shall not be used as evidence for disciplinary action, in determining the misconduct or line-of-duty status of any personnel, before any evaluation board, or to determine liability in administrative claims for or against the Government.

b To the extent permissible under the law, these privileged reports shall not be released in their entirety to the public or any Federal Agency outside the Department of Defense. Subject to court order to the contrary, reports may not be used in any legal proceeding, civil or criminal. The Department of Defense will use its best efforts to seek available appellate review of a court order to release a report. Exceptions to the foregoing are stated in subparagraph E.2.a. (2)(a) 4 c below.

c Notwithstanding the restrictions on the use and release of these reports in their entirety, purely factual material, including information such as date, time, location, type system, weather, maps, and transcripts of air traffic communications, may be released as required by law or pursuant to court order, or upon specific authorization of the DoD Component's designated disclosure authority. To facilitate the separation of this material, the DoD Components shall structure these reports so that releasable, nonprivileged material is easily identifiable and separately retrievable.

d The notation "Limited Use Safety Mishap Investigation Report" shall be used by all DoD Components for the identification of these reports.

(b) General Use Safety Mishap Investigation Reports. These are reports prepared to record data concerning all reportable DoD mishaps not covered by Limited Use Safety Mishap Investigation Reports. The PRIMARY purpose of these reports is to prevent future mishaps. Although their use for other purposes for reasons of economy is not specifically prohibited, DoD Components shall specify any reasonable and necessary restrictions on their internal handling and use to encourage the uninhibited cooperation of essential witnesses. Witnesses may be advised that their statements may not be used for internal DoD disciplinary purposes. Promises may not be given, however, that the information will be treated as exempt from mandatory disclosure in response to a request under the "Freedom of Information Act" (DoD Directive 5400.7, reference (q)).

(c) Legal Mishap Investigation Reports. These are reports of investigations conducted under procedures prescribed by the DoD Components' Judge Advocates General (JAGs), legal counsel, or other authority. Legal Mishap Investigation Reports are used to obtain and preserve all available evidence for use in litigation, claims, disciplinary action, or adverse administrative actions. Although nonprivileged information acquired by a safety mishap investigator shall be made available to the legal investigation, the latter is conducted independently and apart from other types of mishap investigations. Personnel assigned to conduct safety investigations under subparagraphs E.2.a.(2)(a) and E.2.a.(2)(b), above, shall not conduct, review, evaluate, or maintain on file the legal investigation. DoD Components shall

prepare this type of investigation report, in addition to any authorized Safety Mishap Investigation Report, whenever a mishap involves one or more of the following:

- 1 All Class A mishaps in which a limited sse safety mishap investigation will be conducted.
- 2 All mishaps involving one or more fatalities.
- 3 Anticipated litigation for or against the Government or a Government contractor.
- 4 Anticipated disciplinary or adverse administrative action against any individual.
- 5 Probable high public interest.

b. Log of Federal Occupational Injuries and Illnesses. A log (automated or manual) shall be maintained for civilian personnel at each DoD installation or distinctly separate DoD activity using the format and instructions contained in the OSHA 2014 (reference (r)). A log similar to that found in (reference (r)) shall be maintained for military personnel with and/or off-duty mishaps recorded separately. On-duty injuries and occupational illnesses shall be entered on the log within 6 work days of notification of such occurrences. Log retention and access are outlined in reference (r).

c. Annual Report For Occupational Safety and Health (OSH). DoD Components shall prepare and forward the annual summary describing the previous year's OSH program to the ASD(FM&P) no later than January 1 of each year (details and format are in Appendix F of reference (r)).

d. Instructions for Semiannual Safety and Occupational Health Program Review. Semiannually, the Military Departments and selected Defense Agencies shall present individual briefings on their safety and occupational health programs to the ASD(FM&P) (enclosure 6).

e. Special Reporting of Serious Mishaps. The requirements and instructions for these reports of serious mishaps are in enclosure 3.

f. Special Reporting of Explosive and Chemical Agent Mishaps to the Department of Defense Explosives Safety Board (DDESB). The requirements and instructions for these reports are in enclosure 4.

3. Non-Reportable Mishaps. The following mishaps need not be reported under this Instruction:

a. Mishaps involving nuclear weapons, reactors, or radioactive materials involved in these systems. These are reportable in accordance with DoD Instruction 0-7730.12 (reference (k)). However, other radiation mishaps are reportable.

b. Damage or injury by direct action of an enemy or hostile force.

c. Intentional, controlled jettison or release, during flight, of canopies, cargo, doors, drag chutes, hatches, life rafts, auxiliary fuel tanks, missiles, drones, rockets, nonnuclear munitions, and externally carried equipment not essential to flight, when there is no injury, no reportable damage to the aircraft or other property, and, in the case of missiles, drones or non-nuclear munitions, when the reason for jettison is not malfunction.

d. Malfunction or failure of component parts due to normal wear and tear and is the only damage, and the sole action is to replace or repair that component part. When the malfunction or failure of a component part results in reportable damage to another component part, this exception does not apply; such as, the failure of a jet engine turbine which results in damage to the aircraft fuselage; or a blown aircraft tire which results in damage to the wheel well or aircraft structure.

e. Injuries associated with nonoccupational diseases, when the disease itself, not the injury, is the proximate cause of the lost time; such as, a minor laceration suffered by a hemophiliac that results in time away from work. However, complications of the injury (such as the infection of a cut aggravated by a work-related activity) that result in lost time are reportable.

f. Attempted or consummated suicide or homicide, or intentionally self-inflicted injuries.

g. Injuries resulting from altercations, attack, or assault, unless incurred in the performance of official duties when an attack or assault would not be a felony; such as, a nurse assaulted by a patient in a mental institution.

h. Injuries sustained before entry into the military service, or civilian employment, unless specifically aggravated by current tenure of service.

i. Hospitalization for treatment where the patient is retained beyond the day of admission solely for administrative reasons. (See definition 26., enclosure 2.)

j. Hospitalization for observation or administrative reasons not related to the immediate injury or occupational illness. (See definition 26., enclosure 2.)

k. Injuries that result from:

(1) Pre-existing musculoskeletal disorders.

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

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

m. Death due to natural causes that are unrelated to the work environment.

n. Intentional or expected damage to DoD equipment or property incurred during authorized testing or combat training, including missile and ordnance firing.

o. Foreign object damage (FOD) to aircraft, air-breathing missiles, or drone engines discovered during scheduled engine disassembly.

p. Property damage as a result of vandalism, riots, civil disorders, sabotage, terrorist activities, or felony acts, such as arson.

4. Fire Incident Investigation and Reporting. DoD installations with organized fire departments shall use the reporting format and instructions prescribed in DoD 6055.7-M (reference (j)). At locations where non-DoD fire departments perform fire fighting services, a copy of that fire department's fire report shall be submitted to the central DoD file.

5. Contractor Mishaps Involving DoD Property and DoD Personnel Injuries. Each Head of a DoD Component, or designee, shall:

a. Develop procedures to ensure that mishaps that occur as a result of a Government contractor's operations in which there is reportable damage are investigated and reported. This includes nondelivered equipment for which the Government has assumed responsibility.

b. For mishaps, exclusive of explosives, determine if such investigations are to be made by the contractor or DoD personnel. In either case, a record of the mishap shall be maintained by the DoD Component.

c. For explosive mishaps in Government-owned, contractor-operated (GOCO) facilities, the contracting DoD Component, unless otherwise directed by the ASD(FM&P), shall conduct the investigation and prepare a report on behalf of the Department of Defense. Assistance may be requested from the DDESB, the DLA, and the contractor.

6. Cost Data

a. The standardized cost data in the tables in enclosure 5 shall be used to compute the cost of injuries and occupational illness of DoD personnel reported in this Instruction. In those cases when the actual time lost is not known at the time a report is submitted, the best official estimate of lost time shall be used in computing the cost of the injury or occupational illness.

b. The direct cost of damage to DoD property shall be computed using the actual cost of repair or replacement, including work hours to repair, or the best official estimate available.

c. A standard rate of \$16 per work hour (determined by the Office of the Deputy Assistant Secretary of Defense (Logistics) (ODASD(L))) shall be used for labor cost computations.

d. In the case of destroyed aircraft, fly-away costs plus modification costs shall be used.

e. When an aircraft engine is damaged to the extent that it must be returned to a repair facility, the cost of such damage shall be reported as the established repair cost.

f. The cost of intentionally jettisoned items, as listed in paragraph E.3.c., above, shall not be included in the cost of the mishap.

g. When other aircraft components are damaged to the extent that they must be returned to a repair facility, the reported cost for repair shall be computed at 15 percent of the initial unit cost.

h. In the event of a mishap that involves two or more DoD Components, each DoD Component shall report its own losses.

7. Duplicate Reporting. To avoid duplicate reporting of DoD Component personnel regularly assigned to another DoD Component, death, injuries, and occupational illnesses shall be reported by the organization of assignment, rather than the parent DoD Component.

8. Access to Records. The Heads of DoD Components, or designees, shall:

a. Develop procedures to release or withhold information in mishap investigation reports in accordance with DoD Directive 5400.7 and DoD 5400.11-R (references (q) and (s)).

b. Ensure the availability to DoD personnel of other records maintained under this Instruction, and with the permission of DoD personnel involved, to representatives of DoD civilian employees. This procedure shall be in accordance with other pertinent statutes, regulations, instructions, and any applicable collective bargaining agreements.

c. Ensure that records required by this Instruction are retained for at least 5 years following the end of the fiscal year to which they relate.

9. Cross-feed of Mishap Data

a. The Secretaries of the Military Departments, or designees, shall:

(1) Provide for the compatible cross-feed of mishap data that involves like equipment or similar operations. This cross-feed shall include appropriate information relative to equipment safety modifications.

(2) Establish procedures to review safety modifications directed by the Federal Aviation Administration (FAA) for possible application to similar DoD aircraft.

b. The Heads of DoD Components, or designees, shall:

(1) Where there are significant industrial operations, participate in the Failure Experience Data Bank of the Government-Industry Data Exchange Program (GIDEP) (reference (t)). Each SAFE-ALERT issued by GIDEP as a result of part, component, process, or material failure shall be reviewed and appropriate action taken to disseminate the information contained therein.

(2) Establish procedures to ensure the timely distribution of the lessons learned from significant mishaps to all affected organizations within the Department of Defense.

F. INFORMATION REQUIREMENTS

The reporting and recordkeeping requirements of this Instruction have been assigned the following Inter-Agency and Internal Report Control Symbols (RCSs):

1. Inter-Agency RCS 1146-DOL-XX has been assigned to paragraphs E.2.b., and c., above.
2. RCS DD-FM&P(AR) 1020 has been assigned to paragraph E.2.f., above.
3. The fire incident reporting requirements in subsection E.4., above, including the establishment of the Navy's central DoD report file, are assigned RCS DD-FM&P(AR) 1765.

G. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective October 1, 1989, except subsection E.6., above; definition 23. of enclosure 2; attachment 1 to enclosure 5; and enclosure 6, which were implemented on October 1, 1988, by prior agreement with the Military Departments. Forward two copies of implementing documents to the Assistant Secretary of Defense (Force Management and Personnel) within 180 days.


DAVID J. BERTEAU
Deputy Assistant Secretary
(Resource Management & Support)

Enclosures - 6

1. References
2. Definitions
3. Special Reporting of Serious Mishaps
4. Special Instructions for Reporting Explosive and/or Chemical Agent Mishaps
5. Table for Computing Costs and Rates of Injuries, Fatalities, and Occupational Illnesses of DoD Personnel
6. Catalog of charts

REFERENCES, continued

- (e) Defense Safety and Occupational Health Program Policy Memorandum (SOHPPM 84-5), "DoD Mishap Reporting," October 22, 1984 (hereby canceled)
- (f) DoD Directive 1000.3, "Safety and Occupational Health Policy for the Department of Defense," March 29, 1979
- (g) Executive Order 12196, "Occupational Safety and Health Programs for Federal Employees," February 26, 1980
- (h) Occupational Safety and Health Administration Regulation, "Basic Program Elements for Federal Employees Occupational Safety and Health Program," October 21, 1980 (29 CFR Part 1960)
- (i) DoD 6055.9-STD, "DoD Ammunition and Explosives Safety Standards," July 1984, authorized by DoD Directive 6055.9, November 25, 1983
- (j) DoD 6055.7-M, "DoD Fire Incident Reporting Manual," February 1984, authorized by this Instruction
- (k) DoD Instruction 0-7730.12, "Notification Procedures for Accidents and Significant Incidents Involving Nuclear Weapons, Reactors, and Radioactive Materials," August 1, 1976
- (l) JCS Joint Reporting Structure, Volume II, Part 2, "Operational Status Reports," May 1974¹
- (m) DoD Instruction 5000.36, "System Safety Engineering and Management," April 14, 1986
- (n) DoD Directive 7750.5, Management and Control of Information Requirements, August 7, 1986
- (o) DoD Directive 5000.11, "Data Elements and Data Codes Standardization Program," December 7, 1964
- (p) DoD 5025.1-M, "Directives System Procedures," April 1981, authorized by DoD Directive 5025.1, December 23, 1988
- (q) DoD Directive 5400.7, "DoD Freedom of Information Act Program," May 13, 1988
- (r) Occupational Safety and Health Administration (OSHA) 2014, "Recordkeeping and Reporting Guidelines for Federal Agencies," revised 1986
- (s) DoD 5400.11-R, "Department of Defense Privacy Program," August 1983, authorized by DoD Directive 5400.11, June 9, 1982
- (t) Government-Industry Data Exchange Program, "Policies and Procedures Manual," October 1977, Officer in Charge, GIDEP Operations Center, Corona, California 91720¹
- (u) DoD Instruction 7230.8, "Leases and Demonstrations of DoD Aircraft," June 9, 1976
- (v) American National Standards Institute (ANSI) Z16.4-1977, "American National Standard for Uniform Recordkeeping for Occupational Injuries and Illnesses," July 8, 1977²

¹ Available through normal publication channels.

² Available from the American National Standards Institute, 1430 Broadway, New York City, New York 10018.

DEFINITIONS

1. Aircraft Flight or Flight-Related Mishap. A mishap involving DoD aircraft when intent to fly exists.

a. Flight Mishaps. Those mishaps in which there is reportable damage to the aircraft itself. (NOTE: Explosives, chemical agent, or missile events that cause damage to a DoD aircraft with intent to fly are categorized as flight mishaps to avoid dual reporting. However, enclosure 4 applies to flight mishaps involving explosives or chemical agents.)

b. Flight-Related Mishaps. Those aircraft mishaps where there is intent for flight and no reportable damage to the aircraft itself, but the mishap involves fatality, injury to air crew, ground crew or passengers, or other property damage. These mishaps are not to be used in the calculation of flight mishap rates.

2. Aircraft Ground Mishaps. Ground and maritime mishaps that involve damage or injury and/or fatality sustained from maintenance, handling, or servicing of aircraft without intent for flight. For DoD reporting purposes, however, these mishaps shall be included in either aircraft ground or maritime categories, as applicable.

3. Combat Training Mishap. Ground mishap that involves peacetime military operations. The term includes any one, or a combination of the following:

a. Combat Vehicle, Equipment Damage. Damage to combat equipment or vehicles such as tanks, self-propelled gun mounts, armored carriers, amphibious vehicles ashore, and field communication equipment in the course of operational training.

b. Combat Training Injuries. Personal injuries resulting from unique military training activities such as maneuvers, field training, parachuting, survival training, or explosive ordnance demolitions.

4. DoD Aircraft

a. All manned weight-carrying devices supported in flight by buoyancy or dynamic action and are owned or leased by DoD Components (including Reserve forces and National Guard) that are:

(1) Operated and exclusively controlled or directed by a DoD Component.

(2) Furnished by the Government or on bailment to a non-DoD organization for modification, maintenance, repair, test, contract training, or experimental project for a DoD Component, when the Government has assumed ground and flight risk.

(3) Under test by a DoD Component. (This includes aircraft furnished by a contractor or another Government Agency when operated by a DoD aircrew in official status and a DD Form 250, "Material Inspection and Receiving Report," has been executed to certify that the Department of Defense has accepted the aircraft.)

b. Does not include aircraft that are:

(1) Leased, on bailment, or loaned (except as specified in definition 4.a.(2), above) to contractors, commercial airlines, other Government Agencies, or foreign governments, when the lessee has assumed risk of loss. (See DoD Instruction 7230.8, reference (u).)

(2) Civil aircraft owned by civil operators and accomplishing contract air missions for the DoD Components.

(3) Factory-new production aircraft until successful completion of the post-production acceptance flight. Mishaps that involve such aircraft are reported as contractor mishaps.

(4) Flying club aircraft or privately owned aircraft hangared on DoD installations.

5. DoD Mishap. An unplanned event, or series of events, that results in 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 civilian personnel; damage to public and private property or injury and illness to non-DoD personnel caused by DoD operations.

6. DoD Personnel

a. Civilian On-Duty. DoD Civil Service employees (including National Guard and Reserve technicians, unless in military duty status); nonappropriated fund employees (excluding part-time military); Corps of Engineers Civil Works employees; Youth or Student Assistance Program employees; foreign nationals employed by DoD Components; and Army-Air Force Exchange Service employees.

b. Military. All U.S. military personnel on active duty; U.S. Military Reserve or National Guard personnel on active duty or in drill status; Service Academy cadets; Reserve Officer Training Corps (ROTC) cadets when engaged in directed training activities; foreign national military personnel assigned to DoD Components.

7. Duty Status Determination. These definitions are for mishap reporting purposes only and have no relation to compensability or line-of-duty determination.

NOTE: Judgment may be required in some cases that do not fit the definition set forth in definition 7.a. through 7.b. below. Paragraph A.2.7 of ANSI Standard Z16.4-1977 (reference (v)) may be used to assist in this determination.

a. On-Duty. When DoD personnel are:

(1) Physically present at any location (area under the control of a DoD Component) where they are to perform their officially assigned work. (This includes those activities incident to normal work activities that occur on DoD installations, such as lunch, coffee, or rest breaks, and all activities aboard vessels.)

(2) Being transported by DoD or commercial conveyance for the purpose of performing officially assigned work. (This includes reimbursable travel in private motor vehicles for performing temporary duty, but not routine travel to and from work.)

(3) Participating in compulsory physical training activities (including compulsory sports).

b. Off-Duty. When DoD personnel:

(1) Are not in an on-duty status, whether on or off DoD installations ashore.

(2) Have departed official duty station, temporary duty station, or ship at termination of normal work schedule.

(3) Are on leave and/or liberty.

(4) Are traveling before and after official duties, such as driving to and from work.

(5) Are participating in voluntary base and/or installation team sports.

(6) Are on permissive (no cost to Government other than pay) temporary duty.

(7) Are on lunch or other rest break engaged in activities unrelated to eating or resting.

8. Explosives and Chemical Agents

a. Explosives. All items of ammunition; propellants, liquid and solid; high and low yield explosives; pyrotechnics; and substances associated with the foregoing that present real or potential hazards to life or property. The term includes any device or assembly of devices that contains an explosive material. Examples are bombs, guided or unguided; water and land mines; depth charges; nonnuclear warheads; explosive-loaded projectiles; explosive components of aircrew escape systems; missile propellants; unguided missiles; pyrotechnic, illuminating, and signaling devices; and cartridge-actuated tools, such as stud drivers.

b. Chemical Agent. 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. Pesticides, insecticides, and industrial chemicals, unless selected by DoD Components for chemical warfare purposes, are also excluded.

9. Explosives and Chemical Agent Mishaps

a. Explosive Mishap. An unplanned explosion or functioning of explosive material or devices (except during combat). This includes inadvertent actuation, jettisoning, and releasing or launching explosive devices. It also includes mishaps that result from off-range impacts of ordnance. For mishap reporting

purposes, dummy (inert) ordnance shall be considered as an explosive device any time it is used in training or test situations to simulate an actual item.

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

(1) Reportable damage occurs to property from contamination, or costs are incurred for decontamination.

(2) Individuals exhibit physiological symptoms of agent exposure.

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

10. Fire. Any fire-mishap that requires a fire department response on any DoD installation or property. Property damage, injuries, or occupational illnesses that are the result of a fire shall be additionally reported, as required by DoD 6055.7-M (reference (j)).

11. First Aid. Any one-time treatment and any followup visit for the purpose of observation of minor scratches, cuts, burns, and splinters, which do not ordinarily require medical care. Such one-time treatment and followup visit for observation is considered first aid, even though provided by a physician or registered professional personnel.

NOTE: ANSI Standard Z16.4-1977 (reference (v)) may be used to assist in the determination of first aid cases.

12. 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, ambulances, buses, motorcycles, trucks, and tractor-trailers. The following are not considered GMVs under this Instruction:

a. Motor vehicle equipment designed primarily for off-the-highway operation such as tracked or half-tracked vehicles, forklifts, road graders, agricultural-type wheeled tractors, and aircraft tugs. (These vehicles are categorized as special purpose or combat vehicles according to their use.)

b. Vehicles on memorandum receipt to, and operated by, non-DoD persons or agencies and activities such as the U.S. Postal Service or the American Red Cross.

13. Government Motor Vehicle (GMV) Mishap. A mishap involving the operation of an over-the-road DoD motor vehicle, being operated as such at the time of the mishap.

a. These mishaps include collisions with other vehicles, objects, or pedestrians; personal injury or property damage due to cargo shifting in a moving vehicle; personal injury in moving vehicles or by falling from moving vehicles; towing or pushing mishaps; and other injury and property damage as described under the term "mishap."

b. The following mishaps, although reportable and accountable, are not considered as motor vehicle mishaps. They are accountable under other ground categories.

(1) Personal injuries that occur while loading or unloading, mounting or dismounting a motor vehicle that is not moving.

(2) Cargo directly damaged by weather.

(3) Damage to a properly parked DoD vehicle unless it is damaged by another DoD vehicle.

(4) Damage to a DoD motor vehicle resulting solely from natural phenomena.

(5) Damage to a DoD motor vehicle being handled as a commodity and not being operated under its own power.

(6) Damage to a DoD motor vehicle caused by objects thrown or propelled into it.

(7) Damage to a DoD motor vehicle by fire when no DoD motor vehicle accident occurred.

14. Ground Mishap. Any mishap on the ground exclusive of aviation (flight and/or flight-related), fire (ashore), private motor vehicle (PMV), GMV, missiles, nuclear, and explosive mishaps. For Navy, ship and/or submarine and/or diving mishaps are excluded. For Army, combat vehicle and marine environment mishaps are excluded.

15. Guided Missile. All missiles propelled through air or water that are unmanned, guided by internal or external systems, and self-propelled. The 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; torpedoes; and remotely piloted vehicles. The term includes all missiles that are:

a. Owned in whole or in part by a DoD Component.

b. Operationally controlled by a DoD Component.

c. On bailment or loan to a non-DoD Agency for modification, testing, or as an experimental project for a DoD Component.

d. Under test by a DoD Component.

16. Guided Missile Mishap. A mishap involving guided missiles or missile support equipment except when in transportation or storage. (NOTE: Enclosure 4 applies for missile mishaps involving the explosive components of a guided missile.)

17. Illness and/or Disease. A nontraumatic physiological harm or loss of capacity produced by systemic infection; continued or repeated stress or strain; exposure to toxins, poisons, fumes, etc.; or other continued and repeated exposures to conditions of the work environment over a long period of time. For practical purposes, an occupational illness and/or disease is any reported condition that does not meet the definition of injury.

18. Injury. A traumatic wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to 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 within a single day or work shift.

19. Intent for Flight. Intent for flight exists from takeoff brake release or power application until landing is completed. (For wheeled aircraft, landing is completed when the aircraft has safely cleared the landing area.)

20. Lost Time Case. A nonfatal traumatic injury that causes any loss of time from work beyond the day or shift on which it occurred or a nonfatal nontraumatic illness that causes loss of time from work or disability at any time.

21. Maritime Mishap. Except as noted in definition 21.a. and 21.b., below, any DoD mishap that occurs to, or on board, or as the result of the operation of, a DoD combat vessel or service craft, or that involves DoD diving or swimmer operations.

a. The term includes mishaps occurring while loading and/or off-loading or receiving services at dockside, and mishaps occurring up to the high water mark during amphibious or inshore warfare training operations. It applies also to all injuries to DoD personnel occurring on board, whether or not job-related.

b. The term does not include mishaps that are reportable under other major categories prescribed in this Instruction, such as flight, missile, explosive and/or chemical agent, nor to injuries to assigned personnel that occur away from the vessel, whether or not job-related. Mishaps occurring on board that result from shipyard, repair facility, or private contractor operations are not maritime mishaps. Such mishaps are categorized as ground (other) or contractor mishaps if reportable injury or damage to DoD personnel or property occurs.

22. Miscellaneous DoD Mishap. Mishaps that are not the result of a DoD operation, but which involve DoD injuries and occupational illnesses and damage to DoD property.

a. Private Motor Vehicle (PMV) Mishap. A traffic mishap regardless of the identity of the operator, that does not involve a GMV, but results in a fatality or lost time case injury (involving days away from work) to military personnel on or off duty or to on-duty civilian personnel, or reportable damage to DoD property.

b. Other Military Mishap. A mishap ashore, other than PMV, that results in a fatality or a lost time case to DoD military personnel not involved in a DoD operation whether or not on a DoD installation, or in damage to DoD property not resulting from DoD or DoD contractor operations.

c. Contractor Mishap. A mishap resulting from contractor operations that results in injury and/or occupational illness to DoD personnel or damage to DoD property.

NOTE: Injury or occupational illness or damage to contractor personnel or equipment is not included, but is reported instead through the private sector OSHA system.

23. Mishap Severity Classification. DoD mishaps are classified according to the severity of resulting injury, occupational illness, or property damage. Property damage severity is generally expressed in terms of cost and is calculated as the sum of the costs associated with DoD property and non-DoD property that is damaged in a DoD mishap. Additionally, if injury or occupational illness results, an event is reportable even if the associated costs are less than the minimum dollar criteria. Classify DoD mishaps, as follows:

a. Class A Mishap. The resulting total cost of reportable damage is \$1,000,000 or more; a DoD aircraft, missile, or spacecraft is destroyed; or an injury and/or occupational illness results in a fatality or permanent total disability.

b. Class B Mishap. The resulting total cost of reportable property damage is \$200,000 or more, but less than \$1,000,000; an injury and/or occupational illness results in permanent partial disability; or when five or more personnel are inpatient hospitalized.

c. Class C Mishap. The resulting total cost of property damage is \$10,000 or more, but less than \$200,000; a nonfatal injury that causes any loss of time from work beyond the day or shift on which it occurred; or a nonfatal illness or disability that causes loss of time from work or disability at any time (lost time case). Reporting this class of mishap is optional.

d. Class D Mishap. The resulting total cost of property damage is less than \$10,000, or a nonfatal injury that does not meet the criteria of a Class C mishap (no lost time case). Reporting this class of mishap is optional.

e. Foreign Object Damage (FOD) Incident. Reportable incidents confined to turbine engine damage as a result of internal or external turbine engine FOD. FOD incidents are to be reported as a separate category.

24. No Lost Time Case. A nonfatal injury or illness and/or disease that does not meet the definition of a lost time case. (Usually created by a compensation claim for medical expense.)

25. Non-DoD Personnel. Off-duty DoD civilian personnel, persons employed by other Federal Agencies, and other civilians and foreign nationals not employed by the Department of Defense.

26. Observation and/or Diagnostic Procedure. Hospitalization or restriction from assigned work activities for observation or diagnosis is not a lost time case or a no lost time case, provided no treatment or medication is given for the suspected injury or occupational illness, and competent medical authority determines the individual could have returned to his or her normal job without

impairment or disability. This classification applies also where an individual is temporarily restricted from regularly assigned duties to preclude exceeding time-weighted exposure limits.

27. OSHA Reporting Procedures For Civilian Fatalities. All civilian fatalities or catastrophic (inpatient hospitalization of five or more personnel) mishaps shall be reported by telephone or by message to the ASD(FM&P), or designee (Director of Safety and Occupational Health Policy) within 48 hours (enclosure 3). The ASD(FM&P), or designee, assumes responsibility to notify OSHA's Office of Federal Agency Programs with a summary report of fatal or catastrophic accident investigations in accordance with 29 CFR 1960 (reference (h)). The summary report format shall be made in accordance with the attachment to this enclosure and shall be submitted to the ASD(FM&P), or designee, within 120 days of the mishap.

28. Property Damage. Damage to facilities, equipment, property, or material where the total cost to repair or replace is at least \$2,000.

29. Space Mishap. Mishaps are categorized as space mishaps based on the phase of operation at the time of occurrence. The term includes mishaps that occur during all space operations when "intent for spaceflight" exists.

a. Space Vehicle. A recoverable or nonrecoverable vehicle designed to orbit the earth or travel beyond the earth's atmosphere. The term includes satellites, orbiters, and payloads.

b. Space Booster. A launch vehicle designed to propel or carry a space vehicle from the earth's surface or from orbit to a desired point in space. The term includes engines, rocket motors, upper stages, fuel tanks, and guidance and control sections.

c. Space System. A system consisting of a space vehicle and a space booster.

d. Space Support System. A system consisting of equipment and facilities required to process the space system. This term includes launch pad and associated equipment, and system equipment required to check out, launch, command, control, and recover elements of the space system.

e. DoD space systems and space support systems include systems that are:

(1) Owned in whole or in part or leased by a DoD Component.

(2) Operated and controlled or directed by a DoD Component.

(3) Furnished by the Department of Defense or leased to a non-DoD organization when the Department of Defense has retained the risk of loss.

(4) Systems for which a DoD Component has development and/or procurement responsibility.

(5) Under test by a DoD Component.

f. Intent for Spaceflight. This condition is necessary for mishap to be reported as a space mishap. It exists when the final launch sequence is initiated for the express purpose of launching a space vehicle into space. Intent for spaceflight continues until all normal expected spaceflight operations have ended (i.e., satellite is intentionally no longer used, space shuttle comes to a stop on completion on landing rollout, etc.).

g. Spaceflight Mishap. Those mishaps in which there is substantial damage to the space system itself when intent for spaceflight exists.

h. Spaceflight-Related Mishap. Those mishaps in which there is no damage to the spacecraft itself, but the mishap involves injury to ground crew or other property damage, when intent for spaceflight exists.

Attachment
Summary of Catastrophic or Fatal Accident

SUMMARY OF
CATASTROPHIC OR FATAL
ACCIDENT

DATE OF REPORT:

1. DATE and/or TIME OF ACCIDENT:
2. DoD and/or DoD COMPONENT and/or UNIT IDENTITY:
3. LOCATION:
4. PERSONNEL INVOLVED (CATEGORY (employee, public, etc.) AND CONSEQUENCES):
5. DESCRIPTION OF OPERATION:
6. DESCRIPTION OF ACCIDENT:
7. STANDARDS INVOLVED (this item shall be limited to factual information and validated findings):
 - a. APPLICABLE (only OSHA or approved alternate Agency standards shall be cited; e.g., 1910.26):
 - b. VIOLATIONS:
 - c. RECOMMENDATIONS (IF ANY) FOR STANDARDS IMPROVEMENT:
8. CORRECTIVE ACTIONS RECOMMENDED BY INVESTIGATOR(S):

SPECIAL REPORTING OF SERIOUS MISHAPS

- A. The requirements of this enclosure are not intended to modify the JCS Joint Reporting Structure (reference (1)).
- B. DoD Components shall establish procedures for reporting serious mishaps to the Director for Safety and Occupational Health Policy, (Office of the ASD(FM&P) (OASD(FM&P))), within 48 hours of their occurrence. This may be accomplished by telephone or message copy. This requirement includes the following on-duty mishaps:
1. All Class A mishaps.
 2. Those mishaps that result in inpatient hospitalization of five or more personnel.
- C. The report shall include:
1. Date and local time of mishap.
 2. Location.
 3. Extent of injuries and property damage.
 4. Narrative report of the circumstances of the mishap.
 5. Any action(s) taken by the DoD Component as a result of the mishap.
- D. The ASD(FM&P), or designee, shall forward to the Secretary of Labor serious mishap reports that are applicable to the requirements of E.O. 12196 (reference (g)).
- E. The Secretary of Labor may require additional information concerning certain mishaps. Requests for additional information shall be handled by the DoD ASD(FM&P), or designee, giving due consideration to DoD Directive 5400.7 and 5400.11-R (references (q) and (s)).
- F. Serious mishaps reported to the DDESB under explosive or chemical agent mishaps (enclosure 4) need not be reported separately to the ASD(FM&P).

SPECIAL INSTRUCTIONS FOR REPORTING
EXPLOSIVE AND/OR CHEMICAL AGENT MISHAPS
(RCS DD-M(AR) 1020)

A. The DDESB exercises statutory authority to prescribe explosives safety standards for explosives and chemical agents under DoD jurisdiction. These standards apply to both DoD operations and contractor operations in GOCO plants. In order to provide information for the ASD(FM&P) to assess the effectiveness of current explosives safety procedures and standards and to develop additional safety standards, the details of certain explosives and/or chemical agent mishaps must be reported to the DDESB.

B. An explosive or chemical agent mishap resulting in any one of the following events shall be reported in accordance with detailed procedures in Chapter 13, DoD 6055.9-STD (reference (i)).

1. An initial telephonic report to the Chairman, DDESB, Alexandria, VA 22331, is required for explosives and/or chemical agent mishaps resulting in:

- a. DoD military, civilian, or contractor fatality.
- b. \$200,000 or more property damage.
- c. Production loss of 72 hours or more.
- d. Loss of major weapons system; i.e., tank, aircraft, ship, or large missile.
- e. Probable public interest such as network media coverage.

2. A message is required for explosives and/or chemical mishaps resulting in the following:

- a. \$10,000 or more property damages.
- b. Production interruption exceeding 24 hours.
- c. Individuals exhibiting physiological symptoms of agent exposure.
- d. An unintentional or uncontrolled release of a chemical agent where the agent quantity released to the atmosphere is such that a serious potential for exposure is created by exceeding the applicable maximum allowable agent concentration-time levels for exposure of unprotected workers or the general population.

3. An investigation report shall be submitted to the DDESB as soon as the investigating board has obtained release from the DoD Component concerned for all explosives and/or chemical mishaps meeting the criteria listed in subsections B.1 and B.2., above. Mishaps occurring during the transportation of ammunition, explosives, or chemical agents by commercial carriers are excluded from this requirement unless so directed by contract.

C. The following mishaps, although not required to be reported under this enclosure, shall be reported whenever the information to be obtained can contribute to the development or verification of safety procedures or standards:

1. A nuclear weapon accident or nuclear weapon significant incident shall be reported in accordance with DoD Instruction 0-7730.12 (reference (k)). However, the investigation resulting from a mishap that involves the nonnuclear explosive components of such a weapon or device should be provided to the Chairman, DDESB, to aid in the development or verification of high explosive safety procedures and standards.

2. An unplanned explosion, fire, or functioning of ammunition and explosives that does not meet the requirements of subsection B.1. or B.2., above, for mandatory reporting when, in the opinion of the investigating officer, it produces data that may be of permanent value in evaluating explosives or chemical agent safety.

3. A mishap relating to the employment of ammunition, explosives, or chemical agents during combat.

4. Explosive damage or injuries caused by action of an enemy force.

5. Accidental and deliberately inflicted gunshot wounds from small arms handling, test firing operations, and similar incidents that result from personnel error, inadequate training, or malfeasance.

D. Each DoD Component shall designate a central office to be responsible to the DDESB for these reporting requirements.

E. The DDESB shall, when directed by the ASD(FM&P), participate in an advisory role in the investigation of explosives and/or chemical mishaps that involve GOCO facilities.

TABLE FOR COMPUTING COSTS AND RATES OF INJURIES, FATALITIES,
AND OCCUPATIONAL ILLNESSES OF DoD PERSONNEL.

A. The table at attachment 1 shall be used to provide standardized average figures for use in computing injury and/or occupational illness costs for DoD reporting purposes. The figures shall include the costs of:

1. Pay while away from work.
2. Medical treatment.
3. Hospitalization.
4. Dependent survival.
5. Training costs.
6. Gratuities.
7. Compensation.
8. Disability Retirement.
9. Burial.

NOTE: For civilian employees, use actual worker compensation costs, whenever available.

B. In using the table at attachment 1, the following special definitions apply:

1. Fatal Injury or Occupational Illness. One that results in death from a mishap or the complications arising therefrom, regardless of the length of time intervening between the mishap and a subsequent death.

2. Permanent Total Disability. Any nonfatal injury or occupational illness that in the opinion of competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful occupation.

NOTE: The loss, or the loss of use of both hands, both feet, both eyes, or a combination of any of these body parts as a result of a single mishap, shall be considered as a permanent total disability.

3. Permanent Partial Disability. An injury or occupational illness that does not result in death or permanent total disability but, in the opinion of competent medical authority, results in permanent impairment through loss or loss of use of any part of the body, with the following exceptions:

- a. Loss of teeth.
- b. Loss of fingernails or toenails.
- c. Loss of tips of fingers or tips of toes.

- d. Inguinal hernia, if it is repaired.
- e. Disfigurement.
- f. Sprains or strains that do not cause permanent limitation of motion

4. Lost Time Case. A nonfatal traumatic injury that causes any loss of time from work beyond the day or shift on which it occurred, or a nonfatal nontraumatic illness that causes loss of time from work or disability at any time.

5. No Lost Time Case. A nonfatal injury or illness and/or disease that does not meet the definition of a lost time case. (Usually created by a compensation claim for medical expense.)

C. The table at attachment 2 shall be used to calculate standardized DoD mishap rates.

Attachments - 2

- 1. Cost Standards Table
- 2. DoD Mishap Rates Format

COST STANDARDS TABLE

	Submarine and/or Flying Officer	Other Officers	Enlisted Personnel, Cadets	Civilian ⁴ Employees	Program Youth and/or Student Assistance Program Employees and Foreign Nationals
Fatality	\$ 1,100,000	\$ 395,000	\$ 125,000 ¹ 270,000 ²	\$ 460,000	\$ 270,000
Permanent Total Disability ³	1,300,000	845,000	500,000	385,000	390,000
Permanent Partial Disability ³	210,000	145,000	115,000	250,000	180,000
Lost Time Case	425 ^a day	425 ^a day	375 ^a day	350 ^a day	300 ^a day
Days Hospitalized ⁵	466 ^a day	466 ^a day	466 ^a day	466 ^a day	466 ^a day
No Lost Time Case	120 ^a day	120 ^a day	120 ^a day	120 ^a day	120 ^a day

1 Nonflight crew member fatality
2 Flight crew member fatality
3 Total costs, including days involving lost time and days hospitalized
4 For civilian employees, use actual worker compensation costs when available
5 Includes cost for days involving lost time

DoD Mishap Rates Format

GMV

Miles of operation _____
GMV mishap rate (per
1,000,000 miles of operation) _____
GMV fatality rate (per
100,000,000 miles of
operation) _____

Injuries and Occupational Illnesses

DoD civilian (rates per 200,000 hours):

Number of personnel _____
Hours of exposure _____
Injury rate (A,B,C) _____
Occupational illness rate _____

On-duty military (rates per 100,000 personnel):

Number of personnel _____
Injury rate (A,B,C) _____
Occupational illness rate _____

Flight (rates per 100,000 flight hours):

Flight hours _____
Class A mishap rate _____
Fatality rate _____
Number of destroyed A and/or C _____
Destroyed aircraft rate _____

Private Motor Vehicle - Military (Adjusted rate per 100,000 personnel is obtained multiplying the weekend Reserve personnel by a ratio of 39 to 365, then add to all other military personnel at full value)

Fatality rate _____

CATALOG OF CHARTS
AVIATION CATALOG
CLASS A FLIGHT MISHAP STATISTICS
ARMY VS. AIR FORCE VS. NAVY VS. MARINE

1. All Aircraft - Active and/or Reserve and/or Guard
 2. All Aircraft - Active
 3. All Aircraft - Reserve and/or Guard
 4. Fixed Wing - Active and/or Reserve and/or Guard
 5. Fixed Wing - Active
 6. Fixed Wing - Reserve and/or Guard
 7. Rotary Wing - Active and/or Reserve and/or Guard
 8. Rotary Wing - Active
 9. Rotary Wing - Reserve and/or Guard
 10. Operational - All Aircraft - Active and/or Reserve and/or Guard
 11. Operational - All Aircraft - Active
 12. Operational - All Aircraft - Reserve and/or Guard
 13. Operational - Fixed Wing - Active and/or Reserve and/or Guard
 14. Operational - Fixed Wing - Active
 15. Operational - Fixed Wing - Reserve and/or Guard
 16. Operational - Rotary Wing - Active and/or Reserve and/or Guard
 17. Operational - Rotary Wing - Active
 18. Operational - Rotary Wing - Reserve and/or Guard
 19. Logistics - Fixed Wing - Active and/or Reserve and/or Guard
 20. Logistics - Fixed Wing - Active
 21. Logistics - Fixed Wing - Reserve and/or Guard
 22. Undergraduate Training - All Aircraft
 23. Number of Fatalities (DoD and Non-DoD)
 24. Number of Fatal Mishaps
 25. Fatal Mishap Rates
 26. Total Cost
 27. Average Cost
 28. Cause Factor: Human Factor
 29. Cause Factor: Material Failure
 30. Cause Factor: Environment and/or Other
 31. Type Event: Wire Strike
 32. Type Event: Midair Collision
 33. Type Event: Engine Failure
 34. Type Event: Controlled Collision into Terrain and/or Water
- Special Categories:
(Not all Services included in each category)
35. Fighter and/or Attack - Fixed Wing - Active and/or Reserve and/or Guard
 36. Fighter and/or Attack - Fixed Wing - Active
 37. Fighter and/or Attack - Fixed Wing - Reserve and/or Guard
 38. Attack Helicopter - Rotary Wing - Active and/or Reserve and/or Guard
 39. Attack Helicopter - Rotary Wing - Active
 40. Attack Helicopter - Rotary Wing - Reserve and/or Guard
 41. Assault and/or Utility Helicopter - Rotary Wing - Active and/or Reserve and/or Guard
 42. Assault and/or Utility Helicopter - Rotary Wing - Active
 43. Assault and/or Utility Helicopter - Rotary Wing - Reserve and/or Guard
 44. Combat Cargo Helicopter - Rotary Wing - Active and/or Reserve and/or Guard
 45. Combat Cargo Helicopter - Rotary Wing - Active
 46. Combat Cargo Helicopter - Rotary Wing - Reserve and/or Guard

MILITARY AIRCRAFT INCLUDED IN MAJOR CATEGORIES

ARMY

OPERATIONAL

Fixed Wing: RC-12, RU-21, OV-1, RV-1, O-2, RA-3, RG-8
Rotary Wing: AH-1, EH-1, TH-1G, UH-1, OH-6, CH-47, CH-54, OH-58, EH-60,
UH-60, AH-64, EH-6, MH-6, AH-6, HU-500

LOGISTICAL

Fixed Wing: C-7, C-12, T-42, U-8, U-21, UV-18, C-20, T-41, and numerous
non-standard fixed wing aircraft

UNDERGRADUATE TRAINING

Fixed Wing: None
Rotary Wing: TH-55, UH-1, OH-58

SPECIAL CATEGORIES

ATTACK HELICOPTER

Rotary Wing: AH-1, AH-6, AH-64

ASSAULT AND/OR UTILITY HELICOPTER

Rotary Wing: EH-1, UH-1, EH-60, UH-60

COMBAT CARGO HELICOPTER

Rotary Wing: CH-47, CH-54

** Some aircraft models are listed under both OPERATIONAL and UNDERGRADUATE TRAINING. The training hours were not included in the OPERATIONAL category.

NAVAL

OPERATIONAL

Fixed Wing: EA-3, A-4, OA-4, TA-4, A-6, EA-6, A-7, TA-7, FA-18, C-1, C-2,
EC-130, KC-130, F-4, RF-4, F-5, F-14, F-16, F-21, P-3, EP-3,
S-3, T-2, T-34, T-44, AV-8, TAV-8, OV-1, OV-10, E-2, TC-4C
Rotary Wing: A and/or UH-1, SH-2, S and/or H and/or VH-3, C and/or H and/or
UH-46, C and/or M and/or RH-53, TH-57, S and/or UH-60

LOGISTICAL

Fixed Wing: C-9, C-12, C-20, C-131, CT-39

UNDERGRADUATE TRAINING

CHIEF, NAVAL AVIATION TRAINING (CNATRA)

Fixed Wing: TA-4J, T-2, T-28, T-34, T-39, T-44, T-45
Rotary Wing: TH-57

SPECIAL CATEGORIES

FIGHTER and/or ATTACK

Fixed Wing: A-4 (LESS TA-4), A-6 (LESS EA-6), A-7, FA-18, F-4, F-5,
F-14, F-16, F-21, AV-8

ATTACK HELICOPTER

Rotary Wing: AH-1 (MARINE CORPS ONLY)

NAVAL (Continued)

ASSAULT and/or UTILITY HELICOPTER

Rotary Wing: UH-1, CH-46 (MARINE CORPS ONLY)

COMBAT CARGO HELICOPTER

Rotary Wing: CH-53 (MARINE CORPS ONLY)

** Some aircraft models are listed under both OPERATIONAL and UNDERGRADUATE TRAINING. The training hours were not included in the OPERATIONAL category.

AIR FORCE

OPERATIONAL

Fixed Wing: A-7, A-10, A and/or OA-37, B-1, B-52, KC-10, C-130, KC and/or RC and/or EC-135, C-140, C-141, E-3, E-4, F and/or RF-4, F-5, F-15, F-16, F-106, F and/or FB and/or EF-111, O-2, TR-1, T-33, T-37, T-38, OV-10.

Rotary Wing: H-1, H-3, H-53, H-60

LOGISTICAL

Fixed Wing: C-5, C-9, C-12, C-18, C-20, C-21, C-22, C-23, C-131, C-137, T-39, T-43

UNDERGRADUATE TRAINING

AIR TRAINING COMMAND and/or AIR FORCE ACADEMY

Fixed Wing: TG-7, T-33, T-37, T-41, T-43, TG-7, V-18

AIR FORCE (continued)

SPECIAL CATEGORIES

FIGHTER and/or ATTACK

Fixed Wing: A-7, A-10, A-37, F and/or RF-4, F-5, F-15, F-16, F-106, F-111

** Some aircraft models are listed under both OPERATIONAL and UNDERGRADUATE TRAINING. The training hours were not included in the OPERATIONAL category.

GROUND CATALOG
ARMY VS. AIR FORCE VS. NAVY VS. MARINE

1. Total Number of Shore Fires
2. Total Cost of Shore Fires
3. Private Motor Vehicle - Injuries - Military - On- and/or Off-Duty
4. Private Motor Vehicle - Injury Rate - Military - On- and/or Off-Duty
5. Private Motor Vehicle - Fatalities - Military - On- and/or Off-Duty
6. Private Motor Vehicle - Fatality Rate - Military - On- and/or Off-Duty
7. Government Motor Vehicle - Injuries - Military
8. Government Motor Vehicle - Injuries - Civilian
9. Government Motor Vehicle - Injury Rate - Military and/or Civilian
10. Government Motor Vehicle - Fatalities - Military
11. Government Motor Vehicle - Fatalities - Civilian
12. Government Motor Vehicle - Fatality Rate - Military and/or Civilian

THE FOLLOWING GRAPHS ARE FOR GROUND ONLY

- EXCLUDING MOTOR VEHICLE, SHORE FIRE, AND AVIATION (FLIGHT and/or FLIGHT RELATED) DATA

13. All Ground Civilian Injuries
14. All Ground Civilian Fatalities
15. Class A Ground Mishaps
16. Class B Ground Mishaps
17. Class C Ground Mishaps
18. Total Cost of All Class A and/or B and/or C Ground Mishaps
19. All Ground Military Injuries - On-Duty
20. All Ground Military Fatalities - On-Duty
21. All Ground Military Injuries - Off-Duty
22. All Ground Military Fatalities - Off-Duty
23. All Ground Military Injuries - On- and/or Off-Duty
24. All Ground Military Fatalities - On- and/or Off-Duty

* NAVY ONLY - GRAPHS 13 - 20 FOR SHIP and/or SUB and/or DIVING

* ARMY ONLY - GRAPHS 15, 16, 17, 18, 23, 24 FOR COMBAT VEHICLE
- GRAPHS 15, 16, 17, 18, 23, 24 FOR MARINE ENVIRONMENT

DEFINITIONS OF TERMS USED

GMV INJURY AND/OR FATALITY RATE FOR MILITARY AND/OR CIVILIAN

This rate is calculated as the number of injuries and/or fatalities divided by the number of miles driven in GMV, multiplied by 1,000,000.

PMV INJURY AND/OR FATALITY RATE FOR MILITARY (ON- AND/OR OFF-DUTY)

This rate is calculated as the number of injuries and/or fatalities divided by an adjusted number of military personnel, multiplied by 100,000. This adjusted number of military personnel is obtained by multiplying the weekend Reserve personnel by a ratio of 39 to 365 and adding all other military personnel at full value.

SHORE FIRE Any fire where The fire occurred on Navy (Army, Air Force, Marine) property and either:

- 1) The Service affiliation of the responding fire department is Navy (Army, Air Force, Marine), or
- 2) The Service affiliation of the activity where the fire occurred is Navy (Army, Air Force, Marine).