DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, DC 20380-0001

MCO P5102.1A
SD

MARINE CORPS MANUAL P5102.1A W CH 1

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING MANUAL

Ref: (a) DoDINST 6055.7, Mishap Investigation, Reporting, and Record-keeping (NOTAL)
(b) SECNAVINST 5100.10H, Department of the Navy Policy For Safety, Mishap Prevention and Occupational Health Programs (NOTAL)
(c) MCO 5100.29, Marine Corps Safety Program
(d) MCO P5100.8F, Marine Corps Ground Occupational Safety and Health Program
(e) MCO 5100.30, Marine Corps Off Duty and Recreational Safety Program
(f) MCO 3500.27, Operational Risk Management
(g) MCO 5100.19D, Marine Corps Traffic Safety Program
(h) MCO P5211.2B, The Privacy Act of 1974
(i) Occupational Safety and Health Act Public Law 91-596 (NOTAL)
(j) OPNAVINST 5100.19C, NAVOSH Program Manual for Forces Afloat (NOTAL)
(k) OPNAVINST 5102.1C, Mishap and Investigation Reporting (NOTAL)
(l) SECNAVINST 5720.42F, Department of the Navy Freedom of Information Act (FOIA) Program (NOTAL)
(m) SECNAVINST 5212.5D, Navy and Marine Corps Records and Disposition Manual (NOTAL)
(n) Title 10, U.S. Code S.1471 (NOTAL)
(o) NAVMEDCOMINST 6512.2, Manual of the Medical Department (NOTAL)

Encl: (1) Locator Sheet

Reports Required: I. Mishap Summary (Report Control Symbol DD 5102-02), par. 3009 and app. G
II. Hazard Report (Report Control Symbol DD 5102-01) par. 5009 and fig 5-1 through 5-4.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

III. Safety Investigation Report (Report Control Symbol MC 5102-01) par. 6007

IV. Mishap Logbook (Report Control Symbol Exempt) par. 3003

1. Situation. As directed by guidance in references (a) through (d), this Manual revises the policy and format for investigation, reporting, and recording ground mishaps. References (e) through (o) provide information to support and guide the investigative process.

2. Cancellation. MCO P5102.1

3. Mission. This Manual establishes investigation procedures and provides requirements for submitting hazard reports (HRs) and safety investigation reports (SAFEREPs). It also provides the requirement for reporting of all ground mishaps.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) This Manual will be the guiding influence for all Marine Corps ground mishap investigations and reports.

(b) This Manual will clarify the ground mishap investigation process, clarify how to report mishaps and reduce the volume of mishap message traffic.

(c) Commanders/OIC's will implement these policies for mishap reporting and investigation. Local policies and orders may be implemented when those policies are of equal or more stringent guidance.

(2) Concept of Operations

(a) This manual provides the format for all ground mishap reporting and investigation.

(b) Mishap Logbooks as provided in this manual, will be furnished to the Commander, Naval Safety Center as prescribed in the manual.

(c) Records will be maintained and retained by installation and unit safety managers for all mishap records, reports, logs and summaries for a period of five years whereupon they will be destroyed.

(d) Commander, Naval Safety Center (COMNAVSAFECEN) is the office of record for SAFEREPs and mishap summaries submitted to CMC (SD) under requirements of this Manual.

b. Subordinate Element Missions

(1) Comply with the intent of the enclosure and content of this Manual.

(2) Ensure that mishap investigations, reports and mishap logs are in correct format.

c. Coordinating Instructions. Submit all recommendations concerning this Manual to CMC (SD) via the appropriate chain of command.

5. Administration and Logistics

a. The Director, Safety Division will administer the requirements and ensure the accuracy, modification and distribution of this Manual. See Chapter 1, paragraph 1004.

b. Reporting Commands - COMMARFORLANT, COMMARFORPAC, and COMMARFORRES. All completed safety investigation reports (SAFEREPs) will be sent via naval message to COMMARFORLANT, COMMARFORPAC, COMMARFORRES, for initial review. Commands not within the previously listed commands will forward SAFEREPs directly to CMC (SD). See Chapter 1, paragraph 1004.

c. Subordinate Commanders. See Chapter 1, paragraph 1004.

d. Unit Leaders, Safety Officers, SNCOs/NCOs, Safety Managers, Specialists and Civilian Supervisors. See Chapter 1, paragraph 1004.

e. Senior Member, Safety Investigation Board (SIB). See Chapter 4, Section 2.

f. Commander, Naval Safety Center (COMNAVSAFECEN). See Chapter 1, paragraph 1004.

g. Prior to implementation of this policy, activities must, where applicable, discharge their labor relations obligations. Assistance and guidance may be obtained from CMC (MPO-37).

6. Command and Signal

a. Signal. This Manual is effective the date signed.

b. Command. This Marine Corps Manual is applicable to the Marine Corps Total Force.

M. J. WILLIAMS
Assistant Commandant
of the Marine Corps

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DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
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MARINE CORPS MANUAL P5102.1A Ch 1

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING MANUAL

Encl: (1) New page inserts to MCO P5102.1A

1. Purpose. To transmit new page inserts to the basic Manual.

2. Action. Remove pages 2-3, 2-4, 3-3, 3-4 and appendix F and replace with corresponding pages contained in the enclosure.

3. Summary of Change. The change prescribes the mandatory use of electronic mishap reporting of all Marine Corps ground mishaps to the Marine Corps database maintained at the Naval Safety Center.

4. Filing Instructions. File this Change transmittal immediately following the signature page of the basic Manual.

M. J. WILLIAMS
Assistant Commandant
of the Marine Corps

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(Indicate location(s) of copy(ies) of this Manual.)

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of person Incorporating Change

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

CONTENTS

CHAPTER

1 INTRODUCTION AND RESPONSIBILITIES

2 MISHAP CLASSIFICATION

3 RECORDKEEPING AND OSHA REQUIREMENTS

4 MISHAP INVESTIGATIONS

5 HAZARD REPORT (HR)

6 SAFETY INVESTIGATION REPORT (SAFEREP)

7 SAFETY INVESTIGATION REPORT ENDORSEMENTS

APPENDIXES

A ACRONYMS

B DEFINITIONS

C SAMPLE MISHAP INVESTIGATION PLAN AND CHECKLIST

D MISHAP REPORTING GUIDE MATRIX

E STANDARD LABOR, INJURY, ILLNESS, AND FATALITY COSTS

F MISHAP LOGBOOK ENTRY WORKSHEET

G ANNUAL MISHAP SUMMARY FORMAT

H RISK ASSESSMENT CODES

I DETAILED CAUSAL FACTOR LIST

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

CHAPTER 1

INTRODUCTION AND RESPONSIBILITIES

PARAGRAPH	PAGE
BACKGROUND 1000	1-3
DEFINITION OF TERMS 1001	1-4
POLICY 1002	1-4
EXCEPTIONS 1003	1-4
RESPONSIBILITIES 1004	1-4

CHAPTER 1

INTRODUCTION AND RESPONSIBILITIES

1000. BACKGROUND

1. The primary objective of the Marine Corps Safety Program is to enhance readiness by preserving human and material resources. Unplanned injury or damages to Marine Corps resources are mishaps. Although many factors may contribute to a mishap (accident) sequence, they are normally grouped into two broad categories: physical conditions and personnel actions or inactions.

2. This Manual serves as the basis to:

a. Identify mishap causal factors and develop appropriate corrective action(s) to prevent similar mishaps.

b. Maintain a standardized system of ground mishap records and corrective action(s) that assist commanders, safety and health personnel to develop mishap prevention programs.

c. Ensure compliance with references (a) and (b) for mishap investigation, reporting, and record keeping.

3. Proactive mishap prevention identifies unsafe acts and conditions, and applies corrective measures prior to the initiation of the mishap sequence. Prevention is accomplished through engineering, education, personal protective equipment and enforcement measures. Mishap investigations will often reveal previously unknown, ignored, improperly corrected conditions or actions, and indicate why they occurred.

4. The investigation procedures, reports and records required by this Manual are designed to assist all leaders in identifying causal factors and formulating corrective measures to prevent mishap recurrence. This information should be applied immediately at the local level to develop and implement procedures, which abate hazards and reduce risks.

1001. DEFINITION OF TERMS

1. The words "shall," "will," and "must" are directive and require compliance. Words like "may," "can," and "should" are advisory and do not require compliance.

2. Acronyms are listed in Appendix A. Definitions for special terms used in this Manual are provided in Appendix B.

1002. POLICY. All commands shall investigate, report, and maintain records of mishaps as required by this Manual. Commands shall identify and analyze mishap causal factors to develop corrective action(s) that prevent similar mishaps from occurring.

1003. EXCEPTIONS. Commandant of the Marine Corps, Safety Division (CMC (SD)) must authorize any deviation of procedures contained in this Manual.

1004. RESPONSIBILITIES

1. Director, Safety Division

a. Administer the requirements, ensure the accuracy, modification and distribution of this Manual.

b. Provide improvements and changes in mishap reporting procedures as recommended by subordinate units and required by higher authority.

c. Provide policy guidance and clarification throughout the Marine Corps for investigating and reporting ground mishaps.

d. Coordinate mishap investigation endorsement chain for activities within a COMMARFOR chain of command.

e. Determine the requirement for termination of any Safety Investigation Board (SIB) upon recommendation of higher authority.

f. Publish a quarterly MARADMIN that identifies current mishap information, a brief synopsis of mishaps, hazards, risks, controls, and pending and delinquent investigations.

g. Determine on a case-by-case basis whether a safety investigation (SAFEREP) is required if a fatality related to the mishap occurs within six months of the mishap date.

2. Reporting Commands - COMMARFORLANT, COMMARFORPAC, and COMMARFORRES. All completed safety investigation reports (SAFEREPs) will be sent via naval message to COMMARFORLANT, COMMARFORPAC, COMMARFORRES, for initial review. Commands not within the previously listed commands will forward SAFEREPs directly to CMC (SD).

a. Ensure submission of reports on all Class A and B mishaps to CMC (SD) within 30 days. Contact Naval Safety Center for on site investigative assistance. See paragraph 1004, 6 C and paragraph 4003.1.

b. Define SAFEREP endorsement chain and due dates via naval message.

c. Monitor corrective action(s) and recommendation(s) assigned to subordinate units identified in HRs or SAFEREPs.

d. Include CMC (SD) and COMNAVSAFECEN as info addressees in all serious incidents or mishaps reported via Personal Casualty Reports (PCR), Serious Incident Reports (SIR) or Operational Reports (OPREP-3).

e. Report all on duty civilian fatalities to CMC (SD), COMNAVSAFECEN and nearest OSHA area office within eight hours. See paragraph 2004.

f. Establish internal procedures to encourage individuals to report hazardous acts or conditions.

g. Establish internal procedures to ensure compliance with the investigation, reporting and record keeping requirements IAW Chapter 3.

h. Exercise management oversight review where there is a vested interest in the ownership of a Class A mishap involving civilian contractors. (See paragraph 2005.17)

i. Request, via naval message from CMC (SD), assistance for mishap investigation and reporting responsibilities when a reporting command cannot fulfill investigating or reporting responsibilities. Addressees shall include all commands and units in the endorsing chain and COMNAVSAFECEN.

3. Subordinate Commanders

a. Conduct mishap investigations and submit reports IAW Chapters 4, 5, and 6.

b. Request mishap investigation assistance as required.

c. Request investigation extensions IAW paragraph 6005.

d. Commanders experiencing an on- or off-duty Class A mishap will personally provide the first general officer in the chain of command a "quick look" of the mishap’s known circumstances within seven days of the mishap. The purpose is not to "pin blame," nor should there be any hint of "zero defects." Instead, general officers will use this non-binding brief to ensure visibility and identify potential hazards that may have command, Corps, or DOD wide impact. Upon release of the SAFEREP, the general officer will notify the ACMC of the causal factors and recommended corrective action via a "personal for" message or by electronic mail.

e. Review recommended actions for implementation identified in a SAFEREP. Implementation is the responsibility of the command to which they apply. Reference (d) contains procedures for commands to establish plans/programs for monitoring correction and hazard abatement.

4. Unit Leaders, Safety Officers, SNCOs/NCOs, Safety Managers, Specialists and Civilian Supervisors

a. Ensure compliance with the mishap investigation and reporting procedures.

b. Retain class C mishap data until converted to electronic media.

c. Mishaps occurring on/in non-USMC training areas or ranges will be investigated in conjunction with the owning service, installation, and or range regulations. When installation assets are involved, an inter-service investigation will be conducted. If a Marine mishap occurs aboard ship or while waterborne when conducting Navy-Marine operations, the mishap investigation and report will be coordinated between the ship’s commanding officer and the senior embarked Marine.

d. Ensure at a minimum, the safety officer and/or SNCO/NCO assigned to conduct mishap investigations have completed the Mishap Investigation and Prevention, Ground Safety for Marines or equivalent course approved by their respective COMMARFOR or CMC (SD).

e. Ensure the command has and review annually, a Mishap Investigation Plan and Checklist. See Appendix C.

5. Senior Member, Safety Investigation Board (SIB). See Chapter 4, Section 2.

6. Commander, Naval Safety Center (COMNAVSAFECEN)

a. Maintain the Marine Corps Mishap Database System. Receive and process mishap information, assist in quality control, and retain mishap files, summaries, HRs and SAFEREPs.

b. Identify mishap trends, compute mishap rates and prepare analysis reports in support of CMC (SD), and as requested by operational or installation commanders.

c. Will provide investigative assistance for all on-duty Class A, selected Class B mishaps, and when requested by an SIB or the SIB appointing authority. (See paragraph 4003.1)

d. Retain original SAFEREPs and endorsements for five years and then destroy.

e. Notify the Deputy Assistant Secretary of the Navy (Environment and Safety), or designee, by telephone or message within eight hours following all Marine Corps mishaps with active duty or civilian employee fatalities or hospitalization of three or more people.

f. Provide the OSHA office of Federal Agency Programs with a summary report of each fatal or catastrophic mishap investigation within 120 days of the mishap. The summaries shall include the date/time of mishap, command and location, consequences, description of operations and the mishap causal factors, applicable standards and their effectiveness and the corrective/ preventive actions taken.

g. Serve as the Marine Corps’ releasing and re-addressing authority for mishap reports and investigations.

h. Serve as the Freedom of Information Act (FOIA) coordinator for mishap investigation and reports.

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

CHAPTER 2

MISHAP CLASSIFICATION

	PARAGRAPH	PAGE
RECORDABLE MISHAPS	2003	2 - 3
REPORTABLE MISHAPS	2004	2 - 4
NON-REPORTABLE MISHAPS	2005	2 - 4
MISHAP CLASSIFICATIONS	2006	2 - 6
DETERMINING MISHAP COSTS	2007	2 - 7

CHAPTER 2

MISHAP CLASSIFICATION

2000. INFORMATION. Mishaps are unplanned events or series of events, which interfere with or interrupt a process or procedure and may result in a fatality, injury, or illness to personnel or damage to property. They occur as a result of failing to identify, reduce or eliminate hazards.

2001. PURPOSE. The purpose of this chapter is to define mishap terminology and classifications.

2002. MISHAPS. For purposes of this Manual, a mishap may involve one or more of the following:

1. Fatality/injury to Marine Corps active duty personnel on or off-duty. See Appendix B, paragraph 7. Duty Status.

2. Fatality/injury to Marine Corps reserve personnel. See Appendix B, paragraph 7. Duty Status.

3. Fatality/injury to on-duty Marine Corps civilian personnel.

4. Fatality/injury to non-Marine Corps personnel as a result of Marine Corps operations.

5. Occupational illness to Marine Corps personnel.

6. Occupational illness to non-Marine Corps personnel as a result of Marine Corps operations.

7. Damage to Marine Corps property or equipment.

8. Damage to non-Marine Corps property as a result of Marine Corps operations tactical or administrative.

2003. RECORDABLE MISHAPS

1. Recordable mishaps include all work related deaths, injuries and occupational illnesses that result in any lost time, loss of consciousness, restriction of work or motion, light duty,

transfer to another job/MOS, removal from formal military training course, or that requires medical treatment beyond first aid. Death that occurs during or within one hour after completion of any training activity where the exercise or activity could be a contributing factor as determined by competent medical authority is recordable. Incidents of fratricide/friendly fire where injuries occur are recordable. See Appendix F.

2. Include all off-duty military injuries and property or equipment damage as defined in para 2002.

3. All mishaps are to be recorded in a logbook as described in para 3003. See Appendix F.

2004. REPORTABLE MISHAPS

1. All mishaps as described in para 4001 are reportable via naval message in a SAFEREP to CMC (SD). See Appendix D.

2. All mishaps are reportable and will be recorded in the mishap log, see paragraph 3003. These mishap logs are to be submitted monthly via chain of command to COMNAVSAFECEN for database entry. Logs are to be sent not later than the 10th day of the following month for the preceding quarter. See Appendix F.

2005. NON-REPORTABLE MISHAPS. The following injuries/losses or events are neither recorded nor reported IAW this Manual:

1. Injuries or damage resulting from aircraft or Unmanned Aerial Vehicle (UAV) mishaps. These are reported under OPNAVINST 3750 series.

2. Damage or injury as a result of direct action with an opposing or hostile force. This does not include suspected cases of friendly fire. Commanders may conduct friendly fire SIB investigations as operations permit.

3. Injuries associated with non occupational diseases, when the disease itself, not the injury, caused the lost time (e.g., contracting hepatitis B from a blood transfusion). Complications of the injury (e.g., contracting tetanus from a cut) that results in lost time is reportable.

4. Attempted or consummated suicide or homicide, or intentionally self-inflicted injury. Refer to MCO P3040.4D for reporting these types of incidents.

5. Injuries resulting from fights, attack, or assault, unless incurred in the performance of official duties, e.g., military law enforcement personnel injured while attempting to apprehend a suspect.

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

7. Hospitalization for treatment wherein the person is retained beyond the day of admission solely for administrative reasons or reasons not related to the immediate injury or occupational illness, e.g., awaiting transportation back to unit.

8. Injuries that result from pre-existing musculoskeletal disorders or minimum stress and strain (e.g., simple, natural, nonviolent body positions or actions as in dressing, sleeping, coughing, or sneezing). These are injuries unrelated to mishap producing agents or environments normally associated with active participation in daily work or recreation.

9. Death or injuries to a person who is in the act of escaping from or eluding military or civilian custody or arrest.

10. Death or injuries involving a Marine in an Unauthorized Absence (UA) status as verified by the Unit Diary.

11. Death or injuries involving a Marine on Appellate Leave.

12. Death or injuries involving Marine Reservists in a non-drill status. These are reported via a PCR.

13. Death from natural causes unrelated to any on-duty hazard, environment or evolution as determined by medical authority.

14. Intentional or expected damage to Marine Corps equipment or property incurred during authorized testing or training, including missile and ordnance firing.

15. Property damage, death or injuries resulting from terrorism, sabotage, arson, theft, riots, civil disorders, vandalism, or other criminal activities.

16. Mishaps involving Marine personnel assigned to other DOD activities or units will be reported under that appropriate DOD authority. (e.g., Marines assigned to Defense Finance Accounting

System, DFAS, are reported under DFAS. Marines assigned to ship's companies are reported per Navy Regulations.)

17. Fatalities/injuries to civilian contractors are not reported IAW this Manual; however, they are reported by PCR message originating from the installation personnel office. Civilian contractor responsibilities for investigating and reporting of mishaps shall be stipulated in their contracts.

18. Death from adverse bodily reactions resulting directly from the use of medication prescribed by medical authority.

19. Death or injury resulting solely from the use of illegal drugs or misuse of any drugs and/or substances.

20. Death or injury of non-DOD personnel training under an MOU or other agreement.

2006. MISHAP CLASSIFICATIONS. Mishaps are classified by severity. Classification may be changed at a later date based on more accurate information.

1. Class A. A mishap resulting in a fatality or permanent total disability, or total reportable property damage of $1,000,000 or more.

a. Fatality/Fatal Injury. A mishap or complications of a mishap that results in an injury or occupational illness. When death occurs six months or more following initial mishap, contact CMC (SD) for investigative and reporting requirements.

b. Permanent Total Disability. A non-fatal injury or occupational illness, which in the opinion of competent medical authority, permanently incapacitates someone. Loss of the following body parts or the use thereof during a single mishap is a permanent total disability:

(1) Both hands, both feet, both eyes, or

(2) A combination of any two of these body parts.

2. Class B. A mishap resulting in a permanent partial disability, inpatient hospitalization (admitted for reasons other than observation) of three or more personnel, or total reportable property damage of $200,000 or more but less than

$1,000,000. A mishap that results in a person remaining in a coma in excess of 24 hours is considered a Class B mishap for safety investigation purposes.

a. Permanent Partial Disability. An injury or occupational illness that results in permanent impairment or loss of any part of the body (e.g., loss of the great toe, thumb, or a non-repairable inguinal hernia, traumatic acute hearing loss of 10 dB or greater documented by medical authority).

b. Exceptions include the following:

(1) Loss of teeth.

(2) Loss of tips of fingers/toes without bone loss.

(3) Repairable hernia.

(4) Disfigurement.

(5) Sprains or strains that do not cause permanent limitation of motion.

3. Class C. A mishap resulting in a lost time case or where total reportable property damage is $20,000 or more, but less than $200,000.

4. Class D. A mishap resulting in a no lost time or first aid case, or total reportable property damage of at least $2,000 but less than $20,000 and no lost time.

5. Appendix D, the Mishap Reporting Guide Matrix, lists reporting requirements by mishap classification.

2007. DETERMINING MISHAP COSTS. The total cost of a mishap is determined by adding costs for all injury and damage.

1. Personnel Labor, Injury and Fatality Costs. Appendix E lists the cost standards for Marine Corps personnel fatalities, injuries and labor cost. These figures should be used only in the absence of actual costs.

2. Damage Costs. These are costs of reportable property damage.

a. When damage occurs to Marine Corps property as a result of non-government activities, any damage to non-Marine Corps property is not considered in determining costs.

b. If a mishap occurs in traffic and the Marine Corps is responsible, all costs including damage to other vehicles and/or injury to non-Marine Corps personnel will be used in determining total costs. When determining costs for a parked Marine Corps motor vehicle, only damage to the Marine Corps vehicle is considered unless it was hit by another Marine Corps vehicle. Marine Corps vehicles are considered parked only when they are in an authorized parking area. Emergency and maintenance vehicles are considered in an authorized parking area when responding to emergencies or maintenance calls.

c. Calculate the direct cost of a Marine Corps mishap by adding all costs of damaged or destroyed assets to include costs such as environmental clean up.

3. Marine Corps Property. There are three costs associated with damaged/ destroyed Marine Corps property: acquisition costs, replacement costs, and repair costs.

a. When property is destroyed and will not be replaced, use the acquisition cost, i.e., cost at the time of purchase.

b. When property is destroyed and will be replaced, use the replacement cost, i.e., what it will cost to replace now.

c. When damaged property will be repaired, include both labor and material costs.

4. Non-Marine Corps Property. Obtain this cost from the claims officer’s damage statement when available. Damage costs from military police reports and civilian police reports are official estimates. When official estimates are not available, the safety investigator may estimate the cost of damages.

CHAPTER 3

RECORD KEEPING AND OSHA REQUIREMENTS

	PARAGRAPH	PAGE
INFORMATION	3000	3 - 3
PURPOSE	3001	3 - 3
MISHAP RECORDS	3002	3 - 3
MISHAP LOGS	3003	3 - 3
MISHAP FILES	3004	3 - 4
FOR OFFICIAL USE ONLY	3005	3 - 5
CENTRALIZED MISHAP RECORD KEEPING . .	3006	3 - 5
MISHAP RECORDS RETENTION PERIOD . . .	3007	3 - 5
MISHAP RECORDS ACCESS	3008	3 - 6
ANNUAL MISHAP SUMMARY	3009	3 - 6
SPECIAL REPORTS	3010	3 - 7

CHAPTER 3

RECORD KEEPING AND OSHA REQUIREMENTS

3000. INFORMATION. This chapter provides instructions for the completion, submission and posting of mishap records and summaries.

3001. PURPOSE. The purpose of this chapter is to standardize mishap recordkeeping procedures.

3002. MISHAP RECORDS. Any one or combination of the following is considered a mishap record: HRs, SAFEREPS (Part A only), mishap logs, mishap files and Annual/OSHA Mishap Summaries.

3003. MISHAP LOGS. All mishaps, whether or not they are reported to CMC (SD), are recorded in unit mishap logs and shall be retained for five years. Mishap logs summarize command or installation mishaps, track mishap reports and corrective action(s), and provide a single reference for trend analysis. Mishaps are logged chronologically.

1. Log Entries. Mishap logs will be maintained electronically and may be also kept manually. The logs must be available when review is desired/required.

2. Make log entries for all recordable mishaps as defined in para 2003 and to include the following:

a. Any diagnosed occupational illness (such as Cumulative Trauma Disorder), reported to the command, whether or not involving medical treatment or lost workdays.

b. Permanent Threshold Shift in hearing averaging 10 dB or more at 2000, 3000 and 4000 Hz in either ear.

c. Occupational bloodborne pathogen exposure incidents not covered by Chapter 21 of MCO P5100.8F.

d. Other recordable mishaps or near mishaps required by local instruction.

3. A mishap number is assigned to each recorded mishap, not to each individual. When more than one individual is involved in the same mishap, enter each individual on a separate line in the log under the same mishap number. Indicate the component of each individual, active (A), reserve (R), civilian appropriated (CA), civilian non-appropriated (CN), civilian foreign national (CF) and whether the active or reserve member was on or off duty. Civilian personnel must be on duty to log any mishap.

4. All recordable mishaps shall be logged within six working days from notification of occurrence.

5. A monthly mishap log report shall be sent electronically to COMNAVSAFECEN (Code 41). The report will be submitted NLT the 10th day from the last day of the reported month. A copy of the log report shall be retained for local use. Information gained after the report is submitted shall be furnished in an amended report sent with following monthly report. This log will report all mishaps, A through D, see paragraph 2006. If you have no mishaps, a report is also required.

6. The official version of the Marine Mishap Log (MARTRAK) Version One has been generated in Microsoft Access. A sample of Mishap Log Mishap Logbook Entry Worksheet is provided in Appendix F. This official version is available for download on CMC (SD)'s website at www.hqmc.usmc.mil/safety.nsf/contents. Directions for installation are included. System requirements to run the program are: Access 2000 (full install), Excel, and Outlook. A calendar option is available for Windows 2000 users. A user's guide and the database dictionary are also available for download from the website. Training is available on a request basis. Contact the Naval Safety Center, Code 40 at DSN: 564-3520, Ext 7148 or CMC (SD) at DSN: 224-1202/1077.

3004. MISHAP FILES. A mishap file contains all reports, messages and supporting documents related to a reportable mishap and are filed by mishap log number.

1. Filing. Keep active mishap files separate from closed mishap files. Active mishap files are those for which endorsements or corrective action is still pending. Closed files are those that have been endorsed and indicate the investigation has been closed by CMC (SD). File mishap files numerically by FY. See paragraph 3007 for record retention requirements.

2. Hazard Report (HR). HRs are filed in three ways: by reason for submission; with its mishap file number if the HR relates to a specific reported mishap; or with the Report of Unsafe or Unhealthful Working Condition as indicated in reference (d). See paragraph 5009.

3005. FOR OFFICIAL USE ONLY (FOUO). Mishap logs and files are FOUO documents, contain personal information and shall be handled in accordance with applicable regulations.

3006. MISHAP RECORD KEEPING

1. Installation commanders will centrally maintain mishap records for all supporting establishments (exchange, MCCS, etc.) at the installation or joint safety office. Where supporting establishments such as the commissary have their own safety departments, copies of mishap reports will be furnished to the installation safety office.

2. Commanders, Officers in Charge (OIC) and Inspector - Instructors (I&I) will centrally maintain mishap records at their respective safety office.

3007. MISHAP RECORDS RETENTION PERIOD

1. All mishap reports and endorsements shall be retained for five years from the date of final close out whereupon they will be destroyed. Additionally, installation safety managers will retain all other mishap records for five years following the end of the FY in which they occurred. COMNAVSAFECEN may retain and destroy reports and endorsements as required to perform assigned missions.

2. Non-privileged documents such as statements, diagrams, photographs, notes, etc., acquired or created by an SIB and not included in part B of the SAFEREP during the investigation, shall be retained by the SIB appointing authority until the date the SAFEREP is closed. If the closing endorsement does not require action in the above documents, they shall be destroyed. SIB members shall not keep any portion of any SAFEREP.

3. SAFEREPs shall be filed by mishap log number or date.

SAFEREP log numbers will be assigned by COMMARFORPAC (P), COMMARFORLANT (L), COMMARFORRES (R), or CMC (SD) in the following manner; letter identifier and the date of mishap (e.g. for COMMARFORLANT - L990217) for mishaps requiring a SIB.

4. Service and Health records shall be handled following manuals and instructions governing disposition of these records. (Marine Corps: USMC Individual Record/Admin Manual; Navy: NAVMILPERSMAN, Section 5030140 Enlisted, 5030141 Officer.) All other records may be disposed of locally. All personal logbooks (Jump/Diving) may be given to the next of kin.

3008. MISHAP RECORDS ACCESS. Access to records extends to:

1. CMC (SD) and COMNAVSAFECEN personnel.

2. Authorized OSHA and NIOSH representatives.

3. Marine Corps military and civilian personnel that have a "need to know" for mishap prevention purposes.

4. Refer to paragraph 4008 for requests to obtain information on SAFEREPs or mishaps.

3009. MISHAP SUMMARY

1. A Mishap Summary (NAVMC 11430) of all mishaps will be submitted to COMNAVSAFECEN (Code 41) and CMC (SD) by the component commanders (COMMARFORLANT, COMMARFORPAC, COMMARFORRES). All other units and commands not under a COMMARFOR will consolidate reports at the highest level of command and submit to CMC (SD) for consolidation and submission to COMNAVSAFECEN. Annual Mishap Summaries are due NLT twenty days after the end of the FY. A copy of the Mishap Summary (NAVMC 11430) shall be retained for local use. NAVMC 11430 is available in the Marine Corps Electronic Forms System (MCEFS). See sample at Appendix G. Report Control Symbol DD-5102-02 has been assigned to this report.

2. Copies of the Mishap Summary (NAVMC 11430) shall be posted at all commands and installations NLT 20 days after the end of the FY. Post summaries for at least 30 consecutive days.

Ensure the summary is not altered, defaced, or covered by other material. Submit original and copy respectively to:

Commander, Naval Safety Center
ATTN: Code 41
375 A Street
Norfolk, VA 23511-4399

Commandant of the Marine Corps(SD)
HQ USMC, 2 Navy Annex
Room 3317
Washington, DC 20380-1775

3010. SPECIAL REPORTS. Mishaps, whether on base or off base, which result in either a fatality or the inpatient hospitalization of three or more personnel, require notification to CMC (SD) within eight hours by telephone or electronic means. PCRs, SIRs, and OPREP-3s meet this requirement. For Federal civilian employees (APF/NAF), the mishap must be reported by telephone or in person to the nearest OSHA office, or by using the OSHA toll-free telephone number 800-321-OSHA. This requirement applies to each fatality or hospitalization of three

or more employees, which occurs within 30 days of an incident. Report the following for OSHA mishaps:

1. Command name

2. Location of mishap

3. Time of the mishap

4. Number of fatalities and/or hospitalized employees

5. Point of contact with rank, name and phone number/s

6. Circumstances/brief description of the mishap

COM[KTR1]NAVSAFECEN shall provide the OSHA office of Federal Agency Programs with a summary report IAW paragraph 1004.

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

CHAPTER 4

MISHAP INVESTIGATIONS

SECTION 1: INVESTIGATIONS

	PARAGRAPH	PAGE
INFORMATION	4000	4 - 3
PURPOSE	4001	4 - 3
INVESTIGATING AND REPORTING RESPONSIBILITIES	4002	4 - 3
INVESTIGATION ASSISTANCE	4003	4 - 4
TYPES OF INVESTIGATIONS	4004	4 - 4
SHARING OF INVESTIGATIVE INFORMATION . .	4005	4 - 6
SCOPE OF MISHAP INVESTIGATIONS . . .	4006	4 - 7
CONCEPT OF PRIVILEGED INFORMATION . .	4007	4 - 8
DISSEMINATION OF INFORMATION	4008	4 - 10

SECTION 2: SAFETY INVESTIGATION BOARD

PARAGRAPH PAGE		
INFORMATION	4100	4 - 13
PURPOSE	4101	4 - 13
APPOINTMENT OF BOARD	4102	4 - 13
COMPOSITION OF BOARD	4103	4 - 13
STANDING BOARDS	4104	4 - 14
BOARD RESPONSIBILITIES	4105	4 - 16

SECTION 3: COLLECTION AND ANALYSIS OF EVIDENCE FOR A MISHAP INVESTIGATION

	PARAGRAPH	PAGE
INFORMATION	4200	4 - 18
PURPOSE	4201	4 - 18
CRIMINAL EVIDENCE	4202	4 - 18
THE INVESTIGATIVE EFFORT	4203	4 - 18
ACCESS TO INFORMATION	4204	4 - 18
COLLECTION OF EVIDENCE	4205	4 - 19
MISHAP SITE PRESERVATION RESPONSIBILITIES	4206	4 - 19
INVESTIGATIVE EVIDENCE	4207	4 - 20
ANALYSIS OF EVIDENCE	4208	4 - 23

FIGURES

4 - 1 ADVICE TO WITNESS FORM FOR SAFETY INVESTIGATION REPORTS (OPNAV 5102/10) 4 - 32

4 - 2 ADVICE TO WITNESS (PROMISE OF CONFIDENTIALITY) FORM FOR SAFETY INVESTIGATION REPORTS (OPNAV 5102/11) 4 - 33

4 - 3 SAMPLE APPOINTMENT LETTER TO BOARD FOR SAFETY INVESTIGATION BOARD MEMBERS 4 - 34

CHAPTER 4

SECTION 1: INVESTIGATIONS

4000. INFORMATION. Mishaps are the result of unmanaged risks and hazards. They occur because of failure to detect and correct physical hazards or unsafe behavior. Thorough mishap investigations will identify hazards that, if corrected, can prevent or reduce the occurrence of similar mishaps.

4001. PURPOSE. Investigations are conducted to identify hazards and causal factors involved with mishaps. They also provide commanders information, which may help to identify and combat emerging mishap trends and enhance mishap reduction. All mishap investigations are conducted solely for safety purposes.

1. The following mishaps require an SIB investigation.

a. Class A and B mishaps that occur on duty, on or off duty on base, or on or off base while performing official duties. See paragraph 2006 for mishap classification.

b. A Marine Corps operational mishap involving explosives, explosive devices, direct or indirect fire weapons (to include small arms), pyrotechnics, incendiary devices, or combat chemical agents that result in injury or Class D property damage. (Negligent discharges without injury or less than $2,000 property damage are reported via an HR. See Chapter 5.)

c. All on-duty mishaps that require the in-patient hospitalization of three or more personnel, regardless of the extent of injuries or property damage.

2. All other mishaps require an investigation by trained personnel but do not require appointing an SIB. However, commanders may appoint an SIB at their discretion.

4002. INVESTIGATION AND REPORTING RESPONSIBILITIES. The unit commander or civilian supervisor shall ensure all reportable mishaps are investigated and reported per the provisions of this
Manual. In the following special situations the investigating and reporting unit commander/civilian supervisor will be:

1. The senior commander/supervisor when a mishap involves personnel or equipment from more than one Marine Corps command or installation.

2. In cases where the mishap occurs in a remote area, and personnel are in an off duty status, the commander of nearest Marine Corps activity shall assist in obtaining necessary report information and conduct the investigation when requested from the responsible commander. Requests for assistance shall be coordinated via the applicable chains of command. The commander of the individual suffering the mishap is responsible for submitting the SAFEREP.

3. In cases where the mishap occurs in a remote area and involves personnel en route to a new duty station, the commander of nearest Marine Corps activity shall conduct the investigation and submit the SAFEREP. Both detaching and joining commands will be information addressees on all mishap messages.

4. The commander/supervisor who has operational control over a person experiencing a mishap is responsible for investigating and submitting the SAFEREP.

5. In unclear cases, CMC (SD) will determine which command has investigative responsibility.

4003. INVESTIGATIVE ASSISTANCE

1. COMNAVSAFECEN will provide on site investigative assistance for all on duty Class A, and, selected Class B and C, mishaps at no cost to the command. Liaison with COMNAVSAFECEN (757) 444-3520, DSN: 564-3520, Code 40. COMNAVSAFECEN can provide investigative support assistance in all other investigations through other means, e.g., telephone, FAX, mail.

2. Requests for mishap investigator assistance may be initiated by the chain of command for any mishap.

4004. TYPES OF INVESTIGATIONS. A complete comprehensive mishap investigation is an essential tool for identifying mishap causes to prevent recurrence. Mishap investigations required by this Manual are separate and independent of those conducted for different purposes and by different authorities. It is important the purposes and procedures of these various investigations are thoroughly understood and appropriate relationships are carefully maintained.

1. Mishap Investigations. Mishap investigations are conducted solely for safety purposes. They may be released in response to FOIA or OSHA requests. For these reasons, mishap investigations must be separate and distinct from all other investigations. To ensure the independence of the mishap investigation, the following applies:

a. Individuals conducting or assisting in mishap investigations or assigned to a safety or collateral safety billet, shall neither assist nor be assigned to conduct any JAG investigation.

b. SAFEREPs shall neither include any part of, nor refer to, the corresponding Judge Advocate General Manual (JAGMAN) investigation.

c. SAFEREPs are privileged and designated FOUO (Sensitive).

d. If during the course of the investigation a criminal act is discovered, the Senior Member shall immediately notify the appointing authority for guidance to determine the need to continue or terminate the investigation. The Senior Member shall notify and turn over all physical evidence to Naval Criminal Investigative Service (NCIS). Testimonies taken under the privileged information provision shall not be provided to NCIS and shall be destroyed.

e. There are three types of safety investigations.

(1) Unit Mishap Investigations. Class C and D mishaps that do not require an SIB are investigated at the unit level.

(2) Command Mishap Investigations. COMMARFORLANT, COMMARFORPAC, COMMARFORRES, and CMC (SD) shall direct a mishap investigation for any mishap requiring an SIB via naval message and assign an appropriate mishap file number.

(3) Naval Safety Center Investigations. CMC (SD) may direct COMNAVSAFECEN to conduct independent investigations of mishaps. These independent investigations do not relieve commanders of their responsibilities for mishap investigation and reporting as required by this Manual.

2. JAG Manual Investigations. A mishap involving naval activities may require an investigation pursuant to the JAG Manual in addition to the safety investigation. JAG Manual

investigations are conducted for legal or administrative action, when the potential exists for claims against the government, possible negligence, culpable performance of duty, etc. Nothing in this Manual prevents JAG manual investigator(s) from access to the same non-privileged factual material or witnesses available to the safety investigator(s) and vice versa. SAFEREPs shall not be made a part of JAG investigations.

3. Criminal and Security Investigations. Any death occurring on a Marine Corps installation, except when the cause is medically attributable to disease or natural causes, must be investigated by the NCIS per SECNAVINST 5520.3B. NCIS will investigate the circumstances until criminal acts can reasonably be excluded. Safety investigations must not compromise or otherwise impede NCIS investigations. Refer all questions to COMNAVSAFECEN (Code 03) should difficulties arise between NCIS and safety investigators. The most current Memorandum of Agreement (MOA) between NCIS and COMNAVSAFECEN applies when difficulties arise.

4. Investigation by Other Agencies. Mishaps occurring outside the direct sphere of Marine Corps influence (e.g., off base motor vehicle) may result in investigations by other agencies. In this case, an extensive investigation may not be needed to obtain some of the pertinent information. Some information for reports required by this Manual may be extracted directly from other investigative reports originating from law enforcement agencies, fire departments, etc.

5. Inter Service Mishap Investigation Requirements. Mishap procedures for joint investigation and reporting are covered by Memorandum of Understanding (MOU) among the Naval, U.S. Army, U.S. Air Force Safety Centers and the U.S. Coast Guard. The service which first becomes aware of a Class A, B, or C joint service mishap will provide immediate telephonic notification to the other services’ safety centers. Each service will make available operational and technical experts for the SIB as required. The appointing authority and SIB senior member will be determined by the respective safety center. The appointing authority and senior member will usually be from the service suffering the greater damage/loss.

4005. SHARING OF INVESTIGATIVE INFORMATION. To preserve the integrity of the mishap investigation process, safety mishap investigators may share only specific items with other

investigators. These include but are not limited to technical evidence such as unaltered site photographs, limited technical inspection reports, engineering reports, cost sheets, hospitalization reports or similar items. Under no circumstances will safety mishap investigators share witness statements, photographs depicting mishaps reenactments, or photographs that contain safety personnel pointing to, identifying, or directing attention to any specific item or location. Similarly, photographs altered by safety personnel with pens or pencils shall not be provided to other investigators. Finally, under no circumstances will recorded findings and comments of the board, witness statements or subject matter expert statements be provided to any legal representatives.

4006. SCOPE OF MISHAP INVESTIGATIONS. Many factors influence the scope of investigations. The following guidance is provided to assist commanders in determining the extensiveness of the investigation.

1. Mishap Complexity

a. SIB investigated mishaps usually require an extensive investigation involving statements by subject matter experts (SME), engineering evaluations, or detailed reconstruction of the mishap sequence when involving complex or multiple systems, people, equipment, and machines.

b. Other mishaps, such as running or lifting injuries, may only require a close review of the work process, SOPs or procedures, and a discussion with the individual(s) involved. Unit safety officers/SNCOs/NCOs, or civilian safety specialists normally conduct these.

2. Mishap Severity. The severity of a mishap alone should not be the deciding factor in determining the extent of the investigation. A mishap that resulted in minimal damage or injury, but potentially could have resulted in more serious damage or injury, may require an extensive investigation.

3. Potential For Similar Mishaps. Do not overlook the potential for similar mishaps when deciding how extensive an investigation should be. The potential for a mishap recurring, previous incidents of this type mishap, and reasons previous recommendations were not implemented may dictate the extent of the investigation necessary.

4007. PRIVILEGED INFORMATION AND PROMISE OF CONFIDENTIALITY

1. The Purpose of Designating Information as Privileged. The actions below are taken to:

a. Overcome any reluctance of an individual to reveal complete and candid information pertaining to the circumstances surrounding a mishap.

b. Encourage SIB and endorsers of the SAFEREP to provide complete, open and forthright information, opinions, and recommendations regarding a mishap.

2. Rationale. If privileged information were allowed to be used for purposes other than safety, vital safety information may be withheld.

a. Individuals may be reluctant to reveal information pertinent to a mishap because they may believe the information could be embarrassing or detrimental to themselves, fellow service members, their command, employer, or others. They may also elect to withhold information by exercise of their constitutional right to avoid self-incrimination. Individual members of the armed forces must be assured they may confide with SIB or safety investigators for the mutual benefit of fellow service members without incurring personal jeopardy in the process. Witnesses shall not provide statements to SIB under oath, and requiring them to do so is prohibited. They shall be advised in writing, of the purpose for which their statement is being provided and of the limited use to be made of the statement. Witnesses shall not be limited in their statements to matters to which they could testify in court, but may be invited to express personal opinions and speculate on possible causal factors of the mishap. See figures 4-1 and 4-2.

b. Rationale for designating mishap investigation information as privileged is more important than the rationale for encouraging witnesses. Every SAFEREP involves SIB members, endorsers or local unit investigator. Not every mishap has witnesses who would require an assurance of privilege as encouragement to make a statement.

3. Protection of Privileged Information. Should privileged information be used for any purpose other than safety, credibility of future assurances would be lost. Obtaining safety information is dependent upon protecting privileged information against use for other than safety purposes. The following safeguards are established for the protection of privileged information.

a. Witness Statements. Witness statements to an SIB shall not be provided to any activity, except as authorized in this Manual.

b. Investigations. It is important that the distinctions between mishap investigations and other investigations be understood thoroughly. Only in cases of joint intercomponent participation in naval investigations, and COMNAVSAFECEN mishap investigations, both of which must be authorized by the COMNAVSAFECEN or higher authority, shall any exchange of information and opinion outside the SIB occur. In such cases, cooperation between investigation boards may include division of labor, joint review of evidence, exchange of witness statements, and joint deliberations. In all cases, mishap investigations shall be independent and separate from all other investigations. Investigators may exchange the identification of witnesses and examine non-privileged evidence. In recognition of the importance of hazard identification and correction to Marine Corps operations/training, the SAFEREP is the primary investigation and takes priority over all other investigations in interviewing witnesses, obtaining and analyzing evidence, and inspecting the scene of the mishap. Safety investigations may require the assistance of other activities. Requests for such assistance are not privileged, and must be meticulously reviewed to ensure that they do not contain privileged information. Technical specialists providing assistance to SIBs are not members of the SIB and shall not be given access to SIB deliberations, nor access (except as authorized elsewhere in this instruction) to the content of SAFEREPs.

c. Investigators. Members of the SIB shall not, nor may they be requested to, divulge their own opinion or any information at which they arrived, or to which they became privy, in their capacity as a member of an SIB. Members of SIBs shall not be assigned to a JAG or any other investigation of the same mishap.

4. Privileged Information. Privileged information shall not be used:

a. In making any determination affecting the interest of an individual making a statement under assurances of confidentiality or involved in a mishap.

b. As evidence or to obtain evidence in determining the misconduct or line-of-duty status.

c. As evidence to determine the responsibility of personnel for disciplinary or administrative action.

d. As evidence in claims on behalf of the government.

e. As evidence to determine the liability of the government for property damage caused by a mishap.

f. As evidence before administrative bodies, such as Field Performance Boards (USMC) or Officer Evaluation Boards (USN).

g. In any other punitive or administrative action taken by the Marine Corps or DON.

h. In any investigation or report other than SAFEREPs required under the authority of this Manual.

i. As evidence before, or as any part of a JAGMAN investigation.

5. Purpose of Designating Information as Privileged. The purpose is to explain what designated information becomes privileged, understand privilege concepts, and conform to DON Safety Investigation Reporting processes with or without privileged information.

4008. DISSEMINATION OF INFORMATION

1. Release of Information.

a. Only COMNAVSAFECEN can release copies and information of SAFEREPs submitted per this Manual. A violation of these provisions by military personnel is punishable under the Uniform Code of Military Justice (UCMJ), and forms the basis for disciplinary action against civilian employees.

b. Release of mishap information shall be IAW this section unless otherwise authorized by CMC.

2. Dissemination of Essential Safety Information. When appropriate, COMNAVSAFECEN will:

a. Share safety information gleaned from the reports submitted IAW this Manual.

b. Disseminate essential safety information from reports to particular media, e.g., lessons learned, databases, articles, safety advisories.

c. Expunge ("scrub" or "sanitize") from the reports all identifying data, which could reveal the identity of any person, organization, location, or event, then provide remaining essential safety information.

3. Release based on the Freedom of Information Act (FOIA). CMC (SD) will forward any request for information, which is based on the FOIA to COMNAVSAFECEN, Attn: Code 03.

4. Release by an Individual Having Knowledge of Mishap Information. It is forbidden for anyone with knowledge of the contents of mishap or safety investigation reports, to release this information, except as this Manual permits. If an individual having knowledge of mishap information or SAFEREP contents receives a request for information, they shall forward the request to their commanding officer, who shall refer the requestor to COMNAVSAFECEN, Attn; Code 03.

5. Release to U.S. Marine Corps, U.S. Navy and Other DON Activities. Commands shall forward requests for mishap information or SAFEREPs from Marine Corps, Navy and other DON activities to COMNAVSAFECEN, Attn: Code 03.

6. Release to Other U.S. Military Services. The Marine Corps limits the exchange of safety investigation information only between U.S. military services via their respective safety centers and CMC (SD).

7. Release to the News Media. Department of the Navy Public Affairs Regulations, SECNAVINST 5720.44A contains information on releasing mishap information to the media. The Marine Corps shall not release information in SAFEREPs to the media.

8. Release to Congress. Forward requests for information from Congress, Congressional committees or subcommittees, or staff members to CMC or CNO, as appropriate.

9. Release to Relatives of Persons Involved in Mishaps. In discussing a mishap with relatives of people involved in the mishap, personnel shall make no inference to causal factors. Commands shall not show, discuss with, or give copies of SAFEREPs to the next of kin or their agents or representatives without a proper FOIA request.

10. Subpoenas of Information. Commands shall refer any subpoenas for mishap information to the Office of the Judge Advocate General (Code 34), 200 Stovall Street, Alexandria, VA 22332-2400 with copy to COMNAVSAFECEN, Attn: Code 03.

11. Release to Technical Representatives, Defense Contract Administration Services (DCAS) Representatives, and Contractors. Commands shall forward requests for mishap information or SAFEREPs from technical representatives, manufacturers, DCAS representatives, and contractors or their agents to COMNAVSAFECEN via CMC (SD). The CMC (SD) endorsement shall certify whether the requestor requires the requested information for safety purposes with respect to product design or improvement. Any response shall include a warning to ensure the recipient uses the information for safety purposes only. The recipient shall not disclose the information to any other individual or entity.

12. Release to Other Foreign Nations. Commands shall forward requests for mishap information or SAFEREPs from foreign governments to COMNAVSAFECEN, Attn: Code 03.

13. Release of Privacy Information. Control the release of names of individuals not involved in the mishap and the Social Security Numbers of all individuals in the report as directed by the applicable section of reference (l). To protect the privacy rights of surviving family members, photographs of human remains or autopsy report are not releasable.

14. Unspecified Cases. Commands shall forward requests other than above to COMNAVSAFECEN, Attn: Code 03.

SECTION 2: SAFETY INVESTIGATION BOARD (SIB)

4100. INFORMATION. This section explains the purpose, establishment, and responsibilities of the SIB.

4101. PURPOSE. SIBs are appointed/convened to investigate mishaps per paragraph 4001 and other selected mishaps to determine causes, and identify and recommend actions to prevent similar mishaps.

4102. APPOINTING THE SIB. When required, an SIB will be appointed within 24 hours.

1. Appointing Authority. Commanders responsible for mishap investigation and reporting shall appoint SIBs to investigate mishaps. The appointing authority is the first general officer in the chain of command. MEU, installation, and SPMAGTF commanders are the appointing authorities for their command.

2. Personnel appointed to an SIB may not be appointed to, nor serve on, any other investigative board associated with the same mishap. Members must be appointed in writing by the appointing authority to have voting status. Activities of the SIB become the primary duty of all members until completion and release of the SAFEREP via naval message by the senior member. See Figure 4-3 for Sample Appointment Letter.

4103. COMPOSITION OF A BOARD. Minimum composition of an SIB is three members; however, five is preferred. The appointing authority and senior member of the board should confer and agree on board appointees based on the type and severity of the mishap.

1. Senior Member. The senior member of an SIB shall be a Marine Officer, equal to or senior in grade to the commander of the mishap unit, and shall have message releasing authority directly relating to the mishap. Waivers for rank requirement may be granted by COMMARFORLANT/PAC/RES or by CMC (SD).

2. Safety Specialist. An individual who has completed the Mishap Investigation and Prevention Course or equivalent course

approved by their respective COMMARFOR or CMC (SD), shall be appointed to the SIB. See paragraph 1004.4D.

3. Competent Medical Authority. A qualified medical officer who can address certain technical medical terminology when dealing with the specifics of the injuries or fatalities that exist (e.g., Cardiologist, Neurologist). A mishap that results in extensive damage but no injuries or fatalities may require competent medical authority to conduct a 72 hour profile, but may not require appointment to the board.

4. Subject Matter Expert (SME). Appointment of an individual to an SIB, who by experience or training is knowledgeable in the specialty area related to the mishap (e.g., explosives, weapons, combat vehicles, motor transport, construction, vehicle or building maintenance), is strongly recommended. When complexities of the mishap warrant, additional SMEs are recommended. All SMEs will provide written reports to the board on their findings, recommendations, and may be appointed as SIB members.

5. NAVSAFECEN Mishap Investigators. Individuals directed by CMC (SD) to assist in SIB investigations (mandatory for all class A mishaps), may be appointed by the senior member of the board as voting members. When required, contact NAVSAFECEN as soon as possible to obtain a mishap investigator. See paragraph 4003.

6. Special Investigative Assistant (SIA). An individual who is knowledgeable in mishap investigation procedures and is provided at no cost by COMNAVSAFCEN to provide expertise in the mishap investigation process. SIAs may provide a written report to the board on their findings and recommendations if requested, and may be appointed as board members.

4104. STANDING BOARDS. Standing boards are required at the Division, Wing, FSSG, and installation levels. A standing board is designed to enable rapid investigative response to mishaps and consists of a minimum of two personnel: the senior member and a safety specialist. Upon convening the SIB, competent medical authority, SMEs, mishap investigators and SIAs are appointed by the appointing authority as required. Subordinate commanders may appoint and convene their own SIBs to investigate Class C and D mishaps when not specifically directed by higher headquarters.

1. A standing board is assigned in writing. Copies of the appointing letters are maintained at the command/unit's safety office. Commanders may rotate standing board members as desired and should maintain a pool of qualified senior members. Additional safety specialists, SMEs, SIAs, and medical officers may be augmented from within the appointing authority's command.

2. Members of the standing board or mishap unit safety personnel may initiate a mishap investigation through such actions as: determining the initial extent of injury(ies), fatality(ies), and property damage; ascertaining witnesses and securing the mishap site.

3. The following personnel will not be assigned to an SIB:

a. Personnel directly involved in the mishap.

b. Personnel who might have a personal interest in the mishap that could conflict with the objective and impartial performance of the board.

c. An expected endorser of the SAFEREP.

d. Personnel assigned to conduct a JAGMAN or any other investigation of the mishap.

4. Members of standing boards may assist/augment a board appointed by a subordinate commander; or a standing board may be convened in support of a subordinate commander to conduct an investigation and submit the SAFEREP.

a. While subordinate commanders have the authority to appoint their own board, there may be times when neither assets nor expertise exists to conduct a thorough investigation. Under such circumstances, the commander should request assistance via the chain of command.

b. When assistance is required where a unit is away from its home base/station the commander may request support from the host installation via the chain of command.

5. Names of standing board members shall be made available to the staff duty officer and any other duty roster guidance. Ensure at least one standing board member is notified if a mishap occurs.

4105. BOARD RESPONSIBILITIES

1. Upon notification of a mishap, any member of any standing SIB or local safety office representative will preserve the mishap site and initiate collection of evidence.

2. The board shall commence the SIB investigation no later than 24 hours following the mishap.

3. The board shall conduct the investigation, prepare, draft and release a SAFEREP without divulging the content of the SAFEREP and the investigation to any members within the mishap chain of command IAW this Manual.

4. Prior to release of a SAFEREP, release an HR for any hazard determined to have potential command or Corps wide implication. See Chapter 5.

5. Members of the board shall have the following additional responsibilities:

a. Senior Member. Maintain knowledge of the investigation and reporting procedures. Be present on site during the investigation process and ensure:

(1) The standing board maintains readiness through proper staffing and semi-annual mishap board activation drill training.

(2) As appropriate, recommend SIB augmentation to the appointing authority.

(3) Supervise the board throughout the investigation.

(4) Release the SAFEREP within 30 days of the mishap.

(5) The original SAFEREP (Parts A and B, signed by the senior member) is sent directly to COMNAVSAFECEN (Code 47). A copy is sent to COMMARFORLANT, COMMARFORPAC, COMMARFORRES, or CMC (SD) as appropriate by traceable means. No additional copies of Part B will be made. No copy shall remain at the unit level.

b. Competent Medical Authority. Maintain knowledge of investigation and reporting procedures. Conduct a 72-hour profile on key personnel involved in the mishap. See Paragraph 4207.1.c. Participate in the investigation and deliberation of hazards, mishaps and in the preparation of SAFEREPs as directed.

c. Safety Specialist. Maintain knowledge of investigation and reporting procedures. As directed, participate in the investigation and deliberation of hazards, mishap causal factors, corrective actions and preparation of reports.

SECTION 3: COLLECTION AND ANALYSIS OF EVIDENCE FOR MISHAP INVESTIGATIONS

4200. INFORMATION. This section explains how to conduct an investigation, obtain and analyze evidence.

4201. PURPOSE. The purpose of this section is to guide the SIB members in the collection and analysis of evidence.

4202. CRIMINAL EVIDENCE. If during the course of the safety investigation, evidence of a criminal act is discovered, see paragraph 4004.1.d for termination procedures.

4203. THE INVESTIGATIVE EFFORT. There is not necessarily a correlation between the severity of a mishap and the potential for damage and/or injury inherent in the hazards detected during a mishap investigation. A mishap in which there was little damage or injury may illuminate a hazard with potential to cause frequent and severe mishaps. On the other hand, a catastrophic mishap may reveal a hazard, which would rarely cause future mishaps. The extent of the safety investigation effort should not be tailored to the severity of the mishap but rather to identify the hazards associated with the mishap. For example, a complex or mysterious mishap may require extensive investigative effort. Conversely, a simple and well-defined mishap might be investigated with minimal effort. The extent of the investigative effort is at the prerogative of the senior member of the SIB.

4204. ACCESS TO INFORMATION. Safety investigations have inherent priorities over other activities connected with the mishap. Safety investigators have access to all the following:

1. All official personnel, medical, pay, and maintenance records on all personnel and all property involved in the mishap.

2. All previously gathered evidence, photographs, witnesses’ names, initial statements and other reports. Remind witnesses that information provided by them is for mishap prevention purposes only, not for determination of fault or disciplinary action.

4205. COLLECTION OF EVIDENCE. The circumstances surrounding mishaps are diverse. It is not possible to describe every circumstance under which specific kinds of evidence are collected during a safety investigation. Great reliance is placed on the single investigator or the members of the SIB. No person, other than the COMNAVSAFECEN investigators, the unit's single investigator or members of the SIB may investigate a mishap under the authority of this Manual. Appendix C provides a sample safety investigation plan and checklist with a systematic approach to investigating mishaps, reporting criteria and endorsing requirements.

4206. MISHAP SITE PRESERVATION RESPONSIBILITIES. When a reportable mishap occurs, an attempt should be made to preserve the site. Other than witnesses, the mishap site may be the most important source of information and evidence for investigators, regardless of the purpose of the investigation. To enhance the rapidity and thoroughness of investigations, commanders, through their safety personnel, should develop Mishap Plans and conduct Safety Awareness and Mishap Prevention Training. See Appendix C.

1. The senior Marine/civilian employee at the mishap site shall ensure the following actions are accomplished:

a. Care and first aid of the injured personnel.

b. Control/elimination of hazards created by the mishap.

c. Informing proper authorities, e.g., unit commander (and responsible commander if other than unit commander), unit/ installation safety officer/ manager, PMO, Fire and Rescue, and Public Affairs.

d. Securing the mishap site to protect the public, safeguard Marine Corps property, and prevent disturbance of the site.

2. The senior Marine/civilian employee should maintain control of the mishap site until personnel identified as mishap/safety investigators arrive on the scene. Until then, access to the site should be limited to the emergency personnel, responsible commanders, their representatives and members of investigative organizations.

a. Before arrival of the safety investigators, emergency medical services (EMS) personnel may be required to disturb or remove items of evidence in order to preserve life or minimize further property damage.

b. When the situation does not permit preservation of the mishap site, photograph the mishap site from a minimum of eight points surrounding the site and all items of evidence prior to removal, when possible.

3. Once appointed or convened, the SIB assumes responsibility for the mishap site access until investigation of the site is complete, or at such time that it is determined that the mishap is not reportable under this Manual. At the site, the SIB should do the following:

a. Remove items of evidence needed for the investigation.

b. Store all moved components, wreckage, and debris in a secure area and safeguard until released by the SIB.

c. Segregate and obtain preliminary statements from the witnesses for referral during witness interviews. Preliminary statements for the SAFEREP will be written but not signed by the person making the statement. Print the person's name on the statement. This statement is privileged and will not be shared with any other investigative agent or persons not assigned to the SIB. Two forms may be used to provide witness(es) information regarding the confidentiality of statements that may be given. See Figures 4-1 (Advice to Witness (OPNAV 5102/10)) and 4-2 (Advice to Witness (Promise of Confidentiality) (OPNAV 5102/11)). Figures 4-1 and 4-2 are authorized for local reproduction.

d. Involve the SME at the mishap site as early as possible for preliminary inspection of the wreckage and discussion with any personnel involved in the mishap or recovery operation.

4207. <u>INVESTIGATIVE EVIDENCE</u>. Mishap investigations take priority with the following exceptions: the rescue of personnel and securing of hazardous materials, even at the risk of losing evidence; and removal of damaged equipment that is interfering with important mission activities or which creates a hazard at the mishap site. Apart from such limitations, mishap investigators must have access to Marine Corps materials and documents, which may be relevant to the investigation.

1. Medical Evidence. Most medical evidence disappears quickly; therefore, prompt medical investigation can collect medical evidence otherwise lost. The concern of the medical expert is medical, physiological, psychological, social, and behavioral factors, which may reveal human causal factors of the mishap. The collection and analysis of medical and human factors evidence must be coordinated with all other aspects of the investigation. When investigating a mishap, the SIB medical authority fully participates in the investigation and deliberations of the SIB.

a. Medical Evaluation and Treatment. The medical officer assigned to the SIB shall consult the record of medical treatment of the injured personnel to determine preliminary status of the injured.

b. Pathological Studies. An autopsy should be conducted whenever a fatality occurs as a result of a mishap. Reference (n) gives the Armed Forces Medical Examiner (AFME) authority to conduct autopsies in cases involving the death of a service member, in cases in which a death occurred on a military installation, and in cases involving an investigation authorized by DoD. If an autopsy is conducted by the AFME, contact the Armed Forces Institute of Pathology (AFIP) to obtain a copy. If an autopsy is conducted by a State, local, or other government agency, seek assistance from AFIP in obtaining a copy of the investigation.

c. 72 Hour Profiles. A 72-hour profile will be conducted for all Class A, B, and C mishaps investigated by an SIB. Include the profile(s) in the appropriate paragraph of the SAFEREP. The profile will trace the chronological actions and activities of each individual involved in the mishap for the 72 hours preceding the mishap. The following examples may be important in the development of the pre-mishap profile(s):

(1) Travel completed.

(2) Type of work performed and work schedule (hours).

(3) Periods of rest and sleep.

(4) Medications prescribed.

(5) Alcohol and other drugs (prescription, nonprescription, and illegal).

(6) General physical condition, including illnesses, viral infections, physical anomalies, recent chronic fatigue, hypertension, diabetes, elevated cholesterol, or other medical problems.

(7) Individual’s mental, emotional, and physical state including perceived stress and behavior changes based on supervisor, next-of-kin (if available), co-workers, and friends.

(8) Other comments the supervisor, next-of-kin, co-workers, and friends wish to make related to the individual’s condition or pre-mishap activities.

(9) Other factors prior to the mishap that could have affected the mishap occurrence or its outcome.

(10) Adverse administrative or punitive action or any other behavior infractions for the past three years.

(11) For personnel involved in a PFT or PT related mishaps include the following:

(a) Height, weight and percent body fat.

(b) Time from start or end of activity to onset of first symptom(s).

(c) Physical condition and physical conditioning program prior to death.

(d) Meal times, food and liquids, type of and quantity consumed, two hours prior to the mishap.

(e) Smoking or drinking habits (alcohol) if any.

(f) Weather conditions.

(g) Wet Bulb Globe Temperature (WBGT) readings for heat related casualties.

2. Photographic Evidence. Photographs are helpful in preserving items of evidence, which would be destroyed by time or elements. They eliminate lengthy narrative descriptions and provide reviewing officials and units with a clearer understanding of the mishap sequence and the environment. Only photographs most relevant to the report’s findings and recommendations should be included in the SAFEREP.

3. Engineering Investigation (EI). When maintenance engineering technical assistance is desired in an investigation of mishap material, the SIB shall submit a message request for an EI to CMC (SD) informing the chain of command. When approved, EIs are to be conducted at the local installation whenever possible. When an EI cannot be conducted locally, contact the closest Depot maintenance facility for assistance. When necessary, an SIB member will accompany the part(s) in question and will be present during all examinations. The message request will include the material for the EI, description of the physical circumstances of the mishap, description of the parts as found in the wreckage or damaged configuration, and if applicable, a statement of the possible cause of the part failure. Do not include privileged information. Do not tamper with, adjust, remove parts from, or clean the material subject to the EI. EIs are an important source of factual information not only for the SAFEREP but other reports as well. EIs must not contain statements about causal factors of the mishap as this would violate the non-privileged status of the EI and safety investigation. Areas which require EI consideration, are: Parachutist life support systems (HALO/HAHO), parachutes, helmets, night vision devices, brake systems, steering arms & attachments, small arms firing mechanism (safeties), any system failure.

4. Witnesses. Witness accounts provide some of the most important clues to mishap causes. Witnesses include those involved in the mishap, those who saw it, and those with training and experience to qualify them as SMEs. When witnesses appear before a single investigator or the SIB, they will not testify under oath nor make a sworn statement. Witnesses will be advised that the purpose of the mishap investigation is to determine causal factors and to prevent recurrences. The investigator will initially advise the witness of no promise of confidentiality (Figure 4-1). If the witness refuses to make a statement or desires full confidentiality, then advise witness using Figure 4-2.

4208. ANALYSIS OF EVIDENCE

1. Analysis and Causal Factors. In performing the analysis, the SIB should first consider all remote scenarios that could have led to the mishap. Those that are too remote in probability are rejected without further analysis, but those considered reasonable are formally analyzed to determine the likelihood of their contribution to the mishap. In doing so, the SIB must logically decide which of the remaining possible scenarios are supported by evidence and which are not. Ultimately, the SIB phrases each scenario in language that facilitates formal classification and explains which have been Accepted and which have been Rejected based on the evidence. The result is referred to as the set of Causal Factors for the mishap. Each causal factor is made up of three elements, which

precisely describes the personnel, equipment, actions, events, and reason(s) why the Factor contributed to the mishap. Each of the elements is essential for determining the entire cause of the mishap and each is a potential starting point for remedial action. Experience has shown many mishaps involve the failure of a material component as a significant contributor. There are two general classifications into which causal factors are assigned: Human and Material.

a. Human Factors. Actions of personnel, which contribute to a mishap, are of obvious importance. Determining such human factors requires identification of the elements of who, what, and why to fully describe the occurrence. Merely stating "personnel error" provides insufficient information because it fails to explain why the event occurred. Usually, what occurred is self-evident; for example, a GMV mishap occurred where excessive speed is involved. Likewise, who lends itself to quick identification: the driver. But why the driver did such a thing is the most significant element from a prevention standpoint. In this example, perhaps the driver was fatigued, failed to see the speed limit sign, or there was a brake failure; now there is an element, which lends itself to remedial action. Supporting evidence must be included in the causal factors of the mishap section and the factor either accepted or rejected. To further facilitate the determination of who/what/why, the human causal factors determined by the SIB must match to the following:

(1) Who. There are four logical classifications of human factors likely to contribute to a mishap. The classification identifies the job/function being performed as opposed to a specific individual. Human factors are assigned according to the specialized nature of these activities; personnel, supervisory, facilities, and maintenance factors rather than the more general term of human factor.

(a) Personnel Factor: Includes personnel in the unit involved in the mishap, personnel engaged in the mishap, their actions which contributed to the mishap, and whether or not they survived the mishap.

(b) Supervisory Factor: Identifies personnel engaged in command and operations related support. Their dysfunction is not restricted to the unit level. Supervisory responsibilities at every level and policies published throughout the chain of command (e.g., FMs, TMs, SOPs, Letters of Instructions (LOIs)) are possible causal factors to be considered. At the unit

level, supervisory factors concerning operating and training personnel should be especially considered. Supervisory functions pertinent to maintenance related activities are not considered part of this classification. Some examples of Supervisory Factors are unit training, qualifications, proficiency, and physical well being of personnel.

(c) Facilities Factor: Includes support personnel involved in logistical support, mechanized support, medevac, and umpires for force-on-force training. For example, in the case of a mishap involving force-on-force training with AAVs, tanks, etc. where umpires were present and a mishap occurred, all personnel should be interviewed and evaluated.

(d) Maintenance Factor: Personnel involved in production, servicing, and repair of equipment. Carelessness, inattention, and negligence must be considered. Maintenance supervision, training (including qualification and licensing), and administrative, when it is directly related to production, service, or repair, is considered a maintenance factor and not a supervisory factor.

(2) What. The actions which caused the mishap and were performed by the above Who personnel are the What elements of the human cause factors. The typical actions performed by the four classification of the who are similarly grouped. Describe in two to three simple sentences what the who did. For each what element of a human factor, there may be more than one why.

(3) Why. Presumably no Marine would intentionally commit an act that would result in a mishap. Even when negligence is involved, the specific intent to cause damage or injury is absent. Rather, other circumstances like fatigue, lack of training, misinformation, and motivational dysfunction combine to create the situation, which leads to a mishap. They are the why elements of the mishap causal factor which can be prevented through sound leadership principles and good management oversight. The SIB will fully evaluate why and include this element in the SAFEREP. The why elements of human factors apply to any who, what combination and are subdivided into six groups: communication, coordination; psychosocial; environment; performance; human engineering; and medical, psychological.

b. Material Factors. The provision for including material factors is important because it frequently identifies the weak link in the chain. It may be possible, for example, to redesign a component with a greater margin of tolerance to a specific stress. In a worst-case scenario, there may be no evidence supporting human factor involvement, and a material failure may be the only specific event that can be postulated with certainty. Material factors are included in the set of mishap causal factors. The SIB should identify as factors all material failures that significantly affected the mishap sequence of events. A set of elements similar to Who, What, Why exists for material factors; they are component, mode, and agent. The SIB will describe the material factor elements using the standard nomenclature, plain language as explained below:

(1) Component. The smallest, most specific component, assembly, or system that can be identified as having failed is the Component.

(2) Mode. The manner in which the above component failed is the (failure) mode. Typical examples: brake master cylinder failure, hose failed, part not secured correctly (e.g., wrong bolt, nut, cotter pin reused and fractured, cotter pin end not opened).

(3) Agent. The act, event, or agency that led to the failure mode is the (failure) agent. Typical examples: failure to service, improper installation, fire, overloading.

2. Conclusions. The conclusions of the SIB shall be based on all available information and are deductions as to which hazards were the cause(s), damage, and/or injury occurring in the course of the mishap. Conclusions under consideration may be evaluated by the question: "If the identified causal factors (hazards) had been eliminated prior to the mishap, would the mishap (or damage and/or injury) have been prevented?"

a. Mishap Causal Factor Determination. Mishap causal factors are determined and published by the SIB. Most mishaps result from two or more causal factors, which, in combination, caused the mishap. Without one, there would be no mishap. There is no logic in ranking causal factors as "direct," "primary," "principle," "contributing," etc. Absolute proof is not always available, nor required to "determine" the cause of the mishap. The determination of appropriate causal factor(s) can be a difficult task which requires both deductive and, at times, inductive reasoning in the analysis of the evidence. The SIB must conclude, in its best judgment, the most likely reason(s) for the mishap and their level of confidence in the conclusion. There are five possible ways to classify mishap conclusions. A specific determination statement at the beginning of the conclusion paragraph identifies the classification.

(1) Determined. This classification is used when the SIB has evidence that a specific series of events occur and that alternative scenarios did not. For example, a GMV overturns while descending a steep mountainous road. Excessive speed is involved. The initial assessment is to presume a Human Factor of excessive speed. While examining the wreckage, an investigating team finds the following: (1) master cylinder is new, (2) the cotter pin on the clutch pedal is an old one (been used), and (3) the attachment and cotter pin for the brake pedal are missing with no evidence of collateral damage. Coincidentally, the maintenance records show the master cylinder was replaced six months prior. Further examination shows both the brake and clutch pedal arms were disassembled to remove the old cylinder and replaced with the new ones. The brake and clutch pedal arms were reassembled and the TM requires new cotter pins be used to secure the pins (brake and clutch) in place and spread the distal end of the pin. The driver (from his hospital bed) stated he had lost all brakes and tried to slow and stop the vehicle by running it into the ditch. However, he lost control and rolled the vehicle. All other parameters were normal, the vehicle was reported to have no brake problems. The logical conclusion is the driver was speeding and lost control, however, there is strong evidence of improper installation procedures resulting in the brake failure. There are no other plausible scenarios; excessive speed was involved due to brake failure, with the brake pedal arm securing pin missing and the clutch pin’s cotter pin being a used pin and not spread. Coupled with the absence of other collateral damage in this area, the causal factor for this mishap is determined. In this example, the SIB has not only resolved the major type of failure (i.e., brake failure) but has further identified a cause as the brake pedal arm failure due to improper installation, and inadequate technical instructions and quality assurance checks. Thus the SIB would conclude a material factor for the failed brake. Had the SIB not been able to identify the in-depth causes beyond the brake failure, this mishap should still be classified as "determined" as "Maintenance Factor - brake failure of undetermined origin." The verbatim Determination Statement, "The Causal Factors Of This Mishap Are Determined To Be . . .", identifies the classification. The cause of the mishap is considered fixed (determined).

(2) Determined - No Fault Assigned. This causal factor classification is assigned in the absence of a human factor only when vehicle damage or personnel injury occurs as a result of animal/bird damage, lightning strike, or hail damage and:

(a) A qualified Marine was driving on an authorized mission.

(b) All possible precautions were taken, e.g., route assignment, weather consideration were met.

The assignment of no fault does not imply the mishap was not preventable. It provides the recognition that training or operations have inherent risk and that Marine leaders are willing to accept a certain level of loss to accomplish the mission. When "No Fault Assigned" is used there can be no human factors assigned as mishap causal factors, i.e., Personnel, Supervisory, Facilities, or Maintenance. The material failure or damage that result from animal/bird strikes, lightning strike, etc., should be included as material factors. The justification for "No Fault Assigned" is very narrow, infrequently used, and will be carefully screened by the chain of command and COMNAVSAFECEN. Both will provide a complete explanation of the rationale for "No Fault Assigned" in the closeout analysis paragraph. The verbatim Determination Statement, "The Narrative Causal Factor Of This Mishap Is Determined To Be: No Fault Assigned, The Following Material Factors Are Assigned:" identifies the classification. The cause of the mishap is considered fixed (determined).

(3) Most Probable. This classification will be used when the evidence relating to a set of specific factors is insufficient to establish that a series of events actually occurred, all competing scenarios have been ruled out (with confidence), and the remaining factors fall into one major type or category of failure/factor. For example, the wreckage and all other available evidence were examined and no discrepancies were found. The SIB should then conclude the personnel factor is "the most probable cause." The verbatim Determination Statement, "The Most Probable Narrative Causal Factor Of This Mishap Is Determined To Be . . ." identifies this classification. The cause of the mishap is considered fixed (determined).

(4) Possible. This classification will be used when the SIB has evidence that only competing scenarios exist, when the confidence that specific events occurred is low, or the factor cannot be narrowed down to a major category. The SIB would then conclude that the causal factors are undetermined with "possible" causal factors. The verbatim Determination Statement, "The Causal Factors Of This Mishap Are Undetermined With the Following Possible Causal Factors . . ." identifies this classification. The cause of the mishap is not considered fixed (undetermined).

(5) Undetermined. Only when there is no evidence to indicate a possible cause is this classification used. The verbatim Determination Statement, "The Narrative Causal Factors Of This Mishap Are Undetermined" identifies this classification. Causal factors cannot be assigned when it is used and the cause of the mishap is not considered fixed.

b. Causal Factors of Damage and Injury Occurring in the Course of a Mishap. The same logic applies here as to mishap causal factors. A causal factor of damage or injury occurring in the course of a mishap is any hazard, which causes unnecessary, avoidable damage or injury. The purpose of this paragraph is to provide an opportunity to correct additional factors discovered during the mishap investigation that, while not the causing the mishap, contributed to its severity by causing additional damage or injury. Common causal factors of damage and injury occurring in the course of a mishap are non-crashworthy vehicles, battery-securing straps not attached, non-issue of SL 3 gear, non-issue of fire extinguishers, etc. Risk Assessment Codes (RACs) are established by the SIB for each identified causal factor.

3. Environmental Conditions. Environmental conditions are not causal factors. Environmental conditions are those conditions over which there is no human control such as day, night, weather, sea state, tidal waves, tornadoes, etc. A causal factor of a mishap might be an inadequate weather forecast or improper weather avoidance procedures but not the environmental conditions of the thunderstorm turbulence or lighting. Since environmental conditions are not causal factors, all causal factors are under human control, and may therefore be eliminated. Thus all mishaps are preventable.

4. Hazards Discovered During the Investigation, but Determined not to be Causal Factors of the Mishap. During the course of an investigation SIBs frequently detect hazards that require action but are not causal factors in the investigated mishap. Such hazards shall not be included in the SAFEREP, since their inclusion would serve to cloud the issues pertinent to a specific mishap. The SIB shall report such hazards not relative to the mishap via a HR. A RAC, see appendix C, will be assigned by the SIB for each hazard identified and reported.

5. Recommendations. SAFEREPs and HRs may recommend or require corrective action throughout the chain of command. Recommendations under consideration may be evaluated by the question: "If the recommended action had been taken prior to the mishap, would the hazard(s) which were the causal factors associated with this mishap have been eliminated and the mishap (damage and/or injury) prevented?" Recommendations that do not eliminate identified mishap causal factors shall not be included. The following guidelines shall be used by the SIB in formulating their recommendations:

a. A causal factor may call for more than one recommendation.

b. Place only one recommendation per subparagraph. Recommendations are normally referenced by paragraph number/letter. Each subparagraph shall therefore contain a single recommendation.

c. Address only one subject in each recommendation. Avoid dual recommendations (do this and do that) and alternative recommendations (do this or do that). If alternatives are apparent, select and recommend the optimum.

d. Express each recommendation in a complete, self- explanatory statement. Recommendations are often separated from their parent report. They must stand alone. As a minimum, each recommendation shall state who should do what. Sometimes, how, where and when are also appropriate. Determination of appropriate action agencies (Who) may require some research.

e. Recommend final definitive solutions.

f. Make practical recommendations. Describe precisely how the desired end is to be accomplished and by whom.

g. Make comprehensive recommendations. When a hazard is common to an entire community and recommended corrective action could be of benefit to all, do not limit a recommendation to local actions. Write it to apply to all that could benefit.

h. Make uninhibited recommendations. Do not suppress valid recommendations because they appear to be too expensive, too difficult, or imply criticism. A decision in favor of the desired action may depend on the impetus of a recommendation.

i. Delete extraneous material from recommendations. Analysis, conclusions and justification belong elsewhere in reports.

j. Recommend use of established procedures for changes to Marine Corps Orders (MCOs), Field Manuals (FMs), Marine Corps Doctrinal Publications (MCDPs), Marine Corps Warfighting Publications (MCWPs), Marine Corps Reference Publications (MCRPs) Technical Manuals (TMs), etc. and a draft of the recommended change to show exactly what is intended.

k. Confine recommendations to the investigated mishap/hazard. Ensure that recommendations are pertinent to hazards detected in the investigation.

ADVICE TO WITNESS

THIS IS PART OF A SAFETY INVESTIGATION
LIMITED DISTRIBUTION AND SPECIAL HANDLING REQUIRED BY MCO 5102.1A
THIS STATEMENT IS NOT PRIVILEGED AND MAY BE DISCLOSED

PLEASE READ THIS STATEMENT CAREFULLY
CERTIFY THAT YOU UNDERSTAND IT BY YOUR SIGNATURE AT THE BOTTOM

I understand that:

a. I have been requested to voluntarily provide information to a SIB conducting an investigation of a Navy-Marine Corps mishaps.

b. I AM NOT being requested to provide statement under oath or affirmation.

c. Disclosure of personal information by me is voluntary, and that failure to provide such information will have no direct effect on me.

d. The purpose of the information provided by me is to determine the cause of the mishap and/or the damage and/or injury occurring in connection with that mishap.

e. All information provided by me to the SIB will be used ONLY for safety purposes. It is further understood, however, that the information provided by me or contained in this report may be released in response to a Freedom of Information Act (FOIA) request.

f. Although releasable under FOIA, the information provided by me shall NOT be used by the Government:

(1) In any determination affecting my interests.

(2) As evidence to obtain evidence in determining misconduct or line of duty status of killed or injured personnel.

(3) As evidence to determine my responsibility or that of other personnel from the standpoint of discipline.

(4) As evidence to assert affirmative claims on behalf of the government.

(5) As evidence to determine the liability of the government for property damage caused by the mishap.

(6) As evidence before administrative bodies, such as Officer/Enlisted Separation Boards, Judge Advocate General Manual investigations/inquiries.

(7) In any other punitive or administrative action taken by the Department of the Navy. In any other investigation or report of the mishap about which I have been asked to provide information.

g. My signature acknowledges that I do not need a full Promise of Confidentiality as a condition on my willingness to provide testimony to the Board and I understand that statements given without a Promise of Confidentiality may be released. **(If the witness has any reservations about their statement being released to anyone outside the board itself, entitled persons in the safety endorsement process, or the public under FOIA, a Promise of Confidentiality should be offered to ensure forthright, candid testimony).**

Witnesses signature: _____ **Date:** _____ **Initials:** _____

1. SUMMATION of Witness interview by Investigator (Continue on reverse and/or attach separate sheet(s) as necessary)

2. PRINTED NAME OF INVESTIGATOR (First, Middle, Last)	3. DATE
4. SIGNATURE	5. TELEPHONE NUMBER
6. INVESTIGATOR'S ADDRESS (WHERE YOU MAY BE LOCATED)	

OPNAV 5102/10 (2-98) Figure 4-1 Local reproduction is authorized.

ADVICE TO WITNESS (PROMISE OF CONFIDENTIALITY)

THIS IS PART OF A NAVY-MARINE CORPS SAFETY INVESTIGATION
LIMITED DISTRIBUTION AND SPECIAL HANDLING REQUIRED BY MCO 5102.1A
THIS STATEMENT IS PRIVILEGED AND IS EXEMPT FROM DISCLOSURE

PLEASE READ THIS STATEMENT CAREFULLY
CERTIFY THAT YOU UNDERSTAND IT BY YOUR SIGNATURE AT THE BOTTOM

I understand that:

a. I have been requested to voluntarily provide information to a SIB conducting an investigation of a Navy-Marine Corps mishaps.

b. I AM NOT being requested to provide statement under oath or affirmation.

c. Disclosure of personal information by me is voluntary, and that failure to provide such information will have no direct effect on me.

d. The purpose of the information provided by me is to determine the cause of the mishap and/or the damage and/or injury occurring in connection with that mishap.

e. All information provided by me to the SIB will be used ONLY for safety purposes.

f. The information provided by me shall NOT be used:

(1) In any determination affecting my interests.

(2) As evidence to obtain evidence in determining misconduct or line of duty status of killed or injured personnel.

(3) As evidence to determine my responsibility or that other personnel from the standpoint of discipline.

(4) As evidence to assert affirmative claims on behalf of the government.

(5) As evidence to determine the liability of the government for property damage caused by the mishap.

(6) As evidence before administrative bodies, such as Officer/Enlisted Separation Boards, Judge Advocate General Manual investigations/inquiries.

(7) In any other punitive or administrative action taken by the Department of Navy.

(8) In any other investigation or report of the mishap about which I have been asked to provide information.

Witness signature:_____ Date:_____ Initials:_____

1. Summation of witness interview by investigator (Continue on reverse and/or attach separate sheet(s) as necessary)

2. PRINTED NAME OF INVESTIGATOR (First, Middle, Last)	3. DATE
4. SIGNATURE	5. TELEPHONE NUMBER
6. INVESTIGATOR'S ADDRESS (WHERE YOU MAY BE LOCATED)	

OPNAV 5102/11 (2-98) Figure 4-2 Local reproduction is authorized.

SAMPLE APPOINTMENT LETTER FOR SAFETY INVESTIGATION BOARD MEMBERS

5102
Command Code
Date

From: Commanding General/Officer (Wing/Division/FSSG/MAGTF)
To:
Subj: SAFETY INVESTIGATION BOARD (SIB) APPOINTMENT
Ref: (a) MCO P5102.1A

1. You are hereby appointed as (the Senior Member, Safety Officer, SNCO, NCO, Specialist, Medical Officer, or MOS/Subject Matter Expert) to the (Organization) standing Safety Investigation Board, per the reference.

2. You will adhere to the provisions of the reference which concern the use and protection of information to which you will become privy as a member of the SIB and which defines your responsibilities as a member of this board.

3. Upon receipt of this appointment, your duties as a member of the SIB, when convened, shall take precedence over all other duties until release of the safety investigation report (SAFEREP) or release by the senior member of the board.

4. The success of preventing similar serious mishaps is dependent upon thorough investigation and reporting of mishaps to identify and eliminate the potential causes of damage or injury. The objective of the board is to improve safety. Your efforts must include open and candid expressions of your opinions and views.

5. (Include this paragraph for Senior Member appointments only.) As the Senior Member of the SIB, you have authority to release Naval Messages directly relating to this appointment. Additionally, you will authorize "Promise of Confidentiality" authority to those members of the SIB who are trained as Mishap Investigators.

6. Should any circumstances arise which would preclude the proper performance of your duties as a member of this SIB, notify (Name the POC and provide telephone numbers) the authority issuing this appointment.

SIGNATURE, RANK, and TITLE

Figure 4-3.--Sample Appointment Letter.

CHAPTER 5

HAZARD REPORT (HR)

	PARAGRAPH	PAGE
INFORMATION.	5000	5 - 3
PURPOSE.	5001	5 - 3
HAZARD IDENTIFICATION AND ASSESSMENT . .	5002	5 - 4
HAZARD REPORTING AND ABATEMENT	5003	5 - 4
ORIGINATOR	5004	5 - 4
NONPRIVILEGED STATUS	5005	5 - 4
SECURITY CLASSIFICATION	5006	5 - 4
SUBMISSION DEADLINES	5007	5 - 4
RETENTION OF HAZARD REPORT	5008	5 - 5
HAZARD REPORT FORMAT	5009	5 - 5

FIGURES

5 - 1 HR MESSAGE ADDRESSEES . . . .5 - 6

5 - 2 HR MESSAGE FORMAT . . . . .5 - 7

5 - 3 HR MESSAGE EXAMPLE . . . . . 5 - 8

5 - 4 HR MESSAGE NEGLIGENT DISCHARGE EXAMPLE5 - 10

CHAPTER 5

HAZARD REPORT (HR)

5000. INFORMATION. A hazard is a potential cause for damage or injury. The Marine Corps Safety Program is designed to identify and eliminate hazards before they result in mishaps. This chapter defines hazards and describes hazard detection and reporting. It does not provide instructions for reporting a mishap. The procedures contained in this section do not replace, but complement, those contained in reference (d) regarding "Reports of Unsafe or Unhealthful Working Conditions" and "Correction of Hazardous Conditions."

5001. PURPOSE. When a unit discovers an inherent unsafe act or condition, such as a flaw in the design, manufacture, or use of a piece of equipment, it shall alert other commands with the same or similar equipment or operations via a Hazard Alert (HR).

1. HRs are intended to eliminate or control hazards and prevent mishaps. An HR will be prepared and submitted for the following reasons:

a. To report a hazard and the remedial action taken so that others may take similar action to eliminate the hazard.

b. To report a hazard and recommend corrective action taken by another agency to eliminate the hazard.

c. To report a hazard so that another agency may determine appropriate corrective action to eliminate the hazard.

d. To report any negligent weapons discharge where injury did not occur. This does not apply to weapons discharged into a clearing barrel.

2. It is not necessary to prepare an HR for every ground safety hazard reported and corrective action initiated. Several factors to include hazard probability/severity, applicability to other commands, the appearance of a trend, the value of the information to product engineers, program managers, and project officers in developing service-wide mishap prevention efforts are all important which should influence the use of an HR.

5002. HAZARD IDENTIFICATION AND ASSESSMENT. Some methods used in anticipating or identifying hazards before a mishap occurs include: analysis of mishap data, observation and investigation of near mishaps, reports of unsafe acts or hazards by personnel, safety inspections, or the review of command SOPs and operations. Once the hazard is identified, it is assessed according to mishap probability of occurrence and severity of damage or injury and assigned a Risk Assessment Code (RAC) using the Appendix H, Risk Assessment Matrix.

5003. HAZARD REPORTING AND ABATEMENT. Command safety programs shall contain provisions for encouraging the reporting of hazards by individuals. Each individual has an obligation to report hazards to the chain of command. If hazards have an effect outside the organization, the command has the responsibility to report the hazard to higher authority. The quality of the HR depends on the quality of the investigation.

5004. ORIGINATOR. Safety managers or SIBs investigate the hazard(s) and prepare the HR. However, initiation of the HR process may be accomplished by any individual. Completed HRs should come from the command (Division, Wing, and FSSG level or higher) that identified the hazard. The exercise of command influence to edit, modify, or censor the content of a HR is contrary to the spirit of the program and is prohibited.

5005. NONPRIVILEGED STATUS. HRs are not privileged and therefore promises of confidentiality are unauthorized. HRs are used for safety purposes only. Contents may be divulged to outside agencies only in response to FOIA requests.

5006. SECURITY CLASSIFICATION. HRs are usually unclassified. Omit any portion of the report that warrants classification and substitute the word "CLASSIFIED" in its place. In the unlikely event that a meaningful report cannot be produced, submit a classified report.

5007. SUBMISSION DEADLINES. HRs require submission within 30 days following detection of the hazard(s).

5008. RETENTION OF HAZARD REPORT. Hazard reports will be filed by the reason for submission. If the hazard report relates to a specific reported mishap, it will be filed with its mishap file number. If the hazard report relates to a "Report of Unsafe or Unhealthful Working Condition," it will be filed with that report per reference (d). Report Control Symbol DD-5102-01 has been assigned to this report.

5009. HAZARD REPORT FORMAT. Submit hazard reports via "ROUTINE" naval message. Address distribution of HRs per Figure 5-1 and using the format contained in Figure 5-2. Figure 5-3 is an example of a steering failure HR and Figure 5-4 is an example for a negligent discharge.

1. Re-addressing and re-distribution of HRs are at the discretion of the commander.

2. HRs are FOUO documents and are exempt from minimize provisions as it applies to naval messages.

3. HR Text. See Figure 5-2.

a. Repeat all material verbatim, from Figure 5-2 that appears in bold print in the text of the HR message.

b. Omit any paragraph that is not applicable or enter "NA".

c. Information in a HR may vary depending on the circumstances of the hazard. In most cases, an informative HR is a one or two page message.

ACTION ADDRESSES	**WHEN**
CMC WASHINGTON DC//SD//	ALWAYS
COMNAVSAFECEN NORFOLK VA//10/30/40//	ALWAYS
CHAIN OF COMMAND	ALWAYS
ALL ACTION AGENCIES IDENTIFIED IN THE BODY OF THE MESSAGE AND RECOMMENDED TO TAKE CORRECTIVE ACTION	ALWAYS

INFORMATION ADDRESSES	
OTHER MARINE CORPS COMMANDS USING SAME EQUIPMENT, PROCEDURES, OR MATERIALS IDENTIFIED IN THE REPORT	ALWAYS

Figure 5-1.--HR Message Addressees.

FM
TO
INFO
UNCLAS FOUO //N05102//
SUBJ THIS IS A GROUND HAZARD REPORT (HR)
A/DOC/MCO P5102.1A//
B/(OTHER REFERENCES AS APPROPRIATE)
AMPN/ or **NARR/**References are identified, e.g., **AMPN/REF A is** .... or **NARR/REF A IS ....**, **REF B is ....**, **REF C IS...**
POC/ List name, rank, title, telephone and FAX number of the individual designated to answer inquiries about hazard report.
RMKS/1. THIS IS A GROUND HAZARD WITH A RAC OF (1,2, 3, ETC). ENDORSEMENT REQUESTED IAW REF A. OR **ENDORSEMENT NOT REQUIRED.**
SUMMARY: (Summarize the report in three lines or less.)
2. **DATA.** (Provide the following where pertinent to the hazard)
A. **EQUIPMENT/MATERIAL.** Describe the equipment or material involved using item nomenclature, stock numbers, trade names, model, make, or other detailed and descriptive information to positively identify the equipment or material involved.
B. **OPERATION/EVOLUTION/PROCEDURE.** Describe concisely the task(s), operation(s), evolution(s), and/or procedure(s) involved at the time of the hazard identification.
C. **ENVIRONMENT:** (List if it applies and the items that apply)
    (1) **Date of mishap/incident/discovery**
    (2) **Local time**
    (3) **Weather**
    (4) **Visibility**
    (5) **Temperature**
    (6) **Location.**
3. **CIRCUMSTANCES.**
A. **EVIDENCE AND ANALYSIS.** Describe the hazard.
B. **CONCLUSIONS.** How the hazard could or has resulted in damage or injury.
C. **ESTIMATE INJURY/DAMAGE/REPAIR COST(S)**
4. **CORRECTIVE ACTION(S).** Describe corrective action(s) taken to abate the hazard. If the abatement action(s) or the formulation of recommended action(s) was beyond the capability of the originator, state the interim measure(s) taken to prevent injury or damage. Identify the agencies/ organizations that you recommend take corrective action(s); and/or identify the agencies/organizations from which you request assistance to develop corrective action(s).
5. **REMARKS.** Originator's comments.
6. **COMMANDER'S COMMENTS.** CG, CO or OIC endorsement of report.

Figure 5-2.--HR Message Format.

FM CG XXXXX MARDIV//G-7/SAFETY//
TO CMC WASHINGTON DC//SD//
COMNAVSAFECEN NORFOLK VA//00/02/30/40A/42/47/60//
COMMARFORXXXXX//SAFETY//
ALL XXXX MARDIV
INFO CO MCLB ALBANY GA
CG XXXX FSSG//G-4/SAFETY//
UNCLAS //N05102//
MSGID/GENADMIN/CG XXXX MARDIV//
SUBJ/THIS IS A GROUND HAZARD REPORT (CG XXXX MARDIV)//
REF/A/DOC/SMS SD/08MAR93//
REF/B/DOC/DOA/15JAN92//
REF/C/PMG/CO MCLB ALBANY GA/282106ZJAN88//
POC/ I.M. WRIGHT/CAPT (USMC)/SAFETY OFFICER/ XXXX MARDIV/ COMM (757-477-8537)/ E-MAIL WRIGHTIM@XXXXMARDIV.USMC.MIL.
NARR/REF A IS MCO P5102.1A ON GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS TM 9-2320-260-34P-1, 3RD AND 4TH ECHELON MAINTENANCE PARTS MANUAL. REF C IS A WS/EM ALERT (88-3-05) MESSAGE SENT OUT IN 1998 WITH THE SAME WARNING AS THIS MESSAGE.
RMKS/1. THIS REPORT CONCERNS A GROUND SAFETY HAZARD, RAC 1. ENDORSEMENT NOT REQUIRED.
SUMMARY: POSSIBLE STEERING FAILURE OF M809 AND M936 SERIES VEHICLES.
2. DATA
A. EQUIPMENT/MATERIAL
(1) ALL M809 AND ALL M936 SERIES VEHICLES. TAMCN D1059, ID NRS 08263A, 08262A, TAMDN D1061, ID NR 08329A. TAMCN D1072,ID NRS 00659C, 00659D. TAMCN D1134, ID NR 08325A. TAMCN D1212, ID NR 08324A.
(2) THE PARTS INVOLVED ARE LISTED IN REF B, FIGURE 160. THEY ARE ITEMS #30, #36, #37, #38.
(A) ITEM #30 IS THE STUD, PART #7346900, AND NSN 5307-00-734-6900.
(B) ITEM # 36 IS THE TAPERED BUSHING, PART #7346812, AND NSN 5365-00-427-2282.
(C) ITEM #37 IS THE LOCK WASHER, PARFT #MS35335-39, AND NSN 5300-00-800-0695.
(D) ITEM #38 IS THE NUT, PART #7346-813, AND NSN 5310-00-274-7721.
(E) ITEM #35 IS THE STEERING ARM, PART #11664597/98, AND NSN (LEFT) 2530-00-231-0178, NSN (RIGHT) 2530-00-237-3685.
(F) ITEM #27 IS THE STEERING KNUCKLE ASSEMBLY, PART#7346815/16-1, AND NSN (LEFT 2530-00-006-7469, NSN RIGHT 2530-00734-6815.

Figure 5-3.--HR Message Example.

B. OPERATION/EVOLUTION. A GOVERNMENT MOTOR VEHICLE MISHAP OCCURRED INVOLVING AN M813, 5-TON. AFTER THE MISHAP, AN INSPECTION OF THIS 5-TON AND SIXTY-EIGHT OTHERS WITHIN THE UNIT REPORTING THE MISHAP WAS CONDUCTED. EIGHTEEN WERE FOUND TO HAVE LOOSE STUDS WHILE FOUR OTHERS HAD BROKEN STUDS.

3. CIRCUMSTANCES

A. EVIDENCE AND ANALYSIS. THE STUDS THAT ATTACH THE STEERING ARM TO THE STEERING KNUCKLE (ITEM 35 AND 27, PAGE 422 OF REF B) ARE WORKING LOOSE AND BREAKING.

B. CONCLUSIONS. THIS RESULTS IN THE LOSS OF STEERING AND CONTROL OF THE VEHICLE. THIS COULD RESULT IN DEATH, SERIOUS INJURY TO DRIVER AND/OR PASSENGERS, AND PROPERTY OR EQUIPMENT DAMAGE.

C. ESTIMATE INJURY/DAMAGE/REPAIR COST. INJURY: $250,000, PROPERTY: $80,000, REPAIR: $35,000.

4. CORRECTIVE ACTIONS.

A. FOR ALL XXXX MARDIV UNITS WITH M809 AND M936 SERIES. CONDUCT A ONE-TIME INSPECTION OF ALL STUDS THAT ATTACH STEERING ARM TO STEERING KNUCKLE. REPORT ALL FINDINGS TO XXXX MARDIV G-4 AND CG MATCOM.

B. FOR ALL MARINE CORPS UNITS WITH M809 AND M936 SERIES. RECOMMEND A ONE-TIME INSPECTION OF ALL STUDS THAT ATTACH THE STEERING ARM TO THE STEERING KNUCKLE. REPORT ALL FINDINGS TO CG MATCOM.

C. FOR COMNAVSAFECEN. RECOMMEND NOTIFICATION TO OTHER SERVICES OF HAZARD AND RECOMMEND ABOVE ACTION BE TAKEN.

5. REMARKS. MATCOM HAS BEEN ALERTED. POC AT ALBANY IS MR. I. M. LOGBASEGUY, CODE G316, COMM (785) 787-4947. DELAY IN TRANSMITTING THIS HR DUE TO TIME REQUIRED TO RECEIVE INVESTIGATION AND CONDUCT COORDINATION WITH TRUCK COMPANY.

6. CG COMMENTS. PRIORITIZE THE INSPECTION OF ALL VEHICLES. IF PROBLEMS ARE DISCOVERED, FIX THEM. OUR DIVISION CANNOT AFFORD NEEDLESS DAMAGE TO EITHER OUR RESOURCES OR INJURY TO OUR MARINES. ENSURE WIDEST DISSEMINATION POSSIBLE.

MAJGEN SENDS.

BT

Figure 5-3.--HR Message Example--Continued.

FM CG XXXXX MARDIV
TO CMC WASHINGTON DC//SD//
COMNAVSAFECEN NORFOLK VA//00/02/30/40A/42/47/60//
COMMARFORXXXXX//SAFETY//
CG XXXX MEF//G-4/SAFETY//
INFO
UNCLAS //N05102//
MSGID/GENADMIN/CG XXXX MARDIV//
SUBJ/ THIS IS A GROUND HAZARD REPORT-NEGLIGENT DISCHARGE//
REF/A/DOC/MCO P5102.1A//
REF/B/DOC/FMFM08/FMFM09//
POC/I. M. WRIGHT/CAPT (USMC)/GSO/XXXX MARDIV, DSN (751-XXXX)//
NARR/REF A IS MCO P5102.1A GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS BATTLE SKILLS TRAINING (BST) MANUAL
RMKS/1. THIS REPORT CONCERNS A GROUND SAFETY HAZARD RAC 1. **SUMMARY:** NEGLIGENT DISCHARGE OF WEAPON BY GUARD. ENDORSEMENT NOT REQUIRED.
2. **DATA.**
A. **WEAPON:** M16A2
B. **DUTY STATUS:** ON DUTY, WALKING POST AS BN ARMORY GUARD
C. **ENVIRONMENT:**
(1) 16 APR XX,
(2) 0230,
(3) CLEAR,
(4) NIGHT,
(5) 48 DEGREES F,
(6) BN ARMORY-BLDG# 1569
3. **CIRCUMSTANCES.**
A. **EVIDENCE AND ANALYSIS.** LCPL XXXX AND PFC YYYY WERE TESTING EACH OTHER ON REACTION DRILLS IF THE ARMORY WERE TO COME UNDER FIRE. PFC INDICATED TO LCPL WHAT HE WOULD DO, BY UNSLINGING HIS WEAPON, CHAMBERING A ROUND, AND POINTING IT IN THE DIRECTION OF THE LCPL. PFC YYYY PULLED THE TRIGGER NOT REALIZING THAT HIS WEAPON WAS NOT ON SAFE. THE WEAPON FUNCTIONED AS DESIGNED. LCPL XXXX HAD THE PRESENCE OF MIND TO DROP TO THE DECK AS PFC YYYY POINTED HIS WEAPON IN HIS DIRECTION. THE WEAPON DISCHARGED AND THE ROUND IMPACTED THE WALL OF THE ARMORY.
B. **CONCLUSION.** THIS RESULTED IN A NEAR MISS THAT COULD RESULT IN DEATH OR SERIOUS INJURY TO MARINES OR PERSONNEL, AND PROPERTY OR EQUIPMENT DAMAGE.
C. **ESTIMATE DAMAGE COST:** $25.00.
4. **CORRECTIVE ACTION.** FOR ALL XXXX MARDIV UNITS. CONDUCT WEAPONS HANDLING SAFETY STANDDOWN USING THIS MESSAGE AS AN EXAMPLE.
5. **COMMANDING GENERALS COMMENTS.** THE TRAINING BEGUN ON DAY ONE OF BOOT CAMP IS THAT ALL RIFLEMEN WILL HANDLE WEAPONS IN A PRESCRIBED METHOD. LEADERS, ENSURE THAT CONTINUING GUIDANCE IS PROVIDED TO OUR MARINES TO ENSURE ADHERENCE TO THESE STANDARDS. MAJGEN SENDS.//

FIGURE 5-4.--HR Message Negligent Discharge Example.

MARINE CORPS GROUND MISHAP INVESTIGATION
AND REPORTING MANUAL

CHAPTER 6

SAFETY INVESTIGATION REPORT (SAFEREP)

	PARAGRAPH	PAGE
INFORMATION	6000	6 - 3
PURPOSE	6001	6 - 3
COMMAND INFLUENCE	6002	6 - 3
SUBMISSION CRITERIA	6003	6 - 3
DEADLINES	6004	6 - 3
EXTENSIONS	6005	6 - 3
ORIGINATOR	6006	6 - 3
CONTENT	6007	6 - 4
DISTRIBUTION	6008	6 - 4

FIGURES

6 - 1	ADDRESSEES FOR SAFEREP	6 - 6
6 - 2	FORMAT FOR SAFEREP PART A . . .	6 - 7
6 - 3	FORMAT FOR SAFEREP PART B . . .	6 - 17
6 - 4	GVO SAFEREP EXAMPLE	6 - 18
6 - 5	OPERATIONS/TRAINING SAFEREP EXAMPLE	6 - 26
6 - 6	OFF DUTY PMV SAFEREP EXAMPLE . .	6 - 34
6 - 7	OFF DUTY RECREATIONAL SAFEREP EXAMPLE	6 - 38

SAFETY INVESTIGATION REPORT (SAFEREP)

6000. INFORMATION. This chapter defines the content of the SAFEREP and how, when and where it is submitted.

6001. PURPOSE. The SAFEREP identifies the causal factors, injuries, or damage occurring in a mishap and provides recommended corrective action(s) to prevent similar mishaps.

6002. COMMAND INFLUENCE. The exercise of command influence to edit, modify or in any way censor the content of a SAFEREP is contrary to the direction of this Manual and is prohibited. For this reason, the senior member of the SIB shall not consult with the commander of the mishap regarding the content of the SAFEREP prior to its release.

6003. SUBMISSION CRITERIA. SAFEREPs are submitted for on and off-duty mishaps as directed in Appendix D. Off-base off-duty mishaps requiring part A of a SAFEREP may not require an SIB. PCRs, SIRs, and OPREP-3s do not alleviate a command’s responsibility to submit a SAFEREP when required.

6004. SUBMISSION DEADLINES. All SAFEREPs are to be submitted within 30 days of the mishap date.

6005. EXTENSIONS. The senior member of the SIB or individual conducting the investigation may request extensions by naval message to the appropriate COMMARFOR or CMC (SD). Include all members of the endorsing chain of command, CMC (SD) and COMNAVSAFECEN (Code 49) as information addressees. Provide specific reasons for delay and POC with phone numbers. Responses shall be by naval message and include the same addressees as requesting message.

6006. ORIGINATOR. The originator of the SAFEREP is the senior member of the SIB, or in cases where the mishap is not investigated by an SIB, is the unit sustaining the mishap.

6007. CONTENT. A SAFEREP consists of two parts. This two-part format facilitates timely dissemination of mishap prevention information and special handling of supporting documents that contain privileged information. Report Control Symbol MC-5102-01 has been assigned to this report.

1. Part A is a 13 paragraph naval message, which is released by the senior member of the SIB or the unit sustaining the mishap where the mishap is not investigated by an SIB. The SAFEREP Part A text is in Figure 6-2. Part B consists of a copy of Part A and all supporting documents used by the SIB to determine cause, conclusions and recommendations for corrective action. Format for Part B is illustrated in Figure 6-3.

a. Repeat all material in bold print verbatim in the text of the message.

b. If any information required by the format of the report is not appropriate for the mishap, omit the paragraph that is not applicable or enter "NA".

c. If information submitted is estimated, enter the term "ESTIMATED" prior to that information.

2. Documents and Physical Evidence Disposition

a. Documents, such as statements, diagrams, photographs, notes, etc., acquired or created by an SIB but not included in part B of the SAFEREP shall be retained by the SIB appointing authority until the SAFEREP is closed by CMC (SD). CMC (SD) will provide disposition instructions for all remaining documentation.

b. Service and health records of missing or killed personnel shall be handled in accordance with applicable directives. All logbooks pertaining to personal jumps/diving may be given to the next of kin.

c. All physical evidence shall be retained until the senior member of the SIB releases such evidence to the unit commander of the mishap for disposition.

6008. DISTRIBUTION. The SIB distributes the SAFEREP Part A message per figure 6 - 1.

1. Ensure the SAFEREP (Part A and Part B, signed by the senior member) is sent directly to COMNAVSAFECEN (Code 49), and the only copy is sent to the appropriate COMMARFOR or CMC (SD) by traceable means. Only Part A of the SAFEREP may be retained at the mishap unit. Additional copies of Part B will neither be made nor retained at the unit level.

2. SJAs shall not be addressees on any SAFEREP messages or endorsements nor shall copies be provided to them.

3. Release of the SAFEREP message to non-Marine Corps activities (for endorsement purposes only) is at the discretion of CMC (SD). Endorsers in the endorsing chain may readdress the SAFEREP and endorsements to other Marine Corps activities they deem required to be added to the endorsing chain either for endorsement, or for additional recommended corrective action, upon approval from the respective COMMARFOR or CMC (SD).

4. Distribution of SAFEREP messages to individuals or commands not IAW this Manual is prohibited.

5. Standard Subject Identification Code (SSIC) 5102 is used on all SAFEREP messages and message endorsements. Internal command distribution of a SAFEREP shall be limited to those who require knowledge of the report for safety purposes. Unit wide dissemination for general awareness is not authorized. Only those safety applicable lessons learned may be generated for distribution though not within the context of a SAFEREP.

6. SAFEREP messages are normally unclassified. Omit information on reports that warrant classification and replace with the word "classified." Submit a classified report if replacement obscures the information. Treat endorsements similarly.

7. Send all SAFEREP messages as LIMITED DISTRIBUTION. SAFEREP messages are exempt from MINIMIZE provisions of naval messages.

8. SAFEREP messages are FOUO documents and shall be handled according to appropriate directives.

ACTION ADDRESSEES	**WHEN**
CMC WASHINGTON DC//SD//	ALWAYS
COMMARFOR (PAC,LANT,RES)	ALWAYS
COMNAVSAFECEN NORFOLK VA// 10/30/40/47/50//	ALWAYS
INFORMATION ADDRESSEES	
ENDORSING CHAIN OF COMMAND - INCLUDES MARINE CORPS AGENCIES OUTSIDE NORMAL OPERATIONAL CHAIN OF COMMAND, BUT WHO ARE ASSIGNED RECOMMENDED CORRECTIVE ACTION - AND BEGINS AT THE MISHAP UNIT LEVEL OR AS MODIFIED BY FORCE COMMANDER	ALWAYS

FM
TO
INFO
UNCLAS FOUO
SUBJ: THIS IS A LIMITED DISTRIBUTION GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) (PART A), MISHAP CONTROL NUMBER (e.g., P001-99, number assigned by COMMARFOR or CMC (SD)) **THAT OCCURRED ON** (date)
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/ (as appropriate)
NARR/ REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS (etc.)
RMKS/1. THIS REPORT CONCERNS A CLASS (A,B,C,D) (ON OR OFF) **DUTY MISHAP. ENDORSEMENT REQUESTED PER REF A** OR **ENDORSEMENT NOT REQUIRED. SUMMARY.** (Summarize in three lines or less. Do not use names of individuals involved in the mishap. Do not disclose cause factors.)
2. MISHAP DATA.
A. MISHAP UNIT MCC/RUC.
B. PARENT COMMAND. (List the OPCON command: MEF, MAGTF, FSSG, DIV, MAW, Base, station, or equivalent parent activity of the organization or unit having the mishap.)
C. EQUIPMENT. (List items (a) through (e) for each as it applies, if it does not, describe the item; e.g., 120 feet of 6 foot chain link fence)
(1) DOD EQUIPMENT. (List each piece of equipment or property involved in the mishap).
(a) Model and series
(b) NSN
(c) Serial number
(d) RUC and UIC of owning unit
(e) RUC and UIC of using unit if different
(2) PERSONAL EQUIPMENT. (List each piece of personal equipment or property involved in the mishap; e.g., PMVs, boats, bikes, ATVs, power tools):
(a) Item
(b) Year/make
(c) Model
(d) Length for boats/canoes
(e) Engine size (where applicable)

Figure 6-2.--SAFEREP Part A Format.

(3) **PERSONAL PROTECTIVE EQUIPMENT.** (List any protective equipment that was required, whether or not it was used, and whether or not it was effective.)

D. ENVIRONMENT.

(1) **DATE**

(2) **LOCAL TIME**

(3) **LOCAL TIME ZONE**

(4) **DAY OR NIGHT**

(5) **LOCATION: ON** or **OFF BASE** (Select one). Describe location geographically. Use geographic area, body of water, nearest city, town, or a significant landmark; e.g., 111 Old Town Street, San Diego, CA, Deep Creek Lake, MD, or Naples Harbor, Italy. If the location is aboard an installation, list the name of the installation, not the range or training area.

(A) **GRID/TRAFFIC INTERSECTION/RANGE /TRAINING AREA.** Use the most applicable method(s) for site location.

(B) **STATE/PROVINCE/PREFECTURE/POLITICAL SUBDIVISION/ COUNTRY.**

(C) **FACILITY.** (Buildings, residences, athletic fields, picnic areas, etc.) Where the facility is a structure, identify number and purpose and specific room if applicable, e.g., Structure: Building NO. 5718 - Pump house/Headquarters building/Fire Station etc; locker room. If facility is a ship, include name and location within ship, e.g., USS Harper's Ferry, crew's weight room.

(D) **MISHAP SITE ELEVATION.** Altitude above mean sea level in feet, or depth of water if submerged.

(6) **WEATHER** (List the following items that apply)

(A) **WIND** (Direction, speed in kts.)

(B) **VISIBILITY**

(C) **AIR TEMP** (Fahrenheit)

(D) **WATER TEMP** (Fahrenheit)

(E) **PRECIPITATION** (Type at time of incident)

(F) **CUMULATIVE PRECIPITATION** (Totals for previous 24 hours)

(F) **ROAD/FIELD/PLAYING SURFACE CONDITIONS**

(G) **SEA STATE**

E. SAFETY PROGRAM

(1) DATE UNIT SAFETY OFFICER ATTENDED GROUND SAFETY COURSE: (Provide YYMMDD)

(2) RANK OF UNIT SAFETY OFFICER

(3) DATE OF LAST COMMAND OR MCCS FACILITY SAFETY INSPECTION (Provide YYMMDD as well as name of inspector and whether follow up actions are documented).

Figure 6-2.--SAFEREP Part A Format--Continued.

3. CIRCUMSTANCES

A. ORIGIN. Provide geographic location of the activity starting point, e.g.: 7th Mar Motor Pool; T/A Papa-I, line of departure at grid 123456; residence at 2269 Pond Rd, Kailua, HI. etc.

B. MISSION. State the purpose of the activity in plain language. Administrative convoy operations; conducting single envelopment attack; driving to get groceries; playing hockey.

C. DESTINATION. Provide geographic location of the activity terminating point.

D. MISHAP EVOLUTION. GENERAL ACTIVITY. State the type of exercise, operation, or activity at the time of the mishap. **SPECIFIC ACTIVITY.** Describe the activity in which the vehicle/personnel/equipment was involved in plain language.

4. MISHAP CLASSIFICATION. Describe the reason on which the classification is based (damage cost, injury, fatality).

5. DAMAGE AND COSTS. Itemize the equipment and property damage as follows:

A. DOD PROPERTY DAMAGE. For major end item, if equipment was destroyed, so state. If not describe damage and list repair costs including labor and parts costs. Multiple like serialized items (such as M16s, compasses, etc.) may be captured as one total cost. Non serialized items such as 782 equipment will be captured as one cost.

B. NON-DOD PROPERTY DAMAGE. Describe all non-DOD property damage and itemize costs.

6. PERSONNEL INFORMATION, INJURIES, AND MEDICAL COSTS. Provide all information below whether or not injuries are involved.

A. PERSONNEL ON BOARD. Total number of passengers, crew, and operators.

B. CREW/OPERATOR/DRIVER. State numbers of driver(s), assistant driver(s), or crew member(s) on board each mishap vehicle.

(1) NAME

(2) DUTY/ACTIVITY AT THE TIME OF THE MISHAP

(3) RANK/RATE,

(4) MOS/SERVICE

(5) PARENT ORGANIZATION

(6) TIME IN BILLET

(7) QUALIFICATIONS/PREVIOUS EXPERIENCE (BOTH ON/OFF DUTY DEPENDING ON ACTIVITY; YRS DIVING/DRIVING/DIRT BIKING)

(8) INJURY (Describe most significant injuries)

Figure 6-2.--SAFEREP Part A Format--Continued.

(A) LOST DAYS: HOSPITALIZED: SIQ: CONLV:

C. TOTAL NUMBER OF PASSENGERS. (Do not include crew)

(1) INJURED PASSENGERS. Provide the total number of injured passengers and list for each injured passenger the following:)

(A) LOCATION AND DUTY AT THE TIME OF THE MISHAP
(B) RANK/RATE
(C) MOS/SERVICE
(D) PARENT ORGANIZATION
(E) INJURY (Describe most significant injuries)
(F) LOST DAYS: HOSPITALIZED: SIQ: CONLV:

(2) UNINJURED PASSENGERS. Enter the total number of uninjured passengers for each vehicle.

D. INJURED NON-OCCUPANTS. Provide the total number of injured non-occupants and list for each injured non-occupant the following:

(A) LOCATION AND DUTY AT THE TIME OF THE MISHAP
(B) RANK/RATE
(C) MOS/SERVICE
(D) PARENT ORGANIZATION
(E) INJURY (Describe most significant injuries)
(F) LOST DAYS: HOSPITALIZED: SIQ: CONLV:

E. MEDICAL OFFICER ANALYSIS. Include 72-hour profile if critical role in mishap.

7. MISHAP INVESTIGATION.

(Include the following if applicable:
- Requests for assistance. State the nature of assistance needed when and where it is needed, and the source of the assistance if known.
- Requests for relief from investigative and reporting and provide justification in detail.
- Request for extensions. Provide justification in detail).

8. JAG MANUAL INVESTIGATION. Always include the phrase: **THIS** (DOES/DOES NOT) **MEET THE REQUIREMENTS FOR A JAG MANUAL INVESTIGATION IAW WITH JAGINST 5800.7.** If appropriate, include the following phrase: **INVESTIGATION INITIATED** (DATE) **BY** (CONVENING AUTHORITY).

9. SAFETY INVESTIGATION BOARD. List the rank, name and command of all SIB members beginning with senior member. List the phone and fax numbers for the senior member or member designated as the point of contact to answer telephone inquiries in the POC message line.

Figure 6-2.--SAFEREP Part A Format--Continued.

10. EVIDENCE

A. ENCLOSURES HAVE BEEN MAILED PER REF A. Mail completed SAFEREP with the original enclosures to COMNVSAFECEN (CODE 49) and the only copy of enclosures to COMMARFORLANT/PAC/RES or CMC/SD (for those commands not within a COMMARFOR) for all Class A, B, and reportable C and D mishaps.

B. SUMMARY OF EVIDENCE.

(1) THE FOLLOWING ACRONYMS, ABBREVIATIONS AND DEFINITIONS ARE USED IN THIS SAFEREP:

(A) First acronym, abbreviation or definition.

(B) List remaining acronyms, abbreviations and definitions.

(2) EVIDENCE

(A) NON PRIVILEGED

(1A)

(2A)

(3A) ETC

(B) PRIVILEGED

(1B)

(2B)

(3B) ETC

List the enclosures to the SAFEREP in subparagraph "A" indicating those that are non-privileged beginning with "(1A)" and those that are privileged with "(1B)" as shown. Enclosure (1A) shall be copies of all messages pertaining to the mishap such as PCRs, SIRs and OPREP 3s. Enclosure (1B) shall be a copy of the SAFEREP message. Make data such as transcripts, records and files, etc., enclosures only if critical to understanding the mishap. List all enclosures in paragraph 10. Recommend a chronological sequence as it enhances clarity. Compile this listing of factual evidence without regard to the source. It must include all the evidence, which forms the basis for the analysis in paragraph 11 and ultimately, the recommended corrective action in paragraph 12.

(C) SUMMARY OF EVIDENCE.

(1) Denotes non privileged info from Enclosure 13A (13A)

(P)(2) Denotes privileged info from Enclosures 4B and 7B (4B,7B)

(P)(3) Denotes privileged info from Enclosures 7A and 5B (7A,5B)

List the detailed sequence of events leading up to and through the mishap. Many of the items will contain privileged information. Since privileged information obtained by the SIB from witness statements (oral or written), or speculations about the evidence made by the SIB, may not be released, you must

Figure 6-2.--SAFEREP Part A Format--Continued.

identify all such privileged evidence with the letter "P" in parenthesis at the beginning of each privileged fact listed. Do not use the symbol (P) when citing information taken from unprivileged witness statements. Discuss data of a personal nature only in general terms in this paragraph. Refer to enclosures and information in enclosures by identifying them as: (2A), (3B), etc. Keep this information detailed, but concise. A lengthy SAFEREP is neither desired nor warranted. Do not include conclusions or recommendations in this paragraph.

11. ANALYSIS. THE FOLLOWING DISCUSSION AND FINDINGS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES. THEY REPRESENT THE OPINIONS OF THE SIB MEMBERS AND ARE INTENDED TO PREVENT FUTURE MISHAPS.

A. (Insert Appropriate Term: PERSONNEL, SUPERVISORY, FACILITIES PERSONNEL, MAINTENANCE, or MATERIAL) **FACTOR -** (describe factor in terse sentence or phrase)**ACCEPTED** or **REJECTED**. Provide the SIB analysis of the causal factor.

Causal factors are specific acts of omission or commission. Thus, the hazard statement must contain a Who, What or Component and Mode combination.

ACCEPTED or REJECTED. Select appropriate term, based on SIB opinion of whether statement is true).

SIB analysis of the causal factor follows. The analysis must specifically state how the causal factor caused the mishap and must clearly detail all the Why(s) or Agent(s) which gave rise to a particular causal factor. These Why(s) or Agent(s) may also be developed into separate causal factors if need be.

If the causal factor is accepted, include the following phrase: **BASED ON THE ABOVE ANALYSIS, THE SIB CONCLUDES** (make concise restatements of the accepted causal factor stating who did what and why, or what part failed, how it failed and why. There can be multiple why(s) and agent(s). For each accepted causal factor, add causal factor elements (Who/What/Why or Component/Mode /Agent). See Appendix I.

Causal factors shall contain the SIB's analysis of only that evidence discussed in paragraph 10, Figure 6-2. Subsequent factors may be determined by the SIB from evidence. Include these in a separate subparagraph of 11.

To enhance readability, begin each element on a new line and indent it.

Figure 6-2.--SAFEREP Part A Format--Continued.

Those causal factors that are accepted in paragraph 11 must also appear in the paragraph 12 narrative, and in the appropriate causal factors of the mishap or causal factors causing damage or injury subparagraph.

Exercise care to keep emotions out of this and all other sections of the SAFEREP.

12. CONCLUSIONS. CONCLUSIONS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES AND REPRESENT THE MOST PROBABLE FACTORS AND CIRCUMSTANCES THAT CONTRIBUTED TO THIS MISHAP.

A. CAUSAL FACTORS OF THE MISHAP.

(1) (Select one or more of the following determination statements according to the degree to which the causal factors are determined:)**THE CAUSAL FACTOR(S) OF THIS MISHAP IS (ARE):**

THE MOST PROBABLE CAUSAL FACTOR(S) OF THIS MISHAP IS (ARE):

THE CAUSAL FACTOR(S) IF THIS MISHAP IS (ARE) UNDETERMINED WITH THE FOLLOWING POSSIBLE CAUSAL FACTOR(S):

THE CAUSAL FACTOR(S) OF THIS MISHAP IS (ARE) UNDETERMINED.

THE CAUSAL FACTOR OF THIS MISHAP IS DETERMINED TO BE: NO FAULT ASSIGNED.

THE FOLLOWING MATERIAL FACTOR(S) IS (ARE) ASSIGNED:

(Then list each accepted causal factor in the analysis.)

(A) (Insert appropriate term) **FACTOR -** (Repeat the description of this factor from paragraph 11 analysis.) **RAC XXX** (Insert the appropriate RAC code.)

(This hypothetical example shows the conclusions that should relate to the factors as described in paragraph 11 above.) **(B) PERSONNEL FACTOR** - OPERATOR FAILED TO PERFORM PM BECAUSE HE WAS IN A HURRY. RAC III.

(C) (Subsequent conclusions as determined by the SIB.)

B. CAUSAL FACTORS OF DAMAGE OR INJURY. (Include this section if there is "other damage or injury." Begin with appropriate determination statement substituting "OTHER DAMAGE OR INJURY"

FIGURE 6-2.--SAFEREP Part A Format--Continued.

for "THIS MISHAP." If no "other damage or injury" then state "**NONE.**"

(1) Include causal factors relating to "other damage or injury" in this paragraph in same format as mishap causal factor.

(2) (Others as required)

Separate the SIB's conclusions into two groups: causal factors "CAUSING THE MISHAP," and causal factors causing "OTHER DAMAGE or INJURY" as shown.

The plain language conclusions of the SIB are the causal factors and appear in the subparagraphs of each section. Preceding them is the determination statement, selected according to the degree of mishap determination from among the five choices listed. Following each causal factor is the RAC as determined by the SIB.

Begin the description of each causal factor with the identification of the classification of the type of factor, such as PERSONNEL, followed by a short sentence or phrase describing who did what and why in plain language - ending with the RAC. To repeat the analysis paragraph for the factor up to where the factor is accepted, followed by the RAC is both sufficient and appropriate. All factors that are accepted in the analysis section must appear in the conclusions section. Do not report hazards in the SAFEREP that are not accepted as factors. Send a separate HR in such cases.

13. RECOMMENDATIONS. The format for the Recommendations paragraph is similar to the Conclusions paragraph and separated into the same two groups identified in paragraph 12. Do not include recommendations, which do not eliminate hazards identified in paragraph 12 in the SAFEREP. However; all causal factors (hazards) identified in paragraph 12 must have recommendation for remedial action in paragraph 13. THE SIB should test their corrective actions as they develop each to be sure the Why of each Causal Factor is addressed. State the command, with appropriate office code, that will be required to take the recommendation for action. If, through the course of the investigation the recommendation was apparent and the assigned unit has completed the action, so state; or if the recommended action was apparent and is underway but not complete, state an estimated completion date and POC. Recommendations must be direct. Each causal factor must be addressed by recommendation(s). Elimination of causal factors through the completion of the recommended corrective action will prevent recurrence of the same type or similar mishap(s).

FIGURE 6-2.--SAFEREP Part A Format--Continued.

Date
5102

From: **Senior Member, Safety Investigation Board**
To: **Commander, Marine Forces** (Atlantic, Pacific, Reserves (appropriate code)) or **Commandant of the Marine Corps (SD)**

Subj: **SAFETY INVESTIGATION REPORT (SAFEREP) PART B FOR** (MISHAP TYPE - APPENDIX B) **WHICH OCCURRED AT** (LOCATION) **ON** (DATE)

Ref: **(a) MCO P5102.1A**

Encl: (1A) "A" denotes non privileged information
(2A) Additional documents as required
(3A) Etc.

(1B) "B" denotes privileged information
(2B) Additional documents as required
(3B) Etc.

FOR OFFICAL USE ONLY. THIS IS A SAFETY INVESTIGATION REPORT (SAFEREP) TO BE USED FOR SAFETY PURPOSES ONLY AS DEFINED IN MCO P5102.1A (This statement is always included and in bold print.)

1. **MISHAP INVESTIGATION BOARD MEMBERS:**

A. Senior member of the board is listed first.
Name/Rank/Senior Member/Unit/Phone number/Email address

B. Other members as required.

2. **COMMENTS:** (Provide other information of importance discovered during the investigation that may have importance to the command or Corps. For example: During the course of the investigation, deteriorated electrical wiring was observed on many older M923 vehicles. HR released, DTG.

_____ _____
Signature of Senior Member of the Board Date

Figure 6-3--SAFEREP Part B Format.

FM XXX DIV/SIB//
TO COMMARFORXXX/SAFETY//
INFO CMC/SD//
COMNAVSAFECEN NORFOLK VA//00/10/40/47//
MEF//SAFETY//
FSSG/SAFETY//
BN//
UNCLAS FOUO //N05102//
SUBJ: THIS IS A **LIMITED DISTRIBUTION** ON DUTY GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) PART A, CLASS A, MISHAP CONTROL NUMBER X002-00 WHICH OCCURRED ON 24 DEC 99.
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/DOC/DIVO 1234.5A
REF/C/ As required
NARR/REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS DIV MOTOR TRANSPORT SOP. REF C IS ...(AS REQUIRED)
POC/R. N. RUDOLPH/LTCOL/CO ESB/SR MEMBER SIB/CAMP LEJEUNE NC/ DSN 614-2214/COM (703) 784-2214/FAX (703) 785 2215//
RMKS/1. THIS REPORT CONCERNS A SEVERE (RAC 1) HAZARD TO GROUND FORCES. ENDORSEMENT CHAIN REQUESTED PER REF A. SUMMARY. GMO LVS MK-48/18 MISHAP ON INTERSTATE HIGHWAY RESULTED IN FATALITY, SERIOUS INJURIES AND HAZMAT SPILL.
2. MISHAP DATA.
A. MISHAP UNIT MCC 121 **RUC** 00530
B. PARENT COMMAND. XXX FSSG
C. EQUIPMENT.
(1) DOD EQUIPMENT. LVS WITH TREE SIX CONS
(A) MODEL OR SERIES: LVS MK-48/14
(B) NSN MK 48 2320-01-177-5167
MK 14 2320-01-176-6928
SISCON 5430-01-240-4578
(C) SERIAL NUMBER MK48 534432/ MK18 523412/ SISCON - 8787,
(D) OWNING UNIT MCC 121 **RUC** 00530
(E) USING UNIT/ SAME AS ABOVE
(2) PERSONAL EQUIPMENT. NONE
(3) PERSONAL PROTECTIVE EQUIPMENT. VEHICLE WAS EQUIPPED WITH SAFETY BELTS. PER REF B, OPERATORS AND PASSENGERS ARE REQUIRED TO WEAR HELMETS AND HEARING PROTECTION WHILE OPERATING

Figure 6-4.--GVO SAFEREP Example.

LVS. SEAT BELTS WERE USED, HELMETS AND HEARING PROTECTION WERE NOT.

D. ENVIRONMENT

(1) DATE: 24 DEC 99

(2) LOCAL TIME: 1345

(3) LOCAL TIME ZONE: M

(4) DAY OR NIGHT: DAY

(5) LOCATION: OFF BASE, 17 MILES NORTH OF SAN DIEGO, CA

(A) INTERSECTION: 200 FEET NORTH OF MILE MARKER 42, SOUTHBOUND, ON INTERSTATE 255

(B) CITY, COUNTY, STATE. CARLSBAD, SAN DIEGO COUNTY, CA

(C) FACILITY. N/A

(D) ELEVATION. 62 FEET

(6) WEATHER

(A) WIND. WEST AT 17 KTS

(B) VISIBILITY. UNRESTRICTED

(C) AIR TEMP. 72 DEGREES

(D) WATER TEMP. N/A

(E) PRECIPITATION. NONE

(F) CUMULATIVE PRECIPITATION PREVIOUS 24 HOURS. NONE

(G) ROAD CONDITIONS. CONCRETE, DRY, UNOBSTRUCTED, AND VOID OF HOLES.

E. SAFETY PROGRAM.

(1) RANK/ DATE UNIT SAFETY REP ATTENDED GSC. GYSGT/990117

(2) DATE OF LAST COMMAND SAFETY SURVEY. NO RECORD

2. CIRCUMSTANCES

A. ORIGIN. CSSG-3 MOTOR POOL, BLDG 15125, 20 PALMS, CA.

B. MISSION. ADMINISTRATIVE PICK UP IN SAN DIEGO, CA OF GOODS FROM RETURNING MEU.

C. DESTINATION. PIER 17, 32D ST. NAVAL STATION SAN DIEGO, CA.

D. MISHAP EVOLUTION. GENERAL ACTIVITY. VEHICLE WAS ON AN ADMINISTRATION RUN. **SPECIFIC ACTIVITY.** VEHICLE WAS HEADING SOUTH ON INTERSTATE 225 IN THE VICINITY OF CARLSBAD, CA WHEN IT LEFT THE HIGHWAY, CRASHED THROUGH THE RETAINING WALL AND ROLLED THREE TIMES.

3. MISHAP CLASSIFICATION. CLASS A - FATALITY

4. DAMAGE AND COSTS.

A. PROPERTY DAMAGE.

B. DOD PROPERTY DAMAGE.

LVS 48/	DESTROYED	REPLACEMENT COSTS	$188,167
LVS 18/	DESTROYED	REPLACEMENT COSTS	$ 48,255

Figure 6-4.--GVO SAFEREP Example--Continued.

TWO SIX CONS DAMAGED	REPAIR PARTS	$ 3,342
	LABOR COSTS	$ 1,920
	TOTAL DOD COSTS	$220,684

C. NON DOD PROPERTY DAMAGES. 68 FEET OF REINFORCED RETAINING WALL. ESTIMATED REPAIR COST $54,240 AS PROVIDED BY CALIFORNIA DEPT OF TRANSPORTATION.

5. PERSONNEL INFORMATION, INJURIES, AND MEDICAL COSTS.

A. PERSONNEL ON BOARD. TWO (2)

B. CREW/OPERATOR/DRIVER.

(1) DRIVER

(A) DUTY AT TIME OF MISHAP: DRIVER

(B) RANK/MOS. LCPL/E3

(C) MOS/SERVICE. 3531/USMC

(D) PARENT ORGANIZATION. MOTOR TRANSPORT CO, CSSG-16, 1ST FSSG

(E) TIME IN BILLET. 28 MONTHS

(F) QUALIFICATIONS. GRADUATED USMC MOTOR TRANSPORT SCHOOL 9707 UNIT OPERATOR OF THE MONTH THREE TIMES IN LAST 15 MONTHS.

(G) INJURY. FATALITY

(H) LOST DAYS. NONE. DRIVER DEAD AT SCENE.

(2) A-DRIVER

(A) DUTY AT TIME OF MISHAP: A-DRIVER

(B) RANK/MOS. PFC/E-3

(C) MOS/SERVICE. 3531/USMCR

(D) PARENT ORGANIZATION. MOTOR TRANSPORT CO, CSSG-1, 1ST FSSG

(E) TIME IN BILLET. 4 MONTHS

(F) QUALIFICATIONS. GRADUATED USMC MOTOR TRANSPORT SCHOOL 9901 LIMITED EXPERIENCE DRIVING MK 48, LESS THAN 15 HOURS

(G) INJURY. CRUSHED R LEG, LACERATED SPLEEN AND KIDNEY, MULTIPLE LACERATIONS, BROKEN JAW.

(H) LOST DAYS. 67 **HOSPITALIZED:** 22 **SIQ:** NONE **CONVL:** 45

C. TOTAL NUMBER OF PASSENGERS. N/A

D. INJURED NON OCCUPANTS. N/A

E. MEDICAL OFFICER ANALYSIS. IN PRECEDING 72 HOURS OF MISHAP DRIVER APPEARS TO HAVE BEEN IN NORMAL ROUTINE UNTIL NOTIFICATION THAT HIS LEAVE WS BEING DELAYED TO COMPLETE THIS ADMINISTRATIVE RUN. DRIVER WAS INFORMED 36 HOURS BEFORE MISHAP THAT LEAVE WOULD BE DELAYED ONE DAY. SNM WAS DISTRAUGHT, AND HAD EXPRESSED DISMAY TO PEERS AND SNCOIC, BECAUSE HE HAD TO RESCHEDULE FLIGHTS THAT PREVENTED HIS GETTING HOME PRIOR TO HIS SISTER'S WEDDING ON CHRISTMAS EVE.

7. MISHAP INVESTIGATION. SIB REQUESTED EXTENSION ON 000120 THAT WAS GRANTED ON 000123.

Figure 6-4.--GVO SAFEREP Example--Continued.

8. JAG MANUAL INVESTIGATION. THIS DOES MEET THE REQUIREMENTS FOR A JAGMAN INVESTIGATION, WHICH WAS INITIATED ON 000124 BY CO, CSSG XX.

9. SAFETY INVESTIGATION BOARD.

SENIOR MEMBER: LTCOL I. M. GRUNT, DIV G4, INF X/X PH DSN XXX-XXXX, COM (XXX) XXX-XXXX/FAX (XXX) XXX-XXXX

SUBJECT EXPERT: CAPT M. L. DRIVER, DIV MTO XXX-XXX-XXXX

SUBJECT EXPERT: GYSGT R. O. TUFFONE, MAINTENANCE CHIEF, BLT X/X, XXX-XXX-XXXX

MEDICAL EXPERT: CDR K. L. STITCH, SURGEON, XXX FSSG XXX-XXX-XXXX

NAVSAFECEN MISHAP INVESTIGATOR, CAPT M. B. TRUCKER, XXX-XXX-XXXX

SME: SSGT S. L. OILY, DIV HAZMAT GURU, XXX XXX-XXX

10. EVIDENCE

A. ENCLOSURES HAVE BEEN MAILED PER REF A. COMPLETED SAFEREP AND ORIGINAL ENCLOSURES MAILED TO COMNAVSAFECEN (CODE 49) ON 000221. COMPLETED COPY OF SAFEREP WITH SOLE COPIES OF ENCLOSURES MAILED TO COMMARFORXXX ON 000221.

B. SUMMARY OF EVIDENCE

(1) ACRONYMS AND ABBREVIATIONS

(A) MK 48/14 - LOGISTICS VEHICLE SYSTEM W/ FLATBED TRAILER

(B) SIX CON - CONTAINER, BRACED, WHICH CAN BE LOADED ON MK 48/14 AND FILLED WITH 900 GAL OF WATER OR FUEL

(C) NAVMC 10031 - DISPATCH LOG

(D) DD FORM 1970 - TRIP TICKET

(2) ENCLOSURES

(A) NON PRIVILEGED

(1A) DISPATCH LOG

(2A) CALIFORNIA HIGHWAY PATROL (CHP) ACCIDENT REPORT

(3A) STATEMENT OF TROOPER C.T. JONES. BADGE 317

(4A) TRIP TICKET

(B) PRIVILEGED

(1B) PHOTOGRAPHS WITH SAFETY NOTES

(2B) STATEMENT OF LCPL I.B. WRONG, DISPATCHER

(3B) STATEMENT OF PFC M.A. NEWHOSER, BULKFUELER

(4B) STATEMENT OF LCPL T.R. HENDERSHOT, A DRIVER

C. SUMMARY OF FACTUAL FINDINGS

(1) FOLLOWING 10 HOURS OF SLEEP, DRIVER AND A DRIVER REPORT TO MOTER POOL AT 0900. (5A, 6A)

Figure 6-4.--GVO SAFEREP Example--Continued.

(2) A MK48/14 WITH TWO 6 CONS WAS DISPATCHED TO THE DRIVER AND A DRIVER TO MAKE A RESUPPLY TO THE MEU EAF. (1A,4A)
(P)(3) THE SCHEDULED DISPATCHER WAS NOT IN THE MOTOR POOL BUT ANOTHER MARINE DISPATCHED THE VEHICLE WITHOUT AUTHORIZATION TO DO SO WITH THE ENCOURAGEMENT OF THE DRIVER WHO WAS ANXIOUS TO GET ON THE ROAD. (1A, 2B, 4B)
(4) DRIVER DID NOT POSSESSS AN EXPLOSIVE/HAZMAT/ BULK LIQUID DRIVER CERTIFICATION AND A DRIVER PROCEEDED TO FUEL FARM AND REQUESTED THE SIX CONS WITH FUEL. (7A)
(P)(5) THE FUEL FARM BULK FUEL TECH WAS NOT ON HAND; HOWEVER, A NEWLY REPORTED SCHOOL TRAINED TECH WAS THERE AND ATTEMPTED TO FILL THE 6-CONS. (3B)
(P)(6) THE MSSG WAS USING A NEW FUEL DISPENSING SYSTEM ON WHICH THE NEWLY REPORTED MARINE HAD NOT BEEN TRAINED, BUT HAD SEEN USED AND FELT HE COULD FIGURE OUT. (3B)
(7) THE 6 CONS SHOULD HAVE HELD 900 GALLONS OF FUEL EACH, BUT PAPERWORK REVEALED ONLY 1100 TOTAL GALLONS HAD BEEN PUMPED INTO THE 6 CONS FOR THIS PARTICULAR RUN. (4A)
(8) THE SYSTEM WAS ON OPTEST LOAD FROM MCTOEA TO THE MSSG AS PART OF NEW RAPID RESPONSE FUEL SYSTEM FOR FARPS. (8A)
(9) THE DRIVER AND A DRIVER DEPARTED THE BASE AT 1045 FOR THE 145 MILE TRIP TO THE EAF. (4A)
(P)(10) ON SEVERAL OCCASIONS, THE DRIVER COMMENTED TO THE LVS TRACTOR FELT LIKE IT WAS BEING PUSHED AROUND, ESPECIALLY WHEN NEGOTIATING CURVES, TURNS AND DURING STOPPING. (4B)
(P)(11) THROUGHOUT THE TRIP, THE DRIVER COMMENTED ON HIS DISPLEASURE OF MISSING HIS SISTER'S WEDDING AND HOW HE WAS TASKED TO DO THIS MISSION AT THE LAST MINUTE. (4B)
(P)(12) AT APPROXIMATELY 1330 WHILE SOUTHBOUND ON THE INTERSTATE, THE DRIVER NOTICED THE LVS STARTED TO JERK. (4B)
(P)(13) THE DRIVER APPLIED THE BRAKES, BUT THE LVS DEPARTED THE ROAD SURFACE AND DRIFTED ONTO THE SHOULDER, ROLLED AND IMPACTED THE RETAINING WALL. (4B)
(14) THE A DRIVER WAS LIFE FLIGHTED TO COUNTY GENERAL HOSPITAL, WHILE THE DRIVER WAS PRONOUNCED DEAD AT THE SCENE. (2A, 3A)
(15) THE ONLY WITNESS TO THE MISHAP WAS A STATE TROOPER IN THE NORTHBOUND LANES. (2A,3A)
(16) PARAMEDICS WERE ON THE SCENE WITHIN MINUTES. (2A,3A)
(17 THE VEHICLE WAS MECHANICALLY READY; HOWEVER, THE DRIVER NOTED THE DRIVER'S DOOR WOULD NOT COMPLETELY SHUT. (4A)
(18) DAMAGE TO THE OVERTURNED LVS MK 48 RENDERED IT NON REPARABLE. DAMAGE TO THE LVS MK 14 AND SIXS IS REPARABLE. (8A)

Figure 6-4.--GVO SAFEREP Example--Continued.

11. ANALYSIS. THE FOLLOWING DICUSSION AND FINDINGS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES. THEY REPRESENT THE OPINIONS OF THE SIB MEMBERS AND ARE INTENDED TO PREVENT FUTURE SIMILAR MISHAPS.

(A) PERSONNEL FACTOR. LVS MK-48/18 WITH THREE 6 CONS WAS NOT PROPERLY DISPATCHED. ACCEPTED. VEHICLE WAS DISPATCHED BY A MARINE NOT AUTHORIZED TO DO SO. CSSG TACTICAL MOTOR VEHICLE SOP STIPULATES THAT ONLY THE SCHEDULED DISPATCHER OR THE MOTOR TRANSPORT OFFICER OR CHIEF IS AUTHORIZED TO DISPATCH TACTICAL VEHICLES. THE MARINE WHO DISPATCHED THE LVS DID NOT ENSURE THE DRIVER WAS LICENSED TO DRIVE THE MK-48/14 WITH SIX CONS.

(B) THE DRIVER OF THE MK 48-18 WAS NOT AUTHORIZED TO TRANSPORT BULK FUELS. ACCEPTED. DRIVERS TASKED TO TRANSPORT BULK FUEL MUST ALSO HAVE AN EXPLOSIVE/BULK FUEL/LICENSE AS WELL AS THE OPERATORS LICENSE. MISHAP DRIVER DID NOT HAVE THE EXPLOSIVE LICENSE CERTIFICATION REQUIRED TO TRANSPORT BULK FUELS.

(C) MTO AND MTC WERE NOT AVAILABLE AT THE TIME THE VEHICLE WAS DISPATCHED AND WHEN IT WAS AT THE FUEL FARM. REJECTED. NO REQUIREMENT FOR THE MTC OR MTO TO BE PRESENT WHILE THESE EVOLUTIONS ARE ONGOING. A QUALIFIED DISPATCHER WAS ASSIGNED AND A FUEL TECH WAS ALSO ON DUTY AT TIME OF VEHICLE AND FUEL ISSUE PER THE MSSG SOP, BUT NEITHER WAS IN THE IMMEDIATE AREA AT THE TIME THE EXPERTISE WAS REQUIRED.

(D) THE BULK FUEL TECH WHO FUELED THE 6 CONS WAS NOT EXPERIENCED IN USING THE NEW BULK FUELS DISPENSING SYSTEM, WHICH THE CSSG WAS USING AS PART OF AN OPERATIONAL TEST. ACCEPTED. THE MARINE HAD COMPLETED HIS BULK FUEL TECH TRAINING AT SCHOOL, BUT THE MARINE HAD ONLY OBSERVED OTHER TRAINED TECHS USING THE NEW SYSTEM ON SEVERAL OCCASIONS. HE RECEIVED NO UNIT TRAINING OR OJT ON THE NEW SYSTEM. THE MARINE AND BEEN WITH THE CSSG FOR ONLY ONE WEEK PRIOR TO THE MISHAP.

(E) THE 6-CONS WERE IMPROPERLY FILLED WITH FUEL. ACCEPTED. EPA REPORTS INDICATE THAT APPROXIMATELY 900 GALLONS OF FUEL HAD SPILLED ON THE ROADWAY AND THE FUEL FARM LOGS REVEAL THAT 1100 GALLONS WERE DISPENSED INTO THE 6-CONS. THE CSSG SOP STATES THE 6 CONS WILL ALWAYS BE FILLED (TOPPED OFF) TO PREVENT LIQUIDS FROM MOVING AROUND WHILE IN TRANSPORT AND SHOULD HAVE BEEN FILLED WITH 900 GALLONS EACH.

(F) THE UNFILLED CONTAINERS ALLOWED THE FUEL TO MOVE ENOUGH TO CHANGE THE CENTER OF GRAVITY OF THE LVS RESULTING IN ITS JERKING MOTION AND SUBSEQUENT DEPARTURE FROM THE ROAD SURFACE. ACCEPTED. BASED ON THE EXPERTISE OF THE BOARD, 1100 GALLONS OF MOVING LIQUID IN THE 6 CONS WOULD HAVE CAUSED INSTABILITY IN OPERATING THE LVS.

Figure 6-4.--GVO SAFEREP Example--Continued.

(G) THE 6-CONS DID NOT CONTAIN INTERIOR BAFFLES FOR HIGHWAY TRAVEL. REJECTED. THE MSSG SOP RECOGNIZES THIS AND CORRECTED THE HAZARD BY REQUIRING THAT 6-CONS WITHOUT BAFFLES BE FILLED FOR TRANSPORT AND EMPTIED AT POINT OF DELIVERY.
(H) THE DRIVER AND A DRIVER WERE FATIGUED. REJECTED. BOTH THE DRIVER AND A DRIVER HAD 10 HOURS OF SLEEP AND MORNING CHOW PRIOR TO REPORTING TO PICK UP THE VEHICLE.
(I) DRIVER'S DOOR MALFUNCTIONED. ACCEPTED. THE DRIVER WAS HOLDING HIS DOOR TIGHT BY APPLYING PRESSURE TO IT WITH HIS ARM TO KEEP IT FROM RATTLING WHILE DRIVING BECAUSE IT WOULD NOT TIGHTLY CLOSE. THE DRIVER WAS EJECTED AND THE LVS ROLLED OVER HIM. THE A DRIVER, WHOSE DOOR WAS SERVICABLE AND WHO WAS WEARING A SEAT BELT, REMAINED INSIDE THE VEHICLE AND SURVIVED.
(J) THE DRIVER WAS DISTRAUGHT OVER HAVING HIS LEAVE PLANS ALTERED. ACCEPTED. STATEMENTS OF SEVERAL PERSONNEL REVEAL THE DRIVER WAS IRATE OVER HAVING HIS LEAVE ALTERED WHICH FORCED HIM TO MISS HIS SISTER'S WEDDING.

12. CONCLUSIONS.

A. CAUSAL FACTOR OF THE MISHAP.

(1) SUPERVISORY / PROCEDURAL FACTOR: THE LVS MK-48/18 WITH TWO 6-CONS WAS NOT PROPERLY DISPATCHED. RAC 3.

(2) PERSONNEL FACTOR: THE DRIVER OF THE MK-48/18 WAS NOT AUTHORIZED TO TRANSPORT BULK FUELS. RAC 3.

(3) TRAINING FACTOR: BULK FUEL TECH WAS NOT EXPERIENCED IN USING THE NEW BULK FUEL DISPENSING SYSTEM THE CSSG HAD IN OPERATION. RAC 3.

(4) PROCEDURAL / PERSONNEL: FACTOR: THE 6-CONS WERE IMPROPERLY FILLED WITH FUEL. RAC 2.

(5) PROCEDURAL FACTOR: THE UNFILLED CONTAINERS ALLOWED THE FUEL TO MOVE ENOUGH TO CHANGE THE COG OF THE LVS, RESULTING IN THE JERKING MOTION OF THE LVS AND ITS SUBSEQUENT DEPARTURE FROM THE ROAD SURFACE. RAC 2.

B. CAUSAL FACTOR OF THE INJURY / DAMAGE.

(1) DAMAGE TO EQUIPMENT. THE LVS DEPARTURE FROM THE ROAD SURFACE AND SUBSEQUENT COLLISION WITH RETAINING WALL AND ROLLOVER. RAC 2.

(2) INJURY TO MARINES: DRIVER'S DOOR UNSERVICEABLE. RAC 4.

(3) INJURY TO MARINE: LVS ROLLED OVER ONTO MARINE'S CHEST. RAC 1.

13. RECOMMENDATIONS.

A. CAUSAL FACTOR OF THE MISHAP:

(1) FOR CSSG: CONDUCT REFRESHER TRAINING FOR ALL PERSONNEL DEALING WITH CSSG MOTOR POOL DISPATCHING PROCEDURES, TACTICAL AND NON TACTICAL VEHICLES. ACTION COMPLETE.

Figure 6-4.--GVO SAFEREP Example--Continued.

(2) FOR CSSG: TRAIN ALL BULK FUEL TECHNICIANS AND TACTICAL MOTOR VEHICLE OPERATORS ON THE PROCEDURES FOR FILLING 6-CONS FROM THE NEW FUEL DISPENSING SYSTEM. ACTION COMPLETE. ALL CURRENT TECHNICIANS AND OPERATORS RECEIVED TRAINING 30 JAN 00 AND REPLACEMENTS WILL RECEIVE TRAINING WITHIN 45 DAYS OF ENTRY TO COMMAND.

(3) FOR CSSG: TRAIN AND LICENSE ALL LVS OPERATORS FOR TRANSPORTING BULK LIQUIDS. ACTION COMPLETE. ALL OPERATORS RECEIVED TRAINING AND LICENSES 31 JAN 00 AND REPLACEMENTS WILL BE TRAINED AND LICENSED WITHIN 30 DAYS OF ENTRY TO COMMAND.

(4) FOR FSSG: PROCURE AND INSTALL BAFFLES IN ALL 6-CONS DESIGNED/INTENDED FOR USE IN THE TRANSPORT BULK LIQUIDS. ACTION ONGOING. FINAL SHIPMENT OF BAFFLES TO BE RECEIVED NLT 15SEPT00. INSTALLATION EXPECTED TO BE COMPLETED NLT 15 DEC OO.

(5) FOR MARCORSYSCOM: ASSIST FSSG IN PROCURING BAFFLES FOR 6-CON BULK LIQUID CONTAINERS. ACTION COMPLETE.

B. CAUSAL FACTOR OF THE INJURY / DAMAGES.

(1) FOR CSSG: ENSURE SEAT BELT COMPLIANCE FOR ALL VEHICLE OPERATORS. ACTION COMPLETE.

(2) FOR CSSG: IMMEDIATELY INSPECT ALL TACTICAL MOTOR VEHICLE ASSETS FOR UNSERVICEABLE/FAULTY DOORS AND DOOR LOCKS. ACTION COMPLETE.

Figure 6-4.--GVO SAFEREP Example--Continued.

FM (AS REQUIRED)
TO (AS REQUIRED)
INFO (AS REQUIRED)
UNCLAS FOUO //N05102//
SUBJ: THIS IS A **LIMITED DISTRIBUTION** GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) (PART A) CLASS A, ON DUTY MISHAP, CONTROL NUMBER (P)00X-XX DATE 12 AUG 99
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/ (as appropriate)
NARR/REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS (ETC.)
RMKS/1. ENDORSEMENT REQUESTED PER REF A. SUMMARY. MARINE FELL FROM A SINGLE ROPE SUSPENSION BRIDGE INTO A RAIN SWOLLEN CREEK, WAS SWEPT DOWNSTREAM AND DROWNED.
2. MISHAP DATA.
A. MISHAP UNIT MCC XXX /**RUC** XXXXX.
B. PARENT COMMAND. XX DIV
C. EQUIPMENT.
(1) DOD EQUIPMENT.
(A) M16A2
(B) NSN 333-23-2323
(C) SERIAL NUMBER 1234567
(D) MCC XXX **RUC** XXXXX
(E) MCC XXX **RUC** XXXXX **OF USING UNIT**: N/A
(2) PERSONAL EQUIPMENT. N/A.
(3) PERSONAL PROTECTIVE EQUIPMENT. NONE USED.
D. ENVIRONMENT.
(1) DATE: 12 AUG 99
(2) LOCAL TIME: 1133
(3) LOCAL TIME ZONE: M
(4) DAY OR NIGHT: DAY
(5) LOCATION: OFF BASE: TA-PAPA TRAINING CENTER
(A) LAT-LONG: LAT: 091445 S LONG: 1340632 EW
(B) CITY, COUNTRY: TAK, THAILAND
(C) FACILITY. TA-PAPA-III
(D) MISHAP SITE ELEVATION. 457 FT.
(6) WEATHER
(A) WIND: NEGLIGIBLE
(B) VISIBILITY: 50 METERS DUE TO VEGETATION
(C) AIR TEMP: 97 DEGREES

Figure 6-5.--Operations/Training SAFEREP Example.

(D) **WATER TEMP:** 75
(E) **PRECIPITATION:** NONE
(F) **CUMULATIVE PRECIPITATION:** 7 INCHES IN PREVIOUS 4 HOURS
(G) **ROAD/FIELD/PLAYING SURFACE CONDITIONS:** WET, MUDDY
(H) **SEA STATE:** N/A

E. SAFETY PROGRAM

(1) **DATE UNIT SAFETY OFFICER ATTENDED GROUND SAFETY COURSE:** SCHEDULED FOR DEC 99

(2) **DATE OF LAST COMMAND SAFETY SURVEY:** 971107

3. CIRCUMSTANCES

A. ORIGIN. UNIT LEFT BASE CAMP AT 0730 GRID 123123 FOR OBSTACLE COURSE AND ARRIVED AT LOCATION GRID 173173 AT 0845.

B. MISSION. ROUGH SKILLS TRAINING

C. DESTINATION. SEE A ABOVE.

D. MISHAP EVOLUTION. GENERAL ACTIVITY. UNIT WAS PARTICIPATING IN OPERATION GOLD EAGLE, A COMPANY EXCHANGE PROGRAM WITH THE AUSTRALIAN ARMY. **SPECIFIC ACTIVITY.** MARINE WAS CROSSING A SINGLE ROPE SUSPENSION BRIDGE.

4. MISHAP CLASSIFICATION. CLASS A; FATALITY.

5. DAMAGE AND COSTS.

A. DOD PROPERTY DAMAGE. N/A

B. NON-DOD PROPERTY DAMAGE. N/A

6. PERSONNEL INFORMATION, INJURIES, AND MEDICAL COSTS.

A. PERSONNEL ON BOARD. N/A.

B. CREW/OPERATOR/DRIVER. N/A.

C. TOTAL NUMBER OF PERSONNEL/PASSENGERS. N/A.

(1) **INJURED PERSONNEL/PASSENGERS.** ONE.
(A) **DUTY AT TIME OF MISHAP:** RIFLEMAN
(B) **RANK/MOS.** LCPL/E3
(C) **MOS/SERVICE.** 0311/USMC
(D) **PARENT ORGANIZATION.** A CO, 1/3, 4TH MAR, 3D MARDIV
(E) **TIME IN BILLET.** 28 MONTHS
(F) **QUALIFICATIONS.** GRADUATED CORPORALS COURSE 9906
(G) **INJURY.** FATAL DROWNING.
(H) **LOST DAYS.** NONE. BODY RECOVERED AT SCENE.

(2) **INJURED PASSENGERS/PERSONNEL.** N/A

D. INJURED NON OCCUPANTS. N/A

E. MEDICAL OFFICER ANALYSIS. INDIVIDUAL WAS WELL RESTED AND PREPARED FOR TRAINING. FELLOW MEMBERS REPORTED HEALTHY APPETITE DURING PREVIOUS 72 HRS AND CONSTANT HYDRATION DUE TO HEAT AND HUMIDITY. SNM WAS IN EXCELLENT PHYSICAL AND MENTAL CONDITION, "RARELY DRANK MORE THAN ONE BEER" AND "WAS MOTIVATED IN ALL HE DID." NO EVIDENCE OF OFF DUTY FACTORS INFLUENCING NEGATIVE BEHAVIOR/DECISION MAKING.

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

7. MISHAP INVESTIGATION. N/A
8. JAG MANUAL INVESTIGATION. THIS DOES MEET THE REQUIREMENT FOR A JAG MANUAL INVESTIGATION IAW WITH JAGINST 5800.7 INVESTIGATION INITIATED ON 990912, MAJOR R. M. SMITH, BN XO, ASSIGNED INVESTIGATING OFFICER BY LTCOL P.L. MASON, BN CO.
9. SAFETY INVESTIGATION BOARD. SENIOR MEMBER: LTCOL L.T. HOLS, DEP AC/S G3 (XXX) XXX-XXXX DSN XXX-XXXX FAX DSN 456-XXXX
MAJ M. LUCAS, X MEF, SOTG, (XXX) XXX-XXXX DSN XXX-XXXX
CDR. J. IRVING, DIV SURG, (XXX) XXX-XXXX DSN XXX-XXXX
CAPT. W. WALTON, NAVSAFECEN MISHAP INVESTIGATOR, (XXX) XXX-XXXX DSN XXX-XXXX
10. EVIDENCE
A. COMPLETE SAFEREP AND ORIGINAL ENCLOSURES HAVE BEEN MAILED PER REF A ON 990901 TO COMNAVSAFECEN CODE 49 AND A COPY OF SAFE REP AND THE ONLY COPY OF ENCLOSURES HAVE BEEN MAILED TO COMMARFORPAC SAFETY ON 990901.
B. SUMMARY OF EVIDENCE.
(1) THE FOLLOWING ACRONYMS, ABBREVIATIONS AND DEFINITIONS ARE USED IN THIS SAFEREP:
(A) JEST - JUNGLE ENVIRONMENTAL SURVIVAL TRAINING
(B) O COURSE - OBSTACLE COURSE
(C) FAP - FLEET ASSISTANCE PERSONNEL
(D) UDP - UNIT DEPLOYMENT PROGRAM
(E) WSQ - WATER SURVIVAL QUALIFIED
(2) ENCLOSURES
(A) NON PRIVILEGED
(1A) JEST SOP
(2A) STATEMENT OF CAPT R. REDHOT, COMPANY COMMANDER
(3A) STATEMENT OF SGT. J. STRYKER, SQUAD LEADER
(4A) STATEMENT OF CPL I. FOUNDHIM, RECON DIVER
(ETC)
(B) PRIVILEGED
(1B) STATEMENT OF SSGT I. M. INCHARGE, CHIEF INSTRUCTOR
(2B) STATEMENT OF CPL M. SPITZ, SCOUT SWIMMER
(3B) STATEMENT OF HM2 MN. WELBY, CORPSMAN
(4B) STATEMENT OF LCPL R. U. TUNEDOUT, RADIO WATCH
(ETC)
C. SUMMARY OF FACTUAL FINDINGS
(1) THE JEST O-COURSE IS A TIMED SQUAD EVENT CONSISTING OF 16 OBSTACLES.(1A)
(2) AT 0600 ON 11 OCT 99, 13 SQUADS FROM THE UNIT WERE STAGED AT THE VARIOUS OBSTACLES ALONG THE COURSE. THE CHIEF INSTRUCTOR AND SAFETY OFFICER (THE SAME PERSON) WALKED AND

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

INSPECTED THE COURSE 4 DAYS PRIOR. ON 10 OCT, HE BRIEFED THE UNIT ON THE CONDUCT OF THE TIMED O-COURSE. (1B)

(3) ON 11 OCT, SQUADS MOVED TO THEIR DESIGNATED START POINTS AT VARIOUS OBSTACLES. JEST STAFF MEMBERS PLACED AT VARIOUS OBSTACLES SERVED AS SAFETY NCOS. THE UNIT COMMENCED THE COURSE AT 0645. (2A)

(4) AT 0645 ALL SQUADS WERE STOPPED FOLLOWING AN INJURY AT ONE OF THE OBSTACLES WHEN A MARINE FELL AND INJURED HIS RIBS. JEST SOP REQUIRES ALL TRAINING TO CEASE WHEN AN INJURY OCCURS. AS THE ALL STOP WAS SOUNDED, ONE SQUAD ARRIVED AT THE SINGLE ROPE BRIDGE. DURING THE 45-MINUTE HALT, THE AREA RECEIVED HEAVY RAIN AND THE CREEK BEGAN TO RISE. THE AREA HAD RECEIVED ROUGHLY 7 INCHES OF RAIN IN THE PREVIOUS 4 HOURS AND THE CREEKS WERE ALREADY WELL ABOVE NORMAL LEVEL.(1A, 1B, 6A, 8B)

(5) AT 0730, WORD WAS PASSED VIA RADIO TO RESTART THE COURSE. WATER LEVELS WERE SUCH THAT THE COMPANY COMMANDER CLOSED ONE OF THE OBSTACLES, A CULVERT WHICH THE MARINES WERE TO CRAWL THROUGH, BECAUSE THERE WAS NO AIRSPACE WITHIN THE CONFINES OF THE CULVERT. THE CO CMDR NOTIFIED JEST RANGE CONTROL OF HIS DECISION.(2A, 1B)

(6) THE SQUAD AT THE SINGLE ROPE BRIDGE THEN COMMENCED CROSSING THE CREEK. DURING THE 40-MINUTE HALT, WATER LEVEL ROSE TWO TO THREE FEET. SQUAD MEMBERS REPORTED BEING APPREHENSIVE BUT NONE CONSIDERED STOPPING TRAINING. THEY WERE ALL AWARE THAT ANYONE COULD STOP TRAINING IF IT WAS FELT AN UNSAFE CONDITION EXISTED.(2B, 3A, 4B)

(7) THE SQUAD'S NUMBER ONE MAN CROSSED THE ROPE BRIDGE PULLING A RADIO ATTACHED THE ROPE BRIDGE WITH A SNAP LINK AND TO HIS FOOT WITH A PACK STRAP. AT THE HALFWAY POINT, THE MARINE COULD NO LONGER PULL THE RADIO WITH HIS FOOT. THE SQUAD LEADER TOLD THE MARINE TO LET IT GO AND THE SECOND MARINE, NOW ON THE ROPE BRIDGE WAS TOLD TO PUSH IT WITH HIS HELMET. THE LEAD MAN CONTINUED ACROSS AND SLIPPED. HE MAINTAINED HIS GRIP ON THE ROPE THOUGH HIS LOWER TORSO WAS BEING SWEPT DOWNSTREAM BY THE FORCE OF THE WATER.(3A)

(8) THE MARINE SAID THAT THE FORCE OF WATER, (THAT WAS NOW WITHIN INCHES OF THE ROPE), MADE IT DIFFICULT FOR THE MARINES TO MAINTAIN THEIR GRIP ON THE ROPE. (3A)

(9) TWO SAFETY SWIMMERS, A SGT AND CPL, STATIONED AT THE OBSTACLE, NOTICED THE RISING WATER LEVELS. THE SGT ASSIGNED TO JEST FOR ONE MONTH, AND THE CPL, HAD BEEN THERE FOR ONE YEAR. BOTH WERE FROM UDP BATTALIONS AND WERE FILLING FAP BILLETS.

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

NEITHER MARINE HAD ATTENDED A SAFETY SWIMMER COURSE BUT BOTH WERE WSQ. A SAFETY NCO, A LCPL, WAS AT THE START POINT OF THE OBSTACLE MONITORING THE PROGRESS OF THE SQUAD AND LISTENING TO THE INSTRUCTOR NET. THE SAFETY NCO WAS ALSO A MARINE FAPPED FROM ANOTHER UDP BATTALION. ALL THREE JEST PERSONNEL AT THE OBSTACLE NOTICED THE WATER RISING BUT DID NOT FEEL THE CONDITIONS WERE UNSAFE. NEITHER HAD ENTERED THE WATER TO MAKE A DETERMINATION, NOR WAS THERE A MARKING OR MEASURING SYSTEM OF ANY KIND, WHICH INDICATED THE DEPTH OF THE WATER. (25, 5B)

(10) AT 0750, THE COURSE NCOIC DECIDED TO TERMINATE TRAINING DUE TO THE INJURIES AND THE INCREASING WATER LEVELS. HE PASSED CANCELLATION ORDERS OVER THE INSTRUCTOR NET. THE JEST RANGE CONTROL RADIO WATCH DID NOT RECALL HEARING SUCH A TRANSMISSION. SEVERAL TRANSMISSIONS FOLLOWED ALONG THE INSTRUCTOR NET BUT NONE WERE RECORDED, AS THERE WAS NO LOG IN THE JEST RANGE CONTROL OFFICE. (1B)

(11) AT THE SINGLE ROPE BRIDGE, TWO MORE MARINES CROSSED THE BRIDGE, BOTH LOSING FOOTING AS THE WATER WAS AT CHEST LEVEL AS THEY CROSSED THE STREAM. A FIFTH MARINE ATTEMPTED TO CROSS USING THE COMMANDO CRAWL, BUT HAD HIS LEGS SWEPT INTO THE WATER AS WELL AND FINISHED THE OBSTACLE GOING HAND OVER HAND. (2A)

(12) THE SIXTH MARINE TO CROSS THE BRIDGE WAS VERY HESITANT. WEARING A LOAD BEARING VEST, CARRING AN M16, HE MOUNTED THE ROPE AT ROUGHLY 0750. AS HE GOT ON THE ROPE, HE TOLD THE SAFETY SWIMMERS HE COULD NOT SWIM. THE LCPL SAFETY SWIMMER RECOMMENDED TO THE MARINE THAT HE SHOULD BUCKLE HIS CARTRIDGE BELT AROUND THE ROPE SO THAT IF HE FELL HE SHOULD NOT GO IN THE WATER. THE MARINE DID NOT SECURE HIMSELF TO THE ROPE. THE MARINE STARTED ACROSS. HIS LEGS CAME OFF THE ROPE THREE TIMES. THE LAST TIME HE WAS UNABLE TO GET HIS LEGS BACK UP ON THE ROPE. THE MARINE HELD ON TO THE ROPE FOR A FEW MINUTES THEN LET GO AND DISAPPEARED UNDERWATER. SQUAD MEMBERS INDICATED THE MARINE STARTED TO PANIC WHEN WATER SPLASHED HIS FACE. (2A)

(13) AS THE MARINE ENTERED THE WATER, THE SAFETY SWIMMER JUMPED INTO THE WATER AT A POINT WHERE HE FELT HE COULD INTERCEPT HIM. THE MARINE SURFACED FURTHER DOWN STREAM THAN THE SAFETY SWIMMER PREDICTED, THEN DISAPPEARED AGAIN. THE OTHER SAFETY SWIMMER YELLED TO THE SAFETY NCO TO CALL RANGE CONTROL. ON THE FAR SHORE, TWO SQUAD MEMBERS JUMPED IN THE WATER IN AN ATTEMPT TO RESCUE THEIR MARINE.(2A, 2B, 5B, 6A,7A)

(14) WITHIN MINUTES AFTER PASSING THE COURSE CANCELLATION, THE COURSE SNCOIC HEARD AN UNFAMILIAR VOICE OVER THE RADIO INDICATING THAT FOUR MARINES WERE IN THE WATER AT THE ROPE BRIDGE OBSTACLE. BOTH MEMBERS OF THE SQUAD THAT JUMPED INTO THE WATER REALIZED THAT CONDITIONS WERE MORE SEVERE THAN THEY

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

APPEARED. THEY WERE QUICKLY SWEPT DOWN STREAM AND BOTH CONCENTRATED ON THEIR OWN SURVIVAL. (1B, 2A, 3B)

(15) EXTENSIVE AND COORDINATED RESCUE EFFORTS COMMENCED. SAR HELOS WERE LAUNCHED, A BOAT WAS USED TO SEARCH THE LAKE WHERE THE STREAM EMPTIED. SWIMMERS TIED WITH SAFETY ROPES SEARCHED THE BANKS OF THE STREAM WHILE SCUBA DIVERS STARTED SEARCHING THE STREAM AND DEEP POOLS FROM THE POINT OF ENTRY TO THE LAKE. (2A, 3B, 6B, 7A)

(16) DECEASED WAS RECOVERED 600 METERS DOWNSTREAM AT THE BOTTOM OF A DEEP POOL AT 1745 BY A RECONNAISSANCE DIVE TEAM.(4A)

11. ANALYSIS. THE FOLLOWING DISCUSSION AND FINDINGS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES. THEY REPRESENT THE OPINIONS OF THE SIB MEMBERS AND ARE INTENDED TO PREVENT FUTURE MISHAPS.

A. INADEQUATE SAFETY SOP. ACCEPTED. THE CURRENT O-COURSE SOP DOES NOT PROVIDE FOR INITIAL RISK ASSESSMENT, NOR DOES IT PROVIDE FOR ONGOING RISK ASSESSMENTS BASED ON CHANGING CONDITIONS.

B. INSTRUCTOR ASSIGNMENT POLICY AND LACK OF PROFESSIONALLY TRAINED PERSONNEL. ACCEPTED. JEST INSTRUCTORS ARE SOURCED FROM UDP BATTALIONS. THE FAP SOURCING POLICY RESULTS IN UNQUALIFIED PERSONNEL AND HIGH TURNOVER RATES. THE SHORT LENGTH OF ASSIGNMENTS MINIMIZES OPPORTUNITIES TO SEND INSTRUCTORS TO SCHOOLS FOR THE REQUISITE TRAINING. PERSONNEL RESOURCES DEDICATED TO JEST DO NOT EQUATE TO THE SCOPE OF THE TRAINING CONDUCTED. TRAINED ROUGH TERRAIN AND WATER SAFETY PERSONNEL ARE REQUIRED TO SUPERVISE HIGH RISK TRAINING. THE INSTRUCTORS ASSIGNED TO THE ROPE BRIDGE WERE NOT QUALIFIED TO ANALYZE THE RISK ASSOCIATED WITH THE OBSTACLE. ONE DEFICIENCY OF THE FAP PERSONNEL SOURCING POLICY IS THAT QUALIFIED SAFETY SWIMMERS VICE THE BEST SWIMMERS ARE USED.

C. LACK OF POSITIVE COMMUNICATIONS AND PROCEDURES FOR THE COURSE. ACCEPTED. THE CHIEF SNCOIC CANCELLED THE O-COURSE MINUTES BEFORE THE MARINE WENT INTO THE WATER. POSITIVE CONFIRMATION OF CRITICAL COMMUNICATIONS WAS NOT RECEIVED FROM ALL INSTRUCTORS ON THE COURSE.

D. INADEQUATE RESCUE GEAR. ACCEPTED. ALTHOUGH THERE WERE TWO SAFETY SWIMMERS, THERE WAS ONLY ONE BOUYANCY DEVICE. THERE WERE NO SHORE RESCUE DEVICES SUCH AS A SHEPHERDS CROOK, HEAVING LINE OR LIFE RING. WATER RESCUES ARE INHERENTLY DANGEROUS AND SHOULD ONLY BE ATTEMPTED BY QUALIFIED PERSONNEL AND ONLY AS A LAST RESORT.

E. INABILITY OF THE VICTIM TO SWIM. ACCEPTED. THE UNIT COMMANDER, SQUAD LEADER AND ALL SQUAD MEMBERS STATED THAT THE VICTIM COULD NOT SWIM AND WAS AFRAID OF THE WATER. HIS LACK OF SWIMMING ABILITY DRAMATICALLY REDUCED HIS CHANCE FOR SURVIVAL

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

ONCE IN THE WATER.

F. FAILURE TO RECOGNIZE A HAZARD. ACCEPTED. THE STREAM WAS AT FLOOD LEVEL. THE VOLUME OF WATER TURNED A LOW RISK ROPE BRIDGE CROSSING INTO A HIGH RISK CROSSING.

G. INADEQUATE SAFETY PRECAUTIONS. ACCEPTED. NO ONE CROSSING THE STREAM WAS TIED TO THE ROPE. THE SAFETY REQUIREMENT FOR A SINGLE STRAND ROPE BRIDGE IS A RAPPEL SEAT HOOKED BY A SNAP LINK TO THE ROPE BRIDGE.

H. PHYSICAL CONDITION OF THE ROPE BRIDGE. REJECTED. THE CONDITION OF THE KERN MANTLE ROPE USED ON THE BRIDGE WAS GOOD. ANCHOR POINTS AND KNOTS ON BOTH SHORES WERE ADEQUATE. THE ROPE BRIDGE WAS INSPECTED TWO DAYS PRIOR TO TRAINING AND STRUCTURAL INTEGRITY OF THE BRIDGE PLAYED NO PART IN THE MISHAP.

I. VICTIM'S PHYSICAL CONDITION. REJECTED. MARINE WAS IN GOOD HEALTH AND IN GOOD PHYSICAL SHAPE. 72-HOUR PROFILE INDICATED ADEQUATE SLEEP AND DIET WITHOUT INDICATION OF PERSONAL STRESSORS.

12. CONCLUSIONS. CONCLUSIONS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES AND REPRESENT THE MOST PROBABLE FACTORS AND CIRCUMSTANCES THAT CONTRIBUTED TO THIS MISHAP.

A. CAUSAL FACTOR OF THE MISHAP.

(1) FAILURE TO IDENTIFY THE HAZARD. RISING WATER LEVEL OF THE STREAM CHANGED THE CONDITIONS OF THE COURSE AND CREATED A HAZARD. HAZARD RECOGNITION WAS COMPLICATED BY THE PRESENCE OF SAFETY SWIMMERS WHO GAVE THE SQUAD MEMBERS FALSE SENSE OF SECURITY AND AN UNJUSTIFIED EXPECTATION OF A WATER RESCUE. RAC 1.

(2) INADEQUATE SAFETY PRECAUTIONS AND EQUIPMENT. ROPE BRIDGES ARE USED TO CROSS ROUGH TERRAIN OR WATER OBSTACLES. INHERENT DANGERS OF SUCH OPERATIONS WARRANT THE USE OF TIE IN TECHNIQUES AND ADEQUATE SAFETY EQUIPMENT. RAC 1.

(3) INADEQUATE COMMUNICATION PROCEDURES. LACK OF FIRMLY ESTABLISHED PROCEDURES TO ENSURE CRITICAL INFORMATION IS PASSED IN TIMELY MANNER ENABLED THE UNIT TO CONTINUE TRAINING IN AN UNSAFE ENVIRONMENT. RAC 1.

B. CAUSAL FACTORS OF INJURY. WATER INHALATION AND SUBSEQUENT DROWNING.

13. RECOMMENDATIONS.

A. FOR COMMANDING OFFICER:

(1) MARK NORMAL WATER LEVELS AT ALL WATER OBSTACLES. PRIOR TO CONDUCTING TRAINING, EVALUATE RISK WHENEVER WATER LEVELS EXCEED NORMAL,

(2) ENSURE PROPER TRAINING FOR PERSONNEL SUPERVISING WATER OBSTACLES. AT A MINIMUM, AND PER MCO, SAFETY SWIMMERS MUST BE CURRENT, CERTIFIED COMBAT WATER SAFETY SWIMMERS.

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

(3) INCORPORATE RISK ASSESSMENT PROCEDURES INTO JEST TRAINING SOPS. CONDUCT RISK ANALYSIS OF ALL OBSTACLES ON THE JEST ENDURANCE COURSE USING OPERATIONAL RISK MANAGEMENT.

(A) PROCURE AND USE SHORE RESCUE DEVICES AT WATER OBSTACLES.

(B) USE ROPE TIE IN PROCEDURES FOR ALL ROPE BRIDGE TRAINING.

(C) CEASE WATER OBSTACLE TRAINING UNTIL COMPLIANCE WITH RECOMMENDATIONS 1 THROUGH 4.

B. FOR CG MCCDC. INCORPORATE SWIFT WATER RESCUE TRAINING INTO CWSS AND MARINE COMBAT INSTRUCTOR WATER SURVIVAL TRAINING CURRICULUMS.

C. FOR CMC MMEA/TFS. IMPLEMENT PERSONNEL STRUCTURE FOR DESIGNATED KEY INSTRUCTOR BILLETS AT JEST.

Figure 6-5.--Operational/Training SAFEREP Example--Continued.

UNCLAS FOUO //N05102//
FROM: AS REQUIRED
TO: AS REQUIRED
INFO: AS REQUIRED
SUBJ: THIS IS A **LIMITED DISTRIBUTION** GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) (PART A) CLASS A OFF DUTY PMV MISHAP WHICH OCCURRED ON 12 AUG 99
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/ (SHOULD BE AT LEAST A REFERENCE TO A PCR, SIR OR OPREP-3)
NARR/ REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS (ETC.)
RMKS/1. THIS REPORT CONCERNS A SEVERE HAZARD TO MARINE FORCES. RAC 1. ENDORSEMENT NOT REQUIRED. **SUMMARY.** A MARINE WAS KILLED AND ANOTHER INJURED WHEN THE AUTOMOBILE IN THAT THEY WERE RIDING LEFT THE ROAD AND ROLLED.
2. MISHAP DATA.
A. MISHAP UNIT MCC XXX / **RUC** XXXXX
B. PARENT COMMAND. 2ND FSSG.
C. EQUIPMENT.
(1) DOD EQUIPMENT. N/A
(2) PERSONAL EQUIPMENT.
(A) YEAR: 1998
(B) MAKE: FORD
(C) MODEL: F250 3/4 TON PICKUP
(D) LENGTH: (BOAT/TRACTOR TRAILER/TOW ASSET) N/A,
(E) ENGINE: 7.2 LITER DIESEL
(3) PERSONAL PROTECTIVE EQUIPMENT. PASSENGER RESTRAINTS INSTALLED, NOT USED BY DRIVER. AIR BAGS INSTALLED: DEPLOYED AS DESIGNED.
D. ENVIRONMENT.
(1) DATE: 12 AUG 99
(2) LOCAL TIME: 1430
(3) LOCAL TIME ZONE: MST
(4) DAY OR NIGHT: DAY
(5) LOCATION: OFF BASE. MISHAP OCCURRED AT .25 MILES NORTH OF MILEPOST 142 ON STATE ROUTE 172, 13 MILES NORTH OF TIMBUKTU, KS.

Figure 6-6.--Off-Duty/PMV SAFEREP Example.

(A) TOWN/CITY/COUNTY/STATE/PROVINCE/PREFECTURE/COUNTRY: IMBUKTU, FARM COUNTY, KS, USA

(B) FACILITY. NA

(7) WEATHER

(A) WIND: FROM THE NW, 22 KTS

(B) VISIBILITY: UNLIMITED

(C) AIR TEMP: 23 DEGREES

(D) WATER TEMP: NA

(E) PRECIPITATION: NA

(F) ROAD/FIELD/PLAYING SURFACE CONDITIONS: ROAD WAS TWO LANE, DOUBLE YELLOW LINE, PAVED BLACKTOP AND DRY

E. SAFETY PROGRAM

(1) DATE UNIT SAFETY OFFICER ATTENDED GROUND SAFETY COURSE: 990413

(2) DATE OF LAST COMMAND SAFETY INSPECTION: 990615

3. CIRCUMSTANCES

A. ORIGIN. MARINE LEFT HIS HOR (123 MAIN ST TIMBUKTU, KS) HEADING NORTH ON SR 172.

B. MISSION. TRAVELING TO NEIGHBORING TOWN TO VISIT RELATIVES.

C. DESTINATION. 321 OAK STREET, NOWHERE, KS.

D. MISHAP EVOLUTION. GENERAL ACTIVITY. EN ROUTE TO VISIT FRIEND. **SPECIFIC ACTIVITY.** OPERATING PMV, WHICH WAS OWNED BY SNM'S FATHER.

4. MISHAP CLASSIFICATION. CLASS A

5. DAMAGE AND COSTS.

A. DOD PROPERTY DAMAGE. N/A.

B. NON-DOD PROPERTY DAMAGE. FORD F250 - $29,451

6. PERSONNEL INFORMATION, INJURIES, AND MEDICAL COSTS.

A. PERSONNEL ON BOARD. TWO.

B. CREW/OPERATOR/DRIVER. ONE (OR HOWEVER MANY)

(1) LOCATION: DRIVER: LEFT FRONT

(2) RANK: SSGT/E6

(3) MOS: 3521

(4) UNIT: MCC XXX RUC XXXXX

(5) EXPERIENCE OR QUALIFICATION: PMV LICENSE FOR 13 YRS.

(6) EXTENT OF INJURIES: FATAL, MULTIPLE TRAUMATIC INJURIES

(7) DAYS HOSPITALIZED AND COSTS N/A

(8) DAYS CONVALESCENT LEAVE/SIQ AND COSTS: N/A

(9) DAYS LIGHT DUTY AND COSTS: N/A

(10) TOTAL LOST DAYS: N/A

(11) TOTAL INJURY COSTS: $125,000

C. TOTAL NUMBER OF PASSENGERS. ONE (OR HOWEVER MANY)

INJURED PASSENGERS. ONE. (LIST THE FOLLOWING FOR EACH INJURED)

Figure 6-6.--Off-Duty/PMV SAFEREP Example--Continued.

(1) **POSITION:** PASSENGER; FRONT RIGHT SEAT
(2) **RANK:** SGT/E5
(3) **MOS:** 0331
(4) **UNIT:** MCC XXX RUC XXXXX
(5) **EXPERIENCE OR QUALIFICATION:** N/A
(6) **EXTENT OF INJURIES:** BROKEN RIGHT FEMUR, DISLOCATED LEFT SHOULDER, MINOR LACERATIONS, LACERATED SPLEEN.
(7) **DAYS HOSPITALIZED AND COSTS:** 6 DAYS, $11,974 (ACTUAL COST)
(8) **DAYS CONVALESCENT LEAVE/SIQ AND COSTS:** 30 DAYS $11250
(9) **DAYS LIGHT DUTY AND COSTS:** 45 DAYS (120/DAY) $5400
(10) **TOTAL LOST DAYS:** 36
(11) **TOTAL INJURY COSTS:** $28,624

D. INJURED NON OCCUPANTS. N/A.

E. TOTAL MISHAP INJURY/FATALITY COSTS: $153,624

F. MEDICAL OFFICER ANALYSIS. N/A. (NOT REQUIRED FOR OFF DUTY MISHAPS. SUBMIT 72 HOUR PROFILE ONLY IF INFORMATION READILY OBTAINABLE.)

7. MISHAP INVESTIGATION. ASSISTANCE WAS PROVIDED BY I&I, SALINAS, KS, IN OBTAINING LOCAL LAW ENFORCEMENT AGENCY REPORTS.

8. JAG MANUAL INVESTIGATION. THIS DOES MEET THE REQUIREMENTS FOR A JAG MANUAL INVESTIGATION IAW WITH JAGINST 5800.7. CAPT D.N. AGAIN. I&I SALINAS, KS. INVESTIGATION INITIATED BY COMMARFORRES PER REQUEST INITIATED BY CG 2D FSSG.

9. SAFETY INVESTIGATION BOARD. N/A. REPORT FILED BY UNIT SAFETY MANAGER: SGT R. S. TAGLIO, 2D ESB, 2D FSSG(XXX) XXX-XXXX DSN XXX-XXXX.

10. EVIDENCE.. OMITTED FOR PMV AND RECREATIONAL MISHAPS THAT **ARE OFF DUTY AND OFF BASE.**

11. ANALYSIS. (FOR PMV AND OFF DUTY RECREATIONAL MISHAPS, PROVIDE A BRIEF SYNOPSIS OF THE EVENTS LEADING UP TO THE MISHAP AS THEY ARE KNOWN. SUBSEQUENT PARAGRAPHS ARE ELIMINATED) DRIVER AND PASSENGER WERE TRAVELING NORTHEAST ON SR 172 AT A HIGH RATE OF SPEED IN EXCESS OF THE POSTED SPEED LIMIT. WHILE NEGOTIATING A MODERATE CURVE, VEHICLE LEFT THE ROADWAY. DRIVER OVER CORRECTED SENDING THE VEHICLE INTO AN UNCONTROLLABLE SPIN, ROLLING THE TRUCK FOUR TIMES. DRIVER WAS EJECTED FROM THE VEHICLE AND KILLED INSTANTLY. PASSENGER SURVIVED WITH INJURIES INDICATED ABOVE.

12. CONCLUSIONS. RAC CODES ARE OMITTED FOR PMV AND RECREATIONAL MISHAPS THAT ARE OFF DUTY AND OFF BASE.

A. CAUSAL FACTOR(S) OF THIS MISHAP ARE:
(1) PERSONNEL FACTORS.

Figure 6-6.--Off-Duty/PMV SAFEREP Example--Continued.

(A) SPEED. REPORTS INDICATE VEHICLE WAS TRAVELING 20 MPH IN EXCESS OF THE POSTED SPEED LIMIT.

(B) OPERATOR INEXPERIENCE. DRIVER NOT FAMILIAR WITH VEHICLE.

B. CAUSAL FACTORS OF DAMAGE OR INJURY.

(1) PERSONNEL FACTOR. DRIVER IMPACTING PAVEMENT UPON BEING THROWN FROM THE VEHICLE.

(2) CONTRIBUTING FACTOR. FAILURE TO USE RESTRAINT DEVICES.

13. RECOMMENDATIONS.

A. CONTINUE TO STRESS THE USE OF SEATBELTS DURING ALL VEHICULAR TRAVEL.

B. STRESS THE IMPORTANCE OF MAINTAINING SAFE SPEEDS, WHEN OPERATING UNFAMILIAR VEHICLES. USE THIS AS AN EXAMPLE FOR THE UNIT'S NEXT SAFE DRIVING STAND DOWN.

Figure 6-6.--Off-Duty/PMV SAFEREP Example--Continued.

FM (AS REQUIRED)
TO (AS REQUIRED)
INFO (AS REQUIRED)
UNCLASS FOUO //N05102//
SUBJ: THIS IS PART OF A **LIMITED DISTRIBUTION** GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) (PART A) CLASS B, OFF DUTY RECREATIONAL, CONTROL NUMBER (L)00X-XX DATE 15 JUL 99
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/ (as appropriate)
NARR/ REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS (ETC.)
RMKS/1. THIS REPORT CONCERNS A SEVERE HAZARD TO GROUND FORCES. RAC 1. ENDORSEMENT REQUESTED PER REF A. SUMMARY. MARINE LOST SIGHT IN ONE EYE AS A RESULT OF AN IMPROMPTU BOXING MATCH.
2. **MISHAP DATA.**
A. **MISHAP UNIT MCC** XXX /**RUC** XXXXX.
B. **PARENT COMMAND.** XX DIV
C. **EQUIPMENT.**
(1) **DOD EQUIPMENT.** MCCS OWNED GLOVES
(2) **PERSONAL EQUIPMENT.** NONE OWNED.
(3) **PERSONAL PROTECTIVE EQUIPMENT.** BAG GLOVES.
D. **ENVIRONMENT.**
(1) **DATE:** 15 JUL 99
(2) **LOCAL TIME:** 1933
(3) **LOCAL TIME ZONE:** M
(4) **DAY OR NIGHT:** NIGHT
(5) **LOCATION:** ON BASE: CAMP HANSEN, OKINAWA
(A) **CITY, COUNTRY:** NA
(B) **FACILITY:** COURTYARD OF BARRACKS BLDG #715
(6) **WEATHER**
(A) **WIND:** NEGLIGIBLE
(B) **VISIBILITY:** 300 FEET, LOCAL LIGHTING
(C) **AIR TEMP:** 82 DEGREES
(D) **PRECIPITATION:** NONE
(E) **ROAD/FIELD/PLAYING SURFACE CONDITIONS:** DRY, GRASSY, GENTLE SLOPE
E. **SAFETY PROGRAM**
(A) **DATE UNIT SAFETY OFFICER ATTENDED GROUND SAFETY COURSE:** FEB 99/1STLT

Figure 6-7.--Off-Duty/Recreational SAFEREP Example.

(B) **DATE OF LAST COMMAND SAFETY SURVEY:** NONE ON RECORD

3. **CIRCUMSTANCES**

A. **MISHAP EVOLUTION.**

GENERAL ACTIVITY. TWO MARINES CHECKED OUT BAG GLOVES FROM LOCAL GYM THEN RETURNED TO BARRACKS FOR SPARRING MATCH.

SPECIFIC ACTIVITY. MARINE WAS SPARRING WHEN STRUCK REPEATEDLY ABOVE RIGHT EYE.

4. **MISHAP CLASSIFICATION.** CLASS B; LOSS OF EYE.

5. **DAMAGE AND COSTS.**

A. **DOD PROPERTY DAMAGE.** NA

B. **NON-DOD PROPERTY DAMAGE.** NA

6. **PERSONNEL INFORMATION, INJURIES, AND MEDICAL COSTS.**

A. **INJURED PERSONNEL.** ONE.

(1) **DUTY AT TIME OF MISHAP:** OFF DUTY

(2) **RANK/MOS.** LCPL/E3

(3) **MOS/SERVICE.** 0311/USMC

(4) **PARENT ORGANIZATION.** K CO, 3/1, 1ST MAR, 2D MARDIV

(5) **TIME IN BILLET.** 22 MONTHS

(6) **EXTENT OF INJURY:** LOSS OF SIGHT IN RIGHT EYE. PTD

(7) **LOST DAYS.** HOSP: 5 NO DUTY: 10 CONLV: 30 TOTAL COSTS $517,330.

B. **MEDICAL OFFICER ANALYSIS.** INDIVIDUAL HAD BEEN IN DUTY STATUS PREVIOUS 72 HRS FOLLOWING NORMAL DAILY ROUTINE. SNM REPORTED HEALTHY APPETITE AND REST. SNM CONSUMED 3 BEERS BETWEEN 1630 AND 1830 PRIOR TO MISHAP. SNM WAS IN EXCELLENT PHYSICAL AND MENTAL CONDITION. NO EVIDENCE OF EXTERNAL FACTORS INFLUENCING BEHAVIOR/DECISION MAKING. NO PREVIOUS DISCIPLINARY ACTION.

7. **MISHAP INVESTIGATION.** NO OTHER INVESTIGATION CONDUCTED.

8. **JAG MANUAL INVESTIGATION.** THIS DOES MEET THE REQUIREMENT FOR A JAG MANUAL INVESTIGATION IAW WITH JAGINST 5800.7 INVESTIGATION INITIATED ON 990912, MAJOR R. M. LIOTTA, BN XO, ASSIGNED INVESTIGATING OFFICER BY LTCOL P.L. SYKES, BN CO.

9. **SAFETY INVESTIGATION BOARD.** SENIOR MEMBER: LTCOL L. TAYLOR, DEP AC/S G3 (XXX) XXX-XXXX DSN XXX-XXXX FAX DSN 456-XXXX

MAJ D. MAUL, X BASE SAFETY OFFICER, (XXX) XXX-XXXX DSN XXX-XXXX

CDR. J. IRVING, DIV SURG, (XXX) XXX-XXXX DSN XXX-XXXX

10. **EVIDENCE**

A. **COMPLETE SAFEREP AND ORIGINAL ENCLOSURES HAVE BEEN MAILED PER REF A ON 990901 TO COMNAVSAFECEN CODE 49 AND A COPY OF SAFE REP AND THE ONLY COPY OF ENCLOSURES HAVE BEEN MAILED TO COMMARFORPAC SAFETY ON 990901.**

Figure 6-7.--Off-Duty/Recreational SAFEREP Example--Continued.

B. SUMMARY OF EVIDENCE.

(1) THE FOLLOWING ACRONYMS, ABBREVIATIONS AND DEFINITIONS ARE USED IN THIS SAFEREP: NONE

(2) ENCLOSURES

(A) NON PRIVILEGED

(1A) STATEMENT OF CPL M. TYSON, WITNESS
(2A) STATEMENT OF LCPL L. LEWIS, WITNESS
(3A) STATEMENT OF PFC J. DEMPSEY, WITNESS
(4A) STATEMENT OF PVT K. NORTON, WITNESS

(B) PRIVILEGED

(1B) STATEMENT OF PFC M. ALI, BOXER
(2B) STATEMENT OF HM2 B. CASEY
(3B) STATEMENT OF LCPL G. FOREMAN, VICTIM

C. SUMMARY OF FACTUAL FINDINGS

(1) FOLLOWING COMPLETION OF THE WORK DAY, SEVERAL MARINES FROM THE MOTOR POOL GATHERED FOR SOME BEERS AND RECREATION.(1A,2A,3A)

(2) AT 1900,TWO MARINES CHECK OUT BAG GLOVES FROM THE HANSEN GYM AND RETURN TO UNIT AREA FOR SOME IMPROMPTU SPARRING MATCHES. (2A,3A)

(3) MARINES ESTABLISH SPARRING AREA AND TIME LIMIT FOR SPARRING MATCHES TO BE CONDUCTED USING THE BAG GLOVES (3A, 4A)

(4) SPARRING MATCHES BEGIN AT 1915 AND END AT 1930 WHEN OTHER VOLUNTEERS ARE SOUGHT.

(P)(5) MARINE (EVENTUAL VICTIM) STEPS FORWARD AND ASKS FOR PARTNER AND PFC STEPS FORWARD.(1B,3B)

(6) SPARRING MATCH BEGINS AND IS RECORDED BY ANOTHER MARINE WITH A VIDEO CAMERA. (4A, 6A)

(P)(7) FIRST BLOWS ARE STRUCK AND VICTIM MOVES AWAY FROM BOXER. BOXER PURSUES AND DELIVERS SECOND SET OF BLOWS. (1B, 2B, 1A-9A)

(P)(8) VICTIM CUT ABOVE LEFT EYE AND REFEREE CALLS MATCH. (1B,2B,3B)

(9) CORPSMAN TENDS TO INJURED MARINE WHILE MARINE STOPS VIDEO TAPING, WITNESSES GATHER AROUND INJURED MARINE. (1A-5A)

(P)(10) MARINE TAKEN TO EMERGENCY ROOM WHERE HE IS DIAGNOSED WITH MINOR CONCUSSION AND RETURNED TO BARRACKS FOR THE EVENING.

(12) INJURED MARINE AWAKES THE FOLLOWING MORNING WITH DIZZINESS AND EYE SWOLLEN SHUT, AND WALKS TO BATTALION AID STATION. (5A)

(13) BATTALION AID STATION PETTY OFFICER TAKES MARINE TO HOSPITAL WHERE HE IS SEEN IN OPTHALOMOLOGY. MARINE IS ADMITTED AND DIAGNOSED WITH DAMAGED OPTIC NERVE, UNREPAIRABLE DETACHED RETINA, AND IS SCHEDULED FOR SURGERY. MARINE'S EYE IS REMOVED ON 21 JUL 99. (10A)

Figure 6-7.--Off-Duty/Recreational SAFEREP Example--Continued.

11. ANALYSIS. THE FOLLOWING DISCUSSION AND FINDINGS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES. THEY REPRESENT THE OPINIONS OF THE SIB MEMBERS AND ARE INTENDED TO PREVENT FUTURE MISHAPS.

A. INADEQUATE PROTECTIVE EQUIPMENT. ACCEPTED. PERSONAL PROTECTIVE GEAR OUTLINED WITHIN THE MCO 1710.37 FOR BOXING INCLUDES HEADGEAR MEETING USA/ABF SPECIFICATIONS, CUSTOM MADE AND FITTED MOUTHPIECES, AND GROIN PROTECTORS. RING MUST BE ADEQUATELY PADDED AND MEET SPECIFICATIONS OF USA/ABF. GLOVES USED WERE HEAVY BAG GLOVES WEIGHING 8 OUNCES, NOT PADDED BOXING GLOVES THAT WEIGH 10-12 OUNCES DEPENDING ON THE WEIGHT OF THE BOXERS.

B. INADEQUATE TRAINING. ACCEPTED. MCO 1710.37 REQUIRES BOXERS, COACHES, REFEREES AND PHYSICIANS TO ATTEND AT LEAST ONE PRECOMPETITION MEETING OR CLINIC.

C. INADEQUATE MEDICAL FACILITIES. ACCEPTED. MCO 1710.37 PROHIBITS BOXING EVENTS WHEN AN INJURED BOXER CANNOT BE DELIVERED EITHER BY VEHICLE OR THROUGH COMMAND MEDEVAC CAPABILITIES, TO A MEDICAL FACILITY WITH NEUROSURGICAL CAPABILITIES WITHIN 30 MINUTES.

D. FAILURE TO COMPLY WITH ESTABLISHED PROCEDURES. ACCEPTED. BASE POLICY PROHIBITS BOXING WHICH IS POSTED ON THE BAG ROOM OF THE GYM. ADDITIONALLY, MARINES REMOVED GLOVES FROM THE GYM WHICH IS UNAUTHORIZED.

E. INEFFECTIVE SUPERVISION. THE LEVEL OF NOISE PRESENT WITHIN THE VIDEOTAPE OF THE MATCH INDICATED MORE AGGRESSIVE MONITORING AND INTERVENTION BY THE OOD OR DNCO. NOT ACCEPTED. LOCATION OF THE OOD AND DNO WAS 150 METERS FROM THE AREA OF ACTIVITY. LOGBOOK INDICATES THAT TWO HAD TOURED THE AREA 15 MINUTES PRIOR TO START OF THE BOXING MATCH. ADDITIONALLY, RECORDED SOUNDS COULD NOT BE EQUATED TO ACTUAL VOLUME AT THE SITE.

F. LACK OF NCO INTERVENTION. ACCEPTED. NCOS AT THE SCENE FAILED TO RECOGNIZE AND TAKE INITIATIVE TO TERMINATE THE UNSAFE ACTIVITY.

12. CONCLUSIONS. CONCLUSIONS ARE BASED ON ANALYSIS OF INFORMATION OBTAINED FROM ALL SOURCES AND REPRESENT THE MOST PROBABLE FACTORS AND CIRCUMSTANCES THAT CONTRIBUTED TO THIS MISHAP.

A. CAUSAL FACTOR OF THE MISHAP.

(1) PERSONNEL FACTOR. FAILURE TO IDENTIFY POTENTIAL HAZARD. SPARRING WITHOUT PROPER EQUIPMENT, TRAINING, MEDICAL FACILITIES CREATED A HAZARD. HAZARD RECOGNITION WAS COMPLICATED BY NCOS WHOSE PRESENCE LENDED ACCEPTABILITY TO THE ACTIVITY. RAC 1.

(2) FACILITY FACTORS. INADEQUATE SAFETY PRECAUTIONS AND EQUIPMENT. PROPER PPE WAS NOT IN PLACE FOR BOXING. RAC 1.

Figure 6-7.--Off-Duty/Recreational SAFEREP Example--Continued.

(3) PERSONNEL FACTORS. FAILURE TO COMPLY WITH ESTABLISHED PROCEDURES. RAC 1.

B. CAUSAL FACTORS OF INJURY. REPEATED BLOWS TO THE HEAD ABOVE THE RIGHT EYE RESULTED IN DAMAGE TO THE OPTIC NERVE, ORBITAL SOCKET AND REQUIRED REMOVAL OF THE EYE.

13. RECOMMENDATIONS

A. FOR UNIT CO

(1) ENSURE ALL MARINES ARE BRIEFED ON THE MC POLICY ON BOXING.

B. FOR CO MCB SCHWAB

(1) PUBLISH IN THE INSTALLATION NEWSPAPER AND OTHER MEDIA THE MARINE CORPS POLICY AND REQUIREMENTS FOR BOXING.

(2) ENSURE GYMS TRACK THE WHEREABOUTS OF EQUIPMENT. POST IN THE BAG ROOM THAT BOXING IS PERMITTED ONLY IN APPROVED FACILITIES AND WITH PROPER PROTECTIVE EQUIPMENT.

Figure 6-7.--Off-Duty/Recreational SAFEREP Example--Continued.

CHAPTER 7

SAFEREP ENDORSEMENTS

	PARAGRAPH	PAGE
INFORMATION.	7000	7 - 3
PURPOSE	7001	7 - 3
SUBMISSION CRITERIA	7002	7 - 3
ENDORSING CHAIN	7003	7 - 3
HANDLING ENDORSEMENTS	7004	7 - 4
SUBMISSION DEADLINES	7005	7 - 4
EXTENSION	7006	7 - 4
CONTENT	7007	7 - 5
CLOSING ENDORSEMENT	7008	7 - 5

FIGURES

7 - 1 SAFEREP ENDORSEMENT FORMAT 7 - 6

7 - 2 SAFEREP ENDORSEMENT GUIDE 7 - 7

SAFEREP ENDORSEMENTS

7000. INFORMATION. This chapter describes SAFEREP endorsements, explains who submits them, when, how, and why they are submitted.

7001. PURPOSE. Endorsements provide an opportunity for the endorsing chain to contribute broader perspective and authority to resolve recommended corrective actions. These endorsements require careful review of the basic report and any prior endorsements. It requires clear decisive thought of the events that took place prior to the mishap. Any endorser who finds an investigation incomplete or SAFEREP inadequate must request to SIB convening authority to reopen the investigation. The convening authority may reconvene the SIB and direct it to address the specific areas of concern. This must be done by naval message informing all concerned. All endorsers must then endorse the modified SAFEREP message.

7002. SUBMISSION CRITERIA. Endorsements are required for all mishaps investigated by a SIB as identified in para 4001.

7003. ENDORSING CHAIN. The endorsing chain is generally the same as the operational chain of command. However, any agency which is tasked with corrective action in the recommendations paragraph of Part A must be included in the endorsing process and addressed as an action addressee.

1. Members of SIBs shall not endorse any investigation in which they participated.

2. COMMARFORs and CMC (SD) (for other organizations not within a COMMARFOR), will coordinate where, in the endorsing chain, a commander not of the operational chain of command will submit an endorsement when required by the recommendations of the SIB.

3. COMMARFORs and CMC (SD) will coordinate any endorsements for activities external to the Marine Corps when required.

4. In those cases when a ship’s commanding officer may bear responsibility for corrective action(s), the officer will be included as part of the endorsing chain for any mishap involving injury, fatality or property damage to embarked Marine units.

7004. HANDLING ENDORSEMENTS

1. Endorsements, like SAFEREPs, are privileged and require special handling to ensure their use is solely for safety.

a. Uncontrolled dissemination of endorsements which could result in access by those not requiring knowledge of their content for safety (such as placement in read boards, bulletin boards, etc.) is inappropriate. Placing SAFEREPs and/or endorsements on read boards or bulletin boards is not authorized.

b. Controlled passing of SAFEREPs and endorsements between individuals or within offices while in file folders is appropriate. Commands will not distribute SAFEREP endorsements to unauthorized commands.

c. Endorsements are FOUO documents and shall be handled according to appropriate directives.

2. Do not append or include endorsements in JAG investigations. SAFEREP endorsements shall not refer to disciplinary or administrative action in connection with the mishap.

3. Endorsements to SAFEREPs are submitted via "LIMITED DISTRIBUTION" naval message, are FOUO, and are exempt from MINIMIZE provisions of naval messages. Distribute SAFEREP endorsements to the same addressees as the SAFEREP. See Figure 6-1. CMC (SD) and all members of the endorsing chain are ACTION addressees. COMNAVSAFECEN remains an information addressee.

7005. SUBMISSION DEADLINES. Endorsement deadlines are as follows:

1. The first endorsement is due within 10 working days of the date-time-group of the SAFEREP.

2. Subsequent endorsements are due sequentially within 10 working days of the date-time-group of the preceding endorsement.

7006. EXTENSIONS. Extensions shall be requested from the COMMARFORs or CMC (SD) with COMNAVSAFECEN, CMC (SD) and endorsing chain of command as information addressees.

7007. CONTENT. When the endorser concurs with the previous causal factors and recommendations, the endorsing command will merely restate the information, and type "CONCUR." Should endorsers disagree with the previously assigned RAC(s), causal factor(s), or recommendation(s) for correction action(s), type "DO NOT CONCUR" and justify in bullet format. Any endorser who needs copies of specific investigation enclosures for endorsement references may request them from the appropriate COMMARFOR or CMC (SD).

7008. CLOSING ENDORSEMENT. CMC (SD) is the final SAFEREP endorser and closing authority. This endorsement signifies the final step in the investigative and endorsing process and requires no further action other than for the convening authority of the SIB to destroy all documentation collected by the SIB but not included in the investigation and retained by the convening authority.

AND REPORTING MANUAL

FM
TO
INFO
UNCLAS FOUO //N05102//
SUBJ: THIS IS AN ENDORSEMENT OF A LIMITED DISTRIBUTION GROUND MISHAP SAFETY INVESTIGATION REPORT (SAFEREP) (PART A), CONTROL NUMBER P-YYMMDD
THIS IS A (BOARD APPOINTING AUTHORITY/INVESTIGATING COMMAND) **LIMITED DISTRIBUTION SAFEREP FILE NO.** (NUMBER AS ASSIGNED BY COMMARFOR CHAIN OF COMMAND) **(PART A) TO BE USED ONLY FOR SAFETY PURPOSES PER MCO P5102.1A//**
//
THIS IS A PRIVILEGED SAFETY INVESTIGATION REPORT. UNAUTHORIZED DISCLOSURE OF THE INFORMATION IN THIS REPORT IS A CRIMINAL OFFENSE UNDER ARTICLE 92 OF THE UCMJ. SEE MCO 5102.1A PARA 4007.1 FOR DETAILS.
//
REF/A/DOC/MCO P5102.1A
REF/B/ (as appropriate)
NARR/REF A IS MCO FOR MARINE CORPS GROUND MISHAP INVESTIGATION AND REPORTING. REF B IS (ETC.)
POC/(NAME)**/**(CODE)**/PRIPHN:** **//-/**(COMMERCIAL PHONE)**//**
RMKS/1. ENDORSEMENT AND SUMMARY.
A. THIS REPORT CONCERNS A CLASS (A,B,C,D) **(**ON OR OFF**) DUTY MISHAP.** If report requires further endorsement, insert the following: (NEXT ENDORSING COMMAND) **ENDORSEMENT REQUESTED PER REF A** OR **ENDORSEMENT NOT REQUIRED.**
B. SUMMARY: (Obtain from previous message).
2. CONCLUSIONS.
A. CAUSAL FACTORS OF THE MISHAP. List each conclusion as previously stated in the SAFEREP in separate sub-paragraphs. After each re-stated conclusion, enter **CONCUR** or **DO NOT CONCUR.** If endorser does not concur, provide justification. Additional causal factors with justification may be added in these sub-paragraphs.
B. CAUSAL FACTORS OF THE INJURY AND DAMAGE. (List each as in Paragraph 2.A. above).
3. RECOMMENDATIONS.
A. List each recommendation of the previous endorser as stated in separate sub-paragraphs. After each re-stated recommendation, enter **CONCUR** or **DO NOT CONCUR.** If the endorser does not concur, provide justification. Additional recommendations may be added in these sub-paragraphs. Commands or agencies previously assigned corrective action by the SAFEREP previous endorser may also be modified or included with justification.

Figure 7-1.--Endorsement of a Ground Mishap Safety Investigation Report (SAFEREP)(Part A).

If review of the report and the previous endorsement indicate(s):	Then the response shall:
The action agency is not the appropriate action agency.	Explain why, and identify appropriate action agency.
The action agency does not concur with the causal factor(s) or assigned RAC.	State "do not concur" explain why, and state new or modified causal factor(s) or RAC.
The action agency does not concur with the recommended corrective action.	State "do not concur" Explain why, and state new or modified corrective action.
The action agency concurs with the recommended corrective action.	State CONCUR and action taken or intended start and completion dates.

Endorsing authorities must track the status of recommendations and indicate in their endorsement the current status of recommendations, e.g., ACTION COMPLETE, PROJECTED ACTION COMPLETION DATE.

The mishap board report should be completed so as to provide the endorsing chain with the requisite information that allows the endorsing authority to complete the endorsement in a timely manner.

Figure 7-2.--ENDORSEMENT GUIDE

APPENDIX A

ACRONYMS

LONG TITLE	ACRONYM
All-terrain vehicle	ATV
Blood-alcohol content	BAC
Combined arms exercise	CAX
Criminal Investigation Division	CID
Commander, Marine Force/s (Atlantic, Pacific, Reserve)	COMMARFOR
Commander, Material Command	COMMATCOM
Commander, Naval Safety Center	COMNAVSAFECEN
Decibel(s)	dB(s)
Date Time Group	DTG
Emergency Medical Services	EMS
Explosive Ordnance Disposal	EOD
Freedom of Information Act	FOIA
For Official Use Only	FOUO
Government Motor Vehicle(Commercial)	GMV
Government Vehicle Other(Tactical)	GVO
Hazard Report	HR
Judge Advocate General	JAG
Judge Advocate General Manual	JAGMAN
Limited Technical Inspection	LTI
Marine Corps Community Services	MCCS

LONG TITLE	ACRONYM
Marine Forces	MARFOR
Material Safety Data Sheet	MSDS
Mishap Report	MR
Message Text Format	MTF
Naval Ordnance Safety and Security Activity	NOSSA
Naval Criminal Investigative ServiceNCIS	
National Institute for Occupational Safety and Health	NIOSH
Occupational Safety and Health Administration	OSHA
Permanent Change of Assignment	PCA
Personnel Casualty Report	PCR
Permanent Change of Station	PCS
Private Motor Vehicle	PMV
Privately Owned Vehicle	POV
Point Of Contact	POC
Program Of Instruction	POI
Permanent Partial Disability	PPD
Permanent Total Disability	PTD
Permanent Threshold Shift	PTS
Risk Assessment Code	RAC
Reporting Unit Code	RUC
Safety Danger Zone	SDZ

LONG TITLE	ACRONYM
Safety Investigation Board	SIB
Safety Investigation Report	SAFEREP
Significant Threshold Shift	STS
Standard Subject Identification Code	SSIC
Technical Manual	TM

APPENDIX B

DEFINITIONS

1. Action Agency. A Marine Corps command, installation or HQMC staff agency tasked by a SAFEREP, SIB, or by board endorsing authority to initiate and/or complete recommended corrective action as a result of a mishap investigation. Action agencies are identified as action addressees in mishap reports and SAFEREPs and are also tasked with the action in the recommendation paragraph of the mishap report or SAFEREP. Action agency assignment is only for corrective actions they can initiate or corrective action involving operations over which they have cognizance.

2. Amphibious Mishaps.A mishap where Marine injuries or Marine Corps property damage is sustained while embarked in a naval vessel or naval waterborne craft. Embarked Marines are considered on duty unless ashore for liberty.

3. Appointing Authority. Appointing authority is at the Division, Wing, Group, and MAGTF levels and higher. Installation commanders are the appointing authorities for their activities.

4. Aviation Ground Mishaps. A mishap in which there is no intent for flight and which results in damage to an airframe.

5. Chemical Agent, Combat. A chemical compound intended for use in military operations to kill, injure, or incapacitate persons through its chemical properties. Excluded are herbicides (smoke and flame), pesticides, insecticides, and industrial chemicals.

6. Promise Of Confidentiality. The promise of confidentiality is used to encourage free and open disclosure of safety information during an investigation. Promises of confidentiality are given to witnesses and members of the SIB and SAFEREP endorsers. Military and Federal courts recognize that the information given under the promise of confidentiality is protected from release under executive privilege. The promise of confidentiality must be explicitly given and guarantees that the information provided shall be used solely for safety purposes.

7. Duty Status. A Marine is either on duty, on liberty, or on leave. On liberty and on leave constitute off duty. The following definitions are for mishap purposes only and bear no relationship to compensation or line-of-duty determination.

a. On Duty. Marine Corps personnel are on duty when they are:

(1) Physically present at any location to perform their officially assigned work. This includes activities normally associated with work, such as walking to and from parking lots, lunch periods, rest breaks, and all activities aboard military vessels.

(2) Being transported by a GMV or commercial vehicle for the purpose of performing officially assigned work. This includes travel in PMV, or commercial conveyance while performing official duty, but not routine travel to and from work or duty station.

(3) Participation in compulsory sports or physical training activities, e.g., unit pt, NCO, recruit or specialized skill training school or OCS.

(4) Participating in installation-sponsored, command-sponsored, or MCCS sponsored sports or activities during normal work hours as a member of the military unit team.

(5) Reservists, for safety investigation purposes, are on duty when they are at their monthly designated drill sites performing inactive duty training or are performing annual training duty. Reservists performing Active Duty Special Work (ADSW) will be considered active duty.

(6) Civilians are considered on duty when they reach federal property. This includes on the way to or from work site or in the performance of their official duties.

(7) Marine Corps personnel on TAD, away from their regular place of employment are covered 24 hours a day for any injury that results from activities essential or incidental to the temporary assignment. However, when personnel deviate from the normal incidents of the trip and become involved in personal activities not reasonable or incidental to the assignment, the person ceases to be considered on duty for investigation and reporting purposes of occupational injuries or illnesses.

(8) Marines and Navy personnel are on duty when performing individual PT anytime during the day after reaching their appointed place of duty.

b. Off Duty

(1) Whether on or off a Marine Corps Installation, Marine Corps personnel are off duty when they are on leave or liberty or on Permissive TAD.

(2) Reservists for the purposes of safety investigations, are considered off duty from the time they depart home/office until they reach their appointed site of duty for drill, and, from the time they depart the drill site until they reach domicile or government provided billeting at the conclusion of the scheduled drill or drill periods. Example: A reservist departs his domicile for the drill site for a drill weekend or schedule make up drill. En route, SNM is involved in a POV mishap. Report as a Marine in an off duty status. Example: Marine completed his drills for Saturday and is scheduled to return the following morning. During the evening, he is involved in a mishap. Report the mishap as required as an off duty mishap. Example: A Marine completes his final drill on a Sunday afternoon and is driving home when he is involved in a mishap. Report the mishap as required as an off duty mishap.

c. Marine Corps civilian personnel are off duty during the workday when they are engaged in personal activities unrelated to employment such as eating, physical training, resting, shopping, running errands, etc.

8. Explosives. All Class V (A) and (W) ordnance, including all ammunition components, such as: high and low yield explosives, direct and indirect fire munitions, including missiles, small arms ammunition, pyrotechnics and other associated substances that present real or potential hazards to life or property.

9. First Aid Case. Any one time treatment, with follow-up treatment if required, for the purpose of cleaning, bandaging, or observation of scratches, cuts, burns, splinters, sprained
ankles, etc., not necessarily provided by competent medical authority.

10. Formal Training. Training conducted in a classroom, laboratory or field practical application and exercises which is assigned a course identification number or is conducted by a by certified or licensed instructors using a MCCDC T&E approved POI.

11. Friendly Fire. A circumstance in which Marine Corps personnel or allied forces are mistakenly killed or injured in

action by or through Marine Corps or allied forces delivered or controlled fires while such forces are actively engaged with a hostile force, or what is thought to be a hostile force.

12. Government Motor Vehicle (GMV). A motor vehicle owned, leased, operated, or rented by the Marine Corps, primarily designed for over the road operations, and whose general purpose is the transportation of cargo or personnel. Examples of GMVs are commercial vehicles: passenger cars and buses, station wagons, ambulances, wreckers, trucks, refuelers, and tractor-trailers.

13. Government Vehicle Mishap. A mishap involving a GMV or GVO being operated as such, which results in death, injury, or property damage.

14. Government Vehicle, Other (GVO). Tactical, tracked and wheeled vehicles, motorcycles, and vehicles designed for off road operation, (forklifts, road graders) and ground support equipment (GSE).

15. Hospitalization. The admission of Marine Corps personnel to a hospital on an inpatient basis related to the immediate injury or occupational illness.

16. 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 the part or function of the body affected, and is caused by a specific event or series of events within a single day or work shift.

17. Installation. Marine Corps Bases, Stations, Centers, Depots, Facilities, or other organizational Marine Corps property.

18. Light Duty. A duty status recommended after treatment of an injury that stipulates exactly what a Marine can not do during the recommended period. When an injury or occupational illness results in light duty days, assigned light duty days are not lost workdays.

19. Limited Duty. A duty status assigned as a result of a Medical Board. Time spent on limited duty is not chargeable as lost time regardless of the cause for assignment to limited duty.

20. Lost Time Case. A nonfatal injury that causes any loss of time from work after the day or shift on which it occurred; or nonfatal occupational illness that causes loss of time from work or disability at any time.

21. Lost Workdays. The total number of full days, consecutive or not, that a person was unable to work as a result of an injury or occupational illness, excluding the day of the mishap and the day returned to duty/work.

a. For Marine Corps military personnel, these include days hospitalized, sick-in-quarters or on convalescent leave as a result of injury or occupational illness. Count every day lost including weekends and holidays.

b. Marine Corps Reserve personnel in a not physically qualified (NPQ) status sustained as a result of an injury at any time en route to, during, or returning from drill, or during annual training is considered lost time.

c. For Marine Corps civilian personnel, this includes continuation of pay leave, annual leave, sick leave, days hospitalized, and leave without pay granted, or a full work shift missed because of an occupational illness or injury.

22. Marine Corps Combat Craft. Any craft owned and/or operated by Marine Corps personnel while it is at sea or conducting waterborne operations. This includes mechanized amphibians,
combat rubber reconnaissance craft, riverine assault craft, rigid hull craft, etc.

23. Mishap. Any unplanned or unexpected event causing personnel injury, occupational illness, death, material loss or damage.

24. Mishap Types. The following are types of mishaps that require reporting IAW this Manual:

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

(1) Reportable damage occurs to Marine Corps property and/or Non-Marine Corps property from contamination, or costs incurred for decontamination.

(2) Individuals exhibit physiological symptoms of agent exposure.

(3) The agent quantity released to the atmosphere creates a serious potential for exposure by exceeding the applicable maximum allowable concentration-time levels for unprotected Marine Corps personnel and/or Non-Marine Corps personnel.

b. Contractor Mishap. A mishap occurring from contractor operations that results in injury/occupational illness to Marine Corps personnel or damage to Marine Corps property.

c. Explosive Mishap. Any unplanned explosion or functioning of explosive material or devices. This includes inadvertent actuation, jettison, release or launch of explosives. It also includes mishaps that result from off-range impact of ordnance.

d. Fire Mishap. Any unplanned fire that requires fire department response on any Marine Corps Installation or property.

e. Government Motor Vehicle (GMV)/(GVO) Mishap. A GMV mishap may only occur when a GMV/GVO is in operation.

(1) GMV/GVO mishaps include: collisions with other vehicles, objects or pedestrians; injuries or property damage due to cargo shifting in a moving GMV/GVO; and injuries as a result of falling from a moving GMV/GVO.

(2) GMV/GVO mishaps do not include: injuries that occur while loading or unloading, or mounting or dismounting; cargo damaged by weather; damage to a properly parked GMV/GVO, unless damaged by another GMV/GMO; and damage to a GMV/GVO caused by objects thrown or propelled into it.

f. Guided Missile Mishap. A mishap involving guided missiles or missile support equipment except when in transit or storage.

g. Industrial Mishap. An on-duty mishap involving a task or work process related to cleaning, maintenance, equipment repair, construction, warehousing, supply or logistical operations, or other industrial type evolutions without regard to whether the mishap occurred in garrison or in the field exercise environment. This includes incidents of radiological exposure when working on military equipment where radiological hazards exist.

h. Maritime Mishap. Mishaps that occur to, or on board, or as the result of the operation of, a Marine Corps combat craft; that involve Marine Corps diving or swimming operations;
that occur up to the high water mark during amphibious or inshore warfare training operations; or that occur while loading, off-loading or receiving services at dockside or pier side. It does not include mishaps that occur on board and result from shipyard, repair facility, or private contractor operations.

i. Recreation Mishaps. A mishap resulting in a fatality or injury to Marine Corps military personnel while on or off-duty that occurs while participating in sports or recreational activities.

j. Private Motor Vehicle (PMV) Mishaps. (Same as POV) A mishap involving a PMV, operated as such, regardless of the identity of the operator, which results in a fatality or injury to on- or off-duty Marine Corps personnel, or damage to Marine Corps property. Classify any mishap involving a PMV and a GMV/GVO as a GMV/GVO mishap unless the GMV/GVO is properly parked. There are three categories of PMV mishaps:

(1) Pedestrian. Mishaps involving Marine Corps personnel struck by a PMV.

(2) 4-Wheel. Mishap involving PMVs with four wheels.

(3) 2-Wheel. Mishap involving PMVs with two wheels.

k. Training Mishap. A mishap that occurs during military exercises or training evolutions designed to develop a Marine's physical ability, increase individual or collective tactical skills, or maintain and increase proficiency in a specific activity. This includes on-duty mishaps involving personnel in entry level programs, i.e. OCS and Recruit Training; Marines attending initial or follow-on formal schools or training centers; and specialized training or Professional Military Education resulting in days lost from scheduled training. Training related deaths may result from mishap(s) or from natural causes occurring during or within one hour after any training activity where the exercise or activity could be a contributing factor.

25. No Lost Time Case. As related to civilian employees only, these are cases wherein a workers' compensation claim is submitted for payment of medical services and no time is lost after the day of injury.

26. Observation/Diagnostic Procedure. Hospitalization for observation or diagnosis is when no treatment or medication is

administered for the suspected injury or occupational illness. Medical authority must determine the individual could have returned to their normal duty without impairment or disability.

27. Occupational Illness. A non-traumatic 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 exposure to conditions of the work environment over a long period of time (greater than a single day or workshift). For practical purposes, an occupational illness/disease is any reported condition that does not meet the definition of an injury. Examples include dust diseases of the lung; respiratory conditions from toxic agents; noise induced hearing loss; poisoning by lead, mercury, or other metals; occupational bloodborne pathogens exposures; Cumulative Trauma Disorders; and work related tuberculosis.

28. Personnel. For investigation, reporting and record keeping, personnel are either Marine Corps Personnel or Non-Marine Corps personnel.

a. Marine Corps Personnel. The term "Marine Corps Personnel" refers to all of the following:

(1) Military Personnel. All military personnel on active duty; Reserve personnel on active duty or in a drill status; officer candidate students; recruits; and other DOD and foreign national military personnel assigned to the Marine Corps. This Manual refers to these personnel as Marine Corps military personnel.

(2) Civilian Personnel. The following are Marine Corps Civilian Personnel:

(a) Federal Civilian Personnel. All career, career-conditional and temporary (full-time, part-time, intermittent), who are subject to Civil Service regulations, paid from appropriated Federal funds, and covered by the Federal Employees' Compensation Act. This excludes civilians paid by appropriated funds on a contract or fee basis.

(b) Non-Appropriated Fund Civilian Personnel. All civilian personnel whose employment by the Marine Corps is paid by non-appropriated funds and who are covered by the Longshore and Harbor Workers Compensation Act. This excludes civilians paid by non-appropriated funds on a contract or fee basis.

(c) Foreign National Civilian Personnel. Includes nationals employed by the Marine Corps in direct (appropriated or non-appropriated funds) or indirect hire (contract or fee basis) status when the Marine Corps has supervisory control. It excludes those paid by contract or fee basis when the host government has supervisory control. Marine Corps commands and installations shall review and determine if the host nation injury and illness reporting and compensation systems supersede DOD requirements per the status of forces' agreement.

b. Non-Marine Corps Personnel. Includes the following:

(1) Off-duty Marine Corps civilian personnel.

(2) Personnel employed by other federal or DOD agencies not assigned to the Marine Corps.

(3) All other civilians and foreign nationals not employed by the Marine Corps.

29. Private Motor Vehicle. A privately owned motor vehicle primarily designed for the transportation of people or cargo over public streets or highways.

30. Privileged. Privileged information is:

a. Information provided under a promise of confidentiality.

b. Information that would not have been discovered except for a promise of confidentiality.

c. The deliberative analysis of findings, conclusions, and recommendations of the SIB.

d. Calculations and deductions conducted by the SIB when disclosing that information would reveal the SIB's deliberative process.

e. Endorsements to a SAFEREP since they are a part of the deliberative process.

31. Property Damage. Damage to facilities, equipment or material. If the incident meets mishap reporting criteria, the cost of environmental cleanup and restoration shall also be included in property damage costs.

32. Special Purpose Vehicles. Golf carts, utility carts, bicycles, mopeds, snowmobiles, all terrain vehicles (ATVs), boats, jet skis or other vehicles/ vessels with a specific
purpose usually associated with recreational activities.

33. Staged Photographs. Staged photographs are those constructed by safety personnel to gain a better understanding of the sequence of events surrounding a mishap. Staged photographs may include but are not limited to photos of mishap sites with safety personnel pointing to various objects, a series of photographs showing similar personal actions which may have led to a mishap, equipment which is highlighted or specifically identified for mishap investigators, etc. Photographs of the actual mishap site, a broken piece of equipment, injured or deceased personnel are not considered staged photographs unless the photos have been marked by mishap investigation personnel.

APPENDIX C

SAMPLE MISHAP INVESTIGATION PLAN AND CHECKLIST

1. Purpose. To provide a sample of a systematic approach to investigating mishaps, and reporting and endorsing mishap investigations.

2. Background. All units need a plan and checklist to follow when a mishap occurs, and one with which key personnel are familiar. A copy of the unit's plan and this Manual should be available to all potential Senior Members of SIBs.

3. Pre-Mishap. Do not wait for a mishap to happen. Be ready, physically and mentally. Pre-mishap plans vary widely, depending on the mission or task at hand, resources, environment and personnel of each command. A mishap plan should be written so it remains valid during training exercises and deployments.

a. Develop a Mishap Investigator's Kit. This should be maintained and updated by the GSO/GSNCO at the battalion or squadron level and above. The content of the kit depends on the type of unit, mission, and equipment and weapons normally used in the performance of that mission. Some considerations for development of the kit are:

(1) Provisions for periodic review of the pre-mishap plan.

(2) Identified staff responsibilities, to include all probable MOS personnel that would serve on an Safety Investigation Board (SIB).

(3) SIB task organization.

(4) Responsibilities for transportation preparations.

(a) Precut travel manuals.

(b) Passports if required.

(c) Identified means of local transportation.

(5) Plan for securing the mishap site.

(6) Description of treatment and evacuation of the injured and or deceased personnel.

(7) Description of arrangements for obtaining photographic coverage of mishap.

(8) Description of coordination with local Explosive Ordnance Disposal (EOD) and Fire Rescue personnel.

(9) Description of arrangements and coordination to deal with hazardous material.

(10) Description of coordination with local environmental protection office.

(11) Description of coordination with local Public Affairs Office (PAO) organization and plan for dealing with media.

(12) Description of coordination with local civil/military medical activities.

(13) Description for coordination with local civil/military investigative agencies such as PMO, CID, NCIS, etc. This also means education of potential JAG investigators of the distinctness and concept of privilege of mishap investigations.

(14) Responsibilities for maintenance of mishap investigation kit.

(15) Listing of contents of mishap kit.

(16) Responsibilities of collecting and securing evidence with proper identification and tagging items to include time, date, location, type of incident, name, and unit of persons involved. Maintaining a chain of custody for all equipment.

(17) Plan for administration support such as vehicle(s), clerical support, computer access, and, message releasing authority for the Senior Member of the SIB.

b. Suggested contents for a Mishap Kit.

(1) Yellow caution tape.

(2) Measuring tape.

(3) 35mm camera, digital or video camera.

(4) Blank paper for witness/statements.

(5) Witness privileged information forms.

(6) Plastics bags for gathering debris.

(7) Notebook/s, pens and pencils.

(8) Tape Recorder.

4. Post-Mishap. (Appoint/Convene an SIB) Safety personnel respond ASAP to mishap site.

a. Ensure injured are treated.

b. Secure the mishap site.

c. Identify and segregate witness/potential witnesses. May use to secure mishap site.

d. Get initial statements from witnesses.

e. Move mishap wreckage when it presents any hazard (take pictures before moving).

f. Identify MOS specialist to augment mishap board.

g. Medical Officer conducts a 72-hour profile when required.

h. Request assistance from COMNAVSAFECEN per section 2 of chapter 4 via component commander as necessary.

i. Interview witnesses.

j. Determine/secure paper trail (training records, ordnance files, medical and dental records, licenses, certifications, LTIs, maintenance records, range/training weapon use SOPs, etc).

k. SIB analyzes all findings based on the evidence gathered and constructs a chain of events leading to the mishap.

l. As appropriate publish HRs for any previously unknown hazard(s) identified during the investigation.

m. SIB identifies probable mishap causal factors.

n. SIB accepts or rejects each mishap causal factor identified.

o. SIB determines recommendations for corrective measures to prevent recurrence.

5. Potential Post-Mishap Items

a. Plans/schedule of mishap investigation process of key personnel.

b. Responsibilities of Duty Officer (or equivalent duty personnel).

c. Listing(s) of personnel/commands to notify (including names, telephone numbers, and address).

d. Procedures for use of local mishap plan/notification system.

e. Procedures for recording information on mishaps (SIR or OPREP3 Reports).

f. Procedures and criteria for notification of local authorities.

g. Responsibilities of CO/XO.

h. Responsibilities of staff principles (including assistance to the SIB).

i. Investigative responsibilities of each SIB member.

j. Guide(s) to mishap classifications.

k. Checklist of reports required by MCO P5102.1A (completed in advance insofar as possible).

l. Sources of assistance to the SIB.

m. Plans for wreckage.

(1) Location of assistance.

(2) Recovery assistance.

(3) Security measures.

(4) Hazardous material procedures.

(5) Transportation assistance.

(6) Reconstruction site.

(7) Engineering investigation.

(8) Release procedures.

(9) Disposal procedures.

(10) Material Safety Data Sheets.

(11) Required personnel protective equipment.

APPENDIX D

Mishap Type	Mishap Damage	Mishap Class	Reports Required	Report Deadline	Investigation By
1. On or Off Duty On Base OR 2. On Duty OR 3. Arising from a USMC Operation On or Off Base	a. Fatality b. Permanent Total Disability (PTD) c. $1,000,000 or more	A	SAFEREP Parts A and B	SAFEREP: 30 days	SIB (COMNAVSAFCEN Investigator will assist)
	a. Permanent Partial Disability (PPD) b. $200,000 - $999,999 c. Hospitalization of 3 or more personnel d. Coma of more than 24 hours	B	SAFEREP Parts A and B	SAFEREP: 30 Days	SIB (COMNAVSAFECEN Investigator may assist)
	a. Lost Workday resulting from injury or illness b. $10,000 - $199,999	C	Record in unit logbook	Logbook: 90 Days	Unit Safety Officer / SNCO/ NCO/Supervisor formally trained in mishap investigation
	a. Injury (No lost workday) b. Property damage $2000 – $9999	D	Record in unit logbook	Logbook: 90 Days	Unit Safety Officer / SNCO/ NCO/Supervisor formally trained in mishap investigation
	Involves explosives or combat chemical agents. (Hazard reports req. for negligent discharge with no injury.)	Per Damage	SAFEREP Parts A and B	SAFEREP: 30 Days	SIB
Off Base Off Duty	Fatality or Injury	A, B	SAFEREP Part A (Para 1-6, 9, 11-13)	SAFEREP: 30 Days	Mishap Investigation Trained Unit Safety Officer / SNCO/ NCO/Supervisor
	Injury	C, D	Record in unit logbook	Logbook: 90 Days	

MISHAP REPORTING GUIDE

APPENDIX E

STANDARD LABOR, INJURY, ILLNESS, AND FATALITY COSTS					
	AVIATION OFFICER	**GROUND OFFICER**	**OCS ENLISTED**	**CIVILIAN EMPLOYEE 1/**	**YOUTH/STUDENT ASSIST PROGRAM FOREIGN NATIONAL 1/**
FATALITY	$1.1 MIL	$395,000	$125,000 2/ $270,000 3/	$460,000	$270,000
PERM TOTAL DISABILITY	$1.3 MIL	$845,000	$500,000	$385,000	$390,000
PERM PARTIAL DISABILITY	$210,000	$145,000	$115,000	$250,000	$180,000
LOST TIME					
- HOSPITALIZED	$466/DAY	$466/DAY	$466/DAY	$466/DAY	$466/DAY
- DAYS FROM WORK,SIQ,CNLVE	$425/DAY	$425/DAY	$375/DAY	$350/DAY	$300/DAY
LIGHT DUTY/ NO LOST TIME	$120/DAY	$120/DAY	$120/DAY	$120/DAY	$120/DAY
1/ For civilian employees, use actual worker's compensation costs when available. 2/ Non-flight crew member fatality. 3/ Flight crew member fatality.					
STANDARD LABOR COST FOR REPAIRS IS $16 PER HOUR.					

*APPENDIX F

MARTRAK VERSION ONE is the official US Marine Corps Electronic Mishap Reporting system. As new versions are developed they will replace Version One. **All earlier** versions of the MARTRAK system need to be converted into Version One. Instructions for conversion are present within the guidance created for Version One.

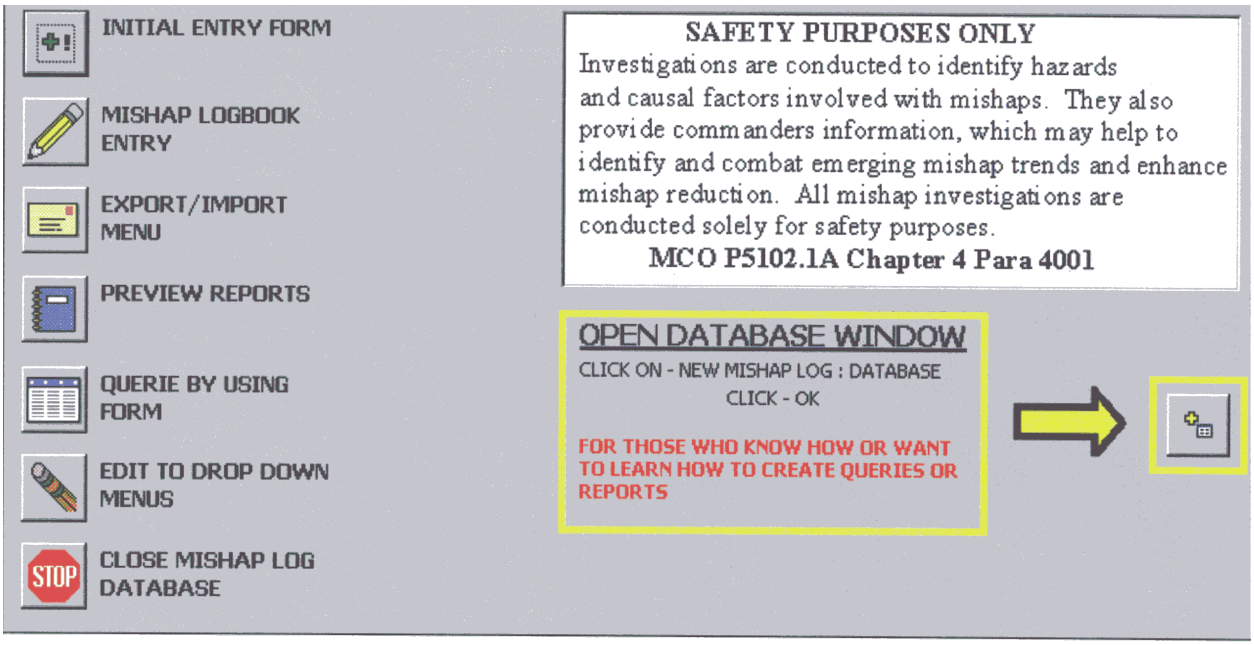
The F-2 provides a copy of the screen that opens when you begin the program. F-3 provides a copy of the initial entry form. F-4 provides a copy of the Mishap Logbook Entry form. Many of the boxes to be filled in have “drop down” boxes. They will be indicated on the actual program screen with a small down arrow within the box. These drop down boxes provide generic/common information. There is space to indication information not present. The instructions will also provide information on how to tailor the information in the drop down boxes.

There are also boxes that must be filled in prior to saving a record. These boxes will be indicated in the program by having a light blue background. This allows you to create a mishap file without all of the information. Later you can query what records are incomplete.

The program also allows you to conduct queries of your data as well as generate reports of the information within the database.

The user of the program should have some knowledge of the software systems, however, technical assistance is available. Contact either the Naval Safety Center, Code 40 at DSN: 564-3520 or CMC (SD) at DSN: 224-1202/1077.

SAMPLE SCREEN



MARTRAK VERSION ONE

SAMPLE MARTRAK INITIAL RPT FORM

INITIAL REPORT

COMMAND INFORMATION:

FILE NO: 12345
DATE OF MISHAP: 5/3/2002
DUTY STATUS: ON
TYPE OF MISHAP: ALL OTHER -OFF
MISHAP CLASS: A

PERSONNEL INFORMATION:

LAST NAME:
FIRST NAME:
MI:
RANK: E1
MOS: 1234
RATE:
AGE: 22
PERSONNEL: CIVILIAN
INDIV STATUS: ACTIVE
JOB TITLE: testing

MISHAP INFORMATION

SUMMARY: testing
GENERAL AREA: 10
INJURY TYPE: ABRASIONS
BODY PART: BACK

LOST WORKDAYS INFORMATION:

STATUS: FATALITY
COMPUTE FATALITY COST OR UPD INJURY COST
HOSP DAY: 0
LOST WORKDAYS: 0
TOTAL LOST TIME: 0
COMPUTE LOST WORKDAY COST
OSHA CODES: 10
LIMIT/LIGHT DUTY: 0
TOTAL TIME COST: $0.00

PROPERTY DAMAGE:

DOD PROPERTY DMG: $0.00
NON DOD PROPERTY DMG: $0.00
TOTAL DMG COST: $0.00

TOTAL COST: $0.00

SAMPLE MARTRAK MISHAP LOGBOOK ENTRY FORM

MISHAP LOGBOOK ENTRY

COMMAND INFORMATION:

FILE NO:	DATE OF MISHAP:	TIME	DUTY STATUS	TYPE OF MISHAP:	MISHAP CLASS:	TOTAL NO FAT/INJ:
0001	☑ 10/2/2001		OFF	SPORT/RECREATION	D	1

MCC:	RUC:	COMPONENT COMMAND:	MAJOR COMMAND:	PARENT COMMAND:	COMMAND NAME:	UNIT NAME:
122	12400					H&S CO

PERSONNEL INFORMATION:

LAST NAME:	FIRST NAME:	MI:	RANK:	MOS:	RATE:	AGE:	GENDER:	BILLET MOS
		J	E3	0612			MALE	0612

PERSONNEL:	INDIV STATUS:	JOB TITLE:
MILITARY	ACTIVE	COMM TECH

MISHAP INFORMATION

SUMMARY:
SNM INJURED HIS WRIST AT FOOTBALL PRACTICE. THREE WEEKS LATER SNM STILL COMPLAINED OF PAIN. UPON FURTHER EVALUATION SNM HAD HIS WRIST X-RAYED AND IT WAS DISCOVERED TO BE BROKEN.

BASE:	STATE/COUNTRY:	CITY/CNTY/BASE:	GENERAL AREA:	SPECIFIC LOCATION:	EQUIPMENT INVOLVED:
ON			45	FOOTBALL FIELD	

GENERAL ACTIVITY:	SPECIFIC ACTIVITY:	ENVIRONMENTAL CONDITIONS:	
SPORT	FOOTBALL PRACTICE	CLEAR/CLOUDY	DRY

INJURY TYPE:	BODY PART:	CHEMICAL/HAZMAT INVOLVED:	CHEMICAL COMMENTS:
FRACTURES	LEFT WRIST		

PERSONAL PROTECTIVE EQUIPMENT USED

☐ SEATBELTS ☐ REFLECTIVE GEAR ☐ FLAKJACKET ☑ HELMET/HARD HA ☐ LONG SLEEVE SHIR ☐ GOGGLES/GLASSES ☐ EARPLUGS
☐ PERSONAL FLOTATION DEVICE ☐ LONG LEGGED PANT ☐ GLOVES ☐ SAFETY BOOTS OTHER PPE:
PPE THAT WAS USED INCORRECTLY:

EQUIPMENT INFORMATION:

☐ STATE DRIVER'S LICENSE STATE OF LICENSE: EXPIRATION OF LICENSE ☐ 6/4/2002
MAKE: MODEL: YEAR: SEATED:
NSN: DODIC: LOT#:

UNDER THE INFLUENCE

ALCOHOL: BAC:
☐ DRUGS LEGAL DRUGS
ILLEGAL DRUGS

TRAINING INFORMATION:

FORMAL TRNG 1: PLACE:
DATE: ☐ 5/3/2002
FORMAL TRNG 2: PLACE:
0
DATE: ☐ 6/4/2002
FORMAL TRNG 3: PLACE:
0
DATE: ☐ 5/3/2002

LOST WORKDAYS INFORMATION:

STATUS: NO LOST TIME DATE OF STATUS: ☐ 6/4/2002
HOSP DAY: 0 LOST WORKDAYS: 0 TOTAL LOST TIME: 0
OSHA CODES: 10 LIMIT/LIGHT DUTY: 0 TOTAL TIME COST: $0.00

PROPERTY DAMAGE:

DOD PROPERTY DMG: $0.00
NON DOD PROPERTY DMG: $0.00
TOTAL DMG COST: $0.00

TOTAL COST: $0.00

SUPERVISOR'S INFO

SUPERVISOR'S NAME:
PHONE NUMBER

POINT OF CONTACT INFORMATION: (RESPONSIBLE FOR REPORTING INFO)

POINT OF CONTACT: DSN: FAX:
E-MAIL: COMMERICAL:

MISHAP TRACKING:

FY-QUARTER: 1ST
FY YEAR: 2002

APPENDIX
G

MISHAP SUMMARY
NAVMC 11430 (10-00) (EF)
SN: 0000-00-888-1060

RCS: DD5102-04

COMMAND:

FISCAL YEAR

UNIT STRENGTH | **DATE PREPARED:** | **PREPARED BY:** | **PHONE:**

1. MISHAP FATALITIES, INJURIES, AND OCCUPATIONAL ILLNESSES

PERSONNEL	(1) FATAL INJURIES	(2) LOST TIME INJURIES	(3) NO LOST TIME INJURIES	(4) LOST TIME ILLNESSES	(5) NO LOST TIME ILLNESSES
a. MILITARY					
b. CIVILIAN					
c. OTHER CIVILIAN					
d. TOTALS					

2. MISHAPS BY TYPE AND COST

ON-DUTY MISHAPS	(1) NUMBER OF MISHAPS	(2) INJURY COSTS	(3) DAMAGE COSTS
a. Industrial			
b. GMV			
c. Training			
d. All Other On Duty			
e. TOTALS - ON DUTY			
OFF-DUTY MISHAPS			
a. PMV			
b. Sports/Rec.			
c. All Other Off Duty			
d. TOTALS - OFF DUTY			

3. PERSONNEL DATA FOR THIS PERIOD

	(1) MILITARY	(2) CIVILIAN	(3) OTHER CIVILIAN
AVERAGE STRENGTH			

Designed Using FormFlow 2.22, HQMC/ARSE Oct 00

Sample

Figure G-1.-- Mishap Summary -- NAVMC 11430 (10-00) (EF)

APPENDIX H

RISK ASSESSMENT CODES

Risk Assessment Matrix. The risk assessment code (RAC) defined by a matrix represents the degree of risk associated with a hazard considering the elements of hazard severity and mishap probability. The RAC is derived as follows:

1. Hazard Severity. An assessment of the worst potential consequence, defined by degree of occupational injury, illness or property damage which is likely to occur as a result of the deficiency. Hazard severity categories shall be assigned by Roman Numerals according to the following criteria:

a. Category I. May cause death, permanent total disability, or loss of a facility/asset.

b. Category II. May cause permanent partial disability, temporary total disability in excess of 90 days (severe injury or severe occupational illness), or major property damage.

c. Category III. May cause minor injury, occupational illness, or property damage.

d. Category IV. Presents minimal threat to personnel safety or health, or property, but is still in violation of a standard.

2. MISHAP PROBABILITY. The probability that a hazard will result in a mishap or loss, based on an assessment of such factors as location, exposure (cycles or hours of operation), affected populations, experience, or previously established statistical information. Mishap probability shall be assigned an English alphabet symbol according to the following criteria:

a. Subcategory A. Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual item or person or continuously to a fleet, inventory or group.

b. Subcategory B. Probably will occur in time. Expected to occur several times to an individual item or person or frequently to a fleet, inventory or group.

c. Subcategory C. May occur in time. Can reasonably be expected to occur some time to an individual item or person or several times to a fleet, inventory or group.

d. Subcategory D. Unlikely to occur.

4. Risk Assessment Code. Using the matrix shown below, the RAC is expressed as a single Arabic number that is used to help determine hazard abatement priorities.

Mishap Probability

		A	B	C	D
	I	1	1	2	3
Hazard	II	1	2	3	4
Severity	III	2	3	4	5
	IV	3	4	5	5

RAC Definition

1-Critical
2-Serious
3-Moderate
4-Minor
5-Negligible

APPENDIX I

DETAILED CAUSE FACTOR LIST

GENERAL GUIDELINES

1. The purpose of the mishap investigation process is to determine the underlying factors that were present when the mishap occurred. These factors are not to define blame but rather identify those things that detail why the individual did the action, failed to take the action or what decision or activity led to the mishap.

2. This appendix will guide the mishap investigator in the full consideration of the "why(s)" of a given event in addition to thorough evaluation of "who" and "what".

3. A human factor narrative cause factor that is ACCEPTED in the SAFREP must be matched to a standardized detailed cause factor from the list that follows to ensure the completeness and precision of the SIB's conclusions. The SIB is in the best position to identify the who/what/why for future inclusion in data files.

4. There are two general classifications of Mishap Cause Factors: Human and Material. The human classification is further subdivided into the significant groupings of PERSONNEL, SUPERVISORY, FACILITIES, and MAINTENANCE that are properly called factors. This appendix deals only with human factors which have the elements of who, what, and why attributed to them. That is, some person/activity (who) did something (what) for some reason (why) that ultimately caused the mishap. If any element(s) could have been interdicted, the mishap would not have occurred. The who/what/why of a mishap's human cause factors are called cause factor elements.

5. The remainder of the appendix lists the human factor elements that must be used in completing paragraph 12 of the SAFEREP. The who(s) are grouped into the four and each of those groups has a corresponding set of what(s) that may be used with it. The why(s) can be associated with any of the four human who/what combinations.

6. It is the responsibility of the SIB to select the set of who/what/why that best describes the human cause factors of the mishap. The complete and precise identification of cause
factors associated with any mishap is the reason for the investigation and function of the SIB, because as hazards after the fact, cause factors are the starting point for defining remedial action and the key to preventing repeat mishaps.

7. Additional rules and considerations that apply to detailed cause factors:

A. The format for stating the detailed cause factors in the SAFEREP is described in Chapter 6. This format is organized to facilitate readability. Departure from it may result in misunderstanding of mishap causes as determined by the SIB.

B. For any one cause factor, there can only be one who/what combination. If there is logically another who and/or what, then there exists another cause factor which must be stated in its entirety.

C. For each what element of a human factor, there may be more than one why.

D. What factors must be chosen from the same group as the corresponding who.

E. When the description of the causal factor element has sub-choices separated by "/", the SIB should make the appropriate selection and omit the remainder.

F. When the causal factor element description has an explanation/clarification enclosed in parentheses, the SIB should omit the text within the parentheses.

G. In the event that a matching detailed cause factor element does not exist for a particular narrative cause factor, use the term "Other" followed by a dash "-", and provide an appropriate definition.

H. Endorsers need not restate the who/what/why on those conclusions where there is concurrence.

WHO

I. PERSONNEL

RIFLEMAN
ARTILLERY CANNONEER
MECHANIC/TECHNICIAN/CLERK
FIRE TEAM LEADER
SQUAD LEADER
SECTION LEADER
PLATOON SERGEANT
PLATOON COMMANDER
AAV/LAV/TANK/SMALL CRAFT CREWMAN
AAV/LAV/TANK/SMALL CRAFT DRIVER/OPERATOR
AAV/LAV/TANK/SMALL CRAFT CREW CHIEF/VEHICLE COMMANDER
RANGE OFFICER IN CHARGE
RANGE SAFETY OFFICER
INSTRUCTOR
DRILL INSTRUCTOR
DRIVER/OPERATOR
ASSISTANT DRIVER
CREW SERVED GUNNER
ASSISTANT CREW SERVED GUNNER
PASSENGER

II. SUPERVISORY

BN/BLT/CSSE/SQN/ACE/ LEVEL	HIGHER ECHELON
PLATOON COMMANDER	REGIMENT/MAG/CSSG
COMPANY COMMANDER	DIVISION/WING/FSSG
OIC	MEF
OPERATIONS OFFICER	COMMARFOR
BN/BLT/CSSE/SQN COMMANDER	CG MCCDC
	COMMATCOM
	HQMC

III. FACILITIES

RANGE CONTROL
WATCH/DUTY PERSONNEL
EXERCISE CONTROLLERS
EMERGENCY RESPONSE PERSONNEL
DISPATCH PERSONNEL
SUPPLY

IV. MAINTENANCE

ORGANIZATIONAL
INTERMEDIATE
DEPOT
CONTRACTOR
MAINTENANCE OFFICER
QUALITY ASSURANCE PERSONNEL
MECHANIC/TECHNICIAN/ REPAIRMAN
MAINTENANCE MANAGEMENT OFFICER

WHAT

I. PERSONNEL (This category is applicable to personnel in the mishap.)

INADEQUATE ROUTE SELECTION
OPERATING VEHICLE AT UNSAFE SPEEDS
IMPROPER OPERATION OF EQUIPMENT
FAILED TO PERFORM PROPER PRE-OPERATIONS CHECKS
FAILED TO PROPERLY CLEAR WEAPON
IMPROPER WEAPONS MALFUNCTION PROCEDURES
IMPROPER WEAPONS HANDLING PROCEDURES
FAILURE TO USE/IMPROPER USE OF PERSONAL PROTECTIVE EQUIPMENT
LOSS OF SITUATIONAL AWARENESS
UTILIZED EQUIPMENT FOR UNINTENDED PURPOSE
ACCEPTED EQUIPMENT WITH KNOWN DEFICIENCIES/WITHOUT NECESSARY EMERGENCY EQUIPMENT
FAILED TO ADHERE TO RANGE SAFETY REQUIREMENTS
JUMPED FROM VEHICLE WHILE IN MOTION
FAILED TO MAINTAIN A SAFE DISTANCE FROM MOVING EQUIPMENT
OPERATED EQUIPMENT WITHOUT LICENSE

II. SUPERVISORY (Policy/Operational personnel only; use MAINTENANCE category for cause factors involving Maintenance Supervision. Select one, i.e., Supervisory, Base, Commanding General)

FAILURE TO INTEGRATE OPERATIONAL RISK MANAGEMENT INTO MISSION PLANNING PROCESS
LACK OF PLANNING
ASSIGNING UNQUALIFIED/INEXEPERIENCED PERSONNEL
FAILURE TO ADEQUATELY BRIEF MISSION EXECUTION
IMPROPER CONVOY CONTROL PROCEDURES
FAILED TO ENSURE TRAINING STANDARDS WERE MET
LACK OF STANDARD OPERATING PROCEDURES

III. FACILITIES

POOR RANGE DESIGN
INADEQUATE TRAFFIC CONTROL PATTERN
FACILITIES IN DISREPAIR (ELECTRICAL, STRUCTURAL)
FACILITIES USED FOR UNINTENDED PURPOSE

IV. MAINTENANCE

INADEQUATE QUALITY ASSURANCE PROCEDURES

IMPROPER MAINTENANCE NOT IN ACCORDANCE WITH TECHNICAL MANUAL
SEATBELT MALFUNCTION
EQUIPMENT MODIFICATION NOT PERFORMED
FAULTY EQUIPMENT DESIGN
DEFECTIVE MANUFACTURE
FAILED TO PERFORM SCHEDULED MAINTENANCE SERVICES
FRAUDULENTLY DOCUMENTED MAINTENANCE SERVICES
IMPROPERLY INSTALLED REPAIR PARTS/COMPONENTS

WHY

I. COMMUNICATION/COORDINATION

A. MESSAGE/INFORMATION

NOT SENT
NOT RECEIVED
RECEIVED BUT IN ERROR
RECEIVED BUT NOT TIMELY

B. MISINTERPRETATION-VERBAL

NONSTANDARD OR AMBIGUOUS LANGUAGE
INCOMPATIBLE VERBAL GUIDANCE
LANGUAGE BARRIER
GARBLED
DISRUPTION DUE TO OTHER CAUSES
MESSAGE RECEIVED BUT MISUNDERSTOOD

C. MISINTERPRETATION-WRITTEN

AMBIGUITY OR INADEQUACY OF INSTRUCTION
INCOMPATIBLE WRITTEN GUIDANCE
INADEQUATE GRAPHIC DESIGN

D. INADEQUATE COORDINATION

PERSONAL RELATIONSHIP PROBLEM
COMMAND’S PERSONALITIES

E. FAILURE TO CONDUCT ADEQUATE BRIEF

II. PSYCHOSOCIAL

A. ATTITUDE PROBLEM

EXCESSIVE MOTIVATION
MISPLACED MOTIVATION
INSUFFICIENT MOTIVATION
OVERCONFIDENT
LACK OF CONFIDENCE
LACK OF DISCIPLINE

B. AFFECTIVE STATE

ANGER
FEAR/ANXIETY/APPREHENSION
PANIC
DEPRESSION
IRRITABILITY
IRRITABILITY
CAREFREE
RECENT CHANGE

C. STRESS

PREOCCUPIED WITH PERSONAL PROBLEMS
INTERPERSONAL TENSION
INADEQUATE MISSION STRESS COPING
INADEQUATE PERSONAL STRESS COPING
PERCEIVED PRESSURE RELATED TO SUPERVISOR
PERCEIVED PRESSURE RELATED TO FAMILY
PERCEIVED PRESSURE RELATED TO UNKNOWN SOURCE
PERCEIVED PRESSURE INTERNALLY GENERATED
PERCEIVED PRESSURE, OTHER
EXCESSIVE WORKLOAD WITHIN COMMAND
HIGH OPERATIONS TEMPO, APPROPRIATE
HIGH OPERATIONS TEMPO, INAPPROPRIATE
EXCESSIVE WORKLOAD OUTSIDE COMMAND
EXCESSIVE WORKLOAD, OTHER

D. RECENT LIFE CHANGES

DEATH OF SPOUSE
DEATH OF FAMILY MEMBER
DEATH OF FRIEND OR PEER
ENGAGEMENT
MARRIAGE
MARITAL DISCORD
SEPARATION
DIVORCE
JOB CHANGE
JOB/CAREER DISSATISFACTION
JOB/CAREER MAJOR EVENT
DID NOT SCREEN FOR COMMAND
PASSED OVER FOR PROMOTION
CHANGE OF RESIDENCE
HOLIDAY/VACATION
ADDITION TO FAMILY
FINANCIAL DIFFICULTIES
LEGAL DIFFICULTIES
POOR PERSONAL HEALTH
POOR HEALTH OF SPOUSE
POOR HEALTH OF FAMILY MBR
POOR HEALTH OF FRIEND

III. ENVIRONMENT

A. INTERNAL TO VEHICLE/FACILITY

EXCESSIVE VIBRATION
DECOMPRESSION
SMOKE/FUMES/ODORS IN VEHICLE/FACILITY
TOXIC EXPOSURE
ELECTRIC SHOCK
EXCESSIVE HOT/COLD TEMPERATURES
HUMIDITY EXTREMES HIGH/LOW
HAZARDOUS NOISE
INADEQUATE LIGHTING

B. OTHER

IV. PERFORMANCE

A. JUDGEMENT ERROR

DELAYED JUDGEMENT
OTHER
POOR JUDGEMENT

B. DECISION ERROR

DELAYED DECISION
INDECISION
RUSHED DECISION
POOR DECISION
PROBLEM NOT FORSEEABLE
COMPLETE TECHNICAL DATA WAS UNAVAILABLE
NECESSARY INFORMATION HAD NOT BEEN PROVIDED
NECESSARY PROFICIENCY HAD NOT BEEN PROVIDED
NECESSARY INFORMATION DID NOT EXIST
OTHER

C. TECHNICAL ERROR (ERROR OF EXECUTION)

PERCEPTUAL MOTOR ERROR
ADJUSTMENT ERROR
FORGETTING ERROR
MISREAD INSTRUMENTS
MISINTERPRETED INSTRUMENT READING
SUBSTITUTION ERROR
CONFUSION OF CONTROLS
UNINTENTIONAL ACTIVATION
SKILL DEFICIENCY
OVER CONTROL
LACK OF DEXTERITY/ COORDINATION
LACK OF PHYSICAL STRENGTH
LACK OF PHYSICAL MOBILITY
OTHER

D. FAILURE OF ATTENTION

Table 1:

GENERAL INATTENTION, BOREDOM MISSION ACCOMPLISHED, COMPLACENCY COMPLACENCY OTHER SELECTIVE INATTENTION CHANNELIZED ATTENTION (FIXATION) FASCINATION COGNITIVE SATURATION	DISTRACTION EXTERNAL DISTRACTION INTERNAL TEMPORAL DISTORTION HABIT PATTERN (PERCEPTUAL SET) ERROR RESPONSE SET ERROR,INTERFERENCE RESPONSE SET ERROR,SUBSTITUTION OTHER

V. HUMAN ENGINEERING

A. DISPLAYS

B. CONTROLS

Table 2:

DESIGN DEFICIENCY, SIZE DESIGN DEFICIENCY, SHAPE DESIGN DEFICIENCY, OTHER LOCATION PROBLEM	CONTROL-DISPLAY COMPATIBILITY PROBLEM OTHER

C. PERSONAL EQUIPMENT

DEFICIENCY
MALFUNCTION
INTERFERENCE
LOCATION PROBLEM
OTHER

D. ANTHROPOMETRY

MOVEMENT RESTRICTION
CONTROL OUT OF EFFECTIVE REACH
PERSON DID NOT FIT ANTHROPOMETRIC PARAMETERS
OTHER

E. INFORMATION PROCESSING

SIGNAL DETECTION
DISTRACTION
WORKLOAD, OVERLOAD
WORKLOAD, UNDERLOAD
TASK DIFFICULTY
OMISSION
OTHER

F. SENSORY FUNCTIONING

INSUFFICIENT REACTION TIME
OVERLOAD
INADEQUATE LIGHTING
NIGHT VISION DEVICE MISUSED
NIGHT VISION DEVICE NOT USED
VISUAL RESTRICTION, OTHER

G. LIFE SUPPORT CAPABILITY

H. OTHER

VI. MEDICAL/PHYSICOLOGICAL

A. ACUTE EFFECTS

MEDICATION EFFECTS, PRESCRIBED
MEDICATION EFFECTS, NONPRESCRIBED
ALCOHOL EFFECTS, ACUTE INTOXICATION
ALCOHOL EFFECTS, HANGOVER
ALCOHOL EFFECTS, OTHER
CAFFEINE EFFECTS
HYPOXIA/HYPOXIC
HYPOXIA, OTHER
HYPERVENTILATION
HEAT STRESS
COLD STRESS
TRAUMA
PNEUMONTHORAX
DEHYDRATION
MISSED MEALS
MOTION SICKNESS
FATIGUE, INADEQUATE REST
FATIGUE, OTHER
ACCELERATION EFFECTS
LOSS OF CONSCIOUSNESS
RESTRICTED MOVEMENT
INFECTIOUS DISEASE
NO MEDICAL EVALUATION
FATIGUE, CIRCADIAN RHYTHM DISTURBANCE
GAS EFFECTS (BENDS, EAR BLOCK, SINUS BLOCK, CHOKES, SKIN MANIFESTATIONS, NEUROLOGIC MANIFESTATIONS)
OTHER

B. CHRONIC EFFECTS

ABNORMAL DIET (POOR NUTRITION)
FATIGUE, MOTIVATION EXHAUSTION (BURNOUT)
FATIGUE, OTHER
POOR PHYSICAL CONDITIONING
PREEXISTING DISEASE WAIVERED
PREEXISTING DISEASE NOT WAIVERED
OTHER

C. MISPERCEPTION

OCULOVESTIBULAR ILLUSION
KINESTHETIC ILLUSION
SPATIAL DISORIENTATION RECOGNIZED
SPATIAL DISORIENTATION UNRECOGNIZED
VESTIBULAR ILLUSION
VISUAL ILLUSION, OTHER

D. REVIEW OF SYSTEMS

CONSTITUTIONAL PROBLEM
PSYCHIATRIC PROBLEM, PSYCHOSIS
PSYCHIATRIC PROBLEM, PERSONALITY DISORDER
PSYCHIATRIC PROBLEM, NEUROSIS
PSYCHIATRIC PROBLEM, OTHER
NEUROLOGICAL PROBLEM, SEIZURE
NEUROLOGICAL PROBLEM, ALTERED CONSCIOUSNESS
NEUROLOGICAL PROBLEM, SYNCOPE
NEUROLOGICAL PROBLEM, AMNESIA
NEUROLOGICAL PROBLEM, UNCONSCIOUSNESS
NEUROLOGICAL PROBLEM, OTHER
OPTHAMOLOGY PROBLEM, UNCORRECTED DEFECTIVE VISION
OPTHAMOLOGY PROBLEM, COLOR BLINDNESS
OPTHAMOLOGY PROBLEM, OTHER
OTOLARYNGOLOGY PROBLEM, AUDITORY DEFICIT
OTOLARYNGOLOGY PROBLEM, OTHER
MOUTH OR DENTAL PROBLEM
RESPIRATORY PROBLEM, INFECTION
RESPIRATORY PROBLEM, SMOKE INHALATION
RESPIRATORY PROBLEM, ASTHMA
RESPIRATORY PROBLEM, OTHER
CARDIOVASCULAR PROBLEM, MYOCARDIAL INFARCTION
CARDIOVASCULAR PROBLEM, MYOCARDIAL INFARCTION
CARDIOVASCULAR PROBLEM, ANGINA
CARDIOVASCULAR PROBLEM, ARRYTHMIA

CARDIOVASCULAR PROBLEM, HYPERTENSION
CARDIOVASCULAR PROBLEM, OTHER
PERIPHERAL VASCULAR PROBLEM
GASTROINTESTINAL PROBLEM, NAUSEA/VOMITING
GASTROINTESTINAL PROBLEM, PEPTIC/GASTRIC ULCER
GASTROINTESTINAL PROBLEM, GALLBLADDER DISEASE
GASTROINTESTINAL PROBLEM, ABNORMAL BOWEL ACTION
GASTROINTESTINAL PROBLEM, OTHER
GASTROINTESTINAL PROBLEM, RENAL COLIC
MUSCULOSKELETAL PROBLEM
HEMATOLOGIC PROBLEM
ENDOCRINE PROBLEM
DERMATOLOGIC PROBLEM
OTHER

E. OTHER