



## PRE-MISHAP PLAN

### JIFX YR-#

#### McMillan Airfield, Camp Roberts, CA

The purpose of a pre-mishap plan is to have established procedures in place that will assist personnel immediately following a mishap with required notification and reports. It is not all-inclusive since every contingency cannot be anticipated. However, reference to this plan and sound judgment will provide the foundation to get the process underway. All procedures in NPSINST 3750.1 will be complied with if an NPS aircraft or personnel are involved in a mishap.

The JIFX Director is responsible for the execution of this Plan.

1. Characteristics of all aircraft will be found in the RCC Questionnaires and Risk Assessment Form DD2977 that are submitted prior to any flights. Copies of these documents will be co-located with the Air Boss during operations.
2. In case of a mishap, or any unintended impact with the ground or another vehicle, the flying unit will immediately notify the Air Boss via Radio or phone. The Air Boss will immediately notify Camp Roberts Air Operations and Range Control via radio. After the radio notification the following personnel should be informed: (If in the unlikely event that the flying unit cannot reach the Air Boss then they must make the attempt to contact)
  - a. JIFX Director or Deputy Director
    - Ray Buettner, Director: (831) 521-3260
    - Gerald Scott, Deputy (831) 264-3294
  - b. NPS Field Site Manager
    - Greg Arenas: (805) 536-9049
  - c. Roberts Air Operations "Robert's Radio"
    - (805) 238-8181
    - Handheld radio "AIR" net.
  - d. Range Control
    - (805) 238-8269
    - FM 38.90 "Camp Roberts Range Control," or Handheld radio "Range C" net
    - ALL EMERGENCIES 24/7 Call Range Control
  - e. Give the following information:
    - Location of the accident, in UTM if possible
    - Type of aircraft
    - Severity of the accident, i.e., total loss, fire, etc., if known.
    - Extent of injuries, if known

NOTE: When making phone calls, give accurate information and don't hang up until the person you are calling says he/she has all the information needed.

3. As soon as possible the Flying unit will fill out the attached “Airborne Vehicle Lost/Crash Report.” NPS will provide a CAL Form 190-40, Incident Report Form, to Range Control whenever:
  - a. Any incident leading to damage to CA-ANG property.
  - b. Any incident leading to personnel injury.
  - c. Any time an incident or the effects of an incident extends beyond the boundaries of Camp Roberts.
  - d. If requested by Range Control or directed by NPS.
4. In the event of a Class A, B or C mishap the Air Boss or designated JIFX staff will notify the NPS Command Duty Officer and others in the NPS Chain of Command as directed by the Director—see Emergency Assistance Contact Information.
5. Other types of reports may be required will be based on the classification of the mishap. See the U.S. Navy Accident Classification Chart at Table 1 for guidance.

SEVERITY CLASS			
MISHAP CATEGORY	A	B	C
<b>FLIGHT MISHAP (FM)</b> Intent for flight existed, and \$20,000 or more DOD aircraft/UAV damage occurred.	Total damage cost is \$1,000,000 or more and/or aircraft destroyed and/or fatal injury and/or permanent disability.	Total damage cost is \$200,000 but less than \$1,000,000 and/or permanent partial disability and/or hospitalization of three or more personnel.	Total damage cost is \$20,000 but less than \$200,000 and/or five lost workdays injury.
<b>FLIGHT-RELATED MISHAP (FRM)</b> Intent for flight existed with less than \$20,000 DOD aircraft or UAV damage.	Total damage cost \$1,000,000 or more and/or fatal injury and/or permanent disability.	Total damage cost is \$200,000 but less than \$1,000,000 and/or permanent partial disability and/or hospitalization of three or more personnel.	Total damage cost is \$20,000 but less than \$200,000 and/or five lost workdays injury.
<b>AVIATION GROUND MISHAP (AGM)</b> No intent for flight existed	Total damage cost of \$1,000,000 or more and/or aircraft destroyed and/or fatal injury and/or permanent total disability.	Total damage cost is \$200,000 but less than \$1,000,000 and/or permanent partial disability and/or hospitalization of three or more personnel.	Total damage cost is \$20,000 but less than \$200,000 and/or five lost workdays injury.

6. Range Control may also request DA Form 2397.
7. Recovery Response Plan.
  - a. Prior to any UAV flights from McMillan Airfield a Risk Assessment and RCC Questionnaire must be completed by the flying organization and approved by NPS. Due to the large variance of UAVs flown from McMillan Airfield an assessment will be made by NPS to determine the Response level and pre-position requirements. The following is a guidance:

- Minimum Risk Recovery Team: (Group 1/2 Type UAS)
  - Unit Rapid Response Members identified
  - Fire Extinguisher at GCS
  - Lithium Battery Containment bag. Group 1/2 Type UAVs often use Lithium batteries and can cause a fire hazard. Each experiment using lithium batteries must have a containment system on hand. NPS also has lithium bags and gloves available in bldg. #1. In case of fire, or if fire danger is high, notify the Camp Roberts Fire Department.
  - In the event of a crash the Mission Commander will notify the Air Boss with the last known location of the UAV. NPS will help find and recover the UAV.
  
- Medium Risk Recovery Team: (Group 3/4 Type UAS)
  - Unit Rapid Response SME identified
  - Fire Extinguisher at GCS
  - NPS Rapid Response Vehicle Pre-Positioned with TBD but may include:
    - (a) Firefighting trailer
    - (b) Fire Extinguisher
    - (c) Crash Kit
    - (d) GPS locator System
    - (e) Radios
    - (f) Map
    - (g) Spill Kit
    - (h) Shovels
    - (i) Gloves
    - (j) Boundary Tape
  - The NPS Rapid Response Team (RRT) identified. A judgment call will have to be made by the Safety Officer if the RRT will be located near the GCS.
  - In the event of a crash the Air Boss will notify the NPS RRT with the last known location of the UAV. The RRT will be dispatched along with the unit SME. The Air Boss will notify Range Control. The NPS RRT will be in charge of the Crash Site until other Emergency Services arrive.
  - The Unit will be responsible for any Hazardous Spills.
  - Ensure only personnel authorized by the Director, NPS Site Manager, the local Base Commander, and the Aviation Safety Officer are allowed on a crash site. All personnel

involved in crash recovery must be informed of the onboard HAZMAT (see **Onboard HAZMAT Inventory in Unit's RCC**) and of appropriate precautions when approaching the accident site.

- High Risk Recovery Team
  - High Risk UAVs will not be flown w/o direct approval from the Base.
  - All of the above plus perhaps:
    - (a) Fire Fighting Team on standby or Stationed at McMillan
    - (b) Fly over terrain cleared of all personnel
- 8. In the Director's judgment, flight crewmembers involved in all flight and flight-related mishaps in which either an aircraft is destroyed, property damage is expected to exceed \$20,000, five or more personnel are inpatient hospitalized, or any permanent total or partial disability is sustained are subject to testing. In this situation ensure that all required toxicological testing of personnel are promptly accomplished. This testing should include BAT (Blood Alcohol Test) and Urinalysis for Barbiturates/Narcotics. Star Drug Testing, (805) 434-1477, 3850 Ramada Dr., Paso Robles, CA 93446, is one option.
- 9. Collect and put under lock and key the following records for mishap investigation, if applicable:
  - a. Aircraft maintenance records and logbooks.
  - b. Records (training/qualification/currency/medical) for all crewmembers, non-crewmembers, and ground personnel involved in the mishap.
  - c. AGE equipment maintenance records (if a factor in Ground Mishaps).
  - d. Weather forecasted to crew.
  - e. All forms completed per NPS Instructions.
- 10. Coordinate with the Aviation Safety Official on all reporting and investigations in accordance with NPS' Procedures.
- 11. Direct all questions from Press to the JIFX Director or NPS Public Affairs Office.

**EMERGENCY ASSISTANCE CONTACT INFORMATION**

*Key Personnel*

NPS Field Site Manager	Greg Arenas	(805) 227-1313 X1 (805) 238-8302	Office Cell
Experiment Director	Dr. Ray Buettner	(831) 656-3387 (831) 521-3260	Office Cell
Deputy Director	TBD		Office Cell
Air Boss	TBD		Office Cell
NPS CDO	As Assigned	(831) 656-2442	Office
NPS Safety Officer	TBD	(831) 656-1072	Office
NPS Aviation Officer	TBD		Office
NPS Public Affairs	TBD	(831) 656-3567	Office Cell
Camp Roberts Range Control	ALL EMEGENCIES	(805) 238-8296	Office
Hospital (Twin Cities)	Emergency Room	(805) 434-4550	
FAA, San Jose FSDO		(408) 291-7681	
FAA, Oakland FSS (Off-Base Crash)		(800) 272-1180 (800) 272-0128	Primary Backup

## **Airborne Vehicle Lost/Crash Report**

Lost UAS: Provide last position, altitude and direction of flight.

UAS Crash: Provide known position of crash or best estimate.

Each unit should have requirements for reporting lost or crashed UASs. To ensure that NPS Field Laboratory has required information needed to answer Range Control questions, obtain the below information from the UAS Operator:

**1. Type UAS:** \_\_\_\_\_

**2. Owning Unit:** \_\_\_\_\_

**3. Date of loss** \_\_\_\_\_ (DD/MO/YR) Time \_\_\_\_\_ (Local/Zulu)

**4. Site/location of incident:** \_\_\_\_\_

**5. Flight Log information:**

Pilot: \_\_\_\_\_

Mission Controller: \_\_\_\_\_

Unit: \_\_\_\_\_

Channel: \_\_\_\_\_ GPS Keyed: \_\_\_ Y \_\_\_ N \_\_\_

Launch Time: \_\_\_\_\_

Duration of Flight:: \_\_\_\_\_

Weather: \_\_\_\_\_

Temperature: \_\_\_\_\_

Wind Speed: \_\_\_\_\_

Wind Direction: \_\_\_\_\_

Lighting: Night \_\_\_ Dawn \_\_\_ Day \_\_\_ Dusk \_\_\_

Camera Type: \_\_\_ Day \_\_\_ F/L Night \_\_\_ S/L Night

**6. Other Factors:**

Moonlight/illumination: \_\_\_\_\_

Precipitation: \_\_\_\_\_

Clouds: \_\_\_\_\_

(Other): \_\_\_\_\_

**7. Circumstances:**

a. Origin/launch site: \_\_\_\_\_

b. Mission: \_\_\_\_\_

c. Launch problem: \_\_\_\_\_ Landing problem: \_\_\_\_\_

d. Problem during flight: \_\_\_\_\_

e. Commanded altitude or throttle setting: \_\_\_\_\_

f. Air vehicle altitude above ground: \_\_\_\_\_ Feet

g. Air vehicle heading: \_\_\_\_\_ Degrees magnetic

h. Last known UAS location: \_\_\_\_\_

i. Rally point location and altitude: \_\_\_\_\_

j. Loss of Link indications: \_\_\_\_\_

k. GPS startup problems: \_\_\_\_\_

l. Previous problems/maintenance issue that may have contributed:

\_\_\_\_\_

m. Flight recorded/taped? Y/N Location of tape \_\_\_\_\_

**8. Summary of mishap and damage:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**9. Actions taken upon/after loss (search pattern used, number of searchers, duration of search, use of aircraft to assist, etc.):**

\_\_\_\_\_  
\_\_\_\_\_

**10. Damage**

a. Aircraft: \_\_\_\_\_

b. DoD property damage: \_\_\_\_\_

c. Private property damage \_\_\_\_\_

\_\_\_\_\_

**11. Personnel information and injuries (if any).**

• Pilot (Name, Rank): \_\_\_\_\_

• Mission Controller (Name, Rank): \_\_\_\_\_

• Date and location of Pilot/Mission Controller completion of certified training: \_\_\_\_\_

• Witnesses: (Name, Rank, and role (i.e., RVT Data Capture, UAV Team Leader, etc.)) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

• Other personnel: (Name, Rank, and role (i.e., search))

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_