

# Aviation Accident Reporting and Investigation



Federal Aviation  
Administration



Presented to: Michigan Association of Aviation Executives

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# FAA Flight Standards Service

- Promotes system safety by administering regulations and standards for airmen, air carriers and air agencies in these areas:
  - Certification
  - Surveillance
  - Inspection
  - Investigation
  - Enforcement
- ***Educational Outreach*** through the ***FAA Safety Team (FAASTeam)*** as a means of accident and incident prevention.





# EMI FSDO District



# Definitions

- **Accident**: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such person have disembarked, and which ***any person suffers death or serious injury, or in which the aircraft receives substantial damage.***

# Definitions

- **Substantial Damage**: Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major replacement or repair of the affected component.



# Definitions

- **Incident**: An occurrence other than an accident, associated with the operation of any aircraft, which affects or could affect the safety of operation.



# What are my Responsibilities as the Airport Manager?

- You are the Coordinator
- You should develop a process that is going to be used during such an emergency
- This includes a list of initial notification phone numbers



# Sequence of Events

- Call Emergency Rescue for assistance
- Contact Local Law enforcement agency for assistance.
- Contact FSS, FSDO or FAA Regional Operations Center (ROC)
- Remain calm and think each segment or question out prior to acting.



# Sequence of Events

- **Limit Access of scene to *Rescue and Law Enforcement Officers* until the FAA IIC arrives.**
- **The main goal at this point is to prevent further incidents or injuries by limiting the accessibility of the accident site.**



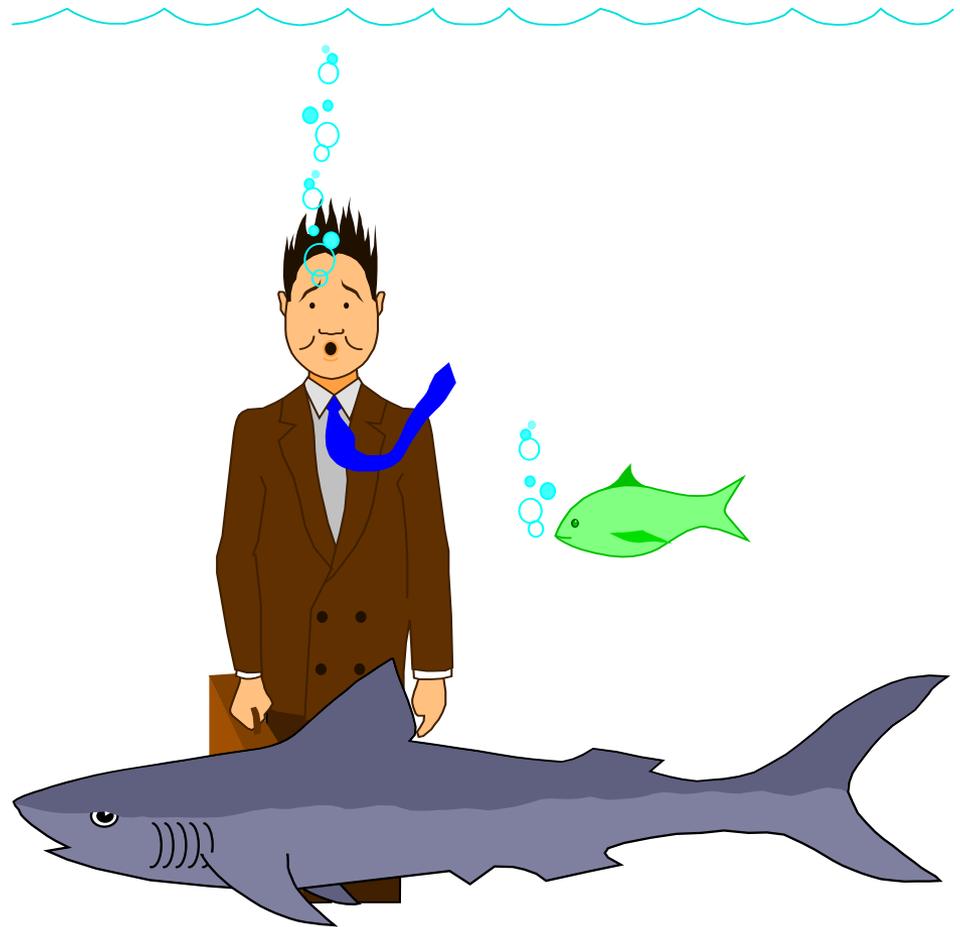
# The Media and Information Sharing

- **DO NOT volunteer information to media or persons that are not in “Authorized Official Capacity”**
- **This is especially important regarding persons on board the aircraft or their physical condition.**
- **Refer Media inquiries to FAA-Great Lakes Region Public Affairs (847) 294-7427**



# What Can I Expect?

- **Because of your status as the airport manager you will be like a fish in a bowl.**
- **Everyone will want to be your buddy, especially the ones who want you to divulge information**



# Things Not to Do

- **Do not present yourself as an investigator.**
- **Stay focused in being a facilitator and coordinator during the initial phases of the event.**



# Information Gathering

- Remember You are acting in an official capacity as the airport manager.
- Try to gather any witnesses and ask them for their name & phone number then give them to the FAA RCC & IIC



# Who do I call if There is an Aircraft Accident?



# Federal and State Agencies That Need to be Contacted

- **Lockheed-Martin Flight Service Station**
- **FAA Regional Communication Center**
- **Grand Rapids or East Michigan Flight Standards District Office (FSDO)**
- **Michigan Department of Transportation Hazardous Materials Duty Officer**



# Information to Provide

- **Registration Number**
- **Accident Location**
- **Contact Name and Number**
- **Type of Aircraft**
- **Injuries – Number and severity**
- **Fatalities**
- **Number on Board**



# Investigation Phase

- **Treat as a crime scene**
- **Do not move the aircraft without the approval of the FAA IIC.**

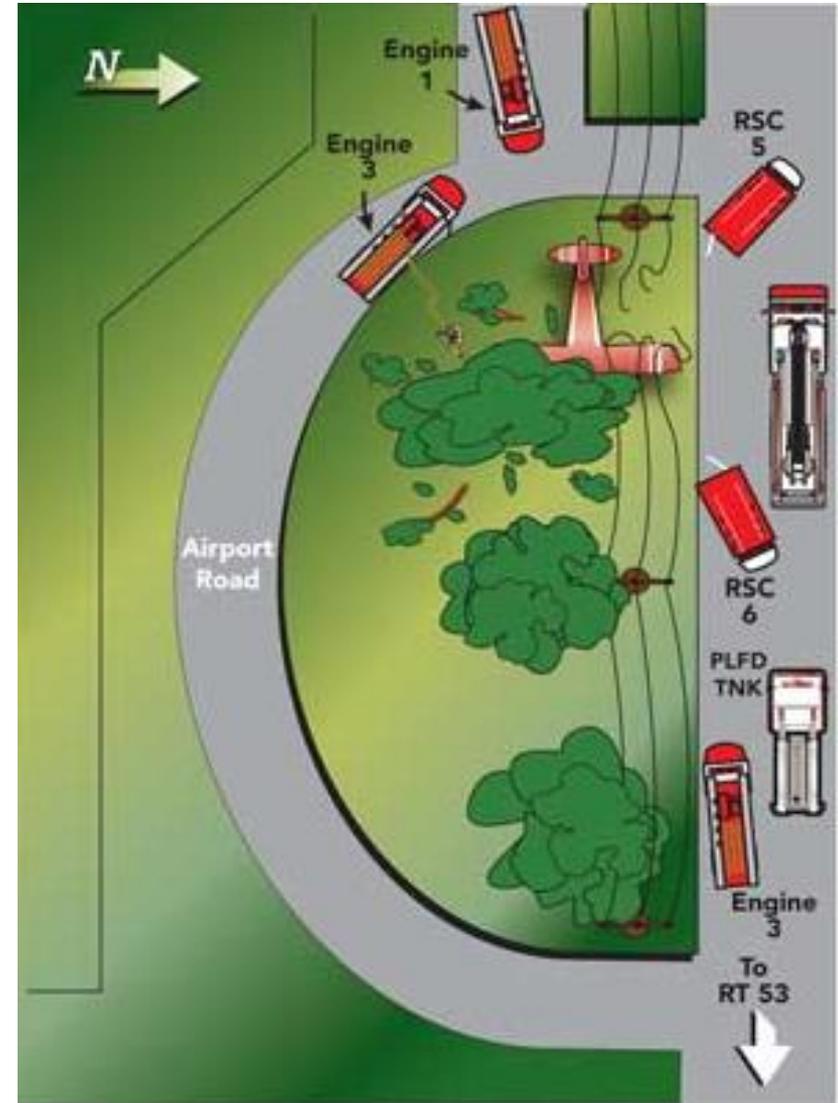


# Investigation Phase

- **The Local Law Enforcement should gather as much data about the pilot as possible.**
- **They can also assist us by gather any aircraft and pilot log books at the scene.**
- **Determining the direction of flight and possible angle of impact can be of help**
- **Witness statements assist in providing vital information in the FAA & NTSB investigation.**

# Investigation Phase

- Allow Local Law enforcement to map the scene and Protect.



# Photos

- **Before and After Movement**
- **Document damage from rescue attempt**
- **All corners, all directions**



# Photos

- **Close-Up of all damage**



# Cockpit Photos

- Instrument Panels



- Switches

- Throttles, Propeller Controls, Mixtures

- Fuel Selectors

- Gear and Flap Selectors



# Who Has Authority to Enter the Scene?

- Federal Aviation Administration Investigators who present appropriate Identification. (FAA Form 110A & FAA Form 8000-39)
- NTSB Investigators who Present appropriate Identification

• ~~Local Law Enforcement Officers and~~



NTSB Investigation No. \_\_\_\_\_

Date of Accident: \_\_\_\_\_

Accident Location: \_\_\_\_\_

## CERTIFICATION OF PARTY REPRESENTATIVE<sup>1</sup>

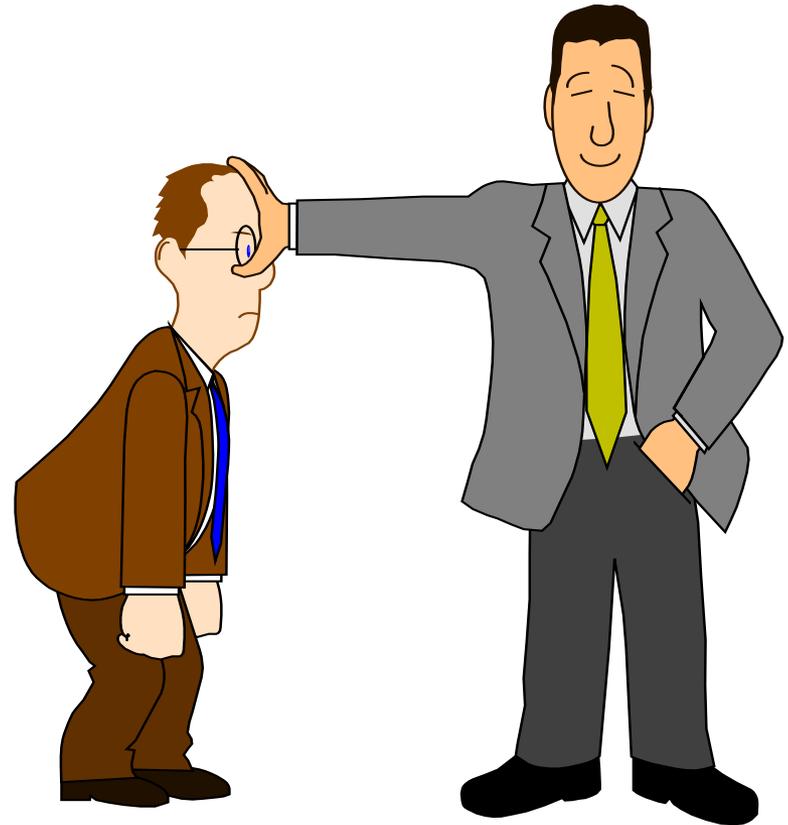
I acknowledge that I am participating in the above-referenced accident or incident investigation, on behalf of my employer who has been named a party to the National Transportation Safety Board (NTSB) safety investigation, for the purpose of providing technical assistance to the NTSB's evidence documentation and fact-finding activities.

# Public Law

- **Title 49 US Code**
- **Chapter 11**
- **Section 1134**
- **Sub Section (b) (2)**
- Any civil aircraft and parts thereof, also property on board, involved in the accident shall be preserved IAW the regulations prescribed by the FAA and NTSB

# Operator or Owner Refusal of Access to Aircraft / Wreckage

- **Title 49 US. Code**
- **Appendix 1471**
- **Federal Aviation Act of 1958**
- **Section 901**



# Persons Refusing Access

- Any person who refuses to grant access to the aircraft after proper demand by the inspector will be subject to civil and criminal penalties up to **\$5000 and or ONE Year in Jail**



# Title 49 US Code Section 115

- **Sub Section (b)**
- Criminal Penalty
- Imprisoned for not more than Ten years
- A person that knowingly and without authority **removes, conceals, or withholds a part** of a civil aircraft involved in an accident, **or property**, shall be fined under Title 18

# Scene Protection

- **Suggest setting two perimeters –**
  - Working perimeter
  - Public and media perimeter

# 14 CFR 61.3(I)

- Each person who holds an *airman certificate, medical certificate, authorization or license* must present it and *their photo identification* for inspection upon a request by the *FAA, NTSB Official, Federal, State, or Local Law Enforcement and an authorized TSA agent.*

# FAR 61.51(i)(1)

- Pilot ***must*** present logbook or any other record for inspection ***upon a reasonable request*** of the authorized officials.
- Pilot Log Book
- Aircraft Log Books
- Flight Plan

# Preservation of Accident Site

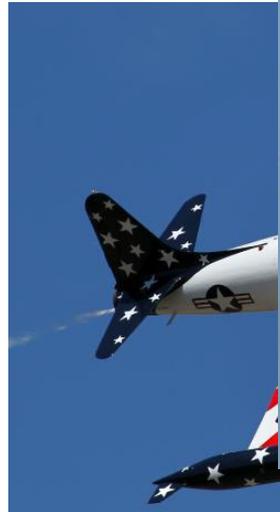
- Local Law Enforcement agencies can assist the FAA and NTSB by preserving the site ***as if it were a crime scene***
- FAA relies greatly on assistance from these agencies.
- Because of the nature of aircraft accidents Local Officials are generally the first on the scene. This includes Airport Officials.



# Accident Site Guidance

- **Locate the battery switch for the aircraft and turn off**
- **Have a Certificated Mechanic disconnect the battery**
- **Locate the ELT and deactivate**
- **Beware of fuel spillage**
- **Beware of BIO Hazards (Pathogens)**
- **Beware of Ballistic Parachute Systems**
- **Composites – glass or carbon fiber**

# Surplus Military Jet Aircraft

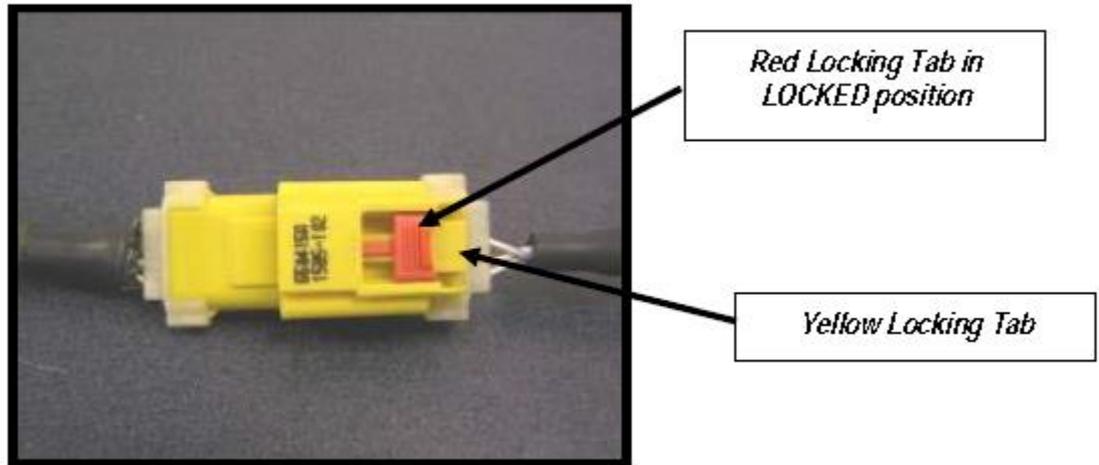


# Hazards



# Hazards – Ballistic Recovery Systems





# Hazards – Carbon Fiber

- Carbon fiber dust is a skin irritant and breathing hazard.
- Must wear a respirator with an **organic vapor filter** as well as a **dust filter**.
- Wear eye protection, long pants and sleeves.
- Sharp edges and shards.



# Hazards – Pressurized Containers

- Oxygen Bottles
- Hydraulic Accumulators
- Fire Bottles – Squibs



# For the Coroner

- **It is imperative that the coroner understands that if there are fatalities**
  - DO NOT EMBALM THE BODIES
- **The FAA IIC will provide the coroner with a toxicology kit that will require samples from the pilots remains.**
  - This will be done only on the pilot



# Accident Investigation Processes

AT QA REPORT NUMBER									



## FAA ACCIDENT / INCIDENT REPORT

1. ACCIDENT  INCIDENT

3. DATE OF EVENT MO   DA   YR

4. FAA OFFICE REGION   OFFICE NUMBER

5. NTSB ID

6. LOCATION: CITY/STATE/ZIP

7. OPERATOR NAME        
FOUR LETTER IDENTIFIER

8. AIRPORT (IF APPLICABLE) 3- OR 4- LETTER ID

9. LOCAL TIME 24- HOUR CLOCK

10A. LATITUDE 10B. LONGITUDE

11. AIRCRAFT DAMAGE  NONE  MINOR  SUBSTANTIAL  DESTROYED

12. COLLISION - BETWEEN TWO AIRCRAFT  YES  NO  AIR  GROUND

13. AIRCRAFT	REGISTRATION NUMBER	<input type="text"/>
	SECOND AIRCRAFT	<input type="text"/>
	YEAR OF MANUFACTURE	<input type="text"/> <input type="text"/> <input type="text"/>
	TOTAL AIRFRAME HRS.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
REGISTRATION		
MAKE/MODEL		
SERIAL NO.	AIRFRAME CYCLES	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

2. AMENDED DATE MO   DA   YR

14. FAR PART NUMBER	15A. TYPE OF AIRCRAFT		
91	AIRPLANE	BLIMP/AIRSHIP	ULTRALIGHT
91 SUBPART K (FRACTIONAL)	HELICOPTER	GYROPLANE	LIGHT SPORT
103	GLIDER	HOME BUILT/AMATEUR	UAS
105	BALLOON	EXPERIMENTAL	
121	OTHER		

15B. AIRWORTHINESS			
	NONE		
	STANDARD	PROVISIONAL	
	RESTRICTED	PRIMARY	LIMITED
	SPECIAL LIGHT SPORT AIRCRAFT		
	EXPERIMENTAL (SELECT CERTIFICATE PURPOSE BELOW)		

16. POWER PLANT MAKE/MODEL SERIES YES  NO

RESEARCH AND DEVELOPMENT
SHOWING COMPLIANCE WITH REGULATIONS
CREW TRAINING
EXHIBITION
AIR RACING
MARKET SURVEY
OPERATING AMATEUR BUILT AIRCRAFT
OPERATING PRIMARY KIT BUILT AIRCRAFT
OPERATING LIGHT SPORT AIRCRAFT

17. PROPELLER MAKE/MODEL SERIES YES  NO

18. BIOHAZARD AREA YES  NO   
BIOHAZARD PPE USED YES  NO

19. TYPE OF LANDING GEAR			
CONVENTIONAL	SKIS	AMPHIBIOUS HULL	
TRICYCLE	AMPHIBIOUS FLOATS	OTHER	
FLOATS	SKIDS		

20. INJURY/ON-BOARD SUMMARY UNKNOWN <input type="checkbox"/>					
	FLT. CREW	CABIN CREW	PASSENGERS	OTHER	TOTAL
UNINJURED					
MINOR					
SERIOUS					
FATAL					
TOTAL					

21. FACTORS - IDENTIFY PRIMARY FACTOR AS A. IDENTIFY SECONDARY FACTORS, IF ANY, AS X.  
CHECKING OFF FACTORS IS THE OPINION OF THE INVESTIGATOR/INSPECTOR BASED ON THE INVESTIGATION.

22. TYPE OF OPERATIONS

# NTSB Functions

- **Determine Probable Cause**
- **Make Safety Recommendations**



# FAA – Nine Responsibilities

1. Performance of FAA's facilities or functions
2. Performance of non-FAA owned and operated ATC facilities and NavAids
3. Airworthiness of FAA certified aircraft
4. Competency of FAA-certified Airmen, Air Agencies or Air Carriers
5. Adequacy of the Federal Aviation Regulations
6. Adequacy of the FAA's airport certification safety standards or operations
7. Adequacy of FAA's Air Carrier and Airport Security
8. Medical qualification of Airmen
9. Violation of the Federal Aviation Regulations

# Operations

- **Flight Planning**
- **Airport data**
- **Physiological and Psychological factors**
- **Flight path**
- **Pilot training and competency**



# Weather

- **Surface observations**
- **Pilot reports**
- **Upper air information**
- **Radar weather data**
- **Forecasts**



# Aircraft Performance

- **Operational capability**
- **Stability/Control**
- **Aerodynamics**
- **Fail-Safe systems**
- **Performance limitations**
- **Certification**



# Human Performance & Survival Factors

- **Crashworthiness**
- **Pathological**
- **Cockpit and Cabin hazards**
- **Post crash factors**
- **Seats and Restraint systems**



# Advisory Circulars



U.S. Department  
of Transportation

Federal Aviation  
Administration

## Advisory Circular

**Subject:** FIRST RESPONDERS'  
RESPONSIBILITY FOR PROTECTING  
EVIDENCE AT THE SCENE OF AN  
AIRCRAFT ACCIDENT/INCIDENT

**Date:** 9/28/2009  
**Initiated by:** AAS-300

**AC No.:** 150/5200-12C  
**Change:**

**AC 150/5200-12C**



# Advisory Circulars

Consolidated AC includes Change 2



U.S. Department  
of Transportation

Federal Aviation  
Administration

# Advisory Circular

**Subject:** AIRPORT EMERGENCY PLAN

**Date:** 6/19/2009

**AC No:** AC 150/5200-31C

**Initiated by:** AAS-300

**Change:**

**AC 150/5200-31C**



# National Part 139 CertAlert



## Federal Aviation Administration

### National Part 139 CertAlert

**\*\*Advisory\*\*Cautionary\*\*Non-Directive\*\*Advisory\*\*Cautionary\*\*Non-Directive\*\*Advisory\*\*Cautionary\*\*Non-Directive\*\***

**Date:** 7/29/2013 **No. 13-04**

**To:** **Part 139 Airport Operators, All Aircraft Rescue and Fire Fighting (ARFF) Departments**

**Subject:** **Additional Precautions for Approaching Aircraft with Ballistic Parachutes, Ejection Seats, and Airbags**

**Point of Contact:** Marc Tonnacliff, AAS-300, (202) 267-8732, or  
Randy Moseng, AAS-300, (404) 474-5114  
Email: [marc.tonnacliff@faa.gov](mailto:marc.tonnacliff@faa.gov) or [randy.moseng@faa.gov](mailto:randy.moseng@faa.gov)



# Helpful Websites

- <http://www.gama.aero/firstresponders>
- <http://firstresponder.cirrusaircraft.com//>
- [http://www.faa.gov/aircraft/gen\\_av/first\\_responders/](http://www.faa.gov/aircraft/gen_av/first_responders/)



# Telephone Numbers

- FAA Regional Operations Center (817)222-5006
- FAA Great Lakes Region Public Affairs (847)294-7427
- Lockheed-Martin AFSS (800)992-7433
- Grand Rapids FSDO (0730-1600) (616)974-6657
- East Michigan FSDO (0730-1600) (734)487-7222



# Summary of this Presentation

- **Airport Manager**
- **Accident Reporting**
- **Accident Investigation**
- **Accident Site Guide**
- **Toxicology Kits**
- **Accident Investigation process**
- **Websites / Telephone Numbers**



# Questions and Answers



# Thank You for Your Attention!

