

AIRCRAFT PROCEDURES		TROY FIRE DEPT. TACTICAL PLAN 208.07
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This plan will outline general information and basic operational procedures to be followed when the fire department responds to incidents involving aircraft.

TYPES OF AIRCRAFT

Light, single engine, piston driven.

This type of aircraft can be either the high-wing type, i.e., Cessna, or the low-wing type, i.e., Beechcraft. Both types of aircraft make use of the wing for fuel storage of approximately 50 to 60 gallons of 100 to 130 octane aviation gasoline (av-gas). The high-wing aircraft does not normally have a fuel pump. The fuel is fed down to the engine by gravity. The low-wing aircraft uses a fuel pump to pump fuel to the engine.

Light, twin engine, piston driven.

This type of aircraft is slightly larger than the single engine type and is usually of the low wing configuration. The twin engine aircraft also makes use of the wing for fuel storage with capacity of up to 160 to 180 gallons of 100 to 130 octane av-gas.

Twin engine, turboprop.

This type of aircraft can range from small to large with fuel capacities from 300 to 2,000 gallons of jet fuel stored in the wings.

Jet.

This type of aircraft can also range from small, i.e., a Lear jet, to large, i.e., a commercial jetliner. Fuel capacities range from 500 to 5,000 + gallons stored in the wings.

TYPES OF FUEL

Aviation Gasoline. (Av-Gas)

- 100 - 130 octane
- -50 degree F flash point vaporization
- 1% - 7% vapor concentrations
- Flame spread of 700 - 800 feet / minute (12 feet / second.)
- +800 degree F auto-ignition

Jet A.

- +95 degree F flashpoint
- 1% - 5% vapor concentrations
- Flame spread of 100 - 800 feet / minute
- +450 degree F auto-ignition

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- Burns much hotter and is more difficult to extinguish Jet B. (JP-4)
 - Combination of av-gas and Jet A.

FIREFIGHTING CONSIDERATIONS

Keep in mind that light, single engine and light, twin engine piston aircraft are similar to one another. Turboprops and jets are similar to one another also. Military aircraft may present special problems due to the possibility of live weapons/explosives on board.

Hazards.

- Fuel type and amount
- Class D flammables: Magnesium & Titanium (parts of engine and landing gear).
- Oxygen cylinders
- Batteries
- Magneto: stored electrical energy.
- High pressure hydraulic lines: 3,000 psi accumulator and flammable hydraulic oils.
- Cabin pressurization
- Plastics: toxic byproducts of combustion.
- Extremely sharp edges: Duralumin (aluminum) fuselage skin.
- Slippery surfaces
- Jet engine intake suction: must not be closer than 25 feet.
- Exhaust blast: extreme heat and noise.
- Propeller(s): stay away from and never move it.
- High pressure wheels and tires: 120 psi or more.
- Uranium balance weights: radioactive
- Hazardous cargo: look for placards.
- Ejection seats and canopies and weapons on military aircraft.

ACCIDENT RESPONSE PROCEDURES - GENERAL

Anytime there is damage to an aircraft exceeding \$100.00, a police report must be filed. An aircraft involved in an accident should not be moved from the scene unless permission has been

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granted by the Flight Standards District Office. In minor accidents with no injuries, permission to move the aircraft may be given by telephone. Aircraft involved in an accident are normally impounded by the FAA until a release is granted

Notifications.

Any FAA office notified of an accident will automatically notify all necessary authorities.

In the case of private or commercial aircraft accident, contact either:

- Oakland-Pontiac Tower @ 248-886-8500 (0600-2400 hours)
- o Oakland County ARF (Asst. Rescue/Fire) @ 248-666-5988
- Flight Standards District Office (Willow Run Airport) @ 734-487-7222/7224

In the case of military accidents, contact:

- Selfridge Air National Guard Base F.D. @ 586-239-4103

When contacted, the following information must be provided:

- exact location of aircraft
- "N" (tail) number
- size of aircraft
- severity of accident
- number of injuries and/or fatalities

This information should be relayed to the dispatch center as soon as practical. Caution must be exercised, however, when relaying information over the radio about fatalities. It is recommended that an alternate radio channel or cellular phone be used instead.

ACCIDENT RESPONSE PROCEDURES - SPECIFIC

If the accident is on or next to a runway, immediately close that runway. If the accident occurs at night, ensure that runway lights are turned off and notify the following airports of this:

- Flight Service (Lansing) @ 517-866-3726
- Flight Standards District Office @ 734-487-7222/7224

All Accidents.

- Approach upwind if possible.
- Perform a size-up of the incident.

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- Initiate I.C.S. tactical plan procedures.
- Determine hazards involved.
- Determine need for extrication.
- Only move debris as necessary to remove occupants.
- Secure the scene. Allow only police, fire, EMS, FAA, and NTSB access if safe to do so.
- Note tail number (N number) then cover with salvage cover.
- Photograph the scene.
- Notify FAA.

Without Fire.

- Shut off fuel switch, then electric master switch.
- Apply foam if necessary to suppress vapors.

With Fire.

- Extinguish fire. Apply foam if necessary. Follow foam tactical plan procedures if necessary.
- Concentrate on passenger areas first.
- Provide a protected means of egress/rescue for occupants/firefighters.

With Rescue.

- Perform extrication if necessary. Use power equipment or dull or serrated ax for aluminum. Note: Most commercial and military aircraft have markings for emergency cutting and rescue.
- Assist EMS personnel as requested.

With Fatalities.

- Grid map all bodies, body parts, and materials before they are removed.
- Do not remove or relocate identification from bodies.