



**MONTGOMERY COUNTY
FIRE AND RESCUE SERVICE**

24-01

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**Incident Response Policy Appendix G
Initial Actions for Aircraft Emergency
Incidents**

09/15/2020

Issued by: Fire Chief Scott E. Goldstein

Policy Number: 24-01

Authority: Montgomery County Code Section 21-3 (b)

Supersedes: Policy and Procedure 24-09 *Response to Aircraft Emergencies*, dated July 15, 2014; Policy and Procedure 24-08 *Standard Operating Procedures for Helicopter Landings*, dated April 15, 2000.

Effective Date: September 15, 2020

SECTION 1. Purpose:

To provide a framework for initial fire/rescue operations involving aircraft emergency incidents.

SECTION 2. Applicability:

All personnel operating on aircraft emergency incidents in Montgomery County.

SECTION 3. Background:

Aircraft emergencies are by nature complex incidents that can result in large number of victims, copious amounts of class B and class A fires, as well as possible hazardous materials release.

Aircraft that operate out of Montgomery County, at **Montgomery County Airpark** or **Davis Airfield** tend to be smaller aircraft. Due to the geographical location of Montgomery County within the Washington/Baltimore Metropolitan flight corridor; the potential for a **large aircraft** experiencing an emergency exists.

Position Statement

This appendix to the Incident Response Policy outlines the initial MCFRS response to aircraft emergencies occurring within Montgomery County. These events are divided into two distinct types of emergencies: **On Airport** and **Off Airport**. **On Airport Incidents** refer to those incidents occurring at an airfield. **Off Airport Incidents** cover all other aircraft emergencies which occur off an airfield.

All aircraft emergencies require deliberate, defensible, and communicated actions based on sound development of situational awareness and ongoing risk assessments. Ongoing and effective situational awareness begins with locating and observing the scene, communicating and implementing sound tactical decisions to effectively mitigate the risks.



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It is the intent of MCFRS that at the 20-minute mark of an aircraft emergency, crews will have located the scene of the emergency, established a comprehensive understanding of the nature and scope of the emergency, begun a coordinated mitigation effort with partner agencies, located and begun treatment of patients, and that an appropriate framework for incident expansion has been created.

Some assumptions that guide the MCFRS thought process are:

- a. Aircraft pose an unfamiliar and increased natural risk to responders that are trained in structural firefighting.
- b. Aircraft emergencies often occur in complex geographical locations, such as remote areas or urban centers.
- c. Aircraft emergencies have a high life-threatening potential both on-board as well as where the incident occurs.
- d. Aircraft can contain large amounts of class B fuel, numerous hazardous materials as well as unique hazardous devices (i.e. parachute systems, ejection systems etc.) used in their construction.
- e. Every effort will be made to increase the survivability profile of the incident, through creating **rescue corridors**, rapid rescues of occupants (where viable), and containing the incident within reason to the area involved with available resources.

General Approach

There are four standard objectives for aircraft emergencies. All personnel should consider these objectives as a starting point and adjust as the situation dictates. The four standard objectives are based on the **ACRE** mnemonic:

- a. **Assess:** Begin the process of situational awareness by utilizing information provided at dispatch, during the response and upon arrival to determine the location and scope of the incident and establish initial incident objectives.
- b. **Control:** Begin the process of controlling and removing hazards associated with the incident.
- c. **Rescue:** Access the scene and begin the process of disentanglement, extrication and evacuation. If unable to make access focus on using resources to assist occupants with self-extrication until additional resources arrive.
- d. **Evacuate:** Evacuate and assist all those affected by the event to an area of safety and begin triage and treatment of the injured.

The initial MCFRS response is based on the first arriving unit officer establishing command and developing an intelligent, decisive action plan given the scenario presented before them. Command and all unit officers must conduct a rapid and ongoing risk assessment and tailor their tactics to the incident.



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The initial emphasis should be focused on life safety, creating a safe evacuation corridor for those involved, as well as limiting the migration of burning and unburnt fuel. Scene security is paramount as well as respiratory protection for all those involved. Most aircraft consist of vast amounts of composite materials that if inhaled will cause irreparable damage. SCBA even if the event occurs outside should be utilized in the hot zone of an incident. N95 style masks should also be considered for victims if available.

In the absence of a life hazard additional steps should be taken to ensure that the scene is isolated and secure, that proper agencies have been notified, and that the scene is treated as if it is a crime scene. It is vital to build a solid framework for command, control, and coordination before units or personnel commit to the hot zone of the incident.

Coordination with airport/airpark managers and other agencies

Every effort should be made with the initial arriving units to a scene of an On-Airport Incident to contact the **airport/airpark manager**.

In addition to the **airport/airpark manager** if applicable, the first arriving unit officer should, through the ECC, try to notify the **Potomac Terminal Radar Approach Control (TRACON) Facility** of the incident. Due to the nature of any aircraft emergency incident and the potential for escalation, a unified command with the Maryland State Police (MSP) and/or the Montgomery County Police Department (MCPD) should additionally be considered. Any incident involving the MSP Medivac (Trooper) requires communication and coordination with the Maryland State Police.

According to the Montgomery County Emergency Operations Plan ESF#9, the MCPD is responsible for search operations within the county. Therefore, establishing a coordinated effort with MCPD is vital to the success of an operation.

Notification to the **Air Force Rescue Coordination Center (AFRCC)** should be done by the ECC upon request by the MCPD's Search and Rescue (SAR) Coordinator.

SECTION 4. Definitions:

See Appendix Q

SECTION 5. Policy:

a. Initial Actions

1. Initial Entry Crew Behavior

- A. Initial entry crew should function as a team. Ideally consisting of the first due engine and first due special service; however existing and potential incident conditions will dictate tactics.



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- B. The initial entry crew for all incidents should wear full PPE and SCBA. Possible exposure to airborne composite materials can cause irreparable damage to unprotected lungs and mucus membranes.
- C. The initial entry crew should bring basic forcible entry tools, dry chemical extinguishers, thermal imager, triage and mass casualty bags (if applicable).
- D. In the event the initial crew must make entry to the **runway**, measures should be in place to shut the **runway** down prior to their entry.
- E. The goal of the initial entry team is to isolate the incident and, if practical, to establish **rescue corridors** and facilitate rapid extrication of any viable rescues.
- F. All aircraft, regardless of size, should be treated as extremely hazardous.
- G. Fixed wing aircraft should be approached at a 45-degree angle from the nose or wing tip, rotary aircraft approached at a 90-degree angle from the nose. Aircraft should only be approached as necessary.
- H. If involved in fire, aircraft should be treated similar to hazardous material fire due to possible large amounts of fuel as well as other hazardous materials/chemicals.
- I. Structural integrity of all downed aircraft should be considered suspect. Personnel movement on or inside damaged aircraft should be limited and based on an extensive risk benefit analysis.
- J. Apparatus and crews should position/approach up wind and uphill whenever feasible.
- K. Crews should not operate or maneuver through any standing liquid unless absolutely necessary based on an extensive risk benefit analysis.
- L. All crews should be aware of potential for victims located great distances away from downed aircraft.
- M. The entry team leader should relay to command number of victims and location.
- N. All PPE utilized within the hot and warm zones of an incident should be considered for decontamination.
- O. Preferably Class B foam should be utilized for aircraft emergencies.

2. Emergency Locator Transmitter (ELT) Activation incidents

ELTs are not **Flight Data Recorders** (i.e., "black boxes"). These devices can be removed from an aircraft for maintenance or to have batteries replaced. Often these devices trigger a false missing aircraft alert.



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When a call is received from the **AFRCC** or other entity regarding the activation of an ELT where no aircraft is reported down, the ECC will contact the on duty or on call MCPD SAR Coordinator and provide them of the information.

In the event of an ELT activation, dispatched units should respond to the reported location and if nothing is found, tactically stage until the ELT can be located. Units equipped with ELT tracking devices, coordination with ECC will attempt to locate activated ELT.

3. On- and Off Airport Incidents

- A. The first arriving Primary Unit Officer will provide an Initial On-Scene Report (IOSR) to include but not limited to:
 - i. Confirmed location
 - ii. Size and number of aircraft involved
 - iii. Nature of emergency
 - iv. Additional resources
 - v. Tail Number or other aircraft unique identifier?
- B. For an Off-Airport Incident, the first arriving unit will respond to the reported location of the incident; the unit officer should consider staging additional responding units until scene location is confirmed.
- C. The first arriving Primary Unit Officer should then:
 - i. Consider utilizing a secure talk group.
 - ii. Contact the **airport/airpark manager** if feasible (On-Airport Incidents).
 - iii. Obtain and relay the following:
 - (a) Status of **Souls on Board**.
 - (b) Status of aircraft (in pieces or intact) size of debris field.
 - (c) Any known hazards.
 - (d) Any identifying numbers/letters on aircraft (i.e. tail or fuselage numbers or letters).
 - (e) Current status of **runway**.
 - (f) Establish initial hot, warm, and cold zones.
 - (g) Any steps taken by airport crew or **airport/airpark manager**.
 - (h) Any specific intervention requested by aircraft crew and/or **airport/airpark manager**.



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- iv. Contact **Potomac TRACON** via ECC.
 - v. Isolate crash site to include debris field.
 - vi. Shut down the **runway** (on grounds incident).
 - (a) Coordinate thru **airport/airpark manager** procedure to close **runway**.
 - (b) Notify **Potomac TRACON** thru ECC of the need to close **runway**.
 - (c) If applicable make announcement via aircraft radio (see attached procedure).
 - vii. Establish water supply.
 - viii. Consider requesting all-wheel drive engines and UTVs.
 - ix. Deploy attack line(s).
- D. The Situational Update Report (SUR).
- i. The SUR contains all information gathered above to including but not limited to, the location of incident, condition of aircraft, actions taken or planned to be taken, the type of command, and additional resources needed.
- E. If the first arriving unit is a special service, they should consider passing command at the earliest opportunity.
- F. The first arriving Primary Unit Officer will determine the initial mode of attack. The initial mode of attack should be based on three basic strategies.
- The primary strategy of the first arriving resources will be to determine if there are victims with a positive survivability profile. If a positive survivability profile for victims exists, appropriate resources to rescue victims should be rapidly deployed.
 - Contain the incident to the initial affected area.
 - Given available resources, a tactic to begin mitigation of the incident.
- G. Any unit dispatched for an Aircraft investigation that arrive to find an aircraft that has sustained a crash, experience a large fuel spill, or has any threatened life or exposures should consider it a hazmat call.

SECTION 6. Responsibility:

All personnel.



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SECTION 7. Procedure:

a. Aircraft Emergency Incidents

1. The first arriving Primary Unit Officer on the scene must:

- A. Survey the incident site.
- B. Determine the presence of an immediate life hazard.
- C. If an immediate life hazard is present:
 - i. **[Declare radio silence.]**
 - ii. **[Announce the presence of an immediate life hazard.]**
 - iii. Determine the status of the **runway** if incident is on **runway**.
 - iv. Shut down the **runway** if it is involved.
 - v. Establish initial Hot, Warm and Cold zones
 - vi. Assign available personnel a lookout/safety to ensure no other aircraft attempts to utilize the **runway**.
 - vii. **[Announce number of personnel entering the hazard zone and their objective]**
 - viii. Withdraw from the hot zone as soon as possible.
 - ix. **[Announce when all personnel are clear from hazard zone]**
 - x. Continue with standard actions for incident mitigation.
 - xi. Consider Additional Resources

2. First Due Engine

A. Positioning

- i. Be aware victims may be present as you approach the scene. Position for scene security, up-hill and up-wind if possible.
- ii. Consider ingress and egress of EMS units.

B. Water supply

- i. **[Provide layout instructions or rural water supply instructions while enroute to the scene].**
- ii. Initiate a water supply to the scene, preferably using a forward lay.

C. Tasks

- i. **[Provide an ISOR]**
- ii. Assess the scene.



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- iii. Determine the presence of an immediate life hazard. If an immediate life hazard is present, take the appropriate action.
 - iv. **[Provide a SUR]**
 - v. Establish entry team, ideally with first due engine and first due special service. Act as initial entry team leader.
 - vi. Enter hot zone only if tactically appropriate.
 - vii. **[Announce 2 out]**
 - viii. **[Announce by radio when making entry to hot zone]**
 - ix. Provide scene security until command officer arrives on scene and a coordinated mitigation plan can be developed.
 - x. Consider remotely staging incoming units if tactically appropriate.
- D. Equipment
- i. Appropriate PPE
 - ii. Handline or Dry Chemical/CO2 Fire Extinguisher(s) (tactically appropriate)
 - iii. Basic appropriate forcible entry tools
 - iv. Triage kit
 - v. Trauma Care kit
 - vi. Thermal imager
3. Second Due Engine
- A. Positioning
- i. Be aware victims may be present as you approach the scene, approach and position up-hill and up-wind if tactically possible.
 - ii. Do not impede ingress and egress for EMS units.
- B. Water Supply
- i. Ensure water supply for first due, if rural water supply response is required, take appropriate actions.
- C. Tasks
- i. Assemble with first due, provide a backup line (preferably class B foam), 2-out and/or look-out as assigned by I.C.
- D. Equipment
- i. Appropriate PPE



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- ii. Handline or Dry Chemical/CO2 Fire Extinguisher(s) (tactically appropriate)
- iii. Triage kit (as needed)
- iv. Trauma Care kit (as needed)
- v. Thermal imager

4. First Due Aerial

A. Positioning

- i. Be aware victims may be present as you approach the scene. Position for scene security, up-hill and up-wind if possible.
- ii. Do not impede ingress and egress for EMS units, or deployment of water supply.

B. Tasks

- i. Assemble with first due engine company.
- ii. Assist first due engine with scene security/survey, forcible entry, line deployment, and victim removal.
- iii. Scene lighting

C. Equipment

- i. Appropriate PPE
- ii. Triage Kit (as needed)
- iii. Trauma care kit (as needed)
- iv. RIT Bag
- v. Forcible entry tools

5. All additional dispatched units should remote stage and await instructions.

SECTION 8. Cancellation:

Policy and Procedure 24-09, *Response for Aircraft Emergencies* 07/15/2014

Policy and Procedure 24-08 *Standard Operating Procedures for Helicopter Landings* 04/15/2000



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SECTION 9. Attachments:

Attachment 1: Basic Aircraft Components.

Attachment 2: Aircraft Radio Procedure for Closing an Airfield.

Attachment 3: Basic airport components

Attachment 4: Aircraft radio instructions.

Attachment 5: Aircraft Radio frequency guide.

Approved:

A handwritten signature in black ink that reads "Scott Gold".

Fire Chief

September 14, 2020



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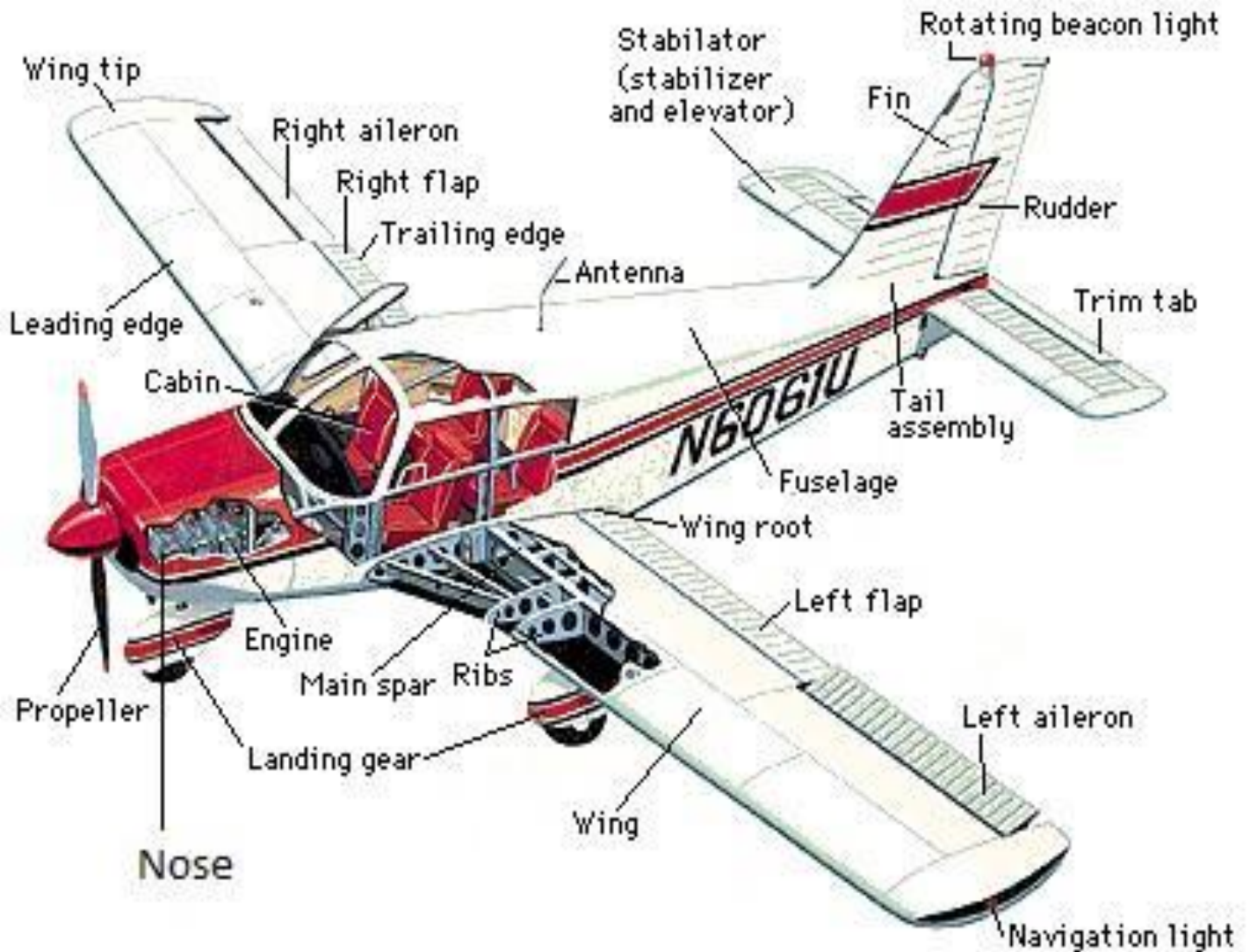
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Attachment 1: Basic Aircraft Components.





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Attachment 2: Aircraft Radio Procedure for Closing an Airfield.

- a. Request **airport manager, Potomac TRACON**, and the ECC to announce that **“The runway at _____ is Unsafe!”**
- b. The IC should transmit the message **“The runway at _____ is unsafe!”** on the aircraft aviation radio via the UNICOM channel.
- c. The message should be transmitted at five-minute intervals.



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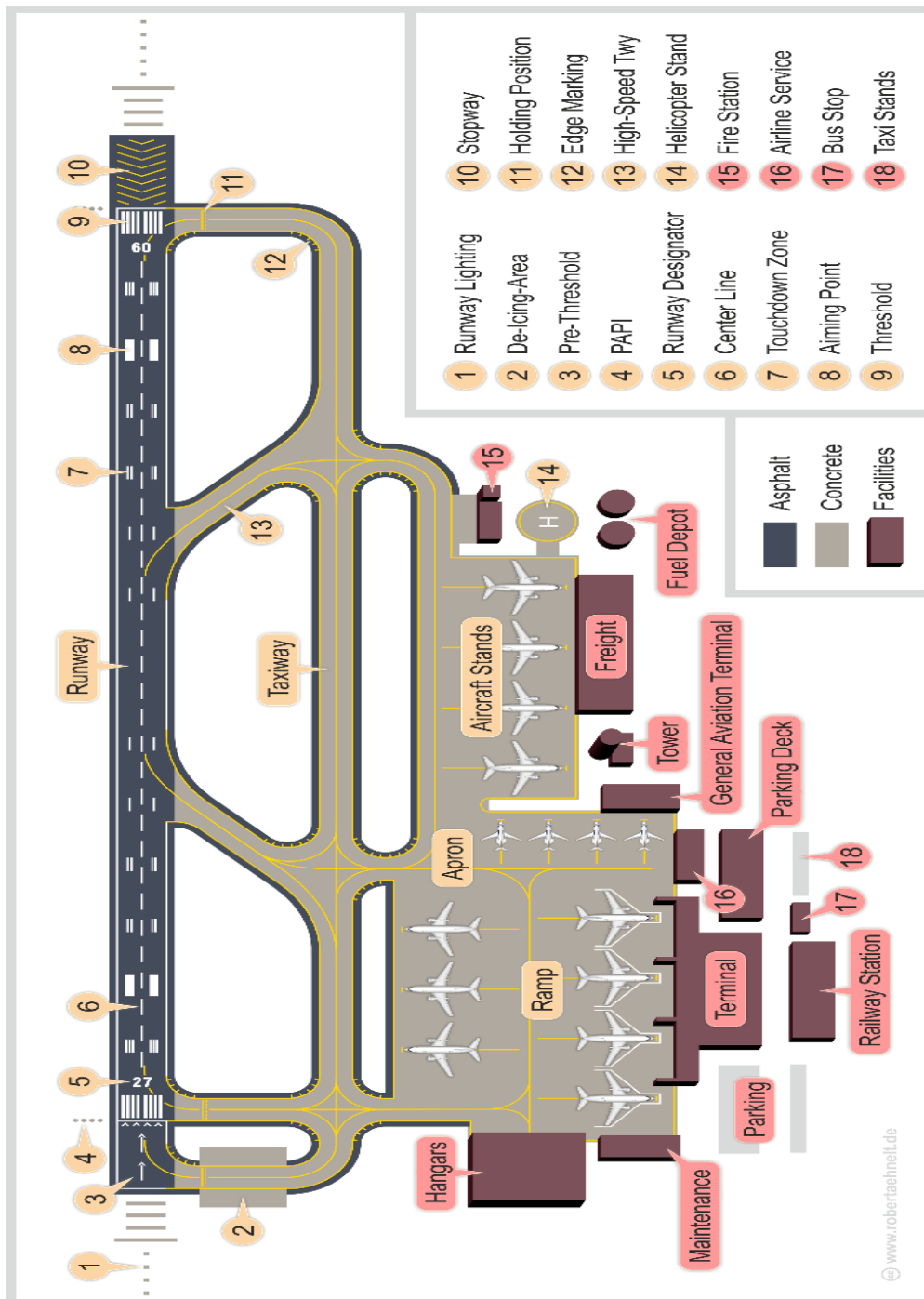
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Attachment 3: Basic Airport Components.





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Attachment 4: Aircraft Radio Instructions.

 ICOM IC-A3 AM PORTABLE RADIO QUICK PROGRAMMING GUIDE 
Version 2012

MANUAL FREQUENCY ENTRY

1. Select Frequency Mode by pressing "CLR".
2. Enter desired frequency using digit keys on keypad, using the tuning dial, or using the "UP/DOWN" arrow keys.

Basic Operation

RECEIVING

1. Rotate "SQL" maximum clockwise, turn Power ON and adjust audio level.
2. Rotate "SQL" counterclockwise until noise is muted.
3. Set the desired frequency
Note: If "SQL" control is set too "tight", squelch may not open for weak signals.
4. Push the "ANL" side button to reduce pulse noise caused by engine ignitions or other outside interference.
5. The radio is ready to RECEIVE on that current Frequency.

TRANSMITTING

1. Set the desired frequency.
2. Press and hold the "PTT" to transmit.
3. Speak into mic at a normal voice level.
4. Release "PTT" to return to receive incoming transmissions.
Note: Try to shield the microphone from wind and other loud background noises for clearer transmissions.

(See ICOM Help Files for more detail information) NIICD Radios ONLY.

IC-A3 SETTINGS & OPTIONS

MEMORY CHANNEL SELECTION

1. Press the "MR" key to select memory mode.
2. Select desired memory channel using two digits (01-50) on the keypad or by rotating the channel knob.
Note: NIFC has preprogrammed 6 AM Frequencies in memory locations 1-6

PROGRAMMING A MEMORY CHANNEL

1. Set the desired frequency.
2. Press the "F" key then the "MR" key.
3. Select the memory channel (01-50) to be programmed using two digits on the keypad or rotating the channel knob.
4. Press "ENT" to enter the frequency in memory
or
5. Press "MR" to change the alpha/numeric label then pressing "ENT" to store the frequency and label into memory.
Note: Must know which keys correspond to alpha characters. When entering alpha characters, use up/down arrow keys to move cursor.

LOCK FUNCTION (DISABLE/ENABLE KEYPAD)

1. Press the "F" key then press the "7" key [KEY LOCK] to turn the function ON or OFF.
Note: A key icon appears in the display when Key Lock is on.

CLEARING MEMORY CONTENTS

1. Select a memory channel to be cleared.
2. Press "F" then press and hold "CLR" for 1 second. "-----" displays momentarily when memory is cleared.
Note: Programming over a memory channel also clears the programmed contents. Memory channel 1 cannot be cleared.



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Attachment 5: Aircraft Radio Frequency Guide.

**FOR CHANNEL MENU:
PRESS "MR" THEN
USE THE MIDDLE KNOB TO SWITCH BETWEEN CHANNELS**

CH	FREQ	LOCATION & USE	
01	123.075	MC AIRPARK	UNICOMM
02	128.275	MC AIRPARK	AWOS 3
03	121.600	MC AIRPARK	CLEARANCE
04	122.850	MC AIRPARK	FUELING / LIGHTS
05	122.800	DAVIS AIRPARK	UNICOMM
06	121.500	EMERGENCY	

USE ONLY DURING AN EMERGENCY EVENT

*****DO NOT BROADCAST UNLESS EMERGENCY*****