


VDFP General Aviation Firefighting for Structural Firefighters

VIRGINIA DEPARTMENT OF FIRE PROGRAMS
Aviation Firefighting for Structural Firefighters



Chapter 10
Training

TRAINING

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Learning Objectives

- List some of the organizations that provide resources for aircraft crash and rescue training
- List some of the NFPA 1003 training recommendations for ARFF units that can be useful for structural fire companies
- Identify the types of training that structural crews can use for dealing with general aviation aircraft accidents and the advantages and disadvantages of each type

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Learning Objectives

- Identify resources that can provide specific information on specific aircraft
- Identify some of the NFPA publications that can be used as resources for structural fire companies dealing with airports and/or aircraft

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Introduction	TRAINING
<ul style="list-style-type: none">• Even ARFF personnel will tell you that they do not rely on experience alone to handle and aircraft accident• Training is necessary to develop a skill and confidence level that will enable a firefighter to react appropriately• Training does not replace experience however it can help prepare firefighters to handle an unfamiliar situation	
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Live Drills	TRAINING
<ul style="list-style-type: none">• When conducting live drills all firefighters should comply with safety rules, regulations, and practices• Live drills have a greater impact on most people than any other form of training• There is a need to have drills that involve more resources than just the initial fire companies• For a multi-agency drill, a schedule of every two years is realistic	
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Live Drills	TRAINING
<ul style="list-style-type: none">• On airport property<ul style="list-style-type: none">– Even a department without an airport can benefit from such a drill as aircraft accidents can happen anywhere– Airport drills can include examining different aircraft– Listening to a portable aviation radio can help firefighters understand aviation terminology	
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Live Drills

- On airport property
 - Observe signs on the airport that designate runways, ramps, and taxiways
 - Look at pavement markings and reference their meaning
 - Know where to go and where to not go!
 - Remember emergency vehicles do not have the right of way!
 - Visit the airport at night, it's a whole different environment

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Live Drills

- On airport property
 - If the airport has a control tower, inquire about a tour and how you can work together with air traffic control
 - If possible, get an aircraft for drill purposes, a good thing to practice skills on
 - Preplan hangars, fuel farms and other target hazards
 - If possible, attend training in live fuel spill fire fighting

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Live Drills



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Live Drills	TRAINING
<ul style="list-style-type: none">• Off airport property<ul style="list-style-type: none">– All applicable SOPs and the airport/aircraft emergency plan should be reviewed prior to holding a live drill– Consider using a parcel of vacant land for a mock airplane crash drill, be creative!– Regardless of the scenario the drill should:<ul style="list-style-type: none">• Use the Incident Command System• Make sure that the scene is safe prior to sending in firefighters• Determine a staging area for incoming equipment and manpower• Write down the various agencies that would be contacted• Determine how an adequate water supply will be obtained• If at night, how would adequate lighting resources be obtained?	
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Live Drills	TRAINING
<ul style="list-style-type: none">• Off airport property<ul style="list-style-type: none">– Practice using and applying foam on fuel fires if possible– Just setting up and laying down a foam blanket can be good practice– Get in the habit of being upwind and uphill– In fuel spill firefighting, always have an escape route planned in case of wind or other changes!	
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Live Drills	TRAINING
<ul style="list-style-type: none">• Off airport property<ul style="list-style-type: none">– Look for drainage problems that can be incorporated into the drill:<ul style="list-style-type: none">• Do sewers need to be blocked off?• Is there a need to divert contaminated runoff or fuel?• Is the fuel/runoff getting into a local waterway?• Who needs to be contacted?• How can it be stopped from progressing further?	
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Live Drills	TRAINING
<ul style="list-style-type: none">• Off airport property<ul style="list-style-type: none">– Practice making the aircraft safe to work in and around, even if it's only verbally by saying what systems need to be cut off and how– Practice securing the area around the aircraft from unauthorized personnel	

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Live Drills	TRAINING
<ul style="list-style-type: none">• Off airport property<ul style="list-style-type: none">– When involving multiple agencies meet with representatives of each agency– Coordinate how everyone will communicate at the scene– Determine which agency will be in charge– With large scale drills remember to have adequate rehab and emergency procedures– Have safety officers or teams and make sure they are a part of the planning process	

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Classroom Drills	TRAINING
<ul style="list-style-type: none">• Live drills are important and effective but are not practical for everyday training• Classroom training can be done on a more frequent basis and can include review of SOPs and emergency plans, preplan material and reference materials such as magazines, computer programs, the internet, etc.	

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Classroom Drills

- Firefighters can also create tabletop scenarios with just a fraction of the planning of live drills
- With a computer and a digital camera you can use local scenes that are easily enhance to create an unlimited variety of scenarios
- Video tapes are another medium that can be used. There a number of aircraft and airport videos available to emergency services personnel

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Classroom Drills



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Seminars

- There are a number of seminars on aircraft rescue fire fighting each year
- Many are held in conjunction with large fire service organizations annual conferences
- These seminars are good ways to network with people in other communities

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Seminars



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Training Resources

- There are a lot of training resources available to anyone on dealing with aircraft and airport related emergencies

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Training Resources

- National Fire Protection Association (NFPA)
 - The NFPA has a number of standards dealing with aviation emergencies. They include:
 - NFPA 1003, Standard for Airport Fire Fighter Professional Qualifications
 - NFPA 402, Guide for Aircraft Rescue and Fire Fighting Operations
 - NFPA 407, Standard for Aircraft Fuel Servicing
 - NFPA 409, Standards on Aircraft Hangars
 - NFPA 410, Standard on Aircraft Maintenance

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Training Resources	TRAINING
<ul style="list-style-type: none">• Aircraft Rescue Fire Fighting Working Group (ARFFWG)<ul style="list-style-type: none">– The ARFF Working Group is an organization that keeps it's members informed about developments in aviation fire protection– They publish a bi-monthly newsletter and hold training seminars through out the United States– Visit them on the web: www.arffwg.org	
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Training Resources	TRAINING
<ul style="list-style-type: none">• Aeronautical Information Manual (AIM)<ul style="list-style-type: none">– The AIM is mainly a resource for pilots but contains useful information for first responders such as:<ul style="list-style-type: none">• How to identify airport markings, signs, and lights• Proper aviation radio techniques and phrases• Emergency procedures for pilots• Glossary of commonly used aeronautical words and phrases	
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Training Resources	TRAINING
<ul style="list-style-type: none">• Aircraft Crash Recovery Guide<ul style="list-style-type: none">– This guide published by the Sandpiper Group contains a wealth of information on many general aviation aircraft such as:<ul style="list-style-type: none">• Profile drawings of the aircraft• Fuel type and capacity• Size of the aircraft• Flammable materials locations• Oxygen location• Battery location• Emergency access locations• Much more...	
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Training Resources	TRAINING
<ul style="list-style-type: none">• National Transportation Safety Board<ul style="list-style-type: none">– The NTSB has publications available that deal with aviation case studies as well as information on how to deal the GA aircraft emergencies	
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Training Resources	TRAINING
<ul style="list-style-type: none">• Internet Resources<ul style="list-style-type: none">– Just to name a few:– NTSB – www.nts.gov– FAA – www.faa.gov– ARFFWG – www.arffwg.org	
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Summary	TRAINING
<ul style="list-style-type: none">• Training is essential to provide firefighters with the skills, knowledge, and abilities to effectively handle a GA aircraft emergency• Classroom drills can be effective• Seminars a great network opportunities• There a plenty of resources available to help you• Finally, if there is an ARFF unit at a nearby by airport, contact them are arrange to participate in their drills	
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