

National Fire Academy

FESHE Model

Curriculum

Aviation Fire Officer Emphasis

May 2015



FEMA



Aircraft Mishaps

- Course Description:** Teaches the learner how to locate and use past aircraft accident and mishap data from various government agencies in order to develop relevant lesson plans and training courses for emergency responders. Learning how to research this information will strengthen emergency service agencies involved in aircraft rescue firefighting by giving them the tools and knowledge to develop relevant guidelines, protocols, procedures, and training evolutions based on current mishaps and findings.
- Prerequisite:** Airport Firefighter Certification (*IFSAC; ProBoard; ICAO; DoD; FAA*)
- Outcomes:**
1. Cite examples of databases pertaining to the aerospace mishaps
 2. Discuss current mishaps within the aviation sector
 3. Describe the investigation process associated with aircraft accidents
 4. Describe how to properly use aviation database information
 5. Report on database findings
- Trait:**
1. Increased awareness of aerospace mishap databases and media reports to create guidelines, procedures, protocols related to aircraft emergency responses
- Available Text:** Krause, S. (2003). *Aircraft safety: Accident investigations, analyses, and applications*. New York, NY: McGraw-Hill.
- Supporting References/Research for Faculty and Students:** *U.S. Fire Administration Publications:* <http://www.usfa.fema.gov/applications/publications>
Applied Research: <http://www.usfa.fema.gov>
Research Reports: <http://www.usfa.fema.gov/research>
Learning Resource Center: <http://www.lrc.fema.gov>
Federal Aviation Administration: <http://www.faa.gov>
National Transportation and Safety Board: <http://www.nts.gov>
- Assessments:** Academic papers, discussions, projects, quizzes, exams
- Point of Contact:** Dr. Eric James Russell, Utah Valley University-Department of Emergency Services eric.russell@uvu.edu

Aircraft Related Mass Casualty Incidents

Course Description: Involves the planning, response, mitigation and management of a mass casualty incident resulting from a crashed aircraft. Includes issues relating to medical treatment, triage and transportation. Examines how the command structure functions as well as how operations personnel work on the scene of mass casualty incident.

Prerequisite: Airport Firefighter Certification (*IFSAC; ProBoard; ICAO; DoD; FAA*)

Outcomes:

1. Discuss the incident management systems
2. Discuss the role of command, its structure and components
3. Define the operation structures within the emergency response system
4. Identify hazardous conditions and ways to mitigate situations

Traits:

1. Increased awareness of operations on the scene of an aerospace vehicle mishap involving multiple incidents and victims
2. Increased awareness of the incident management system, command structures and operation sector roles

Available Text: Christen, H., & Maniscalco, P. (2002). *Mass casualty and high-impact incidents: An operations guide*. Upper Saddle River, NJ: Prentice Hall.

Supporting References/Research for Faculty and Students: *U.S. Fire Administration Publications:* <http://www.usfa.fema.gov/applications/publications>
Applied Research: <http://www.usfa.fema.gov>
Research Reports: <http://www.usfa.fema.gov/research>
Learning Resource Center: <http://www.lrc.fema.gov>
Federal Aviation Administration: <http://www.faa.gov>
National Transportation and Safety Board: <http://www.nts.gov>

Assessments: Academic papers, discussions, projects, quizzes, exams

Point of Contact: Dr. Eric James Russell, Utah Valley University-Department of Emergency Services eric.russell@uvu.edu

Aviation Terrorism Response

Course Description: Deals with the threats associated with terrorism and the aviation industry as they relate to the emergency service response. Examines past acts of terror along with present and future threats and their connection to aerospace emergency services planning and response. Identifies various aspects of aviation security and control in correlation to the emergency responders' responsibilities.

Prerequisite: Airport Firefighter Certification (*IFSAC; ProBoard; ICAO; DoD; FAA*)

Outcomes:

1. Discuss the threats towards the aviation industry involving terrorism
2. Describe the historical components and the extremist groups associated with terrorism
3. Identify counterterrorism groups and the aspects of preventing terrorist acts
4. Describe the aspects of aviation security
5. Review concerns and controls associated with aviation security

Trait:

1. Increased awareness of terrorist threats and concerns associated with aviation emergency response

Available Text: Sweet, K. (2008). *Aviation and airport security: Terrorism and safety concerns (2nd ed.)*. Boca Raton, FL: CRC Press.

Supporting References/Research for Faculty and Students: U.S. Fire Administration Publications: <http://www.usfa.fema.gov/applications/publications>
Applied Research: <http://www.usfa.fema.gov>
Research Reports: <http://www.usfa.fema.gov/research>
Learning Resource Center: <http://www.lrc.fema.gov>
Federal Aviation Administration: <http://www.faa.gov>
National Transportation and Safety Board: <http://www.nts.gov>

Assessments: Academic papers, discussions, projects, quizzes, exams

Points of Contact: Dr. Eric James Russell, Utah Valley University-Department of Emergency Services eric.russell@uvu.edu

Airport Operations for the Emergency Responder

- Course Description:** Offers responders an understanding of ground operations, communications, layout, movements and functions in order to operate effectively within the boundaries of an airport. Discusses the complex, unfamiliar setting responders face associated with daily operations of an airport.
- Prerequisite:** Airport Firefighter Certification (*IFSAC; ProBoard; ICAO; DoD; FAA*)
- Outcomes:**
1. Discuss specific airport operation systems
 2. Describe the characteristics associated with airport operations
 3. Identify services at airports
 4. Review high hazard, emergency and security concerns at airports
 5. Describe airport accesses and movement
 6. Discuss terminal operations
- Trait:**
1. Increased awareness of common daily airport operations.
- Available Text:** Ashford, N., Stanton, M., & Moore, A. (2012) *Airport operations (2nd ed.)*. New York, NY: McGraw-Hill.
- Supporting References/Research for Faculty and Students:** *U.S. Fire Administration Publications:* <http://www.usfa.fema.gov/applications/publications>
Applied Research: <http://www.usfa.fema.gov>
Research Reports: <http://www.usfa.fema.gov/research>
Learning Resource Center: <http://www.lrc.fema.gov>
Federal Aviation Administration: <http://www.faa.gov>
National Transportation and Safety Board: <http://www.nts.gov>
- Assessments:** Academic papers, discussions, projects, quizzes, exams
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