

Air Show Rescue & Firefighting: Changing the Industry Paradigm

SPEAKERS

Dan Hollowell – ICAS, Director of Operations

Jim Podolske – USAF, Air Force Fire Chief

Timothy Butters – FAA, Senior Advisor – Office of Airports

Sue Gardner – FAA, National Aviation Events Specialist

MODERATOR

Dennis Dunbar – ICAS Safety & Operations Committee

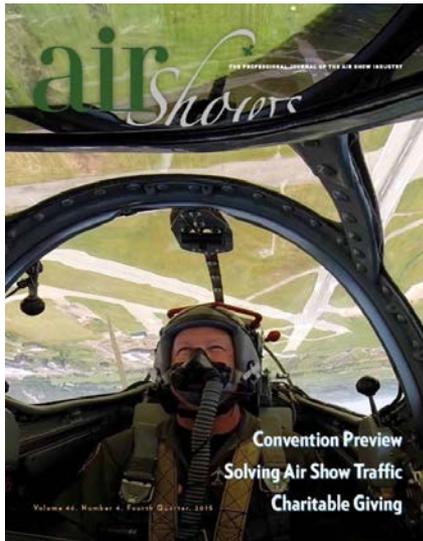
Miranda 7 Ballroom Monday, Dec. 7th, 2015 3:45 pm – 4:45 pm



UNFORTUNATELY, THIS IS NOT A NEW TOPIC!



ICAS SAFETY COMMITTEE EFFORTS



Emergency Extraction

Electrical/Ignition System
N540JH



All switches
DOWN =
all electrical
systems OFF

Harnesses
N540JH



Aircraft Type: MX
Registration: 540JH
Pilot Name: Rob Holland
Emergency Contact Name: Jessica Holland
Emergency Contact Number: 603-930-9769
Date: 7-24-2014

Fuel System
N540JH



Down is OFF,
knob must be
pulled OUT to
turn

Canopy System
N540JH



Handle must be
DOWN to open

Aircraft Type: MX
Registration: 540JH
Pilot Name: Rob Holland
Emergency Contact Name: Jessica Holland
Emergency Contact Number: 603-930-9769
Date: 7-24-2014



Mr Scott McMillan
Mrs Zoe Albrecht
Mr Jim Cimiluca

Event Locations: United States.

Acts: Warbird Acts.

Services: Air Boss, Consultant/Management Services, General, Producers.

Rocky Mountain Airshow
21957 Mountsfield Dr
Golden, CO 80401-8822
United States of America
Phone: 303-877-7607

Fax:

Emergency Extraction Information:

Support Requirements:

Rocky Mountain Airshow

2015-08-14 - 2015-08-16 (Broomfield, CO - US)

For more information, contact Scott McMillan at 303-877-7607

Performers:

- Dan Buchanan Airshows
- CAF Red Tail Squadron
- Air Force Heritage Flight Foundation
- Rocky Mountain Renegades
- Doug Jardine Airshows
- Commemorative Air Force
- Free Man Ventures
- F-16 Viper Demo Team
- Kent Pietsch Airshows (Pietsch Airshows)
- Rower Airshows
- Wild Horse Aviation
- Don Nelson Air Shows
- Airshow Special Effects

Airport: Rocky Mountain Metro Airport(BJC)

Field Elevation: 5600

Runway Length: 9000'

Runway Orientation: 29-11

Unicom Frequency:

Google Maps

Fixed Base Operator: Landmark Aviation



ICAS



ICAS Performer Emergency Extraction Information
Rocky Mountain Airshow
August 14th - 16th, 2015

| Performer Name | Page # |
|--|---------------|
| CAF Red Tail Squadron | 2 |
| Dan Buchanan Airshows | 6 |
| Kent Pietsch Airshows (Pietsch Airshows) | 8 |
| Rocky Mountain Renegades | 24 |
| Rower Airshows | 28 |

Emergency Extraction Document Generated: July 31, 2015, 12:04 pm

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THE YEAR OF CHANGE

- ICAS ENGAGEMENT
- STRATEGIC PARTNERSHIPS
- DEDICATION TO A CULTURE OF SAFETY

= NEW INSTRUCTION TO ENFORCE COMPLIANCE
WITH INDUSTRY BEST PRACTICES





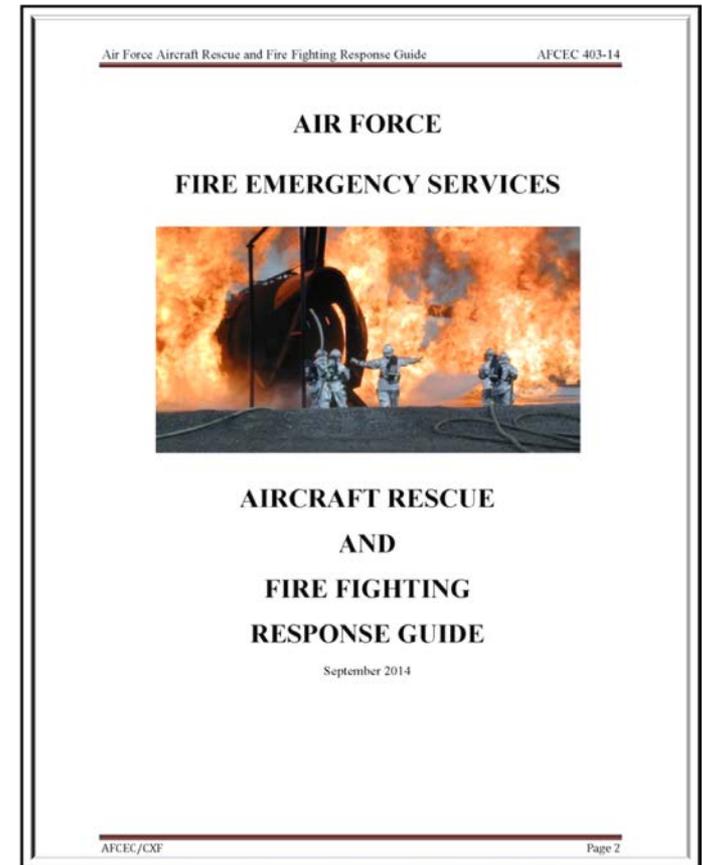
U.S. Air Force

- Mr. Jim Podolske
- Air Force Fire Chief
- 169 Fire Departments
- 11,520 Firefighters
- 1,863 Fire Vehicles
- 70,328 Emergencies



Changing the Paradigm

- Travis Air Show
- AF and DoD
- NATO (STANAG 7048)
- NFPA (NFPA Std 403)
- Revised Response Guide
- Added Section 5 – Air Show Safety





AF Air Show Procedures

- Treat Air Show as an “announced” emergency
- Maximum 60 second response time
- Fire vehicles and crews pre-positioned
- RIV positioned at show center
- Vehicle engines running
- Firefighter personal protective equipment on
- Vehicles pre-cleared to cross runways/taxiways
- ARFF crews meet/discuss extraction procedures with pilot or aircrews and have a response drill



Air show Emergency Response Plans and Procedures

Guidelines for Emergency Response and Public Safety Agencies

Air Show Aircraft Rescue and Firefighting:
Changing the Industry Paradigm

Timothy P. Butters, Senior Adviser
Office of Airports - FAA

December 7, 2015



**Federal Aviation
Administration**

History

- **Recent incidents at air shows focused renewed attention on emergency preparedness and response**
- **Limited of guidelines for public safety and emergency response agencies**
- **Need for stronger and more clear ER requirements for organizers**
- **Improved ER guidelines needed for air show approval process and for FAA Inspector-In-Charge (IIC)**

ASERPP Project Plan

- **Tool for emergency response agencies**
- **Reference for air show organizers**
- **Incorporate into Certificate of Waiver/Authorization application process (FAA Order 8900.1V3/CH6) and AC 91-45 as revised (Aviation Events)**
- **Implement in 2016 Air Show Season**

Goals

- **Raise the bar for air show safety and emergency response**
- **Develop a tool that is risk-based, practical and flexible**
- **Accommodates size and complexity of events**
- **Establishes base line requirements and recommended practices**
- **Comprehensive in scope**
- **Anticipates continuous improvements and refinement**

Content/Sections

- Introduction
- Event Description and Risk Factors
- Pre-Incident Planning and Familiarization
- Emergency Response Capability to Downed Aircraft
- Resource Requirements Positioning and Deployment
- Command and Operations Personnel Requirements
- Mutual Aid Resources
- Communications Protocols and Procedures
- Training and Certifications
- Emergency Medical and Mass Causality Response
- Special Hazards and Hazardous Materials
- Incident Management and Command
- Post Event/After Action
- Appendix – references and resources



Section 4: Emergency Response Capability to Downed Aerobatic Aircraft

- **This section provides guidance regarding identification of available fire suppression and pilot/victim extrication (extraction) resources for aircraft incidents and what additional resources that should be considered.**
 - Available fire suppression capability based on largest risk of participating aerobatic aircraft
 - Available specialty chemical agent/dry chemical fire suppression resources (vehicle based, wheeled carts) based on fuel or other aircraft fire risks
 - Pilot extrication capability (hydraulic or other forcible entry tools/lift bags or similar systems)
 - Technical rescue information/schematics for all participating aircraft
 - Heavy lift resources/cranes, rigging and qualified operators
 - EMS treatment and transport of any aircraft casualties (pilot/performer)
 - Designated EMS helicopter approach/departure helispots procedures (LZ coordination, wire/surface obstruction reports to pilots)
 - Assess any special aircraft risks or unique hazards – such as lightweight and composite airframe materials which may require specific tactical considerations or unusual aircraft power or energy systems including battery systems, fuel cells, ballistic parachutes, pyrotechnics or other hazards that may pose serious risk to pilots or rescuers
 - Ensure coordination of conops with other response agencies (law enforcement, security, etc) to ensure safety, vehicle positioning to prevent access by other responding units, etc.

Section 9: Emergency Medical Services and Mass Casualty Response

- This section describes the considerations for emergency medical care, transport, mass casualty response.

Advanced Life Support and Basic Life Support Response Plan– ambulatory and non-ambulatory patients

- On-site ground EMS transportation (ambulances)
- Fixed medical aid stations, supplies and staffing
- Mass casualty resources/deployments consistent with local mass casualty incident (MCI) plans and procedures
- Rapid Response Capability (EMS providers on ATV's, bikes, foot patrols, etc)
- Air transportation resources (helicopters) and designated/alternate heliport (landing zones)
- Receiving Medical Facilities (hospitals), capability (trauma center level); and capacity
- Mass evacuation procedures/public notifications/instructions in the event of a downed aircraft in the spectator area or approaching severe weather system
- Designated evacuation sheltering facilities
- Active/mass shooter response plan/protocols -
- Chemical, biological, radiological, nuclear, explosion (CBRNE) protocols and response resources

Resource Requirements, Positioning and Deployment Cont.

- **Specialized Heavy Lift Equipment**
 - Prepositioned/rigged heavy lift capability with operator
- **Positioning and Deployment**
 - Designated placement of response apparatus for unobstructed rapid/ready response (1 minute arrival from dispatch is desired target) to incident in aerobatic box
 - Protocols requiring personnel to be in place highest state of operational readiness
 - Communications/response protocols for notification (dispatch), self-dispatch response (witnessed event) and runway/taxiway crossing
 - Standard operating procedures for expected initial tactical and rescue actions

Status and Next Steps

- **Draft document under FAA and peer review**
- **Alignment with FAA Order 8900.1/AC 91-45**
- **Target Completion: January 2016**
- **Distribution to emergency response organizations and ICAS community**
- **Available for download from FAA website**

QUESTIONS?



Air Show Emergency Response Plans and Procedures

FAA Order 8900.1 Volume 3 Chapter 6 Section 1 – Aviation
Events

Guidelines for Emergency Response and Public Safety
Agencies (ASERPP)

- Sue Gardner
- National Aviation Events Specialist
- General Aviation and Commercial Division AFS-800
- Federal Aviation Administration
- Washington, DC



Las Vegas, NV

December 7, 2015



**Federal Aviation
Administration**

Some History

- **Recent incidents at air shows focused attention on emergency response**
- **Need for stronger and expanded requirements in FAA Policy and Guidance**
 - FAA Order 8900.1 Volume 3 Chapter 6 Section 1 – Issuance of CoW/A Aviation Events
 - AC 91-45 – Aviation Events
- **Alignment with new Guidelines for Emergency Response and Public Safety Agencies (ASERPP)**
 - Developed in coordination with Office of Airports

ASERPP Project Plan

AFS-800 Role

- **Incorporate into CoW/CoA application (FAA Form 7711-2) process**
 - FAA Order 8900.1 V3/CH6 and AC 91-45
 - Policy establishes baseline requirements and directs event organizer to new ASERPP
 - Mandatory requirement to submit an Emergency Response Plan
 - Applicable to scope and complexity of the aviation event
 - Effective 2016 Air Show Season

Requirements

- **Emergency Response Plan**
 - Sample plans
- **Pre-Incident Planning and Familiarization**
- **Emergency Response Capability to Downed Aircraft**
 - 1 Minute Response
 - Performer Extraction Procedures
- **Resource Requirements, Positioning and Deployment**
 - On site. ready to deploy when CoW in effect
 - Resources scoped to Aviation Event
 - Location depicted in ERP/diagram
- **Command and Operations Personnel Requirements**
 - Responsible Person
- **Mutual Aid Resources**
- **Communications Protocols and Procedures**
 - Air Boss/Event Organizer/IIC/ERP RP
- **Training and Certifications**
- **Emergency Medical and Mass Casualty Response**
- **Special Hazards and Hazardous Materials**
 - Pyro, ejection seats, ballistic parachutes/shoulder harnesses
- **Incident Management and Command**
- **Post Event / After Action**

Status and Next Steps

- **Draft FAA Order 8900.1/AC 91-45 under FAA and peer review**
- **Alignment with ASERPP FAA**
- **Target Completion: January 2016**
- **Distribution to FAA IICs, *emergency response groups and ICAS* community**
- **Posted to FAA website**



IN SUMMARY...



IF YOU HAVE CONCERNS...

- UNCOOPERATIVE LOCAL SUPPORT
- EXPENSE
- LACK OF AVAILABLE SERVICES

REACH OUT FOR HELP!

ICAS Event Organizers Safety & Ops Subcommittee

Dennis Dunbar, Chairman

321-543-8837



THE BRUTAL TRUTH IS...



IF YOU ARE NOT READY FOR THIS,



YOU SHOULD NOT HAVE A SHOW!



Your feedback is important to us!

Please complete a session survey in the
Convention Mobile app

-OR-

Pickup a paper evaluation form outside of the
session room

