FLIGHT SAFETY FOUNDATION

Basic Aviation Risk Standard

Aviation Coordinator (AVCO) Training
March 2012
The Aviation Coordinator course:

- two-day course,
- for personnel with aviation related responsibilities,
- who lack aviation risk management knowledge,
- designed to equip them with tools to proactively identify hazards and mitigate safety risks
Learning Objectives

Course content:

• Educate the participants on the basic elements of:
  • aeronautical knowledge
  • aviation terminology (and jargon!)
  • hazards specific to aviation
  • contract management

• Introduction to Bow Tie methodology

• Provide an overview of the role of the Aviation Coordinator

• Inform the individual in making a valued judgement on when to seek of the advice of a Competent Aviation Specialist
Accidents

Classified by Accident Type 1991 - 2000

Number of Hull Losses

- Landing: 85
- Controlled flight into terrain: 33
- Loss of control in flight: 31
- Refused takeoff: 9
- On-Ground Misc.: 9
- In-Flight Fire: 5

Total Hull Losses = 205

Number of fatalities (7,184 total)

- Landing: 208
- Controlled flight into terrain: 2,237
- Loss of control in flight: 2,266
- Refused takeoff: 3
- On-Ground Misc.: 0
- In-Flight Fire: 600
Risk Based Approach
EXAMPLE FROM THE BAR STANDARD

Outline Threat

Identify Controls

Recovery Measures

<table>
<thead>
<tr>
<th>Threat</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat 6.0: Incorrect Loading</td>
<td>Passenger Weights</td>
</tr>
<tr>
<td>Cargo Weights</td>
<td>Weight &amp; Balance Calculations</td>
</tr>
<tr>
<td>Manifest</td>
<td>Dangerous Goods</td>
</tr>
<tr>
<td>Passenger Briefing</td>
<td>Multi-language Briefing</td>
</tr>
</tbody>
</table>

- Limitations in Sideways Seating
- Crash Bows
- Rescue Fire Fighting
- Insurance
Threats, Controls & Recovery Measures

Threat 9.0
Structural / Mechanical Failure

Threat 10.0
Weather

All Threats 1.0
Common Controls
Aviation 101 – Fixed Wing

Lift = \( C_L^{1/2} pV^2 S \)

\[ \frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2} \]
Aviation 101 – Rotary Wing

\[ \frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2} \]

Lift = \( C_L^{1/2} \rho V^2 S \)
Freight & DG Management
Drummed Fuel
HELICOPTER OFFSHORE OPERATIONS
AVCO COURSES

Under development

• One-day AVCO course for Senior Managers
  • Executive and senior management personnel who may have had little or no prior exposure to aviation risk or management

• AVCO course for EMS support personnel
  • For medical and para-medical personnel who are or may become involved in aerial EMS activities
Courses held to date

- Perth
- Melbourne
- Brisbane
- Johannesburg
- Yellowknife
- Jakarta
- Phoenix
- Conakry
- Perth
- Singapore
- London

Over 200 attendees. Rio Tinto placing 200+ of their personnel through the course.
AVCO Course

Upcoming courses:

• March: Johannesburg  (27th & 28th / 29th & 30th)
• April: Columbia
• May: Bali
• June: Brisbane
• July: Cairns
• August: Yellowknife
• October: Dubai
Facilitator – Geoff Roberts

Geoff has extensive experience as a fixed and rotary wing pilot and instructor in both defense and civil operations.

He is a former head of flight operations for a high capacity AOC. He is experienced in managing and delivering flight safety programs; incident and accident investigation; regulatory affairs, and resource sector aviation safety management and auditing.
Ed Mitchell has over 18,000 hours of flying experience in rotary wing operations around the world, both defense and civil.

He is a member of the Royal Aeronautical Society and the International Society of Air Safety Investigators.

He has a Masters degree in Air Safety Management.
Aviation Coordinator [AVCO] Course

A training course that enables resource sector participants to understand and assess competing hazards associated with air transportation in challenging and remote environments.

www.flightsafe.org/bars

Basic Aviation Risk Standard

Many resource sector companies rely on chartered aircraft operators for a number of support activities including, most importantly, the movement of company personnel. The aircraft supporting these activities range from small single-engine helicopters to transport category jet aircraft, utilized in a variety of challenging environments.

The BARS Standard was developed from an industry-identified need to establish a common safety audit standard that could be applied to on-shore resource sector aviation support activities. It provides contracting companies with the level of safety assurance required by their respective organizations.

The Standard was developed from a risk-based model framed against the actual threats posed to aviation operations. It directly links these to associated controls and recovery and mitigation measures, as opposed to the out-dated prescriptive format previously used within the industry.

The Standard provides a consistent audit model that allows member resource companies to share in the audits of operators all of whom have been subject to a consistent standard of audit.

Download the following PDF’s.