What is the Flight Safety Foundation?

* Independent
* Non-Profit
* International

Founded in 1947
FSF Goal:

Make Aviation Safer by Reducing the Risk of an Accident
Worldwide Airline Hull Loss Accidents

Classified by Accident Type 1994 - 2003

Total Hull Losses = 181

- Landing, Loss of Control, and CFIT Hull Losses: 131 or 72%
- Number of Hull Losses:
  - Landing: 74
  - Loss of control in flight: 30
  - Controlled flight into terrain: 25
  - Refused takeoff: 8
  - On-Ground Misc.: 8
  - Fuel Exhaustion: 6

Graph showing the distribution of hull losses from 1994 to 2003, with a focus on landing, loss of control, and controlled flight into terrain.
Worldwide Airline Fatalities
Classified by Accident Type 1995 - 2004

Number of Fatalities

- Controlled flight into terrain: 22
- Loss of control in flight: 21
- Mid-Air collision: 420
- In-Flight fire: 339
- Fuel tank explosion: 231
- Structure fire: 225
- Landing: 136

Total fatalities - 5,828

CFIT and Loss of Control Fatalities: 3,598 or 62%
Prime Safety Concerns

- CFIT
- Approach and landing
- Loss of control
- Human Factors
Risk Management

**Hazard:** Something that can cause harm

**What is Risk:**
- The probability a hazard will cause harm
- Or
- The Possibility of Undesired Consequence
Risk Management

Types of Risk:

1. Physical
2. Economic
3. Productivity
4. Professional
5. Social
Risk Management Basics

How to measure risk:

Risk = Probability X Severity
Risk Management Steps

1. Identify Hazards
2. Evaluate Risks
3. Make a Decision
# Risk Assessment

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Risk Management Steps

1. Identify Hazards
2. Evaluate Risks
3. Make a Decision
4. Evaluate/Feedback
Risk Management Example

Crossing the Street

1. Walk across without looking
2. Wait until traffic slows
3. Cross at crosswalk
4. Cross using skyway or tunnel
5. Don’t cross the street
Decision Making

What is it:

Risk Management at an Individual Level
Risk Awareness Tools

- CFIT Checklist
- Risk Assessment Tool
- ALAR Risk Reduction Guide
“Good” SOP’s

• Comprehensive
• Understandable and usable
• Written down - documented
• Cooperatively developed with crews
• Consistently used
• Changeable
Risk Management

Organization: Must be a part of the organizational culture

Individual: Better decision making by increasing risk awareness and better SOP’s
Making Flying Safer By Reducing The Risk of an Accident