

**Turbulence
Joint Safety Implementation Team

Detailed Implementation Plan
For
Cabin Injury Reduction During Turbulence**

Statement of Work: Reduce turbulence injuries to flight attendants (FA's) and passengers through improved situational awareness, turbulence encounter management procedures (before, during and after encounter), and enhanced communication methodologies standardized across all Part 121 air carriers.

Lead Organization for Overall Project Coordination (LOOSEC): ATA Cabin Operations Committee/AFS-200

SAFETY ENHANCEMENT 78: Procedures for Reducing Cabin Injuries

Score (InjryRdx%): 2007: 0.20 2020: 0.20 Full: 0.20 '07 Imp: 100%

Total Resource Requirements:

	Government		Manufacturers		Operators		Total
	FTE	\$M	FTE	\$M	FTE	\$M	FTE/\$M
2007	1.84	.368			4.0	.934	5.84/\$.1.302M
2020							/0
Totals	1.84	.368			4.0	.934	5.84/\$.1.302M

Completion Date: Completed by 12/31/04 (assuming CAST approval of Safety Enhancement.)

Output 1: Develop industry consensus best practices for policies, procedures, terminology, training, and flight crew/cabin crew communications to minimize cabin occupant exposure to turbulence, especially for FA's. This should include, as a minimum, the information contained in the attached Template.

Resources: FAA/AFS-200 (Flight Standards Working Group on Turbulence) (LOOC), ATA Cabin Operations Committee, Airlines (Directors of Operations and Safety), Flight Attendant Unions, Pilot Unions, NASA-Ames, FAA (CAMI).

Timeline: Completed 3 months after CAST approval of Safety Enhancement.

Actions:

- **ATA/Airlines/FA Unions/FAA --** Identify and evaluate airlines best practices to address, wherever possible, those items identified in the attached template.

Output 2: Document industry best practices in a new AC incorporating, at a minimum, the information on the attached template. FAA Order 8400.10 should also be reviewed to determine if it is appropriate to add information from these best practices.

Resources: ATA Cabin Operations Committee (LOOC) and FAA/AFS-200, Flight Standards Working Group on Turbulence.

Timeline: Completed 12/31/04 (assuming CAST approval of Safety Enhancement).

Actions:

- **FAA/AFS-200, Flight Standards Working Group on Turbulence** -- Take final work product from Output 1, review, evaluate and format the information into an AC, and guide the AC through FAA coordination and publication.
- **FAA/AFS-200, Flight Standards Working Group on Turbulence** -- Review current FAA Order 8400.10 and existing AC's and propose revisions and deletions necessary to incorporate information and best practices contained into a single AC.

Output 3: Revise procedures, develop airline training programs, and implement them in annual recurrent training for flight and cabin crews.

Resources: ATA, Cabin Operations Committee (LOOC), airlines, Pilot Unions, FAA

Timeline: Completed 18 months after issuance of the AC.

Actions:

- **Airlines** -- Revise FA, pilot and dispatcher standard operating procedures and training programs to incorporate the recommendations and best practices contained in the AC.
- **Airlines** -- Conduct the upgraded training during annual recurrent training for FA's and pilots to implement the recommendations and best practices contained in the AC.

Performance Goals & Indicators for Safety Enhancement/Outputs:

- **Goal:** Identify industry best practices and procedures for protecting FA's and passengers and implement those in all Part 121 air carriers carrying passengers.
- **Indicator:** Part 121 carriers have implemented the "best practices and procedures".

Programmatic approach

Organizational strategy

The Turbulence JSIT identified the ATA Cabin Operations Committee as the project lead. The project lead will coordinate and assist with the implementation of the activities

outlined in this Detailed Implementation Plan and will, when requested, provide progress reports to the CAST. Implementation of this project is viewed as a shared responsibility, and tasks will be divided between the FAA and organizations/persons in industry. The Lead Organization for Overall Project Coordination (LOOSEC) is the ATA Cabin Operations Committee. The Lead Organization for Output Coordination (LOOC) is FAA/AFS-200 Flight Standards Working Group on Turbulence. The roles and responsibilities of the LOOSEC and LOOC are described in the CAST-approved JSIT Process Document.

Implementation Activities

Data has consistently shown that most turbulence-related injuries occur to FA's and passengers who are not properly secured. Over the years, Government and industry efforts have addressed this issue in an attempt to reduce turbulence injuries to FA's and passengers. These efforts have lacked overall coordination and consequently have not been effective, as indicated by the increasing trends in FA injuries. Central to the organizational strategy will be the integration of these various efforts combined with current data to develop comprehensive guidance.

Key Products and Milestones

<u>Safety Enhancement 78: Procedures for reducing cabin injuries.</u>		
<u>Output 1:</u> Develop industry consensus best practices for policies, procedures, terminology, training, and flight crew/cabin crew communications to minimize cabin occupant exposure to turbulence, especially for FA's. This should include, as a minimum, the information contained in the attached Template.		
Action	Responsible Party	Completion Date
Identify and evaluate airline best practices.	ATA/Airlines/ FA Unions/FAA	3 months from CAST Approval.
Develop industry consensus on best practices.	ATA/Airlines/ FA Unions	3 months from CAST approval.
<u>Output 2:</u> Document industry best practices in a new AC incorporating, at a minimum, the information on the attached template. FAA Order 8400.10 should also be reviewed to determine if it is appropriate to add information from these best practices.		
Action	Responsible Party	Completion Date
Review and evaluate results of above action item and format the information into an Advisory Circular.	FAA/AFS-200	12/31/04

Review current FAA Order 8400.10 and existing AC's and propose revisions and deletions necessary to incorporate information and best practices contained into a single AC.	FAA/AFS-200	12/31/04
Output 3: Revise procedures, develop individual airline training programs and implement in annual recurrent training for flight and cabin crews.		
Action	Responsible Party	Completion Date
Revise FA, pilot and dispatcher standard operating procedures and training programs to incorporate the recommendations and best practices contained in the AC.	ATA/Airlines/Pilot Unions/FAA	6 months from AC issuance.
Conduct the upgraded training during annual recurrent training for FA's and pilots to implement the recommendations and best practices contained in the AC.	Airlines	18 months from AC issuance.

Risk Description and Risk Mitigation Plan:

RISK DESCRIPTION	RISK MITIGATION PLAN
Changing corporate culture will be difficult.	Ensure corporate buy-in of plan.
Government does not maintain monetary support of turbulence effort within responsible Government organization.	CAST and Industry assist responsible Government agency by advocating funding and prioritization for continued turbulence funding. Industry provides guidance for needs and priorities to support aviation safety.
Responsible Government organization priority shifts away from turbulence.	CAST and Industry assist the responsible Government organization by advocating funding and prioritization for continue turbulence funding. Industry provides guidance for needs and priorities to support aviation safety.
Unfavorable airline economics and competition for funds with other needs.	Develop cost/benefit analysis to encourage airlines to implement in time to impact 2007 goals.

05/13/04

Impact on Non-Part 121 or International Applications

Procedures may remain distinct between international and domestic carriers except as they demonstrate lower injuries and lower operator costs, which would induce international carriers to adopt.