NAOMS DISCUSSION

JIMDAT Meeting
San Francisco, CA
June 16, 2004

25 Completed JIMDAT Safety Enhancements

25 Completed JIMDAT Safety Enhancements (A)

1. **Terrain avoidance warning system (TAWS)**
2. **CFIT Standard Operating Procedures**
3. **Precision approach implementation (PAI) Vertical Angles – Increase constant angle approaches**
4. Minimum Safe Altitude Warning (MSAW) Systems
5. Proactive Safety Programs (FOQA + ASAP)
6. **CFIT Crew Resource Management (CRM) training**
7. **CFIT Prevention training**
8. Air Traffic Controller CFIT training
9. **PAI-VGSI at runway ends**
10. PAI-DME at airports

25 Completed JIMDAT Safety Enhancements (cont'd)

Runway Incursion Interventions

11 Ground Operations (General Aviation)

12 Tow tug operators

13 ATC

Improvements in Safety Culture

14 Industry will include essential safety information in the appropriate airline manuals (i.e., training programs)

15 FAA inspectors will utilize the Aircraft Flight Manual (AFM) database

16 CEO and Director of Safety (DOS) more visible

17 Industry will develop a process to inform personnel/flight crew of critical safety information

25 Completed JIMDAT Safety Enhancements (cont'd)

Maintenance Issues

18 Servicing landing struts

19 Surveillance of maintenance subcontractors

20 Minimum Equipment List (MEL) (covers recurring maintenance events)

21 Air Carriers' Directors of Safety completed internal surveys to verify guidance was being followed

25 Completed JIMDAT Safety Enhancements (cont'd)

Aircraft Design

22 Manufacturers agree to install Vertical Situation Displays in new aircraft

23 Manufacturers agree to install Flight Envelope Protection in new type designs

24 ALAR Flight Crew Training

25 FAA issued Airworthiness Directives requiring the Inspection of High-Energy Rotating Parts

21 Committed
JIMDAT
Safety Enhancements

21 Committed JIMDAT Safety Enhancements (B)

Policies and Procedures

1 Industry will develop/implement Risk Management tools

2 Industry will develop a process to enhance flight crew proficiency

3 FAA/Industry will develop standard operating procedures for loss of control related accidents

Aircraft Design

4 FAA will issue guidance on Continuing Airworthiness

5 FAA will issue guidance on Critical System Maintenance

6_FAA will amend guidance to include recommendations surrounding autoflight designs for new type designs

21 Committed JIMDAT Safety Enhancements (cont'd)

Aircraft Design (Con't)

7 Manufacturers will implement Flight Deck Equipment Upgrades for new type designs (i.e. interactive checklists)

8 FAA/JAA will amend guidance to include recommendations regarding Displays and Alerting Systems for new designs

9 FAA/JAA will issue amended icing certification criteria for criteria for new airplane designs not equipped with evaporative systems

Runway Incursions

10 Enhanced airport surveillance equipment

11 Ground operations (121/135) standard operating procedures (SOPs)

21 Committed JIMDAT Safety Enhancements (cont'd)

Runway Incursions

12 Vehicle operators standard operating procedures (SOPs)

13 Clearance readback requirements standard operating procedures (SOPs)

14 Pilot Training

15 ATC Enhanced Tower Controller Training

16 ATC CRM

Flight Crew Training

17 Advanced Maneuvers Training will be provided by all operators

18 Industry will incorporate a human factors-related training guide into training programs and SOPs

21 Committed JIMDAT Safety Enhancements (cont'd)

Precision approach implementation (PAI)
(FAA and Industry will develop)

19 Recommended procedures, displays and training that will enable pilots of commercial aircraft to fly a stabilized vertical path to the runway for all instrument approaches

20 Criteria and guidance for reduced landing minima

21 Laterally and vertical guided approach paths to runway ends not served by Instrument Landing System (ILS)

JIMDAT ISSUES
and
POTENTIAL NAOMS, Section Cs

JIMDAT Issues and Potential NAOMS Section C's

JIMDAT Issues	Section C Topics
J2-A - CFIT Standard Operating Procedures	Procedures and/or Training
J3-A - Vertical Angles	Procedures
J6 - A- CFIT CRM Training	Training
J7 -A - CFIT Prevention Training	Training
J9 -A - CFIT - PAI-VGSI at runway ends	Procedures
J20 -A - ALAR Maintenance Procedures - Policy on MEL's	MEL
J22 -A - Manufacturers agree to install Vertical Situation Displays in new aircraft	Aircraft automation and flight crew interface; Procedures
J23 -A - Manufacturers agree to install Flight envelope Protection in new type designs	Aircraft automation and flight crew interface
J 6-B - FAA will amend guidance to include recommendations surrounding auto flight designs for new type designs	Aircraft automation and flight crew interface
J8-B - FAA/JAA will amend guidance to include recommendations regarding displays and alerting systems for new designs	Aircraft automation and flight crew interface
J11-B - Enhanced airport surveillance equipment	Procedures
J18-B - Industry will incorporate a human factors-related training guide into training programs and SOP's	Aircraft automation and flight crew interface; Training

SUMMARY RECOMMENDATIONS

Summary Recommendations

In collaboration with JIMDAT members, develop . . .

- **Section C**
  - **MEL (20A)**
  - **Training (2A, 6 A, 7A, 18B)**
  - **Procedures (2A, 3A, 9A, 11B)**
    - **(Perhaps several such as Approach, Ground Operations, and Cruise)**
  - **Aircraft automation and flight crew interface (22A, 23A, 6B, 8B, 18B)**
  - **Cargo vs. Passenger Operations**

- **Section B**
  - **Assess applicability of available data**
  - **Develop selective drill-downs or parallel questions to address JIMDAT requirements.**