

Docket No. SA-509

Exhibit No. 20

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C.

USAIR FLIGHT OPERATIONS TRAINING MANUAL

FLIGHT OPERATIONS TRAINING MANUAL

SECTION 6: CREW RESOURCE MANAGEMENT CURRICULUM SEGMENT OUTLINE

Indoctrination: (8 Hrs)

Recurrent: (1 Hr) >>>

Note: This training period is included as part of the total training hours listed for each applicable aircraft ground training curriculum outline.

- A. **OBJECTIVE OF TRAINING:** USAir's aircraft specific flight crew training programs focus on the technical aspects of flying; i.e. systems knowledge and flying proficiency. CRM or Crew Resource Management Training is designed to enhance safety by increasing the efficiency of USAir flight crewmembers as they interact in the cockpit. This goal is achieved by providing training in communication skills, teamwork, task allocation and decision making during an Indoctrination or Awareness phase. In addition, crewmembers are provided the opportunity to practice the skills they have learned during a SPOT (Special Purpose Operational Training) flight simulator session.
- B. **CRM INDOCTRINATION GROUND TRAINING:** The Indoctrination phase of CRM (called the Awareness Phase in Advisory Circular 120-51) consists of a seminar presentation and focuses on interpersonal relations and crew coordination. This phase of training provides flight crewmembers with common terminology and a framework for identifying and describing crew coordination problems. The Indoctrination phase consists of a one day seminar which provides training in such areas as communication processes, decision behaviors, team building, team maintenance, workload management/situation awareness.
- C. **CRM RECURRENT GROUND TRAINING:** Recurrent CRM training is presented as part of each pilot's recurrent ground training curriculum and serves to reinforce the principles of CRM that were presented in the Indoctrination Phase.
- D. **CRM FLIGHT TRAINING:** Completion of the flight training portion of CRM Training at USAir will fulfill the initial CRM exposure for USAir flight crewmembers. This flight training is referred to as the Practice and Feedback phase. CRM flight training will be conducted during a 2 hour SPOT (Special Purpose Operational Training) flight simulator sessions, conducted in conjunction with each pilots recurrent flight training, and will provide flight crewmembers with a self/ peer-critique vehicle to improve communication, decision making and leadership skills. Video feedback will give crewmembers a chance to view themselves from a third-person perspective.

FLIGHT OPERATIONS TRAINING MANUAL**SECTION 6A: CREW RESOURCE MANAGEMENT TRAINING MODULES****A. CRM RECURRENT GROUND TRAINING:**

1. **COMMUNICATIONS PROCESSES AND DECISION BEHAVIORS MODULE:**
 - Briefings
 - Inquiry/Advocacy/Assertion
 - Crew Self Critique
 - Conflict Resolution
 - Communications/Decisions
2. **TEAM BUILDING AND TEAM MAINTENANCE MODULE:**
 - Leadership/Followership/Concern for Task
 - Interpersonal Relationships/Group Climate
3. **WORKLOAD MANAGEMENT/SITUATION AWARENESS MODULE:**
 - Preparation/Planning/Vigilance
 - Workload Distribution/Distracted Avoidance
4. **INDIVIDUAL FACTORS MODULE:**
 - Recognition of stressors
 - Captain's authority

B. CRM FLIGHT TRAINING:

This phase of training will be a no-jeopardy SPOT (Special Purpose Operational Training) conducted in the flight simulator utilizing a line-qualified complete crew. Video feedback will be used to allow crewmembers to view themselves from a third-person perspective as they use the skills learned in the Indoctrination/Awareness phase.

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FLIGHT OPERATIONS TRAINING MANUAL

The following table lists the control number of each LOFT scenario for each aircraft type. The "-I" scenarios denote LOFT sessions conducted during Initial, Transition, or Upgrade Training. The "-1R" scenarios denote LOFT sessions conducted during recurrent training.

AIRCRAFT TYPE	LOFT CONTROL NO.
MD-80	MD8-1
	MD8-1R
DC-9	DC9-1
	DC9-1R
B-727-200	B727-1
	B727-1R
B-737-200	B732-1
	B732-1R
B-737-300/400	B733-1
	B733-1R
B-757/767	B756-1
	B756-1R
F-28	F28-1
	F28-1R
F-100	F10-1
	F10-1R

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FLIGHT OPERATIONS TRAINING MANUAL**SECTION 4 RECURRENT FLIGHT TRAINING MODULES****1. PROFICIENCY CHECK MODULE**

Oral Exam
Preflight Inspection
Checklists
600 RVR Takeoff
Area Departure/Arrival
Steep Turns
Approaches to Stalls
Holding
CAT II ILS
Takeoff (V1 Cut)
Single-Engine ILS
Engine-Out Landing
Non-Precision Approaches
Rejected Takeoff
Crosswind Takeoff and Landing
Missed Approaches
Abnormal Procedures
Emergency Procedures
Debriefing

2. PROFICIENCY TRAINING MODULE

Oral Exam/Briefing
Preflight Inspection
Checklists
600 RVR Takeoff
Area Departure/Arrival
Steep Turns
Approaches to Stalls
Holding
CAT II ILS
Takeoff (V1 Cut)
Single-Engine ILS
Engine-Out Landing
Non-Precision Approaches
Rejected Takeoff
Crosswind Takeoff and Landing
Missed Approaches
Abnormal Procedures
Emergency Procedures
Windshear
Debriefing

FLIGHT OPERATIONS TRAINING MANUAL

3. **RECURRENT LOFT**

Briefing
Preflight Inspection
Checklists
Normal T/O, Low Visibility
Crosswind T/O
Area Departure
Area Arrival
Non-Precision Approach (2)
CAT II Approach
Crosswind Landing
Abnormal Procedures
V1 Cut
Single Engine ILS
Engine Out Landing
Rejected T/O
Missed Approach
Rejected Landing
Wind Shear Demonstration
Debriefing