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NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

OPERATIONAL FACTORS GROUP CHAIRMAN'S FACTUAL REPORT ATTACHMENT 42: AA TAKEOFF AND LANDING SIMULATOR TRAINING OBSERVATION by CAPTAIN RANDY WYATT

American Airlines flight 1420
Little Rock, Arkansas
June 1, 1999

DCA99MA060

Attachment 42

to Operational Factors Group Chairman's Factual Report

DCA99MA060

AA Day-6 Simulator Observation by Captain Randy Wyatt

NTSB OPS GROUP

Memo

To: Captain Dave Tew, Ops Group Chairman

From: Captain Randy Wyatt

CC: Captain Eric Lewis

Date: 08/10/99

Re: COMMENTS ON AA SIMULATOR OBSERVATION (DAY 6, TAKEOFF AND LANDINGS)

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1. I observed an American Airlines "Day 6-Takeoffs and Landings" simulator training session the evening (1815-0100) of 19 July 1999. The goal was to assess the emphasis by AA on techniques for landing on contaminated runways in medium to strong crosswinds.

2. The AA Checkairman was Captain Frank Connery. The Trainees were an upgrade Captain, Captain Bill Cole (previous 757 FO) and a new hire, FO Simon Frasier. The simulator period (2000-0000) was preceded by a 2 hour brief and was followed by a 1 hour debrief.

3. The following comments apply:

   a. The entire evolution was conducted in an impressively professional manner.

   b. The instructor did an excellent job briefing the crew on RTO procedures, what to abort for, controllability issues, balanced field length definitions, decisions/conditions for rejecting after V1 (extreme circumstances), hi energy vs low energy, etc.

   c. The landing techniques briefing discussed 28 flap (for performance) vs 40 flap (for stopping). He did mention that 40 flaps were better for crosswind landings. I'm not sure that his reasoning was correct (more wing tip scraping incidents with 28

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flaps). I did agree that flap selection should be predicated on headwind component, amount of runway available, runway conditions and crosswind intensity.

d. Capt. Connery did an excellent job of emphasizing the importance of avoiding thunderstorms, as demonstrated by the windshear scenarios he presented during the simulator session.

e. There was no discussion of the AA promulgated cross-wind limits for reduced visibility approaches and contaminated runways.

f. There was no training or discussion of limiting reverse EPR to 1.3 during landings on contaminated runways. All the training focused on setting 1.6 EPR. Rudder blanking during high reverse settings was discussed and the students were trained to come out of reverse if directional control becomes a problem. However, they were trained to go directly to normal idle vice reverse idle as per the AA manual. This would result in a longer than necessary roll out.

g. The AA manual recommends using maximum Auto-brakes on contaminated runways. The instructor recommended "heavy" manual braking. He made several statements that he did not like the auto-brakes for landings. He also gave out some incorrect information on the their operation in the maximum setting (they do not operate on a deceleration schedule, as he stated, but provide maximum single system pressure of 3000 psi).

h. There were no "failed spoiler" events during the training to reinforce the need for the PNF to check for satisfactory spoiler deployment after every RTO or landing.

i. During the cross-wind landing technique training (wing down, top rudder), there was no emphasis on ensuring the aircraft is tracking straight down the center line of the runway at touchdown (i.e., no left to right or right to left drifting).

4 Overall, the simulator period was very productive, covered several important topics and was conducted in a most professional manner. I was impressed.

5 Please feel free to contact me if you have any questions.

Respectfully,

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R. E. Wyatt

Boeing Flight Operations, Long Beach, CA.