#### NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Washington, D.C. 20594

February 12, 2007

# Addendum 2 to Group Chairman's Factual Report

# **OPERATIONS**

### **DCA06MA064**

#### A. ACCIDENT

Operator:	Comair, Inc. dba Comair Airlines dba Delta Connection				
Location:	Blue Grass Airport, Lexington, Kentucky				
Date:	August 27, 2006				
Time:	0607 eastern daylight time <sup>1</sup>				
Airplane:	Bombardier	CL-600-2B19	(CRJ-100),	Registration	Number:
-	N431CA, Serial # 7472				

#### **ADDENDUM to:**

#### Section 7.1 Comair Taxi Procedures.

Adds the Comair description of High Threat Taxi Procedures. The Comair Delta Connection Operations Manual, Chapter 4 – Ramp & Taxi Operations, Section 4.5.5 High Threat Taxi Procedure stated in part:

Comair crews will use High Threat Taxi procedures when the operating environment presents exceptional hazards to safe taxi. These environments include:

- Low visibility (<1,200 ft. RVR)
- Airports without an operating control tower
- When the captain deems the operation requires exceptional vigilance

*High Threat Taxi operations shall be performed using the following procedures:* 

- Both pilots will be heads-up during aircraft movement. Monitor taxi, crossing traffic and hold short locations.
- Systems tests, checks and computations, which are normally (but not required to be) accomplished while the aircraft is moving

<sup>&</sup>lt;sup>1</sup> All times are eastern daylight time (edt) based on a 24-hour clock, unless otherwise noted. Actual time of accident is approximate, determined by the Flight Data Recorder (FDR) and Air Traffic Control (ATC) transcripts.

should be delayed until they can safely be accomplished with the aircraft stationary. Pilots should plan to use time holding on a ramp or taxiway to complete required tasks.

- If Low Visibility or Taxi Route charts are applicable, both pilots shall have them out and available for immediate reference.
- Both pilots must be familiar with the assigned taxi route prior to aircraft movement. If in doubt, remain clear of all taxiways and contact ATC.
- Both pilots will monitor ATC taxi clearances.

Post-accident, Comair published a NOTAM, which was appended to each dispatch release for operations both to and from LEX. This NOTAM was issued on September 8, 2006 and removed from the release on November 3, 2006.

Below is the Comair NOTAM that appeared on each dispatch release:

KLEX APT C0060900004V00 06/00004 WIE / UFN \*\*\*COMAIR NOTAM - WARNING - COMAIR NOTAM - WARNING\*\*\* PUBLISHED AIRPORT DIAGRAMS MAY NOT ACCURATELY REFLECT ACTUAL AIRPORT SIGNAGE AND MARKINGS. EXERCISE EXTREME CAUTION DURING ALL GROUND OPERATIONS. UTILIZE HIGH THREAT TAXI PROCEDURES. IF UNSURE OF POSITION OR TAXI CLEARANCE CLARIFY WITH ATC OR REQUEST PROGRESSIVE TAXI INSTRUCTIONS. JEPP 10-9 DATED 08SEP06-TWY CHARTING BETWEEN NE ENDS OF RWYS 26 AND 22 NOT ACCURATE. TWY DEPICTED AS -A7- ON 10-9 IS MARKED AS -A- ON AIRFIELD. OTHER STUB TWYS IN AREA NOT CHARTED. IF UNSURE OF POSITION OR TAXI CLEARANCE CLARIFY WITH ATC OR REQUEST PROGRESSIVE TAXI INSTRUCTIONS. Removed 11/03/06

Comair had several airports [17 at the time of this report] in their system that had a Pink Sheet included in the Jeppesen Airway Manual. The Pink Sheet was a Comair custom page that was created for some airports in order to provide specific operational procedures and recommendations. There was never a Pink Sheet issued for LEX airport.

A review of all of the current Pink Sheets was conducted and out of those seventeen airports, only one (1) airport had guidance on the use of High Threat Taxi procedures. That airport General Edward Lawrence Logan International Airport (BOS), Boston, Massachusetts contained a WARNING on the Pink Sheet, which stated to "Consider utilizing "High Threat Taxi Procedure" when appropriate."

## **ADDENDUM to:**

# **Operational Factors Factual Attachment 1 – Interview Summaries**

Adds additional interviews conducted with the Comair LEX station manager Daniel Tatham and the Comair System Operational Control Center (SOCC) manager Steve Estes.

Interview: Charles Daniel Tatham, Jr. Date: 1/25/07 Time: 1000 EST Location: Phone interview Present: Dave Tew, NTSB; Brian Schimp, Comair; Mark Berner, Comair

Mr. Tatham was represented by Mike Merlo.

During the interview, Mr. Tatham stated the following information:

He was the Comair LEX station manager.

Local NOTAMS were normally sent to a printer located in the Comair Operations office. The printer was supplied and maintained by the airport. The NOTAMs are posted by attaching them to a designated NOTAM clipboard that was hung in the operations area near the printer. The clipboard was located near the position where pilots obtained their flight paperwork. A NOTAM remained posted until it reached its expiration date.

Mr. Tatham did not recall receiving NOTAM # A-1682, which concerned taxiway Alpha north of runway 8/26, prior to the accident. He was not aware of any other Comair LEX employee who received this NOTAM. He said they received most of the local NOTAMs.

The Comair LEX station did not pass on local NOTAMS to System Operations Control Center (SOCC) unless there was information contained in the NOTAMs that needed to be sent. The criteria that they used to determine whether a local NOTAM needed to be sent was that it contained information on (1) their local ramp conditions or (2) weather. He said the Customer Service Manual contained a list of items that needed to be passed onto SOCC. Mr. Tatham stated that if he had received local NOTAM # A-1682, it would not have been passed onto SOCC. He was not at the station every day. An operations agent would pass on necessary NOTAM information when he was not at work.

The local NOTAM information they received was used to update the field conditions in the Delta Matic System. He did not know if information entered into the Delta Matic System was passed on to SOCC.

SOCC had never called his station to ask for local NOTAMS.

He said pilots would not normally stop at the operations NOTAM clipboard to read the NOTAMs. Local NOTAM information was normally passed onto the pilots when they checked the ATIS information.

A Comair operations agent would obtain the normal flight paperwork for pilots.

Interview: Steve Estes Date: 1/25/07 Time: 1400 EST Location: Phone interview Present: Dave Tew, NTSB; Brian Schimp, Comair; Mark Berner, Comair

Mr. Estes was represented by Mike Merlo.

During the interview, Mr. Estes stated the following information:

He was the manager of the System Operational Control Center (SOCC).

He said he periodically received local NOTAMs from a few of the Comair stations. His understanding was that the Customer Service Manual contained guidance on what NOTAM information was to be sent to SOCC via fax. He was not sure what type of information was to be sent.

The information that was gathered for preparing flight paperwork came from an automated Jeppesen Sanderson system and was sent through an ARINC<sup>2</sup> line. This information included FDC and D NOTAMS that were used to make flight decisions. It did not include local NOTAMS. They did not put local NOTAMS into the pilot's flight paperwork because they were not used to make a flight dispatch decision. Local NOTAMS were put into a daily paperwork package, which was not used for any particular purpose.

When asked how the flight crews received local NOTAM information, he said from the ATIS. It was normal to receive the information that way.

SOCC did not call Comair stations to ask for local NOTAMs.

## **ADDENDUM to:**

#### **Operational Factors Factual Attachment 10 – Dispatch Release**

This is an added Attachment. Attachment 10 to the factual report is a copy of the Dispatch Release that was given to the accident crew.

Submitted by David Tew

<sup>&</sup>lt;sup>2</sup> Aeronautical Radio Inc.