

**NATIONAL TRANSPORTATION SAFETY BOARD  
OFFICE OF AVIATION SAFETY  
WASHINGTON, D.C. 20594**

**COLGAN AIR, INC. FLIGHT 3407  
BOMBARDIER DHC8-400, N200WQ  
CLARENCE CENTER, NEW YORK  
FEBUARY 12, 2009**

**PUBLIC HEARING  
WITNESS LIST**

*All witnesses will be sworn in, then asked to state their full name, title and the organization they work.*

**WITNESSES #1, #2, #3, #4:**                      **Tom Ratvasky, Aerospace Engineer  
NASA Glenn Research Center  
Cleveland, OH**

**Allan Paige, Chief of Flight Science  
during Q400 development  
Bombardier  
Toronto, Ontario, Canada**

**Jim Martin  
Superintendent, Flight Test Engineering  
Transport Canada  
Ottawa, Ontario, Canada**

**Don Stimson, Aerospace Engineer  
FAA Transport Directorate  
Seattle, WA**

*Issues:*

- *DHC-8-400*
  - *Ice protection system*
  - *Stall protection system*
- *Icing certification requirements*

- *Inflight icing flight handling and performance characteristics*
- *Stall recovery guidance and training, wing and tailplane stall*
- *Irreversible control systems and how that effects elevator/control column movement*
- *General role of issue papers*

Exhibits: 3A, 5A, 9A, 10A, 13A – 13I

Questioned by: Dr. Kevin Renze, Dr. Dan Bower

**WITNESSES #5, #6, #7:**

**Harlan Simpkins – Liaison Pilot  
Bombardier Aerospace  
Toronto, Ontario, Canada**

**Wally Warner, Chief Engineering Test  
Pilot during Q400 development  
Bombardier Aerospace  
Toronto, Ontario, Canada**

**Paul Pryor  
Chief Q400 Simulator Instructor  
Colgan Air, Inc.  
St. Louis, Missouri**

*Issues:*

- *Stall recovery guidance and training, wing and tailplane stall*
- *Stall Protection System*
- *Cold weather operations training*
  - *Use of de-icing system and Vref increase switch*
  - *Use of autopilot*
- *Corporate knowledge of Q400 operations*

Exhibits: 2A – 2SS, 14A – 14N

Questioned by: Captain Roger Cox, Dr. Evan Byrne

**WITNESSES #8, #9, #10:**

**Darrell Mitchell  
Director of Training  
Colgan Air, Inc.  
Manassas, VA**

**Dean Bandavanis, Director of Flight  
Operations  
Colgan Air, Inc.  
Manassas, VA**

**John (Jeb) Erwin Barrett  
Director, Flight Standards  
Colgan Air, Inc.  
Manassas, VA**

*Issues:*

- *Cold weather operations training*
- *Coordination with manufacturer and other operators*
- *Performance quality control during training or line operations*
- *Fatigue management*
- *Sterile cockpit*
- *Training adequacy*
- *Remedial training/enhanced oversight programs*
- *Changes after accident*

Exhibits: 2A – 2SS, 5A, 5C, 10A, 10B, 12A, 14A – 14R  
Questioned by: Captain Roger Cox, Dr. Evan Byrne

**WITNESSES #11 and #12:**

**Harry Mitchel, VP of Flight Operations  
Colgan Air, Inc.  
Manassas, VA**

**Mary Finnigan, VP of Administration  
Colgan Air, Inc.  
Manassas, VA**

*Issues:*

- *Company organization and reporting structure*
- *Crew experience and pairing*
- *Standardization and adherence to standard operating procedures*
- *Pilot selection and hiring practices*
- *Remedial training/enhanced oversight programs*
- *Record keeping*
- *Fatigue management*

- *Commuting policy for Colgan*

Exhibits: 2A – 2SS, 12A, 14A – 14R

Questioned by: Captain Roger Cox, Dr. Evan Byrne

**WITNESS #13:**

**Daniel Morgan, VP of Safety and  
Regulatory Compliance  
Colgan Air, Inc.  
Manassas, VA**

*Issues:*

- *Safety and reporting systems and audits*
- *Safety communications to pilots*
- *Safety culture*
- *Fatigue management*
- *Commuting policy for Colgan*
- *Changes after accident*

Exhibits: 2A – 2U, 2LL – 2SS, 12A, 14A – 14R

Questioned by: Dr. Evan Byrne, Captain Roger Cox

**WITNESS #14:**

**Douglas Lundgren  
Federal Aviation Administration  
POI for Colgan Air, Inc.  
Manassas, VA**

*Issues:*

- *FAA oversight*
- *Pilot standardization and professionalism*
- *Stall recovery guidance and training*
- *Remedial training/enhanced oversight programs*
- *Record keeping*
- *Fatigue management*

Exhibits: 2A – 2SS, 12A , 14A – 14Q

Questioned by: Captain Roger Cox, Dr. Evan Byrne

**WITNESS #15:**

**Dr. Tom Nesthus**

**Civil Aerospace Medical Institute  
Federal Aviation Administration  
Oklahoma City, OK**

*Issues:*

- *Fatigue causation factors*
- *Effects of fatigue on human performance*
- *Fatigue management and guidance available to pilots and operators*

Exhibits: 14A, 14H

Questioned by: Dr. Evan Byrne

**WITNESS #16:**

**Dr. Robert Key Dismukes  
Research Scientist  
NASA Ames Research Center  
Moffett Field, CA**

*Issues:*

- *Effect of distractions and interruptions*
- *Effects of conversations on attention*
- *Task management*
- *Monitoring and cross-checking*
- *Sterile cockpit*
- *Upset recovery training*

Exhibits: 2A, 14A, 14G, 14K – 14M

Questioned by: Dr. Evan Byrne

**WITNESSES #17:**

**Captain Rory Kay  
ALPA Executive Air Safety Chairman  
Herndon, VA**

*Issues:*

- *Commuting and its effect on pilot fitness for duty*
- *Industry policies and guidelines about commuting*
- *ALPA fatigue management efforts*
- *ALPA fatigue education efforts*
- *Use of commuter apartments*
- *Sterile cockpit*

- *Professional standards*
- *Training records and oversight programs*

Exhibits: 2A, 2BB, 2EE, 10A, 10B, 12A, 14A – 14R

Questioned by: Dr. Evan Byrne, Captain Roger Cox

**WITNESSES #18, #19, #20:**

**Rick Clarke, AFS 220 Manager  
Federal Aviation Administration  
Washington, DC**

**Dan Jenkins, AFS 210  
Federal Aviation Administration  
Washington, DC**

**John A. Ryan, AFS-620  
Program Manager Pilot Records  
Improvement Act (PRIA)  
Federal Aviation Administration  
Washington, DC**

*Issues:*

- *Effectiveness of FAA guidance and actions on sterile cockpit*
- *Effectiveness of FAA guidance and actions on fatigue management*
- *Effectiveness of FAA guidance and actions on remedial training/enhanced oversight programs*
- *Record keeping*
- *Tailplane stall recovery*
- *Stall recovery guidance and training for air carrier operations*
- *FAA actions regarding NTSB recommendation A-07-004*
- *Pilot Record Improvement Act (PRIA)*
- *Commuting policy*
- *SMS/FRMS*
- *SAFOs*

Exhibits: 2A – 2SS, 10A, 10B, 12A, 14A – 14S

Questioned by: Captain Roger Cox, Dr. Evan Byrne