

Docket No. SA-533

Exhibit No. 2-UU

**NATIONAL TRANSPORTATION SAFETY BOARD**

**WASHINGTON, D.C.**

Empire Airlines Flight Operations Bulletin 09-04 (Icing / Post Accident)

(3 Pages)

ATTACHMENT

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## FLIGHT OPERATIONS BULLETIN 09-04

**To:** ATR Flight Crews and Flight Followers  
**Date:** February 27, 2009  
**From:** Director of Operations  
**Subject:** Icing

The following information supersedes the information contained in the "Icing" paragraph of the GOM 8-9.

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Freezing rain (FZRA) and freezing drizzle (FZDZ) are not covered by the certification icing envelope as defined in Part 25 Appendix C. Takeoff or landing operations in known or reported FZRA or FZDZ, of any intensity, are prohibited.

In-flight encounters of SEVERE ICING are addressed for the ATR 42/72 under the QRH page 1.09, the AFM 2-06, 4-05 and also in the ATR POH 2.02.08 P11-13. Encounters of FZRA, FZDZ or mixed icing conditions may result in severe icing.

If an unreported encounter with FZRA or FZDZ occurs during final approach and landing, the flight may continue the landing provided all the ENTERING ICING CONDITIONS, ICE ACCRETION and SEVERE ICING checklist items are strictly followed and in particular the minimum severe icing speed is bugged and respected.

If the decision is made to continue the approach and landing, use the SEVERE ICING Checklist as follows:

- MINIMUM ICING SPEED .....INCREASE RED BUG by 10 kt**
  - Do not reduce speed below RED bug until flaps are confirmed 15, however respect  $V_{FE}$  speed
- PWR MGT ..... TO**
  - Set PWR MGT to TO according to Landing Checklist
- CL / PL ..... 100% / AS RQD**
  - Set PL as required to maintain MIN ICING SPEED and descent rate for approach
- AP (if engaged) .....FIRMLY HOLD CONTROL WHEEL and DISENGAGE**
  - Hand fly the approach so that the AP does not mask the control loading



## FLIGHT OPERATIONS BULLETIN 09-04

### SEVERE ICING CONDITIONS .....ESCAPE by LANDING

- Crew decision to escape conditions by landing

### ATC ..... NOTIFY

- After landing notify ATC of icing conditions

- **If an unusual roll response or uncommanded roll control movement is observed** : Push firmly on the control wheel

### FLAPS ..... 15

- **If the aircraft is not clear of ice :**

### GPWS ..... FLAP/GPWS OVRD

- To prevent nuisance alerts on final

### APP/LDG CONF ..... MAINTAIN FLAPS 15

- Plan for a flaps 15 landing after an encounter with FZRA, FZDZ or SEVERE ICING

### with "REDUCED FLAPS APP/LDG icing speeds" + 5 kt

- ATR 72 approach and landing speed is  $V_{mHB} 15 \text{ Icing} + 5 + \text{wind effect}$  (see QRH 4.63)
- ATR 42 approach speed is  $V_{mHB} 15 \text{ Icing} + 5 + \text{wind effect}$  (see QRH 4.63)
- ATR 42 landing speed is  $V_{mLB} 15 \text{ Icing} + 5 + \text{wind effect}$  (see QRH 4.63)

### Multiply landing distance FLAPS 30 by:

- ATR 72 (PW 127) by 2.0 (see QRH 4.65 & 4.66)
- ATR 42 (PW 120/121) by 1.22 (see QRH 4.65 & 4.66)
- Use caution; if FZRA, FZDZ or other forms of freezing precipitation have been falling on the airport the runway will likely have reduced braking action.

----- END of PROCEDURE -----