

Docket No. SA-533

Exhibit No. 2-FFF

**NATIONAL TRANSPORTATION SAFETY BOARD**

**WASHINGTON, D.C.**

Empire Airlines TAWS Procedures

(3 Pages)

ATTACHMENT

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Date:	06/20/08
Revision:	44

## FLIGHT OPERATIONS — PART 121 SUPPLEMENTAL OPERATIONS

- E.** To have a successful self-test of TAWS in the F27 the standby attitude indicator must be ON and uncaged. Also, in the F27 and ATR the radar must be in STBY mode.
- F.** Do NOT self-test the TAWS while airborne. If the self-test were performed at a particular time window it could cause the TAWS to lock on a set of discrete outputs.
- G.** In response to a TAWS warning/alert, except in daylight VMC when the flight crew can immediately and without doubt confirm that an impact with the ground, water, or an obstacle will not take place, react immediately to the TAWS warning or alert as follows:
- H. Terrain Caution Alert Procedures**
- (1) If you receive a Terrain Caution alert, you shall:
    - (a) Stop descent.
    - (b) Assess terrain situation.
    - (c) Adjust the flight path and aircraft configuration until the alert stops.
- I. Pull Up Warning Procedures**
- (1) If you receive a Pull Up warning, you shall:
    - (a) Advance to go around power.
    - (b) Disconnect the autopilot.
    - (c) Level the wings and simultaneously execute a positive pull up.
    - (d) Set flaps to go around position.
    - (e) Retract the landing gear.
    - (f) Maintain V<sub>fc</sub> (F27) or V<sub>mlb</sub> (ATR) until terrain clearance is assured using all available information.
- J. Avoid Terrain Warning Procedures (While Turning)**
- (1) If you receive an Avoid Terrain Warning while in a turn, you shall:
    - (a) Advance to go around power.
    - (b) Disconnect the autopilot.
    - (c) Immediately reverse the turn
    - (d) If a warning is still active, execute a positive pull up maneuver.
    - (e) Set flaps to go around position.

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(f) Retract the landing gear.

(g) Maintain V<sub>fc</sub> (F27) or V<sub>mlb</sub> (ATR) until terrain clearance is assured using all available information.

### **K. Avoid Terrain Warning Procedures (No Turn)**

(1) If you receive an Avoid Terrain Warning when no turn has been initiated, you shall:

(a) Disconnect the autopilot.

(b) Simultaneously execute a positive pull up maneuver and a turn maneuver based primarily on external visual information, backed up by the TAWS display.

(c) Advance to go around power.

(d) Set flaps to go around position.

(e) Retract the landing gear.

(f) If the Avoid Terrain Warning is replaced by a Pull Up Warning, stop the turning maneuver and continue the positive pull up.

(g) Maintain V<sub>fc</sub> (F27), or V<sub>mlb</sub> (ATR) until terrain clearance is assured using all available information.

### **L Report of TAWS Alerts or Warnings**

(1) If you receive a TAWS alert or warning that may indicate an error in terrain database or is a problem with an established instrument procedure or altitude, report that to the DO as soon as practical. Be able to provide the details of location, altitude, whether alert and/or warning.

## **TCAS SOP**

**A.** Non-compliance with these guidelines produces less than desired separation. Flight crews operating in the United States and Canada airspace are expected to respond to TCAS in accordance with the following guidelines:

### **B. Traffic Advisories (TAs)**

(1) Respond immediately to TAs by attempting to establish visual contact with the intruder aircraft. Do not initiate evasive maneuvers using information from the traffic display only, or upon receipt of a TA only, without positive visual identification of the traffic.

### **C. Resolution Advisories (RAs)**

(1) Compliance with TCAS RAs is necessary and authorized per