FAA Continued Airworthiness Notification
to Civil Aviation Authorities

September 29, 2006

To: Civil Aviation Authorities

From: Federal Aviation Administration
Transport Airplane Directorate, ANM-100
1601 Lind Avenue, SW
Renton, WA 98057-3356

Subject: This message is to advise you of FAA’s ongoing activities related to addressing dual-engine thrust rollback on Boeing Model 777-200LR and -300ER series airplanes powered by General Electric (GE) Model GE90-110B or GE90-115B engines.

Accident/Incident Description: There have been two occurrences of engine thrust rollback during takeoff on Model 777-300ER series airplanes powered by GE Model GE90-115B engines. In both cases, only one engine was affected. In both cases, the engine recovered to the target N1/thrust level as the airplane climbed through 400 feet above ground level. In one case, the operator elected to perform an air turn-back after reaching cruise. In the other case, the operator continued to its destination. There were no further anomalies reported during the remainder of the flights. No flight deck messages or maintenance indications occurred as a result of the event. Investigation attributes the cause of these events to a power management software algorithm in the Electronic Engine Control (EEC) Full Authority Digital Engine Control (FADEC), which was introduced into the fleet in software version A.0.4.5.

Investigation also indicates that a dual-engine thrust rollback could occur just after V1(takeoff engine failure decision speed) and the airplane would not have adequate thrust to take off. A de-rated takeoff, in combination with certain weather conditions, can result in the EEC commanding a progressive reduction in the engine thrust. Full thrust takeoffs with the thrust levers at the full forward position are not exposed to this potential thrust rollback. When the thrust levers are at the full forward position, the N1/thrust command is not affected by the power management software anomaly described above.

Aircraft/Engine Model and Series: Boeing Model 777-200LR and -300ER series airplanes powered by GE Model GE90-110B or GE90-115B engines.

Worldwide fleet: 54; U.S.-registered fleet: 0

Ongoing activities: The FAA is considering issuance of an emergency AD to require revising the AFM to prohibit the use of certain reduced thrust takeoff ratings. The engine manufacturer has advised that it currently is developing a modification that will address the unsafe condition addressed by this AD. Once this modification is developed, approved, and available, the FAA may consider additional rulemaking.

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**Note: This information is for the use of civil aviation authorities only and should not be released to the public at this time.**