




# Federal Aviation Administration

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## Memorandum

Date: 6 February 2018  
To: Bruce Conze, NCS, AIR-672  
From: Joe Dipardo, Acting Manager AEE-100   
Prepared by: Mehmet Marsan, AEE-100  
Subject: Additional Requirements on DGPS Tracking System Audit

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This memorandum establishes interim policy by providing additional requirements on the use of DGPS (Differential Global Positioning Systems) tracking systems in aircraft noise certification tests. Federal Aviation Administration (FAA) Order 8110.4C: "*Type Certification Process*" requires audits of aircraft noise certification applicants' software and methodologies to ensure conformance with the requirements and specifications of the Code of Federal Regulation (CFR) Title 14 part 36 (Part 36). The audits include applicant's primary software and methodology validation; separate validations are performed for noise measurement and analysis instrumentation systems, and for DGPS tracking systems.

During the data analysis phase of a recent aircraft noise certification project, unexpected results were traced back to the applicant's use of DGPS, which was already validated and approved by Volpe. To avoid the repeat of the situation, FAA is following the advice of Volpe by instituting some changes to the data submittal requirements and procedures for the audit/validation of DGPS tracking systems used in aircraft noise certification flight-tests. In addition to the existing data requirements, FAA requests that the three additional requirements in page 2 of the attached letter report (V324-FB48B3-LR5) be implemented.

This interim policy will remain in effect until such time that this issue has been fully discussed and resolved within the international noise certification community (WG-1). Any questions regarding the implementation of this policy should be directed to AEE-100. Please disseminate this policy to all affected parties, including manufacturers and acoustical DER's.

Attachments:

1. Letter Report V324-FB48B3-LR5
2. DGPS Validation Submittal Instructions
3. DGPS Validation Submittal Checklist

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