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Your file Votre référence

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113016

September 25, 2000

AARDD5009-6-516

Docket Management System  
U.S. Department of Transportation  
Room Plaza 401, 400 Seventh Street, SW  
Washington, DC 20590-0001.  
U.S.A

Attention: Docket Number FAA-2000-7587 - 6

Subject: NPRM 00-08: Noise Certification Standards for Subsonic Jet Airplanes and Subsonic Transport Category Large Airplanes

Dear Sir:

We have reviewed the above document and would like to offer the following for your consideration:

#### Section A36.4 Calculations of EPNLdB

Proposed A36.5.2.5(c) requires that airplane C.G to be reported, since It is an indicator of aircraft test configuration. We think there should be a more detailed explanation as why this information is needed and how it will benefit aircraft definition for noise certification purposes.

#### Section A36.9 Adjustment of Airplane Flight Test Results

Proposed A36.9.1.1, recognizes that airspeed has an effect on source noise. Thus it requires that the effects of airspeed on component noise sources to be accounted for. We think a note is required to clarify what components are the likely sources and should typically be addressed.

#### Section A36.3.9.1 Calibration Adjustments

Proposed NPRM would require that calibration adjustments be applied to the measured sound levels at the out put of the analyzer. The current rule permits these calibrations to be applied within the analyzer. It is stated that these changes are necessary to enable the FAA to determine whether the calibration adjustments have been applied correctly.

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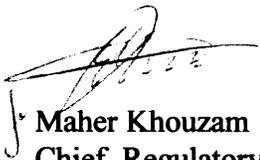
Since the algorithms for adjustments are defined and pre-programmed into the analyzer by the applicant, their impact on the final result can be predicted with high degree of accuracy. Provided that these correction algorithms are discussed and agreed upon with the certificating authority, it should not make much difference whether they are programmed internally or applied externally to the analyzer. We therefore recommend the retention of the existing rule.

Section A36.5.2.5(d) Propeller Pitch Angle

Proposed NPRM would require that air brake and propeller pitch angle also be reported.

Stage 3 noise compliant turboprops generally operate on the principle of governed propeller speed. In other words the propeller RPM is held constant by varying the pitch angle based on torque demand. The torque is measured, the propeller pitch angle is not. It is possible to use the torque as a proxy for the pitch angle. We therefore recommend that the requirement for reporting of the pitch angle be substituted by that of torque.

Yours truly,



**Mahe Khouzam**  
**Chief, Regulatory Standards**  
**Aircraft Certification**