JOINT STRIKE FIGHTER PROGRAM
200 12TH STREET SOUTH, SUITE 600
ARLINGTON, VIRGINIA 22202-5402

Major General C.D. Moore
Program Executive Officer, Joint Strike Fighter
200 12th Street South, Suite 600
Arlington, VA 2202-5402

MAR 12 2010

Mr. de Jong:

Thank you for the opportunity to address concerns regarding Maximum Sound Level (L_{max}) data for the Joint Strike Fighter (JSF). There are two sources of noise data for the F-35: Testing conducted at Mineral Wells, Texas April 2007, and subsequent testing conducted at Edwards Air Force Base, October 2008 with CTOL aircraft AA-1. Discrepancies between these two data sets are the basis of your questions.

The Mineral Wells testing was conducted early in the program under constrained time and location conditions and as such, the resultant noise data was not optimal. The Mineral Wells data collection was done to satisfy an early program need to complete the environmental analysis supporting the Joint Training Center at Eglin Air Force Base. Based on the maturity of AA-1, our test site and control over the environmental conditions were limited. Specifically, microphones were mounted on a mixture of hard and soft surfaces which made the required hard or soft ground conversion impossible. Atmospheric conditions on the day of test were also poor and included high wind conditions.

The JSF Maximum Sound Level (L_{max} which can also be shown as L_{Amax}) included in Table E-1 in Appendix E of the Eglin Final Environmental Impact Statement was extrapolated from a combination of pre-Mineral Wells measurement, F-16 and X-35 noise data, not actual measurements. This table lists the JSF (L_{max}) level of 124dB for flights at 1,000 feet above ground level and at a speed of 500kts. Aircraft maximum speed during that period of the F-35 flight test program, however, was limited to 340kts. Therefore the 124 dB value is not an actual measurement. The L_{max} listed in table E-1 is calculated for use in USA using a ¼ second integration time while in the Netherlands a 1 second integration time is used (which will further reduce the Netherlands L_{max} calculated levels). The Air Force is aware that the noise data in Table E-1 (and also Table E-2) needs to be updated and has already taken steps to ensure this information is not included in the upcoming Eglin Supplemental Environmental Impact Statement.

These limitations led to our decision to conduct additional noise testing at Edwards AFB. In comparison to the Mineral Wells testing, the Edwards noise data collection effort was deemed by noise experts from the US, Australia, and Netherlands, to be the most thorough military aircraft noise data collection to date. It was conducted over a period of two days, and early morning desert weather conditions were excellent with very low wind and ambient noise.

Any Eglin Supplemental EIS data will reflect only Sound Exposure Levels based on the Edwards AFB data collection and appropriate airspeeds. Based on the quality of data, I recommend only Edwards noise testing data be used to evaluate the expected environmental noise impact of future F-35 operations.

Again, thank you for the opportunity to provide the most accurate JSF noise data to inform your discussions.

Sincerely,

C.D. Moore, Maj Gen, USAF
Acting Program Executive Officer