

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

July 23, 2009

Sound Spectrum Study Addendum - 12

**Group Chairman's Report
By Joseph A. Gregor**

A. EVENT

Location: Columbia, SC
Date: September 19, 2008, 23:53 EDT
Aircraft: LearJet 60, N999LJ
Operator: Global
NTSB Number: DCA08MA098

The CVR Sound Spectrum Group convened in the CVR laboratory at NTSB Headquarters on July 21, 2009 for the purpose of evaluating additional CVR sound spectrum data from the final 28 seconds of sound recorded from the cockpit area microphone channel for evidence of tire sounds on the grooved runway. The following individuals participated in the re-convene:

Chairman: Joseph A. Gregor
National Transportation Safety Board

Member: Anna Cushman
Air Safety Investigator
Federal Aviation Administration

Member: Gary Spears
Engineering Test Pilot
Bombardier

As a result of the Group re-convene activity, two additional data points were added to the data collected for tire noise used to derive aircraft ground speed during the accident sequence. In addition, one correction was identified to correct a typo in the units used for describing velocity on page 12-3, and two additions were made to verbiage on page 12-5 describing characteristics of the sound spectrum figures.

The following information should be added/changed in the Sound Spectrum Study Cockpit Voice:

1. Page 12-3, Paragraph 2:

Change: ...1 ft / **minute**...

To read: ...1 ft / **second**...

2. Page 12-5, Paragraph 1:

Change: ...no discernable narrow-band line...

To read: ...no **clearly** discernable narrow-band line...

3. Page 12-5, Paragraph 2:

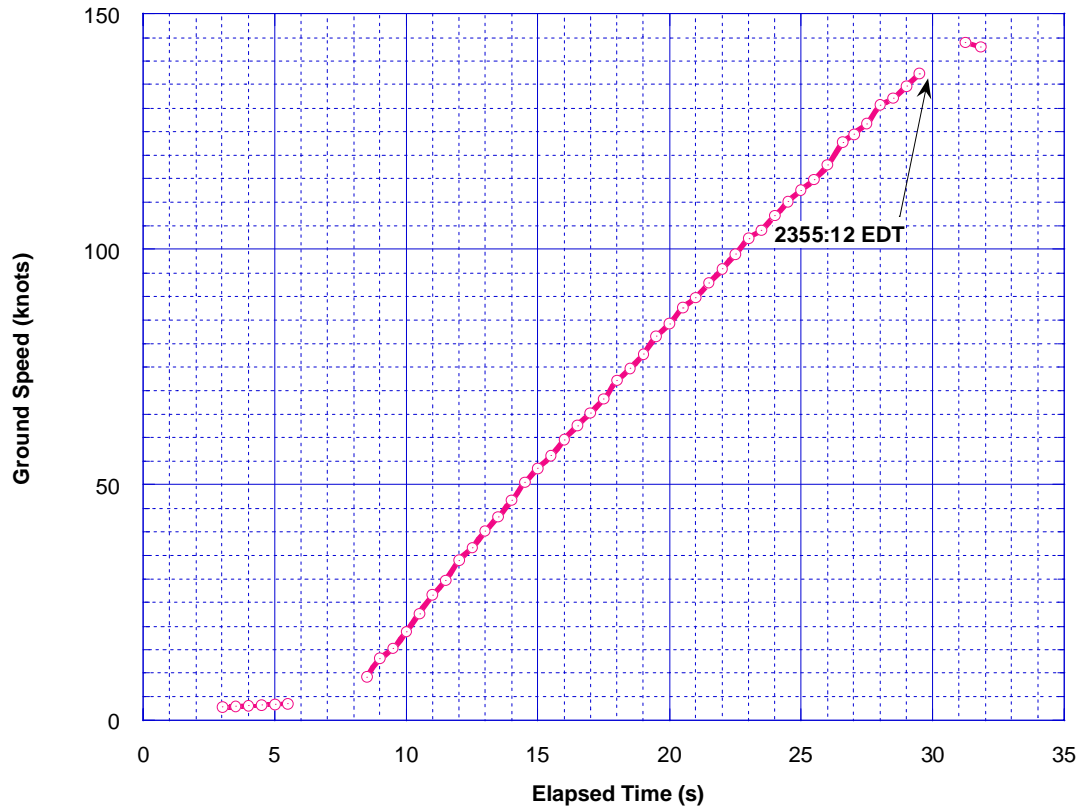
Change: ...no discernable narrow-band line ...

To read: ...no **clearly** discernable narrow-band line...

4. Page 12-8, Figure 5:

Replace: Existing figure.

With: The following figure displaying two additional data points:



5. Page 12-12, Bottom of table:

Add the following entries to the end of the existing table describing two additional data points:

Time [s]	f_{meas} [Hz]	f_{pri} [Hz]	V [knots]
31.3	1943.0	1943.0	143.9
31.8	1931.0	1931.0	143.0