

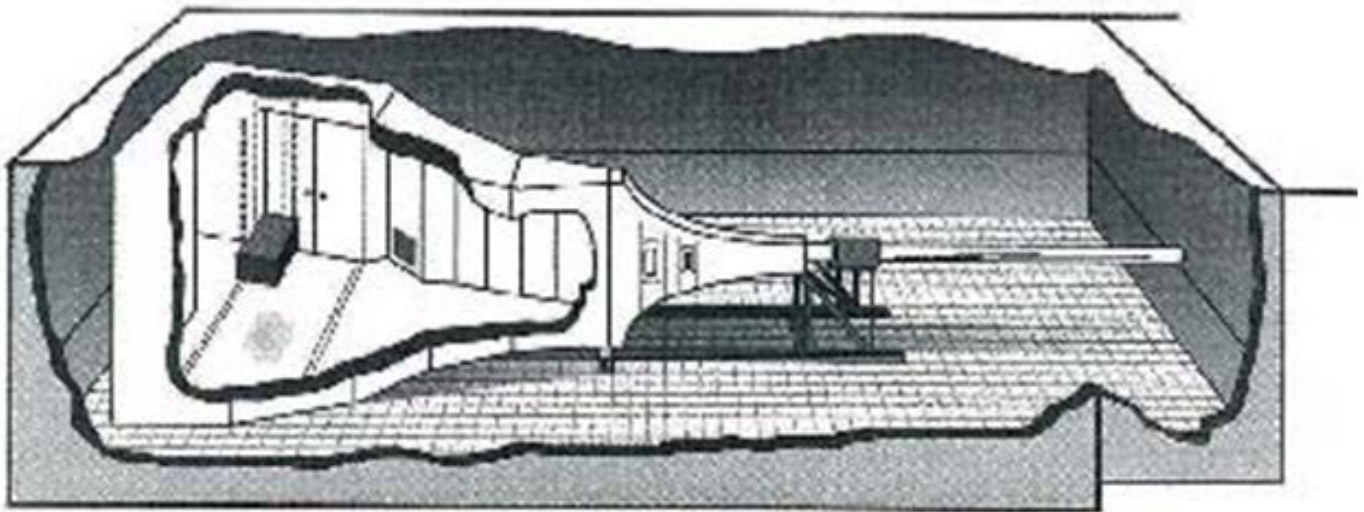
Wyle Acoustic Testing with CoCo-80

Application Note 011



Wyle Laboratories

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**Wyle's 1500-cubic foot (42.5m³), high-intensity acoustic facility
Showing the WAS 3000, parallel test section and reverberant chamber**

Figure 1.1

Wyle Laboratories in Huntsville, Alabama uses the Crystal Instruments CoCo-80 to perform both high-level Acoustic Noise testing and low-level Acoustic Emissions testing.

In the Acoustic Noise test, a test specimen is placed in Wyle's 1500 cubic foot reverberant chamber. The WAS-3000 (Wyle Acoustic Source) injects high sound pressure levels which are picked up by microphones in the chamber. The microphones are monitored by the CoCo-80 to assure that the desired acoustic spectrum is attained. The CoCo-80 records the acoustic spectra which are electronically imported into the test report. (Figure 1.1)

Acoustic Modulator

The WAS-3000 is an electro-pneumatic noise source rated at 30 kW output, with either sine or random wave input, over a frequency range of 25 to 10,000 Hz. The WAS-3000 is primarily used in acoustic test chambers where it can generate overall sound pressure levels up to 165 dB. Higher sound pressure levels can be attained in very small volume enclosures, and/or multiple modulators. The WAS-5000 acoustic transducer is an electro-pneumatic noise source rated at 10 kW output over a frequency range of 25 to 5,000 Hz. Primarily used in acoustic test chambers, the WAS provides the full range of noise evaluation of large components for spacecraft, missile, and advanced aircraft systems. (Figure 1.2)

In the Acoustic Emissions test, a test specimen is placed in an anechoic chamber. The sounds emitted by the specimen are picked up by a microphone in the chamber.



Figure 1.2

The microphone is monitored by the CoCo-80, which captures and records the acoustic spectra. The acoustic data are electronically imported into the test report. (Figure 1.3 and Figure 1.4)

For more information, go to <http://www.wyle.com/ServicesSolutions/TestEvaluation/Qualification-CertificationT-E/Aerospace-DoD-Commercial/Pages/at.aspx>



Figure 1.3



Figure 1.4

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