

AUDIO engineering society, Inc. Pacific Northwest Section



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May 2000 Meeting Notice

Design of the Audio Management Unit for the Boeing 777 Aircraft Chuck Kettle, Avtech Corporation

DATE/TIME: Wednesday, May 10, 2000 - 7:30 PM

PLACE: Jack Straw Productions Studio, 4261 Roosevelt Way NE, Seattle, WA

DIRECTIONS: From I-5, take the NE 45th St. Exit (Exit 169). Go Eastbound on NE 45th. Turn right onto Roosevelt Way NE (one-way Southbound). Jack Straw is on the right, at the corner of NE 43rd. Limited parking in the lot on the south side of the building, plus street parking.

Have you ever wondered how airplane cockpit communication works? Want to know the difference between VHF (very high frequency) communications and ILS (instrument landing system) navigation? Why is the cockpit voice recorder called a black box but is actually red/orange? What button does the pilot press to make those silly announcements? Join us on May 10th to discover the answers to these and other aircraft-related audio conundrums.

Avtech Corporation of Seattle designed and built the Audio Management Unit for Boeing's all new twin engine airplane, the Boeing 777. Chuck Kettle, Project Engineer, will present Avtech's products, facilities, and a design overview of the 777 Audio Management Unit.

The 777 Audio Management Unit is the most complex and technologically advanced cockpit au-

dio system that Avtech has produced to date. It is also the first cockpit audio system to incorporate digital signal processing (DSP) and an ARINC (Aeronautical Radio Incorporated) 629 communication interface. The ARINC 629 interface is similar to a personal computer local area network and allows up to 120 devices to communicate with each other at bus speeds of up to 2 Mbps. The AMU shares fault, status, and configuration information with the central maintenance computer over the ARINC 629.

Chuck Kettle has been a hardware/software engineer at Avtech for the last 15 years. He received his B.S.E.E. from San Diego State University in 1979 and has worked at Burroughs Business Equipment, Boeing Airplane Company and Sundstrand Data.