ID: Type: **Oral**

Duration Wind Noise Abatement Study at the University of Mississippi Field Station

Long duration measurements have been obtained at the University of Mississippi Field Station. These tests compared bare sensors to sensors treated with porous hoses, and sensors under circular domes of different diameters (1.15, 1.50, 2.40 and 6.00 m). The domes used a variety of external claddings, including 2.5cm thick foam and perforated aluminum meshing (typically the holes had a diameter of 3mm, with a 5 mm spacing and 30% effective opening). The sensors were recorded continuously, allowing measurements to be obtained over a wide range of weather conditions. As expected, the frequency of maximum wind noise attenuation decreased with increasing diameter of the dome, and the maximum attenuation obtained increased commensurately with diameter. Tests were also performed with nested domes, which were shown to provide greater attenuation than just the larger of the two domes. While porous horses typically provided superior wind noise attenuation at lower frequencies, these also attenuated sound at higher frequencies, and there were number other issues (temperature dependence of the transfer function, pores getting clogged in rainy weather), which made them less than ideal for longer period unattended observation.

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