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# of Experimental Hyperion Infrasound Shrouds as an Improved Means of Wind Noise Attenuation

We evaluate experimental shrouds mounted on Hyperion IFS-5201W digital infrasound sensors. The experimental shrouds were designed by Doug Seastrand and Gary Walker of the Nevada National Security Site, National Nuclear Security Administration, as a means to further reduce wind noise. The shrouds inter-mix air pressure sampled, around the axially-symmetrical sensor body, through specially-machined plates integral to the shroud. Our evaluations take place at Sandia National Laboratories' Facility for Acceptance, Calibration and Testing (FACT) site, in Albuquerque, New Mexico, USA. Our evaluations include both laboratory acoustic isolation chamber tests and field tests. The acoustic isolation chamber tests utilize a MB2005 infrasound sensor as a reference throughout the evaluation process while ambient conditions, such as temperature, pressure and relative humidity are held nearly constant. These tests sample frequencies over the International Monitoring System (IMS) infrasound passband (0.02 Hz to 4 Hz) as a means to compare the instrument response of the sensors utilizing the experimental shrouds to that of a sensor with the standard open-port shroud. The field tests compare in-situ data collected from sensors utilizing the experimental shrouds with data collected from a sensor mounted with a standard open-port Hyperion shroud. We present preliminary results of these evaluations.

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