Summary
Direct airborne validation of radiances from the new IASI interferometer sounder on Metop was successfully performed during the Joint Airborne IASI Validation Experiment (JAIVEx) conducted 14 April - 4 May 2007. The experiment included the NASA WB57 aircraft carrying the UW Scanning HIS, the LaRC NAST-I, and the MIT/LL NAST-Microwave, flown in coordination with the Facility for Airborne Atmospheric Measurements BAe146-301 carrying the ARIES interferometer plus a wide range of in situ instrumentation and dropsondes. This poster focuses on validation of IASI spectral radiances using the high altitude aircraft observations and a double observed minus calculated analysis technique.

Conclusions
• JAIVEx underflight evaluations of IASI show agreement with the aircraft observations on the order of 0.1K or less.
• The absolute calibration of IASI and AIRS Radiance are comparable and represent a huge improvement over past IR sounders for both weather and climate applications
• The value of aircraft observations for direct radiance validation has now been definitively proven (0.1 K sensitivity)
• Validation over the mission lifetimes is still needed to assure the long-term stability