Atmos. Meas. Tech. Discuss., 7, C47–C48, 2014
www.atmos-meas-tech-discuss.net/7/C47/2014/

Atmospheric Measurement Techniques Discussions

Interactive comment on "Remote sensing of cloud top pressure/height from SEVIRI: analysis of ten current retrieval algorithms" *by* U. Hamann et al.

T. J. Hewison

tim.hewison@eumetsat.int

Received and published: 21 February 2014

Several of the algorithms presented use the 13.4 micron channel of Meteosat/SEVIRI to provide information on cloud top height. This channel has been found to have a calibration bias with respect to Metop/IASI by inter-calibration [Hewison and Mueller, 2013]. The bias is believed to be mostly due to a build-up of ice on the optics, which modifies the instrument's spectral response function. The resulting calibration bias varies with time and depends on the scene's radiance spectrum, but can typically be $\sim$1K. Empirical corrections are available, based on the Global Space-based Inter-Calibration System (GSICS) from http://gsics.wmo.int.

Would it be possible to perform a sensitivity study to investigate the impact of this bias

on the cloud top height retrievals?

Hewison, T. and J. Mueller, 2013: Ice Contamination of Meteosat/SEVIRI Implied By Inter-Calibration Against Metop/IASI, IEEE Trans. Geosci. Remote Sens., vol. 51, no. 3, Mar. 2013, doi:10.1109/TGRS.2012.2236335

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 401, 2014.