

Outlook for future atmospheric sounding systems from space

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In recent years it has become very clear that GNSS radio occultation (RO) provides a third and independent method of sounding Earth's atmosphere from space. RO has been shown to add significant independent value to infrared and microwave sounding systems, becoming one of the leading observing systems in contributing to the accuracy of numerical weather prediction models. In addition, RO observations, with their high accuracy and precision, have been shown to provide benchmark-quality climate observations, as well as unique observations of the ionosphere.

In this talk I review a few very recent results from RO, carried out since my review presentation presented at OPAC-4 in Graz in September 2010 and published in AMT in June 2011 (*Exploring Earth's atmosphere with radio occultation: contributions to weather, climate and space weather* <http://www.atmos-meas-tech.net/4/1077/2011/amt-4-1077-2011.pdf>). I also look ahead to planned international atmospheric sounding systems from space, including COSMIC-2.