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The Radio Occultation (RO) instrument for MetOp Second Generation (MetOp-SG) is under development at RUAG Space. It will succeed the GRAS instrument presently operating on the MetOp series of satellites and it is often referred to as GRAS-2.

GRAS-2 will support GALILEO and GPS signals in the L1 and L5 frequency bands and the hardware supports also other constellations transmitting in those bands (e.g. Beidou and GLONASS). The signal acquisition and tracking is designed for continuous open loop recording to achieve measurements to very low altitudes including super-refractive situations where the signal is not available for a substantial period within the total occultation time span.

It is recognised that the GNSS signals in the L5 band are interfered by ground based transmitters for the aeronautical radio navigation system known as DME/TACAN. The GRAS-2 instrument is therefore equipped with an interference mitigation device which suppresses this interference.

A breadboard version of the instrument is currently being tested with RO signal stimuli generated by a GNSS signal generator and simulated DME/TACAN interference. The first test results will be presented.
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