

## **Antennas for the Next Radio Occultation Mission**

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Future GNSS remote sensing instruments such as the TriG receiver require more capable antennas than those flown on missions such as COSMIC. To maximize the number of ionospheric and atmospheric profiles, the TriG will be capable of tracking legacy and new GPS signals such as L5, L2C and L1C; GLONASS CDMA and Galileo E1 and E5a. The GPS antennas used on the COSMIC mission will not pass many of these new GNSS signals. Also, to improve the precision of measurements in the lower troposphere, RO antennas with greater gain, relative to the COSMIC, are also needed. There's been an in-house effort at JPL to develop a set of antennas that would provide excellent RO performance as well as navigation and ionospheric profiling. This effort is on-going but, near completion for a set of prototype antennas that meet or exceed the performance requirements for a mission like COSMIC-2. We will present the latest performance measurements for this set of prototype antennas proposed to accompany the TriG instrument on the next RO mission.