

## The Ionospheric Space Weather Mission of FORMOSAT-7/COSMIC-2

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With the success of the satellite constellation performing radio occultation experiments of FORMOSAT-3/COSMIC (F3/C), its follow-on mission, FORMOSAT-7/COSMIC-2 (F7/C2), has been planned and in progress of its construction. The follow-on mission will have 12 microsattellites distributed at 24-degree and 72-degree inclination orbits taking radio occultation signals from GPS, GLONASS and Galileo satellites. In addition to space-borne GNSS receivers, secondary payload opportunities for space weather studies are available. The secondary payloads of the first six satellites of 24-degree inclination angle have been planned, and there is a possible opportunity for the second six satellites. In this study, we propose a multiple band imager for studying the atmosphere-ionosphere perturbations and irregularities. As the radio occultation soundings provide global coverage of the ionosphere observations and give the large-scale view of the ionospheric space weather effects. The imagers proposed here, on the other hand, provide opportunity to study the small-scale ionospheric space weather effects.

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