

## 新しい衛星による電離圏ビーコン観測・計画の現状

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### Current status of ionospheric beacon experiment with new satellite constellation

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GNU Radio Beacon Receiver (GRBR) is the very successful digital receiver developed for dual-band (150/400MHz) beacon experiment. We were successfully conducted observations of total-electron content (TEC) of the ionosphere over Japan and in southeast Asia. But number of beacon satellites is gradually decreasing by aging. We now conduct a project to start new satellite-ground beacon experiment with new satellite constellations. One of them is TBEx (Tandem Beacon Explorer), a project by SRI International, to fly a constellation of two 3U cubesats with triband beacon transmitters. Another one is a project of FORMOSAT-7/COSMIC-2 by Taiwan/USA. Although the main mission is GNSS occultation of the Earth's atmosphere and ionosphere, they also carry the triband beacon transmitters. All of these satellites will be placed into low-inclination orbits by the same launch vehicle in 2017, which will give us great opportunities to enhance studies of the low-latitude ionosphere. We now prepare for the experiment by developing the new GRBR for these new beacon transmitters. In the presentation we show current status of the research project on both sides of satellites and ground-receives.