

GNSS and Ionospheric Data Products for Disaster Prevention andASEAN IVOAviation in Magnetic Low-Latitude Regions2019

Introduction :

This project aims to expand ionospheric observational infrastructure in Thailand, Myanmar and Laos and perform data analysis from multi-sensor sources including GNSS, ionosonde and VHF radar station located at the magnetic equator and low-latitude regions. The added data sources as well as existing observational data will be analyzed. We will then generate the data products such as ROTI maps, Spread F statistics, which are useful for communication alternatives during disaster and disturbance detection for aeronautical navigation purpose. The plasma bubbles based on the new VHF radar station on Chumphon campus will be studied. Finally, all the data products will be updated on Thai GNSS and lonosphere Data Center website.

GLONASS BEIDOU GALILEO TGATIO CMU NKT SKT KMITL CPN Daily transfer with R-sync РКТ CSSRG Network Website SRG-Route Daily Monthly processed CSSRG SERVER1 backup Products SERVER2 NAS onosonde system STEC cmu 20 Rate of TEC change index (R0 1:00UT (+7UTC) on 15 June 2018 foF2 [MHz] 0.6 0.5 LO 0.4 0.3 105 106 100 110 100 102 104

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