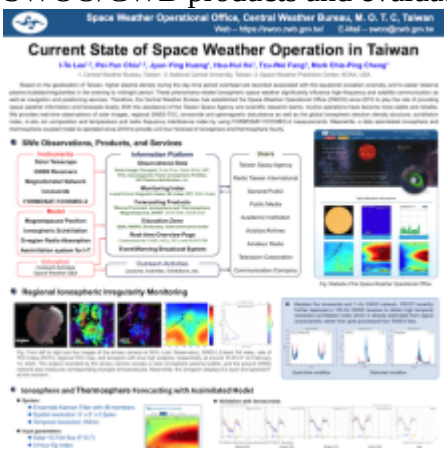
I-Te
Lee
Central Weather Bureau
Pei-Yun Chiu, Central Weather Bureau
Jyun-Ying Huang, Central Weather Bureau
Hsu-Hui Ho, Central Weather Bureau
Tzu-Wei Fang, NOAA Space Weather Prediction Center
Mark Chia-Ping Cheng, Central Weather Bureau
Poster
Based on the geolocation of Taiwan, higher plasma density during the day time period overhead are recorded associated with the equatorial ionization anomaly, and to easier observe plasma bubbles/irregularities in the evening to midnight period. These phenomena related ionospheric space weather significantly influence high-frequency and satellite communication as well as navigation and positioning services. Therefore, the Central Weather Bureau (CWB) has established the Space Weather Operational Office (SWOO) since 2015 to play the role of providing space weather information and forecasts locally. With the assistance of the National Space Organization and scientific research teams, routine operations have become more stable and reliable. SWOO provides real-time observations of solar images, regional GNSS-TEC, ionosonde and geomagnetic disturbance as well as the global ionospheric electron density structure, scintillation index, in-situ ion composition and temperature and radio frequency interference index by using FORMOSAT-7/COSMIC-2 measurements. Meanwhile, a data assimilated ionosphere and thermosphere coupled model is operated by SWOO since 2018 to provide a 6-hour forecast of ionosphere and thermosphere hourly. More detailed information for those SWOO/CWB products and evaluation of the assimilated foresting system will be presented and discussed.


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