URSI AT-RASC
Commission G Session S-G5

S-G5 – Ionospheric response to the solar eclipse of 2017

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On 21 August 2017, during daytime hours (16:00-20:00 UTC), a total solar eclipse with a narrow ~160 km wide umbral shadow that moved at supersonic speeds through the Earth's atmosphere was observed across the continental US. A solar eclipse generates dramatic changes throughout the Earth's geospace due to the fast reduction and recovery of solar EUV irradiation Solar eclipse effects on the ionosphere have been studied for more than 50 years, as they offer a naturally occurring 'active' experiment with opportunities to study the effect of solar radiation on the ionosphere-thermosphere-mesosphere (ITM) system. The 21 August 2017 solar eclipse provided an unprecedented opportunity to study eclipse effects because of the large amount of multi-sensoral observations obtained. Recent major advances in sensitivity, spatial/temporal resolution, and global coverage of measurements, as well as the development of sophisticated geospace modeling tools, have benefited eclipse research. This session solicits papers focused on solar eclipse studies, with a particular focus on the August 2017 eclipse.