**MONDAY 10 DECEMBER**

**SA11A:** Global Dynamical Response of the Upper Atmosphere to External Forcing I  
08:00–10:00 Convention Ctr–202B  
Shunrong Zhang, et al.

**AE11B-2715:** Lightning Interferometry Using RAPID  
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)  
Ningyu Liu, Frank Lind, et al.

**SA11A-05:** Concurrent Solar Flare and Geomagnetic Storm Effects on the Thermosphere and Ionosphere During September 2017  
09:07–09:22 Convention Ctr–202B  
Liying Qian, Anthea Coster, et al.

**SA12A-04:** Self-Consistent Simulations of Magnetosphere-Ionosphere Coupling During a Substorm  
11:10–11:24 Convention Ctr–C  
Stanislav Sazykin, Anthea Coster, et al.

**SA12A-05:** Causes and Effects of Small-Scale Plasma Density Irregularities in the Mid-Latitude Ionosphere  
11:24–11:38 Convention Ctr–C  
J. Michael Ruhn, Phil Erickson, Anthea Coster, et al.

**SA12A-08:** High Frequency Communications Response to Solar Activity of September 2017 as Observed by Amateur Radio Networks  
12:06–12:20 Convention Ctr–C  
Nathaniel Frissell, Phil Erickson, et al.

**SA13B:** Global Dynamical Response of the Upper Atmosphere to External Forcing Posters  
13:40–18:00 Conv. Ctr–Hall A-C (Poster Hall)  
Shunrong Zhang, et al.

**SA13B-2654:** Long-Term Changes in Ionospheric Temperatures  
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)  
Wenbin Wang, Shunrong Zhang, et al.

**SA13C-2662:** Increased Ionospheric Scintillation in the Southern Hemisphere following Solar Wind Dynamic Pressure Enhancements  
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)  
Thomas Coppeans, Anthea Coster, et al.

**C13A-08:** Moving Beyond the Tip of the Iceberg: What We Can Learn from Subsurface Imagery (Invited)  
15:25–15:40 Convention Ctr–Salon H  
David Sutherland, Pedro Elosegui, et al.

**TUESDAY 11 DECEMBER**

**SA21A-3165:** New Daytime Thermosphere Ionosphere Observations During the HIWIND Flight in 2018  
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)  
Qian Wu, Phil Erickson, et al.

**PA22B-02:** Modeling Amateur Radio Soundings of the Ionospheric Response to the 2017 Great American Eclipse (Invited) & (Highlighted)  
Nathaniel Frissell, Phil Erickson, et al.

**SH22B-08:** Current and Future Community Integrative Science and Discovery Using Incoherent Scatter Radar Techniques (Invited)  
12:05–12:20 Convention Ctr–207B  
Phil Erickson

**SA23B-3192:** Systematic Assessment of Ionosphere/Thermosphere Models for Predictions of TEC and foF2 during the 2013 March Storm Event  
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)  
Ja-Soon Shim, Larisa Goncharenko, et al.

**SH23C-3329:** Routine Estimation of Coronal Mass Ejection Magnetic Fields at Coronal Heights  
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)  

**SH23D-3345:** New Insights from Spectroscopic Snapshot Imaging of Weak Type III Radio Bursts using MWA (Highlighted)  
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)  
Atul Mohan, Divya Oberoi, et al.

**WEDNESDAY 12 DECEMBER**

**G31B-0664:** The NASA Space Geodesy Network  
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)  
Stephen Merkowitz, Pedro Elosegui, Chester Ruszczyk, et al.
G31B-0668: VGOS CONT17: Comparison of VGOS results with S/X and GPS
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)

G31B-0667: Roll-out Status of the VGOS Network
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)
Dirk Behrend, Chester Ruszczyk, Pedro Elosegui, et al.

G33C-0694: An Exploration of a Global Terrestrial Reference Frame Combination that Incorporates Constraints from Atmospheric Structure: Implication for Future ITRF Realizations
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Dhiman Mondal, Pedro Elosegui, et al.

SA33B-3479: Advances and Features of Meteor Radar Techniques for M-L-T Region Neutral Wind Characterization
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Phil Erickson, Ryan Volz, Jorge Chau

SA33B-3509: Plasmasphere Evolution During the 17-March-2013 and 28-June-2013 Magnetic Storms
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Colby Lemon, Anthea Coster, et al.

SA33B-3470: Ionospheric Disturbances During the September 2017 Geomagnetic Storm
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Anastasia Newheart, Anthea Coster, Phil Erickson, et al.

SA33C-3491: Observations of Traveling Ionospheric Disturbances at Midlatitudes during Geomagnetic Storm of 1-3 September 2016
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Segii Panasenko, Olusegun Jonah, Larisa Goncharenko, Anthea Coster, et al.

SA33C: Understanding Traveling Ionospheric Disturbances (TIDs) Posters
13:40–18:00 Conv. Ctr–Hall A-C (Poster Hall)
Shunrong Zhang, Anthea Coster, et al.

SA33C-3492: Traveling Ionospheric Disturbances Observed Over Short Baselines in Massachusetts
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Christine Marie Alcalde, Eryl Derome, Jason SooHoo, Olusegun Jonah, Anthea Coster, Shunrong Zhang

SA33C-3500: Inter-Hemispheric Coupling of Large-Scale Travelling Ionospheric Disturbances During Geomagnetic Storms
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Olusegun Jonah, Anthea Coster, Shunrong Zhang, Larisa Goncharenko, Phil Erickson, et al.

SA33C-3501: Horizontal and Vertical Structures of Large-Scale Traveling Ionospheric Disturbances Observed with GNSS Receivers and Millstone Hill Incoherent Scatter Radar
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
Shunrong Zhang, Anthea Coster, Phil Erickson

SA33C-3504: Millstone Hill Incoherent Scatter Radar Fine-Scale Observations of Traveling Ionospheric Disturbances Using Langmuir Mode Techniques
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
L. Claire Gasque, Bill Rideout, Shunrong Zhang, Phil Erickson

SM33C-3586: Characteristics and Effects of Strong Subpacket Structure near 1/4 fce In VLF Chorus Risers
13:40–18:00 Convention Ctr–Hall A-C (Poster Hall)
John Foster, Phil Erickson, et al.

G33A-05: An Evaluation of VGOS Data, Precision, and Accuracy
14:40–14:55 Marriott Marquis–Marquis A-C

THURSDAY 13 DECEMBER

SA41B-1524: Conjugate observations of the evolution of polar cap arcs in both hemispheres
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)
Zan-Yang Xing, Shunrong Zhang, et al.

SM41A-08: Model and Data Analysis of Storm Enhanced Density/T ongue of Ionization events in the Arctic and Antarctic during Solar Cycle 24
09:45–10:00 Convention Ctr–201
Anthea Coster et al.

FRIDAY 14 DECEMBER

SA51A-07: Identification of Auroral Zone Activity Driving Large-Scale Traveling Ionospheric Disturbances (TIDs) I
08:00–10:00 Conv. Ctr–202B
Shunrong Zhang, Anthea Coster, et al.

SA51B-2725: Longitudinal Differences in the Response of Low-Latitude Ionosphere to Sudden Stratospheric Warmings of 2016, 2017, and 2018
08:00–12:20 Convention Ctr–Hall A-C (Poster Hall)
Larisa Goncharenko, Anthea Coster, V. Lynn Harvey

SA53A-04: Multi-instrument observations of super equatorial plasma bubbles over American and Asian sectors
14:22–14:35 Convention Ctr–202B
Ercha Ao, Shunrong Zhang, Anthea Coster, et al.