



Happy Holidays, INAG!

Season greetings and a farewell to *Good Ol' 2017*...

12/18/2017



Our warmest Season Greetings and wishes for a Fruitful and Happy New Year 2018!

As usual, bidding farewell to the year we are leaving behind, we would like to **SUMMARIZE OUR NETWORK STATE AND ACCOMPLISHMENTS**

TID Evaluation using HF Radio and GNSS

- The European **Net-TIDE** [pilot project](#) for identification of traveling ionospheric disturbances (TIDs) using HF ionosondes DPS4D (please see [Net-TIDE newsletters No.1 and 2](#)) is now complete, and the real-time online [TID Warning System](#) is operational. Use [TID Explorer](#) to browse records of previously detected TID activity. The pilot project finished in 2017.
- The EU Research and Innovation programme HORIZON 2020 is funding a continuation to the Net-TIDE system for **Warning and Mitigation Technologies for Traveling Ionospheric Disturbances Effects**, [TechTIDE](#). The TechTIDE consortium includes total of 13 research and application partners in Europe (9 countries) and South Africa, with project coordination by National Observatory of Athens.
 - Eight TID detection algorithms will be running in near real-time for

- concurrent, coordinated analysis
- Observations by Digisondes, Doppler radars (IAP), and GNSS will be used for TID detection

Ionosonde Network Enhancements

- Network of 4 new VIPIR-II sounders in Japan (Wakkanai, Kokubunji, Yamagawa, Okinawa) is now complete and fully operational; autoscaled and manually scaled ionogram data from Japan are available at [WDC data archive](#) at NICT. Real-time ionograms for browsing can be [found here](#).
- Korean Polar Research Institute (KOPRI) has established regular operation of VIPIR-II ionosonde at Jang Bogo Station in Antarctica. Sample data, photos, and descriptions are available in [Meridian 2017 workshop archive](#).
- Ionosonde operations started in Chillan, Chile (UnACh), IPS42 or CADI systems
- New Digisonde DPS4D systems in 2017:
 - Belem, Brazil (INPE)
 - Santa Maria, Brazil (NSSC)
 - Lualulalei, Hawaii (557WW)
 - Sopron, Hungary (GGKI) -- Spring 2018
 - Kent Island, MD (IARPA) -- Spring 2018
 - Beijing (?), China (IGG) - Spring 2018
- PLEASE REPORT OVERLOOKED NEW 2017 INSTALLATIONS TO US

NOAA "SPIDR on the Web" Closure

University of Colorado CIRES has [reported](#) the final loss of support of a popular WDC-A ionogram data access system "Space Physics Interactive Data Resource" (SPIDR), originally hosted by NOAA/NGDC/NCEI and later by an offsite server at ionosonde.net. SPIDR operation is ceased out of concerns for computer resource

outage and security at NOAA NCEI.

SPIDR collection included records from 231 ionosondes dating back to 1948.

The closure caused URSI Commission G resolution at GASS 2017:

Noting the crucial importance of the long ionosonde data record for understanding the long term changes in Earth's Ionospheric, URSI urges national agencies to ensure the archiving and accessibility of this valuable data source.



IRI 2017 Biannual Conference and Capacity-Building workshop: Provide free access to retrospective *numerical data archives* of IRTAM, an ionosonde-driven 3D assimilative model of the ionosphere, for academic use.



Lowell [GAMBIT database](#) holds IRTAM records from 2000 to current.

Let us draw your attention to the latest additions to INAG [Bulletin #74](#).

And so it goes. Leaving the Y2017 behind, please be on the lookout for new great ideas, new generation of the younger researchers, new opportunities for INAG. Please join us during the URSI Atlantic Radio Science Meeting in 2018 at the session S-G7 "**Sensor networks for ionospheric weather nowcast**".

HAPPY HOLIDAYS, INAG !
HAPPY NEW YEAR

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Exit Note: INAG would like to hear from you on your status and plans. To contribute an article to the INAG Bulletin please write to bulletin@ursi-inag.org. Your article will be published to the URSI G.1 site and announced in this newsletter. To send a short note to INAG newsletter, simply reply to chair@ursi-inag.org.

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