



Happy Holidays, INAG!

Season greetings and a farewell to *Good Ol' 2018*...

12/29/2018



Our warmest Season Greetings and wishes for a Fruitful and Happy New Year 2019!

As we bid farewell to the year we are leaving behind, we would like to

SUMMARIZE THE STATE OF IONOSONDE UNION AND ACCOMPLISHMENTS

Ionosonde Network Advances

- Second phase of the International Meridian Circle program is in progress, ranked national #1 key mega scientific infrastructure in 2018-2020 in China. The second phase will add a new network of ionosondes to the project's suite of space weather instrumentation.

- Roshydromet and UMass Lowell signed Memorandum of Understanding for the ionosonde data exchange, resulting in addition of 10 real-time data streams from ionosonde observatories in Russian Federation to GIRO.
- New Digisonde DPS4D observatories in 2018:
 - Sopron, Hungary (GGKI)
 - Kent Island, MD (IARPA)
 - Eareckson, AK (NEXION)
- Ionosonde networks were represented at 2018 CEDAR Workshop on Distributed Observatories and 2nd URSI Atlantic Radio Science Meeting, session S-G7 "Sensor networks for ionospheric weather nowcast"
- PLEASE REPORT OVERLOOKED 2018 ACCOMPLISHMENTS TO US

Message from GIRO directors:

International GIRO Forum

Planning the IGF2019

Dear members and friends of the Global Ionosphere Radio Observatory (GIRO) Consortium

In 2019 it will be 5 years since our last International GIRO Forum at the University of Massachusetts Lowell (UML). The Lowell GIRO Data Center (LGDC) manages the collection and distribution of ionospheric data obtained with ionosondes around the globe by the consortium members. The data bank at LGDC (<http://giro.uml.edu/>) now contains ionosonde measurements and derived data products from 89 Digisonde stations, and from 29 other ionosonde stations that are able to provide scaled ionogram data. Currently 78 observatories have agreed to upload measurements to GIRO in real-time.

Many new data products have been developed in the last 5 years, and we have received numerous inquiries about when we would organize the next IGF.

We plan on organizing the IGF 2019 in May 2019. Please let us know whether you would be interested in attending the IGF2019.

The main topics for the IGF2019 are listed below.

Hoping to hear from you soon!

Co-Directors, LGDC

bodo.reinisch@digisonde.com

ivan_galkin@uml.edu

Topics for IGF2019

- Global Real-time Ionosphere Nowcast using GIRO sensors
- Combined vertical and oblique ionogramming with DPS4D
- TID Detection and Warning System with Digisonde D2D and VTT modes of operation
- Access portal to Lowell GIRO Data Center, including DIDBase, TID Warning System, and GAMBIT coefficients for “real-time IRI “
- Path forward: bottomside ionosphere forecast using Deep Learning
- Upcoming cooperation of GIRO and COSMIC II
- Double-Probe and Topside Ionosphere Sounder (DPTIS) status and prospects

And so it goes. Leaving the Y2018 behind, please be on the lookout for new great ideas, new generation of the younger researchers, new opportunities for INAG. Please join us at XV International GIRO Forum in May 2019.

HAPPY HOLIDAYS, INAG !

HAPPY NEW YEAR

Ivan Galkin

UMass Lowell: GIRO
INAG Chair

John Bosco Habarulema

SANSA, South Africa
INAG Co-Chair

Baiqi Ning

IGG CAS, Beijing, China
INAG Co-Chair

and **Kehe Wang**, SWS BOM Australia, INAG Bulletin Editor

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.

Copyright © 2018 URSI Ionosonde Network Advisory Group, All rights reserved.