

IGF



2011

XIII INTERNATIONAL GIRO • FORUM

10-13 May 2011

A G E N D A

Version 2.1a.: May 8, 2011

~~~~~ DAY ONE: 10 May 2011, Tuesday ~~~~~

**SECTION 1 FORUM REGISTRATION AND OPENING PRESENTATIONS**

- 0830 Forum Registration, Hawthorn Suites by Wyndham Chelmsford/Lowell  
25 Research Place, North Chelmsford, MA 01863 USA
- 0900 Opening remarks. Global Ionospheric Radio Observatory -- GIRO Prof. B. Reinisch  
0915 GIRO members roundtable Attendees

**SECTION 2 SCIENCE PROJECTS WITH GIRO**

- 0930 Review of existing and emerging GIRO science projects Prof. B. Reinisch  
1000 Sensing plasma perturbations due to HF heating Dr. T. Pedersen
- 1030 Break
- 1100 Sensing the plasma upflow during HAARP heating Dr. E. Mishin  
1130 Investigating the effects of ionospheric storms in equatorial region Dr. V. Paznukhov
- 1200 Lunch
- 1300 A proposed assimilative IRI with GIRO data Prof. X. Huang  
1330 RAPID platform proposal for IRI Prof. I. Galkin  
1400 D-region absorption study Dr. G. Sales  
1430 Ionospheric height rise during intense storms observed with GIRO Dr. D. Altadill
- 1450 Break
- 1500 Low latitude ionosphere response in storm time: DPS-4 observation Dr. X. Wang  
1520 The properties of the ionospheric SF observed with DPS-4 in the low  
and high latitude regions Dr. J.K. Shi  
1540 Measuring electron upflow in the polar cap Dr. P. Nsumei  
1600 Adjourn
- 1830 Odyssey Cruise Boston Rowe's Wharf

~~~~~ DAY TWO: 11 May 2011, Wednesday ~~~~~

SECTION 3 NEW DPS 4D SYSTEM

| Time | Topic | Presenter |
|------|---|-------------------|
| 0830 | Introduction to DPS-4D | Prof. B. Reinisch |
| 0850 | DPS-4D hardware overview | I. Lisysyan |
| 0920 | RFI mitigation for DPS-4D | Prof. I. Galkin |
| 0950 | FPGA technology for hardware data pre-processing | Prof. I. Galkin |
| 1010 | Break | |
| 1020 | Software organization and data traffic | Prof. I. Galkin |
| 1040 | DCART : New (inter)face of the digisonde | Prof. I. Galkin |
| 1100 | Under the hood of the DCART project | A.Kozlov |
| 1130 | System fault isolation with BIT | R. Hamel |
| 1200 | Lunch | |
| 1245 | Overview of DPS-4D data products | Prof. I. Galkin |
| 1315 | DESC: Embedded system control software for DPS-4D | Prof. I. Galkin |
| 1345 | Upgrade path to DPS-4D | Prof. B. Reinisch |

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|------|-------------------------|--------------------------------|
| 1400 | Working Group Session 1 | Lowell Digisonde International |
| 1500 | Working Group Session 2 | Lowell Digisonde International |
| 1600 | Working Group Session 3 | Lowell Digisonde International |

~~~~~ DAY THREE : 12 May, 2011 Thursday ~~~~~

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|------|-------------------------|---------------------------|
| 0830 | Working Group Session 4 | Millstone Hill Field Trip |
|------|-------------------------|---------------------------|

**SECTION 4 DIGISONDE IONOGRAM ANALYSIS**

| Time | Topic                                                            | Presenter         |
|------|------------------------------------------------------------------|-------------------|
| 1100 | Review of upcoming changes in ionogram analysis and data reports | Prof. B. Reinisch |
| 1110 | ARTIST 5.0 and autoscaling uncertainty study                     | Prof. I. Galkin   |
| 1135 | Status of SAO.XML 5.0 format for ionogram-scaled data            | Prof. I. Galkin   |
| 1140 | Fundamental principles of NHPC true height analysis              | Prof. X. Huang    |

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|------|-----------------------------------------------------|-------------------|
| 1200 | Lunch                                               |                   |
| 1245 | Dual-frequency precision ranging with DPS and D256  | Prof. B. Reinisch |
| 1305 | GIRO Front End: SAO Explorer with DIDBase and ADRES | Prof. I. Galkin   |

### SECTION 5 DRIFT ANALYSIS

| Time | Topic                            | Presenter         |
|------|----------------------------------|-------------------|
| 1330 | Principles of drift measurements | Prof. B. Reinisch |
| 1400 | Drift Explorer and Drift Base    | A. Kozlov         |

### SECTION 6 OPERATIONAL ISSUES

| Time | Topic                                                      | Presenter         |
|------|------------------------------------------------------------|-------------------|
| 1430 | Site validation and new Tx antenna design                  | D. Kitrosser      |
| 1440 | Computer security and remote control                       | R. Hamel          |
| 1500 | Break                                                      |                   |
| 1510 | Common errors in measurement programming                   | Prof. I. Galkin   |
| 1530 | Lightning protection                                       | I. Lisysyan       |
| 1545 | Oblique sounding with DPS and DPS-4D                       | Prof. I. Galkin   |
| 1600 | Modeling the topside profiles                              | Dr. P. Nsumei     |
| 1630 | WatchIt: automated monitor of digisonde data quality       | Prof. I. Galkin   |
| 1645 | Troubleshooting of post-processing and archival subsystems | Prof. I. Galkin   |
| 1700 | Closing remarks                                            | Prof. B. Reinisch |

~~~~~ DAY FOUR: 13 May, Friday ~~~~~

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|------|-------------------------|--------------------------------|
| 0900 | Working Group Session 5 | Lowell Digisonde International |
| 1000 | Working Group Session 6 | Lowell Digisonde International |
| 1100 | Working Group Session 7 | Lowell Digisonde International |

Working Groups

| <u>Topic</u> | <u>Curator</u> |
|----------------------|----------------|
| SAO Explorer 1 | I. Galkin |
| SAO Explorer 2 | A. Kozlov |
| ARTIST 5 | I. Galkin |
| DIDBase with ADRES 1 | I. Galkin |
| DIDBase with ADRES 2 | A. Kozlov |
| IRI Windows | X. Huang |
| NHPC and ARP | X. Huang |
| Drift Explorer 1 | A. Kozlov |
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| DPS Hardware | I. Lisysyan |
| DGS-256 Hardware | D. Kitrosser |
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| 4D Testing | R. Hamel |
| DCART | I. Galkin |
| DCART | A. Kozlov |