

**Business Meeting IAGA Division V**  
**August 25, 2021, 16:45-17:30 IST [Hall 7]**  
**at IAGA-IASPEI Joint Scientific Assembly, Hyderabad, India (Online)**

**Report by M. Nosé and R. Leonhardt**

**Agenda**

1. Acceptance of the agenda
2. Report from Chair and Co-chair
3. Report from WG V-MOD
4. Report from WG V-OBS
5. Report from WG V-DAT
6. Resolution proposal from Division V
7. Session proposals from Division V
8. Any Other Business

At 16:45, Welcome to the participants by Division V Chair.

**1. Acceptance of the agenda**

Agenda was unanimously approved.

**2. Report from Chair and Co-Chair**

**Report by M. Nosé**

- The Division V chair and co-chair have been working for the usual task of coordination, reminders and relaying information. Main part of Division V activities are spread in Working Groups. Chair and co-chair of Division V thanks WG chairs and co-chairs for their excellent works.
- An article “Geomagnetic Observatories, Surveys and Analyses : IAGA Division V” was posted to IAGA Blog (<https://iaga-aiga.blogspot.com/>).

No question.

**3. Report from WG V-MOD**

**Business Meeting WG V-MOD (August 23, 2012)**

**Report by P. Alken & C. Beggan**

- 13<sup>th</sup> generation International Geomagnetic Reference Field (IGRF-13) released January 2020
  - Fifteen international teams submitted candidate models
  - The final IGRF-13 as well as individual candidates are documented in a special issue of Earth, Planets, Space: *International Geomagnetic Reference Field: The Thirteenth Generation*
- Uncertainty analysis study of IGRF presented
- Discussion of revisiting DGRF-2010 with Cryosat-2 data

- World Digital Magnetic Anomaly Map (WDMAM)
  - Global description of local magnetic crustal anomalies
  - Numerous new datasets have been incorporated

No question.

#### 4. Report from WG V-OBS

**Business Meeting WG V-OBS (August 22, 2021)**

**Report by J. Matzka & K. Pinheiro**

- Observatory workshop
  - The workshop in Kazan, Russia, postponed in 2020 and 2021, is planned for 2022.
  - The workshop in Vassouras, Brazil, is postponed from 2022 to 2024.
- The mandate (or mission) of the WG V-OBS:
  - “IAGA Working Group V-OBS coordinates all issues related to the operation of geomagnetic observatories and, in collaboration with V-MOD, repeat stations around the world.”
  - V-OBS will discuss internally about including magnetometer stations to its mission statement and will discuss with V-MOD about satellite missions. Consequently, V-OBS might approach Division V with the aim of updating its mandate and mission statement.
- Online meetings of the WG open to all, outside IAGA conference
  - The WG concluded that such a meeting should take place in one year from now and should be coordinated with INTERMAGNET as well as the observatory workshop.
- No resolution proposal was brought forward to the V-OBS WG

Comment and reply: Coordination for the online meetings among other WGs will be made.

#### 5. Report from WG V-DAT

**Business Meeting WG V-DAT (August 22, 2021)**

**Report by E. Clarke & A. Willer**

- All the IAGA indices and repositories are in very good shape – a few improvements are highlighted here (see V-DAT minutes for more details):
  - ISGI: Set up of download statistics to be transmitted towards each of the 6 ISGI-Collaborating Institutes
  - aa and am: continue to be up to date
  - SC and sfe: improved processing and automated detection
  - Kp index: Improved nowcast Kp implemented August 2020
  - Dst and AE –good progress from new staff and back to normal service soon
  - PC index: PCS index is now available in a definitive form and improvements made to the PCN/PCS definitive/provisional/quick-look versions and to the documentation

- Polar Cap (PC) Index discussion
  - At the IAGA assembly in 2019 it was concluded to investigate possible discrepancies between the algorithm description (*Appendix A in PC index description main document, 2013*) and the actual PCN calculation method.
  - AARI and DTU **confirm agreement between documentation and algorithm implementation.**
  - The WG realise that there remains confusion regarding the different versions of the PC index and the official recognition of IAGA.
  - To avoid future confusion, the WG are proposing a clarification to the resolution no. 3 (2013)
- Data DOI Task Force
  - The WG concludes considerable improvements since 2017. The report is available on the IAGA V-DAT web site. The WG agreed the importance of a continued data DOI Task Force. New chairperson tbd.
- INTERMAGNET
  - New data publication, webportal and technical manual available. Major revision over the previous version and includes specification for recording 1-second data to meet standards and details of new data formats
- WDC for Geomagnetism
  - Presentations from Edinburgh, Moscow, Copenhagen and Kyoto. Some highlights: All groups are very active, WDC Edinburgh many new data sets added since the last meeting
- Digitised historical (magnetogram) data
  - Discussion started on collaborating, harmonising and establishing common format, metadata and storage for digitised historical data. This discussion will continue.

No question.

## 6. Resolution proposal from Division V

### Report by M. Nosé

- No new resolution proposals.

### Report by E. Clarke

- V-DAT proposed a slight modification in the existing resolution.
  - Resolution No. # (2021): Polar Cap (PC) index  
IAGA, **noting** that polar cap magnetic activity is not yet described by existing IAGA geomagnetic indices, **considering** that the Polar Cap (PC) index constitutes a quantitative estimate of geomagnetic activity at polar latitudes and serves as a proxy for energy that enters into the magnetosphere during solar wind-magnetosphere coupling, **emphasising** that the usefulness of such an index is dependent on having a continuous data series, **recognising** that the PC index is derived in partnership between the Arctic and Antarctic Research Institute (AARI, Russian Federation) and the National Space Institute, Technical University of Denmark (DTU,

Denmark) recommends use of the PC index by the international scientific community and **urges** that all possible efforts be made to maintain continuous operation of all geomagnetic observatories contributing to the PC index.

[Note 1: Renewal of Resolution No.4 (1997) after a long-term dispute about the method to derive the PC index has been settled in 2013]

[Note 2: Amendment of Resolution No. 3 (2013) for the purpose of clarification. The words “in its near real time and definitive forms” have been removed. “Note” has been renamed to “Note 1” and the words “in 2013” added to Note 1]

Approved unanimously.

## 7. Session proposals from Division V

1. Satellite-based geomagnetic field measurements and modeling (joint with V-OBS)
  - Conveners: Gauthier Hulot, Patrick Alken, (and others)
2. The geomagnetic field and its secular variation (joint with Div-I)
  - Convener: W. Brown
3. Modeling the lithospheric field
  - Convener: Jerome Dyment
4. Current developments of ground geomagnetic observations and integration with space based data (with V-MOD)
  - Convenors: Katia Pinheiro, Seiki Asari, and Vincent Lesur
5. Geomagnetic observations, indices and products for space science, space weather and space climate applications (Joint V-DAT and V-OBS)
  - Convenors: Anna Willer, Jürgen Matzka, Tanja Petersen, Phani Chandrasekhar
6. Advanced Data management in the Geosciences (Joint or cross associations session and perhaps with UCDI, or Union session)
  - Convenors: Masahito Nosé, Aude Chambodut, and Kirsten Elger (tbc)
7. Extracting, processing and archiving analogue, historic and ancient data records: tools, improved techniques and best practices (Cross association or Union session)
  - Convenors: Ciarán Beggan, Hisashi Hayakawa

Sessions will be rearranged by Executive Committee together with other Associations. Div V Chair and co-Chair should be vigilant in defending the proposed sessions and topics.

## 8. Any other business

No any other business.

At 17:30 IST, the meeting was over and adjourned. The Chair and Co-Chair thanked the participants. There were 27 participants.