

IMAGE meeting 2017 minutes

Time:

IMAGE collaboration discussion: 12 Oct 2017 15:30 – 13 Oct 2017 13:00

Place:

Geomagnetic Observatory Niemegk, Germany

Attending:

TGO	Magnar Johnsen
SGO	Tero Raita
IGF PAN	Jan Reda Anne Neska
SGU	Gerhard Schwarz
IRF	Masatoshi Yamauchi (WEBEX) Hermann Opgenoorth
FMI (PI Institute)	Kirsti Kauristie Ari Viljanen Tiera Laitinen Mirjam Kellinsalmi Liisa Juusola (PI contact person, minutes)
GFZ	Jürgen Matzka
Aalto	Eija Tanskanen Reko Hynönen Pry Peitso
Nagoya University	Mariko Teramoto

Agenda:

- EPOS: role to IMAGE and data dissemination, Ari Viljanen
- Dissemination of archived data: license, acknowledgements, Ari Viljanen
- Formalization of real-time data exchange, Magnar Gullikstad Johnsen
- Aim and development of IMAGE: operational (real-time data) vs. science (archived data) tool, Magnar Gullikstad Johnsen
- Promotion: visibility of the member institutes on the IMAGE web page, promotion of IMAGE by the member institutes, Magnar Gullikstad Johnsen
- GFZ participation in IMAGE collaboration, Jürgen Matzka
- IMAGE MoU & Statutes, Kirsti Kauristie
- AOB:
 - Joining Hel observatory to IMAGE, Anne Neska
 - Latest news of G-EPOS (Geophysical laboratory and observatory infrastructure), Eija Tanskanen (*transferred from the Science Meeting*)
 - Plans for magnetometer stations to improve the coverage at sub-auroral latitudes, Hermann Opgenoorth
 - Data quality logs
 - Presentations to be made available
 - Next meeting

Discussion points and action items:

- EPOS: role to IMAGE and data dissemination
 - See Ari's presentation.

- At the first stage, FMI magnetometer data will be distributed via EPOS. Data from other IMAGE stations will be added on the condition that their maintainers sign the Supplier Letter.
 - There will be no new data storage, data requests will come to FMI (EPOS will provide user statistics).
 - What is needed:
 - A supplier letter (FMI will send a draft).
 - License: CC:BY (default) or CC:BY:NC for data, CC:0 (public domain) for metadata.
- Dissemination of archived data: license, acknowledgements
 - See Ari's presentation.
 - FMI suggested that each institute should specify a license, preferentially in the Creative Commons framework, under which their data are distributed at the IMAGE website.
 - IMAGE could set an example to the magnetometer community.
 - The current *rules of the road* effectively apply CC:BY:NC.
 - FMI and GFZ data are currently under CC:BY.
 - The Acknowledgement text needs to be reformulated to include information on the licenses. As different data sets can have different licenses, this includes mentioning the data providers.

ACTION ITEM FOR ALL DATA PROVIDERS: Send information on the license under which your data are to be distributed to FMI.

ACTION ITEM FOR FMI: After receiving the license information, make a suggestion for a new Acknowledgement text and circulate it around for comments and approval; update the website.
- Formalization of real-time data exchange & Aim and development of IMAGE: operational (real-time data) vs. science (archived data) tool
 - It was agreed that IMAGE collaboration continues to be limited to archived data.
 - Near real-time data would enable participation in operational services (e.g., ESA SSA), but IMAGE not being a legal entity could be problematic. Therefore, the data provider institutes will continue to make their own decisions regarding near real-time data usage.
 - It was pointed out, however, that IMAGE as a unified community would be in a much better position to address ESA SSA calls on geomagnetic services than ad hoc consortia of European institutes. Therefore, it would be good to discuss collaboration on near real-time data usage as well, at some point.
 - Eija asked if historical (before 1982) magnetometer data (e.g., SMA) could be included in IMAGE.
 - Historical data are already distributed by WDC.
 - Could be handled on case-by-case basis: if someone has a good data set relevant to IMAGE, it can be discussed.
- Promotion
 - It was suggested that the current beta version of the IMAGE website should be made primary and the logos of all institutes should be added on the front page.

ACTION ITEM FOR ALL DATA PROVIDERS: Send your institute logo to FMI.

ACTION ITEM FOR FMI: Add the institute logos to the website. Update the current beta site to primary.
- New stations:
 - GFZ suggested that the geomagnetic observatories Niemegek and Wingst in Germany would join IMAGE as subauroral stations.
 - It was noted that the stations would be a valuable contribution to IMAGE as they would extend the network southward. FMI, IRF, and TGO expressed support.

- **ACTION ITEM FOR GFZ:** Send a formal proposal to the current IMAGE contributors in order to obtain formal agreement from each of them.
 - IGF PAN suggested that the geomagnetic observatory Hel in Poland would join IMAGE.
 - See Anne's presentation.
 - The data are validated in the Belsk observatory.
 - Hel would complement the subauroral coverage of IMAGE.
 - Other Polish stations (Belsk, Zagorzyce) are also available.
 - **ACTION ITEM FOR IGF PAN:** Send a formal proposal to current IMAGE contributors in order to obtain formal agreement from each of them.
 - New TGO stations
 - See Magnar's presentation.
 - Will be added to IMAGE.
 - Hermann presented the plans for the six new magnetometer stations to be located primarily in Southern Sweden. The IMAGE community is welcome to make suggestions on optimal locations for the new stations.
 - Sweden has some underwater magnetometers as well, from previous measurement campaigns. Integrating them with the SeaMAG element of Eija's G-EPOS project may open a way for an interesting IMAGE extension in the future.
- Latest news of G-EPOS
 - Presentation by Eija available.
- MoU & Statutes
 - *See updated drafts.*
- Data quality logs:
 - A coordinated effort to published data quality logs and the depth of detail in them was discussed. The log files could contain information on
 - instrument status and updates
 - data processing procedures and validation activities.
 - Detailed information is in the possession of the data providers and can be obtained from them if needed. Reporting all minor details was found to be too cumbersome. It was suggested that logs could be kept on major issues that significantly affect the data quality. This log could be made available at the IMAGE website and a README file or flags containing the information could be distributed with the data.
 - New IMAGE members will be asked to "keep the description of your data up to date". Current members do not need to do this retrospectively but it was recommended that this is done from now on.

ACTION ITEM FOR ALL DATA PROVIDERS: Send information on potential technical issues and major changes in the instrument set-ups to FMI, who will add them to the IMAGE website.
 - Yama presented suggestions for the content of the log files:
 - magnetometer type, e.g., fluxgate
 - caveats, e.g., fixing a magnetometer, possible artificial effects
 - calibration frequency
 - how spikes are removed
 - reliability of baseline (if absolute measurements exist or not)
 - Sq level (if possible)
 - The data validation processes were discussed. It would be useful for the user community to have records on the modifications made in the data during the validation. Instead of deleting erroneous recordings some users would prefer retaining them in the archives with appropriate flagging.

- Availability of presentations
 - **ACTION ITEM FOR GFZ:** Ask everyone for permission and make meeting presentations available behind a link distributed to participants only.
- Next meeting:
 - Yama suggested that the next IMAGE meeting could be arranged in Uppsala, Sweden, in 2019, in the context of (before or after) the Nordic Comparison Workshop. The host could be SGU or IRF.

Related documents:

- Presentations given at the meeting
- Updated drafts of MoU & Statues