

IWG-SEM Fall Meeting Minutes

15-16 November 2017

Attendees

Andrea Ajmar (AA), Marco Broglia (MB), Stephen Clandillon (SC), Annalaura di Federico (AdF), Domenico Grandoni (DG), Tom Hamartha (TH), Christian Knopp (CK), Lucia Luzietti (LL), Françoise Villette (FV), Peter Zeil (PZ)

By video conference: Lorant Czarán, Fabian Selg, Ochi Shiro

The proceedings were opened with a passage of chair responsibilities from Peter Zeil to Stephen Clandillon. A big thank you to Peter Zeil for being Chair over the last year and more and for e-GEOS organising this IWG-SEM Fall 2017 Meeting.

Emergency Mapping Guidelines

It is suggested that the guidelines be divided into the main core document with thematic chapter will be dealt with in separate but associated documents. Of course there should be cross-referencing between the guidelines and the chapters.

The guidelines overview started with a clear observation that the first chapter needed to be completely revamped taking the Alerts, Early Warning System (EWS), Social Media and triggering phase (from the various mechanisms), and cooperation work (information sharing) into account.

FV suggested to publish versions of documents more rapidly instead of waiting for completed highly developed chapters/sub-sections and white papers. Start simple, publish and develop further versions would be the suggested workflow. There is general agreement to this.

Secondly, to focus minds FV suggests to target an event next year to present the new Guidelines and contents. SC suggested that this would be good but that we should also encourage our members to present these at different events around the world. Both were retained with SC also promising to look at Fabio's slides to see whether they need updating in the light of on-going work and results. The Civil Protection Forum was mentioned as was the CEOS WG's in that the EC will distribute/promote the documents and work when it is chair of CEOS next year. These points were met with general agreement.

A social media and crowd sourcing chapter(s) will be started this year.

Related to this and on-going document work SC has suggested that the IWG-SEM creates a Gmail account on which to store documents that are being edited. This was generally accepted. Of course the documents will be made editable to those who wish.

White paper on Alert & Early Warning

The discussion on the EWS and SEM White Paper was interesting. It was highlighted that there was a need for EWS to help trigger SEM mechanisms faster, at least the data acquisition phase. In the document it is stated that a risk culture is required in that forecasts can be wrong, events can fade out and change geo-location and the requested data might not fit with the changing impacts of a storm. The Charter has taken this on-board as have Copernicus EMS in terms of data acquisitions. The environment surrounding value adding also needs to take this into account. Preparation for maps might occur but no production might be needed or changing production might be requested. Flexibility is required.

Below is a list of points raised concerning the white paper:

- Within this discussion the time to trigger between an event happening and mechanism triggering was discussed. SC suggested that this be looked into in terms of timeliness and how mechanisms deal with this. This should be shortly highlighted as a need for improvement.
- FAM delivery and pertinence were discussed in light of quality / speed play-offs and event types.
- Time statistics in terms of product availability to download were also discussed with respect to FAM's and final versions.
- Add sub-section that summarises the use of and potential contribution of EWS mentioning the need for an alert/EWS dashboard. Request SEM users for contributions on how they access, visualise and use alerts and EWS. Mention validation aspects.
- Request a subsection/paragraph or 2 concerning Fabian's activation overview system concerning its actual characteristics and objectives (near and medium term).
- There should be references to existing Guideline chapters and new chapters (earthquakes, fire) from the White Paper on EWS and SEM and vice versa. Not much text but completely reworked. The Chair is to ensure this happens.
- The EW system EFAS' links to SEM are clear and are illustrated within the White Paper whereas the links from a fire EW system are not yet evident. The JRC are open to discuss this as they are thinking of linking EFFIS, a fire EW System, to SEM.
- Social Media should be briefly mentioned within the White Paper as a source to identify the location and impact of a disaster
- Figures in the White Paper should be made more generic and less Copernicus oriented, also requests are made to members from outside Europe to contribute theirs.
- The PDC and the USGS to be requested for review/contributions via Brenda Jones.
- The EC has given the IWG-SEM the right to extract information and analysis from the EMS Expert Report as certain parts of the analysis can be applied generically to SEM, not just Copernicus EMS.
- Review Asean document (AIT) to ensure cross references and request contributions from Asian partners (White paper and Guidelines).

Social Media for SEM

The social media presentation by DG was extremely interesting. It presented the objectives and the first results of a European Commission funded H2020 R&D project which is on-going. The main broad objective of this project is to bring social media content into the mapping environment with an aim down the road to create a Copernicus Service called Witness. Firstly, the focus is on obtaining and filtering social media information pertinent to rapid mapping activations to:

- Perhaps act as an early warning system with respect to the kinds of damage being witnessed on the ground. This can orientate the rapid mapping response in the choice of data,
- Fill-in the gap between an event happening and the availability of satellite data, enabling the production of maps and/or reports. The Haiti example was a good illustration where a drone derived film was transformed into a building damage assessment map,
- Validate what is seen in satellite images.

From this discussion it was gleaned that the project will produce interim reports end 2017 and that in early 2018 this material could be injected into the Guidelines (2-3 paragraphs), the EWS white paper and lead to the creation of a short chapter linked to the guidelines sometime in 2018. The social media topic was injected into all our conversations thereafter.

Social Media (an aside): Interestingly the DLR has created an institute of media science in Jena to study the topic of crowdsourcing and social media working on:

- o Data quality
- o Mining
- o Reliability

Positions (topics or jobs) are not yet fixed, it is a research institute, focussed on methods; not necessarily or only related to EO.

Improving metadata information sharing in SEM (this discussion was had within the White Paper discussion)

Much discussion was had on information sharing between mechanisms and the need to share textual and geographical information automatically. The guidelines section on how information is shared between mechanism on who is doing what and where will be re-worked taking into account information shared during this meeting on the Common alerting Protocol/EDXL developments in the Heimdall H2020 project lead by the DLR (mostly alert related), the GeoRSS work within the IWG-SEM specific sub WG (TH, FS, JK...), and FS's work on reading many simple xml based information sharing formats. It is said that perhaps RSS is meant for human and machine whilst the CAP is mostly between machine alerting.

A point was made by SC that instead of having each mechanism trigger AOIs exclusively that perhaps if a mechanism triggers over AOIs that it could share the priority AOIs with other mechanisms to speed up production. This is a lessons learnt from the positive optimisation collaboration over Dominica (UNOSAT Charter – Copernicus EMS). This would require a hopefully low overhead collaboration protocol(s) being set-up. This type of collaboration could be mentioned (if not already) in the Guidelines.

Sentinel data became a topic of conversation and its pertinence with respect to SEM. Basically the data is considered complementary to other agile missions in the provision of SEM value adding.

The data is hard to obtain quickly in NRT mode, otherwise being delivered within 24hours which is too long. The data needs to become part of a Satellite Resources Table within activations with guaranteed fast delivery times. One needs to trigger quickly and request NRT delivery very quickly to optimise the potential gain in using these data.

These data work well for longer lasting events (floods, fires) that effect large areas.

Notes on our lengthy and interesting metadata discussion:

- FS' aggregator prototype
 - He has developed the platform in a working group to
 - Create metadata in a common metadata structure
 - Edit
 - Validate
 - Share metadata
 - cooperation with JRC in developing the GeorSS
 - common metadata structure is needed for sharing
- not yet tried with Common Alerting Protocol (CAP) [xml based] but it will be done soon
 - there was a CAP implementation workshop in Rome in October
- validation module shows missing items in the data package
- SC suggests to add a column in the tool to display the data source [EMS; Charter, etc]
- Also processing methods or image used might be included but it depends on the scope of the tool
 - Ideally there should be a single place [might be GDACS or whatever] where one can find all has been done by the different players
- It would be useful to allow the editing of metadata such as adding a value in a certain field
- JRC highlights a couple of use case for which API [to interact server side] should be useful
- Next steps:
 - Have more templates
 - Definition of metadata types and relevant properties of the attributes
 - Creating an action item tool to be put in the IWG-SEM portal [?]
- Suggestions and questions:
 - Need to query metadata in different categories; for example to extract which images are available, who is doing maps, basically to separate the information in a single json file
 - Would possibly automated activation extent map [to display the overall data available and status of production] be generated by this tool?
 - Social media?
- Engage Charter as focal point for data sharing toward other initiatives
- #passion# of Fabian managers in task beyond the PhD period?
 - It is planned to publish an article
- HOT activation [areas, etc] can be retrieved in the metadata tool? Not at the moment ITHACA has good connection with HOT community, they are in any case part of this working group >>> action to establish a dialogue on this to ask to provide information

TOMAS HARMATHA RSS LEVEL2

- Timetable is 2 or 3 weeks after having agreed on the attributes for the level 2 GeoRSS attribute contents.
- Serves to share information about AOIs, imagery and maps
- RSS as it is an easy way to share content to be consumed in aggregator or so
- Maintain an updated list of address [if addresses change feeds are no longer reachable]
- Sub-working group to discuss on metadata was established and can be restored >>> Fabian

ACTION LIST

GUIDELINES

- Rework the structure >>> Stephen
 - Light document with general issues and then annexes for specific topics including for examples the EW paper: consider a wiki like approach
- EW should be included anyway
- First pages for earthquake and fire should be out in January
- Include description of different mechanisms for triggering
- Mention the social media with 2 paragraphs using the outcomes from h2020 annual review

WITH PAPER EW

- First issue out in January
- Contact Brenda Jones / Asian colleagues to get inputs

EVENTS

- 5 and 6 march the civil protection forum will take place in Bruxelles; the guidelines can be presented there
- Send the presentation from the IWGS >>> Fabio
- July 2018 San Diego

METADATA

- December teleconference with the metadata working group
- Create a Google/Gmail account to have Drive space
- Finalize the list of level 2 attributes
- Finalize the structure/content of the webpage
 - set up a google doc and then set up a videoconference in December

- Stefan 'something' <contact from Peter> is offering to work on the design, to be understood if only graphic design or also implementation; contact shall be established with Tomas as the JRC will host the website

OTHER

- Suggestions to improve the cooperation between EFFIS and mapping component
 - Using EFFIS to trigger the mapping
 - Using EFFIS to avoid RM activations