IWG-SEM Meeting Minutes

DLR, Oberpfaffenhofen, Munich, Germany

20-21/05/2014

List of Attendees

	First Name	Last Name	Organization	Notes
1	Stephen	Clandillon	SERTIT	
2	Fabio	Giulio Tonolo	ITHACA	
3	Antje	Hecheltjen	UNOOSA/UN-SPIDER	
4	Brenda	Jones	USGS	Remotely – Afternoon sessions
5	Tobias	Schneiderhan	DLR-ZKI	
6	Francoise	Villette	EC-DG ENTR	
7	Stefan	Voigt	DLR-ZKI	
8	Hendrik	Zwenzner	DLR-ZKI	

Main Outcomes

The meeting opens with a welcome address from Guenter Strunz, head of the Geo-Risks and Civil Security department of the DLR Earth Observation Center which kindly hosts the IWG-SEM meeting. IWG-SEM chairman thanks DLR for their hospitality and the logistic organization.

The main topics of the meeting are introduced, specifically:

- an update on IWG-SEM activities (new members, web-site) and related discussion, including review of the group vision and mission;

- Emergency Mapping Guidelines: event specific chapter definition and drafting approach;

- current status and way forward of the proposed technical solution to broadcast data/metadata of ongoing/past emergency activations (GeoRSS);

- Definition of IWG-SEM future activities and prioritarization;

- chairmanship handover.

IWG-SEM update and related discussion

New Members

The new members that joined IWG-SEM since the last meeting in Washington DC are listed, specifically: HHI-Signal Programme and NDRCC, which both preliminarily confirmed to fulfill the agreed IWG-SEM membership policy. Due to an internal handover, JAXA's contact point for IWG-SEM is now changed. It is highlighted that most of the members are currently keeping an observational role, with a limited active participation to the monthly conference calls and to the ongoing group activities (e.g. emergency mapping guidelines drafting).

Outreach activities

It is discussed and agreed to strengthen outreach activities, with two main goals: to approach potential new members for the group which are deemed relevant to achieve the vision and mission (with a focus on high-level organizations such as UN-OCHA or EARSeL and for covering/reaching countries and regions which are not yet represented in the IWG-SEM) and to better inform the emergency mapping community about IWG-SEM activities. These goals will be initially achieved exploiting current members contacts/mailing lists, e.g. (but not limited to) the UN-SPIDER Regional Support Offices, the Copernicus Committee and the Copernicus User Forum. The importance of disseminating the group's activities and achievements (e.g. emergency mapping guideline v1.0) through the communication channels of the IWG-SEM members (UN-SPIDER news on the guidelines was indeed a good example) is stressed once again.

The relevance to approach the volunteer mapping/crowd sourcing community through outreach activities is discussed and agreed. Entities which represents relevant initiatives (e.g. HOT-OSM, already contacted as suggested during a recent teleconference) are identified.

It is suggested to prepare standard information material (e.g. PDF document with informative slides) which can be used for the outreach activities (Action A01 - ITHACA).

Membership policy

The discussion on the outreach activities leads to the confirmation of the IWG-SEM membership policy. Although the importance of private companies working in the emergency mapping domain, is highlighted it deemed relevant to still keep the IWG-SEM basically as a no-profit group. As currently stated in the membership policy, it is stressed again, that associations representing a group of commercial companies may become IWG-SEM members. With the goal to receive inputs from the private sector it is therefore agreed to directly contact EARSC and inviting them to be part of IWG-SEM and asking to identify a representative with the adequate expertise to actively participate to the group activities (Action A02 – DLR + SERTIT).

Lastly, it is agreed that if individuals, acting as representatives of an organization to IWG-SEM, move to other organizations and are still willing to cooperate with IWG-SEM (in view of their expertise in the emergency mapping domain) can be kept in the mailing list and remain active.

Vision and mission

The vision and mission of the group are reviewed and commented. It is agreed that the vision statement clearly describes the current vision of IWG-SEM. As a slight correction/sharpening it is agreed to rephrase the vision as follows and by removing repetitions as well as avoiding the world "coordination". This is also done to be consistent with the approach used for the shaping the guidelines:

> "*Establish best practices between operational satellite-based emergency mapping programs, stimulate communication and collaboration, support the definition of emergency mapping guidelines, strengthen the sharing of expertise and capacities and review relevant technical standards as well as protocols. Work with the appropriate organizations to define professional standards for emergency mapping*"

The web-site content will therefore be updated accordingly (Action A03 - DLR)

The discussion on the group vision and mission leads to reflecting the role that the IWG-SEM may have during major emergencies. The sentence which addresses this topic in section 1.2 of the Emergency Mapping Guidelines v1.0 is reviewed and it is proposed to <u>not</u> exclude a-priori a more active involvement of IWG-SEM, especially in facilitating the cooperation among involved SEM organization during major emergencies. It is therefore agreed to rephrase the sentence as follow (Action A04 – DLR):

> "*Whereas the member organizations may have a direct role in response, the IWG-SEM does not have nor aspire to have any active role in emergency mapping production. However, it may support cooperation and/or facilitate the coordination during events and may capture "lessons learned" for their integration into future responses*"

 A continuation of the discussion is anyway required to better define the procedures which may be adopted by the IWG-SEM in major disaster cases: Is the chairperson in charge of initiating or leading cooperation efforts among group members,? Should the members alone be responsible for cooperation? Are definitions or rules necessary to identify emergencies where an active IWG-SEM role could be beneficial for global cooperation?.

It is highlighted that the ongoing IWG-SEM effort in developing a standard for broadcasting information on emergency mapping activities (refer to "*Current status and way forward of the proposed technical solution to broadcast data/ metadata of ongoing/past emergency activations (GeoRSS)*" section of the minutes) is a technical pre-requisite to ease communication and to support an active cooperation of IWG-SEM members and other actors. While technical solutions are considered important it is still expected that person to person communication will most probably still be required and fruitful.

IWG-SEM members are encouraged to specifically review the aforementioned proposal of amendments and to report to the IWG-SEM chairman any potential comment before the next teleconference scheduled for 24/06/2014.

Institutionalization

It is discussed if a more regulated institutionalization of the working group could be beneficial for the group, e.g. to support fund-raising activities to allow members to participate to meetings and to carry out group relevant activities. It is agreed that an institutionalization may add rigidity to the current flexible procedures and that the group should thus not pursue such efforts. It is agreed to try to adopt alternative strategies for encouraging a more vivid participation of the members in group's activities, e.g.:

- to approach relevant high level experts/group in the emergency management and SEM domain and encourage them make recommendation on key topics to be addressed by IWG-SEM activities; such high-level agenda setting is expected to help raising the profile and activity level within the group.

- to identify major international events to which IWG-SEM members are planning to participate (on-line polls or a live document could be tools for this) and to organize accordingly a back-to-back IWG-SEM meeting, in particular to facilitate the participation of participants beyond Europe. Charter meetings and the 3rd UN-SPIDER International Conference on space-based Technologies for Disaster Management in Beijing are mentioned as examples of possible events (Action A05 - DLR)

IWG-SEM website

It is remarked that the website is currently hosted under the GDACS platform and directly edited in terms of content updating by EC-JRC. After a detailed discussion, considering that the hosting platform should be easily accessible/usable and "neutral", it is agreed to continue using the current approach unless technical limitations will be faced. It has to be verified with JRC (Action A06 - DLR) if the current hosting solution is flexible enough to grant external editing credentials (e.g. to the IWG-SEM chairperson) for updating page content content and uploading relevant material as well as for linking external material relevant for IWG-SEM (e.g. to cross-link examples of implementation of the proposed GeoRSS feeds). In parallel to the GDACS based IWG-SEM web page other relevant platforms will be encouraged to reference and host IWG-SEM relevant information as well as implementations of technical communication means proposed by the group such as the GeoRSS feed aggregator. The UN-SPIDER and Copernicus portals are identified as suitable complementary/backup portals . USGS volunteered also to explore potential hosting capacities on their portal as well. It is suggested explore if a web-site mirroring (possibly capable to automatically ingest updates of the master node or not) could be helpful for further spreading of the the IWG-SEM web content/activities.

Current status and way forward of the proposed for technical solutions to broadcast data/ metadata about ongoing/past emergency activations (GeoRSS)

It is highlighted that the Technical Discussion Group which was set-up to address this topic is currently largely inactive, although the group moderator (EC-JRC) provided a detailed document on the current testing activities carried out in the framework of the Copernicus initiative, including a first draft version of a GeoRSS feed aggregator. It is confirmed that the technical discussion group was set in place to identify suitable technical solutions to semi-automatically broadcast information related to emergency mapping activities. It is confirmed that this aim has a very high priority for the IWG-SEM as a whole and the discussions within the technical group should be stimulated and revitalized again to achieve a consensus on the solution to be adopted operationally (Action A07 – EC-JRC + DLR).

The content/format of the metadata to be broadcasted by a SEM specific GeoRSS System was sorely discussed. The following proposal (to be shared with the GeoRSS Technical discussion group. Action A08 - DLR) is agreed:

Field name	Field type	Mandatory/Optional
Textual information		
Type of the disaster	Pre-defined list (natural disaster types as per UN-SPIDER space application matrix): • Floods • Earthquake • Pollution • Severe Storm • Fire • Tsunami • Volcano • Mass-movement • Insects • Epidemic • Temperature • Drought • Industrial • Humanitarian crisis • Other	Mandatory
Description of the event	Free text	Optional
Date/Time of the disaster	Date	Mandatory
Location of the disaster	Free text	Mandatory
Type of analysis (pre-defined list)	Pre-defined tags: • Reference/Pre-event • Disaster Extent/Delineation/Affected areas • Impact/Damage grading	Mandatory
Monitoring	Pre-defined tags: • Yes • No	Optional
Analysis description	Free text	Optional
Targeted mapping scale	Pre-define tags: • Fine/Detail (≤ 1:25k) • Medium (>1:25 AND ≤ 100k) • Coarse/Overview (> 100k)	Mandatory
Main Satellite data type foreseen	Pre-defined tags: • Optical • Radar • N/A	Mandatory
Glide Number	Text	Optional
Emergency mapping mechanism/context within which mapping is carried out	Free text	Mandatory
End user/Requestor/Requesting agency	Free text	Mandatory
Contact point	Free text (e-mail address)	Optional
Geographical content		
Area of Interest	Polygon feature	Mandatory

Emergency Mapping Guidelines

It is highlighted that the Emergency Mapping Guideline document is intended as a working document which should be regularly updated when a significant number of relevant editings (with respect to the current version $V_{N.X}$) has been accumulated (marking the revised document as $V_{N.X+1}$) or when major editings (e.g. new chapters) are available (marking the revised document as $V_{N+1.0}$). It is agreed that minor editings, not substantially changing the content/meaning of the edited parts, can be directly handled by the IWG-SEM chairperson.

Event-specific sections

As highlighted in the document introduction and as agreed in previous IWG-SEM meetings, it is anticipated that event-specific chapters will be integrated in the emergency mapping guidelines, with a priority given on flood and earthquake events. According to the experience carried out in drafting the guideline document during the last year, it is highlighted that a participative approach (many entities working on the same section) may be difficult to be streamlined. It is therefore agreed, as an alternative approach, to identify one or more individual experts (Action A09 - DLR) asking for their availability to lead the drafting of a first version of the event specific chapters. The draft version will be then revised, commented and edited by the whole group. Both, EC DG-ENTR and USGS volunteer to contact individuals for the flood chapter and earthquake chapter respectively. For EC DG ENTR the SEM expert Peter Zeil confirmed his willingness to lead the drafting of the flood chapter. (Action A10 – DG-ENTR+USGS+DLR).

As far as the structure of the event-specific section is concerned, it is agreed to propose the following structure (based on a revision of a previous proposal) and to leave the general guidelines on reference datasets in the section 2.7.2 and the guidelines of file nomenclature of crisis layer in section 2.7.1 (Action A11 - SERTIT). The suggested length limit of the event-specific section should be approximately 5 pages (adopting the current guideline styling):

3   Event-Specific Mapping Guidelines
3.1   Flood Events (or events causing floods like cyclones, storms, etc)
3.1.1   Event definition
3.1.2   Minimum information content
           The minimum crisis information which should be present in emergency mapping products is described according to the agreed type of emergency mapping product categories, i.e.:
           - *Disaster Extent/Delineation/Affected areas*
           - *Impact/Damage grading*
3.1.2.1   Potential additional information
3.1.2.2   Recommended visualization of layers (if any)
           Just general guidelines should be provided, as suggested use of transparency, outlined vs filled symbols, etc...
3.1.3   Crisis/Flood Information Extraction
           It is highlighted that this section is addressed mainly to the SEM community, therefore only a commented list of the most commonly used technical methodologies adopted to extract the post-event information should be provided, according to the adopted input dataset. A detailed description is not required since the guidelines are not intended to serve as an "emergency mapping handbook", which would lead to a very long document. The expected thematic accuracy of thematic layers/map content should be addressed. A flow-chart/decision-tree could be helpful to keep the sub-section concise and easy to read.

It is also proposed, if deemed feasible by the leading contributing entity, to aggregate the aforementioned structure/information in a table (e.g. like a portfolio) with is structure being re-used for the sections focused on other disaster types (e.g. earthquake etc.). Furthermore it is suggested to limit the section numbering to the third level.

It is agreed that, unless a major delay in delivering a first draft of the flood section occurs, it would be reasonable to wait for a consolidated section structure before starting working on earthquake events.

Integration/New sections proposal

It is proposed to integrate the general part of the guidelines with a sub-section focused on the integration/exploitation of early warning systems into emergency mapping procedures, including pre-alerts and auto-activation concepts (related to Action A14).

Further to this, guidelines on how to streamline a request for emergency mapping services could be integrated (refer to "IWG-SEM future activities" n.3).

IWG-SEM future activities

The list of potential future activities to be undertaken by the group in the next year(s) - the ones proposed during the Washington meeting as well as additional ones proposed during the Obepfaffenhofen meeting) is discussed and prioritized (High, Moderate, Low priority).
It is stressed again that the IWG-SEM high priority in the short term period is to pursue finalizing the ongoing activities (i.e. Emergency Mapping Guidelines and GeoRSS feeds).

1) SEM community analysis at a global level: inclease understanding on main SEM playes/actors at national/regional scale globally. The outcomes could be useful to better tailor the IWG-SEM outreach activities. The possibility to have an intern working on this topic will be investigated (Action A12 - UN-SPIDER). Moderate

2) Quality assurance: it is agreed that the previously proposed next steps of the quality assurance approach - although of high interest - imply a highly demanding role for IWG-SEM and a consolidated framework, which seems to be unrealistic to achieve for the immediate future. Low

3) Sharing of users feedback/lesson learned and sharing of experience in requesting an emergency mapping service (including Service Request Form and Feedback form templates analysis). The outcomes of these activities will be exploited to feed into/fine-tune the emergency mapping guidelines (or even be the subject of a new section if deemed relevant). It is highlighted that this activity will probably require a preliminary task aimed at setting-up an agreement/framework between the main emergency mapping initiatives which will be the basis for information sharing. The initial task would be to collect the analysis of the received feedback which is generally already carried out by each initiative, and not to collect the filled end-user forms. The goal would be to identify best practices and to optimize the template of the forms, improving the overall emergency mapping process. This could be handled through dedicated conference calls (or a technical discussion group, which require a moderator to be identified) or setting-up dedicated session during next meetings. Moderate

4) Development of a standard mapping symbology: this activity is deemed as not feasible at global scale, unless the aim is to provide general guidelines already covered in section 2.6.1 as well as in the event-specific chapters. Moderate

5) Development of a file naming convention or standard. Already covered in section 2.7.1 of the guidelines which will be fine-tuned (related to Action A11). Moderate

6) Explore technical expansion for the IWG-SEM web representation/presence. Refer to the "Web-Site" part of the minutes (related to Action A06). High

7) Aggregation of feeds broadcasting data/metadata on emergency mapping activities: The creation of web pages aggregating the feeds based on the technical solution currently addressed by the IWG-SEM technical discussion group moderated by EC-JRC (see relevant part of the minutes) should be encurraged. Ad-hoc code could be potentially developed and shared inside the technical discussion group. Credits to IWG-SEM should be inserted in the aggregator pages that should be cross-linked in the IWG-SEM website. High

8) Encourage IWG-SEM members in being more active and increase the interaction and the sharing of feedback/best-practices inside the group. To achieve this goal it is also proposed to review the current "*modus operandi*" of the group, and it is agreed to keep the current monthly teleconference schedule (testing different technical solution if useful) and to have two meetings per year (one meeting could be in form of a workshop dedicated – partly or all – to one of the topic of this list), possibly back-to-back to other relevant/global events (refer to the "Institutionalization" part of the minutes and to Action A05). High

9) An interesting and useful activity is an operational testing/joint exercise on cooperation during emergency mapping activities, but not in the short-term period. Low

10) Increase the outreach activities, for keeping alive the IWG-SEM community, with two specific goals: reasonably expand the membership and disseminate the group mission and activities preparing common promotional material (refer to "Outreach activities" part of the minutes and to Action A01). High

11) Integration/exploitation of early warning systems into emergency mapping procedures, including pre-alerts and auto-activation concepts. The topic could be addressed in a dedicated session during next IWG-SEM meetings (Action A13 – DLR), and the outcomes could potentially feed in new sub-section of the guidelines. The activity will be led by DG-ENTR (Action A14 – DG-ENTR). It is agreed to draft a white paper addressing this topic (Action A15 – SERTIT). Moderate

12) Invite a representative of the volunteer mapping community to the next meeting with the goal to address the volunteer mapping contribution to emergency mapping for a joint reflection, which is deemed mutually beneficial (Action A16 – DLR). As for the activity 11, the outcomes of the discussion could potentially be included in the guidelines as well as described in a white paper. Moderate

13) Emergency mapping activities and sensitivity-related issues. To share experiences on how these issues are managed in other emergency mapping mechanisms. The topic can be inserted in one of the next meeting agenda (Action A17 – DLR). Moderate

Activities flagged as "Moderate" or "High" without defined actions will be further discussed during the next teleconference(s) to verify the availability of other IWG-SEM members to contribute.

Chairmanship Handover
ITHACA chairmanship period, which started in April 2013, is now ended, being the IWG-SEM chairmanship a voluntary function with a 12 months rotation period. After a brief discussion, during which both UN-SPIDER and SERTIT mentioned they considered this option but not for the current year, it is unanimously agreed that the IWG-SEM chairmanship role for the next period will be undertaken by DLR. The group cordially thanks ITACA for the excellent work during the past year.

Action list

The following actions have been identified (the responsible organizations are listed in brackets). Contribution from other IWG-SEM members are obviously welcome.

- Action A01 - To prepare standard information material (e.g. PDF document with informative slides (ITHACA)

- Action A02 - To contact EARSC inviting them to be part of IWG-SEM, identifying a representative with the adequate expertise to actively participate to the group activities (DLR+SERTIT)

- Action A03 - To update the web-site content "Mission statement" (DLR)

- Action A04 – To update section 1.2 of the Emergency Mapping Guidelines (DLR)

- Action A05 - To identify major events to which IWG-SEM members are planning to participate, with the goal to organize the IWG-SEM meeting accordingly as a back-to-back meeting (DLR)

- Action A06 - To verify with EC-JRC the flexibility of the current GDACS hosting solution

- Action A07 - To stimulate the Technical Discussion Group on GeoRSS (EC-JRC + DLR)

- Action A08 - To share the GeoRSS minimum metadata content proposal with the GeoRSS Technical discussion group moderator (DLR)

- Action A09 – To verify if some IWG-SEM member is available to draft the event specific sections (DLR)

- Action A10 – To contact expert for checking their availability to draft a first version of the flood-related section of the guidelines (Action 8 – DG-ENTR+USGS+DLR).

- Action A11 – To integrate guidelines on nomenclature of crisis layer in section 2.7.1 (SERTIT)

- Action A12 – To investigate the possibility to have an intern working on Future Activity n. 1 (UN-SPIDER)

- Action A13 and A17 – To insert the proposed topics in the agenda of future meeting(s) (DLR)

- Action A14 – To lead the discussion related to the integration of Early Warning Systems in emergency mapping procedures (DG-ENTR)

- Action A15 – To draft a white paper on integration/exploitation of early warning systems into emergency mapping procedures, including pre-alerts and auto-activation concepts. (SERTIT)

- Action A16 – To invite a representative from the volunteer mapping community to the next meeting (DLR)

IWG-SEM meeting on 20-21 May 2014 at DLR – Attendees picture