International Working Group on Satellite-based Emergency Mapping

Minutes of the 2015 Autumn meeting held in Vienna, 9-10 November, hosted by UNOOSA

Contents

Participants

	Family Name	Given Name	Organization	Presence	Day 1	Day2
1	Clandillon (SC)	Stephen	SERTIT	web	2pm	n/a
2	Criloux	Guillaume	UN Geospatial Information Section	web	3.40pm	n/a
3	Czaran (LCz)	Lorant	UNOOSA/UN-SPIDER	in person	full	full
4	Giradot (BG)	Blake	HOT OSM	web	2pm	11.15 AM
5	Giulio-Tonolo (FGT)	Fabio	ITHACA	in person	full	full
6	Hecheltjen (AH)	Antje	UNOOSA/UN-SPIDER	web	full	full
7	Jones	Brenda	USGS	web	2.40pm	n/a
8	Jones (GJ)	Gregg	Pacific Disaster Center	web	2pm	n/a
9	Kucera (JK)	Jan	EU JRC	in person	11.15am	full
10	Lyons JL)	Joshua	Human Rights Watch	in person	n/a	1.45 PM
11	Selg (FS)	Fabian	University of Bonn	in person	full	full
12	Voigt (SV)	Stefan	DLR	in person	full	full
13	Wirkus (LW)	Lars	BICC	web	2pm	10.30 AM
14	Guha	Debarati	CRED (EMDAT)	in person	n/a	11.45 AM

Review of Rolling Action List (Day 1)

Action List general comments

- Improvements
  - Prioritize and focus on few actions that have persons assigned to it. Suggestion:
    - Strategic goals and activities
    - Concrete action to meet goals
    - Other ideas to be addressed later
  - Reorder and keep items in one single list.
  - Add deadlines only to the high and moderate priority actions, not to the low.
  - Categorize into main strategic goals.
  - FS: Proposes collaborative tool to assign tasks (e.g. Trello)
    - AH: Login is an obstacle for people. LCz: Keep it simple.
- **Action @AH**: Contact SERTIT to check whether they are still working on the actions.
- **Action @LCz/AH**: Send pdf copy of action list to mailing list after the update of the rolling google doc list, assigning strategic goals to actions, and any additional ideas.

List Items discussed in detail:

- 03) Feedback
  - Make high priority of sharing of user feedback after major events, in emergency situations, during joint mapping activities, ad hoc, web & telecons.

- 04) Mapping Symbology
  - Link everything related to metadata to this activity.

- 07) Feed aggregator
  - JK: Not many used it (in terms of sending out feeds: ZKI, Copernicus, Charter, SERTIT), others, e.g. H.O.T. What is still missing is the feed that can be subscribed to, so that people have to subscribe to just one.
  - JK: JRC can add any functionalities as needed.
  - JK: 90% of Level 2 is done. (SV: We still need the definition of Level 2 on the web.)
  - JK: There is no progress on the online RSS generator. It is a bigger task, contributions needed.
  - **Action @Chair**: Remind members to serve their GeoRSS feeds out, e.g. send around the link regularly, and also encourage HOT OSM to use it.
  - **Action @JK**: Find out whether it is possible to create an iframe or similar in order to migrate the aggregator in the html on other websites (such as the IWG-SEM website).
  - **Action @AH**: Post link to aggregator on IWG-SEM website.

- 09) Joint exercise
  - SV: The application of the guidelines should be better tested, especially during non-emergency times. Possible naming: Live example; Real case example; Offline example.
  - ITHACA and HOT OSM had discussions and did some testing already. Proposal focuses on reference data (e.g. when does it arrive, why does it arrive late).
  - SV: There is a chance to bring the joint damage tagging into an H2020 call on the evolution of COPERNICUS.
  - FGT: In order to better reach volunteers a real example is probably needed.

- 10) Outreach
  - **Action @FGT**: Prepare a document (2 pages) and a presentation (no deadline).
  - **Action @all**: Exchange all powerpoint presentations. Input to be sent to Fabio with copy to LCz.
  - **Action @Chair:** Follow up with EARSC; Geoff Sawyer was already contacted by SV. .

- 11) EWS
  - Idea stems from F. Villette, who sees EWS as triggers for IWG-SEM.
  - JK: the only EWS that you can consider mature enough is in flood situations.
  - FGT: Social media will be nowcasting and not forecasting.
  - Example website mentioned: RSOE EDIS Emergency and Disaster Information Service (maintained by Hungarian radio amateurs originally). Similar to the PDC product. (See http://hisz.rsoe.hu/alertmap/index2.php)
  - **Action @AH**:Check with SERTIT whether they will still take the action item on.

- 12) VGI:
  - SV: Fusing the global results of damage tagging in OSM will be a big move forward, and is the best approach.
  - FGT: Use OSM as a working platform, e.g. for sharing results, GeoRSS.

- 14) Proposed revisions document
  - Level 2: We have a draft of metadata already available

- 15) **Action @Chair**: Merge both action items on geoRSS (see #7).

Session I: Review of membership policy (Day 1)

Private sector membership discussion

Concerns

- With too many commercial partners the Working Group and membership might be difficult to steer. Therefore it might be preferred to rather have regional organizations as EARSC representing groups of private entities.
- Fundraising would be easier without private sector members.
- Other members might leave the Working Group if common ground is not found. Finding this common ground is crucial. There is a need to also revise decision making and voting procedures.

Benefits

- Private partners bring a lot of value. Doing research, helping understanding needs on the ground, data provision is all easier through collaboration with private partners. BG has stated he experienced that and is therefore in favor of private sector membership.
- LCz and FGT remind the group of the potential benefits already discussed at the Spring meeting (e.g. partnership with DigitalGlobe).
- FGT has no issues in opening the membership to private entities. But it should not only be about exploiting that membership when we need them, but also having them onboard to work together in a sustained way and continuously.
- It is important that the private sector also hears what we have to say, our requirements. (LCz)
- FGT: Adopting standards that we are proposing will make our life easier in collaboration with all relevant parties

Conclusion

- Private sector participants are welcome as long as they actively contribute and invariably adhere to the non-profit spirit of the Working Group ('foundation principles'). We need to make sure there is no misuse of the membership. (SV) AH: Keep a yearly evaluation but also include sentence referring to non-profit spirit of the Working Group. LCz: We need clear criteria for membership that we can use for the yearly evaluation. FGT: Those criteria should be easy to track for the Chair. SV: 3-5 criteria should be proposed, so that we all can adhere to those.

Membership criteria (Proposal)

Active membership will be revised at the biannual meetings based on the below criteria 5 and 6. First review will be done in Autumn 2016 meeting. Those not meeting the below criteria for active membership will be moved to "Observer" status. After a longer period of inactivity, Observers can also be excluded from the Working Group.

Membership criteria
1. Adherence to non-profit and open collaborative spirit, as well as to the fundamental principles defined in the Guidelines (current reference page nr. 5, draft version 1.0)
2. Entity should be actively involved in emergency mapping or in related data provision or have a strong interest in these topics, and should embrace the vision and mission of the IWG-SEM
3. Standards and recommendations are accepted, implemented or further promoted by the entity when and where appropriate
4. Entity keeps abreast of the Working Group's efforts and decisions

5. In addition, participating in one third of the telecons per year is required
6. Also, a minimum of one participation in biannual meetings (physically or web-based) per year is expected.

Observers: All members not satisfying the above criteria 5 and 6 at a regular review will be considered Observers until further notice. New entities are also welcome to participate initially as observers.

Issues

- What number of participants do we expect?
- Is the non-profit spirit stated in the minutes?
- LCz: posing a question to the participants, on what kind of sharing would membership expect from for example DigitalGlobe as a private sector member?
  - SC: DG should give feedback to the guidelines They should be full and active members and not only observing.
  - SC: Would not share as much anymore if there is private sector participation. Depending how much they share (information, data). If they share as well, others would also share.
- JK: It is not only private companies but also other organizations that are sitting back and not actively participating. Would be great if those all could adopt our metadata standards for example.
- AH: We can divide the Working Group into supporting members and active members. But we need to have consequences – what will that mean, e.g. voting options.
  - LCz: We could also exclude inactive members from the website list.

- ○ SV: Observer status that we had discussed before should apply in such cases.
- BG: It could be a process for private entities to join. First, they can join the meetings and teleconferences, and then in a second phase when we see how they work, we can invite them officially to join as members.
- AH/FGT: We might lose many members when applying these criteria. Revised decision making and voting procedures are needed, clearly.

Decisions Making & voting procedures discussion (Day 1&2)

Opinions

- LCz: We are currently a Working Group of about 120 individuals, yet only about 20-30 are active participants in the discussions. Do we need an electronic voting mechanism?
- On Consensus option:
  - ○ SV is optimistic about consensus. This group is totally voluntary and geared to collaboration. Whenever we will vote 51% for something, we will lose the other 49%. So far we managed to get along with a more consensus-based decision making. I value this cooperative spirit. Once a meeting has more than x persons, it can take decisions.
  - ○ BG: Consensus does not have to be 100%. SC: When there is ¾ consensus there is no point in holding up things.
  - ○ SC: 75% of the people participating in a specific teleconference.
  - ○ SV: favor 2/3 majority of at least 10 persons (i.e. 7 persons)
  - ○ FGT: Limit the voting to official teleconferences/meetings. Also to make life easier for the Chair. Members who would want to vote should participate in the meetings.
  - ○ LCz: Sometimes people cannot participate in teleconferences. Electronic voting gives them the possibility to vote during e.g. a three days period. This is also good practice in OGC and other larger Working Groups.
  - ○ Alternative: The right to delegate votes to members participating in a meeting/teleconference.
- Registering for votes
  - ○ JK: When it comes to decisions, we can also ask people to register for voting.
  - ○ LCz: Registering for the vote is a good mechanism. E.g. guidelines are ready – who would like to register for a vote on it. First there is a need to find out who wants to vote and is interested in the topic, and then collecting the votes could be next.
- Votes per Organization
  - ○ SV: There might be multiple votes from multiple members from one institution.
  - ○ LCz: We would trust that institutions vote with one voice.
  - ○ FGT: Limit voting to meetings.
- Adoption of guidelines and voting during telecons

○ AH: Could have adoption of minutes again on the agenda for teleconferences. This way people have twice the possibility to voice their opinion. Then voting might not be necessary.

○ LCz: Adoption of minutes is not time consuming. We can introduce this again.

○ Major things (like the guidelines, new standards, metadata, criteria for new membership, revoking membership status etc.) should be voted for with the 75% majority.

Next steps

● SV: Proposes to structure the voting proposals, put in minutes, have decision/confirmation in the next monthly teleconference, put immediately on the web and then freeze it.

Voting procedure (Proposal)

The work of the IWG-SEM is generally governed by consensus-based decision making. Decisions informed through meeting minutes are considered adopted if no objection is registered or no members request a voting on that specific issue in the given time frame, typically **one to two weeks**.

If in a specific situation, i.e. if a long-lasting **impact is expected**, there is the option that allows a vote to be requested by the Chair or a member, and in such cases a voting procedure is implemented.

Voting is done at monthly telecons or in face-to-face (biannual) meetings.

The voting has to be announced at least seven working days (generally between two telecons) before the meeting via the members mailing list.

Every active member organisation (not individual) has one vote.

If an active member organisation cannot participate in the vote, they can delegate their vote to another active member organisation, by e-mail to the Chair.

The number of votes for adopting a certain decision is 2/3 of the votes cast. This includes members present and any proxy votes.

Ad hoc voting on emerging issues during a meeting can be decided at that time by the Chair, on issues specifically related to that meeting and with no long-lasting effects on the Working Group.

Session II: Review of Guidelines v2.0 (Day 1)

Review of final draft of SEM Guidelines v2.0

The Chair has proposed the participants to take another look at the latest version of the Guidelines document, including a number of comments received.

- Listing of data sources
  - **Action @Chair**: Add any relevant data sources to version 2.0, then proceed as agreed in Bonn meeting in May 2015.
  - SV: Place for data input: reference data. Put reference data as section 2.9 – reference information for SEM. Similar for hazard specific data.
  - FGT: It was already suggested in some minutes on where to insert such details. See 2.5.1 reference/pre-event map. JK: 2.4.2 Sharing of reference data.

- **Action @Chair**: Edit headings (use capital letters and be consistent)

- Open data sources
  - SV: Reference to open data is needed. Any proprietary information (e.g. Google map) should not be included in the guidelines.
  - Rather use OSM or other open data sources like Landsat, flood-specific data, SRTM (highlight availability of the 30m data now), population data like Landscan (registration required) or Worldpop.
  - BG: Suggest open data licences and best practices in the guidelines. Remind people to seriously look into open data licence for reference data (what can be shared under which type of licence), preventing 'sharing under the table'.

- UN-SPIDER Knowledge Portal and Annex
  - FGT/SC/LCz/AH: Make clear reference to the UN-SPIDER Knowledge Portal. Add an annex (but prevent a larger delay of the publication) and link to collections like the Knowledge Portal for data sources (http://www.un-spider.org/links-and-resources/data-sources), data compilations (http://www.un-spider.org/links-and-resources/data-sources/data), new

applications, e.g. on emergency response, digital elevation models (DEMs), population and settlement data (http://www.un-spider.org/links-and-resources/daotm).

- GeoRSS and satellite footprints
    - JK: In the beginning the group concentrated on map production. It focused on the AOI. But now if we can get data providers on board, we should also think of the metadata standards for satellite image providers.
    - BG: Ideally, a GeoRSS tool is going to show footprints, as discussed.
    - LCz: refers to comment KS3 (Keiko Saito) on data acquisition and satellite footprints. Encourage the image providers to feed the information as GeoRSS feeds with our standards.

- FGT: **Action @Chair**: Google Maps is not allowing GeoRSS feeds anymore so we should eliminate this example in the Guidelines document.
- Part of the GeoRSS discussion: We should find an effective, "quick and dirty" solution (alternative) to see the feeds in a browser.
- LCz: addresses comment from KS on GDACS
- JK: They are not maintaining the tool to share information during the initial phase of an activation.

Review of Earthquake Chapter status

- Use results and agreements from 2015 Bonn Spring meeting
    - AH: Base the structure on the Mind Map and key elements as agreed in Bonn minutes (p.8 of the minutes).

- Damage assessment grades
    - FGT: Make maps comparable. Have a section to define standards for the scale of damage assessment (but prevent larger delay of publication).
    - This issue should be addressed in a monthly teleconference and/or in a dedicated session. Should be carefully defined, meaningful and consistent.
    - LCz: Involve HOT OSM in this discussion. SC is interested in contributing, as well as GJ from PDC.

- ○ JK: Agrees this deserves a discussion. It might be the topic of the joint exercise: To see how objective our proposal is, as grading is rather subjective. For the guidelines mention the state of the art and suggest solutions.

- Lead and task assignment
  - ○ UN-SPIDER volunteered to take the lead but needs the active input of the rest of the group that offered support. We will get started in a collaborative way with a shared online document. The time to completion depends on everybody's contribution, not on one person only. It is important to identify a group of 7-8 people actively contributing, as agreed in Bonn.

Session III: Social media (Day 2)

- Background
  - ○ LCz: Past suggestions (F. Villette, FV) did not insist on crowdsourcing in general (not OSM and open data) but on the use of Social Media for identifying the onset of disasters. FV proposed to invite experts (such as Patrick Meyer or FLOODIS representatives). The discussion will be postponed to another meeting (e.g. Spring 2016 meeting).
  - ○ FV proposed an already funded EU project (FLOODIS – integrating social media in COPERNICUS rapid mapping).

- Agreement is that the Working Group should focus on core business but remain open for future involvement
  - ○ SV/JK: Bring Guidelines and collaborative mapping together. If we achieve this we will have done a great job. Crowdsourcing, as it is a bit off-topic, should go on the "future ideas" list.
  - ○ LCz: But, if FV is willing to take the lead, we can invite Patrick Meier or others and give them a slot in a future meeting to discuss relevance and exchange views.

Session III: Evaluating and improving the group's collaborative mapping efforts (Day 2)

- Background
    - Evaluation and improvement of collaborative mapping deserve continuous attention. Many ideas have already been discussed during the Spring meeting. Following the attendance at the Spring meeting, Fabian Selg (University of Bonn) has chosen collaborative mapping in emergency response as a topic for his PhD thesis, and seeks further cooperation with the Working Group.

- Presentation
    - An 'ideas document' is presented to open first discussions. The focus is on coordinated and fully collaborative mapping workflows as well as individual technical tools that could provide common platform functionalities. Topics:
        - Desired information outputs and the vision of an unified collaborative mapping platform for emergency response.
        - Accessing, aggregating and visualizing automatically broadcasted geospatial information.
        - Key open source tools for interactive, real-time collaborative mapping approaches.
        - AOI input, image footprints and identification of priority tasks.

- Feedback & discussion
    - Commercial versus open source
        - JK/LCz: Make sure there are no glitches in selected solution. Important that solution will work (e.g. versioning).
        - FS: There are certain libraries that are far more advanced (reliable) than others. Lacking support in open source solutions is an issue. But using an open source approach will make some things a lot easier, e.g. working together with HOT-OSM.
    - One-stop shop vs. reality

- ■ AH/FGT: An unified platform (diagram) is an ideal EM situation. Within the mapping community different contractual obligations are obstacles to the realization of this vision.
- ■ SV: If there is a more complete aggregator that would be good. He was hoping for UN-SPIDER to use the Knowledge Portal to provide a bigger aggregator to also aggregate feeds of different sources.
- ■ LCz: Let FS investigate whether we can aggregate different feeds (GeoRSS, GeoJSON) into one.
- ○ Focus on working Group's core tasks
  - ■ FGT: Not sure if it is feasible to conceive a system with all the functionalities. Or if it is not better for our Working Group to implement the standards. It would already be a big step forward to convince people to broadcast their information. Use the standards we are proposing to share feeds to avoid duplication of efforts.
  - ■ AH: Make sure group focuses on core task: define standards and promote their use. This could become a best practice of implementing our standards. It is not only a technical issue but an organizational issue. In Nepal, we tried to understand the needs on the ground and we used different sources (e.g. teleconferences, social media, posts from people/organizations on the ground) to identify needs on the ground. We would need strong partners on the ground who communicate the needs as standard GeoRSS feeds/ AOIs. Bringing people together to use these standards is important.
- ○ Efficient mechanism for AOI generation and image footprints
  - ■ An AOI needs to be clarified. An efficient mechanism to share AOI's/ footprints in a rapid manner is important. Main goal, show where work is needed, share where you are working on and avoid double tasking.
  - ■ DigitalGlobe is willing to work with us (e.g. provide image footprints and availability) but the mechanism for requesting information through AOI's (and potentially priority areas) has to be transparent (as per Bonn meeting).
  - ■ FGT: Our main goal is to share the area where we are working on and the satellite imagery when possible. My expectation as emergency mapper is to receive AOI with priorities. How the AOIs are selected is outside our scope.

- - ■ Related topics, e.g. HOT-OSM (Humanitarian Data Model and www.tasks.hotosm.org), JRC (GeoRSS and Feed Aggregator).
    - ○ Sub working group
      - ■ LCz: Not forming a subgroup but have a group of people who support and inform the whole group.
  - ● Next steps
    - ○ The document is work in progress, and will be updated with the feedback given in this meeting. Members interested in following the issue in more detail as well as members wanting to participate in editing and updating the document are welcome to request a link to the online version (fabian.selg@uni-bonn.de).
    - ○ Follow up with GeoRSS and feed aggregator development. Access to the Working Group's internal documents for more details on relevant topics.
      - ■ **Action @AH**: Post metadata documents of technical GeoRSS group on internal website.
    - ○ SV/FS: The upcoming FOSS4G conference (Bonn, August 2016) is ideal for a session on collaborative emergency mapping and a great opportunity to bring this issue forward as a group (see Outreach section below).

SV: It would be the role of the Chair to trigger the collaboration of the Working Group in emergencies. Collaboration for verification is also important. We could develop a small project proposal to have resources for this purpose (Evolution H2020).
LCz: Might be easier to write a 3-page proposal and start solicit support at Embassies (e.g. Norway, others) rather than attempt obtaining EC project funding, the more time-consuming option.

Session IV: Damage tagging on OSM (Day 2)

- ● Video shown: HOT OSM - Dynamic Maps - Basic Principles

  - ○ SV: Refers to a video by Engelbert Niehaus about updating and sharing vector data (e.g. recently changed coastline). The tool tracks changes (versions) within the data using time stamps, making differences accessible on a map. See https://youtu.be/wIAyAO8Jx4E.
  - ○ AH: Similar to CGI C2IX mobile solution.

- ○ BG: HOT OSM is also bringing offline information together with online information.
  - ○ **Action @SV**: put BG and EN into contact

- ● Damage tagging and OSM

  - ○ BG: OSM is mainly about basemaps, damage tagging is only about 25% of what we do. OSM has a process for tags. Already had discussions with ITHACA.
  - ○ FGT: As agreed in Bonn meeting we started to analyse features extracted by HOT OSM. Started with IDP camps since this was presented in HOT OSM workflow and rapid mapping standard portfolio. Analyzed what was done for the Nepal earthquake. Summary: HOT OSM can cover very large areas extracting a huge number of features. But the time scale does not match the typical time for emergency mapping, it takes weeks to 3 months to produce this very complete data set.
  - ○ FGT: Proposes to do a real-case exercise. Insert one of the AOIs of the OSM tasking system, take our reference data, and evaluate if the timeline will be enough to exploit. When an activation starts, the first imagery will be available the day after, so we will have time to set up the task in HOT OSM. Need a common dictionary, a common tagging.
  - ○ BG: Damage assessment is very tough for the crowd. My main goal is to integrate this with the professionals who do this. Professionals have better imagery, they can do this faster. During Afghanistan EQ we did not have good contacts on the ground. First thing I did was going to the GeoRSS aggregator – Copernicus was the only one listed, they had released initial reference maps. I used their shapefiles to guide all the HOT OSM mapping. Because we did not have any other indication on priorities, we directed the crowd to the area Copernicus was working on. There was no actual coordination involved, just using the GeoRSS aggregator. We hope to also support the professional's work by providing up-to-date maps.
  - ○ FGT: At the beginning at least one AOI should be shared with HOT OSM.
  - ○ BG: OSM uses its own Humanitarian Data Model, with people on the ground contributing. It is important to try to harmonize the HOT OSM tagging with the standards of the IWG-SEM. Would like to know what is needed by the Working Group.

- ○ LCz: Fostering these interactions within the Working Group is key. The tools we are developing will help us to submit the more concrete requirements/ mapping needs. We often do have the connections on the ground but they are not well linked. What is missing?
  - ○ BG: Shows an example: http://screenpresso.com/=24TQ (link not working anymore)

- GeoRSS (2nd stage)

  - ○ BG/SV: Second agreed stage of GeoRSS is really important.
  - ○ JK: JRS is the technical coordinator of EMS rapid mapping. Our workflow of the map production is very tight and there is no time to interact. So this example of BG is exactly what we need. At the moment the second stage is for footprints of maps after they are produced. But we will also need the AOIs as soon as we start working. Also, for the future, we must think of making this even more accessible (by WMS, WFS for example).

- Conclusion:

  - ○ 1st Focus on reference data – How to implement our data in HOT OSM.
  - ○ 2nd: Understand and 'connect to' HOT OSM's Humanitarian Data Model.
  - ○ 3rd: Assign point data to damaged buildings, vector data (e.g. floods, referring to the video above), use damage grades.

  - ○ Work on this in the short term and also in the long-term (funding projects).
  - ○ A challenge is to work within the timeline of HOT OSM.

- Strengthen discussion and form sub-group
  - ○ Involve HOT OSM in guidelines
    - ■ FGT: BG or HOT should start having a look in the Flood section of the Guidelines, which will be published soon. Same applies to the Earthquake section. HOT can cooperate in the definition of the damage grades. Once we have agreed on the definitions we can start testing operational. I.e. strict relation between the HOT data model and the guidelines of the Working Group.
  - ○ Sub-group

- ■ SV/FGT/LCz: This topic is so broad that we should have a smaller sub-working group with 3-4 dedicated telecons invited through Working Group members list plus BGs colleagues. We can share damage tagging examples, HOT can share their data model. We should make a project proposal.
    - ● LCz: WHO funding received from Bill and Melinda Gates Foundation supports similar efforts. There is a lot of resources, there is a lot of identified needs, we just have to work with them and collaborate.
- ■ LCz: Also recommended is to post this out to UNGIWG mailing list. Open up the discussion to the wider community.
- ■ **Action @BG**: BG volunteered to chair this sub-group during past Bonn meeting. Start and call for the first meeting. LCz to support with the webex service as needed. IWG-SEM to help with outreach to bring in the right people for this discussion. BG will follow-up with an email to the IWG-SEM outlining the idea.
    - ○ Mailing List
        - ■ SV: DLR interested in this discussion. Involving the whole mailing list is needed. Tom Harmata at JRC might be able to help, adjust settings so that only members of the list can send messages to the group.
        - ■ LCz: We should change the settings of the group so that messages from the outside are moderated by the Chair.
        - ■ JK: Confirms this can be done. Has to cross-check with Tom first.
    - ○ FOSS4G
        - ■ LW/SV: As mentioned in the morning discussion it is interesting to use the impetus of the Bonn meeting to have a session on "collaborative satellite based emergency mapping" at FOSS4G. (see Outreach)

Session V: 2016 planned outreach activities (Day 2)

- FOSS4G Bonn

  - FS suggests a session "Collaborative mapping for satellite-based emergency response" and volunteers to act as a focal point.
    - JK: would consider participating. We can present collaborative tools.
    - SV: Nice idea. Will bring this proposal also to DLR colleagues. Collaborative mapping is high on our agenda.
    - LCz: use this also as a recap for discussions we have started. Spreading the news on what we are doing and also asking for help from the community is critical.
    - BG: HOT will attend, if organized.
    - SV: Question is if we should we have a code sprint at the event.
    - BK: favours a session to show what we are doing and to get input from the community.
    - A half-day session during main conference days plus maybe additional half day practical workshop on collaborative damage mapping could be proposed.
    - LW: BICC also interested in organizing a session on "georeferenced data and spatial analysis of violent conflicts" – we can try to see whether we will be in the official tracks or have a smaller side event. Interest in organizing a joint event.
  - **Action**: Organize a session at FOSS4G. Results will be shared with the Working Group.

- EARSeL

  - BICC session at EARSeL also proposed: "Earth observation in peace and conflict studies"

AOB

- Group needs to start thinking about next Chair volunteer(s).
- Determine location of next meeting, depending on who would take over chairmanship, as that organisation will likely need to host. Vienna was again offered as a backup option for the 2016 Spring meeting, if needed.
- Enlargement of membership
    - **Action @Chair**: Need to reach out to key stakeholders, e.g. UNGIWG, GIS departments in other humanitarian organizations, UN-OCHA, UNDP (emergency coordinators, country team leads), Mapaction, WFP, promote the Working Group further.