



Humanitarian
OpenStreetMap
Team



Activation Protocol

Defining the HOT Disaster Mapping Program
Version 2

Activation Protocol

Defining the HOT Disaster Mapping Program

“Activation” is one of the concepts that the Humanitarian OpenStreetMap Team (HOT) was founded on. It relates to coordinating the mapping contributions of the OpenStreetMap (OSM) community in response to a disaster. Although HOT has since grown to do much more, and local communities more frequently manage their own responses, the activities carried out during all phases of the disaster cycle fall under the term “Activation” – a common phrase used by digital humanitarians. For external communication HOT often uses the phrase “Disaster Mapping”.

This Activation Protocol defines the flow of activities during a HOT Activation and describes how our trained volunteers perform the tasks that lead to a successful and efficient response. This workflow is designed to help local communities and partner organizations know what to expect from a HOT response; and to enable efficient and effective support and collaboration. The protocol covers the three phases of an activation as well as ongoing Disaster Readiness activities (phase 0):

Phase 1 Determine Response

Phase 2 Response Activities

Phase 3 Activation Conclusion

Phase 0 Disaster Readiness

Communities and other organizations who wish to use this Activation Protocol to coordinate disaster mapping efforts in their areas of interest are welcome to do so. Take liberty to adjust the protocol as necessary and reach out to disasterservices@hotosm.org for any support needed.

This Activation Protocol was developed for and by the Humanitarian OpenStreetMap Team (HOT) through a generous grant from the Hewlett Foundation. Aimed at improving the ability to fulfill our mission and inspired by our response to the West Africa Ebola epidemic in 2014, development of the HOT Activation process was just one of three priority areas chosen by the HOT community. The funding allowed HOT community members to meet for a three day sprint in order to capture the knowledge and experience necessary for the drafting of this Protocol. It also enabled development of a training curriculum for volunteer coordinators, informally referred to as “Activators” in this document. Subsequent revisions have been made by volunteers and staff of HOT under the direction of the Activation Working Group.

September 2015, updated March 2022; the community of HOT initiate this Activation Protocol to be carried out by the Disaster Services staff and other participants in the HOT community (as defined in the [HOT Code of Conduct](#)¹) under the guidance of the Executive Director and Activation Working Group.

Under review and collaboration with the Activation Working Group and global community of HOT the following people helped develop the original, and updated, content for the Activation Protocol:

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Current Version: 2.0 - Original Release (1.0): September 01, 2015 - Latest update: March 1, 2022

¹ HOT Code of Conduct: <https://www.hotosm.org/code-of-conduct>

Table of Contents:

Phase One: Determine Response	1
Perform Event Size-Up	1
Identify and Engage Local OSM Community	2
Estimate Data and Imagery Needs	3
Estimate Capacity to Assist	3
Determine Appropriate Response	3
Declaration of Activation	4
Phase Two: Response Activities	8
Maintain Communications	8
Ongoing Review	9
Manage Mapping Activities	10
Manage Exports and Data Products	11
Manage Technical Issues	11
Monitor Event Scope	11
Ongoing Documentation and Reporting	11
Phase Three: Activation Conclusion	12
Review Map Data and Usability	12
Plan Long-term Support and Capacity Building	12
Conclude the Activation	12
Review Methodology and Results	13
Final Reporting	14
Phase Zero: Disaster Readiness	15
Activation Roster	15
Readiness Activities	17
Glossary	18

Phase One: Determine Response

As an event is predicted or unfolds, Activators need to discuss various factors to determine an appropriate response. The type, scope and anticipated humanitarian impact of the event is evaluated. The current state of OSM data and imagery available in the area of interest (AOI) is reviewed to determine needs and any barriers to provide assistance. Local OSM communities are identified and engaged and partner or other response organization requests are reviewed, as well as HOT's capacity to assist. A decision for HOT to fully activate, or to support a response through other means is based on, but not limited to, these factors.

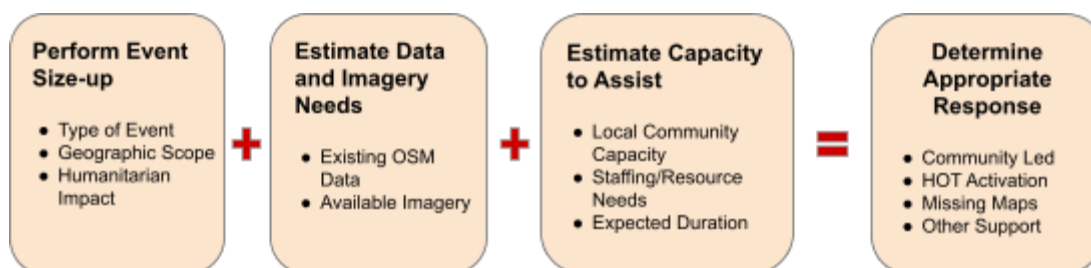


Figure 1. Phase One Workflow

Perform Event Size-Up

The following table shows the types of incidents and crises HOT uses. These event types were created for the GLocal IDENTifier (GLIDE) Number system².

Event Types ³			
CW	Cold Wave	MS	Mudslide
CE	Complex Emergency	OT	Other
DR	Drought	ST	Severe Local Storm
EQ	Earthquake	AV	Snow Avalanche
EP	Epidemic	SS	Storm Surge
EC	Extra-tropical Cyclone	AC	Tech. Disaster
FR	Fire	TO	Tornadoes
FF	Flash Flood	TC	Tropical Cyclone
FL	Flood	TS	Tsunami
HT	Heat Wave	VW	Violent Wind
IN	Insect Infestation	VO	Volcano
LS	Landslide	WF	Wildfire

Table 1. Incident Types

² Visit <https://glidenumber.net> to learn about the GLIDE number system

³ Definitions of the event types can be found at <https://reliefweb.int/taxonomy-descriptions>

You may also hear the terms **Sudden Onset**, **Slow Onset** and **Protracted Crisis** used to describe the estimated duration and urgency of an event. Sudden onset events happen quickly, with little or no warning. Slow onset events are usually not limited to a single impact with damaging effects often occurring over an extended period of time. Protracted crises are events where a significant proportion of the population is vulnerable to death, disease, displacement or disruption of their livelihoods over a prolonged period.

Additionally, geographic scope and estimated humanitarian impact will affect the amount of work needed, urgency, and expected duration of the response. These factors are figured into the matrix below to determine the overall scope of the event: minor, moderate or major.

Event Scope	Minor Event	Moderate Event	Major Event
Geographic Scope	Village(s) to City	City to Region/Country	Region/Country to Global
Humanitarian Impact	<10,000 People Affected	10,000s to 100,000s	100,000s to 1,000,000+
Estimated Duration	Short (days to weeks)	Medium (week to months)	Long (month to years)

Table 2. Event Scope Determination

Identify and Engage Local OSM Community

HOT's Code of Conduct and Core Values require Activators to defer to local leadership whenever possible. It is also a requirement of the OSMF's Organized Editing Guidelines⁴ to inform local communities of coordinating mapping activities. Locals also typically provide the best information about where needs are greatest, help determine local mapping standards, motivate and organize local contribution, as well as help with reviewing and nurturing the data during and after the event.

If local OSM groups, community members, or partner organizations are coordinating a response; HOT will work to support their efforts. Encouraging the Activation Protocol, Code of Conduct and Organized Editing Guidelines are followed. Only if necessary, or by request, should HOT Activators assume responsibility for a Disaster Mapping effort organized by another party.

If no local OSM groups or community members are coordinating a response, global Activators will strive to identify local coordinators, or at least local points of contact.

⁴ OSMF Organized Editing Guidelines: https://wiki.osmfoundation.org/wiki/Organised_Editing_Guidelines

Estimate Data and Imagery Needs

The existing data in the AOI must be considered and reviewed. This includes existing OSM data, high resolution imagery coverage, and 3rd party data. This review is only one of the inputs into the decision whether or not to activate, but the review is vital in the event of a HOT Activation. Activators will evaluate Common and Fundamental Operational Datasets (COD/FOD) and data available via the [Humanitarian Data eXchange \(HDX\)](#)⁵

Evaluate the state of the map in the AOI	✓
Evaluate available imagery in the AOI	✓
Evaluate known sources of data in the AOI	✓

Table 3. Needs Assessment Checklist 1

Estimate Capacity to Assist

Often HOT will be contacted with a request to activate. While this will have an influence on the decision, a request alone is not enough to activate. Sometimes areas of immediate impact will be identified and activation will occur without a request. One limiting factor may be internal capacity at the time due to other ongoing obligations or external factors.

Is assistance being requested?	✓
Is there COD data missing from OSM?	✓
Is there a need OSM data can help with?	✓

Table 4. Needs Assessment Checklist 2

Determine Appropriate Response

Part of the decision process is to discuss the nature and scope of the event. This is often done in a quick text or voice conference with the available Activators. For HOT, during major events, the appropriate Regional Hub or Global Partnership staff will coordinate with other organizations and the decision to activate will include the Disaster Services staff and, if necessary, the Executive Director, to ensure resource needs are available.

As the nature and scope of the crisis becomes apparent, a decision on how to engage will occur. It is expected that the Activators have been diligent in performing a size-up, reviewing data and imagery, estimating the resource needs, and that they agree to fulfill this Activation Protocol. However, if an Activation does not seem like the appropriate response, this does not mean that the individual Activator(s) and community cannot support the response in other ways, with many of the same activities proceeding in a less formal way. An event that is not selected for an Activation could be coordinated as a [Missing Maps](#)^{5a} or other community driven project. More and more, HOT Activators perform a support role to local Activators, or communities, rather than leading a response. Activators should use the following matrix as a guide to make the decision.

⁵ Humanitarian Data eXchange includes data from many organizations: <https://data.humdata.org/>

^{5a} Information on the Missing Maps Collaborative: <https://www.missingmaps.org/>

	HOT Activation	Missing Maps	Local Response	HOT Support
Minor Event (Local Leadership)	Unlikely	Unlikely	Likely	Imagery/Imports/Outreach/Tagging
Minor Event (No Local Leadership)	Unlikely	Unlikely	Possibly	Disaster Mapping Guidance
Moderate Event (Local Leadership)	Unlikely	Possibly	Likely	Imagery/Imports/Outreach/Tagging
Moderate Event (No Local Leadership)	Possibly	Possibly	Possibly	Imagery/Imports/Outreach/Tagging
Major Event (Local Leadership)	Possibly	Unlikely	Possibly	Imagery/Imports/Outreach/Tagging
Major Event (No Local Leadership)	Likely	Possibly	Unlikely	Full Activation Support
Needs	The estimated data and imagery needs may affect the likelihood of an Activation or support from individual Activator(s)			
Capacity	The likelihood of HOT to activate or for Global Activator(s) to provide support is increased when there is an identified COD/FOD from OSM and HOT has the capacity to assist.			

Table 5. Likelihood of an Activation Matrix

Declaration of Activation

A decision to Activate will result in the following actions:

- Setup the framework and workflow for the Activation.
- Commence activities that will occur over the course of the Activation until its conclusion.

The remainder of this section (Phase 1) will cover the steps outlined in the table to the right.

Step 1	Formalize Activation Team
Step 2	Establish Internal Communication and Coordination Tools
Step 3	Establish External Communication and Coordination Tools
Step 4	Create Initial Project(s)
Step 5	Collect and Provide 3W Information - Who does What, Where?
Step 6	Announce the Activation

Table 6. Steps to Activate

1. Formalize Activation Team

While a minor scope event and shorter duration Activation could be conducted with one Activator coordinating all the various aspects, more often Activation requires a team with assigned roles. Typically a quick text or voice chat to determine availability, as well as the number and locality of Activator(s) appropriate for the scope of the event will occur.

Event Scope	Minor Event	Moderate Event	Major Event
Desired Number of Lead(s)	1	1-2	2-3
Anticipated Size of Team	0-2	1-3	2-4

Table 7. Make-up of the Team

For HOT, the Activation Lead(s) recruit from a roster those Activators that will best complement the team in order to successfully coordinate and execute the Activation. The makeup of the team takes into account various particularities.

Experience	Description
Local	Lived, worked, or traveled extensively in AOI
Event	Understanding or experience in event type
Mapping	Contributed to previous mapping projects in AOI
Cultural	Language, cultures, and other specifics in AOI
Activations	Other knowledge related to Activation experience

Table 8. Team Dynamics

Taking into consideration that individuals or communities local to an incident may be impacted by the incident and unable to assist with coordinating disaster mapping efforts.

2. Establish Internal Communication and Coordination Tools

Activations require a variety of tools to coordinate the various aspects, as well as potentially developing new tools to meet specific needs. Establishing a core set of tools for a particular activation is vital to sharing information among Activators, volunteers, and other stakeholders. Here are some example tools HOT uses:

Coordination Need	Example Tools
Mapping / Project Tasks	Tasking Manager, Mapswipe, MapRoulette
Imagery	OpenAerialMap, uMap, Google CrisisMaps
Training	LearnOSM, Tracing Guides, OSM Wiki
General Information	HOT Activation Wiki Page, HOTOSM.org
General Communication	Email, Slack, Zoom
HOT Activation Coordination	Trello, Google Sites
Document Drafting	Google Nonprofit Suite

Table 9. Example Internal Communication Tools

3. Establish External Communication and Coordination Tools

To comply with the OpenStreetMap Foundation - Organized Editing Guidelines, at minimum a wiki-page must be set up and a notice sent to the local community. See the [Organized Editing Compliance Guide](#)⁶ from HOT for more detailed information. HOT also employs a [Wiki-template for Activations](#)⁷ to ensure information about response is robust and consistent. The [HOT website](#)⁸ is also used to showcase current Activations and automatically generate statistics and progress reports. It is also essential to utilize communication channels such as social media, mailing lists and blogs to engage mappers and validators for Activations. For HOT this means Activators must inform the appropriate Communications Team(s) regarding messaging and needs.

4. Create Initial Project(s)

Ideally when an Activation is launched, there is at least an initial project for the crowd to participate in. Before initiating a project, it must be determined if it will be a Tasking Manager project, or Mapswipe, or something else. Depending on location and needs, it may be necessary to determine if the initial project(s) will be created on the HOT instance of the OSM Tasking Manager or on another instance. If it is desired to keep the mapping more restricted, maybe due to difficulty or local peculiarities it may be best to use a local instance. If however, there is a need for more mappers, validators, links to the HOT Disaster Services landing page, or other global statistics; make sure to use the HOT instance.

⁶ Organized Editing Compliance Procedures - Community Guidelines (In draft January 26, 2022)
<https://docs.google.com/document/d/1llrR75Cmy92giXLa9hCVlur0wJ3HU4nTZoq6zQWyrEU/edit?usp=sharing>

⁷ HOT Wiki-Template for Activations: <https://wiki.openstreetmap.org/wiki/Template:Activation>

⁸ HOT Website (Disaster Services Page) https://www.hotosm.org/disaster-services/project_activations.html

When ready, create the initial Tasking Manager or other project(s) to give the community a place to start working right away. These are typically high level mapping tasks, for example road networks or identifying residential areas. Having a wiki-page created with even minimal information on the area of interest and links to local mapping recommendations can get more experienced mappers started right away, who may in turn be able to help prioritize further projects.

5. Collect and/or Provide 3W Information - Who does What, Where?

Who does What, Where (often referred to as a 3W) outlines each organization’s operational presence by sector and location within an emergency. At a basic level, the 3W can enable organizations to help identify potential partners, quickly give a very rough understanding of an on-going response, and superficially identify potential overlaps or gaps in response.

HOT contributes to the collection of this information whenever by providing information on its response efforts, or collecting 3W information from partner organizations, and communities, during a response. This enables Activators to better interact with other responding organizations (both digital and traditional responders), help determine their needs, and keep them informed of OSM services and available data products.

6. Announce the Activation

Once a decision has been made to Activate, Organized Editing Guidelines require that it must be communicated to the local OSM community, though typically it also needs to be announced to the general public. This initial communication will be planned and include links to the relevant public resources related to the Activation activity like public event information documents (wiki-pages, websites, etc.), training materials for new mappers and any event specific (location or event type) mapping resources. If well done, this initial communication can serve as a resource document to handle inquiries for the early stages of the Activation.

For HOT, the announcement will be distributed via the Global and Regional Communications Teams to ensure all available channels are utilized, including social media, new media and traditional media.

Initial Projects and Prioritizing Underway	✓
3W Information Collected and/or Shared	✓
Communication Established and Monitored	✓
Team is Ready to Monitor Data and Imagery	✓
Team is Ready to Manage Mapping Activities	✓
Team is Ready to Manage Exports and Products	✓
Team is Ready to Handle Technical Issues	✓
Team is Ready to Monitor the Event Scope	✓

Table 10. Activation Announcement Check-list

Phase Two: Response Activities

Over the duration of an Activation many activities are repeated, maintained and monitored. Activators ensure these are managed and taken care of throughout the entire Activation.



Figure 1. Continual Activities in Phase 2

Maintain Communications

Recognize and identify the different communications needs during an Activation, especially during the difficult first days after a disaster occurs. There are a variety of communication channels both internal and external, each with different audiences.

- Communication Triage
 - Often the various communication channels are overwhelmed at the start of an Activation.
 - Assign an Activator or team of Activators to triage communications.
 - These Activators can play a key role in making sure:
 - 1 Communication issues are minimized.
 - 2 The community has all the information they need to participate.
 - 3 Inquiries from local community members are addressed within the 48 period required by the Organized Editing Guidelines.
 - For example, press inquiries may come in very fast, and the time window to reply is short. Questions come in from different audiences (technical, humanitarian, foreign language, etc.) to all channels; knowing who is best to speak on various topics will expedite the process.
- Partner Relationships
 - Communication with partner organizations is one of the most important duties of Activators and, for HOT, will be a closely coordinated activity.
 - These communications will include:
 - 1 Gathering of needed information from people in the field (3W).
 - 2 Sharing updates about HOT services and OSM products (3W).
 - 3 Learning where information is being collected by other organizations, where partners will be deployed, and what data is needed for their success.

- Be mindful that in many cases community members have worked for years establishing relationships with partners. Make sure to coordinate with the appropriate partner designee when communicating with any external organization.
- Local OSM Communities
 - Communicating with all OSM groups in the affected area is key to a more effective response.
 - Ideally Activators who are also leaders among the local OSM community in the affected area are involved in the response.
 - At minimum Activators will send a message to the affected country/region's [OSM mailing list](#)⁹ asking for contacts to help coordination efforts by:
 - 1 Guiding mapping efforts and priorities.
 - 2 Giving feedback on the usefulness and quality of the map data generated.
 - It may be best to first check the [OSM Community Index](#)¹⁰ to see if other, or more appropriate channels for local communities exist. This will also satisfy the Organized Editing Guidelines. Only if neither the OSM mailing list nor the channels found on the OSM Community Index can it be said that there is no community to communicate with.
- HOT Event Pages
 - A wiki allows others to add or enhance information that has been captured by the Activation Team, such as:
 - 1 Local media reports.
 - 2 Mapathons or other support events.
 - 3 Examples of OSM usage by first responders or aid organizations.
 - 4 Other dynamic topics are often difficult for Activators to stay informed on.
 - Creating or updating website(s) provides a central place for updates (such as blog posts) to be linked, a way to easily supply contact info and show who is participating.
 - For HOT, keeping an up-to-date website has been streamlined¹¹ to:
 - 1 Completing a form for size-up populates a spreadsheet
 - 2 Moving the size-up information to an 'active' tab populates the website
 - 3 Using campaign tags in the Tasking Manager brings in statistics
 - 4 Adding descriptive updates throughout the Activation gives narrative

Ongoing Review

As an Activation continues, more and more data sets and imagery will be generated or 'discovered' by other organizations and will be shared in the common coordination channels. These sources will need to be reviewed to determine their appropriateness and usefulness to the objective(s) during the Activation.

⁹ OpenStreetMap Mailing Lists: <https://lists.openstreetmap.org/listinfo>

¹⁰ OSM Wiki - Community Index Page: https://wiki.openstreetmap.org/wiki/OSM_Community_Index

¹¹ Disaster Data Model: https://miro.com/app/board/o9J_LtDE6II=/?invite_link_id=289230156827

Imagery	OSM Data	External Data
Post-event imagery may become available as well as additional sources of pre-event imagery. This must be reviewed and integrated into projects (via OpenAerialMap or other tools) so volunteers can use the most appropriate imagery for the tasks they are asked to perform.	Both existing and newly generated OSM mapping data will need to be continually reviewed to make sure overall data quality remains high and any identified issues or deficiencies are corrected as soon as possible, with the associated adjustments to the instructions and/or training documents.	Third party data, both existing and newly generated will be available, often identified and shared through the coordination channels. The usefulness of this data to the mission objectives needs to be evaluated, as well as whether it can be incorporated into OSM legally and how best to do so.

Table 11. Three Main Continual Review Needs

Manage Mapping Activities

Mapping is the main activity that the community of volunteers contribute to, through the creation of OSM baseline data in the AOI. Activators ensure that this data is accessible and usable by other organizations also responding to the event. Ongoing management of the mapping process is one of the main activities during an Activation.

Activity	Description
Determine Appropriate Data Model	Conduct a review of available data models. This may be dynamic as priorities change. It also may require developing or modifying existing data models to fit local geography, construction, and cultural differences; such as Highway Tag Africa ¹² or local tagging guidelines (where available)
Onboard New Mappers	Often new mappers reach out through the mailing list and IRC and many more join but never ask for help. Try to identify new mappers who need gentle guidance on mapping best practices, and make use of external resources to help with guidance.
Manage Mapping Projects	As feedback and information is received, focusing mapping with priority areas will ensure that we are responding with the most critical data first. The better projects are managed, the more efficient and effective mapping efforts will be.
Review Mapping Progress	An overall status of the mapping progress needs to be maintained. This can be achieved with a table on the wikipage. As news fades from the headlines, it may be necessary to make clear and direct asks of the community or for assistance mapping within specific Tasking Manager projects.
Document and Recognize Achievement	In order to keep mappers, validators and Activators motivated; frequent updates on achievements made is very valuable. Recognizing individuals or groups of contributors that have made a significant impact keeps not only them going but influences others who want to be recognized.
Coordinate with Responders	Coordinating with other organizations to determine what geodata is required will guide mapping focus and objectives. Means of communication can vary. Activators will be diligent to include all stakeholders in appropriate channels.

Table 12. Managing Mapping Activities

¹²Highway Tag Africa Wiki-page: https://wiki.openstreetmap.org/wiki/Highway_Tag_Africa

Manage Exports and Data Products

The geographic data generated through mapping is consumed and utilized by partner organizations, governments, responders on the ground and other interested parties. An important part of the Activation coordination is to help people get access to OSM generated data in a format they can use; Activators facilitate export services and document product availability through channels such as the wiki-page, public communications and HDX.

Site/Tool	Description
Humanitarian Data eXchange (HDX)	HOT maintains exports of most countries around the globe on HDX, by default updated monthly, frequently can increase up to daily for response.
HOT Export Tool ¹³	The export tool is readily available for anyone to generate custom OSM exports.
GeoFabrik Export Tool ¹⁴	Typically updated daily exports of OSM data at Continent, Country or Regional Scale.
OverPass Turbo ¹⁵	OverPass can be used to extract OSM data with some instruction.
Custom Services	Custom export or conversion services can be set up; ensure appropriate usage

Table 13. Common Data Export Tools

Manage Technical Issues

During an Activation a variety of issues can arise, for example technical issues related to data imports or exports, or issues related to infrastructure or software. These need to be dealt with in an efficient manner and will often involve support from people outside of the current Activation team. An Activator will relate the issue to the right people, through the correct channels and follow up to make sure the matter was resolved satisfactorily.

Monitor Event Scope

Ongoing interactions with partners, media, local OSM communities and volunteer mappers will help determine the scope of the event and continued need for response activities. This will help guide the decision process for the number of Tasking Manager projects, emphasis on external communications to recruit new mappers, and timeframe for concluding the Activation.

Ongoing Documentation and Reporting

As an Activation continues, it is ideal to set a schedule for regular reporting. For a short-term event it may only be necessary to do a final report. However, for a protracted crisis it may be ideal to give monthly, or even weekly reports; in order to provide the local community updates on the Activation as well as to keep mappers and validators motivated. The OSMF Organized Editing Guidelines also request updates at least once a month describing the results to date.

¹³ HOT Export Tool: <https://export.hotosm.org>

¹⁴ GeoFabrik Download Server: <https://download.geofabrik.de/>

¹⁵ overpass turbo - OSM data filtering tool: <https://overpass-turbo.eu/>

Phase Three: Activation Conclusion

The process of slowing down Activation activities is both important to clear the way for other mapping projects and to give the Activators more time to engage in the end of Activation debriefing. De-escalating the activities consists of completing and validating the remaining Tasking Manager projects, making sure to reflect the changes in priority on the Tasking Manager, wiki-page and other messaging, and completing documentation and reports.

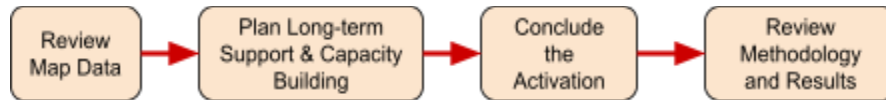


Figure 3. Activation Conclusion Workflow

Review Map Data and Usability

A high level and thorough review of all the areas mapped will be conducted to standardize tagging (such as road classification) and review the quality of mapping. The corrective work should be led by the Activator(s) proficient in validation with the aid of experienced mappers. Additionally, post-event data usage should be assessed and planned for. Determine if the data is 'fit for purpose'; will end-users accomplish their objectives or is additional work needed?

Plan Long-term Support and Capacity Building

The official end of an Activation does not mean that the mapping activities in the area will conclude. Longer term mapping projects can be created to improve the geo-data coverage or fill in details that were not immediately needed during the initial response phase. During an Activation, include activities to build local capacity. This is important for data validation and maintenance in the area of interest. A long-term positive outcome an Activation can achieve is ensuring strong local contacts that are connected to HOT and the larger OSM ecosystem.

Conclude the Activation

At some point the Activation will be concluded. Potentially, the response to the event will enter a recovery phase and mapping remotely may become less effective or less necessary; or the event was very localized and all of the mapping that can be done for the area has been completed. The Activation Team will be debriefed and communication through the appropriate channels made to inform all of the concerned entities that HOT has officially ended the formal part of mapping efforts.

Are There More Requests For Mapping?	X
Is There an Elevated Risk of Additional Crisis?	X
Have Remote Mapping Needs Been Met?	✓
Is There a Community Ready to Manage?	✓
Has Long Term Support Been Planned?	✓
Has the Coordination Team Been Debriefed?	✓
Is After Action Review Complete?	✓
Are Projects Closed and Reporting Finished?	✓
Has Participant Recognition Been Documented and Appreciation Given?	✓

Table 14. Activation Conclusion Check-list

Review Methodology and Results

A critical part of ending an Activation is to review activities with the larger OSM communities to recognize successes and identify areas of improvement for future Activations. Every Activation will inform future process improvement. At a minimum, an After Action Review (AAR) will be conducted and include feedback from the Activation Team.

Basic Question	Sample Response
One thing that went well with this Activation?	Wiki combined with webpage kept information flow maintained
One thing that did not go so well?	Too many projects going at once, difficult and took longer than expected to complete.
One lesson learned or suggestion for improvement?	The projects that had less features (i.e. just roads vs. roads, buildings and waterways) were completed and validated quicker. OR, we should limit the number of features we ask to map in each task.

Table 15. Example After Action Review Questions

Where needed, conduct a more thorough review. Individual activities can be reviewed; for example: how tasks were created, were task instructions adequate, and how well the data quality meets expected standards. As well as more broad issues, such as how well were communications, collaboration and coordination handled. In case of specific techniques such as damage assessment mapping tasks, start a discussion between the community and experts from other organizations to compare results and solicit on-the-ground verification of accuracy and usefulness. Activities identified as needing improvement should be documented and communicated to the appropriate people or working groups in order to facilitate discussion and recommendations for the next response.

For HOT, a [standard template](#)¹⁶ for a “Debrief and After Action Review” meeting is used to facilitate a conversation about the response. Starting with a narrative (“debrief”), from the lead(s) of the Activation explaining what was the original objective(s) that the team set out to accomplish, and what actually ended up occurring. Followed by ample time for each participant to provide their feedback. For participants who are unable to attend the meeting, a [form](#)¹⁷ is sent out to be completed at their leisure. The more input gathered, the more key takeaways and learning there will be to improve the next response.

¹⁶ Debrief Template: <https://docs.google.com/document/d/1Fep2wWWL1Y0jcH0Xpvc9WleNFw349qoxRu1W1J1fE>

¹⁷ After Action Review Form: <https://bit.ly/HOT-AAR>

Final Reporting

Beyond ensuring the Organized Editing Guidelines for a final report describing the results of the Activation, it is worth creating a document that recognizes the great achievements of the Activators, participants in mapping and validating, and any products created for or by partners to conduct response and aid efforts in the impacted area. For HOT, this will be to complete the 'final report' on the website, which includes the statistics, the debrief narrative and the key takeaways from the AAR.

It should also be communicated, in order to:

- 1 Ensure the local communities involved are given notice at their mailing list and any other commonly used channel(s).
- 2 Inform the global OSM community by sending email(s) to the HOT and OSM general talk lists.
- 3 If possible, send a message to all who participated in your project(s) - the Tasking Manager has a function to message everyone participating in each project (HOT suggests only sending to the last project to be completed or the one with the most participants). Additionally, if Validation or other teams were assigned to projects you can send a team message with your appreciation for their efforts and that their time was well spent supporting the response and aid efforts.

Phase Zero: Disaster Readiness

Even when there are no Disaster Mapping efforts underway, it is critical that disaster readiness activities continue. Activities such as mapping, validating, training and conversing about Activation ensure that we, as Activators, are ready to respond when the next disaster strikes.

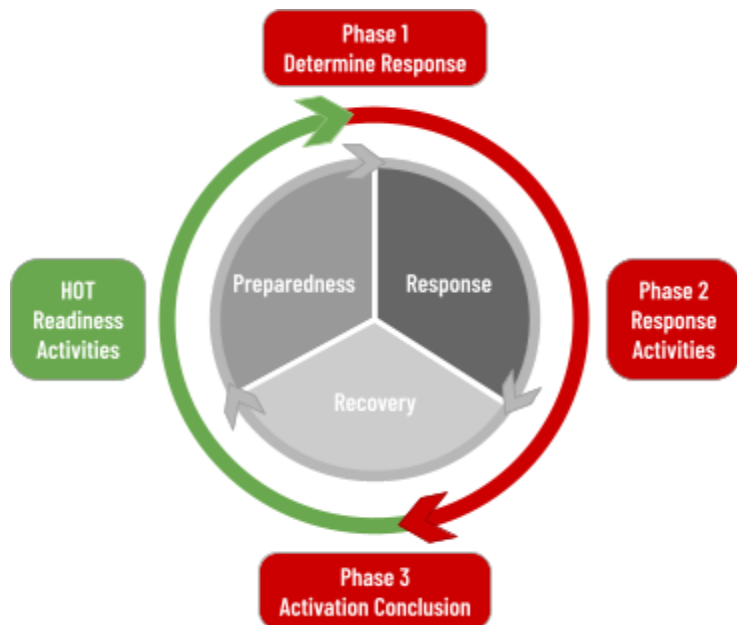


Figure 2. Disaster Cycle

Activation Roster

The Activation Roster exists to ensure that the necessary skills and capacity are available to meet the needs of single or simultaneous activations.

The numerous, and at times complex, activities required for a successful and efficient Activation are coordinated largely by volunteers. These volunteers are referred to as “Activators” and are trained and peer-endorsed to fulfill various function(s) in order to successfully fulfill this Activation Protocol.

HOT requires volunteers to complete training as well as receive endorsement from an existing Activator to be recognized as able to perform activation activities on behalf of HOT. Activators must complete all tiers of the training and be fully endorsed before they can *declare* an Activation on behalf of HOT. The Tier Training is described on the following page.

Tier	Description	Function(s)	Expectation(s)
1	The initial training for all Activators, Tier 1 focuses on the basics of the protocol, the things all Activators should know about OSM, Imagery and Communications.	<ul style="list-style-type: none"> Assess an Area of Interest Triage Communications Ensure a healthy digital environment 	<ul style="list-style-type: none"> Be able to perform an Incident Size-up
2	Tier 2 introduces some advanced OSM topics like imports, tagging and data quality. It also expands on 'soft skills' like communication and partner liaising.	<ul style="list-style-type: none"> Manage Validation during response Assist with public and partner communication Assist with data extraction and usage Assist with After Action Reviews 	<ul style="list-style-type: none"> Be able to support data usage Help document and conclude an Activation
3	At Tier 3 Activators will be tasked with working with partners and communities to identify needs, fulfill requests (including imagery and data imports) in order to create mapping projects.	<ul style="list-style-type: none"> Liaise with partners and communities during disaster Create and Manage Disaster Mapping projects Coordinate 'Full Cycle' Disaster Management 	<ul style="list-style-type: none"> Be able to create Disaster Mapping Projects Be able to address imagery needs
4	Tier 4, or "Lead" Activators are trained to manage a response on behalf of their organization or community.	<ul style="list-style-type: none"> Ensure Activations are performed within the Activation Protocol, the OSMF Organized Editing Guidelines and all other relevant policy Standup and manage an Activation Team Properly mobilize and demobilize resources 	<ul style="list-style-type: none"> Become an effective leader in Disaster Mapping

Table 16. Activator Training Tier Descriptions

Endorsement can be accomplished by performing action(s) as a trainee during an Activation or they can also be achieved outside of an Activation; an example might be for HOT to coordinate a training workshop to exercise Activation techniques. HOT maintains a roster which lists trained and active Activators, and reserves the right to manage the roster (including promotion, demotion, role changes, or removal) under the direction of the Disaster Services staff and Executive Director. All Activators will need to complete refresher course(s) and/or endorsement(s) at various times as defined by the Disaster Services staff and provided through the Activation training program to stay current.

Readiness Activities

During day-to-day operations, HOT is continually working to be ready and improve its ability to provide assistance to those in need. All Activators and those interested in volunteering for Activations need to be engaged in HOT activities. HOT suggests communities and organizations involved in Activation also perform similar actions. These include monitoring news and partner communication as well as involvement in non-disaster operational activities including outreach, capacity building, community building and technical projects.

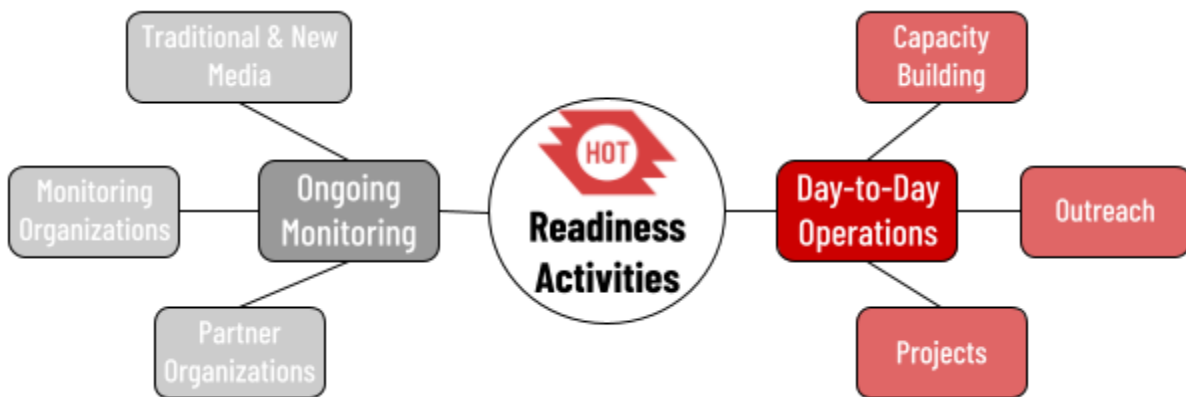


Figure 4. Example HOT Readiness Diagram

Glossary

These and more terms can be found at <http://learnosm.org/en/beginner/glossary>

3W : Who, What, Where; Who does What, Where?

AAR : After Action Review; A group activity to evaluate an exercise or activity to learn and improve.

Activation (HOT term) : Sometimes referred to as a crisis, disaster, or emergency response and generally characterized by a specific event and/or anticipated humanitarian impact with a relatively shorter time-frame associated with the response and recovery phases of the disaster cycle than a longer-term Humanitarian Project.

Activator(s) : HOT volunteers who have completed training and are endorsed by an existing activator to perform roles during events.

AOI : Area of Interest ; defined by activation coordinators in consultation with humanitarian partners, field teams and HOT community in wake of a disaster.

COD : Common Operational Database ; Comprises the geographical data for multiple humanitarian activations. These are mainly: transportation network (roads, bridges/fords, ports etc.), populated places (settlements), administrative boundaries, hydrology (rivers and other bodies of water) and hypsography (elevations/contours). May include buildings as an indirect source of population statistics. Used by the United Nations Office for the Coordination of Humanitarian Affairs.

DHN : Digital Humanitarian Network ; organization which leverages digital network for humanitarian response.

Extract : [OSM Data Overview](#) A large chunk of OSM data for a specific area (like a state, country, or geographic area).

FOD : Fundamental Operational Database ; data that is specific for an intervention i.e. health facilities, schools, water facilities, flood extents, building damages, etc.

GDACS : Global Disaster Alert and Coordination System ; GDACS is a cooperation framework under the United Nations umbrella. It includes disaster managers and disaster information systems worldwide and aims at filling the information and coordination gap in the first phase after major disasters. GDACS provides real-time access to web-based disaster information systems and related coordination tools.

IDP : Internally Displaced Person ; is a person that is forced to flee his or her home while continuing to remain within their country's borders.

NGO : Non Governmental Organization / Agency ; primarily a not for profit compulsory group of citizens who are organized on a local, national or international level.

OCHA : United Nations Office for the Coordination of Humanitarian Affairs ; OCHA is the part of the United Nations Secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies. OCHA also ensures there is a framework within which each actor can contribute to the overall response effort.

POC : Point of Contact ; person(s) to engage with for any enquiries, questions, coordination, etc.

SBTF : Stand-By Task-Force ; an organization which coordinates digital volunteers into a responsive, trained, and prepared network ready to deploy in crises.