

MAPS DIRECTORY HAITI JAPAN AND OTHER DISASTERS

Links to Maps and Graphics by category

Information about Maps and related Resources to help with Disaster aid.
Also links to maps regarding Democracy seeking foothold in Middle East.

Alister William Macintyre research notes

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Version **3.0**

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FIRST TIME VISITOR HERE (1 MAY 15)

This is a directory of hundreds of places which have maps of:

- Haiti (2010 earthquake, need for massive relief and recovery)
- Japan (2011 earthquake, tsunami, nuclear crisis)
- Middle East (2011 democracy movements)
- Disaster response in general

The actual maps are generally not here because that adds immensely to size of document, and many places are making constant improvements, so by going to the links you can find the latest edition, assuming the links are still any good, which is a good reason for me to provide redundancy of links. When the links are broken, you can use names I give of the organizations, to search for corrected links.

In the Word version, you can use Control F to search for info on maps of some topic of particular interest to you, such as “seismic”; “Google Earth.” In the PDF version,

depending on the features of whichever PDF reader you are using, there may be similar search functions.

I try to give credit to my sources, some of which are people who have seen this document in the past, given me wonderful suggestions for improving it (hint hint).

INTRODUCTION (1 MAY 15)

This research document does not have actual maps, except extremely small number of examples, because they can add immensely to the size of the document. By going to the web sites which host the actual maps, you get at the latest edition in evolving realities. Some web sites do not last to infinity, and stuff there not last to infinity, so if you cannot find what I am linking to, the terminology, involved in my descriptions of the maps, can help you do a search for more up-to-date versions of the same kind of thing.

Topic sub-titles, in this research document, end in a date signifying when that info last updated, so by viewing table of contents, we see where most recent input to these research notes, especially aiding people with copy of an earlier version.

Someone asked, 2011 Jan-26 on Haiti Rewired, about maps of Haiti to help with various projects. That led me to begin to draft this document. This same question came up a few months earlier thru MPHISE,¹ where I replied using a combined collection of urls to maps in my [medical map blog](#). Some of the stuff there (not all) is now here, but structured a bit differently, so as to be valuable to more interests. There's also stuff here, which is not there. Ultimately I will be putting new additions here, and sharing new stuff with my contacts on MPHISE, however, MPHISE now has several people well qualified with improving the state-of-art of mapping, so they really don't need me, other than to pass along links they may not already have seen.

Haiti maps are all over the place. Check out some of these sites, to see if what you desire is included among them. Note that in addition to the FREE Google Earth, there is also an advanced FEE-PAY version which is superior in quality.

Different groups maps serve different purposes, such as transportation logistics, fighting cholera, predicting where natural disasters at higher risks.

I started this document 2011 January with links to approx 3 dozen maps explained, thanks to copy and paste from earlier research notes efforts. I believe my links are am now up to over 50 sites which host Haiti maps. In time I may rearrange some content.

For more Haiti information, other than maps focus, check out some of my other research notes which I have uploaded various places, including HDRR, HR, MPHISE, PRISM, and Scribd (my user-id there is AlMac99).

¹ MPHISE is a medical info sharing network.

Initially I started my links to info about Japan in separate documents, such as:

- EOJ = naming convention for my Earthquake Japan documents, to distinguish them from Haiti notes.
- EOJ Japan Overview = non-nuclear focus ... earthquake and tsunami recovery
- EOJ Nuclear = make sense of what's going on with the nuclear power plants
- EOJ Nuclear Time Line = visualize progression of events and trends, to help make sense without the distortion of the many actors with an agenda

Then I opted to move the Japan MAP info (other than the nuclear dimension) here, in a section with Japan as the main header, grouping all Japan info together. Later I may redistribute to be with other maps of same kind, with subsets for Haiti vs. Japan vs. other disasters.

Version numbers are incremented, with this document periodically uploaded various places for convenience of other people who can then pick and choose which of my research efforts they wish to download.

Users of my research hold Alister Wm. Macintyre harmless, and also the places I upload my research to, and agree that my copyright is reserved and that the information is available for the intended purpose of helping in the recovery of Haiti. Some of my research content is direct quotes from other sources. I try to give credit every time I do this.

ACKNOWLEDGEMENTS (1 JAN 26)

Thanks first to all the people who created these maps we are using.

Thanks to Kira McGurrin for helping me with my Word Processing Template improvements.

GLOSSARY OF TERMINOLOGY (1 MAY 15)

Acronyms become unavoidable. I have a separate document available listing hundreds found in UN NGO Gov documents, and what they mean, a Glossary focused on Housing challenges, and one on Japan Nuclear. Here are some used in this research document, and the places I link to, for user convenience.

[Cartographic Terminology](#).²

CAT = Citizen Action Team

[Cataloging Maps](#)³ [Links](#)⁴

² <http://www.lib.utexas.edu/maps/glossary.html>
<http://atlas.nrcan.gc.ca/site/english/learningresources/glossary/index.html>

³ <http://people.oregonstate.edu/~reaset/html/tools.html>

⁴ <http://abacus.bates.edu/~ssaunder/homepage/cataloging.shtml#Maps>

[Dictionary of abbreviations](#) and acronyms commonly found in various maps, and other publications.⁵

EG = Economic Geography

[Geography Terminology](#)⁶ [Visual](#).⁷

[Geography Acronyms](#)⁸

GIS = Geographical Information System

[GIS Glossary](#)⁹ and [Dictionary](#)¹⁰

GoH = Government of Haiti

GOV = Government

GPS = Global Positioning System

HDRR = **Haiti Disaster Recovery Research**¹¹

HEAS = Haiti Epidemic Advisory System

HEDR = Haiti Earthquake Disaster Relief group on Linked In

HR = Haiti Rewired, a network of people providing a variety of support to Haiti Relief and Recovery. Here's Al's profile there: <http://haitirewired.wired.com/profile/AlisterWmMacintyre>

INGO = International Non-Government Organization

[KML](#) is a file format used by [Google Earth](#) (see “chapter” just on this offering), Google Maps, and Google Maps for mobile, to display geographic data in an Earth browser.¹²

KMZ is another file format used by Google Earth.

LI = Linked In, a social network for professionals. Here's Al's profile there:

<http://www.linkedin.com/in/almacintyre>

[Haiti MPHISE](#) = Medical and Public Health Information Sharing Environment.

[Latitude History](#)¹³

Map Resources and Terminology in general¹⁴

⁵ <http://www.lib.berkeley.edu/EART/abbrev.html>

⁶ <http://glossary.eea.europa.eu/>

⁷ <http://www.enchantedlearning.com/geography/glossary/>

⁸ <http://www.acronym-guide.com/geography-acronyms.php>

⁹ <http://www.gis.com/content/gis-glossaries>

http://www.gisdevelopment.net/glossary/manual_body.htm

¹⁰ <http://www.geo.ed.ac.uk/agidict/welcome.html>

¹¹ <http://groups.yahoo.com/group/HaitiDisasterRecoveryResearch/>

¹² http://code.google.com/apis/kml/documentation/kml_tut.html

<http://www.google.com/earth/index.html>

¹³ <http://www.ruf.rice.edu/~feegi/>

¹⁴ http://www.acsu.buffalo.edu/~dbertuca/maps/cat/geo_maps.html

NGO = Non-Government Organization

PAHO = Pan American Health Organization

PRIZM graciously volunteered to host research documents here:

<http://www.haiti.prizm.org/> Check out in my directory of documents, where I list MAPs, which other people might want to download. This PRIZM [place](#), hosting my stuff, and maybe in time other people's research, is an NGO which has developed some very economical and safe housing solutions to meet Haiti's needs.¹⁵

SWS = Severe Weather Shelters

TOPO = Topographical Map

[Topographic Map Symbols](#)¹⁶

UN = United Nations

USGS = United States Geological Survey

[USGS Glossary](#)¹⁷

WHO = World Health Organization

DISCUSSION LISTS (1 JAN 31)

Many discussion lists include maps as attachments, and-or links to sites with maps. You might like to visit their archives. Some which frequently have this kind of traffic include:

- HEAS <haiti-epidemic-advisory-system.googlegroups.com>

TAGS (1 APR 03)

When uploading this document, where tags or keywords invited, here are suitable choices:

Building Code Standards, Cholera, Crisis Maps, Crowd Sourcing, Directory, Disaster, Earthquake, Facilities, Google Earth, Haiti, Hazards, Health, Japan, Logistics, Maps, Medical, Nuclear, Rescue, Resources, Risks, Science, Shelter, SOS, Streets, Topographical, Tsunami, UN, Weather,

VERSION HISTORY (1 APR 03)

- I incremented Version # after each sharing, in which only a smidgen of additions actually in many of them, compared to the starting effort.
- V 2.3 shared, 2011 Apr 02 due to large growth in Japan section. (Doc = 1.3 Meg, PDF = 795k)

¹⁵ <http://www.katrina.prizm.org/index.html>

¹⁶ http://mapserver.mytopo.com/mapserver/topographic_symbols/USGS_top.html

¹⁷ <http://geomaps.wr.usgs.gov/parks/misc/glossary.html>

- V 2.2 shared with Japanese contacts, 2011 Mar 21 due to section added in aftermath of Japan 9.0 quake, 33' high tsunami, nuclear accidents, astronomical volume of aftershocks, with winter weather vs. survivors.
- V 1.0 shared 2011 Feb 17 (approx 605 k) 36 pages ... see below places I share this.
- 2011 Feb 17 this collection is now up to **approx 120 places linked, not 100% maps, nor 100% Haiti**. But map links dominate. The most significant updates since Feb-2 sharing were in Google & Crowd Sourcing (Egypt for example), and NGO-locator, but there were minor additions all over.
- 2011 Feb 17 I made some adjustments to statement of credit where Relief Web map links used, due to requests by their [permission page](#).¹⁸ I suggest everyone using any Relief Web maps in documents or on web sites, or in products based on their information, you review this page to make sure you are in compliance.
- V.07 shared 2011 Feb 2 (approx 410 k) increased Geography terminology, started Google Earth Tips, and added more map links to the scientific section. The link collection is now up to **approx 80 places with maps, not 100% Haiti**.
 - I placed current date on end of version #, when I uploaded it to my [Scribd](#) collection.¹⁹ This to make it easier to later see when it makes sense to upload a more current edition. Many uploads to Scribd get chopped off after 3 pages (just get table of contents), but this one shows all 34 pages there, so people can directly link from it to the map locations.
 - I also uploaded copy of this to [Yahoo HDRR](#) and e-mailed [Prizm](#) administrator, who returns in approx a week. I may be sending him a later version than what went to Scribd and HDRR.
- V 0.2 added Crowd Sourcing; Disaster Avoidance; and European Map research focus, which I later changed to “Scientific Maps”; plus miscellaneous revisions to earlier content, increasing aggregate links to **approx 50 places with Haiti maps**.
- V 0.1 contents were mainly Fighting Cholera and UN cluster resources, totaling **approx 30-35 places with Haiti maps**.
- V 0.1 started 2011 Jan 26 (approx 225 k) when someone on Haiti Rewired asked if I knew where to find good Haiti Maps. Well there are so many places, and recently [Prizm](#) had volunteered to host my research documents, so I decided to update my last [medical map blog](#) with a word document which could be shared by me getting it

¹⁸ http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/map_permission?OpenDocument include this text: (Source: OCHA/Relief Web) where appropriate.

¹⁹ <http://www.scribd.com/doc/48059575>

uploaded to places such as [Yahoo HDRR](#), and possibly the [Weather info forum on Haiti Rewired](#). Then interested people can download at their convenience. In mid 2011 Feb I started sharing some of my docs via “my files” on my [Linked In profile](#).

- I also increment version # after sharing with anyone, so I don’t need to remember if I added any minor stuff not in a previous sharing.

GOOGLE SERVICES (1 APR 18)

Google has multiple different services related to maps, and navigating Map information.

Google is not the only search engine in the world.²⁰ Check out these alternatives for finding maps, and sources of maps.

- [Wiki Mapia](#)
- [Bing Maps](#)
- [Géoportail](#)
- [Google Maps](#)
- [MapQuest](#)
- [Yahoo! Maps](#)

GOOGLE CRISIS (1 FEB 3)

As news unfolds various places in the world, Google adds special pages with links to critical resources to understand what’s happening there, and provide links to what people need to know.

Egypt Resources (1 Feb 3)

Here’s [links](#) to maps, embassies, transportation, and lots more.²¹

GOOGLE TRANSLATE (1 APR 13)

When we get crisis data, it can often be in languages associated with where the crisis is, where volunteers are, who do not know each other languages. Machine translation is:

- available from many sources;
- not as good as a human translator;
- dumbs down the conversation very much;
- unsuitable for scientific info like medical doses;
- but so long as users are aware of these limitations, extremely useful.

²⁰ http://en.wikipedia.org/wiki/List_of_search_engines

²¹ <http://www.google.com/crisisresponse/egypt.html>

[Google Translate](#)²² can be embedded within crowd sourcing mapping.²³ For more info on machine translation in general (not just Google Translate) see Jeff Allen's work [here](#).²⁴

GOOGLE EARTH AND MAPS (1 MAY 12)

Here are some illustrations of how the technology has been used to great advantage already:²⁵

- [Air Force Weather Agency \(AFWA\)](#) via Google Earth Enterprise software;
- Architecture thru [Merriman Associates/Architects \(maa\)](#) via Google Earth Pro;
- Washington DC access to geospatial information helps police officers, firefighters, intelligence analysts and others in hundreds of ways to do their jobs more effectively. Similar usage by other government agencies all around the world.

There's potential applications, maybe non-obvious until someone points them out, such as

- Business organization management hierarchy charts;²⁶
- Genealogy [Family Tree Mapping](#);²⁷
- [Virtual Globe](#) representation of some planet other than Earth,²⁸ such as our Moon, and next neighbors. Study Astronomy, not the planets, but stars in Milky Way, and beyond.

GOOGLE EARTH (1 MAY 12)

Latest version of [Google Earth](#), where you can download it (if you not already have it), and study [tutorials](#) how to make it work.²⁹

[Wikipedia](#) overview of what [Google Earth](#) is all about.³⁰ It is a way to view geography in 3 dimensions on your computer, with optional overlays of various related kinds of information. There is some criticism regarding citizen right to privacy, and government needs for secrecy. Recent versions of Google Earth automatically update, without user

²² <http://translate.google.com/#en|ht|>

²³ <http://blog.ushahidi.com/index.php/2011/03/23/realtime-translation-with-swiftriver/>

²⁴ <http://www.allenkeys2languages.org/>

²⁵ <http://www.google.com/enterprise/earthmaps/customers.html>

²⁶ I talk about the importance of improving the quality of what is being shared, in my **1 Year UN review regarding Haiti Aid**. Currently there is mass confusion, lack of cooperation, thanks in part to the poor quality of tools sharing info on what is a complex structure.

²⁷ http://en.wikipedia.org/wiki/Family_tree_mapping

²⁸ http://en.wikipedia.org/wiki/Virtual_Globe

²⁹ <http://www.google.com/earth/index.html>

<http://www.google.com/earth/learn/>

³⁰ http://en.wikipedia.org/wiki/Google_Earth

<http://www.google.com/earth/index.html>

ability to stop this. The images are all copyrighted by Google, which means any derivative work needs a Google license. Competitors of Google Earth have different mixtures of offerings with less basis for criticism. See the Wikipedia overview for more detail.

Some implications are unclear, may evolve. Some content via Google Earth can be copyright Google by default, as part of the license we agreed to when we downloaded this utility. There is a risk of changes to privacy offerings, where there is poor communication to the people who got the utility. Ushahidi, by comparison, is open source, intended for public sharing, but does not have to be.

Suppose you are a company managing a fleet of vehicles, such as emergency rescue, or deliveries, where GPS in each vehicle tells the map where they are located, and HQ dispatch updates where pick-ups and deliveries are scheduled, and this info is for the benefit of the company and its customers, do you want this info to be copyright Google, or copyright your company? Do you want to maybe have to pay an arm and a leg for an upgrade? Do you want to be locked into the latest patches from the vendor, or up to you whether or not to get the latest patches?

As of this writing, there are two versions available, the basic Google Earth which can be freely downloaded, and Google Earth Pro (\$399.00 per year), with additional features, intended for commercial usage. There's a Google Earth Plug-In that permits Google Earth images to be placed on web sites and other internet interfaces, so the pictures can be viewed by people who have not installed Google Earth. If you interested in the enhanced versions, check out these links:³¹

- [Earth Pro](#)
- [Earth Enterprise](#)
- [Maps API Premier](#)
- [Earth Builder](#)

I had a hassle figuring out how to download and install Google Earth, then I wrote [some tips](#) to try to help other people learn from my experiences, and get better bang for their efforts.³²

- Help [installing](#) Google Earth.³³
- Tips for [navigating info about Haiti](#), on Google Earth.³⁴

³¹ Alternatively, in Google search, look for those key words.

³² <http://haitirewired.wired.com/profiles/blogs/google-earth-tips>

³³ <http://earth.google.com/support/bin/answer.py?hl=en&answer=21955>

³⁴

http://shelterhaiti2010.googlegroups.com/web/GoogleEarthTips.pdf?gda=BY0M2kYAAADi_aW6HaS2wTDW7AnooHin8J0qDQIO9PPuEdE8U03vMPTsEspcj5jVAzP05AYYoWG4qzmRyw7pERYbIIbTVVQIE-Ea7GxYMt0r6nY0uV5FIQ I have also downloaded this sucker and can send it to people via e-mail. Here is a simpler url: <http://haiti.mphise.net/google-earth-user-tips>

Google Earth Builder (1 May 12)

Google says over 700 million people have downloaded Google Earth.³⁵ It has become immensely popular. They now have a [cloud based version](#)³⁶ called [Google Earth Builder](#),³⁷ where organizations can:

- easily create maps relevant to their business;
- setup security who can access what info;
- share access without sharing raw data files;
- scale support based on traffic patterns;

From my work in other business relationship computer services, some of my concerns include:

- Liability in the event of a breach, or malware delivered via this service.
- Will this be like PDF, where anyone can get a reader for free, but the creation of quality data packages is licensed and not for free?
- Cache size – currently people with slower hardware, slower connection speeds, hostile pricing for volume downloaded thru their ISP – they can have problems both with ability to access masses of images, in terms of how much disk space equivalent is coming to their PC, and hassles with their ISP bandwidth constraints. Will this be a problem with increased Geospatial Information sharing?
- Compatibility of features for customers with older versions of OS. In business today, we have problems with people sending DOCX to people who can only read DOC, or using Excel features which other persons cannot access. There are attachments which are too large to go via e-mail.
- When there are multiple companies in a supply chain, how is copyright and permissions hierarchy to be managed?
- Will this require an annual fee, like with anti-virus and firewalls?
- We are constantly having to do upgrades and patches with various computer services, some brand names more of a hassle than others. Will security patches be separated from new features?
- Interoperability – currently many companies have huge hassles because they have engineering data in Auto Cad, supply chain data in ERP CRM etc. business packages, documentation software, and it is mutually incompatible. Will it be possible, and will

³⁵ <http://www.youtube.com/watch?v=PcX54Z6Zuy0&feature=youtu.be>

³⁶ Thanks to **Janine Rees**, of MPHISE, for bringing this to our attention.

³⁷ <http://www.google.com/enterprise/earthmaps/builder.html>

it be legal (copyright licensing) to migrate data between existing business computer packages, and this new service?

- How dependent is the business on this info, and how long can you go with an outage?
- Ability for the data to be accessed by the disabled. Most of the Internet is in violation of laws regarding access by people with a variety of handicaps, such as the blind. At some point in the future, there may be enforcement of those laws. This could become like the company which owned UNIX, claimed LINUX had violated its IP, then sued all customers of LINUX.

GOOGLE MAPS (1 MAY 12)

I suggest you view what other people have done, before you start adding to your own collection. <http://maps.google.com/> You can book-mark some you want to frequently revisit, and you can add to the collection yourself. When you are on any Google search, up top you can select different kinds of things to search, one of them being Maps.

Google claims Google Maps are more popular than any of their competitor systems.³⁸ That may be true. However, I believe there is extreme popularity of many others, such as maps how to get from point A to point B when we intend to drive some place.

Recently with Midwest flooding 2011 spring, there were over 20 roads closed in my county due to high water, with the # changing every day, as water levels went up and down. I wanted a map which factored this in ... I want to travel to my favorite grocery store today:

- (a) Is it even possible, thanks to all the roads between my home and that place, closed due to high water?
- (b) If it is possible, please show a valid route, given the traffic jams and one way streets.

I have seen businesses web listings where there is a map showing where they located, with links to what the weather is like where they are. There's a link to get driving directions between them and wherever we are. This has become a standard.

Egypt (1 Feb 8)

[Flash points.](#)

Libya (1 Feb 20)

[Twitter](#) geography via [Google Maps](#) after [Internet](#) restored.³⁹

³⁸ <http://www.youtube.com/watch?v=PcX54Z6Zuy0&feature=youtu.be>

³⁹ <http://mashable.com/2011/02/19/internet-libya/>

CROWD SOURCE CRISIS MAPS (1 MAY 16)

The principle of *crowd sourcing* is that the general public can post witness information about where there is some problem, then emergency services can subscribe to these reports, based on geographical proximity to their areas of operation, and take appropriate action.⁴⁰ Mobile users can use this technology to identify where connections working, and not working.⁴¹

I have suggested that crowd sourcing might be a useful tool to address Diaspora Fragmentation. Currently the Haitian Diaspora shares organizational problems with recovery of the Haitian nation, in that there are thousands of special interest groups run by opinionated leaders, who have extreme difficulty cooperating with other well meaning people. I think there is need for not a geographical map, but a topical subjects map, where people could post info links identifying good works which are going on, which are deserving of better support.

Here is a philosophical background.⁴² The subject includes: collaborative or activist mapping; participatory journalism; distributed labor; and micro-tasking.

Crowd Seeding is a related concept to comprehend.⁴³ In most crowdsourcing approaches anyone can send information directly to the system. Crowdsourcing works in a more restricted way with phone holders that are pre-selected, and only they can send in information.⁴⁴ Crowdsourcing has three main advantages for data quality:

1. The data is received from a representative set of areas;
2. All senders are known to the system and are in a long term relationship with the Voix des Kivus program;
3. Because more than one holder is selected in each village “internal validation” is also possible.

In each village participating in Voix des Kivus there are three cell phone holders: one representing the traditional leadership, one representing women’s groups, and one elected by the community. Holders are trained extensively on how to send messages to the system. They are provided with a phone, monthly credit, and a code sheet that lists possible events

<http://search.twitter.com/search?q=&ands=&phrase=&ors=¬s=&tag=&lang=all&from=&to=&ref=&near=tripoli,+libya&within=50&units=mi&since=&until=&rpp=15>

<http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=215454646984933465708.00049c59184ae1136341a>

<http://www.renesys.com/blog/2011/02/libyan-disconnect-1.shtml>

⁴⁰<http://www.scribd.com/doc/55440047/Using-Crowdsourcing-to-Communicate-Information-During-a-Crisis>

⁴¹<http://www.scribd.com/doc/50449469/Crowdsourced-maps-help-mobile-users-compare-network-reliability>

⁴²<http://cultofthecrowd.com/>

<http://blog.ushahidi.com/index.php/2011/05/11/join-the-cult-of-the-crowd/>

⁴³<http://blog.ushahidi.com/index.php/2011/05/16/voix-des-kivus-a-crowd-seeding-system-in-drc/>

⁴⁴<http://cu-csds.org/wp-content/uploads/2009/10/Voix-des-Kivus-Leaflet.pdf>

which can take place in the village. Sending messages to the system is free but it is also voluntary – while users do not have to pay for each message they do not get any financial rewards for sending content to the system.⁴⁵

USHAHIDI OPEN SOURCE (1 MAY 16)

[Ushahidi](#) software is open source, so any interest group can download the tools, then tailor the results to their individual needs.⁴⁶ *Ushahidi means "testimony" in Swahili.*

The worldwide popularity of this resource means different groups can [learn from each other](#) via the [Ushahidi Community Website](#).⁴⁷ [Here](#) is [documentation](#).⁴⁸ [Scribd](#) has a case study on the promise of Ushahidi in Haiti relief efforts.⁴⁹ You can also follow other Crowd-sourcing publications on [Scribd](#).⁵⁰ See for example:

- [Arizona Culture Wars](#);⁵¹
- [Canada spring floods](#);⁵²
- [Chile Earthquake](#);⁵³
- [Côte d'Ivoire](#) (Ivory Coast, Africa) elections;⁵⁴
- Egyptian maps called [U-shahid](#) which means *you witness* in Arabic, were deployed by [Development and Institutionalization Support Center \(DISC\)](#) in Cairo. The maps were used to monitor the events during the [election](#) and [#Jan25 revolution](#) as well as the [constitutional amendments](#) on March 19th;⁵⁵
- [Egypt](#)⁵⁶ – [Bear Witness](#)⁵⁷ – [Internet](#)⁵⁸ [disrupted](#)⁵⁹ by Egypt government, with speculations how come posts to the map have stopped, even after Internet reconnected;

⁴⁵ <http://cu-csds.org/>

⁴⁶ <http://www.ushahidi.com/>

⁴⁷ <http://blog.ushahidi.com/index.php/2011/03/03/the-new-ushahidi-community-website-is-live/>
<http://community.ushahidi.com/>

⁴⁸ <http://blog.ushahidi.com/index.php/2011/03/15/announcing-the-ushahidi-manual/>
<http://community.ushahidi.com/resources/#resource-ushahidi-guide>

⁴⁹ <http://www.scribd.com/doc/41945727/Ushahidi-Haiti>

⁵⁰ http://www.scribd.com/Crowdsourcing_org

⁵¹ <http://immigrantharassment.com/>

⁵² <http://blog.ushahidi.com/index.php/2011/03/20/canadian-mappers-prepare-for-spring-floods/>

⁵³ <http://chile.ushahidi.com/main>

⁵⁴ <http://blog.ushahidi.com/index.php/2010/11/18/ivory-coast-presidential-election-ushahidi-platform-use-case/>

⁵⁵ <http://blog.ushahidi.com/index.php/2011/04/07/mapping-egypt-and-libya/>

⁵⁶ <http://www.u-shahid.org/cr/>

⁵⁷ <http://blog.ushahidi.com/index.php/2011/02/03/egypt-ushahidi-jan25/>

⁵⁸ <http://www.anhri.net/>

⁵⁹ <http://blog.ushahidi.com/index.php/2011/02/07/crowdmapping-egypt-jan25/>

Also see Al Mac Facebook notes.

- [Facebook Social Plug-in](#),⁶⁰ adds Facebook comments to crowd source reports so Facebook users are able to have a richer experience when interacting with your deployment;
- [Gulf Oil Spill](#);⁶¹
- [Haiti Aftermath](#);⁶² [Haiti Election Fraud](#);⁶³
- [Internet without Borders](#);⁶⁴
- Japan 2011 March earthquake – see separate chapters on this disaster;
- [Kenya voices of crime victims](#);⁶⁵
- Liberia complications;⁶⁶
- [Libya](#) crisis mapping setup by [Ushahidi](#) at request of UN [OCHA](#);⁶⁷
- [New Zealand earthquake](#);⁶⁸
- [Pakistan flooding](#);⁶⁹
- [Panama crime and corruption](#);⁷⁰
- [Poland flooding](#);⁷¹
- [Russia Wildfires](#);⁷²
- [Sudan Protests](#) and government reaction;⁷³

⁶⁰ <http://blog.ushahidi.com/index.php/2011/05/09/featured-plugin-facebook-social/>

⁶¹ <http://oilspill.labucketbrigade.org/main#>

⁶² <http://www.noula.ht/>

⁶³ <http://030f38f.netsolhost.com/WordPress/?p=4454>

⁶⁴ <http://www.internetsansfrontieres.com/>

⁶⁵ <http://www.globalgivingcommunity.com/kenya/>

<http://blog.ushahidi.com/index.php/2011/02/15/hearing-need-and-seeing-change-through-story-cycles/>

⁶⁶ <http://blog.ushahidi.com/index.php/2011/05/07/ushahidi-liberia-new-office-new-lessons-in-importing-cold-water/> Liberia and Haiti governments have a lot in common.

⁶⁷ <http://libyacrisismap.net/>

OCHA <http://ocha.org/> = UN Office for the Coordination of Humanitarian Affairs

<http://irevolution.net/2011/03/04/crisis-mapping-libya/>

<http://blog.ushahidi.com/index.php/2011/03/06/using-new-ushahidi-map-libya/>

<http://blog.standbytaskforce.com/>

You may need to be a Ushahidi member to see some of this stuff.

<http://irevolution.files.wordpress.com/2011/03/picture-36.png>

<http://blog.ushahidi.com/index.php/2011/04/07/mapping-egypt-and-libya/>

⁶⁸ Within an hour after the earthquake in New Zealand, christchurch.crowdmap.com was launched.

<http://blog.ushahidi.com/index.php/2011/02/24/launching-eq-org-nz-for-the-new-zealand-earthquake/>

⁶⁹ <http://pakrelief.crowdmap.com/>

⁷⁰ <http://knightcenter.utexas.edu/en/node/4650>

<http://www.mipanamatransparente.com/>

⁷¹ <http://alert.powodz.ngo.pl/>

⁷² <http://russian-fires.ru/>

- [Ushahidi](#).⁷⁴

If you'd like to volunteer to help out with projects like the above examples, in the future, follow [this link](#).⁷⁵

Some crowd sourcing map sites may deviate from standards seen on others, but I suggest anyone unfamiliar with how this works, take a tour through one of these links as follows:

1. When you get to the main site for the disaster mapping, book mark it for future reference.
2. Check your Internet Security controls – you may wish to authorize some software tools to be used at this site only.
3. Select REPORTS tab.
4. Select any one incident report.
5. Note there is a map there, where you can zoom around, and which can have sites of other incidents. The standard is that the first incident is a red dot, the others are orange dots.
6. Click on one of the other incidents.
7. Click on description of the incident.
8. You are now at the detail report on that other incident.

Ushahidi as a mapping tool (1 Apr 18)

Ushahidi platform is not a methodology.

Ushahidi platform is a mapping tool. The methodology which people choose to use to collect information is entirely up to them. They can use random sampling, controlled surveys, crowd sourcing, or some other methodology.

Most Ushahidi maps are not crisis maps. The platform is used in a very wide variety of ways, [even to map the best burgers in the US](#).

Ushahidi in Haiti was an ad-hoc, volunteer-based project and virtually all the crowd sourced reports were collected within 14 days of the earthquake (most within 10 days).

The World Bank-UNOSAT-JRC damage assessment took 600 experts 66 days to complete.

~~The cost probably figured in the hundreds of millions of dollars.~~⁷⁶ Later, the European Union found a strong correlation between Ushahidi SOS, and locations of damaged buildings.⁷⁷ But Benetech criticized this effort.⁷⁸ Apparently, they feel that when human

⁷³ <http://jan30sudan.crowdmap.com/>

⁷⁴ <http://ushahidi.com/about-us>

⁷⁵ http://blog.standbytaskforce.com/?page_id=17

⁷⁶ <http://irevolution.net/2010/10/13/crowdsourced-prediction/>

⁷⁷ <http://ec.europa.eu/dgs/jrc/index.cfm>

lives are at risk, in immediate need of rescue, it is better to wait a few months until we have comprehensive data, before reaching conclusions about the disaster. In Haiti, there was a lack of good maps generally available at the point in time when rescuers were first arriving.

They are not confusing the need to RESCUE people, where they are located, with the process of evaluating which buildings need what kind of repair. The author clearly states (in the comments) that he is not talking about ignoring SMS messages, any more than we'd suggest ignoring 911 emergency calls. Rather, it is what conclusions we can draw from patterns of SOS. We saw in the Japanese Tsunami that there were huge areas of devastation, with probably no survivors, so the lack of SOS from there does not imply there was no problem.

Commercial Crowd Sourcing (1 May 14)

Initially, crowd sourcing was developed by volunteers to help humanity deal with regional crises, then it got used by local government seeking to deal with similar challenges, and then for profit interests saw how to utilize the concept also.

[Mercedes-Benz](#) is celebrating its 125th anniversary and asking consumers for suggestions how they can do a better job of reinventing our future.⁷⁹

[Mayo Clinic](#)⁸⁰ uses crowd sourcing at Mall of America in Minnesota.⁸¹ Mayo Clinic believes that health care in the future won't be limited to clinics and hospitals. Health care providers need to adapt to peoples' changing needs, including seeing patients where and when it is convenient for them, and doing a better job of communicating with patients via the Internet.

On a [web page](#) dedicated to the gathering of ideas about the location in Bloomington, Minnesota, inside the largest mall in America in terms of retail space, Mayo Clinic says the following: "We plan to bring something different to the mall, and we need your help to find out how we can best meet your healthcare needs in this new environment."⁸²

The page lists 12 questions in the form of links which a user can click on and provide an answer as a comment. The questions:

- [What could Mayo Clinic offer you at MOA?](#)
- [When do you feel your healthiest?](#)
- [How can Mayo Clinic help you stay healthy?](#)

⁷⁸ <http://benetech.blogspot.com/2011/03/crowdsourced-data-is-not-substitute-for.html>

⁷⁹ <http://www.scribd.com/doc/55430288/Mercedes-Benz-looks-to-consumers-for-innovation>

⁸⁰ <http://www.medicitynews.com/tag/mayo-clinic/>

⁸¹ <http://www.scribd.com/doc/55426908/Mayo-Clinic-employs-crowdsourcing-strategy-for-Mall-of-America-location>

⁸² <http://sharing.mayoclinic.org/mayo-clinic-at-mall-of-america%C2%AE-we-want-to-hear-from-you/>

- [What does wellness mean to you?](#)
- [How would you like to be connected to Mayo Clinic?](#)
- [How is your health part of your everyday life?](#)
- [How can Mayo Clinic contribute to your wellness?](#)
- [What makes a good health experience?](#)
- [What would you like to see from Mayo Clinic at MOA?](#)
- [What are your greatest health care needs?](#)
- [What contributes most to your health and well-being?](#)
- [What are the greatest barriers you face when it comes to achieving health?](#)
- [What would make you feel more confident about your health \(or your family's health\)?](#)

Visit www.mayoclinic.org/moa for more information about Mayo Clinic at Mall of America.

This is an example of crowd sourcing for purposes other than mapping.

COMPOUNDING HAITI DISASTER (1 JAN 28)

While [software developers](#) have been going like gang busters constantly improving the state-of-art,⁸³ there are several problems at the level of implementing rescue for people in need. As we can see from [Ushahidi archives of the initial earthquake disaster Jan 2010 in Haiti](#), there were an enormous volume of people in desperate need, where their SOSs were translated into geographical coordinates, but there is no evidence any of them were actually rescued.⁸⁴ The site clearly has capability for some rescue effort to update an SOS incident saying “We rescued these people.” But no such postings exist. Other evidence indicates that a microscopic volume of these SOSs were actually responded to. In discussion lists hosted by the UN clusters, I saw how come that was.

1. We all know that there is a percentage of prank calls to emergency services in the developed nations, resulting in police ambulance fire etc. rescue runs to a non-event, meaning high cost, and not being available to deal with real emergencies. Some INGO rescue worker volunteers, in Haiti from such nations, assumed that this would also be true in Haiti, so they deliberately ignored all SOSs.

⁸³ <http://blog.ushahidi.com/>

⁸⁴ <http://haiti.ushahidi.com/>

2. They also speculated that people under rubble had tried to send SOS when the earthquake occurred, but the messages did not get out because cell towers down, so as cell phone infrastructure got recovered, what we were seeing were the last messages thanks to cell phone batteries not yet dead with people who were now in fact dead. Anyone who actually read the SOS details could see what a bogus argument that was.⁸⁵
3. Thru a great variety of social media, people who saw these SOSs, were repeating them any which way, to try to get the attention of INGOs in Haiti, whom people believed could carry out the rescues. Thus if and when any INGO did in fact conduct a rescue, they may not have known what SOS incident reports ought to get updated, so that other rescue efforts would know what scenarios had been resolved.
4. Many INGOs in Haiti are so focused on making themselves look good, they are not interested in mutual cooperation, or inviting more SOS directed at them. While it might temporarily make some INGO look good by adding to an SOS incident “We rescued these people.” It might mean that they would be drowned in calls for Help from Haitians, in excess of their capacity to respond.

UHP = Ushahidi Haiti project (1 Apr 25)

According to the Ushahidi Blog,⁸⁶ independent evaluators have completed the evaluation of the Ushahidi Haiti Project (UHP), after many months of interviews, sorting through Skype chats, and trying to connect the dots. The final report (36 page PDF) found [here](#)⁸⁷ and on the [eval website](#),⁸⁸ aims to contribute a few things to the Crisis Mapping community:

- An understanding of UHP itself, and
- An understanding of the methodologies which can best be used to evaluate and learn from open source projects to provide useful information for future implementers.
- Information systems used by the humanitarian response community have rarely been evaluated.⁸⁹
- Volunteer efforts are at the core of any emergency response.

⁸⁵ The original quake is estimated to have killed 200-350 thousand Haitians. There are people in these SOSs who were not saved. It is estimated that 25-50,000 additional Haitians survived the quake, but died waiting for rescue which never came in time. We can read about many of them at the Ushahidi archives of unanswered SOSs.

⁸⁶ <http://blog.ushahidi.com/index.php/2011/04/19/ushahidi-haiti-project-evaluation-final-report/>

⁸⁷ http://api.ning.com/files/HX-j3*PqLLSgdkf8w5RVQwTyx-8GN*wEGNr3zb-aZoeXYGoOLSBhU5nFC5-qTSj4C7m7StA0yHmGmHWgdDuDtu48CJRnwW8Q/Ushahidi_Haiti_Eval_final.pdf

⁸⁸ <http://blog.ushahidi.com/index.php/2011/04/26/a-word-from-the-evaluators-of-the-ushahidi-haiti-project/>

⁸⁸ <https://sites.google.com/site/haitiushahidieval/news/finalreportindependentevaluationoftheushahidihaitiproject>

⁸⁹ I disagree ... they have OFTEN been evaluated (see my blog series on accountability, and my 1 year reviews) but the lessons learned have almost never been implemented.

- Disconnect between information, needs, and decision making persists to thwart effective humanitarian response.
- There are significant challenges of analyzing many small and often disparate threads of conversations.

I think what should be of greatest interest to my contacts is whether Ushahidi Haiti was an exercise ignored by the International NGOs, as it appeared to be from their lack of documented response, or whether they did act on the info, without telling anyone they acted on the info. It is important to note WHY many NGOs ignored the SOS data (as found by the independent evaluation):

- Haiti Internet Access = Oxymoron immediately after the disaster.
- Crowd-Sourcing = relatively new technology for which humanitarian community very ignorant.

Also, there are recommendations what to do about the identified problems ... lessons learned, which new entrants to the field of humanitarian response may be more likely to apply, than those bureaucracies set in their same ways for decades.

Haiti Ushahidi spin-offs (1 Apr 16)

Various other groups are providing mapping service for Haiti, which I suspect may have been cloned in part from Ushahidi.

- [Citizen Haiti](#)⁹⁰ [Giving Citizens a say in what NGOs do.](#)⁹¹

Also see elsewhere in these research notes:

- Japan 2011 March Crisis
- KONEXTE in Disaster Prevention

Ushahidi is open source. Many groups use Ushahidi with origins non-obvious to many users. [Nula](#)⁹² took over crowd sourcing for Haiti disaster support, after Ushahidi started it, then others cloned from Nula, without giving Ushahidi credit, such as [Tanbou](#).⁹³

SIMILAR MAPS GROW IN POPULARITY (1 MAR 11)

Here is [crowd-funding](#).⁹⁴

Britain has maps to help motorists see where traffic is worst.⁹⁵

⁹⁰ <http://www.citizenhaiti.org/>

⁹¹ <http://citizenhaiti.com/2011/04/giving-citizens-a-say-in-monitoring-aid-for-haiti.html#more>
<http://haitirewired.wired.com/profiles/blogs/giving-citizens-a-say-in>

⁹² <http://www.noula.ht/>

⁹³ http://www.iomhaiti.net/haitifund4/pdf/poster_english.pdf
<http://www.iomhaiti.net/haitifund4/#>

⁹⁴ <http://www.scribd.com/doc/50486887/World%E2%80%99s-first-crowdfunding-website-launched>
<http://www.scribd.com/doc/50456896/Microphilanthropy-Crowdfunding-Start-Up-REVV-2011>

Britain has maps showing intensity of reported crimes.⁹⁶ Information on crime in Britain's maps is broken down into six categories - burglary, robbery, vehicle crime, violence, other crime and anti-social behavior. The inclusion of a "quiet street" as one of the most crime-ridden in the country was branded "crackers" by the local council. However, authorities under-estimated how popular this would be, they made insufficient capacity, and the site crashed almost immediately after being launched.⁹⁷

I reside in Evansville Indiana, which has long made maps available to the general public, showing the prevalence of various crimes reported around our communities.⁹⁸

Public Governance (1 May 17)

Thanks to [Mark Bishop](#)⁹⁹ for locating, and sharing link to, a [Geolocation](#) app¹⁰⁰ for reporting bribery requests, via [Bribespot](#).¹⁰¹ As of mid-May 2011, incidents have only been reported from a handful of nations, most of them in Europe. This picture is quite different from [Transparency International](#),¹⁰² which has a long history of researching many kinds of corruption.¹⁰³ Perhaps Bribespot is not well known yet, and reporting is influenced by witnesses not too fearful to report, and who have high level of confidence something will be done about it.

Military Intelligence (1 Feb 20)

The intelligence community is overwhelmed with data, having a serious problem connecting the dots of what is a real threat. Current cyber security uses firewalls breached by hackers until humans figure out what has been lost, then patch the walls.

Defense Advanced Research Projects Agency (Darpa)¹⁰⁴ is trying to apply the latest technology ideas to real world military challenges of right now and the future.

UNSTABLE REGIMES AND FAILING STATES (1 APR 13)

Here are some useful info sources.

- BBC on [Middle East](#) troubles.¹⁰⁵
- [CIA World Fact Book](#).¹⁰⁶

⁹⁵ <http://www.bbc.co.uk/travelnews/glasgowandwestscotland/>

⁹⁶ <http://www.bbc.co.uk/news/uk-12330078>

⁹⁷ <http://uk.news.yahoo.com/21/20110201/tuk-users-crash-new-crimes-map-website-6323e80.html>

⁹⁸ <http://www.evansvillepolice.com/crime-analysis-map>

⁹⁹ <http://www.linkedin.com/in/mcbishop31>

¹⁰⁰ http://www.readwriteweb.com/archives/geolocating_corruption.php

¹⁰¹ <http://www.bribespot.com/>

¹⁰² <http://www.transparency.org/>

¹⁰³ <http://www.transparency.org/publications/gcr>

¹⁰⁴ <http://www.scribd.com/doc/49152086/Darpa%E2%80%99s-New-Plans-Crowdsourcing-Intel-Edit-DNA>

¹⁰⁵ <http://www.bbc.co.uk/news/world-12482313>

¹⁰⁶ <https://www.cia.gov/library/publications/the-world-factbook/>

- [Economist](#) on Middle Eastern nations most unstable.¹⁰⁷
- Sudan propaganda.¹⁰⁸
- Transparency International 2010 [Corruption Index](#).¹⁰⁹ (Higher #, Redder Color = Greater Corruption)
- [World Bank](#) Data.¹¹⁰

e-Security in Repressive States (1 Mar 05)

Useful documents on online security:¹¹¹

[How to Communicate Securely in Repressive Environments – A Guide for Improving Digital Security – Patrick Meier](#)

[Security In A Box – How to remain anonymous and bypass censorship on the Internet – 2010-06-21 – MobileActive](#)

[Security In A Box – How to protect your information from physical threats – 2010-06-16 – MobileActive](#)

[Security in-a-box](#)

[SMS Privacy Tips for Election Monitoring And More](#)

[Digital Security and Privacy for Human Rights Defenders](#)

[THE DIGIACTIVE GUIDE TO TWITTER FOR ACTIVISM – Andreas Jungherr](#)

[Non Violent Struggle – 50 Crucial Point](#)

[Hints and Tips for Whistleblowers](#)

[Surveillance Self-Defense: Defensive Technology](#)

Middle East more (1 Mar 06)

Bassam Sebti has an article on [Scribd](#) on how crowd sourcing is being used for news gathering in such nations as: Bahrain; Egypt; Iraq; Libya.¹¹² Witnesses, on the ground, call in

¹⁰⁷ http://www.economist.com/blogs/dailychart/2011/02/daily_chart_arab_unrest_index

¹⁰⁸ <http://blog.ushahidi.com/index.php/2011/04/13/sudan-misinformation/>

¹⁰⁹ http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results

¹¹⁰ <http://data.worldbank.org/>

¹¹¹ From <http://blog.standbytaskforce.com/>

¹¹² <http://www.scribd.com/doc/50114127/New-Project-Makes-News-Gathering-in-the-Arab-World-Take-a-New-Turn>

via mobile phones with info, which is translated to other languages for mass sharing. Bassam gives links to the people who organized this, and to articles with more information. Scribd also has a collection of charts and map info on [Libya in Crisis](#).¹¹³ They include where the fighting has been, economics of the nation, locations of key infrastructure, demographics.

JAPAN RADIATION CROWD SOURCED (1 APR 25)

According to [Japan Resilience](#),¹¹⁴ there are now [hundreds of radiation-related feeds](#) from Japan¹¹⁵ on [Pachube](#)¹¹⁶ via Google Earth, monitoring conditions in realtime and underpinning more than half a dozen incredibly valuable applications built by people around the world. They combine 'official' data, 'unofficial' official data, and *realtime networked geiger counter measurements contributed by concerned citizens*. Now we're even seeing some tracking [radiation measurements of tap water](#). Also see [Japan Geigermap](#).¹¹⁷

Green Peace developed a Map of Radiation Measurements.¹¹⁸ View [Map of Radiation Measurements by Greenpeace team](#) in a larger Google map.¹¹⁹

Here's [Fukushima radiation](#) over period of time.¹²⁰

Thanks to Kathy Gilbeaux for finding and sharing this news:¹²¹ The [folks at RDTN](#) have organized a Kickstarter project¹²² to fund the development and deployment of radiation detectors in Japan.¹²³ The project uses an iPhone hacked to work with a variety of radiation detectors. The radiation units ([shown here](#))¹²⁴ will be sent into the field and used to collect data on radiation contamination in the Tsunami-ravaged country.

Since the detectors use an iPhone, they are easy for the average person with minimal technical knowledge to operate. Japanese residents who accept these counters are required to take readings eight to ten times a day and report their data back to RDTN's website.¹²⁵ The readings are compiled by RDTN and made accessible to non-profit organizations, governments and scientists. The first sensor was deployed on April 14 and is already

¹¹³ http://www.scribd.com/doc/49361948/Libya-in-Crisis?in_collection=2874605

¹¹⁴ <http://japan.resiliencesystem.org/maps-crowd-sourced-realtime-radiation-monitoring>

¹¹⁵ <http://www.rdtm.org/>

¹¹⁶ <http://community.pachube.com/node/611#3d>

¹¹⁷ <http://japan.failedrobot.com/>

¹¹⁸ <http://japan.resiliencesystem.org/map-radiation-measurements-greenpeace-team>

¹¹⁹

<http://maps.google.com/maps/ms?ie=UTF8&hl=en&t=h&source=embed&oe=UTF8&msa=0&msid=216097317933419817421.00049f79dd8efb50bf317&start=0&num=200&sll=37.4389,140.666134&sspn=0.747234,0.637733&ll=37.474858,140.743103&spn=1.046271,1.757813&z=9>

¹²⁰ <http://upload.wikimedia.org/wikipedia/commons/2/2f/Fukushima7.png>

¹²¹ <http://japan.resiliencesystem.org/iphone-geiger-counter-would-benefit-japan-needs-kickstarter-love>

¹²² <http://www.kickstarter.com/projects/1038658656/rdtnorg-radiation-detection-hardware-network-in-ja>

¹²³ <http://rdtn.org/>

¹²⁴ <http://blog.rdtm.org/2011/04/14/a-little-of-what-weve-been-up-to/>

¹²⁵ <http://rdtn.org/>

reporting back information to RDTN. You can view these readings and additional future readings on RDTN's twitter account ([@RDTNprobes](#)).

The group's [Kickstarter project](#) is seeking US\$33,000 to initially deploy 100 devices in the field.¹²⁶ The company's long-term goal is to equip over 600 people in Japan with devices and create a network of radiation monitors in the country.¹²⁷

JAPAN 2011 MARCH CRISIS (1 MAR 26)

Earthquake, one of largest in history, hit 2011 March 11, followed by a very bad tsunami, which complicated life at several nuclear power plants. There was an army of aftershocks, many also with tsunami, which added to the chaos, including helping a volcano erupt.

Japan had an estimated 9.0 quake, which is 5th largest since 1900, the 7th largest since 1700, in the whole world. This was followed by a Tsunami, felt all over the Pacific, with a wall of water 33 feet high sweeping inland, destroying homes, all kinds of infrastructure. I have separate “**Japan Earthquake**” set of notes, plus several focused on **Nuclear Accidents**, which I have been using for my status reference info on Facebook and Linked In. Some of it contains links to maps, which I will copy here when the crisis dies down a bit.

If some of the terminology here seems problematic, get copies of my documents trying to explain terminology, concepts, and acronyms. I have one each Haiti and Japan.

Some Japan disaster support sites have a spectrum of maps available.¹²⁸

Various science mapping efforts have begun,¹²⁹ in aftermath of the Japan disasters, such as:

Aftershocks Swarm ([MAP](#)) [Japan: Earthquakes Swarm \(15 Mar 2011\)](#) from United Nations World Food Programme (WFP) summary link¹³⁰ to detail PDF¹³¹ which I downloaded with name “**EOJ Map 2011 Mar 15 WFP Aftershocks.**” Aftershock circles are sized according to magnitude of the earthquakes, along with locations of nuclear power plants.

Kashiwazaki-Kariwa is a nuclear power plant close to one of the aftershocks.

Blackouts rolling, due to infrastructure damage to electrical supplies.

See <http://japan.resiliencesystem.org/google-maps-rolling-blackouts-japan>

¹²⁶ <http://www.kickstarter.com/projects/1038658656/rdtorg-radiation-detection-hardware-network-in-japan>

¹²⁷ <http://www.twaw.com/2011/04/15/iphone-geiger-counter-would-benefit-japan-needs-kickstarter-love/>

¹²⁸ <http://japan.resiliencesystem.org/node/740>

¹²⁹ With Haiti disaster we saw the development of new ways maps can help in crises, and we also saw lots of uncoordinated efforts. Will the humanitarian community apply those lessons in Japan?

¹³⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EZLQD?OpenDocument&rc=3&cc=jpn>

OCHA Relief Web

¹³¹

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/DAFF3E05B66C08E7852578550057F51B/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/DAFF3E05B66C08E7852578550057F51B/$File/map.pdf?OpenElement) OCHA Relief Web

CROWD SOURCING JAPAN (1 APR 01)

[Crisis Commons](#) has a wiki of resources relevant to Japan disaster,¹³² including maps:¹³³

- [ESRI Disaster Maps](#)
 - [Japan Earthquake Map](#)
 - [ESRI Japan](#)
- [E-Statistics - Population](#)
- [GISNP - Includes block groups and street level data](#)
- [Google Crisis Response Resources](#)
 - [Post-Earthquake Imagery KML](#)
 - [Google Crisis Response \(AU\)](#)
- [Harvard Center for Geographic Analysis - Animated Map](#)
- [Geospatial Information Authority of Japan \(GSI\)](#)
 - [Postseismic Slip Distribution Model](#)
 - [Coseismic Slip Distribution Model](#)
 - [Crustal Deformation and Fault Model](#)
 - [Landslide Moment Map](#)
 - [Fault Model - Preliminary](#)
- [International Charter, Space and Major Disaster Products](#)
- [Mississippi Delta State](#)
- [Open Street Map Sendai Earthquake Resources](#)
 - [Visualizations via OSM](#)
 - [Photos of OSM Maps](#)
- [Pasco: Info on NE Pacific Ocean Earthquake - JAXA/ALOS/PRISM/AVNIR-2](#)
- United Nations
 - [UN-SPIDER map and links](#)
- University of California in Los Angeles (UCLA)
 - [GIS Hub](#)
- [Pacific Disaster Center interactive map](#)
 - [PDC EMOPS Portal \(password protected\)](#)

¹³² This collection will no doubt get more added to over time.

¹³³ http://wiki.crisiscommons.org/wiki/Japan_Data_Profile

- [Pacific Disaster Center Active Hazards REST Service](#)
- United States Geological Service
- [USGS Google Earth/KML Files](#)

CROWD SOURCE USHAHIDI JAPAN (1 APR 13)

Crowd Sourcing people with SOS situations

Ushahidi – more than one (this is open source for anyone to use)
<http://www.sinsai.info/ushahidi/> on right side of screen see button for English translation.

<http://osmemo.wizu.jp/main#> see link to put the info in English

How people can help this effort.¹³⁴

Also see Japan Resilience System

<http://japan.resiliencesystem.org/search-and-rescue>

<http://japan.resiliencesystem.org/rapid-medical-response>

Dartmouth Flood Observatory summary link¹³⁵ to March 14 PDF collection of maps¹³⁶ of area affected by the tsunami wave flooding inland.

Sinsai Japan Crowd Sourcing (1 Apr 20)

<http://www.sinsai.info/ushahidi/> on right side of screen see button for English translation.

Crowd Sourcing Mashups

Sinsai Japan Earthquake Resources: Using Ushahidi Crowdsourced Crisis Response Platform and OpenStreetMap, this mashup communicates the location as a services and resources useful to those on the scene in Japan, and claims the results are more reliable maps, according to these links.¹³⁷

Ushahidi Blog on April 20, 2011 has an update on Sinsai,¹³⁸ from its leader, Hal Seki. The [Sinsai.info](#) website is mainly operated by the [OpenStreetMap Foundation Japan](#), and

¹³⁴ <http://blog.ushahidi.com/index.php/2011/03/16/crisis-mapping-japans-earthquake-and-how-you-can-help/>

<http://architectureforhumanity.org/programs/2011-sendai-earthquake-and-tsunami>

¹³⁵ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXMGG?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹³⁶

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/5D3CDAF250634C9F85257853005B79A8/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/5D3CDAF250634C9F85257853005B79A8/$File/map.pdf?OpenElement) from OCHA Relief Web

¹³⁷ <http://japan.resiliencesystem.org/best-new-mashups-reliable-data-maps>

<http://www.rdtm.org>

<http://blog.programmableweb.com/2011/03/22/best-new-mashups-japanese-earthquake-maps/>

¹³⁸ <http://blog.ushahidi.com/index.php/2011/04/20/crisis-mapping-japan/>

supported by more than 200 volunteers. As of April 20, here is latest status of sinsai.info usage:

- Sinsai.info was launched just after 4 hours since the earthquake hit
- The very first report was uploaded after 3 hours since the site was launched
- Total number of reports as of April 11 – 9,405 (10,518 including reports which are not approved yet)
- Total page views – 1,213,258
- Total number of visitors – 833,399
- Total number of unique visitors – 430,021
- Number of countries where the user accessed to the internet – 151
- Organizations that use Sinsai.info – Yahoo Japan, Google, Japanese government official website (Tasukeai Japan), ESRI, etc.

Reasons why we could collect many reports:

- The penetration rate of Twitter in Japan is high (more than 20 million, more than 16% of internet users). Many tweets, which ask for the safety of the people were posted massively.
- Moderators were well-organized at the early state, making the hash-tagged tweets into the reports.
- As the number of reports increased, the recognition of sinsai.info also increased. There are many direct reports to the sinsai.info site these days.

This Great East Japan earthquake has extensively affected including crippling on-site infrastructure, cell phones, and electricity. Under such circumstances, I have become painfully aware of powerlessness of IT over the past one month. I have also constantly frustrated that I cannot provide direct support toward disaster-affected areas even using sinsai.info support.

In fact I may be the one who is rescued the most through this activity. Even if I get to the disaster affected areas, I know I would become a burden. However, there is still something that I can do which made me forget a looming sense of anxiety and frustration on a daily basis.

I am still not sure how many people are being helped by sinsai.info. However, when I talk to NGOs and people who have been to disaster-affected areas, it appears certain that information gap becomes serious issue. Therefore, I believe that platform like sinsai.info may be of help at a time like this when electricity and communication infrastructure are recovering. With that in mind, I would like to continue our activities.

Our repository is placed as below:

https://github.com/sinsai/Ushahidi_Web

EARTHQUAKE OVERVIEW (1 APR 28)

Earthquakes around the world:¹³⁹

- [Most recent](#) large events;¹⁴⁰
- [Mapped](#);¹⁴¹
- [Intensities](#).¹⁴²

Earthquake overview mapped by <http://www.pdc.org> Pacific Disaster Center (PDC), summary¹⁴³ link to detail¹⁴⁴ PDF. I did not think this was as useful as their Low lying coastal areas map, but it does show major Japanese motorways.

*After the 9.0 magnitude earthquake and tsunami ravaged Japan, hundreds of thousands of people have signed up for a new emergency warning app for their iPhones; when an earthquake is predicted to hit, the iPhone app, called Yure Kuru, will send out an alert and let subscribers know when the quake is coming, where the epicenter is located, and how bad the shaking will be; the app was developed by Tokyo based RC Solution Co., which specializes in mass alert systems and spreading information in the event of an emergency; since the 11 March earthquake, the company's subscribers have sky rocketed from 100,000 to more than 1.5 million.*¹⁴⁵

e-GEOS of Italy offers [\(MAP\) Japan: Fukushima Nuclear Plant - Damage Assessment Map \(16 March 2011\)](#) summary link,¹⁴⁶ to detail PDF,¹⁴⁷ which I downloaded with name **EOJ Map Fukushima unidentified Mar 16 e GEOS**

The original title or NAME was incomplete, since there are TWO such Plants, Dai-ichi and Dai-ni, in trouble thanks to the big earthquake, tsunami, and nuclear accidents triggered by these events. It is not obvious, from the map, which one they are referring to. That is why I included the word “unidentified” in my labeling. I have an earlier downloaded map, now called

“**EOJ Map Fukushima Dai-Ichi 2011 Mar 11 NPS**” showing concentric circles of evacuation (I periodically adjust naming to make easier to find again) and “**EOJ Map 2011 Mar 15 Stay Out**” which shows BOTH Fukushima power plants, and the other two impacted by initial earthquake and tsunami.

e-GEOS of Italy offers [\(MAP\) Japan: Fukushima Nuclear Plant - Flood Map \(16 Mar 2011\)](#) which I blew up many times and was unable to determine which of the two Fukushima nuclear power plants they are referring to. No matter, this one focuses on flooding near

¹³⁹ <http://www.iris.edu/dms/seismon.htm>

¹⁴⁰ <http://geofon.gfz-potsdam.de/geofon/seismon/globmon.html>

¹⁴¹ <http://neic.usgs.gov/neis/qed/>

¹⁴² <http://www.jma.go.jp/jma/en/Activities/image/earth-fig03.png>

¹⁴³ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKTZ?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁴⁴ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/F16932D06AA5BEA4852578530053C8E0/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/F16932D06AA5BEA4852578530053C8E0/$File/map.pdf?OpenElement) from OCHA Relief Web

¹⁴⁵ <http://japan.resiliencesystem.org/japanese-app-helps-spread-earthquake-warning>
<http://homelandsecuritynewswire.com/japanese-app-helps-spread-earthquake-warning>

¹⁴⁶ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F3PCG?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

¹⁴⁷ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CA1CC8905519A7E985257857006CFFAF/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CA1CC8905519A7E985257857006CFFAF/$File/map.pdf?OpenElement) OCHA Relief Web

whichever one it is. I suppose those waters have tsunami debris and thus are worse than sea water¹⁴⁸ for cooling a nuclear power plant.

I downloaded this as “**EOJ Map Fukushima unknown flood Mar 16 e GEO**” using word unknown because non-obvious which nuclear power plant they mapping.

e-GEOS of Italy offers [\(MAP\) Japan: Fukyshima Nuclear Plant - Change detection Map \(17 Mar 2011\)](#) which I had to blow up a ton of times to see they are referring to Fukushima I = Fukushima Dai-ichi. They took pictures from two satellites to get at changes: - buildings damaged, and still standing.

I downloaded this as “**EOJ Map Fukushima Dai-Ichi Mar 17 e GEO**”

If science makes it possible, I would like to see infrared or whatever conversion that shows where radioactivity was in the air over the plants, and down-wind, at what altitude. I suppose the only way to get such info is to use an unmanned aerial vehicle (UAV) carrying various radiation detectors, then plot what it finds on a simulated map. The UAV would need to be cleaned after every mission.

Environmental Systems Research Institute ([ESRI](#))¹⁴⁹ provided [\(MAP\) Pacific: Tsunami Movement Model \(22 Mar 2011\)](#) via OCHA Relief Web.¹⁵⁰ This interactive map shows Tsunami movement across the Pacific, predicted propagation vs. population densities. This same outfit also has:

[Nuclear Impact Map](#)¹⁵¹ = locations of 4 nuclear power plant sites most in our news
[How Japan moved](#)¹⁵² = Horizontal land shocks associated with each Aftershock
[Social Media Map](#)¹⁵³ – select U-Tube, which kind of street map, shake map, etc. to correlate where the people are located who are witnessing things
[Trends Map](#)¹⁵⁴ – crowd sourcing, another variant

Related Link:

[ESRI: Japan Earthquake and Tsunami Related Maps.](#)

Overall it looks like this outfit has a lot of potential.

Epicenter of the disaster in Japan¹⁵⁵

¹⁴⁸ Sea water, not being pure water, causes corrosion of where it is cooling, so even if there was no other damage, the sea water means several years before power plants repaired good enough to get back in business.

¹⁴⁹ <http://www.esri.com/about-esri/index.html>

¹⁵⁰ OCHA Relief Web summary link

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F7KVY?OpenDocument&rc=3&cc=jpn> to detail PDF <http://www.esri.com/services/disaster-response/japan-earthquake-tsunami-2011-map/tsunami-movement-map.html>

¹⁵¹ <http://www.esri.com/services/disaster-response/japan-earthquake-tsunami-2011-map/nuclear-impact-map.html>

¹⁵² <http://www.esri.com/services/disaster-response/japan-earthquake-tsunami-2011-map/shift-map.html>

¹⁵³ <http://www.esri.com/services/disaster-response/japan-earthquake-tsunami-2011-map/index.html>

¹⁵⁴ <http://www.esri.com/services/disaster-response/japan-earthquake-tsunami-2011-map/trends-map.html>

¹⁵⁵ Summary from OCHA Relief Web

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EULVN?OpenDocument&rc=3&cc=jpn>

Detail PDF map (not much detail)

European Commission - Joint Research Centre (EC-JRC)

March 11 ([MAP](#)) [Impact Analysis Map - Inundated areas \[Region 1, 2, 3\] \(Tsunami in Japan on 11/03/2011\)](#) summary link¹⁵⁶ to PDF¹⁵⁷ of impact analysis – population estimates where the tsunami came ashore.

I downloaded a copy of this map, naming it

EOJ Map Flood Sendai Mar 11 EC JRC

March 14 summary link¹⁵⁸ to PDF¹⁵⁹ of locations affected ... it identifies many towns with population before the disaster, how many people missing, numbers of bodies found ... dark blue along coast shows where tsunami waves came inland. The power plants are on the map, along with many roads.

I downloaded a copy of this map, naming it

EOJ Map 2011 Mar 14 EC JRC

FINDING FAMILY IN JAPAN (1 MAR 22)

Finding family, friends, coping with unattended children.

Several organizations have established systems to help re-unite people separated through disasters: Google; Red Cross; Salvation Army, U-Tube;¹⁶⁰ Government Foreign Offices for contact with citizens of those nations. There is major controversy in the world how best to help with children, separated from their families, in a disaster, which I explain in my **Glossary of Housing** (and other challenges) in Haiti.

<http://japan.resiliencesystem.org/search-and-rescue> has links to some of these resources.

Brief videos, most less than a minute long, were taken in shelters around Japan and are posted at youtube.com/shousoku.

Google has established a multi-lingual Crisis Response Page with links to the "Person Finder" and other resources such as emergency hotlines, relief organizations, travel information and maps.

Ask me for copy of "Trace Missing Persons" which I downloaded from IRIN.

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/85188FDBC8C8F262852578500059632C/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/85188FDBC8C8F262852578500059632C/$File/map.pdf?OpenElement)

¹⁵⁶ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EZP8P?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

¹⁵⁷ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/6A50E2DC420D932C8525785500686386/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/6A50E2DC420D932C8525785500686386/$File/map.pdf?OpenElement) OCHA Relief Web

¹⁵⁸ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXPU5?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁵⁹ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/47867766D3FEB8FE8525785300667C97/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/47867766D3FEB8FE8525785300667C97/$File/map.pdf?OpenElement) from OCHA Relief Web

¹⁶⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/SNAA-8F3P5P?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

Fukushima Dai-Ichi I on a map from <http://www.pdc.org> Pacific Disaster Center (PDC), summary¹⁶¹ link to detail¹⁶² PDF. This nuclear power plant is one of three in trouble right after March 11 earthquake and tsunami. There's another in trouble much farther south thanks to one of the aftershocks and accompanying tsunami.¹⁶³ This map has 2 circles around. Orange middle is 3 km. Yellow outer is 10 km. These are the initial evacuation and stay indoors zones which later got expanded.

I downloaded a copy of this map, naming it

EOJ Map 2011 Mar 11 NPS Fukushima Dai-Ichi I

EQJ = Earthquake Japan (organizing my documents vs. Haiti)

NPS = Nuclear Power Station

Fukushima is one focus group¹⁶⁴ of Japan Resiliency System, with many relevant maps, such as:

[Map - Regions and Prefectures of Japan](#)

Google Map of Rolling Blackouts in Japan¹⁶⁵

<http://japan.resiliencesystem.org/map-fukushima-prefecture>

Ushahidi hotspot Map Japan¹⁶⁶

GERMAN DLR (1 MAR 18)

German Aerospace Center (DLR)¹⁶⁷ correlates sea level of critical infrastructure vs. tsunami affects, for example how far the airport above sea level vs. height of wave when it got there, locations of various places in the news, links to stories.

Here¹⁶⁸ are March 12 summary links¹⁶⁹ to over a dozen DLR satellite Japan damage analysis maps of earthquake tsunami nuclear

<http://www.digitalglobe.com/index.php/27/Sample+Imagery+Gallery>

¹⁶¹ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKVD?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁶²

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/7DD06A9E7D10C036852578530053F39F/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/7DD06A9E7D10C036852578530053F39F/$File/map.pdf?OpenElement) from OCHA Relief Web

¹⁶³ See my separate notes on the Japan nuclear disasters.

¹⁶⁴ <http://japan.resiliencesystem.org/fukushima-prefecture-health-capacity-zone>

¹⁶⁵ <http://japan.resiliencesystem.org/google-maps-rolling-blackouts-japan>

¹⁶⁶ <http://japan.resiliencesystem.org/hotspot-map-japan-ushahidi>

¹⁶⁷ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EUQKG?OpenDocument&rc=3&cc=jpn> Summary from OCHA Relief Web

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/78956467B2F91E5A85257850006A7767/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/78956467B2F91E5A85257850006A7767/$File/map.pdf?OpenElement) Detail Map

¹⁶⁸ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/AHAA-8EWTU7?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

I downloaded the detail March 12 map from summary link¹⁷⁰ here to named

EOJ Map Flood Minamisoma 2011 Mar 12 DLR

This one details city street map vs. where the flooding is.

I downloaded the detail March 12 map ([MAP](#)) [Japan: Sendai Region - Earthquake/Tsunami Overview Map \(Observed inundation extend as of 12 March 2011\)](#) from summary link¹⁷¹ here to¹⁷² named

EOJ Map Flood Sendai 2011 Mar 12 DLR











Here is March 13 summary link¹⁷³ to DLR damage assessment maps of Japan

Jointly developed by

German Aerospace Center (DLR)

International Charter Space and Major Disasters

Related Links:

- [Japan, Higashi-Matsushima - Earthquake/Tsunami](#) 
- [Japan, Torinoumi - Earthquake/Tsunami](#) 
- [Japan, Soma - Earthquake/Tsunami](#) 
- [Japan, Sendai Airport - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Sheet 5: Yagawahama - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Sheet 4: Onagawa Nuclear Power Plant - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Sheet 3: Momonoura - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Sheet 2: Ishinomaki Bay - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Sheet 1: Onagawa - Earthquake/Tsunami](#) 
- [Japan, Oshika Peninsula - Earthquake/Tsunami](#) 

Here is summary link¹⁷⁴ to DLR March 14 Interactive satellite analysis map of earthquake tsunami <http://www.zki.dlr.de/article/1893> where there is at least a score of additional downloadable maps of various aspects of the Japan disaster.

¹⁶⁹ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/AHAA-8EWT5C?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁷⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EYRZE?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

¹⁷¹ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EZP4C?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

¹⁷² [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/B4F63CCEEDE668328525785500631428/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/B4F63CCEEDE668328525785500631428/$File/map.pdf?OpenElement) OCHA Relief Web

¹⁷³ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/AHAA-8EWTFG?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁷⁴ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXLM7?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

GOOGLE HELP JAPAN (1 APR 24)

Google Earth and Google Map link¹⁷⁵ to March 14 interactive [map](#)¹⁷⁶ with additional links, which no doubt will get additional resources since the last time I peeked.

KML – you need to have Google Earth installed to see these¹⁷⁷

Japan's nuclear power plants [KML](#)

Source: [Harvard Center for Geographic Analysis](#), [My Maps](#)

Google essentials¹⁷⁸

If you haven't seen this yet . . . here's a Google document . . . For Fukushima, Miyagi, Ibaraki, and Iwate Prefectures in Japan . . . List of Water and Food Distribution Centers, Shelters, Fuel, Transportation, Communication, Hospitals, etc. It's in Japanese, but you can open it in Internet Explorer and click on the "Translate" button (upper right corner) to switch to English.

https://spreadsheets2.google.com/pub?hl=ja&hl=ja&key=0An_bfTU7s7XHdGxhazkyeExVTDV2TmZfM28tdHRUcVE&output=html&ndplr=1

JAPAN ATOMIC (1 MAY 17)

[JAIF](#) = Japan Atomic Industrial Forum. I have downloaded their Apr 9 situation report on the Nuclear situation in Japan.¹⁷⁹ The last page has a map of all Nuclear Power plants in Japan,¹⁸⁰ summarizing their status.¹⁸¹

- Affected adversely by the quake
 - Fukushima Dai-ichi 6 units = Nuclear Accidents
 - Fukushima Dai-2 4 units = Safe (we hope)
 - Onagawa 3 units = Safe (we hope)
 - Tokai 1 unit = Safe (we hope)
- Operating normally, or shut down: = Safe (not impaired by quake & tsunami)
 - Genkai 4 units west coast
 - Hamaoka 3 units SW of Tokyo
 - Ikata 3 units far SW
 - Kashiwazaki Karawa 7 units west coast
 - Mihoma 3 units west coast
 - Ohi 4 units west coast
 - Sendai 2 units far south

¹⁷⁵ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXRVZ?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁷⁶

http://mw1.google.com/crisisresponse/2011/sendai_earthquake/google/map/sendai_earthquake_2011.html

¹⁷⁷ I have guidance on installing Google Earth in my **Haitian Map Directory**.

¹⁷⁸ Thanks to Kathy for spotting this.

¹⁷⁹ I called it “**JAIF 9 April Fuknushima Sitrep**”

¹⁸⁰ Here is another map of all the nuclear power plants in Japan, without the statistics on how many units each or their status: <http://japan.resiliencesystem.org/map-japan-nuclear-power-plants>

¹⁸¹ This story may be incomplete . . . I had heard that aftershocks caused trouble to other nuclear power plants, I don't see anything about that on this map.

- Shika 2 units west coast
- Shimono 2 units west coast
- Tohoku Higashidori 1 unit in the north
- Tokohomo 4 units west coast
- Tomari 3 units far north
- Tsurugo 2 units west coast

[Japan Incident Map](#)¹⁸²

The Japan Incident Map utilized Ushahidi, Open Street Map, YouTube, Twitter, Flickr and other data to create a dynamic and user-generated map. Click on the map above or [here](#) for more information.

Japanese Points of Interest <http://teitennomori.uchida.co.jp/mori/en/> once we know location name etc. from the other maps.

[Japan Resilience System](#) has tons of resources.¹⁸³ Start with one of the footnotes I share with links to the place, then noodle around from there.¹⁸⁴

Jet Stream analysis <http://japan.resiliencesystem.org/jetstream-analysis-sfsu-meteorology>

KOYOTO IEDM (1 APR 24)

Koyoto University published a 2 week IEDM¹⁸⁵ report on the Japan earthquake, tsunami, and nuclear crisis.¹⁸⁶ The aim of their report was to synthesize existing data with basic situation analysis. They note that the disaster posed a major challenge to the disaster risk reduction community.¹⁸⁷

At the end of my “**Nuclear Time Line**” notes, there has been a section on “**Lessons Learned**” (but not much hope they will be implemented) where I will include any notes where these people have learned anything more than the rest of us have seen. I am now moving this section to its own document initially called “**Lessons Japan**,” although many of the lessons apply to other nations, the events occurred in Japan. Most of the IEDM report is on what the problems have been, although we can all derive lessons learned from what they say.

As we have observed with the Haiti disaster, and other disasters in humanitarian history going back several decades, the disaster relief and avoidance industry is extremely experienced in developing lessons learned, but the state of art of our civilization is that we are totally incompetent, when it comes to implementing lessons learned.¹⁸⁸

¹⁸² <http://japan.resiliencesystem.org/japan-incident-map-esri>

¹⁸³ <http://japan.resiliencesystem.org/>

¹⁸⁴ <http://japan.resiliencesystem.org/satellite-imagery-japan-earthquake-tsunami>

¹⁸⁵ IEDM = International Environment and Disaster Management Laboratory

¹⁸⁶ <http://japan.resiliencesystem.org/2-week-report-kyoto-university-synthesis-and-initial-observations>

¹⁸⁷ <http://www.iedm.ges.kyoto-u.ac.jp/>

¹⁸⁸ See my 1 year Haiti reviews here, and other places: <http://www.haiti.prizm.org/>

Japan already has an excellent understanding of coordination and cooperation needs, between the entire community of volunteers and government actions. This understanding is still lacking with UN hosted efforts in Haiti, 16 months after the Jan 2010 quake. A big difference Japan vs. Haiti is the speed with which critical mapping resources and statistics became available, and apparently got used productively.

For example, city or town X outside of the disaster area “adopts” as a sister city, a similar sized community inside the disaster area, to provide essential services which the victim community is unable to provide for itself.

Their 81 page report¹⁸⁹ includes:

- Disaster scope maps;
- Tsunami statistics and map;
- Nuclear evacuation area maps;¹⁹⁰
- Aftershocks summary and maps;
- Helicopter pictures of devastated area;
- Rescue effort pictures;
- Fires statistics due to the earthquake and tsunami (325 thru March 19);
- Infrastructure damage statistics;
- People killed, injured, missing statistics;
- Evacuation and shelter statistics and maps;
- International assistance effort statistics;
- Schools statistics – diverted to shelters, too damaged for education to continue;
- Economic consequences speculation;
- Electric Power rationing, as high as 25% reduction in some areas;¹⁹¹
- Impact on critical supplies to people, thanks to damaged roads, electrical supply;

Japan has an urgent need to import fossil fuels (coal, oil, natural gas) to replenish energy lost due to the nuclear accidents, but damage from the earthquake tsunami has severely constrained storage facilities.

Many public utilities are severely damaged, including delivery of water.

Debris from the Tsunami will take a long time to clean up.

Submergence, of some land, means coastal tides, future storm surges, will have different impacts than Japanese people are accustomed to.

Important issues are listed below this link which can be updated anytime by anyone within the affected areas:

¹⁸⁹ I downloaded a copy, naming it **IEDM 25 March Japan**.

¹⁹⁰ Note excess radioactivity has been measured OUTSIDE the evacuation zones.

¹⁹¹ Areas served by TEPCO account for approx 40% of Japan production.

https://spreadsheets2.google.com/pub?hl=ja&hl=ja&key=0An_bfTU7s7XHdGxhazkyE xVTDV2TmZfM28tdHRUcVE&output=html&ndplr=1

- List of water point/water
- List of medical hospital
- List of where to get food and daily necessities/No. of daily meal
- List of where to get gasoline supply/Fuel gas
- List of functioning ATM-Bank
- List of designated emergency shelter
- List of pay phones with mobile charge
- List of toilets/restrooms
- List of tentative garbage yard
- List of open bath facility

LOW LYING AREAS FLOODED (1 APR 01)

Low lying coastal areas of Japan mapped by <http://www.pdc.org> Pacific Disaster Center (PDC), summary¹⁹² link to detail¹⁹³ PDF. The info is not all overlaid, but the maps include:¹⁹⁴

- Population density on a map
- Color coded lowest lying coastal areas (0-30 feet above sea level)
- Icons for airports seaports nuclear-power-plants
- Color coded symbols for epicenters of various severity aftershocks
- I downloaded a copy of this map, naming it

EOJ Map 2011 March 11 PDC Flood Threat

Map Action provides [\(MAP\) Japan: Earthquake and Tsunami - Affected Population of Tohoku \(as of 18 March 2011\)](#)¹⁹⁵

- This is more detailed than many other maps I have previously seen.
- For several locations it provides population statistics

- Dead
- Missing
- Injured
- Isolated
- Evacuated
- 2010 Census Count

I downloaded a copy of this map,¹⁹⁶ naming it

EOJ Map Tohoku March 11 MA

¹⁹² <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKRJ?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

¹⁹³ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/24DE37F43953FAC4852578530053730B/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/24DE37F43953FAC4852578530053730B/$File/map.pdf?OpenElement) from OCHA Relief Web

¹⁹⁴ This is a topographical map, not detailing street map detail.

¹⁹⁵ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F3KVQ?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

¹⁹⁶ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/F630289565041CDF852578570053EDD4/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/F630289565041CDF852578570053EDD4/$File/map.pdf?OpenElement) OCHA Relief Web

Map Action provides [\(MAP\) Japan Earthquake and Tsunami: Who What Where \(as of 20th March 2011\)](#) which shows where international relief efforts, known to the UN, are currently doing relief efforts in Japan. We know from Haiti history how incomplete these pictures can be. The map includes locations of major roads, airports, and nuclear power plants.

Map Action provides [\(MAP\) Japan Earthquake and Tsunami: Evacuation Centre Population \(21 March 2011\)](#)¹⁹⁷

For each prefecture, it shows the number of evacuation centers, and aggregate population there. Overall about 350,000 people.

I downloaded a copy of this map with the name

EOJ¹⁹⁸ Map Evacuation Population March 21 MA

Map action provides [\(MAP\) Japan: Earthquake and Tsunami - Urban Search and Rescue \(as of 21 Mar 2011\)](#)¹⁹⁹ with info on approx 415 rescuers with approx 25 dogs from approx 15 nations, where they working in Japan, which still active, which completed their missions. I downloaded a copy of this map with the name.

Map SAR March 21 MA Japan

NASA MAPS JAPAN (1 APR 01)

NASA = [National Aeronautics and Space Administration \(NASA\)](#)

March 12 summary link²⁰⁰ to maps²⁰¹ of consequences of earthquake and tsunami near Sendai

Related Link: [NASA Earth Observatory: Earthquake and Tsunami near Sendai, Japan \(High Resolution\)](#)

March 14 summary link²⁰² to PDF map²⁰³ of Japan coastline before and after the tsunami

March 15 summary link²⁰⁴ to PDF map showing flooded coast near Sendai, which I downloaded to name: **EOJ map 2011 Mar 15 NASA Sendai flood**

¹⁹⁷ OCHA Relief Web summary link

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F6K7B?OpenDocument&rc=3&cc=jpn> to 1.4 Meg Detail PDF

¹⁹⁸ EQJ = AI Mac name for Earthquake Tsunami Japan mixture.

¹⁹⁹ OCHA Relief Web summary link

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F6LFG?OpenDocument&rc=3&cc=jpn> to 1.2 Meg detail PDF

²⁰⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXPPM?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

²⁰¹

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/B5C65CAFD457B5B585257853006626C3/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/B5C65CAFD457B5B585257853006626C3/$File/map.pdf?OpenElement) from OCHA Relief Web

²⁰² <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXPWJ?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

²⁰³

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/426F0572D80B28EF852578530067AECF/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/426F0572D80B28EF852578530067AECF/$File/map.pdf?OpenElement) from OCHA Relief Web

Related Link: [NASA Earth Observatory: Flooded Coast near Sendai \(High Resolution\)](#) and View all [images of this event](#)²⁰⁵

March 12 ([MAP](#)) [Japan: Electricity Losses in Northeastern Japan \(12 Mar 2011\)](#) summary link²⁰⁶ to 2 meg PDF²⁰⁷ map (night sky consequences), which I downloaded with name **Map Electricity Lost 2011 Mar 12 NASA**.

Related Link: [NASA Earth Observatory: Electricity Losses in Northeastern Japan \(High Res\)](#)

This composite image compares observations after the earthquake to images of lights observed in 2010.

Yellow indicates lights that were functioning in both 2010 and 2011, and includes Tokyo and areas to the south and west.

Red indicates power outages detected on March 12, 2011, compared to data from 2010. Areas of power loss include Sendai, and coastal locations north of Tokyo.

Blue indicates clouds, and that blue also tints some of the yellow-lit areas to green.

Magenta (visible south and west in the large image) indicates lights obscured by clouds.

Bright green spots also may indicate new lights detected in 2011 that were not observed in 2010; some are visible in coastal areas north of Sendai.

March 16 ([MAP](#)) [Japan: Flooding along the Kitakami River \(16 Mar 2011\)](#) summary link²⁰⁸ to PDF map,²⁰⁹ which I downloaded to name

²⁰⁴ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EYSAN?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

²⁰⁵ <http://earthobservatory.nasa.gov/NaturalHazards/event.php?id=49622>

²⁰⁶ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F6LH5?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

²⁰⁷ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CC0E74A58F6B99D68525785A0056EE33/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CC0E74A58F6B99D68525785A0056EE33/$File/map.pdf?OpenElement) OCHA Relief Web

²⁰⁸ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EZLT6?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

EOJ Map 2011 Mar 16 NASA Kitakami flood.

The images combine infrared, red, and green wavelengths of light to form a false-color image that distinguishes between muddy water and land.

Water is blue.

Buildings and paved surfaces appear in shades of blue-gray.

Fallow fields appear in shades of beige and brown.

Vegetation is red, and the brighter the red, the more robust the vegetation. (Brighter shades of red in March and duller shades in January result largely from the difference in season.)

Related Link: [NASA Earth Observatory: Flooding along the Kitakami River, Japan \(High Resolution, TIFF and KML files\)](#)

Nuclear No-Fly ([MAP](#)) Japan: Tsunami affected areas and no fly and no man zone in the Sendai Region (21 Mar 2011) from

United Nations Logistics Cluster and
United Nations World Food Programme (WFP)
Via OCHA Relief Web²¹⁰
Near Sendai, due to Fukushima
I did not download – I have seen better quality maps

Nuclear Reactors in Japan

<http://japan.resiliencesystem.org/map-nuclear-reactors-japan>

OCHA Situation Map

As of 2011 March 16²¹¹ Color coded with: how strong the shaking; tsunami inundation flooding; and proximity to nuclear power plants.²¹² Includes estimates of numbers of people living in various coastal areas of prefectures inundated by the flooding. This is just the initial crisis, not aftershock implications.

I downloaded a copy of this with the name:

EOJ Map 2011 Mar 16 OCHA

²⁰⁹

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/462C6F9A124889B3852578550058BBFA/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/462C6F9A124889B3852578550058BBFA/$File/map.pdf?OpenElement) OCHA Relief Web

²¹⁰ OCHA Relief Web Summary Link <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F6SJD?OpenDocument&rc=3&cc=jpn> to detail map PDF

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/1E4062A247C0AF628525785B004FCA17/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/1E4062A247C0AF628525785B004FCA17/$File/map.pdf?OpenElement)

²¹¹ [http://www.reliefweb.int/rw/rwb.nsf/db900sid/MCOI-8EZENN/\\$File/map.pdf](http://www.reliefweb.int/rw/rwb.nsf/db900sid/MCOI-8EZENN/$File/map.pdf) from OCHA Relief Web

²¹² Thanks Bev for locating this for me.

Radiation + Wind = go where?

<http://japan.resiliencesystem.org/winds-japan-power-plants-should-send-radiation-out-sea>

[SERTIT](#) (French) Academic & Research Institutions²¹³ provides [\(MAP\) Japan: Honshu Island - Sendai - Sohma Areas - Tsunami highly damaged areas \(13 Mar 2011\)](#) via OCHA Relief Web.²¹⁴ This is aerial pictures comparing shocking before and after the Tsunami swept over the area. Those red icons are identifications of structures seriously damaged by the Tsunami.

[SERTIT](#) (French) Academic & Research Institutions²¹⁵ and International Charter Space and Major Disasters ([International Charter](#))²¹⁶ (of Italy) provide [\(MAP\) Japan: Honshu Island - Misawa, Hachinohe, Miyako and Miyagino Area - Rapid Geographic Reference Map \(21 Mar 2011\)](#), via OCHA Relief Web.²¹⁷ I had to blow this up several times to see what it is all about ... the area over-flooded by the tsunami, color coded how far it penetrated from the coast,

Surface Water after Earthquake and Tsunami,²¹⁸ March 14 Map jointly developed by
Dartmouth Flood Observatory (DFO)
National Aeronautics and Space Administration (NASA)
<http://floodobservatory.colorado.edu/hydrography/E130N40.html>

TSUNAMI PERSPECTIVES (1 APR 24)

Tsunami crisis map²¹⁹ jointly developed by
European Commission - Joint Research Centre (EC-JRC)
United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
There are little bars showing how high the tsunami when it hits various land masses.
There's various icons – scroll to right for explanations.
More information and data on <http://www.gdacs.org/tsunamidocs>

²¹³ <http://sertit.u-strasbg.fr/>

²¹⁴ OCHA Relief Web Summary Link <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F7MDB?OpenDocument&rc=3&cc=jpn> to detail map PDF
[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/ED3CFB5CBAF9995C8525785B005AD2C4/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/ED3CFB5CBAF9995C8525785B005AD2C4/$File/map.pdf?OpenElement)

²¹⁵ <http://sertit.u-strasbg.fr/>

²¹⁶ <http://www.disasterscharter.org/>

²¹⁷ OCHA Relief Web Summary
<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F7M84?OpenDocument&rc=3&cc=jpn> link to 4 page detail PDF
[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/396BDF2B11E365538525785B005A6496/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/396BDF2B11E365538525785B005A6496/$File/map.pdf?OpenElement)

²¹⁸ OCHA Relief Web Summary

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXMC7?OpenDocument&rc=3&cc=jpn>

²¹⁹ Summary March 11 from OCHA Relief Web

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKLM?OpenDocument&rc=3&cc=jpn>

Detail PDF

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/755E34EEBA7B837C852578530052B825/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/755E34EEBA7B837C852578530052B825/$File/map.pdf?OpenElement)

Tsunami²²⁰ – expected arrival times at other nations shores, with periodic updates

Tsunami inundation of Japan map,²²¹ jointly developed by:

European Commission - Joint Research Centre (EC-JRC)

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

This map shows the calculated inundation (with the JRC Hyflux hydrodynamic model). Inundation is shown as green bars, showing the distance the tsunami reached inland from the coast line.

Tsunami before and after views of Japan supplied by the Guardian newspaper of Britain,²²² and New York Times.²²³

UNITED NATIONS SCIENCE (1 MAR 22)

[United Nations Institute for Training and Research \(UNITAR\)](#) maps tsunami crossing Pacific ocean.

UNOSAT ([United Nations Institute for Training and Research \(UNITAR\)](#)) supports crowd sourcing community with satellite imagery over Japan

Date - 15 Mar 2011 – via OCHA Relief Web

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/VVOS-8EYLJX?OpenDocument>

UNOSAT is part of a group of specialized players including DLR of Germany, the Asian Institute of Technology in Bangkok, and others. The group is working under the coordination of the Japanese authorities and JAXA to bring to value the data generated by the Space Charter and provide Japanese authorities with actionable information. In addition, thanks to a specific arrangement between UNOSAT, the French Space Agency CNES and the firm ASTRIUM GEO-Information Services, UNOSAT has released to OpenStreetMap a set of images which volunteers around the world can now use to produce information hopefully useful to rescuers on the ground in the affected areas. Licensing limitations on commercial imagery make it difficult to share publicly some satellite imagery for the use by crowd sourcing circles, UNOSAT has been working to ease these restrictions while

²²⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EUL9W?OpenDocument&rc=3&cc=jpn> and
<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EULBY?OpenDocument&rc=3&cc=jpn> and
<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EULMH?OpenDocument&rc=3&cc=jpn> and
<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EUNZS?OpenDocument&rc=3&cc=jpn> from

OCHA Relief Web

²²¹ Summary as of March 11 revised March 14 from OCHA Relief Web

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKFG?OpenDocument&rc=3&cc=jpn>

Detail PDF

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/EB54D276076C88F285257853005243E7/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/EB54D276076C88F285257853005243E7/$File/map.pdf?OpenElement)

²²² <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXQD5?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web and <http://www.guardian.co.uk/world/interactive/2011/mar/14/japan-earthquake-before-and-after>

²²³ <http://www.nytimes.com/interactive/2011/03/13/world/asia/satellite-photos-japan-before-and-after-tsunami.html?hp> NYT aerial views of the different cities and locations in Japan – move the vertical bar back and forth with your cursor to see Before and After photos. Also see this link <http://japan.resiliencesystem.org/damage-map-march-11th-earthquake-japan>

respecting copy right and legal clauses, hoping that a trend will emerge soon to give more breath to valuable initiatives made possible by today's information technology and internet resources.

UNOSAT added ([MAP](#)) [Tsunami-related standing water bodies, Sendai, Miyagi Prefecture, Japan \(12 Mar 2011\)](#) dated March 12, to OCHA Relief Web link²²⁴ March 18.

It was developed by: UNOSAT and

International Charter Space and Major Disasters.

[Here](#) is the map.²²⁵ As its name implies, it shows (in red) where there are flood waters left in the wake of the tsunami.

I downloaded with name **EOJ Map Sendai Flood Mar 12 UNOSAT**

UN SPIDER²²⁶ – Space Based info on the earthquake and tsunami – this <http://www.un-spider.org/japan-pacific> includes links to other info from DLR, Emergency Mapping Resources, Google Earth Flood Maps of Japan, NOAA, Tsunami Warning Centers, USGS, etc. **This place is GREAT ... you gotta bookmark it.**

There is a mind-boggling volume of resources here. Cloned here

<http://japan.resiliencesystem.org/un-spider-spaceaid-mapping-resources>

[United Nations World Food Programme \(WFP\)](#) shows latest info in real time on www.hewsworld.org about the disaster and its effects

USAID Map summary²²⁷ link to detail²²⁸ PDF

USAID Map dated Mar 13-14 showing earthquake and tsunami impact²²⁹ with nuclear power plants, railroads, primary and secondary roads. Interestingly Onawaga was closer to the epicenter, but Fukushima seems to be much more damaged. I downloaded a copy of this map naming it:

EOJ Map 2011 Mar 14 USAID

²²⁴ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8F3L78?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

²²⁵ [http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/870C97316A78CFAD8525785700554F79/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/870C97316A78CFAD8525785700554F79/$File/map.pdf?OpenElement) OCHA Relief Web

²²⁶ OCHA Relief Web summary

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EUQQN?OpenDocument&rc=3&cc=jpn> link to Interactive Map

<http://www.un-spider.org/japan-pacific>

²²⁷ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKNA?OpenDocument&rc=3&cc=jpn> from OCHA Relief Web

²²⁸

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/831101261099169385257853005312A7/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/831101261099169385257853005312A7/$File/map.pdf?OpenElement) from OCHA Relief Web

²²⁹ OCHA Relief Web summary

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EXKWH?OpenDocument&rc=3&cc=jpn> and PDF detail

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/3231FE856A2D07E8852578530056FE5D/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/3231FE856A2D07E8852578530056FE5D/$File/map.pdf?OpenElement)

USAID Summary²³⁰ link ([MAP](#)) [USG Humanitarian Assistance to Japan for the Earthquake and Tsunami \(15 Mar 2011\)](#) with vintage of their situation report # 5.²³¹ The map²³² from *National Geospatial-Intelligence Agency*, shows areas flooded, and main roads and railroads. I downloaded a copy of this map, naming it:

EOJ Map 2011 Mar 15 USAID

USGS Shake Map²³³

Volcanoes in Japan – see <http://japan.resiliencesystem.org/search-and-rescue>

Worst affected areas in Japan²³⁴

DISASTER PREVENTION (1 JAN 27)

Here are links to both maps and organizations associated with state-of-art of protective measures, some in need of improvement, to mitigate risk of any disaster in the first place.

COMMUNICATIONS IN DISASTER ZONE (1 APR 14)

[MPHISE](#) informs us:²³⁵

14 April 2011 from Homeland Security Newswire

Australian researchers developed software which enables mobile phones to communicate during a disaster; it will be freely available to the public by the end of the year thanks to the support of the Dutch NLnet Foundation; the software can be used on compatible mobile phone handsets to create an alternative "network" where conventional mobile phone coverage has been destroyed or does not exist

Software [developed](#) by [Flinders University](#)'s Dr. Paul Gardner-Stephen which enables mobile phones to communicate during a disaster will be freely available to the public by the end of the year thanks to the support of the Dutch [NLnet Foundation](#).

²³⁰<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EZKKH?OpenDocument&rc=3&cc=jpn> OCHA Relief Web

²³¹ **Japan Situation Reports** now in a separate collection of disaster notes.

²³²

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CD333084539B763A852578550052A559/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/CD333084539B763A852578550052A559/$File/map.pdf?OpenElement) OCHA Relief Web

²³³<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EUN2K?OpenDocument&rc=3&cc=jpn>

summary from OCHA Relief Web

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/E4BBF8F613B73C4185257850005E2160/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/E4BBF8F613B73C4185257850005E2160/$File/map.pdf?OpenElement) actual map

Related

Link:

- [US Geological Survey: Magnitude 8.9 - Near the East Coast of Honshu, Japan \(11 Mar 2011\)](#)

²³⁴ Summary from OCHA Relief Web:

<http://www.reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EULSL?OpenDocument&rc=3&cc=jpn>

Detail Interactive Map: (in Japanese)

[http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/0F48EE0EC04A50638525785000585A45/\\$File/map.pdf?OpenElement](http://www.reliefweb.int/rw/fullmaps_sa.nsf/luFullMap/0F48EE0EC04A50638525785000585A45/$File/map.pdf?OpenElement)

²³⁵ <http://haiti.mphise.net/disaster-zone-phone-communication-software-available-free>

The [Serval BatPhone](#) software can be used on compatible mobile phone handsets to create an alternative “network” where conventional mobile phone coverage has been destroyed or does not exist.

The university press release [notes](#) that instead of relying on mobile phone towers, the Serval system relays calls for one mobile phone to another as either a “closed” network or to connect to a temporary tower.

[Dr. Gardner-Stephen](#), Research Fellow (Rural, Remote and Humanitarian Telecommunications) in Flinders School of Computer Science, Engineering and Mathematics, said NLnet’s contribution of about \$40,000 would be a significant boost for his Serval Project team.

“We are delighted to receive the support of the NLnet Foundation, an organization dedicated to supporting ventures and people that contribute to an open information society,” Stephen said.

“We currently have seven Flinders and INSA Telecommunications exchange students developing the Serval BatPhone software. They are getting valuable, real-world experience as they work on this integrated and substantial humanitarian software engineering project,” he said.

“NLnet’s support will go towards project management and senior developer resources to more effectively manage the team’s coordinated efforts. It’s a significant step towards our goal of making Serval BatPhone freely available in a first public release later this year.”

Valer Mischenko, NLnet’s director said mobile communication have become an inescapable part of our lives.

“Unfortunately, existing systems relying exclusively on commercial operators’ networks can neither be called reliable enough, such as in disaster situations, nor secure enough, such as in circumstances of changing political situation — and they are not legally sustainable, as they are easily prone to various forms of cyber attack,” Mischenko said.

“One may call the Serval system ‘an operator-less mobile network’, which can take over when operators’ networks fail for one reason or another. We are very glad with such initiatives which help to implement our mission and make networks based communication reliable and trustworthy,” he said.

“NLnet Foundation sponsors tens of bigger and smaller networking technology related projects every year. The results of these projects are all open and can be freely used for further development of the technology.”

About NLnet Foundation

NLnet Foundation is a private charity fund supporting developments of networking technology worldwide, and has over the years actively contributed to Internet standards,

open source projects and subsidiary, and enabling activities such as the development of GPLv3.

DRINKING WATER SAFE IN HAITI (0 OCT 27)

Here is a [Ushahidi based crowd-sourcing site](#) where ordinary people can tell other ordinary people, where they believe safe drinking has now been setup. While the authorities ought to be doing this, they take so long, thousands of people could die while waiting.²³⁶ However, bandwidth challenges mean that some ordinary people might have a hassle accessing this site. The site seemed to be taking forever to load for me, so I asked my informants for guidance navigating the site.

Melissa.E told me:

Alister, when you click <http://healthmap.org/haiti> it should take you right to Haiti – it takes a couple seconds to load, but should zoom right to island level.

Then when you click on a specific pinpoint and zoom in, you go right to that area.

Also – click “Advanced Search” if you want to filter the source of the feed.

Thx,
Melissa

Mike.P told me:

Double left click where you want to go and it will zoom in and centre on your curser point, single left click on points marked to gain details of point, hope this helps Al.

NGOS AID DISTRIBUTION (1 MAR 02)

No one knows how many NGOs are in Haiti. I have seen estimates as high as 100,000 from extremely credible sources, such as UN reports. A lack of mutual cooperation, between NGOs, agencies of foreign nations, Gov of Haiti, the UN, Haiti Civil Society, for-profits from other nations, etc. has complicated aid distribution.²³⁷ There’s people who die for lack of aid, and in other places duplicated aid ends up on the black market. Efforts to decentralize fail because of insufficient aid outside certain crowded cities. Some aid efforts step on each other’s toes or work at cross-purposes.

It is evident that most efforts to map which NGOs are doing what where have failed, for a variety of reasons. [Arikia Millikan](#),²³⁸ of [Haiti Rewired](#),²³⁹ addresses this topic in a [Blog post](#) about some of the efforts she is aware of to date.²⁴⁰

²³⁶ <http://healthmap.org/haiti/>

²³⁷ For explanations how many efforts to organize mutual cooperation have failed, see my research notes: **Glossary** of (Housing and other) **Challenges** in Haiti; **1 year UN**; **1 year ICVA and URD**;

²³⁸ <http://haitirewired.wired.com/profile/ArikiaMillikan>

²³⁹ <http://haitirewired.wired.com/>

²⁴⁰ <http://haitirewired.wired.com/profiles/blogs/haiti-aid-map-addresses-ngo>

Haiti Rewired started a [Group](#)²⁴¹ called the [Volunteer Database Project](#).²⁴² This small effort was a microcosm of the larger issues of Haiti, with multiple volunteers working at cross-purposes, and extreme difficulty extracting specific info on the NGOs. One thing needed was a common tool into which the NGOs themselves could enter the relevant data. An effort to do exactly that with the [Haiti Aid Map](#),²⁴³ was launched January 2011 by [Stephen Jordan](#),²⁴⁴ founder of the Haiti Aid Map and Executive Director of the BCLC.²⁴⁵

This map is the product of a collaboration of [InterAction](#) (the largest alliance of U.S.-based international NGOs focused on poverty), and the U.S. Chamber of Commerce's Business Civic Leadership Center (a nonprofit affiliate of the U.S. Chamber of Commerce devoted to businesses with philanthropic interests),²⁴⁶ and is sponsored by the express shipping and logistics services company, [FedEx](#).

The Haiti Aid Map seeks to show which NGOs are doing what where in Haiti. As of the beginning of March 2011, they have 78 organizations mapped, in 444 projects. When originally launched, there were 488 projects active.²⁴⁷

- 178 in Port-au-Prince;
- 85 in Leogane;
- 50 approx in each of Jacmel, Petionville and Croix de Bouquet;
- 21 in each of Cap Haitien and Gonaive;
- 15 in each of several smaller communities;
- More scattered across Haiti.

NGOS LOCATOR (1 FEB 13)

There is a plan afoot to use KNOEXTE to create a directory of OTHER than the big international NGOs, such as Local Haiti Grassroots NGOs and small mom+pop NGOs, so that they can get a bite at the funding that now only goes to the big boys. When this takes off, I plan to add appropriate links to this Map Links directory. In the meantime, here is template of what may be used to accomplish this:

Some people may be interested in checking out the Konekte internet directory-map application developed by The Garnet Group for the Clinton Global Initiative. Here is a link where you can access it:

²⁴¹ <http://haitirewired.wired.com/groups>

²⁴² <http://haitirewired.wired.com/group/volunteerdatabaseproject>

²⁴³ <http://haiti.ngoaidmap.org/>

²⁴⁴ <http://haitirewired.wired.com/profile/StephenJordan>

²⁴⁵ BCLC = U.S. Chamber of Commerce's Business Civic Leadership Center – Here is some info on their activities in Haiti: <http://haitirewired.wired.com/profiles/blogs/calling-for-tech-solutions-for>

²⁴⁶ <http://haitirewired.wired.com/profiles/blogs/haiti-mapping-initiative-to>

²⁴⁷ <http://haitirewired.wired.com/profiles/blogs/haiti-aid-map-updated>

<http://www.thegarnetgroup.org/~konekte2/>

Note: All information on organizations and activities are there for EXAMPLE ONLY. Their inclusion does not imply organizational endorsement or data accuracy and currency. The specific data fields included are also for example only can be changed easily to meet user needs. Specific functionalities can be switched on or off to meet user preference. Note that map overlays (such as from data currently available from the UN clusters) can be developed for use with Konekte. If needed, the Konekte app can be enabled to work with a database that receives SMS (text messaging) from mobile phones in the field. This will allow field data collection, field surveys, and field alerts. While the Konekte app is currently centered on NGOs in Haiti, it can be used by any other user segment and can either be centered on any other part of the world (including the US) or can be used from a global view.

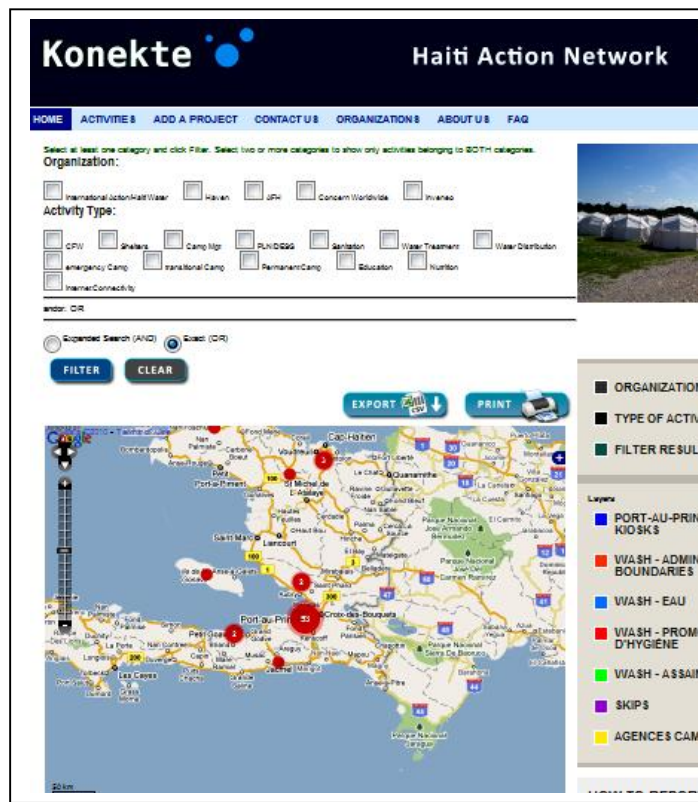
Below is a write-up on this app.

Deepak would be happy to go into detail on any specifics. Please call or email him.

--

Deepak C. Kenkeremath
The Garnet Group
703-291-8022 x501

KONEXTE Announcement (1 Feb 13)



Konekte (Haitian Creole for “Connect”) is a web-based application that allows multiple organizations to geographically map and share projects, events, and/or activities using either GPS coordinates or street-level map locators. Resulting map views are scalable from country-level down to street level using built-in Google Map overlays. Visual map representations of these points on a map are supported by linked, printable tabular data of any type. Users can see co-locations, proximities, and geographic densities of projects, events, and/or activities. User-selected sorting filters allow visualization by single or multiple organizations and/or specified project categories. **Konekte** allows multiple organizations to load their own data remotely online or by using a web-based form, view data from other users,

perform selective sorts of their and others' data, print and/or export resulting maps and tables of corresponding data in CSV or Excel formats, and attach photos or videos to specific projects/activities. Detailed, printable reports can be linked to selected projects/activities. In addition, data overlay maps of hospitals & medical centers, political jurisdictions, clean water sources, etc. can be selected to provide a context for user-supplied data. **Konekte** is currently tailored for use by members of the **Clinton Global Initiative's Haiti Action Network**, but can be readily adapted for other users in a number of industry segments. For example, **Konekte** can be used by conference and event planners, associations and clubs, sports organizations, the hospitality industry, disaster and relief organizations, and news organizations. Search categories and data fields can be tailored to each individual user community.

Examples in ways the Haiti Action Network members use **Konekte** include:

- See the geographic proximity of their activity sites to those of other members to potentially coordinate joint services, joint materiel procurement, joint transportation and storage of supplies, etc.
- Map transportation routes to, from, and between activity sites.
- Filter/sort the data base to identify member activities by any of up to twenty categories (e.g. sanitation, water treatment, emergency camps, transition camps, CFW, nutrition, education, etc.)
- Print maps and tables just by specifically-selected criteria. Maps and tables can be exported for use in reports and presentations (e.g. MS Word, Power Point, Excel, etc.)
- Attach photos to each site showing their work at that site; also attach links to videos which can be viewed through YouTube.
- Display information on the member's organizational mission, projects, etc. Links in **Konekte** will connect to the member's website for more information. Optionally, arrangements can be made to link to **Konekte** from the member's website so that potential donors can locate each of their activity sites anywhere in Haiti.

Konekte can be housed on a client's server or can be hosted by **The Garnet Group** with a link to the client's website. With a yearly subscription, **Konekte** can be deployed within days.

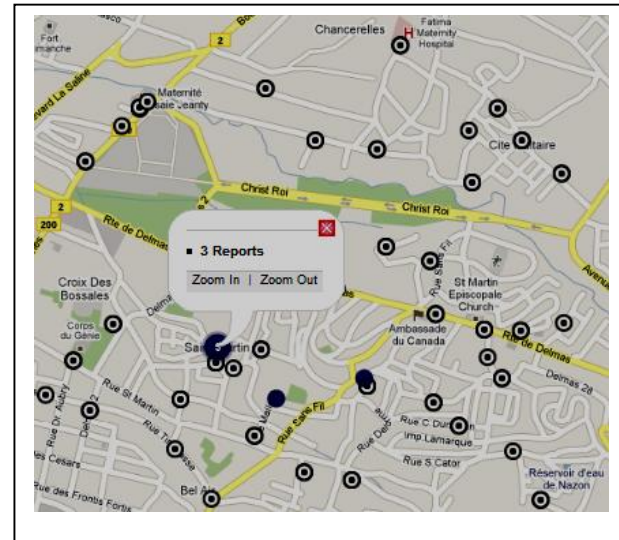
With modest funding, **Konekte** can be enabled to use SMS (text messaging) from mobile phones so that field personnel can conduct surveys, update site information, send alerts, etc. Additional functionalities and analytical tools can be embedded with **Konekte** as members identify specific needs. **Konekte** can also be deployed directly with a member organization's web site to show projects in any part of the world.

					EXPORT 	PRINT 
Title	Description	Date	Categories	More Information		
Automeca	Goal: To improve the nutritional status of children under 5 years Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Banisie	Goal: To provide coordination and services to DP Camp Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Baz Camerous	Wash Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Boliman Brant	Goal: To provide coordination and services to DP Camp Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Bouk Palma La Gonave	Goal: To provide clean drinking water to population Reporting period: January 2010-June 2011	Jul '10	Concern Worldwide			
Centre de Sante St. Delmas 4	Goal: To provide coordination and services to DP Camp Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Centre Sportif de Carrefour	Goal: To improve the nutritional status of children under 5 years Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Dahomey	Goal: To provide coordination and services to DP Camp Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Galete Griffin/Galete Beaudin	To provide shelter, water and livelihoods for families affected by the earthquake. Reporting period: April 2010-March 2011	Jul '10	Concern Worldwide			
Hopital de Carrefour	Goal: To improve the nutritional status of children under 5 years Reporting period: January-December 2010	Jul '10	Concern Worldwide			
Juvonot /	Emergency Juvonot / 18.524/6 /2.301/7 Sanitation 2003	Jun '10	Concern Worldwide			
La Cour Durvergloire	Goal: To provide basic services to population Reporting period: January-December 2010	Jul '10	Concern Worldwide			

The Garnet Group is a multi-disciplinary professional services firm providing cross-cutting solutions to issues in the developing world. **The Garnet Group** and its staff have been or are currently engaged in cooperative projects in Haiti in the areas of energy, water resources, environment, information systems and enterprise development.

Deepak C. Kenkeremath

703-291-8022



Many of us have been anxiously awaiting serious news about progress towards rebuilding Haiti with permanent solutions that do not leave Haiti in a condition worse than they were on the eve of the Jan 2010 earthquake, or Tropical Storms shortly before then. As I get relevant news about that, I post it into my **Glossary of Housing** (and other) **Haiti Challenges**. Here I share links to map sources regarding that effort.

Plan Haiti is an international effort to merge designs for rebuilding Haiti, using on-line tools, such as [BIMStorms](#) which in recent years have revolutionized real-time BIM collaboration on the Internet and have mobilized thousands of people from around the world. BIMStorms allow emergency responders, planners, architects, government agencies and citizens to view city and building data on the internet in real-time. [Here's](#) what Plan Haiti is doing for Haiti.²⁴⁸ I suggest you start with their impressive directory of links [here](#).

52 Haiti Maps (links to)

RHB Rebuild Haiti Better (1 Mar 03)

[This](#) is a [ning network](#) started by [Albert Semerville](#) to create an environment in which International Firms, Designers, Architects, Consultants, Investors, Engineers, Manufacturers, Suppliers and others can get together to network, share ideas, create partnerships with Haitian firms. They seek to make sure that you have all the necessary tools to work and invest successfully in Haiti.²⁴⁹

SCIENCE OF WEATHER (1 FEB 17)

At the [Haiti Rewired Forum](#) I started a thread on [Haiti Weather](#).²⁵⁰ There, we have posted two kinds of comments:

1. When there is news of particularly bad weather approaching, we provide a heads up, with links to more info;
2. An effort has been made to provide links to information about climate science, so people can understand how bad it can get, what kind of disaster avoidance efforts are needed.

This includes information on:

- different intensities of hurricanes;
- El Nino and La Nina explained in terms of expected impact on Haiti;
- Flood Zone simulation map;
- Food Security mapping;
- Hurricane Seasonal Outlooks;
- Hurricane storm tracks in Caribbean history;
- Road network problems;
- Tsunami risks;
- Wind Hazards, and historical wind speed map of Haiti;

In 2011 I started “**Weather Science Haiti**” notes to combine my research info in one document, since this topic is of critical importance to building truly “safe housing”, plus there is the impact on sanitation and medical issues.

SEVERE WEATHER SHELTERS (1 APR 18)

The standard for building quality in Haiti has been "Trust us, we know what we are doing, even though we have never done this before, and cannot cite any international building

²⁴⁹ <http://rebuildhaitibetter.ning.com/>

²⁵⁰ <http://haitirewired.wired.com/forum/topics/weather-forecast-haiti>

standard which we are following, with the possible exception of Sphere." There are a handful of NGOs which HAVE done this before, like Habitat for Humanity, but they are an exception to the general rule.

Once upon a time, supposedly there were enough SWS in Haiti to serve the needs of all the population, but in the earthquake zone, most of them were demolished. Rebuilding them does not seem to be a priority for the powers that be. Informing the general public where they are located, such as some kind of signage on the buildings, maps to the camps showing their nearest SWS, does not seem to be on their radar screen. The first most people in the camps know there is bad weather, is when they wake up with it all around them.

Severe Weather Shelters are places where the population can go to be safe from a tropical storm hurricane, provided they get decent advance warning of the storm, provided they know the locations of these shelters, and provided they have the ability to get to them in time. None of this info is being provided to the people, and since the earthquake there are not enough of them to support the entire population.

[Here](#) is an announcement regarding plans to build enough severe weather shelters to accommodate some of what is needed.²⁵¹

Al Mac research notes on “**Weather Science Haiti**” includes information to help people see what kind of risk Haiti is facing into the future with future tropical storms. Al also has several documents of research notes on the volume of Haiti earthquake survivors in tent cities and shacks and other dwellings which are inadequate protection from tropical storms, which we are certain will arrive in Haiti, we just not know precisely how soon. People interested in learning more about these risks might start with Al’s “**Glossary of Housing Challenges in Haiti**” which includes pointers to other Housing research notes on a diversity of specialized challenges.

When they say “[Hurricane Contingency Plan](#)”, they mean protecting the NGO stock piles of supplies, and transportation delivery infrastructure.²⁵² Protecting the Haitian population, from severe weather, is apparently not on the radar screen of the humanitarian community.

Notice [maps](#) of where there are severe weather shelters in Haiti.²⁵³

This is more like an inventory of need to protect how many people vs. what the capacity of the construction of SWS is so far, it is not a road map to tell those people how to find them. Plus, the maps are not being kept current.

²⁵¹ <http://www.cirh.ht/sites/ihrc/en/projects/Pages/default.aspx#shelter>

²⁵² <https://sites.google.com/site/shelterhaiti2010/contingency>

²⁵³ <https://sites.google.com/site/shelterhaiti2010/information-management/map-room>

[Hurricane Tomas links.](#)

Many people have observed that the maps of Severe Weather Shelters are inadequate when it comes to providing a road map to Haitians how to find one in an emergency, and some people have tried to do something about that.

The [UN cluster info](#) was translated by @CrisisMappers and <http://HumanityRoad.org> producing a Map to Severe Weather shelters from Hurricanes in Haiti, which used to be here.

http://www.cs.colorado.edu/~starbird/aux_map_3.html

Since I first saw the Colorado effort, the home page has switched to Australia's flooding emergency. <http://epic.cs.colorado.edu/> and all references on their site to Haiti appear to have switched to Twitter support.

Here are some Haiti maps now at Humanity Road:

<http://helphaitiheal.wordpress.com/local-resources/maps-locations/>

Building Code Standards (1 Jan 27)

For people checking what standards are needed to build quality severe weather (and other disaster-resistant) shelters, check out these sites:²⁵⁴

[Global Task Force on Disaster-Resistant Building Codes](#),²⁵⁵

[Haiti Reconstruction](#) needs,²⁵⁶

[Hurricane-proof buildings per Wikipedia](#),²⁵⁷

[International Association for Earthquake Engineering](#),²⁵⁸

[International Building Codes via Abu Dhabi](#),²⁵⁹

[International Building Codes via Colorado](#),²⁶⁰

[International Green Safe Construction Codes](#),²⁶¹

[Multi Hazard Assessments](#),²⁶²

²⁵⁴ Reminder Warning ... some of these sites are intermittently "down" ... try again later. If you find useful downloadables, then get your own archive copies, because some sites build wonderful resources, then disappear.

²⁵⁵ <http://www.unesco-ipred.org/gtfdc/>

²⁵⁶ <http://haitireconstruction.ning.com/>

²⁵⁷ http://en.wikipedia.org/wiki/Hurricane-proof_building

²⁵⁸ http://mceer.buffalo.edu/info-service/reference_services/USInternationalCodes.asp

²⁵⁹ <http://www.realestatechannel.com/featured-columnists/adia-hq-emirates-palace-department-of-municipal-affairs-international-building-codes-international-code-council-icc-rashid-mubarak-al-hajeri-3759.php>

²⁶⁰ http://www.co.jefferson.co.us/building/building_T45_R40.htm

²⁶¹ <http://www.iccsafe.org/Pages/default.aspx>

[Safer Homes and Communities](#);²⁶³

[Sustainable and Green Shelters for Haiti](#);²⁶⁴

[Tornado and Hurricane Safe Rooms FAQ from FEMA](#);²⁶⁵

[U.S. Buildings to survive Hurricane Katrina](#);²⁶⁶

[U.S. National Storm Shelter Association](#) (NSSA);²⁶⁷

Emergency Tent Tarps (1 Jan 23)

Emergency Shelters, as defined by the Humanitarian organizations in Haiti, are tents and tarps supplied to the tent cities. If you are interested in them, get a copy of my **navigation guide to info on the powers that be in Haiti relief efforts**, which I have uploaded various places, including Scribd (my user-id there is AlMac99), Yahoo HDRR, Prizm, and multiple places on Haiti Rewired.

Transitional Huts (1 Jan 23)

Transitional Shelters are what are currently being built for the people in the tent cities, as a better alternative. Enough have been built so far to accommodate perhaps 100,000 people. If you are interested in them, get a copy **of my research notes on the progress being made with T-Shelters**, which I have uploaded various places on Haiti Rewired, and also are on Yahoo HDRR and Prizm.

Build Back Better Dream (1 Jan 23)

Permanent Shelters have not yet started because the powers that be have now spent an entire year engaged in massive finger pointing, instead of cooperating to solve certain problems. For info on what these problems are, start with a copy of my research notes on **Haiti Housing Challenges and Terminology**, which I have uploaded various places including Scribd, Yahoo HDRR, Prizm, and multiple places on Haiti Rewired. I also have separate research notes on the various schemes associated with some of the major challenges.

[Can Do](#) (Compassion into Action Network - Direct Outcome Organization) is now building the closest I have heard, from any organization, to permanent housing in Haiti.²⁶⁸

²⁶²<http://community.understandrisk.org/group/haitijanuary12thandbeyond/forum/topics/multihazards-assessments>

²⁶³ <http://www.housingreconstruction.org/housing/>

²⁶⁴ <http://sites.google.com/site/usagreenbuilt/>

²⁶⁵ <http://www.fema.gov/plan/prevent/saferoom/faq.shtm>

²⁶⁶ <http://www.usbuildingsdirect.com/hurricane-building-codes.htm>

²⁶⁷ <http://www.nssa.cc/>

They have opened a factory whose first fiberglass domes output has been placed in Port-Au-Prince and the surrounding areas. The structures, which have a life expectancy of more than 25 years and are resistant to fire, rain and winds up to 130 miles per hour, are manufactured in Haiti by Composites Karayib, using local labor to produce, transport and erect the domes on-site.²⁶⁹

I can e-mail copies of my research documents to people by request.

You might also be interested in my research notes = **Haiti Housing Human Rights** (H3R) all of which are being violated, and also include rights for the disabled, women, other vulnerable groups, supposedly guaranteed by Haiti constitution, UN treaties etc, but UN people are complicit in violating them. I have posted additional links to sources of info in this area to Yahoo HDRR

US-GAO RELEVANCE (1 MAR 05)

You can subscribe to US Government Accountability Office (GAO) updates, in the categories of most interest to you, at the "E-mail Updates" section of <http://www.gao.gov>. The highlights are normally a one page summary of why they did some investigation, what they looked for, what they found, and what they suggest be done about it. The detail report expands on that.

GAO released the following TESTIMONY on **March 3 2011**:

Foreign Operations: Key Issues for Congressional Oversight, GAO-11-419T, (15 pages) <http://www.gao.gov/products/GAO-11-419T>
Highlights - <http://www.gao.gov/highlights/d11419thigh.pdf>

GAO released the following LETTER REPORT on **December 2, 2010**²⁷⁰:

FEMA Flood Maps: Some Standards and Processes in Place to Promote Map Accuracy and Outreach, but Opportunities Exist to Address Implementation Challenges, GAO-11-17.
<http://www.gao.gov/products/GAO-11-17>
Highlights - <http://www.gao.gov/highlights/d1117high.pdf>

COMMUNITY ACCOUNTING (1 MAR 04)

Community Accounting (CA) is the concept of capturing data where something happens, as input to data bases with degrees of accuracy and dependability which we do not get with paper-based systems which depend on human nature.

²⁶⁸ <http://www.can-do.org/>

²⁶⁹ <http://www.prweb.com/releases/HaitiDomesProjectLaunch/Jan2011/prweb5000444.htm>

²⁷⁰ I am a bit behind on checking GAO reports.

Example: in the USA, trucks pay taxes based on miles driven in various states. The old way to do this was for the truck companies to have a rule that drivers jot down mileage each time they cross a state line, then this log gets keyed into company records after it is delivered to HQ. But in reality, most drivers forgot to do this until they were many miles into next state. Before GPS, HQ had to do a lot of work with the truck schedule, maps with distances where they supposed to be driving, check if they recorded mileage at truck stop gas fillups, to reconstruct the data that the drivers should have captured.²⁷¹ Today this has been simplified, the trucks have a GPS record of their travels, so how many miles in each state is easy to add up by computer, without human frailties.

The applicability of this to humanitarian aid has been much discussed and explained at sites such as these:

- [Community Analytics](#)²⁷²
- [Peter Burgess](#)²⁷³
- [Value Metrics](#)²⁷⁴

Some organizations are beginning to apply this logic to their Haiti operations.²⁷⁵

35,000 Haiti households have been given buckets which are fitted with a RFID chip that holds information about the contents of the bucket. During visits from a community-based health worker who uses an NFC-equipped Nokia 6212,²⁷⁶ they activate the RFID chip in the water bucket just by holding the phone close to it to acknowledge a visit was made and measure the levels of chlorine in the water and key it in. Then they answer an on-device questionnaire and transmit the data back to the DSI headquarters, via SMS. Previously, this task was done using paper forms and errors were easily made; the on-site process was time-consuming and then the reports would take an even longer time to reach the headquarters. Now, with use of this technology, they are able to transmit data immediately and accurately resulting in water being treated effectively and quickly.²⁷⁷

²⁷¹ I worked for a truck company in 1984, and am well familiar with the hassles involved.

²⁷² <http://communityanalyticsca.blogspot.com/>

²⁷³ <http://www.blogger.com/profile/02133615059640627095>

²⁷⁴ <http://truevaluemetrics.blogspot.com/>

<http://www.truevaluemetrics.org>

<http://www.truevaluemetrics.com>

²⁷⁵ <http://haiti.mphise.net/mapping-and-scientific-visualization>

²⁷⁶ NFC = Near Field Communication

²⁷⁷ <http://haiti.mphise.net/near-field-communication-nfc-technology-transmits-data-immediately-and-accurately>

<http://conversations.nokia.com/2011/03/02/how-mobile-tech-is-helping-in-haiti/>

<http://mobihealthnews.com/10340/nokia%E2%80%99s-nfc-technology-helps-fight-cholera-in-haiti/>

SATELLITE GPS COMMUNICATIONS (1 MAR 05)

Another such application is SPOT's line of Satellite Trackers, Messaging, and Emergency Alerts which will allow [MPHISE](#) to automatically & remotely track via Google Maps, the medical response teams²⁷⁸ which are working throughout Haiti and the world."

Here's how in summary:

Simply pair your smartphone with [SPOT Connect](#), and get connected to a global satellite network that lets you send messages and GPS coordinates from virtually anywhere on the planet. Update Twitter and Facebook. Send email and text messages. Request non-emergency help from professional service providers. And in the case of a critical emergency, send an SOS message requesting emergency assistance.

Or you can use a [Spot Personal Tracker](#), or a [Spot Satellite GPS Messenger](#) which provides location-based communication to friends, family, or professional services.²⁷⁹

This has potential applicability for use in various team work in remote areas.

- Rapid Response Teams
- Recon Teams
- Medical Teams
- Supply Delivery

Here are features, uses, and some ideas. Each unit has the following capabilities.

At the push of any button on the unit, it automatically places the exact GPS coordinates on private Google Earth maps viewable to any person with internet access and the password.

1. Send an OK message back to a list of contacts. Very useful while traveling in remote areas to check in to advise the home base or others you are OK.

2. Send a Custom Message (pre-programmed via computer) to the same or another list of contacts. Particularly useful when recon is made to remote areas to mark the exact

<http://www.scientificamerican.com/article.cfm?id=haiti-cholera-clean-water-chlorine>

²⁷⁸ <http://haiti.mphise.net/>

²⁷⁹ <http://haiti.mphise.net/spot-connect-personal-tracker-and-satellite-gps-messenger-enable-simplified-mapping>

<http://www.findmespot.com/en/index.php?cid=116>

<http://www.findmespot.com/en/index.php?cid=101>

<http://www.findmespot.com/en/index.php?cid=102>

location automatically. Also very useful for tagging Water Testing Collection locations, CTC, villages. etc.

3. Another button is called TRACKING. When this button is pushed, it will automatically track the teams exact movements and complete routes. This is especially useful when used in combination with the other above buttons. Exact routing to and from locations are known. Very useful if immediate needs are there for another team or supplies to be brought in. Emergency uses plus many more.

4. Another button is labeled HELP. This button send Priority messages to a select group notifying them that you have a NON-EMERGENCY need for assistance. The select contacts would attempt to make contact with the unit holder via cell phone to determine what the Non-Emergency need is. This would NOT ever be used for updates, locations, or general information. This button would be used for an event where you will need assistance brought to you, but does not require emergency rescue.

5. The last button is labeled SOS. This button is ONLY used for dire emergencies of life and death or kidnapping to the team or team member and requires the activation of worldwide Emergency Rescue Personnel. Additionally, this is NOT to be used for anyone except a team member and could NOT be used for any resident requiring help. The GEOS Global Emergency Response is only available for the team responsible for the unit.

The units are small and very lightweight, less than 6 ounces. They are usually worn on a backpack, upper arm, on a belt when traveling in open areas. These will work most anywhere outside in Haiti and will possibly work somewhat inside some buildings.

Contact Dennis Sherrod with [Haiti MPHISE](http://haiti.mphise.net/)²⁸⁰ [Logistics](http://haiti.mphise.net/logistics)²⁸¹ and [Security](http://haiti.mphise.net/security)²⁸² if you have temporary desire to borrow one of the MPHISE units.

TRAFFIC CLUES (1 MAR 07)

A more selfish application of smart phones combined with GPS is for motorists to inform other motorists of the precise locations of police radar speed traps, an activity which has been illegal in many locations when using older technology. This latest stuff is probably not yet explicitly covered by legislature, but only a matter of time before they plug the loop hole.²⁸³

²⁸⁰ <http://haiti.mphise.net/>

²⁸¹ <http://haiti.mphise.net/logistics>

²⁸² <http://haiti.mphise.net/security>

²⁸³ <http://www.scribd.com/doc/50194599/Cobra-iRadar-iPhone-App-Adds-Location-based-Crowdsourcing>

INFO TRACKING (1 MAR 10)

"Despite all the work in academic research there is currently no industry solution that fully supports tracking of items across independent organizations." This quote is from a 2006 white paper entitled "Towards Traceability across Sovereign, Distributed RFID Databases" by Microsoft and IBM research labs. Find it at

<http://people.csail.mit.edu/akcheung/papers/traceability.pdf>.

SCIENCE MAPS (1 FEB 2)

The EU has provided maps to help deal with Haiti crises. Some of them appear to me to be uniquely valuable. For example, they have overlaid satellite data to evaluate risk of landslides and mudslides, based on information about how steep are slopes of hill and mountainsides, and whether or not they are deforested.

I am also including some here which are not from EU but are the same kind of topography scientific, not directly related to Haiti disaster relief for the long term, but understanding the overall geography of future risks to Haiti.

AMERICAS (N S CENTRAL) MAPS (1 FEB 2)

[Maps of the Americas](#).²⁸⁴

Haiti maps (1 Feb 2)

[Haiti Maps](#) here are all from CIA, unless otherwise stated.²⁸⁵ They include overall nation, and various cities (most from US Military).

EARTHQUAKE RISK MAPPING (1 APR 24)

Fault lines, Tectonic Plates and Previous Epicentres of Haiti Earthquakes, per the UN.

<http://reliefweb.int/rw/rwb.nsf/db900sid/AMMF-82SW4L?OpenDocument&rc=2&cc=hti> (Source: OCHA/Relief Web)

[Macro seismic zoning maps](#) delivered by UNDP to help with reconstruction planning.²⁸⁶

They show earthquake risk by Haiti geography, thanks to what is known about intensity of threat from fault lines, the soil, slope of hillsides, other factors.

²⁸⁴ <http://www.lib.utexas.edu/maps/americas.html>

²⁸⁵ <http://www.lib.utexas.edu/maps/haiti.html>

²⁸⁶ <http://www.haitilibre.com/en/news-2412-haiti-reconstruction-macro seismic-zoning-maps-for-port-au-prince.html>

I also downloaded, naming it as “Earthquake lessons 2010 UNDP Calais” this great collection (see footnotes).²⁸⁷

You know how you can have alerts sent to your computer in real time, or as often as you check wherever you are sending them (e-mail, RSS reader)? Well here is a screen saver showing the latest earthquake location.

http://www.coolscreens.com/science_screensavers.html

I guess rather than what just happened, I might like to see weather channel latest on my screen saver.

FLOOD PRONE (1 FEB 17)

Haiti Flood prone 2005 map

<http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA-82WCR4?OpenDocument&rc=2&cc=hti> (Source: OCHA/Relief Web)

GEOMETRY ON MAPS (1 APR 21)

Map geometries allow you to define info not just with a single point, but with shapes and lines that you can draw.²⁸⁸ [Bike Ride illustrated](#) using a plug-in to support this.²⁸⁹

This concept has obvious benefits:

- You can define an area.
- You can define roads or other features not available on the base map.
- You can define one report with multiple points and/or multiple geometries.

Some Haiti map sources periodically issue relevant ingredients for their maps. Here are updated GIS data layers (airports, bridges, obstacles, ports and roads), as of 2011 April 21:

<http://www.logcluster.org/ops/hti10a/shapefiles>

GLOBAL DISASTER ALERT SYSTEM (1 JAN 27)

The Global Disaster Alert and Coordination System ([GDACS](#)) provides near real-time alerts about natural disasters around the world and tools to facilitate response coordination, including media monitoring, map catalogues and Virtual On-Site Operations Coordination Centre.²⁹⁰

²⁸⁷ http://www.iris.edu/hq/middle_america/docs/presentations/1025/Calais_2010.pdf

²⁸⁸ <http://blog.ushahidi.com/index.php/2011/02/02/introducing-map-geometry/>

²⁸⁹ <http://demo.ushahidi.com/reports/view/3577>

²⁹⁰ <http://www.gdacs.org/>

I suggest people select topics of interest to you, such as where tropical storms, earthquakes, floods, tsunamis, volcanoes etc. and put into your RSS news reader, so you can find out promptly when there is another current natural disaster.

Current disaster news comes with maps of the trouble, estimates numbers of people at risk.

HURRICANE HISTORY (1 FEB 17)

Hurricane storm tracks which harmed Haiti in recent history. 1994-2010

<http://reliefweb.int/rw/rwb.nsf/db900sid/AMMF-82SVYU?OpenDocument&rc=2&cc=hti> “Source: OCHA/ReliefWeb”.

JOINT RESEARCH CENTER (1 JAN 27)

[Here](#) are maps and facts on Haiti, including:²⁹¹

- [building damage atlas](#), combining satellite and aerial data;²⁹²
- earthquake aftershock mapping;
- earthquake damage assessments;
- Rubble is where?;
- Slope Mapping;
- Topographical Map;
- Vertical Deformation Map.

MUDSLIDES (1 FEB 2)

Also see Slope Mapping, which indicates where risk of mudslide, given combination deforestation, lots rain, and under the hillside shook up by quake.

Haiti latest floods and landslides. (as of 2010 March 1)

3,429 evacuated

13 dead

3 missing

<http://reliefweb.int/rw/rwb.nsf/db900sid/AHAA-835W2X?OpenDocument&rc=2>

“Source: OCHA/ReliefWeb”.

MULTI-HAZARD RISKS (1 FEB 17)

Multi-Hazard Risk Severities to Haiti based on 14 disasters, 1998 Sept thru 2010 Jan. Red-Hi Green-Low. EQ-Quake HU-Hurricane FL-Flood TS-Tropical-Storm LS-Land-Slide

²⁹¹ <http://lunar.jrc.it/disasters/Crisis/HaitiEarthquake/tabid/425/Default.aspx>

²⁹² http://ec.europa.eu/dgs/jrc/index.cfm?id=2300&cobj_id=2670&dt_code=PRI&lang=en

<http://reliefweb.int/rw/rwb.nsf/db900sid/MNIN-82YTA9?OpenDocument&rc=2&cc=hti>

“Source: OCHA/ReliefWeb”.

NASA ON TOMAS RAINFALL (1 FEB 17)

I put NASA in with Science and Europe because of the similarity of science content.

[Summary](#) Link,²⁹³ [Detail](#) PDF.²⁹⁴ This is a color coded map showing where most of the rain fell, without much Haiti clarity. “Source: OCHA/ReliefWeb”.

I think Center for Excellence in Disaster Management and Humanitarian Assistance (CXDMHA)²⁹⁵ provided much more useful rainfall data here: [Summary](#) Link²⁹⁶ and [Detail](#) PDF.²⁹⁷ “Source: OCHA/ReliefWeb”.

The CXDMHA color coded map on page 4 is **wind intensity**. Crank up size to maybe 300% to read the wind risk impacts, corresponding to the different colors over the map of Haiti. From this we can see where to expect trees down, power lines down, scale of wind damage.

The CXDMHA color coded map on page 5 is **rain intensity**. Crank up size to maybe 300% to read the amount of rainfall, corresponding to the different colors where over the map of Haiti. From this we can see where to expect how much water arrived where on the ground, other than what comes from storm surge and flooded rivers.

PAP DISASTER EXTENT AS OF NOV 07 (1 FEB 17)

[Summary Links](#).²⁹⁸ Include other formats JPG, KML. Detail [Satellite overview](#) PDF.²⁹⁹ “Source: OCHA/ReliefWeb”.

²⁹³ <http://reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8AZTXM?OpenDocument&rc=2&cc=hti>

²⁹⁴ [http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/6FC0C1A7497B3D20852577D50079DFD2/\\$File/map.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/6FC0C1A7497B3D20852577D50079DFD2/$File/map.pdf?OpenElement)

²⁹⁵ <http://www.coe-dmha.org/>

²⁹⁶ <http://reliefweb.int/rw/rwb.nsf/db900sid/LSGZ-8AYHH3?OpenDocument&rc=2&cc=hti>

²⁹⁷ [http://reliefweb.int/rw/rwb.nsf/db900sid/LSGZ-8AYHH3/\\$File/full_report.pdf](http://reliefweb.int/rw/rwb.nsf/db900sid/LSGZ-8AYHH3/$File/full_report.pdf)

²⁹⁸ <http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA-8AZE8L?OpenDocument&rc=2&cc=hti>

²⁹⁹ [http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/755B0ED332FB750CC12577D50039A0FC/\\$File/map.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/755B0ED332FB750CC12577D50039A0FC/$File/map.pdf?OpenElement)

Source: German Aerospace Center (DLR). If you know how to interpret this, see where the streets are flooded.

POLITICAL GEOGRAPHY OF HAITI (1 MAY 18)

<http://www.un.org/Depts/Cartographic/map/profile/haiti.pdf>

SLOPE MAPS (1 FEB 17)

Slope Maps show how steep are hillsides, sometimes included with level of vegetation, so as to predict where landslides and mudslides are highest risk.

[Haiti slope map](#) from Feb 2009 (red is over 25 degrees). Risk of landslide involves steepness of hillsides, what kind of rock under there, how much shook up by quakes, lack of vegetation, rain. <http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA-82WCT5?OpenDocument&rc=2&cc=hti> “Source: OCHA/ReliefWeb”.

UNITAR BUILDING DAMAGE MAPS (1 JAN 27)

[Here](#) are building damage assessments for many different cities in Haiti, thanks to UN Institute for Training and Research (UNITAR).³⁰⁰

U OF TEXAS (1 FEB 1)

Here are maps in the archives of the U. of Texas, produced by none other than the CIA. The Haiti map collection is found here:

<http://www.lib.utexas.edu/maps/haiti.html>

High resolution topography maps.³⁰¹

http://www.lib.utexas.edu/maps/topo/haiti/haiti_index.html

The topography map in and around PaP is this one:

<http://www.lib.utexas.edu/maps/americas/portauprince.jpg>

Here is a real sense of the layout of PaP - streets, buildings, topography, etc.

WIND PROBABILITY (1 FEB 2)

Map of worst wind probability based on last 50 years Haiti data.

<http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA->

³⁰⁰ <http://www.unitar.org/unosat/maps/49>

³⁰¹ Careful ... maps close to 10 meg in size may be too large to send via e-mail attachments.

[82WCMY?OpenDocument&rc=2&cc=hti](#) “Source: OCHA/ReliefWeb”.

Red = 125 mph

Blue = 50 mph

FIGHTING CHOLERA AND MAPS (1 APR 12)

See combined collection of urls to maps in AP's [medical map blog](#).

Many groups, which are fighting cholera, also have maps to where the problems are located. Here are links both to groups and maps. My links may not be to the most current maps, but when you get to them, there should be easy access to more up-to-date versions.

Note I also have a **Cholera FAQ** document available.

CAT RELIEF DATA BASE (0 DEC 20)

Citizen Action Team's (CAT) [Relief Data Base](#).³⁰²

This database is meant to provide a "virtual public space" to post information about supplies and needs. It is like classified ads in the newspaper, or stuff we find elsewhere on the Internet, you need to do your due diligence, in selecting who to work with. It is not just for Haiti Cholera, but for disasters worldwide, where volunteers need resources, which other volunteers can provide.

Click on Quick Start to see all the Haiti preset links, OR, just choose HT on the state dropdown to get all the Haiti related records.

DASHBOARDS OF HAITI DISASTER INFO (0 NOV 05)

YouDOP has created a compelling dashboard which includes HEAS outputs

<http://haiti2.youdop.org/>

HAITI EPIDEMIC ADVISORY SYSTEM (1 FEB 20)

If you are not a medical worker, but have an interest in maps of where cholera epidemic is how severe in Haiti, check out HEAS's [Haiti Operational Bio-Surveillance](#) site.³⁰³

If you are not already participating in HEAS, you should make sure your medical people connect with [James Wilson iceaxe5@gmail.com](#) to get their info shared with HEAS. If you are a medical worker in Haiti, and you treat a suspected case of Cholera, many medical authorities want to be informed PDQ by you. You can report it to HEAS using [this form](#).³⁰⁴

³⁰² <http://www.citizencommandcenter.org/>

³⁰³ http://biosurveillance.typepad.com/haiti_operational_biosurv/

³⁰⁴ <https://spreadsheets.google.com/embeddedform?formkey=dEhCaGg0RXh3dEk4V0w1VzNBMFoyMHc6MQ>

HEAS provides Google widgeted mapping and charting:

1) [HEAS Dashboard](#), provides an overview of current HEAS partner locations and updated Artibonite OCHA surveillance data.³⁰⁵

2) [Outbreak-specific mapping](#) thanks to PIH, Medishare, and JPHRO.³⁰⁶

Official figures on Cholera are grossly under-reported. See HEAS Situation Reports, as of:

- [2010 Dec 8](#)³⁰⁷ Detailed map analysis
- [2010 Dec 1](#)³⁰⁸ Overall challenges
- [2010 Nov 27](#)³⁰⁹ Obvious problems in US statistics
- [2010 Nov 24](#)³¹⁰ Systemic problems in official response
- [2010 Nov 22](#)³¹¹ Losing the war against Cholera
- [2010 Nov 20](#)³¹² Epicenter is out of all kinds of medical supplies
- [2010 Nov 18](#)³¹³ Medical material backlog is a disaster
- [2010 Nov 16](#)³¹⁴ First Contact Mortality Trends
- [2010 Nov 14](#) Cap Haitian Region Epidemiology³¹⁵
- [2010 Nov 11](#) Initial Time Line of Cholera Epidemic³¹⁶ after first official reports (the hospitals involved had seen evidence earlier, not immediately recognized what going on).

³⁰⁵http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/heas-dashboard-cholera-in-haiti.html

³⁰⁶ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/cholera-outbreak-maissade-hinche-area-cholera-haiti.html

³⁰⁷ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/12/heas-sitrep-12810.html

³⁰⁸ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/12/on-december-1st-the-haiti-health-cluster-reported-77208-hospital-visits-for-cholera-34248-of-which-were-admitted-and-17.html

³⁰⁹ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/commentary-usaid-involvement-in-the-cholera-response-effort-cholera-haiti.html

³¹⁰ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/blame-a-common-feature-of-infectious-disease-disasters.html

³¹¹ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/commentary-the-perspective-and-reality-of-heas-operations-haiti-cholera.html

³¹² http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/notes-from-the-epicenter-we-are-out-of-everything-cholera-haiti.html

³¹³ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/commentary-a-snapshot-of-the-surveillance-and-response-logistics-disaster-in-haiti-cholera.html

³¹⁴ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/first-contact-effect-on-cholera-mortality-in-haiti.html

³¹⁵ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/an-epidemiological-review-of-the-cap-haitien-region.html

HAITI MPHISE (1 FEB 1)

HEAS is part of MPHISE. MPHISE is part of HEAS. They are a mutual support team. If you get to any one of their web sites, there's links to many other relevant ones.

Haiti MPHISE³¹⁷ <http://haiti.mphise.net/>

See their maps all over the site. <http://haiti.mphise.net/maps>

Haiti Resilience System <http://www.haitiresiliencesystem.org/>

Haiti MPHISE UDOP <http://haiti.youdop.org/>

YouDOP = User-defined Operating Picture.

The HEAS discussion list is intended to provide rapid info between doctors working the crisis, while MPHISE is a forum for discussion of related topics, each of which may have limited sub-groups of interested people, to keep e-mail traffic minimized for those on limited cell phone pricing plans.

[Haiti MPHISE](#) = Medical and Public Health Information Sharing Environment.³¹⁸

To gain the full benefits of the Haiti MPHISE, you should sign in at the top left hand corner of the Haiti MPHISE landing page. If you need help connecting to Haiti MPHISE, please contact Katie Rast <katierast@gmail.com>.

Future MPHISE Mapping (1 Feb 1)

There may be further improvements in the future, thanks to multiple volunteer efforts. Here is some of them.

QUOTES

We are building out the Haiti Operations Center in DC in support of HEAS/MPHISE. I have a source to print large scale Hi Res maps. Please forward your mapping needs and links to URL of desired maps if you have them available to drvroeg@gmail.com.

ALSO

We have large, high resolution maps of Haiti in digital form. We are in the process of breaking up those maps into geospatial grids, so we can put them in the Haiti MPHISE

³¹⁶http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/timeline-of-the-haiti-cholera-epidemic.html

³¹⁷ In mid Decmber 2010, Al Mac started another document with notes on MPHISE evolution improvement needs.

³¹⁸ Info provided by Michael D. McDonald, Dr.P.H.

Director, Center for Health Security and Infrastructure
University of Maryland, School of Public Health

President, Global Health Initiatives, Inc.

and Haiti Resilience System working group grids for the departments, communes, and villages. This will require many data stewards to carve up the maps and then place digital pushpins for the following types of information:

CTCs/CTUs
water sources
sanitation facilities
dispensaries
burial areas
cholera hotspots
CERTs
CHWs
drop zones / landing zones
ORS and other medical materiel storage

We have plotters to produce maps in Washington, D.C., but no budget yet to produce the maps in paper form or to transport them. Ideally, every department, commune, and large village would have paper maps marking the 15 mission critical functions necessary to reduce infections and deaths associated with cholera.

We are in discussion with various Haiti Race to Resilience partners about putting a Haiti Medical and Public Health nexus (nerve center) in PaP. That is where the paper maps should be produced.

UNQUOTE

MPHISE Requests (1 Jan 30)

Regarding mapping in Haiti

1) For any meta data added to any Haiti map, it would be valuable to include the various levels ... eg: Commune, Arrondissement, Departement. It might also be helpful if the estimated size of the city/town/village were noted...

eg - a city is population greater than 100,000. A town is 10,000 to 100,000, Village is less than 10,000.

2) COSMHA (Comunite OpenStreetMap de Haiti) appears to be a relatively new Haiti based organization formed to grow the OpenStreetMap community in Haiti.

From the HOT website blog (HOT = Humanitarian OpenStreetMap Team)

<<http://hot.openstreetmap.org/weblog/>>

FYI, I believe Kate Chapman and Mikel Maron are the driving forces of HOT. It might be valuable for HEAS/MPHISE to link up with COSMHA.

Blog post from H.O.T. below

Janine

====

Posted 25 January 25, 2011.

Introducing COSMHA (1 Jan 30)

A new organization has been formed to sustain, support, and grow the local OpenStreetMap Community in Haiti. COSMHA, or Comunité OpenStreetMap de Haiti, was formed in late 2010 by a group of mappers from Port au Prince with the goal of ensuring that the best map data for Haiti is created by Haitians and available to anyone to use and improve.

COSMHA now has over 200 members, primarily from Port au Prince, but active groups are working in several other communities including Leogane, Jacmel, and Gonaïves. The group came into existence in the months following the January 2010 earthquake in Haiti as a result of a partnership between the Community Forum of Cite Soleil and the Humanitarian OpenStreetMap Team (HOT).

OpenStreetMap was widely used by humanitarian agencies during search and rescue efforts and response planning in the days and weeks following the earthquake. Following the initial emergency, the Humanitarian OpenStreetMap Team began work to ensure that the rich and detailed data in OSM for Haiti would continue to be sustained and improved by the local community. With the support of the International Organization of Migration (IOM), COSMHA is out in the field daily, mapping communities and providing data critical to the ongoing relief efforts.

COSMHA's current work centers around creating maps that will assist the cholera response. Teams have been active around the country, collecting data on cholera treatment facilities and water and sanitation infrastructure. Mappers ride motorbikes, walk, and take tap taps to reach remote areas. In the next six months, COSMHA hopes to expand its activities and membership to include the majority of the country.

HAITI RESOURCE FINDER (0 NOV 05)

[Haiti Resource Finder](#).³¹⁹ Locate hospitals and other medical facilities, see capacity, types of services.

HAITI ROAD CONDITIONS (1 FEB 17)

[Map](#)³²⁰ Number: LogCluster_HTI_008_A2L_20101025

Map Nov 06 from World Food Program (WFP) after hurricane Tomas hit Haiti. [Summary Links](#).³²¹ [Detail](#) PDF.³²² “**Source: OCHA/ReliefWeb**”. This shows:

- Bridges over-flooded
- Floods where, blocking travel
- Icons for where flood, landslide, road cut, sea ports
- Landslide blocking road
- River bank repairs underway where
- Roads color coded as to what kinds of vehicles can navigate there
- Roads cut or blocked to various towns, between various towns
- Water levels receding where

When we are past this crisis, this kind of map could be used as a guide to where rubble debris, from the earthquake, could maybe be used to raise the altitude of roads which get flooded too often.

HUMANITARIAN ROAD (1 JAN 26)

[Humanitarian Road](#) provides resources to help people in an emergency.³²³ Their web site has Haiti links identifying hospitals, find shelter, treat wounds, learn about cholera, etc. If you belong in such a directory, check them out. If you not listed, contact them about getting the directory updated. They have also contributed, with other medical groups to the [Haiti Health Map](#).

LOCATE CHOLERA TREATMENT CENTERS (0 NOV 12)

<http://www.citizencommandcenter.org/conditions/list>

Logistics Cluster Nov 15 update [summary](#) with 2 formats of downloadable maps.

³¹⁹ <http://haiti.resource-finder.appspot.com/>

³²⁰ <http://www.logcluster.org/ops/hti10a/road-conditions-map>

³²¹ <http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA-8AZEZFZ?OpenDocument&rc=2&cc=hti>

³²²

[http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/51796AEBEFB7F177C12577D5003A761C/\\$File/map.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/51796AEBEFB7F177C12577D5003A761C/$File/map.pdf?OpenElement)

³²³ <http://helphaitiheal.wordpress.com/>

MAPS TO HAITI HOSPITALS (0 NOV 05)

Resource Finder provides a listing of all health facilities in Haiti. It is easily updatable regarding bed capacity in this current situation of disease outbreak. It was established by Google, MSP and US Dept of Health and Human Services. It's easy to edit. It could provide an invaluable tool when looking for treatment centers if we all use it.

Please update your health facilities at... <http://resource-finder.appspot.com/>

Facilities not listed can be added by emailing:

haitiaid@shoreland.com (GPS lat/long coordinates are beneficial but not essential)

(To use Resource Finder, you simply need a gmail account to sign in. Then search by name of facility, specialty or find it on the map, select edit and your changes will be recorded)

Start here <http://haiti.humanitarianresponse.info/Default.aspx?tabid=83> which has data for WASH water sanitation hygiene, then see below in the RESOURCES section, where there is a downloadable ZIP file listing Hospitals, clinics, and medical dispensaries in Haiti.

MAPS OF CHOLERA SEVERITY (0 NOV 05)

[Here is a map](#) not of case counts, but of sites in Haiti where medical professionals believe or have confirmed the presence of cholera. The severity coding is explained above the map.³²⁴ Tiny url to the first map:

<http://tinyurl.com/32z2sfl> After the first map, there is a second map, showing paths taken by infected people and infected goods, to spread the epidemic to other communities. The red arrows are confirmed cases. The blue arrows are expected next, if this is not stopped.

PAHO [map](#) of case counts by Haiti department.³²⁵

See HR thread [Cholera Disease Outbreak](#),³²⁶ page 2 for PAHO situation report # 5, which ends with a summary map as of Oct 26. That map has also been posted [here](#).³²⁷

MAPS OF CHOLERA CONFIRMED CASES (0 NOV 08)

One map via [Haiti Operational Bio-surveillance](#), as of Saturday Oct 23,³²⁸ is marked with how severe the situation is in the various communities. Two more maps, from PAHO and CDC, posted same place, show icons for scale of how many cases in which cities.³²⁹

³²⁴ Tiny url <http://tinyurl.com/32z2sfl> full url

http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/10/current-situational-map-of-the-haiti-cholera-epidemic.html

³²⁵ http://new.paho.org/hq/images/Atlas_IHR/CholeraOutbreak/atlas.html

³²⁶ <http://haitirewired.wired.com/group/scientistforhaiti/forum/topics/cholera-disease-outbreak>

³²⁷ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/10/updated-paho-situation-map.html

³²⁸ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/10/current-situational-map-of-the-haiti-cholera-epidemic.html

Here's another HEAS [map](#), posted Nov-04, which may get updated as more info known, showing all the communities in Haiti where cases of cholera have cropped up.³³⁰ Basically it is all over the map, going north from Port au Prince.

Click on this [HEAS collection of maps](#), one for each community where Cholera has been reported.³³¹

NOULA CHOLERA MAPPING (0 OCT 24)

You can use [this link](#) if you are a member of Linked In HEDR Ushahidi Analysis sub-group, and can understand French.³³² Cholera hits started there Oct 22. Everyone else (not on that LI HEDR sub-group) use <http://www.noula.ht/> then click on the link to JUST access the [Cholera incidents](#).³³³

- Where deaths from Cholera witnessed
- How many cases at some hospital

Even if you do not have French translation handy, there are a ton of useful urls there

OCHA MAP WHERE CHOLERA (1 FEB 17)

OCHA is the UN agency which is over the entire UN Humanitarian effort in Haiti. It is like FEMA in the USA, which does not do any of the work, but points specialist agencies in the direction they need to go.

[Summary](#).³³⁴ [Full](#) PDF.³³⁵ (Source: OCHA/Relief Web) This is very general info as of 2010 Oct 23.

[Here](#) is an update as of [Oct 26](#), covering Arbonite and Center.³³⁶

³²⁹http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/10/paho-and-cdc-maps-of-the-epidemic-cholera-haiti.html

³³⁰http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/11/current-map-of-cholera-affected-areas-cholera-haiti.html

³³¹<http://maps.google.com/maps/ms?hl=en&client=firefox-a&ie=UTF8&mmsa=0&msid=107170308417761156141.000494466b5bf7249b47b&ll=18.569212,-72.261457&spn=0.028477,0.036478&z=14&source=embed>

³³²

http://www.linkedin.com/news?viewArticle=&articleID=233496891&gid=2687092&type=member&item=33059090&articleURL=http%3A%2F%2Fwww.noula.ht%2Fwbfrm_Alertes.aspx%3FIDDOMAINE%3D0%26debPer%3D10%2F22%2F2010%26finPer%3D10%2F23%2F2010&urlhash=WsEJ&goback=gde_2687092_member_33059090 link thanks to Richard James Lasiw - SMS #177 if in Haiti for reporting incidents,

³³³ http://www.noula.ht/wbfrm_Alertes.aspx?IDDOMAINE=15&debPer=09/01/2010&finPer=10/24/2010

³³⁴

³³⁵

[http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/1E2D4D76E010819CC12577C70039876D/\\$File/EP-2010-000210-HTI_1025.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/1E2D4D76E010819CC12577C70039876D/$File/EP-2010-000210-HTI_1025.pdf?OpenElement)

³³⁶ http://biosurveillance.typepad.com/haiti_operational_biosurv/2010/10/ocha-situation-map-for-artibonite-and-centre-haiti-cholera.html

[Here](#) is OCHA update # 5 [PDF](#) as of Oct 27. “**Source: OCHA/ReliefWeb**”. Excerpts below.

The Ministry of Health reports a total of 284 deaths and 3,769 cases confirmed. The Ministry reports 96 per cent of cases originate from Artibonite while 4 per cent come from the Centre department.

The Mirebalais Prison has reported that 50 of their 347 inmates have been admitted to the hospital in Lascahobas where three of the 50 have died of chronic diarrhoea.

DINEPA, the water and sanitation directorate, with support from logistic cluster helicopters has delivered approximately 1,200 kilograms of chlorine powder to treat water systems in 22 larger towns across the country.

IOM and the Red Cross Movement have reached an estimated 880,000 people from the West and Artibonite departments with SMS text and voice messages on cholera prevention, treatment and hygiene.

Summary statement about St Marc demonstration is totally without context. Detail in PDF is more reasonable. In Artibonite, departmental health authorities in St Marc today reportedly decided to close a newly opened cholera treatment centre (CTC) following protests by students. The CTC for 150 cholera patients was to be located behind a public school on a sports field.

Not educating the community regarding how you catch the disease, almost guaranteed these results. In other nations this could have caused riots.

[OCHA map where cholera as of Nov 10](#), very general, and never as complete as HEAS info. [PAHO map where cholera as of Nov 11](#), totals [by region](#), not HEAS specificity.

OCHA MAP WHERE CAMPS AT RISK (1 FEB 17)

[Map](#) as of Oct 22, where camps at risk of Cholera epidemic.³³⁷ “**Source: OCHA/ReliefWeb**”. As fast as news is breaking

- 20 confirmed dead Wed Oct 20
- 138 confirmed dead Thu nite Oct 21
- 200+ confirmed dead Sat morning Oct 23

Any fancy data presentation will probably not be up-to-date.

[Full PDF](#) has to be downloaded for the map details to make sense ... the pink areas represent density of displaced people in camps, not displaced people period, or people with the disease.

³³⁷ <http://reliefweb.int/rw/rwb.nsf/db900sid/AHAA-8AGRBH?OpenDocument>

USAID MAP TOMAS DAMAGE AS OF NOV 07 (NOV 08)

[Summary](#) Link.³³⁸ [Detail](#) PDF.³³⁹ “Source: OCHA/ReliefWeb”. Based on reports so far, where there is:

- Camps sustaining what harm
- Damaged what
- Flooding
- Hospital evacuated
- Infrastructure damage
- Roads blocked
- Roads passable again
- Up to how high is water standing where ... 8 feet

This map is superficial compared to data which has been flowing thru HEAS. Perhaps someone who is involved in maintaining USAID info should be invited into HEAS.

POLIO IN HAITI (1 JAN 28)

[This](#) post includes a map of where there were known cases 2000-2001.³⁴⁰

UN CLUSTERS HAITI (1 MAR 20)

The UN uses a cluster system to help humanitarian organizations cooperate along thematic lines, such as: Emergency Shelter and Non-Food Items, Camp Coordination and Camp Management, Education, Food, Logistics, Nutrition, Protection, Water Sanitation and Hygiene (WASH), Agriculture, Early Recovery, Emergency Telecommunications, and Health. Many of the clusters break down into specialized sub-clusters, such as “Protection for Women and Children from Rape and Slavery.”

This only applies for NGOs which are interested in cooperating – most are not interested in mutual cooperation or adherence to any minimum standards of decency for the people they supposedly serve, and there are no legally imposed mandates for them to do so. Further,

³³⁸ <http://reliefweb.int/rw/rwb.nsf/db900sid/LPAA-8AZBLY?OpenDocument&rc=2&cc=hti>
(Source: OCHA/Relief Web)

³³⁹ [http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/CECAACD5C28629AFC12577D5002D74DE/\\$File/map.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/CECAACD5C28629AFC12577D5002D74DE/$File/map.pdf?OpenElement) (Source: OCHA/Relief Web)

³⁴⁰ http://biosurveillance.typepad.com/haiti_operational_biosurv/2011/01/acute-flaccid-paralysis-port-de-paix-and-port-au-prince.html

organizers of some of the clusters, and officials of GoH, deliberately make it difficult, if not impossible, for some NGOs to participate in some of the clusters.

Many NGOs have a conflict between the cooperation rules, and their individual goals. For example, some elements of the Gov of Haiti feel that food aid is harmful to Haiti agriculture, so they demand that it get stopped, so Haiti farmers have a market. There are NGOs which feel that food aid to children is more important than helping the farmers, so they do not want to participate in UN clusters which ban feeding the children. In other research documents I explore ways to solve both problems, so it is not a choice of one or the other.

[United Nations Office for the Coordination of Humanitarian Affairs - Integrated Regional Information Networks \(IRIN\)](#) reports 2011 March 15 that experts have developed an [Emergency Market Mapping Analysis \(EMMA\) guidebook](#) and training program to improve the humanitarian community's ability to respond to rapid onset emergencies.³⁴¹

Health WHO / PAHO (0 Nov 11)

[PAHO Interactive Map](#). This is an excellent resource and a clean looking map / interface.³⁴²

Stats are time-delayed, at the regional level, and assessed to be inaccurate in terms of the true extension of the epidemic. As a result, HEAS-MPHISE do not use it operationally.

Updated cholera epidemic maps will be posted on www.paho.org.

Logistics Cluster (0 Nov 06)

Their Humanitarian Haiti page [info](#) includes:

- Contacts
- Documents
 - [CONOPS Concept of Operation](#)
 - [SOP Standard Operation Procedures](#)
 - [CMR Cargo Movement Request](#)
 - [TSR Temporary Storage Request](#)
 - Others
- Link to their main site www.logcluster.org/ops/hti10a
- Maps

HUMANITARIAN HAITI (0 DEC 14)

[This](#) site got started October 2010, to replace some of what had formerly been on One Response and the Google Groups.³⁴³ Warning: many of the pages and tabs appear to have

³⁴¹ <http://www.reliefweb.int/rw/rwb.nsf/db900SID/KKAA-8EY89P?OpenDocument> OCHA Relief Web.

³⁴² http://new.paho.org/hq/images/Atlas_IHR/CholeraOutbreak/atlas.html

³⁴³ It may be just me, but I find that linking to resources on this site, seem to take infinite time to get there.

some security constraint, because I click on them and seemingly infinite time is needed to get anything.

There's a separate tab just for maps, and there are also maps associated with the various clusters.

Map Center (0 Nov 06)

[Here](#) is just getting started:

- [3W maps](#) of which NGOs where by cluster. (just those cooperating with the UN and GoH clusters)
- Disaster Operation [maps](#) associated with the Cholera epidemic
- [GIS](#) nothing there yet

Shelter and NFI (non-food-items) cluster (0 Nov 06)

Note that "emergency shelter" here refers to tents, tarps.

They have good [info](#):

- Contacts

Link to their main site www.shelterhaiti.org

ONE RESPONSE (0 OCT 25)

[One Response](#) was initially intended as One Place to go to find all the info on humanitarian efforts organized through the UN cluster system. From the very beginning, some clusters, such as [Health](#), ignored this resource, used their own, but there are many Health documents [here](#). As some clusters work developed, they had their own sites, where anything about them on One Response was ancient archives. But even so, there's a wealth of useful info there. The data is available in French and English, and there are links to the same kind of service for disasters other than what's happening in Haiti.

One Response will be ultimately be replaced by [Haiti Humanitarian Response](#). But there is still enormous volume of resources on One Response.

I suggest newcomers first look at the [clusters](#) directory, and see which are of greatest interest to you, then similarly with [cross-cutting issues](#). Don't forget to bookmark this. Here's a directory of [who's in charge](#) of the different clusters.³⁴⁴

RELIEF WEB (1 FEB 17)

[Relief Web](#), hosted by Microsoft as a service to the UN, is an outlet for new information from the many different kinds of organizations active in the humanitarian community. Later

³⁴⁴ See the Courtesy Reminder before contacting any of these people.

you may wish to return to the home page, and explore other emergencies such as the flooding in Pakistan.

Relief Web resources can be accessed by subject, nation, a particular crisis, type of info, such as [Maps](#).³⁴⁵

Check their [Map Permission Page](#) before using their maps in a report or on a web site.³⁴⁶

For starters, select the link to [Haiti Earthquake info](#). Note the diversity of types of info you can see full info on, and that you can opt to be informed of new info via e-mail digest, or download a briefing kit collection of recent postings. Visit Latest Updates (from all over the world), and select Region-Americas, Country-Haiti, all types of source organizations, and types of content. Don't forget to bookmark this, after you see which pages are most useful to your interests.

In aftermath of the Cholera outbreak 2/3 of way thru Oct 2010, there is now a section focused on the [Haiti Cholera Outbreak of October 2010](#).

You can subscribe to updates to this site via RSS news feed. You can download collections of recent documents. There is a lot on the site, worth exploration.

Here are [Humanitarian Job Vacancies](#), mapped over the world.³⁴⁷ Put cursor over a nation flag, for count there. Select many options in search.

UN Location Maps (1 Mar 08)

ReliefWeb has produced a series of Location Maps for use by OCHA and partnering organizations. The [ReliefWeb Location Map](#) is a map that highlights a country, its capital and the surrounding regions. These maps are intended to provide the UN community, as well as the humanitarian community at large, with a product that is useful to put into documents, reports, briefing notes, and websites in providing reference to locations of interest.³⁴⁸ **Check their [Map Permission Page](#) before using these maps in a report or on a web site.**³⁴⁹ “Source: OCHA/ReliefWeb”.

Here's [Haiti](#).³⁵⁰

There are maps produced by some groups working on Haiti relief and recovery. Links to some of those maps show up, where relevant within some of my research documents, such as:

- **Cholera FAQ** (info from medical organizations)

³⁴⁵ <http://www.reliefweb.int/rw/rwb.nsf/doc114?OpenForm> “Source: OCHA/ReliefWeb”.

³⁴⁶ http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/map_permission?OpenDocument

³⁴⁷ http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/vac_map?OpenDocument&rc=2&cc=hti

³⁴⁸ http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/location_maps?OpenDocument&rc=2&cc=hti

³⁴⁹ http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/map_permission?OpenDocument

³⁵⁰ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/CVIE-8A5CLG?OpenDocument>

- **T-Shelter progress** (what NGOs doing what where)
- **Weather Science** (various risks to Haiti)

UN GOOGLE GROUPS (1 JAN 26)

They host discussion lists, and there are links to Google Sites with documents including maps.

Many of the UN clusters inter-communicate their info via Google Groups. Some are in English, some French, some mixed. On some we can see useful info without formally joining. Some are easy to join, some a hassle. Don't forget to bookmark the ones that most interest you.

Notice Google announcement that they are discontinuing support for the kinds of documents which the powers that be are storing precisely there.

<http://groups-announcements.blogspot.com/2010/09/notice-about-pages-and-files.html?hl=en>

In other words, all this wonderful information is about to disappear. Some of this info has been migrated to other UN cluster sites, but the data is being hoarded like it is a national security secret how to protect yourself from a disaster.

Camps (1 Jan 26)

main site <http://groups.google.com/group/cccmhaiti?pli=1>

Logistics (0 Sep 06)

[Logistics](#) cluster has to do with navigating roads, airports, sea ports, warehouses, border crossings, getting them repaired and improved, having suitable escorts when local violence and hijackings threaten your cargo. The rules for getting cargo into Haiti are complex, and constantly changing. [Logistics](#) keeps its members informed on what they are. There is also a little info on the [Logistics One Response](#) site.

US GOV AID TO HAITI (1 MAR 08)

Thanks to OCHA Relief Web, here is [Summary](#)³⁵¹ access to 415 k [PDF](#)³⁵² with **2011 Mar 04** map of USAID³⁵³ Humanitarian Aid to Haiti. The map includes many organizations

³⁵¹ <http://reliefweb.int/rw/rwb.nsf/db900sid/RKRR-8EQLAL?OpenDocument&rc=2&cc=hti>

³⁵² [http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/362E3C8C14FBCAE38525784C0055F95C/\\$File/map.pdf?OpenElement](http://reliefweb.int/rw/fullmaps_am.nsf/luFullMap/362E3C8C14FBCAE38525784C0055F95C/$File/map.pdf?OpenElement)

³⁵³ USAID = United States Agency for International Development

which presumably are partly funded by US government, or in partnership thru UN clusters, color coded to show which relationships, with icons for types of service.

MISCELLANEOUS OTHER (1 APR 25)

[Scribd](#) has Haiti Collection 7 with some nice military graphics.³⁵⁴ Most of the pages are blank, unless we download it.

[Scribd](#) has Wisconsin Tornado Atlas 1950-2008.³⁵⁵ Also blank after first few pages, unless we download it.

Spam tracking.³⁵⁶

³⁵⁴ <http://www.scribd.com/doc/27347009/Haiti-Collection-7>

³⁵⁵ <http://www.scribd.com/doc/13089491/Wisconsin-Tornado-Atlas-19502008>

³⁵⁶ <http://krebsonsecurity.com/2011/04/where-did-that-scammer-get-your-email-address/comment-page-1/#comment-21067>