III<sup>rd</sup> Forum of Geographic Information for Relief & Development

# GeOnG 2012

"From the cloud to the field"





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# Welcoming word from the presidents

Welcome to Chambéry for the third forum of geographic information for relief and development.

This event is gradually becoming a regular occurrence in our agendas, to meet every two years, every time in better conditions. Each time you are there, ready to communication and exchange, in a relaxed yet passionate spirit. This increase in number is proof of the ever-ending place that mapping is taking in your respective occupations.

What is the assessment four years after the first GeOnG? Every one agrees on one point: mapping is more and more central to humanitarian and development projects. The increase in participants is proof that the optimized management of information is central to the preoccupations of international organizations. However, it must be noted that we find two-speed Geographical Information Systems depending on how much a priority it is in each and every organisation (particularly during a time of recession) in terms of means and resources. However advanced you are in your Information Management projects, we hope that in these sessions you will find the ideas and the arguments to fathom the new technologies of geographical information and to set them up to make your organizations ever more effective and operational. This is why the feedback of the organizations for which it has been a strategy for many years is essential, and we hope that this will be a key aspect of these two days spent together. It will help each and every one of you to find answers well proportioned to your needs.

Since the GeOnG 2008 numerous technical and organizational evolutions have appeared. We have all seen how quickly certain technological have developed and been disseminated, such as virtual globes, embedded systems, tactile screens, geolocalisation... - and a number of you have ridden the wave of these evolutions, that make geographic data collection much more accessible. We would like to go a bit further today by dealing with a subject that is both popular and topical and that seems to be the latest evolution in the technological revolution occurring today: the CLOUD; a concept that constantly needs to be supported by the reality of the FIELD.

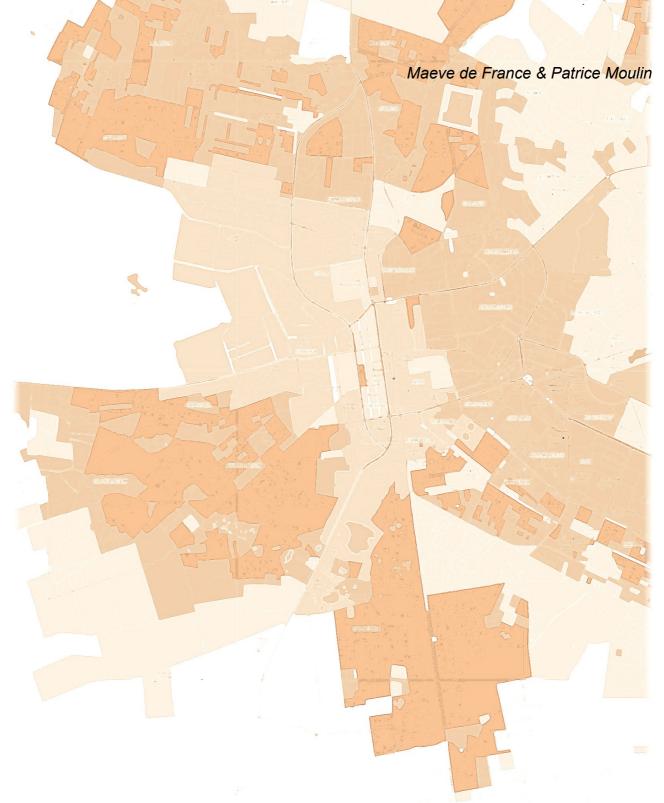
Indeed, the dissemination of information "from the cloud to the field" constitutes the logical step after an adequate data collection. It will enhance the distribution, boost the publication of information that is retrieved or collected, all the while liberating us to a certain extent from technical limitations. The cloud will enable us to make our data become part of a virtuous circle whereby it is present in the field where the user-contributor will be confronted with the data, can use it and modify it, which will make the data more accurate and consistent, for the benefit of all.

We would like to extend our thanks to all CartONG's volunteers, without which the GeOnG would not exist, as well as to our partners for their infallible support to help us welcome



you in adequate conditions – and you of course, the participants and friends of CartONG, for your presence, interventions and ideas.

We hope you enjoy the GeOnG, both in the formal and informal aspects. For beyond the technical it is us, men and women, that with a better mutual understanding contribute to the success of our projects for the improvement of living conditions of populations in need.



# **PRESENTATION**

# Intro

The 2010 earthquake in Haiti in January 2010 has provoked a tremendous solidarity wave. But it has also pushed the humanitarian organizations to reinforce their collaboration and to innovate. The field of cartography was not the least to do so: many NGOs' efforts have resulted into the quick implementation of a shared and free urgency cartography.

Simultaneously, new methods have been tested for data collection and sharing or the use of new tech-



nologies. For instance, volunteers were able to contribution to the rescue operations with the **crowdsourcing** (gathering of data by a large number of person), even if the coordination with NGOs and international organizations remains perfectible.

This effort has allowed to improve substantially the emergency response to the catastrophe, and will also benefits to various development projects in the following years. But we need to moderate this vision: the Haitian example is unfortunately the tree that hides the forest. In most situations – farther from the medias spotlights, less urgent, more complex politically – perpetuating and sharing the data is still a problem.

In order to debate these issues (and many others), CartONG is organizing the 2012 GeOnG, the third Forum of Geographic Information for Relief & Development.

# What is GeOnG?

In 2008, CartONG decided to hold the first GeOnG., with the purpose of raising awareness and gathering the various humanitarian actors that work with geomatics and cartographic resources: NGOs, international organizations, but also scholars and companies. It was an opportunity for the professionals to meet, present their projects, share



their experiences, discover other ways of working, analyze the problems they face daily, and identify together the challenges of the future.

Various topics were tackled during the Forum, such as the multiplicity of actors, the several aspects of the new humanitarian approach (clusters), new technologies, and the necessity to coordinate, standardize and develop fitting technologies.

Many contacts were also established thanks to the participation of around thirty organizations.

The attendees having expressed their wish of repeating such an exchange space, CartONG organized in 2010 the second GeOnG. In a context of quick democratization of the geographical information tools, the Forum allowed to present the new data collection techniques and to discuss formation and emergency information.

The 2008 and 2010 GeOnG saw the participation of NGOs such as MSF-Belgium, ACTED or URD



Group, international organizations like ICCR, UNHCR or WFP, but also professionals from the fields like ESRI or OpenStreetMap.

# "From the cloud to the field"

Following the success of the first two editions, CartONG has decided to renew the experience this year organizing a third GeOnG, around the theme "From the cloud to the field". The objective is to analyze the fast and converging evolutions of the way relief and development organizations acquire and analyze their data.

The last GeOnG, entitled "From the field to the screen" asserted the use of new mobile tools (GPS, smartphones) for the data collection on the field. They allow professionals to gather and analyze data directly on the field, without having to go through the headquarters like before. An evolution also made easier by the development of aerial imagery immediately available there, with the drones and remote detection.

This data, shared on the online cartographic storage services – the cloud – are immediately accessible form the field, and potentially by everybody.

It is also a way to satisfy the wish of the funding agencies and the donors, who are looking for reports coming directly from the projetcs.

So we are witnessing a double groundswell: first toward the decentralization of the use of geographic information – on the field – and second toward a centralized and shared storage of it – on the cloud. Those two movements are opposites, because both lead to a democratization of the data production and use.

What are the difficulties this evolution meet, and how to back them?



# **GeOnG 2012**

First, the information's democratization should not go with a fragmentation: the data sharing must remain a priority. It leads to the **license and copyright issues**. The data collected by an organization should remain accessible to other organizations that work on the same field, even if they work with different publication systems.

The analysis decentralization also requires a skills transfer to the field. Several actors, including CartONG, are already committed into it (particularly through online formations).

With the suppression of the gap between data collection and analysis, smartphones allow us to take faster and more relevant decisions. The issue today is the **perpetuation and the pooling of this data**, to benefit from the possibilities offered by the online servers to share them. It will be the only way to go beyond the emergency and reuse the data for projects on the long range, as we have seen in Haiti.



# Who is CartONG?

Founded in 2006, CartONG is a non-governmental organization (NGO) with the aim of promoting the use of geographic information amongst the professionals of relief and development. We offer cartographic and information management services to NGOs, international organizations and local associations.

Originally specialized on cartographic applications for the refugees, CartONG has extended its expertise toward various other fields: post-catastrophe emergency, fight against deforestation, farming resources management, etc. The association works with modern tools, using the groundbreaking possibilities offered by new technologies (smartphones, GPS, software).

The involvement of local communities into the projects and formation of domestic staff is paramount to CartONG, in order to develop project that are lasting and adapted to the needs of the recipients.

## Our goals

CartONG furnishes to relief and development actors the resources they need to acquire, integrate and manage their data, for decision-making and projects evaluation.

Beyond that, CartONG seeks to induce geographic information sharing between organizations. We offer solutions so that the data gathered by NGOs an international organizations are not wasted once their programs are completed.



#### Our actions

- Allowing the relief and development workers to use the several existing geographic databases, for decision support, benchmarking or communication.
- Proposing the services of cartography, geomatics and information management experts, specialized in the field-related and humanitarian issues.
- Offering formations to relief and development workers (e-learning), inducing solutions that are innovative and accessible to all NGOs.
- Promoting the use of geographic information within the NGOs and preach for data sharing and collaboration between actors. Favor partnerships creation between organisations using geographic information.



November 5 & 6th, 2012 - Le Manège Convention Center - Chambéry

# PARTICIPATING ORGANIZATIONS















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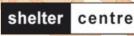






































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# PRACTICAL INFORMATIONS

#### Information on venue and hostels:

http://www.cartong.org/geong/2012/venue

#### Address of the Convention Center Le Manège:

331 rue de la République, 73000 Chambéry, France



#### Your contact during the Forum:



Mapping services for humanitarian organizations

# **Martin Noblecourt**

GeONG Intern

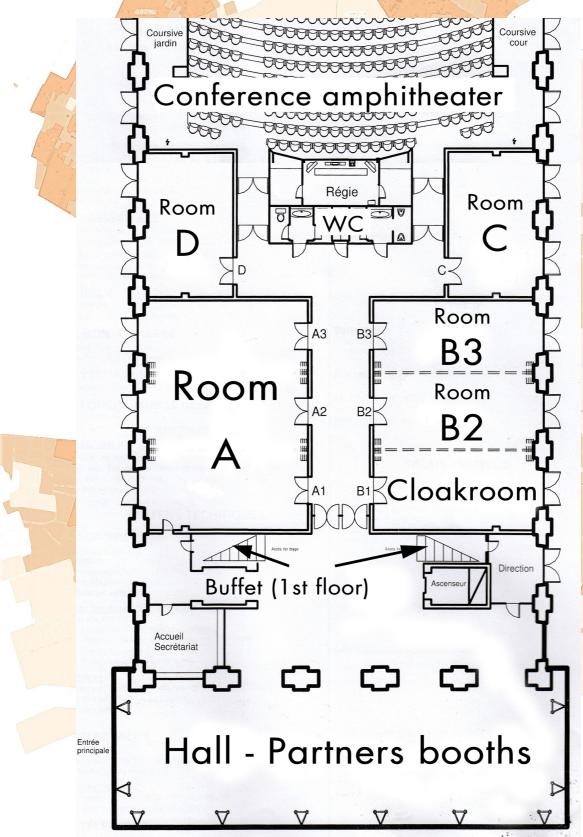
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# Le Manège's Plan



# AGENDA

# Monday, November 5th

Time	Activity	Speakers
8:30	Opening of the conference center	
9	Attendees welcoming, registration to workshops	The second of th
9:30	GeOnG 2012 opening	Maeve de France & Patrice Moulin (Presidents), CartONG Isabelle Herlin (Deputy mayor, international relationships), Chambéry City council
10	Plenary 1: Cloud applications, possibilities and challenges	Sandra Sudhoff (CartONG) - Chairperson Paola de Salvo (ESRI) Rene Saameli (ICRC) Emilie Landois (Google France) Jean-Thomas Rouzin (WebGeoServices)
11:30	Coffee break	allerine districts
	Roundtable 1: GIS in your humanitarian organization: why and how?	Patrice Moulin (CartONG) - Chairperson Clotilde de Montpellier (MalarEO) François Grunewal (Groupe URD) Frédéric Ham (ACF Spain) Edmond Wach (Solidarités International)
11:45	Roundtable 3: Accessing your data from the field in all circumstances	Sandra Sudhoff (CartONG) - Chairperson Christophe Bois (iMMAP) Paul Gardner-Stephens (Serval Project) - on Skype Sébastien Le Bel (CIRAD)
13	Lunch	Partners' booths
14	Workshop 4: Introduction to web mapping	Arnaud Vandecasteele (MINES ParisTech)

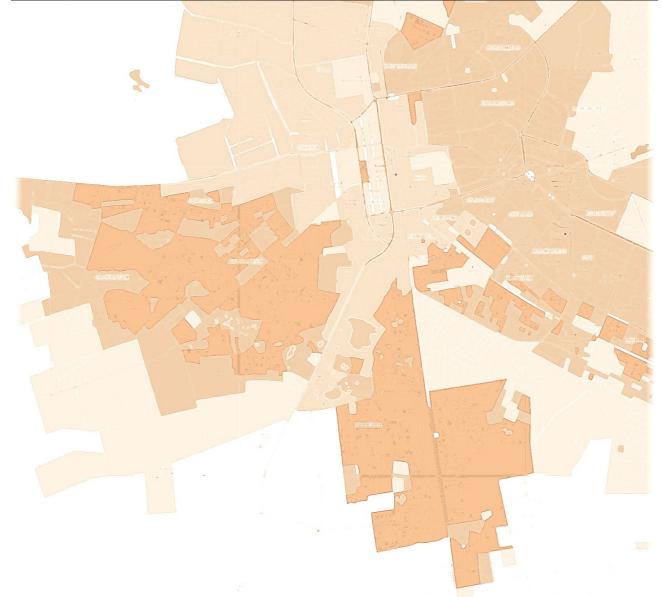
	Workshop 3: Web mapping with GeoNode + EpiCollect presentation	Thierry Crevoisier & Rémi Galinier (WFP)
	Workshop 2: Mobile data collection with ODK	Sandra Sudhoff (CartONG)
15:45	Coffee break	
4	Workshop 6: Web mapping with ArcGIS online	Paola de Salvo (ESRI)
16	Workshop 5: Web mapping with MapBox	Xavier Chaze (MINES ParisTech)
	Workshop 10: OpenStreetMap and mobile solutions	Pierre Giraud (Humanitarian OSM Team)
17:45	Closure – Cocktail	

# Tuesday, November 6th

Time	Activity	Speakers
8:30	Opening of the conference center, coffee	
9	Plenary 2: Geographic data sources: providers, business model, quality?	Edouard Legoupil (UNHCR) – Chairperson Emanuele Gennai (ESRI) Benjamin Jean (Inno3) Gaël Musquet (OpenStreetMap France) Claire Halleux (RGC)
10:30	Coffee break	
10:45	Lightning talks	Ludovic Boyer (CartONG)  Arnaud Deshogues (Camp2Camp)  Ahiwa Victoire Epse Bobo (Hysope International)  Aymeric Fuseau (PlaNet Finance)  Frédéric Ham (ACF-Spain)  Chad Hendrix (OCHA)  Clotilde de Montpellier (MalarEO)  Uiri Panek (PhD student, university Palacky, Olomouc)  Jean-Thomas Rouzin (WebGeoService)  Eric Sibert (OpenStreetMap Madagascar)  soon (GeoVantage)

11:45	Roundtable 6: Debate on the new aerial image technologies	Olivier Senegas (UNITAR-UNOSAT) - Chairperson Guillaume Jacquet (SenseFly) Chris Hepp (APDER) Frédéric Moine (IOM) James Kain or James Summerville (GeoVantage)
	Roundtable 5: Emergency mapping  Roundtable 2: Geographic information and development: environmental GIS	Rémi Galinier (WFP) - Chairperson Svend-Jonas Schelhorn (StandbyTaskForce) Anthony Scott (MapAction) James Summerville or James Kain (GeoVantage) Peter Spruyt (JRC European Commission) Jean-Claude Cordeau (GIS74)  Clovis Grinand (EtcTerra) - Chairperson Dominique Audéoud (Institut de Géographie Alpine) Patricia Dankha (PlanetAction) - to be confirmed
13	Lunch	Julien Gonnet (Rongead)  Partners' booths
13	Exclusive live demonstration of the new aerial images technologies (balloons & drones)!	r aruners bookins
14:30	Roundtable 4: Using data for communication	Patrice Chataigner (ACAPS) - Chairperson  Mathilde Baker (TacticalTech) - to be confirmed  Timo Luege (Social Media for Good)
	Roundtable 7: Coordination and information management	Maeve de France (CartONG) - Chairperson Vincent Annoni (Impact Initiatives/REACH) CJ Hendrix (OCHA) Stephane Savarimuthu (UNHCR) - to be confirmed

15:45	Coffee break	
16	Workshop 9: Ushahidi free collaborative platform	Elena Rapisardi (University of Torino) - to be confirmed
	Workshop 7: Offline mapping with QGIS	Mehdi Semchaoui (Carto Expert)
. 4	Workshop 8: Situational awareness with social networks in crisis (Geofeedia)	Timo Luege (Social Media for Good)
	Workshop 1: Using the aerial images for building spherical models	Chris Hepp (APDER)
17:45	GeOnG closure	Augusta.



# CONFERENCES

# **Plenaries**

# Plenary #1 - Cloud applications, possibilities and challenges

Monday, November 6th, 10-11:30, Conference amphitheater

There is an increasing number of online services to store and share directly your data on the Internet (for all kinds of data, including maps). This technological evolution provokes changes on the very way the humanitarian organizations work, allowing the staff on the field to share and publish data without going through the HQ. But in order to take full advantage of these tools, humanitarian organizations must adapt them to their specific constraints and needs:

- What possibilities are cloud computing solutions offering? Which applications developed for other sectors can be transferred in humanitarian organizations?
- What possibilities for sharing and standardization?
- How to manage and animate those systems (crowdsourcing)? What procedures of communication and regulation between the headquarters and the field?
- How to guarantee the safety of data?

#### **Panel**

Sandra Sudhoff (CartONG) - Chairperson

Émilie Landois (Google France)

Jean-Thomas Rouzin (WebGeoServices)

René Saameli (ICRC): The Cloud in support of Rural Water Supply Infrastructure O&M in Tigré (Ethiopia)

Paola de Salvo (ESRI): GIS in the cloud - opening our world





# Plenary #2 – Geographic data sources: providers, business model, quality?

Tuesday November 5th, 11:45AM-1PM, Conference amphitheater

Relief agencies are confronted with many data providers, from mapping solutions to geographical information systems or business data. All of those providers present several operating modes, philosophies, and economical models, all distinct from each other. Facing this diversity, humanitarian organizations may encounter problems to find and particularly to share their data, because of the lack of a common license model specific to humanitarian use. This meeting will therefore aim to debate the following questions:

- What are the existing data providers (background maps and humanitarian data), their operating characteristics, and their positive/negative aspects?
- What are the possible economical models and (possibly specific?) licenses for humanitarian data? What are the possibilities to integrate different models?
- How to build a quick & efficient data sharing system, while at the same time avoiding commercial appropriation?
- How to guarantee data safety and quality?
- At what stage is the current use of State-based shared data (opensource model), is a transfer of skills possible and worth considering?

#### **Panel**

Édouard Legoupil (UNHCR) - Chairperson

Emanuele Gennai (ESRI): open datas in ArcGIS online: update and future developments

Claire Halleux (Référentiel Géographique Commun, DRC)

Benjamin Jean (Inno3): Intellectual propriety, a key asset for humanitarian action

Gaël Musquet (OpenStreetMap France)



# **Roundtables**

# Roundtable #1 - GIS in your humanitarian organization: why and how?

Tuesday, November 6th, 9-10:30AM

Using Geographic Information Systems has become a standard way to manage the information in administrations and major corporations. However, it is still sparsely used in the field of relief and development. Still, both major and small humanitarian organizations would gain a lot from using these systems, especially with the simplification and democratization they have known lately. During this roundtable, we will first have a reminder of the possibilities of GIS, and then the speakers will try to answer the audience's question around the following issues:

- Which use for geographic information in the humanitarian field? How to convince your organization of their usefulness?
- How to build a GIS team in a humanitarian organization? Which solutions for which difficulties?
- What are the new possibilities offered by GIS nowadays?

#### **Panel**

Patrice Moulin (CartONG) – Chairperson: presentation of the GIS, its applications and the key aspects of its setting up

Valérie Léon (Groupe URD)

Clotilde de Montpellier (MalarEO)

Frédéric Ham (ACF-Espagne)

Edmond Wach (Solidarités International)





# Roundtable #2 - Geographic information and development: environmental GIS

Tuesday, November 6th, 11:45AM-1PM, Room D

Geographic Information Systems are used for many extremely interesting applications in the humanitarian and emergency rescue fields. However, we should not forget that they are nowadays used in almost all the domains of governance in the industrialized countries. Environmental policies are not an exception: the aim of this roundtable is to present examples of use of mapping for a sustainable development, discussing the following topics:

- Which tools and applications for environmental engineering are transferable in developing countries?
- How to create projects using the latest technologies while being applicable on the field, sometimes on a small scale?
- Which resources and tools are available for environmental NGOs who wish to use geographic data?

#### Panel

Clovis Grinand (EtcTerra) - Chairperson

**Dominique Audéoud** (Institut de Géographie Alpine) : presentation of SIGENV project (SIG for environment) and Applayers application (geographic layers management for environment)

Patricia Dankha (PlanetAction)

Julien Gonnet (Rongead)





# Roundtable #3 - Accessing your data from the field in all circumstances

Monday, November 5th, 11:45AM-1PM, Room A

Cloud services allow the humanitarian professionals to share and access very easily their data... assuming they have access to a good internet connection. But we all know the situation on the field is rarely like this. Hopefully, various technologies (satellite, Bluetooth, GSM, etc.) have been developed or adapted in order to overcome this problem. This session will present projects that would start to answer the following questions:

- What to do when there is no internet network? How to access your data on the cloud within this circumstances?
- How to use recent technologies (Bluetooth, satellite) to develop groundbreaking solutions?
- How to use standard GSM cellphones to access and manage your data directly from the field?

#### **Panel**

Sandra Sudhoff (CartONG) - Chairperson

Christophe Bois (iMMAP/NOMAD)

Paul Gardner-Stephens (Serval Project) - on Skype: Presentation of Serval's field data collection project

Sébastien Le Bel (CIRAD): use of FrontllineSMS for the management of human-fauna conflicts in Southern Africa





## Roundtable #4 – Using data for communication

Tuesday, November 6th, 2-3:15PM, Room A

Humanitarian organizations produce and use a large range of data in their daily activities. This year's GeOnG plenaries have allowed the participants to discuss of the need to open this data and share it between organizations in order to increase their efficiency. But the dissemination of this data should not be limited to humanitarian organizations: cloud technologies are also an opportunity to spread the information to beneficiaries, donors or to the public opinion. Yet, this dissemination cannot be efficient if it does not go along with a special communication effort on how this data is presented.

- How to get the audience to understand the information, on the form and on the content? Which kind of data and which theme too reach the largest audience?
- Which tools and techniques to explain and show the data (in particular visually)?
- Which communication channels choose (websites, medias, social networks...), for which audiences (beneficiaries, donors, colleagues inside of your structure)?

#### **Panel**

Patrice Chataigner (ACAPS) – Chairperson

Mathilde Baker (TacticalTech) – to be confirmed

Timo Luege (consultant)



# Roundtable #5 – Emergency mapping

Tuesday, November 6th, 11:45AM-1PM, Conference amphitheater

NGOs and international organizations have defined many procedures and frameworks for their interventions in emergency situations. Emergency mapping has also experienced this professionalization and standardization, with the appearance of full-time specialists inside the major organizations, and even organizations specifically focused on these interventions (MapAction, StandbyTaskForce). This roundtable's aim is to share good practices and discuss these issues:

- How to collect and process the data to be operational immediately after a catastrophe? What services and tools are available to gather this data?
- What are the different phases when dealing with an emergency situation?
- From the data to the final result: which information, tools, products, networks?
- How to prepare to the emergency situations at an organizational level?
- How to combine this preparation with the necessity to innovate and to keep flexibility and reactivity when facing the emergency?

#### **Panel**

Rémi Galinier (WFP) – Chairperson

Svend-Jonas Schelhorn (StandbyTaskForce): The Power of Digital Volunteers in Humanitarian Response: Introducing the Standby Task Force.

Anthony Scott (MapAction): MapAction's Approach to Mapping and Information Management in Humanitarian Crises

Peter Spruyt (JRC – European Commission): presentation of Global Monitoring for Environment and Security's (GMES) new Emergency Management Service

James Summerville or James Kain (GeoVantage)





# Roundtable #6 - Debate on the new aerial image technologies

Tuesday, November 6th, 11:45AM-1PM, Room A

Innovation is not limited to softwares or data collection tools: important progresses have been made lately for aerial images acquisition technologies. This evolution is particularly connected with the development of balloons and UAVs, which price becomes increasingly affordable for international organizations but also for NGOs. Satellite images are also much easier to access for humanitarian actors on the field. However, these new technologies, literally "from the cloud", spark off many questions that must be discussed in order to fully appreciate the live demonstration of the afternoon:

- What use for these tools in relief and development? Which applications for which technical fields?
- Are they really affordable for NGOs and international organizations? How to use them (purchase, rental, service)?
- How to stock and share these images, technically (cloud) and legally (copyright)?
- Which are the respective advantages of the various types of balloons and UAVs and of the satellite pictures? Which device is the best for which situation, and which kind of organization?

#### **Panel**

Olivier Senegas (UNOSAT) - Chairperson

**Chris Hepp** (APDER)

Guillaume Jacquet (SenseFly)

Frédéric Moine (IOM)

James Summerville ou James Kain (Geo Vantage)





# Roundtable #7 - Coordination and information management

Tuesday, November 6th, 2-3:15PM, Conference amphitheater

Collecting and assembling data from a large number of contributors is technically easier than ever. But the multiplication of user-friendly solutions does not solve all the problems: coordination mechanisms remains necessary in order to allow the various actors (IT professionals, humanitarian workers, data providers, beneficiaries) to add and use efficiently the data. These mechanisms can take different forms, from the partners reunion to the software.

- Which methods and technology to coordinate humanitarian organizations? With which leading organization?
- How to manage and coordinate the various sources of information on the field (particularly for the crowdsourcing projects)?
- Which coordination tools to ensure that the information circulates between humanitarian workers on the field and NGOs' and international organizations' HQs?

#### **Panel**

Maeve de France (CartONG) - Chairperson

Vincent Annoni (Impact Initiatives/REACH): REACH initiative presentation

CJ Hendrix (OCHA)

Stéphane Savarimuthu (UNHCR)

Edmond Wach (Solidarités International): presentation of SIGMAH software



# WORKSHOPS

# Workshop #1: Using the aerial images for building spherical models

Tuesday, November 5th, 2012, 4-5:45PM

Trainer: Chris Hepp (APDER) is a medical Doctor with a Master in Humanitarian Assistance and a Master in Health Policy Planning and Finance. He has worked for NGOs, various United Nations Agencies, European Commission (ECHO) and for the International Red Cross mainly in Coordination and Planning and lecturing occasionally Humanitarian Affairs in the University of Barcelona. Chris made his first experience with mapping and rudimentary GIS in 1996. In 2010 Chris was one of the founders of APDER which is a small non-profit – NGO specialized in supporting Coordination and Planning processes with visual Information in Disasters,



Emergencies and Recovery, thus focusing on low cost – high tech application tailored for developing countries. In 2012 APDER made the first field test in Haiti. The results and experiences of this mission will be subject of this workshop.

**Objective**: creation of an AIR Panoramic Photo to use in other softwares and to create and upload spherical models on an Internet platform.

Audience: This workshop is aimed to a public of humanitarian professionals, with or without previous experience in mapping and aerial images. Participants are supposed to attend the previous roundtable on new aerial images technologies.

Participants must bring their own laptops to attend this workshop (PC with an Windows OS XP or higher; there are options for Mac users, consult the ICE Forum) and install the following softwares:

- Microsoft Image Composite Editor (ICE), a freeware no costs very easy handling software and ideal for beginners. Download:
   <a href="http://research.microsoft.com/en-us/um/redmond/groups/ivm/ice/">http://research.microsoft.com/en-us/um/redmond/groups/ivm/ice/</a>. You will need an Hotmail account (if you don't have one, we will have some to provide to the participants).
- Photosynth, also a freeware, is necessary to upload the produced AIRPANOS on the Photosynth Website in order to create the Spherical Model. Download: <a href="http://photosynth.net/create.aspx">http://photosynth.net/create.aspx</a>.
- Silverlight, also a freeware, a plug-in compatible with multiple browsers, devices and operation systems. Download: <a href="http://www.microsoft.com/silverlight/">http://www.microsoft.com/silverlight/</a>.

#### Summary

- 1. Stitching aerial photos from the balloon demonstration to create an AIR Panoramic Photo (AIRPANO)
  - a. Extract parts of the image to use with other programs/applications
  - b. Be able to use the AIR Panoramic Photos to upload as Spherical Models
- 2. Building Spherical Models (SM)
  - a. Upload the AIR Panos on an Internet platform and establish "Hotspots" in the Spherical Model
  - b. Define Hotspots within the Spherical Model
  - c. Upload a Composite Spherical Model or a synthed Spherical Model if there is enough time

#### **Aims**

At the end of the workshop, the participants understand how to use aerial photos for supporting coordination and planning processes such as informing decision making in Disaster, Emergency and other situations with visual information.

#### **Appendix**

Example of a Spherical Model from the APDER Mission in Haiti:

- Composite Spherical Model: <a href="http://photosynth.net/view.aspx?cid=e80d22da-f68d-433a-8c0e-dcbfc40428fb">http://photosynth.net/view.aspx?cid=e80d22da-f68d-433a-8c0e-dcbfc40428fb</a>
- Synthed Spherical Model: <a href="http://photosynth.net/view.aspx?cid=77dd974c-8dd2-4e21-b9ff-7cfca42dac4e">http://photosynth.net/view.aspx?cid=77dd974c-8dd2-4e21-b9ff-7cfca42dac4e</a>

(fast internet connection required!)



# Workshop #2: Mobile data collection with ODK

Monday, November 5th, 2012, 2-3:45PM

Sandra Sudhoff (CartONG) is a Trainer: Landscape Architect/Landscape Planner by profession. She was exposed to emergency mapping and thematic mapping in the developing world while writing her thesis on Natural Resource Management for the German Technical Cooperation (GIZ) in Mozambique. It sparked her interest and she pursued a Masters degree in GIS and Remote Sensing after. Sandra has been working for both, private (3D Lidar mapping) and public/humanitarian sector (GIZ, UNHCR) in the past and has joined CartONG in 2007. Since then, she has been involved technically and as a manager, in projects with UNHCR, Shelter Cluster, MSF, ICRC, GIZ, IMS and IMMAP.



Objective: overview of ODK technology, hands-on exercises with smartphones and presentation of potential applications. In addition, for advanced users, tools and tips for survey managers.

Audience: this workshop is aimed to humanitarian professionals, and will be divided in two working groups: one for beginners (no requirements), and one advanced users who wants to improve their skills.

CartONG will provide smartphones for this workshop. However, if you have one, please bring it in order to save ours for people who don't have one (you can already install the application, search "ODK" in the Android market).

## Summary

#### For beginners:

- 1. Demonstration of Android Phone technology
  - a. How to fill a form (practical)
  - b. How to synchronise the records (demonstration)
  - c. How to download the records (demonstration)
- 2. Coordination tricks and tips:
  - a. Roles of people involved in the survey
  - b. Importance of using Standard operating procedures
- 3. Question and answers/Lessons learned

#### For advanced users:

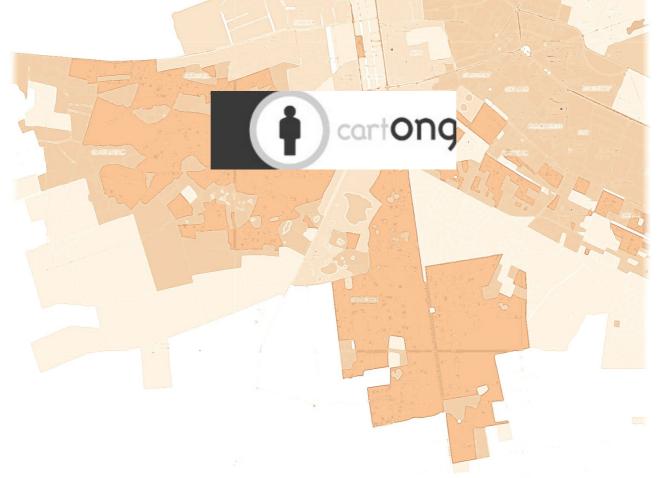




- 1. Coordination tricks and tips:
  - 1. What is the role of the Survey manager and the roles of others involved in the survey
  - 2. Importance of Standard Operating procedures and examples
- 2. Practical on full cycle:
  - 1. How to set up and launch the server (demonstration)
  - 2. How to get the application on the phones
  - 3. How to get the forms on the phones
  - 4. How to fill and synchronize records
  - 5. How to explore and download records
- 3. Question and answers/Lessons learned

#### **Aims**

At the end of the workshops, beginners will have an overview of ODK technology, and will know how to deploy it concretely on the field. Advanced users will get a more in-depth overview on what a survey manager using ODK needs to know and get to practice the steps which are required to deploy the software successfully.





# Workshop #4: Introduction to web mapping

Monday, November 5th, 2012, 2-3:45PM

Trainer: Arnaud Vandecasteele (MINES ParisTech) has a specialized Master in Geographic Information Systems (GIS). He has been first engineer then administrator in several corporations (like Infoterra), where he has mainly worked in on-board geographic systems, spatial databases or mapping interfaces. This experiences has earned him to be named as mapping expert by French National Research Agency (ANR) or to contribute as technical editor on the book "Developing with Google" API Maps". He is now member of the Research Center on Risks and



Crisis in Mines ParisTech/Armines university, specialized in the setting up of new coastal information systems. Finally, he is also co-Founder of the Geotribu.net website, member of the OSGEO-fr association and contributor to OpenStreetMap...

Objective: Presentation of several solutions for online data publishing: CartoDB, Geo-Commons, Google Maps, etc.

Audience: This workshop is aimed to a public of humanitarian professionals, beginners in cartography and must meet their level and needs. They will be able later to push further their skills with the MapBox and ArcGISOnline workshops.

Participants must bring their own laptops to attend this workshop (preferably with WiFi connection).

## Summary

- 1. Introduction to web mapping:
  - a. Introduction to geographical information & spatial data
  - b. Principles and possibilities of web mapping tools
  - c. Examples of possible applications in the humanitarian domain
- 2. Tools and approaches presentations:
  - a. CartoDB
  - b. GeoCommons
  - c. Google Suite: Google Map, Google Earth (Spreadsheet Mapper, Table
  - d. Briefly, ArcGIS Online and MapBox (both having dedicated workshops)
- 3. Demonstration of tools and hand-on exercises:
  - a. How to use them to represent thematic data (based on a humanitarian dataset)





- b. How to publish and share maps for a quick reporting perspective
- c. Basic familiarization on CartoDB or Geocommons: account creation, basic settings, adding data, publication

#### **Aims**

At the end of workshop, participants will know the potential uses and interest of web mapping tools for their work, receive an overview of the global structure of the studied platforms and master the basic functions of one of them at least. They will be able to choose the most adapted solution to their needs.



# Workshop #5: Web mapping with MapBox

Monday, November 5th, 2012, 4-5:45PM

Trainer: Xavier Chaze (MINES ParisTech) is a Research Engineer and a State Geographic Cartographic Works Engineer. He worked for the Institut National de l'Information Géographique et Forestière (IGN) to set up many GIS in numerous companies and states agencies. He also developed an Intranet website aiming to gather, classify and make consultable geographical metadata on products commercialized by the IGN. He is currently a member of the Centre de Recherche sur les Risques et les Crises de Mines, and works on R&D projects (SIS-



MARIS, SARGOS, and I2C) about new marine information systems (marine traffic monitoring system, offshore oil facilities defense system), cooperating with the private sector.

Objective: introduction to MapBox and hands-on exercises

Audience: this workshop is aimed to a public of humanitarian professionals, either beginners in the field of mapping (in this case it will be assumed they will have followed the course of introduction to web mapping) or with a previous mapping experience but wishing to increase their knowledge of MapBox.

Participants must bring their own laptops to attend this workshop (preferably with WiFi connection).

#### Summary

- 1. Introduction to MapBox
  - a. Working principles
  - b. Taking in hand (registration, admin interface, creating a map)
  - c. Adding data on MapBox

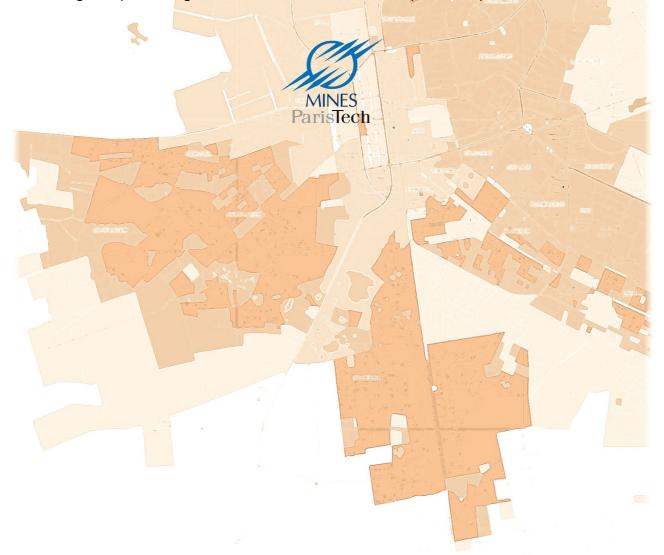




- 2. Data management with TileMill
  - a. Working principles (presentation, step by step)
  - b. Data integration (principles, from a spreadsheet, from a Shapefile file)
  - c. Custom design (CartoCSS)
  - d. Adding interactive elements
- 3. Publishing and exploiting
  - a. Export TileMill projects to existing softwares
  - b. Publish maps on MapBox, integration on websites
  - c. Examples of uses

#### **Aims**

At the end of the training, participants must master the process of creating, configuring, enhancing and publishing their data on a customized map with MapBox.



## Workshop #6: Web mapping with ArcGIS Online

Monday, November 5th, 2012, 4-5:45PM

Trainer: Paola de Salvo (ESRI) is a graduate in Environmental Biology from the University of Roma, and has also a GIS formation from ITC (the Netherlands). She has worked as a geospatial analyst during 12 years for several international organisations (FAO, WFP, ITU, UNOSAT and UNAIDS as a consultant), with various missions on the field. She works for ESRI since 2012 in the Global affairs team as a solution engineer, working on United Nations and internationals NGOs projects.



**Objective**: presentation and hands-on exercises on ArcGIS Online (focus: "Preliminary hazard and Food security analysis in Africa").

Audience: this workshop is aimed to a public of humanitarian professionals, either beginners in the field of mapping (in this case it will be assumed they will have followed the course of introduction to web mapping) or with a previous mapping experience but wishing to increase their knowledge of ArcGIS Online.

Participants must bring their own laptops to attend this workshop (preferably with WiFi connection).

#### Summary

- 1. Introduction: GIS towards a sharing approach
  - a. ArcGIS Online rationale
  - b.
  - c. Geography as a platform
- 2. Explore ArcGIS Online: how do I get started?
- 3. Data management
  - a. How to create your content into ArcGIS Online
  - b. Sharing content
  - c. Using applications templates
- 4. ArcGIS Online for organization

#### Aims

At the end of the workshop, the participants will know how to use all the components of ArcGIS Online, to use them with humanitarian data. They will also have an overwiew of ESRI Maps for Microsoft Office.





# Workshop #7: Offline mapping with QGIS

Tuesday, November 5th, 2012, 4-5:45PM

Trainer: Mehdi Semchaoui (CartoExpert) is consultant and teacher in Geographic Information Systems. He works both in France and abroad for consultancy in geomatics and GIS trainings. Member of OSGEO-fr, Mehdi is also intervening in universities and promotes everyday the free softwares like QGIS, GeoServer or PostGIS.

Objective: presentation and hands-on exercises on QGIS

Audience: this workshop is aimed for a public of humanitarian professionals or geographers, who have basic knowledge in mapping and information management, but who want to acquire advanced skills with QGIS.



Participants must bring their own laptops to attend this workshop, with last QGIS version installed on it: <a href="http://hub.qgis.org/projects/quantum-gis/wiki/Download">http://hub.qgis.org/projects/quantum-gis/wiki/Download</a> (if you have Windows, choose "recommended for new users").

#### **Summary**

- 1. Introduction to QGIS
  - a. Main principles of GIS
  - b. QGIS working principles
- 2. Using QGIS
  - a. Taking in hand the software (interface)
  - b. Adding, analyzing, choosing and updating data, using tables
  - c. Hands-on exercises with humanitarian data

#### **Aims**

At the end of the workshop, the participants will know how to use the main function of QGIS with their data, for professional applications in humanitarian work.





# Workshop #8: Situational awareness with social networks in crisis (Geofeedia)

Tuesday, November 5th, 2012, 4-5:45PM

Trainer: Timo Luege (Social Media for Good) is graduated in journalism and has been journalist for 8 years in Germany (including for the National public radio). He then have worked for the Red Crescent movement (IFRC, ICRC) and United Nations, in particular in Haiti and Liberia. Timo is now a self-employed communications expert, helping humanitarian organizations and NGOs to solve their information management and communications challenges, including the effective use of social media.



Objective: presentation of the possibilities (and risks) of situational awareness with social networks in crisis, through hands-on exercises with the localization of social media tool Geofeedia.

Audience: this workshop is aimed at humanitarian professionals with no particular technical knowledge, but an interest on the issues of information management and social networks.

Participants must bring their own laptops to attend this workshop (preferably with WiFi connection).

#### Summary

- 1. Presentation and exercises on Geofeedia
  - a. Geofeedia's features and uses
  - b. Exercise: example of hurricane Sandy
- 2. How to verify the information found on social networks?
  - a. Backwards image search
  - b. Context and source verification

#### Aims

At the end of the workshop, the participants will now how to use Geofeedia to extract information from social networks about ongoing crises. They will be able to evaluate the reliability of information through several verification process.

## Social Media for Good

Exploring the use of digital communications tools for NGOs, non-profit organizations and to support humanitarian relief





# Workshop #10: OpenStreetMap and mobile solutions

Monday, November 5th, 2012, 4-5:45PM

Trainer: the Humanitarian OpenStreetMap Team (referent: Pierre Giraud), created in 2009, coordinates the creation, production and distribution of free mapping resources to support humanitarian relief efforts in many places around the world.



Objective: presentation and hands-on exercices of OpenStreetMap for concrete uses by humanitarian actors.

Audience: this workshop is aimed at a public of humanitarian professionals, with or without skills in mapping and information management.

Participants must bring their own laptops to attend this workshop. CartONG will also provide smartphones (limited number).

#### Summary

- Adding and editing data in OSM
  - a. OSM's principles and rationale
  - b. Data acquisition presentation: mobile collection, walking papers, remote digitalization
  - c. Hands-on of the Survey OSMtracker with Android
  - d. Presentation and demonstration of JOSM (Java OSM editor)
- 2. Coordination of acquisition process
  - a. Functioning of the Tasking manager, HOT coordination procedures
  - b. Hands-on exercises (collective or in groups)
- 3. Exploitation of added data
  - a. HOT export service and other data visualization resources
  - b. Humanitarian applications

#### Aims

At the end of the workshop, the participants will be able to understand the working principles of OSM and the way they can use it on the field and in their daily work. They will be able to add data on OSM through different channels, and will know procedures to coordination data acquisition process by staff or volunteers. They will know how to reuse this data inside their NGO.





# **PARTNERS**



Esri has been the first software publisher in 1969 to take into account the importance of geography to view, analyze and decide in all areas. Esri France was created in 1988 to meet the expectations of agencies and companies who wish to make the most of the spatial dimension in their organizations while getting their investment.

Esri is a key actor of the GIS sector and an important partner for us, and will contribute to various sessions of the forum.



GeoVantage was formed in 1998 to develop new methods for digital aerial imaging for commercial applications. GeoVantage's precision navigated imagery is an end-to-end remote sensing solution: from order entry, to digital aerial photography, to data processing and delivery to client. Their proprietary system streamlines imagery acquisition and ensures high quality results.

GeoVantage is a leading firm in remote sensing and we are glad to have them as partners and speakers at GeOnG.



Web Geo Services is an online mapping applications editor who helps its clients to share easily their maps on the Internet. Their idea: offer a simple and user-friendly tool to allow everybody to make their own maps. Web Geo Services helps many companies and public authorities to use geography to communicate, collaborate or make decisions.

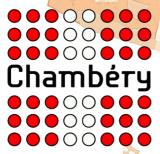
Web Geo Services is a start-up who shares CartONG's value of innovativeness and dynamism, and a new sponsor for GeOnG 2012.





senseFly is a Swiss company founded in 2009, developing autonomous flying sensors and related software and hardware solutions. Its objective is to let you capture data anywhere, any time, without complex infrastructure or long preparation time. senseFly is always innovating, holding several patents in the field of aerial robotics and is pursuing multiple research projects to expand its offer range.

SenseFly develop aerial sensors at the cutting edge of technology, and support Cartonic tong's objectives of innovation and democratization of technology.



Chambery is a small city with a bit more than 100,000 inhabitants, situated between the Bauges massif and the Chartreuse mountain range in the Alpes. Enjoying both the benefits of the quality of life of a human-sized town and of equipment worthy of a large city, Chambéry is today deliberately looking to the future. Come and enjoy the French atmosphere... and an atypical environment for an humanitarian meeting!

Our host city Chambéry once again support the organization of GeOnG by lending us the conference center ex gratia and giving us a subvention.



MAIF is an mutual insurance company counting more than 2,6 millions members. Specialist of individual insurances, MAIF develops its difference with its commitment in favor of prevention. Founded by teachers, it has defended from the start a solidarity-based and alternative vision of insurance, around the principles of financial independence towards major trusts, responsibility and solidarity of its members, and direct contact to the customers.

Insurer of many associations and local authorities, MAIF is the insurer of CartONG since its foundation, and give us a financial support to organize GeOnG.



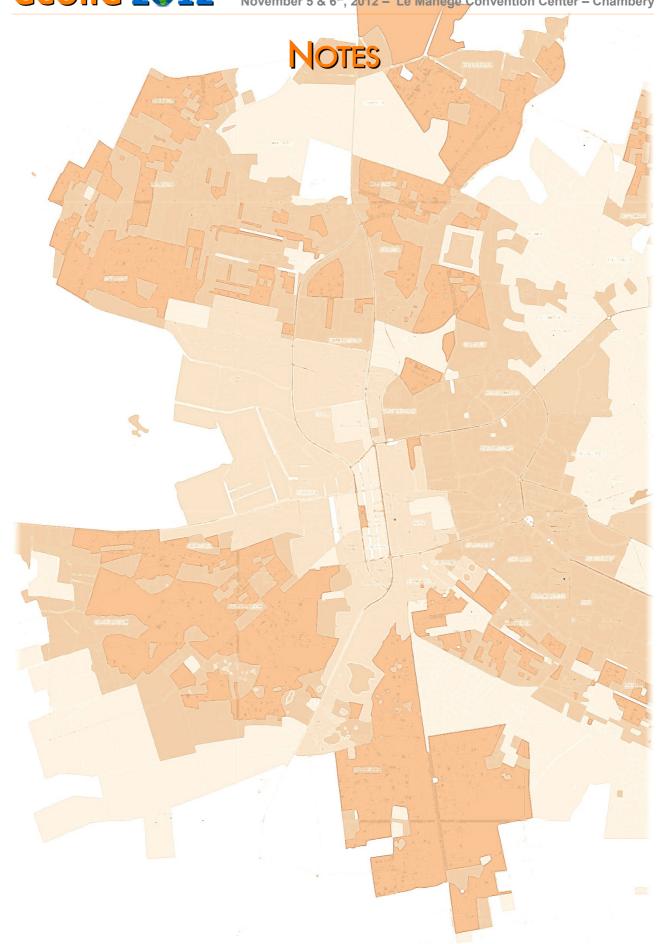
Owned by its clients, <u>Crédit Coopératif</u> is a co-operative bank which offers a wide range of banking services and solidarity-based finance products, especially to businesses and social organizations.



Leader in geoInformatics, arx iT is specialized in Geographic Information Systems. Arx iT's double core business consists in GIS technology consulting and GIS solution development and integration.

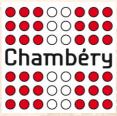


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