GeoWatch

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Capability of our GMS; the *NetQuakes* instrument

The NetQuakes project of the USGS has formed the basis of our GMS instrument which has extensive operational capabilities that far exceed any other typical digital strong motion accelerograph in the market.

After a press conference of the USGS, revealing their plan to extend the NetQuakes to the Seattle/Tacoma area, hundreds volunteered to host a GMS instrument and be part of the NetQuakes project.

Find out more about NetQuakes on the official project website.

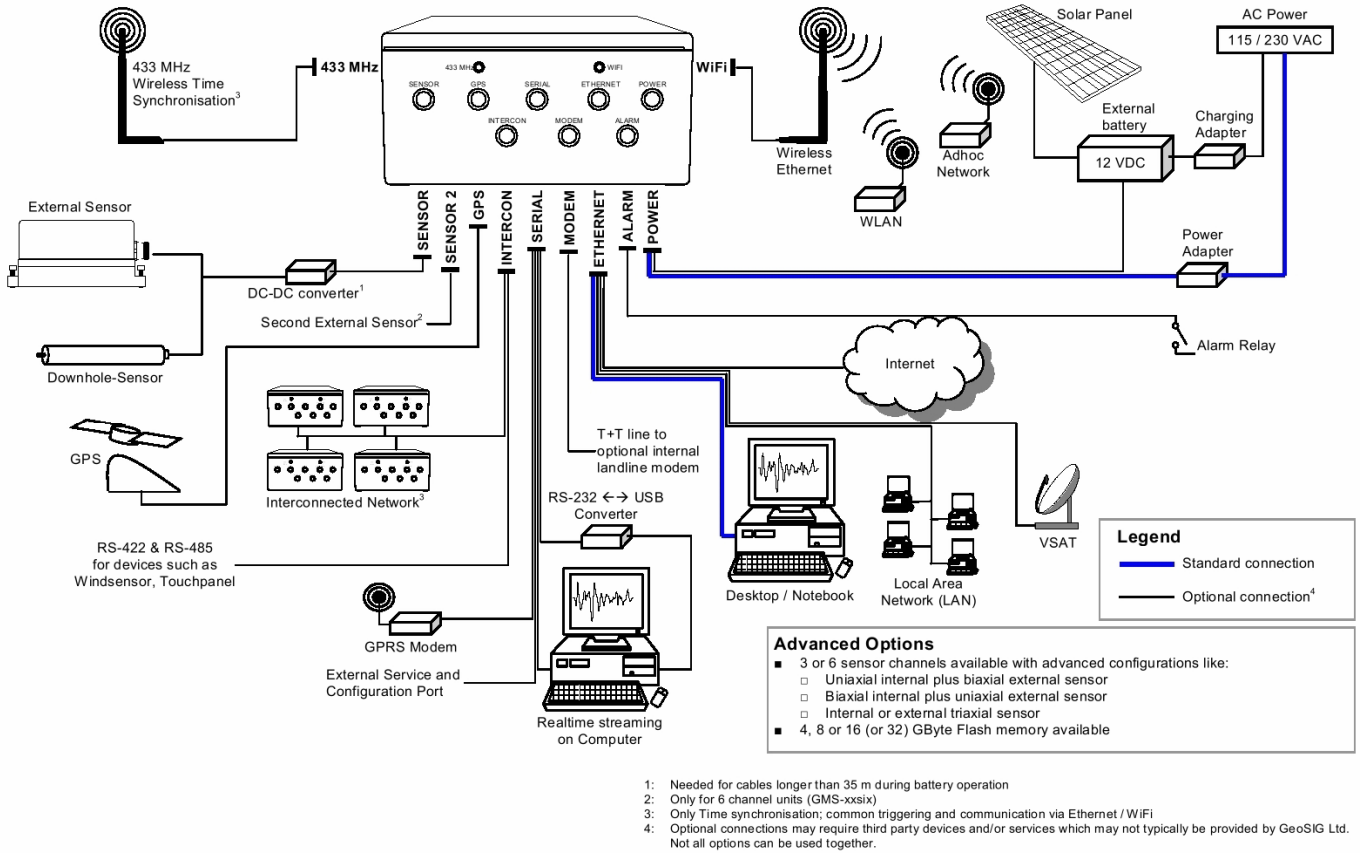


Figure 1. Connectivity Options for GMS-xx Series Recorder

Alexandre Beaud, new Head of Production

Alexandre joined GeoSIG in 2004 as a member of the production team in Cugy. From the start he proved to being very reliable and his work was always of good quality.

He was promoted to 'Head of Production' in December 2009 and leads the department since January 2010.

Due to his open and friendly way, Alexandre developed into a key staff member and is very much respected in the production team.

He was able to take over a well organised department with a highly motivated team. As a consequence, all jobs are accomplished on time and arising problems are thoroughly investigated and resolved whenever possible.

We believe that Alexandre will continue having success and wish him all the best in his new position.

Faster Response to Disasters like the Haiti Earthquake

A major earthquake struck Haiti on January 12, 2010, reaching a magnitude of 7.0 on the Richter-scale. The first quake, which kept the earth shaking for 35 seconds, plus various aftershocks created massive destruction and hundreds of thousands lost their life.

This demonstrates once more, how destructive an earthquake can be, especially when hitting close to a densely populated urban area.

In such cases having densely deployed strong motion instrumentation might improve the ability to make rapid post-earthquake assessments of expected damage and contribute to the continuing development of engineering standards for construction. Such tangible estimation, based on hundreds of instruments distributed spatially across a high-risk area, will facilitate the generation of visual tools such as shake maps, displaying the physically measured ground motion parameters at each location.

This is allowing the decision makers to immediately see where most damage could have taken place and advise rescue teams accordingly. An example of such a map can be seen below in Figure 2.

Furthermore having such a network in place enables the scientists to understand the existence of a seismic hazard and advise government officials and the public accordingly. Using this infrastructure, relevant institutions may collect valuable seismic data for attenuation relationships as well, which allows the estimation of the peak ground motions for assumed or expected future earthquakes.

GeoSIG Ltd is among the pioneers in the area of Rapid Response and Early Warning, realising a number of projects with world's renowned institutes and projects such as most recent NetQuakes project, being implemented by the USGS in the Western USA based on the GMS series instrument.

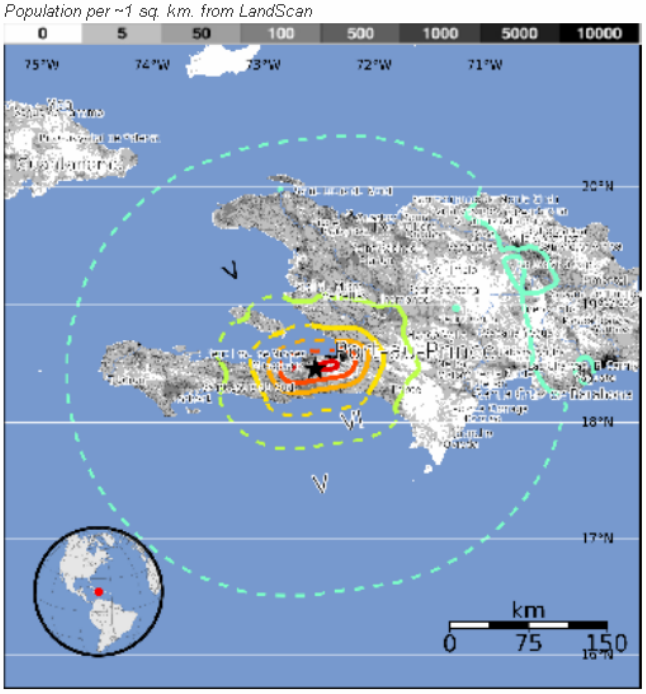
Estimated Population Exposed to Earthquake Shaking

Est. Modified Mercalli Intensity	Est. Population Exposure	Perceived Shaking	Potential Structure Damage	
			Resistant	Vulnerable
X	332k	Extreme	V. Heavy	V. Heavy
IX	2,246k	Violent	Heavy	V. Heavy
VIII	314k	Severe	Moderate/Heavy	Heavy
VII	571k	Very Strong	Moderate	Moderate/Heavy
VI	1,049k	Strong	Light	Moderate
V	7,261k	Moderate	V. Light	Light
IV	5,887k*	Light	none	none
II-III	--*	Weak	none	none
I	--*	Not Felt	none	none

**Estimated exposure only includes population within calculated shake map area*

Population Exposure

Population per ~1 sq. km. from LandScan



Selected Cities Exposed

MMI	City	Pop.
X	Grand Goave	5k
IX	Port-au-Prince	1,235k
IX	Carrefour	442k
IX	Delmas 73	383k
IX	Petionville	108k
IX	Croix des Bouquets	9k
VI	Miragoane	6k
V	Verrettes	49k
IV	Santiago de los Caballeros	556k
III	Santo Domingo	2,202k
III	Guantanamo	273k

Shaking Intensity

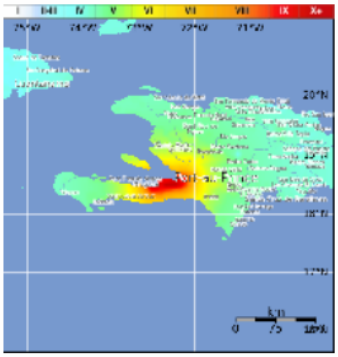


Figure 2. Shake Map of Haiti Earthquake (Ref: USGS)

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