CENTRE NATIONAL D'ÉTUDES SPATIALES

What could a Geohazards COP bring to coordinating access to geohazard data for users? A CNES perspective

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Summary

- Introduction to CNES
- Historical view and a flashback to 2007 …
- Where are we today?
- Some ideas and proposals …
- Conclusions

Introduction to CNES

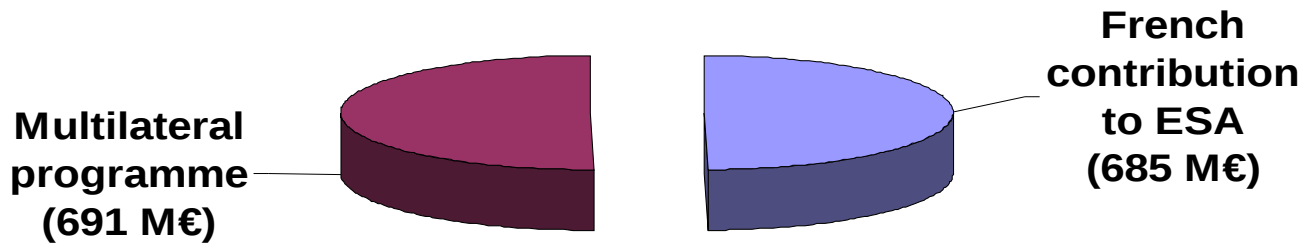
- CNES is the French space agency in charge of managing the French space programmes.
- CNES is a state-owned organization, independently managed.
- CNES relies on 3 technical centres covering all aspects of space technology and systems, in Toulouse, Evry and Kourou (French Guyana).

CNES implements bilateral or multilateral co-operations

- with most European countries, either directly or jointly (direct bilateral co-operation or co-operation through ESA)
- with the major space fairing nations : United States, Russia, Japan, China, India, etc
- through specific projects with various partners around the world : Israel, Thailand, Argentina, Algeria, Brazil, Korea, …
- CNES participates actively in CEOS

CNES budget : government grant

2008 figures
in current economic conditions



What was achieved by the IGOS Geohazards initiative from 2000 – 2007?

- Community building exercise that brought around the table diverse actors in the geohazards
  - Scientists (individuals)
  - Scientific societies (IAVCEI, ICL)
  - Geological surveys (brgm, USGS, BGS)
  - Data providers (GGOS, FDSN, space agencies – ESA, NASA, CNES)
- Focus on access to relevant data sets through use of interoperability technology – fitted comfortably with GEOSS concept
- Brought a change of mindset
  - Geohazards considered together, not each community alone
  - Multi-risk approach, commonality of data needs to evaluate hazard and vulnerability
  - Necessity of a broad community to have sufficient weight and make concrete projects happen

- **Culminating in the Nov 2007 Frascati Geohazards workshop and …**

Programme Proposals		
16:30-16:50	WinSAR and the Natural Laboratory approach to Geohazards	Falk Amelung (University of Miami)
16:50-17:10	Geohazards Natural Laboratories	John LaBrecque (NASA)
17:10-17:30	The Geohazards Super Sites	Marc Paganini (European Space Agency (ESA))
17:30-17:50	GEO Geohazards Community of Practice	Hormoz Modaressi (BRGM (French Geological Surveys))
17:50-18:50	*Final Round Table*	*John Labrecque (NASA), Gordon Woo (RMS), David Arctur (OGCii), Jacques Varet (BRGM), Sospeter Muhongo (ICSU), Niran Chaimanee (CCOP), Marc Paganini (ESA), Stuart Marsh (BGS), Pedro Basabe (ISDR), Giovanni Rum (GEO)*
18:50-19:00	Declaration	Giovanni Rum, GEO

Four presentations expressing the need for the creation of an international project focused on making geohazard datasets available to users to monitor specific internationally agreed regions or sites.

So, many necessary conditions were united :

- **A concrete objective (described above)**
- **Apparent consensus across a broad range of organizations**
- **A coordination structure (Geohazards bureau)**

THIS APPARENT CONSENSUS HAS NOT BEEN CONVERTED INTO COLLECTIVE ACTION – What happened?

Where are we today?

Some initiatives have been created, continued or grown :

- **International Charter on Space and Major Disasters continues to provide post-event imagery principally for emergency response**
- **In France the CIEST initiative provides access to Charter and other data to a group of geophysics labs for the study geohazard events**
- **The Supersites initiative proposed by Marc Paganini in Frascati has made ESA + some in situ data available on a number of sites across the globe (see later presentation)**
- **NASA's natural laboratories initiative continues to provide data for monitoring in Hawaii**
- **In Europe GMES Core Service projects continue to be developed, but the major gap on Geohazards remains**

Where do we go from here?

International coordination is ESSENTIAL, to improve the visibility of this work.

- **We propose one project supported by all parties aiming to**
  - **Provide data for monitoring over a region (like Supersites, Natural laboratories)**
  - **Provide data rapidly post-event (CIEST)**

- **This requires**
  - **By-in from data providers (space agencies, in situ)**
  - **Appropriate organizational structures with clear and transparent decision making processes**

- **Clear coordination role for Geohazards COP**

Role for Geohazards COP

- **Steering committee**
  - **WHO: representatives from organisations contributing data**
  - **ROLE (WHY): Take decisions**
  - **HOW: majority vote/ Unanimous (TBD)**
- **Scientific committee**
  - **WHO: One scientist named by each data contributing organisation**
  - **ROLE: Advise the SC on science.**
    - Evaluate proposals of new sites and propose a shortlist of scientifically valid sites (SC will select among these adding political/agency constraints).
    - Review science outputs/benefits on a regular basis (2 years? TBD)
  - **HOW: majority vote/ Unanimous (TBD)**

- **Organise an INTERNATIONAL, OPEN, TRANSPARENT call for sites (at regular intervals – 2/3 years TBD)**

Where do we go from here? Charter links

Concrete actions to implement this proposal

- Proposal from CNES to Charter to bring Charter into CEOS as a Disasters Virtual Constellation
- Proposal from CNES to Charter to extend the use of the Charter to other phases of the Disaster management cycle (eg. Prevention / Mitigation)
- CNES will open CIEST concept to the international community - making available CNES charter data for geohazard events
- Proposal from CNES to Charter to open access to ALL charter data for geohazard events

Where do we go from here? European aspects

- Urgent need to bring geohazards into GMES
- European seismologists, geodesists and space community must begin this long process
- CNES is working with INSU/CNRS on the development of a thematic centre on geodesy
- Coordination with the seismological community has begun in France within the INSU RESIF project

- Developments on a European scale could be driven by EPOS

Conclusions

- Much useful work was done in IGOS and GEO up to 2007
- This led to apparent convergence in ideas during the Frascati workshop
- A unifying project has not yet emerged
- This is an opportunity and challenge for the Geohazards COP
- Concrete proposals have been made here to advance toward providing wider user access to geohazards datasets
- The Geohazards COP should play a coordination role and establish science and steering committees for this intiative

Questions ?