

Task Number	Seismographic Networks Improvement and Coordination
DI-06-02	Facilitate improvement of capabilities for global seismographic networks such as GSN, FDSN, DAPHNE, GNSS networks and new ocean bottom networks such as VENUS and NEPTUNE and sharing of data and event products among GEO members.
Area	
Disasters	
Relevant Committee	
ADC	

SUMMARY

Joint FDSN-GEOSS (DI-06-02) meeting, Perugia Italy, July 9, 2007

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The meeting was conducted informally, and opinions expressed were not offered as respective government positions.

Summary

A brief history of FDSN/GSN participation in GEO/GEOSS was presented from 2004, through the August 2005 Washington Workshop, definition of DI-06-02 Task, and

ongoing activities to June 2007. (pdf attached). Seismology is viewed as an active in-situ community within GEO/GEOSS.

Seismology as part of a geohazards community of practice.

The GEOSS registry is being opened for GEOSS components and there is an opportunity for National systems to join GEOSS.

FDSN has registered the FDSN Backbone Network, as well as the FDSN services provided. The means for registering the SEED format within GEOSS is being reviewed.

FDSN has been participating in an interoperability scenario involving linking databases for Landslides, Rainfall, and Earthquakes.

Members of the FDSN were invited to participate in DI-06-02.

BGR asked about signing up a network. What are the requirements, data availability, what does one get for joining?

Discussion: a national priority indicating a national commitment to sustaining the observational system.

GSN is a US observing system which participates within USGEO.

Discussion of Common Alert Protocol. Recognizing needs of the system from the data through to the alerts.

GEO/GEOSS is described as mechanism for the technical to talk to the political.

Question of which FDSN member networks know of their own national participation in GEO/GEOSS. Netherlands, Canada, Australia, South Africa.

Some national efforts expressed skepticism in GEO, or watch and see approach.

South Africa noted that open data is a big issue, as data in Africa is big money.

The upcoming Ministerial Summit in South Africa was noted. Are there needs to have more observations in Africa? The AfricaArray project was noted, which is listed with the GEO Capacity building Tasks. However, it was not known to what extent AfricaArray has participated or benefited in these Tasks. It was also noted (broader context) that capacity building activities often lack follow-up on sustaining.

It was noted that as the August 2005 Washington workshop recognized the FDSN as a lead organization for seismological community interactions with GEO. It was asked whether this approach is still appropriate. No objection was raised.

A question was raised whether DI-06-2 has the appropriate Task description and

elements. Do we have the right elements in our Task statement? Are there things we should be doing that we are not already doing?

Some discussion--including too many elements, "things we are already doing," what is being done across the GEOSS scope?, emphasis on synergy with other in-situ--but no consensus.

The GNSS was noted has an area where greater collaboration could take place with Seismology under DI-06-02. However, open overtures to GNSS to contribute to DI-06-02 have not yet been answered. Yet there was recognition that collaboration between Seismology and GPS would be beneficial.

It was noted that there is no consensus within GEO for new GEO Targets, and hence the wording of two Task elements, #8 and #10, have been proposed in DI-06-02 for change:

8. Advocate and facilitate the development of new very-broad seismometers for seismology and tsunami warning.

10. Advocate and facilitate the extension of global seismological coverage of ocean regions, including shared logistical infrastructure with GEOSS in-situ ocean observing systems."

No objection to the proposed changes were voiced.

Common Alert Protocol was raised as something to emphasize in the Task. The importance of sustaining the Networks all the way through to Alerts.

Question about appropriateness of DAPHNE in the title. It was noted by Japan that while DAPHNE has not been funded, it can remain in the title. A GEOSS focus in Japan is toward water resources and floods.

Several participants suggested that the Societal Benefits should be more directly noted in the Task elements. Also, more emphasis on derived products in the free & open data statements.

The session chairman will propose changes to the DI-06-02 Task statement at the FDSN plenary session on July 11 which are reflective of discussions.

It was again announced that there will be a GEO Ministerial Summit in November in South Africa, which presents an opportunity for each FDSN member network to communicate with respective governments on input to GEO/GEOSS.

FDSN Plenary session discussion of DI-06-02 Task on July 11, 2007.

The discussions of the Joint FDSN-GEOSS working group meeting were summarized at the FDSN plenary session. Proposed changes to the DI-06-02 Task Statement were reviewed in the Plenary session. Additional input was requested from the FDSN Working Groups on Data Exchange and Products to update DI-06-02 element 7 to reflect ongoing FDSN activities.

The following new Task statement is proposed for DI-06-02 (change noted *italics*):

1. _____ Sustain GSN/FDSN, including operations and maintenance, data management and products, and alert systems.
2. _____ Expand real-time telemetry capabilities and robustness for the GSN/FDSN stations, and improve operational uptime and data availability.
3. _____ Advocate free, open access to real-time seismic data and derived products.
4. _____ Facilitate and improve the use of seismological data to obtain rapid estimates of event parameters suitable to mitigate the consequences of the event, and the provision of alerts via common alert protocol.
5. _____ Coordinate developments within the seismological community to provide access to real-time and archived seismological data and products using GEOSS interoperability methods. Develop a portal that will link distributed seismological data centers to provide seamless access to other GEOSS components.
6. _____ Promote real time access and use of data and products from GNSS (Global Navigation Satellite Systems) permanent stations.
7. _____ Advocate and facilitate the development of new very-broad seismometers for seismology and tsunami warning.
8. _____ Advocate and coordinate use of GSN/FDSN as a logical framework for other GEOSS in-situ measurements.
9. _____ Advocate and facilitate the extension of global seismological coverage of ocean regions, including shared logistical infrastructure with GEOSS in-situ ocean observing systems.