Minutes of the NEAREST Meeting

Marrakech, October 25-26, 2007

Venue

Faculté de Médicine et de Pharmacie Université Cadi Ayyad Marrakech (Morocco)

List of Participants

Organisation	Surname	Name	25 October	26 October
ISMAR-BO	Zitellini	Nevio	Х	Х
	Chierici	Francesco	Х	Х
	Carrara	Gabriela	Х	Х
	Vigliotti	Luigi	Х	Х
FFCUL	Baptista	Maria Ana	Х	Х
	Matias	Luis	Х	Х
	Moreira	Lìvia	Х	Х
	Andrade	Cesar	Х	Х
	Mendes Victor	Luis	Х	Х
	Omira	Rachid	Х	Х
	Terrinha	Pedro	Х	Х
	Freitas	Conceiçao	Х	Х
	Valadares	Vasco	Х	Х
CSIC	Gracia	Eulalia	Х	Х
	Sallares	Valenti	Х	Х
	Lario	Javier	Х	Х
AWI	Geissler	Wolfram	Х	Х
UBO	Maad	Nissrine	Х	Х
INGV	Favali	Paolo	Х	Х
	Beranzoli	Laura	Х	Х
UGR	Morales Soto	José	Х	Х
	Martín	Jose Benito	Х	Х
	Stich	Daniel	Х	Х
	Mancilla	Flor de Lis	Х	Х
CNRST	El Mouraouah	Azelarab	Х	Х
	Kasmi	Mohamed	Х	Х
	Iben Brahim	Aomar	Х	Х
	Benammi	Mohamed		Х
	El Arbi	Toto	Х	Х
Faculté des Sciences de Rabat	HAMMOUMI	Abdellah	Х	Х
Protection Civile	Alaoui Smaili	Larbi	Х	Х
Ministère de l'Habitat et de l'Urbanisme	Sabri	Hayat	Х	Х
Gendarmerie Royale	Ammari	Mohamed	Х	Х
	Malyana	Younes	Х	Х
Office National de l'Electricité	El Kouri	Fouad	Х	Х
ASTER	Zucchini	Maria Grazia	Х	Х
	Borgatti	Alessandra	Х	Х
Advisors	Tiytov	Vasiy	Х	Х
	Mikada	Hitoshi	Х	Х

Day 1 - Thursday 25 October 2007

Opening session

After the welcome address from the hosting organisation (CNRST), the meeting was opened by the project coordinator Mr. Zitellini. He provided an overview of the meeting agenda, illustrating the structure and scope of each meeting session, aiming at achieving a comprehensive state of the art of the project first year of activities, sharing results, discussing criticalities and identifying necessary solutions for a good execution of the project in the next months. A specific mention was given to the periodic reports to be prepared for the first reporting period underlining the importance of this phase as a check point for the progress of the project.

Finally Mr. Zitellini introduced to the partners Mr. Mikada and Mr. Titov the selected advisors invited to give suggestions and an outside view of the project achievements.

WP's state of the art and planning sessions

Per each technical workpackage (WP1 to WP9) an ad hoc session took place during the meeting.

Each session was opened by an introduction from the WP leader, outlining activities carried out, main goals achieved, deliverables produced and criticalities met (including deviations to original time schedule). In most cases the WP leader invited further speakers to illustrate specific aspects taken into consideration during the WP implementation.

The second part of each WP session was devoted to the activities planning - task per tasksfor the following period, corresponding to the second year of the project. A proposal was presented by the WP leader and discussed at project level, pointing out the main critical tasks to be faced.

Most presentations were supported by Power point slides or PDF files, available on the project website (http://nearest.bo.ismar.cnr.it/).

WP2 Analysis: Tsunami source characterisation (Leader: CSIC)

presentations made by Valenti Sellares -CSIC Presentations available on the Nearest website : WP2_Marrakech_11_07_CSIC

The starting point for this workpackage was the state of knowledge (based on the data acquired in the area in the last 15 years) concerning location, geometry and characteristics of main active, potentially tsunamigenic faults identified in the area based on WP1 tectonic map.

As for the goals achieved the main are

- mapping the deep crustal and upper mantle structure, so that geodynamic models of the area (key to understand tectonics) can be tested;
- determining the location and crustal-scale geometry of the main fault surfaces accommodating plate convergence;
- relocating local seismicity that will be recorded in WP3 and relate earthquake activity with tectonic strain;
- constraining physical properties of structural domains and tectonic features based on seismic velocities.

Task 2.1 Reprocessing and pre-stack depth migration of existing Multi Channel System (MCS) data

The activities for this period have been concentrated on the processing of the SWIM-06 data acquired in June 2006 and a specific description of the Active Fault Map of the Gulf of Cadiz was provided. For each partner involved a brief description of the role played and the staff employed was provided.

No significant deviations with respect to the initial schedule have been foreseen.

It was suggested to extend the task two more months (up to month 24) in order to give more time to write scientific papers. This extension will not affect development of the other tasks.

Task 2.2 Wide-angle reflection/refraction acquisition experiment

Since the task wasn't started so far, its presentation was focused on some preliminary aspects such as the scheduling of the Nearest-Seis 2008 cruise and the instrumentation required.

Significant modifications on the scheduling was pointed out since the planned Wide-angle seismic survey (Nearest-Seis) has been delayed to October-November 2008 and the task has to be postponed to months 22-26.

Deliverable D5 (cruise report) would therefore be delivered at the end of the cruise (Month 25 instead of 14). Milestone M3 (end of processing and experiments at sea) should be moved from month 24 to month 28.

Task 2.3 Processing, modelling and interpretation of wide-angle seismic data

This task will start once the Nearest-Seis seismic cruise will finish (month 25). Up to now Sergi Ventosa have had a Nearest-funded 11 months grant during which he has developed two different signal processing specially designed to enhance signal-to-noise of marine Wide-angle seismic data. This filters will be included in the processing sequence of the Nearest-Seis data.

Due to the cruise delay, the processing, modelling and interpretation tasks will be delayed accordingly. Deliverable D6 (velocity and density models) should be therefore postponed to Month 34 and the related Milestone M4 (end of OBS modelling) should be moved to month 34.

Critical aspects

It was stressed the importance of taking in careful consideration:

- the selection of PSDM profiles
- the number of the OBS to perform the experiment (minimum 20; ideal 40)
- the selection of the WAS profiles

WP3 Analysis Seismological monitoring (WP3 Leader: AWI)

presentations made by Wolfram Geissler - AWI

Presentations available on the Nearest website : WP3_Marrakech_11_07_AWI

Task 3.1 - Application for the broadband OBS

The application BB-OBS at the German instrument pool was successful as well as the planning and following execution of the cruise for the deployment of BB-OBS.

During the deployment, a problem with 2 OBS was occurred so it was planned to deploy them by another vessel until end of November.

Task 3.2 - Preparation of the cruises

The preparation of the cruises was completed by ordering of consumables (anchor, batteries, etc.), sub-contracting technicians for deployment and proceeding with the mob/demobilisation, transportation and insurance aspects.

Task 3.3 - Cruise for deployment of the broadband OBS

The task included the following activities:

- preparation of OBS on land in Faro and onboard RV preparation Urania
- cruise with RV Urania, Faro August 28th--September 4th2007
- deployment of the OBS August 29th September 2nd 2007

The cruise report was already in progress to be available at the due time.

WP4 Analysis Tsunami signal detection (WP4 Leader: INGV)

presentations made by Laura Beranzoli – INGV and Paolo Favali – INGV Presentations available on the Nearest website : WP4_Marrakech_11_07_INGV

Task 4.1 Definition of sensor requirements and sensor selection; requirements of the detection software (e.g., detection algorithm, triggering threshold, messages) was completed within month 8

Task 4.2 Design and development of modifications (e.g., sensor supports of the frame); design and development of the software was completed within the end of month 8

Task 4.3 Integration of new sensors/devices and new software in the seafloor observatory, tests of the functionality in laboratory was completed within the beginning of month 11

Task 4.4 Preparation planning and development of a long-term mission; cruises for deployment and recovery

The ship time initially expected for month 12-13 11-12 (August 15-September 25) was assigned for the period 10 August – 5 September. The release of deliverable D13 "Deployment procedure for the deep-sea platform" -Operational procedures" was anticipated to month 10.

The cruise for deployment of GEOSTAR observatory and the surface buoy was successfully performed on month 11 (August 2007) and deliverable D14 "Deployment cruise of the deep-sea platform and cruise report" delivered in month 12.

After the reception on store of the first automatic messages from GEOSTAR to shore through the buoy, the corruption of the messages was discovered and while the deployment cruise was going, a failure in the buoy acoustic modem was discovered.

The modem was dismounted together to the buoy electronics to fix the malfunctioning. An additional cruise on the buoy deployment site was soon planned to take place by mid October 2007 with a fast ship from Lagos harbour and is aimed at for the restoration of the acoustic link.

The task is in progress as it includes the cruise for GEOSTAR recovery. Contractors involved: INGV, ISMAR, TFH.

Task 4.5 Data back-up, quality checks, preparation of the data base to be integrated with other data; pre-analysis of 'parent' tsunami signals

One of the main next step will be the integration of seismic data in the marine data-base of the OBS data (in connection with WP3 – seismological monitoring)

Some videos and photos on the Urania campaign were showed.

WP5 Data integration / Integrated Tsunami Detection Network (WP5 Leader: UGR)

presentations made by Jose' Morales – UGR Daniel Stich -UGR Presentations available on the Nearest website : WP5_Marrakech_11_07_UGR

WP5_Marrakech_11_07_UGR WP5_1_Marrakech_11_07_UGR

Task 5.1 Establishment of 3 data collectors for real-time automatic processing of data (one in Portugal, the other in Spain and a 3rd one in Morocco).

Two prototypes of data collector are already running:

- in Lisbon, at IM headquarters. It is based on SEISCOMP/SEEDLINK technology implemented on a Intel/Linux platform, and is already concentrating data, in real-time, from eleven broad-band seismic stations operating in centre and south Portugal Mainland (8), South west and Centre of Spain (2, SFS and PAB) and Morocco (1, RTC), and also from 3 extended response SP stations from IM (2 in mainland and 1 in Madeira island). The definitive hardware was purchased and fully operating.
- in Granada, at IAG. In this case the dataloguer is based on SEISLOG/SEISNET technology implemented on a QNX/SOLARIS platform, and is already concentrating data, in real-time, from 13 broad-band seismic stations + 9 SP operating in southern Spain.

As for the Seismic sharing data, the prototype is ready to allow real-time access to authorized users, using SEEDLINK protocol, through Internet and some of the IM broadband stations are already being accessed by CNSRT.

As for the Tide-Gauge and Sea floor Observatory, some efforts have been taken in order to integrate data from three tide gauges located at Cascais, Lagos, and Sines.

During the second year, a new version of the Seislog/Seinet will be checked and updated.

Task 5.2 Development of automatic procedures for rapid determination of seismic parameters and definition of thresholds for triggering the tsunami detection procedures.

An automatic location software (AUTOLOC) is running on the data concentrator. This software could be used as a starting point for the rapid determination procedure needed, but it will require major developments considering specific difficulties in fast evaluating earthquake magnitude and hypocentre depth.

<u>Task 5.3 Development of an effective tsunami detection methodology. Definition of thresholds for issuing different levels of alarm messages .</u>

The activities of the Portuguese have been integrated with the Portuguese Working Group for Tsunami Studies and Early Warning (GT-IMAT). This Working Group had already two plenary meetings and 1 working meeting with the IM President. The GT-IMAT has the responsibility to apply in Portugal the Implementation Plan decided in the NEAMTWS meeting in Bonn (last February) and follow the activities of the NEAMRWS WG's.

The IM has been appointed the Portuguese Focal Point for the NEAMTWS and was proposed as the Regional Watch Center for the Atlantic Area. The discussion of tide-gauge integration has been extensively discussed in the GT-IMAT and a good collaboration with the Hidrographic Institute (IH) is foreseen in the near future. The main target of NEAMTWS is the establishment of the Initial TWS by the end of 2007 and the Final TWS by the end of 2009. As regards IM, the main shortcomings as regards its role as RTWS are in manpower. The hiring of 4 graduated technicians is required as the contribution from the Portuguese Government for the RTWS. Discussions regarding these and other questions are continuing under the GT-IAMT umbrella.

The presentation proceeded with an overview of the "Topoiberia" and of the Seismic criteria for NEAMTWS Advisories

A specific presentation was focused on the Waveform analysis of Gulf of Cadiz/Cape St. Vincent earthquakes 2005-2007

WP6 Analysis - Paleotsunami and Paleoseismic records (WP6 Leader: CSIC)

presentations made by

Eulalia Gracia – CSIC Javier Lario – CSIC Cesar Andrade - FFCUL Luigi Vigliotti – ISMAR-Bo

Presentations available on the Nearest website :

WP6_Marrakech_11_07_CSIC WP6_1_Marrakech_11_07_CSIC WP6_Marrakech_11_07_FFCUL WP6_Marrakech_11_07_ISMAR

Task 6.1 Onshore sedimentological evidence of tsunami records Task 6.2 Offshore sedimentological evidence of earthquake events

Several field trips and a cruise were successfully carried out:

- Boca do Rio (Algarve, Portugal), 19 22 March 2007
- Sagres Boca do Rio (Algarve), 2 4 July 2007
- Rio Piedras (Huelva, Spain), 9 13 July 2007
- Boca do Rio (Algarve), 16 18 July 2007
- Boca do Rio Alvor (Algarve), 2 4 August 2007
- Rio Piedras (Huelva, Spain), 17 22 October 2007
- NEAREST-07, Leg 2 (RV Urania), August 2007

Deviations from the project workprogramme

Task 6.1:

Fieldtrips and exploration coastal lowlands for tsunami deposit sites has been delayed due to the need of previous planning (time consuming). The end date for this activity should be rescheduled to month 30.

Coring and recovery techniques maybe insufficient in some cases to provide sediment in quantity and quality adequate to allow identification of tsunami deposits as such. No sedimentological evidence of inundations that effectively occurred

Task 6.2 / 6.3:

The lack of news regarding the NEAREST-CORE cruise from the Spanish shiptime operators give to uncertainties about its results. As a matter of fact, if this cruise occurs AFTER autumn of 2008, there will be not enough time to carefully analyze the new material and only first results will be given by the end of the NEAREST project

Critical aspects to be taken in careful consideration:

- identification of a Moroccan interlocutor for WP6 (M. Hafid or A. El Mouraouah): crucial in order to organize future joined work on land and to prevent duplication of efforts
- importance to obtain the tsunami historical catalogue from GITEC (INGV Rome), as well as the new one from the EU project TRANSFER
- proper arrangements with UBO-Bordeaux / IUEM-Brest to get information about the first results of their cores in order to compare/correlate with UTM-CSIC results on the

SW Portuguese margin and make a synchronicity test on seismically triggered turbidite events

WP7 Analysis Modelling of tsunami impact in SW Portugal (WP7 Leader: FFCUL)

presentations made by Maria Ana Batipsta - FFCUL Rachid Omira - FFCUL Presentations available on the Nearest website : WP7_Marrakech_11_07_FFCUL

Task 7.1 Collation of the New Bathymetric Data

The collection of bathymetric data achieved using the GEBCO and SWIM databases provided by CSIC. Close to the shore, additional high-resolution, multibeam data was also acquired during summer 2007.

The GEBCO One Minute Grid was used as a starting point of DEM compilation. The grid was generated from GEBCO bathymetric contours and also includes land elevations from the Global Land One-km Base Elevation (GLOBE) database.

SWIM database was implemented during the Urania Campaign led by ISMAR on August-Sept 2007. ISMAR collected in fact a set of data in between the SWIM compilation (WP1) and the planned survey along Algarve. ISMAR also carried out the processing of the Urania-2007 swath bathymetric data.

Task 7.2 Implementation of a numerical tsunami model for SW Portugal

The work developed in this task follows the collaboration and feedback from TRANSFER project.

The preliminary tests were performed used the 1969.02.28 tsunami event as a "benchmark" in order to calibrate the model, because both source parameters and tide gauge data exist for the Portuguese coast. Tests were positive, and small changes to the original code, mainly in what concerns input/output.

In order to check the performance of the model a preliminary test was made using the instrumental readings of the 1969.02.28 tsunami

Task 7.3 Simulation of the 1755 tsunami in the "Boca do Rio" area

The Boca do Rio test area was chosen since it is one of the best documented area, concerning the 1755 tsunami and the valley it is still preserved nowadays. The source terms used was the one documented in DEFRA report (June 2006).

TASK 7.4 Production of inundation maps for Lagos-Sagres

The model produces predicts inundation along Boca do Rio on an extension of approximately 1 km inland.

TASK 7.5 Model parameterization and validation

The model used is the shallow water code COMCOT (Liu et al., 1994, Cornell Univ.).

The reliability of tsunami codes is a major topic of TRANSFER. To do so, benchmarks proposed at Catalina Island Workshop (2004) were run by the different teams and their results compared at the June 2007 meeting held in Fetya, Turkey.

Deviations from the project workprogramme

The swath bathymetric survey was completed by the end of July instead of month 12, as initially planned. Data are presently under processing.

The start of Tasks 7.3, 7.4, 7.5 was anticipated because of the collaboration with the other EU project "TRANSFER" which is running in parallel with NEAREST. Because the multibeam data set in the shallow area was already collected by summer 2007, even if not fully

processed, it was decided to anticipate the start of these tasks to be able to tune these NEAREST activities with the TRANSFER one

WP8 Analysis - Feasibility study and prototype for an EWS (WP8 Leader: FFCUL)

presentations made by Luis Matias – FFCUL Presentations available on the Nearest website: WP8_Marrakech_11_07_FFCUL

Task 8.1 Simulation of tsunami generation scenarios

There has been a continuous progress on the data collector schemes, particularly at partner IM (for Portugal). There has been also a progressive integration of NEAREST activities within the IGC/NEAMTWS initiative that will make strong recommendations on the decision matrix to be applied for the Tsunami Warning and also on the fast parameter algorithms to be used by the Regional Centres.

Task 8.2 – Development of a simulator for the decision-maker authorities

The main activities were devoted to finish the conceptual modelling of the NEARESTtsunami simulator and proceed with the modelling of some functionalities that made the tool able to:

- integrate the tsunami parameters that may be given by an external source (other WP's),
- evaluate the spatial impact of the tsunami and its consequences on the population,
- visualize the rescue operations and emergency facilities, and
- to model different operational strategies, as an aid to the political and operational authorities.

Deviations from the project workprogramme

The scheduling of tasks 8.1 and 8.2 met some changes regarding the planning foresaw in the DoW, not affecting the overall results of this WP.

Task 8.1 is less developed than expected given that it has a great dependency on the WP5 development. This is not considered critical and no corrective action is required.

On the other hand, given the work scheduling by Xistos, task 8.2 is much more developed that previously planned facilitating the work to be performed in the next periods with involvement of the other partners.

WP1 Analysis -Tsunami source identification (Leader: FFCUL)

presentations made by Pedro Terrinha – FFCUL Eulalia Gracia – CSIC Vasco Valadares, FFCUL Presentations available on the Nearest website : WP1_Marrakech_11_07_CSIC WP1_Marrakech_11_07_FFCUL

Task 1.1 Review of sources of tectonic origin

The following actions were performed:

- set up of a data set in digital format
- creation of the projects on seismic interpretation software (Openworks Suite, LandmarkTM) and on Geographic Information Systems (ArcGIS, ESRITM) with geophysical and geological data
- structural interpretation of the MCS dataset along with the high-resolution morphobathymetric data and set up of the Map of Tectonic Active Structures
- Seismo-stratigraphic interpretation of the MCS dataset
- Geomorphological interpretation of the multi-beam bathymetry and production of the Geomorphological Map
- compilation and selection of earthquakes events data

Task 1.2 Review of sources due to slope instabilities

The activities for this period were:

- finalization of the map of the marine geological and geophysical data recently acquired in the Gulf of Cadiz
- interpretation of seafloor topography based on SWIM swath-bathymetry, generation of slope maps, and identification of the nature of the seafloor from acoustic backscatter, sub-bottom structure and infill based on seismic profiling, and correlation with coring. Identification of mass wasting-related morphologies in the Gulf of Cadiz using Fledermaus visualisation software.
- recognition, analysis and mapping of the characterization and classification of the submarine mass wasting features of the Gulf of Cadiz

Deviations from the project workprogrammme

Task 1.1: The task was planned to end at month 12. Actually the activities carried out during the first year cover only 80%. Although the review has been completed and the working maps were ready by month ten to allow the planning of the Urania Campaign, the final elaborations necessary to prepare the deliverables D1 require up to 3 months more.

Task 1.2 The review of sources due to slope instabilities has been almost completed with the production of the working maps to be used for the planning of Urania campaign. The deliverable D2, reporting the final achievements of this task needs additional two or three months of work.

Task 1.3 A site survey using high resolution deep-towed side scan sonar (MAK 30-100 MHz) was planned to be carried out by R/V Professor Logatchev in June-July 2007, after the selection of the Geostar Abyssal Station site of deployment and before the deployment campaign (August-September 2007 with the R/V Urania. Unfortunately, the R/V Professor Logatchev was in the shipyard during that time for engine problems and we could not substitute it either because the equipment required was very specific, either because the costs for renting another ship were too high. A specific site survey was thus performed directly by R/V Urania, using the high resolution Chirp before the Geostar Abyssal Station deployment.

Day 2 - Friday 26 October 2007

WP9 Analysis – Circulation of project information to end users (WP9 Leader: ISMAR)

presentations made by Nevio Zitellini - ISMAR Presentations available on the Nearest website : WP9_Marrakech_11_07_ISMAR

Task 9.1 Project communication

Presentation and distribution to the attending partners of the project brochure in which are briefly summarized its objectives, actions and expected results. The brochure is available also on the web.

Task 9.2 Project web site

Updating on the integration of the project web site nearest.bo.ismar.cnr.it

The next goal foreseen is to complete the web site with following sections that are under construction:

- a list of mutual related links to web sites of interest;
- the completion of the public section in which the results of the project, tailored to inform non-specialists and the general public, will be downloadable;
- a photo/movie section;

Task 9.3 Contact database

All partners were invited to contribute to the setting-up of a common database of contact persons, communities, institutions and authorities at both local and national levels. The contact database, not fully completed, actually include a list of Portuguese, Spanish and Italian people, institutions and journals that could be sensible to the hazard warning.

Task 9.4 Dissemination plan

This task foresees the using of different communication means as newsletters, electronic newsletters, regional and national press, radio/TV to reach the non scientific people. In addition the diffusion plan include the presentation of the project activity in scientific meetings or congresses.

Several press, of Italian and international journals were contacted and a satisfactory number of radio and TV interview were performed by the project coordinator Nevio Zitellini (ISMAR). Moreover scientific presentation, posters, participation to international congresses and scientific papers were done by the project coordinator and/or the other members of the Nearest team.

Other activities

- Meetings to attend in 2008

Critical aspects to be taken in careful consideration:

Contact database

Scientific contributions from Advisory Board

presentations made by Hitoshi Mikada, Dept. Civil & Earth Resources Engineering -Graduate School of Kyoto University and Vasily Titov, NOOA Center for Tsunami Research Presentations available on the Nearest website : Mikada_Marrakech_11_07 Titov Marrakech 11 07

<u>Hitoshi Mikada</u> - Dept. Civil & Earth Resources Engineering - Graduate School of Kyoto University - expressed thanks for the invitation and introduced his work stressing the importance of the long-term monitoring.

Mikada comments on the Nearest project:

- a lot of work has done in a year after the project initiation
- the hypotheses proposed in WP1 could be testified in WP2
- the data from Pilot Study on Seismicity (WP3) could be used for Passive Structural Estimation
- the technical Developments (WP4) should be accelerated
- the earthquake Parameter Estimation (WP5) could be collaborated with EWS (WP8)
- products from Paleo-Tsunami/Seismic Studies (WP6) could be input to Analysis and Planning Group (WP7)
- the efforts to Enhance Public Awareness Important (WP9)
- the collaboration with Moroccan People could be encouraged, especially in WP3, WP5, WP6, WP7 and WP8.

<u>Vasily Titov</u> - NOOA Centre for Tsunami Research - presented his role and studies. He showed some data on the 2004 Sumatra tsunami impact, the Nov. 15, 2006 Central Kuril Tsunami, the January 13, 2007 Kuril Is. Tsunami, May 3, 2006 Tonga tsunami, the August 15, 2007 Peru Tsunami. Some videos on the DART deployment and simulations were played.

As for the future activities, some relevant steps were listed as the following:

- Tsunami Forecast System development (accuracy, speed, robustness)
 - Optimize DART network
 - New tsunami data inversion techniques
 - Local tsunami forecast
- Next generation models
 - Tsunami inundation impact
 - Landslide and other sources
- Application of forecast models for hazard assessment studies
 - Use of models for land-use planning
 - Probabilistic hazard assessments
- International coordination toward Global Forecast System (Australia, Indonesia, Chile...)

Input from the TRANSFER project

FFCUL, Maria Ana Baptista

Ms. Baptista as representative partner both in Nearest and Transfer (Tsunami Risk ANd Strategies For European Region) projects reported on the Transfer Project Meeting held in Rhodes the week before the Nearest Marrakech Meeting. Ms. Baptista focused on the common research aspects between the two projects.

EMSO European infrastructure

INGV, Paolo Favali

Presentation of EMSO: a European Multidisciplinary Seafloor Observatories Research Infrastructure as a network of deep-seafloor observatories that will be deployed, from 2007 to 2011, on specific sites offshore European coastline to allow continuous monitoring for environment and security. They will be organised in a unique management structure at European level (and part of a global endeavour in sea-floor observatories), for long term monitoring of environmental processes related to ecosystem life and evolution, global changes and geo-hazards.

Among the expected results:

- major advances across marine sciences
- better knowledge-based support to European policies in environment and security (GMES).

Analysis of critical tasks and identification of possible solutions

(Open session coordinated by Nevio Zitellini)

The coordinator opened the session underlining the good flow of activities already done and expressing his optimistic view about the fulfillment of the targets foreseen. Among the critical tasks, he underlined in particular:

- After the buoy deployment some problems arose on the electronics on the buoy itself. This implied that at the end of the NEAREST 2007 cruise all the failed apparatus was taken off from the buoy and bring to Italy to check it in an appropriate way.

In October 2007 (16-21) a new mission was organized by INGV in Gulf of Cadiz in order to restore the buoy after a new calibration of the acoustic communication system made by Tecnomare (buoy set up developer) and Sercel (acoustic system supplier. In addition the mission had also the purpose to control the GEOSTAR observatory mission status and the reconfiguration of the mission parameters with special regards to those related to the seismic event detection.

- The number of OBS deployed during the NEAREST2007 cruise were 22 instead 24 cause the following problems: 1) the power connector of one recorder pressure tube was damaged. 2) The remaining anchor was used to conduct a test measurement with OBS07 close to the position of the GEOSTAR observatory. OBS07 was successfully recovered after 2 days. This station was planned to be re-deployed at the end of the cruise.

3) During deployment of OBS14 another problem occurred, because the head buoy became trapped below the OBS that could prevent its recovery. To save the OBS we released it from its anchor before it reached the ground. OBS14 was re-deployed with the last available anchor.

At the end the OBSs n. 7 and 24 remain onboard at the end of the cruise. To get out this problem a new cruise with a little Portuguese ship is planned in October to deploy this instruments.

Steering Committee Meeting

The first part of the afternoon was addressed to the NEAREST Steering Committee meeting, involving only the responsible members for each project partner. During such meeting also financial and administrative issues have been tackled.

The detailed report on the Steering Committee meeting is available in a separate specific file.

Final session

The coordinator summed up the reporting aspects discussed during the Steering Committee Meeting.

Cesar Andreade (FFCUL) reported on the outcome of a short session that took place at the same time of the Steering Committee in order to arrange a restricted meeting in Morocco to present and discuss the recent geological observations in Morocco that can provide relevant material for work packages 1 and 6. The CNRST agreed to host the workshop and to coordinate the following field trip that will be foreseen in March 2008 in Rabat.

The meeting was closed with a special thanks to the hosting Institution for its precise organisation and support.