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REPORT ON THE GEOPHYSICAL AND OCEANOGRAPHIC INVESTIGATIONS DURING CRUISE ADRIASEISMIC_09 (03-16 March 2009, R/V *URANIA*)

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Report on the geophysical and oceanographic investigations during cruise ADRIASEIS_09 (3-16 March 2009, R/v *URANIA*)
by S.Carniel, A.Bergamasco, F.MAdricardo, M.Sclavo, G.Bortoluzzi ...

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Abstract - We present the shipboard activities and results of Cruise ADRIASEIS_09 on R/V *Urania*(3-16 March 2009) on Southern Adriatic Sea. Multichannel reflection seismic works were performed on the italian margins of Southern Adriatic Sea .... Most of the proposed work have been performed, and some results are presented hereinafter, alongwith tecnical details on procedures and instrumentation.

Sommario - Vengono presentate le attivita' ed i risultati preliminari della crociera ADRIASEIS_09 con R/V *Urania*(3-16 Marzo 2009).... Di seguito vengono mostrati alcuni dei risultati ottenuti, assieme alle metodologie e alle strumentazioni impiegate.

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ACRONYMS

ACRONYM	DESCRIPTION	URL-email
GO	Geophysical Oceanography	www.dur.ac.uk/eu.go/
CNR	Consiglio Nazionale Delle Ricerche	www.cnr.it
ISMAR	Istituto di Scienze Marine	www.ismar.cnr.it
ISMAR-VE	Istituto di Scienze Marine, Venezia	www.ve.ismar.cnr.it
ISMAR-BO	Istituto di Scienze Marine, Bologna	www.bo.ismar.cnr.it
ISMAR-SP	ISMAR, La Spezia	www.sp.ismar.cnr.it
NRLSSC	Naval Res. Lab Stennis S.Center, LA, USA	www.nrl.navy.mil
UNIDURHAM	University , Durham, U.K.	www.dur.ac.uk
UNIWISC	Univerty of Winsconsin, Madison, USA	www.wisc.edu
ISWW	ISW Wassermesstechnik, Germany	isw-wasser.com/
EEL	Exploration ELectronics, Great Yarmouth, UK	www.exploration-electronics.co.uk
SOPROMAR	SOPROMAR, Fiumicino, Italy	www.sopromar.it
PDS-2000	RESON	www.reson.com/sw1738.asp
KONGSBERG	Kongsberg	www.kongsberg.com
SIS	Sea Floor Inf. System	www.kongsberg.com
SERCEL	Sercel	www.sercel.com
NEPTUNE	Multibeam Processing	www.km.kongsberg.com
SBE	Sea Bird Electronics	www.seabird.com
SIPPICAN	Sippican Corp.	www.sippican.com
BENTHOS	Teledyne Benthos	www.benthos.com
SWAN-PRO	Communication Technology	www.comm-tec.com
GMT	Generic Mapping Tool	gmt.soest.hawaii.edu/gmt
MBES	Multibeam Echosounder System	
SBP	Sub Bottom Profiling	
SVP	Sound Velocity Profile	
CTD	Conductivity/Temperature/Depth	
XBT	expendable Bathytermograph	
MAD	Mid Adriatic Depression	
SAD	Southern Adriatic Depression	
ADW	Adriatic Deep Water	
NAdDW	Northern Adriatci Deep Water	
LIW	Levantine Intermediate Water	
MLIW	Modified LIW	
ISW	IOnian Surface Water	
GPS-DGPS-RTK	Global Positioning System	samadhi.jpl.nasa.gov
DTM	Digital Terrain Model	en.wikipedia.org

Table 1: Acronyms of Organizations, Manufacturers and Products

ACKNOWLEDGMENTS

We are particularly indebted to the Master C.L.C. Emanuele Gentile, the officers and crew members of R/V *Urania* for their professionalism and efforts in assuring the success of the cruise. Dr. Mariangela Ravaioli and Dr.A.Russo are aknowledged for the use of the CTD data acquired during february sscruise VELTUR09 on R/V *Urania*. Dr. Salvo Mazzola and Dr. Ennio Marsella of IAMC are gratefully aknowledged for the use of their GI-GUN equipment. The project was funded by CNR, NRL, University of Durham. The scientific staff of ADRIASEISMIC-09 wishes to thank the Italian National Research Council (CNR) Ship Office, which made the R/V URANIA available for the Cruise.

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1 INTRODUCTION

After recent impulses on the subject of seismic oceanography, widely described on selected literature [Holbrook et al.(20003)], seismic profiles usually acquired to map and describe the ocean sea floors, adequately treated and integrated by hydrological data along the water column, are now considered useful to provide information on the thermohaline structure of the water masses. Indeed, it is now possible to observe the oceanic dynamic and some structures (such as eddies, double-diffusion, thermohaline intrusions, internal waves) at a very high detail.

In the field of the Seismic Oceanography or Geophysical Oceanography there exist still several problems to be solved, such as the definition of protocols to allow a better confrontation of acquired data, the development of techniques to obtain optimal acquisition, especially in shallow waters, the need of development appropriate processing algorithms, etc. This will hopefully allow to obtain useful information on the ocean vertical microstructure as well.

The necessity of testing and developing these methodologies, as well as the need of improving the knowledge of the processes at the interface sediment-sea, are at the basis of this Cruise carried out using the Italian CNR R/V *Urania*. Indeed, the difficulty of acquiring synoptic data (e.g. classical hydrology, currentometry, meteorology, turbulence, etc.) has until now limited the optimal use of modeling potentialities and an adequate synthesis of results. The availability of synoptic observations as those provided by the seismic oceanography approach would allow then to monitor much larger regions in a shorter time and, with the help of more classical measurements such XBTs and vertical or towed CTDs, together with the support of turbulence measurements obtained via free falling probes, to depict and outline the vertical stratification in frontal regions at a very high resolution.

The interest at the origin of this proposal was also shared by several international research groups, including two represented on this cruise, the Naval Research Laboratory (NRL) an the University of Durham that have oriented their activity in the direction of the seismic oceanography (e.g. [Nakamura et al.(2006)]). The activity of the EU funded (NEST, FP6) Consortium GO, Geophysical Oceanography, coordinated by Dr. R.W. Hobbs is here acknowledged as the first dedicated European effort on the topic, and the program at NRL coordinated by Dr. W.T. Wood and Dr. J.W. Book is one of the first, if not the first American seismic oceanography effort driven by oceanographic objectives.

In order to show the feasibility and the current state of the art in the field of the seismic oceanography, we have proposed to explore the southern Adriatic Sea region for two weeks at the end of winter 2009. This choice was motivated by several reasons, among which the existence of a well consolidated and continuously updated oceanographic, bathymetric and seismic databases, the presence of different oceanographic characteristics such as fronts and filaments, and the bottom topography modified by cascading and overflow processes.

The benefits resulting from the proposed activity appear to be multiple: (a) the availability of new seismic-hydrological data that would be impossible to be collected by a purely national team, (b) if present, the 3-D mapping of the NAdDW deep water structure when exiting from the Palagruža Sill and starting its cascading process along the slope of the south Adriatic pit, (c) the increase in the distributed knowledge onside the EU; the unlocking of a large quantity of seismic data previously acquired; the foundation of a national research theme in the field of the seismic oceanography where CNR would be the leading institution.

1.1 OBJECTIVES AND DELIVERABLES

The main objectives of ADRIASEISMIC-09 cruise are:

(a) to test and explore benefits and limitations of state-of-the-art methods to acquire seismic data in a shallow water environment and with a relatively light equipment.

(b) to foster collaboration between the seismic and oceanographic community, advancing the knowledge of the water masses dynamics, such as fronts, internal waves, and of the vertical mixing processes on the shelf region, by successfully exploiting the above mentioned techniques.

(c) to produce a dataset in the area in front of Bari region in the southern Adriatic, both from the oceanographic and seismic point of view.

(d) to explore the feasibility of unlocking of previously acquired historical data and allow their quantitative rendering to the oceanographic community.

(e) to contribute to building up a EU expertise on these fields, allowing CNR to be cast within Research Institutions that are making cutting-edge science.

(f) to reach a detailed characterization of physical properties of the Southern Adriatic water masses, including turbulent properties, improving the performances of turbulent closure models.

(g) to improve the understanding of bottom boundary layer processes in the basin.

Several types of products and deliverables are expected:

- an observational data-set for seismic reflectivity in the Adriatic sea region.
- an observational data set from CTD acquisitions, increasing the existing one.
- an evaluation study of the eddy diffusivity in the southern Adriatic basin.
- dissemination of ADRIASEISMIC-09 data in future studies.
- joint publications dealing with: insights on the capability of seismic oceanography techniques, microstructure and turbulence measurements, water masses dynamics and distribution and cascading processes.

1.2 Geological and Oceanographical Setting

Geological setting

The Adriatic Sea (Fig.1) shows two margin configurations, north and south of the Gargano Promontory ([Ridente and Trincardi(2005)] and references therein).

The Central area is characterized by the Mid Adriatic Deep (MAD), 260 m depth, separated in 2 depocenters by the Central Adriatic deformation belt [Argnani and Frugoni(1997)], and is bordered to the south by the Gallignani and Pelagosa (Palagruža) ridges and by the structural high of the Tremiti Islands, toward the Italian coast.

The Southern area [Argnani et al.(2006)] is characterized sub-circular depression, more than 1200 m deep (Southern Adriatic Deep, SAD), located between the coasts of Puglia, to the west, and Albania, Montenegro and Croatia to the east, being the current foredeep of the Albanide fold-and-thrust belt ([De Alteriis (1995)], [Argnani et al.(1996)], [Bertotti et al.(2001)]). The Mesozoic paleogeography of the Adriatic controlled the current tectonic setting of this region, and several deformational features affecting the recentmost sediments can be related to the inherited palaeotopography. The western slope, which is adjacent to the low relief Apulian foreland, is characterised by a relatively reduced sediment supply. Tectonic and seismic activity are limited or absent over most of Puglia, with Gargano being the only exception ([De'Dominiciis and Mazzoldi (1987)], [Argnani et al.(1993)], [De Alteriis and Aiello (1993)]). A complex deformation system, the Gondola Fault, dissects the shelf and slope ([Morelli (2002)], [Fracassi et al.(2008)], [Ridente et al.(2008)] and references therein).

Large mass-wasting deposits and large-scale incisions are present along the margin and are related to the glacio-eustatic fluctuations during the Quaternary. During the Middle-Upper Pleistocene, margin progradation was accomplished by thick regressive units, the most widespread failure event affected the margin during the MIS 2 glacial interval[Minisini et al.(2006)]. The Bari canyon is the result of multiple and repeated mass wasting and slope failure that carved deeply incised scarps at the shelf edge [Ridente et al.(2007)]. The area is also impacted by dense waters cascades and currents, which interact and modify the relief and depositional system ([Bignami et al.(1990,a)], [Bignami et al. (1990,b)], [Trincardi et al.(2007,a)], [Trincardi et al.(2007,b)], [Canals et al.(2009)]).

Oceanographical Setting

The dynamics of the SAD is dominated by the presence of a quasi-permanent cyclonic gyre that in the winter season creates the conditions for the open-ocean convection and the production of dense and oxygenated waters. Studies show that two types of dense water formation processes occur during winter within the Adriatic Sea: the major portion of the Adriatic Deep Water (ADW) is formed through open ocean convection inside the Southern Adriatic Deep (SAD) within the cyclonic gyre, while the remaining dense water is formed on the continental shelf of the Northern and Middle Adriatic that moves southward and ultimately sinks to the bottom of the SAP ([Ovchinnikov et al. (1985)][Bignami et al. (1990,b)] [Malanotte-Rizzoli (1991)]). The eastern margin is characterized by the influence of the incoming water of Ionian origin which flow northward being restricted mainly to the continental slope. This area is interested by the Levantine Intermediate water (LIW) that occupies the layer between 150 and 600m.

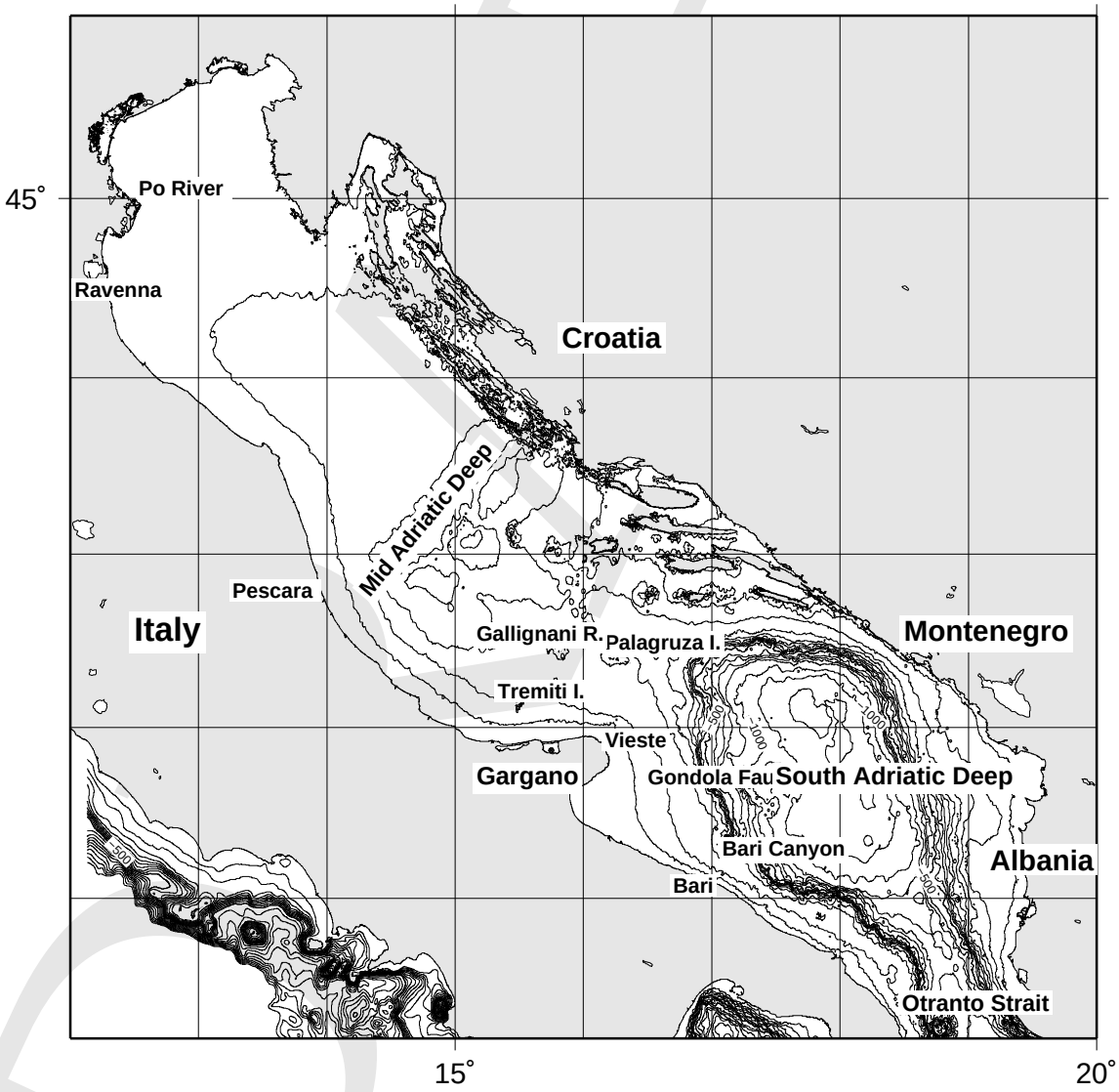

Figure 1: Geological setting of Southern Adriatic Sea.

2 CRUISE SUMMARY

SHIP: R/V *Urania*, CNR
START: 2009-03-03 PORT: Bari
END: 2009-03-16 PORT: Bari
SEA/OCEAN: Southern Adriatic Sea, Mediterranean Sea
LIMITS: NORTH 42:40 SOUTH: 41:10 WEST: 15:20 EAST: 17:40
OBJECTIVE: GEOPHYSICAL OCEANOGRAPHY
COORDINATING BODIES: ISMAR-CNR
CHIEF OF EXPEDITION: Dr. Sandro Carniel
CONTACT: S.Carniel@ismar.cnr.it
DISCIPLINES: OCEANOGRAPHY, GEOPHYSICS, SWATH BATHYMETRY
WORK DONE: 38 CTD CASTS, 240 XBT DROPS, 583KM MULTICHANNEL SEISMICS, 1180 KM SBP, about 500KM^2 OF SWATH BATHYMETRY.

LOCALIZATION:

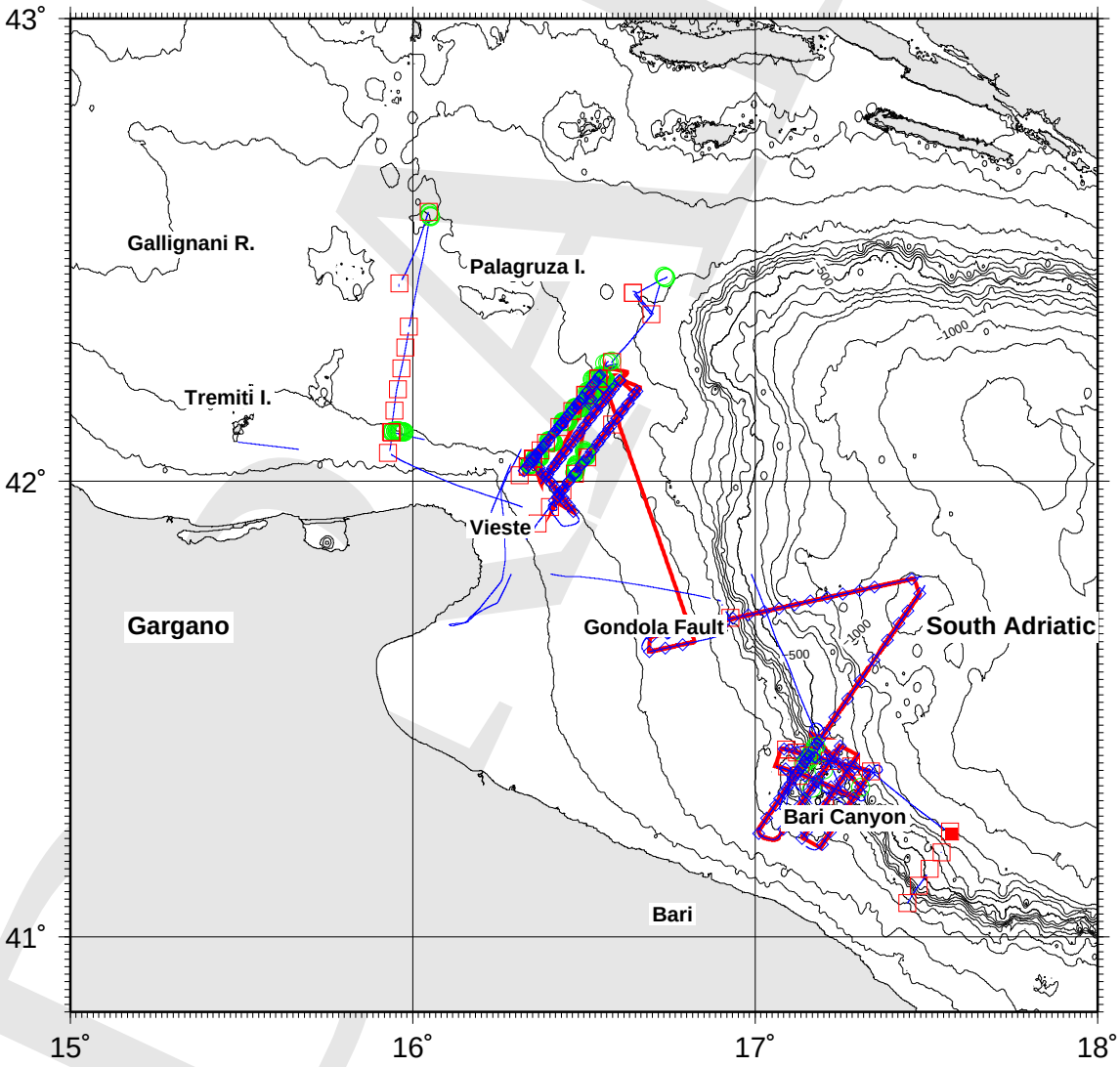

Figure 2: Whole ship track during Cruise ADRIASEIS09 in the Southern Adriatic Sea. Red squares are CTD, blue diamonds are XBT and green circles are Turbulence stations.

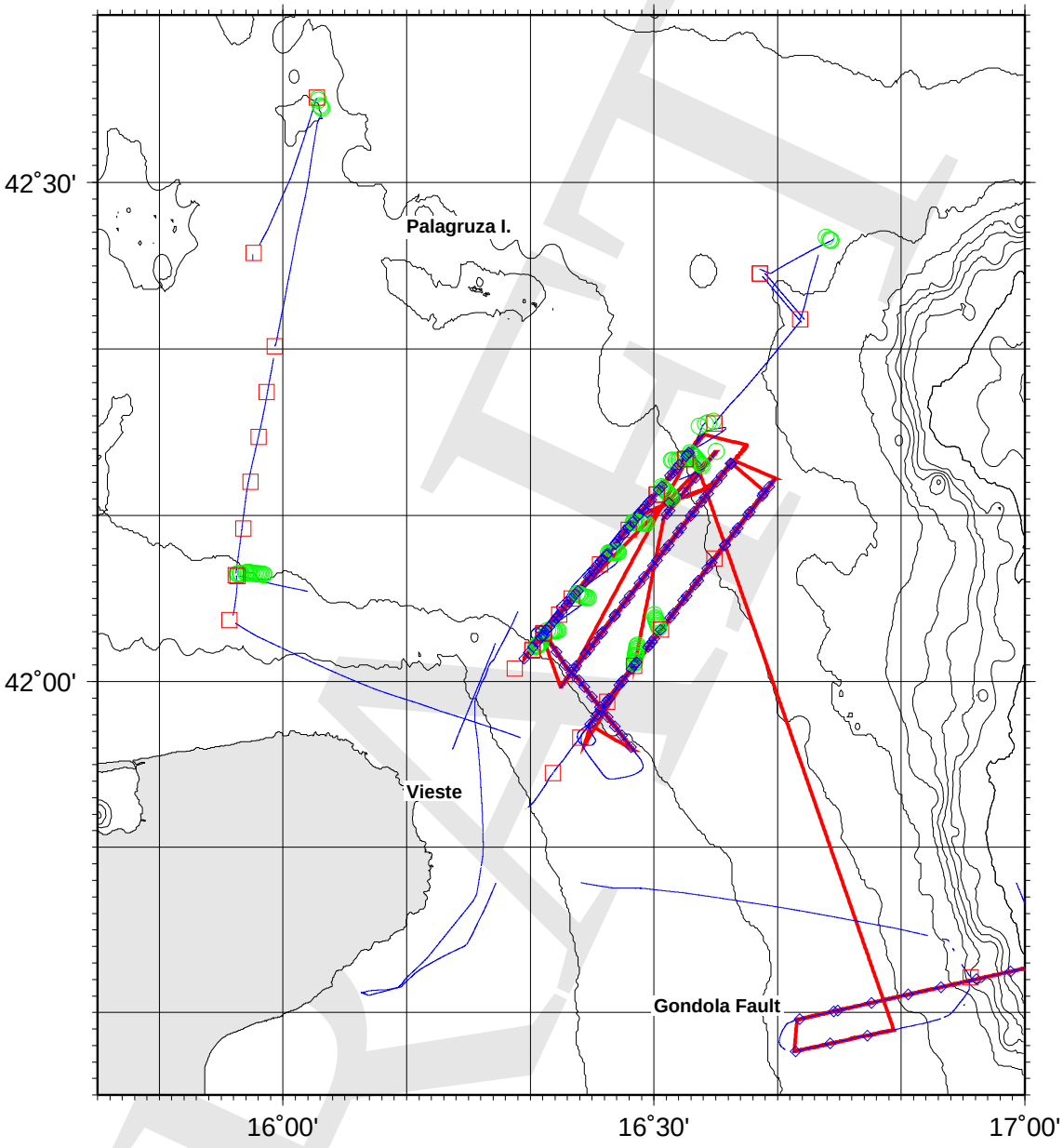

Figure 3: Whole ship track during Cruise ADRIASEIS09 in the Southern Adriatic Sea. Red squares are CTD, blue diamonds are XBT and green circles are Turbulence stations.

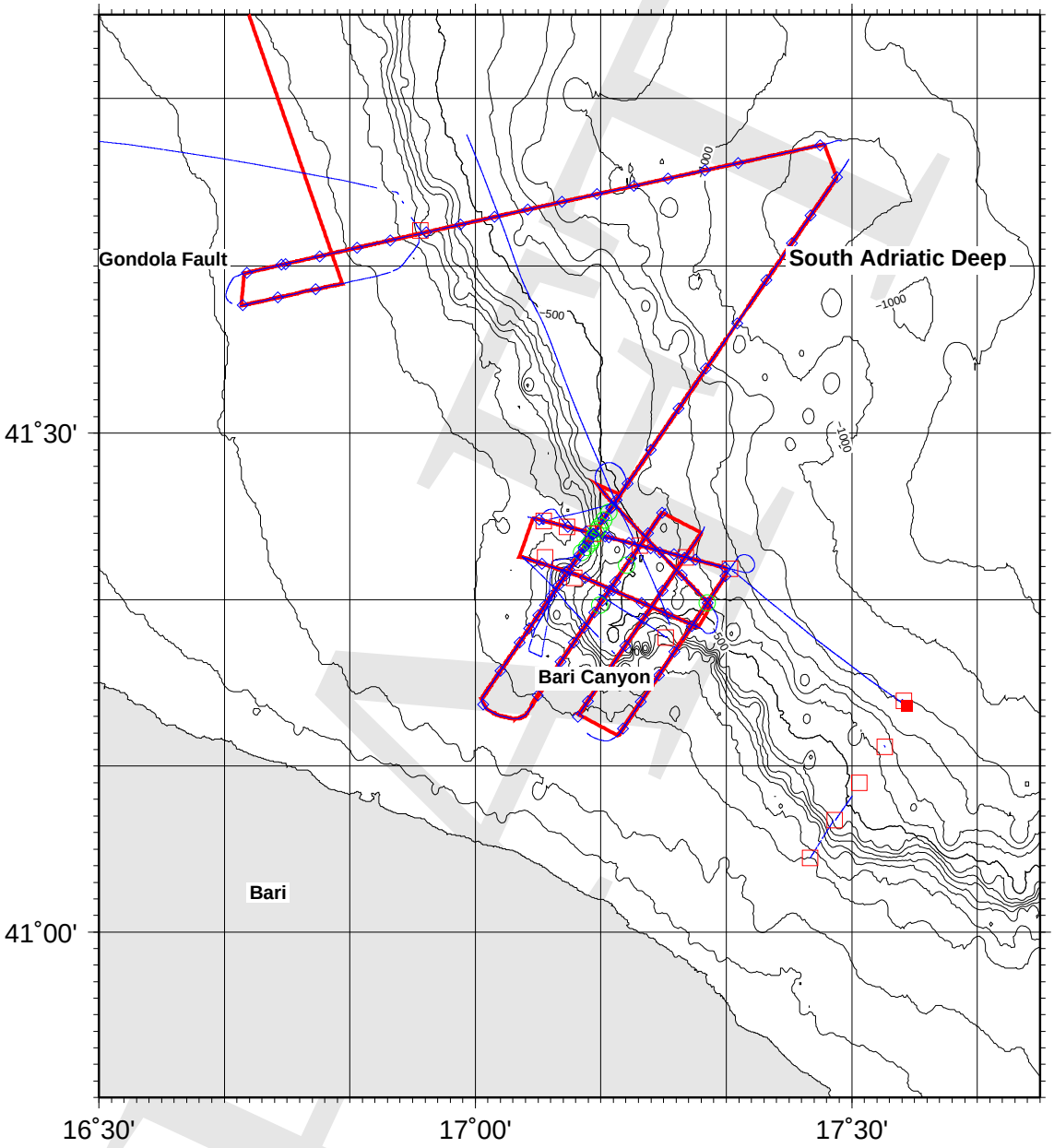

Figure 4: Whole ship track during Cruise ADRIASEIS09 in the Southern Adriatic Sea. Red squares are CTD, blue diamonds are XBT and green circles are Turbulence stations. Filled red square is the current meter mooring deployed for the Hermione Project.

SCIENTIFIC AND TECHNICAL PARTIES

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Table 2: Scientific and technical parties

3 MATERIALS AND METHODS

The research cruise was carried out with the 61 meter R/V *Urania* owned and operated by SO.PRO.MAR. and on long-term lease to CNR (Fig.5). Ship is normally used for geological, geophysical and oceanographical work in the Mediterranean Sea and adjoining waters, including but not limited to, the Atlantic Ocean, the Red Sea, and the Black Sea.

Figure 5: R/V *Urania*.

R/V *Urania* is equipped with DGPS positioning system (satellite link by FUGRO), single-beam and multibeam bathymetry and integrated geophysical and oceanographical data acquisition systems, including ADCP, CHIRP SBP and other Sonar Equipment, other than water and sediment sampling capabilities. Additional equipment can be accommodated on the keel or towed, e.g. Side Scan Sonars.

3.1 NAVIGATION AND DATA ACQUISITION

The vessel was set-up for data acquisition and navigation with PDS-2000 software by RESON, interfacing by a multiserial and Ethernet link several instruments, among them the DGPS (Fugro), the Atlas-Krupp Deso-25 single-beam echosunder, the TSS MAHRS MRU and the meteorological station. The position and depth data were also distributed to the CTD data acquisition console. A Kongsberg processor running the SIS software, collected the multibeam data, including a SEAPATH MRU, compass, and DGPS. The MBES was the 70kHz, 400 1x2°beams, 150°aperture EM-710 (2000 m range) model by Kongsberg. The sonar head is positioned on the ship's keel using a V-shaped steel frame. A Sound Velocity probe at the keel 1m above the Sonar Head is interfaced directly to the MBES processor, thus providing the necessary real-time data for the beamforming. CTD casts were normally used for input of the sound velocity profile to the system. An Anderaa Meteorological Station was also available, at a rate of one measurement every 1 minutes, including conductivity and temperature at the keel level.

Tab.3 and 4 show the offsets (PDS2000 amd EM710).

POSITION	ACROSS	ALONG	HEIGHT
REFERENCE POINT	0.00	0.00	0.00
DGPS	1.64	14.30	14.18
MBEAM	0.00	14.36	-4.96
MAHRS	0.00	0.0	-3.40
ECHO SOUNDER 33	5.50	-1.85	-3.80
CHIRP	-1.0	11.80	-4.00
A-FRAME	6.5	-6.70	0.0
STERN	0.00	-30.60	0.00
ARRAY-PORT			
ARRAY-STBD			
FIRST-ACTIVE			

Table 3: Instrumental Offsets of PDS2000 on Ship Urania (PDS2000). The GPS antenna (primary positioning system) is located on point DGPS.

POSITION	ACROSS	ALONG	HEIGHT
REFERENCE POINT	0.00	0.00	0.00
SEAPATH_GPS	-4.039	0.163	-18.211
MRU	-0.341	-1.342	-1.596
MBEAM_TX	0.0936	10.2964	5.0623
MBEAM_RX	-0.0031	11.0144	5.0600
SEALEVEL	0	0	-0.0875

Table 4: Instrumental Offsets on Ship Urania (EM710). The DGPS antenna (primary positioning system) is located on point SEAPATH_GPS.

3.2 MULTICHANNEL REFLECTION SEISMIC DATA

A fundamental aspect of the ADRIASEISMIC-09 cruise was the tight integration of classical physical oceanography measurements with the seismic reflection images of water structure. This requires a fast seismic data processing strategy so the seismic data are assessed for optimum locations for CTD casts. The processing of seismic data for oceanography poses a number of major challenges over and above those required for more conventional imaging of the sub-surface. This extra processing work is partly compensated by the relatively simple average sound-speed within the water column. Also this was the first attempt to capture seismic images of water structure in water depths of less than 400-500m which required testing of optimal seismic source/receiver configurations. All the relevant information for the acquisition is presented in the Appendix 6.1. The source was set

up as tuned array of Sercel's GI-GUNs, mainly in the 'Harmonic' 45+45 cu.in. configuration, being powered at 140-150 bar compressed air delivered by a 2500 l/min I25 model by BAUER. The array was fired and synchronized by ISMAR's GUN SYNCHRONIZER [Masini and Ligi(1995)]. The RS-232 firing pulse, converted to TTL or Contact Closure by an external circuit, was provided by the PDS-2000 navigation system on programmed distances along the planned routes.

The seismic recording equipment employed (by Sercel) is summarized here below: Seal Recording System (Sys 5), NAS drives, Esqc QA, FSK/Digimain bird controller, 96 channel Digital Streamer, 8 actives, 2 head stretches, 50 m tow leader, passive tail buoy, Digicourse cable levelers.

IMPORTANT NOTE: A fixed delay of 10ms was applied to the TB for the gun synchronization, plus 10-11 ms accounting for the opening of valves and shuttles, i.e. actual shot time is espected to appear some 20 ms after TB.

Figure 6: The EEL streamer positioned onboard.

Figure 7: The EEL streamer (Sercel 96 channels digital).

Figure 8: GI-GUN array.

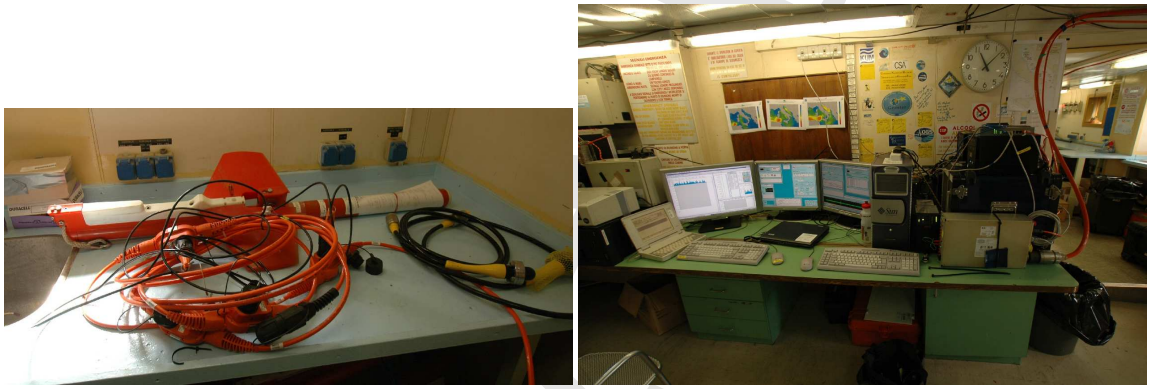

Figure 9: Birds and Seismic Recording Acquisition.

3.3 CTD CASTS

At all the hydrological stations, pressure (P), conductivity (C), temperature (T) and dissolved oxygen concentration (DO) were measured with a caroussel equipped with a SBE 911plus CTD. Salinity (S), density (D) and potential temperature (Θ) were then derived from the measured parameters. A fluoremeter and a light transmission sensor were also operating. Temperature measurements were performed with a SBE 3plus sensor, with a resolution of $2x10^{-4}$ ℃ , and conductivity measurements were performed with a SBE 4 sensor, with a resolution of $4x10^{-5}$ S/m. Dissolved oxygen was measured with a SBE-43 sensor (resolution 4.3 μM). The vertical profiles of all parameters were obtained by sampling at 24 Hz, with the CTD/rosette descent rate of 1 m/s. The data were processed on board.

Figure 10: The Rosette system and Lowered ADCPs.

3.4 EXPENDABLE BATHY-THERMOGRAPHS (XBTs)

The structures in the ocean change on time scales shorter thanthe time required to deploy a seismic system, acquire the data and retrieve the system, that can be at least many hours. Also once the seismic system is deployed the ship cannot not stop for a CTD cast. We therefore used expendable bathy-thermograph (XBT) probes to constrain the water mass structure while shooting seismic. The XBTs provide the background thermal structure and high vertical resolution needed to corroborate the seismic data. We deployed 240 XBTs, of which 232 functioned properly along the seismic lines, ranging from once every 5 minutes to once every 40 minutes, depending upon the complexity of the water mass structure estimated from the last cast. Three different types of XBT were used on this cruise, T-5, T-7 and T-11, all manufactured by Sippican. The T-5 and T-7 sample approximately every 0.65 m down to 460 and 1850 m respectively. The T-11 samples approximately every 0.175 m down to 1850m. More information about each cast is contained in the header portion of each XBT file.

The data were recorded on a Windows 98 laptop computer afterlaunching with the Sippican hand-held launcher. The probes were launched by a two person crew; one inside monitoring the software display, and the other actually launching the probe. When the probe is loaded the inside crewman signals to start the launch, and when the display shows a sharp spike or other indication that the maximum depth has been reached, signals the end of acquisition. At the end of acquisition the outside crewman breaks the connecting copper wire and retrieves the spent XBT tube. Data were backed up frequently on the ship-board network hard drive.

Figure 11: Launching XBTs..

3.5 LOWERED ACOUSTIC DOPPLER CURRENT PROFILER (LADCP)

One Lowered Acoustic Doppler Current Profiler (LADCP), property of and operated by CNR-ISMAR La Spezia, was used to measure velocity profiles. The team used a RDI Workhorse 300 kHz ADCP. The bin size was 5 meters and the range about 100 m. Ensembles were formed every second, along the down- and upcast. This allowed to obtain a vertical profile of horizontal velocities (u, v), and to associate a velocity field to each water mass. The data were processed on board.

3.6 VESSEL MOUNTED ADCP

The hydrographic and seismic data set have been integrated with direct current measurements. During the campaign two VM-ADCPs (RDI Ocean Surveyor, 75 KHz, and RDI Workhorse, 300 KHz) operated along the whole ship track. The bin size was 16 m (OS75) and 4 m (WH300), the depth range of the two current profilers was about 700 m (OS75) and 110 m (WH300). Data acquisition was done using the RDI VMDAS software vers. 1.44.The ADCP data will be postprocessed with the CODAS3 Software System, which allows to extract data, assign coordinates, edit and correct velocity data. Data will be corrected for errors in the value of sound velocity in water, and misalignment of the instrument with respect to the axis of the ship. Data of the first part of the cruise were processed on board.

3.7 MICROSTRUCTURE TURBULENCE PROFILER

Micro-Structure Turbulence (MST) profilers from ISWW was used to provide simultaneous microstructure and precision measurements of physical parameters. The MST profiler contains two velocity microstructure shear sensors, a microstructure temperature sensor, standard CTD sensors for precision measurements and a turbidity sensor. Measurements of microscale temperature and velocity shear allows for the estimation of several turbulence-related variables including turbulent kinetic energy and temperature variance dissipation rates, and eddy diffusivities.

Measured parameters were: Pressure, CTD temperature, Conductivity, Fast temperature, Velocity shear, Turbidity. Computed parameters were: Salinity, Density, Sound velocity, Brunt-Väisälä Frequency, Seismic reflectivity, Thorpe scale (from density)[Thorpe (1977)], Ozmidov scale, Cox number, TKE dissipation rate, Thermal dissipation rate, Eddy diffusivity from dissipation, Eddy diffusivity from Cox number and Eddy diffusivity from Thorpe scale. In Table II we will present a more detailed turbulence measurements summary.

Figure 12: MST turbulence measurement system.

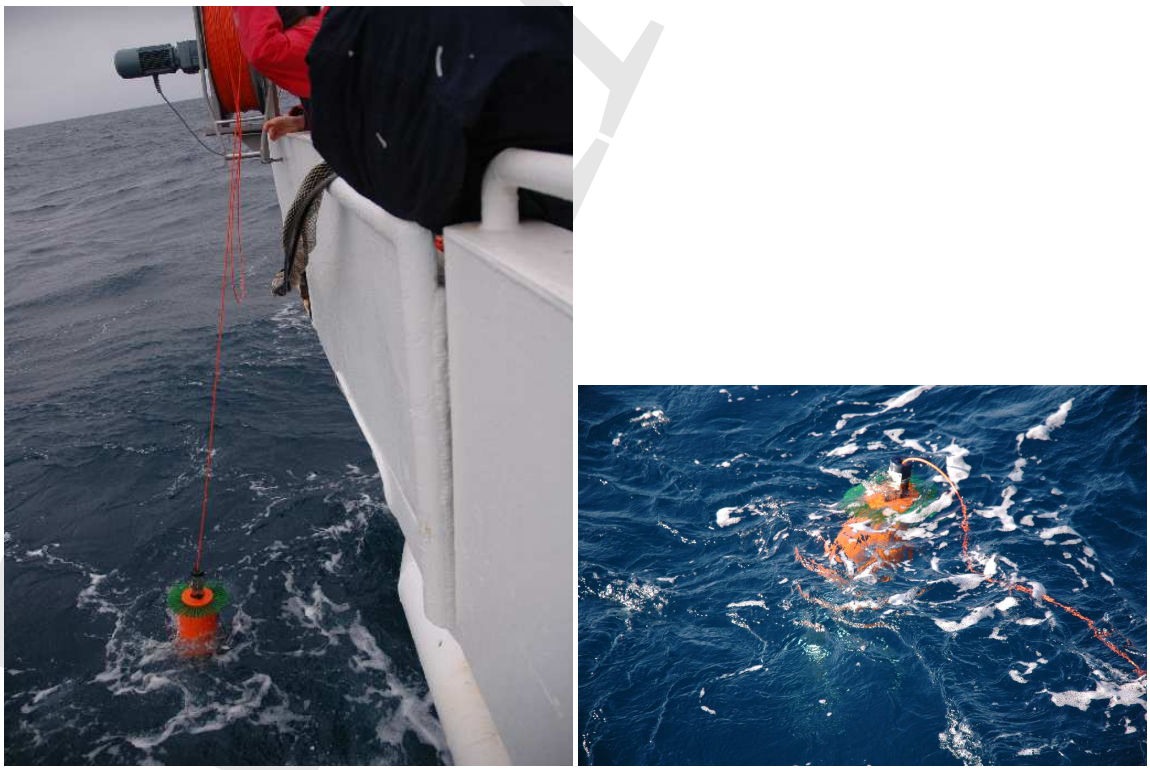

Figure 13: MST turbulence measurement system.

3.8 MULTIBEAM AND CHIRP

During the cruise c.a. 1200 km of CHIRP profiles have been acquired in the Bari canyon and offshore the Gargano Promontory, using the hull-mounted BENTHOS CHIRP II Mod.CAP-6600 by Communication Technologies (16 transducers, 2 -7 kHz range, 20 ms pulse length). The trigger rate varied among 0.25 and 1 s, depending on water depth. Digital data was recorded by the software SWANPRO (Communication Technologies) and stored in XTF format. Positioning was DGPS-based (1 Hz).

Along with the CHIRP profiles, multibeam bathymetry was acquired by means of the Kongsberg-Simrad EM710 and recorded by the SIS - Seafloor information system. The multibeam system operates with frequencies between 70 and 100 kHz and owns a resolution of 1°x 1°. Swath range is about 5 times the water depth in 500-700 m. For deeper depths, 1000 m, the swath decreases up to 1.5 times the water depth. During the survey, the reliability of the depth to swath diagram given by Kongsberg has been verified. The multibeam system has shown a strong interference with the hull-mounted ADCP (Acoustic Doppler Current Profiler) and did not work properly.

3.9 METEOROLOGICAL DATA

R/V *Urania* is equipped with a full suite of meteorological sensors by Aanderra, datalogger 3660, acquiring wind magnitude and direction, sea surface temperature and salinity, relative humidity, incoming solar radiation and ship position. These data are typically downloaded at the end of the cruise and processed at the lab.

3.10 MAPPING AND MISCELLANEOUS

The datum was set to WGS84 and the UTM (zone33) was chosen for navigation, display, and data acquisition. The time zone was set to the UTC for the instrumental data acquisition. The 1Km resolution bathymetric data of the SRTM30-PREDICTED dataset by [Becker et al.(2008)] were used for preplanning. The lat-lon data were used to produce GMT Netcdf grids, and, after conversion to the UTM Projection, for input to the PDS-2000 ans SIS packages. The positioning maps and bathymetric images were produced with GMT [Wessel and Smith (1995)]. The multibeam data were pre processed on board by the MB-System [Caress and Chayes(2009)] and GMT software and ISMAR's routines and scripts, using the SIS production DTMS or XYZ ASCII converted data. ISMAR's computing center employed several INTEL based PC running the GNU-Linux and the Microsoft O.S., in addition to a SUN-SPARC workstation for multibeam data processing (NEPTUNE). Photographs and video were taken by digital cameras and video-camera.

4 PRELIMINARY RESULTS

4.1 SEISMIC ACQUISITION

During the cruise 23 multichannel seismic lines were run (Fig.3 and 4. The acquisition parameters are presented in table 7 in Appendix, as long as the shot-depth plots.

One of the processing challenge is to remove the unwanted direct-wave, that is several orders of magnitude larger than the backscattered energy from the water structure. This is especially important for this cruise where the targets are at shallow depths. The raw data, digitised and stored in SEGD format (www.seg.org), are reformatted the to 32-bit floating point, using a 'segdread' programme provided as part of the Seismic Unix package. The modification was made to work specifically with a similar Exploration Electronics Ltd SEAL recording system that was previously used for the GO-project.

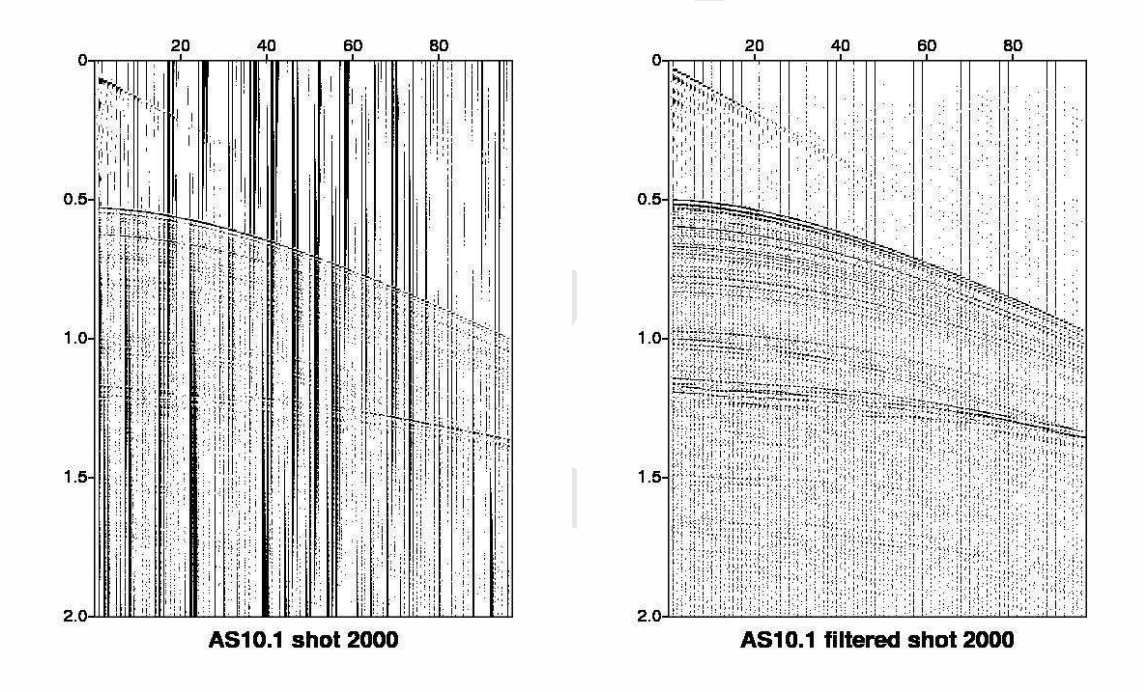

Figure 14: (LEFT) : Raw seismic shot. (RIGHT) :Shot gather after low cut filtering to remove sea-surface noise and time shift to align time zero with shot fire instant.

Figure 14 shows a raw shot record. The vertical axis is two-way travel time (1.0s is approximately 750m), the horizontal axis is receiver channel number with channel 1 closest to the stern of the vessel and channel 96 furthest from the stern. The group interval between channels is 12.5m. The unwanted direct wave is the linear event starting at about 0.1s at channel 1 (see Fig.14). The seabed reflection is the hyperbolic event starting about 0.55s at channel 1. Between the two lie the required weak water column reflections. The pervasive low frequency energy is caused by pressure changes at the hydrophones caused by surface waves.

During the cruise we tested several configurations. In particular we tested: (a) minimizing the source/receiver offset as this directly effects the minimum depth that can be vizualised after processing; (b) seismic source configurations to show that seismic oceanography can be achieved with a one or two airgun source and does not require use of large arrays and a dedicated ship configured for seismic reflection work (however this will only be successful if the impedance contrasts are strong); (c) effect of tow depth of streamer on vertical resolution (this was compromised by inherent ship noise - see below).

The processing of the data then follows a consistent path:

(1) convert segd to su (seimic unix internal 32-bit floating point format) (Fig.3)

(2) remove any dc shift from traces

(3) 0.01 s ramped mute at start of trace to minimise filter artefacts

(4) minimum phase 10-20Hz low-cut filter to remove sea-surface wave noise (Fig.4)

(5) impose geometry assuming no cross-line deviation of streamer (for the profiles the maximum cross-line error just over 200m at an offset of 1200 m) and assign CDP bins of 25m for stacking

(6) apply a time dependent gain

(7) subtract a median filtered trace (length 7 traces) to suppress the direct wave (Fig. 5)

(8) remove the time dependent gain

(9) sort to common mid-point gathers using previously assigned CDP bins apply normal moveout correction (NMO) with constant velocity (1514m/s) with a stretch mute set to 200

(10) stack data with 1/N normalisation (N being number of live traces which depends on effect of previously applied stretch mute)

(11) post-stack Gaussian weighted 7-trace mix (effective width of 3 traces)

(12) post-stack minimum phase band-pass filter low-cut 10-20Hz high-cut 60- 100Hz

(13) final display with gain level set to visualise water structure (Figs. 7 and 8).

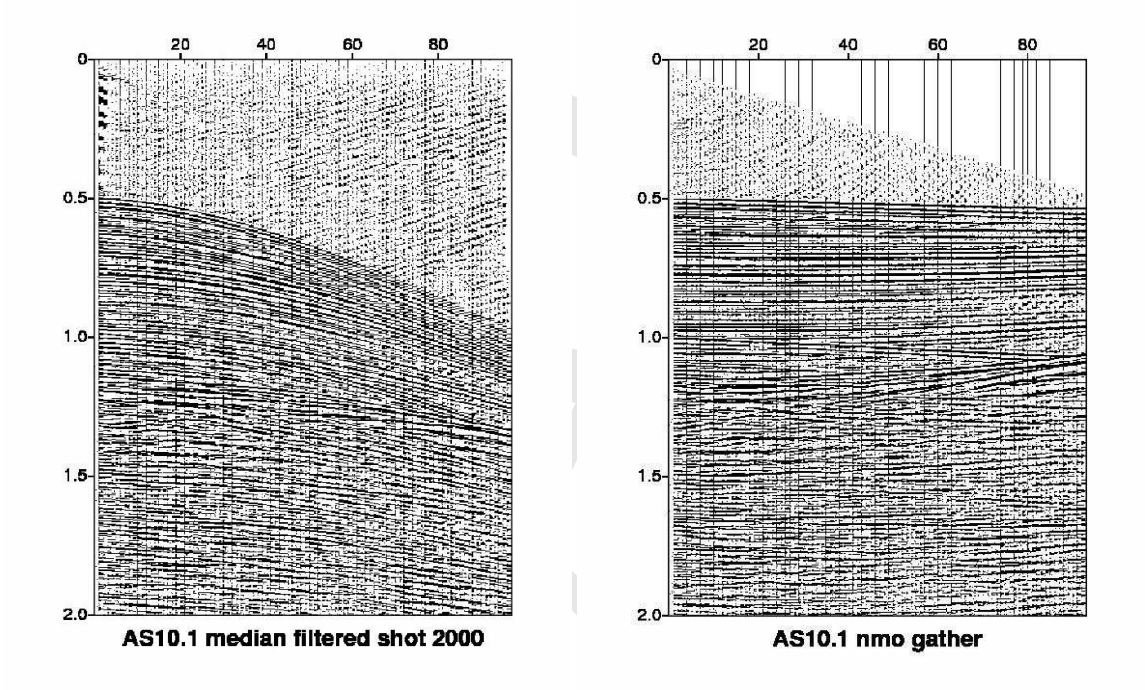

Figure 15: (LEFT) :Shot gather following median filter to suppress direct wave. Note some residual energy on the nearest offset traces. These traces are removed prior to stack. Also gain of section increased to show events in water layer. (RIGHT) : Gather after normal moveout correction to align sea-water reflections in time prior to stack. (Vnmo=1514m/s). Note this sound speed is not correct for sub-seabed reflections and reprocessing to image sub-seabed structure will require detailed velocity analysis.

NOTES:

(1) on-board processing using the Seismic Unix package

(2) segdread programme modified by GO-project (Hobbs & Klaeschen)

(3) median filter modified by Hobbs

(4) source/receiver offset varies according to profile (see observer logs)

(5) streamer depth varies according to profile (see observer logs)

(6) gun configuration varies according to profile (see observer logs)

During the cruise it was noted that there was a strong interference of noise with apparent moveout similar to the required reflections. Investigations showed that the ship had a natural vibration centred on 150Hz with significant energy between 120 and 180 Hz. We tested different configurations of seismic recording system to a better use at shallow imaging of water structure (¡500 m) and also for deeper targets (¿500 m, e.g. Bari Canyon), where the system used during this cruise is ideal.

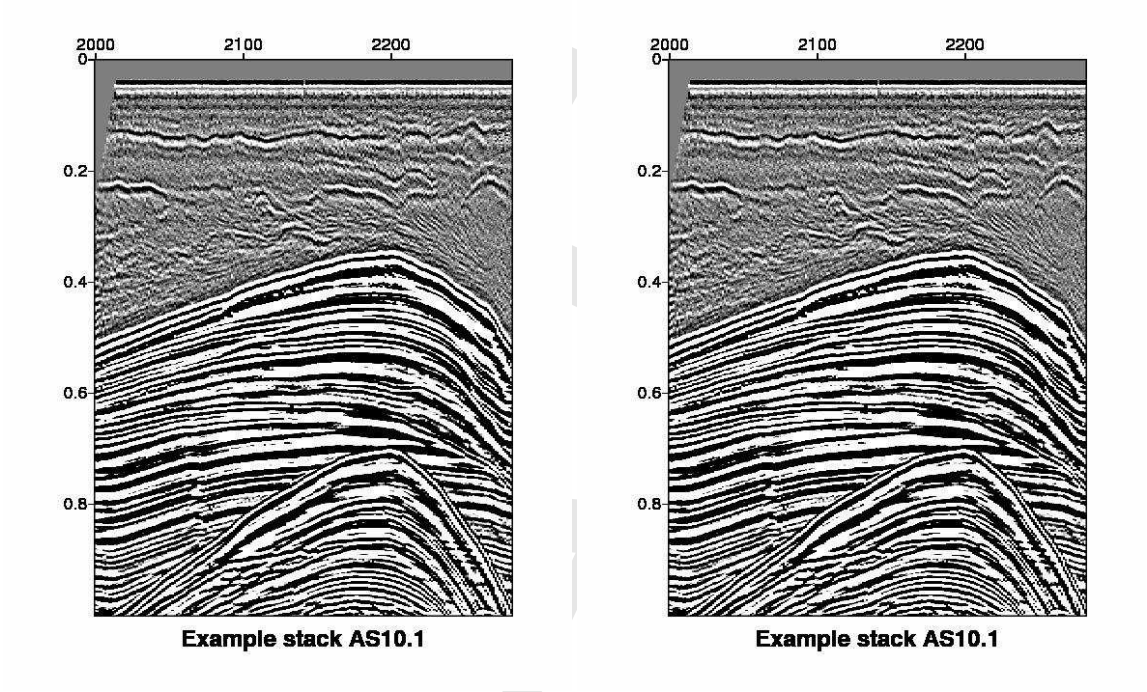

Figure 16: (LEFT) : Section of final processed seismic profile from near the Bari Canyon. The horizontal scale is by shot-point number where the shot spacing is 18.75m. So 100 shots equals 1.875km. The vertical scale is two-way travel time where 0.2s = 150m (assuming a sound speed of 1500m/s). The seabed is the strongest refection with the typically two or more distinct events in the water layer. With the filters imposer during processing the vertical resolution of the section is about 10m so any significant gradient in sound speed * density (impedance) will create a reflection. (RIGHT) : Second example of seismic image showing coherent reflections close to the sea-bed and also at a depth of 37 m at shot point 1250.

4.2 CTD CASTS

Table 5 shows the position of CTD-LADCP stations.

Table 5: CTD Stations.

01705.44	4124.74	141	Mar 15 2009	03:11:14
01707.31	4124.39	142	Mar 15 2009	03:57:39
01709.40	4123.96	143	Mar 15 2009	04:25:05
01713.10	4123.26	144	Mar 15 2009	05:08:18
01716.77	4122.55	145	Mar 15 2009	05:57:44
01720.31	4121.86	146	Mar 15 2009	06:48:10
01602.75	4235.06	DL10	Mar 06 2009	08:23:34
01555.65	4203.71	DL3	Mar 05 2009	22:43:58
01556.32	4206.37	DL4	Mar 06 2009	03:11:05
01556.16	4206.43	DL4bis	Mar 06 2009	14:20:43

01556.80	4209.24	DL5	Mar 06 2009	03:53:36
01557.37	4212.03	DL6	Mar 06 2009	04:33:31
01558.04	4214.72	DL7	Mar 06 2009	05:08:12
01558.69	4217.42	DL8	Mar 06 2009	05:43:08
01559.33	4220.18	DL8b	Mar 06 2009	10:59:53
01557.62	4225.78	DL9	Mar 06 2009	07:05:29
01632.56	4213.41	VL10	Mar 04 2009	16:27:44
01634.88	4215.55	VL11	Mar 04 2009	14:51:14
01641.83	4221.79	VL13	Mar 04 2009	13:27:03
01630.26	4211.29	VL9	Mar 04 2009	17:49:08
01705.57	4122.56	ad-01	Mar 03 2009	21:05:30
01707.90	4121.31	bcl-02	Mar 03 2009	21:42:09
01715.18	4117.74	bcl-07	Mar 03 2009	22:48:38
01655.61	4142.12	gs01	Mar 12 2009	19:26:24
01621.82	4154.49	ml2	Mar 10 2009	10:46:31
01624.04	4156.63	ml3	Mar 10 2009	11:23:07
01626.22	4158.80	ml4	Mar 10 2009	12:03:15
01628.41	4200.96	ml5	Mar 10 2009	12:44:23
01630.57	4203.14	ml5	Mar 10 2009	14:17:14
01634.91	4207.42	ml8	Mar 10 2009	15:52:40
01734.17	4113.92	moor	Mar 15 2009	09:04:05
01732.64	4111.17	n2	Mar 15 2009	10:42:41
01730.61	4109.00	n3	Mar 15 2009	11:50:58
01728.63	4106.76	n4	Mar 15 2009	12:47:41
01726.69	4104.47	n5	Mar 15 2009	13:40:46
01638.58	4224.53	nk1	Mar 04 2009	07:22:51
01638.56	4224.53	nk1test	Mar 04 2009	07:32:31
01621.06	4202.91	vl5d	Mar 11 2009	21:19:08
01632.52	4213.37	vl10bis	Mar 07 2009	19:43:19
01618.76	4200.79	Vl4	Mar 07 2009	16:01:05
01620.20	4201.93	vl4b	Mar 07 2009	21:58:28
01620.15	4201.89	vl4c	Mar 11 2009	20:45:33
01621.07	4202.90	Vl5	Mar 07 2009	15:29:48
01622.34	4204.04	vl5b	Mar 07 2009	21:23:25
01621.08	4202.90	vl5c	Mar 11 2009	20:13:53
01621.10	4202.92	vl5e	Mar 11 2009	22:21:02
01621.06	4202.90	vl5f	Mar 11 2009	23:10:31
01623.36	4205.01	Vl6	Mar 07 2009	16:53:27
01625.65	4207.06	V7	Mar 07 2009	17:49:20
01627.95	4209.16	vl8	Mar 07 2009	18:34:50
01630.23	4211.25	vl9bis	Mar 07 2009	19:10:59

In the following pages some preliminary hydrological data and of the southern Adriatic Sea are presented.

Hydrographic Sections

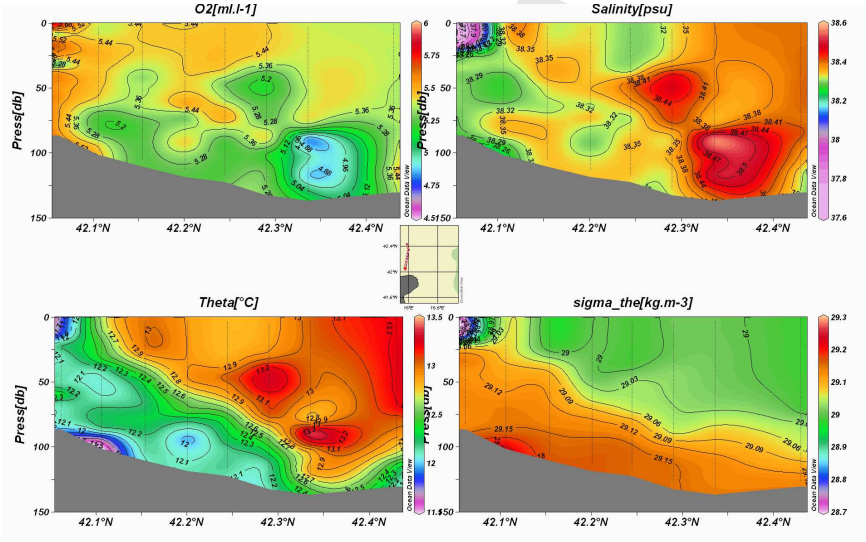

Figure 17: Distribution of oxygen, salinity, potential temperature and potential density along the transect DL3-DL10.

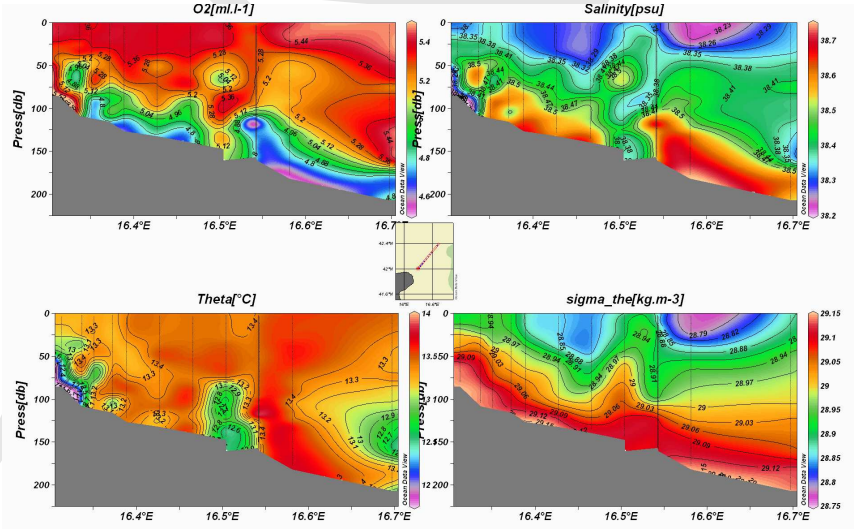

Figure 18: Distribution of oxygen, salinity, potential temperature and potential density along the transect VL3-VL13.

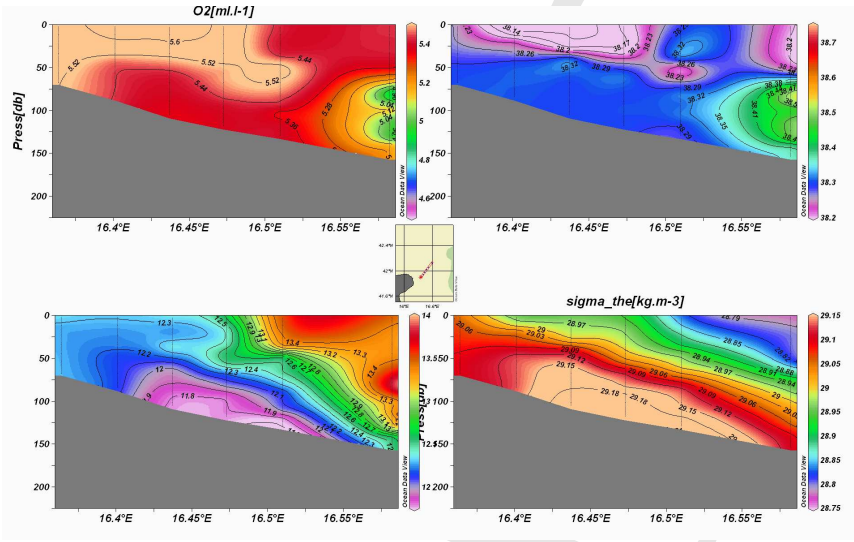

Figure 19: Distribution of oxygen, salinity, potential temperature and potential density along the transect ML2-ML8.

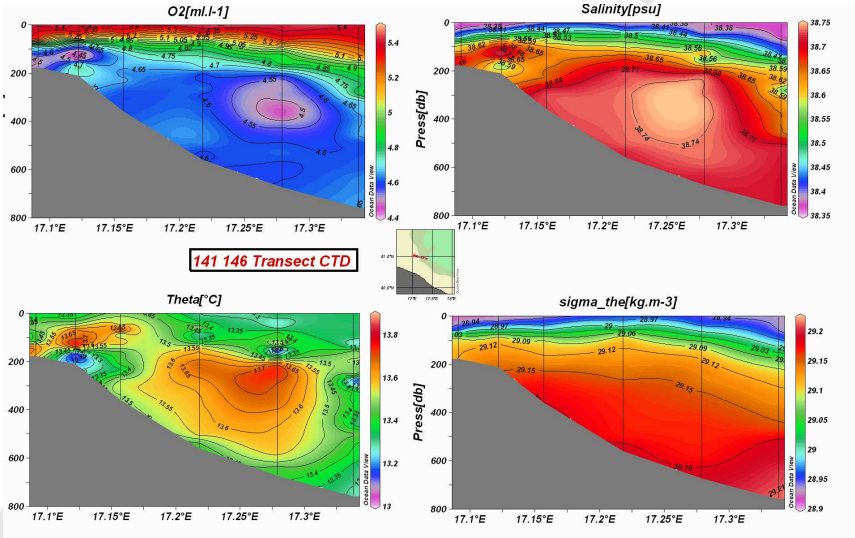

Figure 20: Distribution of oxygen, salinity, potential temperature and potential density along the transect 141-146.

Potential Temperature VS Salinity Diagram

The densest water (endpoint A in Figure 21, with sigma=29.20), with high oxygen concentrations, low temperature and salinity is the NAdDW, and is visible at the south-western edge of the sections shown in Figures 17,18,19 and 20. Endpoint B is the warm, fresh and oxygenated surface water (same figures as above), while C is a warm and salty, less oxygenated intrusion from the south (MLIW or ISW). The main mixing lines connect the three endpoints, along the diapycnal and isopycnal lines shown in Figure 21.

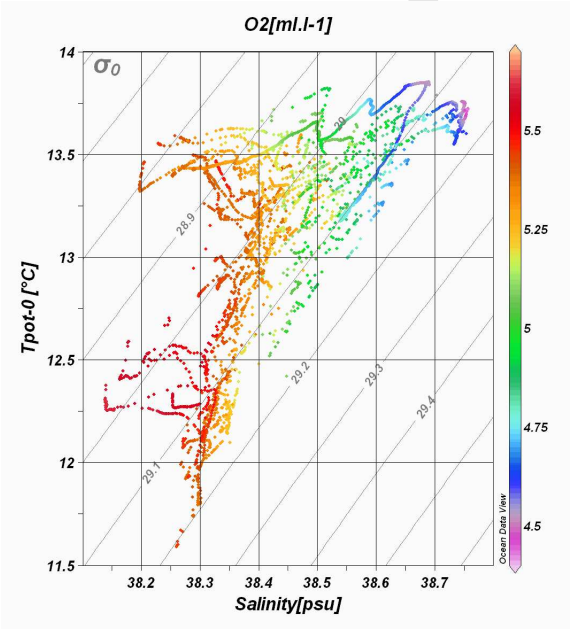

Figure 21: Theta-S diagram of all station in the whole water column. Colours indicate oxygen concentrations. Plot by [Schlitzer(2004)].

4.3 XBT CASTS

Fig.3 and 4 show the locations of the XBT casts in the Gargano Vieste, Gondola Fault, and Bari Canyon areas. The data are presented in Fig.22.

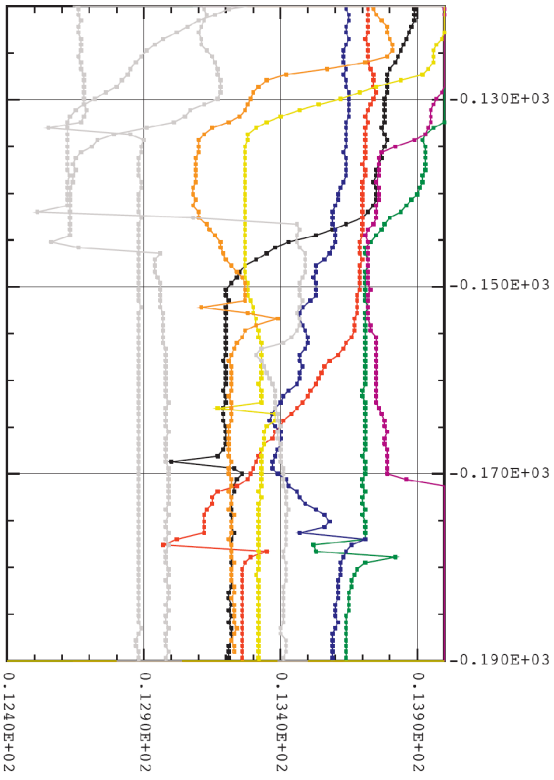

Figure 22: Examples of XBT casts (Y-axis: depth; X-axis: XBT number).

4.4 VESSEL MOUNTED ADCP

CNR-ISMAR La Spezia processed the VM-ADCP data using the CODAS Software System (version 3), in order to scan the raw data files to ensure they are readable, identify gaps or other problems, to extract information needed to correct the recorded profile times in case the PC clock was in error compared to GPS time, load the data into a database suitable for processing and analysis, evaluate the quality of the data set as a whole by calculating and plotting diagnostic statistics (signal strength, percent good pings, error velocity, vertical velocity, and the vertical derivative of the horizontal velocity components), edit the profiles to eliminate bottom interference, velocity glitches due to interference from the CTD package etc., calibrate the profiler-heading device combination, reference the relative velocity profiles by calculating the ship's position at the end of each profile and the average velocity of the ship during the profile.

The ADCP data processing has partially been done with the CODAS Software System. Only data from WH 300 kHz of the first part of the cruise have been processed on board Figure 23 shows the navigation tracks and fig.24 shows the data along two transects.

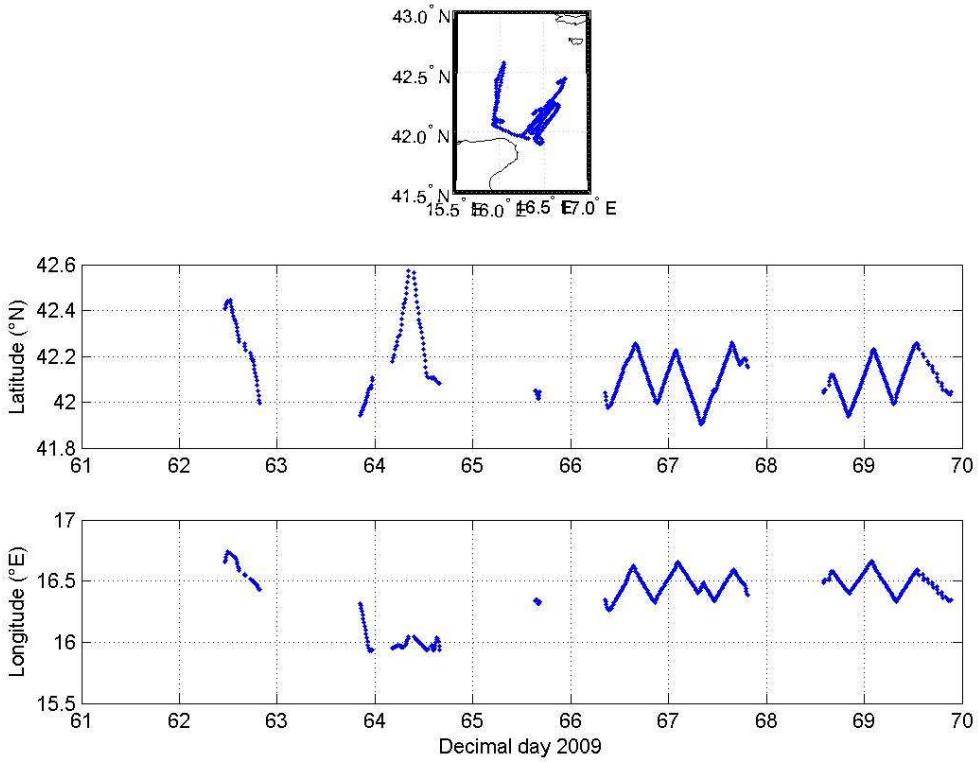

Figure 23: ADCP Navigation track between the 3rd and the 11th March.

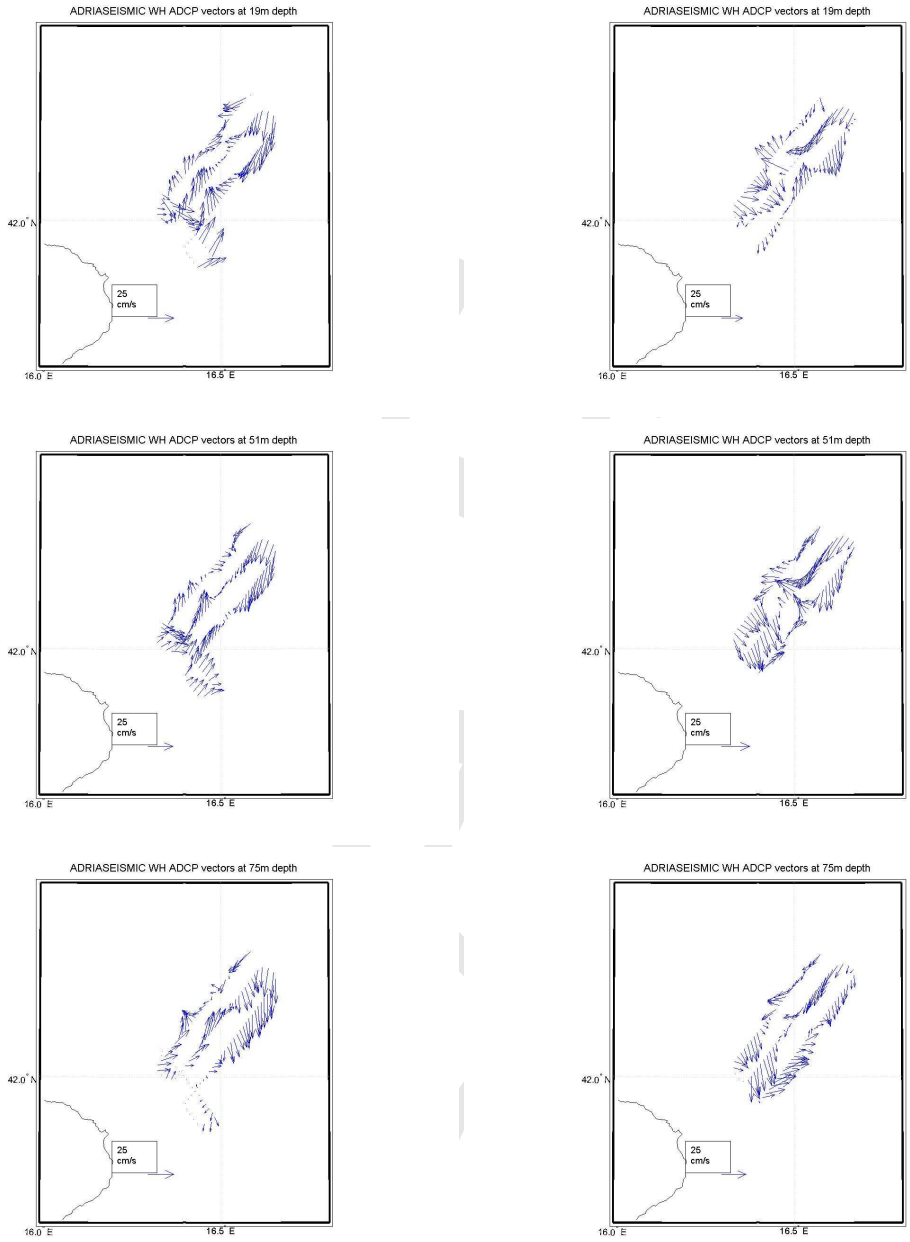

Figure 24: Vector maps (top to down, 19, 51, 75 m depth). Left panel, data along AS01-AS04 (8/3/09 12:10 to 9/3/09 11:00) ; right panel, data along AS05-AS07 (10/3/09 20:40 to 11/3/09 12:00).

4.5 MICROSTRUCTURE AND TURBULENCE

All turbulence measurements have been acquired either letting the ship drifting with the currents or the winds, engines shut-off, or with the vessel proceeding at about 1 kn speed. Table 6 shows a short list of the activities.

Table 6: List of turbulence measurements.

Station Position	Begin - End (UTC)	Profiles	N.	Remarks
NK1 42.45000 16.62000	03/04/2009 09.44 10.24	0003-0007	5	Water depth 192m, measurements close to bottom, fresh wind
VL15 42.46745 16.81112	03/04/2009 11.58 12.16	0008-0010	3	Water depth 190m, measurements close to bottom, fresh wind
VL11 42.25799 16.58098	03/04/2009 15.10 15.46	0011-0015	5	Water depth 175m, CTD at 14.56, measurements close to measurements close to bottom, wind is increasing
VL10 42.22308 16.54270	03/04/2009 16.40 17.14	0016-0020	5	Water depth 160m,CTD at 16.30, measurements close to bottom, cast AS090020 hits bottom, strong wind
DL10 42.58428 16.04596	03/06/2009 08.37 09.11	0021-0025	5	Water depth 180m,CTD at 08.20, measurements close to bottom, moderate wind
DL4 42.10699 15.93647	03/06/2009 12.5113.48	0026-0035	10	Water depth 100m, measurements close to bottom, with some bottom hits, strong wind, rain, CTD after MSS measurements
VL4B 42.031 16.333	03/08/2009 07.38 08.07	0036-0040	5	Water depth 110m, ll measurements down to bottom, fresh wind, sunny
ML5 42.01598 16.47303	03/10/2009 12.56 13.42	0041-0047	7	Water depth 125m, All measurements down to bottom, moderate wind, sunny
ML6 42.05233 16.50966	03/10/2009 14.36 15.04	0048-0052	5	Water depth 133m, All measurements down to bottom, light wind, sunny
XBT-137 42.23119 16.54855	03/11/2009 13.28 14.07	0053-0057	5	Water depth 166m, All measurements down to bottom, light wind, sunny
XBT-135 42.19599 16.51055	03/11/2009 14.47 15.21	0058-0062	5	Water depth 149m, All measurements down to bottom, light wind, sunny
XBT-131 42.16081 16.47253	03/11/2009 15.56 16.27	0063-0067	5	Water depth 140m, All measurements down to bottom, light wind, sunny
XBT-128 42.13001 16.42942	03/11/2009 17.02 17.33	0068-0072	5	Water depth 135m, All measurements down to bottom, light wind
XBT-123 42.08916 16.39554	03/11/2009 18.15 18.44	0073-0077	5	Water depth 127m, All measurements down to bottom, moderate wind

XBT-121 42.05180 16.35530	03/11/2009 19.22 19.48	0078-0082	5	Water depth 115m, All measurements down to bottom, moderate wind
Section AS_17 Start 41:22.97 17:08.03' End 41:25.27' 17:10.84'	03/14/2009 23.43 03/15/2009 01.55	0083-0090	8	Water depth from 275 to488m, All measurements down to bottom, almost calm
Section AS_15 Start 41:22.55' 17:03.82' End 41:21.169' 17:09.188'	03/15/2009 16.52 19.54	0091-0103	13	Water depth from 161 to 527m All measurements down to bottom, light wind
Total			103	

As an example, below in Fig.25 we present the average of 6 different casts, each of them consisting of 5 measurements, carried out along the seismic line AS07 on March 11, where 6 additional XBTs were also used. The 30 turbulence profiles were acquired from 13:28 UTC to 19:48 UTC. In Fig.26 the seismic profile is also shown.s

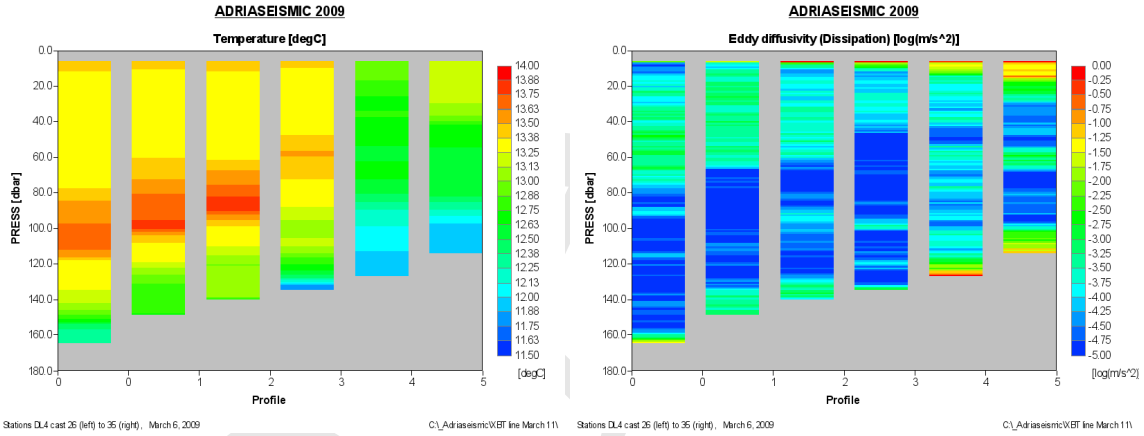

Figure 25: Examples of averaged fields obtained using the MST profiler along line AS07 (Y-axis: depth; X-axis: number of profiles). Upper panel:temperature. Lower panel: eddy diffusivity.

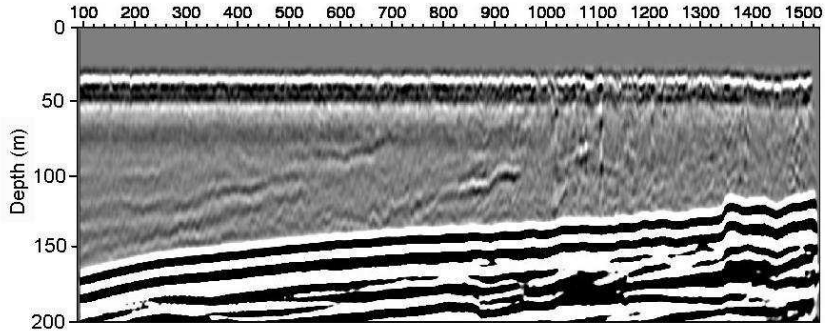

Figure 26: Examples of seismic acquisition relative to the same line shown in Fig.25, along line AS07.

4.6 MULTIBEAM

The multibeam data for the Bari Canyon area were processed with NEPTUNE. In spite of the large presence of spikes due to the concurrent ADCP acquisition, the obtained DTM is thought to

have acceptable quality. Figure 27 shows the Bary canyon head and mid depth areas.

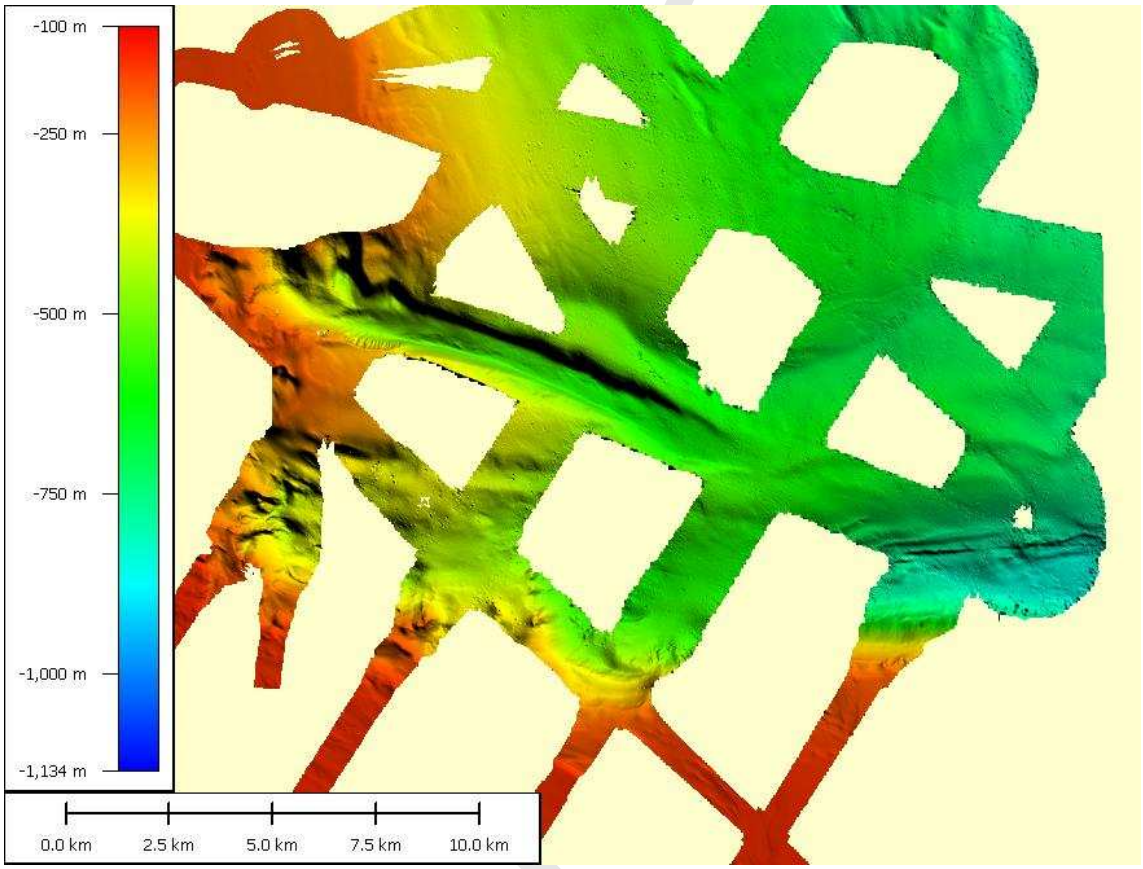

Figure 27: Bari Canyon Bathymetry.

The multibeam system provides very high resolution data, as shown in the following figures where a depression having a diameter of about 400 m and about 30 m deep around the Gargano region is shown (DTM 0,5 m). Data have been treated using Neptune software. These depressions have been identified also in previous bathymetric surveys in the region, which genesis is still uncertain.

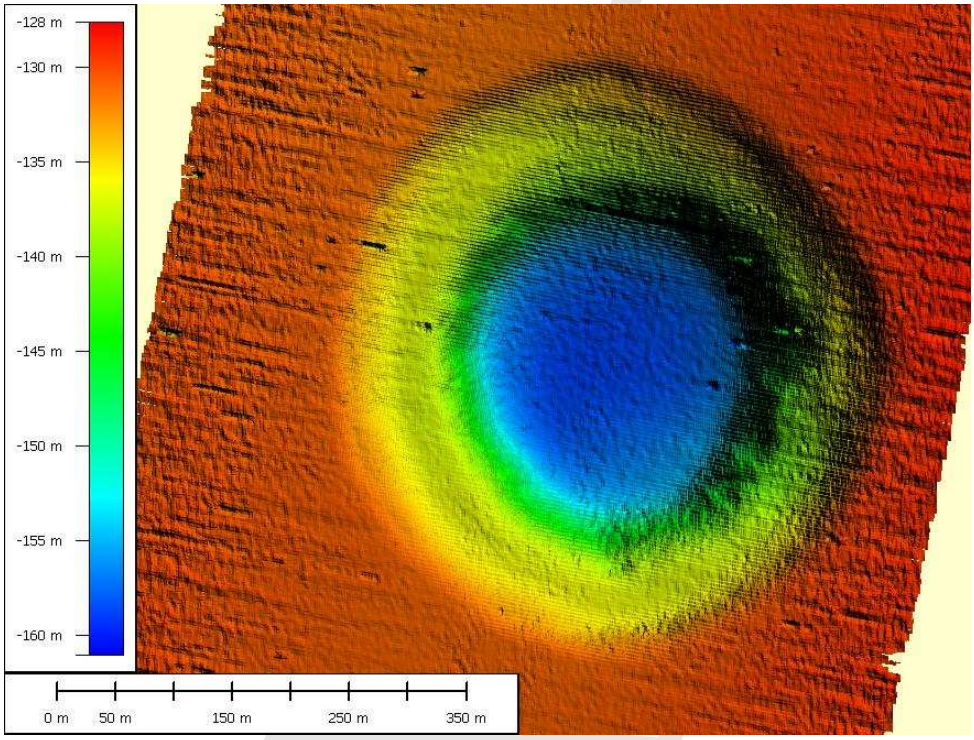

Figure 28: Depression, processed by Neptune.

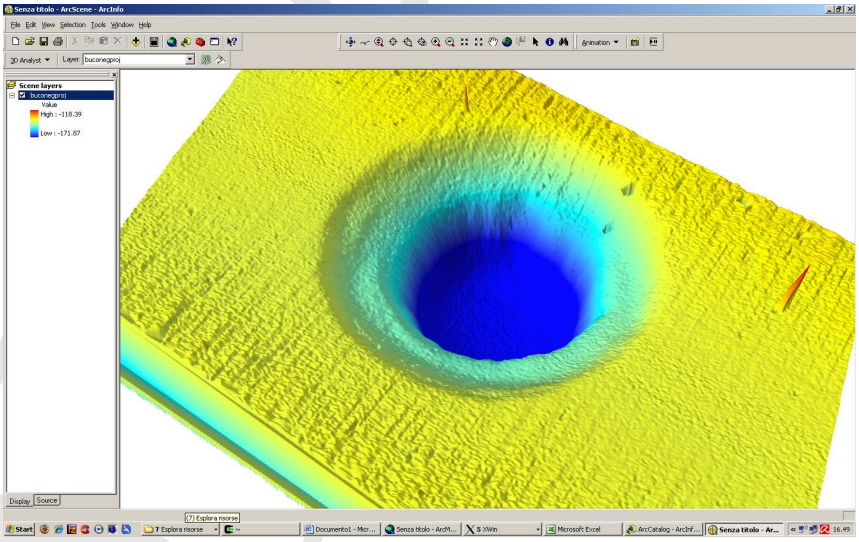

Figure 29: Depression found around the Gargano region. 3D model (diameter 400 m, 60 m depth), DTM 0.5 m resolution.

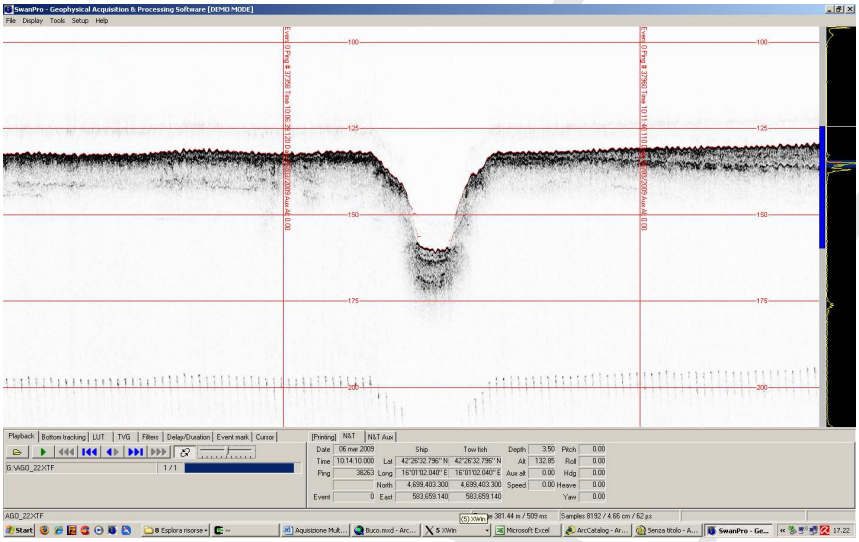

Figure 30: Chirp Sonar profile of the depression above shown.

5 CONCLUSIONS

During the 7 days of cruise MNG0109, including transits and port calls, we obtained:

- aproximately 1200KM^2 of swath bathymetry, 1700KM of high resolution SBP profiles and of single beam bathymetry, aproximately 1000KM of megnetic lines.
- sampling of the sea bottom on 8 stations
- measurements of the water column on 15 CTD stations,

Several morphological features were revealed by the swath bathymetry and Chirp SBP mapping, providing good chances to further explore, finalize and better detail a very interesting marine area.

Analysis of the data collected during the expedition is under process, and will continue during the forthcoming several months.

No problems were encountered regarding neither the people nor the environment during the cruise.

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[Argnani et al.(1996)] Argnani A., Bonazzi C., Evangelisti D., Favali P., Frugoni F., Gasperini M., Ligi M.,Marani M. and Mele G., *Tettonica dell'Adriatico meridionale*, 1996. Mem. Soc. Geol. It., 51, 227-237.

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6 APPENDIX

6.1 SEISMIC ACQUISITION

Table 7 presents the multichannel lines acquistion parameters, whereas the figures are plots of each single line (distance vs depth). Section 6.2 shows the EEL Operational Report. Section 6.3 presents shot-dept-distance graphs and decimated navigation data.

Table 7: Multichannel seismic acquisition parameters, including XBT launches.GV=Gargano Vieste, GS=Gondola Slide, AP=Adriatic Pit, BC=Bary Canyon.

Line Description Gargano Vieste = GV	SEISMIC Line	Seismic Sheet	Gun, Strmr Depth (m)	GI Gun Config	Rec. Len S. Rate	Shot Int.	Near Offset	XBT Line	XBT Drops
GV northernmost line SW-NE	ADRSeis09.1	1	3,3	2x(45:45)	5,250	50	33.25	as0	1-4
GV (swerves east) SW-NE	ADRSeis09.2	2	3,3	2x(45:45)	5,250	25	33.25	as0	1-4
GV (Line 1 Full) NE-SW	AS01_R.1	3	3,3;3,6	2x(45:45)	5,250	25	33.25	as01	5-26
GV (Line 1 Full) SW-NE	AS01_R.2	4	3,6	2x(45:45)	5,250	25	83.25	as01r	67-79
GV SW-NE	AS02.1	5	3,6	2x(45:45)	5,250	25	83.25	as02	27-39
GV NE-SW	AS03.1	6	3,6	2x(45:45)	5,250	25	83.25	as03	40-54
GV NW-SE (Cross line)	AS04.1	7	3,6	2x(45:45)	5,250	25	83.25	p1	55-66
GV Short Line NE-SW	AS04.2	8	various	2x(45:45)	5,250	25	83.25	as04	80-83
GV SW-NE	AS05.1	9	3,3	1x(50:100)	5,250	25	33.25	as1gun	84-87
GV (Extension?) SW-NE	AS05A.1	10	3,3	2x(50:100)	5,250	12.5	33.25	as05	88-104
GV (Extension?) SW-NE	AS05B.1	11	3,6	1x(50:100)	5,250	37.5	33.25	as05	88-104
GV NE-SW	AS06.1	12	3,5	1x(50:100)	5,250	18.75	33.25	as06	105-120
GV SW-NE	AS07.1	13	3,5	1x(50:100)	5,250	18.75	33.25	as01r2	121-138
GS prep E-W	AS08.1	14	3,3	2x(45:45)	5,250	25	33.25	as08	139-141
GS W-E	AS09.1	15	3,5	2x(45:45)	5,250	25	33.25	as09	142-158
AP to BC NE-SW	AS10.1	16	3,5	2x(45:45)	8, 500	25	33.25	as10	159-183
BC SW-NE	AS11.1	17	2,3	1x(50:100)	5,250	18.75	33.25	as11	184-194
BC NE-SW	AS12.1	18	3,3	2x(45:45)	5,250	25	33.25	as12	196-202
BC SW-NE	AS13.1	19	3,3	2x(45:45)	5,250	25	33.25	as13	203-209
BC E-W	AS14.1	20	3,3	2x(45:45)	5,250	18.75	33.25	as14	210-219
BC W-E	AS15.1	21	3,5	2x(45:45)	5,250	18.75	33.25	as15	220-225
BC SE-NW	AS16.1	22	3,5	2x(45:45)	5,250	50	33.25	as16	226-227
BC NE-SW redo of AS10.1	AS17.1	23	3,5	2x(45:45)	5,250	18.75	33.25	as17	228-232

6.2 EEL Project 1201 - Operations and Equipment Report

Mobilisation

Mobilisation of the equipment onboard the R/V Urania was carried out on the 3rd March 2009 while alongside Bari, Italy and on 4th March 2009 while at sea. The equipment consisted of Seal system 5 with a high reso- lution (HR) 96 channel 12.5m group length streamer supplied on the NiM winch with integrated hydraulic pack. Additional equipment which we sup- plied was dual NAS drives for data storage, FSK/Digicourse (DOS) bird (leveller) controller and Sercel eSQC Pro and iSys V12 plotter for online quality control (QC) of the data. A full complement of spare for all of this equipment was also supplied. The winch was welded (using sacrificial angle iron supplied by the ship) to a frame on the back deck which normally supports the clients own winch. All of our electronics equipment was setup on our bench in the ships dry lab. Birds were stored in the wet lab when the equipment was onboard. Navigation were situated directly behind us and the gun control was directly to our left. The compressor manifold pressure could be observed from a remote display.

Networking and Interconnection

The normal Seal configuration with Seal workstation, CMXL (recorder) and NAS servers on the 150.10.128.x network and just the Seal workstation and eSQC Pro on the 172.27.128.x network was used. In addition the Seal network hub was connected to the ship's network. The connection to the ships network was for two purposes. Firstly it allowed the data to be copied real-time (actually with a short delay since the data transferred once every 5 minutes or so) to the clients central NAS. This was achieved by the client running 'rsync' which just copied any files that had been added or updated since the last time it was run. This was scheduled by adding it to the cron table. The second purpose was to allow the Seal system time (and also the NAS server time) to be synchronised to the ships server (GPS accurate) time at regular intervals using 'ntpdate'. The CMXL was triggered from the gun controller by a TTL pulse. We tried to record a navigation string (with the usual information such a shot number, lat/long, time, etc) onto the SEG-D header by connecting by RS232 and UDP to the CMXL but by both methods this was unsuccessful because the navigation system was not able to delay before sending the string. The Seal requires that a short delay (typ. 50ms) is left after the trigger before the string is sent. Limited success was achieved but always the beginning of the string was missing.

Parameters and Offset Diagrams

Due to the nature of the project the various parameters were changed many times during the project. To keep track of these changes the important parameter are outlined in table 8. See the main observer log (.pdf format) for detailed information. The sheet numbers in 8 refer to the sheets in the main observer log file.

Varied Params Sheet Num.	SRC-NEAR Chn. offset (meas.)	Cable Depth	Gun (Vol cu.in.) Setup	Rec. Len.	Sample Rate	Shot Int.	Press. (bar)
1	33.25 m	3 m	2x90 (harmonic)	5 s	0.25 ms	50.00 m	150-160
2	33.25 m	3 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	140
3	33.25 m	3 / 6 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	140
4 - 7	83.25 m	6 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	140
8	83.25 m	various	2x90 (harmonic)	5 s	0.25 ms	25.00 m	140
9	33.35 m	3 m	1x150 (true GI)	5 s	0.25 ms	12.50 m	130
10	33.35 m	3 m	2x150 (true GI)	5 s	0.25 ms	37.50 m	130
11	33.35 m	6 m	1x150 (true GI)	5 s	0.25 ms	18.75 m	130
12 - 13	33.35 m	5 m	1x150 (true GI)	5 s	0.25 ms	18.75 m	130
14	33.35 m	3 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	130
15	33.35 m	5 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	130
16	33.35 m	5 m	2x90 (harmonic)	8 s	0.50 ms	25.00 m	130
17	33.35 m	3 m	1x150 (true GI) @ 2.0m	5 s	0.25 ms	18.75 m	130
18 - 19	33.35 m	3 m	2x90 (harmonic)	5 s	0.25 ms	25.00 m	130
20	33.35 m	3 m	2x90 (harmonic)	5 s	0.25 ms	18.75 m	130
21	33.35 m	5 m	2x90 (harmonic)	5 s	0.25 ms	18.75 m	130
22	33.35 m	5 m	2x90 (harmonic)	5 s	0.25 ms	50.00 m	130
23	33.35 m	5 m	2x90 (harmonic)	5 s	0.25 ms	18.75 m	130

Table 8: Seismic Acquisition Parameters and offsets.

Since the offsets and bird positions were changed three offset diagrams were included. Figure 31 describes the setup for sheets 1-3 (inclusive), Figure 32 is for sheets 4-8 and Figure 33 is for sheets 9-23.

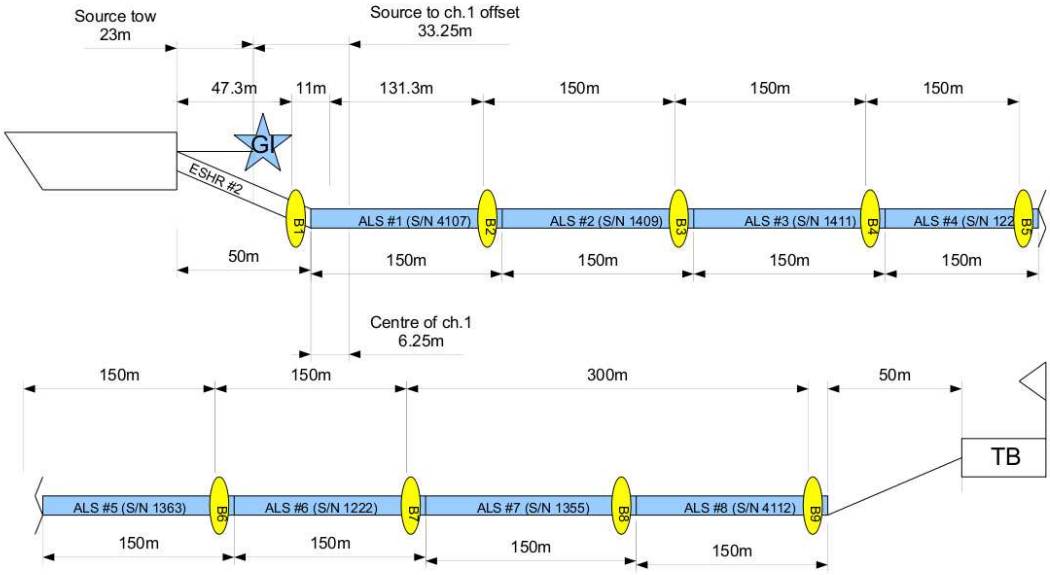

Figure 31: Seismic lines, birds configuration, sheets 1-3.

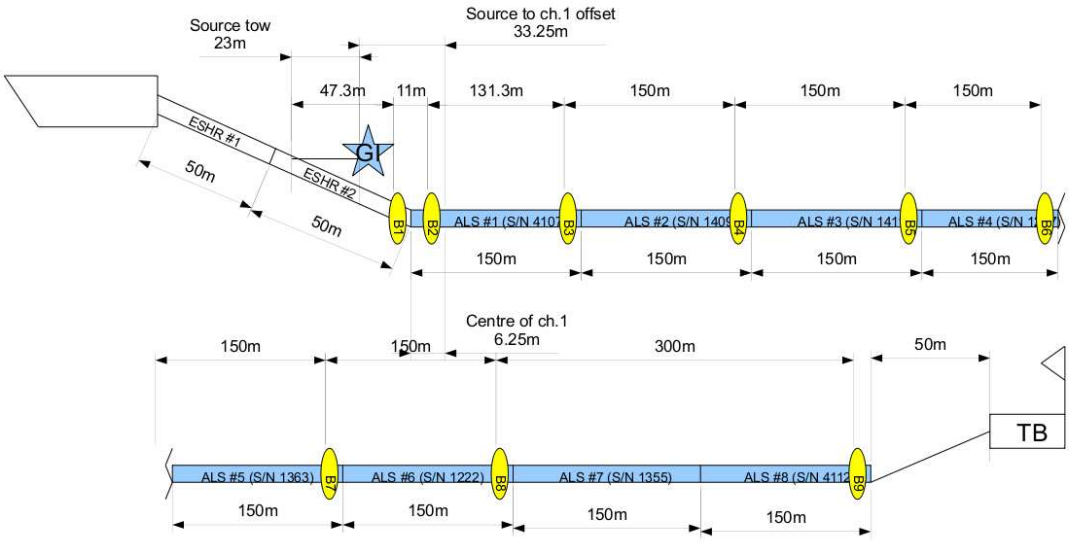

Figure 32: Seismic lines, birds configuration, sheets 4-8.

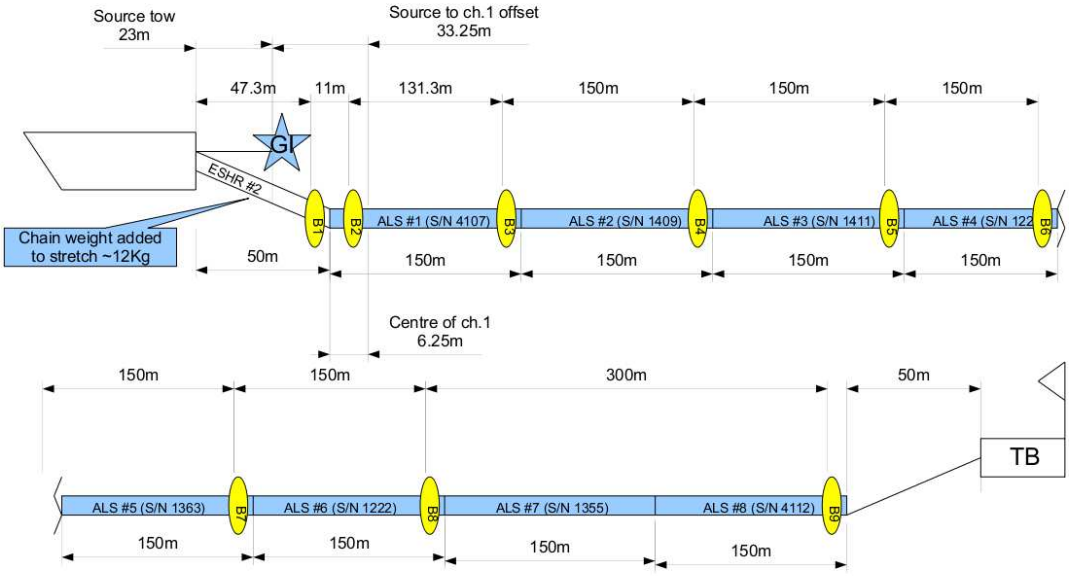

Figure 33: Seismic lines, birds configuration, shhets 9-23.

Table 9 indicate the positions of the birds and which streamer channel they were closest to since this will be the channel most infuence by the turbulence they induce. The auxiliary channel setup is shown in table 10.

Bird Number	Sheets 1-8 Closest channel	Sheets 9+
1	No channel	No channel
2	12	1
3	24	12
4	36	24
5	48	36
6	60	48
7	72	60
8	84	72
9	96	96

Table 9: Cable leveler's positions.

Auxiliary Channel	Description
1	Port gun frame blast phone
2	Starboard gun frame blast phone
3	Ships hull phone (for noise correlation), connected from sheet 21 onwards

Table 10: Auxiliary Channels.

6.3 SEISMIC LINES DATA

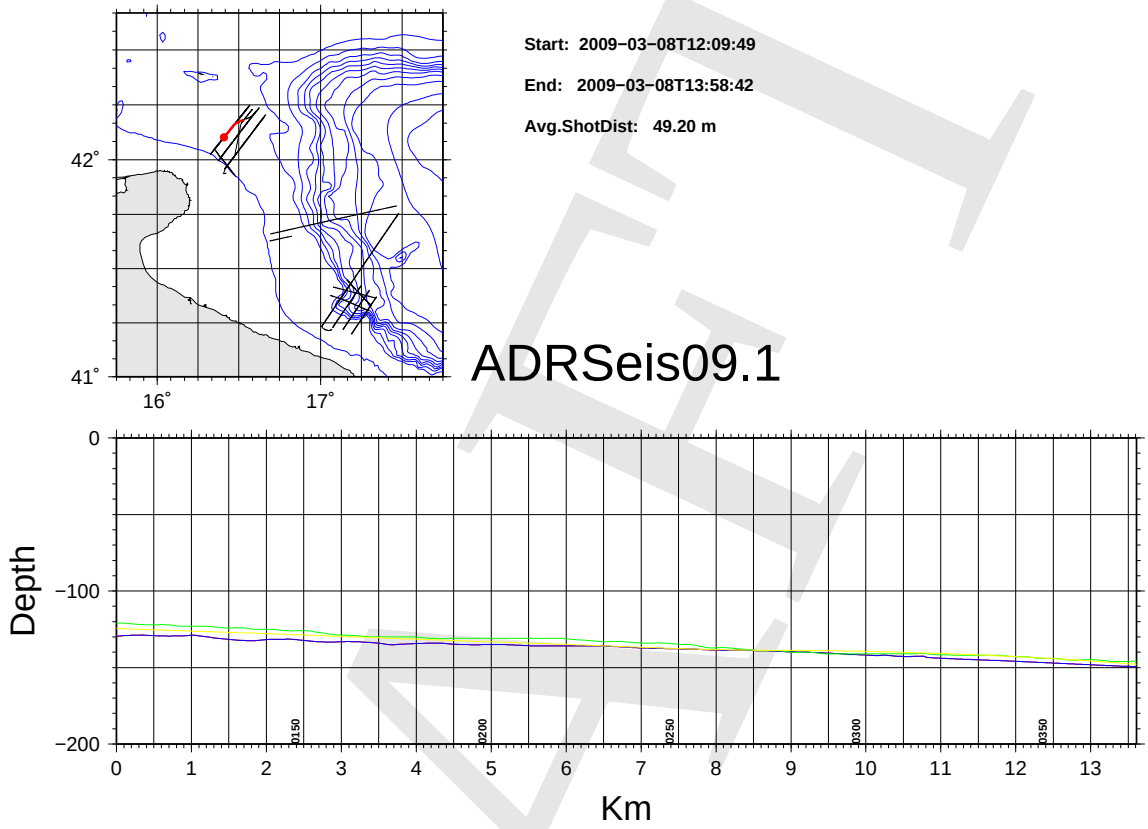

Figure 34: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 11: Line ../NAV/ADRSeis09.1 navigation data (shot point).
WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-08T12:10:16	616550.9	4662178.8	16.409501	42.102302	41.6	-129.6
0110	2009-03-08T12:14:00	616828.7	4662532.0	16.412930	42.105441	40.0	-129.1
0120	2009-03-08T12:18:02	617133.4	4662924.8	16.416693	42.108932	39.3	-129.2
0130	2009-03-08T12:22:02	617440.0	4663318.9	16.420479	42.112434	34.7	-131.4
0140	2009-03-08T12:26:04	617746.3	4663706.3	16.424261	42.115876	35.5	-132.1
0150	2009-03-08T12:30:03	618051.0	4664101.2	16.428025	42.119386	40.8	-132.0
0160	2009-03-08T12:34:01	618354.4	4664495.9	16.431774	42.122894	38.4	-133.3
0170	2009-03-08T12:38:02	618654.4	4664894.0	16.435483	42.126433	42.1	-133.9
0180	2009-03-08T12:41:58	618963.3	4665286.5	16.439300	42.129920	36.6	-134.5
0190	2009-03-08T12:45:55	619271.3	4665678.1	16.443105	42.133399	39.4	-134.5
0200	2009-03-08T12:49:55	619573.5	4666075.5	16.446842	42.136931	39.3	-135.1
0210	2009-03-08T12:53:50	619874.9	4666471.0	16.450569	42.140445	43.6	-135.6
0220	2009-03-08T12:57:47	620179.7	4666866.5	16.454337	42.143959	38.4	-135.9
0230	2009-03-08T13:01:44	620497.6	4667251.2	16.458263	42.147374	41.9	-135.9
0240	2009-03-08T13:05:47	620797.4	4667650.5	16.461972	42.150923	41.1	-137.1
0250	2009-03-08T13:09:46	621107.7	4668040.7	16.465808	42.154388	41.5	-137.8
0260	2009-03-08T13:13:46	621412.4	4668433.7	16.469576	42.157879	42.5	-138.5
0270	2009-03-08T13:17:42	621755.2	4668798.8	16.473801	42.161113	46.5	-138.8
0280	2009-03-08T13:21:36	622129.8	4669127.9	16.478402	42.164018	53.7	-139.7

0290	2009-03-08T13:25:29	622531.1	4669421.2	16.483320	42.166596	56.6	-140.5
0300	2009-03-08T13:29:22	622961.0	4669665.1	16.488574	42.168724	64.8	-141.7
0310	2009-03-08T13:33:12	623399.9	4669889.1	16.493933	42.170672	66.3	-142.6
0320	2009-03-08T13:37:06	623844.7	4670115.2	16.499365	42.172637	65.0	-143.7
0330	2009-03-08T13:40:58	624295.1	4670329.3	16.504861	42.174493	70.4	-144.8
0340	2009-03-08T13:44:50	624752.0	4670530.6	16.510434	42.176233	66.2	-145.7
0350	2009-03-08T13:48:46	625205.5	4670736.3	16.515968	42.178012	69.3	-146.9
0360	2009-03-08T13:52:43	625657.6	4670943.7	16.521484	42.179807	65.9	-148.0
0370	2009-03-08T13:56:42	626115.0	4671147.0	16.527065	42.181564	69.2	-149.1

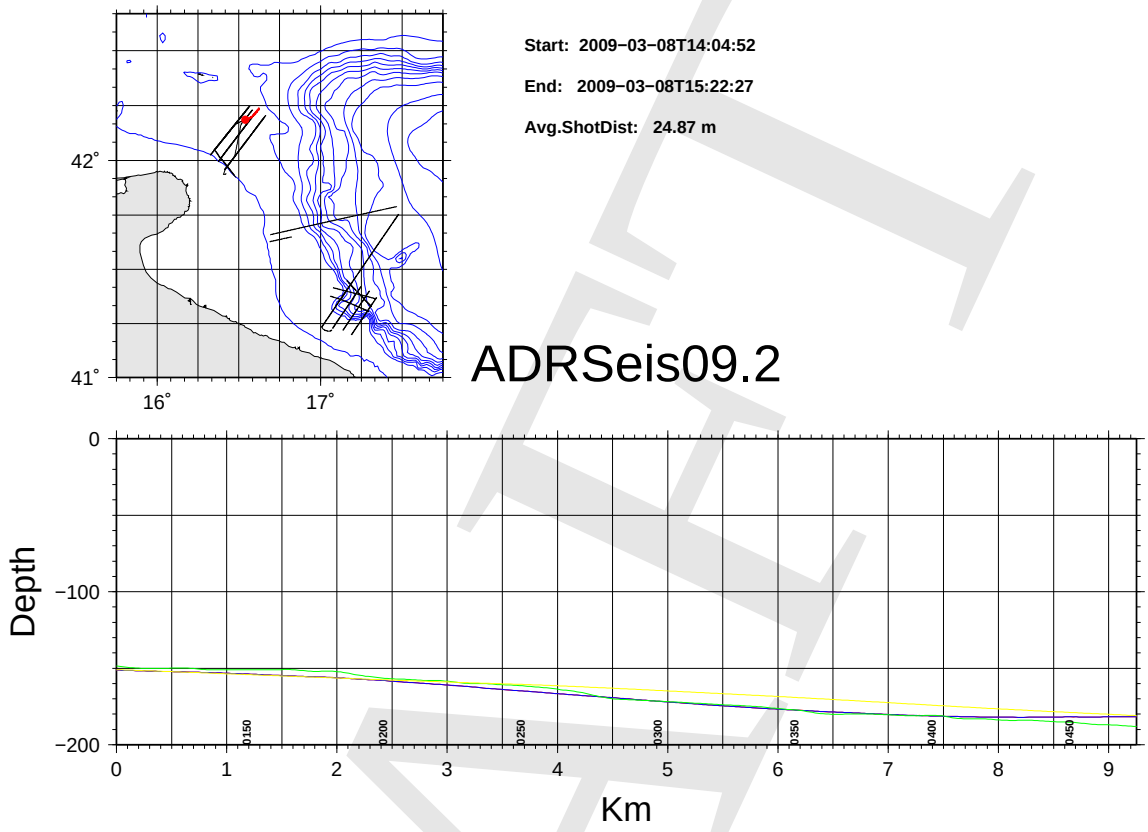

Figure 35: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 12: Line ../NAV/ADRSeis09.2 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-08T14:06:42	627278.0	4671599.5	16.541241	42.185449	74.2	-151.2
0110	2009-03-08T14:08:32	627487.8	4671676.6	16.543798	42.186109	70.8	-151.7
0120	2009-03-08T14:10:34	627720.4	4671768.8	16.546633	42.186901	71.2	-152.2
0130	2009-03-08T14:12:33	627948.0	4671861.8	16.549409	42.187701	66.2	-152.6
0140	2009-03-08T14:14:33	628177.7	4671958.9	16.552211	42.188538	69.6	-153.2
0150	2009-03-08T14:16:33	628407.1	4672052.3	16.555009	42.189341	65.2	-153.9
0160	2009-03-08T14:18:35	628637.8	4672148.9	16.557823	42.190173	70.6	-154.7
0170	2009-03-08T14:20:36	628868.9	4672239.3	16.560641	42.190949	72.4	-155.4
0180	2009-03-08T14:22:36	629096.7	4672324.5	16.563417	42.191678	67.3	-156.1
0190	2009-03-08T14:24:29	629327.6	4672416.5	16.566233	42.192468	61.9	-157.2
0200	2009-03-08T14:26:19	629538.6	4672545.5	16.568816	42.193595	57.2	-158.2
0210	2009-03-08T14:28:09	629747.8	4672686.8	16.571380	42.194832	56.7	-159.5
0220	2009-03-08T14:30:05	629954.6	4672823.4	16.573914	42.196028	63.6	-160.7
0230	2009-03-08T14:32:02	630164.9	4672954.5	16.576490	42.197173	55.7	-162.1
0240	2009-03-08T14:34:00	630375.2	4673087.3	16.579066	42.198334	58.0	-163.6
0250	2009-03-08T14:36:08	630586.3	4673220.1	16.581651	42.199494	52.8	-164.9
0260	2009-03-08T14:38:19	630770.7	4673385.7	16.583921	42.200954	47.4	-166.4
0270	2009-03-08T14:40:16	630938.5	4673570.6	16.585995	42.202590	35.3	-167.7
0280	2009-03-08T14:42:14	631100.4	4673758.6	16.587997	42.204256	42.8	-169.0
0290	2009-03-08T14:44:12	631263.0	4673946.0	16.590008	42.205916	39.3	-170.4
0300	2009-03-08T14:46:10	631424.2	4674132.2	16.592002	42.207565	41.4	-171.7

0310	2009-03-08T14:48:12	631586.5	4674323.1	16.594011	42.209256	46.1	-173.0
0320	2009-03-08T14:50:18	631756.5	4674504.1	16.596110	42.210857	41.6	-174.3
0330	2009-03-08T14:52:24	631920.4	4674689.8	16.598137	42.212501	43.0	-175.4
0340	2009-03-08T14:54:25	632073.0	4674887.3	16.600030	42.214253	36.1	-176.5
0350	2009-03-08T14:56:23	632217.2	4675081.9	16.601821	42.215981	44.5	-177.4
0360	2009-03-08T14:58:28	632374.4	4675274.6	16.603768	42.217689	38.8	-178.5
0370	2009-03-08T15:00:31	632526.1	4675471.4	16.605650	42.219435	40.9	-179.2
0380	2009-03-08T15:02:34	632683.0	4675666.0	16.607595	42.221160	37.9	-180.0
0390	2009-03-08T15:04:37	632838.2	4675858.5	16.609519	42.222867	39.8	-180.8
0400	2009-03-08T15:06:40	632993.2	4676053.4	16.611441	42.224595	43.3	-181.2
0410	2009-03-08T15:08:44	633149.4	4676249.1	16.613378	42.226330	42.8	-181.7
0420	2009-03-08T15:10:46	633306.8	4676441.3	16.615328	42.228034	41.4	-181.9
0430	2009-03-08T15:12:49	633465.8	4676632.6	16.617298	42.229729	43.0	-182.1
0440	2009-03-08T15:14:54	633624.8	4676825.6	16.619268	42.231439	40.3	-182.0
0450	2009-03-08T15:16:58	633777.1	4677021.8	16.621158	42.233179	38.4	-181.8
0460	2009-03-08T15:19:02	633917.6	4677224.1	16.622907	42.234976	33.5	-181.8
0470	2009-03-08T15:21:11	634064.0	4677428.0	16.624728	42.236787	26.7	-181.8

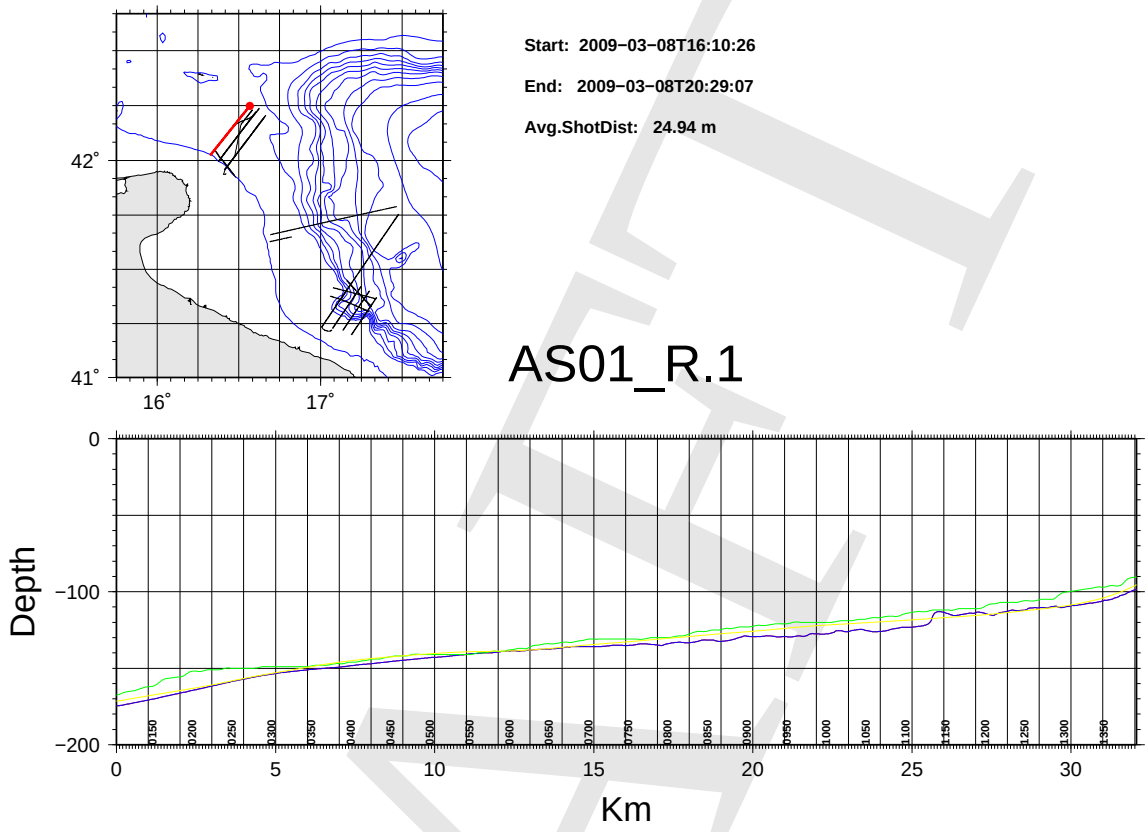

Figure 36: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 13: Line ../NAV/AS01-R.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-08T16:10:49	629230.7	4678550.5	16.566425	42.247707	221.0	-174.6
0110	2009-03-08T16:12:43	629092.0	4678371.2	16.564704	42.246116	220.9	-173.8
0120	2009-03-08T16:14:39	628936.5	4678181.7	16.562778	42.244435	217.7	-172.8
0130	2009-03-08T16:16:31	628788.9	4677984.5	16.560946	42.242684	213.0	-171.8
0140	2009-03-08T16:18:32	628637.8	4677785.9	16.559071	42.240921	220.0	-170.7
0150	2009-03-08T16:20:38	628484.2	4677590.1	16.557166	42.239184	221.8	-169.6
0160	2009-03-08T16:22:42	628333.4	4677395.0	16.555296	42.237452	223.8	-168.4
0170	2009-03-08T16:24:45	628177.1	4677198.6	16.553360	42.235710	215.2	-167.3
0180	2009-03-08T16:26:50	628030.9	4676997.1	16.551544	42.233920	222.0	-166.2
0190	2009-03-08T16:28:55	627870.3	4676810.6	16.549557	42.232267	220.2	-165.1
0200	2009-03-08T16:30:58	627724.9	4676607.3	16.547751	42.230461	220.6	-164.0
0210	2009-03-08T16:33:00	627567.8	4676413.4	16.545806	42.228741	221.5	-162.8
0220	2009-03-08T16:34:56	627420.1	4676213.3	16.543973	42.226963	220.0	-161.6
0230	2009-03-08T16:36:54	627267.8	4676016.3	16.542085	42.225215	221.3	-160.4
0240	2009-03-08T16:38:52	627115.4	4675818.9	16.540195	42.223462	221.4	-159.3
0250	2009-03-08T16:40:51	626962.6	4675622.1	16.538301	42.221715	216.3	-158.1
0260	2009-03-08T16:42:48	626811.8	4675428.5	16.536433	42.219997	217.7	-157.1
0270	2009-03-08T16:44:46	626659.5	4675233.0	16.534546	42.218261	216.0	-156.1
0280	2009-03-08T16:46:45	626512.6	4675034.4	16.532723	42.216497	218.3	-155.0
0290	2009-03-08T16:48:45	626353.4	4674842.0	16.530754	42.214791	215.9	-154.3
0300	2009-03-08T16:50:42	626196.5	4674647.7	16.528811	42.213067	214.6	-153.4

0310	2009-03-08T16:52:38	626061.4	4674439.8	16.527130	42.211217	215.5	-152.7
0320	2009-03-08T16:54:46	625896.3	4674250.2	16.525089	42.209537	221.3	-152.2
0330	2009-03-08T16:56:53	625745.9	4674052.8	16.523225	42.207784	216.3	-151.6
0340	2009-03-08T16:59:01	625599.2	4673852.3	16.521405	42.206002	217.4	-151.1
0350	2009-03-08T17:01:07	625448.8	4673657.1	16.519542	42.204269	223.3	-150.6
0360	2009-03-08T17:03:06	625289.8	4673464.9	16.517576	42.202564	222.9	-150.1
0370	2009-03-08T17:05:03	625133.1	4673272.8	16.515637	42.200860	214.5	-149.7
0380	2009-03-08T17:07:01	624982.1	4673074.3	16.513766	42.199097	220.7	-149.3
0390	2009-03-08T17:08:59	624826.1	4672878.8	16.511835	42.197362	218.1	-148.7
0400	2009-03-08T17:10:56	624672.0	4672682.0	16.509927	42.195615	215.5	-148.1
0410	2009-03-08T17:12:50	624523.2	4672484.8	16.508083	42.193863	216.6	-147.5
0420	2009-03-08T17:14:46	624375.0	4672284.3	16.506246	42.192081	216.2	-147.1
0430	2009-03-08T17:16:42	624223.8	4672085.9	16.504373	42.190319	218.4	-146.5
0440	2009-03-08T17:18:41	624073.1	4671887.4	16.502507	42.188556	221.3	-146.0
0450	2009-03-08T17:20:41	623918.9	4671692.4	16.500599	42.186825	221.1	-145.3
0460	2009-03-08T17:22:43	623763.9	4671498.1	16.498681	42.185100	217.3	-144.9
0470	2009-03-08T17:24:42	623613.1	4671301.3	16.496813	42.183352	222.1	-144.4
0480	2009-03-08T17:26:41	623464.0	4671102.4	16.494967	42.181585	218.5	-143.9
0490	2009-03-08T17:28:42	623316.3	4670903.4	16.493137	42.179817	217.6	-143.4
0500	2009-03-08T17:30:46	623168.5	4670703.1	16.491305	42.178037	216.3	-142.8
0510	2009-03-08T17:32:51	623010.7	4670511.1	16.489354	42.176333	223.5	-142.6
0520	2009-03-08T17:34:53	622851.7	4670321.1	16.487390	42.174647	217.9	-142.1
0530	2009-03-08T17:36:55	622699.7	4670122.8	16.485508	42.172886	218.4	-141.5
0540	2009-03-08T17:38:57	622548.8	4669924.0	16.483640	42.171120	218.8	-141.0
0550	2009-03-08T17:40:58	622397.3	4669726.9	16.481766	42.169369	218.0	-140.4
0560	2009-03-08T17:43:01	622248.3	4669525.7	16.479920	42.167581	222.1	-140.1
0570	2009-03-08T17:45:02	622091.5	4669332.0	16.477982	42.165861	218.2	-140.0
0580	2009-03-08T17:47:01	621940.5	4669135.7	16.476113	42.164117	218.2	-139.5
0590	2009-03-08T17:49:02	621788.0	4668935.4	16.474226	42.162338	217.3	-139.0
0600	2009-03-08T17:51:02	621636.3	4668739.5	16.472349	42.160598	218.6	-138.6
0610	2009-03-08T17:53:02	621477.2	4668547.1	16.470384	42.158890	202.2	-138.7
0620	2009-03-08T17:55:01	621332.5	4668344.5	16.468591	42.157089	217.4	-138.2
0630	2009-03-08T17:57:01	621182.0	4668149.8	16.466729	42.155359	217.9	-137.8
0640	2009-03-08T17:59:02	621028.9	4667954.0	16.464836	42.153620	217.4	-137.6
0650	2009-03-08T18:01:03	620875.9	4667758.6	16.462944	42.151884	217.7	-137.3
0660	2009-03-08T18:03:03	620723.6	4667561.5	16.461061	42.150133	219.6	-136.8
0670	2009-03-08T18:05:03	620570.0	4667365.6	16.459162	42.148393	216.2	-136.1
0680	2009-03-08T18:07:03	620417.5	4667169.1	16.457276	42.146647	216.8	-136.0
0690	2009-03-08T18:09:01	620265.3	4666972.2	16.455395	42.144898	217.9	-135.9
0700	2009-03-08T18:10:59	620113.1	4666775.5	16.453513	42.143150	219.0	-136.0
0710	2009-03-08T18:12:58	619961.3	4666576.5	16.451635	42.141382	220.3	-135.8
0720	2009-03-08T18:14:58	619805.7	4666379.3	16.449713	42.139630	218.8	-135.4
0730	2009-03-08T18:17:02	619656.4	4666182.8	16.447866	42.137884	220.1	-134.9
0740	2009-03-08T18:19:14	619502.4	4665985.7	16.445963	42.136133	217.3	-135.2
0750	2009-03-08T18:21:22	619349.3	4665790.8	16.444071	42.134402	218.6	-134.9
0760	2009-03-08T18:23:26	619198.5	4665597.6	16.442208	42.132685	215.2	-134.1
0770	2009-03-08T18:25:32	619048.1	4665396.8	16.440348	42.130900	221.4	-134.3
0780	2009-03-08T18:27:38	618895.0	4665198.6	16.438456	42.129139	216.7	-134.7
0790	2009-03-08T18:29:41	618740.0	4665006.5	16.436542	42.127433	219.0	-134.7
0800	2009-03-08T18:31:45	618586.5	4664809.1	16.434645	42.125679	217.6	-133.5
0810	2009-03-08T18:33:48	618436.0	4664613.0	16.432785	42.123936	217.8	-133.0
0820	2009-03-08T18:35:53	618285.6	4664414.6	16.430926	42.122172	219.5	-133.4
0830	2009-03-08T18:37:58	618133.7	4664218.3	16.429049	42.120428	220.8	-132.7
0840	2009-03-08T18:40:04	617982.0	4664019.8	16.427175	42.118664	217.3	-131.6
0850	2009-03-08T18:42:08	617830.9	4663821.3	16.425307	42.116899	220.1	-131.5
0860	2009-03-08T18:44:03	617673.0	4663629.1	16.423359	42.115192	219.6	-132.5

0870	2009-03-08T18:46:01	617521.7	4663430.2	16.421489	42.113424	215.2	-132.1
0880	2009-03-08T18:48:00	617373.7	4663230.7	16.419660	42.111650	217.5	-130.9
0890	2009-03-08T18:49:58	617222.3	4663037.8	16.417791	42.109936	220.3	-129.3
0900	2009-03-08T18:51:58	617069.3	4662840.8	16.415901	42.108185	216.1	-129.3
0910	2009-03-08T18:53:59	616916.0	4662643.2	16.414008	42.106429	219.6	-129.4
0920	2009-03-08T18:56:01	616761.5	4662447.6	16.412101	42.104691	219.8	-128.8
0930	2009-03-08T18:58:04	616614.6	4662246.7	16.410284	42.102904	218.6	-129.2
0940	2009-03-08T19:00:08	616456.4	4662052.3	16.408333	42.101177	220.9	-129.4
0950	2009-03-08T19:02:11	616303.7	4661855.0	16.406448	42.099423	218.1	-129.5
0960	2009-03-08T19:04:14	616153.8	4661657.3	16.404596	42.097666	219.9	-128.9
0970	2009-03-08T19:06:16	616001.4	4661460.0	16.402715	42.095912	218.7	-128.8
0980	2009-03-08T19:08:18	615851.1	4661261.0	16.400858	42.094142	219.2	-127.5
0990	2009-03-08T19:10:19	615693.9	4661069.5	16.398920	42.092441	219.3	-127.8
1000	2009-03-08T19:12:20	615539.5	4660872.3	16.397015	42.090689	215.6	-127.2
1010	2009-03-08T19:14:20	615389.8	4660675.1	16.395166	42.088935	220.2	-125.4
1020	2009-03-08T19:16:20	615237.7	4660478.7	16.393289	42.087189	217.1	-126.1
1030	2009-03-08T19:18:22	615084.9	4660279.7	16.391403	42.085420	217.6	-125.2
1040	2009-03-08T19:20:22	614932.1	4660082.0	16.389518	42.083662	218.4	-124.6
1050	2009-03-08T19:22:21	614778.9	4659886.1	16.387628	42.081921	216.1	-125.8
1060	2009-03-08T19:24:21	614621.8	4659690.3	16.385691	42.080181	216.4	-126.1
1070	2009-03-08T19:26:18	614475.5	4659487.6	16.383882	42.078377	221.2	-125.5
1080	2009-03-08T19:28:13	614322.3	4659290.9	16.381993	42.076628	219.6	-124.3
1090	2009-03-08T19:30:06	614166.3	4659101.8	16.380070	42.074948	218.9	-123.3
1100	2009-03-08T19:32:01	614014.6	4658904.7	16.378199	42.073196	220.3	-123.2
1110	2009-03-08T19:33:55	613866.5	4658704.5	16.376370	42.071415	216.8	-122.7
1120	2009-03-08T19:35:52	613716.5	4658503.6	16.374518	42.069628	219.5	-121.8
1130	2009-03-08T19:37:55	613565.2	4658307.1	16.372652	42.067880	218.4	-114.9
1140	2009-03-08T19:40:01	613412.9	4658109.6	16.370773	42.066124	219.9	-113.1
1150	2009-03-08T19:41:55	613257.6	4657914.4	16.368859	42.064389	218.5	-114.6
1160	2009-03-08T19:43:55	613102.8	4657717.7	16.366951	42.062640	218.2	-115.4
1170	2009-03-08T19:45:56	612946.9	4657522.3	16.365029	42.060903	217.5	-114.6
1180	2009-03-08T19:47:58	612794.5	4657323.9	16.363150	42.059139	219.3	-114.1
1190	2009-03-08T19:50:00	612641.8	4657125.0	16.361266	42.057370	218.4	-113.5
1200	2009-03-08T19:52:03	612493.7	4656924.1	16.359439	42.055582	220.2	-115.0
1210	2009-03-08T19:54:07	612337.3	4656729.7	16.357512	42.053854	217.6	-114.4
1220	2009-03-08T19:56:10	612185.2	4656532.4	16.355637	42.052100	219.0	-113.1
1230	2009-03-08T19:58:11	612036.4	4656335.6	16.353801	42.050349	219.0	-112.0
1240	2009-03-08T20:00:11	611884.7	4656140.7	16.351931	42.048616	217.8	-112.2
1250	2009-03-08T20:02:12	611727.4	4655946.1	16.349994	42.046886	218.7	-110.9
1260	2009-03-08T20:04:13	611578.4	4655744.7	16.348156	42.045094	219.9	-110.5
1270	2009-03-08T20:06:13	611428.1	4655544.8	16.346303	42.043315	217.6	-110.5
1280	2009-03-08T20:08:10	611277.0	4655350.5	16.344440	42.041587	219.7	-109.6
1290	2009-03-08T20:10:08	611118.8	4655157.5	16.342493	42.039872	218.7	-110.4
1300	2009-03-08T20:12:06	610969.6	4654957.0	16.340653	42.038088	219.7	-109.7
1310	2009-03-08T20:14:03	610820.8	4654758.7	16.338819	42.036323	215.8	-109.1
1320	2009-03-08T20:16:00	610672.1	4654560.0	16.336985	42.034555	216.7	-108.2
1330	2009-03-08T20:17:56	610519.2	4654365.2	16.335102	42.032822	221.1	-107.4
1340	2009-03-08T20:19:52	610363.0	4654170.6	16.333179	42.031092	218.8	-106.5
1350	2009-03-08T20:21:48	610208.2	4653976.1	16.331272	42.029363	218.6	-105.5
1360	2009-03-08T20:23:44	610054.0	4653778.3	16.329373	42.027603	218.5	-104.0
1370	2009-03-08T20:25:39	609899.9	4653580.5	16.327475	42.025844	217.2	-102.0
1380	2009-03-08T20:27:37	609759.5	4653374.7	16.325741	42.024010	207.3	-99.6

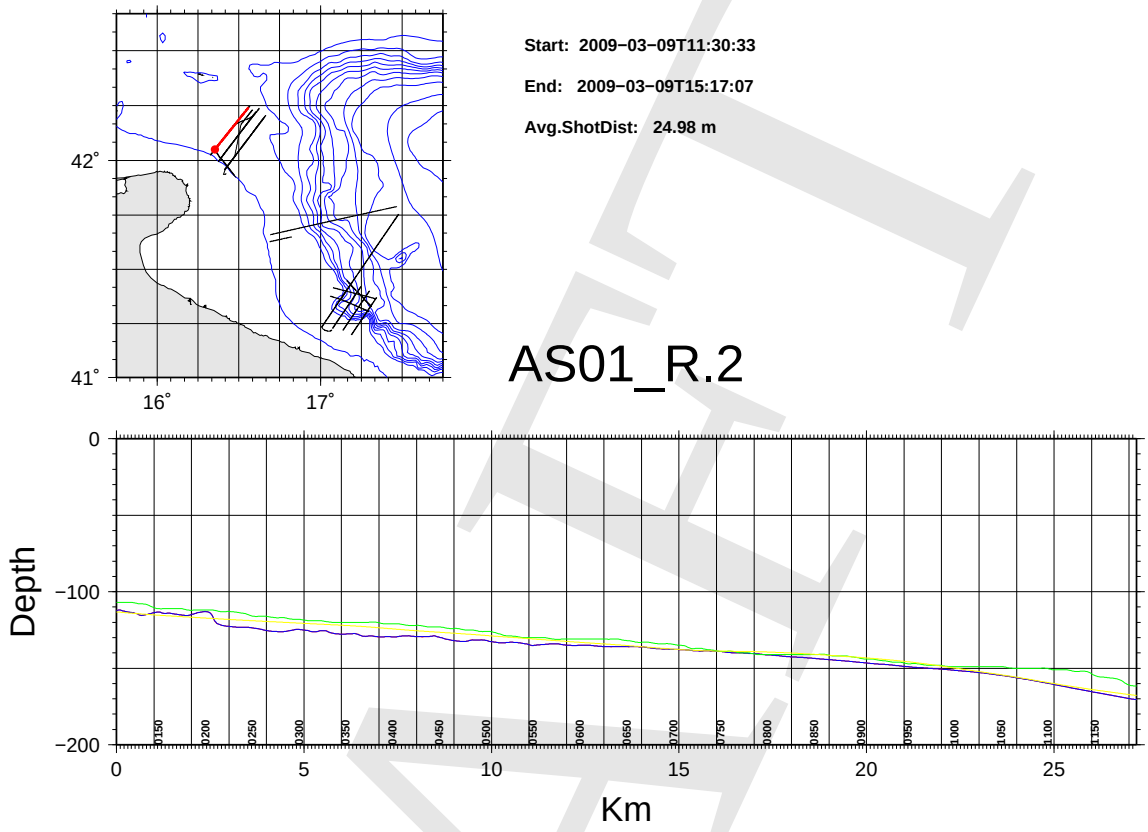

Figure 37: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 14: Line ../NAV/AS01-R.2 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-09T11:31:25	611974.5	4656325.3	16.353052	42.050265	41.6	-112.2
0110	2009-03-09T11:33:07	612123.3	4656496.5	16.354882	42.051785	41.8	-112.9
0120	2009-03-09T11:34:58	612289.4	4656680.6	16.356924	42.053419	43.8	-113.9
0130	2009-03-09T11:36:53	612450.3	4656872.2	16.358905	42.055121	42.1	-115.3
0140	2009-03-09T11:38:53	612601.4	4657071.8	16.360768	42.056897	40.0	-113.8
0150	2009-03-09T11:40:54	612758.2	4657267.5	16.362700	42.058636	39.1	-114.0
0160	2009-03-09T11:42:56	612909.7	4657468.0	16.364569	42.060420	35.9	-114.3
0170	2009-03-09T11:44:56	613063.5	4657662.6	16.366465	42.062150	37.3	-115.2
0180	2009-03-09T11:46:57	613213.0	4657862.3	16.368310	42.063926	38.8	-115.2
0190	2009-03-09T11:48:57	613368.3	4658055.8	16.370224	42.065646	39.4	-113.5
0200	2009-03-09T11:50:58	613515.7	4658258.1	16.372044	42.067446	36.2	-113.6
0210	2009-03-09T11:52:58	613670.9	4658453.8	16.373958	42.069186	39.9	-121.2
0220	2009-03-09T11:54:58	613829.4	4658648.0	16.375911	42.070911	38.8	-122.6
0230	2009-03-09T11:56:58	613979.8	4658847.1	16.377767	42.072682	34.7	-123.2
0240	2009-03-09T11:58:57	614130.2	4659046.4	16.379623	42.074455	35.9	-123.1
0250	2009-03-09T12:00:55	614284.7	4659241.9	16.381528	42.076193	42.4	-124.0
0260	2009-03-09T12:02:54	614440.0	4659437.0	16.383444	42.077927	38.0	-125.3
0270	2009-03-09T12:04:54	614588.7	4659637.8	16.385280	42.079713	36.4	-126.0
0280	2009-03-09T12:06:54	614743.0	4659834.7	16.387184	42.081463	40.0	-126.1
0290	2009-03-09T12:08:52	614892.7	4660031.9	16.389032	42.083217	37.4	-125.0
0300	2009-03-09T12:10:51	615045.7	4660229.3	16.390920	42.084972	38.0	-125.0

0310	2009-03-09T12:12:50	615201.9	4660426.2	16.392846	42.086722	38.6	-126.2
0320	2009-03-09T12:14:48	615352.4	4660624.3	16.394704	42.088483	38.2	-125.4
0330	2009-03-09T12:16:47	615502.0	4660824.5	16.396552	42.090264	38.3	-126.9
0340	2009-03-09T12:18:43	615658.0	4661017.8	16.398476	42.091981	40.7	-127.7
0350	2009-03-09T12:20:48	615815.1	4661212.1	16.400413	42.093707	37.7	-127.5
0360	2009-03-09T12:22:56	615959.6	4661414.6	16.402201	42.095509	36.5	-128.1
0370	2009-03-09T12:24:59	616115.0	4661610.4	16.404118	42.097249	40.7	-128.9
0380	2009-03-09T12:26:59	616267.9	4661803.9	16.406005	42.098969	39.3	-129.5
0390	2009-03-09T12:29:02	616417.1	4662003.8	16.407848	42.100746	41.2	-129.4
0400	2009-03-09T12:31:07	616569.7	4662202.8	16.409733	42.102515	38.7	-129.6
0410	2009-03-09T12:33:11	616727.7	4662396.4	16.411682	42.104235	41.3	-128.8
0420	2009-03-09T12:35:18	616878.3	4662597.0	16.413543	42.106019	35.1	-129.3
0430	2009-03-09T12:37:24	617036.6	4662789.0	16.415495	42.107724	42.1	-129.3
0440	2009-03-09T12:39:30	617193.7	4662982.5	16.417434	42.109442	40.2	-128.7
0450	2009-03-09T12:41:36	617344.3	4663182.0	16.419295	42.111216	39.4	-130.5
0460	2009-03-09T12:43:43	617487.7	4663387.2	16.421070	42.113042	39.7	-131.8
0470	2009-03-09T12:45:48	617645.8	4663580.2	16.423020	42.114756	39.4	-132.4
0480	2009-03-09T12:47:52	617796.3	4663778.1	16.424880	42.116515	38.0	-131.5
0490	2009-03-09T12:49:58	617947.4	4663977.0	16.426747	42.118283	38.4	-131.4
0500	2009-03-09T12:52:06	618105.9	4664171.3	16.428703	42.120009	38.8	-132.5
0510	2009-03-09T12:54:14	618252.5	4664370.9	16.430517	42.121784	38.7	-133.4
0520	2009-03-09T12:56:21	618409.3	4664567.0	16.432453	42.123526	37.9	-133.1
0530	2009-03-09T12:58:26	618559.3	4664766.4	16.434307	42.125298	38.6	-133.3
0540	2009-03-09T13:00:30	618711.2	4664964.3	16.436185	42.127057	40.0	-134.3
0550	2009-03-09T13:02:33	618863.3	4665161.1	16.438065	42.128806	37.6	-134.8
0560	2009-03-09T13:04:37	619015.5	4665358.9	16.439946	42.130564	38.3	-134.3
0570	2009-03-09T13:06:43	619171.4	4665554.6	16.441871	42.132302	37.6	-134.0
0580	2009-03-09T13:08:49	619323.2	4665753.5	16.443748	42.134070	38.4	-134.9
0590	2009-03-09T13:10:55	619471.6	4665953.0	16.445584	42.135843	37.0	-135.2
0600	2009-03-09T13:12:56	619626.4	4666146.9	16.447496	42.137565	37.2	-135.0
0610	2009-03-09T13:15:00	619782.4	4666344.3	16.449424	42.139319	40.8	-135.3
0620	2009-03-09T13:17:08	619933.6	4666541.4	16.451293	42.141070	36.8	-135.8
0630	2009-03-09T13:19:17	620085.9	4666738.9	16.453176	42.142825	37.4	-136.0
0640	2009-03-09T13:21:26	620240.3	4666935.9	16.455085	42.144575	39.7	-136.0
0650	2009-03-09T13:23:36	620393.6	4667132.4	16.456980	42.146321	40.2	-136.0
0660	2009-03-09T13:25:46	620541.0	4667335.1	16.458805	42.148123	39.6	-136.0
0670	2009-03-09T13:27:53	620701.6	4667527.2	16.460788	42.149828	38.8	-136.6
0680	2009-03-09T13:30:03	620856.0	4667722.9	16.462696	42.151566	37.7	-137.2
0690	2009-03-09T13:32:10	620999.1	4667927.0	16.464470	42.153381	35.1	-137.5
0700	2009-03-09T13:34:12	621153.6	4668122.8	16.466380	42.155120	40.4	-137.8
0710	2009-03-09T13:36:18	621308.3	4668320.9	16.468293	42.156880	39.5	-138.1
0720	2009-03-09T13:38:22	621460.1	4668516.0	16.470170	42.158613	38.3	-138.6
0730	2009-03-09T13:40:28	621613.3	4668714.4	16.472066	42.160375	43.2	-138.7
0740	2009-03-09T13:42:35	621767.3	4668911.4	16.473971	42.162125	37.4	-139.0
0750	2009-03-09T13:44:40	621920.8	4669107.9	16.475869	42.163870	40.9	-139.3
0760	2009-03-09T13:46:45	622074.7	4669299.6	16.477772	42.165572	35.9	-139.9
0770	2009-03-09T13:48:53	622222.5	4669501.7	16.479603	42.167369	38.9	-140.0
0780	2009-03-09T13:50:59	622379.1	4669695.4	16.481539	42.169088	38.3	-140.4
0790	2009-03-09T13:53:10	622530.1	4669895.0	16.483408	42.170861	31.7	-140.9
0800	2009-03-09T13:55:18	622684.3	4670090.8	16.485315	42.172600	41.6	-141.4
0810	2009-03-09T13:57:27	622840.8	4670285.0	16.487250	42.174324	41.2	-142.0
0820	2009-03-09T13:59:37	622988.9	4670485.8	16.489085	42.176109	35.7	-142.5
0830	2009-03-09T14:01:44	623146.7	4670679.9	16.491036	42.177831	41.6	-142.9
0840	2009-03-09T14:03:51	623294.2	4670881.9	16.492864	42.179627	32.7	-143.3
0850	2009-03-09T14:05:52	623442.5	4671080.8	16.494702	42.181394	39.0	-143.8
0860	2009-03-09T14:07:57	623598.5	4671277.3	16.496632	42.183138	40.8	-144.3

0870	2009-03-09T14:10:05	623752.1	4671474.3	16.498533	42.184888	34.1	-144.8
0880	2009-03-09T14:12:13	623904.5	4671670.8	16.500419	42.186633	42.0	-145.3
0890	2009-03-09T14:14:23	624058.5	4671867.8	16.502326	42.188382	37.7	-145.9
0900	2009-03-09T14:16:31	624207.6	4672068.7	16.504173	42.190167	39.6	-146.5
0910	2009-03-09T14:18:36	624363.9	4672263.5	16.506107	42.191896	37.1	-147.1
0920	2009-03-09T14:20:42	624512.6	4672464.9	16.507951	42.193685	34.1	-147.5
0930	2009-03-09T14:22:47	624667.8	4672659.8	16.509871	42.195415	40.8	-148.0
0940	2009-03-09T14:24:52	624821.4	4672855.5	16.511773	42.197153	38.7	-148.6
0950	2009-03-09T14:26:57	624969.4	4673057.0	16.513608	42.198943	38.4	-149.3
0960	2009-03-09T14:29:01	625124.0	4673252.5	16.515522	42.200679	39.4	-149.7
0970	2009-03-09T14:31:05	625279.3	4673448.6	16.517445	42.202419	40.9	-150.1
0980	2009-03-09T14:33:08	625430.7	4673644.8	16.519320	42.204161	38.5	-150.5
0990	2009-03-09T14:35:09	625579.3	4673840.7	16.521162	42.205901	33.5	-151.0
1000	2009-03-09T14:37:11	625732.3	4674038.6	16.523058	42.207658	38.9	-151.6
1010	2009-03-09T14:39:13	625886.8	4674237.4	16.524971	42.209423	38.9	-152.1
1020	2009-03-09T14:41:14	626038.0	4674434.4	16.526845	42.211172	38.3	-152.7
1030	2009-03-09T14:43:16	626190.0	4674631.4	16.528729	42.212921	38.6	-153.3
1040	2009-03-09T14:45:19	626338.4	4674833.3	16.530570	42.214715	39.9	-154.2
1050	2009-03-09T14:47:21	626499.1	4675021.9	16.532557	42.216387	40.8	-155.0
1060	2009-03-09T14:49:24	626651.2	4675222.0	16.534443	42.218164	37.4	-156.0
1070	2009-03-09T14:51:24	626801.6	4675420.0	16.536307	42.219922	42.1	-157.0
1080	2009-03-09T14:53:27	626951.1	4675620.8	16.538162	42.221705	40.3	-158.1
1090	2009-03-09T14:55:43	627115.3	4675809.9	16.540192	42.223381	36.6	-159.3
1100	2009-03-09T14:57:54	627256.8	4676013.5	16.541951	42.225191	40.4	-160.3
1110	2009-03-09T14:59:59	627416.3	4676205.1	16.543925	42.226890	37.2	-161.6
1120	2009-03-09T15:02:00	627564.4	4676407.4	16.545763	42.228687	39.1	-162.8
1130	2009-03-09T15:04:01	627711.0	4676610.3	16.547584	42.230490	39.4	-164.0
1140	2009-03-09T15:06:03	627869.4	4676803.4	16.549545	42.232202	41.6	-165.1
1150	2009-03-09T15:08:05	628030.2	4676994.6	16.551535	42.233897	38.0	-166.2
1160	2009-03-09T15:10:07	628173.5	4677197.6	16.553316	42.235701	37.7	-167.3
1170	2009-03-09T15:12:10	628318.6	4677401.2	16.555119	42.237511	34.4	-168.4
1180	2009-03-09T15:14:13	628440.4	4677619.5	16.556642	42.239456	27.5	-169.6
1190	2009-03-09T15:16:18	628553.1	4677843.6	16.558057	42.241455	22.5	-170.5

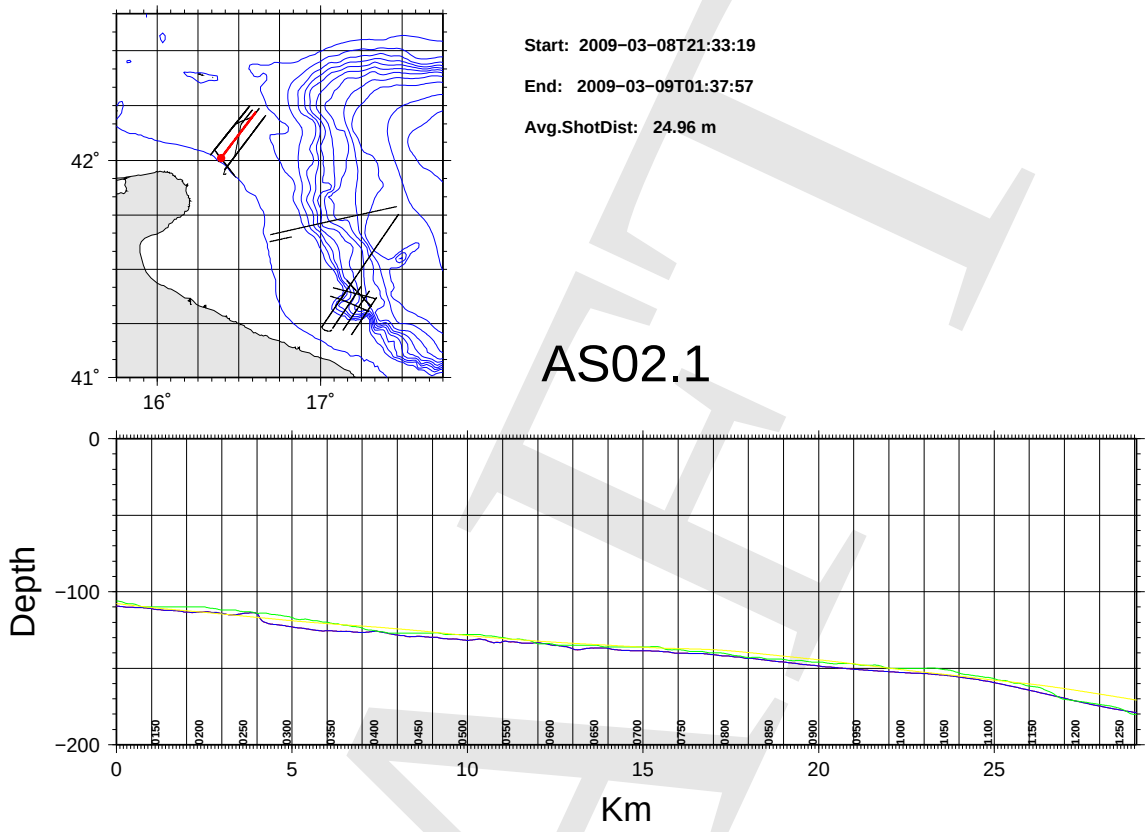

Figure 38: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 15: Line ../NAV/AS02.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-08T21:34:07	615218.5	4652088.8	16.391408	42.011652	39.9	-109.5
0110	2009-03-08T21:35:48	615350.9	4652269.3	16.393041	42.013258	36.9	-110.0
0120	2009-03-08T21:37:39	615497.7	4652471.6	16.394853	42.015058	36.6	-110.2
0130	2009-03-08T21:39:32	615646.6	4652674.0	16.396691	42.016858	35.6	-110.4
0140	2009-03-08T21:41:27	615794.8	4652874.6	16.398520	42.018643	39.9	-110.8
0150	2009-03-08T21:43:23	615945.1	4653075.6	16.400375	42.020430	36.9	-111.7
0160	2009-03-08T21:45:18	616090.4	4653277.9	16.402169	42.022230	35.0	-112.1
0170	2009-03-08T21:47:12	616230.8	4653482.9	16.403905	42.024055	35.6	-112.5
0180	2009-03-08T21:49:05	616377.2	4653682.4	16.405712	42.025830	38.4	-113.3
0190	2009-03-08T21:50:58	616529.1	4653880.2	16.407586	42.027588	38.1	-113.4
0200	2009-03-08T21:52:51	616680.1	4654078.6	16.409448	42.029352	38.3	-113.3
0210	2009-03-08T21:54:53	616828.4	4654281.9	16.411280	42.031161	36.9	-113.6
0220	2009-03-08T21:57:01	616974.7	4654485.0	16.413087	42.032968	36.4	-114.1
0230	2009-03-08T21:59:02	617121.7	4654684.4	16.414902	42.034741	37.3	-115.1
0240	2009-03-08T22:01:03	617272.1	4654885.9	16.416759	42.036533	34.5	-114.7
0250	2009-03-08T22:03:03	617418.7	4655085.7	16.418569	42.038310	36.7	-113.9
0260	2009-03-08T22:05:03	617565.2	4655287.5	16.420380	42.040105	33.2	-113.9
0270	2009-03-08T22:07:02	617711.5	4655487.3	16.422187	42.041882	39.9	-120.0
0280	2009-03-08T22:09:02	617864.0	4655687.2	16.424069	42.043659	34.2	-121.4
0290	2009-03-08T22:11:00	618000.9	4655893.4	16.425764	42.045495	33.2	-122.0
0300	2009-03-08T22:12:59	618153.2	4656089.4	16.427643	42.047237	37.3	-122.8

0310	2009-03-08T22:14:59	618306.6	4656288.0	16.429536	42.049002	36.1	-123.7
0320	2009-03-08T22:16:58	618451.5	4656492.4	16.431328	42.050820	35.0	-124.4
0330	2009-03-08T22:18:57	618595.4	4656697.3	16.433108	42.052643	37.1	-125.3
0340	2009-03-08T22:20:56	618740.4	4656900.0	16.434900	42.054446	41.4	-125.5
0350	2009-03-08T22:22:56	618893.9	4657096.2	16.436794	42.056190	39.9	-125.7
0360	2009-03-08T22:24:56	619040.9	4657298.4	16.438612	42.057988	36.8	-125.9
0370	2009-03-08T22:26:56	619186.2	4657501.5	16.440408	42.059795	37.9	-126.3
0380	2009-03-08T22:28:56	619334.6	4657699.9	16.442242	42.061558	37.2	-126.7
0390	2009-03-08T22:30:57	619482.1	4657900.5	16.444064	42.063342	37.8	-126.2
0400	2009-03-08T22:33:00	619631.3	4658101.4	16.445908	42.065128	38.3	-126.0
0410	2009-03-08T22:35:04	619779.6	4658304.2	16.447742	42.066931	37.8	-127.0
0420	2009-03-08T22:37:07	619926.3	4658505.2	16.449556	42.068719	39.0	-128.2
0430	2009-03-08T22:39:12	620074.6	4658708.6	16.451389	42.070527	37.5	-128.8
0440	2009-03-08T22:41:16	620221.6	4658908.8	16.453206	42.072307	38.7	-129.3
0450	2009-03-08T22:43:21	620369.2	4659110.5	16.455031	42.074101	38.4	-129.3
0460	2009-03-08T22:45:26	620518.5	4659308.8	16.456877	42.075863	37.7	-129.8
0470	2009-03-08T22:47:33	620667.8	4659511.1	16.458723	42.077662	36.4	-130.3
0480	2009-03-08T22:49:38	620813.1	4659713.3	16.460520	42.079460	36.5	-130.9
0490	2009-03-08T22:51:44	620962.5	4659913.9	16.462367	42.081243	36.0	-131.0
0500	2009-03-08T22:53:50	621108.6	4660117.7	16.464175	42.083055	36.5	-131.7
0510	2009-03-08T22:55:56	621250.4	4660323.1	16.465932	42.084883	37.6	-131.3
0520	2009-03-08T22:58:02	621404.8	4660518.2	16.467838	42.086615	40.7	-131.5
0530	2009-03-08T23:00:08	621551.1	4660720.2	16.469648	42.088411	37.9	-133.2
0540	2009-03-08T23:02:15	621698.2	4660923.4	16.471469	42.090218	36.5	-133.1
0550	2009-03-08T23:04:22	621846.8	4661123.5	16.473307	42.091996	38.6	-132.9
0560	2009-03-08T23:06:29	621994.8	4661322.7	16.475137	42.093767	35.9	-133.3
0570	2009-03-08T23:08:37	622140.8	4661526.2	16.476945	42.095576	37.8	-133.6
0580	2009-03-08T23:10:45	622291.3	4661724.5	16.478805	42.097338	38.2	-133.5
0590	2009-03-08T23:12:54	622438.7	4661927.3	16.480629	42.099141	38.5	-133.8
0600	2009-03-08T23:15:03	622585.6	4662129.8	16.482448	42.100941	37.3	-135.0
0610	2009-03-08T23:17:12	622732.2	4662330.9	16.484263	42.102729	38.3	-135.6
0620	2009-03-08T23:19:22	622881.6	4662532.2	16.486111	42.104518	38.2	-137.1
0630	2009-03-08T23:21:32	623028.6	4662733.7	16.487930	42.106309	37.9	-137.8
0640	2009-03-08T23:23:42	623178.3	4662932.5	16.489783	42.108075	39.3	-136.9
0650	2009-03-08T23:25:54	623326.2	4663135.4	16.491614	42.109879	34.8	-136.8
0660	2009-03-08T23:28:04	623468.6	4663340.4	16.493379	42.111702	41.2	-136.9
0670	2009-03-08T23:30:14	623622.7	4663535.5	16.495283	42.113434	38.8	-137.9
0680	2009-03-08T23:32:25	623770.1	4663738.8	16.497108	42.115242	35.4	-138.4
0690	2009-03-08T23:34:33	623911.5	4663940.4	16.498861	42.117034	37.1	-138.6
0700	2009-03-08T23:36:39	624052.9	4664136.2	16.500612	42.118775	37.9	-138.5
0710	2009-03-08T23:38:49	624202.1	4664336.7	16.502459	42.120556	39.7	-138.7
0720	2009-03-08T23:41:00	624354.8	4664535.0	16.504348	42.122317	38.4	-138.9
0730	2009-03-08T23:43:10	624502.1	4664733.4	16.506172	42.124080	36.4	-139.3
0740	2009-03-08T23:45:21	624647.6	4664937.0	16.507975	42.125890	36.4	-140.2
0750	2009-03-08T23:47:33	624795.0	4665140.4	16.509801	42.127698	37.9	-140.2
0760	2009-03-08T23:49:44	624940.9	4665341.3	16.511609	42.129483	38.4	-140.4
0770	2009-03-08T23:51:56	625087.3	4665543.7	16.513422	42.131282	37.4	-140.5
0780	2009-03-08T23:54:09	625235.5	4665746.8	16.515259	42.133087	39.3	-141.0
0790	2009-03-08T23:56:21	625389.4	4665942.2	16.517162	42.134822	39.4	-141.7
0800	2009-03-08T23:58:32	625539.4	4666141.2	16.519019	42.136589	37.9	-142.1
0810	2009-03-09T00:00:41	625688.6	4666340.3	16.520867	42.138358	37.7	-142.6
0820	2009-03-09T00:02:52	625838.9	4666541.9	16.522728	42.140149	37.7	-143.5
0830	2009-03-09T00:05:03	625987.9	4666742.3	16.524574	42.141929	37.1	-143.9
0840	2009-03-09T00:07:13	626135.4	4666941.8	16.526402	42.143701	37.4	-144.5
0850	2009-03-09T00:09:24	626283.5	4667143.2	16.528237	42.145491	33.2	-145.3
0860	2009-03-09T00:11:34	626422.8	4667351.9	16.529967	42.147347	35.9	-145.9

0870	2009-03-09T00:13:43	626562.5	4667559.8	16.531702	42.149196	37.1	-146.5
0880	2009-03-09T00:15:52	626706.9	4667763.3	16.533494	42.151005	37.1	-147.3
0890	2009-03-09T00:18:03	626849.9	4667969.7	16.535268	42.152840	35.7	-147.8
0900	2009-03-09T00:20:18	627001.4	4668170.3	16.537145	42.154622	37.6	-148.3
0910	2009-03-09T00:22:33	627149.4	4668370.7	16.538980	42.156402	39.5	-149.1
0920	2009-03-09T00:24:49	627301.9	4668567.0	16.540867	42.158144	38.2	-149.5
0930	2009-03-09T00:27:04	627452.8	4668764.3	16.542736	42.159896	38.7	-150.0
0940	2009-03-09T00:29:19	627603.7	4668964.2	16.544606	42.161671	38.3	-150.6
0950	2009-03-09T00:31:34	627753.5	4669164.5	16.546463	42.163450	37.7	-151.0
0960	2009-03-09T00:33:49	627903.0	4669366.2	16.548316	42.165241	37.3	-151.4
0970	2009-03-09T00:36:01	628050.3	4669565.3	16.550142	42.167010	38.7	-151.8
0980	2009-03-09T00:38:14	628194.4	4669768.3	16.551931	42.168814	34.6	-152.2
0990	2009-03-09T00:40:28	628334.4	4669974.4	16.553671	42.170646	37.5	-152.5
1000	2009-03-09T00:42:45	628483.5	4670178.2	16.555520	42.172457	37.7	-152.9
1010	2009-03-09T00:44:52	628638.5	4670372.2	16.557439	42.174178	40.8	-153.2
1020	2009-03-09T00:46:51	628785.4	4670573.0	16.559261	42.175961	36.6	-153.4
1030	2009-03-09T00:48:50	628929.2	4670776.8	16.561047	42.177772	34.2	-153.8
1040	2009-03-09T00:50:50	629074.4	4670978.7	16.562849	42.179566	39.9	-154.3
1050	2009-03-09T00:52:53	629232.5	4671174.8	16.564806	42.181305	37.6	-154.8
1060	2009-03-09T00:54:55	629372.4	4671382.4	16.566546	42.183151	34.8	-155.5
1070	2009-03-09T00:56:56	629515.0	4671584.0	16.568316	42.184943	39.4	-156.4
1080	2009-03-09T00:58:58	629670.1	4671778.4	16.570237	42.186667	40.9	-157.2
1090	2009-03-09T01:01:01	629822.6	4671977.9	16.572127	42.188438	34.8	-158.2
1100	2009-03-09T01:03:03	629968.2	4672180.7	16.573935	42.190239	35.1	-159.2
1110	2009-03-09T01:05:04	630105.5	4672386.9	16.575644	42.192073	35.8	-160.3
1120	2009-03-09T01:07:07	630250.0	4672593.4	16.577439	42.193908	37.9	-161.6
1130	2009-03-09T01:09:09	630401.2	4672793.2	16.579315	42.195681	38.6	-162.7
1140	2009-03-09T01:11:10	630554.2	4672987.5	16.581211	42.197405	39.9	-164.1
1150	2009-03-09T01:13:12	630703.8	4673186.6	16.583067	42.199173	35.9	-165.3
1160	2009-03-09T01:15:14	630848.5	4673388.7	16.584864	42.200968	36.6	-166.6
1170	2009-03-09T01:17:16	630991.8	4673590.7	16.586644	42.202762	36.5	-168.0
1180	2009-03-09T01:19:18	631137.9	4673790.4	16.588459	42.204536	37.0	-169.2
1190	2009-03-09T01:21:21	631289.7	4673987.8	16.590341	42.206287	40.7	-170.7
1200	2009-03-09T01:23:24	631437.0	4674186.8	16.592170	42.208054	37.5	-172.0
1210	2009-03-09T01:25:28	631581.0	4674390.6	16.593960	42.209865	34.6	-173.2
1220	2009-03-09T01:27:33	631728.9	4674592.3	16.595796	42.211656	40.3	-174.5
1230	2009-03-09T01:29:37	631880.0	4674789.0	16.597671	42.213401	36.0	-175.5
1240	2009-03-09T01:31:44	632026.6	4674993.6	16.599492	42.215218	33.0	-176.6
1250	2009-03-09T01:33:50	632163.8	4675202.6	16.601202	42.217076	36.9	-177.6
1260	2009-03-09T01:35:56	632317.2	4675400.0	16.603104	42.218828	38.5	-178.6

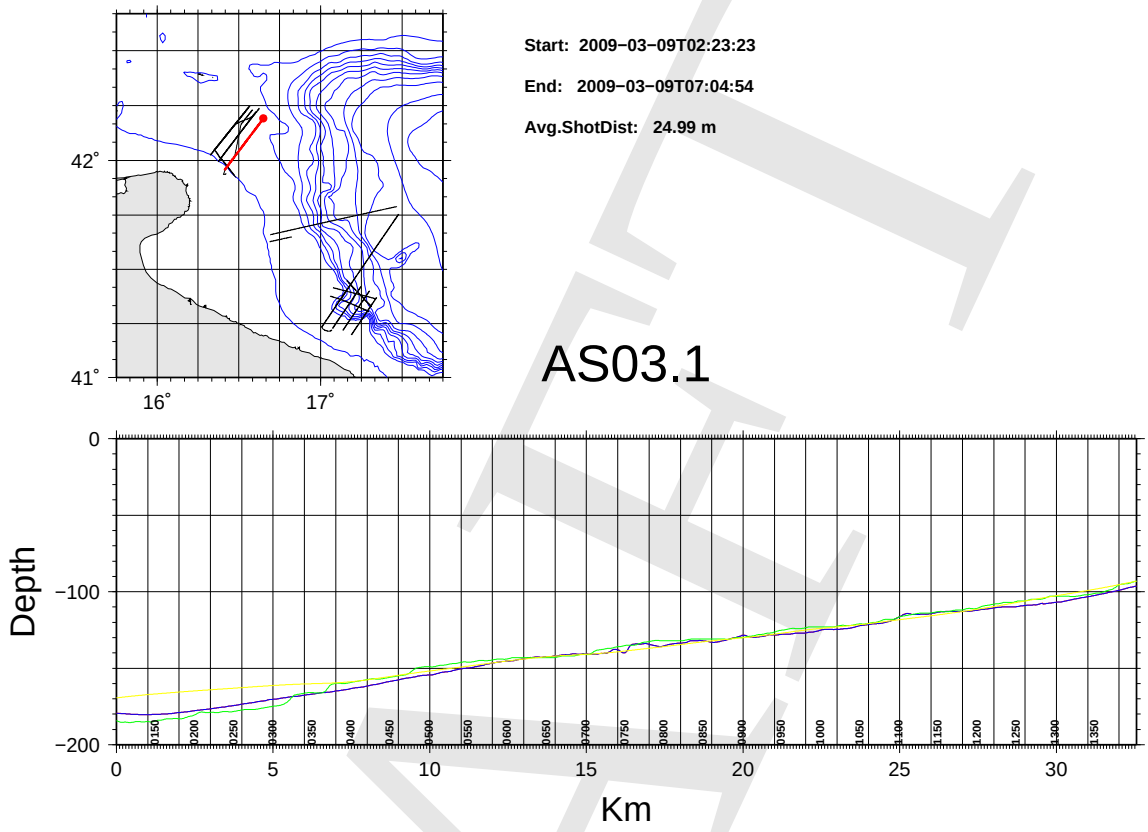

Figure 39: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 16: Line ../NAV/AS03.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-09T02:24:17	636128.7	4672254.9	16.648528	42.189860	213.8	-179.5
0110	2009-03-09T02:25:56	636006.1	4672069.4	16.647001	42.188211	213.6	-179.9
0120	2009-03-09T02:27:58	635858.9	4671866.5	16.645172	42.186410	211.7	-180.2
0130	2009-03-09T02:30:00	635726.2	4671656.8	16.643516	42.184545	212.9	-180.3
0140	2009-03-09T02:32:03	635587.0	4671447.8	16.641783	42.182688	215.9	-180.3
0150	2009-03-09T02:34:05	635442.4	4671242.3	16.639985	42.180863	216.6	-180.1
0160	2009-03-09T02:36:05	635300.8	4671037.5	16.638223	42.179044	216.6	-179.9
0170	2009-03-09T02:38:05	635153.6	4670834.6	16.636394	42.177243	216.0	-179.3
0180	2009-03-09T02:40:07	635007.0	4670633.9	16.634574	42.175461	215.2	-178.8
0190	2009-03-09T02:42:12	634862.8	4670430.5	16.632782	42.173655	217.1	-178.1
0200	2009-03-09T02:44:19	634712.2	4670230.6	16.630912	42.171881	214.9	-177.5
0210	2009-03-09T02:46:26	634570.2	4670024.7	16.629146	42.170052	215.0	-176.9
0220	2009-03-09T02:48:35	634421.1	4669822.9	16.627295	42.168261	219.3	-176.2
0230	2009-03-09T02:50:43	634271.2	4669623.9	16.625436	42.166495	215.0	-175.5
0240	2009-03-09T02:52:52	634125.7	4669420.3	16.623628	42.164687	216.5	-174.7
0250	2009-03-09T02:55:01	633981.8	4669216.9	16.621840	42.162881	217.6	-174.0
0260	2009-03-09T02:57:10	633833.3	4669016.0	16.619997	42.161098	216.8	-173.2
0270	2009-03-09T02:59:18	633686.3	4668814.9	16.618172	42.159312	217.6	-172.5
0280	2009-03-09T03:01:26	633540.3	4668612.4	16.616360	42.157514	215.6	-171.5
0290	2009-03-09T03:03:35	633392.8	4668410.0	16.614528	42.155717	217.3	-170.6
0300	2009-03-09T03:05:43	633248.6	4668210.5	16.612738	42.153946	215.9	-170.2

0310	2009-03-09T03:07:52	633103.8	4668005.9	16.610940	42.152128	217.4	-169.3
0320	2009-03-09T03:10:01	632952.0	4667805.2	16.609057	42.150347	218.5	-168.5
0330	2009-03-09T03:12:09	632804.5	4667603.9	16.607227	42.148560	216.2	-168.1
0340	2009-03-09T03:14:17	632660.8	4667400.6	16.605442	42.146754	213.8	-167.3
0350	2009-03-09T03:16:27	632512.0	4667199.5	16.603596	42.144969	219.9	-166.6
0360	2009-03-09T03:18:35	632362.9	4667000.0	16.601748	42.143198	217.3	-165.9
0370	2009-03-09T03:20:44	632218.1	4666795.0	16.599949	42.141377	216.8	-165.5
0380	2009-03-09T03:22:53	632073.7	4666591.1	16.598157	42.139566	215.0	-164.7
0390	2009-03-09T03:25:01	631926.0	4666393.4	16.596325	42.137811	218.0	-163.9
0400	2009-03-09T03:27:08	631782.1	4666195.8	16.594540	42.136056	216.1	-162.9
0410	2009-03-09T03:29:17	631636.4	4665994.5	16.592733	42.134268	215.4	-162.4
0420	2009-03-09T03:31:27	631490.2	4665792.4	16.590918	42.132473	215.1	-161.2
0430	2009-03-09T03:33:38	631342.2	4665589.8	16.589083	42.130674	217.5	-160.3
0440	2009-03-09T03:35:49	631197.1	4665384.9	16.587282	42.128854	216.8	-159.1
0450	2009-03-09T03:38:00	631053.0	4665181.8	16.585494	42.127050	217.4	-158.1
0460	2009-03-09T03:40:13	630903.3	4664982.6	16.583639	42.125281	218.9	-157.1
0470	2009-03-09T03:42:26	630754.4	4664781.9	16.581793	42.123499	217.3	-156.3
0480	2009-03-09T03:44:39	630610.1	4664578.7	16.580002	42.121694	216.7	-155.3
0490	2009-03-09T03:46:54	630459.7	4664376.2	16.578139	42.119896	217.5	-154.5
0500	2009-03-09T03:49:07	630314.4	4664174.4	16.576336	42.118103	215.1	-154.3
0510	2009-03-09T03:51:20	630167.1	4663974.6	16.574511	42.116329	218.0	-152.9
0520	2009-03-09T03:53:35	630021.2	4663772.0	16.572701	42.114529	215.8	-152.2
0530	2009-03-09T03:55:50	629877.4	4663572.4	16.570918	42.112756	215.8	-151.1
0540	2009-03-09T03:58:06	629728.8	4663369.1	16.569076	42.110950	215.3	-150.1
0550	2009-03-09T04:00:20	629582.8	4663166.9	16.567267	42.109154	216.4	-149.7
0560	2009-03-09T04:02:25	629430.9	4662966.1	16.565386	42.107371	218.0	-148.5
0570	2009-03-09T04:04:29	629289.3	4662762.6	16.563628	42.105563	216.0	-147.2
0580	2009-03-09T04:06:44	629144.0	4662559.9	16.561827	42.103762	216.7	-146.3
0590	2009-03-09T04:08:59	628994.2	4662360.0	16.559972	42.101987	217.6	-145.5
0600	2009-03-09T04:11:16	628845.4	4662157.8	16.558129	42.100191	213.9	-145.2
0610	2009-03-09T04:13:25	628702.9	4661953.6	16.556361	42.098376	217.3	-144.3
0620	2009-03-09T04:15:30	628556.7	4661750.6	16.554549	42.096572	217.6	-143.5
0630	2009-03-09T04:17:36	628405.4	4661551.0	16.552676	42.094800	217.3	-142.8
0640	2009-03-09T04:19:47	628259.2	4661349.9	16.550865	42.093013	214.2	-142.9
0650	2009-03-09T04:21:58	628113.1	4661148.0	16.549055	42.091219	215.0	-142.6
0660	2009-03-09T04:24:09	627967.5	4660943.9	16.547250	42.089406	219.8	-141.8
0670	2009-03-09T04:26:18	627821.6	4660742.6	16.545442	42.087617	217.7	-141.2
0680	2009-03-09T04:28:28	627672.0	4660544.1	16.543591	42.085854	218.7	-140.6
0690	2009-03-09T04:30:38	627528.6	4660340.0	16.541814	42.084040	218.3	-140.8
0700	2009-03-09T04:32:45	627380.4	4660138.6	16.539979	42.082251	218.0	-140.7
0710	2009-03-09T04:34:51	627234.4	4659936.7	16.538170	42.080457	217.7	-140.8
0720	2009-03-09T04:36:56	627085.5	4659735.3	16.536327	42.078668	218.1	-140.2
0730	2009-03-09T04:39:00	626940.1	4659533.0	16.534526	42.076870	216.1	-137.8
0740	2009-03-09T04:41:05	626792.8	4659331.5	16.532702	42.075080	213.5	-139.0
0750	2009-03-09T04:43:10	626649.9	4659126.7	16.530931	42.073259	214.4	-137.1
0760	2009-03-09T04:45:15	626502.0	4658924.8	16.529100	42.071465	220.4	-134.1
0770	2009-03-09T04:47:19	626353.4	4658728.6	16.527263	42.069723	216.2	-134.0
0780	2009-03-09T04:49:25	626204.4	4658526.9	16.525419	42.067931	214.8	-134.8
0790	2009-03-09T04:51:32	626062.5	4658320.5	16.523659	42.066095	217.5	-135.9
0800	2009-03-09T04:53:39	625915.6	4658119.6	16.521841	42.064310	218.2	-134.7
0810	2009-03-09T04:55:47	625769.6	4657918.3	16.520034	42.062521	215.3	-133.9
0820	2009-03-09T04:57:58	625620.1	4657715.8	16.518184	42.060722	218.7	-133.5
0830	2009-03-09T05:00:07	625476.2	4657511.7	16.516402	42.058907	214.9	-132.0
0840	2009-03-09T05:02:17	625324.3	4657312.6	16.514525	42.057139	216.2	-131.9
0850	2009-03-09T05:04:27	625180.2	4657108.1	16.512740	42.055321	214.1	-132.4
0860	2009-03-09T05:06:35	625030.2	4656909.5	16.510885	42.053557	215.6	-133.1

0870	2009-03-09T05:08:46	624883.4	4656706.9	16.509069	42.051756	216.1	-132.1
0880	2009-03-09T05:10:50	624735.8	4656504.6	16.507243	42.049958	218.6	-130.7
0890	2009-03-09T05:12:46	624594.4	4656301.0	16.505492	42.048147	216.1	-129.5
0900	2009-03-09T05:14:49	624442.1	4656100.0	16.503609	42.046362	217.6	-128.7
0910	2009-03-09T05:17:04	624298.3	4655896.8	16.501829	42.044555	215.1	-129.7
0920	2009-03-09T05:19:15	624148.5	4655698.7	16.499978	42.042795	220.4	-129.3
0930	2009-03-09T05:21:28	624003.9	4655494.2	16.498188	42.040977	215.1	-128.0
0940	2009-03-09T05:23:39	623859.0	4655290.1	16.496395	42.039162	216.4	-128.3
0950	2009-03-09T05:25:47	623711.0	4655090.5	16.494565	42.037388	218.6	-127.8
0960	2009-03-09T05:27:54	623567.1	4654886.3	16.492784	42.035573	215.7	-127.4
0970	2009-03-09T05:30:00	623419.1	4654684.1	16.490955	42.033775	218.4	-127.2
0980	2009-03-09T05:32:05	623269.2	4654484.7	16.489103	42.032004	215.2	-126.5
0990	2009-03-09T05:34:10	623121.0	4654283.0	16.487270	42.030211	219.4	-125.9
1000	2009-03-09T05:36:15	622974.3	4654081.3	16.485457	42.028418	216.9	-124.6
1010	2009-03-09T05:38:21	622830.9	4653878.1	16.483683	42.026611	216.1	-124.7
1020	2009-03-09T05:40:25	622684.9	4653678.7	16.481878	42.024838	216.4	-124.5
1030	2009-03-09T05:42:30	622539.2	4653476.7	16.480076	42.023042	216.4	-124.0
1040	2009-03-09T05:44:35	622394.6	4653271.9	16.478287	42.021221	218.0	-123.0
1050	2009-03-09T05:46:40	622240.8	4653075.0	16.476390	42.019472	219.8	-121.8
1060	2009-03-09T05:48:46	622092.5	4652873.8	16.474557	42.017684	215.4	-121.2
1070	2009-03-09T05:50:51	621950.3	4652669.5	16.472798	42.015866	217.6	-120.9
1080	2009-03-09T05:52:58	621805.1	4652465.9	16.471003	42.014056	217.3	-119.8
1090	2009-03-09T05:55:05	621653.5	4652267.7	16.469131	42.012295	219.2	-118.1
1100	2009-03-09T05:57:14	621507.4	4652063.2	16.467325	42.010476	212.4	-115.4
1110	2009-03-09T05:59:22	621365.8	4651858.5	16.465573	42.008655	216.9	-114.5
1120	2009-03-09T06:01:32	621220.9	4651656.9	16.463782	42.006862	217.3	-114.8
1130	2009-03-09T06:03:45	621071.2	4651456.2	16.461934	42.005078	215.7	-114.8
1140	2009-03-09T06:05:58	620924.1	4651255.0	16.460117	42.003289	217.2	-113.9
1150	2009-03-09T06:08:13	620776.5	4651051.0	16.458293	42.001475	216.6	-113.1
1160	2009-03-09T06:10:28	620627.1	4650851.2	16.456449	41.999699	214.5	-112.8
1170	2009-03-09T06:12:44	620485.5	4650645.6	16.454698	41.997870	219.2	-112.9
1180	2009-03-09T06:15:01	620333.8	4650448.2	16.452826	41.996116	218.1	-112.8
1190	2009-03-09T06:17:19	620187.2	4650246.4	16.451016	41.994321	216.3	-112.5
1200	2009-03-09T06:19:29	620041.6	4650042.7	16.449217	41.992509	219.6	-111.6
1210	2009-03-09T06:21:34	619893.9	4649839.9	16.447393	41.990706	218.3	-111.2
1220	2009-03-09T06:23:46	619742.7	4649641.1	16.445527	41.988939	218.1	-110.3
1230	2009-03-09T06:26:01	619602.3	4649434.2	16.443791	41.987097	215.8	-110.0
1240	2009-03-09T06:28:13	619450.2	4649237.7	16.441915	41.985351	218.6	-109.9
1250	2009-03-09T06:30:25	619306.1	4649034.3	16.440135	41.983542	216.6	-109.5
1260	2009-03-09T06:32:38	619158.3	4648831.1	16.438310	41.981735	217.5	-108.8
1270	2009-03-09T06:34:51	619014.7	4648625.9	16.436536	41.979909	218.3	-108.8
1280	2009-03-09T06:37:03	618864.1	4648428.0	16.434679	41.978150	213.9	-108.1
1290	2009-03-09T06:39:17	618724.9	4648221.7	16.432958	41.976313	220.7	-107.4
1300	2009-03-09T06:41:29	618568.6	4648027.2	16.431032	41.974586	215.3	-106.8
1310	2009-03-09T06:43:41	618431.5	4647820.4	16.429337	41.972744	213.5	-106.0
1320	2009-03-09T06:45:53	618280.6	4647621.3	16.427476	41.970974	219.6	-104.7
1330	2009-03-09T06:48:08	618136.3	4647414.7	16.425694	41.969136	217.0	-103.9
1340	2009-03-09T06:50:21	617987.7	4647215.2	16.423861	41.967362	217.3	-103.1
1350	2009-03-09T06:52:35	617844.4	4647011.1	16.422091	41.965546	217.3	-102.0
1360	2009-03-09T06:54:49	617700.6	4646806.5	16.420315	41.963725	216.6	-101.0
1370	2009-03-09T06:57:02	617558.3	4646600.0	16.418557	41.961887	215.7	-99.8
1380	2009-03-09T06:59:14	617408.4	4646401.0	16.416709	41.960118	219.5	-98.7
1390	2009-03-09T07:01:28	617254.5	4646202.6	16.414814	41.958354	216.4	-97.2

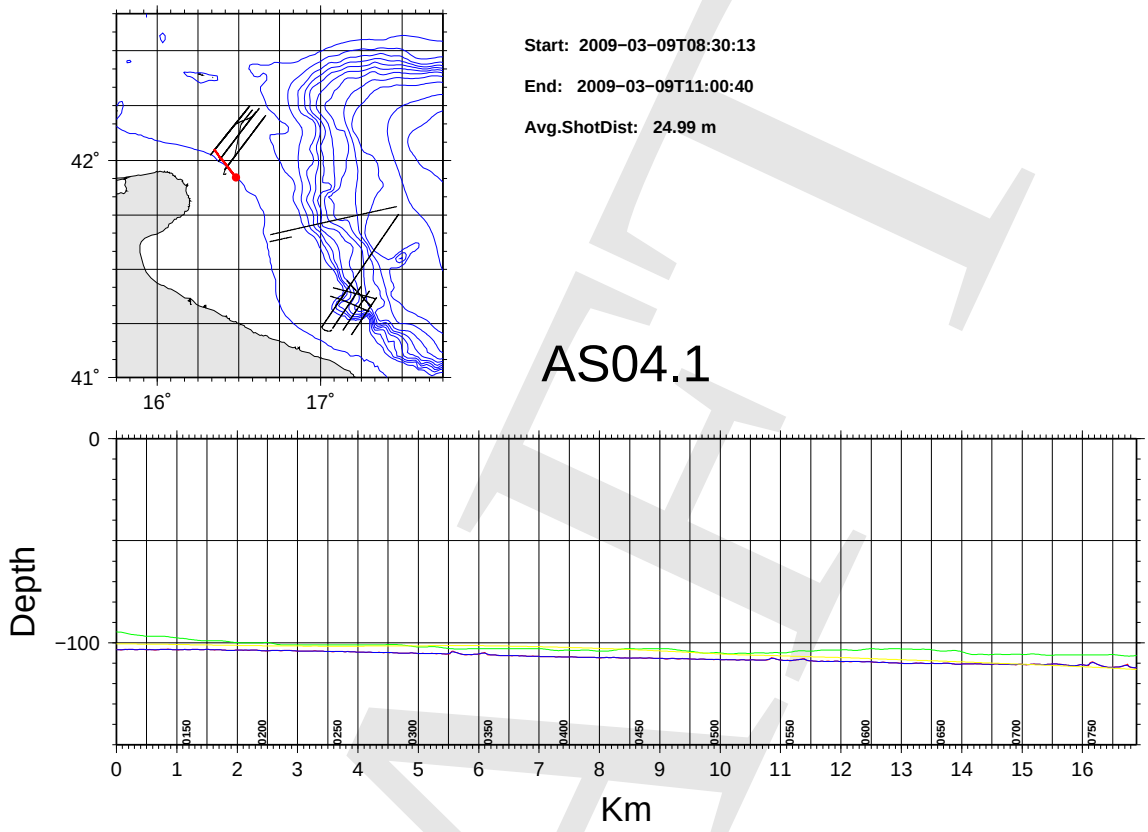

Figure 40: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 17: Line ../NAV/AS04.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-09T08:41:25	622081.8	4643252.9	16.472431	41.931064	324.0	-103.3
0110	2009-03-09T08:43:16	621940.5	4643429.4	16.470764	41.932675	323.1	-103.3
0120	2009-03-09T08:45:16	621783.9	4643624.0	16.468916	41.934451	316.1	-103.4
0130	2009-03-09T08:47:17	621623.8	4643817.9	16.467026	41.936222	323.4	-103.3
0140	2009-03-09T08:49:18	621468.5	4644012.5	16.465193	41.937998	321.7	-103.4
0150	2009-03-09T08:51:17	621314.0	4644206.2	16.463370	41.939765	323.3	-103.4
0160	2009-03-09T08:53:16	621154.5	4644398.1	16.461486	41.941518	319.4	-103.3
0170	2009-03-09T08:55:15	621003.7	4644597.6	16.459708	41.943337	322.3	-103.5
0180	2009-03-09T08:57:15	620838.6	4644784.9	16.457755	41.945049	321.6	-103.7
0190	2009-03-09T08:59:12	620687.0	4644984.5	16.455968	41.946869	325.2	-103.6
0200	2009-03-09T09:01:09	620533.1	4645179.1	16.454152	41.948645	319.0	-104.1
0210	2009-03-09T09:03:07	620371.5	4645367.7	16.452241	41.950367	322.2	-103.9
0220	2009-03-09T09:05:03	620221.2	4645566.6	16.450469	41.952181	323.1	-104.1
0230	2009-03-09T09:07:00	620064.7	4645760.2	16.448621	41.953948	318.1	-104.2
0240	2009-03-09T09:08:56	619904.3	4645953.7	16.446726	41.955715	324.7	-104.2
0250	2009-03-09T09:10:55	619751.7	4646151.9	16.444926	41.957522	324.0	-104.3
0260	2009-03-09T09:13:09	619594.7	4646343.6	16.443071	41.959272	316.8	-104.6
0270	2009-03-09T09:15:03	619432.9	4646534.1	16.441158	41.961012	322.6	-104.7
0280	2009-03-09T09:17:02	619283.7	4646734.1	16.439399	41.962835	328.4	-104.8
0290	2009-03-09T09:19:10	619117.1	4646920.1	16.437426	41.964535	318.5	-105.1
0300	2009-03-09T09:21:19	618968.8	4647121.8	16.435678	41.966373	324.5	-105.2

0310	2009-03-09T09:23:30	618809.3	4647313.5	16.433793	41.968124	317.8	-105.2
0320	2009-03-09T09:25:27	618650.8	4647507.2	16.431919	41.969891	323.1	-105.6
0330	2009-03-09T09:27:20	618498.8	4647704.0	16.430125	41.971686	324.2	-105.7
0340	2009-03-09T09:29:15	618339.8	4647896.5	16.428245	41.973443	321.2	-105.6
0350	2009-03-09T09:31:14	618184.1	4648094.0	16.426407	41.975245	322.0	-106.0
0360	2009-03-09T09:33:19	618030.2	4648288.8	16.424589	41.977022	320.1	-106.3
0370	2009-03-09T09:35:24	617873.4	4648481.4	16.422736	41.978779	319.7	-106.4
0380	2009-03-09T09:37:32	617716.0	4648675.0	16.420875	41.980546	324.6	-106.7
0390	2009-03-09T09:39:43	617556.2	4648867.3	16.418985	41.982301	321.8	-106.8
0400	2009-03-09T09:41:50	617398.4	4649059.4	16.417120	41.984054	321.5	-107.0
0410	2009-03-09T09:43:58	617241.6	4649254.8	16.415266	41.985837	324.2	-107.1
0420	2009-03-09T09:46:06	617091.8	4649455.5	16.413499	41.987666	323.7	-107.4
0430	2009-03-09T09:48:14	616933.0	4649647.2	16.411620	41.989416	323.7	-107.2
0440	2009-03-09T09:50:23	616776.4	4649843.4	16.409769	41.991206	323.1	-107.5
0450	2009-03-09T09:52:33	616620.1	4650038.5	16.407922	41.992985	322.5	-107.6
0460	2009-03-09T09:54:43	616467.8	4650234.9	16.406122	41.994776	315.8	-107.6
0470	2009-03-09T09:56:55	616302.7	4650422.8	16.404167	41.996493	319.4	-107.7
0480	2009-03-09T09:59:08	616147.6	4650619.7	16.402334	41.998288	320.7	-107.9
0490	2009-03-09T10:01:19	615992.3	4650813.2	16.400497	42.000053	324.8	-108.0
0500	2009-03-09T10:03:30	615840.0	4651011.2	16.398698	42.001859	324.9	-108.2
0510	2009-03-09T10:05:43	615676.7	4651200.2	16.396764	42.003584	309.9	-108.4
0520	2009-03-09T10:07:47	615479.9	4651352.2	16.394418	42.004982	307.0	-108.5
0530	2009-03-09T10:09:48	615280.2	4651501.7	16.392037	42.006357	308.6	-108.5
0540	2009-03-09T10:11:48	615085.8	4651659.9	16.389722	42.007810	315.7	-108.3
0550	2009-03-09T10:13:47	614907.2	4651835.3	16.387600	42.009415	321.7	-108.5
0560	2009-03-09T10:15:44	614747.3	4652026.6	16.385707	42.011161	321.5	-108.9
0570	2009-03-09T10:17:42	614589.2	4652219.5	16.383836	42.012921	321.5	-109.1
0580	2009-03-09T10:19:40	614430.1	4652411.1	16.381952	42.014669	316.3	-109.2
0590	2009-03-09T10:21:39	614283.2	4652614.6	16.380218	42.016523	328.1	-109.2
0600	2009-03-09T10:23:38	614147.5	4652824.1	16.378620	42.018429	326.3	-109.2
0610	2009-03-09T10:25:41	614008.3	4653032.3	16.376980	42.020323	326.4	-109.6
0620	2009-03-09T10:27:48	613871.1	4653239.8	16.375364	42.022212	327.4	-110.0
0630	2009-03-09T10:29:54	613732.2	4653450.2	16.373727	42.024126	326.5	-110.0
0640	2009-03-09T10:31:58	613593.6	4653655.7	16.372094	42.025996	327.1	-110.1
0650	2009-03-09T10:34:02	613456.1	4653865.0	16.370474	42.027901	327.1	-110.1
0660	2009-03-09T10:36:06	613320.3	4654074.2	16.368874	42.029804	326.0	-110.5
0670	2009-03-09T10:38:10	613183.2	4654283.3	16.367259	42.031706	328.8	-110.3
0680	2009-03-09T10:40:14	613045.7	4654491.4	16.365638	42.033600	323.1	-110.6
0690	2009-03-09T10:42:17	612887.9	4654682.3	16.363770	42.035341	322.7	-110.6
0700	2009-03-09T10:44:22	612729.7	4654877.1	16.361896	42.037118	320.1	-110.5
0710	2009-03-09T10:46:27	612571.7	4655073.1	16.360025	42.038905	320.8	-110.5
0720	2009-03-09T10:48:30	612411.7	4655264.3	16.358130	42.040650	318.2	-110.5
0730	2009-03-09T10:50:33	612256.6	4655460.6	16.356294	42.042439	323.0	-110.9
0740	2009-03-09T10:52:34	612102.9	4655656.6	16.354475	42.044226	320.5	-110.7
0750	2009-03-09T10:54:36	611938.6	4655846.2	16.352527	42.045956	324.4	-110.2
0760	2009-03-09T10:56:36	611785.9	4656042.3	16.350719	42.047744	322.0	-112.1
0770	2009-03-09T10:58:37	611632.6	4656241.6	16.348905	42.049560	323.8	-110.8

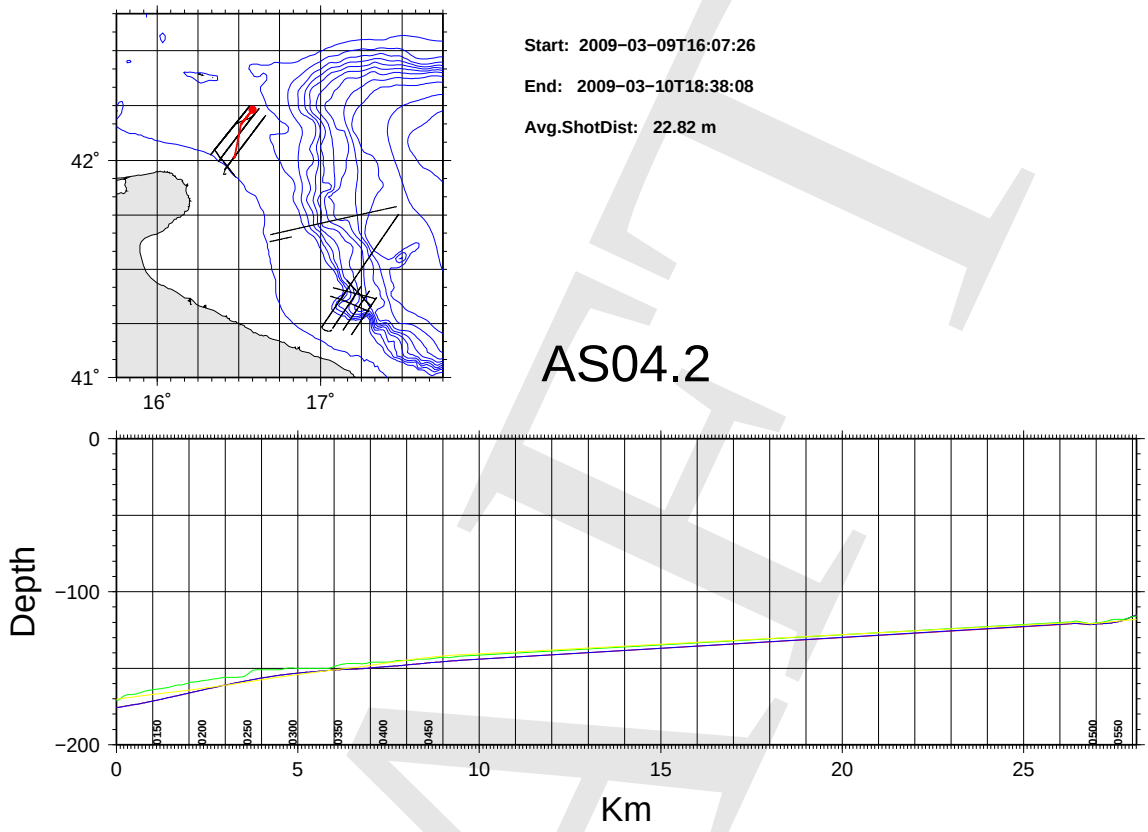

Figure 41: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 18: Line ../NAV/AS04.2 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-09T16:08:06	630692.1	4676703.8	16.583716	42.230839	219.3	-175.8
0110	2009-03-09T16:09:55	630556.6	4676524.8	16.582034	42.229250	214.2	-174.9
0120	2009-03-09T16:11:56	630407.0	4676324.1	16.580177	42.227468	217.3	-173.9
0130	2009-03-09T16:13:57	630255.7	4676125.8	16.578300	42.225708	219.2	-172.8
0140	2009-03-09T16:15:59	630103.2	4675928.5	16.576408	42.223957	220.5	-171.6
0150	2009-03-09T16:18:03	629948.2	4675732.9	16.574488	42.222222	219.9	-170.3
0160	2009-03-09T16:20:09	629800.1	4675531.8	16.572649	42.220436	215.8	-169.1
0170	2009-03-09T16:22:16	629651.4	4675331.3	16.570803	42.218656	221.0	-167.7
0180	2009-03-09T16:24:23	629492.9	4675138.3	16.568840	42.216945	221.7	-166.4
0190	2009-03-09T16:26:31	629348.0	4674934.6	16.567040	42.215135	214.4	-165.0
0200	2009-03-09T16:28:38	629198.0	4674736.5	16.565179	42.213376	220.4	-163.7
0210	2009-03-09T16:30:47	629041.0	4674542.7	16.563235	42.211657	220.4	-162.5
0220	2009-03-09T16:32:57	628891.9	4674343.7	16.561385	42.209890	217.1	-161.1
0230	2009-03-09T16:35:07	628742.9	4674139.8	16.559536	42.208079	221.3	-159.9
0240	2009-03-09T16:37:15	628589.6	4673945.0	16.557637	42.206351	213.5	-158.8
0250	2009-03-09T16:39:23	628441.3	4673745.2	16.555797	42.204576	222.0	-157.6
0260	2009-03-09T16:41:31	628288.8	4673552.3	16.553907	42.202865	215.9	-156.5
0270	2009-03-09T16:43:40	628138.5	4673352.3	16.552044	42.201089	222.4	-155.6
0280	2009-03-09T16:45:50	627987.5	4673151.7	16.550171	42.199308	216.3	-154.6
0290	2009-03-09T16:47:59	627841.4	4672952.2	16.548358	42.197536	220.1	-154.0
0300	2009-03-09T16:50:14	627685.9	4672757.8	16.546433	42.195811	216.6	-153.3

0310	2009-03-09T16:52:35	627538.2	4672555.9	16.544600	42.194017	222.0	-152.7
0320	2009-03-09T16:54:54	627382.0	4672364.1	16.542667	42.192316	215.1	-152.2
0330	2009-03-09T16:57:10	627238.6	4672160.1	16.540887	42.190503	219.1	-151.7
0340	2009-03-09T16:59:17	627082.9	4671964.2	16.538959	42.188764	219.5	-151.3
0350	2009-03-09T17:01:20	626929.5	4671767.1	16.537059	42.187015	216.6	-150.9
0360	2009-03-09T17:03:20	626780.7	4671568.7	16.535215	42.185253	217.4	-150.7
0370	2009-03-09T17:05:21	626631.5	4671367.7	16.533365	42.183467	216.8	-150.4
0380	2009-03-09T17:07:21	626479.2	4671169.3	16.531478	42.181706	219.2	-149.9
0390	2009-03-09T17:09:20	626326.5	4670972.2	16.529587	42.179956	220.2	-149.4
0400	2009-03-09T17:11:25	626170.7	4670775.9	16.527659	42.178214	216.6	-148.9
0410	2009-03-09T17:13:32	626025.6	4670573.2	16.525859	42.176412	216.9	-148.5
0420	2009-03-09T17:15:39	625873.4	4670376.7	16.523974	42.174668	217.8	-147.9
0430	2009-03-09T17:17:48	625722.5	4670175.7	16.522104	42.172882	216.2	-147.4
0440	2009-03-09T17:19:59	625577.9	4669971.7	16.520310	42.171069	220.0	-146.8
0450	2009-03-09T17:22:13	625425.8	4669774.5	16.518427	42.169318	218.8	-146.3
0460	2009-03-09T17:24:35	625285.5	4669568.6	16.516685	42.167487	217.9	-145.8
0470	2009-03-09T17:26:50	625135.2	4669369.4	16.514823	42.165717	217.6	-145.3
0480	2009-03-10T12:52:34	622014.6	4652705.8	16.473582	42.016183	146.4	-121.0
0490	2009-03-10T18:28:23	622151.2	4652950.6	16.475282	42.018366	216.7	-121.4
0500	2009-03-10T18:29:23	622079.8	4652851.3	16.474399	42.017483	215.3	-121.1
0510	2009-03-10T18:30:26	622004.2	4652750.0	16.473465	42.016583	237.9	-120.9
0520	2009-03-10T18:31:33	621935.3	4652643.9	16.472611	42.015638	259.5	-120.8
0530	2009-03-10T18:32:38	621854.8	4652550.1	16.471620	42.014806	177.7	-120.3
0540	2009-03-10T18:33:43	621787.2	4652444.5	16.470782	42.013866	234.7	-119.7
0550	2009-03-10T18:34:47	621712.8	4652341.6	16.469863	42.012951	214.8	-119.0
0560	2009-03-10T18:35:51	621639.1	4652241.8	16.468952	42.012064	218.0	-117.9
0570	2009-03-10T18:36:55	621564.7	4652142.6	16.468033	42.011182	216.7	-116.4
0580	2009-03-10T18:38:01	621485.5	4652043.7	16.467057	42.010304	177.2	-114.9

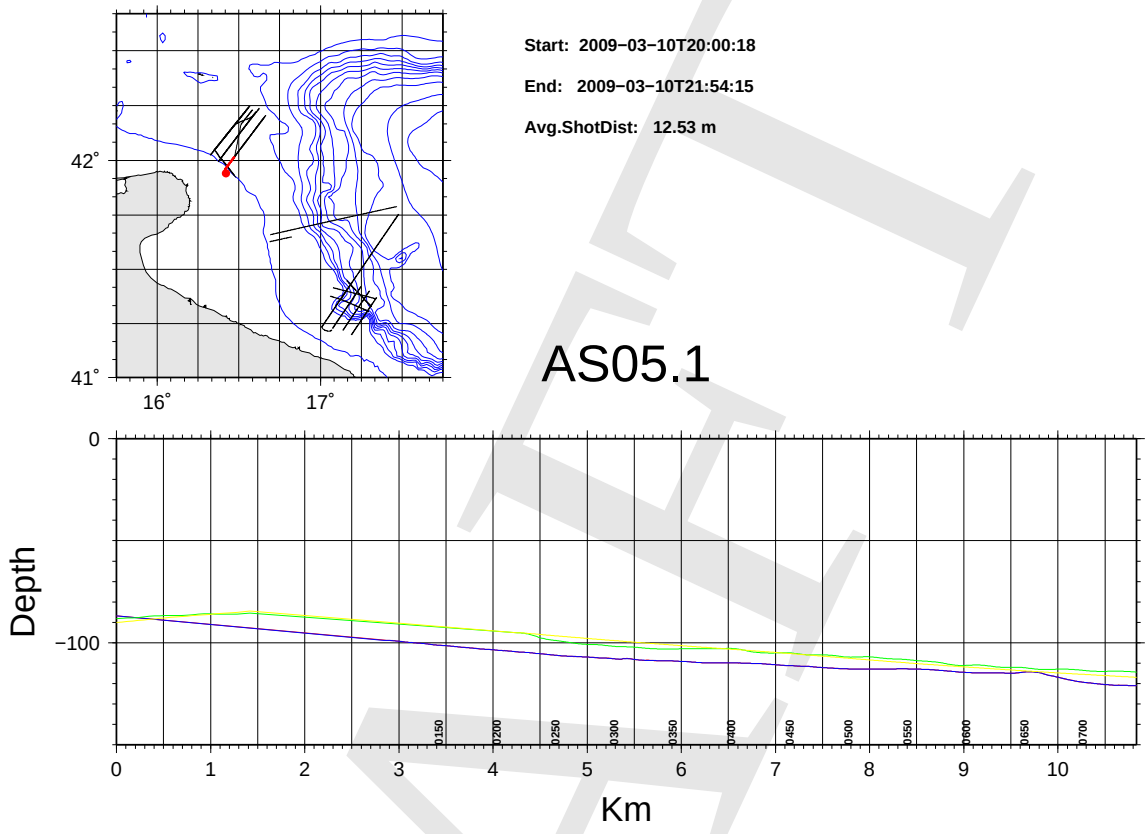

Figure 42: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 19: Line ../NAV/AS05.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-10T20:39:50	617402.1	4646417.5	16.416637	41.960267	312.1	-98.7
0110	2009-03-10T20:40:46	617453.7	4646504.1	16.417277	41.961039	51.0	-99.1
0120	2009-03-10T20:41:50	617541.7	4646593.8	16.418356	41.961834	39.3	-99.8
0130	2009-03-10T20:42:56	617613.4	4646697.0	16.419242	41.962752	32.4	-100.3
0140	2009-03-10T20:44:03	617683.6	4646799.9	16.420109	41.963668	37.1	-100.8
0150	2009-03-10T20:45:10	617754.6	4646900.4	16.420985	41.964562	36.4	-101.4
0160	2009-03-10T20:46:19	617826.4	4647004.8	16.421873	41.965492	30.9	-101.8
0170	2009-03-10T20:47:27	617897.8	4647106.9	16.422755	41.966400	33.3	-102.4
0180	2009-03-10T20:48:34	617968.8	4647207.9	16.423631	41.967299	35.7	-102.9
0190	2009-03-10T20:49:37	618040.2	4647301.5	16.424512	41.968131	37.6	-103.3
0200	2009-03-10T20:50:43	618117.1	4647398.8	16.425459	41.968996	38.5	-103.8
0210	2009-03-10T20:51:48	618191.9	4647495.2	16.426380	41.969852	42.0	-104.3
0220	2009-03-10T20:52:55	618267.8	4647593.3	16.427316	41.970724	43.1	-104.7
0230	2009-03-10T20:54:02	618344.7	4647692.8	16.428264	41.971608	38.4	-105.3
0240	2009-03-10T20:55:08	618419.1	4647791.4	16.429181	41.972485	38.1	-105.7
0250	2009-03-10T20:56:14	618494.2	4647889.3	16.430107	41.973355	37.3	-106.3
0260	2009-03-10T20:57:20	618565.5	4647990.4	16.430988	41.974255	35.0	-106.7
0270	2009-03-10T20:58:28	618635.8	4648093.6	16.431857	41.975173	34.0	-107.0
0280	2009-03-10T20:59:37	618702.9	4648198.2	16.432688	41.976105	34.6	-107.2
0290	2009-03-10T21:00:47	618772.5	4648302.3	16.433548	41.977032	35.1	-107.5
0300	2009-03-10T21:01:58	618845.6	4648405.6	16.434451	41.977951	40.4	-108.0

0310	2009-03-10T21:03:09	618920.5	4648505.6	16.435375	41.978840	34.9	-107.9
0320	2009-03-10T21:04:20	618994.7	4648604.4	16.436291	41.979718	41.7	-108.5
0330	2009-03-10T21:05:32	619069.6	4648704.7	16.437214	41.980610	38.3	-108.7
0340	2009-03-10T21:06:44	619142.7	4648805.0	16.438117	41.981502	34.5	-108.8
0350	2009-03-10T21:07:56	619215.4	4648905.1	16.439015	41.982392	37.0	-109.0
0360	2009-03-10T21:09:08	619288.5	4649004.1	16.439917	41.983273	37.0	-109.3
0370	2009-03-10T21:10:22	619362.0	4649106.7	16.440825	41.984185	36.1	-109.8
0380	2009-03-10T21:11:36	619437.2	4649207.1	16.441752	41.985078	35.4	-109.9
0390	2009-03-10T21:12:48	619508.8	4649305.8	16.442637	41.985956	37.0	-109.9
0400	2009-03-10T21:13:59	619581.2	4649406.4	16.443531	41.986850	35.2	-109.9
0410	2009-03-10T21:15:08	619654.8	4649508.1	16.444439	41.987755	36.7	-110.0
0420	2009-03-10T21:16:16	619726.0	4649607.9	16.445319	41.988643	36.7	-110.2
0430	2009-03-10T21:17:27	619801.6	4649710.1	16.446252	41.989551	42.5	-110.6
0440	2009-03-10T21:18:36	619876.6	4649808.2	16.447177	41.990423	36.4	-111.1
0450	2009-03-10T21:19:46	619949.2	4649910.8	16.448075	41.991336	37.3	-111.3
0460	2009-03-10T21:20:55	620022.9	4650010.4	16.448984	41.992221	36.1	-111.5
0470	2009-03-10T21:22:03	620092.6	4650111.6	16.449846	41.993122	39.8	-112.0
0480	2009-03-10T21:23:12	620163.9	4650213.8	16.450728	41.994031	32.5	-112.4
0490	2009-03-10T21:24:22	620237.9	4650315.3	16.451641	41.994934	34.3	-112.7
0500	2009-03-10T21:25:31	620310.7	4650415.9	16.452541	41.995828	40.0	-112.9
0510	2009-03-10T21:26:39	620382.8	4650514.7	16.453431	41.996707	36.1	-112.9
0520	2009-03-10T21:27:48	620457.1	4650614.4	16.454348	41.997593	40.6	-113.0
0530	2009-03-10T21:28:57	620530.2	4650715.5	16.455252	41.998492	37.6	-112.9
0540	2009-03-10T21:30:06	620604.9	4650815.6	16.456174	41.999382	36.7	-112.8
0550	2009-03-10T21:31:16	620679.6	4650917.8	16.457096	42.000291	36.4	-112.9
0560	2009-03-10T21:32:25	620753.7	4651017.3	16.458011	42.001175	33.1	-113.0
0570	2009-03-10T21:33:35	620826.4	4651118.6	16.458910	42.002076	35.8	-113.3
0580	2009-03-10T21:34:45	620897.9	4651220.0	16.459794	42.002978	31.9	-113.8
0590	2009-03-10T21:35:56	620968.2	4651323.1	16.460663	42.003896	37.7	-114.4
0600	2009-03-10T21:37:07	621042.6	4651423.0	16.461582	42.004784	39.2	-114.7
0610	2009-03-10T21:38:17	621113.3	4651525.1	16.462457	42.005692	38.9	-114.7
0620	2009-03-10T21:39:27	621185.9	4651625.4	16.463354	42.006584	41.7	-114.8
0630	2009-03-10T21:40:38	621263.4	4651724.3	16.464309	42.007462	39.8	-114.9
0640	2009-03-10T21:41:48	621335.2	4651825.1	16.465197	42.008359	37.3	-114.8
0650	2009-03-10T21:42:58	621408.5	4651924.9	16.466102	42.009246	36.4	-114.3
0660	2009-03-10T21:44:08	621480.9	4652024.5	16.466997	42.010132	35.6	-114.7
0670	2009-03-10T21:45:19	621554.4	4652125.9	16.467905	42.011033	36.1	-116.2
0680	2009-03-10T21:46:29	621627.8	4652224.4	16.468812	42.011909	35.5	-117.6
0690	2009-03-10T21:47:41	621701.6	4652326.1	16.469724	42.012813	34.2	-118.8
0700	2009-03-10T21:48:52	621776.7	4652424.7	16.470651	42.013689	26.1	-119.6
0710	2009-03-10T21:50:03	621845.7	4652528.6	16.471506	42.014614	37.0	-120.2
0720	2009-03-10T21:51:14	621920.0	4652629.4	16.472424	42.015510	40.4	-120.7
0730	2009-03-10T21:52:24	621993.3	4652729.8	16.473329	42.016403	32.7	-120.9
0740	2009-03-10T21:53:35	622067.6	4652831.2	16.474248	42.017304	38.5	-121.1

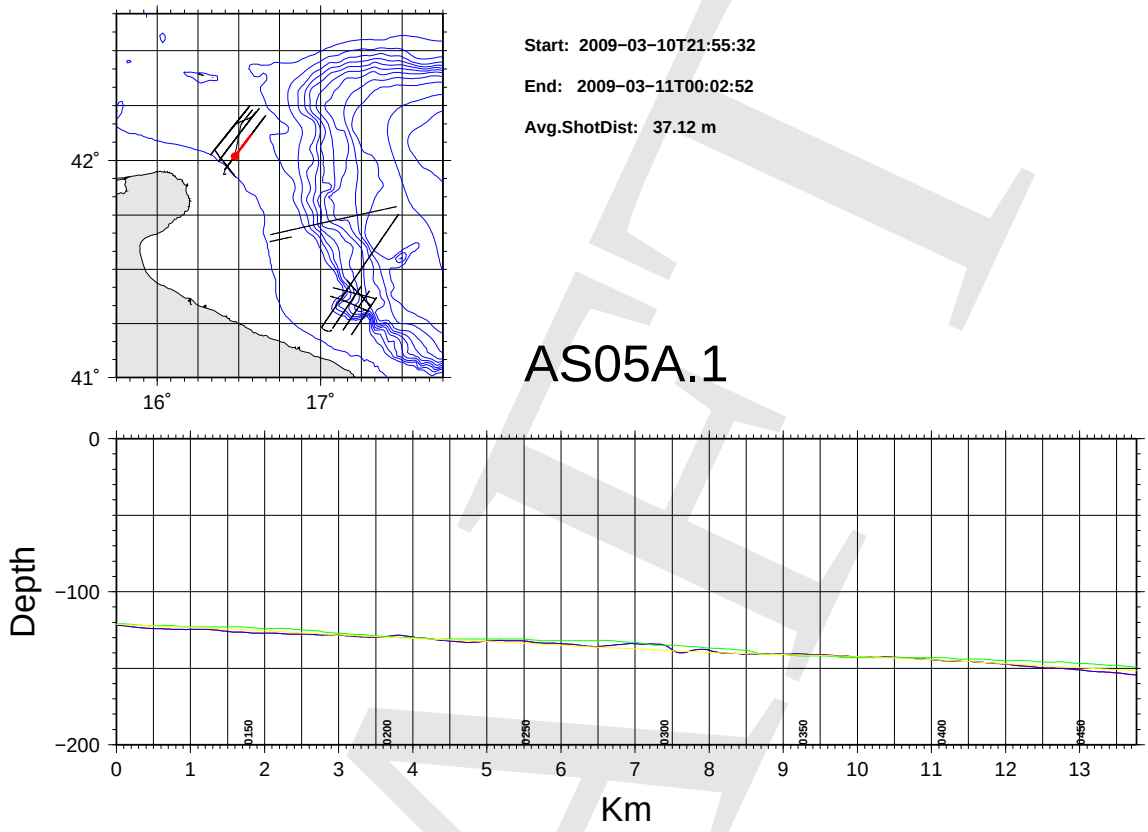

Figure 43: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 20: Line ../NAV/AS05A.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-10T21:56:33	622253.2	4653085.6	16.476542	42.019566	37.6	-121.9
0110	2009-03-10T21:59:41	622453.8	4653357.7	16.479020	42.021984	36.2	-123.6
0120	2009-03-10T22:03:07	622672.7	4653660.7	16.481726	42.024678	39.4	-124.4
0130	2009-03-10T22:06:31	622888.7	4653964.9	16.484398	42.027383	37.2	-124.6
0140	2009-03-10T22:10:02	623112.5	4654268.7	16.487165	42.030083	37.7	-125.8
0150	2009-03-10T22:13:30	623334.1	4654570.6	16.489904	42.032767	38.9	-127.0
0160	2009-03-10T22:16:56	623549.4	4654875.0	16.492569	42.035474	35.0	-127.4
0170	2009-03-10T22:20:41	623764.7	4655182.5	16.495233	42.038208	40.2	-127.8
0180	2009-03-10T22:24:29	623997.9	4655476.2	16.498112	42.040816	38.9	-128.0
0190	2009-03-10T22:28:05	624212.2	4655784.2	16.500766	42.043555	36.7	-129.6
0200	2009-03-10T22:31:37	624428.2	4656086.3	16.503438	42.046241	38.0	-128.9
0210	2009-03-10T22:35:12	624644.8	4656391.0	16.506120	42.048950	37.8	-130.3
0220	2009-03-10T22:38:52	624859.5	4656698.0	16.508778	42.051680	35.0	-132.0
0230	2009-03-10T22:42:16	625089.3	4656993.7	16.511617	42.054305	40.4	-133.0
0240	2009-03-10T22:45:38	625317.5	4657289.9	16.514438	42.056936	37.5	-131.9
0250	2009-03-10T22:48:57	625534.7	4657596.0	16.517127	42.059657	37.6	-132.7
0260	2009-03-10T22:52:13	625747.8	4657903.0	16.519767	42.062387	36.6	-133.8
0270	2009-03-10T22:55:36	625970.2	4658203.8	16.522519	42.065059	37.4	-135.4
0280	2009-03-10T22:59:00	626187.9	4658503.4	16.525214	42.067722	36.5	-135.0
0290	2009-03-10T23:02:21	626406.8	4658806.9	16.527925	42.070419	32.9	-134.3
0300	2009-03-10T23:05:39	626631.7	4659106.5	16.530707	42.073080	36.9	-136.1

0310	2009-03-10T23:08:52	626850.4	4659410.8	16.533416	42.075784	39.5	-137.9
0320	2009-03-10T23:12:09	627073.5	4659711.9	16.536177	42.078459	35.9	-140.2
0330	2009-03-10T23:15:27	627287.5	4660018.6	16.538830	42.081186	33.7	-140.7
0340	2009-03-10T23:18:46	627506.1	4660321.8	16.541537	42.083880	41.8	-140.7
0350	2009-03-10T23:22:06	627733.4	4660618.0	16.544350	42.086510	32.0	-140.9
0360	2009-03-10T23:25:26	627944.1	4660926.3	16.546963	42.089251	40.8	-141.7
0370	2009-03-10T23:28:48	628171.6	4661221.9	16.549778	42.091875	36.3	-142.3
0380	2009-03-10T23:32:12	628386.1	4661531.6	16.552438	42.094628	36.9	-142.7
0390	2009-03-10T23:35:37	628613.1	4661829.6	16.555248	42.097274	37.0	-143.8
0400	2009-03-10T23:39:02	628829.5	4662132.9	16.557931	42.099969	38.9	-145.2
0410	2009-03-10T23:42:27	629051.7	4662432.5	16.560683	42.102630	35.6	-145.9
0420	2009-03-10T23:45:52	629269.8	4662739.2	16.563388	42.105355	33.6	-147.1
0430	2009-03-10T23:49:23	629489.1	4663039.5	16.566105	42.108023	39.9	-148.9
0440	2009-03-10T23:52:56	629711.8	4663339.9	16.568865	42.110690	36.5	-150.0
0450	2009-03-10T23:56:26	629924.3	4663648.9	16.571503	42.113437	41.0	-151.5
0460	2009-03-11T00:00:12	630178.1	4663976.5	16.574644	42.116344	36.8	-153.0

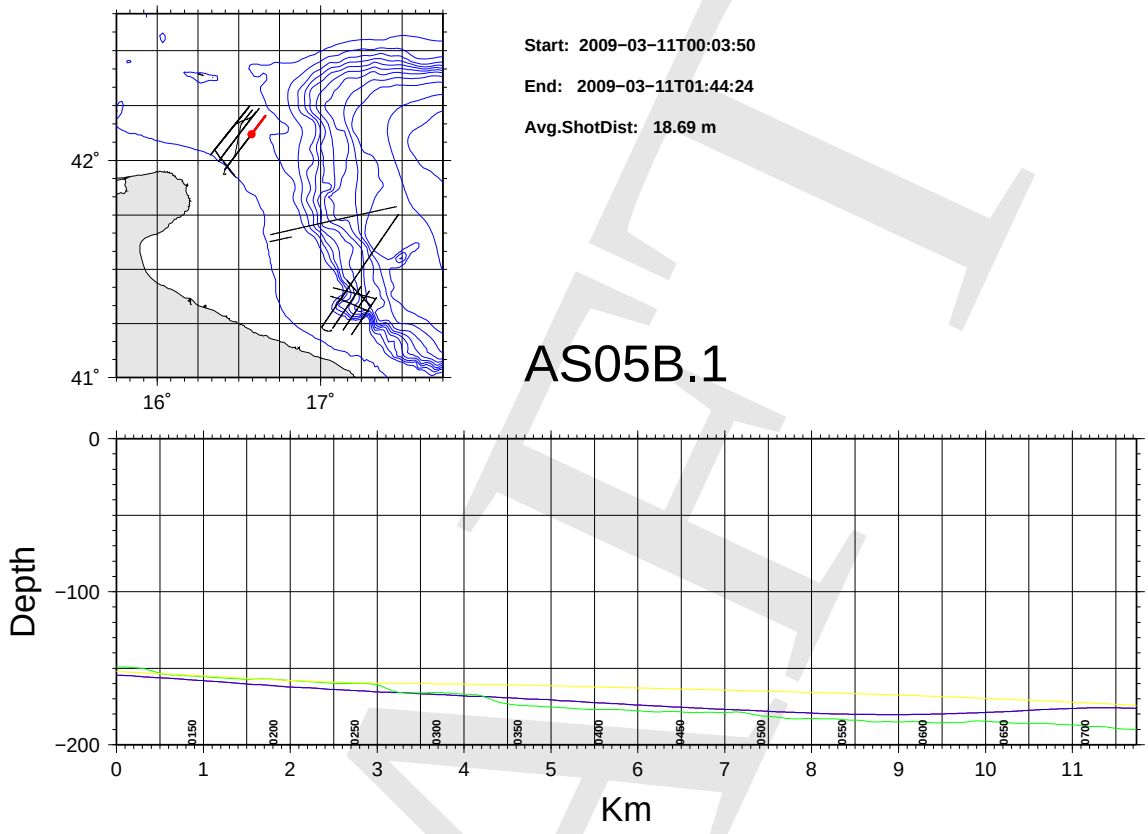

Figure 44: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 21: Line ../NAV/AS05B.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-11T00:04:29	630461.7	4664377.5	16.578163	42.119907	37.3	-154.5
0110	2009-03-11T00:06:00	630564.4	4664512.8	16.579435	42.121108	41.6	-154.9
0120	2009-03-11T00:07:46	630673.3	4664663.6	16.580786	42.122448	35.3	-155.8
0130	2009-03-11T00:09:31	630775.3	4664816.9	16.582054	42.123811	39.4	-156.3
0140	2009-03-11T00:11:15	630889.2	4664967.1	16.583464	42.125144	35.7	-157.0
0150	2009-03-11T00:12:58	631000.7	4665119.3	16.584847	42.126496	36.7	-157.9
0160	2009-03-11T00:14:37	631112.8	4665269.6	16.586237	42.127830	38.5	-158.6
0170	2009-03-11T00:16:14	631220.1	4665421.8	16.587569	42.129182	35.9	-159.3
0180	2009-03-11T00:17:53	631329.0	4665573.0	16.588920	42.130525	36.7	-160.2
0190	2009-03-11T00:19:27	631438.2	4665724.1	16.590274	42.131867	37.9	-160.8
0200	2009-03-11T00:20:57	631550.3	4665876.0	16.591664	42.133216	36.5	-161.7
0210	2009-03-11T00:22:27	631662.3	4666027.5	16.593053	42.134561	38.7	-162.4
0220	2009-03-11T00:24:00	631775.0	4666177.9	16.594450	42.135896	35.8	-162.8
0230	2009-03-11T00:25:36	631883.3	4666330.7	16.595795	42.137253	32.7	-163.7
0240	2009-03-11T00:27:14	631991.5	4666483.7	16.597138	42.138613	32.9	-164.2
0250	2009-03-11T00:28:51	632099.2	4666635.9	16.598475	42.139965	42.6	-164.7
0260	2009-03-11T00:30:29	632217.5	4666779.5	16.599939	42.141238	38.1	-165.5
0270	2009-03-11T00:32:08	632316.5	4666939.5	16.601172	42.142661	31.9	-165.8
0280	2009-03-11T00:33:45	632427.4	4667088.1	16.602548	42.143980	44.1	-166.1
0290	2009-03-11T00:35:22	632541.0	4667235.9	16.603956	42.145292	38.3	-166.7
0300	2009-03-11T00:37:00	632650.0	4667388.4	16.605309	42.146646	32.1	-167.3

0310	2009-03-11T00:38:34	632758.4	4667540.5	16.606655	42.147997	39.6	-167.8
0320	2009-03-11T00:40:07	632874.5	4667686.0	16.608093	42.149287	37.6	-168.4
0330	2009-03-11T00:41:41	632980.2	4667839.8	16.609406	42.150654	36.3	-168.7
0340	2009-03-11T00:43:17	633090.0	4667992.6	16.610769	42.152011	38.0	-169.3
0350	2009-03-11T00:44:53	633198.2	4668144.6	16.612113	42.153361	38.8	-169.8
0360	2009-03-11T00:46:29	633308.6	4668295.4	16.613484	42.154700	35.7	-170.3
0370	2009-03-11T00:48:04	633415.6	4668449.4	16.614813	42.156068	40.3	-170.8
0380	2009-03-11T00:49:40	633527.5	4668598.2	16.616201	42.157388	40.0	-171.4
0390	2009-03-11T00:51:16	633640.1	4668747.1	16.617598	42.158710	39.0	-172.1
0400	2009-03-11T00:52:53	633748.7	4668898.7	16.618946	42.160056	37.0	-172.7
0410	2009-03-11T00:54:29	633859.2	4669048.5	16.620318	42.161386	41.4	-173.2
0420	2009-03-11T00:56:06	633972.1	4669199.8	16.621719	42.162728	37.4	-174.0
0430	2009-03-11T00:57:41	634072.8	4669354.0	16.622973	42.164099	35.8	-174.6
0440	2009-03-11T00:59:14	634181.1	4669505.3	16.624318	42.165443	38.7	-175.1
0450	2009-03-11T01:00:49	634293.7	4669655.2	16.625715	42.166773	36.6	-175.6
0460	2009-03-11T01:02:28	634405.0	4669807.6	16.627097	42.168126	38.4	-176.1
0470	2009-03-11T01:04:05	634518.8	4669956.4	16.628509	42.169446	37.7	-176.7
0480	2009-03-11T01:05:41	634624.9	4670108.7	16.629828	42.170799	36.1	-177.1
0490	2009-03-11T01:07:17	634732.4	4670262.6	16.631164	42.172166	41.2	-177.5
0500	2009-03-11T01:08:51	634850.9	4670405.0	16.632631	42.173427	38.0	-178.1
0510	2009-03-11T01:10:24	634959.8	4670551.9	16.633983	42.174731	32.5	-178.6
0520	2009-03-11T01:12:01	635059.8	4670710.8	16.635231	42.176144	34.5	-178.9
0530	2009-03-11T01:13:36	635168.2	4670860.6	16.636577	42.177474	40.5	-179.4
0540	2009-03-11T01:15:10	635281.6	4671006.6	16.637984	42.178769	36.6	-179.8
0550	2009-03-11T01:16:45	635387.1	4671161.6	16.639297	42.180146	36.0	-180.0
0560	2009-03-11T01:18:19	635498.4	4671310.6	16.640678	42.181468	39.2	-180.2
0570	2009-03-11T01:19:52	635610.9	4671460.0	16.642075	42.182794	38.5	-180.3
0580	2009-03-11T01:21:21	635717.3	4671608.5	16.643398	42.184112	35.0	-180.3
0590	2009-03-11T01:22:51	635821.2	4671763.3	16.644691	42.185488	33.4	-180.2
0600	2009-03-11T01:24:21	635932.5	4671913.9	16.646073	42.186824	40.4	-180.1
0610	2009-03-11T01:25:49	636045.8	4672060.5	16.647479	42.188124	32.2	-179.8
0620	2009-03-11T01:27:21	636156.4	4672213.0	16.648854	42.189478	38.5	-179.5
0630	2009-03-11T01:28:51	636271.5	4672360.3	16.650282	42.190784	32.4	-179.2
0640	2009-03-11T01:30:19	636377.1	4672513.1	16.651596	42.192141	33.7	-178.8
0650	2009-03-11T01:31:44	636483.6	4672661.2	16.652920	42.193456	33.5	-178.3
0660	2009-03-11T01:33:12	636592.9	4672813.2	16.654279	42.194805	36.1	-177.7
0670	2009-03-11T01:34:38	636704.7	4672964.2	16.655667	42.196145	36.8	-177.1
0680	2009-03-11T01:36:04	636810.2	4673117.1	16.656981	42.197503	37.6	-176.7
0690	2009-03-11T01:37:32	636921.1	4673271.3	16.658360	42.198871	38.2	-176.2
0700	2009-03-11T01:39:00	637028.2	4673424.8	16.659693	42.200234	34.2	-175.9
0710	2009-03-11T01:40:28	637134.9	4673578.3	16.661020	42.201598	33.5	-175.8
0720	2009-03-11T01:41:54	637242.9	4673731.6	16.662364	42.202959	33.2	-176.0

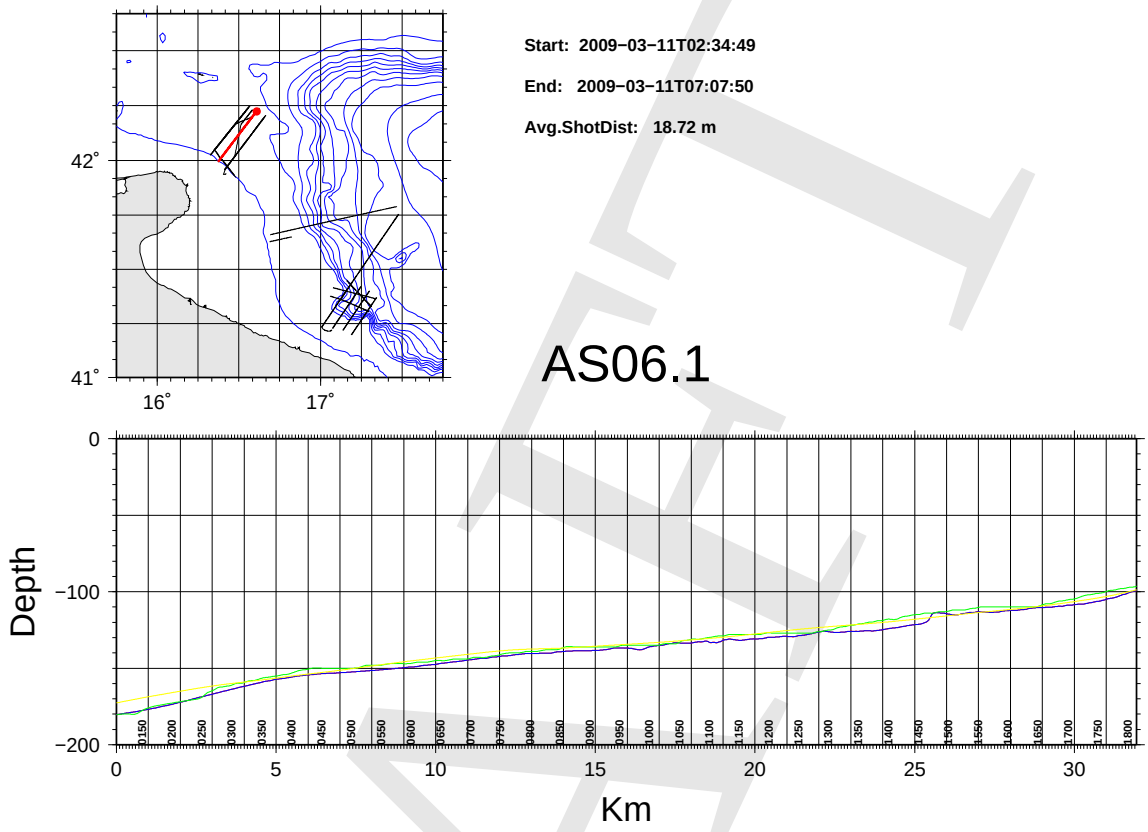

Figure 45: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 22: Line ../NAV/AS06.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-11T02:35:52	632765.7	4675720.2	16.608609	42.221634	258.7	-180.3
0110	2009-03-11T02:37:07	632654.4	4675603.6	16.607235	42.220603	226.5	-179.7
0120	2009-03-11T02:38:27	632529.2	4675465.4	16.605687	42.219380	227.5	-179.2
0130	2009-03-11T02:39:53	632397.4	4675331.0	16.604060	42.218193	226.4	-178.6
0140	2009-03-11T02:41:20	632263.7	4675206.1	16.602412	42.217091	229.7	-177.9
0150	2009-03-11T02:42:53	632118.8	4675083.9	16.600630	42.216015	210.6	-177.1
0160	2009-03-11T02:44:27	632011.0	4674931.8	16.599290	42.214664	221.0	-176.4
0170	2009-03-11T02:45:59	631899.7	4674782.5	16.597908	42.213339	232.8	-175.5
0180	2009-03-11T02:47:32	631767.9	4674650.7	16.596282	42.212175	214.5	-174.7
0190	2009-03-11T02:49:06	631657.3	4674499.8	16.594908	42.210835	219.6	-173.9
0200	2009-03-11T02:50:36	631552.8	4674347.9	16.593608	42.209485	219.3	-172.9
0210	2009-03-11T02:52:06	631440.2	4674197.0	16.592211	42.208145	223.4	-172.0
0220	2009-03-11T02:53:38	631325.0	4674049.2	16.590782	42.206834	220.0	-171.0
0230	2009-03-11T02:55:10	631213.8	4673899.0	16.589402	42.205501	219.4	-170.0
0240	2009-03-11T02:56:41	631112.4	4673743.0	16.588139	42.204113	207.9	-168.9
0250	2009-03-11T02:58:12	631001.6	4673593.6	16.586764	42.202787	218.9	-168.0
0260	2009-03-11T02:59:44	630895.7	4673439.4	16.585447	42.201416	223.4	-167.1
0270	2009-03-11T03:01:16	630782.2	4673291.7	16.584040	42.200106	222.8	-166.1
0280	2009-03-11T03:02:49	630665.7	4673142.6	16.582595	42.198783	215.6	-165.0
0290	2009-03-11T03:04:21	630556.5	4672990.8	16.581239	42.197435	215.8	-164.1
0300	2009-03-11T03:05:55	630440.4	4672843.5	16.579801	42.196128	219.0	-163.2

0310	2009-03-11T03:07:30	630332.9	4672690.7	16.578465	42.194770	222.1	-162.2
0320	2009-03-11T03:09:04	630229.9	4672534.6	16.577183	42.193382	216.8	-161.3
0330	2009-03-11T03:10:36	630125.9	4672381.0	16.575890	42.192016	217.6	-160.4
0340	2009-03-11T03:12:12	630007.6	4672235.5	16.574425	42.190726	227.1	-159.5
0350	2009-03-11T03:13:49	629895.4	4672087.5	16.573034	42.189412	213.9	-158.5
0360	2009-03-11T03:15:27	629784.5	4671939.5	16.571658	42.188098	223.8	-157.9
0370	2009-03-11T03:17:05	629670.8	4671791.8	16.570248	42.186788	219.0	-157.2
0380	2009-03-11T03:18:39	629567.7	4671637.1	16.568966	42.185412	216.2	-156.7
0390	2009-03-11T03:20:13	629453.8	4671489.8	16.567555	42.184105	220.6	-156.1
0400	2009-03-11T03:21:53	629339.8	4671341.8	16.566142	42.182791	211.8	-155.4
0410	2009-03-11T03:23:24	629230.2	4671192.0	16.564782	42.181461	214.2	-154.8
0420	2009-03-11T03:24:52	629124.9	4671037.3	16.563473	42.180085	214.7	-154.4
0430	2009-03-11T03:26:19	629019.2	4670882.2	16.562159	42.178706	216.1	-154.1
0440	2009-03-11T03:27:48	628906.5	4670733.9	16.560762	42.177390	219.7	-153.7
0450	2009-03-11T03:29:24	628787.9	4670588.9	16.559295	42.176104	218.8	-153.4
0460	2009-03-11T03:31:00	628679.2	4670436.0	16.557946	42.174745	216.0	-153.3
0470	2009-03-11T03:32:33	628574.2	4670282.4	16.556641	42.173380	217.3	-153.1
0480	2009-03-11T03:34:04	628466.5	4670129.5	16.555304	42.172021	223.4	-152.8
0490	2009-03-11T03:35:35	628347.0	4669985.4	16.553826	42.170743	216.2	-152.5
0500	2009-03-11T03:37:06	628239.1	4669835.0	16.552486	42.169407	215.5	-152.3
0510	2009-03-11T03:38:38	628128.8	4669684.0	16.551118	42.168066	226.5	-152.0
0520	2009-03-11T03:40:17	628003.7	4669543.0	16.549573	42.166817	221.7	-151.7
0530	2009-03-11T03:41:52	627909.7	4669381.8	16.548400	42.165381	212.1	-151.4
0540	2009-03-11T03:43:26	627797.6	4669233.2	16.547011	42.164061	214.5	-151.1
0550	2009-03-11T03:45:01	627687.5	4669080.5	16.545646	42.162704	219.2	-150.8
0560	2009-03-11T03:46:34	627579.6	4668929.2	16.544307	42.161360	216.0	-150.5
0570	2009-03-11T03:48:08	627465.3	4668782.5	16.542892	42.160058	214.0	-150.1
0580	2009-03-11T03:49:44	627358.1	4668631.6	16.541562	42.158717	216.7	-149.7
0590	2009-03-11T03:51:20	627247.6	4668480.0	16.540192	42.157370	212.1	-149.3
0600	2009-03-11T03:52:57	627140.9	4668328.2	16.538867	42.156020	220.5	-149.1
0610	2009-03-11T03:54:26	627031.6	4668184.5	16.537513	42.154744	219.4	-148.4
0620	2009-03-11T03:55:56	626920.3	4668032.4	16.536134	42.153393	216.2	-148.0
0630	2009-03-11T03:57:29	626806.3	4667882.7	16.534722	42.152064	226.4	-147.7
0640	2009-03-11T03:59:05	626693.7	4667736.2	16.533328	42.150763	217.6	-147.1
0650	2009-03-11T04:00:37	626588.7	4667580.1	16.532024	42.149375	223.3	-146.6
0660	2009-03-11T04:02:11	626474.6	4667432.0	16.530611	42.148060	218.4	-146.1
0670	2009-03-11T04:03:47	626364.5	4667281.0	16.529246	42.146718	221.0	-145.7
0680	2009-03-11T04:05:19	626256.7	4667126.3	16.527909	42.145343	216.7	-145.2
0690	2009-03-11T04:06:50	626143.4	4666980.3	16.526506	42.144047	216.4	-144.6
0700	2009-03-11T04:08:21	626037.4	4666829.0	16.525191	42.142702	210.0	-144.2
0710	2009-03-11T04:09:55	625924.4	4666680.9	16.523793	42.141386	223.1	-143.6
0720	2009-03-11T04:11:28	625813.5	4666539.5	16.522421	42.140131	217.5	-143.5
0730	2009-03-11T04:13:02	625708.8	4666385.3	16.521121	42.138760	222.4	-142.7
0740	2009-03-11T04:14:35	625597.7	4666237.0	16.519745	42.137442	220.8	-142.4
0750	2009-03-11T04:16:10	625486.9	4666087.8	16.518373	42.136117	217.1	-142.0
0760	2009-03-11T04:17:46	625381.7	4665933.0	16.517067	42.134740	208.0	-141.7
0770	2009-03-11T04:19:22	625264.5	4665786.5	16.515618	42.133440	216.9	-141.1
0780	2009-03-11T04:20:58	625159.0	4665633.7	16.514309	42.132081	206.0	-140.7
0790	2009-03-11T04:22:36	625045.8	4665483.8	16.512908	42.130750	215.3	-140.4
0800	2009-03-11T04:24:14	624934.7	4665332.7	16.511532	42.129407	222.0	-140.5
0810	2009-03-11T04:25:52	624824.7	4665182.7	16.510169	42.128074	212.9	-140.2
0820	2009-03-11T04:27:28	624715.7	4665031.2	16.508819	42.126727	219.0	-140.2
0830	2009-03-11T04:29:04	624601.6	4664881.6	16.507407	42.125399	213.1	-140.0
0840	2009-03-11T04:30:39	624492.2	4664731.4	16.506052	42.124064	222.3	-139.3
0850	2009-03-11T04:32:16	624384.3	4664577.7	16.504714	42.122697	218.4	-139.0
0860	2009-03-11T04:33:51	624269.4	4664428.5	16.503293	42.121372	224.3	-138.8

0870	2009-03-11T04:35:27	624163.1	4664276.5	16.501975	42.120020	220.2	-138.6
0880	2009-03-11T04:37:03	624053.1	4664125.7	16.500612	42.118680	222.9	-138.6
0890	2009-03-11T04:38:42	623938.2	4663976.8	16.499191	42.117358	212.0	-138.6
0900	2009-03-11T04:40:19	623826.6	4663827.4	16.497810	42.116030	214.8	-138.4
0910	2009-03-11T04:41:59	623719.1	4663675.0	16.496478	42.114675	205.1	-138.3
0920	2009-03-11T04:43:38	623609.4	4663524.1	16.495120	42.113334	216.9	-137.9
0930	2009-03-11T04:45:16	623494.4	4663376.8	16.493698	42.112026	221.4	-137.0
0940	2009-03-11T04:46:52	623390.7	4663222.1	16.492412	42.110649	213.7	-136.7
0950	2009-03-11T04:48:31	623278.5	4663072.5	16.491023	42.109320	210.9	-136.8
0960	2009-03-11T04:50:11	623171.8	4662918.5	16.489701	42.107950	217.3	-136.9
0970	2009-03-11T04:51:46	623064.1	4662766.3	16.488367	42.106597	221.9	-137.6
0980	2009-03-11T04:53:23	622944.1	4662627.6	16.486887	42.105367	223.3	-137.9
0990	2009-03-11T04:55:05	622833.6	4662474.7	16.485518	42.104008	214.2	-136.4
1000	2009-03-11T04:56:39	622731.2	4662321.8	16.484248	42.102647	219.5	-135.6
1010	2009-03-11T04:58:14	622619.5	4662170.0	16.482866	42.101298	222.5	-135.1
1020	2009-03-11T04:59:53	622511.6	4662017.7	16.481530	42.099944	213.1	-134.5
1030	2009-03-11T05:01:27	622401.7	4661868.2	16.480170	42.098615	216.3	-133.9
1040	2009-03-11T05:03:01	622289.8	4661719.5	16.478786	42.097294	218.7	-133.5
1050	2009-03-11T05:04:38	622173.5	4661572.0	16.477349	42.095984	213.1	-133.6
1060	2009-03-11T05:06:15	622088.8	4661408.1	16.476291	42.094521	214.3	-133.7
1070	2009-03-11T05:08:00	621961.2	4661272.4	16.474720	42.093319	222.4	-132.9
1080	2009-03-11T05:09:45	621859.1	4661117.4	16.473454	42.091940	218.2	-132.8
1090	2009-03-11T05:11:17	621744.2	4660970.6	16.472035	42.090636	226.2	-132.4
1100	2009-03-11T05:12:49	621637.0	4660822.3	16.470708	42.089317	210.3	-133.0
1110	2009-03-11T05:14:23	621527.2	4660676.5	16.469350	42.088022	220.5	-132.8
1120	2009-03-11T05:15:58	621417.1	4660526.5	16.467988	42.086688	218.0	-131.5
1130	2009-03-11T05:17:36	621299.2	4660381.3	16.466533	42.085399	214.3	-131.0
1140	2009-03-11T05:19:14	621196.0	4660227.4	16.465254	42.084029	217.3	-131.6
1150	2009-03-11T05:20:51	621085.4	4660077.1	16.463887	42.082693	217.9	-131.7
1160	2009-03-11T05:22:28	620981.2	4659926.2	16.462596	42.081351	215.7	-131.1
1170	2009-03-11T05:24:01	620861.3	4659780.6	16.461117	42.080058	215.6	-130.8
1180	2009-03-11T05:25:40	620746.7	4659634.9	16.459702	42.078764	207.6	-130.7
1190	2009-03-11T05:27:16	620643.7	4659481.0	16.458425	42.077394	218.7	-130.0
1200	2009-03-11T05:28:53	620527.4	4659335.3	16.456990	42.076100	227.5	-129.9
1210	2009-03-11T05:30:32	620420.0	4659183.8	16.455661	42.074753	212.9	-129.5
1220	2009-03-11T05:32:08	620318.8	4659026.7	16.454406	42.073354	223.8	-129.1
1230	2009-03-11T05:33:47	620203.1	4658881.6	16.452977	42.072065	220.2	-129.3
1240	2009-03-11T05:35:20	620098.7	4658727.3	16.451684	42.070692	215.9	-129.1
1250	2009-03-11T05:36:56	619984.9	4658576.1	16.450278	42.069348	213.8	-128.5
1260	2009-03-11T05:38:29	619870.6	4658432.5	16.448867	42.068073	215.9	-127.8
1270	2009-03-11T05:40:06	619759.5	4658282.2	16.447494	42.066736	204.6	-126.9
1280	2009-03-11T05:41:40	619659.3	4658127.7	16.446252	42.065361	217.5	-126.2
1290	2009-03-11T05:43:15	619545.1	4657979.8	16.444842	42.064046	212.8	-125.9
1300	2009-03-11T05:44:53	619432.2	4657832.5	16.443448	42.062737	205.3	-126.5
1310	2009-03-11T05:46:35	619325.4	4657680.0	16.442127	42.061381	212.5	-126.7
1320	2009-03-11T05:48:13	619211.9	4657529.6	16.440725	42.060044	214.5	-126.4
1330	2009-03-11T05:49:51	619105.6	4657376.6	16.439409	42.058682	219.1	-125.9
1340	2009-03-11T05:51:24	618996.9	4657226.6	16.438065	42.057348	211.4	-125.8
1350	2009-03-11T05:52:57	618882.9	4657078.3	16.436658	42.056030	216.9	-125.7
1360	2009-03-11T05:54:31	618769.0	4656930.6	16.435252	42.054718	224.6	-125.6
1370	2009-03-11T05:56:11	618653.8	4656782.9	16.433830	42.053405	205.7	-125.6
1380	2009-03-11T05:57:48	618545.8	4656630.3	16.432495	42.052048	219.5	-125.1
1390	2009-03-11T05:59:23	618442.2	4656475.9	16.431212	42.050673	215.9	-124.4
1400	2009-03-11T06:00:57	618328.7	4656327.9	16.429811	42.049358	215.3	-123.8
1410	2009-03-11T06:02:34	618213.1	4656178.5	16.428385	42.048030	220.4	-123.4
1420	2009-03-11T06:04:07	618112.5	4656021.6	16.427138	42.046632	225.6	-122.6

1430	2009-03-11T06:05:43	617995.2	4655876.8	16.425692	42.045346	206.5	-121.9
1440	2009-03-11T06:07:16	617889.3	4655722.6	16.424382	42.043974	213.8	-121.5
1450	2009-03-11T06:08:51	617778.2	4655572.5	16.423010	42.042639	209.4	-120.8
1460	2009-03-11T06:10:27	617663.5	4655424.3	16.421594	42.041322	213.8	-118.9
1470	2009-03-11T06:12:01	617558.4	4655268.2	16.420294	42.039932	210.5	-113.8
1480	2009-03-11T06:13:39	617441.5	4655122.4	16.418852	42.038637	215.0	-113.9
1490	2009-03-11T06:15:14	617332.4	4654970.5	16.417504	42.037286	222.0	-114.4
1500	2009-03-11T06:16:50	617222.0	4654820.0	16.416141	42.035947	212.8	-115.1
1510	2009-03-11T06:18:24	617114.0	4654666.1	16.414806	42.034577	217.3	-115.0
1520	2009-03-11T06:19:57	617001.4	4654519.0	16.413416	42.033270	216.9	-114.2
1530	2009-03-11T06:21:33	616891.5	4654369.5	16.412059	42.031940	213.3	-113.6
1540	2009-03-11T06:23:07	616778.3	4654220.1	16.410663	42.030612	221.7	-113.3
1550	2009-03-11T06:24:43	616673.6	4654063.7	16.409367	42.029219	216.5	-113.3
1560	2009-03-11T06:26:14	616563.5	4653915.2	16.408008	42.027898	215.9	-113.4
1570	2009-03-11T06:27:46	616452.5	4653766.0	16.406638	42.026571	215.4	-113.4
1580	2009-03-11T06:29:20	616335.3	4653617.4	16.405193	42.025251	220.8	-113.1
1590	2009-03-11T06:30:51	616227.0	4653467.0	16.403856	42.023913	215.1	-112.5
1600	2009-03-11T06:32:23	616124.1	4653312.0	16.402583	42.022532	224.7	-112.1
1610	2009-03-11T06:34:08	615998.9	4653171.2	16.401043	42.021283	211.8	-112.0
1620	2009-03-11T06:35:49	615889.4	4653018.6	16.399691	42.019925	212.9	-111.6
1630	2009-03-11T06:37:26	615790.5	4652859.6	16.398465	42.018508	213.9	-110.7
1640	2009-03-11T06:39:01	615674.4	4652713.2	16.397034	42.017207	220.5	-110.5
1650	2009-03-11T06:40:40	615562.3	4652562.3	16.395651	42.015865	211.9	-110.4
1660	2009-03-11T06:42:18	615452.7	4652412.7	16.394299	42.014534	212.0	-110.2
1670	2009-03-11T06:44:00	615347.4	4652258.8	16.392997	42.013164	221.9	-109.9
1680	2009-03-11T06:45:39	615233.3	4652109.3	16.391590	42.011835	218.8	-109.5
1690	2009-03-11T06:47:17	615118.7	4651961.0	16.390177	42.010516	208.7	-108.9
1700	2009-03-11T06:48:48	615010.7	4651809.5	16.388844	42.009168	217.3	-108.8
1710	2009-03-11T06:50:19	614906.6	4651652.8	16.387556	42.007772	219.4	-108.2
1720	2009-03-11T06:51:50	614791.3	4651504.0	16.386136	42.006449	218.2	-108.0
1730	2009-03-11T06:53:21	614676.3	4651356.4	16.384719	42.005137	215.9	-107.2
1740	2009-03-11T06:54:54	614568.7	4651204.2	16.383390	42.003782	213.8	-106.4
1750	2009-03-11T06:56:31	614458.2	4651053.5	16.382027	42.002441	221.8	-105.6
1760	2009-03-11T06:58:09	614345.8	4650904.4	16.380641	42.001115	215.9	-104.6
1770	2009-03-11T06:59:46	614240.9	4650749.6	16.379345	41.999737	217.9	-104.0
1780	2009-03-11T07:01:24	614129.9	4650597.8	16.377975	41.998386	209.8	-102.7
1790	2009-03-11T07:03:03	614015.1	4650452.0	16.376561	41.997090	226.2	-101.5
1800	2009-03-11T07:04:42	613903.9	4650302.1	16.375190	41.995756	214.1	-100.1

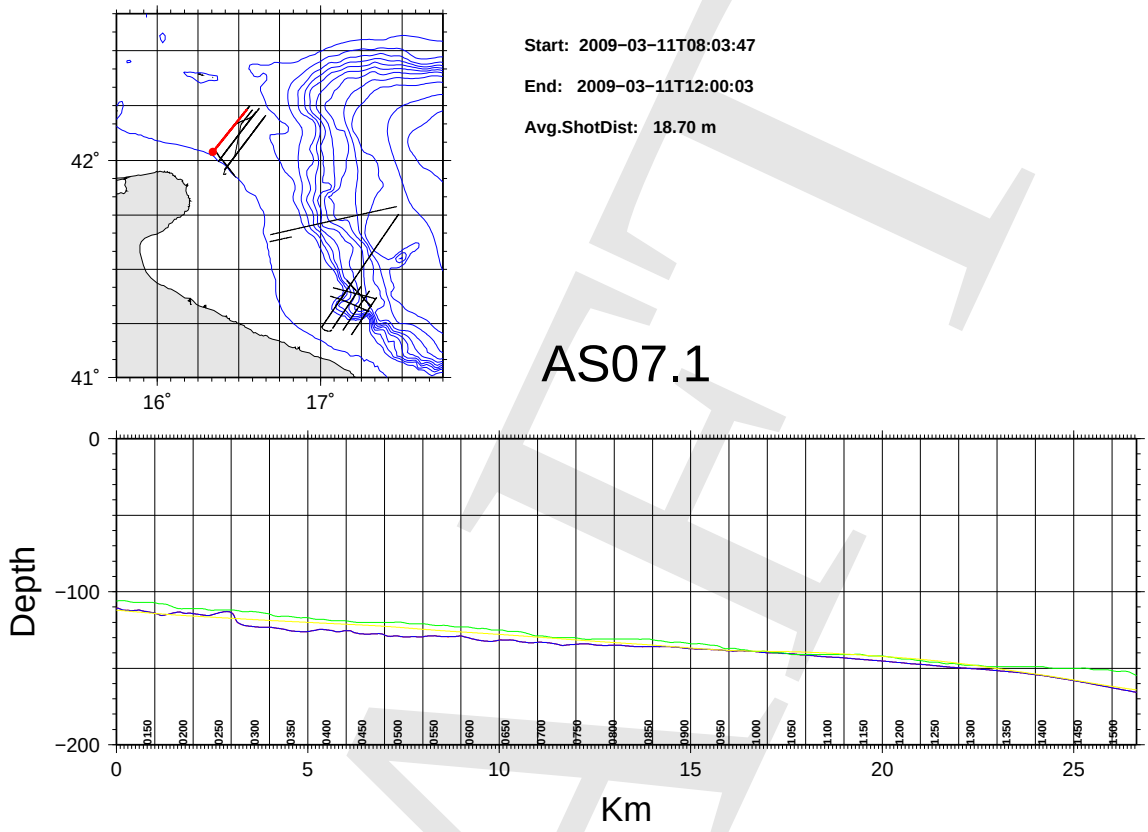

Figure 46: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 23: Line ../NAV/AS07.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-11T08:13:37	611691.0	4655892.9	16.349544	42.046412	36.3	-110.7
0110	2009-03-11T08:15:02	611789.5	4656027.2	16.350760	42.047607	36.1	-112.0
0120	2009-03-11T08:16:36	611902.5	4656176.6	16.352153	42.048936	43.6	-112.3
0130	2009-03-11T08:18:03	612020.4	4656321.5	16.353606	42.050224	39.4	-112.1
0140	2009-03-11T08:19:28	612133.2	4656467.2	16.354996	42.051520	36.3	-112.8
0150	2009-03-11T08:20:55	612251.3	4656612.7	16.356451	42.052813	39.1	-113.5
0160	2009-03-11T08:22:25	612368.4	4656761.6	16.357894	42.054137	40.3	-114.8
0170	2009-03-11T08:23:52	612477.8	4656910.7	16.359244	42.055464	32.4	-115.1
0180	2009-03-11T08:25:19	612585.6	4657062.6	16.360576	42.056816	38.8	-113.9
0190	2009-03-11T08:26:46	612701.0	4657208.4	16.361998	42.058112	37.4	-113.2
0200	2009-03-11T08:28:12	612816.2	4657353.0	16.363418	42.059398	39.4	-114.1
0210	2009-03-11T08:29:43	612933.7	4657499.1	16.364865	42.060696	45.8	-114.5
0220	2009-03-11T08:31:21	613051.4	4657645.0	16.366316	42.061993	41.3	-115.1
0230	2009-03-11T08:32:59	613166.4	4657793.4	16.367734	42.063313	37.9	-115.6
0240	2009-03-11T08:34:36	613274.9	4657941.3	16.369074	42.064629	31.8	-114.4
0250	2009-03-11T08:36:15	613385.6	4658091.4	16.370440	42.065964	48.0	-113.3
0260	2009-03-11T08:37:49	613505.6	4658232.9	16.371917	42.067221	37.6	-113.2
0270	2009-03-11T08:39:21	613621.6	4658379.5	16.373348	42.068524	37.7	-119.8
0280	2009-03-11T08:40:52	613735.3	4658527.9	16.374750	42.069844	34.2	-122.0
0290	2009-03-11T08:42:24	613852.0	4658674.8	16.376189	42.071150	41.3	-122.6
0300	2009-03-11T08:43:59	613964.7	4658824.9	16.377580	42.072485	38.8	-123.1

0310	2009-03-11T08:45:33	614078.6	4658972.4	16.378985	42.073796	37.7	-123.2
0320	2009-03-11T08:47:09	614195.1	4659121.4	16.380422	42.075121	39.9	-123.5
0330	2009-03-11T08:48:44	614307.9	4659270.2	16.381815	42.076444	41.1	-124.1
0340	2009-03-11T08:50:21	614422.1	4659418.9	16.383224	42.077766	41.6	-125.2
0350	2009-03-11T08:51:55	614535.3	4659566.1	16.384621	42.079075	38.8	-125.8
0360	2009-03-11T08:53:33	614649.1	4659715.9	16.386025	42.080407	36.3	-126.2
0370	2009-03-11T08:55:11	614762.5	4659864.7	16.387425	42.081730	37.1	-125.9
0380	2009-03-11T08:56:49	614878.8	4660011.5	16.388860	42.083035	36.5	-125.2
0390	2009-03-11T08:58:28	614992.8	4660159.6	16.390266	42.084352	36.9	-124.7
0400	2009-03-11T09:00:08	615107.4	4660308.5	16.391681	42.085676	37.8	-125.3
0410	2009-03-11T09:01:46	615225.1	4660452.7	16.393132	42.086957	39.5	-126.1
0420	2009-03-11T09:03:24	615339.4	4660598.0	16.394542	42.088248	37.5	-125.5
0430	2009-03-11T09:05:04	615452.1	4660746.6	16.395934	42.089570	35.4	-125.9
0440	2009-03-11T09:06:47	615564.8	4660897.5	16.397326	42.090912	39.4	-127.4
0450	2009-03-11T09:08:27	615677.7	4661044.5	16.398720	42.092219	40.2	-127.8
0460	2009-03-11T09:10:08	615791.8	4661194.0	16.400129	42.093548	40.7	-127.5
0470	2009-03-11T09:11:48	615906.3	4661342.0	16.401542	42.094863	39.6	-127.4
0480	2009-03-11T09:13:30	616020.4	4661489.9	16.402950	42.096178	40.0	-129.0
0490	2009-03-11T09:15:12	616136.5	4661635.6	16.404383	42.097473	39.0	-128.9
0500	2009-03-11T09:16:52	616249.0	4661779.8	16.405772	42.098754	40.4	-129.4
0510	2009-03-11T09:18:32	616366.3	4661925.3	16.407219	42.100047	34.0	-129.5
0520	2009-03-11T09:20:14	616476.7	4662076.0	16.408583	42.101388	42.0	-129.4
0530	2009-03-11T09:21:57	616582.6	4662230.4	16.409895	42.102762	42.8	-129.4
0540	2009-03-11T09:23:42	616701.4	4662375.0	16.411360	42.104046	36.3	-128.8
0550	2009-03-11T09:25:27	616820.2	4662520.3	16.412825	42.105337	41.4	-129.1
0560	2009-03-11T09:27:11	616936.1	4662664.8	16.414255	42.106620	37.3	-129.4
0570	2009-03-11T09:28:56	617047.8	4662815.0	16.415636	42.107956	35.4	-129.3
0580	2009-03-11T09:30:40	617155.9	4662965.6	16.416973	42.109296	38.4	-129.0
0590	2009-03-11T09:32:27	617269.2	4663115.2	16.418373	42.110626	32.1	-129.8
0600	2009-03-11T09:34:11	617383.9	4663261.0	16.419789	42.111921	36.7	-131.0
0610	2009-03-11T09:35:48	617497.7	4663406.7	16.421194	42.113216	38.4	-131.9
0620	2009-03-11T09:37:24	617610.7	4663553.8	16.422590	42.114524	38.0	-132.4
0630	2009-03-11T09:38:58	617736.2	4663704.2	16.424138	42.115859	327.0	-132.2
0640	2009-03-11T09:40:32	617830.1	4663845.5	16.425303	42.117117	39.3	-131.5
0650	2009-03-11T09:42:07	617949.8	4663986.1	16.426779	42.118365	30.5	-131.4
0660	2009-03-11T09:43:41	618047.5	4664143.6	16.427992	42.119768	33.3	-132.2
0670	2009-03-11T09:45:17	618143.8	4664302.1	16.429188	42.121181	43.7	-132.9
0680	2009-03-11T09:46:54	618263.1	4664442.5	16.430660	42.122427	43.2	-133.4
0690	2009-03-11T09:48:30	618383.8	4664584.4	16.432148	42.123686	45.3	-133.1
0700	2009-03-11T09:50:05	618498.9	4664727.8	16.433569	42.124960	42.3	-133.2
0710	2009-03-11T09:51:41	618621.2	4664870.7	16.435077	42.126228	40.8	-133.7
0720	2009-03-11T09:53:16	618744.4	4665011.2	16.436596	42.127474	46.1	-134.8
0730	2009-03-11T09:54:48	618858.8	4665153.2	16.438008	42.128736	42.8	-134.8
0740	2009-03-11T09:56:22	618975.8	4665300.6	16.439453	42.130045	35.8	-134.5
0750	2009-03-11T09:57:56	619091.6	4665448.1	16.440884	42.131355	37.5	-134.1
0760	2009-03-11T09:59:29	619207.8	4665594.1	16.442320	42.132652	42.0	-134.1
0770	2009-03-11T10:01:01	619324.2	4665738.2	16.443757	42.133932	39.7	-134.8
0780	2009-03-11T10:02:35	619442.4	4665883.7	16.445216	42.135224	36.7	-135.1
0790	2009-03-11T10:04:10	619556.5	4666033.6	16.446627	42.136556	40.2	-135.1
0800	2009-03-11T10:05:43	619665.6	4666186.0	16.447978	42.137911	38.7	-134.9
0810	2009-03-11T10:07:15	619775.0	4666337.3	16.449333	42.139257	36.7	-135.3
0820	2009-03-11T10:08:48	619883.4	4666490.7	16.450675	42.140621	42.2	-135.6
0830	2009-03-11T10:10:21	620001.5	4666634.6	16.452134	42.141899	40.5	-135.9
0840	2009-03-11T10:11:55	620123.5	4666777.6	16.453639	42.143168	43.7	-136.0
0850	2009-03-11T10:13:28	620242.7	4666919.7	16.455110	42.144429	43.7	-136.0
0860	2009-03-11T10:15:01	620362.3	4667063.6	16.456587	42.145706	37.3	-136.0

0870	2009-03-11T10:16:33	620473.1	4667214.9	16.457958	42.147051	36.7	-135.9
0880	2009-03-11T10:18:05	620583.6	4667367.0	16.459327	42.148404	35.8	-136.1
0890	2009-03-11T10:19:35	620693.3	4667516.0	16.460685	42.149728	35.2	-136.6
0900	2009-03-11T10:21:07	620805.8	4667668.6	16.462078	42.151085	38.3	-137.1
0910	2009-03-11T10:22:38	620922.9	4667812.4	16.463524	42.152361	41.3	-137.4
0920	2009-03-11T10:24:10	621044.6	4667954.1	16.465026	42.153618	37.6	-137.6
0930	2009-03-11T10:25:42	621153.6	4668106.3	16.466377	42.154972	38.7	-137.8
0940	2009-03-11T10:27:13	621263.4	4668256.6	16.467736	42.156308	41.3	-137.9
0950	2009-03-11T10:28:46	621377.3	4668407.1	16.469146	42.157645	39.6	-138.4
0960	2009-03-11T10:30:17	621490.9	4668554.7	16.470552	42.158956	38.1	-138.7
0970	2009-03-11T10:31:50	621603.8	4668704.1	16.471949	42.160284	40.7	-138.7
0980	2009-03-11T10:33:23	621720.6	4668850.1	16.473392	42.161580	39.4	-138.8
0990	2009-03-11T10:34:55	621836.6	4668995.1	16.474827	42.162868	37.7	-139.0
1000	2009-03-11T10:36:26	621954.1	4669139.3	16.476278	42.164148	38.9	-139.5
1010	2009-03-11T10:37:57	622070.6	4669284.7	16.477719	42.165439	40.3	-139.9
1020	2009-03-11T10:39:29	622188.5	4669430.8	16.479176	42.166736	35.2	-139.9
1030	2009-03-11T10:41:00	622297.6	4669581.8	16.480528	42.168078	38.5	-140.2
1040	2009-03-11T10:42:31	622406.7	4669734.9	16.481881	42.169439	42.5	-140.4
1050	2009-03-11T10:44:01	622518.5	4669880.5	16.483264	42.170733	40.5	-140.8
1060	2009-03-11T10:45:33	622637.2	4670025.9	16.484732	42.172023	38.3	-141.3
1070	2009-03-11T10:47:06	622751.9	4670173.3	16.486151	42.173332	40.0	-141.6
1080	2009-03-11T10:48:38	622868.5	4670319.8	16.487593	42.174633	36.0	-142.1
1090	2009-03-11T10:50:09	622978.9	4670469.2	16.488961	42.175961	34.6	-142.5
1100	2009-03-11T10:51:43	623092.8	4670621.8	16.490372	42.177317	39.2	-142.8
1110	2009-03-11T10:53:15	623204.8	4670769.9	16.491758	42.178632	39.5	-142.9
1120	2009-03-11T10:54:46	623320.1	4670916.9	16.493185	42.179938	37.6	-143.4
1130	2009-03-11T10:56:18	623436.0	4671065.4	16.494620	42.181256	37.3	-143.7
1140	2009-03-11T10:57:50	623550.1	4671212.4	16.496032	42.182562	38.6	-144.1
1150	2009-03-11T10:59:23	623665.5	4671358.8	16.497460	42.183862	36.1	-144.5
1160	2009-03-11T11:00:55	623778.0	4671505.9	16.498853	42.185168	39.5	-144.9
1170	2009-03-11T11:02:29	623892.9	4671655.3	16.500276	42.186495	41.6	-145.3
1180	2009-03-11T11:04:02	624009.9	4671802.8	16.501724	42.187804	37.7	-145.7
1190	2009-03-11T11:05:34	624123.5	4671949.4	16.503130	42.189106	35.4	-146.1
1200	2009-03-11T11:07:06	624236.6	4672097.7	16.504531	42.190423	38.3	-146.5
1210	2009-03-11T11:08:38	624348.8	4672245.6	16.505921	42.191737	40.8	-147.1
1220	2009-03-11T11:10:11	624462.6	4672392.7	16.507330	42.193043	41.7	-147.4
1230	2009-03-11T11:11:44	624577.4	4672540.2	16.508751	42.194353	38.1	-147.7
1240	2009-03-11T11:13:18	624693.5	4672686.5	16.510188	42.195652	38.0	-148.1
1250	2009-03-11T11:14:52	624808.4	4672833.9	16.511611	42.196960	44.1	-148.6
1260	2009-03-11T11:16:27	624925.8	4672981.9	16.513065	42.198274	35.8	-149.1
1270	2009-03-11T11:18:01	625037.4	4673129.6	16.514447	42.199586	38.1	-149.5
1280	2009-03-11T11:19:35	625151.6	4673274.6	16.515861	42.200873	38.2	-149.7
1290	2009-03-11T11:21:10	625263.4	4673421.6	16.517247	42.202179	36.8	-150.0
1300	2009-03-11T11:22:45	625373.3	4673571.8	16.518610	42.203513	37.5	-150.4
1310	2009-03-11T11:24:20	625489.8	4673717.8	16.520052	42.204809	39.6	-150.7
1320	2009-03-11T11:25:58	625607.0	4673865.3	16.521503	42.206118	40.4	-151.1
1330	2009-03-11T11:27:35	625723.3	4674011.1	16.522943	42.207412	39.7	-151.5
1340	2009-03-11T11:29:11	625836.3	4674157.6	16.524343	42.208713	35.3	-152.0
1350	2009-03-11T11:30:47	625950.3	4674304.8	16.525755	42.210020	38.6	-152.4
1360	2009-03-11T11:32:24	626063.7	4674452.5	16.527160	42.211331	41.4	-152.8
1370	2009-03-11T11:34:01	626177.9	4674599.7	16.528575	42.212638	40.4	-153.3
1380	2009-03-11T11:35:39	626292.4	4674749.0	16.529994	42.213964	36.2	-153.9
1390	2009-03-11T11:37:16	626403.6	4674898.0	16.531373	42.215287	37.6	-154.5
1400	2009-03-11T11:38:54	626515.3	4675049.0	16.532759	42.216628	38.4	-155.1
1410	2009-03-11T11:40:30	626628.0	4675194.4	16.534156	42.217919	35.8	-155.9
1420	2009-03-11T11:42:08	626741.0	4675343.4	16.535557	42.219242	37.9	-156.6

1430	2009-03-11T11:43:45	626854.0	4675490.3	16.536957	42.220546	43.9	-157.4
1440	2009-03-11T11:45:24	626970.7	4675637.9	16.538403	42.221856	36.6	-158.2
1450	2009-03-11T11:47:02	627084.7	4675785.4	16.539816	42.223166	39.0	-159.1
1460	2009-03-11T11:48:40	627199.2	4675931.6	16.541235	42.224463	39.2	-159.8
1470	2009-03-11T11:50:19	627315.3	4676078.5	16.542674	42.225767	37.0	-160.9
1480	2009-03-11T11:51:57	627426.5	4676225.2	16.544053	42.227069	39.0	-161.7
1490	2009-03-11T11:53:36	627541.7	4676373.3	16.545481	42.228384	38.6	-162.6
1500	2009-03-11T11:55:13	627655.2	4676518.3	16.546888	42.229671	36.8	-163.4
1510	2009-03-11T11:56:52	627769.2	4676665.7	16.548301	42.230979	43.1	-164.3
1520	2009-03-11T11:58:32	627887.0	4676812.6	16.549760	42.232282	36.4	-165.2

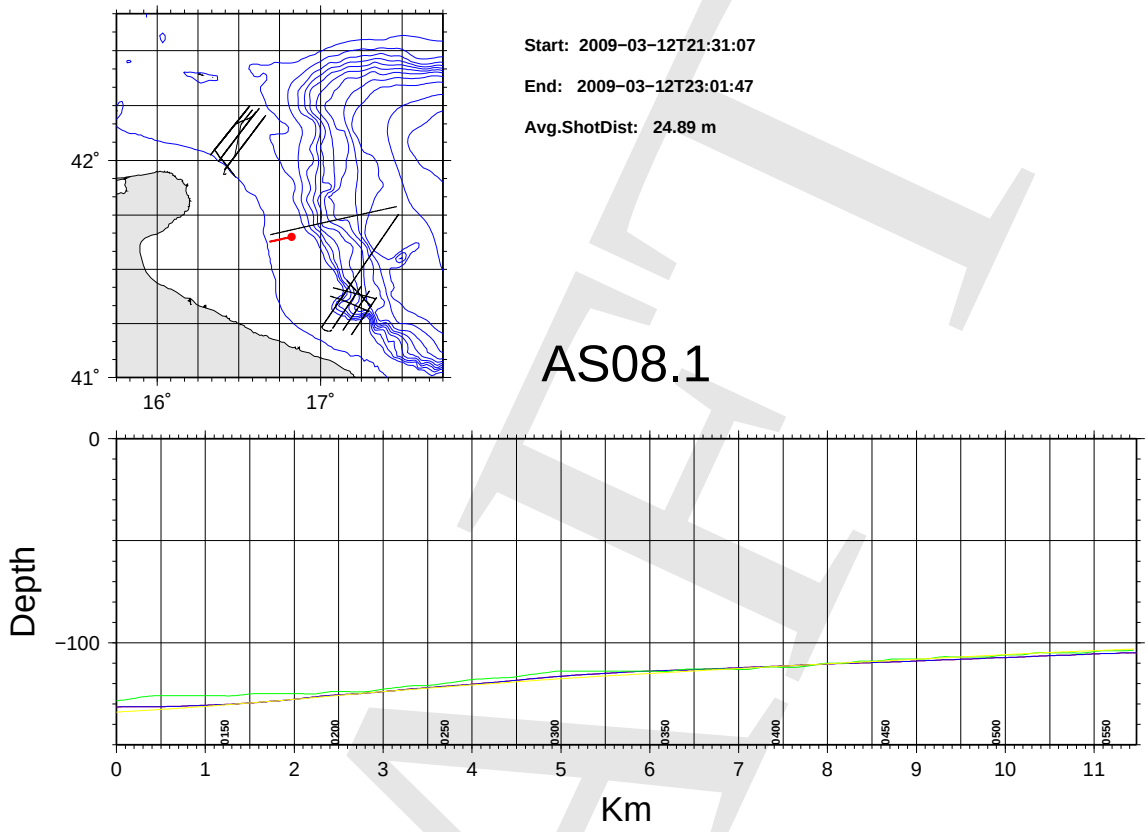

Figure 47: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 24: Line ../NAV/AS08.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-12T21:31:40	651794.0	4612493.0	16.822768	41.649005	258.4	-131.5
0110	2009-03-12T21:33:22	651579.3	4612429.3	16.820175	41.648473	259.4	-131.4
0120	2009-03-12T21:35:18	651336.7	4612381.8	16.817251	41.648091	253.6	-131.3
0130	2009-03-12T21:37:19	651092.7	4612323.8	16.814308	41.647615	256.8	-131.0
0140	2009-03-12T21:39:11	650850.3	4612283.9	16.811389	41.647302	260.9	-130.6
0150	2009-03-12T21:41:03	650609.3	4612230.7	16.808483	41.646869	262.9	-130.2
0160	2009-03-12T21:42:54	650367.0	4612174.6	16.805561	41.646409	260.9	-129.5
0170	2009-03-12T21:44:44	650127.3	4612111.6	16.802668	41.645887	257.1	-128.6
0180	2009-03-12T21:46:37	649886.2	4612052.5	16.799759	41.645401	254.6	-127.7
0190	2009-03-12T21:48:44	649647.4	4611989.0	16.796877	41.644874	253.8	-126.5
0200	2009-03-12T21:50:51	649407.0	4611928.9	16.793977	41.644378	258.0	-125.6
0210	2009-03-12T21:52:57	649168.2	4611861.1	16.791094	41.643812	262.2	-125.0
0220	2009-03-12T21:54:52	648930.2	4611814.9	16.788227	41.643441	269.2	-124.0
0230	2009-03-12T21:56:49	648686.0	4611765.2	16.785283	41.643039	261.6	-122.9
0240	2009-03-12T21:58:42	648448.1	4611718.4	16.782416	41.642662	263.2	-122.1
0250	2009-03-12T22:00:35	648202.7	4611676.3	16.779461	41.642329	260.9	-121.2
0260	2009-03-12T22:02:30	647959.1	4611625.7	16.776525	41.641918	261.2	-120.4
0270	2009-03-12T22:04:23	647719.9	4611577.0	16.773642	41.641524	260.4	-119.5
0280	2009-03-12T22:06:10	647483.3	4611517.4	16.770788	41.641031	256.4	-118.5
0290	2009-03-12T22:08:02	647247.8	4611444.0	16.767943	41.640414	254.9	-117.4
0300	2009-03-12T22:09:53	647009.7	4611373.9	16.765069	41.639827	250.2	-116.5

0310	2009-03-12T22:11:49	646774.2	4611300.2	16.762225	41.639207	254.2	-115.7
0320	2009-03-12T22:13:46	646535.5	4611232.8	16.759343	41.638644	255.3	-115.0
0330	2009-03-12T22:15:37	646292.2	4611187.0	16.756413	41.638276	260.7	-114.4
0340	2009-03-12T22:17:37	646050.7	4611130.3	16.753501	41.637810	255.2	-114.0
0350	2009-03-12T22:19:40	645810.9	4611068.9	16.750608	41.637301	253.1	-113.5
0360	2009-03-12T22:21:38	645573.0	4611005.3	16.747737	41.636772	252.8	-113.3
0370	2009-03-12T22:23:38	645330.1	4610952.1	16.744810	41.636337	257.8	-112.8
0380	2009-03-12T22:25:34	645086.4	4610904.7	16.741874	41.635955	266.3	-112.4
0390	2009-03-12T22:27:30	644844.4	4610850.0	16.738956	41.635507	255.6	-111.9
0400	2009-03-12T22:29:25	644601.9	4610797.4	16.736033	41.635077	258.2	-111.4
0410	2009-03-12T22:31:16	644362.7	4610734.7	16.733148	41.634556	253.2	-110.9
0420	2009-03-12T22:33:05	644124.5	4610674.6	16.730275	41.634058	254.9	-110.5
0430	2009-03-12T22:34:56	643880.8	4610612.9	16.727335	41.633546	254.8	-110.1
0440	2009-03-12T22:36:53	643641.9	4610550.7	16.724454	41.633029	254.2	-109.9
0450	2009-03-12T22:38:55	643406.2	4610482.3	16.721609	41.632456	257.6	-109.5
0460	2009-03-12T22:40:54	643164.5	4610431.2	16.718696	41.632039	261.5	-109.1
0470	2009-03-12T22:42:56	642925.8	4610371.5	16.715818	41.631545	260.1	-108.6
0480	2009-03-12T22:44:56	642681.7	4610325.3	16.712878	41.631173	256.8	-108.3
0490	2009-03-12T22:46:55	642437.0	4610271.0	16.709928	41.630727	254.5	-107.9
0500	2009-03-12T22:48:54	642197.2	4610211.2	16.707036	41.630232	254.7	-107.4
0510	2009-03-12T22:50:52	641955.3	4610157.1	16.704121	41.629788	263.6	-107.0
0520	2009-03-12T22:52:53	641715.0	4610092.2	16.701222	41.629246	261.5	-106.5
0530	2009-03-12T22:54:53	641478.4	4610034.2	16.698370	41.628766	256.7	-106.2
0540	2009-03-12T22:56:54	641239.5	4609973.0	16.695488	41.628257	257.7	-105.6
0550	2009-03-12T22:58:56	640997.8	4609916.3	16.692574	41.627790	258.2	-105.3
0560	2009-03-12T23:00:54	640755.0	4609860.7	16.689648	41.627332	257.9	-104.9

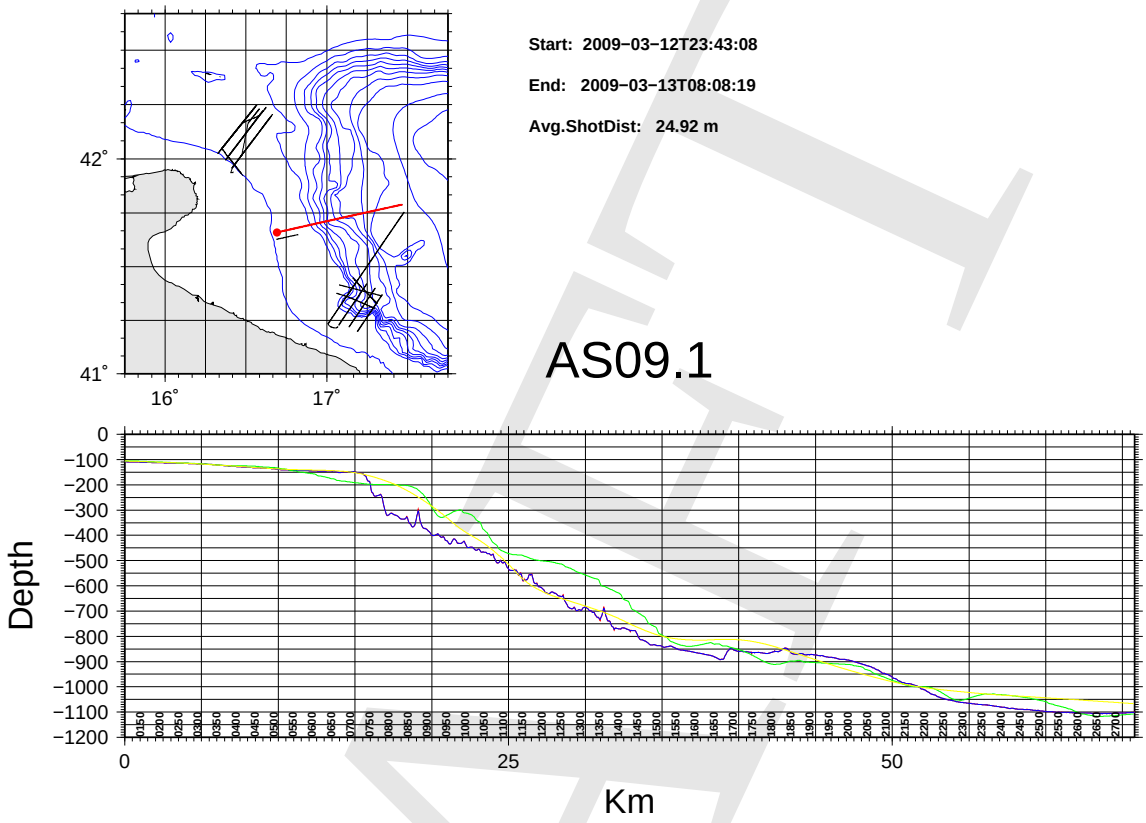

Figure 48: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 25: Line ../NAV/AS09.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-12T23:43:55	641022.8	4613440.5	16.693705	41.659514	77.2	-108.6
0110	2009-03-12T23:45:44	641241.3	4613490.6	16.696341	41.659926	81.4	-109.1
0120	2009-03-12T23:47:47	641482.8	4613548.5	16.699253	41.660405	69.1	-109.5
0130	2009-03-12T23:49:43	641718.4	4613619.4	16.702099	41.661001	76.4	-109.8
0140	2009-03-12T23:51:39	641962.3	4613670.8	16.705039	41.661420	80.1	-110.4
0150	2009-03-12T23:53:33	642201.4	4613737.8	16.707926	41.661981	76.3	-110.8
0160	2009-03-12T23:55:27	642441.4	4613800.0	16.710822	41.662498	75.6	-111.1
0170	2009-03-12T23:57:23	642682.2	4613853.5	16.713725	41.662937	74.5	-111.6
0180	2009-03-12T23:59:20	642923.4	4613912.9	16.716635	41.663428	74.9	-112.0
0190	2009-03-13T00:01:18	643165.8	4613971.5	16.719560	41.663912	77.9	-112.4
0200	2009-03-13T00:03:15	643404.5	4614032.6	16.722440	41.664419	69.8	-112.8
0210	2009-03-13T00:05:11	643641.4	4614100.2	16.725300	41.664985	77.6	-113.3
0220	2009-03-13T00:07:10	643885.1	4614150.6	16.728238	41.665395	78.0	-113.6
0230	2009-03-13T00:09:07	644120.9	4614219.5	16.731086	41.665973	74.9	-113.9
0240	2009-03-13T00:11:03	644360.0	4614276.9	16.733971	41.666446	78.3	-114.5
0250	2009-03-13T00:13:00	644600.8	4614326.0	16.736874	41.666845	82.0	-115.0
0260	2009-03-13T00:15:00	644839.7	4614393.4	16.739758	41.667408	75.0	-115.3
0270	2009-03-13T00:16:58	645077.9	4614459.9	16.742634	41.667963	81.2	-116.0
0280	2009-03-13T00:18:56	645322.3	4614508.9	16.745581	41.668360	77.7	-116.6
0290	2009-03-13T00:20:53	645566.8	4614560.9	16.748528	41.668783	76.0	-117.1
0300	2009-03-13T00:22:50	645806.7	4614623.8	16.751424	41.669306	69.9	-117.6

0310	2009-03-13T00:24:47	646040.9	4614704.9	16.754256	41.669993	78.6	-118.1
0320	2009-03-13T00:26:43	646283.3	4614760.5	16.757180	41.670449	81.1	-118.9
0330	2009-03-13T00:28:38	646527.9	4614802.0	16.760127	41.670778	77.2	-119.9
0340	2009-03-13T00:30:34	646767.7	4614872.9	16.763024	41.671372	77.1	-121.2
0350	2009-03-13T00:32:27	647011.8	4614918.6	16.765966	41.671738	74.8	-122.7
0360	2009-03-13T00:34:22	647250.3	4614982.0	16.768845	41.672265	74.2	-124.0
0370	2009-03-13T00:36:18	647490.6	4615051.9	16.771748	41.672850	73.1	-125.1
0380	2009-03-13T00:38:13	647731.2	4615116.3	16.774653	41.673385	82.3	-126.4
0390	2009-03-13T00:40:06	647973.8	4615162.6	16.777577	41.673757	80.5	-127.6
0400	2009-03-13T00:41:59	648214.7	4615219.1	16.780484	41.674221	77.4	-128.6
0410	2009-03-13T00:43:53	648450.9	4615289.9	16.783337	41.674814	74.3	-129.7
0420	2009-03-13T00:45:46	648687.2	4615352.4	16.786190	41.675333	82.8	-130.7
0430	2009-03-13T00:47:42	648931.0	4615400.6	16.789130	41.675721	78.8	-131.6
0440	2009-03-13T00:49:36	649171.1	4615465.6	16.792029	41.676261	78.8	-132.3
0450	2009-03-13T00:51:30	649410.7	4615526.5	16.794921	41.676765	81.5	-132.8
0460	2009-03-13T00:53:24	649654.0	4615583.2	16.797857	41.677229	75.7	-133.6
0470	2009-03-13T00:55:18	649896.1	4615644.4	16.800779	41.677735	80.6	-134.4
0480	2009-03-13T00:57:11	650137.2	4615701.2	16.803689	41.678201	81.0	-135.6
0490	2009-03-13T00:59:05	650379.8	4615763.2	16.806617	41.678713	73.9	-136.9
0500	2009-03-13T01:00:57	650618.7	4615828.8	16.809503	41.679258	79.2	-138.7
0510	2009-03-13T01:02:48	650858.7	4615882.1	16.812398	41.679693	75.7	-140.2
0520	2009-03-13T01:04:40	651101.8	4615942.5	16.815333	41.680191	78.0	-140.6
0530	2009-03-13T01:06:31	651343.0	4616003.7	16.818244	41.680696	76.5	-141.7
0540	2009-03-13T01:08:21	651583.8	4616063.8	16.821151	41.681191	79.0	-142.6
0550	2009-03-13T01:10:12	651827.2	4616122.1	16.824089	41.681669	77.0	-143.1
0560	2009-03-13T01:12:04	652070.2	4616179.5	16.827021	41.682140	80.9	-143.5
0570	2009-03-13T01:13:56	652310.1	4616245.8	16.829919	41.682691	72.8	-143.6
0580	2009-03-13T01:15:45	652547.1	4616318.1	16.832784	41.683296	79.4	-143.9
0590	2009-03-13T01:17:35	652794.4	4616357.2	16.835763	41.683601	75.2	-144.1
0600	2009-03-13T01:19:24	653032.9	4616419.8	16.838644	41.684119	76.0	-145.3
0610	2009-03-13T01:21:12	653270.8	4616479.4	16.841516	41.684609	80.8	-145.6
0620	2009-03-13T01:23:02	653515.0	4616535.5	16.844463	41.685067	74.9	-146.4
0630	2009-03-13T01:24:51	653753.8	4616601.0	16.847347	41.685611	75.0	-144.6
0640	2009-03-13T01:26:41	653997.1	4616660.3	16.850284	41.686098	71.1	-145.2
0650	2009-03-13T01:28:30	654239.8	4616718.4	16.853214	41.686574	77.9	-147.4
0660	2009-03-13T01:30:23	654480.1	4616782.1	16.856116	41.687101	76.2	-151.3
0670	2009-03-13T01:32:15	654719.6	4616844.1	16.859008	41.687612	77.6	-149.3
0680	2009-03-13T01:34:09	654963.9	4616901.2	16.861957	41.688079	79.9	-148.4
0690	2009-03-13T01:36:04	655206.2	4616952.7	16.864880	41.688495	77.0	-147.6
0700	2009-03-13T01:38:02	655444.0	4617030.4	16.867756	41.689148	73.5	-148.8
0710	2009-03-13T01:39:55	655681.2	4617087.2	16.870620	41.689613	79.1	-152.6
0720	2009-03-13T01:41:51	655927.4	4617135.5	16.873589	41.690000	77.3	-154.1
0730	2009-03-13T01:43:47	656168.9	4617193.1	16.876505	41.690471	77.9	-165.2
0740	2009-03-13T01:45:43	656408.8	4617257.4	16.879403	41.691003	78.8	-186.7
0750	2009-03-13T01:47:40	656651.4	4617312.3	16.882331	41.691449	78.3	-237.9
0760	2009-03-13T01:49:38	656893.9	4617377.2	16.885260	41.691986	75.6	-242.9
0770	2009-03-13T01:51:35	657134.6	4617442.0	16.888168	41.692522	77.7	-238.4
0780	2009-03-13T01:53:29	657374.7	4617503.0	16.891068	41.693023	77.7	-296.9
0790	2009-03-13T01:55:24	657618.1	4617559.0	16.894005	41.693479	77.2	-319.1
0800	2009-03-13T01:57:18	657859.8	4617613.7	16.896923	41.693924	79.2	-314.3
0810	2009-03-13T01:59:16	658102.9	4617674.7	16.899859	41.694425	76.9	-321.0
0820	2009-03-13T02:01:14	658343.1	4617743.2	16.902762	41.694994	74.2	-333.4
0830	2009-03-13T02:03:10	658583.5	4617804.8	16.905665	41.695500	78.6	-335.8
0840	2009-03-13T02:05:05	658826.9	4617855.8	16.908602	41.695911	83.1	-338.5
0850	2009-03-13T02:07:01	659070.8	4617907.9	16.911546	41.696331	76.7	-364.8
0860	2009-03-13T02:08:58	659310.9	4617977.7	16.914448	41.696911	77.0	-349.4

0870	2009-03-13T02:10:53	659551.3	4618037.9	16.917351	41.697405	76.2	-322.4
0880	2009-03-13T02:12:48	659793.8	4618098.7	16.920280	41.697904	77.5	-369.4
0890	2009-03-13T02:14:41	660035.7	4618158.3	16.923201	41.698392	78.8	-376.9
0900	2009-03-13T02:16:32	660276.4	4618213.7	16.926108	41.698842	75.4	-393.9
0910	2009-03-13T02:18:25	660519.3	4618275.0	16.929041	41.699345	76.9	-400.9
0920	2009-03-13T02:20:18	660759.1	4618331.7	16.931937	41.699807	78.3	-394.7
0930	2009-03-13T02:22:12	661001.5	4618398.6	16.934867	41.700360	76.5	-407.4
0940	2009-03-13T02:24:07	661241.2	4618469.1	16.937764	41.700946	77.6	-420.6
0950	2009-03-13T02:25:59	661483.9	4618522.3	16.940694	41.701376	83.0	-434.5
0960	2009-03-13T02:27:53	661728.8	4618575.5	16.943650	41.701805	80.3	-414.1
0970	2009-03-13T02:29:47	661971.8	4618625.9	16.946582	41.702209	75.1	-431.4
0980	2009-03-13T02:31:41	662208.9	4618699.5	16.949450	41.702823	73.9	-431.4
0990	2009-03-13T02:33:35	662451.4	4618759.4	16.952380	41.703313	80.2	-431.3
1000	2009-03-13T02:35:28	662695.1	4618813.3	16.955321	41.703749	78.3	-448.3
1010	2009-03-13T02:37:23	662938.3	4618868.4	16.958258	41.704195	73.8	-448.8
1020	2009-03-13T02:39:17	663175.9	4618940.7	16.961131	41.704797	76.8	-459.2
1030	2009-03-13T02:41:09	663419.4	4618996.5	16.964071	41.705249	74.8	-463.0
1040	2009-03-13T02:42:58	663656.9	4619061.4	16.966942	41.705785	77.9	-467.0
1050	2009-03-13T02:44:48	663899.3	4619112.0	16.969868	41.706190	79.2	-473.2
1060	2009-03-13T02:46:40	664138.8	4619178.0	16.972763	41.706735	74.7	-477.0
1070	2009-03-13T02:48:31	664380.1	4619240.8	16.975679	41.707250	76.4	-501.8
1080	2009-03-13T02:50:21	664625.3	4619300.6	16.978640	41.707738	80.3	-503.6
1090	2009-03-13T02:52:08	664868.2	4619345.1	16.981571	41.708088	83.4	-509.7
1100	2009-03-13T02:53:57	665107.3	4619413.5	16.984462	41.708654	74.2	-526.5
1110	2009-03-13T02:55:46	665349.4	4619472.6	16.987386	41.709136	73.5	-539.3
1120	2009-03-13T02:57:36	665591.0	4619537.4	16.990306	41.709669	75.4	-538.8
1130	2009-03-13T02:59:26	665834.1	4619595.6	16.993243	41.710142	78.7	-558.9
1140	2009-03-13T03:01:16	666076.0	4619658.4	16.996166	41.710657	77.4	-577.6
1150	2009-03-13T03:03:06	666317.8	4619717.5	16.999087	41.711139	81.8	-576.2
1160	2009-03-13T03:04:57	666561.4	4619770.7	17.002028	41.711567	79.4	-556.2
1170	2009-03-13T03:06:49	666802.4	4619832.9	17.004941	41.712076	78.1	-588.3
1180	2009-03-13T03:08:40	667044.6	4619893.2	17.007867	41.712568	75.8	-600.5
1190	2009-03-13T03:10:36	667287.2	4619953.2	17.010798	41.713057	77.5	-608.3
1200	2009-03-13T03:12:37	667529.2	4620018.2	17.013723	41.713591	77.8	-626.9
1210	2009-03-13T03:14:39	667771.1	4620072.3	17.016645	41.714027	80.4	-630.1
1220	2009-03-13T03:16:40	668009.0	4620138.8	17.019521	41.714576	76.3	-625.7
1230	2009-03-13T03:18:36	668251.3	4620196.4	17.022449	41.715043	78.3	-634.4
1240	2009-03-13T03:20:31	668496.8	4620248.4	17.025412	41.715459	79.3	-642.0
1250	2009-03-13T03:22:26	668737.2	4620314.6	17.028319	41.716004	77.8	-658.9
1260	2009-03-13T03:24:21	668980.4	4620370.0	17.031257	41.716451	79.2	-685.8
1270	2009-03-13T03:26:14	669220.2	4620431.3	17.034155	41.716952	76.3	-690.6
1280	2009-03-13T03:28:09	669464.1	4620494.1	17.037103	41.717465	81.0	-698.4
1290	2009-03-13T03:30:03	669706.4	4620551.2	17.040030	41.717927	75.7	-694.4
1300	2009-03-13T03:31:57	669947.8	4620619.7	17.042949	41.718492	76.8	-685.4
1310	2009-03-13T03:33:50	670191.2	4620675.9	17.045890	41.718946	78.2	-690.5
1320	2009-03-13T03:35:44	670434.4	4620731.2	17.048827	41.719392	76.6	-701.1
1330	2009-03-13T03:37:38	670675.8	4620792.4	17.051745	41.719891	78.2	-715.3
1340	2009-03-13T03:39:35	670916.8	4620855.5	17.054658	41.720407	80.5	-728.0
1350	2009-03-13T03:41:32	671159.9	4620913.6	17.057595	41.720878	75.3	-697.6
1360	2009-03-13T03:43:30	671401.7	4620969.5	17.060516	41.721329	75.5	-732.3
1370	2009-03-13T03:45:28	671642.1	4621038.8	17.063425	41.721901	78.8	-750.0
1380	2009-03-13T03:47:24	671884.8	4621097.8	17.066358	41.722379	76.1	-773.5
1390	2009-03-13T03:49:20	672127.3	4621153.9	17.069287	41.722832	78.0	-770.3
1400	2009-03-13T03:51:18	672367.6	4621217.6	17.072193	41.723353	78.4	-766.5
1410	2009-03-13T03:53:15	672611.7	4621275.5	17.075142	41.723822	78.9	-769.9
1420	2009-03-13T03:55:11	672853.6	4621331.7	17.078065	41.724275	77.8	-778.8

1430	2009-03-13T03:57:06	673093.9	4621397.1	17.080971	41.724811	76.9	-777.1
1440	2009-03-13T03:59:00	673337.0	4621452.2	17.083908	41.725254	77.5	-792.5
1450	2009-03-13T04:00:56	673581.1	4621508.0	17.086857	41.725703	71.8	-813.5
1460	2009-03-13T04:02:53	673822.0	4621574.4	17.089770	41.726248	77.4	-818.8
1470	2009-03-13T04:04:50	674064.2	4621634.9	17.092698	41.726740	76.4	-830.5
1480	2009-03-13T04:06:47	674305.3	4621693.3	17.095612	41.727213	76.3	-834.2
1490	2009-03-13T04:08:47	674548.8	4621752.3	17.098554	41.727690	77.1	-836.5
1500	2009-03-13T04:10:44	674790.0	4621810.4	17.101470	41.728160	76.4	-837.2
1510	2009-03-13T04:12:42	675031.4	4621867.8	17.104387	41.728624	74.0	-843.4
1520	2009-03-13T04:14:38	675272.8	4621934.5	17.107307	41.729171	79.2	-840.5
1530	2009-03-13T04:16:30	675514.3	4621995.6	17.110227	41.729668	76.7	-840.0
1540	2009-03-13T04:18:22	675755.8	4622056.5	17.113146	41.730162	77.4	-847.5
1550	2009-03-13T04:20:14	676000.1	4622109.9	17.116097	41.730589	77.1	-853.5
1560	2009-03-13T04:22:10	676242.3	4622170.1	17.119026	41.731077	77.2	-855.3
1570	2009-03-13T04:24:03	676479.7	4622236.8	17.121898	41.731625	77.6	-857.8
1580	2009-03-13T04:25:57	676723.0	4622293.8	17.124838	41.732084	78.9	-860.7
1590	2009-03-13T04:27:51	676966.1	4622348.7	17.127775	41.732524	75.9	-864.0
1600	2009-03-13T04:29:45	677205.1	4622413.5	17.130666	41.733054	74.7	-866.7
1610	2009-03-13T04:31:39	677448.8	4622475.4	17.133613	41.733557	77.8	-869.3
1620	2009-03-13T04:33:31	677691.1	4622530.2	17.136541	41.733996	79.4	-872.6
1630	2009-03-13T04:35:23	677933.1	4622591.3	17.139467	41.734492	76.5	-875.5
1640	2009-03-13T04:37:16	678173.6	4622652.9	17.142375	41.734992	77.7	-880.5
1650	2009-03-13T04:39:09	678414.2	4622714.7	17.145285	41.735494	75.8	-888.0
1660	2009-03-13T04:41:02	678656.1	4622775.5	17.148210	41.735987	80.1	-890.0
1670	2009-03-13T04:42:56	678899.6	4622831.8	17.151152	41.736439	80.7	-873.2
1680	2009-03-13T04:44:52	679142.7	4622888.4	17.154091	41.736894	78.4	-851.4
1690	2009-03-13T04:46:48	679383.7	4622954.9	17.157007	41.737438	81.0	-851.7
1700	2009-03-13T04:48:42	679624.5	4623014.4	17.159918	41.737919	76.3	-858.7
1710	2009-03-13T04:50:36	679866.5	4623079.7	17.162846	41.738452	74.8	-859.1
1720	2009-03-13T04:52:26	680109.6	4623139.8	17.165785	41.738938	78.0	-860.1
1730	2009-03-13T04:54:17	680353.1	4623190.2	17.168726	41.739337	77.5	-862.2
1740	2009-03-13T04:56:08	680595.2	4623248.9	17.171653	41.739810	75.5	-863.8
1750	2009-03-13T04:57:59	680835.5	4623308.7	17.174559	41.740293	77.7	-864.0
1760	2009-03-13T04:59:50	681076.8	4623370.8	17.177478	41.740797	77.1	-864.4
1770	2009-03-13T05:01:42	681319.5	4623431.6	17.180413	41.741289	75.9	-866.5
1780	2009-03-13T05:03:33	681559.3	4623490.1	17.183312	41.741761	77.4	-867.8
1790	2009-03-13T05:05:25	681799.1	4623549.3	17.186212	41.742239	79.3	-863.4
1800	2009-03-13T05:07:18	682041.6	4623612.0	17.189145	41.742748	75.9	-859.8
1810	2009-03-13T05:09:09	682280.4	4623678.8	17.192035	41.743294	78.8	-859.2
1820	2009-03-13T05:10:59	682519.4	4623731.3	17.194923	41.743712	83.8	-851.0
1830	2009-03-13T05:12:51	682765.6	4623777.9	17.197897	41.744075	78.2	-847.4
1840	2009-03-13T05:14:42	683006.7	4623841.8	17.200813	41.744595	75.9	-863.2
1850	2009-03-13T05:16:36	683246.0	4623910.7	17.203710	41.745159	77.8	-870.3
1860	2009-03-13T05:18:28	683488.6	4623969.4	17.206644	41.745632	75.5	-871.6
1870	2009-03-13T05:20:20	683730.8	4624031.3	17.209574	41.746133	76.9	-868.2
1880	2009-03-13T05:22:10	683971.5	4624094.2	17.212486	41.746643	76.6	-873.1
1890	2009-03-13T05:24:01	684214.8	4624147.4	17.215426	41.747066	77.2	-873.1
1900	2009-03-13T05:25:57	684458.0	4624207.9	17.218368	41.747554	72.8	-872.9
1910	2009-03-13T05:27:51	684697.7	4624273.1	17.221268	41.748085	76.4	-875.1
1920	2009-03-13T05:29:43	684940.4	4624325.7	17.224202	41.748502	76.3	-876.3
1930	2009-03-13T05:31:38	685184.2	4624386.0	17.227150	41.748988	81.9	-880.2
1940	2009-03-13T05:33:30	685421.7	4624452.3	17.230025	41.749529	76.2	-882.4
1950	2009-03-13T05:35:21	685660.7	4624514.7	17.232917	41.750035	80.8	-884.3
1960	2009-03-13T05:37:13	685904.2	4624570.1	17.235860	41.750477	78.8	-887.4
1970	2009-03-13T05:39:06	686146.3	4624635.0	17.238791	41.751004	81.6	-891.6
1980	2009-03-13T05:40:56	686387.6	4624690.8	17.241708	41.751450	75.2	-891.2

1990	2009-03-13T05:42:52	686631.1	4624753.9	17.244654	41.751960	77.7	-894.0
2000	2009-03-13T05:44:53	686876.4	4624804.8	17.247618	41.752361	79.5	-897.3
2010	2009-03-13T05:46:52	687116.7	4624866.1	17.250525	41.752856	77.3	-901.7
2020	2009-03-13T05:48:48	687354.5	4624925.5	17.253402	41.753334	75.4	-906.5
2030	2009-03-13T05:50:45	687597.1	4624987.8	17.256338	41.753838	76.5	-911.4
2040	2009-03-13T05:52:40	687840.2	4625045.6	17.259278	41.754301	75.3	-916.4
2050	2009-03-13T05:54:34	688077.9	4625110.1	17.262155	41.754825	78.6	-920.5
2060	2009-03-13T05:56:30	688322.1	4625166.5	17.265108	41.755275	75.6	-928.2
2070	2009-03-13T05:58:25	688562.5	4625233.3	17.268018	41.755819	78.8	-934.4
2080	2009-03-13T06:00:18	688802.8	4625288.4	17.270923	41.756258	75.8	-945.8
2090	2009-03-13T06:02:11	689041.5	4625352.5	17.273813	41.756778	80.4	-949.7
2100	2009-03-13T06:04:06	689284.8	4625405.5	17.276754	41.757197	80.2	-956.0
2110	2009-03-13T06:06:02	689528.7	4625464.5	17.279704	41.757670	77.4	-966.7
2120	2009-03-13T06:07:57	689771.6	4625526.9	17.282644	41.758173	79.4	-974.2
2130	2009-03-13T06:09:52	690012.7	4625587.5	17.285561	41.758661	80.1	-981.5
2140	2009-03-13T06:11:48	690253.9	4625650.6	17.288480	41.759171	78.7	-986.0
2150	2009-03-13T06:13:43	690493.9	4625713.3	17.291385	41.759678	80.0	-987.9
2160	2009-03-13T06:15:38	690737.3	4625764.5	17.294327	41.760080	78.0	-991.8
2170	2009-03-13T06:17:33	690980.7	4625825.0	17.297272	41.760566	73.8	-996.7
2180	2009-03-13T06:19:27	691220.6	4625895.3	17.300178	41.761141	77.8	-1007.3
2190	2009-03-13T06:21:19	691463.2	4625953.3	17.303112	41.761605	81.4	-1011.5
2200	2009-03-13T06:23:10	691705.6	4626004.8	17.306043	41.762010	76.3	-1020.8
2210	2009-03-13T06:25:01	691948.3	4626063.6	17.308979	41.762480	76.7	-1029.3
2220	2009-03-13T06:26:54	692189.0	4626126.4	17.311892	41.762987	73.3	-1034.8
2230	2009-03-13T06:28:48	692432.2	4626190.9	17.314836	41.763509	76.8	-1041.7
2240	2009-03-13T06:30:40	692672.9	4626252.0	17.317749	41.764000	77.2	-1046.3
2250	2009-03-13T06:32:36	692918.1	4626305.0	17.320713	41.764418	77.7	-1051.0
2260	2009-03-13T06:34:30	693153.4	4626371.4	17.323563	41.764958	75.9	-1053.5
2270	2009-03-13T06:36:24	693396.5	4626423.4	17.326502	41.765367	80.2	-1056.9
2280	2009-03-13T06:38:18	693639.5	4626485.2	17.329443	41.765864	75.5	-1060.5
2290	2009-03-13T06:40:10	693881.1	4626546.8	17.332367	41.766359	78.0	-1061.9
2300	2009-03-13T06:42:01	694121.7	4626606.2	17.335279	41.766835	76.1	-1064.0
2310	2009-03-13T06:43:53	694363.1	4626670.1	17.338202	41.767351	75.5	-1066.0
2320	2009-03-13T06:45:46	694607.8	4626723.3	17.341161	41.767770	82.2	-1067.5
2330	2009-03-13T06:47:37	694847.4	4626786.6	17.344061	41.768281	77.0	-1069.7
2340	2009-03-13T06:49:29	695088.9	4626849.0	17.346985	41.768783	78.3	-1070.6
2350	2009-03-13T06:51:23	695334.2	4626901.6	17.349951	41.769196	75.3	-1071.8
2360	2009-03-13T06:53:14	695572.4	4626963.9	17.352834	41.769698	70.6	-1073.0
2370	2009-03-13T06:55:08	695815.5	4627025.5	17.355777	41.770192	80.7	-1075.7
2380	2009-03-13T06:57:00	696056.8	4627084.4	17.358697	41.770663	77.5	-1077.4
2390	2009-03-13T06:58:52	696300.2	4627142.7	17.361642	41.771127	77.8	-1080.5
2400	2009-03-13T07:00:42	696541.8	4627200.1	17.364566	41.771584	78.4	-1081.1
2410	2009-03-13T07:02:33	696784.6	4627261.7	17.367505	41.772078	73.4	-1085.3
2420	2009-03-13T07:04:24	697023.9	4627325.6	17.370402	41.772594	78.5	-1085.5
2430	2009-03-13T07:06:13	697266.1	4627385.2	17.373334	41.773070	77.5	-1088.0
2440	2009-03-13T07:08:03	697510.1	4627441.5	17.376285	41.773516	76.1	-1088.8
2450	2009-03-13T07:09:54	697753.2	4627503.0	17.379228	41.774009	76.2	-1089.7
2460	2009-03-13T07:11:44	697994.8	4627568.1	17.382154	41.774535	76.0	-1089.8
2470	2009-03-13T07:13:32	698233.4	4627637.3	17.385046	41.775098	74.0	-1091.2
2480	2009-03-13T07:15:22	698476.3	4627695.9	17.387985	41.775565	80.0	-1092.9
2490	2009-03-13T07:17:11	698716.1	4627750.6	17.390886	41.775997	77.3	-1094.1
2500	2009-03-13T07:19:02	698957.6	4627810.3	17.393810	41.776474	78.3	-1095.8
2510	2009-03-13T07:20:57	699202.6	4627866.1	17.396773	41.776914	78.1	-1098.1
2520	2009-03-13T07:22:51	699442.9	4627922.5	17.399681	41.777361	78.4	-1098.1
2530	2009-03-13T07:24:46	699685.6	4627980.7	17.402619	41.777824	80.2	-1100.2
2540	2009-03-13T07:26:41	699927.9	4628041.0	17.405552	41.778306	77.9	-1100.0

2550	2009-03-13T07:28:35	700169.2	4628101.1	17.408473	41.778786	72.5	-1101.0
2560	2009-03-13T07:30:27	700407.0	4628167.9	17.411354	41.779327	74.7	-1101.1
2570	2009-03-13T07:32:18	700646.6	4628230.6	17.414256	41.779831	74.3	-1102.3
2580	2009-03-13T07:34:11	700889.1	4628283.3	17.417189	41.780244	82.7	-1102.1
2590	2009-03-13T07:36:06	701136.3	4628330.2	17.420177	41.780603	80.2	-1102.8
2600	2009-03-13T07:38:00	701379.1	4628382.6	17.423113	41.781013	75.1	-1104.5
2610	2009-03-13T07:39:53	701612.6	4628456.1	17.425945	41.781615	72.3	-1104.3
2620	2009-03-13T07:41:48	701851.3	4628522.8	17.428838	41.782155	75.0	-1103.8
2630	2009-03-13T07:43:41	702090.8	4628585.3	17.431739	41.782656	82.5	-1105.0
2640	2009-03-13T07:45:32	702334.0	4628635.5	17.434680	41.783046	74.7	-1105.3
2650	2009-03-13T07:47:24	702572.7	4628706.6	17.437573	41.783625	77.6	-1105.2
2660	2009-03-13T07:49:17	702816.7	4628756.1	17.440524	41.784008	78.4	-1105.2
2670	2009-03-13T07:51:10	703058.2	4628819.7	17.443449	41.784518	74.6	-1105.8
2680	2009-03-13T07:53:01	703297.1	4628884.6	17.446344	41.785041	77.3	-1105.8
2690	2009-03-13T07:54:56	703540.4	4628944.6	17.449290	41.785519	79.4	-1104.2
2700	2009-03-13T07:56:57	703780.9	4629002.7	17.452201	41.785980	79.6	-1103.9
2710	2009-03-13T07:59:01	704021.5	4629067.3	17.455116	41.786499	76.2	-1103.7
2720	2009-03-13T08:01:07	704264.1	4629121.5	17.458051	41.786925	76.7	-1102.9
2730	2009-03-13T08:03:13	704505.7	4629179.8	17.460976	41.787387	78.4	-1101.6

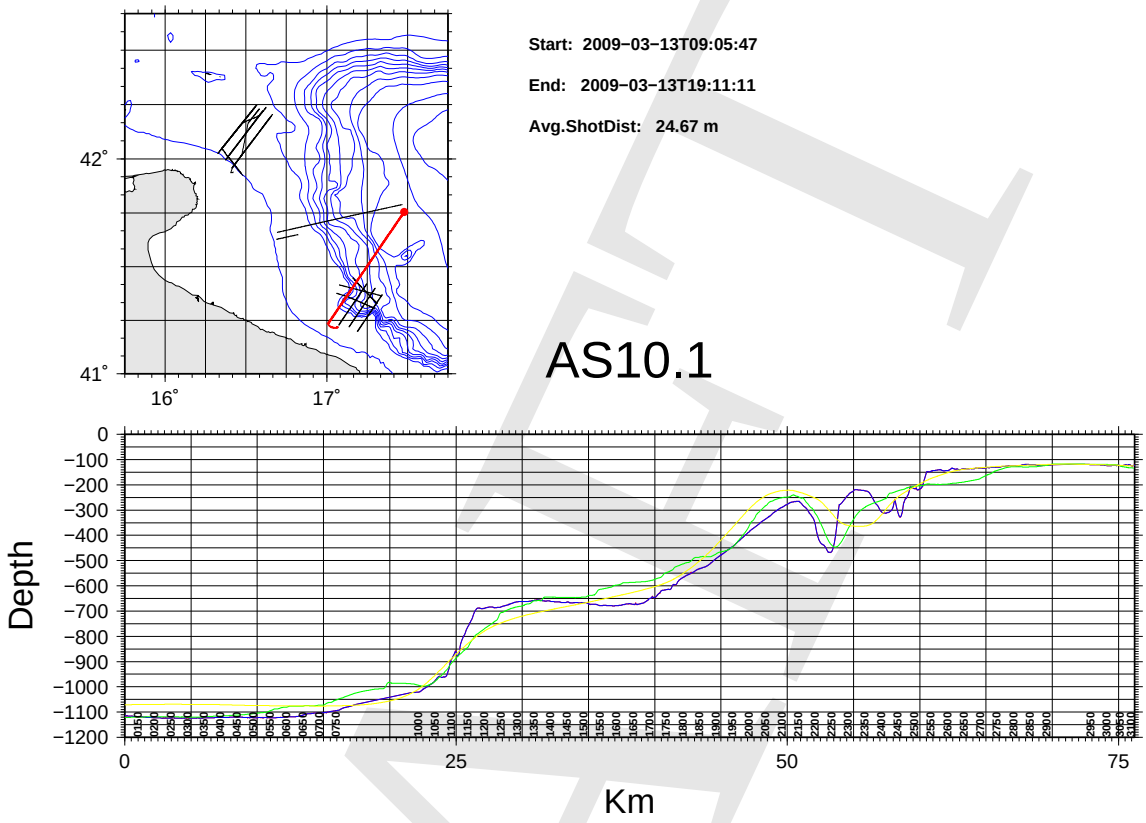

Figure 49: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 26: Line ../NAV/AS10.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-13T09:06:44	706148.3	4625517.8	17.479455	41.754010	217.1	-1114.8
0110	2009-03-13T09:08:59	706022.5	4625331.2	17.477879	41.752364	215.3	-1116.3
0120	2009-03-13T09:11:23	705884.4	4625123.5	17.476147	41.750531	216.2	-1115.1
0130	2009-03-13T09:13:28	705752.9	4624913.3	17.474494	41.748673	215.1	-1118.1
0140	2009-03-13T09:15:30	705616.4	4624704.4	17.472782	41.746829	210.8	-1118.2
0150	2009-03-13T09:17:31	705489.0	4624491.1	17.471178	41.744942	215.6	-1119.3
0160	2009-03-13T09:19:33	705347.8	4624284.5	17.469410	41.743120	216.7	-1120.0
0170	2009-03-13T09:21:35	705210.0	4624078.3	17.467683	41.741300	211.0	-1121.1
0180	2009-03-13T09:23:40	705083.8	4623862.8	17.466092	41.739393	211.8	-1122.1
0190	2009-03-13T09:25:38	704945.8	4623658.9	17.464365	41.737594	218.6	-1122.5
0200	2009-03-13T09:27:34	704803.7	4623456.0	17.462588	41.735805	214.4	-1123.0
0210	2009-03-13T09:29:32	704680.6	4623240.1	17.461035	41.733894	212.1	-1123.9
0220	2009-03-13T09:31:29	704543.4	4623031.6	17.459315	41.732053	216.4	-1123.2
0230	2009-03-13T09:33:27	704404.0	4622822.9	17.457568	41.730211	215.3	-1123.6
0240	2009-03-13T09:35:26	704274.5	4622610.4	17.455940	41.728332	216.1	-1123.5
0250	2009-03-13T09:37:26	704137.9	4622402.0	17.454228	41.726492	216.1	-1123.5
0260	2009-03-13T09:39:27	703997.9	4622193.1	17.452475	41.724648	214.2	-1124.4
0270	2009-03-13T09:41:27	703858.3	4621987.2	17.450728	41.722831	214.2	-1123.4
0280	2009-03-13T09:43:26	703724.2	4621779.5	17.449045	41.720996	210.8	-1123.4
0290	2009-03-13T09:45:26	703600.2	4621561.8	17.447482	41.719069	210.9	-1123.5
0300	2009-03-13T09:47:25	703462.3	4621353.6	17.445755	41.717231	215.3	-1123.6

0310	2009-03-13T09:49:24	703318.3	4621150.0	17.443956	41.715435	217.3	-1123.9
0320	2009-03-13T09:51:22	703187.9	4620939.0	17.442318	41.713570	211.9	-1123.4
0330	2009-03-13T09:53:19	703060.3	4620724.0	17.440712	41.711668	213.4	-1123.6
0340	2009-03-13T09:55:15	702925.4	4620516.2	17.439021	41.709832	216.5	-1123.3
0350	2009-03-13T09:57:11	702788.2	4620312.2	17.437304	41.708032	213.0	-1123.0
0360	2009-03-13T09:59:12	702649.8	4620103.8	17.435571	41.706192	214.8	-1122.5
0370	2009-03-13T10:01:13	702508.9	4619898.4	17.433810	41.704379	213.9	-1122.1
0380	2009-03-13T10:03:14	702382.7	4619686.5	17.432222	41.702504	214.2	-1121.5
0390	2009-03-13T10:05:14	702250.8	4619475.8	17.430567	41.700642	212.1	-1121.4
0400	2009-03-13T10:07:14	702120.4	4619263.1	17.428929	41.698761	214.7	-1121.4
0410	2009-03-13T10:09:13	701984.2	4619054.0	17.427223	41.696914	214.1	-1121.5
0420	2009-03-13T10:11:12	701847.0	4618846.3	17.425506	41.695080	214.6	-1120.5
0430	2009-03-13T10:13:10	701708.4	4618641.0	17.423772	41.693267	217.3	-1120.4
0440	2009-03-13T10:15:08	701565.4	4618436.8	17.421986	41.691466	212.6	-1120.3
0450	2009-03-13T10:17:05	701433.3	4618227.3	17.420330	41.689614	214.2	-1120.4
0460	2009-03-13T10:19:02	701302.0	4618014.9	17.418682	41.687736	209.5	-1121.5
0470	2009-03-13T10:21:00	701177.5	4617799.7	17.417115	41.685831	213.2	-1122.1
0480	2009-03-13T10:23:03	701043.8	4617594.3	17.415440	41.684016	212.9	-1121.8
0490	2009-03-13T10:25:07	700904.5	4617388.6	17.413699	41.682200	214.4	-1122.3
0500	2009-03-13T10:27:12	700766.3	4617184.2	17.411972	41.680396	217.9	-1122.2
0510	2009-03-13T10:29:17	700632.7	4616974.0	17.410297	41.678538	211.7	-1122.3
0520	2009-03-13T10:31:21	700505.7	4616758.7	17.408701	41.676632	210.4	-1122.3
0530	2009-03-13T10:33:27	700376.8	4616543.8	17.407081	41.674731	208.4	-1122.5
0540	2009-03-13T10:35:34	700254.2	4616326.7	17.405537	41.672808	212.8	-1122.4
0550	2009-03-13T10:37:39	700115.3	4616122.2	17.403801	41.671003	219.0	-1122.6
0560	2009-03-13T10:39:48	699970.8	4615917.7	17.401999	41.669199	216.4	-1122.6
0570	2009-03-13T10:41:56	699831.4	4615710.7	17.400257	41.667371	210.2	-1120.9
0580	2009-03-13T10:44:01	699702.5	4615497.3	17.398638	41.665483	214.0	-1120.2
0590	2009-03-13T10:46:07	699563.2	4615291.0	17.396897	41.663661	215.2	-1119.8
0600	2009-03-13T10:48:13	699416.5	4615089.7	17.395070	41.661886	217.3	-1118.6
0610	2009-03-13T10:50:20	699279.1	4614882.5	17.393352	41.660056	215.1	-1118.1
0620	2009-03-13T10:52:25	699149.0	4614670.2	17.391720	41.658178	208.8	-1117.8
0630	2009-03-13T10:54:32	699020.2	4614456.8	17.390104	41.656290	213.3	-1115.0
0640	2009-03-13T10:56:39	698881.3	4614248.5	17.388368	41.654450	214.0	-1111.2
0650	2009-03-13T10:58:45	698744.4	4614041.1	17.386656	41.652618	211.8	-1107.2
0660	2009-03-13T11:00:49	698614.1	4613828.4	17.385022	41.650736	211.1	-1105.8
0670	2009-03-13T11:02:49	698480.2	4613621.8	17.383346	41.648910	215.6	-1104.6
0680	2009-03-13T11:04:51	698342.4	4613412.3	17.381624	41.647059	215.6	-1103.5
0690	2009-03-13T11:06:51	698206.2	4613206.5	17.379922	41.645241	215.2	-1103.7
0700	2009-03-13T11:08:52	698068.5	4612998.5	17.378200	41.643404	212.6	-1102.7
0710	2009-03-13T11:10:53	697937.6	4612786.4	17.376560	41.641527	215.0	-1101.1
0720	2009-03-13T11:12:53	697806.8	4612577.4	17.374922	41.639679	213.3	-1098.7
0730	2009-03-13T11:14:55	697669.8	4612369.2	17.373209	41.637839	220.0	-1096.3
0740	2009-03-13T11:16:57	697529.9	4612161.6	17.371463	41.636006	213.6	-1094.5
0750	2009-03-13T11:18:58	697394.6	4611951.9	17.369770	41.634152	215.8	-1090.5
0760	2009-03-13T11:20:59	697265.0	4611738.0	17.368145	41.632259	212.7	-1084.3
0770	2009-03-13T11:23:00	697135.0	4611525.0	17.366516	41.630374	210.9	-1080.3
0780	2009-03-13T11:25:01	697004.9	4611312.7	17.364886	41.628496	216.7	-1077.8
0790	2009-03-13T11:27:01	696865.4	4611106.9	17.363145	41.626678	218.4	-1073.5
0970	2009-03-13T12:02:29	694434.9	4607343.2	17.332772	41.593403	216.1	-1022.5
0980	2009-03-13T12:04:28	694301.6	4607136.7	17.331106	41.591577	210.1	-1021.7
0990	2009-03-13T12:06:28	694170.7	4606925.6	17.329469	41.589709	211.9	-1020.6
1000	2009-03-13T12:08:27	694040.7	4606714.7	17.327842	41.587842	216.6	-1012.6
1010	2009-03-13T12:10:22	693903.2	4606504.8	17.326126	41.585987	215.2	-1003.7
1020	2009-03-13T12:12:16	693762.2	4606298.0	17.324369	41.584160	213.9	-995.0
1030	2009-03-13T12:14:10	693634.3	4606086.6	17.322768	41.582288	215.1	-986.7

1040	2009-03-13T12:16:08	693502.2	4605875.7	17.321117	41.580422	215.4	-974.0
1050	2009-03-13T12:18:03	693361.8	4605674.3	17.319369	41.578644	213.3	-960.1
1060	2009-03-13T12:19:56	693239.6	4605458.3	17.317835	41.576729	213.5	-962.3
1070	2009-03-13T12:21:53	693097.8	4605255.1	17.316070	41.574935	221.4	-960.5
1080	2009-03-13T12:23:49	692961.1	4605050.5	17.314366	41.573126	211.7	-931.4
1090	2009-03-13T12:25:47	692823.2	4604839.4	17.312646	41.571260	215.1	-889.3
1100	2009-03-13T12:27:43	692684.9	4604630.8	17.310921	41.569416	213.7	-860.0
1110	2009-03-13T12:29:38	692551.0	4604421.1	17.309249	41.567561	215.0	-873.9
1120	2009-03-13T12:31:40	692409.5	4604214.9	17.307488	41.565739	219.5	-817.6
1130	2009-03-13T12:33:43	692281.4	4604003.3	17.305885	41.563866	211.8	-789.6
1140	2009-03-13T12:35:44	692165.6	4603782.3	17.304426	41.561905	213.8	-757.9
1150	2009-03-13T12:37:46	692014.6	4603583.3	17.302553	41.560150	213.5	-734.7
1160	2009-03-13T12:39:42	691881.4	4603370.8	17.300890	41.558269	212.3	-699.8
1170	2009-03-13T12:41:36	691746.3	4603163.6	17.299205	41.556437	215.6	-687.8
1180	2009-03-13T12:43:28	691604.3	4602958.4	17.297438	41.554624	215.7	-690.7
1190	2009-03-13T12:45:22	691471.0	4602749.2	17.295774	41.552773	214.3	-688.0
1200	2009-03-13T12:47:25	691345.9	4602533.2	17.294207	41.550859	217.2	-685.0
1210	2009-03-13T12:49:30	691207.7	4602327.3	17.292485	41.549039	218.8	-684.1
1220	2009-03-13T12:51:35	691066.3	4602121.8	17.290726	41.547224	217.2	-687.3
1230	2009-03-13T12:53:39	690934.7	4601908.5	17.289081	41.545335	210.2	-685.4
1240	2009-03-13T12:55:44	690805.2	4601695.1	17.287462	41.543446	216.3	-683.1
1250	2009-03-13T12:57:49	690662.3	4601491.3	17.285686	41.541646	213.4	-678.9
1260	2009-03-13T12:59:55	690527.3	4601280.8	17.284002	41.539783	212.8	-675.1
1270	2009-03-13T13:02:00	690390.2	4601073.0	17.282294	41.537946	214.6	-670.3
1280	2009-03-13T13:03:59	690257.5	4600862.4	17.280638	41.536082	213.5	-665.5
1290	2009-03-13T13:05:55	690121.6	4600654.3	17.278945	41.534241	217.5	-663.0
1300	2009-03-13T13:07:52	689987.1	4600444.5	17.277267	41.532385	210.2	-661.8
1310	2009-03-13T13:09:51	689860.7	4600227.2	17.275685	41.530459	215.9	-662.3
1320	2009-03-13T13:11:50	689715.7	4600025.9	17.273885	41.528682	216.2	-661.5
1330	2009-03-13T13:13:48	689585.9	4599812.7	17.272263	41.526794	211.9	-660.1
1340	2009-03-13T13:15:47	689455.0	4599600.1	17.270628	41.524911	215.1	-657.3
1350	2009-03-13T13:17:47	689309.3	4599395.8	17.268819	41.523107	214.8	-656.3
1360	2009-03-13T13:19:45	689174.7	4599185.8	17.267141	41.521249	212.2	-657.3
1370	2009-03-13T13:21:42	689049.7	4598970.2	17.265576	41.519338	214.6	-660.2
1380	2009-03-13T13:23:40	688909.9	4598762.4	17.263837	41.517501	214.1	-659.7
1390	2009-03-13T13:25:38	688768.6	4598556.6	17.262080	41.515682	214.8	-661.6
1400	2009-03-13T13:27:35	688632.2	4598346.8	17.260381	41.513826	212.7	-662.9
1410	2009-03-13T13:29:32	688504.1	4598132.9	17.258781	41.511931	216.0	-663.0
1420	2009-03-13T13:31:30	688366.3	4597924.5	17.257065	41.510088	213.8	-665.3
1430	2009-03-13T13:33:28	688229.1	4597714.5	17.255357	41.508230	214.1	-666.7
1440	2009-03-13T13:35:25	688093.9	4597504.9	17.253673	41.506375	212.4	-664.0
1450	2009-03-13T13:37:21	687963.5	4597293.4	17.252046	41.504502	213.1	-667.6
1460	2009-03-13T13:39:18	687827.4	4597081.8	17.250350	41.502630	212.7	-666.9
1470	2009-03-13T13:41:14	687692.0	4596874.0	17.248665	41.500791	215.0	-666.8
1480	2009-03-13T13:43:10	687556.5	4596665.1	17.246977	41.498943	215.5	-667.8
1490	2009-03-13T13:45:06	687420.5	4596457.3	17.245284	41.497104	215.1	-666.3
1500	2009-03-13T13:47:02	687285.7	4596248.7	17.243606	41.495258	213.4	-668.9
1510	2009-03-13T13:48:58	687151.0	4596039.0	17.241928	41.493402	214.2	-673.8
1520	2009-03-13T13:50:53	687016.6	4595829.8	17.240255	41.491551	212.5	-673.0
1530	2009-03-13T13:52:47	686884.4	4595620.2	17.238607	41.489695	214.6	-675.0
1540	2009-03-13T13:54:42	686748.9	4595408.7	17.236920	41.487823	214.2	-678.2
1550	2009-03-13T13:56:37	686613.8	4595196.9	17.235237	41.485948	214.7	-677.3
1560	2009-03-13T13:58:32	686476.9	4594988.2	17.233534	41.484102	214.2	-678.2
1570	2009-03-13T14:00:27	686341.2	4594778.7	17.231845	41.482248	216.1	-678.4
1580	2009-03-13T14:02:20	686206.9	4594573.2	17.230175	41.480429	213.3	-679.3
1590	2009-03-13T14:04:14	686077.5	4594359.8	17.228560	41.478539	213.1	-678.7

1600	2009-03-13T14:06:08	685941.6	4594152.6	17.226870	41.476705	215.8	-676.8
1610	2009-03-13T14:08:03	685801.8	4593946.6	17.225133	41.474884	211.7	-674.6
1620	2009-03-13T14:09:59	685672.9	4593730.5	17.223524	41.472969	214.2	-671.2
1630	2009-03-13T14:11:56	685534.0	4593521.3	17.221797	41.471118	213.5	-671.1
1640	2009-03-13T14:13:57	685397.5	4593314.3	17.220100	41.469286	214.3	-673.7
1650	2009-03-13T14:15:59	685262.2	4593104.8	17.218417	41.467432	215.2	-673.7
1660	2009-03-13T14:18:01	685127.7	4592894.6	17.216743	41.465571	213.5	-671.2
1670	2009-03-13T14:20:03	684992.7	4592683.6	17.215063	41.463703	213.6	-667.2
1680	2009-03-13T14:22:04	684858.8	4592472.4	17.213396	41.461833	214.5	-659.0
1690	2009-03-13T14:24:05	684724.4	4592263.2	17.211724	41.459981	213.7	-650.1
1700	2009-03-13T14:26:06	684588.3	4592054.2	17.210032	41.458131	217.1	-647.2
1710	2009-03-13T14:28:07	684445.2	4591850.1	17.208258	41.456327	216.7	-639.1
1720	2009-03-13T14:30:08	684307.3	4591641.1	17.206544	41.454478	213.0	-629.5
1730	2009-03-13T14:32:08	684182.1	4591425.6	17.204980	41.452567	211.1	-617.1
1740	2009-03-13T14:34:08	684053.3	4591211.5	17.203374	41.450669	217.7	-614.6
1750	2009-03-13T14:36:08	683908.7	4591007.8	17.201582	41.448869	216.7	-614.4
1760	2009-03-13T14:38:08	683760.9	4590805.4	17.199753	41.447081	215.8	-594.5
1770	2009-03-13T14:40:07	683635.6	4590591.1	17.198189	41.445181	204.0	-591.3
1780	2009-03-13T14:42:06	683503.3	4590379.9	17.196542	41.443310	214.8	-575.1
1790	2009-03-13T14:44:06	683359.5	4590173.3	17.194760	41.441484	217.7	-566.2
1800	2009-03-13T14:46:06	683215.2	4589969.5	17.192972	41.439682	214.6	-558.1
1810	2009-03-13T14:48:05	683108.2	4589745.2	17.191624	41.437688	203.7	-552.9
1820	2009-03-13T14:50:05	682972.7	4589535.8	17.189940	41.435834	223.8	-546.2
1830	2009-03-13T14:52:03	682808.8	4589349.7	17.187923	41.434196	218.2	-537.2
1840	2009-03-13T14:53:52	682676.6	4589137.5	17.186278	41.432316	212.0	-531.7
1850	2009-03-13T14:55:32	682554.2	4588919.5	17.184749	41.430382	209.8	-527.1
1860	2009-03-13T14:57:12	682427.9	4588701.6	17.183172	41.428449	212.6	-521.7
1870	2009-03-13T14:58:50	682298.6	4588490.3	17.181562	41.426577	214.5	-513.2
1880	2009-03-13T15:00:37	682161.7	4588280.8	17.179862	41.424722	216.4	-502.4
1890	2009-03-13T15:02:46	682021.1	4588072.8	17.178118	41.422882	214.1	-490.9
1900	2009-03-13T15:04:58	681886.6	4587863.2	17.176446	41.421026	214.5	-481.0
1910	2009-03-13T15:07:10	681750.5	4587655.7	17.174757	41.419189	211.7	-472.9
1920	2009-03-13T15:09:21	681616.5	4587446.0	17.173092	41.417332	213.7	-462.2
1930	2009-03-13T15:11:27	681479.9	4587236.2	17.171396	41.415474	213.7	-452.8
1940	2009-03-13T15:13:30	681349.8	4587025.3	17.169777	41.413605	212.9	-443.9
1950	2009-03-13T15:15:34	681216.5	4586812.7	17.168119	41.411722	213.5	-431.8
1960	2009-03-13T15:17:36	681078.8	4586607.5	17.166412	41.409906	215.7	-419.4
1970	2009-03-13T15:19:39	680939.2	4586400.2	17.164681	41.408071	210.5	-408.4
1980	2009-03-13T15:21:42	680805.1	4586188.7	17.163014	41.406198	214.0	-395.9
1990	2009-03-13T15:23:44	680672.7	4585977.7	17.161368	41.404328	214.8	-384.7
2000	2009-03-13T15:25:47	680537.7	4585766.1	17.159691	41.402454	214.0	-374.1
2010	2009-03-13T15:27:49	680400.4	4585558.3	17.157988	41.400615	214.5	-364.1
2020	2009-03-13T15:29:50	680269.0	4585348.4	17.156355	41.398755	211.4	-353.5
2030	2009-03-13T15:31:51	680137.0	4585136.7	17.154714	41.396879	213.1	-343.5
2040	2009-03-13T15:33:52	680004.4	4584925.3	17.153066	41.395006	216.5	-334.5
2050	2009-03-13T15:35:52	679860.9	4584722.6	17.151291	41.393213	214.8	-325.2
2060	2009-03-13T15:37:51	679730.6	4584512.6	17.149671	41.391352	211.9	-313.6
2070	2009-03-13T15:39:51	679600.8	4584299.7	17.148057	41.389465	216.1	-304.0
2080	2009-03-13T15:41:51	679455.5	4584096.1	17.146259	41.387665	215.5	-295.2
2090	2009-03-13T15:43:51	679322.8	4583884.5	17.144611	41.385790	213.3	-288.4
2100	2009-03-13T15:45:51	679195.0	4583671.3	17.143020	41.383899	215.0	-280.0
2110	2009-03-13T15:47:51	679054.0	4583464.1	17.141274	41.382065	215.3	-273.1
2120	2009-03-13T15:49:50	678914.3	4583256.8	17.139544	41.380231	217.3	-268.2
2130	2009-03-13T15:51:49	678780.2	4583046.0	17.137878	41.378363	210.4	-266.3
2140	2009-03-13T15:53:48	678656.7	4582828.7	17.136339	41.376434	210.2	-265.7
2150	2009-03-13T15:55:46	678516.7	4582623.1	17.134605	41.374615	217.6	-278.4

2160	2009-03-13T15:57:44	678374.7	4582418.4	17.132848	41.372804	215.5	-290.4
2170	2009-03-13T15:59:43	678242.8	4582205.4	17.131210	41.370916	210.4	-309.4
2180	2009-03-13T16:01:42	678112.3	4581992.2	17.129588	41.369026	215.6	-327.0
2190	2009-03-13T16:03:40	677972.3	4581786.3	17.127854	41.367203	216.1	-364.6
2200	2009-03-13T16:05:37	677835.5	4581578.7	17.126159	41.365365	213.7	-416.6
2210	2009-03-13T16:07:36	677701.3	4581366.7	17.124493	41.363486	214.6	-435.4
2220	2009-03-13T16:09:35	677568.9	4581157.8	17.122850	41.361635	214.9	-447.4
2230	2009-03-13T16:11:34	677436.0	4580945.8	17.121201	41.359756	214.6	-467.5
2240	2009-03-13T16:13:32	677300.7	4580734.5	17.119522	41.357884	217.1	-462.8
2250	2009-03-13T16:15:29	677163.4	4580527.3	17.117822	41.356049	216.1	-404.8
2260	2009-03-13T16:17:27	677026.1	4580317.0	17.116120	41.354186	213.8	-284.2
2270	2009-03-13T16:19:25	676890.9	4580106.0	17.114444	41.352317	216.7	-270.4
2280	2009-03-13T16:21:22	676755.8	4579897.2	17.112769	41.350467	215.7	-253.5
2290	2009-03-13T16:23:20	676622.5	4579685.9	17.111115	41.348594	214.4	-237.4
2300	2009-03-13T16:25:17	676490.0	4579475.6	17.109471	41.346730	214.6	-228.3
2310	2009-03-13T16:27:15	676351.9	4579266.5	17.107761	41.344878	214.3	-218.6
2320	2009-03-13T16:29:12	676212.8	4579059.3	17.106039	41.343044	214.3	-220.2
2330	2009-03-13T16:31:10	676076.8	4578850.4	17.104354	41.341193	212.5	-221.6
2340	2009-03-13T16:33:08	675949.1	4578636.8	17.102767	41.339298	212.6	-224.1
2350	2009-03-13T16:35:07	675815.9	4578424.3	17.101115	41.337414	215.9	-228.7
2360	2009-03-13T16:37:05	675674.0	4578218.6	17.099361	41.335594	215.2	-246.4
2370	2009-03-13T16:39:03	675533.0	4578012.0	17.097617	41.333765	213.7	-271.0
2380	2009-03-13T16:41:02	675406.9	4577796.1	17.096049	41.331849	214.1	-288.7
2390	2009-03-13T16:43:01	675269.2	4577587.0	17.094344	41.329997	214.4	-307.7
2400	2009-03-13T16:44:59	675134.1	4577377.3	17.092671	41.328138	214.9	-311.9
2410	2009-03-13T16:46:57	674997.2	4577169.5	17.090976	41.326298	215.5	-309.4
2420	2009-03-13T16:48:57	674864.0	4576955.9	17.089324	41.324404	210.8	-300.9
2430	2009-03-13T16:50:55	674735.1	4576743.5	17.087724	41.322520	214.5	-259.7
2440	2009-03-13T16:52:54	674597.5	4576533.4	17.086021	41.320658	214.1	-315.4
2450	2009-03-13T16:54:55	674458.5	4576326.5	17.084302	41.318826	214.7	-318.0
2460	2009-03-13T16:56:57	674321.8	4576118.0	17.082610	41.316979	213.9	-260.3
2470	2009-03-13T16:59:00	674186.9	4575907.3	17.080939	41.315111	211.2	-239.6
2480	2009-03-13T17:01:01	674061.4	4575691.1	17.079378	41.313192	212.2	-210.2
2490	2009-03-13T17:03:01	673920.5	4575486.2	17.077638	41.311378	217.2	-215.8
2500	2009-03-13T17:05:04	673781.5	4575277.7	17.075919	41.309531	212.6	-219.9
2510	2009-03-13T17:07:08	673645.9	4575066.8	17.074240	41.307662	215.8	-211.4
2520	2009-03-13T17:09:10	673509.7	4574858.0	17.072554	41.305812	210.2	-174.2
2530	2009-03-13T17:11:12	673382.5	4574643.1	17.070975	41.303905	214.6	-148.0
2540	2009-03-13T17:13:14	673248.8	4574432.6	17.069319	41.302039	215.4	-145.5
2550	2009-03-13T17:15:17	673111.7	4574224.1	17.067623	41.300191	214.6	-143.7
2560	2009-03-13T17:17:20	672980.4	4574013.4	17.065996	41.298323	212.4	-140.7
2570	2009-03-13T17:19:23	672845.2	4573805.6	17.064323	41.296481	215.6	-141.7
2580	2009-03-13T17:21:27	672703.2	4573599.2	17.062570	41.294654	216.9	-145.3
2590	2009-03-13T17:23:31	672564.6	4573391.8	17.060857	41.292816	211.8	-143.4
2600	2009-03-13T17:25:35	672434.1	4573177.4	17.059238	41.290914	213.7	-135.7
2610	2009-03-13T17:27:38	672300.9	4572967.9	17.057590	41.289057	211.4	-137.3
2620	2009-03-13T17:29:44	672168.7	4572753.7	17.055951	41.287157	215.4	-138.2
2630	2009-03-13T17:31:48	672034.9	4572541.8	17.054295	41.285278	212.7	-138.4
2640	2009-03-13T17:33:51	671901.5	4572333.5	17.052644	41.283431	216.4	-136.4
2650	2009-03-13T17:35:54	671766.4	4572124.2	17.050973	41.281576	214.2	-136.5
2660	2009-03-13T17:37:57	671632.1	4571915.2	17.049311	41.279723	219.2	-136.0
2670	2009-03-13T17:40:00	671490.6	4571710.1	17.047564	41.277907	215.9	-136.4
2680	2009-03-13T17:42:04	671353.8	4571499.2	17.045873	41.276037	226.3	-134.1
2690	2009-03-13T17:44:04	671217.6	4571294.0	17.044190	41.274219	213.8	-133.6
2700	2009-03-13T17:46:07	671084.0	4571080.4	17.042536	41.272325	215.2	-133.4
2710	2009-03-13T17:48:09	670947.4	4570873.4	17.040848	41.270490	216.1	-131.7

2720	2009-03-13T17:50:11	670809.8	4570665.3	17.039148	41.268646	215.6	-131.7
2730	2009-03-13T17:52:10	670677.1	4570460.6	17.037508	41.266831	211.1	-131.4
2740	2009-03-13T17:54:13	670542.6	4570248.5	17.035843	41.264951	216.1	-129.6
2750	2009-03-13T17:56:16	670404.0	4570041.3	17.034132	41.263115	211.6	-128.8
2760	2009-03-13T17:58:19	670274.3	4569829.0	17.032526	41.261231	214.5	-127.2
2770	2009-03-13T18:00:21	670136.6	4569620.6	17.030825	41.259384	214.9	-125.6
2780	2009-03-13T18:02:22	670000.5	4569411.8	17.029143	41.257533	213.3	-124.1
2790	2009-03-13T18:04:25	669873.6	4569194.1	17.027569	41.255600	212.4	-124.6
2800	2009-03-13T18:06:27	669732.1	4568989.0	17.025824	41.253783	217.5	-125.5
2810	2009-03-13T18:08:29	669601.2	4568779.3	17.024204	41.251923	213.9	-123.8
2820	2009-03-13T18:10:33	669466.6	4568567.7	17.022539	41.250046	215.9	-120.1
2830	2009-03-13T18:12:35	669329.4	4568363.0	17.020846	41.248232	211.5	-119.0
2840	2009-03-13T18:14:40	669194.1	4568151.3	17.019174	41.246355	212.0	-120.6
2850	2009-03-13T18:16:42	669058.1	4567940.7	17.017494	41.244488	215.2	-120.3
2860	2009-03-13T18:18:43	668921.4	4567729.0	17.015805	41.242611	193.1	-122.9
2870	2009-03-13T18:20:41	668803.9	4567515.8	17.014344	41.240716	215.0	-123.9
2880	2009-03-13T18:22:41	668661.9	4567311.8	17.012594	41.238909	214.8	-122.6
2890	2009-03-13T18:24:43	668527.1	4567100.5	17.010929	41.237035	216.3	-122.6
2900	2009-03-13T18:26:45	668380.8	4566895.5	17.009127	41.235220	219.3	-121.4
2910	2009-03-13T18:43:46	669734.4	4565222.6	17.024804	41.219878	117.2	-119.1
2920	2009-03-13T18:45:26	669945.8	4565113.4	17.027294	41.218850	119.2	-119.0
2930	2009-03-13T18:47:06	670164.2	4565020.4	17.029872	41.217967	107.2	-119.4
2940	2009-03-13T18:48:46	670395.0	4564953.8	17.032605	41.217319	106.6	-120.1
2950	2009-03-13T18:50:27	670632.3	4564902.5	17.035420	41.216807	101.5	-120.2
2960	2009-03-13T18:52:07	670868.0	4564856.4	17.038216	41.216343	103.9	-120.3
2970	2009-03-13T18:53:46	671101.2	4564806.6	17.040983	41.215845	102.4	-121.8
2980	2009-03-13T18:55:26	671338.5	4564755.8	17.043797	41.215338	105.5	-121.8
2990	2009-03-13T18:57:06	671575.8	4564703.3	17.046611	41.214815	102.1	-123.9
3000	2009-03-13T18:58:46	671813.7	4564652.3	17.049433	41.214305	94.2	-124.0
3010	2009-03-13T19:00:26	672056.4	4564649.2	17.052325	41.214226	101.0	-123.0
3020	2009-03-13T19:02:06	672297.6	4564669.8	17.055207	41.214360	81.7	-123.8
3030	2009-03-13T19:03:46	672540.1	4564710.9	17.058109	41.214678	70.3	-124.1
3040	2009-03-13T19:04:55	672693.4	4564780.2	17.059956	41.215269	65.1	-124.3
3050	2009-03-13T19:05:45	672804.5	4564837.7	17.061297	41.215763	63.3	-122.5
3060	2009-03-13T19:06:35	672917.1	4564896.5	17.062656	41.216269	69.8	-120.8
3070	2009-03-13T19:07:23	673027.5	4564949.7	17.063987	41.216724	62.4	-121.8
3080	2009-03-13T19:08:35	673185.2	4565037.8	17.065892	41.217483	54.1	-120.4
3090	2009-03-13T19:09:50	673316.4	4565173.5	17.067494	41.218677	37.3	-125.1
3100	2009-03-13T19:11:03	673425.5	4565323.8	17.068838	41.220006	34.4	-122.0

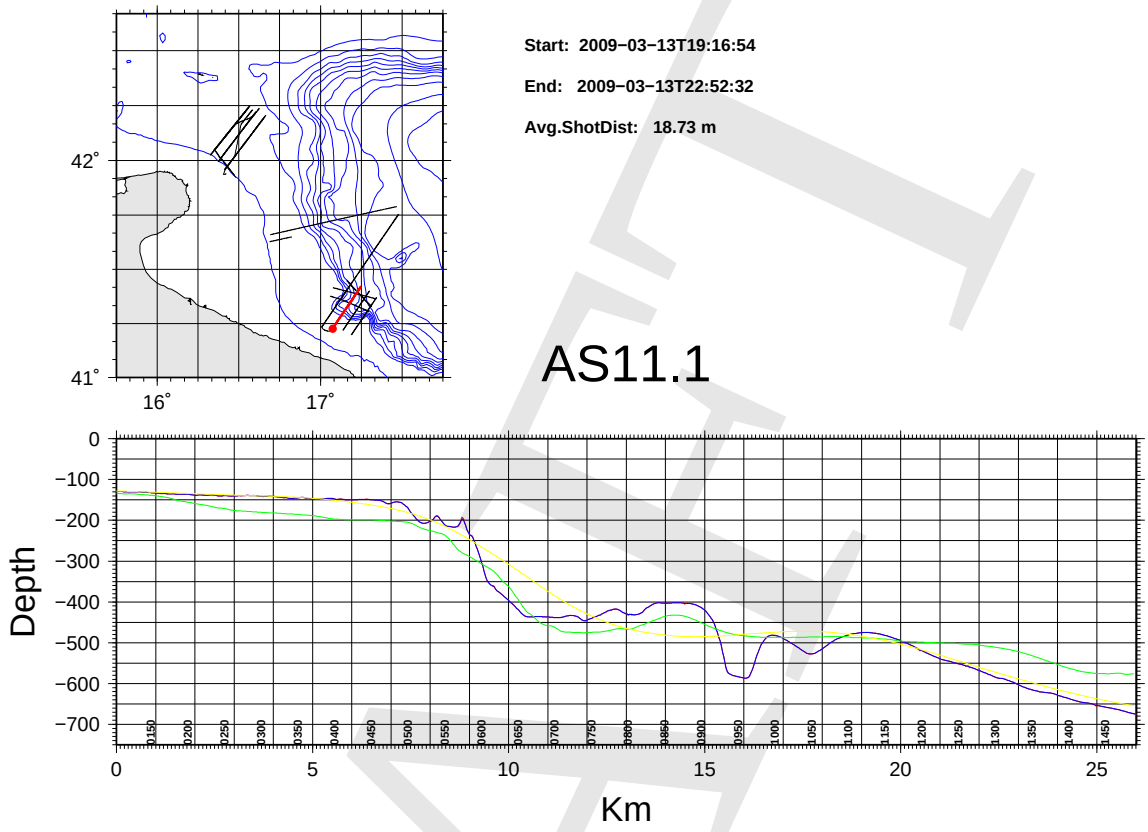

Figure 50: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 27: Line ../NAV/AS11.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-13T19:17:37	673905.9	4566131.5	17.074795	41.227174	27.8	-129.5
0110	2009-03-13T19:18:56	673982.8	4566284.4	17.075755	41.228534	29.5	-130.2
0120	2009-03-13T19:20:23	674067.0	4566454.2	17.076808	41.230044	24.7	-130.2
0130	2009-03-13T19:21:46	674145.3	4566616.5	17.077788	41.231488	27.3	-130.4
0140	2009-03-13T19:23:13	674241.3	4566776.3	17.078978	41.232906	33.7	-131.6
0150	2009-03-13T19:24:40	674342.7	4566933.7	17.080232	41.234301	33.9	-133.2
0160	2009-03-13T19:26:07	674443.6	4567091.2	17.081480	41.235697	34.6	-134.5
0170	2009-03-13T19:27:34	674545.3	4567248.8	17.082738	41.237094	32.3	-135.2
0180	2009-03-13T19:29:01	674646.6	4567406.9	17.083991	41.238495	33.7	-136.0
0190	2009-03-13T19:30:27	674746.8	4567564.7	17.085231	41.239894	34.9	-135.9
0200	2009-03-13T19:31:54	674846.9	4567723.7	17.086470	41.241303	34.4	-137.5
0210	2009-03-13T19:33:24	674947.9	4567881.8	17.087720	41.242705	33.5	-137.4
0220	2009-03-13T19:34:55	675046.3	4568040.7	17.088939	41.244114	35.4	-138.6
0230	2009-03-13T19:36:26	675149.6	4568197.6	17.090216	41.245504	37.0	-138.2
0240	2009-03-13T19:37:57	675253.2	4568354.9	17.091497	41.246897	36.2	-140.5
0250	2009-03-13T19:39:27	675356.5	4568509.7	17.092773	41.248268	34.8	-140.1
0260	2009-03-13T19:40:58	675460.4	4568666.4	17.094058	41.249656	35.2	-140.1
0270	2009-03-13T19:42:29	675562.9	4568824.5	17.095326	41.251057	32.5	-139.7
0280	2009-03-13T19:43:59	675662.2	4568983.6	17.096556	41.252468	33.2	-139.6
0290	2009-03-13T19:45:28	675760.7	4569141.5	17.097776	41.253868	34.0	-140.2
0300	2009-03-13T19:46:57	675859.7	4569299.7	17.099002	41.255270	34.8	-141.4

0310	2009-03-13T19:48:26	675958.4	4569458.5	17.100226	41.256678	33.8	-141.5
0320	2009-03-13T19:49:56	676057.8	4569617.6	17.101457	41.258089	35.0	-143.6
0330	2009-03-13T19:51:26	676160.8	4569772.7	17.102730	41.259462	35.0	-144.7
0340	2009-03-13T19:52:57	676264.0	4569928.2	17.104007	41.260840	35.8	-145.9
0350	2009-03-13T19:54:29	676369.6	4570085.5	17.105312	41.262233	33.7	-143.8
0360	2009-03-13T19:56:00	676472.1	4570241.7	17.106580	41.263616	34.2	-146.8
0370	2009-03-13T19:57:31	676573.2	4570399.4	17.107832	41.265014	36.2	-147.9
0380	2009-03-13T19:59:03	676675.3	4570556.0	17.109095	41.266401	34.9	-147.7
0390	2009-03-13T20:00:36	676779.7	4570712.5	17.110386	41.267787	32.8	-146.0
0400	2009-03-13T20:02:08	676875.0	4570872.4	17.111569	41.269205	31.7	-148.4
0410	2009-03-13T20:03:41	676971.5	4571033.1	17.112767	41.270631	31.0	-149.5
0420	2009-03-13T20:05:14	677069.0	4571193.4	17.113977	41.272052	35.3	-149.6
0430	2009-03-13T20:06:46	677170.6	4571349.2	17.115234	41.273432	34.3	-148.9
0440	2009-03-13T20:08:18	677272.6	4571506.0	17.116497	41.274821	34.8	-148.6
0450	2009-03-13T20:09:50	677379.6	4571660.2	17.117818	41.276186	36.4	-150.5
0460	2009-03-13T20:11:22	677485.2	4571815.7	17.119124	41.277562	36.0	-153.2
0470	2009-03-13T20:12:55	677589.4	4571972.6	17.120413	41.278952	34.3	-159.0
0480	2009-03-13T20:14:28	677688.2	4572131.6	17.121638	41.280361	35.1	-154.9
0490	2009-03-13T20:16:00	677785.6	4572290.6	17.122847	41.281771	32.6	-162.8
0500	2009-03-13T20:17:31	677883.6	4572448.6	17.124062	41.283172	34.8	-183.8
0510	2009-03-13T20:19:03	677987.2	4572605.6	17.125344	41.284562	33.9	-204.1
0520	2009-03-13T20:20:34	678087.9	4572762.9	17.126592	41.285956	35.2	-206.3
0530	2009-03-13T20:22:05	678189.9	4572920.0	17.127855	41.287347	34.1	-195.8
0540	2009-03-13T20:23:36	678294.2	4573076.5	17.129145	41.288733	36.2	-201.7
0550	2009-03-13T20:25:07	678394.7	4573233.7	17.130391	41.290126	33.7	-215.1
0560	2009-03-13T20:26:38	678492.1	4573391.4	17.131600	41.291524	31.7	-215.8
0570	2009-03-13T20:28:11	678594.3	4573548.8	17.132865	41.292918	35.3	-195.2
0580	2009-03-13T20:29:44	678699.2	4573703.8	17.134163	41.294290	33.8	-236.5
0590	2009-03-13T20:31:18	678800.7	4573861.7	17.135420	41.295689	34.9	-276.5
0600	2009-03-13T20:32:54	678899.0	4574022.5	17.136641	41.297115	32.0	-336.8
0610	2009-03-13T20:34:30	678999.9	4574181.2	17.137892	41.298521	30.8	-360.6
0620	2009-03-13T20:36:07	679099.7	4574340.0	17.139130	41.299928	35.8	-378.4
0630	2009-03-13T20:37:46	679206.6	4574493.1	17.140451	41.301282	34.7	-393.8
0640	2009-03-13T20:39:27	679313.3	4574646.2	17.141770	41.302637	36.2	-410.5
0650	2009-03-13T20:41:09	679420.3	4574799.6	17.143092	41.303994	35.3	-429.4
0660	2009-03-13T20:42:52	679526.6	4574951.8	17.144406	41.305340	35.5	-436.5
0670	2009-03-13T20:44:37	679634.9	4575104.5	17.145744	41.306690	38.0	-435.8
0680	2009-03-13T20:46:21	679740.0	4575255.5	17.147043	41.308026	38.5	-436.2
0690	2009-03-13T20:48:06	679847.9	4575406.6	17.148375	41.309362	37.0	-437.7
0700	2009-03-13T20:49:54	679960.1	4575560.3	17.149760	41.310721	28.8	-438.7
0710	2009-03-13T20:51:34	680040.7	4575727.4	17.150772	41.312207	29.1	-435.0
0720	2009-03-13T20:53:10	680128.7	4575893.1	17.151871	41.313679	29.4	-433.5
0730	2009-03-13T20:54:46	680224.0	4576056.2	17.153058	41.315125	30.5	-442.1
0740	2009-03-13T20:56:21	680320.8	4576216.7	17.154261	41.316548	35.5	-442.9
0750	2009-03-13T20:57:56	680418.9	4576375.5	17.155479	41.317956	34.1	-436.6
0760	2009-03-13T20:59:31	680520.6	4576533.0	17.156740	41.319351	35.3	-428.6
0770	2009-03-13T21:01:05	680622.0	4576689.8	17.157997	41.320739	34.3	-420.3
0780	2009-03-13T21:02:38	680723.2	4576844.7	17.159251	41.322111	34.9	-417.8
0790	2009-03-13T21:04:07	680822.0	4576992.8	17.160475	41.323422	35.3	-427.8
0800	2009-03-13T21:05:41	680922.8	4577151.8	17.161726	41.324831	32.9	-432.2
0810	2009-03-13T21:07:15	681022.2	4577311.0	17.162961	41.326241	30.4	-429.6
0820	2009-03-13T21:08:49	681119.5	4577470.4	17.164170	41.327654	31.2	-414.8
0830	2009-03-13T21:10:23	681215.1	4577631.7	17.165359	41.329084	32.0	-404.8
0840	2009-03-13T21:11:57	681315.7	4577790.7	17.166608	41.330493	36.0	-402.6
0850	2009-03-13T21:13:29	681422.4	4577942.6	17.167927	41.331836	37.2	-403.3
0860	2009-03-13T21:15:02	681527.3	4578098.7	17.169227	41.333218	34.9	-402.3

0870	2009-03-13T21:16:34	681629.7	4578255.7	17.170497	41.334608	33.9	-402.5
0880	2009-03-13T21:18:05	681730.8	4578412.7	17.171751	41.335998	31.2	-404.1
0890	2009-03-13T21:19:36	681829.7	4578572.3	17.172980	41.337412	33.5	-409.7
0900	2009-03-13T21:21:06	681932.5	4578728.6	17.174254	41.338796	33.4	-421.1
0910	2009-03-13T21:22:36	682035.9	4578886.4	17.175536	41.340193	32.5	-445.5
0920	2009-03-13T21:24:04	682137.1	4579042.7	17.176792	41.341577	33.6	-493.5
0930	2009-03-13T21:25:32	682239.0	4579199.3	17.178056	41.342964	32.4	-571.1
0940	2009-03-13T21:27:01	682339.3	4579358.4	17.179302	41.344373	31.9	-581.7
0950	2009-03-13T21:28:32	682441.9	4579514.3	17.180574	41.345753	32.8	-585.7
0960	2009-03-13T21:30:05	682538.2	4579675.6	17.181772	41.347183	32.5	-583.1
0970	2009-03-13T21:31:38	682644.5	4579830.6	17.183089	41.348554	35.3	-532.9
0980	2009-03-13T21:33:11	682748.9	4579985.7	17.184382	41.349926	31.5	-493.7
0990	2009-03-13T21:34:44	682847.2	4580145.0	17.185604	41.351338	33.8	-481.9
1000	2009-03-13T21:36:17	682945.9	4580305.3	17.186832	41.352758	31.9	-484.1
1010	2009-03-13T21:37:49	683045.8	4580463.1	17.188072	41.354156	33.2	-493.7
1020	2009-03-13T21:39:22	683149.7	4580620.8	17.189361	41.355552	37.2	-504.5
1030	2009-03-13T21:40:54	683254.4	4580774.7	17.190658	41.356913	33.6	-516.4
1040	2009-03-13T21:42:27	683357.1	4580932.0	17.191933	41.358306	34.5	-526.8
1050	2009-03-13T21:44:00	683454.6	4581092.5	17.193146	41.359728	35.3	-525.0
1060	2009-03-13T21:45:32	683554.2	4581249.8	17.194383	41.361121	35.7	-513.6
1070	2009-03-13T21:47:05	683656.4	4581407.8	17.195652	41.362520	32.5	-500.6
1080	2009-03-13T21:48:38	683757.5	4581563.8	17.196907	41.363901	38.1	-490.1
1090	2009-03-13T21:50:13	683864.4	4581718.5	17.198231	41.365269	32.9	-483.8
1100	2009-03-13T21:51:48	683959.4	4581880.4	17.199415	41.366705	29.2	-478.4
1110	2009-03-13T21:53:23	684060.7	4582037.7	17.200674	41.368097	34.0	-475.6
1120	2009-03-13T21:54:58	684165.4	4582194.0	17.201972	41.369480	34.6	-475.1
1130	2009-03-13T21:56:32	684272.4	4582348.2	17.203297	41.370844	34.2	-476.6
1140	2009-03-13T21:58:04	684366.5	4582509.8	17.204471	41.372277	31.3	-479.9
1150	2009-03-13T21:59:35	684461.6	4582671.0	17.205656	41.373706	34.5	-484.6
1160	2009-03-13T22:01:07	684568.6	4582824.9	17.206981	41.375066	39.8	-491.2
1170	2009-03-13T22:02:43	684672.8	4582979.7	17.208273	41.376436	32.3	-498.5
1180	2009-03-13T22:04:20	684768.4	4583142.7	17.209466	41.377881	36.6	-506.4
1190	2009-03-13T22:05:56	684873.8	4583298.3	17.210773	41.379257	34.6	-515.2
1200	2009-03-13T22:07:30	684977.4	4583451.7	17.212057	41.380614	33.4	-524.4
1210	2009-03-13T22:09:04	685077.9	4583609.6	17.213306	41.382012	33.8	-532.6
1220	2009-03-13T22:10:37	685178.4	4583766.1	17.214555	41.383398	33.8	-539.9
1230	2009-03-13T22:12:10	685279.2	4583924.5	17.215808	41.384800	34.2	-544.4
1240	2009-03-13T22:13:43	685381.6	4584081.4	17.217080	41.386189	37.2	-549.4
1250	2009-03-13T22:15:16	685484.8	4584237.7	17.218361	41.387572	34.3	-553.9
1260	2009-03-13T22:16:50	685588.7	4584395.6	17.219651	41.388969	34.5	-561.2
1270	2009-03-13T22:18:22	685686.9	4584551.7	17.220873	41.390351	33.5	-566.2
1280	2009-03-13T22:19:56	685787.2	4584709.9	17.222120	41.391752	32.9	-574.1
1290	2009-03-13T22:21:30	685889.2	4584867.0	17.223388	41.393143	35.7	-580.5
1300	2009-03-13T22:23:04	685989.6	4585024.1	17.224635	41.394533	33.7	-586.8
1310	2009-03-13T22:24:39	686090.7	4585182.4	17.225893	41.395935	33.6	-590.8
1320	2009-03-13T22:26:13	686191.1	4585340.1	17.227141	41.397331	34.8	-597.7
1330	2009-03-13T22:27:47	686292.0	4585498.0	17.228396	41.398729	33.3	-606.3
1340	2009-03-13T22:29:20	686393.7	4585654.3	17.229659	41.400112	32.8	-613.3
1350	2009-03-13T22:30:54	686497.5	4585812.0	17.230949	41.401507	34.9	-617.6
1360	2009-03-13T22:32:28	686604.4	4585967.0	17.232275	41.402878	37.0	-621.4
1370	2009-03-13T22:34:02	686711.9	4586121.2	17.233607	41.404241	35.3	-623.1
1380	2009-03-13T22:35:35	686811.7	4586278.4	17.234849	41.405632	32.3	-628.9
1390	2009-03-13T22:37:08	686910.4	4586437.4	17.236078	41.407040	31.7	-634.4
1400	2009-03-13T22:38:41	687003.8	4586598.8	17.237244	41.408471	30.2	-639.9
1410	2009-03-13T22:40:14	687102.2	4586757.5	17.238469	41.409877	34.9	-645.0
1420	2009-03-13T22:41:48	687204.0	4586915.7	17.239735	41.411277	31.4	-647.7

1430	2009-03-13T22:43:22	687305.1	4587073.5	17.240993	41.412674	33.9	-651.9
1440	2009-03-13T22:44:56	687407.9	4587230.0	17.242270	41.414058	36.6	-656.1
1450	2009-03-13T22:46:30	687512.6	4587385.5	17.243570	41.415433	33.3	-659.7
1460	2009-03-13T22:48:04	687614.7	4587542.9	17.244840	41.416826	34.7	-663.1
1470	2009-03-13T22:49:38	687716.9	4587700.7	17.246111	41.418223	34.0	-667.8
1480	2009-03-13T22:51:11	687816.9	4587858.4	17.247355	41.419619	32.7	-672.6

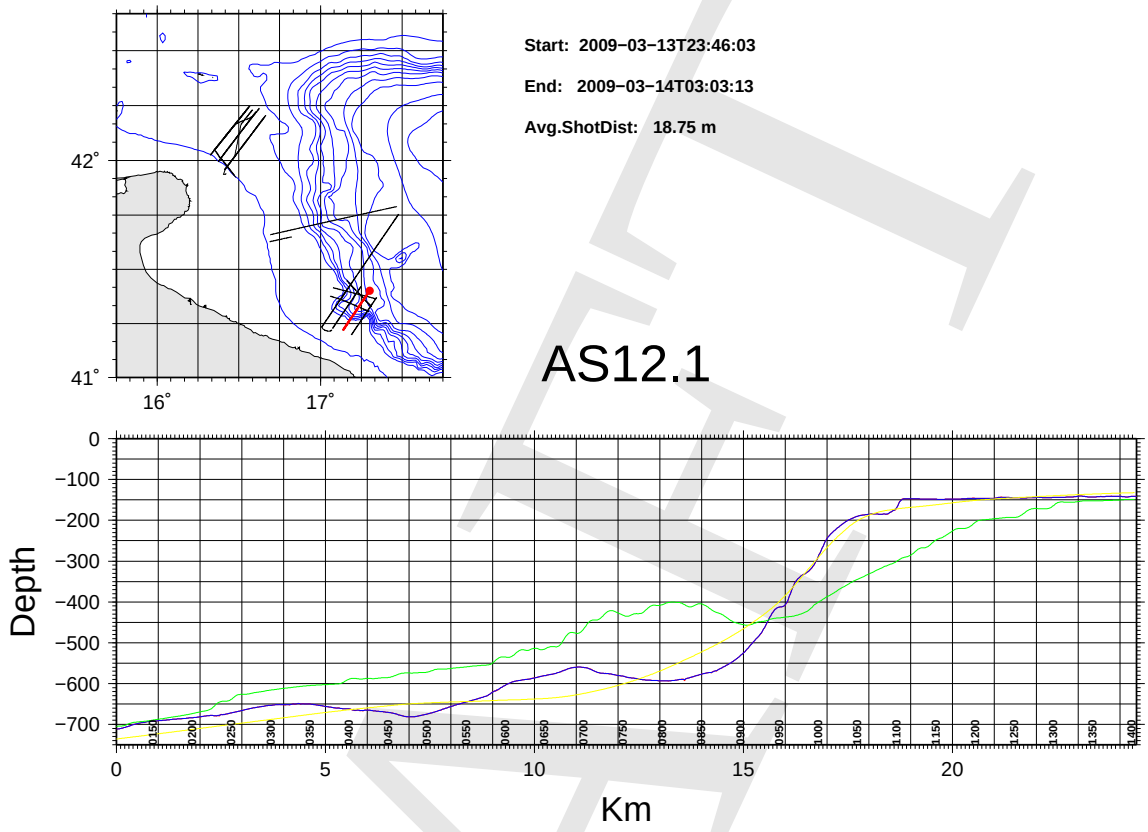

Figure 51: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 28: Line ../NAV/AS12.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-13T23:46:47	692275.2	4585801.2	17.300008	41.400050	210.6	-711.0
0110	2009-03-13T23:48:09	692183.9	4585656.2	17.298870	41.398766	215.8	-706.7
0120	2009-03-13T23:49:39	692081.0	4585499.3	17.297591	41.397379	214.3	-700.2
0130	2009-03-13T23:51:09	691980.2	4585341.5	17.296336	41.395983	212.7	-695.9
0140	2009-03-13T23:52:38	691882.5	4585184.5	17.295118	41.394593	211.7	-692.9
0150	2009-03-13T23:54:10	691783.0	4585025.0	17.293879	41.393181	214.5	-691.7
0160	2009-03-13T23:55:40	691681.5	4584867.0	17.292616	41.391783	214.0	-689.9
0170	2009-03-13T23:57:09	691582.6	4584709.3	17.291384	41.390388	214.5	-687.7
0180	2009-03-13T23:58:38	691480.9	4584553.3	17.290119	41.389008	214.2	-686.2
0190	2009-03-14T00:00:08	691377.7	4584394.7	17.288835	41.387605	213.6	-684.6
0200	2009-03-14T00:01:37	691273.8	4584238.0	17.287544	41.386219	213.8	-682.8
0210	2009-03-14T00:03:06	691173.2	4584079.3	17.286292	41.384815	212.5	-680.1
0220	2009-03-14T00:04:34	691076.4	4583920.7	17.285086	41.383410	214.6	-677.9
0230	2009-03-14T00:06:02	690973.5	4583764.4	17.283807	41.382028	213.8	-677.8
0240	2009-03-14T00:07:31	690869.0	4583607.0	17.282508	41.380636	215.6	-674.2
0250	2009-03-14T00:09:00	690769.2	4583448.0	17.281265	41.379229	212.8	-669.8
0260	2009-03-14T00:10:29	690670.9	4583286.9	17.280041	41.377802	214.8	-665.5
0270	2009-03-14T00:11:57	690568.5	4583130.0	17.278767	41.376414	213.8	-660.8
0280	2009-03-14T00:13:24	690467.8	4582974.3	17.277516	41.375037	214.2	-657.5
0290	2009-03-14T00:14:52	690367.1	4582816.1	17.276263	41.373637	214.0	-654.2
0300	2009-03-14T00:16:20	690267.3	4582657.4	17.275020	41.372232	213.0	-652.1

0310	2009-03-14T00:17:47	690167.5	4582500.3	17.273779	41.370842	214.0	-651.7
0320	2009-03-14T00:19:15	690065.1	4582341.9	17.272506	41.369440	214.2	-651.8
0330	2009-03-14T00:20:43	689963.5	4582182.1	17.271241	41.368026	211.2	-648.5
0340	2009-03-14T00:22:10	689863.9	4582023.4	17.270002	41.366621	216.1	-650.1
0350	2009-03-14T00:23:36	689762.4	4581867.3	17.268741	41.365240	216.1	-651.4
0360	2009-03-14T00:25:02	689661.4	4581711.1	17.267485	41.363858	215.0	-654.4
0370	2009-03-14T00:26:28	689562.1	4581554.3	17.266250	41.362470	213.3	-657.6
0380	2009-03-14T00:27:55	689463.7	4581394.2	17.265024	41.361052	214.8	-659.8
0390	2009-03-14T00:29:21	689360.3	4581239.6	17.263741	41.359685	215.2	-661.7
0400	2009-03-14T00:30:49	689257.5	4581079.7	17.262463	41.358270	213.2	-665.4
0410	2009-03-14T00:32:15	689160.5	4580920.5	17.261255	41.356860	212.5	-666.1
0420	2009-03-14T00:33:42	689061.8	4580759.9	17.260025	41.355438	215.2	-665.4
0430	2009-03-14T00:35:09	688962.9	4580600.5	17.258795	41.354026	216.0	-667.6
0440	2009-03-14T00:36:36	688860.7	4580443.9	17.257525	41.352641	214.4	-669.5
0450	2009-03-14T00:38:03	688757.4	4580288.9	17.256243	41.351270	214.4	-672.1
0460	2009-03-14T00:39:28	688657.2	4580137.8	17.255000	41.349934	214.0	-677.5
0470	2009-03-14T00:40:57	688553.4	4579980.6	17.253711	41.348543	215.2	-681.4
0480	2009-03-14T00:42:26	688453.4	4579821.6	17.252467	41.347135	211.3	-681.0
0490	2009-03-14T00:43:54	688357.7	4579662.3	17.251275	41.345724	214.8	-676.9
0500	2009-03-14T00:45:23	688253.9	4579506.0	17.249986	41.344341	213.8	-672.4
0510	2009-03-14T00:46:52	688153.6	4579347.8	17.248740	41.342941	214.6	-666.4
0520	2009-03-14T00:48:21	688051.0	4579190.3	17.247465	41.341547	213.1	-660.1
0530	2009-03-14T00:49:49	687949.8	4579033.4	17.246209	41.340159	215.6	-653.7
0540	2009-03-14T00:51:18	687850.4	4578874.4	17.244972	41.338751	212.1	-648.0
0550	2009-03-14T00:52:46	687755.3	4578714.7	17.243787	41.337336	211.4	-642.7
0560	2009-03-14T00:54:14	687653.8	4578557.7	17.242526	41.335946	213.6	-637.1
0570	2009-03-14T00:55:43	687550.1	4578400.1	17.241240	41.334552	213.0	-631.1
0580	2009-03-14T00:57:13	687449.5	4578239.6	17.239989	41.333131	215.6	-619.2
0590	2009-03-14T00:58:42	687349.0	4578082.5	17.238740	41.331740	214.0	-609.1
0600	2009-03-14T01:00:12	687252.0	4577921.0	17.237532	41.330309	213.5	-599.2
0610	2009-03-14T01:01:42	687157.9	4577757.8	17.236358	41.328862	208.1	-593.3
0620	2009-03-14T01:03:09	687056.6	4577603.1	17.235101	41.327493	219.6	-590.3
0630	2009-03-14T01:04:37	686945.6	4577452.7	17.233729	41.326165	216.8	-586.9
0640	2009-03-14T01:06:05	686849.4	4577291.9	17.232532	41.324740	211.4	-582.7
0650	2009-03-14T01:07:32	686755.2	4577131.1	17.231358	41.323315	210.3	-578.7
0660	2009-03-14T01:08:59	686656.1	4576972.3	17.230125	41.321908	215.8	-574.7
0670	2009-03-14T01:10:28	686549.5	4576815.8	17.228805	41.320524	213.4	-567.5
0680	2009-03-14T01:11:56	686447.9	4576662.2	17.227545	41.319165	214.6	-561.3
0690	2009-03-14T01:13:24	686342.7	4576506.9	17.226241	41.317792	214.6	-559.5
0700	2009-03-14T01:14:51	686238.9	4576351.8	17.224955	41.316420	212.0	-562.0
0710	2009-03-14T01:16:19	686145.6	4576188.5	17.223791	41.314972	212.8	-570.8
0720	2009-03-14T01:17:47	686043.9	4576032.1	17.222529	41.313587	214.6	-575.1
0730	2009-03-14T01:19:16	685943.2	4575873.4	17.221278	41.312182	214.2	-576.1
0740	2009-03-14T01:20:44	685842.1	4575715.5	17.220023	41.310784	212.4	-580.6
0750	2009-03-14T01:22:12	685750.1	4575551.5	17.218874	41.309329	214.6	-584.6
0760	2009-03-14T01:23:39	685642.6	4575398.2	17.217545	41.307974	215.6	-587.1
0770	2009-03-14T01:25:07	685537.8	4575242.5	17.216246	41.306597	213.4	-590.5
0780	2009-03-14T01:26:36	685436.5	4575084.2	17.214989	41.305195	211.1	-592.0
0790	2009-03-14T01:28:07	685337.0	4574926.5	17.213753	41.303799	215.8	-593.0
0800	2009-03-14T01:29:40	685235.8	4574769.1	17.212497	41.302405	213.2	-593.5
0810	2009-03-14T01:31:14	685140.6	4574607.3	17.211312	41.300971	208.8	-592.5
0820	2009-03-14T01:32:47	685048.1	4574445.0	17.210158	41.299531	214.5	-589.3
0830	2009-03-14T01:34:21	684936.5	4574293.4	17.208780	41.298192	217.2	-585.9
0840	2009-03-14T01:35:55	684836.1	4574136.1	17.207534	41.296799	211.1	-579.9
0850	2009-03-14T01:37:29	684735.5	4573978.2	17.206286	41.295401	215.1	-574.9
0860	2009-03-14T01:39:03	684632.1	4573821.1	17.205004	41.294011	212.4	-570.8

0870	2009-03-14T01:40:35	684529.8	4573664.8	17.203736	41.292627	214.1	-562.7
0880	2009-03-14T01:42:08	684432.6	4573503.5	17.202527	41.291198	208.9	-552.5
0890	2009-03-14T01:43:47	684338.2	4573341.8	17.201352	41.289764	218.1	-539.5
0900	2009-03-14T01:45:28	684228.2	4573190.4	17.199993	41.288426	213.5	-523.1
0910	2009-03-14T01:47:06	684131.9	4573031.0	17.198796	41.287013	211.1	-501.7
0920	2009-03-14T01:48:39	684035.2	4572878.2	17.197595	41.285660	217.5	-481.3
0930	2009-03-14T01:50:14	683930.1	4572722.1	17.196294	41.284279	212.7	-449.0
0940	2009-03-14T01:51:49	683829.7	4572564.6	17.195049	41.282884	214.1	-417.5
0950	2009-03-14T01:53:25	683727.8	4572405.6	17.193785	41.281476	213.5	-411.1
0960	2009-03-14T01:55:00	683627.3	4572248.4	17.192538	41.280084	213.5	-374.6
0970	2009-03-14T01:56:36	683527.5	4572089.5	17.191300	41.278677	213.8	-340.7
0980	2009-03-14T01:58:13	683428.4	4571929.7	17.190069	41.277261	214.2	-328.3
0990	2009-03-14T01:59:47	683326.2	4571774.5	17.188803	41.275887	215.3	-306.8
1000	2009-03-14T02:01:20	683224.1	4571617.8	17.187538	41.274500	213.7	-267.3
1010	2009-03-14T02:02:52	683128.5	4571458.2	17.186349	41.273085	214.1	-235.2
1020	2009-03-14T02:04:24	683023.5	4571303.2	17.185050	41.271714	217.3	-217.7
1030	2009-03-14T02:05:55	682920.2	4571146.2	17.183770	41.270324	211.3	-203.1
1040	2009-03-14T02:07:24	682825.7	4570987.0	17.182595	41.268912	212.1	-193.5
1050	2009-03-14T02:08:54	682727.4	4570829.3	17.181376	41.267515	217.0	-187.6
1060	2009-03-14T02:10:25	682618.7	4570675.6	17.180033	41.266156	213.0	-185.2
1070	2009-03-14T02:11:54	682523.8	4570515.1	17.178852	41.264733	211.1	-184.5
1080	2009-03-14T02:13:24	682424.3	4570356.8	17.177618	41.263331	216.3	-184.5
1090	2009-03-14T02:14:55	682314.6	4570202.8	17.176264	41.261969	216.0	-176.9
1100	2009-03-14T02:16:24	682218.7	4570043.0	17.175072	41.260552	211.3	-151.5
1110	2009-03-14T02:17:55	682123.9	4569881.4	17.173893	41.259119	213.1	-146.9
1120	2009-03-14T02:19:26	682022.8	4569724.5	17.172640	41.257730	218.1	-147.3
1130	2009-03-14T02:20:58	681916.1	4569568.8	17.171321	41.256352	215.8	-147.7
1140	2009-03-14T02:22:29	681813.8	4569411.6	17.170054	41.254960	214.4	-147.9
1150	2009-03-14T02:24:00	681709.8	4569253.9	17.168767	41.253564	215.5	-148.6
1160	2009-03-14T02:25:30	681612.8	4569096.2	17.167562	41.252167	215.4	-148.2
1170	2009-03-14T02:27:01	681513.2	4568936.1	17.166327	41.250748	212.5	-147.8
1180	2009-03-14T02:28:31	681415.5	4568777.4	17.165115	41.249341	214.2	-147.3
1190	2009-03-14T02:30:01	681313.4	4568621.1	17.163851	41.247957	217.5	-146.1
1200	2009-03-14T02:31:31	681208.6	4568465.7	17.162555	41.246582	209.1	-146.5
1210	2009-03-14T02:33:01	681115.8	4568303.3	17.161399	41.245141	211.7	-146.4
1220	2009-03-14T02:34:32	681015.0	4568143.9	17.160150	41.243729	218.9	-145.8
1230	2009-03-14T02:36:02	680901.1	4567996.1	17.158748	41.242424	211.7	-143.4
1240	2009-03-14T02:37:32	680809.8	4567832.0	17.157611	41.240967	212.1	-144.2
1250	2009-03-14T02:39:02	680711.4	4567673.6	17.156390	41.239563	215.2	-144.9
1260	2009-03-14T02:40:33	680608.6	4567516.1	17.155118	41.238169	212.3	-145.3
1270	2009-03-14T02:42:04	680507.5	4567358.2	17.153866	41.236770	215.0	-144.4
1280	2009-03-14T02:43:35	680404.1	4567202.3	17.152587	41.235390	216.0	-144.1
1290	2009-03-14T02:45:05	680303.4	4567046.4	17.151340	41.234009	212.9	-144.5
1300	2009-03-14T02:46:36	680208.0	4566884.5	17.150155	41.232573	214.2	-143.6
1310	2009-03-14T02:48:08	680107.3	4566723.8	17.148907	41.231149	215.2	-143.4
1320	2009-03-14T02:49:38	680004.1	4566569.2	17.147630	41.229780	216.4	-142.7
1330	2009-03-14T02:51:08	679900.5	4566414.0	17.146350	41.228406	214.0	-140.3
1340	2009-03-14T02:52:38	679801.0	4566255.9	17.145117	41.227005	214.2	-143.0
1350	2009-03-14T02:54:09	679702.7	4566094.8	17.143897	41.225577	214.0	-142.6
1360	2009-03-14T02:55:39	679602.7	4565937.4	17.142659	41.224182	212.9	-141.9
1370	2009-03-14T02:57:09	679502.7	4565780.0	17.141421	41.222788	212.9	-140.8
1380	2009-03-14T02:58:40	679399.2	4565623.0	17.140141	41.221397	216.2	-141.3
1390	2009-03-14T03:00:11	679295.9	4565465.4	17.138863	41.220002	213.9	-142.9
1400	2009-03-14T03:01:41	679200.2	4565305.5	17.137675	41.218584	240.1	-140.9

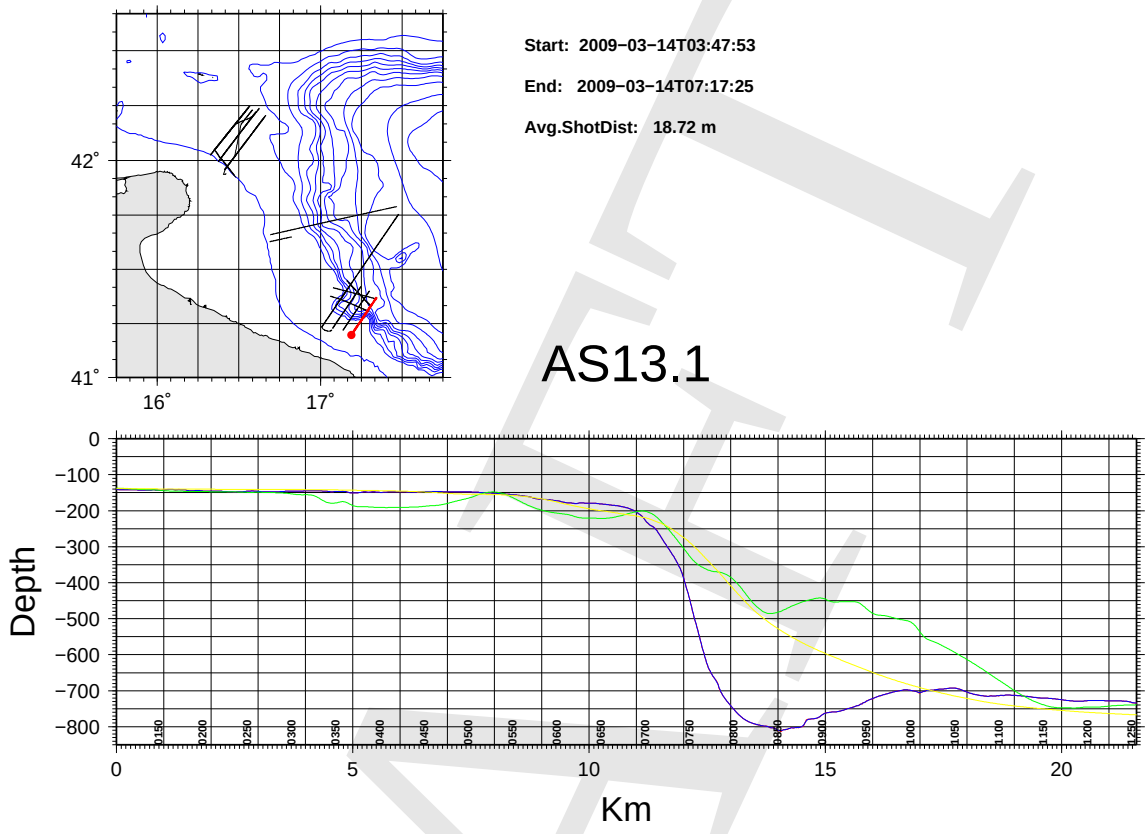

Figure 52: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 29: Line ../NAV/AS13.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-14T03:48:42	683595.8	4563106.5	17.189414	41.197805	51.7	-141.5
0110	2009-03-14T03:50:08	683723.6	4563218.0	17.190970	41.198780	43.6	-142.1
0120	2009-03-14T03:51:45	683828.7	4563371.5	17.192268	41.200138	28.9	-142.0
0130	2009-03-14T03:53:23	683927.9	4563529.8	17.193498	41.201540	35.1	-143.0
0140	2009-03-14T03:55:01	684028.9	4563687.2	17.194750	41.202934	33.9	-141.9
0150	2009-03-14T03:56:38	684124.1	4563848.5	17.195933	41.204364	33.9	-143.3
0160	2009-03-14T03:58:15	684229.1	4564004.0	17.197231	41.205740	33.4	-140.6
0170	2009-03-14T03:59:52	684335.7	4564158.9	17.198548	41.207110	37.9	-141.4
0180	2009-03-14T04:01:29	684433.6	4564318.4	17.199763	41.208523	34.0	-144.6
0190	2009-03-14T04:03:07	684530.0	4564478.7	17.200960	41.209944	34.0	-143.7
0200	2009-03-14T04:04:44	684629.3	4564636.5	17.202191	41.211342	31.1	-146.0
0210	2009-03-14T04:06:22	684730.8	4564794.3	17.203449	41.212739	35.0	-146.1
0220	2009-03-14T04:08:00	684828.8	4564952.4	17.204665	41.214140	31.4	-146.6
0230	2009-03-14T04:09:39	684931.2	4565111.3	17.205933	41.215547	32.5	-148.2
0240	2009-03-14T04:11:17	685027.8	4565271.1	17.207133	41.216963	34.4	-147.5
0250	2009-03-14T04:12:55	685132.6	4565426.9	17.208430	41.218341	33.2	-145.2
0260	2009-03-14T04:14:33	685232.9	4565584.8	17.209673	41.219739	32.0	-146.9
0270	2009-03-14T04:16:11	685331.0	4565744.3	17.210891	41.221153	31.9	-147.7
0280	2009-03-14T04:17:48	685430.3	4565902.8	17.212123	41.222557	33.7	-147.5
0290	2009-03-14T04:19:25	685531.9	4566060.6	17.213382	41.223954	34.3	-145.9
0300	2009-03-14T04:21:02	685635.3	4566217.9	17.214662	41.225346	32.9	-145.8

0310	2009-03-14T04:22:38	685728.7	4566378.0	17.215825	41.226765	31.9	-145.1
0320	2009-03-14T04:24:15	685830.4	4566533.9	17.217085	41.228145	36.4	-145.0
0330	2009-03-14T04:25:53	685936.9	4566688.5	17.218401	41.229512	33.7	-145.2
0340	2009-03-14T04:27:31	686035.3	4566848.5	17.219623	41.230930	32.8	-147.3
0350	2009-03-14T04:29:09	686133.6	4567008.2	17.220844	41.232345	30.4	-146.4
0360	2009-03-14T04:30:46	686230.3	4567167.7	17.222045	41.233758	30.2	-149.2
0370	2009-03-14T04:32:23	686331.9	4567324.8	17.223305	41.235149	36.0	-150.4
0380	2009-03-14T04:34:04	686437.7	4567479.2	17.224613	41.236514	38.4	-147.6
0390	2009-03-14T04:35:51	686537.7	4567637.1	17.225854	41.237912	31.2	-147.9
0400	2009-03-14T04:37:40	686633.7	4567797.5	17.227048	41.239334	35.2	-148.9
0410	2009-03-14T04:39:29	686735.1	4567955.8	17.228305	41.240735	35.7	-147.7
0420	2009-03-14T04:41:17	686836.3	4568114.7	17.229561	41.242142	32.8	-147.8
0430	2009-03-14T04:43:04	686936.4	4568272.6	17.230802	41.243540	32.1	-148.1
0440	2009-03-14T04:44:49	687035.6	4568432.5	17.232034	41.244956	35.8	-148.1
0450	2009-03-14T04:46:31	687138.6	4568587.5	17.233310	41.246328	34.6	-146.5
0460	2009-03-14T04:48:13	687242.5	4568745.1	17.234598	41.247722	36.2	-146.7
0470	2009-03-14T04:49:54	687340.1	4568904.6	17.235811	41.249135	31.2	-147.5
0480	2009-03-14T04:51:35	687436.9	4569064.4	17.237014	41.250551	34.3	-147.6
0490	2009-03-14T04:53:16	687537.9	4569221.4	17.238267	41.251941	36.2	-147.5
0500	2009-03-14T04:54:57	687643.6	4569374.4	17.239574	41.253293	33.7	-148.2
0510	2009-03-14T04:56:40	687740.9	4569536.0	17.240785	41.254725	36.0	-149.4
0520	2009-03-14T04:58:23	687842.5	4569693.6	17.242045	41.256120	37.0	-150.7
0530	2009-03-14T05:00:07	687943.1	4569851.0	17.243293	41.257513	31.9	-152.4
0540	2009-03-14T05:01:52	688041.9	4570010.4	17.244521	41.258925	34.7	-154.3
0550	2009-03-14T05:03:37	688145.1	4570167.3	17.245800	41.260313	31.2	-156.7
0560	2009-03-14T05:05:23	688243.8	4570326.6	17.247026	41.261724	34.0	-159.7
0570	2009-03-14T05:07:09	688341.5	4570484.4	17.248241	41.263122	34.2	-165.4
0580	2009-03-14T05:08:56	688438.7	4570645.3	17.249450	41.264547	36.6	-168.5
0590	2009-03-14T05:10:35	688544.6	4570797.2	17.250760	41.265890	34.0	-170.6
0600	2009-03-14T05:12:15	688643.4	4570957.1	17.251988	41.267306	31.2	-174.4
0610	2009-03-14T05:13:54	688742.4	4571117.0	17.253218	41.268722	37.1	-178.4
0620	2009-03-14T05:15:32	688844.3	4571272.4	17.254482	41.270097	33.2	-179.2
0630	2009-03-14T05:17:11	688942.1	4571431.5	17.255698	41.271506	33.4	-179.4
0640	2009-03-14T05:18:49	689035.9	4571589.9	17.256867	41.272910	32.4	-179.6
0650	2009-03-14T05:20:27	689138.5	4571744.9	17.258138	41.274281	33.0	-182.3
0660	2009-03-14T05:22:08	689237.8	4571906.7	17.259374	41.275714	29.5	-185.2
0670	2009-03-14T05:23:47	689327.3	4572069.6	17.260492	41.277159	36.6	-189.0
0680	2009-03-14T05:25:29	689429.8	4572228.2	17.261764	41.278562	35.5	-196.1
0690	2009-03-14T05:27:14	689537.7	4572382.0	17.263099	41.279921	28.6	-211.7
0700	2009-03-14T05:29:00	689644.3	4572535.6	17.264419	41.281279	36.3	-238.5
0710	2009-03-14T05:30:43	689735.7	4572694.9	17.265559	41.282691	30.6	-258.9
0720	2009-03-14T05:32:25	689839.6	4572851.7	17.266847	41.284078	36.1	-298.0
0730	2009-03-14T05:34:01	689938.2	4573010.5	17.268074	41.285484	32.1	-336.5
0740	2009-03-14T05:35:37	690037.0	4573168.8	17.269302	41.286886	37.8	-394.8
0750	2009-03-14T05:37:14	690142.6	4573322.5	17.270610	41.288244	34.6	-486.9
0760	2009-03-14T05:38:52	690241.4	4573481.5	17.271838	41.289652	30.2	-579.0
0770	2009-03-14T05:40:31	690337.6	4573643.3	17.273037	41.291086	37.2	-651.0
0780	2009-03-14T05:42:10	690443.4	4573798.0	17.274348	41.292453	33.9	-698.5
0790	2009-03-14T05:43:49	690541.6	4573956.7	17.275569	41.293858	32.7	-735.2
0800	2009-03-14T05:45:30	690642.7	4574114.0	17.276825	41.295250	34.5	-763.1
0810	2009-03-14T05:47:11	690743.6	4574270.9	17.278078	41.296638	35.8	-782.8
0820	2009-03-14T05:48:53	690839.8	4574430.0	17.279277	41.298048	35.8	-792.7
0830	2009-03-14T05:50:36	690943.5	4574584.5	17.280562	41.299414	39.9	-798.2
0840	2009-03-14T05:52:21	691042.8	4574744.9	17.281798	41.300834	28.0	-803.2
0850	2009-03-14T05:54:05	691141.9	4574900.5	17.283029	41.302211	33.5	-812.6
0860	2009-03-14T05:55:51	691244.7	4575058.9	17.284306	41.303612	30.8	-803.3

0870	2009-03-14T05:57:35	691343.3	4575215.9	17.285533	41.305002	32.5	-802.2
0880	2009-03-14T05:59:20	691442.1	4575374.6	17.286761	41.306407	33.7	-779.0
0890	2009-03-14T06:01:04	691541.3	4575533.1	17.287996	41.307810	33.6	-776.0
0900	2009-03-14T06:02:48	691641.3	4575693.2	17.289239	41.309227	36.4	-761.4
0910	2009-03-14T06:04:31	691747.2	4575848.2	17.290552	41.310597	29.4	-759.0
0920	2009-03-14T06:06:13	691844.7	4576007.9	17.291767	41.312011	34.7	-753.8
0930	2009-03-14T06:07:55	691944.4	4576166.1	17.293007	41.313411	36.2	-745.9
0940	2009-03-14T06:09:37	692045.6	4576322.8	17.294264	41.314797	35.3	-737.0
0950	2009-03-14T06:11:20	692146.8	4576482.1	17.295523	41.316207	34.7	-724.5
0960	2009-03-14T06:13:02	692248.3	4576639.1	17.296784	41.317596	34.3	-714.9
0970	2009-03-14T06:14:45	692349.5	4576797.7	17.298042	41.318999	30.1	-707.8
0980	2009-03-14T06:16:27	692443.6	4576958.1	17.299216	41.320420	36.1	-701.4
0990	2009-03-14T06:18:10	692548.3	4577113.2	17.300515	41.321791	34.9	-697.3
1000	2009-03-14T06:19:53	692648.9	4577271.7	17.301767	41.323194	34.9	-701.0
1010	2009-03-14T06:21:34	692749.2	4577428.1	17.303014	41.324577	33.2	-702.3
1020	2009-03-14T06:23:15	692845.2	4577587.9	17.304210	41.325993	31.8	-698.4
1030	2009-03-14T06:24:58	692944.5	4577749.3	17.305447	41.327422	35.1	-695.5
1040	2009-03-14T06:26:38	693045.1	4577904.9	17.306698	41.328798	36.2	-693.0
1050	2009-03-14T06:28:19	693153.3	4578059.1	17.308038	41.330160	35.6	-694.8
1060	2009-03-14T06:29:58	693249.4	4578217.8	17.309236	41.331565	32.3	-704.3
1070	2009-03-14T06:31:39	693347.8	4578378.6	17.310462	41.332989	33.9	-711.1
1080	2009-03-14T06:33:19	693448.4	4578536.0	17.311714	41.334381	37.2	-715.5
1090	2009-03-14T06:35:00	693552.5	4578693.6	17.313007	41.335775	32.7	-714.5
1100	2009-03-14T06:36:41	693653.1	4578851.1	17.314258	41.337168	33.9	-713.7
1110	2009-03-14T06:38:20	693748.9	4579009.0	17.315453	41.338566	33.5	-712.5
1120	2009-03-14T06:40:01	693848.1	4579167.3	17.316688	41.339967	34.1	-714.1
1130	2009-03-14T06:41:44	693948.2	4579327.8	17.317934	41.341387	33.1	-716.6
1140	2009-03-14T06:43:24	694048.6	4579483.2	17.319183	41.342762	34.1	-720.3
1150	2009-03-14T06:45:05	694150.0	4579641.0	17.320445	41.344158	34.5	-720.6
1160	2009-03-14T06:46:47	694251.7	4579800.3	17.321710	41.345567	35.3	-723.3
1170	2009-03-14T06:48:29	694352.7	4579958.4	17.322967	41.346965	32.6	-726.2
1180	2009-03-14T06:50:10	694454.1	4580115.0	17.324228	41.348350	35.3	-728.6
1190	2009-03-14T06:51:52	694556.7	4580271.9	17.325503	41.349738	30.9	-729.2
1200	2009-03-14T06:53:34	694654.4	4580430.6	17.326721	41.351142	31.3	-726.9
1210	2009-03-14T06:55:16	694749.2	4580592.6	17.327905	41.352577	35.7	-727.5
1220	2009-03-14T06:56:58	694858.6	4580744.6	17.329261	41.353919	33.0	-728.0
1230	2009-03-14T06:58:40	694950.2	4580906.6	17.330407	41.355355	33.9	-728.3
1240	2009-03-14T07:00:22	695042.4	4581069.5	17.331561	41.356799	32.8	-729.5
1250	2009-03-14T07:02:04	695147.2	4581224.9	17.332862	41.358172	35.5	-734.4

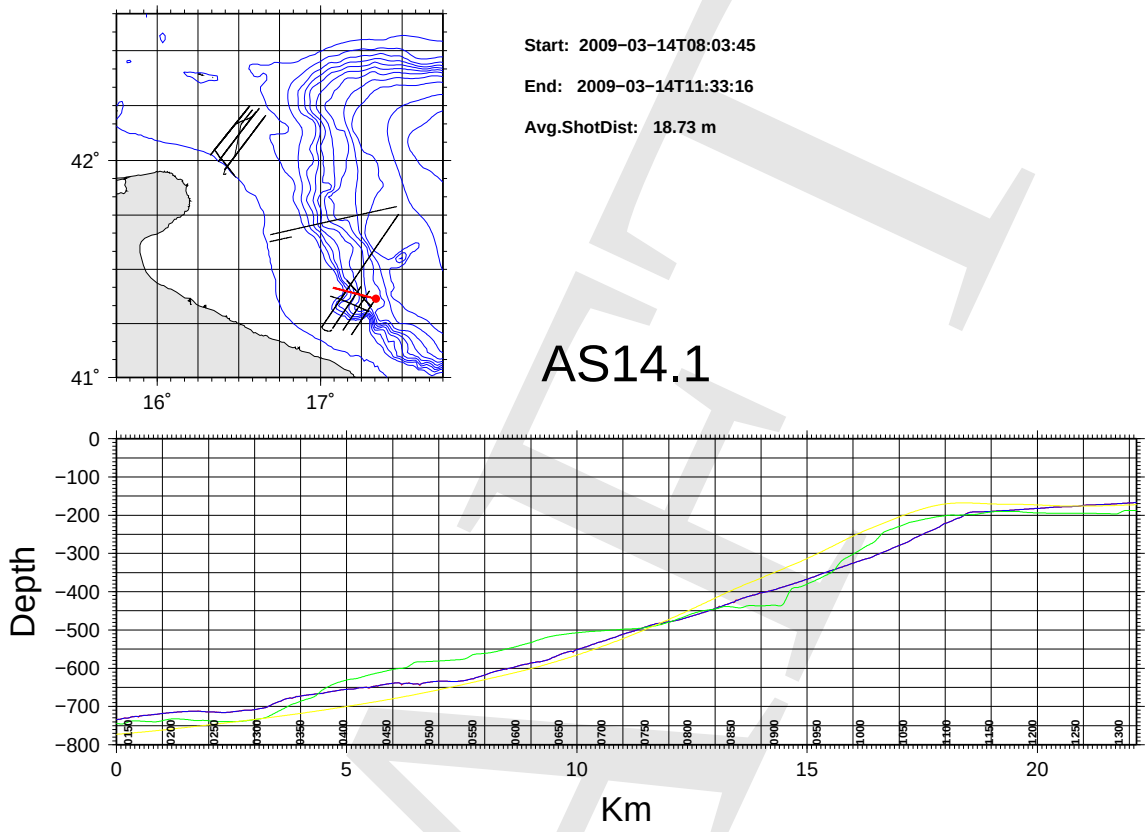

Figure 53: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 30: Line ../NAV/AS14.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0140	2009-03-14T08:11:14	694992.1	4582073.2	17.331282	41.365844	285.6	-731.6
0150	2009-03-14T08:13:00	694809.5	4582114.0	17.329114	41.366255	285.7	-727.5
0160	2009-03-14T08:14:44	694631.3	4582156.3	17.326999	41.366679	282.8	-724.2
0170	2009-03-14T08:16:30	694448.1	4582196.6	17.324823	41.367086	282.5	-722.5
0180	2009-03-14T08:18:16	694265.7	4582236.9	17.322657	41.367493	284.2	-720.1
0190	2009-03-14T08:20:03	694083.3	4582281.8	17.320492	41.367941	287.5	-717.2
0200	2009-03-14T08:21:47	693903.0	4582322.4	17.318351	41.368350	283.4	-715.2
0210	2009-03-14T08:23:32	693720.7	4582365.0	17.316187	41.368777	283.9	-713.5
0220	2009-03-14T08:25:16	693539.3	4582408.7	17.314034	41.369214	282.0	-712.6
0230	2009-03-14T08:27:00	693356.5	4582449.5	17.311863	41.369625	283.2	-712.8
0240	2009-03-14T08:28:44	693173.8	4582490.7	17.309693	41.370040	284.6	-714.5
0250	2009-03-14T08:30:28	692991.0	4582531.9	17.307522	41.370454	282.9	-714.9
0260	2009-03-14T08:32:11	692810.6	4582574.2	17.305381	41.370878	285.4	-715.6
0270	2009-03-14T08:33:55	692629.2	4582619.1	17.303228	41.371326	284.3	-713.0
0280	2009-03-14T08:35:40	692445.5	4582665.6	17.301048	41.371788	285.3	-710.1
0290	2009-03-14T08:37:24	692261.3	4582705.3	17.298859	41.372190	283.8	-709.1
0300	2009-03-14T08:39:06	692080.7	4582744.9	17.296714	41.372589	282.5	-705.1
0310	2009-03-14T08:40:50	691896.4	4582786.5	17.294525	41.373007	284.1	-698.0
0320	2009-03-14T08:42:32	691715.9	4582826.9	17.292382	41.373414	286.2	-688.0
0330	2009-03-14T08:44:15	691535.4	4582872.6	17.290239	41.373868	284.9	-679.3
0340	2009-03-14T08:45:59	691351.9	4582915.9	17.288061	41.374302	283.8	-674.9

0350	2009-03-14T08:47:42	691168.6	4582955.2	17.285883	41.374699	284.8	-671.2
0360	2009-03-14T08:49:25	690985.1	4582997.3	17.283703	41.375121	283.3	-668.8
0370	2009-03-14T08:51:07	690802.8	4583039.0	17.281538	41.375540	285.4	-665.7
0380	2009-03-14T08:52:49	690621.4	4583081.8	17.279384	41.375968	286.4	-661.4
0390	2009-03-14T08:54:32	690440.1	4583128.4	17.277233	41.376430	285.7	-658.0
0400	2009-03-14T08:56:16	690257.6	4583173.0	17.275066	41.376875	283.9	-655.2
0410	2009-03-14T08:58:00	690073.5	4583212.5	17.272879	41.377274	283.9	-653.6
0420	2009-03-14T08:59:44	689890.4	4583251.0	17.270703	41.377664	285.7	-650.1
0430	2009-03-14T09:01:28	689709.0	4583294.4	17.268549	41.378097	286.1	-648.0
0440	2009-03-14T09:03:12	689528.2	4583339.0	17.266402	41.378541	287.1	-643.7
0450	2009-03-14T09:04:57	689344.6	4583379.6	17.264221	41.378950	283.6	-640.2
0460	2009-03-14T09:06:42	689161.2	4583419.6	17.262043	41.379353	286.2	-638.2
0470	2009-03-14T09:08:26	688979.4	4583460.0	17.259883	41.379759	284.1	-640.0
0480	2009-03-14T09:10:10	688798.6	4583504.4	17.257736	41.380201	284.7	-640.8
0490	2009-03-14T09:11:55	688615.4	4583548.4	17.255560	41.380640	284.3	-638.3
0500	2009-03-14T09:13:38	688434.9	4583592.8	17.253418	41.381082	284.7	-634.8
0510	2009-03-14T09:15:22	688251.1	4583634.8	17.251234	41.381503	286.1	-633.9
0520	2009-03-14T09:17:06	688067.8	4583676.9	17.249056	41.381925	283.5	-634.5
0530	2009-03-14T09:18:49	687885.4	4583714.0	17.246889	41.382301	283.2	-633.6
0540	2009-03-14T09:20:32	687702.6	4583751.4	17.244716	41.382681	286.5	-630.5
0550	2009-03-14T09:22:16	687519.7	4583796.5	17.242544	41.383129	283.8	-624.2
0560	2009-03-14T09:23:59	687339.2	4583843.7	17.240402	41.383596	283.9	-617.4
0570	2009-03-14T09:25:42	687157.2	4583886.5	17.238240	41.384024	286.4	-609.7
0580	2009-03-14T09:27:25	686975.2	4583930.3	17.236078	41.384460	286.2	-604.3
0590	2009-03-14T09:29:08	686793.1	4583972.2	17.233915	41.384880	283.6	-599.1
0600	2009-03-14T09:30:52	686608.8	4584008.0	17.231723	41.385245	285.8	-593.0
0610	2009-03-14T09:32:35	686427.7	4584054.3	17.229573	41.385703	282.0	-588.7
0620	2009-03-14T09:34:18	686245.8	4584096.8	17.227413	41.386128	284.9	-583.7
0630	2009-03-14T09:36:01	686064.8	4584139.6	17.225263	41.386555	282.4	-579.6
0640	2009-03-14T09:37:46	685880.2	4584177.7	17.223068	41.386941	282.0	-571.7
0650	2009-03-14T09:39:31	685695.4	4584217.1	17.220872	41.387338	281.7	-561.2
0660	2009-03-14T09:41:14	685513.1	4584257.7	17.218705	41.387745	284.5	-554.8
0670	2009-03-14T09:42:57	685331.2	4584299.8	17.216544	41.388166	286.7	-549.0
0680	2009-03-14T09:44:40	685149.3	4584342.9	17.214384	41.388596	286.2	-541.6
0690	2009-03-14T09:46:22	684968.8	4584387.4	17.212240	41.389038	284.8	-533.7
0700	2009-03-14T09:48:03	684790.9	4584433.7	17.210128	41.389496	285.8	-527.1
0710	2009-03-14T09:49:46	684610.1	4584478.7	17.207981	41.389942	284.9	-519.4
0720	2009-03-14T09:51:31	684423.8	4584505.8	17.205763	41.390229	282.2	-511.1
0730	2009-03-14T09:53:17	684244.4	4584553.1	17.203633	41.390696	289.1	-504.7
0740	2009-03-14T09:55:06	684062.3	4584599.3	17.201470	41.391153	283.9	-496.8
0750	2009-03-14T09:56:54	683880.7	4584640.1	17.199312	41.391562	285.3	-489.4
0760	2009-03-14T09:58:43	683698.7	4584685.2	17.197150	41.392009	284.9	-482.7
0770	2009-03-14T10:00:32	683516.9	4584729.4	17.194991	41.392449	284.3	-479.8
0780	2009-03-14T10:02:20	683336.1	4584774.0	17.192844	41.392891	286.0	-476.1
0790	2009-03-14T10:04:08	683153.9	4584819.1	17.190680	41.393339	282.7	-470.5
0800	2009-03-14T10:05:55	682970.1	4584857.2	17.188494	41.393724	284.0	-463.6
0810	2009-03-14T10:07:41	682789.0	4584895.9	17.186341	41.394113	283.7	-456.9
0820	2009-03-14T10:09:27	682607.1	4584938.2	17.184180	41.394535	284.6	-448.9
0830	2009-03-14T10:11:13	682424.7	4584981.5	17.182013	41.394966	284.9	-441.9
0840	2009-03-14T10:12:59	682243.3	4585024.6	17.179857	41.395395	284.6	-433.8
0850	2009-03-14T10:14:45	682060.0	4585063.7	17.177678	41.395789	281.9	-426.7
0860	2009-03-14T10:16:31	681875.5	4585094.3	17.175482	41.396106	277.3	-416.6
0870	2009-03-14T10:18:19	681691.5	4585131.5	17.173294	41.396482	282.9	-410.2
0880	2009-03-14T10:20:03	681510.0	4585172.5	17.171137	41.396892	284.5	-403.2
0890	2009-03-14T10:21:43	681328.6	4585220.1	17.168982	41.397362	288.4	-398.3
0900	2009-03-14T10:23:23	681146.0	4585266.1	17.166814	41.397817	276.5	-391.8

0910	2009-03-14T10:25:04	680962.1	4585298.0	17.164625	41.398145	287.7	-384.9
0920	2009-03-14T10:26:46	680782.6	4585345.1	17.162493	41.398610	286.7	-377.7
0930	2009-03-14T10:28:29	680598.6	4585387.8	17.160307	41.399035	285.3	-370.2
0940	2009-03-14T10:30:12	680415.6	4585430.7	17.158132	41.399463	283.3	-362.4
0950	2009-03-14T10:31:52	680235.4	4585471.9	17.155990	41.399874	284.1	-354.3
0960	2009-03-14T10:33:33	680053.1	4585518.8	17.153825	41.400337	286.7	-345.8
0970	2009-03-14T10:35:14	679873.6	4585568.2	17.151693	41.400822	284.6	-338.8
0980	2009-03-14T10:36:54	679691.9	4585609.8	17.149534	41.401237	283.0	-331.1
0990	2009-03-14T10:38:34	679507.9	4585648.3	17.147346	41.401624	286.2	-323.2
1000	2009-03-14T10:40:14	679326.5	4585691.5	17.145190	41.402054	283.7	-315.8
1010	2009-03-14T10:41:54	679143.2	4585732.9	17.143011	41.402467	286.5	-308.5
1020	2009-03-14T10:43:35	678963.3	4585780.1	17.140874	41.402932	284.3	-298.9
1030	2009-03-14T10:45:16	678780.3	4585818.5	17.138698	41.403318	286.1	-289.6
1040	2009-03-14T10:46:57	678596.1	4585858.1	17.136508	41.403716	286.1	-280.0
1050	2009-03-14T10:48:36	678414.2	4585898.3	17.134345	41.404118	284.0	-270.7
1060	2009-03-14T10:50:16	678229.9	4585939.9	17.132154	41.404533	284.3	-257.9
1070	2009-03-14T10:51:57	678047.3	4585990.9	17.129986	41.405033	284.8	-247.8
1080	2009-03-14T10:53:35	677867.4	4586035.0	17.127848	41.405470	285.0	-238.3
1090	2009-03-14T10:55:15	677682.2	4586073.0	17.125645	41.405853	280.4	-226.3
1100	2009-03-14T10:56:52	677501.0	4586109.4	17.123489	41.406220	283.8	-216.8
1110	2009-03-14T10:58:30	677319.3	4586151.0	17.121329	41.406635	286.0	-207.5
1120	2009-03-14T11:00:09	677137.3	4586196.5	17.119167	41.407084	284.9	-194.4
1130	2009-03-14T11:01:48	676954.0	4586236.6	17.116987	41.407486	282.9	-191.1
1140	2009-03-14T11:03:27	676771.9	4586279.3	17.114822	41.407910	284.0	-190.8
1150	2009-03-14T11:05:06	676591.3	4586324.4	17.112676	41.408356	285.7	-189.7
1160	2009-03-14T11:06:47	676407.3	4586370.3	17.110490	41.408809	284.2	-188.1
1170	2009-03-14T11:08:28	676223.1	4586407.5	17.108298	41.409185	282.7	-187.1
1180	2009-03-14T11:10:08	676040.2	4586444.2	17.106122	41.409555	288.1	-185.4
1190	2009-03-14T11:11:48	675861.3	4586493.6	17.103998	41.410039	284.5	-183.9
1200	2009-03-14T11:13:29	675678.0	4586536.1	17.101818	41.410461	282.0	-182.4
1210	2009-03-14T11:15:10	675495.2	4586578.5	17.099645	41.410883	282.4	-180.9
1220	2009-03-14T11:16:50	675312.9	4586617.4	17.097477	41.411273	283.8	-179.1
1230	2009-03-14T11:18:29	675132.2	4586659.7	17.095328	41.411693	284.7	-178.1
1240	2009-03-14T11:20:09	674948.8	4586700.6	17.093148	41.412101	286.1	-177.3
1250	2009-03-14T11:21:49	674766.0	4586743.7	17.090974	41.412529	285.1	-176.3
1260	2009-03-14T11:23:29	674584.4	4586786.1	17.088815	41.412950	285.5	-173.5
1270	2009-03-14T11:25:10	674401.3	4586826.7	17.086637	41.413355	284.5	-172.7
1280	2009-03-14T11:26:51	674217.3	4586864.5	17.084448	41.413735	286.1	-171.7
1290	2009-03-14T11:28:33	674036.6	4586909.8	17.082301	41.414182	286.0	-170.6
1300	2009-03-14T11:30:17	673854.7	4586955.3	17.080139	41.414631	279.9	-169.1
1310	2009-03-14T11:32:00	673670.1	4586991.3	17.077941	41.414995	281.7	-167.6

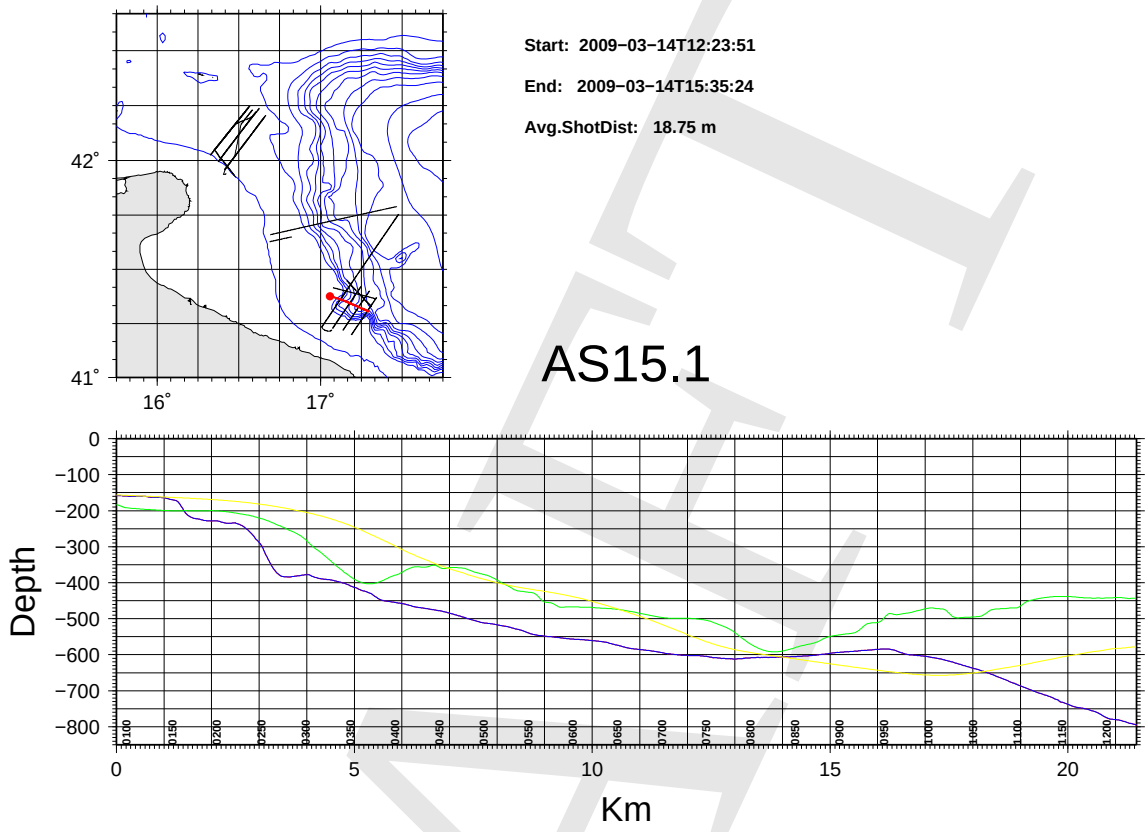

Figure 54: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 31: Line ../NAV/AS15.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-14T12:24:01	672155.0	4582661.0	17.058594	41.376342	91.4	-158.0
0110	2009-03-14T12:24:46	672238.1	4582661.5	17.059587	41.376328	90.0	-158.4
0120	2009-03-14T12:25:37	672332.9	4582668.8	17.060723	41.376374	98.8	-159.2
0101	2009-03-14T12:26:56	672474.5	4582622.4	17.062401	41.375926	108.3	-160.1
0110	2009-03-14T12:28:26	672642.3	4582596.0	17.064399	41.375652	102.7	-159.7
0120	2009-03-14T12:30:03	672822.2	4582541.7	17.066533	41.375125	115.3	-162.2
0130	2009-03-14T12:31:39	672997.6	4582475.1	17.068611	41.374488	107.0	-162.9
0140	2009-03-14T12:33:16	673180.7	4582432.9	17.070787	41.374068	107.4	-166.5
0150	2009-03-14T12:34:53	673359.9	4582375.4	17.072912	41.373512	106.7	-171.8
0160	2009-03-14T12:36:30	673539.1	4582322.8	17.075038	41.373000	106.0	-206.1
0170	2009-03-14T12:38:08	673718.0	4582267.4	17.077160	41.372463	107.6	-221.1
0180	2009-03-14T12:39:46	673897.2	4582215.8	17.079286	41.371960	106.0	-226.4
0190	2009-03-14T12:41:24	674076.5	4582165.7	17.081415	41.371470	109.7	-228.7
0200	2009-03-14T12:43:02	674255.4	4582106.9	17.083535	41.370902	111.5	-230.8
0210	2009-03-14T12:44:40	674437.1	4582057.8	17.085692	41.370421	107.5	-234.9
0220	2009-03-14T12:46:17	674614.3	4582000.0	17.087793	41.369862	109.7	-237.1
0230	2009-03-14T12:47:55	674793.8	4581946.7	17.089923	41.369343	106.5	-252.5
0240	2009-03-14T12:49:33	674974.9	4581894.8	17.092072	41.368837	106.4	-281.3
0250	2009-03-14T12:51:10	675153.3	4581842.9	17.094188	41.368331	108.3	-320.0
0260	2009-03-14T12:52:48	675332.6	4581791.2	17.096316	41.367826	108.1	-364.3
0270	2009-03-14T12:54:26	675510.5	4581735.4	17.098425	41.367285	106.0	-382.9

0280	2009-03-14T12:56:05	675689.8	4581680.0	17.100551	41.366748	109.6	-383.0
0290	2009-03-14T12:57:44	675868.3	4581624.4	17.102668	41.366208	106.5	-379.7
0300	2009-03-14T12:59:24	676048.6	4581572.1	17.104807	41.365698	108.3	-378.9
0310	2009-03-14T13:01:03	676226.3	4581518.8	17.106915	41.365179	107.7	-388.0
0320	2009-03-14T13:02:44	676406.6	4581465.2	17.109053	41.364657	110.2	-391.2
0330	2009-03-14T13:04:25	676585.1	4581407.1	17.111169	41.364095	107.1	-396.1
0340	2009-03-14T13:06:06	676765.7	4581358.0	17.113313	41.363614	104.5	-402.6
0350	2009-03-14T13:07:47	676947.0	4581305.0	17.115463	41.363097	109.6	-413.0
0360	2009-03-14T13:09:26	677123.9	4581248.1	17.117560	41.362546	109.7	-422.7
0370	2009-03-14T13:11:06	677302.4	4581193.7	17.119677	41.362017	108.0	-432.4
0380	2009-03-14T13:12:46	677482.5	4581143.8	17.121814	41.361528	105.9	-448.1
0390	2009-03-14T13:14:25	677662.1	4581095.2	17.123946	41.361051	109.9	-452.3
0400	2009-03-14T13:16:04	677840.5	4581034.7	17.126059	41.360467	111.6	-456.5
0410	2009-03-14T13:17:43	678018.5	4580976.1	17.128169	41.359900	106.5	-461.8
0420	2009-03-14T13:19:22	678198.2	4580929.2	17.130302	41.359438	108.0	-467.9
0430	2009-03-14T13:21:01	678377.9	4580878.6	17.132434	41.358943	107.9	-471.7
0440	2009-03-14T13:22:41	678557.3	4580821.8	17.134560	41.358392	110.8	-475.7
0450	2009-03-14T13:24:21	678735.7	4580765.6	17.136675	41.357847	108.4	-480.2
0460	2009-03-14T13:26:01	678914.4	4580714.2	17.138794	41.357344	106.7	-486.8
0470	2009-03-14T13:27:41	679094.3	4580666.1	17.140929	41.356871	111.0	-493.8
0480	2009-03-14T13:29:20	679264.7	4580587.5	17.142942	41.356126	114.3	-501.7
0490	2009-03-14T13:30:58	679437.4	4580519.8	17.144985	41.355478	112.4	-508.7
0500	2009-03-14T13:32:37	679611.7	4580449.7	17.147046	41.354808	116.9	-512.9
0510	2009-03-14T13:34:15	679782.6	4580372.3	17.149065	41.354074	114.1	-516.8
0520	2009-03-14T13:35:54	679956.9	4580304.2	17.151127	41.353422	111.4	-521.4
0530	2009-03-14T13:37:33	680128.8	4580231.7	17.153159	41.352731	115.6	-527.6
0540	2009-03-14T13:39:13	680303.0	4580162.6	17.155219	41.352070	111.9	-533.9
0550	2009-03-14T13:40:52	680476.3	4580096.1	17.157269	41.351432	112.6	-543.4
0560	2009-03-14T13:42:32	680652.9	4580030.6	17.159359	41.350803	109.0	-547.0
0570	2009-03-14T13:44:10	680824.4	4579952.3	17.161385	41.350060	114.6	-549.9
0580	2009-03-14T13:45:46	681000.4	4579889.3	17.163468	41.349453	116.1	-552.6
0590	2009-03-14T13:47:21	681169.1	4579808.7	17.165459	41.348690	116.7	-555.6
0600	2009-03-14T13:48:56	681343.9	4579742.2	17.167527	41.348052	108.2	-557.3
0610	2009-03-14T13:50:35	681519.2	4579677.1	17.169602	41.347427	116.0	-559.5
0620	2009-03-14T13:52:20	681690.5	4579598.5	17.171624	41.346681	115.5	-561.5
0630	2009-03-14T13:54:04	681865.9	4579535.6	17.173701	41.346075	108.4	-564.7
0640	2009-03-14T13:55:46	682038.7	4579464.8	17.175743	41.345399	114.2	-570.4
0650	2009-03-14T13:57:28	682210.8	4579391.1	17.177777	41.344696	115.1	-576.6
0660	2009-03-14T13:59:09	682383.9	4579323.7	17.179824	41.344050	112.3	-582.6
0670	2009-03-14T14:00:51	682559.5	4579255.6	17.181901	41.343398	115.5	-585.4
0680	2009-03-14T14:02:31	682729.1	4579181.2	17.183904	41.342690	113.8	-588.2
0690	2009-03-14T14:04:12	682902.9	4579112.1	17.185959	41.342028	112.6	-591.8
0700	2009-03-14T14:05:52	683076.6	4579047.1	17.188014	41.341404	114.2	-596.6
0710	2009-03-14T14:07:33	683247.8	4578972.2	17.190035	41.340691	114.0	-599.4
0720	2009-03-14T14:09:12	683417.1	4578901.0	17.192036	41.340011	114.1	-601.6
0730	2009-03-14T14:10:53	683591.1	4578831.8	17.194093	41.339349	112.6	-602.2
0740	2009-03-14T14:12:33	683763.9	4578766.2	17.196137	41.338719	109.8	-603.3
0750	2009-03-14T14:14:14	683937.8	4578695.1	17.198193	41.338039	115.9	-606.9
0760	2009-03-14T14:15:53	684108.2	4578620.4	17.200205	41.337328	112.9	-609.6
0770	2009-03-14T14:17:33	684282.5	4578549.8	17.202265	41.336653	112.9	-611.0
0780	2009-03-14T14:19:14	684458.5	4578481.7	17.204346	41.336000	112.5	-611.6
0790	2009-03-14T14:20:52	684627.6	4578420.3	17.206347	41.335408	106.8	-609.0
0800	2009-03-14T14:22:36	684802.9	4578353.4	17.208420	41.334766	112.7	-608.4
0810	2009-03-14T14:24:22	684979.3	4578289.0	17.210506	41.334146	112.6	-607.7
0820	2009-03-14T14:26:03	685144.4	4578210.2	17.212454	41.333399	113.3	-607.0
0830	2009-03-14T14:27:40	685317.7	4578143.5	17.214503	41.332759	114.9	-606.3

0840	2009-03-14T14:29:14	685489.6	4578067.2	17.216532	41.332032	115.1	-605.8
0850	2009-03-14T14:30:51	685665.9	4577999.8	17.218617	41.331385	109.7	-604.5
0860	2009-03-14T14:32:28	685836.0	4577925.2	17.220626	41.330674	115.6	-603.0
0870	2009-03-14T14:34:07	686010.6	4577855.3	17.222689	41.330005	109.0	-600.7
0880	2009-03-14T14:35:45	686185.0	4577791.9	17.224752	41.329394	114.2	-598.0
0890	2009-03-14T14:37:23	686355.3	4577717.7	17.226763	41.328687	116.2	-594.7
0900	2009-03-14T14:39:03	686529.7	4577643.3	17.228822	41.327977	112.0	-592.6
0910	2009-03-14T14:40:42	686703.4	4577574.2	17.230875	41.327315	113.6	-590.8
0920	2009-03-14T14:42:21	686879.8	4577514.9	17.232963	41.326740	115.7	-588.1
0930	2009-03-14T14:44:01	687049.1	4577432.1	17.234959	41.325956	111.0	-586.6
0940	2009-03-14T14:45:40	687225.4	4577370.5	17.237045	41.325360	113.6	-584.7
0950	2009-03-14T14:47:19	687395.8	4577296.0	17.239056	41.324650	113.0	-584.3
0960	2009-03-14T14:48:59	687567.7	4577222.4	17.241086	41.323948	115.0	-589.8
0970	2009-03-14T14:50:39	687741.9	4577156.8	17.243146	41.323317	112.6	-598.3
0980	2009-03-14T14:52:20	687917.9	4577092.9	17.245228	41.322701	117.8	-601.5
0990	2009-03-14T14:54:01	688086.9	4577012.7	17.247220	41.321939	115.8	-603.9
1000	2009-03-14T14:55:42	688260.3	4576943.8	17.249269	41.321279	111.6	-607.7
1010	2009-03-14T14:57:24	688434.4	4576875.2	17.251326	41.320621	112.6	-611.8
1020	2009-03-14T14:59:06	688606.8	4576805.7	17.253363	41.319955	112.0	-618.8
1030	2009-03-14T15:00:49	688781.7	4576737.0	17.255430	41.319296	117.3	-626.0
1040	2009-03-14T15:02:32	688953.7	4576663.7	17.257460	41.318596	111.8	-633.4
1050	2009-03-14T15:04:16	689129.9	4576597.8	17.259543	41.317961	112.4	-640.3
1060	2009-03-14T15:05:59	689303.7	4576530.6	17.261597	41.317316	114.2	-648.5
1070	2009-03-14T15:07:42	689474.7	4576458.1	17.263616	41.316623	115.9	-657.6
1080	2009-03-14T15:09:27	689647.1	4576381.7	17.265650	41.315895	112.2	-667.9
1090	2009-03-14T15:11:12	689823.8	4576317.5	17.267740	41.315275	114.0	-677.9
1100	2009-03-14T15:12:56	689996.7	4576246.9	17.269782	41.314599	113.6	-687.9
1110	2009-03-14T15:14:40	690170.4	4576174.1	17.271832	41.313903	112.5	-697.3
1120	2009-03-14T15:16:23	690341.1	4576099.3	17.273847	41.313190	114.3	-706.6
1130	2009-03-14T15:18:06	690516.3	4576035.8	17.275918	41.312577	113.0	-715.2
1140	2009-03-14T15:19:49	690687.8	4575964.1	17.277943	41.311891	118.6	-724.7
1150	2009-03-14T15:21:34	690863.4	4575893.5	17.280017	41.311214	109.0	-736.2
1160	2009-03-14T15:23:16	691036.6	4575827.0	17.282063	41.310575	112.9	-745.0
1170	2009-03-14T15:24:58	691208.2	4575751.5	17.284088	41.309854	116.6	-749.4
1180	2009-03-14T15:26:40	691379.3	4575676.5	17.286107	41.309139	112.3	-756.2
1190	2009-03-14T15:28:23	691557.0	4575615.1	17.288209	41.308544	113.4	-767.4
1200	2009-03-14T15:30:06	691723.7	4575532.8	17.290172	41.307764	111.0	-779.0
1210	2009-03-14T15:31:51	691902.4	4575475.2	17.292287	41.307203	105.7	-781.8
1220	2009-03-14T15:33:32	692074.9	4575402.7	17.294323	41.306509	119.9	-789.3

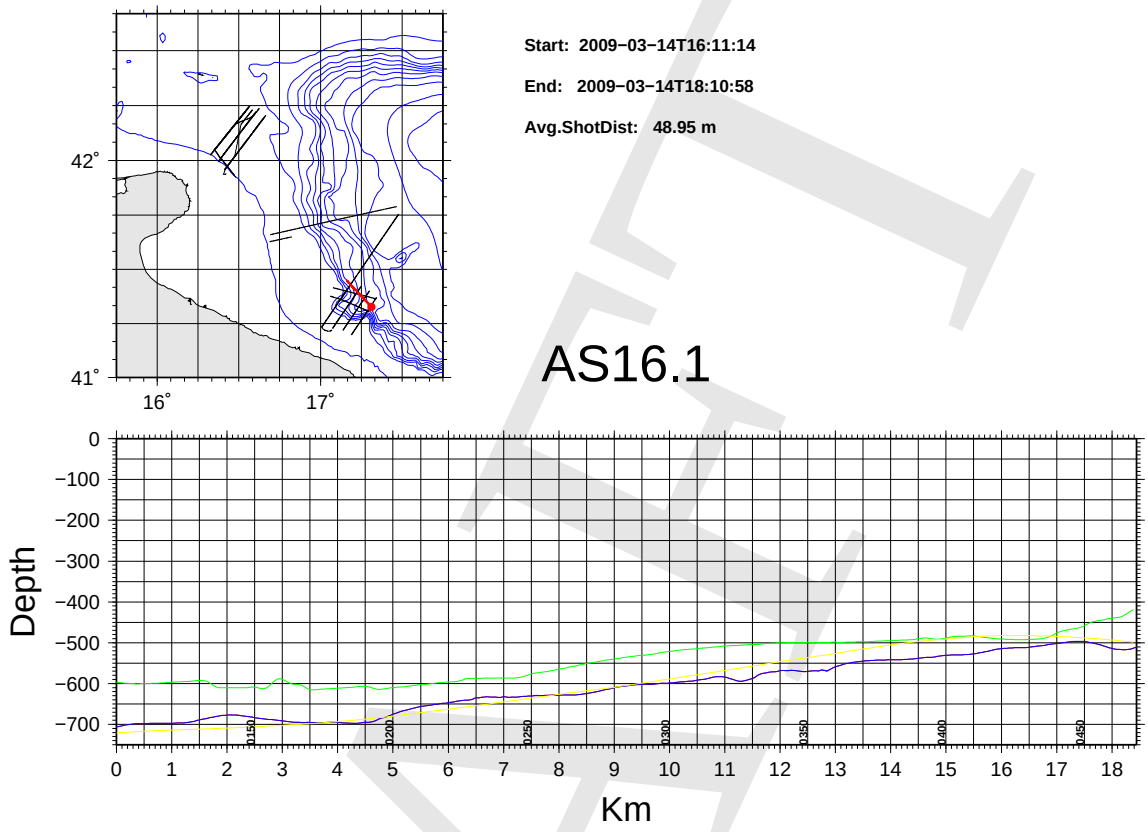

Figure 55: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 32: Line ../NAV/AS16.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-14T16:11:49	693485.6	4577762.8	17.311912	41.327413	322.5	-704.7
0110	2009-03-14T16:14:46	693194.4	4578108.7	17.308545	41.330596	318.1	-698.2
0120	2009-03-14T16:18:00	692847.3	4578469.1	17.304515	41.333923	316.8	-697.4
0130	2009-03-14T16:21:14	692495.3	4578825.3	17.300425	41.337213	317.2	-689.1
0140	2009-03-14T16:24:27	692141.8	4579178.4	17.296315	41.340475	316.1	-677.3
0150	2009-03-14T16:27:42	691777.3	4579521.3	17.292071	41.343648	314.9	-683.6
0160	2009-03-14T16:30:55	691421.5	4579872.3	17.287932	41.346892	317.5	-691.6
0170	2009-03-14T16:34:05	691070.3	4580227.3	17.283849	41.350171	316.2	-695.5
0180	2009-03-14T16:37:12	690717.7	4580580.0	17.279748	41.353428	316.3	-695.2
0190	2009-03-14T16:40:20	690360.0	4580928.3	17.275585	41.356648	317.5	-694.4
0200	2009-03-14T16:43:29	690004.4	4581283.5	17.271449	41.359929	318.0	-674.5
0210	2009-03-14T16:46:37	689653.4	4581638.3	17.267367	41.363205	315.7	-656.2
0220	2009-03-14T16:49:45	689297.4	4581985.3	17.263222	41.366412	315.7	-646.8
0230	2009-03-14T16:52:54	688940.5	4582336.0	17.259067	41.369652	316.2	-634.2
0240	2009-03-14T16:56:03	688584.9	4582687.0	17.254928	41.372894	317.0	-631.6
0250	2009-03-14T16:59:11	688230.9	4583037.0	17.250807	41.376127	316.8	-630.8
0260	2009-03-14T17:02:19	687877.9	4583390.3	17.246699	41.379390	316.9	-628.5
0270	2009-03-14T17:05:27	687530.2	4583749.5	17.242655	41.382704	317.5	-624.3
0280	2009-03-14T17:08:36	687182.8	4584112.0	17.238615	41.386047	315.9	-610.4
0290	2009-03-14T17:11:43	686827.1	4584459.8	17.234472	41.389260	315.6	-602.2
0300	2009-03-14T17:14:52	686474.9	4584813.9	17.230372	41.392529	316.2	-598.6

0310	2009-03-14T17:18:05	686122.8	4585170.2	17.226273	41.395818	318.9	-591.8
0320	2009-03-14T17:21:19	685762.5	4585517.9	17.222073	41.399030	315.7	-583.9
0330	2009-03-14T17:24:31	685405.2	4585864.8	17.217908	41.402235	315.9	-588.4
0340	2009-03-14T17:27:43	685042.9	4586204.3	17.213681	41.405374	313.7	-568.3
0350	2009-03-14T17:30:54	684699.8	4586566.3	17.209689	41.408711	320.5	-570.6
0360	2009-03-14T17:34:07	684363.9	4586937.3	17.205787	41.412128	314.1	-558.8
0370	2009-03-14T17:37:21	684003.2	4587282.7	17.201579	41.415319	315.6	-545.1
0380	2009-03-14T17:40:35	683642.4	4587627.7	17.197370	41.418507	314.5	-542.0
0390	2009-03-14T17:43:51	683284.1	4587976.6	17.193192	41.421729	318.0	-538.3
0400	2009-03-14T17:47:10	682936.5	4588336.3	17.189144	41.425046	316.1	-530.9
0410	2009-03-14T17:50:28	682571.4	4588677.5	17.184881	41.428200	310.9	-527.2
0420	2009-03-14T17:53:50	682220.8	4589034.4	17.180796	41.431492	319.4	-514.6
0430	2009-03-14T17:57:15	681886.9	4589406.3	17.176915	41.434915	319.5	-510.9
0440	2009-03-14T18:00:41	681556.6	4589782.9	17.173077	41.438379	321.5	-501.9
0450	2009-03-14T18:04:04	681232.0	4590159.1	17.169307	41.441839	321.1	-497.1
0460	2009-03-14T18:07:27	680907.4	4590540.2	17.165539	41.445342	321.1	-514.2

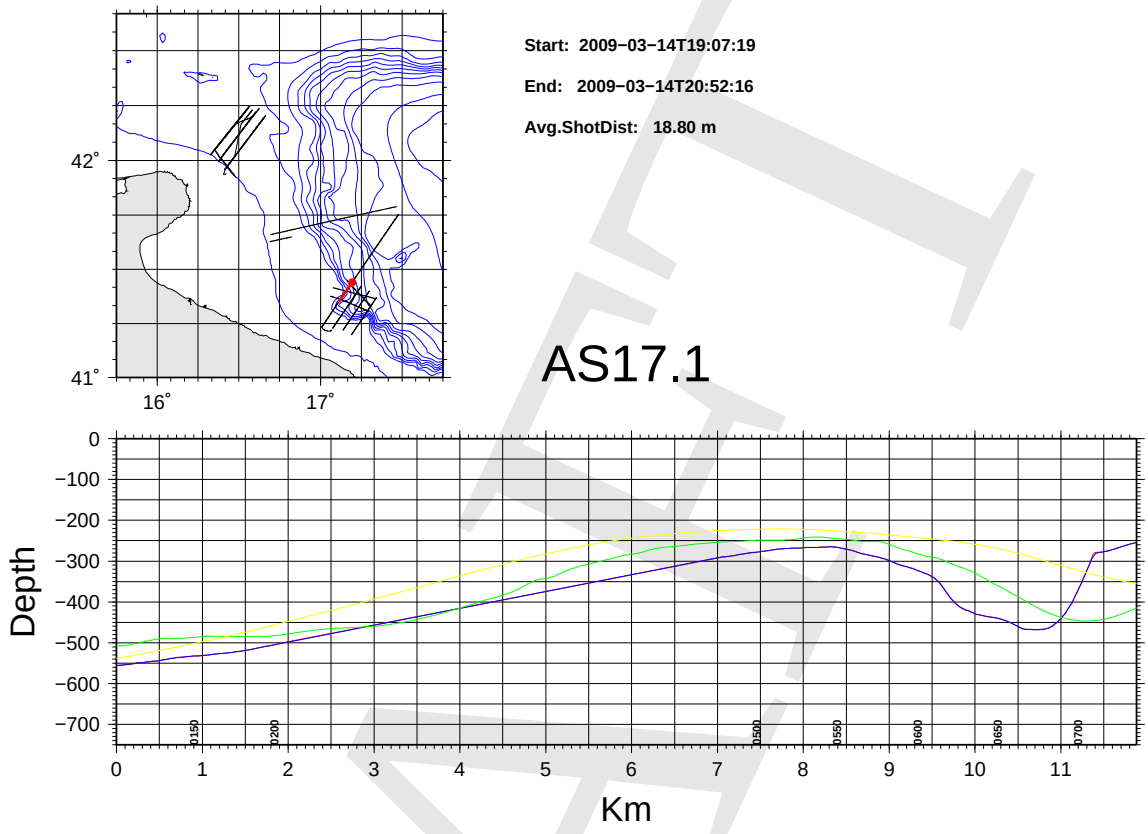

Figure 56: Seismic lines, shots, distances. Bathymetric profiles from this survey (red,blue), and GEBCO(yellow).

Table 33: Line ../NAV/AS17.1 navigation data (shot point). WGS84, East and North UTM33.

Shot	Date Time	East	North	Lon	Lat	Cmg	Depth
0101	2009-03-14T19:07:55	683164.8	4589846.4	17.192331	41.438586	213.3	-555.6
0110	2009-03-14T19:09:21	683074.5	4589703.9	17.191208	41.437324	214.9	-551.1
0120	2009-03-14T19:10:53	682974.1	4589543.8	17.189959	41.435906	213.7	-546.4
0130	2009-03-14T19:12:22	682876.8	4589386.2	17.188748	41.434509	213.3	-540.8
0140	2009-03-14T19:13:53	682776.2	4589226.4	17.187496	41.433094	214.7	-535.6
0150	2009-03-14T19:15:24	682672.2	4589069.2	17.186205	41.431703	215.5	-532.4
0160	2009-03-14T19:16:55	682568.1	4588915.8	17.184913	41.430345	217.2	-527.9
0170	2009-03-14T19:18:25	682465.1	4588761.0	17.183635	41.428976	214.1	-524.1
0180	2009-03-14T19:19:55	682364.3	4588602.7	17.182382	41.427574	216.6	-518.4
0190	2009-03-14T19:21:25	682262.7	4588446.0	17.181120	41.426186	212.7	-511.0
0200	2009-03-14T19:22:55	682162.8	4588287.9	17.179877	41.424786	213.6	-502.7
0480	2009-03-14T20:09:51	679327.1	4583879.5	17.144661	41.385744	213.3	-288.5
0490	2009-03-14T20:11:36	679225.2	4583721.0	17.143396	41.384340	212.1	-281.5
0500	2009-03-14T20:13:20	679122.1	4583566.5	17.142118	41.382972	215.2	-276.9
0510	2009-03-14T20:15:04	679017.1	4583412.4	17.140818	41.381608	212.9	-271.1
0520	2009-03-14T20:16:48	678919.0	4583253.0	17.139598	41.380195	211.5	-268.4
0530	2009-03-14T20:18:31	678823.5	4583092.8	17.138410	41.378775	212.2	-266.2
0540	2009-03-14T20:20:14	678723.4	4582932.2	17.137166	41.377351	217.6	-265.7
0550	2009-03-14T20:21:56	678619.4	4582775.6	17.135878	41.375965	216.1	-267.9
0560	2009-03-14T20:23:38	678511.4	4582623.8	17.134542	41.374622	215.1	-278.2
0570	2009-03-14T20:25:19	678408.2	4582470.1	17.133264	41.373262	215.7	-287.4

0580	2009-03-14T20:27:02	678309.2	4582311.3	17.132034	41.371854	212.2	-298.7
0590	2009-03-14T20:28:47	678208.6	4582150.9	17.130785	41.370433	214.0	-313.2
0600	2009-03-14T20:30:32	678106.8	4581995.5	17.129523	41.369056	215.8	-326.9
0610	2009-03-14T20:32:18	678005.0	4581839.5	17.128261	41.367675	212.3	-347.9
0620	2009-03-14T20:34:03	677907.9	4581677.6	17.127053	41.366239	213.4	-399.3
0630	2009-03-14T20:35:45	677805.5	4581521.2	17.125784	41.364854	214.9	-423.3
0640	2009-03-14T20:37:23	677702.6	4581366.6	17.124509	41.363485	215.2	-435.4
0650	2009-03-14T20:39:01	677600.4	4581211.0	17.123243	41.362107	212.9	-442.7
0660	2009-03-14T20:40:40	677502.5	4581050.7	17.122026	41.360686	213.6	-460.0
0670	2009-03-14T20:42:19	677404.4	4580890.6	17.120807	41.359266	215.6	-467.7
0680	2009-03-14T20:43:50	677301.1	4580739.6	17.119529	41.357930	215.8	-463.3
0690	2009-03-14T20:45:19	677196.1	4580586.1	17.118230	41.356571	215.2	-427.1
0700	2009-03-14T20:46:49	677094.6	4580426.6	17.116970	41.355158	214.6	-350.8
0710	2009-03-14T20:48:18	676994.4	4580269.1	17.115728	41.353762	213.3	-278.6
0720	2009-03-14T20:49:47	676895.8	4580110.8	17.114503	41.352359	210.9	-270.8
0730	2009-03-14T20:51:17	676793.2	4579952.5	17.113232	41.350956	217.8	-258.3