CONSIGLIO NAZIONALE DELLE RICERCHE
ISTITUTO PER LA GEOLOGIA MARINA

JOINT RESEARCH PROJECT

ACTIVE FAULTS AND EARTHQUAKES
IN THE SEA OF MARMARA

between

CNR - INSTITUTE MARINE GEOLOGY
COLUMBIA UNIVERSITY - Lamont-Doherty Earth Obs.
TÜBİTAK - Marmara Research Center

GEOPHYSICAL AND GEOLOGICAL STUDIES IN THE SEA OF MARMARA

REPORT ON MORPHOBATHYMETRIC, SEISMIC AND CORING INVESTIGATIONS DURING CRUISE MARMARA2001 WITH R/V URANIA

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Includes bibliographical reference and index.
1. Sea of Marmara 2. Swath bathymetry 3. Geophysics 4. Coring 5. Palaeoseismology 6. Seismogenic faults

Abstract - A summary of the methodologies, technical details and ship-board results of a swath bathymetry and geophysical survey in the Sea of Marmara is presented. During 20 days of work with R/V Urania high resolution morphobathymetric images, a dense grid of Subbottom and Side Scan Sonar profiles and cores were obtained.

Sommario - Vengono presentati le metodologie e l'insieme dei risultati ottenuti durante una campagna Multibeam, Subbottom e Campionamento nel Mare di Marmara Orientale. Durante 20 giorni di lavoro in zona sono state ottenute immagini batimetriche ad alta risolozione, un denso grigliato di linee SBP e Sismica Multicanale e 56 carote a gravita' e pistone.

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ACRONYMS

ACRONYM	DESCRIPTION	URL-email
CNR	Consiglio Nazionale Delle Ricerche	www.cnr.it
IGM	Istituto per la Geologia Marina CNR	www.igm.bo.cnr.it
LDEO	Lamont-Doherty Earth Observatory	www.ldeo.columbia.edu
TÜBİTAK	Turkish Sc. Tech. Research Council	www.tubitak.gov.tr
MTA	Turkish Geneal Directorate of Mineral Res.Explor.	www.mta.gov.tr
OGS	Osservatorio Geofisico Sperimentale	www.ogs.it
COMM-TEC	Communication Technology	www.comm-tec.com
MC	Marine Consulting	www.marinec.com
SO.PRO.MAR	SocietaProgetti Marittimi	sopromar@pronet.it
GEI		
NIOZ	Netherland Institute for Sea Research	www.nioz.nl
UNESCO	United Nations Scient. and cultural org.	www.unesco.org
IOC	Intergov.Oceanogr.Comm. of UNESCO	www.ioc.org
IHO	Int. Hydrographic Organization	www.iho.org
SEG	Soc. of Exploration Geophysicists	www.seg.org
GNU,GPL	GNU is not Unix,General Pub. License	www.gnu.org
GEBCO	General Bathymetric Chart of the Ocean	www.ngdc.noaa.gov/mgg/gebco/
IBCM	Int.Bathym.Chart of the Mediterranean	www.ngdc.noaa.gov/mgg/ibcm/
MEDATLAS	Mediterranean Atlas	www.ifremer.fr/sismer
IFREMER	Inst. Francais Eploitation Mer	www.ifremer.fr
CARAIBES	Traiment Cartographique Batimetrie	www.ifremer.fr/dnis_esi
GMT	Generic Mapping Tool	gmt.soest.hawaii.edu/gmt
GPS-DGPS	Global Positioning System	samadhi.jpl.nasa.gov
MCS	Multi Channel Seismic	
DTM	Digital Terrain Model	
MSCL	Multi Sensor Core Logger	
SSS	Side Scan Sonar	
SBP	Sub Bottom Profiling	
NAF	Northern Anatolian Fault	

Table 1: Acronyms of Organizations, Manufacturers, Products

AUTHORSHIP

Giovanni Bortoluzzi compiled and finalized the main body of this report. Luca Gasperini, Milene Cormier and Namik Cagatay, as co-chief scientists, contributed to the geological and scientific background and to the preliminary data analysis. Alina Polonia coordinated the Project from the Italian Side, was in charge of the preparation of the Cruise and gave substantial help in the revision of this document. All the participants to the cruise contributed to this report with their work and discussions aboard the R/V Urania.

When not already noted, most of the multibeam maps were produced by M.Cormier with the MB-SYSTEM and GMT softwares. When not already noticed, the photographs were taken by G.Marozzi.

HOW TO READ THIS REPORT

Section 1 gives the introductory and background information, together with some technological and scientific issues of the organization and execution tasks. Section 1 presents the cruise planning, where section 2 summarizes the cruise. Sections 3 and **??** provide the technical details that were involved in the data acquisition and processing, whereas sections 4, 5 and 6 discuss some results, the on-going data processing and usage, and give concluding remarks.

Some data processing procedures that were used in the production of this Report along with further technical details and data are presented in Appendix.

ACKNOWLEDGMENTS

Many people contributed to the success of this cruise. Firstly, we wish to thanks the Captain, Emanuele Gentile, the Chief Engineer, Carmine Ciano, the officers and crew of R/V Urania for their great professionalism and big efforts in assuring the success of the cruise. The project was mainly funded by IGM-CNR, with minor contributions from LDEO and TUBITAK, and we are indebted to the IGM (Dr. M. Ravaioli, Mrs. G.Gallerani and P.Dall'Olio), LDEO and TUBITAK management staffs for the continuous effort in solving the financial and technical problems. In particular we greatly appreciated the continued support of the collaborative project and the great hospitality of Prof. Naci Görür . NATO provided seed funding to cover the travel expenses of all the different groups for this Project (NATO Cooperative Linkage Grant EST-CLG No.976826 "Historic and prehistoric Submarine Fault Ruptures in the Marmara Sea").

The Ambassador Vittorio C. Surdo and his assistants of the Italian Embassy in Ankara were extremely helpful in solving the bureaucratic procedures that were involved in the expedition.

A.Giordano and G.Giovannini of Communication Technology were fully involved in the Multibeam istallation and testing. We are indebted to them for the time and work they devoted to this, and we wish to thank also Mr. Magnani of TAINOX for the excellent multibeam craddle he designed and built in a very short time.

MARINE CONSULTING of Ravenna installed and deinstalled the Multibeam on the hull of the Urania with the greatest professionalism and care. We are indebted to Mr. Leoni, Mr. Dettore and to the field team for their work and assistance.

GEI of Castelvecchio Pascoli provided us with the ACHILLE ROV. We thank F.Colognori for his jump into this adventure and for the time he spent.

Mr. L.Masini, Mr. P.Ferretti and Mr. S.Carluccio of IGM were helpful for their assistance in Logistic and Preparation of the Cruise.

Dr. Dale Chayes of LDEO was kindly in contact for solving some problems with MB-SYSTEM software.

We finally thank the Pilots of the Izmit and Golguk areas and the Istanbul Traffic Control for their assistance and continuous help.

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1 INTRODUCTION

The Sea of Marmara lies between the Aegean Sea and the Black Sea (Fig.1 and 2). It forms an active system of pull-apart basins developed along the NAF system, that extends east-west for over 1600 km across Turkey and is one of the world's major continental transforms. Earthquake epicenters and focal mechanism solutions in western Anatolia show a clustering on or near the major faults. A sequence of eight M7+ earthquakes has ruptured this boundary progressively from east to west during the last century. The most recent and westernmost events in this sequence, the M7.4 Kocaeli and M7.1 Duzce mainshocks in 1999, were particularly destructive [1]. Together they ruptured about 160 km of this fault system including the submarine portion of the fault in the Gulf of İzmit , eastern Marmara Sea. Relatively little strain, however, is thought to have been released by earthquakes along 150km of the transform through the Marmara Sea since the mid 1700's. This portion of the transform is, therefore, identified as a seismic gap where accumulated elastic strain is about as much as it was released by slip in the 1999 sequence.

After the 1999 earthquakes the international community is attempting to study the fault distribution in the Sea of Marmara. Moreover, a thorough study of the seismogenic behaviour of the fault system in the Sea of Marmara has not been attempted yet.

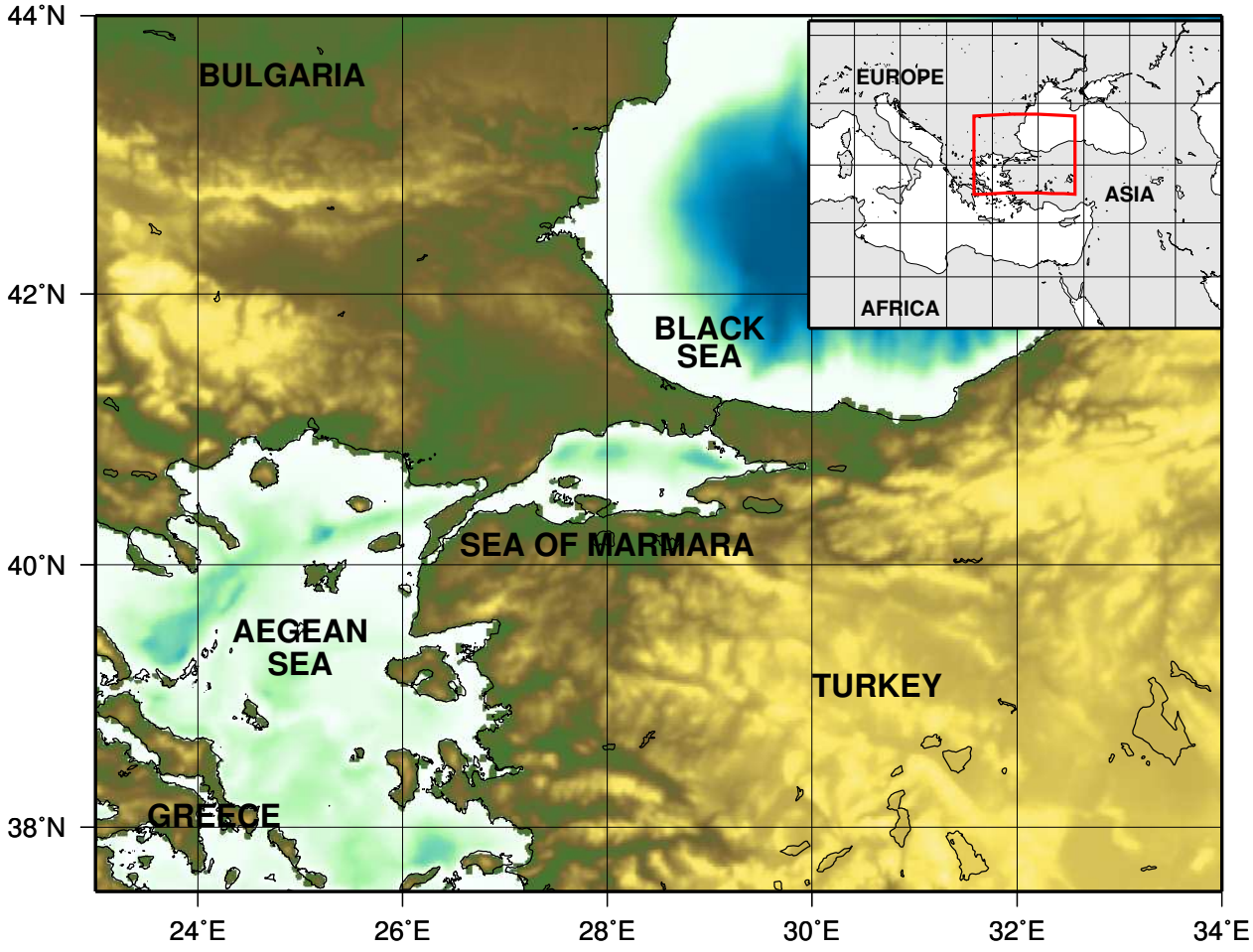

Figure 1: Geographical area setting. Topographic and bathymetric data by Sandwell and Smith [3].

To tackle these objectives an international collaboration between LDEO,TÜBİTAK , and IGM-CNR was set up and resulted with an integrated research project in the area. A first cruise [2] (MARM2000) was done with R/V Odin Finder 29-oct-2000 to 4-nov-2000, that produced detailed multibeam, chirp and SSS profiles and some cores in the areas of İzmit and on the shelf SW of İstanbul .

We believe that an integrated approach involving the acquisition and analysis of geophysical (multibeam, side-scan-sonar, chirp), geological (cores) and seismological data would represent an innovative strategy in the emerging field of "submarine earthquake geology" to assess the seismic hazard in the Marmara region. The project involves geological/geophysical surveys combining Multibeam, side-scan sonar maps and chirp sub-bottom profiles, reflection seismic and magnetometry with carefully positioned core samples to resolve the shallow geometry and kinematics of the fault system in the northeastern Marmara Sea.

We expect to resolve fault geometry and kinematics and to date their most recent ruptures at the same scale as typical paleoseismic studies on land. We will be guided by previous and ongoing projects studying larger scale and deeper characteristics of the fault system in the Sea of Marmara.

The principal objectives are:

- the identification of the main faults accounting strike-slip motion through Marmara;
- determination of offset on features and structures by these faults;
- dating of their most recent ruptures at the same scale as typical paleoseismic studies on land;
- the dating of the slip on the faults using C14 to calibrate sub-bottom reflectors and determine the displacements of the faults trough time for the past 25000 years.

This paper reports the shipboard activities during the cruise MARM2001, which took place 24-May-2001 to 21-Jun-2001 with R/V Urania of CNR.

During this 19-days cruise in the area we focused on multibeam bathymetry, CHIRP-SBP, Multichannel seismic, coring, core-logging and description, and ROV, to study six areas of the Continental shelf and slope in the Sea of Marmara (Fig. 2):

AREA A the Gulf of İzmit

(a) the approach to the Gulf, Yalova to Tuzla,

(b) the western portion, Darica to Hersek,

(c) the central portion, Hersek to Körfez ,

(d) the eastern portion, Golcuk and İzmit

AREA B the area between the İmrali I. and the Armutlu Peninsula

AREA C the area SW of Tuzla to the Çinarcik Basin

AREA D the area offshore Büyükçekmece on the continental slope and shelf SW of İstanbul

AREA E the shelf areas in proximity of the Prince Islands, SE of İstanbul

AREA F the area offshore Gaziköy to the Tekirdağ Basin.

The accurate bathymetric DTMs, DGPS positioning and ship's capabilities to keep position on station were used also to recover cores strategically positioned along the CHIRP-SBP profiles that crossed the faults. Some cores were also taken for stratigraphic control. A particular focus was put on areas A and F, which lie directly on the NAF.

The cruise started in Ravenna 24-may-2001 and ended in Ravenna 21-jun-2001. Weather conditions were generally good to very good (6 hours stand-by meteo were reported).

Hereafter, a description of the ship, equipment and their usage and is given, along with details of the general settings, performances and some results.

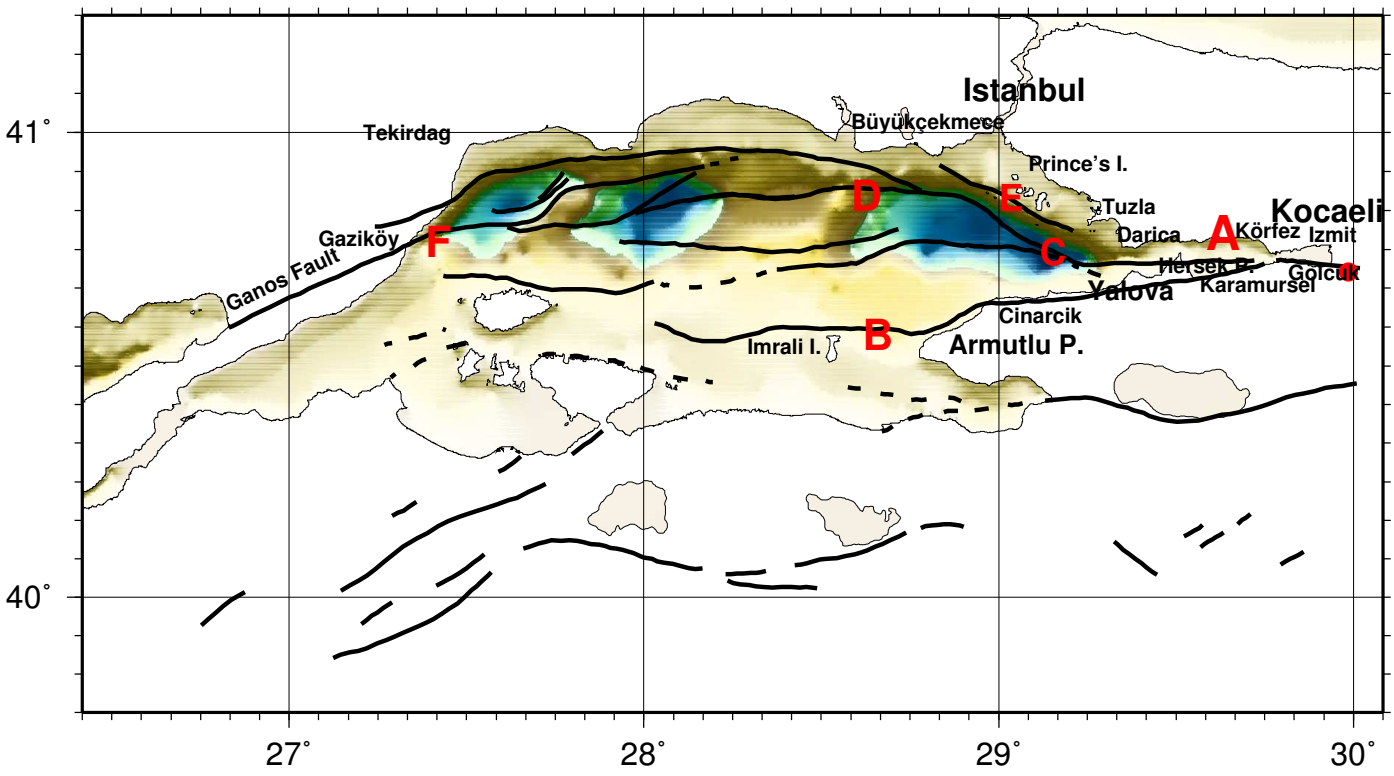

Figure 2: Geographical area setting. The capital letters point to the areas surveyed during the present cruise. The red point is the epicenter of the M7.4 17-aug-1999 Kocaeli earthquake (after www.eeri.org). Heavy and dotted black lines are the NAF locations in its North, Central and South strands (digitized by the MTA map found at www.ifjf.uib.no). Bathymetric data regridded with the digital data of IBCM [6] [5].

CRUISE PLANNING

Ship time of the R/V Urania was provided by CNR upon request of IGM. The final cruise planning started soon after a pre-cruise meeting in Bologna (March 2001).The application for clearances to perform the geophysical survey in the Marmara Sea and the plan of the cruise were submitted to the Turkish embassy in Rome March 2001 as well as to the Italian Embassy in Ankara. Turkish authorization was released to the R/V Urania through the Italian Embassy in Ankara on 22-May-2001. During the month of May-2001 and extensive work was done at IGM for the refurbishing and preparation of the instruments (Multichannel Seismic, Computer Network, etc). In addition to this, the installation of the Multibeam on the hull of the Urania was scheduled and designed.

2 CRUISE SUMMARY

SHIP: R/V URANIA
START: 2001-05-24 PORT: RAVENNA
END: 2001-06-21 PORT: RAVENNA
SEA/OCEAN: Sea of Marmara / Mediterranean Sea
LIMITS: NORTH 41 SOUTH: 38 WEST: 25 EAST: 30
OBJECTIVE: GEOPHYSICAL AND GEOLOGICAL INVESTIGATIONS IN THE SEA OF MARMARA
COORDINATING BODIES: IGM-CNR BOLOGNA (ITALY)
PARTICIPATING BODIES: TÜBİTAK , MTA, SHOD (TURKEY)
LDEO-COLUMBIA UNIVERSITY (USA),
ISTITUTO IDROGRAFICO DELLA MARINA (ITALY)
CHIEF OF EXPEDITION: Giovanni Bortoluzzi (IGM-CNR)
CONTACT: giovanni.bortoluzzi@igm.bo.cnr.it alina.polonia@igm.bo.cnr.it
DISCIPLINES: MORPHOBATHYMETRY, SBP, MULTICHANNEL SEISMIC, MAGNETICS, CORING
WORK DONE: 2250 KM MULTIBEAM AND CHIRP-SBP,
1000 KM MAGNETICS, 400 KM MCS LINES
44 GRAVITY CORES, 5 PISTON CORES, 6 SW CORES,
166 M TOTAL SEDIMENT RECOVERED,
3 ROV DEPLOYMENTS, 20 CTD CASTS

LOCALIZATION:

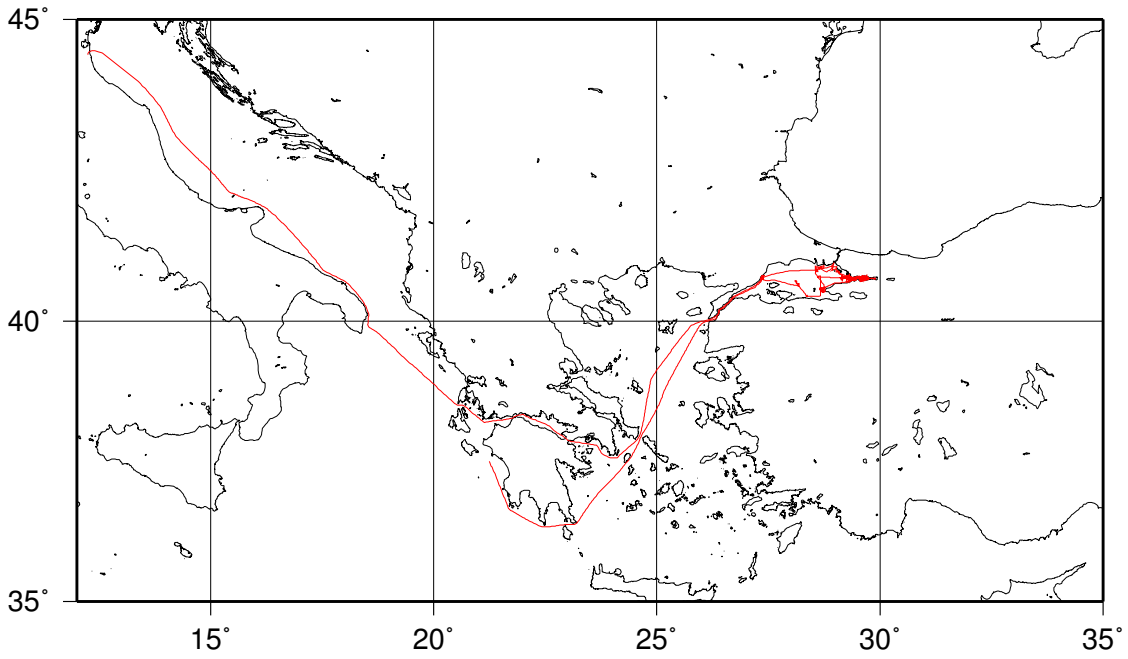

Figure 3: Ship tracks.

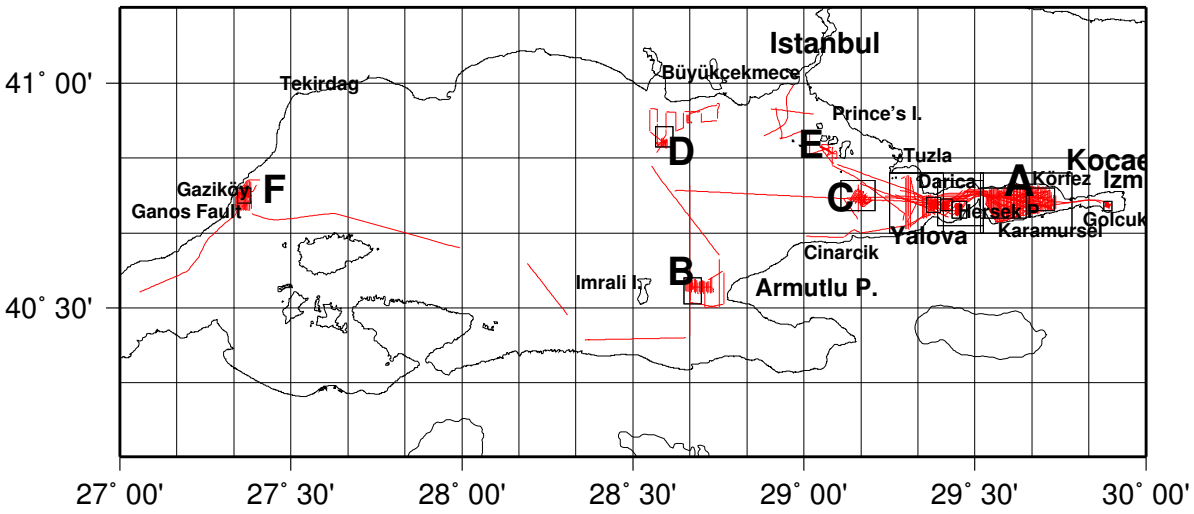

Figure 4: Ships's tracks, MCS, CHIRP, MULTIBEAM, MAGNETICS

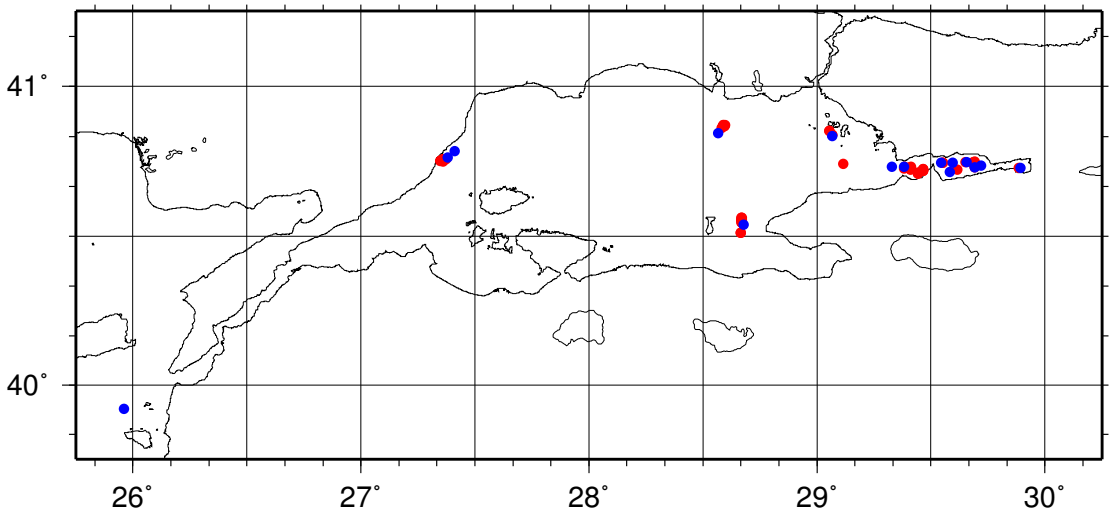

Figure 5: Coring (red) and CTD (blue) stations.

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IGM-CNR	Istituto Geologia Marina CNR	Via Gobetti 101, Bologna	www.igm.bo.cnr.it
LDEO	Lamont-Doherty Earth Obs.	Palisades, New York, USA	www.ldeo.columbia.edu
İTÜ	İstanbul Technical University	İstanbul , Turkey	www.itu.edu.tr
MTA	Gen.Directorate Min. Explor.	Ankara, Turkey	www.mta.gov.tr
SHODB	Dep.Nav.Hydr.Ocean.-Turkish Navy	İstanbul , Turkey	www.shodb.gov.tr
IIM	Hydrographic Inst.-Italian Navy	Genova, Italia	iim@assicomitalia.it
SO.PRO.MAR	Societa' Progetti Marittimi	Via Della Pesca,Fiumicino,Italy	sopromar@pronet.it

Table 2: Scientific and technical parties

SUMMARY OF OPERATIONS

After a two days mobilization. that included also the Core Logger and hull Multibeam installation, the Urania left Ravenna 21:15 of Thursday May 24 2001 and anchored in Cannakale at 13:00 of Monday May 29 to embark US and turkish scientific personnel. During this transit the ELAC 1180 was calibrated for roll errors and some data were acquired, together with the acquisition of some CTD profiles.

The first leg was devoted principally to mapping (CHIRP and Multibeam) and to perform 24 Channel MCS profiles on the southern Sea of Marmara and on the İzmit Gulf. Gravity cores (14) were collected in the area E of the İmrali I. and in front of Büyükçekmece , on the northern slope SW of İstanbul , where an ROV inspection took place as well. After a short anchorage in İstanbul for partial scientific crew exchange, the second leg was devoted to mapping (CHIRP and Multibeam) of İzmit Gulf, including MCS, and to the collection of gravity, piston and sediment/water cores in İzmit , Çinarcik , Prince Islands and Ganos. Three ROV inspections were performed on the fault area W of the Hersek Peninsula, on the rupture of the 1999 earthquake in the Golcuk Bay, and on the Ganos fault. After a transit of 6 hours from Ganos, the ship anchored in Cannakale June 16th in the morning, disembarked part of the scientific crew and departed 10:00, heading to Ravenna through the Dardanelles and Corinth Straits, where it docked June 20th, 12:00.

3 MATERIALS AND METHODS

The cruise was conducted with CNR R/V Urania (Fig.6), a 63m long vessel operated by SO.PRO.MAR.(the technical specs are presented in Appendix 6).

Figure 6: R/V Urania

3.1 POSITIONING AND NAVIGATION

The Positioning system NAVPRO V5.6 by Communication Technology (Cesena, Italy) was used. The instrumental offsets are presented in Fig. 7 and in Tab. 3.1. The integrated system used a Microtecnica and a Meridian Surveyor SG-BROWN (see below) Gyrocompasses,and a Trimble 4000 Differential Locator, with a DGPS Satellite link by FUGRO. The datum was WGS84 and the Direct Mercator projection on 41 30.00'N was chosen for navigation and display. Timing was set to UTC. The acquisition rate was set to 10 secs. The SBP-CHIRP workstation received the 'VESSEL(0,0)' positions by the NAVPRO serial output. These positions were therefore recorded on the SEGY trace headers. The speed of Sound for DEPTH 1 and 2 was set to 1500m/sec, with a transducer immersion of 3.8m. The NAVPRO computer interfaced also an ANDERAA metereological station and a Conductivity/Temperature sensor on the keel (depth of 3.5m), whose data were collected at the same rate of above.

WHERE	ALONG	ACROSS	RANGE	BEARING
POS 1	4.80	1.40	5.0	16.26
VESSEL (POS 2)	0	0	0	0
ECHO SOUNDER 33	5.50	1.85	5.80	18.59
CHIRP	-5.50	-0.95	5.58	189.80
CORER	-14.20	7.0	15.83	153.76
STERN	-46.6	-1.40	46.62	189.80
GI-GUN	-65.0	5.0		
S15	-53.0	5.0		
FIRST ACTIVE	-177.5	0.0		
MAG	-230.0	-5.0		
MBEAM	5.30	0		

Table 3: Instrumental Offsets on Ship Urania. Point (VESSEL,(0,0)) is located on the axis of the mast just behind the Command Bridge. The main GPS antenna (primary positioning system is located on point POS1.

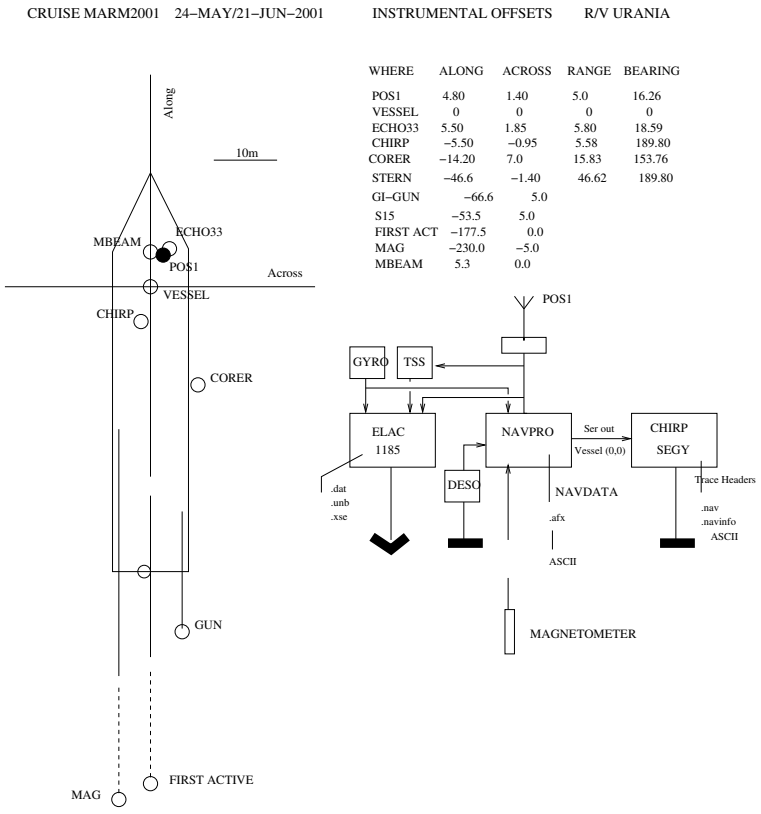

Figure 7: Instrumental Offsets on R/V Urania

3.2 MULTIBEAM

We collected morphobathymetric data with ELAC/SEABEAM 1180 multibeam (Fig.8 and 9). The transducers were positioned on a V shaped frame (Fig. 10,11) that was secured by a diver on two T frame displaced 50 cm each apart of the central line on the hull of the ship, between construction frames N. 65 and 66. The setting of the system employed also a Meridian Surveyor SG-BROWN (Fig.12) gyrocompass, who was lined up parallel to the central line of the ship and a TSS Mod. xxx MRU. This latter was interfaced to the Trimble DGPS and to the gyrocompass. The real-time acquisition were performed by an ELAC's Hydrostar software (version 4.xx) on a dual-PIII workstation running the NT O.S.. The system was directly interfaced to the DGPS, the TSS and to the Gyrocompass. The Sound Velocity data were taken by the Sea Bird SBE-11 PLUS (Fig.13) profiler, and input to the system after reformatting the file provided by the SBE software. The onboard processing was done by LDEO's MB-SYSTEM [15] on a GNU-LINUX workstations.

The TSS was calibrated after a 15 minutes acquisition with ship running 5 KN in calm sea. After the statistical procedure included on the TSS software, the values found where:

- Roll Mount: +0.109 degrees
- Pitch Mount: -0.459 degrees

The offsets of the multibeam (respect to POS1, see Tab.3.1) were input on the Hydrostar Software. Table 4 reports the data (file Ships Parameter) according to ELAC's sign conventions (positive directions are X: port Y:ahead Z: down):

The draught of the ship varied with the bunker consumption as shown on Table 5.

.TXPOS_P_X = 0.30	.TXPOS_P_Y = 0.00	.TXPOS_P_Z = 4.20
.TXPOS_P_X = -0.30	.TXPOS_P_Y = 0.00	.TXPOS_P_Z = 4.20
.TXOFF_P_ROLL = -0.03	.TXOFF_S_ROLL = 0.09	
.TXOFF_P_PITCH = 0.00	.TXOFF_S_PITCH = 0.00	
.TXOFF_P_YAW = 0.00	.TXOFF_S_YAW = 0.00	
.HRPPOS_X = -0.70	.HRPPOS_Y = -0.80	.HRPPOS_Z = 2.50
.HRPOFF_ROLL = 0.00	.HRPOFF_PITCH = 0.00	.HRPOFF_HEAVE = 0.00
.NAVPOS_X = -2.00	.NAVPOS_Y = -0.50	.NAVPOS_Z = 0.00
.REFPOS_X = 0.00	.REFPOS_Y = 0.00	.REFPOS_Z = 0.00
.NAV_DELAY = 0.00	.GYRO_OFFSET = 0.00	

Table 4: Data input to the HYDROSTAR program for Multibeam georeferencing.

DATE	STERN	BOW	TSS PITCH	TSS ROLL
2001-05-24	3.85	4.10		
2001-06-07			-2.75	
2001-06-15	3.80	3.60		
2001-06-20			-4.70	-2.60

Table 5: Draught data and TSS average measurements on calm sea.

Figure 8: The ELAC 1180 BCC transceiver box.

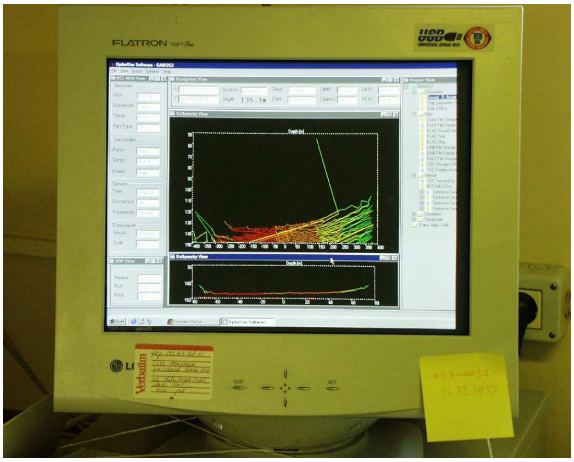

Figure 9: The ELAC 1180 console.

Figure 10: The ELAC/SEABEAM 1180 Transducers mounted on the frame (built by TAINOX) after recovery in Ravenna

Figure 11: The ELAC/SEABEAM 1180 transducers being recovered in Ravenna by the MC Staff.

Figure 12: The Meridian Surveyor SG-BROWN with ship docked in Ravenna end of the Cruise. The topographically calculated heading was 58 degrees.

Figure 13: The SEA BIRD SBE probe.

The multibeam data from the ELAC 1180 sonar were recorded on HD on the system's consoles. The recording format were the ELAC (.dat,.inf), the XSE and the UNB. In addition to this, they were also put on a separate computer for backup on HD and DAT tapes. This latter computer served the data on an NFS backbone to the two processing computers, that ran MB-SYSTEM and the ELAC HDP PostProcessing Software. The first data processing on board used MB-SYSTEM. A total reprocessing will be done using MB-SYSTEM, GMT and IFREMER'S CARAIBES.

CALIBRATION

The 1180 was calibrated (roll) 26-MAY-2001 at the entrance of the Gulf of Corinth.

The area is shown in Fig.14, see also Tab.6..

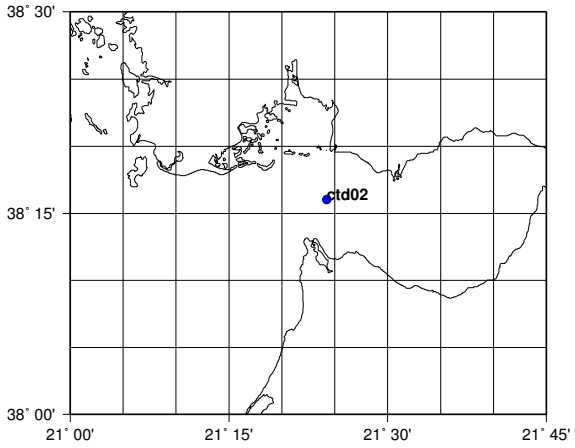

Figure 14: Multibeam calibration areas.

1180	MARM2001
roll offset	0.51 deg

Table 6: Multibeam calibrations.

SOUND VELOCITY ANALYSIS

During the Multibeam acquisition we performed several CTD measurements. The position of the stations are shown in Fig. 5 and are reported in Table 7.

STATION	DATE	LAT	LON	DEPTH
STAZ1	2001-05-25	4246.990	1507.140	173.0
ctd02	2001-05-27	3816.030	2124.240	79.5
ctd03	2001-05-29	3955.200	2557.720	67.8
ctd04	2001-05-29	4047.050	2724.610	600.0
ctd06	2001-06-01	4044.260	2943.160	75.0
ctd07	2001-06-01	4044.810	2935.770	74.0
ctd08	2001-06-02	4044.830	2932.650	57.0
ctd09	2001-06-03	4042.960	2934.900	141.0
ctd10	2001-06-03	4043.970	2922.860	211.4
ctd11	2001-06-05	4032.320	2840.650	85.0
ctd12	2001-06-06	4050.720	2834.070	356.9
ctd13	2001-06-08	4044.010	2919.670	392.1
ctd14	2001-06-09	4043.850	2941.460	206.9
CTD15	2001-06-12	4044.880	2939.360	113.7
CTD16	2001-06-12	4043.768	2953.580	33.6
ctd17	2001-06-14	4050.173	2904.055	92.6
CTD18	2001-06-14	4045.820	2722.870	274.3
E01_01	2001-06-16	3859.060	2452.061	1037.0
k05_01	2001-06-16	3954.999	2544.994	83.0

Table 7: MARM2001 CTD Locations.

The whole data are presented in Figs. 15 and 16. The SV profiles were used for real-time acquisition and post-processing.

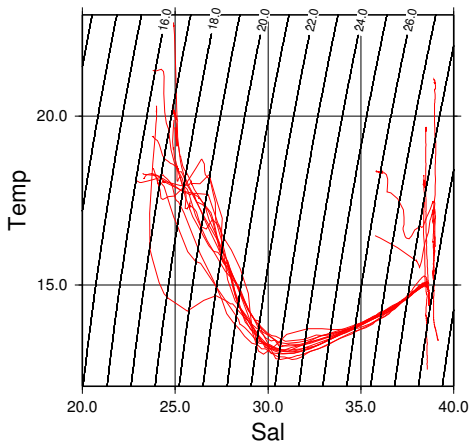

Figure 15: T/S diagram of the whole data sample.

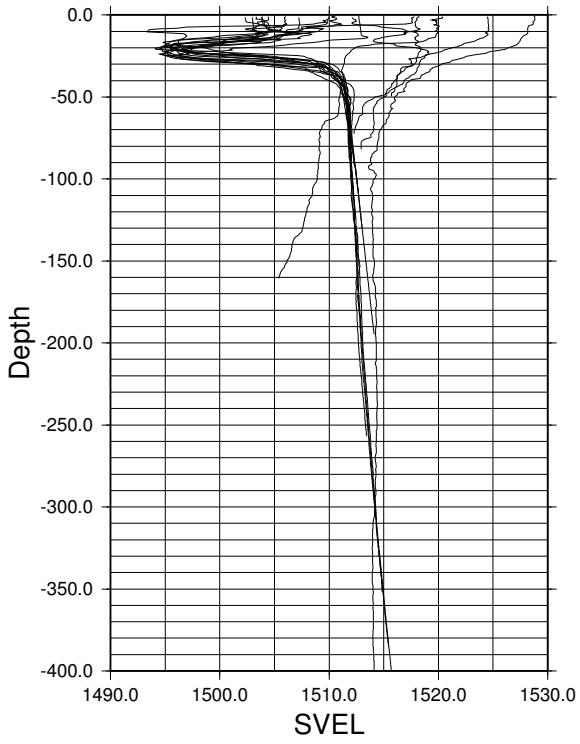

Figure 16: Sound Velocity Profiles of the whole data sample.

3.3 CHIRP SBP

SBP data was acquired by the 16 transducers, hull mounted DATASONICS Mod.CAP-6600 CHIRP-II profiler, with operating frequencies ranging 2-7 KHz. The analog sections were printed in real time on an 22" EPC recorder. The digital data were recorded in the SEG-Y format on MO removable disks and backup on HD, DAT tapes and CD-ROM.

The navigation data were made available to the system by NAVPRO as VESSEL (0,0) at a rate of aproximately 0.5hz. The position data were recovered from the SEG-Y trace data files with an appropriate software (see Appendix 5). For the sake of achieving the maximum accuracies, the data must be converted to the CHIRP position (see Tab.3.1).

3.4 MULTICHANNEL SEISMIC

We employed high resolution Multichannel Seismic (Fig. 17 to 20) using the GI-GUN (in the 45+45 c.i. Harmonic configuration) and S15 pneumatic sources by SODERA/SSI, powered by a 2500 L/Min electrically driven BAUER air compressor. The seismic data were collected by a MOD.29500 TELEDYNE 24 channel streamer (Fig.18) and digitized and recorded on DAT tapes by a GEOMETRICS's STRATAVISOR seismograph in the SEG-D 8048/Revision 0 format. The group interval was of 12.5m for a total active length of 300m. The 150m tow leader and two 50 m stretch sections made up the streamer to a total length of 550m. The seismic sources were fired by IGM's gun-control equipment [9](Fig. 21). Shot distances were 6.25 (S15) and 12.5 (GI-GUN), thus achieving coverages of 2400 and 1200%. The depth of the source was at 1.5m and 3m for the S15 and the GI-GUN, respctively. The streamer was kept at 6m and 12m depth (S15 and GI-GUN) with SYNTRON RCL-2 cable-levelers, using a Teledyne Mod. 28951 Depth Control System.

Figure 17: The Multichannel Seismic System deployed.

Figure 18: The 24 Channel TELEDYNE streamer. See also the SYNTRON RCL-2 cable leveler.

Figure 19: The SODERA/SSI GI-GUN.

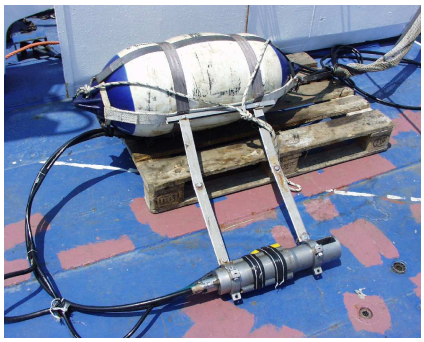

Figure 20: The SODERA/SSI S15 Watergun.

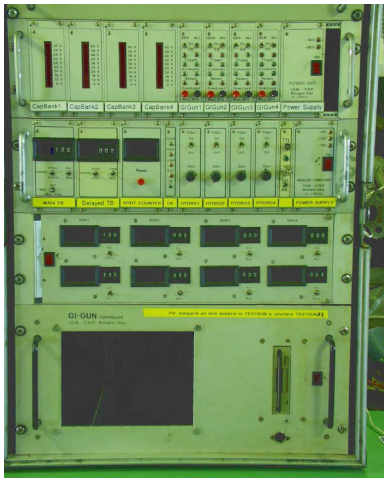

Figure 21: The IGM Gun Synchronizer [9].

3.5 MAGNETICS

On some of the lines we towed a "handheld" (Fig.22) Mod. GSM-19D magnetometer by GEM Systems. The data were directly interfaced to NAVPRO, therefore available on the navigation files with the POS1 position (see Tab. 3.1 for the offsets).

Figure 22: The Mod. GSM-19D magnetometer by GEM

3.6 SEA BOTTOM SAMPLING

The sea bottom was sampled with IGM's 1.2T gravity [12] (Fig.23) and a 1.5T Piston corers (Fig. 24 and 25), capable to be armed up to lengths of 10 and 20 M, respectively. IGM's Mod. SW104 [11](Fig.26 and 27) sediment/water corer was used also for collecting some key, undisturbed sections of the youngest sedimentary layers.. The type of the corers, including the choice of different pipe lenghts (2-3-4-6 M) and the gravity or bottom-triggered free-fall, varied upon the different sub-bottom conditions as depicted by site survey data. The velocity of descent of the corers ranged between 0.4 and 1.0 m/sec.

Figure 23: The IGM's 1.2Tons. Gravity Corer.

Almost 2/3 of the collected cores passed through a GEOTEK Multi Sensor Core logger, for the measurement of physical properties of the sediment (density, P-wave velocity, etc.).

Four cores (IM02, IM03, IM05, PI40) were opened on board for description, photographs and preliminary analyses for lithology and fauna (Fig. 28). Core IM02 was sampled by the turkish colleageues. The cores IM02 and IM05 were sampled every 5 and 10 cm respectively.

The cores were stored on board in a refrigerated container (15 degrees) and were put into IGM's Core Repository at 4 Degrees upon arrival in Bologna.

Figure 24: The IGM's Piston Gravity Corer with Free-Fall Trigger.

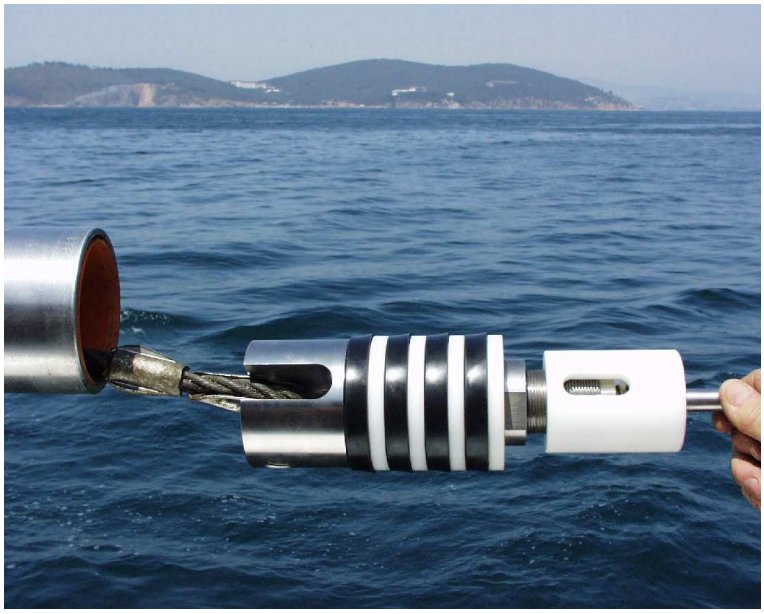

Figure 25: The NIOZ Piston used on some cores.

Figure 26: The IGM's Sediment/water SW104 corer.

Figure 27: The IGM's Sediment/water SW104 corer.

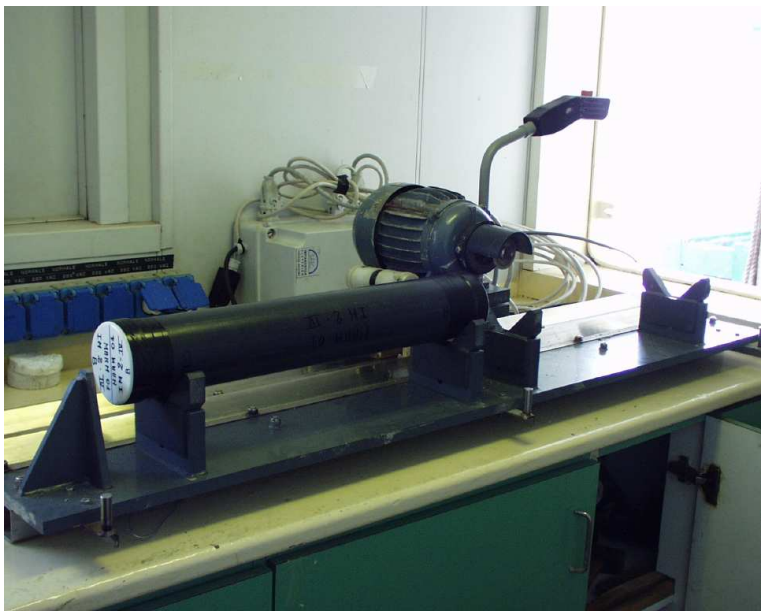

Figure 28: The IGM's Core cutting equipment.

3.7 MULTISENSOR CORE LOGGER

The Geotech Model 36 multisensor core logger (MSCL) of OGS (Fig. 29), is an automated, non-destructive system for acquisition of physical and acoustical properties on full and split sediment cores. The MSCL can log bulk density, magnetic susceptibility, P-wave velocity. Furthermore from the combination of these different parameters it is possible to obtain the fractional porosity, mass susceptibility, and the acoustic impedence, therefore constructing synthetic seismograms. The data acquisition is software controlled, and the data are automatically correlated.

Figure 29: The OGS's MSCL by GEOTEK.

Bulk Density

The gamma ray log is used to determine the bulk density for known grain density and porosities. A gamma ray source and a detector are mounted vertically across the core on a sensor stand that aligns them with the centre of the core. A narrow beam of gamma rays (photons emitted from the nucleus) is produced from a Cesium 137 source with energies centered principally at 0.662 Mev. These photons pass through the core and are detected on the other side. At this energy level the primary mechanism for the attenuation of gamma rays is by Compton scattering. The incident photons are scattered by electrons with a partial energy loss. The attenuation, therefore, is directly related to the number of electrons in the gamma ray beam (core thickness and electron density). By measuring the number of unscattered gamma photons that pass through the core unattenuated, the density of core material can be determined. To differentiate between scattered and unscattered photons the gamma detector system only counts those photons that have the same principal energy of the source. Conversion from counted gamma rays and bulk density is done through an equation with experimental parameters deduced during the calibration using a known density core (water and aluminium). The gamma beam is collimated through the choice of 2 collimators (5 and 2.5 mm diameter). Table 8 shows the diameter of the beam of gamma ray at the surface of the core.

Collimator	Vertical Beam	Horizontal Beam
2.5 mm	7.5 mm	5.0 mm
5.0 mm	15.0 mm	10.0 mm

Table 8: MSCL Collimators.

Magnetic Susceptibility

The magnetic susceptibility can be used for stratigraphic correlations between cores and in the frequency analyses of temporal series to detect sedimentary cycles. The magnetic susceptibility (k) measures the capability of the material to become magnetized and to produce a noise in the inducing fields. Knowing the magnetic susceptibility k (adimensional) and the density, is it possible to determine the mass susceptibility. Minerals could be diamagnetic (k ¡¡ 0), paramagnetic (k ¿¿ 0) or ironmagnetic (k ¿¿¿¿ 0). Paramagnetic mineral are iron and nickel, iron magnetic are the iron oxides (magnetite, hematite, ilmenite, maglemite) hydroxides (limonite, goethite) and sulfurs (pyrite). For measuring the magnetic susceptibiliy a Bartington loop sensor, for full core, with 3 cms of horizontal resolution is used. It measures the value through all the core section.

P-wave Velocity

A system consisting of two rolling transducers, one transmitter and one receiver, is mounted. The active element is a piezoelectric crystal mounted on the central spindle of the rolling transducer, surrounded by castor-oil filled encapsulated in a soft epoxy sheath. This configuration provides a good acoustic coupling between the transducer and the core. A short P-wave pulse is produced at the transmitter at about 230 Kh, that propagates through the cores and is detected by the receiver. The distance traveled is measured as the outside core diameter. A temperature correction is done for the processing of the P-Wave velocities. Using velocity and bulk density it is possible to estimate the acoustic impedance and provide a synthetic seismogram for seismic correlation.

Logging and Processing Procedures

The setting used for full cores was sampling in the horizontal plane to reduce the possibility to sample through the bubble of air or water that can be present on the top of the sediment. Horizontal sampling interval was 1 centimeter, the gamma ray beam had an average diameter of 1 cm on the cores and sampling time was 20 seconds. A sampling time of 10 seconds was used for the Magnetic Susceptibility .

Processing of the data considered the following procedures:

- Bulk Density: four calibrations were done, three for gravity cores, one for the piston core;
- P-Wave velocity: two different kind of processing were performed;
  - the first processing considers in situ conditions like depth of the core, temperature and salinity of the water at the sea floor at the depth of the core sampling, provided by nearest CTD measurements acquired during the survey. P-wave velocity processed with in situ conditions is used to calculate acoustic impedance.

  - the P-wave velocity processing was performed using laboratory conditions with temperature of 20 C, depth = 0 and salinity = 0. P-wave velocity at laboratory conditions is processed to obtain comparable data.

- Volume Magnetic Susceptibility has been corrected for the loop sensor diameter (10 cm or 12,5 cm) and the sediment thickness. Furthermore, Mass Magnetic Susceptibility (Volume Magnetic Susceptibility/Bulk Density) has been calculated.

3.8 ROV

Site inspections were done with the ROV ACHILLE by COMIX, provided by GEI of Castelvecchio Pascoli. See it in Figs. 30 and 31.

Figure 30: The ACHILLE ROV privide by GEI.

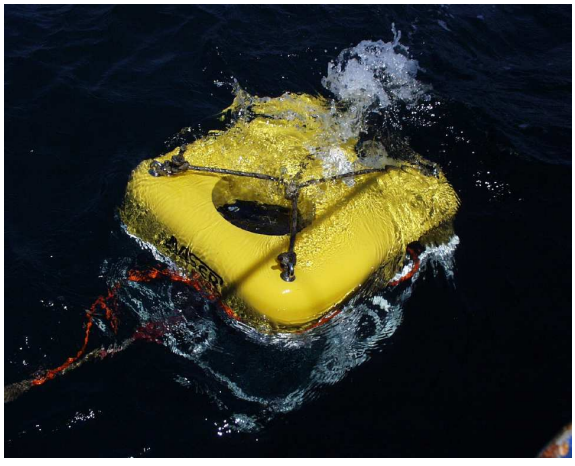

Figure 31: The ACHILLE ROV provided by GEI.

3.9 VARIUOS

The positioning maps and bathymetric images were done with GMT [14]. The multibeam data were processed by MB-SYSTEM [15].

The computing center used three INTEL based PC running the SUSE and RedHat GNU-Linux O.S. and two SUN workstation running SOLARIS 8. One of the LINUX boxes served an NFS disk for the CHIRP and MULTIBEAM data, whilst the other were used for processing. The hosts were networked using 3COM 10/100 and 10 Mb hubs. The maps were plot on the onboard HP A4/A3/A0 deskjet printers.

Photographs and videos were taken by an Olympus Camedia Mod. C2005L and by a SONY Mod. PC5 camera.

4 RESULTS AND DISCUSSION

In this section we will present the data acquired and some very preliminary processing, with the aim of showing their quality and of addressing their potential and importance in the whole processing sequence. As explained in Chapter 3, during the SBP, MULTIBEAM and MCS runs, other than in transit, we acquired (a) bathymetric data with a DESO 25 single beam echosounder @1500m/sec, (b) magnetics and (c) conductivity/temperature at 3.5m water depth.

Fig.32 shows the pattern of the multibeam and SBP lines that were run during the 19 days of operation in the area, up to a total mileage of roughly 2250 KM. Figures 61 to 60 in Appendix 4 give details of the investigated areas, including the coring, CTD and ROV stations.

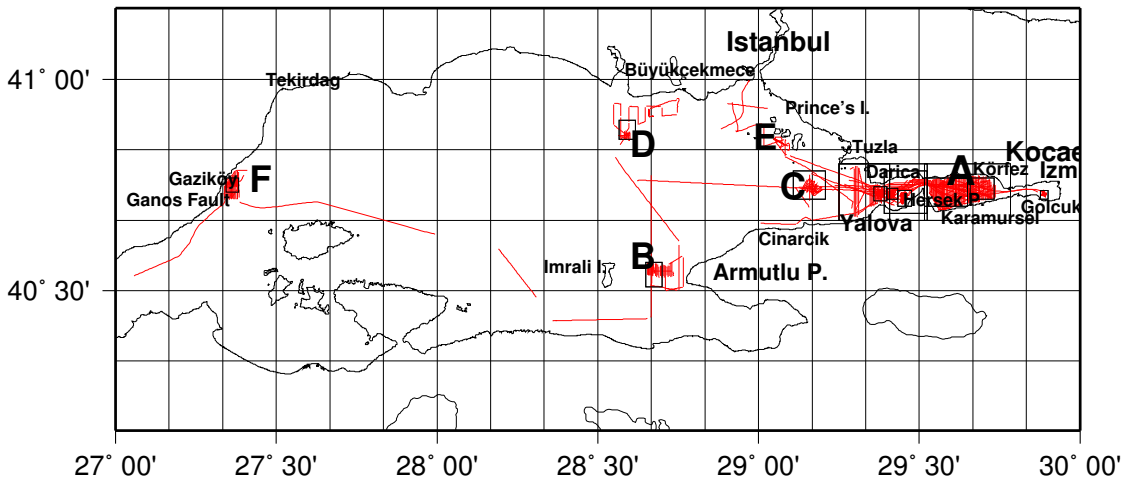

Figure 32: Work Areas and Multibeam,SBP track lines.

4.1 SINGLE BEAM ECHOSUNDER

The single beam data can be used for quick data presentation, calibration and test. We gridded the data and produced shaded relief and contour maps. Fig. 33 shows the data acquired in the Central Izmit Basin. The unfiltered raw data were gridded with an interval of 0.025 Nm, and the resulting grid was just filtered with a BoxCar of length 125m. Some errors in the digitazion process are evident, however the general quality of the data is good.

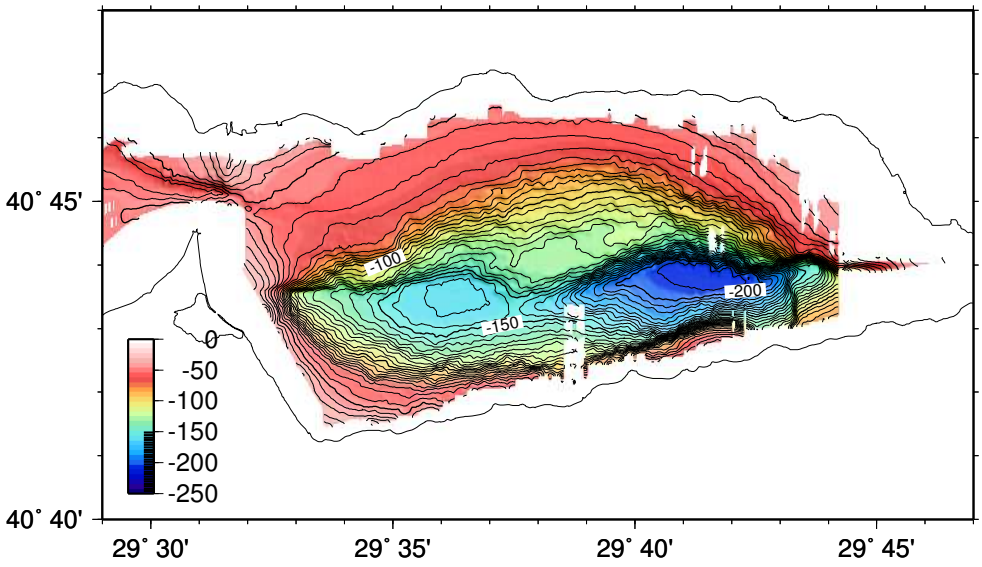

Figure 33: The DESO 25 data gridded 0.025Nm and BoxCar filtered 125m.

4.2 MAGNETICS

Tha magnetic data were acquired primarily during the SBP and MULTIBEAM runs. We had some difficulty in data acquisition during heavy traffic conditions and when approaching the coastline, when we were forced to partially or fully recover the instrument. This was noted on the Observer's Log and will help in final processing sequence. As shown in Fig. 34, the data depicts clearly the (mostly day/night) variations of the signal along the lines and call for the corrections with the İstanbul Observatory data. The crude processing of the raw data, however, show that tha quality of the data is rather good.

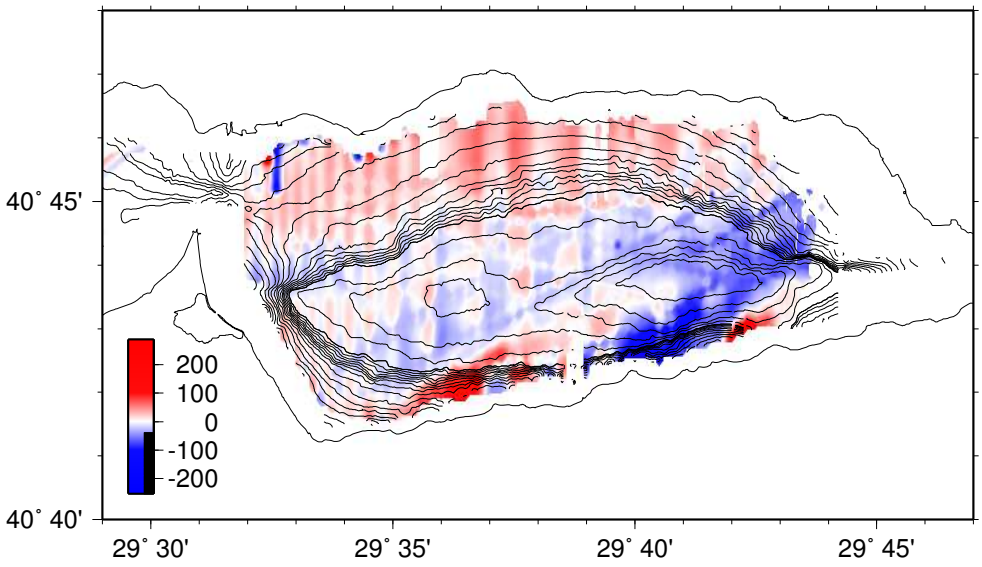

Figure 34: The GEM GSM19D data gridded 0.025Nm and BoxCar filtered 250m.

4.3 SOUND VELOCITY DATA

The Conductivity/Temperature sensor at 3.5 water depth can provide us with very useful data for the modelling of the properties of the upper layer of the water column. Since we noticed that a very high variability is present, expecially eastwardly, and even southwardly on the Izmit Gulf, these data, combined with the CTD casts will be used for the possible construction of synthetic Sound Velocity Profiles for a better Multibeam Data Processing.

We show the Sound Velocity data, calculated according to the WHOI formulas, in the Central Izmit Gulf. Fig. 35 results from the gridding of the data collected before 2001-06-07 (end first leg), whereas Fig. 36 shows the data after 2001-06-07 (second leg). It appears that after the first leg the oceanographic conditions in the basin changed, even taking into account that the the depth of the sensor changed, due to the different draught. More interestingly, Fig. 37, which results from data that are more synoptical that those of Fig. 38, shows that fresher waters are pushed toward the Hersek Peninsula, with a sharp front in the middle of the basin. This analysis will have interesting implications for both the present survey multibeam data processing and oceanographical studies.

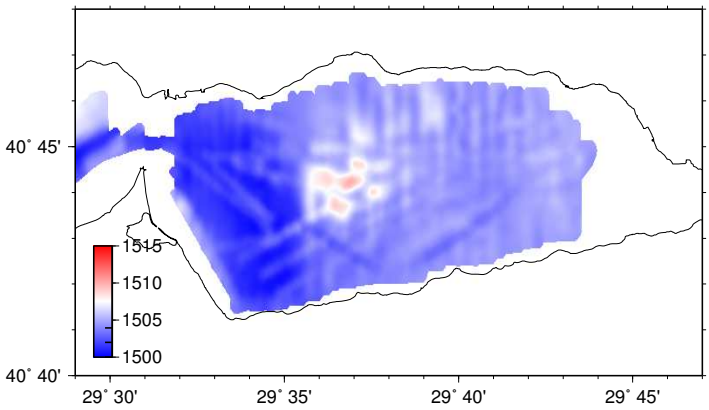

Figure 35: Sound Velocity data from the Conductivity/Temperature sensor on the keel. Data gridded 0.025Nm and BoxCar filtered 500m. First Leg, before 2001-06-07.

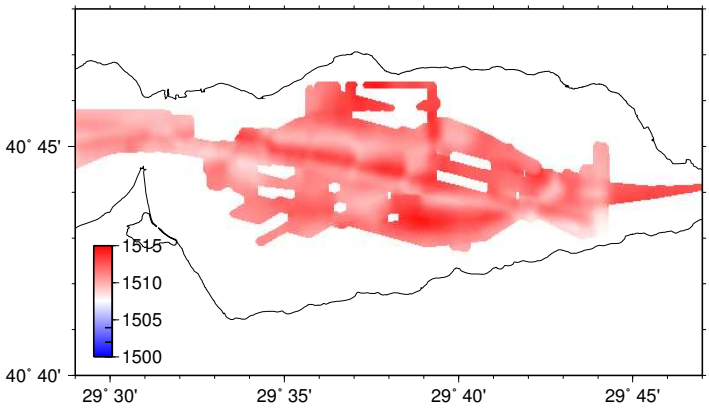

Figure 36: Sound Velocity Data from the Conductivity/Temperature sensor on the keel. Data gridded 0.025Nm and BoxCar filtered 500m. Second Leg, after 2001-06-07.

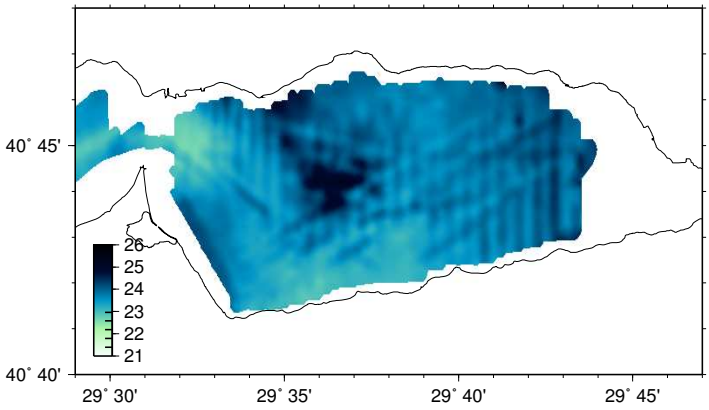

Figure 37: Salinity data from the Conductivity/Temperature sensor on the keel. Data gridded 0.025Nm and BoxCar filtered 500m. First Leg, before 2001-06-07.

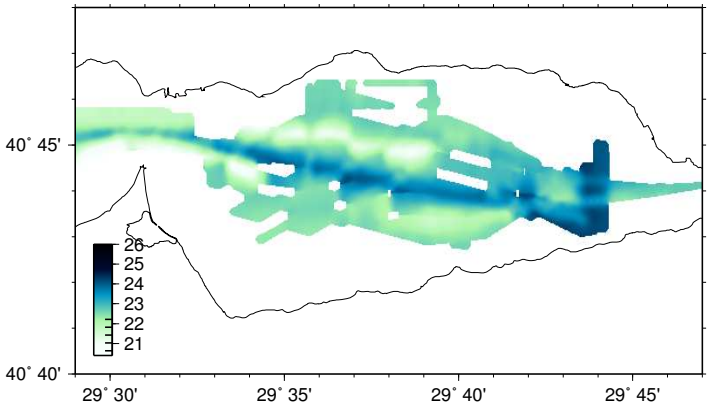

Figure 38: Salinity data from the Conductivity/Temperature sensor on the keel. Data gridded 0.025Nm and BoxCar filtered 500m. Second Leg, after 2001-06-07.

4.4 DATA INTEGRATION AND DATUM CHANGE

During the two surveys with R/V Odin Finder and R/V Urania we collected data with the WGS84 datum. SHOD of the Turkish Navy, in contrast, collected their data with the ED50 datum. Tab. 9 shows the seven parameters for the Helmert's datum shift from ED50 to WGS84.

T(x,y,z)	-84.003	-102.31	-129.87
S	1.00000103470		
R(x,y,z)	0.0183	-0.0003	0.4738

Table 9: Seven Parameter datum shift parameters (ED50 to WGS84)

This datum shift was applied to the coastline data provided by SHOD in the İzmit area, and will be used for the integration of the bathymetric data sets with SHOD or other available data.

All the maps produced for the Izmit Area, that can be seen further on in Appendix have the ED50 coastline data (provided by TÜBİTAK and SHODB) transformed to WGS84 and plotted. As and example we can show the data collected in the eastern tip of the Izmit Gulf just facing Golcuk. Fig. 59 have the present cruise Multibeam data and the contours from the SHODB multibeam data collected just after the Kocaeli earthquake of 2001-08-17.

4.5 MULTIBEAM

The Multibeam (in the XSE, UNB and ELAC formats) data were collected simultaneously with the CHIRP data, therefore its navigation pattern closely resembles this latter one. Appendix 3 reports the listing of the files that were acquired (output of MB-SYSTEM's mbinfo and mblist, using the XSE format).

A partial data processing was done on board with the MB-SYSTEM software.

4.6 SBP - SSS

We collected a very dense grid of SBP and SSS lines, with quality ranging from good to very good, with penetration up to 50-75m.

Figures 61 to 60 of Chapter **??** show the lines run in the surveyed area. Fig.39 shows an example of an acquired CHIRP line.

The profiler clearly imaged the post-glacial Holocene (12000Y to present) sediment cover and a complex geometry of buried erosional surfaces. Resolution of bedding at less than 1 meter spacing was achieved for most of the survey, even at depths greater than 1200m in the Çinarcik basin.

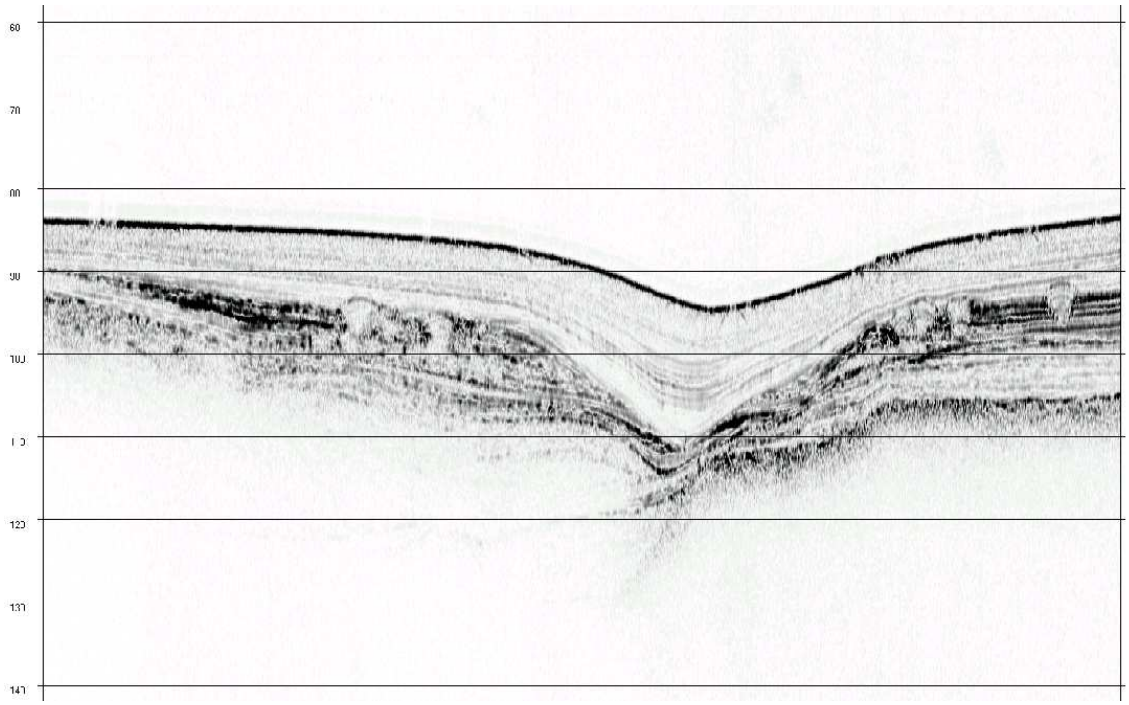

Figure 39: Example of a IGM's SEISPRO processed CHIRP line crossing the Bosphorus.

4.7 MULTICHANNEL SEISMIC

The MCS survey was run succesfully in the İmrali I. area and in the İzmit Gulf. This last survey presented some problems due to ship traffic and to the short distance for manouvering. Figs. 40 and 41 show the neartrace of two lines run in İzmit .

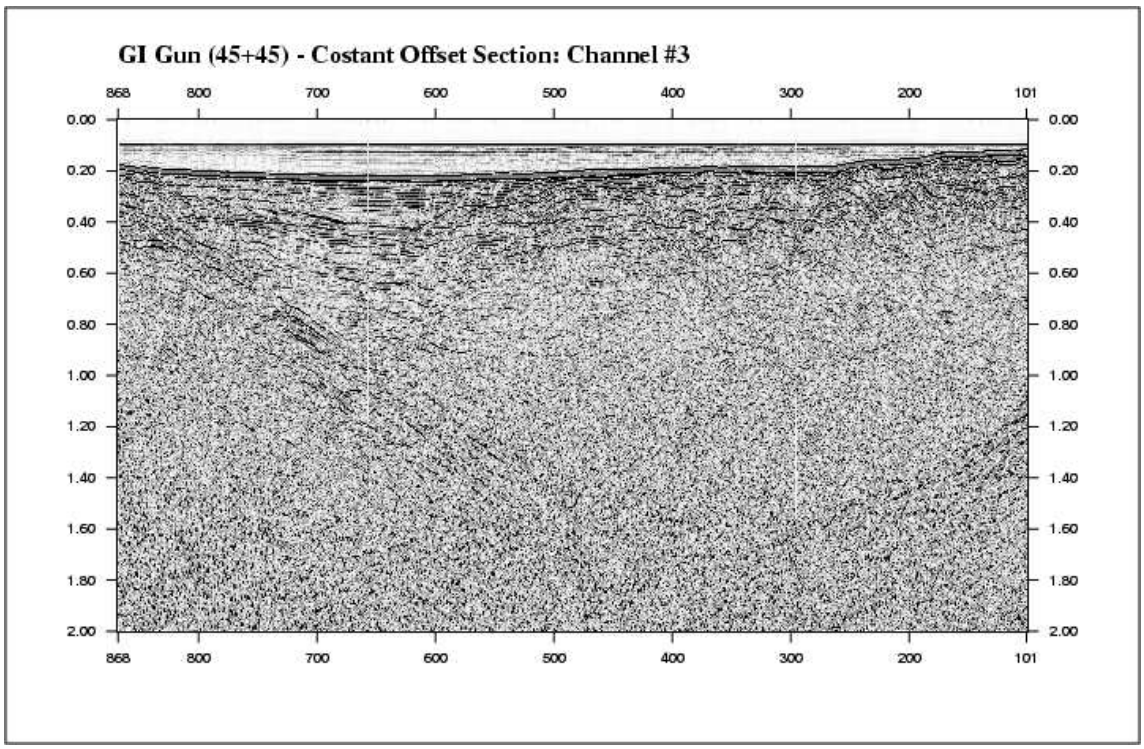

Figure 40: Example of a MCS line run with the 45+45 GI-GUN.

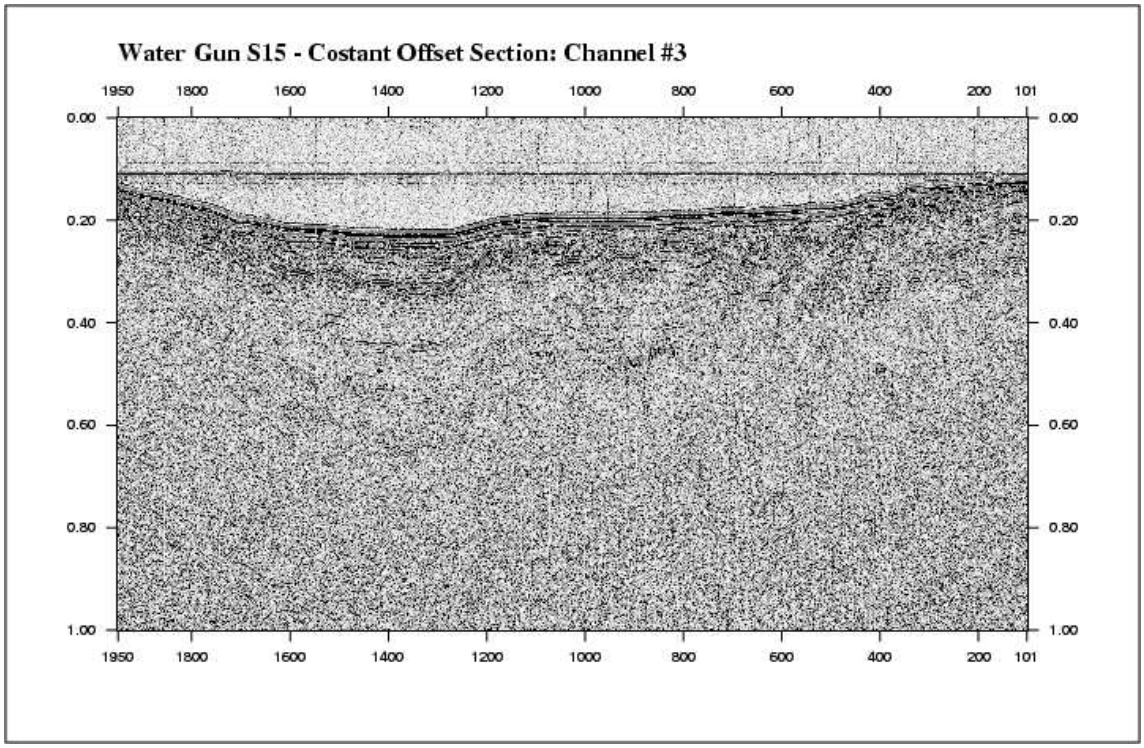

Figure 41: Example of a MCS line run with the S15.

4.8 SEA BOTTOM SAMPLING

Sea bottom sampling was performed on 50 stations, using gravity, piston and Sediment/Water corer (see section 3) in all the survey areas. Some of them were replicated for storage in İstanbul . The coordinates and other data are reported in Tables 10 and 11 of Appendix 1. We can report two empty cores for the SW104 corer and one gravity core that did not penetrate. One pipe was bent and cut.

CORE LOGGING

A number of 37 of the collected cores passed trough the MSCL of OGS. Fig. 42 presents the results obtained on one of the gravity cores.

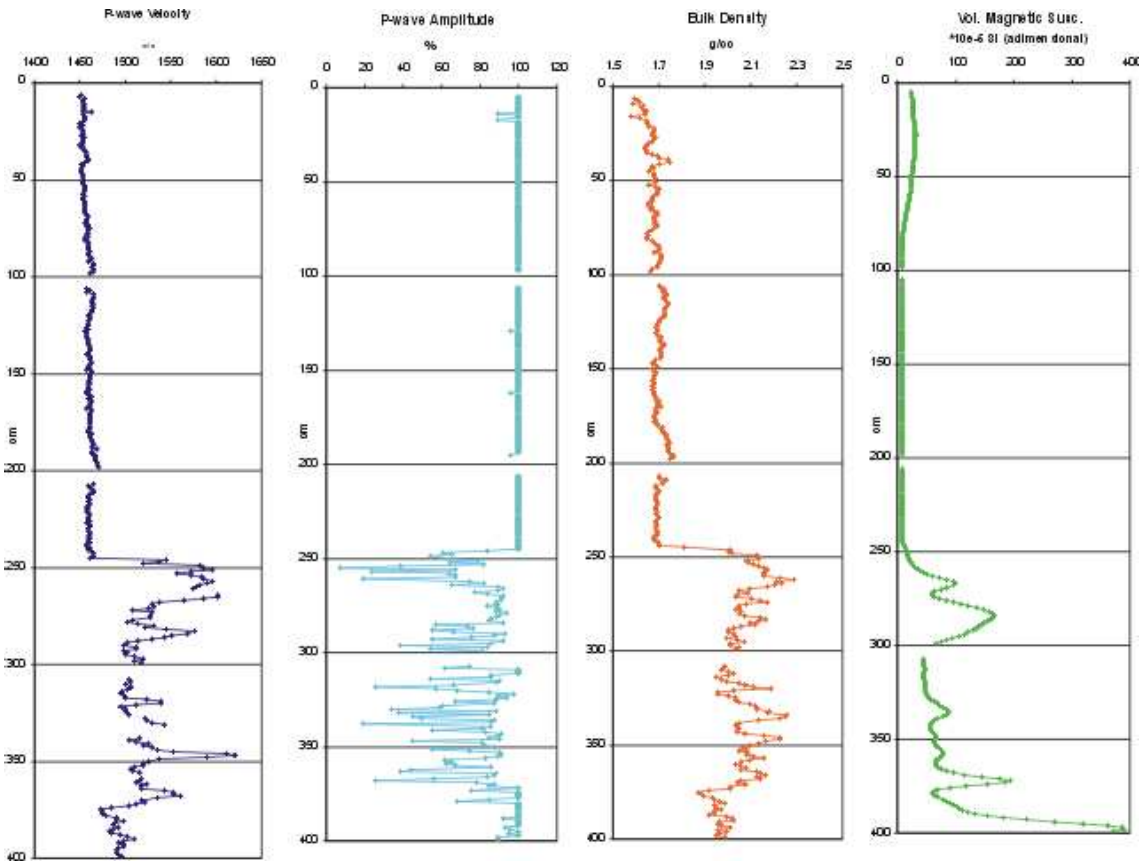

Figure 42: Core logger results from the measurement of one of the collected gravity cores.

DESCRIPTION AND SAMPLING

Three gravity cores (IM02bis, IM03, IM05) and one piston core (PI40) were split, photographed and described. The digital photos were recorded every 30 cm for all core sections. Core descriptions were entered on standard forms provided by the IGM Institute and the format for description (lithology, accessories, and contacts) followed the Ocean Drilling Program standard procedures.

The size fraction of the core catchers greater than 63 micron was preliminarly studied for sediment and faunal assemblage characterization. These observations permitted to

identify the environments of deposition and they were incorporated in the visual and graphic core descriptions.

Two gravity cores (IM03 and 05) collected for paleoseismological purposes were sampled for characterizing mass-wasting events, their timing and stratigraphy. Future analyses to be conducted include: core x-ray, grain size, calcium carbonate, organic carbon, bulk and clay mineralogy, oxygen and carbon isotopes, radiocarbon dating and biostratigraphy.

Fig. 43 shows one of the cores that were opened, described and sampled.

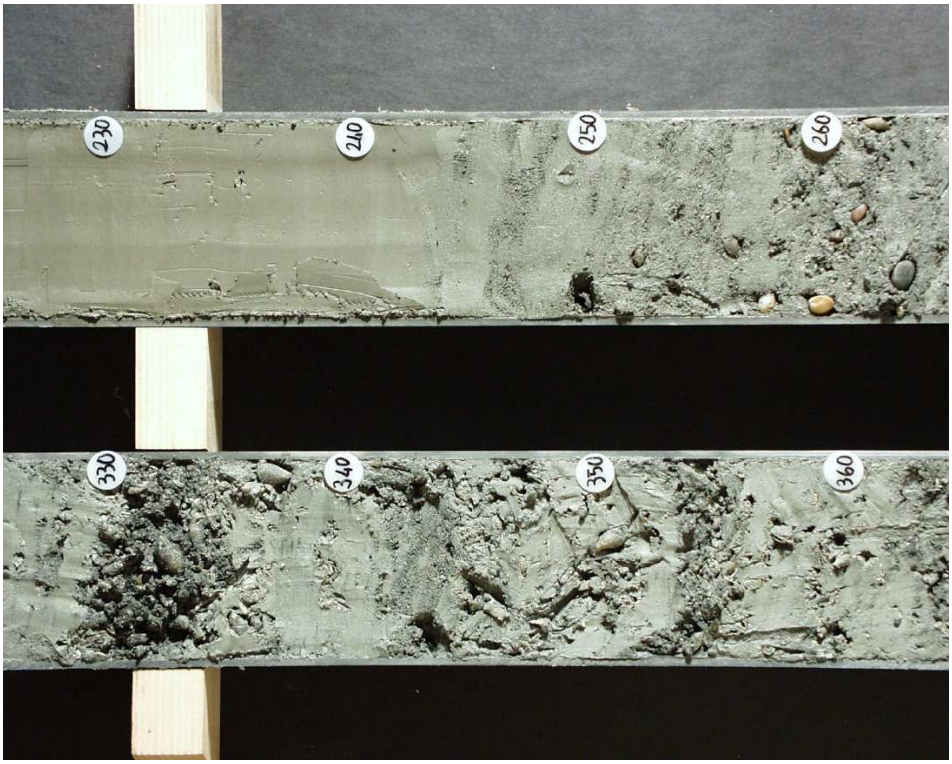

Figure 43: Core opened and photographed.

4.9 ROV INSPECTIONS

Fig. 44 to 46 show some of the frames captured during the dive in the Golguk Bay (data recorded on a MINI DV cassette and downloaded from the SONY videocamera).

Figure 44: ROV inspection in Golcuk.

Figure 45: ROV inspection in Golcuk.

Figure 46: ROV inspection in Golcuk.

5 ON-GOING DATA PROCESSING AND FUTURE PLANNING

The ELAC 1180 Multibeam data will be processed jointly al LDEO and at IGM We expect to produce DTMs that can be merged with the data acquired during cruise MARM2000 with the EM300 and EM3000 of R/V Odin Finder, and with the data available from SHOD.

CHIRP data were recorded in SEG-Y and will be processed at IGM by the IGM's SEISPRO software (Fig.47).

For selected core sections x-ray investigations will be carried out at IGM. Further Core Logging will be done at OGS on the cores that were not analyzed on board. Additional magnetic susceptibility measurements will also be done at IGM with IGM's instrumentation [13]. The Sediment/water cores will be logged, X-rayed and sampled for radionuclides analyses. We espect also to have the cores sampled and described in a short time.

The MCS data will pass a complete processing sequence up to the time migration. The magnetic data will be corrected for day/night variations and for possible storms using the closest magnetic observatory in the area. The whole data sets will provide the information for 2-D and 3-D bathymetric and structural maps and will be eventually finalized into a GIS.

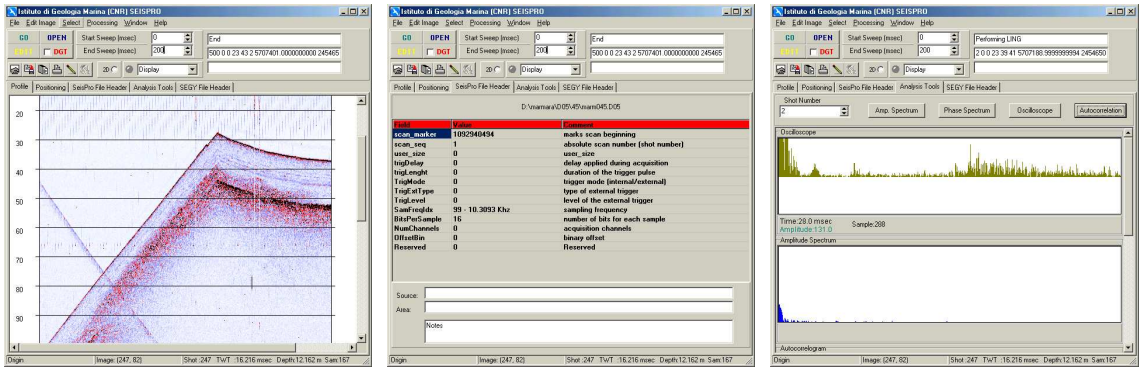

Figure 47: IGM's SEISPRO

6 CONCLUSIONS

During a 19 days cruise in the Sea of Marmara we obtained:

1 high resolution bathymetric images of the NAF and its surroundings

2 a detailed grid of high resolution CHIRP-SBP profiles to examine fault traces and offsets

3 a collection of cores, to date the strata deformed by the faults and identify deposits created during seabed ruptures and tremors.

We have established a data base of very accurate sea-bottom topography and shallow subbottom profiles over key portions of the Marmara Sea, including the İzmit Gulf, the continental shelf between Büyükçekmece and Bakirkoy, the shelf between the Prince Islands and Tuzla, the shelf East of the İmrali I. to Armutlu Peninsula, and the shelf and slope off Gaziköy that were ruptured by the 1912 earthquake.

No problem have to be reported about people and environment.

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1 CORING OPERATIONS

ID	POS1 GYRO CORER	DATE	TIME	DEP	TYPE
MARM01-IM01	4032.7593 2840.1326 326.9 4032.7523 2840.1433	2001-06-05	11:29:17	107.5	G
MARM01-IM02	4033.2994 2840.1412 347.9 4033.2900 2840.1479	2001-06-05	12:29:25	152.8	G
MARM01-IM02-BIS	4033.2994 2840.1412 347.9 4033.2900 2840.1479	2001-06-05	14:32:00	152.7	G
MARM01-IM03	4033.7407 2840.1473 3.7 4033.7303 2840.1504	2001-06-05	13:36:47	297.4	G
MARM01-IM04	4032.7124 2840.2966 359.2 4032.7022 2840.3007	2001-06-05	15:41:05	102.0	G
MARM01-IM05	4033.2845 2840.2434 5.3 4033.2740 2840.2461	2001-06-05	17:18:39	152.8	G
MARM01-IM06	4033.6691 2840.2938 327.1 4033.6621 2840.3044	2001-06-06	5:08:43	296.9	G
MARM01-IM07	4030.7271 2839.9893 326.0 4030.7203 2840.0001	2001-06-06	6:25:10	41.1	GT
MARM01-BU08	4052.2205 2835.7919 231.7 4052.2293 2835.8001	2001-06-06	11:50:27	396.7	G
MARM01-BU09	4052.0221 2835.7444 237.8 4052.0301 2835.7537	2001-06-06	12:45:19	378.5	G
MARM01-BU10	4052.2188 2835.3514 230.3 4052.2277 2835.3593	2001-06-06	13:43:00	380.4	G
MARM01-BU10-BIS	4052.2217 2835.3496 239.7 4052.2295 2835.3592	2001-06-06	14:40:26	380.9	G
MARM01-BU11	4052.0657 2835.2608 226.9 4052.0750 2835.2680	2001-06-06	15:53:59	362.9	G
MARM01-BU12	4051.6439 2834.9821 272.2 4051.6466 2834.9958	2001-06-06	17:23:32	328.0	G
MARM01- CI13	4044.6022 2906.9542 163.0 4044.6112 2906.9464	2001-06-09	9:49:32	1252.0	PI
MARM01- IZ14	4043.8464 2941.5102 84.3 4043.8424 2941.4972	2001-06-09	17:16:56	207.0	PI
MARM01- IZ15	4043.3828 2924.6475 270.9 4043.3857 2924.6610	2001-06-10	11:29:01	113.8	G
MARM01- IZ16	4043.5001 2924.6412 270.9 4043.5030 2924.6547	2001-06-10	12:15:17	113.3	G
MARM01- IZ17	4043.5672 2924.6397 262.8 4043.5715 2924.6526	2001-06-10	13:18:22	103.6	G
MARM01- IZ18	4043.5944 2924.6347 275.0 4043.5965 2924.6485	2001-06-10	14:11:03	103.6	G
MARM01- IZ19	4043.8047 2924.6317 254.6 4043.8103 2924.6437	2001-06-10	14:49:24	88.0	G
MARM01- IZ20	4043.9228 2924.7649 224.1 4043.9322 2924.7714	2001-06-10	15:58:52	83.6	G
MARM01- IZ21	4043.6300 2922.9496 273.7 4043.6323 2922.9633	2001-06-11	10:42:07	180.2	GT
MARM01- IZ22	4043.9168 2923.0873 257.6 4043.9219 2923.0996	2001-06-11	11:35:44	201.3	GT
MARM01- IZ23	4042.5464 2926.5828 258.9 4042.5513 2926.5953	2001-06-11	12:40:03	43.1	GT
MARM01- IZ24	4042.6273 2926.5892 283.1 4042.6279 2926.6032	2001-06-11	13:22:47	44.7	GT
MARM01- IZ25	4042.6638 2926.5892 264.0 4042.6678 2926.6022	2001-06-11	14:07:00	42.9	GT
MARM01- IZ26	4042.7447 2926.5861 261.5 4042.7492 2926.5988	2001-06-11	15:41:17	30.7	GT
MARM01-IZ27	4043.0625 2927.8944 120.0 4043.0650 2927.8807	2001-06-12	5:53:40	35.9	G
MARM01- IZ28	4043.0632 2927.8909 102.6 4043.0625 2927.8768	2001-06-12	6:19:00	36.2	SW
MARM01- IZ29	4043.4904 2928.0022 22.1 4043.4798 2928.0008	2001-06-12	6:47:47	46.2	G
MARM01- IZ30	4043.4904 2928.0022 22.1 4043.4798 2928.0008	2001-06-12	10:29:00	44.9	GT
MARM01- IZ31	4044.9003 2939.1048 216.5 4044.9104 2939.1096	2001-06-12	11:56:55	109.5	PI
MARM01- IZ32	4044.7781 2933.1938 292.6 4044.7770 2933.2078	2001-06-12	15:12:08	60.9	G
MARM01- IZ33	4043.3871 2936.9961 211.8 4043.3974 2936.9998	2001-06-12	15:56:11	160.0	G
MARM01- IZ34	4043.7345 2953.1426 276.2 4043.7364 2953.1565	2001-06-13	5:26:00	39.0	G
MARM01- IZ35	4044.7863 2940.9494 8.4 4044.7757 2940.9514	2001-06-13	7:00:00	102.0	GT
MARM01- IZ35-BIS	4044.7835 2940.9381 321.7 4044.7774 2940.9496	2001-06-13	8:24:50	102.4	G
MARM01- IZ36	4043.9995 2941.4801 291.3 4043.9986 2941.4941	2001-06-13	10:28:06	206.9	SW
MARM01- IZ37	4045.0109 2941.4681 308.6 4045.0069 2941.4811	2001-06-13	11:02:26	73.4	G
MARM01- IZ38	4044.7833 2933.2166 89.2 4044.7801 2933.2032	2001-06-14	5:23:01	60.7	G
MARM01- PI39	4050.2597 2904.0654 140.6 4050.2657 2904.0538	2001-06-14	9:44:05	91.9	G
MARM01- PI39-BIS	4050.2525 2904.0668 158.2 4050.2609 2904.0580	2001-06-14	10:17:19	92.0	G
MARM01- PI40	4051.0555 2903.2305 23.4 4051.0449 2903.2288	2001-06-14	13:02:21	89.7	PI
MARM01- PI41	4051.0555 2903.2305 23.4 4051.0449 2903.2288	2001-06-14	13:43:00	89.5	SW
MARM01 - GA42	4045.3308 2721.6682 116.0 4045.3326 2721.6544	2001-06-15	6:14:41	142.6	G
MARM01 - GA43	4045.4143 2721.6425 245.7 4045.4212 2721.6532	2001-06-15	7:22:21	138.0	G
MARM01 - GA44	4045.0282 2721.6385 272.3 4045.0308 2721.6521	2001-06-15	8:24:54	73.0	G
MARM01 - GA45	4045.3171 2721.6482 205.8 4045.3277 2721.6505	2001-06-15	9:02:48	142.6	SW
MARM01 - GA46	4045.1132 2720.8469 302.3 4045.1103 2720.8604	2001-06-15	10:37:00	63.3	G
MARM01 - GA47	4045.3939 2722.4146 303.5 4045.3908 2722.4281	2001-06-15	11:20:30	137.3	G
MARM01 - GA48	4045.3373 2721.6499 346.1 4045.3281 2721.6570	2001-06-15	14:03:01	142.6	PI
MARM01 - GA49	4045.4342 2721.6507 11.6 4045.4235 2721.6519	2001-06-15	15:27:55	138.0	SW
MARM01 - GA50	4045.1178 2720.8574 3.0 4045.1074 2720.8607	2001-06-15	17:47:07	64.7	SW

Table 10: MARM2001: core positioning data. Field TYP: G=Gravity, GT=gravity with trigger,PI=Piston,SW=Sediment/water

ID	TARGET	TYP	MOUNT	SEC	PEN	LEN	TEMP	SAL	WHERE
IM01	Identify/date earthquake events	G	1x4	3	3.70	2.52	14.80	38.59	BO
IM02	Identify/date earthquake events	G	1x6	4	6.80	3.52	14.80	38.59	ISTA
IM02-BIS	Identify/date earthquake events	G	1x6	4	6.85	3.88	14.80	38.59	BO
IM03	Identify/date earthquake events	G	1x6	4	7.10	3.36	14.80	38.59	BO
IM04	Identify/date earthquake events	G	1x6	2	2.50	1.82	14.80	38.59	BO
IM05	Identify/date earthquake events	G	1x4	4	5.20	4.00	14.80	38.59	BO
IM06	Identify/date earthquake events	G	1x6	5	6.50	4.12	14.80	38.59	BO
IM07	Identify/date earthquake events	GT	1x6 4/5.2	1	NIL	0.20	14.96	38.14	BO
BU08	Establish recent historical motion	G	1x6	5	6.20	4.14	14.38	38.66	BO
BU09	Establish recent historical motion	G	1x6	4	6.30	3.20	14.38	38.66	BO
BU10	Establish recent historical motion	G	1x6	4	6.10	3.60	14.38	38.66	ISTA
BU10-BIS	Establish recent historical motion	G	1x6	3	6.30	2.79	14.38	38.66	BO
BU11	Establish recent historical motion	G	1x6	3	6.30	3.00	14.38	38.66	BO
BU12	Establish recent historical motion	G	1x6	3	6.30	2.76	14.41	38.66	BO
CI13	Turbidite record	PI	3x5	10	12.20	10.00	14.50	38.60	BO
IZ14	Turbidite record	PI	3x5	9	9.20	8.20	15.01	38,55	BO
IZ15	Fault displacement - channel	G	1x6	3	6.10	2.10	14,83	38,64	BO
IZ16	Fault displacement - channel	G	1x6	3	6.30	2.45	14,96	38,14	BO
IZ17	Fault displacement - channel	G	1x6	3	6.30	2.22	14,85	38,63	BO
IZ18	Fault displacement - channel	G	1x6	3	6.60	2.84	14,85	38,63	BO
IZ19	Flooding surface	G	1x6	3	4.70	1.94	14,88	38,63	BO
IZ20	Flooding surface	G	1x6	3	5.60	2.63	14,89	38,62	BO
IZ21	fault displacement	GT	1x4 3.6/12	3	3.70	2.84	14,63	38,66	BO
IZ22	fault displacement	GT	1x4 3.6/12	3	3.90	2.68	14,56	38,66	BO
IZ23	tectonics - paleoshoreline	GT	1x4 3.6/12	3	2.70	2.27	15,06	38,42	BO
IZ24	tectonics - paleoshoreline	GT	1x4 3.6/12	3	3.20	2.85	15,05	38,47	BO
IZ25	tectonics - paleoshoreline	GT	1x4 5/12	4	4.30	3.76	15,06	38,43	BO
IZ26	tectonics - paleoshoreline	GT	1x4 5/12	2	1.50	1.47	14.90	38.00	BO
IZ27	Fluids related to fault processes	G	1x6	3	4.80	2.08	15.00	38.30	BO
IZ28	Fluids related to fault processes	SW	LONG	1	0.80	0.80	15.00	38.30	BO
IZ29	Fluids related to fault processes	G	1x6	2	1.20	1.19	15.00	38.50	BO
IZ30	Fluids related to fault processes	GT	1x4 5/12	4	6.00	3.49	15.00	38.50	ISTA
IZ31	Turbidite record	PI	2x5 3.10/3.30	10	9.40	8.83	15.00	38.60	BO
IZ32	stratigraphy	G	1x6	4	4.30	3.59	15.00	38.50	BO
IZ33	stratigraphy - turbidite	G	1x6	3	6.60	2.79	15.00	38.60	BO
IZ34	strat./penetrate Holocene drape	G	1x6	3	7.20	2.84	15.00	38.30	ISTA
IZ35	strat./penetrate Holocene drape	GT	1x6 4.10/14	4	7.5	3.71	15.00	38.55	BO
IZ35-BIS	strat./penetrate Holocene drape	G	1x6	3	6.30	2.68	15.00	38.55	BO
IZ36		SW	LONG	1	?	0.00	15.00	38.60	BO
IZ37	stratigraphy	G	1x6	4	6.50	3.10	15.00	38.50	BO
IZ38	transgr.surf. below Holocene	G	1x6	4	4.30	3.12	15.00	38.50	ISTA
PI39	progr./transgressive sequences	G	1x6	3	3.00	2.14	14.90	38.60	ISTA
PI39-BIS	progr./transgressive sequences	G	1x6	3	2.90	2.30	14.90	38.60	BO
PI40	stratigraphy	PI	2x5 3/3.5	7	9.40	6.11	14.90	38.60	ISTA-BO
PI41	stratigraphy	SW	LONG	1	1.28	1.28	14.90	38.60	BO
GA42	palaeosismology	G	1x6	4	6.40	3.54	14.70	38.60	BO
GA43	palaeosismology	G	1x6	3	6.00	2.71	14.70	38.60	BO
GA44	palaeosismology	G	1x6	2	4.90	2.00	14.80	38.60	BO
GA45	palaeosismology	SW	LONG	1	1.33	1.33	14.70	38.60	BO
GA46	palaeosismology	G	1x6	4	5.80	3.58	14.90	38.60	BO
GA47	palaeosismology	G	1x6	3	6.20	2.79	14.70	38.60	BO
GA48	palaeosismology	PI	2x5 3.10/3.50	8	8.70	7.53	14.70	38.60	BO
GA49	palaeosismology	SW	LONG	1	?	0.00	14.70	38.60	
GA50	palaeosismology	SW	LONG	1	1.30	1.21	14.90	38.60	BO

Table 11: MARM2001: core data

2 CHIRP FILES

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0	2001-05-29	14:56:19	2001-05-29	16:07:08	1.18	/ganos/disk01_a/ toganos.seg
OK	0.02	2001-05-29	16:08:29	2001-05-29	16:25:23	0.28	/ganos/disk01_a/ ganos-00.seg
OK	0.01	2001-05-29	16:26:04	2001-05-29	16:58:23	0.54	/ganos/disk01_a/ ganos-01.seg
CTD	??						
BAD	1.14	2001-05-29	18:07:01	2001-05-29	18:28:13	0.35	/ganos/disk01_a/ ganos-02.seg
OK	0.03	2001-05-29	18:29:47	2001-05-29	18:52:05	0.37	/ganos/disk01_a/ ganos-03.seg
OK	0.01	2001-05-29	18:52:43	2001-05-29	19:14:42	0.37	/ganos/disk01_a/ ganos-04.seg
OK	0.07	2001-05-29	19:18:39	2001-05-29	20:02:32	0.73	/ganos/disk01_a/ ganos-05.seg
OK	0.01	2001-05-29	20:03:10	2001-05-29	20:50:17	0.79	/ganos/disk01_a/ ganos-06seg.seg
OK	0.08	2001-05-29	20:55:05	2001-05-29	21:35:58	0.68	/ganos/disk01_b/ ganos-07.seg
OK	0.12	2001-05-29	21:43:02	2001-05-29	22:20:12	0.62	/ganos/disk01_b/ ganos-08.seg
OK	0.05	2001-05-29	22:23:22	2001-05-29	22:57:27	0.57	/ganos/disk01_b/ ganos-09.seg
OK	0.12	2001-05-29	23:04:38	2001-05-29	23:39:20	0.58	/ganos/disk01_b/ ganos-10.seg
OK	0.08	2001-05-29	23:43:57	2001-05-30	0:14:33	0.51	/ganos/disk01_b/ ganos-11.seg
OK	0.11	2001-05-30	0:21:08	2001-05-30	0:53:03	0.53	/ganos/disk01_b/ ganos-12.seg
OK	0.09	2001-05-30	0:58:38	2001-05-30	1:25:43	0.45	/ganos/disk01_b/ ganos-13.seg
OK	0.11	2001-05-30	1:32:13	2001-05-30	2:01:42	0.49	/ganos/disk01_b/ ganos-14.seg
OK	0.07	2001-05-30	2:05:59	2001-05-30	2:30:19	0.41	/ganos/disk01_b/ ganos-15.seg
OK	0.13	2001-05-30	2:37:57	2001-05-30	3:01:02	0.38	/ganos/disk02_a/ ganos-16.seg
OK	0.03	2001-05-30	3:02:45	2001-05-30	3:19:51	0.28	/ganos/disk02_a/ ganos-17.seg
OK	0.3	2001-05-30	3:37:34	2001-05-30	3:55:13	0.29	/ganos/disk02_a/ ganos-19.seg
OK	0.05	2001-05-30	3:57:59	2001-05-30	4:12:54	0.25	/ganos/disk02_a/ toim01.seg
OK	0.19	2001-05-30	4:24:05	2001-05-30	4:28:39	0.08	/ganos/disk02_a/ toim01_a.seg
OK	0.62	2001-05-30	5:05:48	2001-05-30	6:49:00	1.72	/ganos/disk02_a/ toim02.seg
MCS	TEST						
BAD	6.64	2001-05-30	13:27:37	2001-05-30	15:39:12	2.19	/ganos/disk02_a/ imr-01.seg
OK	0.81	2001-05-30	16:27:55	2001-05-30	16:47:37	0.33	/imrali_1/disk02_b/ imr-02.seg
OK	0.37	2001-05-30	17:09:43	2001-05-30	18:42:59	1.55	/imrali_1/disk02_b/ imr-02a.seg
OK	0.02	2001-05-30	18:44:13	2001-05-30	19:50:32	1.11	/imrali_1/disk02_b/ imr-02b.seg
OK	0.08	2001-05-30	19:55:18	2001-05-30	21:22:02	1.45	/imrali_1/disk02_b/ imr-03.seg
OK	0.01	2001-05-30	21:22:49	2001-05-30	21:45:31	0.38	/imrali_1/disk02_b/ imr-03b.seg
OK	0.03	2001-05-30	21:47:29	2001-05-30	23:39:33	1.87	/imrali_1/disk03_a/ imr-03c.seg
OK	0.27	2001-05-30	23:55:44	2001-05-31	0:10:19	0.24	/imrali_1/disk03_a/ imr-03d.seg
OK	0.82	2001-05-31	0:59:47	2001-05-31	4:16:26	3.28	/imrali_1/disk03_a/ imr-04.seg
OK	0.11	2001-05-31	4:22:50	2001-05-31	6:51:29	2.48	/imrali_1/disk03_b/ imr-04a.seg
OK	0	2001-05-31	6:51:38	2001-05-31	8:02:51	1.19	/imrali_1/disk03_b/ imr-04b.seg
OK	0.11	2001-05-31	8:09:30	2001-05-31	10:51:19	2.7	/imrali_1/disk03_b/ imr-04c.seg
OK	0.33	2001-05-31	11:11:11	2001-05-31	11:56:38	0.76	/imrali_1/disk04_a/ tractd05.seg
OK	0.37	2001-05-31	12:18:49	2001-05-31	13:38:51	1.33	/imrali_1/disk04_a/ izc-01.seg
OK	0.32	2001-05-31	13:57:48	2001-05-31	14:20:02	0.37	/imrali_1/disk04_a/ izc-02.seg
OK	0.05	2001-05-31	14:22:59	2001-05-31	14:57:01	0.57	/imrali_1/disk04_a/ izc-03.seg
???							
BAD	1.08	2001-05-31	16:02:01	2001-05-31	16:26:05	0.4	/imrali_1/disk04_a/ i3.seg
OK	0.07	2001-05-31	16:30:22	2001-05-31	16:52:09	0.36	/imrali_1/disk04_a/ i1.seg
OK	0.08	2001-05-31	16:56:59	2001-05-31	17:19:49	0.38	/imrali_1/disk04_a/ i2.seg
OK	0.07	2001-05-31	17:24:16	2001-05-31	17:24:38	0.01	/imrali_1/disk04_a/ i4.seg
OK	0.01	2001-05-31	17:25:23	2001-05-31	17:54:36	0.49	/imrali_1/disk04_a/ izc-04.seg
OK	0.04	2001-05-31	17:57:02	2001-05-31	18:33:04	0.6	/imrali_1/disk04_a/ i5.seg
OK	0.06	2001-05-31	18:36:24	2001-05-31	18:53:49	0.29	/imrali_1/disk04_a/ i6.seg
OK	0.01	2001-05-31	18:54:34	2001-05-31	19:14:45	0.34	/imrali_1/disk04_b/ i6a.seg
OK	0.05	2001-05-31	19:17:56	2001-05-31	20:00:25	0.71	/imrali_1/disk04_b/ i7.seg
OK	0.07	2001-05-31	20:04:25	2001-05-31	20:49:40	0.75	/imrali_1/disk04_b/ i8.seg
OK	0.05	2001-05-31	20:52:50	2001-05-31	21:39:19	0.77	/imrali_1/disk04_b/ i9.seg
OK	0.06	2001-05-31	21:42:45	2001-05-31	22:34:28	0.86	/imrali_1/disk04_b/ i10.seg
OK	0.09	2001-05-31	22:39:59	2001-05-31	23:33:56	0.9	/imrali_1/disk04_b/ i11.seg
OK	0.06	2001-05-31	23:37:40	2001-06-1	0:29:33	0.86	/imrali_1/disk04_b/ i12.seg
OK	0.1	2001-06-1	0:35:16	2001-06-1	1:27:55	0.88	/izmit_c/disk05_a/ i13.seg
OK	0.08	2001-06-1	1:32:40	2001-06-1	2:20:39	0.8	/izmit_c/disk05_a/ i14.seg
OK	0.07	2001-06-1	2:24:58	2001-06-1	3:12:25	0.79	/izmit_c/disk05_a/ i15.seg
OK	0.08	2001-06-1	3:17:18	2001-06-1	4:01:20	0.73	/izmit_c/disk05_a/ i16.seg

Table 12: MARM2001: CHIRP FILES 0

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.07	2001-06-1	4:05:18	2001-06-1	4:57:57	0.88	/izmit_c/disk05_a/ i17.seg
OK	0.07	2001-06-1	5:01:58	2001-06-1	5:53:53	0.87	/izmit_c/disk05_a/ i18.seg
OK	0.06	2001-06-1	5:57:43	2001-06-1	6:46:44	0.82	/izmit_c/disk05_a/ i19.seg
OK	0.05	2001-06-1	6:49:45	2001-06-1	7:34:25	0.74	/izmit_c/disk05_b/ i20.seg
OK	0.13	2001-06-1	7:42:26	2001-06-1	8:25:48	0.72	/izmit_c/disk05_b/ sub1.seg
OK	0.02	2001-06-1	8:26:45	2001-06-1	9:13:49	0.78	/izmit_c/disk05_b/ I22a.seg
OK	0.13	2001-06-1	9:21:40	2001-06-1	10:03:29	0.7	/izmit_c/disk05_b/ I24.seg
OK	0.11	2001-06-1	10:09:59	2001-06-1	10:55:16	0.75	/izmit_c/disk05_b/ I26.seg
OK	0.11	2001-06-1	11:01:40	2001-06-1	11:44:23	0.71	/izmit_c/disk05_b/ I28.seg
OK	0.09	2001-06-1	11:49:44	2001-06-1	12:30:54	0.69	/izmit_c/disk05_b/ I29.seg
OK	0.11	2001-06-1	12:37:30	2001-06-1	13:04:13	0.45	/izmit_c/disk05_b/ I31.seg
OK	0.06	2001-06-1	13:07:43	2001-06-1	13:19:29	0.2	/izmit_c/disk06_a/ I31a.seg
OK	0.1	2001-06-1	13:25:20	2001-06-1	14:07:56	0.71	/izmit_c/disk06_a/ I33.seg
OK	0.1	2001-06-1	14:13:45	2001-06-1	14:55:34	0.7	/izmit_c/disk06_a/ I35.seg
OK	0.08	2001-06-1	15:00:31	2001-06-1	15:40:11	0.66	/izmit_c/disk06_a/ I37.seg
OK	0.13	2001-06-1	15:48:05	2001-06-1	16:26:07	0.63	/izmit_c/disk06_a/ I40.seg
OK	0.09	2001-06-1	16:31:25	2001-06-1	17:09:37	0.64	/izmit_c/disk06_a/ I42.seg
OK	0.1	2001-06-1	17:15:21	2001-06-1	17:51:25	0.6	/izmit_c/disk06_a/ I44.seg
OK	0.07	2001-06-1	17:55:31	2001-06-1	18:32:37	0.62	/izmit_c/disk06_a/ I46.seg
OK	0.1	2001-06-1	18:38:50	2001-06-1	19:14:48	0.6	/izmit_c/disk06_a/ I48.seg
OK	0.1	2001-06-1	19:20:32	2001-06-1	19:50:02	0.49	/izmit_c/disk06_a/ I50.seg
OK	0.33	2001-06-1	20:09:57	2001-06-1	20:28:57	0.32	/izmit_c/disk06_a/ I51.seg
OK	0.02	2001-06-1	20:29:57	2001-06-1	21:03:26	0.56	/izmit_c/disk06_b/ I52.seg
OK	0.09	2001-06-1	21:09:07	2001-06-1	22:04:22	0.92	/izmit_c/disk06_b/ Iztras01.seg
CTD	??						
OK	0.21	2001-06-1	22:17:14	2001-06-1	22:47:36	0.51	/izmit_c/disk06_b/ I21.seg
OK	0.11	2001-06-1	22:54:18	2001-06-1	23:39:45	0.76	/izmit_c/disk06_b/ I23.seg
OK	0.01	2001-06-1	23:40:36	2001-06-2	0:30:24	0.83	/izmit_c/disk06_b/ I25.seg
OK	0.12	2001-06-2	0:37:47	2001-06-2	1:23:06	0.76	/izmit_c/disk06_b/ I27.seg
OK	0.07	2001-06-2	1:27:18	2001-06-2	2:13:05	0.76	/izmit_c/disk06_b/ I-rec.seg
OK	0.11	2001-06-2	2:19:34	2001-06-2	3:03:00	0.72	/izmit_c/disk07_a/ i30.seg
OK	0.12	2001-06-2	3:10:04	2001-06-2	3:37:06	0.45	/izmit_c/disk07_a/ i32.seg
MCS	START						
BAD	1.67	2001-06-2	5:17:22	2001-06-2	6:50:20	1.55	/izmit_c/disk07_a/ i01m.seg
OK	0.21	2001-06-2	7:03:06	2001-06-2	8:32:47	1.49	/izmit_c/disk07_a/ i02m.seg
OK	0.39	2001-06-2	8:55:55	2001-06-2	9:42:17	0.77	/izmit_c/disk07_a/ i03m.seg
OK	0.1	2001-06-2	9:48:01	2001-06-2	10:14:04	0.43	/izmit_c/disk07_b/ i03am.seg
OK	0.19	2001-06-2	10:25:33	2001-06-2	12:05:27	1.67	/izmit_c/disk07_b/ i04m.seg
OK	0.14	2001-06-2	12:14:02	2001-06-2	12:36:19	0.37	/izmit_c/disk07_b/ Toi10.seg
OK	0.02	2001-06-2	12:37:38	2001-06-2	13:50:53	1.22	/izmit_c/disk07_b/ i05m.seg
OK	0.07	2001-06-2	13:55:23	2001-06-2	15:17:54	1.38	/izmit_c/disk07_b/ i06m.seg
??							
OK	0.94	2001-06-2	16:14:05	2001-06-2	17:36:31	1.37	/izmit_c/disk09_a/ i07m.seg
OK	0.18	2001-06-2	17:47:23	2001-06-2	18:32:10	0.75	/izmit_c/disk09_a/ i08m.seg
OK	0.2	2001-06-2	18:44:14	2001-06-2	19:50:37	1.11	/izmit_c/disk09_a/ i09m.seg
MCS	STOP						
OK	0.96	2001-06-2	20:48:09	2001-06-2	21:10:00	0.36	/izmit_c/disk09_a/ itoctd08.seg
CTD08							
OK	0.3	2001-06-2	21:27:57	2001-06-2	22:23:21	0.92	/izmit_c/disk09_a/ i-trans.seg
OK	0.03	2001-06-2	22:25:14	2001-06-2	22:48:11	0.38	/izmit_c/disk09_a/ i-34.seg
OK	0.16	2001-06-2	22:57:50	2001-06-2	23:35:35	0.63	/izmit_c/disk09_a/ i-36.seg
OK	0.11	2001-06-2	23:42:13	2001-06-3	0:09:00	0.45	/izmit_c/disk09_a/ i-37.seg
OK	0.02	2001-06-3	0:10:07	2001-06-3	0:23:31	0.22	/izmit_c/disk09_b/ i-37a.seg
OK	0.09	2001-06-3	0:28:38	2001-06-3	1:09:12	0.68	/izmit_c/disk09_b/ i-39.seg
OK	0.12	2001-06-3	1:16:06	2001-06-3	1:55:17	0.65	/izmit_c/disk09_b/ i-41.seg
OK	0.11	2001-06-3	2:01:52	2001-06-3	2:38:14	0.61	/izmit_c/disk09_b/ i-43.seg
OK	0.12	2001-06-3	2:45:21	2001-06-3	3:23:22	0.63	/izmit_c/disk09_b/ i-45.seg
OK	0.13	2001-06-3	3:30:58	2001-06-3	4:05:51	0.58	/izmit_c/disk09_b/ i-47.seg
OK	0.15	2001-06-3	4:14:47	2001-06-3	4:47:31	0.55	/izmit_c/disk09_b/ i-49.seg
OK	0.06	2001-06-3	4:51:04	2001-06-3	5:13:23	0.37	/izmit_c/disk09_b/ i-52.seg

Table 13: MARM2001: CHIRP FILES 1

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.07	2001-06-3	5:17:39	2001-06-3	5:44:40	0.45	/izmit_c/disk09_b/ i-racc.seg
CTD09							
OK	0.66	2001-06-3	6:24:03	2001-06-3	6:44:13	0.34	/izmit_c/disk09_b/ tt1a.seg
OK	0.03	2001-06-3	6:46:13	2001-06-3	7:26:38	0.67	/izmit_c/disk09_b/ tt2a.seg
CTD10							
OK	0.39	2001-06-3	7:50:19	2001-06-3	8:25:26	0.59	/izmit_c/disk10_a/ tt3a.seg
OK	0.07	2001-06-3	8:29:45	2001-06-3	8:36:42	0.12	/izmit_c/disk10_a/ tt3_b.seg
OK	0.38	2001-06-3	8:59:38	2001-06-3	9:15:20	0.26	/tuzla/ tusla21.seg
OK	0.14	2001-06-3	9:23:50	2001-06-3	9:42:36	0.31	/tuzla/ tusla20.seg
OK	0.26	2001-06-3	9:58:19	2001-06-3	10:23:17	0.42	/tuzla/ tusla19.seg
OK	0.1	2001-06-3	10:29:14	2001-06-3	10:36:16	0.12	/tuzla/ tusla17.seg
???							
BAD	1.19	2001-06-3	11:47:36	2001-06-3	13:28:51	1.69	/tuzla/ tusla19a.seg
OK	0.04	2001-06-3	13:31:07	2001-06-3	13:34:41	0.06	/tuzla/ tusla_cont.seg
OK	0.05	2001-06-3	13:37:42	2001-06-3	14:02:50	0.42	/tuzla/ tusla22.seg
OK	0.06	2001-06-3	14:06:31	2001-06-3	14:25:05	0.31	/tuzla/ tusla23.seg
OK	0.03	2001-06-3	14:26:41	2001-06-3	14:37:09	0.17	/tuzla/ tusla5.seg
OK	0	2001-06-3	14:37:22	2001-06-3	15:30:08	0.88	/tuzla/ tusla3.seg
OK	0.15	2001-06-3	15:39:22	2001-06-3	17:20:21	1.68	/tuzla/ trat1t30.seg
OK	0.16	2001-06-3	17:29:58	2001-06-3	18:14:27	0.74	/izmit-w/ t-33.seg
OK	0.62	2001-06-3	18:51:49	2001-06-3	19:16:51	0.42	/izmit-w/ toiw-01.seg
OK	0.02	2001-06-3	19:17:50	2001-06-3	20:00:26	0.71	/izmit-w/ iw-01.seg
OK	0.13	2001-06-3	20:08:21	2001-06-3	20:49:54	0.69	/izmit-w/ iw-02.seg
OK	0.24	2001-06-3	21:04:26	2001-06-3	21:57:19	0.88	/izmit-w/ iw-02a.seg
OK	0.15	2001-06-3	22:06:05	2001-06-3	22:57:40	0.86	/izmit-w/ iw-04.seg
OK	0.1	2001-06-3	23:03:29	2001-06-3	23:55:22	0.86	/izmit-w/ iw-05.seg
OK	0.13	2001-06-4	0:03:22	2001-06-4	0:43:56	0.68	/missing1/ iw-06.seg
OK	0.14	2001-06-4	0:52:37	2001-06-4	1:37:06	0.74	/missing1/ iw-10.seg
OK	0.07	2001-06-4	1:41:12	2001-06-4	2:27:28	0.77	/missing1/ iw-11.seg
OK	0.04	2001-06-4	2:29:58	2001-06-4	2:59:14	0.49	/missing1/ iw-12.seg
MCS	START						
OK	0.75	2001-06-4	3:44:15	2001-06-4	4:01:27	0.29	/missing1/ iztomcs.seg
OK	0.15	2001-06-4	4:10:10	2001-06-4	5:16:17	1.1	/missing1/ iw01m.seg
OK	0.21	2001-06-4	5:28:55	2001-06-4	6:46:20	1.29	/missing1/ iw02m.seg
OK	0.11	2001-06-4	6:52:46	2001-06-4	8:10:01	1.29	/missing1/ iw03m.seg
OK	0.21	2001-06-4	8:22:41	2001-06-4	8:34:08	0.19	/missing1/ toiw04m.seg
OK	0.04	2001-06-4	8:36:32	2001-06-4	9:40:38	1.07	/missing1/ i04m.seg
OK	0.59	2001-06-4	10:16:06	2001-06-4	11:05:39	0.83	/missing1/ iw05m.seg
OK	0.01	2001-06-4	11:06:15	2001-06-4	11:40:01	0.56	/missing1/ iw05am.seg
???							
BAD	1.72	2001-06-4	13:23:18	2001-06-4	14:25:34	1.04	/missing1/ iw06m.seg
MCS	END						
BAD	5.67	2001-06-4	20:05:57	2001-06-4	20:41:43	0.6	/imrali_2/im01a/ iw09.seg
OK	0.08	2001-06-4	20:46:35	2001-06-4	21:20:46	0.57	/first_copies/11-12-06_a/ imr2-1.seg
OK	0.03	2001-06-4	21:22:29	2001-06-4	22:21:09	0.98	/imrali_2/im01a/ imr2-2.seg
OK	0.01	2001-06-4	22:21:51	2001-06-4	22:48:34	0.45	/imrali_2/im01a/ imr2-3.seg
OK	0.02	2001-06-4	22:49:56	2001-06-5	0:13:32	1.39	/imrali_2/im01b/ imr2-5.seg
OK	0.37	2001-06-5	0:35:44	2001-06-5	0:43:34	0.13	/imrali_2/im01b/ imrtrans.seg
STAND-BY	METEO						
BAD	5.06	2001-06-5	5:47:18	2001-06-5	6:20:03	0.55	/imrali_2/disk001a/ ir-2.seg
OK	0.07	2001-06-5	6:24:16	2001-06-5	6:50:37	0.44	/imrali_2/disk001a/ ir-3.seg
OK	0.07	2001-06-5	6:55:03	2001-06-5	7:28:47	0.56	/imrali_2/disk001a/ ir-4.seg
OK	0.08	2001-06-5	7:33:39	2001-06-5	8:05:02	0.52	/imrali_2/disk001a/ ir-5.seg
OK	0.06	2001-06-5	8:08:47	2001-06-5	8:45:15	0.61	/imrali_2/disk001a/ ir-6.seg
OK	0.08	2001-06-5	8:50:16	2001-06-5	9:17:56	0.46	/imrali_2/disk001a/ ir-7.seg
OK	0.04	2001-06-5	9:20:23	2001-06-5	9:32:43	0.21	/imrali_2/disk001a/ to-p1.seg
OK	0.04	2001-06-5	9:34:53	2001-06-5	9:52:21	0.29	/imrali_2/disk001a/ imcar.seg
OK	0.02	2001-06-5	9:53:24	2001-06-5	10:02:42	0.15	/imrali_2/disk001b/ imcar-a.seg
OK	0.01	2001-06-5	10:03:11	2001-06-5	10:18:09	0.25	/imrali_2/disk001b/ imcar-b.seg
OK	0.27	2001-06-5	10:34:27	2001-06-5	10:44:22	0.17	/imrali_2/disk001b/ im-c1c2.seg

Table 14: MARM2001: CHIRP FILES 2

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.48	2001-06-5	11:13:05	2001-06-5	11:28:48	0.26	/imrali_2/disk001b/ im-co1.seg
OK	0.27	2001-06-5	11:44:50	2001-06-5	11:55:18	0.17	/imrali_2/disk001b/ to-imc02.seg
OK	0.56	2001-06-5	12:28:46	2001-06-5	12:29:07	0.01	/imrali_2/disk001b/ imc02.seg
OK	0.8	2001-06-5	13:16:56	2001-06-5	13:24:43	0.13	/imrali_2/disk001b/ im-c03.seg
OK	0.01	2001-06-5	13:25:05	2001-06-5	13:34:54	0.16	/imrali_2/disk001b/ im-c03a.seg
OK	0.54	2001-06-5	14:07:21	2001-06-5	14:21:31	0.24	/imrali_2/disk001b/ im-c02back.seg
OK	0.8	2001-06-5	15:09:24	2001-06-5	15:24:04	0.24	/imrali_2/disk001b/ im-c04.seg
CORE							
BAD	1.22	2001-06-5	16:37:27	2001-06-5	17:05:01	0.46	/imrali_2/disk001b/ im-c05.seg
OK	0.6	2001-06-5	17:40:52	2001-06-5	18:08:19	0.46	/imrali_2/disk001b/ p1p2_1.seg
OK	0.11	2001-06-5	18:14:49	2001-06-5	18:37:07	0.37	/imrali_2/disk02a/ imc04-06.seg
OK	0.08	2001-06-5	18:42:01	2001-06-5	19:14:49	0.55	/imrali_2/disk02a/ ir-8.seg
OK	0.18	2001-06-5	19:25:22	2001-06-5	19:53:09	0.46	/imrali_2/disk02a/ ir-9.seg
OK	0.16	2001-06-5	20:02:45	2001-06-5	20:23:58	0.35	/imrali_2/disk02a/ ir-10.seg
OK	0.1	2001-06-5	20:30:08	2001-06-5	20:51:48	0.36	/imrali_2/disk02a/ ir-11.seg
OK	0.09	2001-06-5	20:57:04	2001-06-5	21:14:25	0.29	/imrali_2/disk02a/ ir-12.seg
OK	0.14	2001-06-5	21:22:58	2001-06-5	21:42:48	0.33	/imrali_2/disk02a/ ir-13.seg
OK	0.1	2001-06-5	21:48:38	2001-06-5	22:09:38	0.35	/imrali_2/disk02b/ ir-14.seg
OK	0.1	2001-06-5	22:15:20	2001-06-5	22:38:41	0.39	/imrali_2/disk02b/ ir-15.seg
OK	0.11	2001-06-5	22:45:24	2001-06-5	23:04:17	0.31	/imrali_2/disk02b/ ir-16.seg
OK	0.01	2001-06-5	23:04:38	2001-06-5	23:31:18	0.44	/imrali_2/disk02b/ ir-16a.seg
OK	0.03	2001-06-5	23:32:57	2001-06-6	0:02:32	0.49	/imrali_2/disk02b/ ir-17.seg
OK	0.03	2001-06-6	0:04:13	2001-06-6	0:45:19	0.69	/imrali_2/disk02b/ ir-18.seg
OK	0.02	2001-06-6	0:46:31	2001-06-6	0:55:41	0.15	/imrali_2/im02a/ ir-18a.seg
OK	0.04	2001-06-6	0:58:02	2001-06-6	1:26:23	0.47	/imrali_2/im02a/ ir-19.seg
OK	0.05	2001-06-6	1:29:12	2001-06-6	1:45:45	0.28	/imrali_2/im02a/ ir-20.seg
OK	0.1	2001-06-6	1:51:46	2001-06-6	2:14:19	0.38	/imrali_2/im02a/ ir-21.seg
OK	0.07	2001-06-6	2:18:40	2001-06-6	2:37:21	0.31	/imrali_2/im02a/ ir-22.seg
OK	0.1	2001-06-6	2:43:30	2001-06-6	3:09:27	0.43	/imrali_2/im02a/ ir-23.seg
OK	0.04	2001-06-6	3:12:02	2001-06-6	3:35:17	0.39	/imrali_2/im02a/ ir-24.seg
OK	0.09	2001-06-6	3:40:49	2001-06-6	3:51:39	0.18	/imrali_2/im02a/ ir-25.seg
OK	0.02	2001-06-6	3:52:59	2001-06-6	4:25:47	0.55	/imrali_2/im02b/ ir-26.seg
OK	0.03	2001-06-6	4:27:47	2001-06-6	5:04:47	0.62	/imrali_2/im02b/ toimc06.seg
OK	0.34	2001-06-6	5:25:07	2001-06-6	6:02:20	0.62	/imrali_2/im02b/ toimc07.seg
OK	0.03	2001-06-6	6:03:55	2001-06-6	6:26:35	0.38	/imrali_2/im02b/ imc07.seg
OK	0.75	2001-06-6	7:11:30	2001-06-6	7:43:58	0.54	/imrali_2/im02b/ tobuyuk.seg
OK	0.2	2001-06-6	7:55:40	2001-06-6	8:38:05	0.71	buyuk/BU_CAROTE/ tobuyuk02.seg
OK	0.06	2001-06-6	8:41:34	2001-06-6	10:11:03	1.49	buyuk/BU_CAROTE/ tobuyuk03.seg
CORES	???						
BAD	6.59	2001-06-6	16:46:24	2001-06-6	17:07:37	0.35	buyuk/BU_CAROTE/ buc12.seg
OK	0.83	2001-06-6	17:57:13	2001-06-6	18:13:25	0.27	buyuk/BU_CAROTE/ bu_7.seg
OK	0.07	2001-06-6	18:17:25	2001-06-6	18:32:42	0.25	buyuk/BU_CAROTE/ bu_6.seg
OK	0.15	2001-06-6	18:41:48	2001-06-6	18:48:07	0.11	buyuk/bu/ bu-5.seg
OK	0.05	2001-06-6	18:50:53	2001-06-6	19:04:43	0.23	buyuk/bu/ bu-4.seg
OK	0.07	2001-06-6	19:09:03	2001-06-6	19:21:42	0.21	buyuk/bu/ bu-3.seg
OK	0.11	2001-06-6	19:28:18	2001-06-6	19:40:25	0.2	buyuk/bu/ bu-2.seg
OK	0.06	2001-06-6	19:43:44	2001-06-6	19:56:33	0.21	buyuk/bu/ bu-1.seg
OK	0.07	2001-06-6	20:00:55	2001-06-6	20:53:02	0.87	buyuk/bu/ bu-0.seg
OK	0.07	2001-06-6	20:57:29	2001-06-6	21:03:37	0.1	buyuk/problems/ toce.seg
OK	0.02	2001-06-6	21:37:28	2001-06-6	21:39:22	0.03	buyuk/bu/ ce-1.seg
OK	0.01	2001-06-6	21:40:02	2001-06-6	21:54:12	0.24	buyuk/ce/ ce-1.seg
OK	0.01	2001-06-6	21:54:30	2001-06-6	22:15:04	0.34	buyuk/ce/ ce-1b.seg
OK	0.02	2001-06-6	22:16:20	2001-06-6	22:49:10	0.55	buyuk/ce/ ce-2.seg
OK	0.02	2001-06-6	22:50:08	2001-06-6	23:30:03	0.67	buyuk/ce/ ce-3.seg
OK	0.1	2001-06-6	23:36:07	2001-06-7	0:09:56	0.56	buyuk/ce/ ce-4.seg
OK	0.01	2001-06-7	0:10:47	2001-06-7	0:24:04	0.22	buyuk/problems/ ce-5.seg
OK	0.07	2001-06-7	0:35:38	2001-06-7	0:40:21	0.08	/missing/ ce-5a.seg
OK	0.03	2001-06-7	0:41:51	2001-06-7	1:30:56	0.82	/missing/ ce-6.seg
OK	0.01	2001-06-7	1:31:44	2001-06-7	2:11:24	0.66	/missing/ ce-7.seg
OK	0.01	2001-06-7	2:12:12	2001-06-7	2:39:23	0.45	/missing/ ce-8.seg

Table 15: MARM2001: CHIRP FILES 3

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.02	2001-06-7	2:40:43	2001-06-7	3:19:36	0.65	/missing/ ce-9.seg
OK	0.08	2001-06-7	3:24:21	2001-06-7	3:58:31	0.57	/missing/ ce-10.seg
OK	0.07	2001-06-7	4:02:48	2001-06-7	4:56:20	0.89	/missing/ tocal.seg
OK	0.19	2001-06-7	5:07:27	2001-06-7	5:28:26	0.35	/missing/ cal-02b.seg
OK	0.07	2001-06-7	5:32:54	2001-06-7	5:56:03	0.39	/missing/ cal-02c.seg
OK	0.01	2001-06-7	5:56:41	2001-06-7	6:07:31	0.18	/missing/ to_capanna.seg
???	SOSTA	A	ISTANBUL	MANCANO	TO	CIN*	22:00 DALLE
BAD	19.8	2001-06-8	1:55:39	2001-06-8	2:11:58	0.27	/cin01a/ tocin6a.seg
OK	0.05	2001-06-8	2:14:57	2001-06-8	2:44:21	0.49	/cin01a/ tocin6b.seg
OK	0.01	2001-06-8	2:44:40	2001-06-8	2:58:59	0.24	/cin01a/ tocin6c.seg
OK	0.59	2001-06-8	3:34:40	2001-06-8	5:05:15	1.51	/cin01a/ cin-01.seg
OK	0.07	2001-06-8	5:09:36	2001-06-8	5:31:12	0.36	/cin01a/ to-cin-11.seg
OK	0.01	2001-06-8	5:31:47	2001-06-8	6:15:06	0.72	/cin01a/ cin-11.seg
OK	0.02	2001-06-8	6:16:04	2001-06-8	7:16:29	1.01	/cin01b/ cin-11a.seg
OK	0.1	2001-06-8	7:22:19	2001-06-8	9:10:48	1.81	/cin01b/ cin-12.seg
OK	0.07	2001-06-8	9:14:47	2001-06-8	10:31:01	1.27	/cin01b/ cin-13.seg
OK	0.19	2001-06-8	10:42:35	2001-06-8	11:02:11	0.33	/missing/ cin-13a.seg
OK	0.05	2001-06-8	11:05:27	2001-06-8	12:49:25	1.73	/missing/ cin-14.seg
???							
BAD	1.21	2001-06-8	14:02:04	2001-06-8	14:46:09	0.73	/missing/ toctd13.seg
OK	0.72	2001-06-8	15:29:08	2001-06-8	16:16:49	0.79	/missing/ wiz1.seg
OK	0.02	2001-06-8	16:17:51	2001-06-8	17:00:00	0.7	/missing/ wiz2.seg
OK	0.04	2001-06-8	17:02:38	2001-06-8	17:36:33	0.57	/missing/ wiz3.seg
OK	0.14	2001-06-8	17:45:12	2001-06-8	18:22:56	0.63	/missing/ wiz4.seg
OK	0.13	2001-06-8	18:30:58	2001-06-8	18:30:58	0	/missing/ wiz5.seg
OK	0.01	2001-06-8	18:31:43	2001-06-8	19:22:10	0.84	/first_copies/08-09-jun-01_a/ wiz5.seg
OK	0.18	2001-06-8	19:32:45	2001-06-8	20:28:35	0.93	/first_copies/08-09-jun-01_a/ wiz6.seg
OK	0.31	2001-06-8	20:47:26	2001-06-8	21:06:49	0.32	/first_copies/08-09-jun-01_a/ towiz61.seg
OK	0.43	2001-06-8	21:32:23	2001-06-8	21:49:14	0.28	/box1/ b1-1.seg
OK	0.03	2001-06-8	21:51:01	2001-06-8	22:06:33	0.26	/box1/ b1-2.seg
OK	0.05	2001-06-8	22:09:23	2001-06-8	22:24:24	0.25	/box1/ b1-3.seg
OK	0.04	2001-06-8	22:26:42	2001-06-8	22:41:51	0.25	/box1/ b1-4.seg
OK	0.06	2001-06-8	22:45:09	2001-06-8	22:58:58	0.23	/box1/ b1-5.seg
OK	0.03	2001-06-8	23:00:41	2001-06-8	23:16:50	0.27	/box1/ b1-6.seg
OK	0.01	2001-06-8	23:17:20	2001-06-8	23:38:03	0.35	/box1/ b1-7.seg
OK	0.03	2001-06-8	23:39:51	2001-06-8	23:55:11	0.26	/box1/ b1-8.seg
OK	0.02	2001-06-8	23:56:06	2001-06-9	0:12:23	0.27	/box1/ b1-9.seg
OK	0.02	2001-06-9	0:13:28	2001-06-9	0:28:43	0.25	/box1/ b1-10.seg
OK	0.04	2001-06-9	0:31:17	2001-06-9	0:46:16	0.25	/box1/ b1-11.seg
OK	0.02	2001-06-9	0:47:43	2001-06-9	1:03:52	0.27	/box1/ b1-12.seg
OK	0.03	2001-06-9	1:05:48	2001-06-9	1:07:02	0.02	/box1/ b1-13.seg
OK	0.26	2001-06-9	1:22:22	2001-06-9	1:22:22	0	/box1/ b1-14.seg
OK	0.04	2001-06-9	1:44:51	2001-06-9	2:01:11	0.27	/box1/ b1-15.seg
OK	0.02	2001-06-9	2:02:18	2001-06-9	2:19:57	0.29	/box1/ b1-16.seg
OK	0.02	2001-06-9	2:21:17	2001-06-9	2:38:55	0.29	/box1/ b1-17.seg
OK	0.03	2001-06-9	2:40:43	2001-06-9	2:58:36	0.3	/box1/ b1-18.seg
OK	0.03	2001-06-9	3:00:06	2001-06-9	3:18:29	0.31	/box1/ b1-19.seg
OK	0.02	2001-06-9	3:19:39	2001-06-9	3:37:50	0.3	/box1/ b1-20.seg
OK	0.05	2001-06-9	3:41:04	2001-06-9	3:59:02	0.3	/box1/ b1-21.seg
OK	0.04	2001-06-9	4:01:35	2001-06-9	4:20:33	0.32	/box1/ b1-22.seg
OK	0.02	2001-06-9	4:21:51	2001-06-9	4:39:43	0.3	/box1/ b1-23.seg
OK	0.06	2001-06-9	4:43:13	2001-06-9	4:58:02	0.25	/box1/ b1-24.seg
OK	0.21	2001-06-9	5:10:32	2001-06-9	5:22:51	0.21	/box1/ b1-25.seg
OK	0.02	2001-06-9	5:24:14	2001-06-9	5:58:31	0.57	/izmit_c/09-jun-01_a/ b2-1.seg
OK	0.01	2001-06-9	5:59:13	2001-06-9	6:43:44	0.74	/izmit_c/09-jun-01_a/ to-lc1.seg
OK	0.35	2001-06-9	7:04:37	2001-06-9	8:03:10	0.98	/izmit_c/09-jun-01_a/ lcore.seg
OK	0.16	2001-06-9	8:12:52	2001-06-9	8:40:32	0.46	/izmit_c/09-jun-01_a/ lcore1.seg
OK	0.01	2001-06-9	8:40:59	2001-06-9	8:58:30	0.29	/izmit_c/09-jun-01_b/ lcore2.seg
CORES	??						
BAD	6.79	2001-06-9	15:46:09	2001-06-9	15:58:10	0.2	/missing/ iz53.seg

Table 16: MARM2001: CHIRP FILES 4

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.04	2001-06-9	16:00:51	2001-06-9	16:19:24	0.31	/missing/ iz54.seg
OK	0.06	2001-06-9	16:22:44	2001-06-9	17:16:48	0.9	/izmit_c/09-jun-01_aa/ verc14.seg
CORE	CTD						
OK	0.83	2001-06-9	18:06:39	2001-06-9	18:21:28	0.25	/izmit_c/09-jun-01_aa/ toizw55.seg
OK	0.02	2001-06-9	18:22:51	2001-06-9	18:50:04	0.45	/izmit_c/09-jun-01_aa/ izw55.seg
OK	0.04	2001-06-9	18:52:10	2001-06-9	19:18:19	0.44	/izmit_c/09-jun-01_aa/ izw56.seg
OK	0.11	2001-06-9	19:25:01	2001-06-9	19:59:37	0.58	/izmit_c/09-jun-01_aa/ tob-26.seg
OK	0.01	2001-06-9	20:00:25	2001-06-9	21:47:35	1.79	/izmit_c/09-jun-01_ba/ tob1-26a.seg
OK	0.04	2001-06-9	21:49:48	2001-06-9	22:01:26	0.19	/box1/ b1-26a.seg
OK	0.06	2001-06-9	22:05:04	2001-06-9	22:18:17	0.22	/box1/ b1-27.seg
OK	0.04	2001-06-9	22:20:28	2001-06-9	22:34:24	0.23	/box1/ b1-28.seg
OK	0.18	2001-06-9	22:45:21	2001-06-9	22:57:55	0.21	/box1/ b1-29.seg
OK	0.15	2001-06-9	23:07:00	2001-06-9	23:22:08	0.25	/box1/ b1-30.seg
OK	0.14	2001-06-9	23:30:19	2001-06-9	23:55:56	0.43	/box1/ b1-31.seg
OK	0.03	2001-06-9	23:57:59	2001-06-10	0:17:22	0.32	/box1/ b1-32.seg
OK	0.01	2001-06-10	0:18:04	2001-06-10	0:32:32	0.24	/box1/ b1-33.seg
OK	0.05	2001-06-10	0:35:26	2001-06-10	0:50:42	0.25	/box1/ b1-34.seg
OK	0.11	2001-06-10	0:57:09	2001-06-10	1:11:24	0.24	/box1/ b1-35.seg
OK	0.05	2001-06-10	1:14:17	2001-06-10	1:30:07	0.26	/box1/ b1-36.seg
OK	0.06	2001-06-10	1:33:55	2001-06-10	1:48:33	0.24	/box1/ b1-37.seg
OK	0.05	2001-06-10	1:51:29	2001-06-10	2:07:24	0.27	/box1/ b1-38.seg
OK	0.06	2001-06-10	2:10:55	2001-06-10	2:25:14	0.24	/box1/ b1-39.seg
OK	0.06	2001-06-10	2:28:41	2001-06-10	2:44:29	0.26	/box1/ b1-40.seg
OK	0.06	2001-06-10	2:47:58	2001-06-10	3:02:30	0.24	/box1/ b1-41.seg
OK	0.02	2001-06-10	3:03:37	2001-06-10	3:21:02	0.29	/box1/ b1-42.seg
OK	0.05	2001-06-10	3:24:05	2001-06-10	3:40:06	0.27	/box1/ b1-43.seg
OK	0.05	2001-06-10	3:43:04	2001-06-10	3:59:44	0.28	/box1/ b1-44.seg
OK	0.09	2001-06-10	4:04:52	2001-06-10	4:17:38	0.21	/box1/ b1-45.seg
OK	0.08	2001-06-10	4:22:19	2001-06-10	4:37:15	0.25	/box1/ b1-46.seg
OK	0.05	2001-06-10	4:40:26	2001-06-10	4:56:48	0.27	/box1/ b1-47.seg
OK	0.05	2001-06-10	4:59:50	2001-06-10	5:13:54	0.23	/box1/ b1-48.seg
OK	0.04	2001-06-10	5:16:33	2001-06-10	5:24:41	0.14	/box1/ b1-49.seg
OK	0.04	2001-06-10	5:27:09	2001-06-10	5:30:59	0.06	/box1/ b1-49a.seg
OK	0.05	2001-06-10	5:33:45	2001-06-10	5:48:37	0.25	/box1/ b1-50.seg
OK	0.05	2001-06-10	5:51:40	2001-06-10	6:05:40	0.23	/box1/ b1-51.seg
OK	0	2001-06-10	6:05:48	2001-06-10	6:15:37	0.16	/first_copies/10-jun-01_a/ b2-06.seg
OK	0	2001-06-10	6:15:54	2001-06-10	6:29:48	0.23	/first_copies/10-jun-01_a/ b2-06a.seg
OK	0.05	2001-06-10	6:32:54	2001-06-10	6:55:32	0.38	/first_copies/10-jun-01_a/ b2-12.seg
OK	0.12	2001-06-10	7:02:50	2001-06-10	7:20:40	0.3	/first_copies/10-jun-01_a/ b2-19.seg
OK	0.08	2001-06-10	7:25:41	2001-06-10	7:44:08	0.31	/first_copies/10-jun-01_a/ b2-27.seg
OK	0.17	2001-06-10	7:54:21	2001-06-10	8:08:35	0.24	/first_copies/10-jun-01_a/ b2-32.seg
OK	0.04	2001-06-10	8:11:09	2001-06-10	8:27:27	0.27	/first_copies/10-jun-01_a/ b2-38.seg
OK	0.06	2001-06-10	8:31:02	2001-06-10	8:48:04	0.28	/first_copies/10-jun-01_a/ b2-44.seg
OK	0.04	2001-06-10	8:50:39	2001-06-10	9:07:31	0.28	/first_copies/10-jun-01_b/ b2-50.seg
OK	0.07	2001-06-10	9:11:28	2001-06-10	9:28:56	0.29	/first_copies/10-jun-01_b/ b2-56.seg
OK	0.06	2001-06-10	9:32:21	2001-06-10	9:49:58	0.29	/first_copies/10-jun-01_b/ b2-62.seg
OK	0.08	2001-06-10	9:54:51	2001-06-10	10:10:55	0.27	/first_copies/10-jun-01_b/ b2-57.seg
OK	0.07	2001-06-10	10:14:55	2001-06-10	10:30:39	0.26	/first_copies/10-jun-01_b/ b2-51.seg
OK	0.38	2001-06-10	10:53:25	2001-06-10	11:01:02	0.13	/first_copies/10-jun-01_b/ trans1.seg
OK	0.26	2001-06-10	11:16:32	2001-06-10	11:29:15	0.21	/first_copies/10-jun-01_b/ izc15.seg
OK	0.67	2001-06-10	12:09:11	2001-06-10	12:17:15	0.13	/first_copies/10-jun-01_b/ izc16.seg
OK	0.78	2001-06-10	13:03:53	2001-06-10	13:19:21	0.26	/first_copies/10-jun-01_b/ izc17.seg
OK	0.78	2001-06-10	14:05:52	2001-06-10	14:13:16	0.12	/first_copies/10-jun-01_b/ izc18.seg
OK	0.54	2001-06-10	14:45:35	2001-06-10	14:50:35	0.08	/first_copies/10-jun-01_b/ izc19.seg
OK	0.85	2001-06-10	15:41:53	2001-06-10	15:59:25	0.29	/first_copies/10-jun-01_b/ izc20.seg
OK	0.36	2001-06-10	16:21:17	2001-06-10	16:34:16	0.22	/first_copies/10-11-jun_a/ b2-07.seg
OK	0.08	2001-06-10	16:38:54	2001-06-10	16:54:33	0.26	/first_copies/10-11-jun_a/ b2-13.seg
OK	0.06	2001-06-10	16:58:26	2001-06-10	17:13:41	0.25	/first_copies/10-11-jun_a/ b2-20.seg
OK	0.08	2001-06-10	17:18:42	2001-06-10	17:33:01	0.24	/first_copies/10-11-jun_a/ b2-26.seg
OK	0.17	2001-06-10	17:43:21	2001-06-10	17:58:23	0.25	/first_copies/10-11-jun_a/ b2-36.seg

Table 17: MARM2001: CHIRP FILES 5

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.05	2001-06-10	18:01:24	2001-06-10	18:15:56	0.24	/first_copies/10-11-jun_a/ b2-42.seg
OK	0.04	2001-06-10	18:18:21	2001-06-10	18:35:10	0.28	/first_copies/10-11-jun_a/ b2-48.seg
OK	0.05	2001-06-10	18:37:55	2001-06-10	18:52:49	0.25	/first_copies/10-11-jun_a/ b2-54.seg
OK	0.08	2001-06-10	18:57:33	2001-06-10	19:15:58	0.31	/first_copies/10-11-jun_a/ b2-60.seg
OK	0.06	2001-06-10	19:19:42	2001-06-10	19:35:54	0.27	/first_copies/10-11-jun_a/ b2-55.seg
OK	0.07	2001-06-10	19:40:05	2001-06-10	19:56:05	0.27	/first_copies/10-11-jun_b/ b2-49.seg
OK	0.07	2001-06-10	20:00:12	2001-06-10	20:16:27	0.27	/first_copies/10-11-jun_b/ b2-53.seg
OK	0.06	2001-06-10	20:20:07	2001-06-10	20:35:35	0.26	/first_copies/10-11-jun_b/ b2-47.seg
OK	0.04	2001-06-10	20:37:41	2001-06-10	20:51:46	0.23	/first_copies/10-11-jun_b/ b2-41.seg
OK	0.08	2001-06-10	20:56:19	2001-06-10	21:12:56	0.28	/first_copies/10-11-jun_b/ b2-35.seg
OK	0.05	2001-06-10	21:16:08	2001-06-10	21:33:20	0.29	/first_copies/10-11-jun_b/ b2-40.seg
OK	0.1	2001-06-10	21:39:32	2001-06-10	21:59:21	0.33	/first_copies/10-11-jun_b/ b2-45.seg
OK	0.07	2001-06-10	22:03:41	2001-06-10	22:21:07	0.29	/first_copies/10-11-jun_b/ b2-52.seg
OK	0.08	2001-06-10	22:25:48	2001-06-10	22:42:40	0.28	/first_copies/10-11-jun_b/ b2-59.seg
OK	0.1	2001-06-10	22:48:29	2001-06-10	23:06:14	0.3	/first_copies/10-11-jun_b/ b2-64.seg
OK	0.05	2001-06-10	23:09:19	2001-06-10	23:29:52	0.34	/first_copies/10-11-jun_aa/ b2-58.seg
OK	0.04	2001-06-10	23:32:27	2001-06-10	23:58:59	0.44	/first_copies/10-11-jun_aa/ b2-65.seg
OK	0.02	2001-06-11	0:00:12	2001-06-11	0:17:35	0.29	/first_copies/10-11-jun_aa/ b2-46.seg
OK	0.06	2001-06-11	0:21:27	2001-06-11	0:39:27	0.3	/first_copies/10-11-jun_aa/ b2-39.seg
OK	0.04	2001-06-11	0:42:07	2001-06-11	1:01:58	0.33	/first_copies/10-11-jun_aa/ b2-33.seg
OK	0.05	2001-06-11	1:04:45	2001-06-11	1:21:53	0.29	/first_copies/10-11-jun_aa/ b2-40.seg
OK	0.08	2001-06-11	1:26:42	2001-06-11	1:43:21	0.28	/first_copies/10-11-jun_aa/ b2-34.seg
OK	0.13	2001-06-11	1:51:04	2001-06-11	2:07:35	0.28	/first_copies/10-11-jun_aa/ b2-43.seg
OK	0.06	2001-06-11	2:11:24	2001-06-11	2:31:43	0.34	/first_copies/10-11-jun_aa/ b2-61.seg
OK	0.12	2001-06-11	2:38:38	2001-06-11	2:45:38	0.12	/first_copies/10-11-jun_aa/ b2-08.seg
OK	0.15	2001-06-11	2:54:55	2001-06-11	3:07:18	0.21	/first_copies/10-11-jun_aa/ b2-08a.seg
OK	0.04	2001-06-11	3:09:53	2001-06-11	3:28:05	0.3	/first_copies/10-11-jun_ba/ b2-14.seg
OK	0.08	2001-06-11	3:33:08	2001-06-11	3:52:47	0.33	/first_copies/10-11-jun_ba/ b2-21.seg
OK	0.05	2001-06-11	3:56:03	2001-06-11	4:13:29	0.29	/first_copies/10-11-jun_ba/ b2-28.seg
OK	0.07	2001-06-11	4:17:41	2001-06-11	4:37:36	0.33	/first_copies/10-11-jun_ba/ b2-.22seg.seg
OK	0.06	2001-06-11	4:41:12	2001-06-11	4:57:42	0.28	/first_copies/10-11-jun_ba/ b2-.29.seg
OK	0.05	2001-06-11	5:00:52	2001-06-11	5:19:23	0.31	/first_copies/10-11-jun_ba/ b2-.23.seg
OK	0.06	2001-06-11	5:23:09	2001-06-11	5:41:04	0.3	/first_copies/10-11-jun_ba/ b2-30.seg
OK	0.05	2001-06-11	5:43:53	2001-06-11	5:59:38	0.26	/first_copies/10-11-jun_ba/ b2-24.seg
OK	0.08	2001-06-11	6:04:23	2001-06-11	6:20:36	0.27	/first_copies/10-11-jun_ba/ b2-31.seg
OK	0.17	2001-06-11	6:30:48	2001-06-11	6:33:59	0.05	/first_copies/10-11-jun_ba/ b2-63.seg
OK	0.01	2001-06-11	6:34:22	2001-06-11	6:48:38	0.24	/first_copies/11-12-06_a/ b2-63a.seg
????							
BAD	2.78	2001-06-11	9:35:12	2001-06-11	9:57:59	0.38	/first_copies/11-12-06_a/ toizc21.seg
OK	0.49	2001-06-11	10:27:19	2001-06-11	10:44:44	0.29	/first_copies/11-12-06_a/ izc21.seg
OK	0.7	2001-06-11	11:26:37	2001-06-11	11:37:10	0.18	/first_copies/11-12-06_a/ izc22.seg
OK	0.55	2001-06-11	12:10:14	2001-06-11	12:25:02	0.25	/first_copies/11-12-06_a/ 26to23.seg
OK	0.16	2001-06-11	12:34:44	2001-06-11	12:42:49	0.13	/first_copies/11-12-06_a/ izc23.seg
OK	0.6	2001-06-11	13:18:39	2001-06-11	13:24:48	0.1	/first_copies/11-12-06_a/ izc24.seg
OK	0.58	2001-06-11	13:59:30	2001-06-11	14:41:19	0.7	/first_copies/11-12-06_a/ izc25.seg
OK	0.98	2001-06-11	15:40:15	2001-06-11	15:45:24	0.09	/first_copies/11-12-06_a/ izc26.seg
CORE							
BAD	1.37	2001-06-11	17:07:25	2001-06-11	17:25:05	0.29	/first_copies/11-12-06_a/ toiz27.seg
ROV	HERSEK						
BAD	5.23	2001-06-11	22:39:03	2001-06-11	22:52:44	0.23	/first_copies/11-12-06_a/ b3-26.seg
OK	0.13	2001-06-11	23:00:38	2001-06-11	23:16:46	0.27	/first_copies/11-12-06_a/ b3-45.seg
OK	0.01	2001-06-11	23:17:25	2001-06-11	23:27:12	0.16	/first_copies/11-12-06_a/ b3-89.seg
OK	0.04	2001-06-11	23:29:46	2001-06-11	23:55:35	0.43	/first_copies/11-12-06_a/ b3-83.seg
OK	0.04	2001-06-11	23:57:58	2001-06-12	0:23:00	0.42	/first_copies/11-12-06_a/ b3-77.seg
OK	0.05	2001-06-12	0:25:54	0-01-00	0:00:00	-	b3-71.seg ???
BAD	???	2001-06-12	0:35:27	2001-06-12	0:51:27	0.27	/first_copies/11-12-06_b/ b3-71a.seg
OK	0.07	2001-06-12	0:55:29	2001-06-12	1:18:14	0.38	/first_copies/11-12-06_b/ b3-38.seg
OK	0.04	2001-06-12	1:20:27	2001-06-12	1:39:56	0.32	/first_copies/11-12-06_b/ b3-19.seg
OK	0.02	2001-06-12	1:40:54	2001-06-12	1:57:00	0.27	/first_copies/11-12-06_b/ b3-39.seg
OK	0.05	2001-06-12	1:59:43	2001-06-12	2:22:21	0.38	/first_copies/11-12-06_b/ b3-72.seg

Table 18: MARM2001: CHIRP FILES 6

STATUS	DT	DS	TS	DE	TE	TOT	FILE
OK	0.05	2001-06-12	2:25:34	2001-06-12	2:44:58	0.32	/first_copies/11-12-06_b/ b3-78.seg
OK	0.04	2001-06-12	2:47:17	2001-06-12	3:08:20	0.35	/first_copies/11-12-06_b/ b3-84.seg
OK	0.02	2001-06-12	3:09:49	2001-06-12	3:31:03	0.35	/first_copies/11-12-06_b/ b3-76.seg
OK	0.03	2001-06-12	3:32:53	2001-06-12	3:53:39	0.35	/first_copies/11-12-06_b/ b3-82.seg
OK	0.02	2001-06-12	3:55:07	2001-06-12	4:15:57	0.35	/first_copies/11-12-06_b/ b3-75.seg
OK	0.05	2001-06-12	4:18:52	2001-06-12	4:40:19	0.36	/first_copies/11-12-06_b/ b3-85.seg
OK	0.03	2001-06-12	4:42:04	2001-06-12	5:04:17	0.37	/first_copies/11-12-06_b/ b3-79.seg
OK	0.08	2001-06-12	5:09:19	2001-06-12	5:33:32	0.4	/first_copies/12-13-jun_a/ Toc27.seg
OK	0.12	2001-06-12	5:40:39	2001-06-12	5:53:04	0.21	/first_copies/12-13-jun_a/ Iz-27.seg
OK	0.66	2001-06-12	6:32:30	2001-06-12	6:47:40	0.25	/first_copies/12-13-jun_a/ Iz-29.seg
OK	0.29	2001-06-12	7:05:13	2001-06-12	7:29:36	0.41	/first_copies/12-13-jun_a/ Iz-30.seg
OK	0.33	2001-06-12	7:49:38	2001-06-12	8:28:50	0.65	/first_copies/12-13-jun_a/ toiz-c31.seg
OK	0.72	2001-06-12	9:12:08	2001-06-12	9:58:08	0.77	/first_copies/12-13-jun_a/ toiz-c31a.seg
CORE							
BAD	1.55	2001-06-12	11:31:05	2001-06-12	11:58:09	0.45	/first_copies/12-13-jun_a/ izc31.seg
OK	0.42	2001-06-12	12:23:36	2001-06-12	12:43:48	0.34	/first_copies/12-13-jun_a/ i34.seg
OK	0.07	2001-06-12	12:47:44	2001-06-12	13:23:32	0.6	/first_copies/12-13-jun_a/ i34i21.seg
OK	0.02	2001-06-12	13:24:41	2001-06-12	13:47:30	0.38	/first_copies/12-13-jun_a/ i21.seg
CORE							
BAD	1.99	2001-06-12	15:46:59	2001-06-12	15:56:11	0.15	/first_copies/12-13-jun_a/ izc33.seg
OK	0.24	2001-06-12	16:10:34	2001-06-12	16:43:33	0.55	/first_copies/12-13-jun_a/ togolcuk.seg
OK	0.02	2001-06-12	16:44:28	2001-06-12	17:28:17	0.73	/first_copies/12-13-jun_b/ togolcuk-a.seg
OK	0.15	2001-06-12	17:37:01	2001-06-12	17:53:25	0.27	/first_copies/12-13-jun_b/ toctdglc.seg
OK	0.02	2001-06-12	17:54:49	2001-06-12	17:54:58	0	/first_copies/12-13-jun_b/ glc9.seg
OK	0.02	2001-06-12	17:55:59	2001-06-12	18:06:27	0.17	/first_copies/12-13-jun_b/ glc11.seg
OK	0.05	2001-06-12	18:09:34	2001-06-12	18:19:53	0.17	/first_copies/12-13-jun_b/ glc13.seg
OK	0.05	2001-06-12	18:22:59	2001-06-12	18:33:12	0.17	/first_copies/12-13-jun_b/ glc7.seg
OK	0.05	2001-06-12	18:35:57	2001-06-12	19:19:21	0.72	/first_copies/12-13-jun_b/ glc5.seg
OK	0.03	2001-06-12	19:21:16	2001-06-12	19:45:06	0.4	/first_copies/12-13-jun_b/ glc2.seg
OK	0.04	2001-06-12	19:47:28	2001-06-12	20:11:50	0.41	/first_copies/12-13-jun_b/ glc6.seg
OK	0.05	2001-06-12	20:15:05	2001-06-12	20:22:49	0.13	/first_copies/12-13-jun_b/ glc10.seg
ROV	+	STAND-BY	+	CORE			
BAD	8.3	2001-06-13	4:40:40	2001-06-13	5:15:02	0.57	/first_copies/12-13-jun_b/ glc12.seg
OK	0.43	2001-06-13	5:40:50	2001-06-13	6:54:57	1.24	/first_copies/12-13-jun_b/ toiz35.seg
OK	0.37	2001-06-13	7:17:22	2001-06-13	7:23:49	0.11	/first_copies/12-13-jun_b/ iz35.seg
CORE							
BAD	1.29	2001-06-13	8:41:22	2001-06-13	8:57:50	0.27	/first_copies/13-14-jun-01_a/ toiz36.seg
CORE							
BAD	1.3	2001-06-13	10:16:00	2001-06-13	10:28:37	0.21	/first_copies/13-14-jun-01_a/ izc36.seg
OK	0.5	2001-06-13	10:58:46	2001-06-13	11:03:47	0.08	/first_copies/13-14-jun-01_a/ izc37.seg
CORE							
BAD	2.57	2001-06-13	13:38:11	2001-06-13	15:20:07	1.7	/first_copies/13-14-jun-01_a/ izb10m.seg
OK	0.19	2001-06-13	15:31:45	2001-06-13	16:49:59	1.3	/first_copies/13-14-jun-01_b/ izb11m.seg
OK	0.04	2001-06-13	16:52:37	2001-06-13	17:16:13	0.39	/first_copies/13-14-jun-01_b/ izb12m.seg
OK	0.09	2001-06-13	17:21:26	2001-06-13	18:21:55	1.01	/first_copies/13-14-jun-01_b/ izb13m.seg
OK	0.26	2001-06-13	18:37:27	2001-06-13	19:08:22	0.52	/first_copies/14-jun-01_a/ izb14m.seg
OK	0.06	2001-06-13	19:12:04	2001-06-13	19:40:07	0.47	/first_copies/14-jun-01_a/ izb15m.seg
OK	0.02	2001-06-13	19:41:22	2001-06-13	20:42:51	1.02	/first_copies/14-jun-01_a/ izb16m.seg
OK	0.26	2001-06-13	20:58:28	2001-06-13	21:40:38	0.7	/first_copies/14-jun-01_a/ izb17m.seg
OK	0.01	2001-06-13	21:41:19	2001-06-13	21:52:36	0.19	/first_copies/14-jun-01_b/ izb17ma.seg
CORE							
BAD	1.15	2001-06-13	23:01:41	2001-06-13	23:42:14	0.68	/first_copies/14-jun-01_b/ toherz.seg
OK	0.02	2001-06-13	23:43:11	2001-06-14	0:18:43	0.59	/first_copies/14-jun-01_b/ herz1.seg
OK	0.07	2001-06-14	0:23:09	2001-06-14	1:02:58	0.66	/first_copies/14-jun-01_b/ herz2.seg
OK	0.07	2001-06-14	1:07:11	2001-06-14	1:40:48	0.56	/first_copies/14-jun-01_b/ herz4.seg
OK	0.19	2001-06-14	1:52:08	2001-06-14	2:32:09	0.67	/first_copies/14-jun-01_a/ herz5.seg
OK	0.06	2001-06-14	2:35:48	2001-06-14	3:03:10	0.46	/first_copies/14-jun-01_a/ herz6.seg
OK	0.09	2001-06-14	3:08:46	2001-06-14	3:47:16	0.64	/first_copies/14-jun-01_a/ herz7.seg
OK	0.06	2001-06-14	3:50:35	2001-06-14	4:34:17	0.73	/first_copies/14-jun-01_a/ tonamik4.seg
CORE							

Table 19: MARM2001: CHIRP FILES 7

STATUS	DT	DS	TS	DE	TE	TOT	FILE
BAD	1.25	2001-06-14	5:49:00	2001-06-14	5:59:30	0.17	/first_copies/14-jun-01_a/ toprince.seg
CORE							
BAD	2.1	2001-06-14	8:05:34	2001-06-14	9:05:48	1	/first_copies/14-jun-01_aa/ pic39-40.seg
CORE							
BAD	1.34	2001-06-14	10:26:24	2001-06-14	12:05:46	1.66	/first_copies/14-jun-01_aa/ pic39-g3.seg
OK	0.17	2001-06-14	12:15:51	2001-06-14	12:23:40	0.13	/first_copies/14-jun-01_ba/ topi40.seg
CORE							
BAD	2.08	2001-06-14	14:28:34	2001-06-14	15:22:29	0.9	/first_copies/14-jun-01_ba/ bosfo1.seg
TRASF	TO	GANOS	+	CTD			
BAD	7.26	2001-06-14	22:37:50	2001-06-14	22:51:52	0.23	/first_copies/15-jun-01_a/ ga1.seg
OK	0.01	2001-06-14	22:52:11	2001-06-14	23:10:10	0.3	/first_copies/15-jun-01_a/ ga2.seg
OK	0.03	2001-06-14	23:12:11	2001-06-14	23:28:10	0.27	/first_copies/15-jun-01_a/ ga3.seg
OK	0.05	2001-06-14	23:31:19	2001-06-14	23:47:11	0.26	/first_copies/15-jun-01_a/ ga4.seg
OK	0.05	2001-06-14	23:49:59	2001-06-15	0:05:00	0.25	/first_copies/15-jun-01_a/ ga5.seg
OK	0.09	2001-06-15	0:10:10	2001-06-15	0:25:44	0.26	/first_copies/15-jun-01_a/ ga6.seg
OK	0.07	2001-06-15	0:29:42	2001-06-15	0:43:51	0.24	/first_copies/15-jun-01_a/ ga7.seg
OK	0.06	2001-06-15	0:47:42	2001-06-15	1:02:00	0.24	/first_copies/15-jun-01_a/ ga8.seg
OK	0.06	2001-06-15	1:05:52	2001-06-15	1:19:32	0.23	/first_copies/15-jun-01_a/ ga9.seg
OK	0.08	2001-06-15	1:24:11	2001-06-15	1:38:18	0.24	/first_copies/15-jun-01_a/ ga10.seg
OK	0.05	2001-06-15	1:41:05	2001-06-15	1:56:11	0.25	/first_copies/15-jun-01_b/ ga11.seg
OK	0.09	2001-06-15	2:01:18	2001-06-15	2:14:48	0.23	/first_copies/15-jun-01_b/ ga12.seg
OK	0.04	2001-06-15	2:17:20	2001-06-15	2:30:59	0.23	/first_copies/15-jun-01_b/ ga13.seg
OK	0.07	2001-06-15	2:34:55	2001-06-15	2:47:27	0.21	/first_copies/15-jun-01_b/ ga14.seg
OK	0.04	2001-06-15	2:49:37	2001-06-15	3:04:36	0.25	/first_copies/15-jun-01_b/ ga15.seg
OK	0.06	2001-06-15	3:07:56	2001-06-15	3:21:06	0.22	/first_copies/15-jun-01_b/ ga16.seg
OK	0.06	2001-06-15	3:24:44	2001-06-15	3:36:32	0.2	/first_copies/15-jun-01_b/ ga17.seg
OK	0.08	2001-06-15	3:41:29	2001-06-15	3:54:33	0.22	/first_copies/15-jun-01_b/ ga18.seg
OK	0.07	2001-06-15	3:58:32	2001-06-15	4:10:48	0.2	/first_copies/15-jun-01_b/ ga19.seg
OK	0.07	2001-06-15	4:14:45	2001-06-15	4:21:43	0.12	/first_copies/15-jun-01_b/ ga20.seg
OK	0.04	2001-06-15	4:24:11	2001-06-15	4:33:08	0.15	/first_copies/15-jun-01_b/ trasf.seg
OK	0.04	2001-06-15	4:35:41	2001-06-15	4:43:24	0.13	/first_copies/15-jun-01_b/ c5c4.seg
CORES							
BAD	3.32	2001-06-15	8:02:28	2001-06-15	8:13:28	0.18	/first_copies/15-jun-01_aa/ gac44.seg
CORE							
BAD	1.9	2001-06-15	10:07:31	2001-06-15	10:18:18	0.18	/first_copies/15-jun-01_aa/ togc46.seg
OK	0.6	2001-06-15	10:54:16	2001-06-15	11:16:00	0.36	/first_copies/15-jun-01_aa/ togac47.seg
CORES							
BAD	4.66	2001-06-15	15:55:22	2001-06-15	16:07:52	0.21	/first_copies/15-jun-01_aa/ gan0-1.seg
OK	0.01	2001-06-15	16:08:40	2001-06-15	16:32:57	0.4	/first_copies/15-jun-01_aa/ gan0-2.seg
OK	0.07	2001-06-15	16:36:56	2001-06-15	16:56:32	0.33	/first_copies/15-jun-01_aa/ gan0-3.seg
OK	0.11	2001-06-15	17:03:08	2001-06-15	17:22:01	0.31	/first_copies/15-jun-01_aa/ gan0-4.seg
CORES							
BAD	3.77	2001-06-15	21:08:23	2001-06-15	21:26:53	0.31	/first_copies/15-jun-01_aa/ tohome1.seg
OK	0.1	2001-06-15	21:32:38	2001-06-15	21:50:48	0.3	/first_copies/15-jun-01_aa/ tohome2.seg

Table 20: MARM2001: CHIRP FILES 8

3 MULTIBEAM FILES

DS	TS	DE	TE	TOT	FILE
2001-05-25	14:18:13	2001-05-25	14:37:31	0.32	2001-05-25-14:18:13-tremiti01.xse
2001-05-25	19:24:45	2001-05-25	19:44:18	0.33	2001-05-25-19:24:45-tremiti02.xse
2001-05-25	19:54:17	2001-05-25	20:16:24	0.37	2001-05-25-19:54:17-tremiti04.xse
2001-05-25	20:16:27	2001-05-25	08:15:39	-12.01	2001-05-25-20:16:27-tremiti05.xse
2001-05-26	21:20:54	2001-05-26	22:10:59	0.83	2001-05-26-21:20:54-grecia.xse
2001-05-26	22:11:57	2001-05-26	23:46:38	1.58	2001-05-26-22:11:57-corinto1.xse
2001-05-26	23:46:41	2001-05-26	01:27:22	-22.32	2001-05-26-23:46:41-corinto2.xse
2001-05-27	01:27:24	2001-05-27	06:39:58	5.21	2001-05-27-01:27:24-corinto3.xse
2001-05-27	15:13:47	2001-05-27	15:14:08	0.01	2001-05-27-15:13:47-cal00.xse
2001-05-27	15:33:40	2001-05-27	15:40:31	0.11	2001-05-27-15:33:40-cal01.xse
2001-05-27	15:45:20	2001-05-27	15:52:17	0.12	2001-05-27-15:45:20-cal02.xse
2001-05-27	15:58:46	2001-05-27	16:05:31	0.11	2001-05-27-15:58:46-cal03.xse
2001-05-27	16:09:31	2001-05-27	16:15:59	0.11	2001-05-27-16:09:31-cal04.xse
2001-05-27	18:06:16	2001-05-27	19:00:09	0.90	2001-05-27-18:06:16-27sera.xse
2001-05-28	07:22:17	2001-05-28	08:36:31	1.24	2001-05-28-07:22:17-peoloponneso.xse
2001-05-28	16:03:14	2001-05-28	17:41:08	1.63	2001-05-28-16:03:14-peoloponnesq.xse
2001-05-29	05:30:50	2001-05-29	06:05:28	0.58	2001-05-29-05:30:50-line001.xse
2001-05-29	06:05:41	2001-05-29	06:33:48	0.47	2001-05-29-06:05:41-line002.xse
2001-05-29	06:33:58	2001-05-29	06:45:24	0.19	2001-05-29-06:33:58-line003.xse
2001-05-29	06:46:04	2001-05-29	06:53:13	0.12	2001-05-29-06:46:04-line004.xse
2001-05-29	06:53:20	2001-05-29	07:28:00	0.58	2001-05-29-06:53:20-line005.xse
2001-05-29	08:07:08	2001-05-29	08:20:18	0.22	2001-05-29-08:07:08-line1.xse
2001-05-29	08:20:24	2001-05-29	08:55:06	0.58	2001-05-29-08:20:24-line2.xse
2001-05-29	08:55:11	2001-05-29	09:00:53	0.10	2001-05-29-08:55:11-line3.xse
2001-05-29	09:01:06	2001-05-29	09:16:42	0.26	2001-05-29-09:01:06-line4.xse
2001-05-29	13:44:29	2001-05-29	16:08:13	2.40	2001-05-29-13:44:29-toganos.xse
2001-05-29	16:09:31	2001-05-29	16:27:49	0.30	2001-05-29-16:09:31-ganos-00.xse
2001-05-29	16:29:01	2001-05-29	16:55:33	0.44	2001-05-29-16:29:01-ganos-01.xse
2001-05-29	16:55:51	2001-05-29	17:09:44	0.23	2001-05-29-16:55:51-toctd04.xse
2001-05-29	18:08:46	2001-05-29	18:30:44	0.37	2001-05-29-18:08:46-ganos-02.xse
2001-05-29	18:34:10	2001-05-29	18:54:44	0.34	2001-05-29-18:34:10-ganos-03.xse
2001-05-29	19:03:01	2001-05-29	19:21:06	0.30	2001-05-29-19:03:01-ganos-04.xse
2001-05-29	19:21:21	2001-05-29	20:05:03	0.73	2001-05-29-19:21:21-ganos-05.xse
2001-05-29	20:10:35	2001-05-29	20:52:30	0.70	2001-05-29-20:10:35-ganos-06.xse
2001-05-29	20:55:48	2001-05-29	21:39:04	0.72	2001-05-29-20:55:48-ganos-07.xse
2001-05-29	21:44:38	2001-05-29	22:22:42	0.63	2001-05-29-21:44:38-ganos-08.xse
2001-05-29	22:25:11	2001-05-29	22:59:51	0.58	2001-05-29-22:25:11-ganos-09.xse
2001-05-29	23:07:01	2001-05-29	23:41:43	0.58	2001-05-29-23:07:01-ganos-10.xse
2001-05-29	23:46:13	2001-05-29	00:16:59	-23.49	2001-05-29-23:46:13-ganos-11.xse
2001-05-30	00:23:41	2001-05-30	00:55:29	0.53	2001-05-30-00:23:41-ganos-12.xse
2001-05-30	01:01:09	2001-05-30	01:28:10	0.45	2001-05-30-01:01:09-ganos-13.xse
2001-05-30	01:33:24	2001-05-30	02:04:40	0.52	2001-05-30-01:33:24-ganos-14.xse
2001-05-30	02:08:30	2001-05-30	02:32:48	0.41	2001-05-30-02:08:30-ganos-15.xse
2001-05-30	02:40:30	2001-05-30	03:02:59	0.37	2001-05-30-02:40:30-ganos-16.xse
2001-05-30	03:03:06	2001-05-30	03:22:33	0.32	2001-05-30-03:03:06-ganos-17.xse
2001-05-30	03:23:33	2001-05-30	03:32:59	0.16	2001-05-30-03:23:33-ganos-18.xse
2001-05-30	03:34:15	2001-05-30	03:57:39	0.39	2001-05-30-03:34:15-ganos-19.xse
2001-05-30	04:01:25	2001-05-30	04:40:42	0.65	2001-05-30-04:01:25-toim01.xse
2001-05-30	05:09:20	2001-05-30	11:11:20	6.03	2001-05-30-05:09:20-toim02.xse
2001-05-30	15:43:57	2001-05-30	15:49:49	0.10	2001-05-30-15:43:57-IMR-00.xse
2001-05-30	16:41:35	2001-05-30	16:53:16	0.19	2001-05-30-16:41:35-IMR-02.xse
2001-05-30	17:10:51	2001-05-30	22:25:54	5.25	2001-05-30-17:10:51-IMR-03.xse
2001-05-30	22:26:04	2001-05-30	23:37:42	1.19	2001-05-30-22:26:04-IMR-04.xse
2001-05-31	08:13:42	2001-05-31	10:52:02	2.64	2001-05-31-08:13:42-IZM01.xse
2001-05-31	10:54:20	2001-05-31	11:59:16	1.08	2001-05-31-10:54:20-IZM02.xse
2001-05-31	12:21:20	2001-05-31	13:41:02	1.33	2001-05-31-12:21:20-IZC-01.xse
2001-05-31	14:01:08	2001-05-31	14:22:40	0.36	2001-05-31-14:01:08-IZC-02.xse
2001-05-31	14:25:42	2001-05-31	14:59:41	0.57	2001-05-31-14:25:42-IZC-03.xse
2001-05-31	15:03:35	2001-05-31	15:39:24	0.60	2001-05-31-15:03:35-IZC-04.xse
2001-05-31	16:04:41	2001-05-31	16:28:48	0.40	2001-05-31-16:04:41-I-03.xse

Table 21: MARM2001: ELAC MULTIBEAM FILES 0

DS	TS	DE	TE	TOT	FILE
2001-05-31	16:33:06	2001-05-31	16:55:07	0.37	2001-05-31-16:33:06-I-01.xse
2001-05-31	16:58:50	2001-05-31	17:22:32	0.40	2001-05-31-16:58:50-I-02.xse
2001-05-31	17:27:07	2001-05-31	17:57:15	0.50	2001-05-31-17:27:07-i-04.xse
2001-05-31	17:59:54	2001-06-31	23:58:28	749.98	2001-05-31-17:59:54-IW-05.xse
2001-05-31	18:38:51	2001-05-31	19:17:15	0.64	2001-05-31-18:38:51-I-06.xse
2001-05-31	19:20:39	2001-05-31	20:02:45	0.70	2001-05-31-19:20:39-I-07.xse
2001-05-31	20:06:42	2001-05-31	20:52:16	0.76	2001-05-31-20:06:42-I-08.xse
2001-05-31	20:55:41	2001-05-31	21:42:04	0.77	2001-05-31-20:55:41-I-09.xse
2001-05-31	21:45:12	2001-05-31	22:37:11	0.87	2001-05-31-21:45:12-I-10.xse
2001-05-31	22:42:45	2001-05-31	23:36:34	0.90	2001-05-31-22:42:45-I-11.xse
2001-05-31	23:40:26	2001-06-31	00:32:09	720.86	2001-05-31-23:40:26-I-12.xse
2001-06-01	00:38:05	2001-06-01	01:30:27	0.87	2001-06-01-00:38:05-I-13.xse
2001-06-01	01:35:02	2001-06-01	02:22:37	0.79	2001-06-01-01:35:02-I-14.xse
2001-06-01	02:27:40	2001-06-01	03:15:00	0.79	2001-06-01-02:27:40-I-15.xse
2001-06-01	03:18:34	2001-06-01	04:03:48	0.75	2001-06-01-03:18:34-I-16.xse
2001-06-01	04:07:58	2001-06-01	04:59:29	0.86	2001-06-01-04:07:58-I-17.xse
2001-06-01	05:04:24	2001-06-01	05:56:15	0.86	2001-06-01-05:04:24-I-18.xse
2001-06-01	06:00:27	2001-06-01	06:48:55	0.81	2001-06-01-06:00:27-I-19.xse
2001-06-01	06:51:46	2001-06-01	07:37:06	0.76	2001-06-01-06:51:46-I-20.xse
2001-06-01	07:45:15	2001-06-01	08:04:17	0.32	2001-06-01-07:45:15-sub1.xse
2001-06-01	08:06:14	2001-06-01	08:27:38	0.36	2001-06-01-08:06:14-SUB-2.xse
2001-06-01	08:27:39	2001-06-01	09:16:25	0.81	2001-06-01-08:27:39-I-22a.xse
2001-06-01	09:23:41	2001-06-01	10:06:08	0.71	2001-06-01-09:23:41-I-24.xse
2001-06-01	10:12:44	2001-06-01	10:57:40	0.75	2001-06-01-10:12:44-I-26.xse
2001-06-01	11:04:27	2001-06-01	11:46:49	0.71	2001-06-01-11:04:27-I-28.xse
2001-06-01	11:50:48	2001-06-01	12:33:43	0.72	2001-06-01-11:50:48-I-29.xse
2001-06-01	12:39:25	2001-06-01	13:22:13	0.71	2001-06-01-12:39:25-I-31.xse
2001-06-01	13:28:11	2001-06-01	14:10:46	0.71	2001-06-01-13:28:11-I-33.xse
2001-06-01	14:16:48	2001-06-01	14:59:01	0.70	2001-06-01-14:16:48-I-35.xse
2001-06-01	15:03:06	2001-06-01	00:26:21	-14.61	2001-06-01-15:03:06-I-37.xse
2001-06-01	15:47:25	2001-06-01	16:28:39	0.69	2001-06-01-15:47:25-I-40.xse
2001-06-01	16:33:29	2001-06-01	17:12:26	0.65	2001-06-01-16:33:29-I-42.xse
2001-06-01	17:18:28	2001-06-01	17:59:05	0.68	2001-06-01-17:18:28-I-44.xse
2001-06-01	17:59:18	2001-06-01	18:35:27	0.60	2001-06-01-17:59:18-I-46.xse
2001-06-01	18:42:37	2001-06-01	19:17:32	0.58	2001-06-01-18:42:37-i-48.xse
2001-06-01	19:22:30	2001-06-01	20:10:08	0.79	2001-06-01-19:22:30-I-50.xse
2001-06-01	20:17:40	2001-06-01	20:33:14	0.26	2001-06-01-20:17:40-I-51.xse
2001-06-01	20:35:23	2001-06-01	05:16:54	-15.31	2001-06-01-20:35:23-I-52.xse
2001-06-01	21:12:02	2001-06-01	22:07:10	0.92	2001-06-01-21:12:02-iztras01.xse
2001-06-01	22:20:19	2001-06-01	22:50:56	0.51	2001-06-01-22:20:19-I-21.xse
2001-06-01	22:57:09	2001-06-01	23:42:28	0.76	2001-06-01-22:57:09-I-23.xse
2001-06-01	23:49:45	2001-06-01	00:33:16	-23.27	2001-06-01-23:49:45-I-25.xse
2001-06-02	00:40:33	2001-06-02	01:25:53	0.76	2001-06-02-00:40:33-I-27.xse
2001-06-02	01:30:12	2001-06-02	02:15:56	0.76	2001-06-02-01:30:12-I-REC.xse
2001-06-02	02:22:21	2001-06-02	03:05:45	0.72	2001-06-02-02:22:21-I-30.xse
2001-06-02	03:12:21	2001-06-02	03:39:57	0.46	2001-06-02-03:12:21-I-32.xse
2001-06-02	05:21:14	2001-06-02	06:55:15	1.57	2001-06-02-05:21:14-I01M.xse
2001-06-02	07:06:05	2001-06-02	08:56:11	1.83	2001-06-02-07:06:05-I02M.xse
2001-06-02	08:56:34	2001-06-02	10:25:28	1.48	2001-06-02-08:56:34-i03m.xse
2001-06-02	10:42:33	2001-06-02	11:15:52	0.56	2001-06-02-10:42:33-i04m.xse
2001-06-02	11:16:12	2001-06-02	12:46:48	1.51	2001-06-02-11:16:12-I-06M.xse
2001-06-02	12:47:09	2001-06-02	13:53:45	1.11	2001-06-02-12:47:09-I05m.xse
2001-06-02	14:06:25	2001-06-02	15:27:53	1.36	2001-06-02-14:06:25-I-06MA.xse
2001-06-02	16:01:45	2001-06-02	16:13:41	0.20	2001-06-02-16:01:45-I-TR01.xse
2001-06-02	16:15:12	2001-06-02	17:39:37	1.41	2001-06-02-16:15:12-I-07M.xse
2001-06-02	17:49:08	2001-06-02	18:45:05	0.93	2001-06-02-17:49:08-I-08M.xse
2001-06-02	18:48:50	2001-06-02	19:53:26	1.08	2001-06-02-18:48:50-I-09M.xse
2001-06-02	20:50:55	2001-06-02	21:12:46	0.36	2001-06-02-20:50:55-ITOCTD08.xse
2001-06-02	21:30:53	2001-06-02	22:26:11	0.92	2001-06-02-21:30:53-i-trans.xse
2001-06-02	22:28:13	2001-06-02	22:51:03	0.38	2001-06-02-22:28:13-I-34.xse

Table 22: MARM2001: ELAC MULTIBEAM FILES 1

DS	TS	DE	TE	TOT	FILE
2001-06-02	22:59:08	2001-06-02	23:38:21	0.65	2001-06-02-22:59:08-I-36.xse
2001-06-03	00:31:39	2001-06-03	01:12:31	0.68	2001-06-03-00:31:39-I-39.xse
2001-06-03	01:18:17	2001-06-03	01:58:24	0.67	2001-06-03-01:18:17-I-41.xse
2001-06-03	02:04:44	2001-06-03	02:42:14	0.62	2001-06-03-02:04:44-I-43.xse
2001-06-03	02:44:44	2001-06-03	03:26:35	0.70	2001-06-03-02:44:44-I-45.xse
2001-06-03	03:33:47	2001-06-03	04:08:25	0.58	2001-06-03-03:33:47-I-47.xse
2001-06-03	04:16:17	2001-06-03	04:50:20	0.57	2001-06-03-04:16:17-I-49.xse
2001-06-03	05:20:39	2001-06-03	05:47:27	0.45	2001-06-03-05:20:39-I-RACC.xse
2001-06-03	06:26:12	2001-06-03	06:46:50	0.34	2001-06-03-06:26:12-TT-1A.xse
2001-06-03	06:49:26	2001-06-03	07:29:11	0.66	2001-06-03-06:49:26-TT-1B.xse
2001-06-03	07:47:53	2001-06-03	07:52:49	0.08	2001-06-03-07:47:53-TT-1C.xse
2001-06-03	18:55:31	2001-06-03	19:19:01	0.39	2001-06-03-18:55:31-TOIW-01.xse
2001-06-03	19:21:01	2001-06-03	20:03:27	0.71	2001-06-03-19:21:01-IW-01.xse
2001-06-03	20:09:05	2001-06-03	20:53:05	0.73	2001-06-03-20:09:05-IW-03.xse
2001-06-03	21:07:36	2001-06-03	21:59:52	0.87	2001-06-03-21:07:36-IW-02_A.xse
2001-06-03	22:09:11	2001-06-03	23:00:50	0.86	2001-06-03-22:09:11-IW-04.xse
2001-06-04	00:04:31	2001-06-04	00:47:17	0.71	2001-06-04-00:04:31-IW-06.xse
2001-06-04	00:55:53	2001-06-04	01:40:17	0.74	2001-06-04-00:55:53-IW-10.xse
2001-06-04	01:44:15	2001-06-04	02:29:44	0.76	2001-06-04-01:44:15-IW-11.xse
2001-06-04	02:33:22	2001-06-04	03:01:04	0.46	2001-06-04-02:33:22-IW-12.xse
2001-06-04	03:47:47	2001-06-04	04:08:57	0.35	2001-06-04-03:47:47-TOIZW02.xse
2001-06-04	04:09:17	2001-06-04	04:12:19	0.05	2001-06-04-04:09:17-IZW-02M.xse
2001-06-04	04:12:46	2001-06-04	05:20:37	1.13	2001-06-04-04:12:46-iw01m.xse
2001-06-04	05:23:39	2001-06-04	05:37:56	0.24	2001-06-04-05:23:39-toiw02m.xse
2001-06-04	05:38:27	2001-06-04	05:40:25	0.03	2001-06-04-05:38:27-iw02m.xse
2001-06-04	05:40:57	2001-06-04	06:50:36	1.16	2001-06-04-05:40:57-IW02MCS.xse
2001-06-04	06:51:40	2001-06-04	06:58:41	0.12	2001-06-04-06:51:40-TOIW03M.xse
2001-06-04	06:59:02	2001-06-04	08:12:31	1.22	2001-06-04-06:59:02-IZW03M.xse
2001-06-04	08:15:09	2001-06-04	08:32:42	0.29	2001-06-04-08:15:09-TOIZW04M.xse
2001-06-04	08:33:22	2001-06-04	09:43:29	1.17	2001-06-04-08:33:22-iw04m.xse
2001-06-04	09:45:53	2001-06-04	10:19:22	0.56	2001-06-04-09:45:53-ToIW18m.xse
2001-06-04	10:19:51	2001-06-04	11:44:31	1.41	2001-06-04-10:19:51-iw05m.xse
2001-06-04	12:46:37	2001-06-04	14:29:21	1.71	2001-06-04-12:46:37-iw-06mcs.xse
2001-06-04	14:40:54	2001-06-04	15:58:44	1.30	2001-06-04-14:40:54-iw-07m.xse
2001-06-04	16:01:06	2001-06-04	18:04:18	2.05	2001-06-04-16:01:06-iw-08m.xse
2001-06-04	20:12:07	2001-06-04	20:44:49	0.55	2001-06-04-20:12:07-iw-09.xse
2001-06-04	20:57:29	2001-06-04	21:24:27	0.45	2001-06-04-20:57:29-imr2-1.xse
2001-06-04	21:26:17	2001-06-04	22:24:33	0.97	2001-06-04-21:26:17-imr2-2.xse
2001-06-04	22:24:57	2001-06-04	22:44:17	0.32	2001-06-04-22:24:57-imr2-3.xse
2001-06-05	00:08:59	2001-06-05	00:09:41	0.01	2001-06-05-00:08:59-testfile.xse
2001-06-05	00:12:21	2001-06-05	00:47:33	0.59	2001-06-05-00:12:21-coast-1.xse
2001-06-05	00:47:41	2001-06-05	01:12:46	0.42	2001-06-05-00:47:41-coast-2.xse
2001-06-05	01:12:57	2001-06-05	02:03:09	0.84	2001-06-05-01:12:57-coast-3.xse
2001-06-05	02:03:35	2001-06-05	02:39:06	0.59	2001-06-05-02:03:35-coast-4.xse
2001-06-05	02:39:16	2001-06-05	03:59:28	1.34	2001-06-05-02:39:16-coast-5.xse
2001-06-05	03:59:47	2001-06-05	04:47:47	0.80	2001-06-05-03:59:47-coast-6.xse
2001-06-05	04:48:06	2001-06-05	05:15:55	0.46	2001-06-05-04:48:06-SF01.xse
2001-06-05	05:48:47	2001-06-05	05:50:22	0.03	2001-06-05-05:48:47-TR-IR-2.xse
2001-06-05	05:52:37	2001-06-05	06:23:13	0.51	2001-06-05-05:52:37-IR-02.xse
2001-06-05	06:27:31	2001-06-05	06:54:05	0.44	2001-06-05-06:27:31-IR-03.xse
2001-06-05	06:58:14	2001-06-05	07:31:32	0.56	2001-06-05-06:58:14-IR-04.xse
2001-06-05	07:31:36	2001-06-05	08:12:33	0.68	2001-06-05-07:31:36-IR-05.xse
2001-06-05	08:12:42	2001-06-05	08:49:39	0.62	2001-06-05-08:12:42-IR-06.xse
2001-06-05	08:53:24	2001-06-05	09:21:39	0.47	2001-06-05-08:53:24-IR-07.xse
2001-06-05	09:22:45	2001-06-05	09:36:02	0.22	2001-06-05-09:22:45-trans-1.xse
2001-06-05	09:40:48	2001-06-05	10:21:43	0.68	2001-06-05-09:40:48-IM-CAROTE.xse
2001-06-05	10:27:02	2001-06-05	10:47:45	0.35	2001-06-05-10:27:02-IR-1.xse
2001-06-05	11:31:19	2001-06-05	11:37:01	0.10	2001-06-05-11:31:19-CORE1.xse
2001-06-05	13:22:07	2001-06-05	13:31:10	0.15	2001-06-05-13:22:07-core-3.xse
2001-06-05	14:13:28	2001-06-05	14:21:17	0.13	2001-06-05-14:13:28-core-4.xse

Table 23: MARM2001: ELAC MULTIBEAM FILES 2

DS	TS	DE	TE	TOT	FILE
2001-06-05	17:51:56	2001-06-05	18:11:54	0.33	2001-06-05-17:51:56-p1p2_1.xse
2001-06-05	18:17:56	2001-06-05	18:41:00	0.38	2001-06-05-18:17:56-IMC04-06.xse
2001-06-05	18:45:44	2001-06-05	19:17:59	0.54	2001-06-05-18:45:44-IM-08.xse
2001-06-05	19:27:50	2001-06-05	19:55:52	0.47	2001-06-05-19:27:50-IR-09.xse
2001-06-05	20:04:12	2001-06-05	20:27:18	0.39	2001-06-05-20:04:12-IR-10.xse
2001-06-05	20:33:21	2001-06-05	20:54:54	0.36	2001-06-05-20:33:21-IR-11.xse
2001-06-05	20:54:57	2001-06-05	21:17:30	0.38	2001-06-05-20:54:57-IR-12.xse
2001-06-05	21:24:34	2001-06-05	21:46:05	0.36	2001-06-05-21:24:34-IR-13.xse
2001-06-05	21:51:58	2001-06-05	22:13:11	0.35	2001-06-05-21:51:58-IR-14.xse
2001-06-05	22:18:55	2001-06-05	22:41:51	0.38	2001-06-05-22:18:55-IR-15.xse
2001-06-05	22:48:42	2001-06-05	23:34:40	0.77	2001-06-05-22:48:42-IR-16.xse
2001-06-05	23:35:55	2001-06-05	00:05:53	-23.50	2001-06-05-23:35:55-IR-17.xse
2001-06-06	00:07:03	2001-06-06	00:59:02	0.87	2001-06-06-00:07:03-IR-18.xse
2001-06-06	01:00:33	2001-06-06	01:24:43	0.40	2001-06-06-01:00:33-IR-19.xse
2001-06-06	01:30:35	2001-06-06	01:49:09	0.31	2001-06-06-01:30:35-ir-20.xse
2001-06-06	01:50:33	2001-06-06	02:17:40	0.45	2001-06-06-01:50:33-ir-21.xse
2001-06-06	02:21:47	2001-06-06	02:40:30	0.31	2001-06-06-02:21:47-ir-22.xse
2001-06-06	02:46:53	2001-06-06	03:12:40	0.43	2001-06-06-02:46:53-ir-23.xse
2001-06-06	03:15:28	2001-06-06	03:38:31	0.38	2001-06-06-03:15:28-ir-24.xse
2001-06-06	03:44:12	2001-06-06	03:56:47	0.21	2001-06-06-03:44:12-ir-25.xse
2001-06-06	03:57:33	2001-06-06	04:38:33	0.68	2001-06-06-03:57:33-ir-26.xse
2001-06-06	04:38:46	2001-06-06	04:52:31	0.23	2001-06-06-04:38:46-ir-27.xse
2001-06-06	08:37:18	2001-06-06	09:28:48	0.86	2001-06-06-08:37:18-TOBU01.xse
2001-06-06	10:59:16	2001-06-06	11:15:11	0.27	2001-06-06-10:59:16-BUYU-01.xse
2001-06-06	11:15:41	2001-06-06	11:22:27	0.11	2001-06-06-11:15:41-buc-4.xse
2001-06-06	11:43:40	2001-06-06	12:06:43	0.38	2001-06-06-11:43:40-CORE-BU8.xse
2001-06-06	12:13:33	2001-06-06	12:28:32	0.25	2001-06-06-12:13:33-buc8tobuc9.xse
2001-06-06	12:39:01	2001-06-06	12:52:18	0.22	2001-06-06-12:39:01-CORE-BU9.xse
2001-06-06	13:14:43	2001-06-06	13:30:40	0.27	2001-06-06-13:14:43-buc-10.xse
2001-06-06	13:33:26	2001-06-06	13:50:00	0.28	2001-06-06-13:33:26-CORE_BU10.xse
2001-06-06	16:49:20	2001-06-06	17:14:47	0.42	2001-06-06-16:49:20-TO-BUC12.xse
2001-06-06	18:02:19	2001-06-06	18:16:11	0.23	2001-06-06-18:02:19-BU_07.xse
2001-06-06	18:22:18	2001-06-06	18:36:11	0.23	2001-06-06-18:22:18-BU_06.xse
2001-06-06	18:37:50	2001-06-06	18:50:55	0.22	2001-06-06-18:37:50-BU_05.xse
2001-06-06	18:56:00	2001-06-06	19:07:50	0.20	2001-06-06-18:56:00-BU-04.xse
2001-06-06	19:12:20	2001-06-06	19:25:07	0.21	2001-06-06-19:12:20-BU-03.xse
2001-06-06	19:30:36	2001-06-06	19:43:03	0.21	2001-06-06-19:30:36-BU-02.xse
2001-06-06	19:46:55	2001-06-06	19:59:30	0.21	2001-06-06-19:46:55-BU-01.xse
2001-06-06	20:04:11	2001-06-06	20:56:20	0.87	2001-06-06-20:04:11-BU_0.xse
2001-06-06	20:59:54	2001-06-06	21:28:16	0.47	2001-06-06-20:59:54-TOCE.xse
2001-06-06	21:40:28	2001-06-06	22:18:37	0.64	2001-06-06-21:40:28-CE-1.xse
2001-06-06	22:19:54	2001-06-06	22:30:56	0.18	2001-06-06-22:19:54-CET-2.xse
2001-06-06	22:32:08	2001-06-06	23:03:57	0.53	2001-06-06-22:32:08-CE-3.xse
2001-06-06	23:39:30	2001-06-06	23:52:29	0.22	2001-06-06-23:39:30-CE-4.xse
2001-06-06	23:53:49	2001-06-06	00:43:36	-23.17	2001-06-06-23:53:49-CE-4b.xse
2001-06-07	00:44:07	2001-06-07	01:00:26	0.27	2001-06-07-00:44:07-CE-6.xse
2001-06-07	01:00:44	2001-06-07	01:33:57	0.55	2001-06-07-01:00:44-CE-6A.xse
2001-06-07	01:36:05	2001-06-07	01:48:45	0.21	2001-06-07-01:36:05-CE-7.xse
2001-06-07	02:16:02	2001-06-07	02:42:42	0.44	2001-06-07-02:16:02-CE-8.xse
2001-06-07	02:43:27	2001-06-07	02:58:10	0.25	2001-06-07-02:43:27-CE-9.xse
2001-06-07	02:59:37	2001-06-07	03:25:47	0.44	2001-06-07-02:59:37-CE-9A.xse
2001-06-07	03:26:50	2001-06-07	03:51:30	0.41	2001-06-07-03:26:50-CE-10.xse
2001-06-07	03:55:38	2001-06-07	04:59:55	1.07	2001-06-07-03:55:38-TOCAL.xse
2001-06-07	05:03:17	2001-06-07	05:10:31	0.12	2001-06-07-05:03:17-CAL-02A.xse
2001-06-07	05:14:44	2001-06-07	05:31:43	0.28	2001-06-07-05:14:44-CAL-02B.xse
2001-06-07	05:36:34	2001-06-07	05:58:42	0.37	2001-06-07-05:36:34-CAL-02C.xse
2001-06-07	06:00:47	2001-06-07	06:11:03	0.17	2001-06-07-06:00:47-TOCPNA.xse
2001-06-07	08:43:24	2001-06-07	09:16:15	0.55	2001-06-07-08:43:24-TOISTANBUL.xse
2001-06-07	22:45:44	2001-06-07	22:54:40	0.15	2001-06-07-22:45:44-FROMISTANBUL1.xse
2001-06-07	22:55:16	2001-06-07	23:32:11	0.62	2001-06-07-22:55:16-TOCIN2.xse

Table 24: MARM2001: ELAC MULTIBEAM FILES 3

DS	TS	DE	TE	TOT	FILE
2001-06-07	23:32:26	2001-06-07	00:13:31	-23.32	2001-06-07-23:32:26-tocin3.xse
2001-06-08	00:15:41	2001-06-08	00:43:16	0.46	2001-06-08-00:15:41-tocin4.xse
2001-06-08	00:43:40	2001-06-08	01:25:16	0.69	2001-06-08-00:43:40-tocin5.xse
2001-06-08	01:25:35	2001-06-08	01:54:35	0.48	2001-06-08-01:25:35-tocin6.xse
2001-06-08	03:34:55	2001-06-08	03:47:50	0.22	2001-06-08-03:34:55-cin-01.xse
2001-06-08	04:49:34	2001-06-08	05:32:04	0.71	2001-06-08-04:49:34-cin-01a.xse
2001-06-08	05:35:35	2001-06-08	07:19:58	1.74	2001-06-08-05:35:35-cin-11.xse
2001-06-08	07:29:32	2001-06-08	09:13:58	1.74	2001-06-08-07:29:32-cin-12.xse
2001-06-08	09:35:55	2001-06-08	09:54:39	0.31	2001-06-08-09:35:55-cin-13.xse
2001-06-08	12:19:00	2001-06-08	12:54:34	0.59	2001-06-08-12:19:00-cin-14.xse
2001-06-08	14:05:21	2001-06-08	14:52:08	0.78	2001-06-08-14:05:21-toctd13.xse
2001-06-08	15:35:07	2001-06-08	16:20:20	0.75	2001-06-08-15:35:07-WIZ1.xse
2001-06-08	16:20:47	2001-06-08	17:03:17	0.71	2001-06-08-16:20:47-WIZ2.xse
2001-06-08	17:05:49	2001-06-08	17:43:48	0.63	2001-06-08-17:05:49-WIZ3.xse
2001-06-08	17:48:06	2001-06-08	18:28:41	0.68	2001-06-08-17:48:06-WIZ4.xse
2001-06-08	18:38:04	2001-06-08	19:28:13	0.84	2001-06-08-18:38:04-WIZ5.xse
2001-06-08	19:38:10	2001-06-08	19:41:08	0.05	2001-06-08-19:38:10-WIZ6.xse
2001-06-08	19:41:10	2001-06-08	20:31:53	0.85	2001-06-08-19:41:10-WIZ7.xse
2001-06-08	21:35:35	2001-06-08	21:52:25	0.28	2001-06-08-21:35:35-b1-1.xse
2001-06-08	21:54:51	2001-06-08	22:10:02	0.25	2001-06-08-21:54:51-b1-2.xse
2001-06-08	22:11:24	2001-06-08	22:27:46	0.27	2001-06-08-22:11:24-b1-4.xse
2001-06-08	22:30:43	2001-06-08	22:46:23	0.26	2001-06-08-22:30:43-b1-5.xse
2001-06-08	22:46:25	2001-06-08	23:02:21	0.27	2001-06-08-22:46:25-b1-6.xse
2001-06-08	23:04:20	2001-06-08	23:20:20	0.27	2001-06-08-23:04:20-b1-7.xse
2001-06-08	23:22:32	2001-06-08	23:41:49	0.32	2001-06-08-23:22:32-b1-8.xse
2001-06-08	23:44:01	2001-06-08	00:01:12	-23.71	2001-06-08-23:44:01-b1-9.xse
2001-06-09	00:01:21	2001-06-09	00:15:37	0.24	2001-06-09-00:01:21-b1-10.xse
2001-06-09	00:17:41	2001-06-09	00:32:20	0.24	2001-06-09-00:17:41-b1-11.xse
2001-06-09	00:34:57	2001-06-09	00:49:39	0.24	2001-06-09-00:34:57-b1-12.xse
2001-06-09	00:52:07	2001-06-09	01:07:19	0.25	2001-06-09-00:52:07-b1-13.xse
2001-06-09	01:09:27	2001-06-09	01:24:48	0.26	2001-06-09-01:09:27-b1-14.xse
2001-06-09	01:28:11	2001-06-09	01:45:44	0.29	2001-06-09-01:28:11-b1-15.xse
2001-06-09	01:48:11	2001-06-09	02:04:37	0.27	2001-06-09-01:48:11-b1-16.xse
2001-06-09	02:06:51	2001-06-09	02:23:27	0.28	2001-06-09-02:06:51-b1-17.xse
2001-06-09	02:26:14	2001-06-09	02:42:04	0.26	2001-06-09-02:26:14-b1-18.xse
2001-06-09	02:45:41	2001-06-09	03:01:44	0.27	2001-06-09-02:45:41-b1-19.xse
2001-06-09	03:05:44	2001-06-09	03:21:51	0.27	2001-06-09-03:05:44-b1-20.xse
2001-06-09	03:24:39	2001-06-09	03:41:28	0.28	2001-06-09-03:24:39-b1-21.xse
2001-06-09	03:45:43	2001-06-09	04:02:26	0.28	2001-06-09-03:45:43-b1-22.xse
2001-06-09	04:06:46	2001-06-09	04:23:49	0.28	2001-06-09-04:06:46-b1-23.xse
2001-06-09	04:27:08	2001-06-09	04:43:09	0.27	2001-06-09-04:27:08-b1-24.xse
2001-06-09	04:46:30	2001-06-09	05:01:31	0.25	2001-06-09-04:46:30-b1-25.xse
2001-06-09	05:12:15	2001-06-09	05:26:16	0.23	2001-06-09-05:12:15-b1-26.xse
2001-06-09	05:32:01	2001-06-09	06:32:29	1.01	2001-06-09-05:32:01-ToB2-1.xse
2001-06-09	13:39:52	2001-06-09	15:48:59	2.15	2001-06-09-13:39:52-toizc14.xse
2001-06-09	15:50:06	2001-06-09	15:59:55	0.16	2001-06-09-15:50:06-iz-53.xse
2001-06-09	16:06:57	2001-06-09	16:22:59	0.27	2001-06-09-16:06:57-iz-54.xse
2001-06-09	16:25:18	2001-06-09	16:40:58	0.26	2001-06-09-16:25:18-VERC-14.xse
2001-06-09	18:08:33	2001-06-09	18:25:37	0.28	2001-06-09-18:08:33-toizw55.xse
2001-06-09	18:26:28	2001-06-09	18:53:02	0.44	2001-06-09-18:26:28-iw-55.xse
2001-06-09	18:55:46	2001-06-09	19:21:44	0.43	2001-06-09-18:55:46-iw-56.xse
2001-06-09	19:25:22	2001-06-09	21:50:34	2.42	2001-06-09-19:25:22-ToB1-27.xse
2001-06-09	21:50:36	2001-06-09	22:04:38	0.23	2001-06-09-21:50:36-B1-27.xse
2001-06-09	22:08:27	2001-06-09	22:21:37	0.22	2001-06-09-22:08:27-B1-28.xse
2001-06-09	22:23:56	2001-06-09	22:38:13	0.24	2001-06-09-22:23:56-B1-29.xse
2001-06-09	22:48:59	2001-06-09	23:11:45	0.38	2001-06-09-22:48:59-B1-30.xse
2001-06-09	23:11:46	2001-06-09	23:25:35	0.23	2001-06-09-23:11:46-B1-31.xse
2001-06-09	23:34:06	2001-06-09	23:59:36	0.42	2001-06-09-23:34:06-B1-32.xse
2001-06-10	00:01:32	2001-06-10	00:14:42	0.22	2001-06-10-00:01:32-B1-33.xse
2001-06-10	00:17:42	2001-06-10	00:20:37	0.05	2001-06-10-00:17:42-b1-33a.xse

Table 25: MARM2001: ELAC MULTIBEAM FILES 4

DS	TS	DE	TE	TOT	FILE
2001-06-10	00:21:54	2001-06-10	00:36:51	0.25	2001-06-10-00:21:54-B1-34.xse
2001-06-10	00:38:32	2001-06-10	00:54:02	0.26	2001-06-10-00:38:32-B1-35.xse
2001-06-10	01:00:39	2001-06-10	01:14:53	0.24	2001-06-10-01:00:39-B1-35A.xse
2001-06-10	01:18:12	2001-06-10	01:33:35	0.26	2001-06-10-01:18:12-B1-36.xse
2001-06-10	01:38:07	2001-06-10	01:52:03	0.23	2001-06-10-01:38:07-B1-37.xse
2001-06-10	01:56:26	2001-06-10	02:10:45	0.24	2001-06-10-01:56:26-B1-38.xse
2001-06-10	02:15:07	2001-06-10	02:28:40	0.23	2001-06-10-02:15:07-B1-39.xse
2001-06-10	02:33:10	2001-06-10	02:47:56	0.25	2001-06-10-02:33:10-B1-40.xse
2001-06-10	02:52:00	2001-06-10	03:05:48	0.23	2001-06-10-02:52:00-B1-41.xse
2001-06-10	03:09:53	2001-06-10	03:24:37	0.25	2001-06-10-03:09:53-B1-42.xse
2001-06-10	03:29:59	2001-06-10	03:43:41	0.23	2001-06-10-03:29:59-B1-43.xse
2001-06-10	03:48:48	2001-06-10	04:03:30	0.24	2001-06-10-03:48:48-B1-44.xse
2001-06-10	04:09:46	2001-06-10	04:21:30	0.20	2001-06-10-04:09:46-B1-45.xse
2001-06-10	04:26:49	2001-06-10	04:41:56	0.25	2001-06-10-04:26:49-B1-46.xse
2001-06-10	04:44:01	2001-06-10	05:00:11	0.27	2001-06-10-04:44:01-B1-47.xse
2001-06-10	05:04:24	2001-06-10	05:20:29	0.27	2001-06-10-05:04:24-B1-48.xse
2001-06-10	05:20:30	2001-06-10	05:34:35	0.23	2001-06-10-05:20:30-B1-49.xse
2001-06-10	05:37:33	2001-06-10	05:54:12	0.28	2001-06-10-05:37:33-B1-50.xse
2001-06-10	05:55:10	2001-06-10	06:10:40	0.26	2001-06-10-05:55:10-B1-51.xse
2001-06-10	06:16:02	2001-06-10	06:33:31	0.29	2001-06-10-06:16:02-B2-06.xse
2001-06-10	06:37:04	2001-06-10	06:59:03	0.37	2001-06-10-06:37:04-B2-12.xse
2001-06-10	07:06:52	2001-06-10	07:26:03	0.32	2001-06-10-07:06:52-B2-19.xse
2001-06-10	07:30:14	2001-06-10	07:47:41	0.29	2001-06-10-07:30:14-B2-27.xse
2001-06-10	07:57:57	2001-06-10	08:12:09	0.24	2001-06-10-07:57:57-B2-32.xse
2001-06-10	08:15:40	2001-06-10	08:30:55	0.25	2001-06-10-08:15:40-B2-38.xse
2001-06-10	08:34:39	2001-06-10	08:51:43	0.28	2001-06-10-08:34:39-B2-44.xse
2001-06-10	08:54:35	2001-06-10	09:10:58	0.27	2001-06-10-08:54:35-B2-50.xse
2001-06-10	09:15:08	2001-06-10	09:32:25	0.29	2001-06-10-09:15:08-B2-56.xse
2001-06-10	09:36:13	2001-06-10	09:52:40	0.27	2001-06-10-09:36:13-B2-62.xse
2001-06-10	09:58:02	2001-06-10	10:14:26	0.27	2001-06-10-09:58:02-B2-57.xse
2001-06-10	10:18:22	2001-06-10	10:34:01	0.26	2001-06-10-10:18:22-B2-58.xse
2001-06-10	11:11:01	2001-06-10	11:32:47	0.36	2001-06-10-11:11:01-IZC15_CORE.xse
2001-06-10	13:12:27	2001-06-10	14:54:24	1.70	2001-06-10-13:12:27-IZC17_CORE.xse
2001-06-10	16:24:22	2001-06-10	16:37:55	0.23	2001-06-10-16:24:22-BB2-07.xse
2001-06-10	16:42:29	2001-06-10	16:58:13	0.26	2001-06-10-16:42:29-BB2-13.xse
2001-06-10	17:01:56	2001-06-10	17:17:35	0.26	2001-06-10-17:01:56-BB2-20.xse
2001-06-10	17:22:12	2001-06-10	17:36:52	0.24	2001-06-10-17:22:12-BB2-26.xse
2001-06-10	17:46:39	2001-06-10	18:01:57	0.26	2001-06-10-17:46:39-BB2-36.xse
2001-06-10	18:06:15	2001-06-10	18:20:55	0.24	2001-06-10-18:06:15-BB2-42.xse
2001-06-10	18:23:28	2001-06-10	18:38:41	0.25	2001-06-10-18:23:28-BB2-48.xse
2001-06-10	18:41:09	2001-06-10	18:56:11	0.25	2001-06-10-18:41:09-BB2-54.xse
2001-06-10	19:00:30	2001-06-10	19:19:42	0.32	2001-06-10-19:00:30-BB2-60.xse
2001-06-10	19:23:12	2001-06-10	19:41:30	0.30	2001-06-10-19:23:12-BB2-55.xse
2001-06-10	19:42:43	2001-06-10	20:00:22	0.29	2001-06-10-19:42:43-BB2-49.xse
2001-06-10	20:03:50	2001-06-10	20:19:53	0.27	2001-06-10-20:03:50-bb2-53.xse
2001-06-10	20:23:25	2001-06-10	20:39:19	0.27	2001-06-10-20:23:25-BB2-47.xse
2001-06-10	20:41:43	2001-06-10	20:56:05	0.24	2001-06-10-20:41:43-BB2-41.xse
2001-06-10	21:00:02	2001-06-10	21:16:34	0.28	2001-06-10-21:00:02-BB2-35.xse
2001-06-10	21:19:42	2001-06-10	01:25:20	-19.91	2001-06-10-21:19:42-BB2-40.xse
2001-06-10	21:43:34	2001-06-10	22:03:52	0.34	2001-06-10-21:43:34-BB2-45.xse
2001-06-10	22:07:17	2001-06-10	22:24:39	0.29	2001-06-10-22:07:17-BB2-52.xse
2001-06-10	22:29:24	2001-06-10	22:46:20	0.28	2001-06-10-22:29:24-bb2-59.xse
2001-06-10	22:52:00	2001-06-10	23:09:42	0.29	2001-06-10-22:52:00-BB2-64.xse
2001-06-10	23:14:27	2001-06-10	23:33:20	0.31	2001-06-10-23:14:27-BB2-58.xse
2001-06-10	23:36:07	2001-06-10	00:02:46	-23.56	2001-06-10-23:36:07-BB2-65.xse
2001-06-11	00:04:33	2001-06-11	00:21:01	0.27	2001-06-11-00:04:33-B2-46.xse
2001-06-11	00:25:06	2001-06-11	00:43:18	0.30	2001-06-11-00:25:06-BB2-39.xse
2001-06-11	00:46:28	2001-06-11	01:05:36	0.32	2001-06-11-00:46:28-BB2-33.xse
2001-06-11	01:29:25	2001-06-11	01:50:27	0.35	2001-06-11-01:29:25-BB2-34.xse
2001-06-11	01:52:16	2001-06-11	02:11:38	0.32	2001-06-11-01:52:16-BB2-43.xse

Table 26: MARM2001: ELAC MULTIBEAM FILES 5

DS	TS	DE	TE	TOT	FILE
2001-06-11	02:12:58	2001-06-11	02:36:02	0.38	2001-06-11-02:12:58-BB2-61.xse
2001-06-11	02:43:40	2001-06-11	03:11:08	0.46	2001-06-11-02:43:40-BB2-08.xse
2001-06-11	03:14:12	2001-06-11	03:32:08	0.30	2001-06-11-03:14:12-BB2-14.xse
2001-06-11	03:39:47	2001-06-11	03:56:21	0.28	2001-06-11-03:39:47-BB2-21.xse
2001-06-11	04:00:26	2001-06-11	04:17:19	0.28	2001-06-11-04:00:26-BB2-28.xse
2001-06-11	04:21:55	2001-06-11	04:41:18	0.32	2001-06-11-04:21:55-BB2-22.xse
2001-06-11	04:47:23	2001-06-11	05:01:32	0.24	2001-06-11-04:47:23-B2-29.xse
2001-06-11	05:04:54	2001-06-11	05:22:07	0.29	2001-06-11-05:04:54-BB2-23.xse
2001-06-11	05:28:06	2001-06-11	05:46:32	0.31	2001-06-11-05:28:06-BB2-30.xse
2001-06-11	05:48:34	2001-06-11	06:03:35	0.25	2001-06-11-05:48:34-bb2-24.xse
2001-06-11	06:09:06	2001-06-11	06:25:11	0.27	2001-06-11-06:09:06-b2-31.xse
2001-06-11	09:54:48	2001-06-11	10:08:52	0.23	2001-06-11-09:54:48-TOIZC21.xse
2001-06-11	22:42:56	2001-06-11	22:56:22	0.22	2001-06-11-22:42:56-B3-26.xse
2001-06-11	23:03:54	2001-06-11	23:19:32	0.26	2001-06-11-23:03:54-B3-45.xse
2001-06-11	23:21:27	2001-06-11	23:30:05	0.14	2001-06-11-23:21:27-B3-89.xse
2001-06-11	23:34:33	2001-06-11	23:59:25	0.41	2001-06-11-23:34:33-B3-83.xse
2001-06-12	00:02:43	2001-06-12	00:26:44	0.40	2001-06-12-00:02:43-B3-77.xse
2001-06-12	00:32:03	2001-06-12	00:55:08	0.38	2001-06-12-00:32:03-B3-71.xse
2001-06-12	01:00:26	2001-06-12	01:21:12	0.35	2001-06-12-01:00:26-B3-38.xse
2001-06-12	01:26:33	2001-06-12	01:43:40	0.29	2001-06-12-01:26:33-B3-19.xse
2001-06-12	01:45:20	2001-06-12	02:00:27	0.25	2001-06-12-01:45:20-B3-39.xse
2001-06-12	02:05:19	2001-06-12	02:26:07	0.35	2001-06-12-02:05:19-B3-72.xse
2001-06-12	02:29:12	2001-06-12	02:48:01	0.31	2001-06-12-02:29:12-B3-78.xse
2001-06-12	02:52:42	2001-06-12	03:12:10	0.32	2001-06-12-02:52:42-B3-84.xse
2001-06-12	03:14:58	2001-06-12	03:34:26	0.32	2001-06-12-03:14:58-B3-76.xse
2001-06-12	03:38:46	2001-06-12	03:57:31	0.31	2001-06-12-03:38:46-B3-82.xse
2001-06-12	04:00:50	2001-06-12	04:19:15	0.31	2001-06-12-04:00:50-B3-75.xse
2001-06-12	04:23:28	2001-06-12	04:44:07	0.34	2001-06-12-04:23:28-B3-85.xse
2001-06-12	04:47:39	2001-06-12	05:07:31	0.33	2001-06-12-04:47:39-B3-79.xse
2001-06-12	05:13:55	2001-06-12	06:02:10	0.80	2001-06-12-05:13:55-TOC-27.xse
2001-06-12	07:54:20	2001-06-12	08:32:42	0.64	2001-06-12-07:54:20-toizc31.xse
2001-06-12	09:20:18	2001-06-12	10:02:07	0.70	2001-06-12-09:20:18-TOIZC31a.xse
2001-06-12	11:44:06	2001-06-12	12:20:21	0.60	2001-06-12-11:44:06-izc31.xse
2001-06-12	12:20:23	2001-06-12	12:47:32	0.45	2001-06-12-12:20:23-ii-34.xse
2001-06-12	12:53:07	2001-06-12	13:27:19	0.57	2001-06-12-12:53:07-I34I21.xse
2001-06-12	13:28:10	2001-06-12	13:51:16	0.39	2001-06-12-13:28:10-I21.xse
2001-06-12	13:56:31	2001-06-12	15:07:29	1.18	2001-06-12-13:56:31-I21TOI32.xse
2001-06-12	16:14:03	2001-06-12	17:33:03	1.32	2001-06-12-16:14:03-TOGOLCIUK.xse
2001-06-12	17:39:48	2001-06-12	17:48:56	0.15	2001-06-12-17:39:48-TOCTDGLC.xse
2001-06-12	18:00:54	2001-06-12	18:10:22	0.16	2001-06-12-18:00:54-GLC11.xse
2001-06-12	18:15:16	2001-06-12	18:17:11	0.03	2001-06-12-18:15:16-GLC09.xse
2001-06-12	18:19:20	2001-06-12	18:23:26	0.07	2001-06-12-18:19:20-GLC09A.xse
2001-06-12	18:26:26	2001-06-12	18:36:50	0.17	2001-06-12-18:26:26-GLC07.xse
2001-06-12	18:40:03	2001-06-12	18:55:07	0.25	2001-06-12-18:40:03-GLC05.xse
2001-06-12	18:59:44	2001-06-12	19:14:57	0.25	2001-06-12-18:59:44-GLC03.xse
2001-06-12	19:15:06	2001-06-12	19:22:36	0.12	2001-06-12-19:15:06-GLC01.xse
2001-06-12	19:25:01	2001-06-12	19:35:51	0.18	2001-06-12-19:25:01-GLC02.xse
2001-06-12	19:36:20	2001-06-12	19:48:09	0.20	2001-06-12-19:36:20-GLC04.xse
2001-06-12	19:51:13	2001-06-12	20:04:08	0.22	2001-06-12-19:51:13-GLC06.xse
2001-06-12	20:06:41	2001-06-12	20:15:47	0.15	2001-06-12-20:06:41-GLC08.xse
2001-06-12	20:19:07	2001-06-12	05:11:16	-15.13	2001-06-12-20:19:07-GLC10.xse
2001-06-13	04:41:07	2001-06-13	05:02:59	0.36	2001-06-13-04:41:07-GLC12.xse
2001-06-13	05:14:20	2001-06-13	05:32:30	0.30	2001-06-13-05:14:20-TOIZC34.xse
2001-06-13	05:42:01	2001-06-13	06:58:55	1.28	2001-06-13-05:42:01-TOIZC35.xse
2001-06-13	08:46:29	2001-06-13	09:05:12	0.31	2001-06-13-08:46:29-TOIZC36.xse
2001-06-13	14:08:42	2001-06-13	15:39:29	1.51	2001-06-13-14:08:42-IZB10M.xse
2001-06-13	16:39:38	2001-06-13	16:46:32	0.12	2001-06-13-16:39:38-IZB11M.xse
2001-06-13	16:46:51	2001-06-13	17:23:16	0.61	2001-06-13-16:46:51-IZB12M.xse
2001-06-13	17:24:42	2001-06-13	18:37:07	1.21	2001-06-13-17:24:42-IZB13M.xse
2001-06-13	18:40:56	2001-06-13	19:08:46	0.46	2001-06-13-18:40:56-IZB14M.xse

Table 27: MARM2001: ELAC MULTIBEAM FILES 6

DS	TS	DE	TE	TOT	FILE
2001-06-13	19:09:06	2001-06-13	19:55:57	0.78	2001-06-13-19:09:06-IZB15M.xse
2001-06-13	19:56:16	2001-06-13	20:51:43	0.92	2001-06-13-19:56:16-IZB16M.xse
2001-06-13	20:52:07	2001-06-13	21:56:50	1.08	2001-06-13-20:52:07-IZB17M.xse
2001-06-13	23:05:06	2001-06-13	23:45:53	0.68	2001-06-13-23:05:06-TOHERZ.xse
2001-06-13	23:46:15	2001-06-13	00:22:34	-23.39	2001-06-13-23:46:15-HERZ1.xse
2001-06-14	00:26:58	2001-06-14	01:06:47	0.66	2001-06-14-00:26:58-HERZ3.xse
2001-06-14	01:10:46	2001-06-14	01:51:18	0.68	2001-06-14-01:10:46-HERZ4.xse
2001-06-14	01:56:09	2001-06-14	02:35:55	0.66	2001-06-14-01:56:09-HERZ5.xse
2001-06-14	02:38:39	2001-06-14	03:07:29	0.48	2001-06-14-02:38:39-HERZ6.xse
2001-06-14	03:11:32	2001-06-14	03:51:48	0.67	2001-06-14-03:11:32-HERZ7.xse
2001-06-14	03:53:39	2001-06-14	04:37:54	0.74	2001-06-14-03:53:39-TONAMIK4.xse
2001-06-14	05:44:25	2001-06-14	06:47:50	1.06	2001-06-14-05:44:25-TRAPRINCES.xse
2001-06-14	06:53:20	2001-06-14	09:10:00	2.28	2001-06-14-06:53:20-TOIZC40.xse
2001-06-14	10:33:06	2001-06-14	10:55:43	0.38	2001-06-14-10:33:06-TOPI40_1.xse
2001-06-14	11:51:14	2001-06-14	12:06:36	0.26	2001-06-14-11:51:14-PIPELING.xse
2001-06-14	12:08:16	2001-06-14	12:15:02	0.11	2001-06-14-12:08:16-PIPELINH.xse
2001-06-14	12:16:26	2001-06-14	12:27:35	0.19	2001-06-14-12:16:26-PIPELINI.xse
2001-06-14	14:32:46	2001-06-14	15:27:35	0.91	2001-06-14-14:32:46-BOSFORO.xse
2001-06-14	22:44:19	2001-06-14	22:55:51	0.19	2001-06-14-22:44:19-GA-1.xse
2001-06-14	22:58:08	2001-06-14	23:16:09	0.30	2001-06-14-22:58:08-GA-2.xse
2001-06-14	23:16:20	2001-06-14	23:32:02	0.26	2001-06-14-23:16:20-GA-3.xse
2001-06-14	23:35:21	2001-06-14	23:51:02	0.26	2001-06-14-23:35:21-GA-4.xse
2001-06-14	23:54:01	2001-06-14	00:09:06	-23.75	2001-06-14-23:54:01-GA-5.xse
2001-06-15	00:13:19	2001-06-15	00:29:41	0.27	2001-06-15-00:13:19-GA-6.xse
2001-06-15	00:32:43	2001-06-15	00:47:52	0.25	2001-06-15-00:32:43-GA-7.xse
2001-06-15	00:51:34	2001-06-15	01:06:01	0.24	2001-06-15-00:51:34-GA-8.xse
2001-06-15	01:09:41	2001-06-15	01:23:28	0.23	2001-06-15-01:09:41-GA-9.xse
2001-06-15	01:28:08	2001-06-15	01:42:07	0.23	2001-06-15-01:28:08-GA-10.xse
2001-06-15	01:45:06	2001-06-15	01:59:53	0.25	2001-06-15-01:45:06-GA-11.xse
2001-06-15	02:05:14	2001-06-15	02:18:05	0.21	2001-06-15-02:05:14-GA-12.xse
2001-06-15	02:20:59	2001-06-15	02:34:57	0.23	2001-06-15-02:20:59-GA-13.xse
2001-06-15	02:38:51	2001-06-15	02:51:18	0.21	2001-06-15-02:38:51-GA-14.xse
2001-06-15	02:53:25	2001-06-15	03:08:47	0.26	2001-06-15-02:53:25-GA-15.xse
2001-06-15	03:11:58	2001-06-15	03:24:44	0.21	2001-06-15-03:11:58-GA-16.xse
2001-06-15	03:28:26	2001-06-15	03:40:30	0.20	2001-06-15-03:28:26-GA-17.xse
2001-06-15	03:45:18	2001-06-15	03:59:09	0.23	2001-06-15-03:45:18-GA-18.xse
2001-06-15	04:03:03	2001-06-15	04:14:51	0.20	2001-06-15-04:03:03-GA-19.xse
2001-06-15	04:18:45	2001-06-15	04:25:41	0.12	2001-06-15-04:18:45-GA-20.xse
2001-06-15	04:28:53	2001-06-15	04:37:14	0.14	2001-06-15-04:28:53-trasf.xse
2001-06-15	04:39:29	2001-06-15	04:55:43	0.27	2001-06-15-04:39:29-CC.xse
2001-06-15	06:11:27	2001-06-15	06:27:10	0.26	2001-06-15-06:11:27-GAC42.xse
2001-06-15	10:11:45	2001-06-15	10:21:59	0.17	2001-06-15-10:11:45-TOGC46.xse
2001-06-15	10:30:34	2001-06-15	10:41:39	0.18	2001-06-15-10:30:34-COREGC46.xse
2001-06-15	10:59:49	2001-06-15	11:18:09	0.31	2001-06-15-10:59:49-TOGAC47.xse
2001-06-15	15:59:51	2001-06-15	16:11:39	0.20	2001-06-15-15:59:51-GAN-1.xse
2001-06-15	16:12:47	2001-06-15	16:36:51	0.40	2001-06-15-16:12:47-GAN-2.xse
2001-06-15	16:40:51	2001-06-15	17:00:34	0.33	2001-06-15-16:40:51-GAN-3.xse
2001-06-15	17:07:10	2001-06-15	17:26:01	0.31	2001-06-15-17:07:10-GAN-4.xse
2001-06-15	21:13:36	2001-06-15	21:30:47	0.29	2001-06-15-21:13:36-TOHOME1.xse
2001-06-15	21:32:14	2001-06-15	22:31:45	0.99	2001-06-15-21:32:14-TOHOME2.xse
2001-06-20	06:27:31	2001-06-20	06:33:27	0.10	2001-06-20-06:27:31-RAV01.xse
2001-06-20	06:36:21	2001-06-20	06:41:52	0.09	2001-06-20-06:36:21-RAV02.xse
2001-06-20	06:48:17	2001-06-20	06:52:05	0.06	2001-06-20-06:48:17-RAV03.xse
2001-06-20	08:04:58	2001-06-20	09:30:26	1.42	2001-06-20-08:04:58-PORTOCANALERAV.xse

Table 28: MARM2001: ELAC MULTIBEAM FILES 7

4 NAVIGATION,CORING,MAPPING

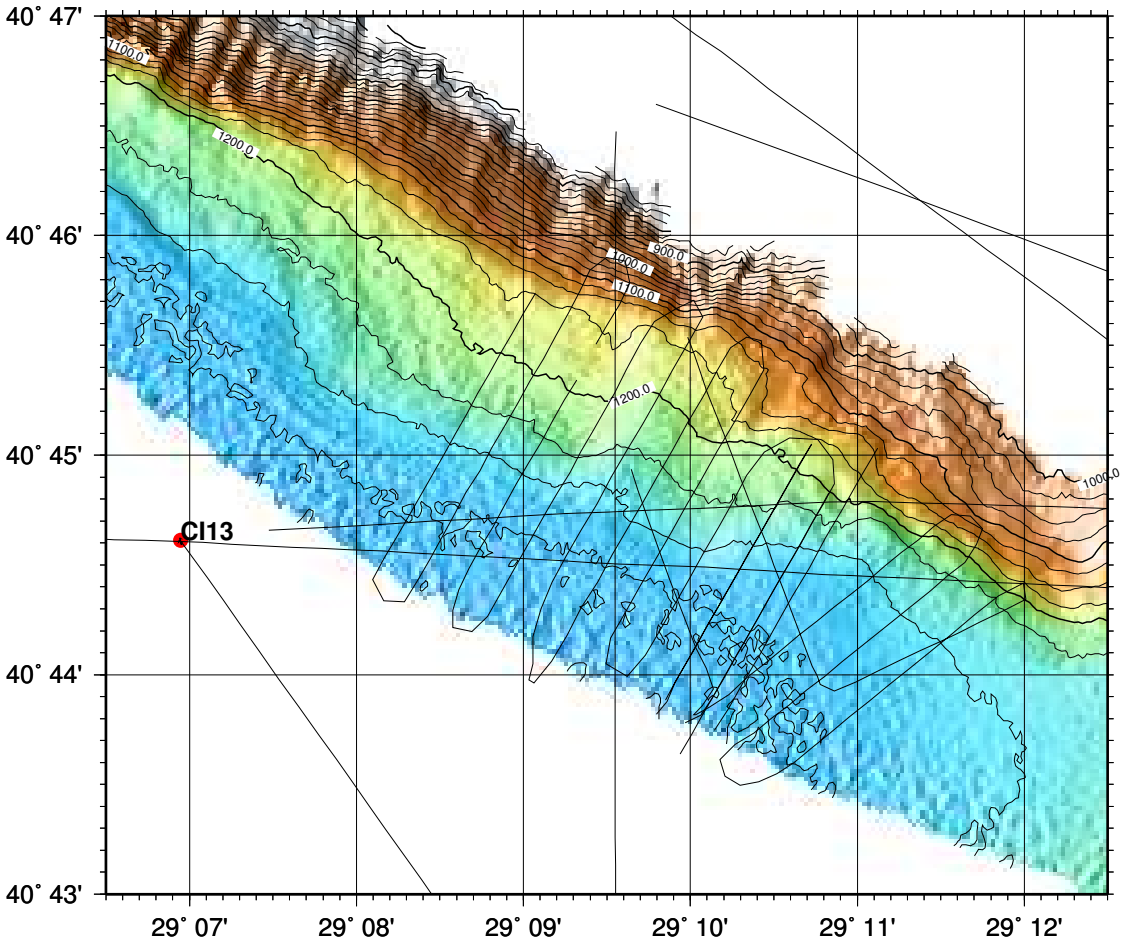


Figure 48: Data acquisition in the Tuzla area.

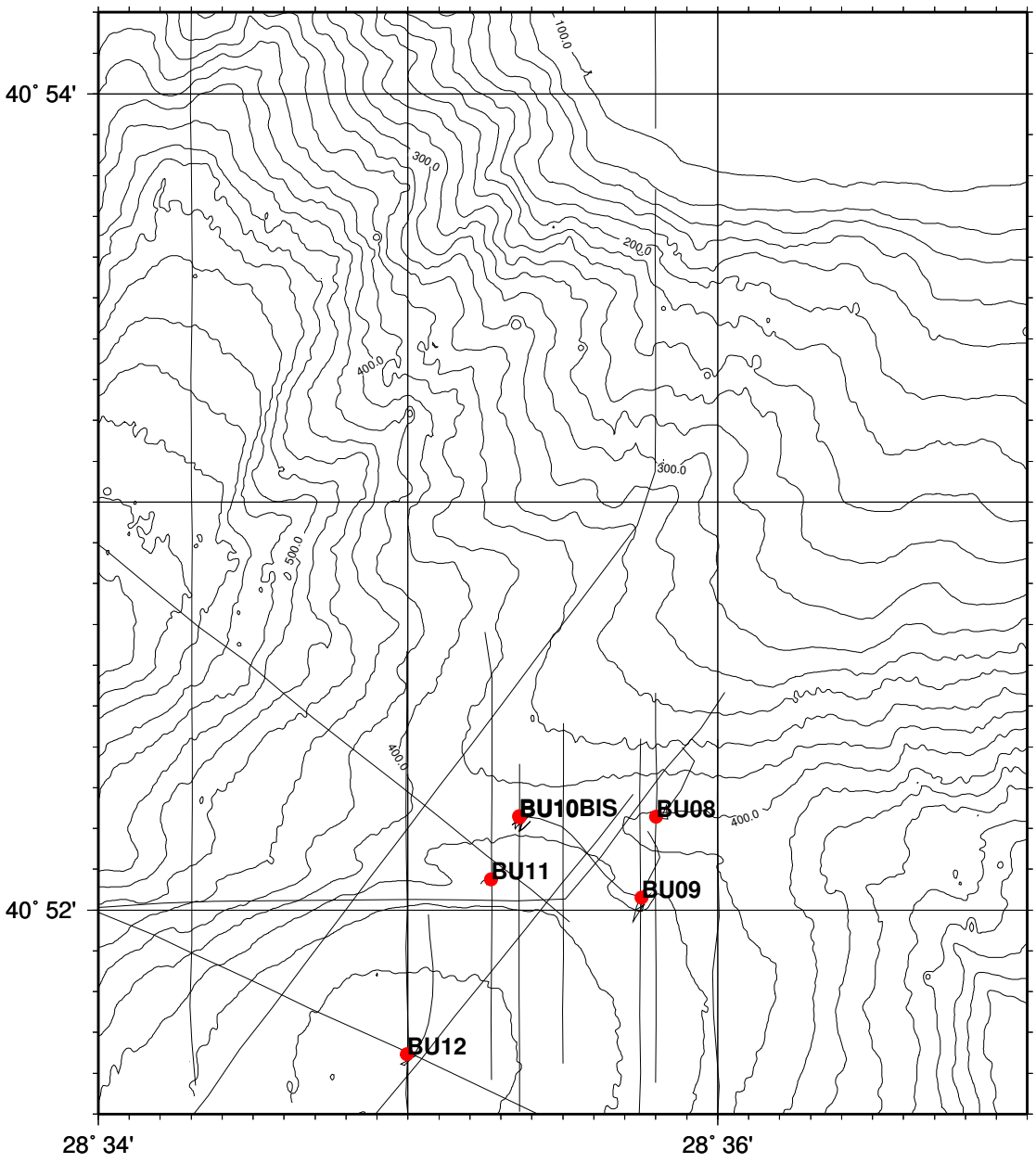


Figure 49: Data acquisition in the Büyükçekmece area.

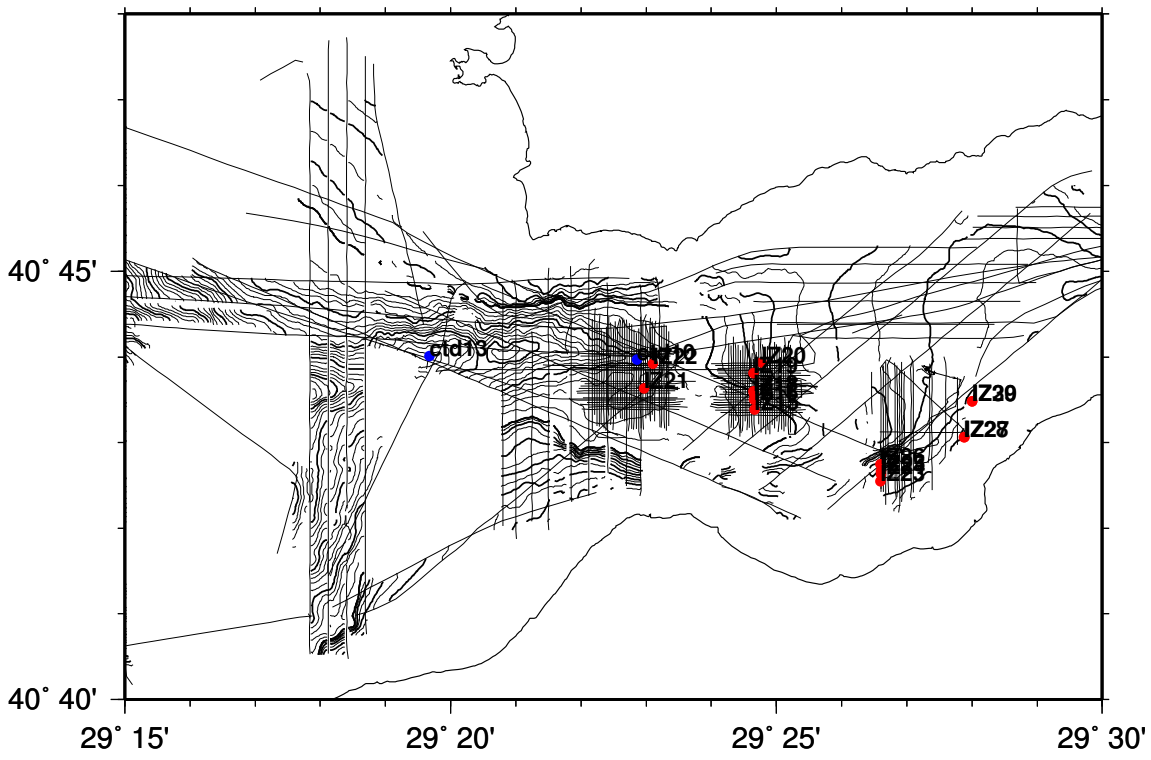


Figure 50: Data acquisition in the Izmit area.

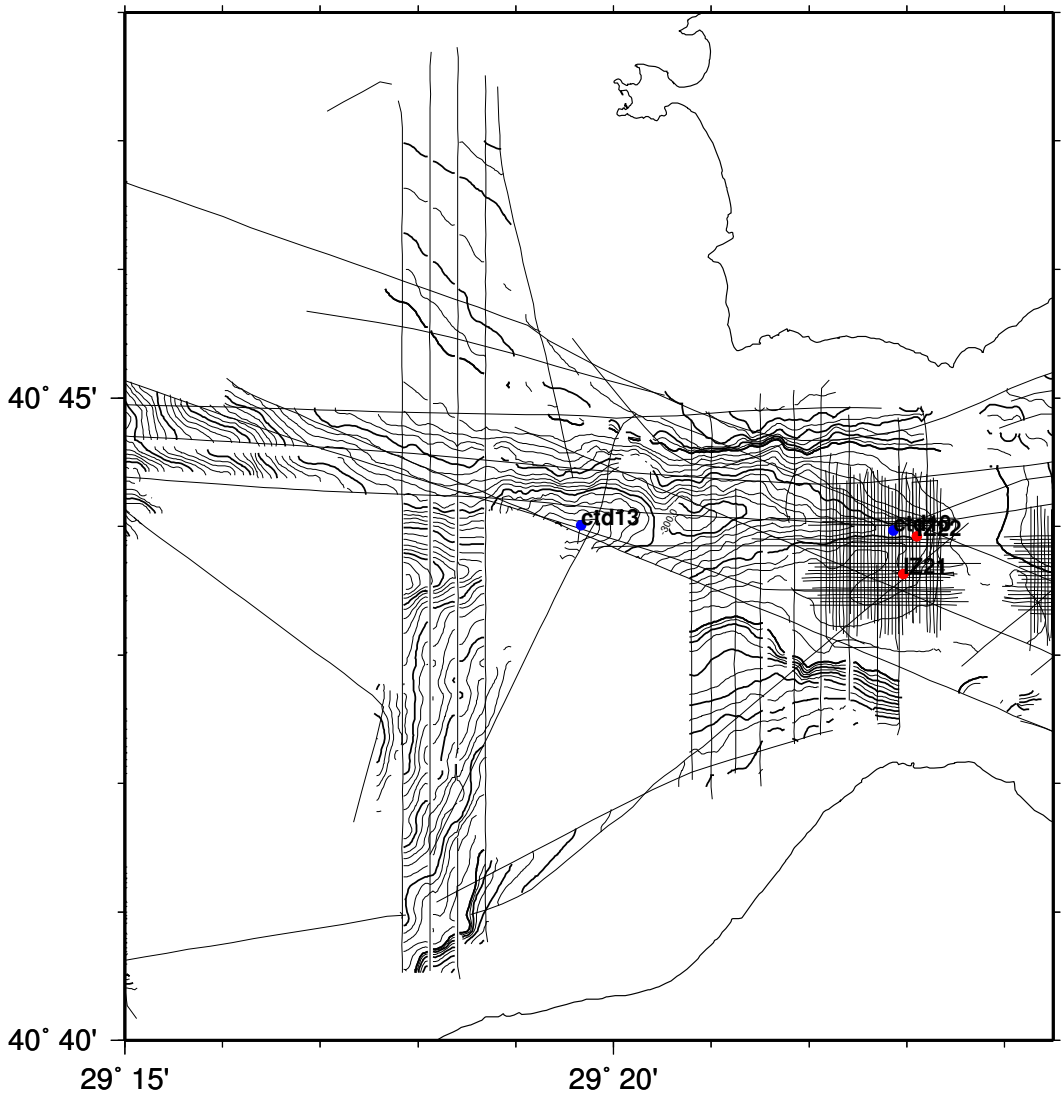


Figure 51: Data acquisition in the Izmit area.

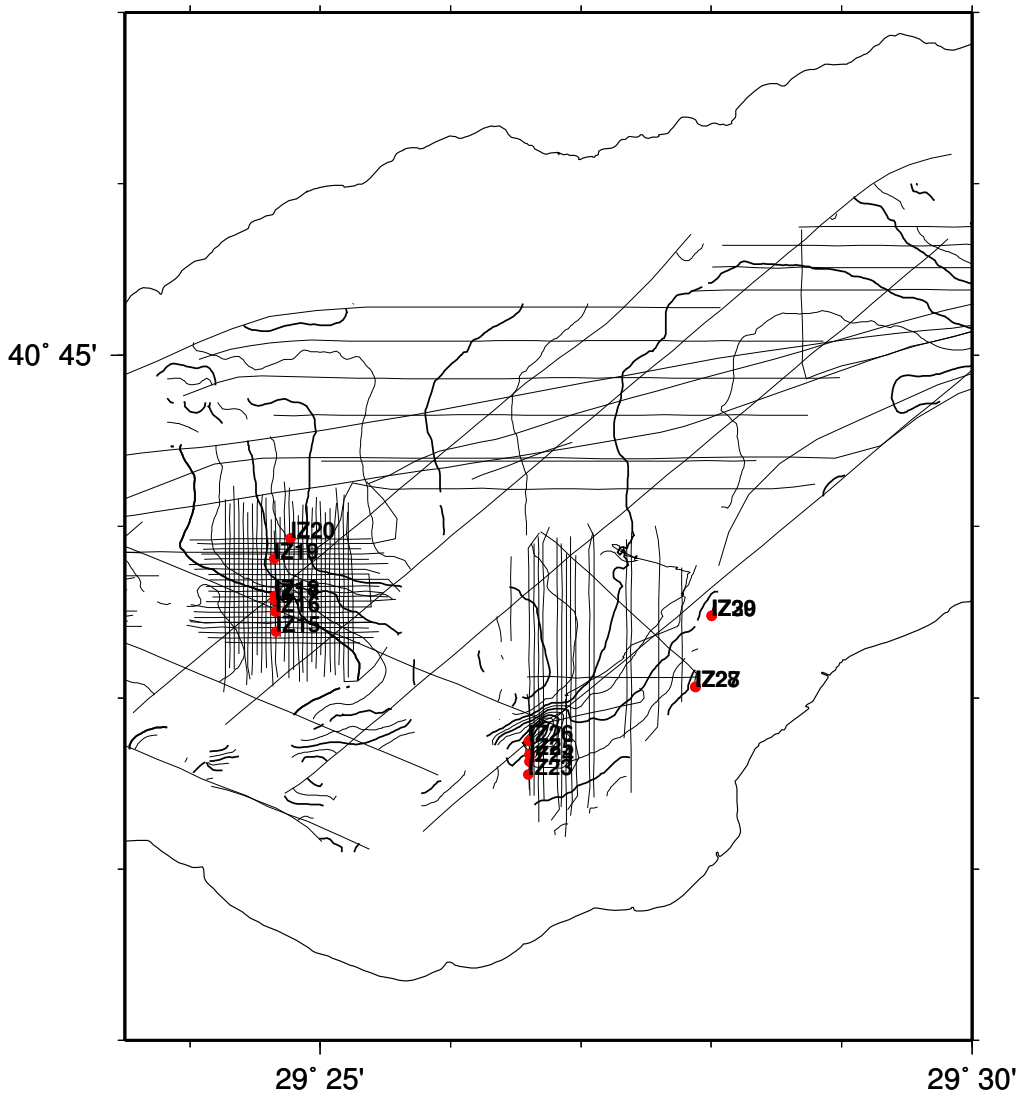


Figure 52: Data acquisition in the Izmit area.

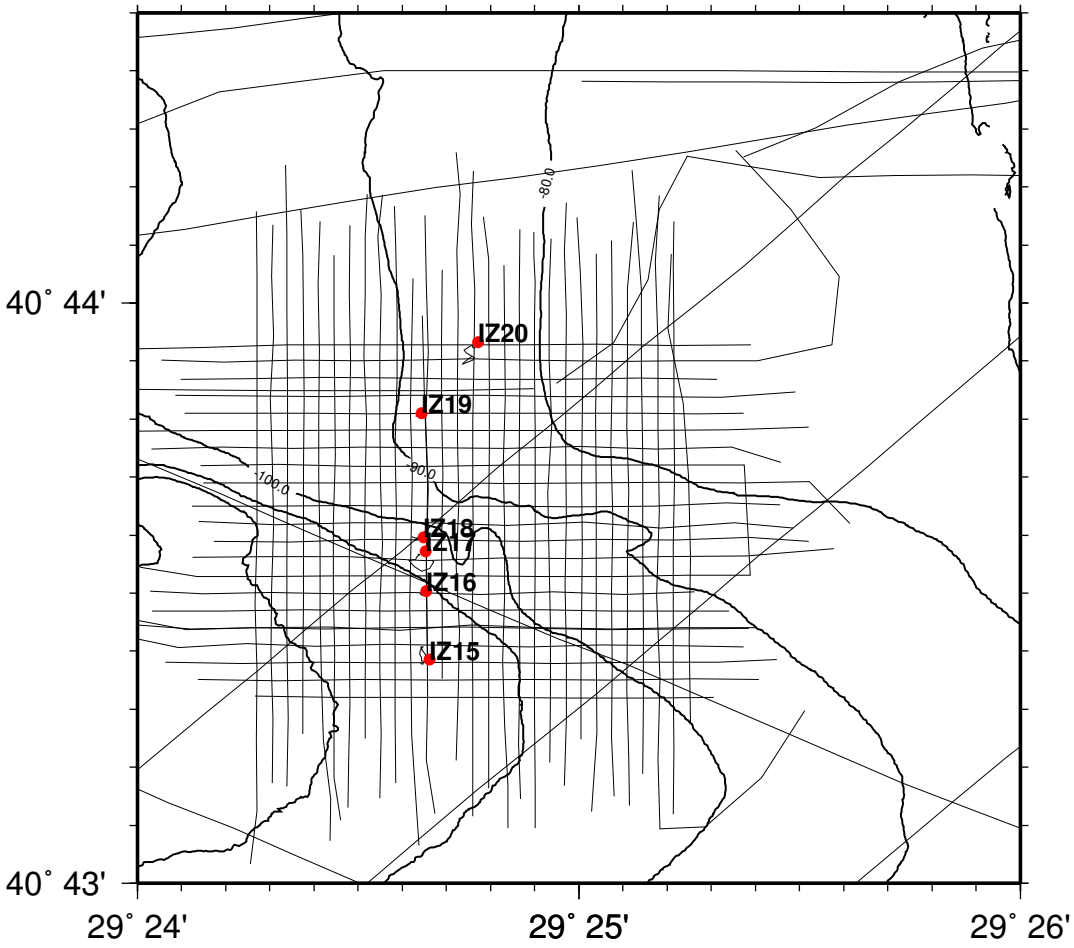


Figure 53: Data acquisition in the Izmit area (box 1).

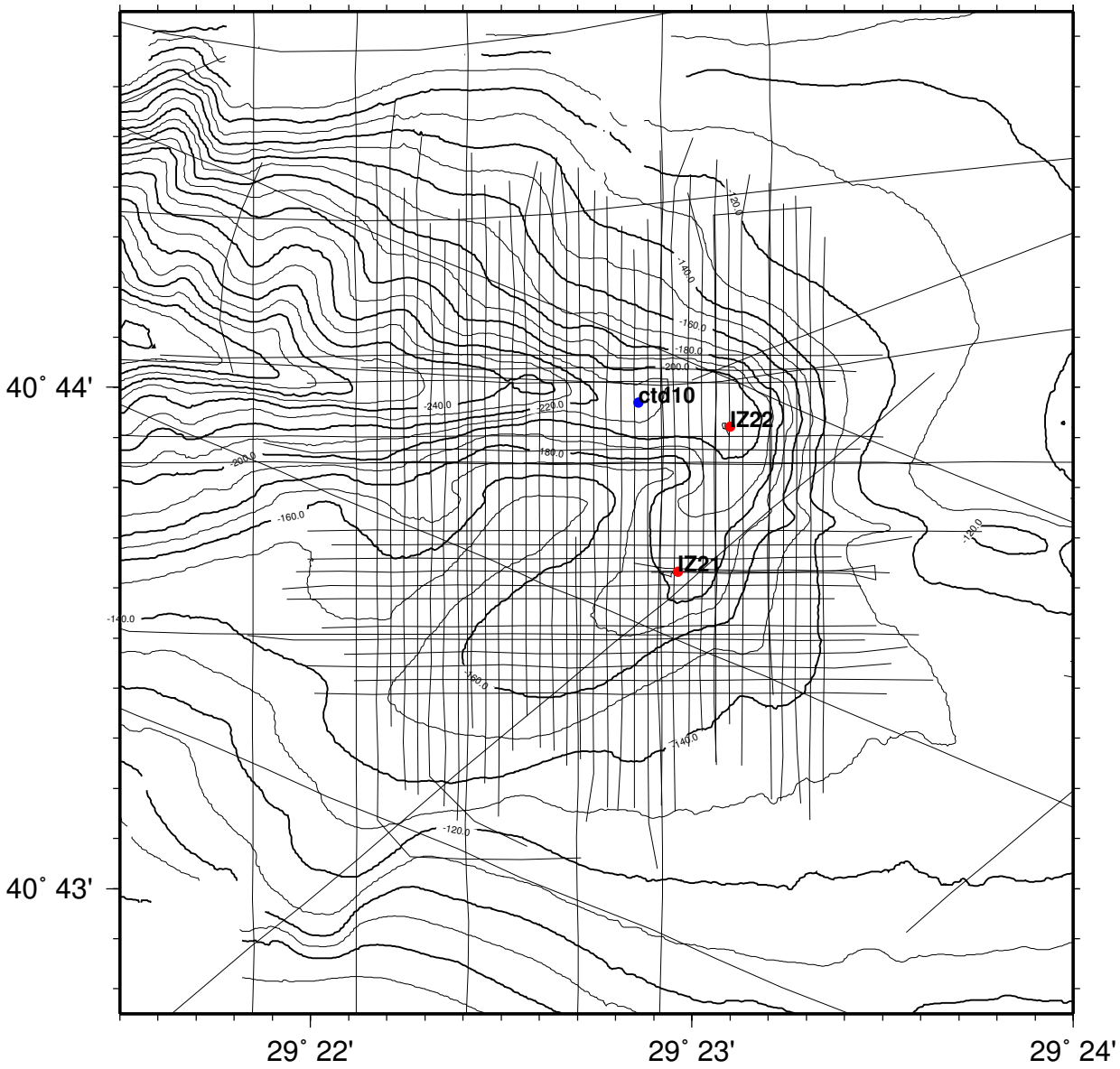


Figure 54: Data acquisition in the Izmit area (box 2).

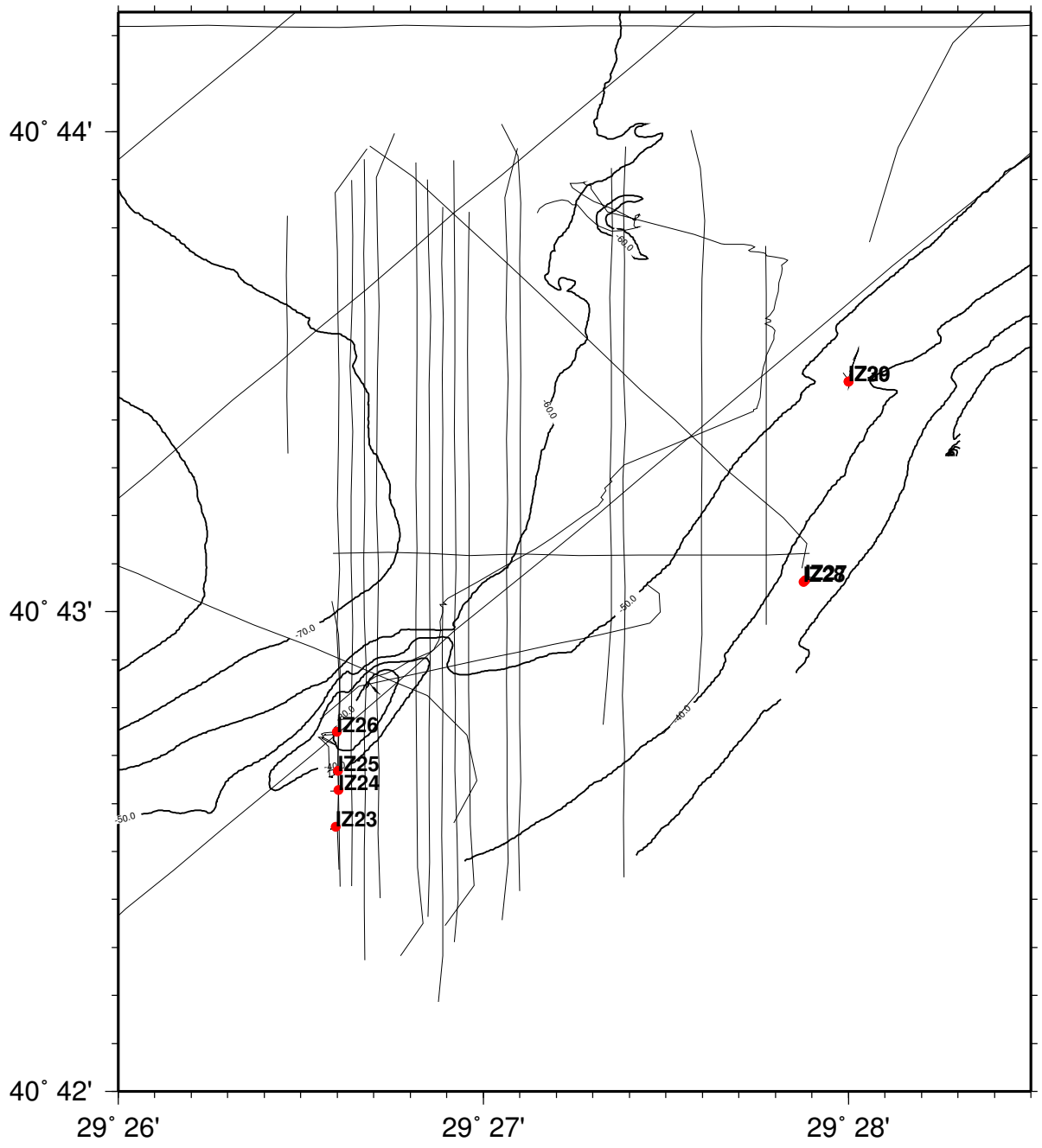


Figure 55: Data acquisition in the Izmit area (box 3).

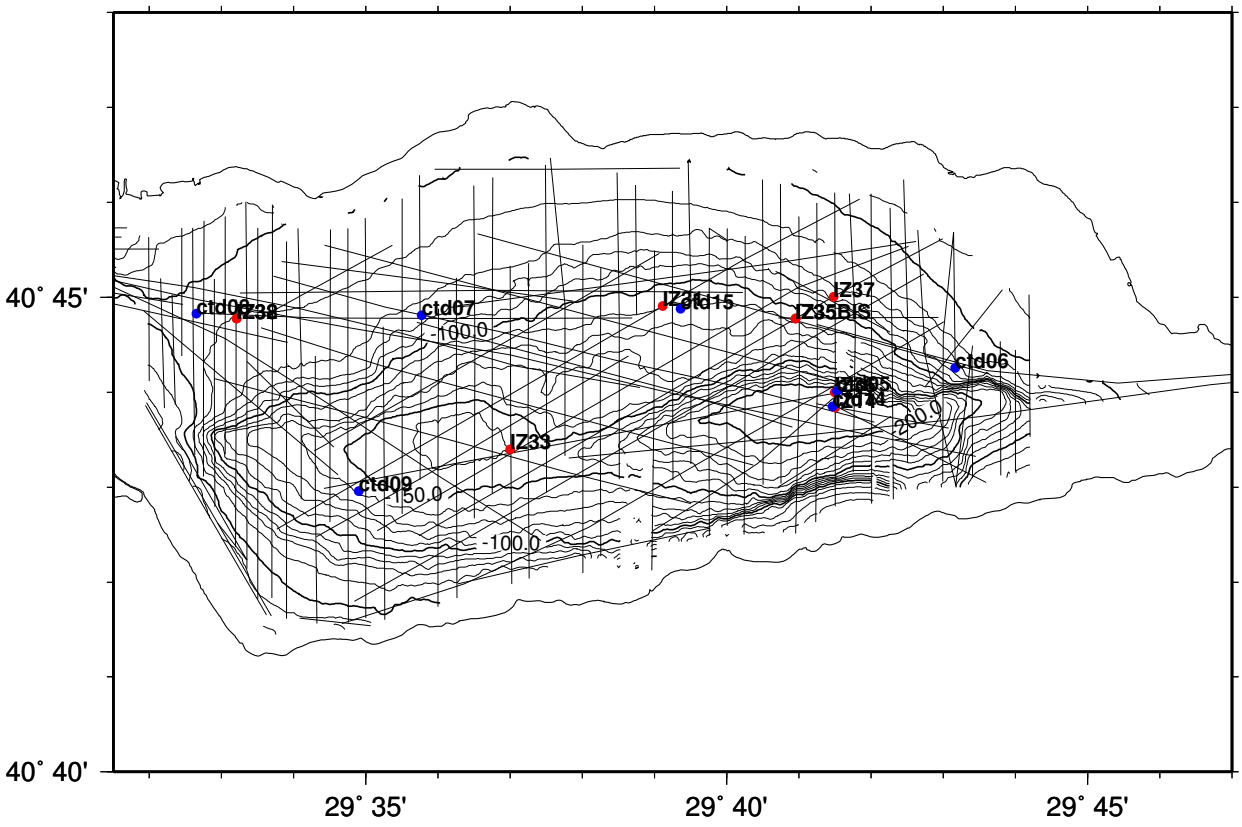


Figure 56: Data acquisition in the Central Izmit area.

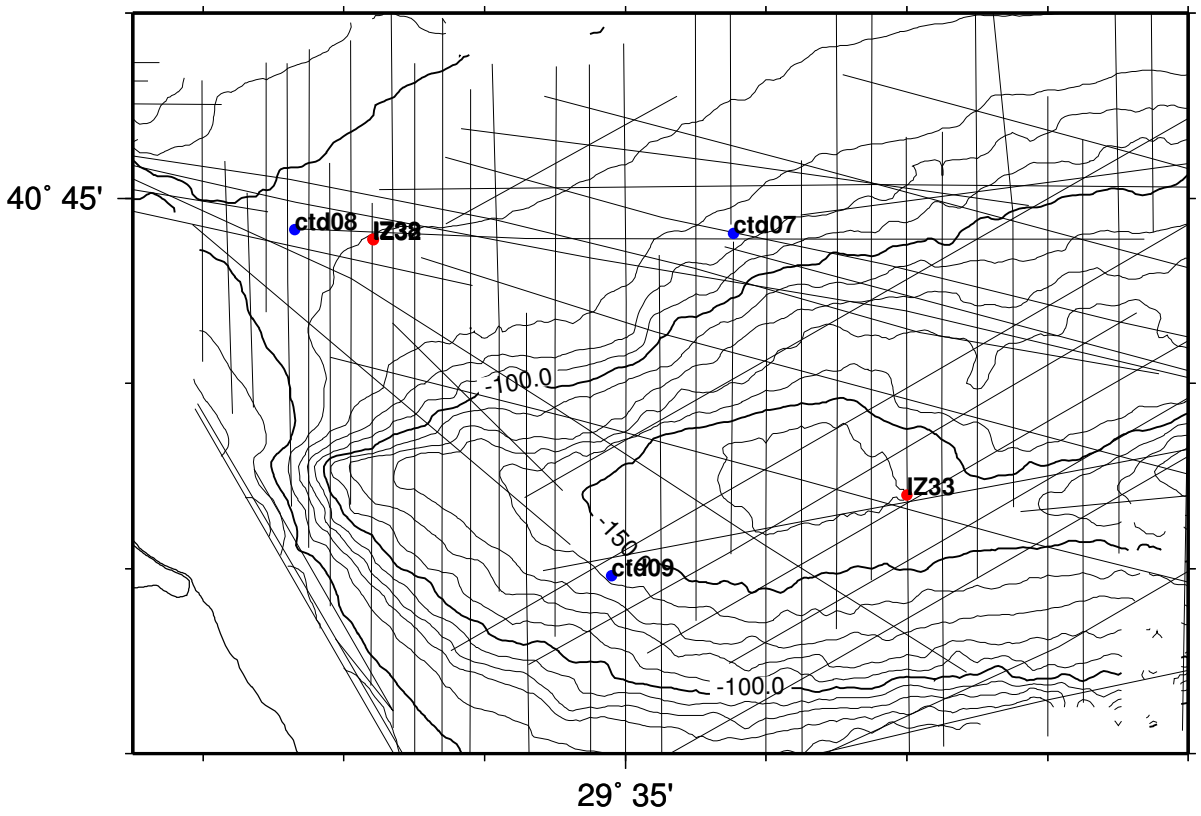


Figure 57: Data acquisition in the Central Izmit area.

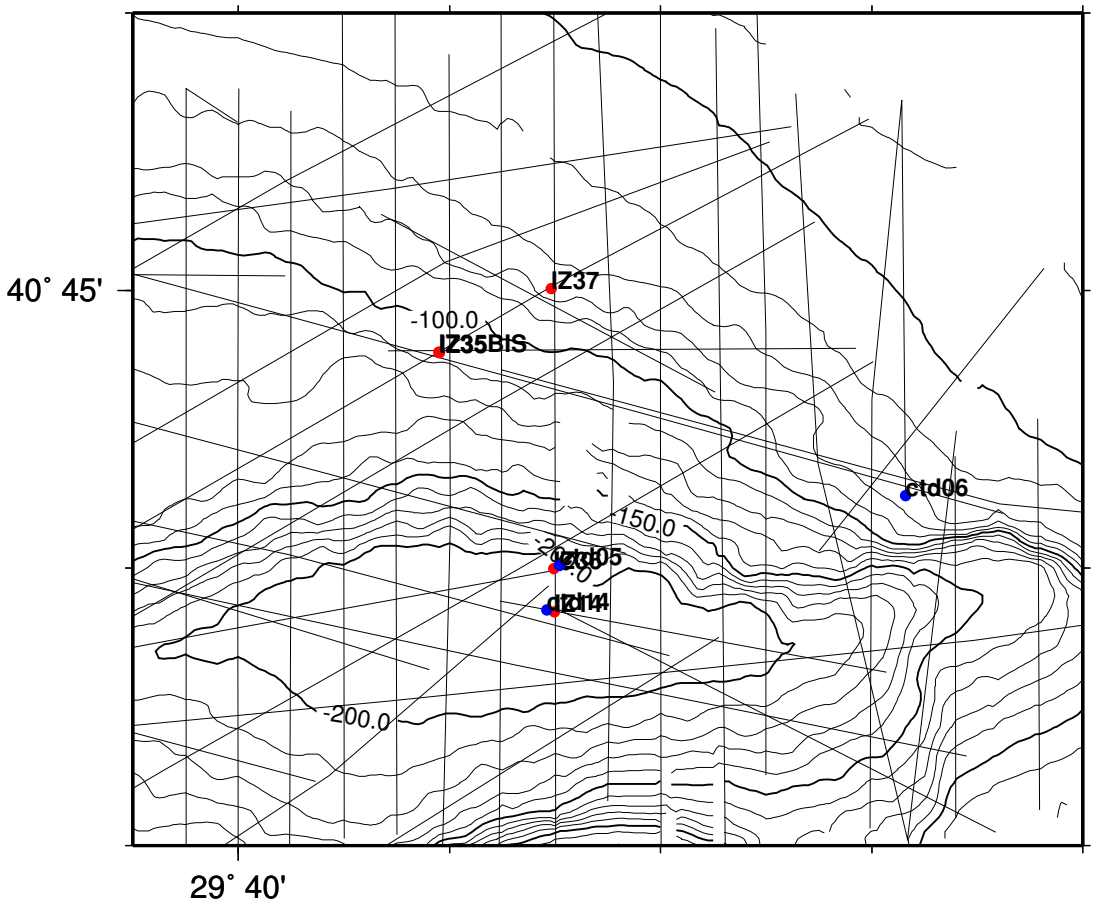


Figure 58: Data acquisition in the Central Izmit area.

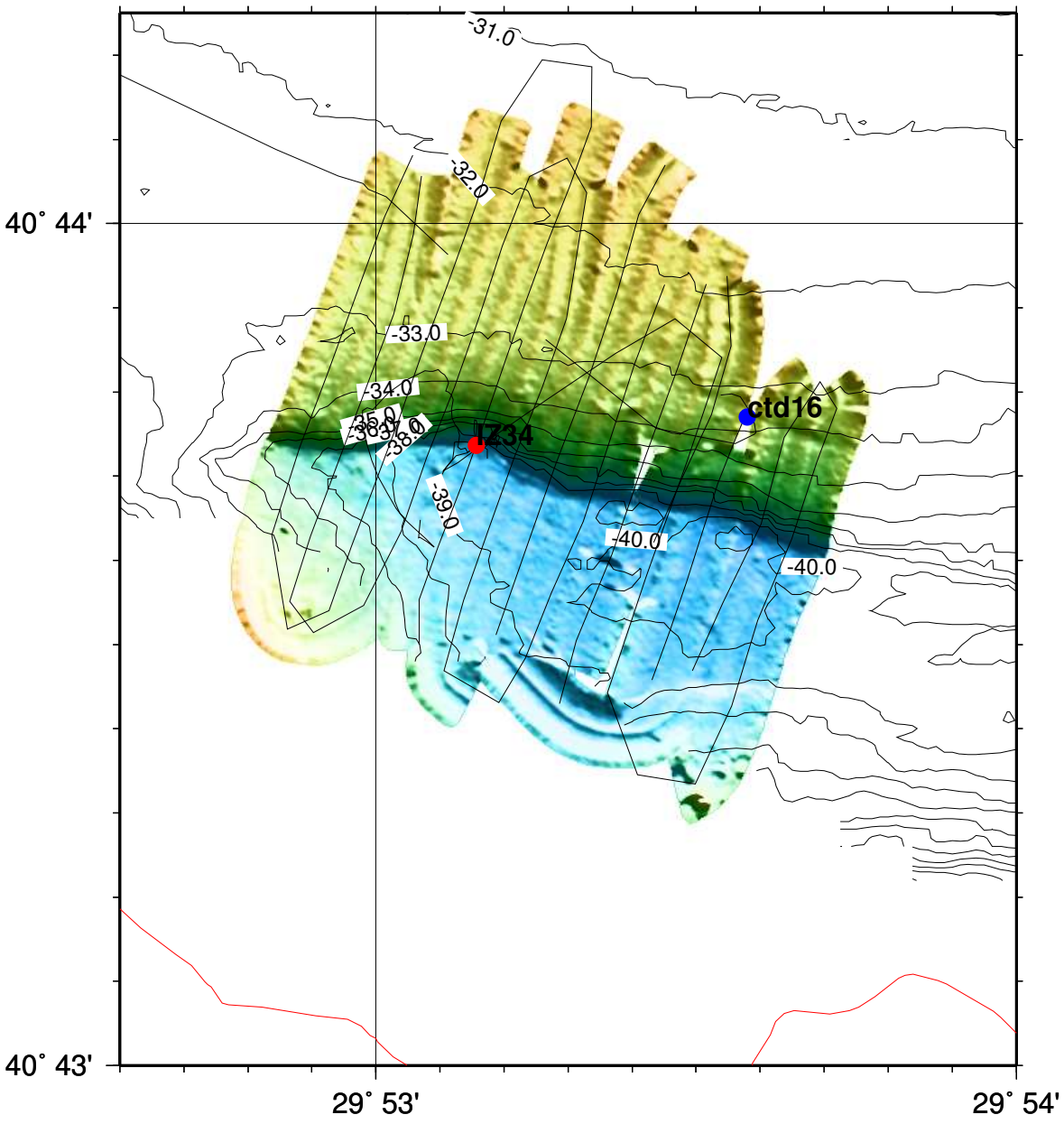
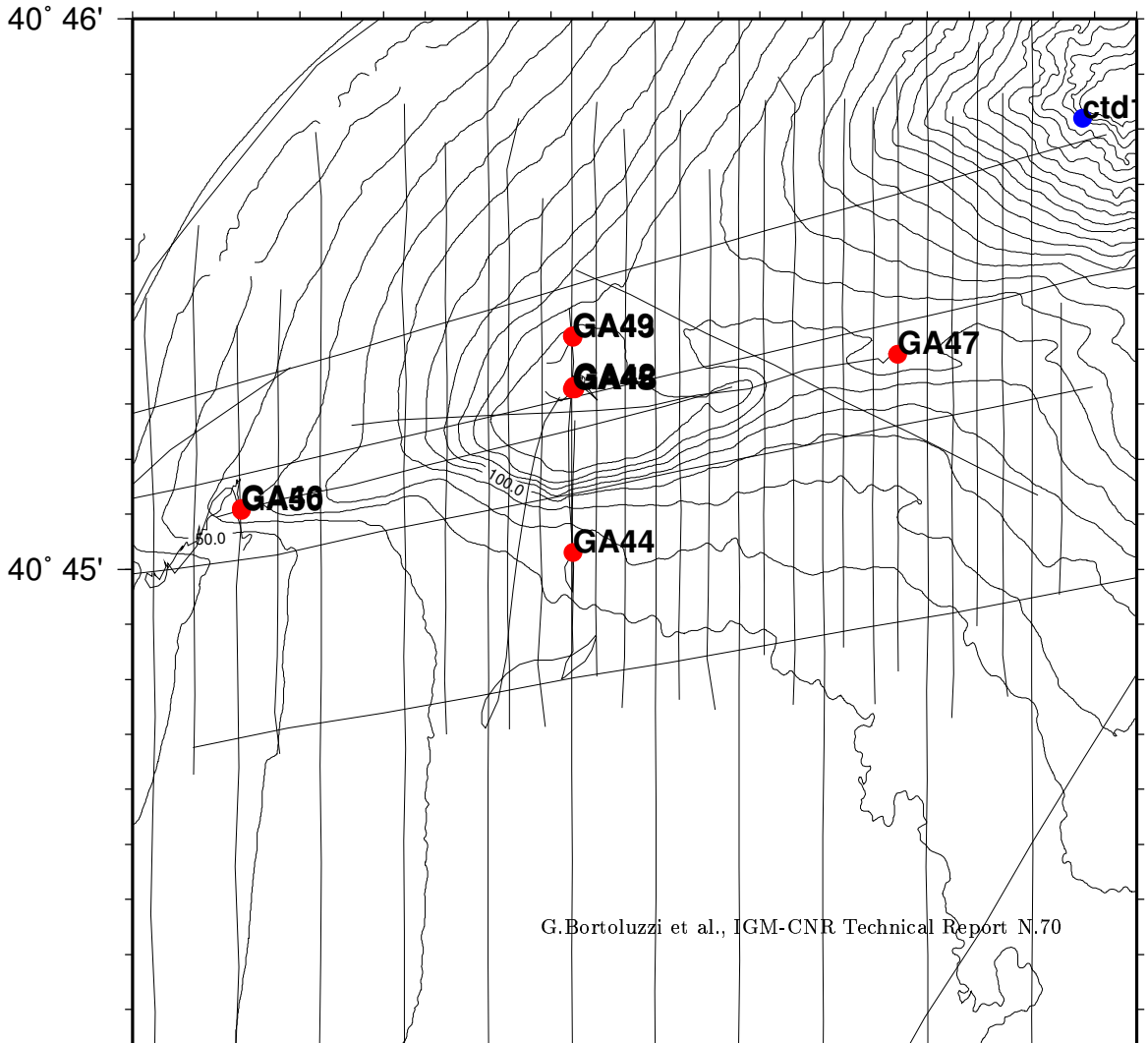


Figure 59: Data acquisition in the Golcuk area.


40˚ 46'
40˚ 45'
ctd
GA49
GA48
GA47
GA46
GA44
100.0
50.0

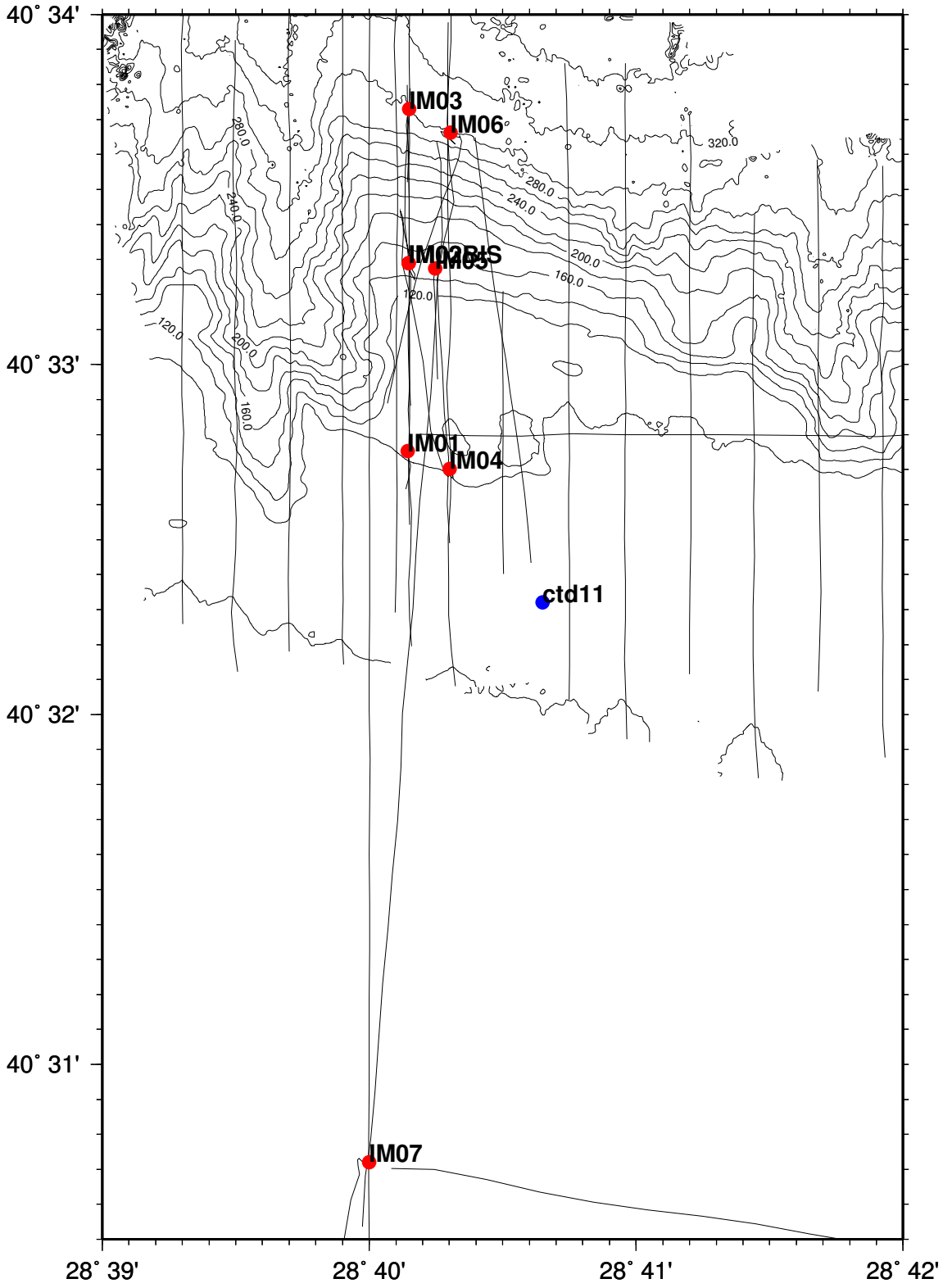


Figure 61: Data acquisition in the Imrali-Armutlu area.

5 SOFTWARE SCRIPTS AND PROGRAMS

6 TECHNICAL SPECIFICATION OF SHIP URANIA