Plate : 10

SEA of MARMARA

Surface Sparker Section

Data collected on board *R.V.* Le Suroît September 2000

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and onboard the scientific party
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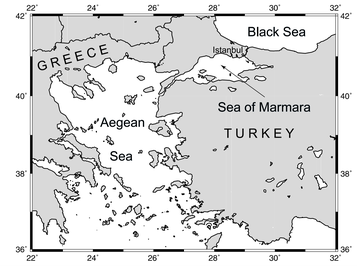
Technical team : Alban **CRUSSON**, Alain **NORMAND**,
Eliane **Le DREZEN** (Ifremer) and Andet **Le BOT** (GENAVIR)



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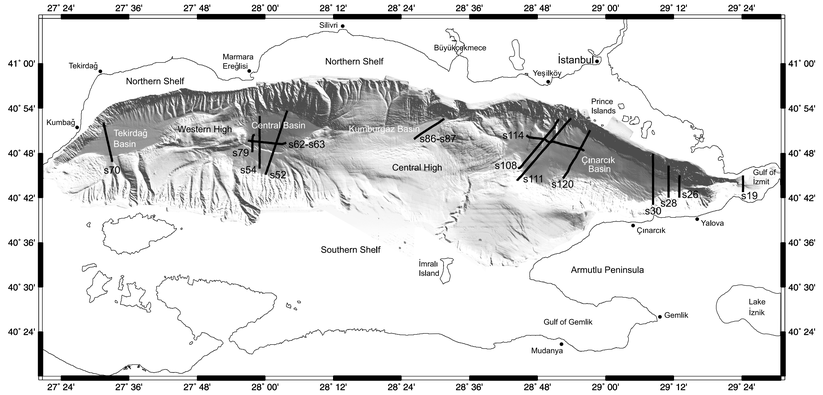
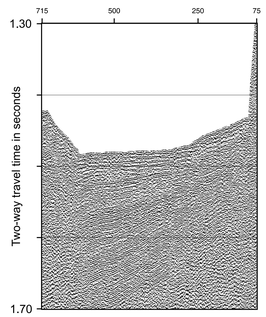
Location Map



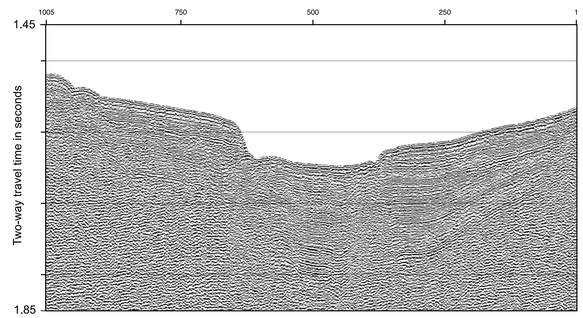
Tekirdağ Basin

S — Line-s70 — N



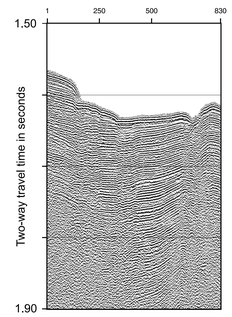
Central Basin

S — Line-s54 — N



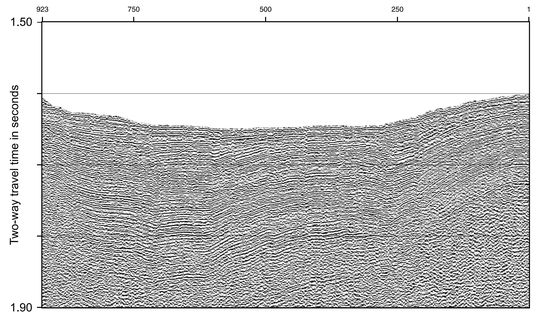
Central Basin

S — Line-s79 — N



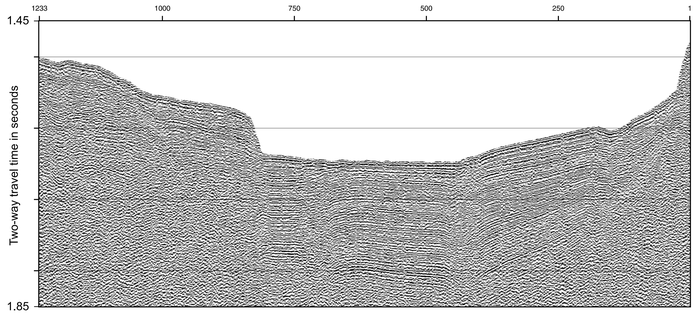
Central Basin

W — Line-s62-s63 — E



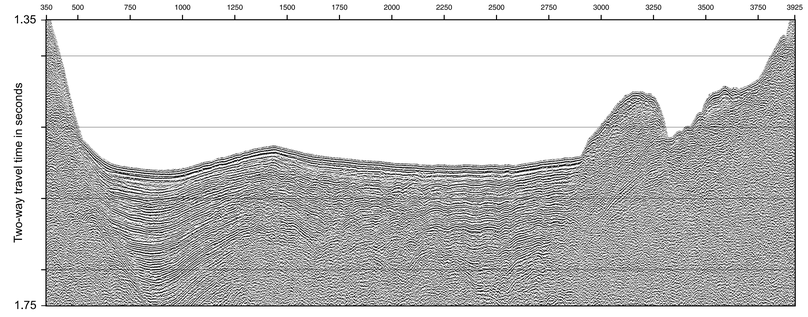
Central Basin

SW — Line-s52 — NE



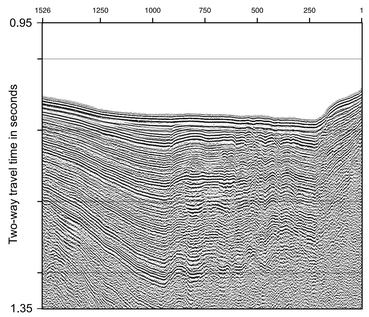
Western Çınarcık Basin

SW — Line-s111 — NE



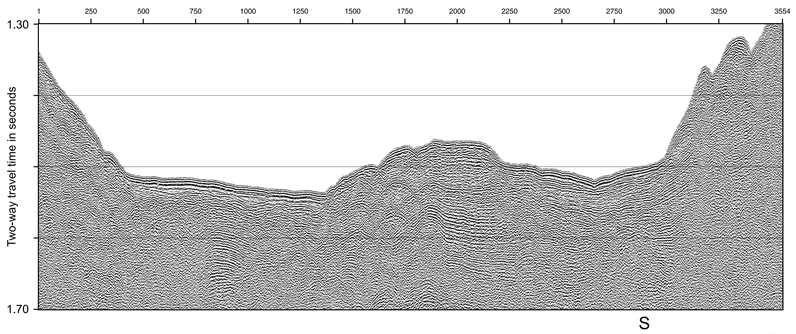
Kumburgaz Basin

SW — Line-s86-s87 — NE



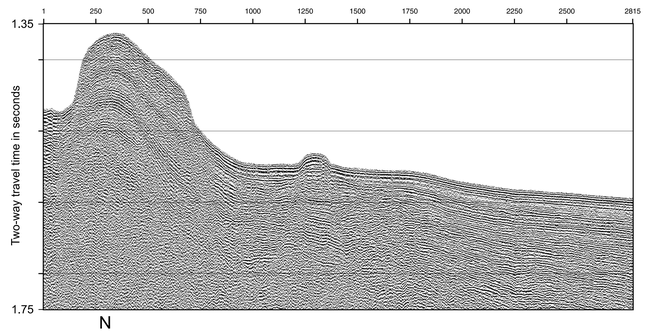
Western Çınarcık Basin

SW — Line-s108 — NE



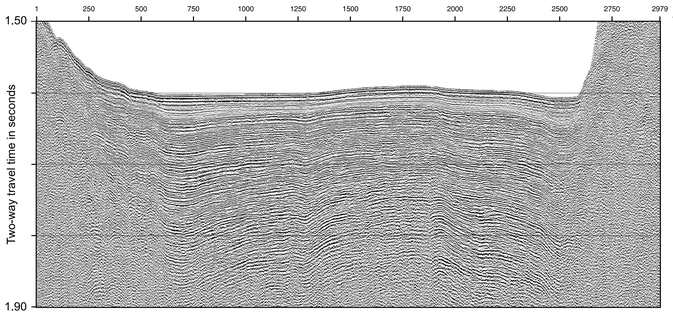
Western Çınarcık Basin

W — Line-s114 — E



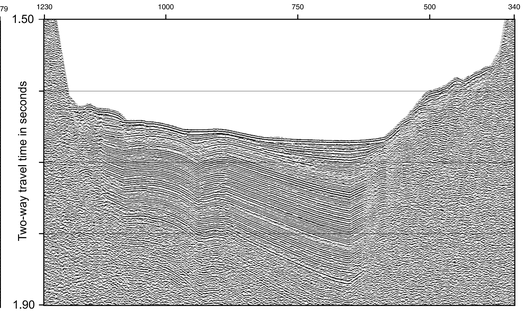
Central Çınarcık Basin

S — Line-s120 — N



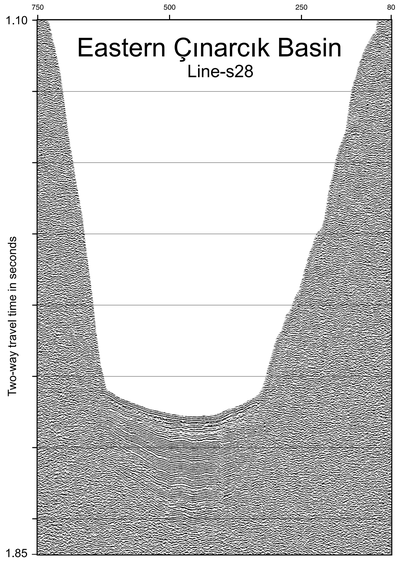
Eastern Çınarcık Basin

S — Line-s30 — N



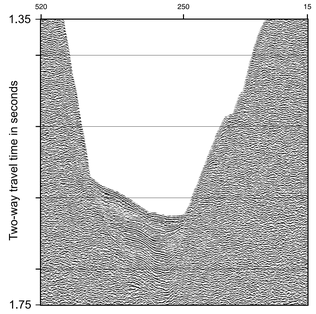
Eastern Çınarcık Basin

S — Line-s28 — N



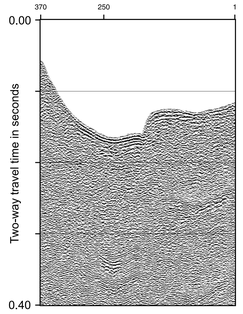
Eastern Çınarcık Basin

S — Line-s26 — N

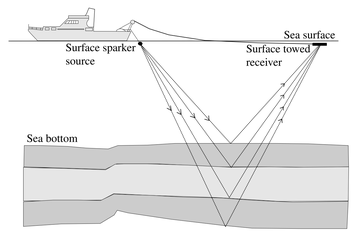


İzmit Gulf

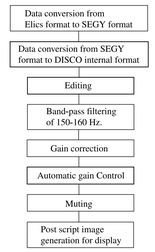
S — Line-s19 — N



Geometry of data acquisition and trajectories of reflected rays (Fig.1)



Basic processing stream of raw data (Fig.2)



Seismic reflection data were collected by conventional means as sketched in Fig. 1. The data were acquired over 1850 km total length of profiles. The energy source and receiver were placed near the sea surface. The source is a sparker towed almost at the surface of the sea to minimize the ghost generation. However, the signal-to-noise ratio in the collected data was degraded when the sea and weather conditions were not good. The data were recorded in digital form with 0.5 ms sampling interval. Most of the profiles were recorded with 5 s shot interval and 3 s record length while sailing with a speed of about 5 knots. However, some of the surface sparker data were recorded simultaneously with the Pasisar seismic data with a sailing speed of about 2 knots; therefore, those surface sparker line recorded simultaneously with Pasisar lines have about 2.5 times more shots per unit distance than the surface sparker records that were shot alone. The sections s79, s86, s108, s111, s114 and s120 in this poster were recorded simultaneously with the Pasisar lines. Conventional seismic data processing methods were applied to the data as summarized in Fig. 2. Sections displayed in this poster show typical active structures within the basins of the sea of Marmara. The vertical exaggeration is about 23. The numbers on top of the sections are the shot numbers.