

### 13. MAGNETIC, BATHYMETRIC, SEISMIC REFLECTION, AND POSITIONING DATA COLLECTED UNDERWAY ON GLOMAR CHALLENGER, LEG 32

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#### INTRODUCTION

The track of Leg 32, which left Hakodate, Japan on 16 August 1973 and arrived at Honolulu, Hawaii on 10 October 1973, is shown in Figure 1. Site numbers and progressive distance in hundreds of nautical miles along the track are annotated. Table 1 is a list of the positioning information acquired underway by the satellite navigation system used to plot this track. Errors in these positions are generally substantially less than 1 nautical mile (Talwani et al., 1966). Table 1 also shows distance in nautical miles along the track and the speed and course maintained between that navigation point and the subsequent one. Also listed in Table 1 are the regional magnetic field values computed at each navigation point from the coefficients of Cain et al. (1968) and used to determine the magnetic anomaly profiles in Figures 2 through 7.

Figures 2 through 7 show the magnetic anomaly and bathymetric data plotted as functions of time, distance, latitude, and longitude with distance plotted as the linear function. These data have been reduced using the computer programs of Talwani (1969). The vertical scales in Figures 2 and 7 show magnetic anomaly values in gammas under "M" and depth in uncorrected fathoms assuming a sound speed of 800 fathoms/sec under "D." The magnetic anomaly profile is the darker of the two traces. At the top of the figures from top to bottom are annotated time in days, time in hours, latitude in degrees, and longitude in degrees. Along the bottom of the figures all navigation points are marked and occasional ones are annotated along with the course and speed that was subsequently maintained. On the bottommost scale at the bottom of the figures the distance along the track in nautical miles is shown. The site locations, significant bathymetric features, and magnetic

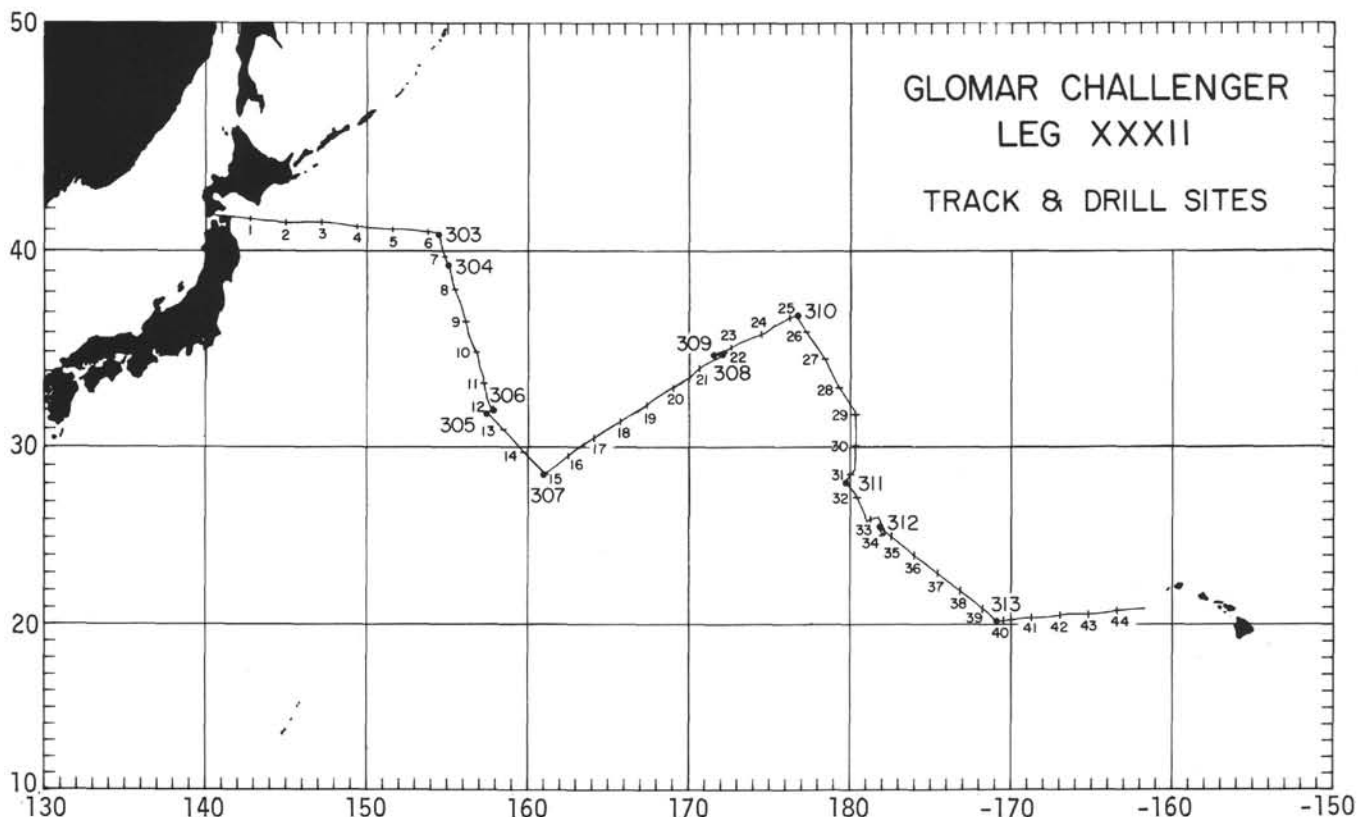


Figure 1. Track chart for Leg 32 of Glomar Challenger from Hakodate, Japan to Honolulu, Hawaii. Dots and larger numbers are drill site locations. Smaller numbers are distance along track in hundreds of nautical miles.

anomaly identifications from Larson and Chase (1972) and Larson and Pitman (1972) are also annotated on the profiles.

Profiles in the second series of figures (Figures 8 through 27) are the seismic reflection records shown as a linear function of time. Depth is annotated on the sides of the profiles in reflection times. One second on the profile equals 400 nominal fathoms water depth. The bottoms of the profiles are annotated with the time in days and hours, and speed and the heading maintained. Distances along the ship's track, in hundreds of nautical miles, and site locations are plotted at the tops of the profiles. The sound source for these data was generally two airguns with 20- and 30-in.<sup>3</sup> firing chambers. The data were recorded on dry paper EDO recorders employing a 10-sec sweep rate. Note that on the first set of geophysical profiles (Figures 2 through 7) time and distance along the track increase from left to right, but on the seismic reflection record (Figures 8 through 27) time and distance increase from right to left.

### NARRATIVE

After leaving Hakodate, Japan, the profile passes across the thickly ponded and layered sediments of the Japanese shelf and slope and drops abruptly to the axis of the Kuril Trench at 210 n mi (nautical miles). The bathymetric high just beyond the trench axis at 246 n mi is the flank of Erimo (Sisoev) Seamount. Beyond Erimo Seamount the profile passes out onto the deep-sea floor where 300-500 meters of layered sediment overlies a relatively flat basement reflector for approximately 360 n mi then abruptly changes to a rough basement reflector. The profile out to Site 303 at 632 n mi runs almost due east and is nearly parallel to the grain of the bathymetry and magnetic anomalies, although several fracture zones are crossed.

After Site 303 the profile runs south-southeast across the strike of a very well-defined M4 to M9 magnetic sequence to Site 304 at 726 n mi. The slightly rougher nature of the basement reflector along this section reflects this cross-strike heading. The drilling results at Sites 303 and 304 demonstrate that the basement reflector on the reflection records is not the top of the volcanic rocks, but rather is a chert layer that overlies the volcanics there by a few tens (~50) of meters. This becomes apparent beyond Site 304 as the profile continues south to Shatsky Rise. As the profile approaches Shatsky Rise, the chert reflector and true basement reflector diverge revealing a thickening layer of carbonate that lies between the chert and basalt. This demonstrates the time-transgressive nature of the chert layer which becomes younger to the south and marks the passage of the Pacific plate across the equatorial zone of productivity. The faintly layered interval that overlies the opaque layer represents most of the Tertiary sediments. The thickness of this interval is seen on the profiles to diminish regularly toward the south. The thicker accumulation observed in the northernmost areas results from the influence of the zone of high productivity associated with the Kuroshio current system as well as the proximity of volcanic centers along the Kuril-Japan subduction zones. This interpretation is

confirmed by the drilling results from Sites 303 and 304. The chert layer in some places is a smoothed version of the underlying basement surface, but elsewhere is nearly flat-lying. Because the top of the opaque layer has been found to correspond to a 50-60 m.y. hiatus at Sites 303 and 304, it is possible that the flatness of this horizon results at least in part from strong bottom-current activity. Magnetic anomalies along this section of the track are not obvious, but should range between M10 and M17.

The sea floor rises to about 3000 meters on top of Shatsky Rise, which is covered by 500 to 800 meters of layered sediments. The opaque layer loses its character as the chert becomes diluted in thick carbonate accumulations. These sediments pinch out on the flanks of the rise and are partially breached in the center by what appears to be a levee and channel feature 200 meters deep and 20 km wide centered at 1180 n mi. The magnetic anomalies across Shatsky Rise are generally of smaller widths which reflect shallower sources, but are not correlatable with deep-sea magnetic lineation sequences. The sediments at Site 305 appear to be the entire Shatsky Rise sequence with two strong interval reflectors in the lower half of the section, whereas the section at Site 306 has the lower half of the former section exposed, apparently by erosion.

Leaving Site 306 the profile crosses the faulted southern flank of Shatsky Rise and passes onto the deep-sea floor where the upper opaque or chert layer lies nearly at the sea floor. Faint traces of the lower opaque or volcanic basement layer can be seen at about 300 meters subbottom. Site 307 is located at 1498 n mi in a small pocket of transparent sediment overlying the chert sequence.

The profile between Sites 307 and 308 is uniformly the same sedimentary sequence with the chert layer near or at the sea floor. The extremely thin or absent upper transparent layer reflects the transit of the Pacific plate in the area of very low productivity north of the equator, although the thinness might have been somewhat aggravated by widespread vigorous bottom circulation during the early Tertiary. An excellent magnetic anomaly profile is present here showing anomalies M21 to M4 with an interruption in the middle of the sequence between M12 and M15 (1700-1840 n mi). This magnetic interruption occurs over a section of sea floor rougher than the surrounding area and could reflect the oblique crossing of a fracture zone. The magnetic profile shows an especially good M4 to M11 sequence with M10a appearing as three characteristic, positive anomalies at 1900 n mi.

The profile in the vicinity of Sites 308 and 309 shows three crossings of Kōko Guyot, near the southern end of the Emperor Seamount chain. Here the sea floor shoals to as little as 700 meters, and the profiler reveals a thick coral cap on the central portion of the guyot. Very little sediment is revealed by the profiler on the flanks of the guyot crest.

The echo sounder reveals that the deep-sea floor is significantly shallower (~750 m) east of Koko Guyot than west of that feature. The basement surface is not obvious on the profiler on either side of the seamount, so it is not known if this reflects a significantly shallower

basement to the east, or a thicker sediment accumulation. A gravity profile in the vicinity of the Leg 32 track shows the deflection curve across Koko Guyot to be symmetric (Watts and Cochran, in press). Thus, it is likely that the crust both east and west of Koko is compensated and that the anomalously shallow depth results from other tectonic causes.

Hess Rise is a relatively shallow area broken by what appear to be large normal faults (2420-2520 n mi) that trend north-northwest across the feature. Where undisturbed, the basement reflector is flat-lying and underlies about 300 meters of layered sediment. Leaving Site 310 on Hess Rise, the track runs along the southern portion of the rise where variable sediment cover as thick as 400 meters is observed. At 2800 n mi the track crosses the Mendocino Escarpment which occurs as a greater than 3 km change in depth.

The seamount crossed at 3170 n mi is part of the Hawaiian Seamount chain and is the source for the archipelagic apron on which Site 311 was drilled. Between Site 311 (3136 n mi) and Site 312 (3446 n mi) the track crosses and recrosses magnetic anomalies M1, M2, and M3 that are not labeled on the magnetic profile. Between Site 312 and Site 313 the track runs subparallel to and south of the Hawaiian Seamount chain. At about 3900 n mi the province of the Mid-Pacific Mountains is encountered. Site 313 is located in a shallow saddle between two seamounts within the

Mid-Pacific Mountains. The profile leaves the Mid-Pacific Mountains at 4220 n mi and the sea floor becomes uniformly smooth and underlain by reflective sediments of the Hawaiian archipelagic apron. This portion of the track is also subparallel to the Hawaiian Seamount chain. The smooth magnetic profile in this area is characteristic of the magnetic quiet zone.

#### REFERENCES

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TABLE 1  
List of Navigation Points for Underway Portion of Leg 32 of *Glomar Challenger* (Also  
Tabulated are Distance Along Track, Courses and Speeds Maintained Between Navigation  
Points, and Regional Magnetic Field Values)

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
15	8	1973	0.0	2244	41°40.7'	140°36.7'	0.0	3.2	178	49203
15	8	1973	0.0	2249	41°40.4'	140°36.7'	0.3	2.7	177	49200
15	8	1973	0.0	2253	41°40.3'	140°36.7'	0.4	11.9	101	49198
15	8	1973	0.0	2254	41°40.2'	140°37.0'	0.6	11.6	101	49197
15	8	1973	0.0	2345	41°38.3'	140°49.9'	10.5	12.2	89	49113
15	8	1973	0.0	000	41°38.4'	140°54.0'	13.5	12.6	90	49093
15	8	1973	0.0	014	41°38.4'	140°57.9'	16.5	13.1	86	49073
15	8	1973	0.0	036	41°38.7'	141° 4.3'	21.3	12.9	93	49044
16	8	1973	0.0	210	41°37.6'	141°31.3'	41.4	12.9	96	48897
16	8	1973	0.0	239	41°36.9'	141°39.6'	47.7	7.1	96	48848
16	8	1973	0.0	245	41°36.8'	141°40.5'	48.4	7.5	96	48843
16	8	1973	0.0	246	41°36.8'	141°40.7'	48.5	8.1	95	48842
16	8	1973	0.0	259	41°36.6'	141°43.0'	50.3	12.0	96	48829
16	8	1973	0.0	432	41°34.8'	142° 7.7'	68.8	10.9	97	48687
16	8	1973	0.0	1050	41°26.0'	143°38.7'	137.5	11.2	95	48145
16	8	1973	0.0	1150	41°25.0'	143°53.6'	148.8	11.2	91	48062
16	8	1973	0.0	1236	41°24.9'	144° 5.1'	157.4	11.2	94	48004
16	8	1973	0.0	1350	41°24 0'	144°23.4'	171.2	11.2	111	47905
16	8	1973	0.0	1425	41°21.7'	144°31.6'	177.7	10.7	94	47842
16	8	1973	0.0	1446	41°21.5'	144°36.6'	181.5	11.1	96	47815
16	8	1973	0.0	1558	41°20.1'	144°54.3'	194.8	10.3	96	47714
16	8	1973	0.0	1634	41°19.4'	145° 2.5'	201.0	10.4	93	47667
16	8	1973	0.0	1700	41°19.1'	145° 8.5'	205.5	9.6	86	47636
16	8	1973	0.0	1742	41°19.6'	145°17.4'	212.2	9.8	84	47597
16	8	1973	0.0	1930	41°21.5'	145°40.7'	229.8	9.6	84	47502
16	8	1973	0.0	2022	41°22.3'	145°51.7'	238.1	10.2	85	47456
16	8	1973	0.0	2108	41°23.0'	146° 2.1'	246.0	6.8	85	47413
16	8	1973	0.0	2118	41°23.1'	146° 3.6'	247.1	7.4	93	47407
16	8	1973	0.0	2200	41°22.8'	146°10.5'	252.3	7.4	91	47371
16	8	1973	0.0	2346	41°22.5'	146°28.0'	265.4	7.6	90	47283
17	8	1973	0.0	000	41°22.5'	146°30.4'	267.2	7.2	90	47272
17	8	1972	0.0	008	41°22.5'	146°31.6'	268.1	10.3	91	47266
17	8	1973	0.0	136	41°51.8'	146°51.8'	283.3	9.9	90	47166
17	8	1973	0.0	200	41°22.1'	146°57.1'	287.2	9.6	92	47140
17	8	1973	0.0	342	41°21.4'	147°18.8'	303.5	9.6	93	47030
17	8	1973	0.0	454	41°20.8'	147°34.1'	315.1	9.5	99	46952
17	8	1973	0.0	500	41°20.7'	147°35.4'	316.0	8.5	101	46945
17	8	1973	0.0	530	41°19.8'	147°40.9'	320.2	5.0	104	46911
17	8	1973	0.0	532	41°19.8'	147°41.1'	320.4	5.3	97	46909
17	8	1973	0.0	630	41°19.2'	147°47.9'	325.6	9.6	97	46871
17	8	1973	0.0	1000	41°15.2'	148°32.3'	359.1	9.2	103	46625
17	8	1973	0.0	1100	41°13.1'	148°44.2'	368.3	9.7	100	46550
17	8	1973	0.0	1146	41°11.9'	148°53.9'	375.7	10.5	95	46493
17	8	1973	0.0	1226	41°11.3'	149° 3.1'	382.7	7.2	95	46444
17	8	1973	0.0	1326	41°10.6'	149°12.6'	389.9	7.3	134	46394
17	8	1973	0.0	1345	41° 9.0'	149°14.8'	392.2	10.7	95	46368
17	8	1973	0.0	1358	41° 8.8'	149°17.9'	394.5	10.3	94	46352
17	8	1973	0.0	1542	41° 7.6'	149°41.6'	412.4	10.2	93	46233
17	8	1973	0.0	1734	41° 6.6'	150° 6.9'	431.5	10.6	96	46109
17	8	1973	0.0	1834	41° 5.5'	150°20.9'	442.1	10.4	93	46036
17	8	1973	0.0	2026	41° 4.4'	150°46.5'	461.4	10.4	98	45912
17	8	1973	0.0	2120	41° 3.1'	150°58.8'	470.8	10.0	90	45845
17	8	1973	0.0	2256	41° 3.1'	151°20.1'	486.9	10.7	93	45752
18	8	1973	0.0	000	41° 2.5'	151°35.2'	498.2	10.6	93	45681
18	8	1973	0.0	046	41° 2.1'	151°45.9'	506.3	10.2	89	45630
18	8	1973	0.0	254	41° 2.4'	152°14.6'	528.0	10.3	94	45511
18	8	1973	0.0	400	41° 1.7'	152°29.6'	539.3	10.1	98	45440
18	8	1973	0.0	442	41° 0.7'	152°38.9'	546.4	9.9	95	45392
18	8	1973	0.0	546	40°59.7'	152°52.8'	556.9	10.3	99	45324
18	8	1973	0.0	700	40°57.7'	153° 9.4'	569.7	10.3	97	45236
18	8	1973	0.0	730	40°57.1'	153°16.2'	574.8	9.7	100	45202
18	8	1973	0.0	810	40°56.0'	153°24.6'	581.2	10.1	95	45157
18	8	1973	0.0	922	40°54.9'	153°40.6'	593.4	10.4	94	45081
18	8	1973	0.0	1056	40°53.7'	154° 2.1'	609.7	10.6	92	44982
18	8	1973	0.0	1228	40°53.1'	154°23.6'	626.0	10.4	170	44891
18	8	1973	0.0	1232	40°52.4'	154°23.8'	626.7	5.4	170	44883
18	8	1973	0.0	1318	40°48.4'	154°24.7'	630.8	0.0	97	44840
23	8	1973	0.0	2216	40°48.1'	154°27.6'	633.0	10.7	165	44826
23	8	1973	0.0	2324	40°36.4'	154°31.8'	645.1	10.6	165	44695



TABLE 1 – Continued

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
24	8	1973	0.0	000	40°30.2'	154°34.0'	651.5	9.7	165	44627
24	8	1973	0.0	136	40°15.2'	154°39.2'	667.1	9.8	167	44460
24	8	1973	0.0	236	40° 5.7'	154°42.2'	676.9	9.4	165	44356
24	8	1973	0.0	324	39°58.4'	154°44.8'	684.4	9.7	158	44276
24	8	1973	0.0	410	39°51.5'	154°48.4'	691.8	9.2	163	44195
24	8	1973	0.0	510	39°42.7'	154°51.9'	701.0	9.1	158	44097
24	8	1973	0.0	556	39°36.2'	154°55.3'	708.0	9.4	158	44021
24	8	1973	0.0	746	39°20.3'	155° 3.7'	725.3	0.0	74	43836
27	8	1973	0.0	857	39°20.5'	155° 4.8'	726.2	8.3	163	43834
27	8	1973	0.0	1048	39° 5.9'	155°10.6'	741.4	8.4	167	43672
27	8	1973	0.0	1126	39° 0.7'	155°12.1'	746.7	8.4	170	43617
27	8	1973	0.0	1256	38°48.3'	155°15.0'	759.4	8.3	167	43488
27	8	1973	0.0	1327	38°44.1'	155°16.3'	763.7	7.2	167	43444
27	8	1973	0.0	1342	38°42.4'	155°16.8'	765.5	9.2	167	43425
27	8	1973	0.0	1448	38°32.5'	155°19.8'	775.6	8.9	172	43321
27	8	1973	0.0	1526	38°26.9'	155°20.8'	781.3	8.8	170	43264
27	8	1973	0.0	1540	38°24.9'	155°21.3'	783.3	8.8	166	43243
27	8	1973	0.0	1630	38°17.8'	155°23.6'	790.6	8.8	162	43168
27	8	1973	0.0	1708	38°12.5'	155°25.8'	796.2	9.3	158	43110
27	8	1973	0.0	2024	37°44.4'	155°40.1'	826.5	9.3	158	42794
27	8	1973	0.0	2110	37°37.8'	155°43.5'	833.6	9.6	161	42720
27	8	1973	0.0	2344	37°14.6'	155°53.8'	858.2	9.4	161	42469
28	8	1973	0.0	000	37°12.2'	155°54.8'	860.7	9.7	162	42443
28	8	1973	0.0	154	36°54.8'	156° 2.1'	879.1	9.8	162	42258
28	8	1973	0.0	235	36°48.4'	156° 4.8'	885.8	10.0	167	42190
28	8	1973	0.0	340	36°37.9'	156° 7.9'	896.6	10.1	166	42083
28	8	1973	0.0	606	36°14.1'	156°15.5'	921.2	10.1	171	41842
28	8	1973	0.0	638	36° 8.8'	156°16.6'	926.6	9.5	170	41790
28	8	1973	0.0	800	35°55.9'	156°19.4'	939.6	9.0	165	41666
28	8	1973	0.0	808	35°54.8'	156°19.8'	940.8	9.2	159	41654
28	8	1973	0.0	1210	35°20.1'	156°36.4'	978.1	9.4	151	41291
28	8	1973	0.0	1350	35° 6.5'	156°45.8'	993.7	9.4	153	41140
28	8	1973	0.0	1425	35° 1.6'	156°48.9'	999.2	9.4	162	41087
28	8	1973	0.0	1536	34°51.0'	156°53.1'	1010.3	9.5	164	40981
28	8	1973	0.0	1614	34°45.2'	156°55.1'	1016.4	9.6	172	40925
28	8	1973	0.0	1724	34°34.1'	156°57.0'	1027.6	10.5	173	40823
28	8	1973	0.0	1750	34°29.6'	156°57.7'	1032.1	9.8	172	40783
28	8	1973	0.0	1930	34°13.5'	157° 0.6'	1048.4	10.2	160	40637
28	8	1973	0.0	1942	34°11.6'	157° 1.4'	1050.4	9.7	159	40618
28	8	1973	0.0	2108	33°58.6'	157° 7.5'	1064.5	10.5	158	40488
28	8	1973	0.0	2138	33°53.7'	157° 9.9'	1069.6	10.8	165	40440
28	8	1973	0.0	2250	33°41.2'	157°13.9'	1082.6	10.2	169	40322
29	8	1973	0.0	000	33°29.5'	157°16.7'	1094.5	9.8	169	40217
29	8	1973	0.0	438	32°44.9'	157°27.4'	1140.0	9.9	175	39820
29	8	1973	0.0	514	32°39.0'	157°28.0'	1145.9	10.1	170	39771
29	8	1973	0.0	520	32°38.0'	157°28.2'	1146.9	10.0	159	39762
29	8	1973	0.0	550	32°33.3'	157°30.3'	1151.9	9.8	160	39718
29	8	1973	0.0	732	32°17.6'	157°37.2'	1168.7	9.2	160	39572
29	8	1973	0.0	800	32°13.5'	157°39.0'	1173.0	9.8	146	39535
29	8	1973	0.0	906	32° 4.6'	157°46.1'	1183.8	10.5	145	39443
29	8	1973	0.0	1000	31°56.9'	157°52.5'	1193.3	9.3	325	39363
29	8	1973	0.0	1020	31°59.4'	157°50.4'	1196.4	3.8	325	39389
29	8	1973	0.0	1039	32° 0.4'	157°49.6'	1197.6	0.0	112	39399
3	9	1973	0.0	1015	31°59.9'	157°51.0'	1198.8	10.1	247	39392
3	9	1973	0.0	1018	31°59.7'	157°50.4'	1199.3	9.4	280	39392
3	9	1973	0.0	1032	32° 0.1'	157°47.9'	1201.5	9.8	247	39402
3	9	1973	0.0	1115	31°57.4'	157°40.3'	1208.5	9.8	238	39404
3	9	1973	0.0	1240	31°50.0'	157°26.4'	1222.4	10.9	58	39389
3	9	1973	0.0	1246	31°50.6'	157°27.5'	1223.5	4.7	0	39390
3	9	1973	0.0	1313	31°52.7'	157°27.5'	1225.6	0.0	112	39407
7	9	1973	0.0	2348	31°52.2'	157°28.7'	1226.7	10.5	137	39400
8	9	1973	0.0	000	31°50.7'	157°30.4'	1228.8	9.4	137	39382
8	9	1973	0.0	008	31°49.8'	157°31.4'	1230.0	9.0	138	39372
8	9	1973	0.0	154	31°38.0'	157°43.9'	1245.9	9.5	136	39243
8	9	1973	0.0	346	31°25.4'	157°58.4'	1263.6	9.0	138	39104
8	9	1973	0.0	536	31°13.1'	158°11.4'	1280.2	9.2	136	38973
8	9	1973	0.0	800	30°57.2'	158°29.4'	1302.3	9.7	135	38802
8	9	1973	0.0	946	30°45.1'	158°43.5'	1319.4	9.5	139	38673
8	9	1973	0.0	1204	30°28.7'	159° 0.2'	1341.2	9.8	137	38508

TABLE 1 – *Continued*

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
8	9	1973	0.0	1350	30°16.1'	159°14.0'	1358.6	9.1	140	38380
8	9	1973	0.0	1420	30°12.6'	159°17.4'	1363.1	9.7	135	38346
8	9	1973	0.0	1540	30° 8.4'	159°28.0'	1376.1	9.7	138	38252
8	9	1973	0.0	1758	29°46.8'	159°45.2'	1398.4	9.3	137	38092
8	9	1973	0.0	1916	29°37.9'	159°54.6'	1410.5	9.3	139	38006
8	9	1973	0.0	2100	29°25.7'	160° 6.7'	1426.6	9.2	137	37892
8	9	1973	0.0	2326	29° 9.4'	160°24.4'	1449.1	9.1	133	37739
9	9	1973	0.0	000	29° 5.8'	160°28.7'	1454.2	9.0	133	37705
9	9	1973	0.0	136	28°55.9'	160°40.7'	1468.7	9.1	135	37610
9	9	1973	0.0	256	28°47.3'	160°50.4'	1480.8	9.4	137	37531
9	9	1973	0.0	417	28°38.1'	161° 0.2'	1493.4	10.1	180	37448
9	9	1973	0.0	420	28°37.6'	161° 0.2'	1493.9	4.4	180	37445
9	9	1973	0.0	509	28°33.9'	161° 0.2'	1497.5	5.1	0	37422
9	9	1973	0.0	530	28°35.7'	161° 0.2'	1499.3	0.0	151	37433
13	9	1973	0.0	729	28°34.5'	161° 1.0'	1500.8	9.3	56	37423
13	9	1973	0.0	1132	28°55.4'	161°36.6'	1538.4	9.3	56	37480
13	9	1973	0.0	1215	28°59.1'	161°42.9'	1545.0	9.2	54	37490
13	9	1973	0.0	1320	29° 5.1'	161°52.0'	1555.0	8.9	54	37510
13	9	1973	0.0	1458	29°13.7'	162° 5.5'	1569.5	9.0	50	37538
13	9	1973	0.0	1644	29°23.9'	162°19.5'	1585.5	9.0	52	37575
13	9	1973	0.0	1724	29°27.6'	162°24.9'	1591.4	9.7	49	37589
13	9	1973	0.0	1842	29°35.9'	162°35.9'	1604.1	9.3	49	37621
13	9	1973	0.0	1930	29°40.8'	162°42.3'	1611.5	9.4	54	37641
13	9	1973	0.0	2250	29°59.3'	163°11.4'	1642.8	9.4	55	37707
14	9	1973	0.0	000	30° 5.6'	163°21.8'	1653.8	9.7	55	37729
14	9	1973	0.0	036	30° 8.9'	163°27.3'	1659.6	9.3	57	37740
14	9	1973	0.0	518	30°32.5'	164° 9.8'	1703.2	9.4	58	37821
14	9	1973	0.0	706	30°41.4'	164°26.5'	1720.1	8.7	57	37851
14	9	1973	0.0	822	30°47.4'	164°37.3'	1731.2	9.4	58	37873
14	9	1973	0.0	1046	30°59.4'	164°59.6'	1753.8	9.9	57	37917
14	9	1973	0.0	1224	31° 8.1'	165°15.4'	1769.8	9.9	59	37950
14	9	1973	0.0	1406	31°16.9'	165°32.2'	1786.7	10.2	57	37984
14	9	1973	0.0	1552	31°26.6'	165°50.0'	1804.7	10.3	59	38023
14	9	1973	0.0	1940	31°46.5'	166°29.5'	1843.8	10.3	62	38101
14	9	1973	0.0	2100	31°53.0'	166°43.7'	1857.5	11.2	59	38126
14	9	1973	0.0	2126	31°55.5'	166°48.6'	1862.4	10.7	57	38137
14	9	1973	0.0	2346	32° 9.3'	167°13.3'	1887.4	10.7	53	38200
15	9	1973	0.0	000	32°10.8'	167°15.6'	1889.9	10.1	53	38207
15	9	1973	0.0	430	32°38.4'	167°58.6'	1935.5	9.8	55	38349
15	9	1973	0.0	500	32°41.2'	168° 3.4'	1940.4	9.7	56	38363
15	9	1973	0.0	618	32°48.2'	168°15.9'	1953.0	10.2	60	38399
15	9	1973	0.0	1142	33°15.5'	169°12.8'	2008.0	9.9	58	38532
15	9	1973	0.0	1250	33°21.4'	169°24.2'	2019.2	10.2	92	38563
15	9	1973	0.0	1300	33°21.3'	169°26.2'	2020.9	10.5	58	38560
15	9	1973	0.0	1330	33°24.1'	169°31.5'	2026.1	10.8	54	38575
15	9	1973	0.0	1645	33°44.9'	170° 5.3'	2061.1	11.6	48	38695
15	9	1973	0.0	1650	33°45.5'	170° 6.2'	2062.1	11.6	44	38699
15	9	1973	0.0	1900	34° 3.5'	170°27.2'	2087.1	10.9	49	38815
15	9	1973	0.0	1920	34° 5.9'	170°30.5'	2090.8	11.2	54	38830
15	9	1973	0.0	2038	34°14.4'	170°44.7'	2105.3	10.9	55	38882
15	9	1973	0.0	2258	34°28.9'	171°10.0'	2130.7	10.9	64	38971
16	9	1973	0.0	000	34°33.9'	171°22.3'	2142.0	10.6	64	39000
16	9	1973	0.0	100	34°38.6'	171°33.9'	2152.6	11.0	69	39026
16	9	1973	0.0	120	34°39.9'	171°38.0'	2156.3	10.3	66	39033
16	9	1973	0.0	212	34°43.5'	171°47.9'	2165.2	10.0	59	39053
16	9	1973	0.0	252	34°46.9'	171°54.8'	2171.8	9.2	48	39075
16	9	1973	0.0	436	34°57.6'	172° 9.2'	2187.7	5.6	0	39148
16	9	1973	0.0	516	35° 1.4'	172° 9.2'	2191.5	7.5	267	39177
16	9	1973	0.0	528	35° 1.3'	172° 7.4'	2193.0	7.5	269	39178
16	9	1973	0.0	545	35° 1.3'	172° 4.8'	2195.1	7.4	105	39180
16	9	1973	0.0	612	35° 0.4'	172° 8.7'	2198.4	4.5	106	39170
16	9	1973	0.0	620	35° 0.2'	172° 9.4'	2199.0	0.1	186	39168
17	9	1973	0.0	235	34°57.5'	172° 9.1'	2201.7	8.9	360	39147
17	9	1973	0.0	237	34°57.8'	172° 9.1'	2202.0	8.3	259	39149
17	9	1973	0.0	440	34°54.6'	171°48.7'	2219.0	8.2	261	39140
17	9	1973	0.0	508	34°54.0'	171°44.1'	2222.9	7.7	283	39139
17	9	1973	0.0	602	34°55.6'	171°35.9'	2229.8	6.9	275	39158
17	9	1973	0.0	632	34°55.9'	171°31.7'	2233.2	7.6	282	39163
17	9	1973	0.0	655	34°56.5'	171°28.2'	2236.1	8.1	105	39171

TABLE 1 – Continued

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
17	9	1973	0.0	732	34°55.1'	171°34.1'	2241.2	0.1	156	39156
18	9	1973	0.0	230	34°53.9'	171°34.8'	2242.5	4.2	66	39145
18	9	1973	0.0	250	34°54.5'	171°36.4'	2243.9	10.1	65	39149
18	9	1973	0.0	406	34°59.8'	171°50.5'	2256.6	9.6	70	39179
18	9	1973	0.0	542	35°5.1'	172°8.2'	2272.1	10.3	74	39207
18	9	1973	0.0	630	35°7.4'	172°17.8'	2280.3	9.5	72	39218
18	9	1973	0.0	658	35°8.8'	172°23.0'	2284.7	9.3	61	39226
18	9	1973	0.0	1102	35°27.2'	173°3.3'	2322.4	9.7	64	39346
18	9	1973	0.0	1200	35°31.3'	173°13.7'	2331.8	9.6	68	39373
18	9	1973	0.0	1216	35°32.3'	173°16.6'	2334.4	8.8	65	39379
18	9	1973	0.0	1252	35°34.5'	173°22.5'	2339.7	9.4	69	39393
18	9	1973	0.0	1402	35°38.5'	173°35.0'	2350.6	9.3	68	39419
18	9	1973	0.0	1508	35°42.4'	173°46.6'	2360.8	8.9	67	39444
18	9	1973	0.0	1602	35°45.6'	173°55.7'	2368.8	10.3	72	39465
18	9	1973	0.0	1635	35°47.4'	174°2.3'	2374.5	9.8	70	39477
18	9	1973	0.0	1656	35°48.5'	174°6.3'	2377.9	8.6	72	39484
18	9	1973	0.0	1806	35°51.5'	174°18.1'	2387.9	8.2	69	39503
18	9	1973	0.0	1840	35°53.2'	174°23.4'	2392.6	8.5	70	39515
18	9	1973	0.0	2000	35°57.1'	174°36.5'	2403.9	8.4	63	39542
18	9	1973	0.0	2045	35°59.9'	174°43.5'	2410.2	8.6	57	39562
18	9	1973	0.0	2216	36°7.0'	174°57.1'	2423.3	9.0	52	39615
18	9	1973	0.0	2328	36°13.6'	175°7.7'	2434.1	8.6	49	39665
19	9	1973	0.0	000	36°16.6'	175°12.0'	2438.7	9.4	50	39688
19	9	1973	0.0	004	36°17.0'	175°12.6'	2439.3	9.4	52	39691
19	9	1973	0.0	050	36°21.5'	175°19.6'	2446.5	9.6	64	39726
19	9	1973	0.0	114	36°23.2'	175°23.9'	2450.4	9.6	63	39739
19	9	1973	0.0	314	36°32.0'	175°45.0'	2469.5	10.2	61	39806
19	9	1973	0.0	450	36°40.0'	176°2.8'	2485.9	9.7	59	39869
19	9	1973	0.0	530	36°43.4'	176°9.7'	2492.3	9.0	67	39896
19	9	1973	0.0	642	36°47.5'	176°22.2'	2503.2	9.1	70	39929
19	9	1973	0.0	754	36°51.2'	176°35.0'	2514.1	9.2	75	39958
19	9	1973	0.0	822	36°52.3'	176°40.2'	2518.3	9.8	93	39967
19	9	1973	0.0	930	36°51.7'	176°54.1'	2529.5	6.4	93	39962
19	9	1973	0.0	955	36°51.6'	176°57.4'	2532.1	7.6	273	39961
19	9	1973	0.0	1019	36°51.7'	176°53.6'	2535.2	0.1	259	39962
24	9	1973	0.0	155	36°50.1'	176°43.1'	2543.7	3.6	151	39949
24	9	1973	0.0	200	36°49.9'	176°43.3'	2544.0	5.7	151	39947
24	9	1973	0.0	220	36°48.2'	176°44.5'	2545.9	9.5	150	39934
24	9	1973	0.0	428	36°30.7'	176°56.9'	2566.0	8.9	149	39791
24	9	1973	0.0	946	35°50.3'	177°26.7'	2613.0	9.2	145	39470
24	9	1973	0.0	1130	35°37.2'	177°38.0'	2629.0	9.9	146	39369
24	9	1973	0.0	1324	35°21.6'	177°51.0'	2647.9	10.7	143	39249
24	9	1973	0.0	1424	35°13.1'	177°58.9'	2658.6	10.0	142	39185
24	9	1973	0.0	1500	35°8.4'	178°3.4'	2664.6	10.8	147	39149
24	9	1973	0.0	1536	35°2.9'	178°7.7'	2671.1	10.5	146	39108
24	9	1973	0.0	1726	34°46.8'	178°20.7'	2690.4	10.4	147	38989
24	9	1973	0.0	1836	34°36.7'	178°28.8'	2702.5	10.5	153	38915
24	9	1973	0.0	1900	34°32.9'	178°31.1'	2706.7	10.2	155	38887
24	9	1973	0.0	2318	33°53.0'	178°53.3'	2750.6	10.0	161	38598
24	9	1973	0.0	2350	33°48.0'	178°55.4'	2755.9	8.6	152	38562
25	9	1973	0.0	000	33°46.7'	178°56.2'	2757.4	9.2	152	38553
25	9	1973	0.0	104	33°38.0'	179°1.7'	2767.2	9.3	150	38492
25	9	1973	0.0	336	33°17.6'	179°15.6'	2790.7	9.7	148	38351
25	9	1973	0.0	520	33°3.3'	179°26.3'	2807.6	9.5	147	38254
25	9	1973	0.0	1040	32°20.8'	179°59.3'	2858.3	9.1	149	37974
25	9	1973	0.0	1110	32°16.9'	-179°57.9'	2862.8	9.8	143	37949
25	9	1973	0.0	1232	32°6.2'	-179°48.3'	2876.3	10.2	145	37881
25	9	1973	0.0	1332	31°57.9'	-179°41.4'	2886.5	9.7	141	37829
25	9	1973	0.0	1347	31°56.0'	-179°39.6'	2888.9	9.8	176	37817
25	9	1973	0.0	1450	31°45.8'	-179°38.7'	2899.2	9.8	179	37749
25	9	1973	0.0	1522	31°40.6'	-179°38.6'	2904.4	9.9	177	37714
25	9	1973	0.0	1638	31°28.1'	-179°37.8'	2916.9	11.0	180	37631
25	9	1973	0.0	1755	31°13.9'	-179°37.7'	2931.1	4.9	177	37538
25	9	1973	0.0	1900	31°8.6'	-179°37.4'	2936.3	11.2	180	37503
25	9	1973	0.0	1934	31°2.3'	-179°37.4'	2942.7	10.6	180	37462
25	9	1973	0.0	2158	30°36.9'	-179°37.5'	2968.1	10.4	181	37298
26	9	1973	0.0	000	30°15.8'	-179°38.1'	2989.2	9.8	181	37164
26	9	1973	0.0	234	29°50.6'	-179°38.7'	3014.4	9.9	179	37007
26	9	1973	0.0	430	29°31.5'	-179°38.2'	3033.5	9.8	184	36890

TABLE 1 – *Continued*

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
26	9	1973	0.0	500	29°26.6'	-179°38.6'	3038.4	9.5	185	36860
26	9	1973	0.0	540	29°20.3'	-179°39.3'	3044.7	9.6	182	36822
26	9	1973	0.0	855	28°49.3'	-179°40.8'	3075.8	9.6	219	36637
26	9	1973	0.0	954	28°41.9'	-179°47.6'	3085.3	9.9	220	36589
26	9	1973	0.0	1240	28°20.8'	179°52.5'	3112.7	9.1	220	36456
26	9	1973	0.0	1307	28°17.6'	179°49.5'	3116.8	8.2	206	36436
26	9	1973	0.0	1324	28°15.5'	179°48.4'	3119.1	9.1	199	36423
26	9	1973	0.0	1350	28°11.8'	179°46.9'	3123.1	9.9	200	36401
26	9	1973	0.0	1430	28° 5.6'	179°44.3'	3129.7	9.7	200	36365
26	9	1973	0.0	1444	28° 3.5'	179°43.4'	3131.9	10.6	20	36353
26	9	1973	0.0	1453	28° 5.0'	179°44.0'	3133.5	4.9	20	36361
26	9	1973	0.0	1525	28° 7.4'	179°45.0'	3136.1	0.0	204	36376
28	9	1973	0.0	1043	28° 7.2'	179°44.9'	3136.4	6.3	143	36374
28	9	1973	0.0	1106	28° 5.3'	179°46.6'	3138.8	10.1	143	36364
28	9	1973	0.0	1148	27°59.6'	179°51.4'	3145.9	10.0	139	36335
28	9	1973	0.0	1246	27°52.3'	179°58.5'	3155.5	9.8	140	36299
28	9	1973	0.0	1346	27°44.8'	-179°54.3'	3165.3	9.9	142	36261
28	9	1973	0.0	1425	27°39.7'	-179°49.8'	3171.8	6.6	142	36236
28	9	1973	0.0	1432	27°39.1'	-179°49.3'	3172.5	6.9	140	36233
28	9	1973	0.0	1507	27°36.0'	-179°46.4'	3176.6	10.4	141	36218
28	9	1973	0.0	1550	27°30.2'	-179°41.1'	3184.1	9.8	157	36189
28	9	1973	0.0	1558	27°29.0'	-179°40.5'	3185.4	9.4	154	36183
28	9	1973	0.0	1753	27°12.9'	-179°31.5'	3203.3	11.0	157	36102
28	9	1973	0.0	1854	27° 2.6'	-179°26.7'	3214.5	9.7	156	36050
28	9	1973	0.0	2120	26°41.1'	-179°16.0'	3238.0	9.9	157	35944
28	9	1973	0.0	2306	26°24.9'	-179° 8.4'	3255.6	9.8	156	35865
29	9	1973	0.0	000	26°16.8'	-179° 4.4'	3264.4	10.1	156	35826
29	9	1973	0.0	002	26°16.5'	-179° 4.3'	3264.7	10.2	159	35825
29	9	1973	0.0	100	26° 7.3'	-179° 0.3'	3274.6	10.2	163	35781
29	9	1973	0.0	148	25°59.5'	-178°57.6'	3282.8	10.0	161	35744
29	9	1973	0.0	202	25°57.3'	-178°56.8'	3285.1	9.2	69	35733
29	9	1973	0.0	500	26° 7.1'	-178°28.4'	3312.4	9.8	69	35803
29	9	1973	0.0	620	26°11.7'	-178°14.8'	3325.5	9.1	157	35837
29	9	1973	0.0	912	25°47.8'	-178° 3.3'	3351.6	8.8	157	35725
29	9	1973	0.0	1102	25°32.9'	-177°56.4'	3367.7	9.2	151	35657
29	9	1973	0.0	1115	25°31.1'	-177°55.3'	3369.7	8.7	162	35649
29	9	1973	0.0	1248	25°18.3'	-177°50.8'	3383.2	8.9	166	35591
29	9	1973	0.0	1332	25°12.0'	-177°49.1'	3389.7	9.1	247	35562
29	9	1973	0.0	1340	25°11.5'	-177°50.3'	3390.9	9.2	247	35558
29	9	1973	0.0	1436	25° 8.1'	-177°59.0'	3399.5	8.8	343	35535
29	9	1973	0.0	1512	25°13.2'	-178° 0.7'	3404.8	8.7	340	35558
29	9	1973	0.0	1810	25°37.4'	-178°10.3'	3430.5	9.0	341	35668
29	9	1973	0.0	1818	25°38.5'	-178°10.7'	3431.7	6.2	161	35674
29	9	1973	0.0	1945	25°30.1'	-178° 7.5'	3440.6	7.8	341	35635
29	9	1973	0.0	2010	25°33.2'	-178° 8.6'	3443.9	5.6	341	35649
29	9	1973	0.0	2022	25°34.2'	-178° 9.0'	3445.0	0.1	354	35654
1	10	1973	0.0	145	25°37.4'	-178° 9.4'	3448.2	1.1	127	35669
1	10	1973	0.0	155	25°37.3'	-178° 9.2'	3448.3	8.4	131	35669
1	10	1973	0.0	400	25°25.9'	-177°54.5'	3465.8	8.0	132	35625
1	10	1973	0.0	512	25°19.5'	-177°46.6'	3475.4	8.7	128	35600
1	10	1973	0.0	922	24°57.2'	-177°15.3'	3511.5	8.8	130	35517
1	10	1973	0.0	1106	24°47.3'	-177° 2.5'	3526.7	9.0	131	35483
1	10	1973	0.0	1156	24°42.4'	-176°56.3'	3534.2	8.8	132	35465
1	10	1973	0.0	1246	24°37.5'	-176°50.3'	3541.5	9.3	127	35448
1	10	1973	0.0	1336	24°32.8'	-176°43.5'	3549.3	9.0	131	35432
1	10	1973	0.0	1410	24°29.5'	-176°39.3'	3554.4	9.8	129	35420
1	10	1973	0.0	1524	24°21.9'	-176°28.9'	3566.5	9.0	131	35394
1	10	1973	0.0	1710	24°11.6'	-176°15.7'	3582.3	9.7	130	35359
1	10	1973	0.0	1800	24° 6.4'	-176° 9.0'	3590.4	9.4	129	35342
1	10	1973	0.0	1814	24° 5.0'	-176° 7.1'	3592.6	9.0	128	35337
1	10	1973	0.0	2040	23°51.6'	-175°48.0'	3614.6	9.2	125	36295
1	10	1973	0.0	2214	23°43.3'	-175°35.2'	3628.9	8.8	126	35270
2	10	1973	0.0	000	23°34.2'	-175°21.6'	3644.4	8.9	126	35242
2	10	1973	0.0	002	23°34.0'	-175°21.3'	3644.7	9.1	129	35242
2	10	1973	0.0	1016	22°35.9'	-174° 2.9'	3737.3	9.0	128	35070
2	10	1973	0.0	1146	22°27.6'	-173°51.3'	3750.9	9.1	126	35047
2	10	1973	0.0	1248	22°22.1'	-173°43.1'	3760.2	8.8	126	35033
2	10	1973	0.0	1434	22°12.9'	-173°29.5'	3775.8	8.9	127	35009
2	10	1973	0.0	1622	22° 3.3'	-173°15.7'	3791.8	9.4	127	34984



TABLE 1 – Continued

Day	Mon	Year	TZ	Time	Latitude	Longitude	Distance	Speed	Course	Regional Mag
2	10	1973	0.0	1730	21° 56.9'	-173° 6.5'	3802.5	9.4	128	34967
2	10	1973	0.0	2140	21° 33.0'	-172° 33.1'	3841.6	9.2	129	34906
3	10	1973	0.0	000	21° 19.3'	-172° 15.2'	3863.2	9.6	129	34871
3	10	1973	0.0	410	20° 54.1'	-171° 42.1'	3903.1	9.5	126	34808
3	10	1973	0.0	514	20° 48.1'	-171° 33.3'	3913.2	9.4	127	34794
3	10	1973	0.0	530	20° 46.6'	-171° 31.1'	3915.7	9.1	135	34790
3	10	1973	0.0	746	20° 32.1'	-171° 15.5'	3936.3	9.4	132	34752
3	10	1973	0.0	815	20° 29.1'	-171° 11.9'	3940.9	9.5	142	34744
3	10	1973	0.0	1050	20° 9.7'	-170° 56.0'	3965.3	9.3	146	34688
3	10	1973	0.0	1109	20° 7.3'	-170° 54.2'	3968.3	12.0	326	34681
3	10	1973	0.0	1124	20° 9.7'	-170° 56.0'	3971.3	7.3	326	34688
3	10	1973	0.0	1133	20° 10.7'	-170° 56.7'	3972.4	0.0	335	34691
7	10	1973	0.0	535	20° 11.6'	-170° 57.2'	3973.4	9.0	90	34694
7	10	1973	0.0	541	20° 11.6'	-170° 56.2'	3974.3	9.3	85	34695
7	10	1973	0.0	800	20° 13.5'	-170° 33.4'	3995.8	9.2	83	34726
7	10	1973	0.0	946	20° 15.5'	-170° 16.2'	4012.1	9.3	83	34753
7	10	1973	0.0	1044	20° 16.6'	-170° 6.7'	4021.0	9.4	82	34767
7	10	1973	0.0	1144	20° 17.8'	-169° 56.8'	4030.4	9.1	83	34783
7	10	1973	0.0	1204	20° 18.2'	-169° 53.6'	4033.4	9.0	82	34788
7	10	1973	0.0	1654	20° 23.9'	-169° 7.5'	4077.0	9.1	86	34863
7	10	1973	0.0	1730	20° 24.3'	-169° 1.7'	4082.5	8.7	89	34871
7	10	1973	0.0	2110	20° 24.7'	-168° 27.6'	4114.4	8.1	88	34913
7	10	1073	0.0	2204	20° 25.0'	-168° 19.8'	4121.8	8.6	89	34923
7	10	1973	0.0	2328	20° 25.2'	-168° 7.0'	4133.8	8.7	87	34940
8	10	1973	0.0	000	20° 25.5'	-168° 2.0'	4138.4	8.5	87	34947
8	10	1973	0.0	028	20° 25.7'	-167° 57.8'	4142.4	8.3	83	34953
8	10	1973	0.0	342	20° 29.2'	-167° 29.3'	4169.3	9.2	84	35003
8	10	1973	0.0	436	20° 30.0'	-167° 20.5'	4177.6	8.0	81	35017
8	10	1973	0.0	858	20° 35.3'	-166° 43.8'	4212.4	7.6	81	35086
8	10	1973	0.0	952	20° 36.4'	-166° 36.6'	4219.2	8.1	83	35100
8	10	1973	0.0	1025	20° 36.9'	-166° 31.9'	4223.6	8.1	87	35108
8	10	1973	0.0	1114	20° 37.2'	-166° 24.8'	4230.3	8.2	90	35119
8	10	1973	0.0	1318	20° 37.3'	-166° 6.6'	4247.3	8.6	91	35144
8	10	1973	0.0	1645	20° 36.7'	-165° 34.8'	4277.0	8.0	88	35184
8	10	1973	0.0	1838	20° 37.1'	-165° 18.8'	4292.1	7.6	85	35208
8	10	1973	0.0	2110	20° 38.8'	-164° 58.4'	4311.2	7.3	87	35243
8	10	1973	0.0	2234	20° 39.3'	-164° 47.5'	4321.4	7.3	86	35261
9	10	1973	0.0	000	20° 39.9'	-164° 36.3'	4331.9	7.0	86	35279
9	10	1973	0.0	022	20° 40.1'	-164° 33.6'	4334.5	7.3	86	35284
9	10	1973	0.0	106	20° 40.5'	-164° 27.9'	4339.8	7.3	84	35293
9	10	1973	0.0	250	20° 41.8'	-164° 14.5'	4352.4	7.2	80	35318
9	10	1973	0.0	354	20° 43.1'	-164° 6.4'	4360.1	7.4	80	35336
9	10	1973	0.0	810	20° 48.8'	-163° 33.1'	4391.8	7.8	78	35410
9	10	1973	0.0	856	20° 50.0'	-163° 26.8'	4397.8	7.4	80	35425
9	10	1973	0.0	930	20° 50.8'	-163° 22.4'	4401.9	7.7	83	35435
9	10	1973	0.0	958	20° 51.2'	-163° 18.6'	4405.5	7.5	86	35442
9	10	1973	0.0	1022	20° 51.4'	-163° 15.4'	4408.5	7.7	84	35448
9	10	1973	0.0	1208	20° 52.9'	-163° 0.9'	4422.2	7.6	83	35477
9	10	1973	0.0	1424	20° 55.0'	-162° 42.5'	4439.5	8.0	88	35514
9	10	1973	0.0	2118	20° 57.4'	-161° 43.1'	4495.0			35618

<sup>a</sup>Also tabulated are distance along track, courses and speeds maintained between navigation points, and regional magnetic field values.

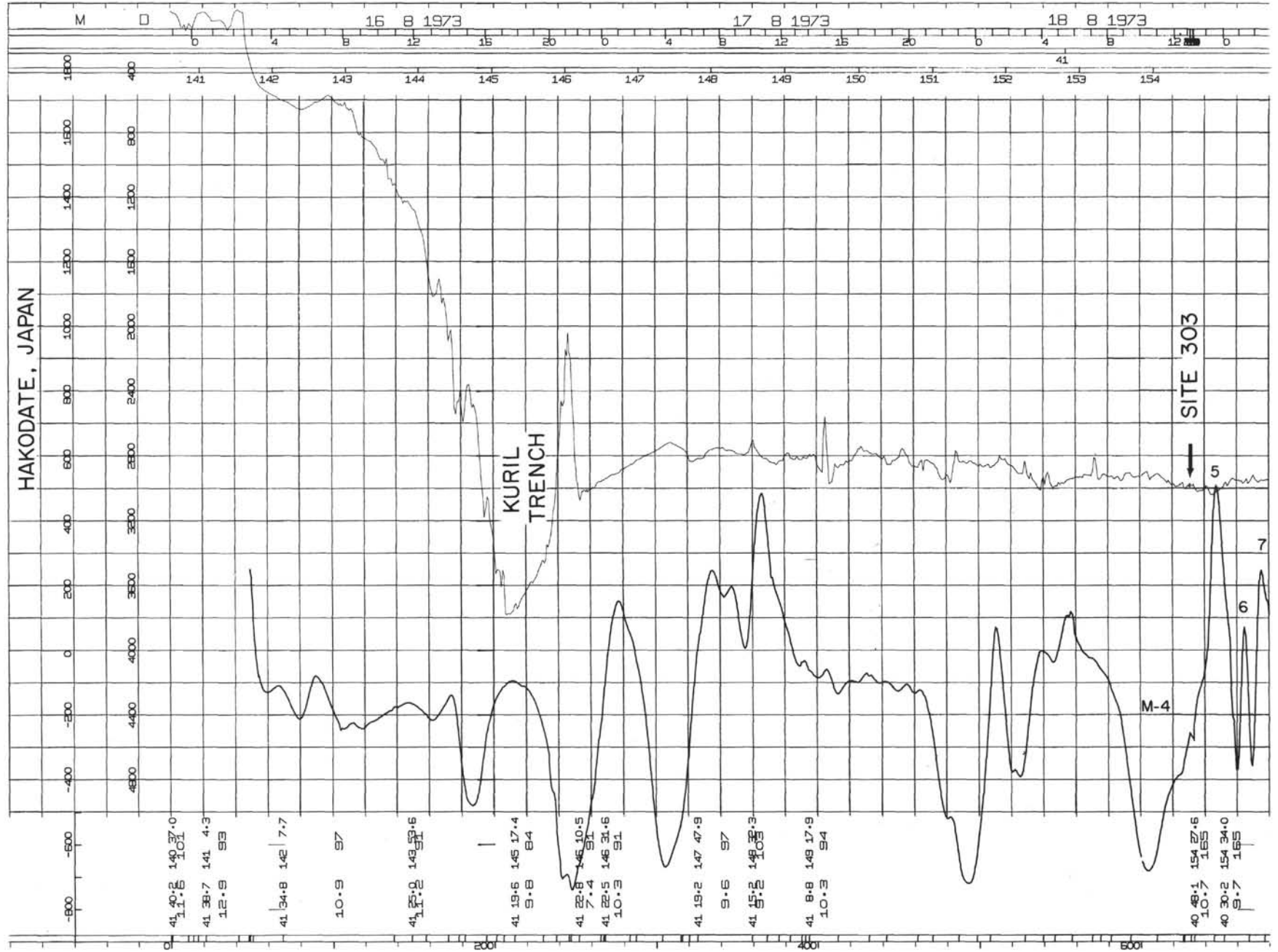


Figure 2. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.

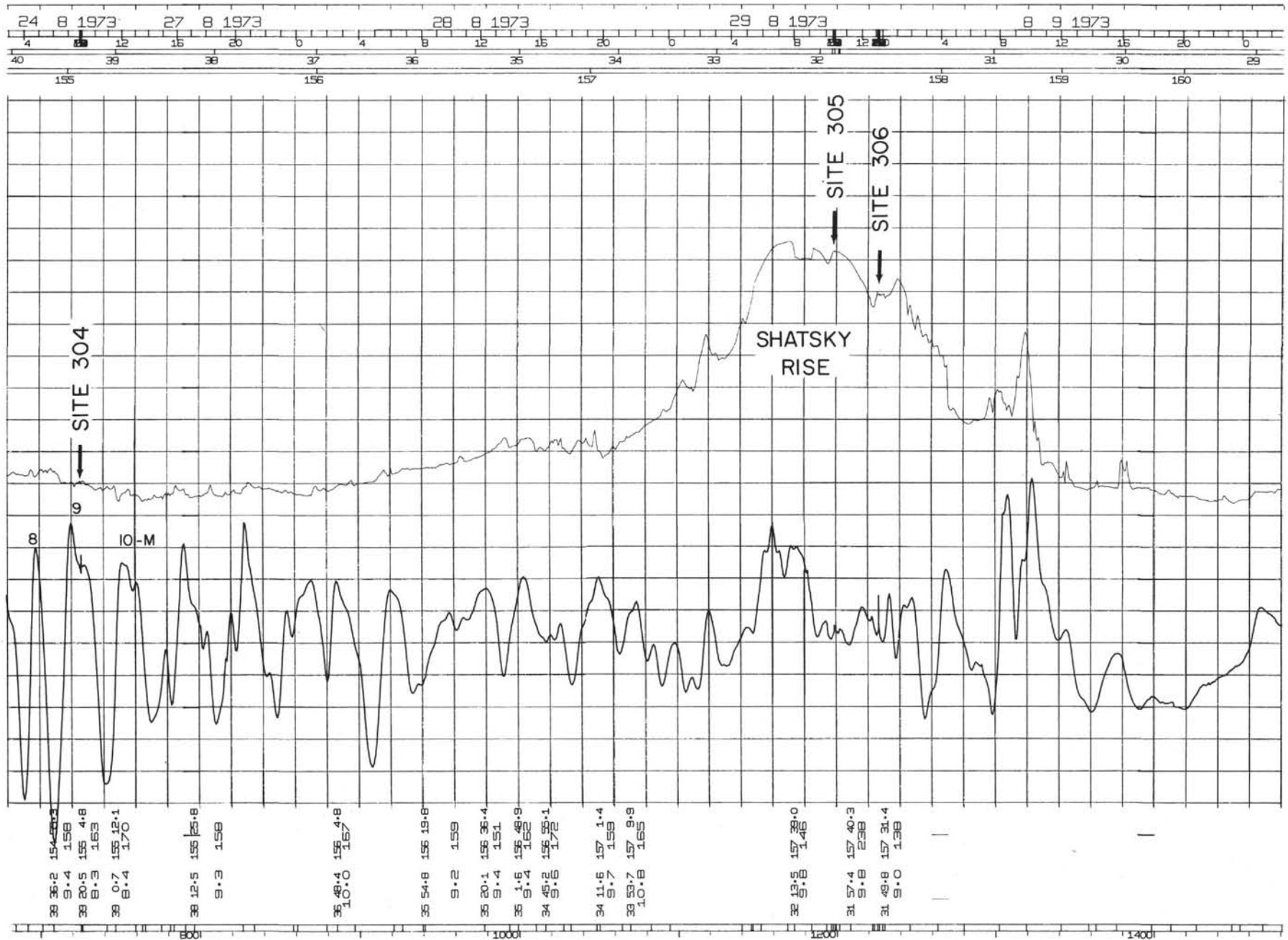


Figure 3. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.

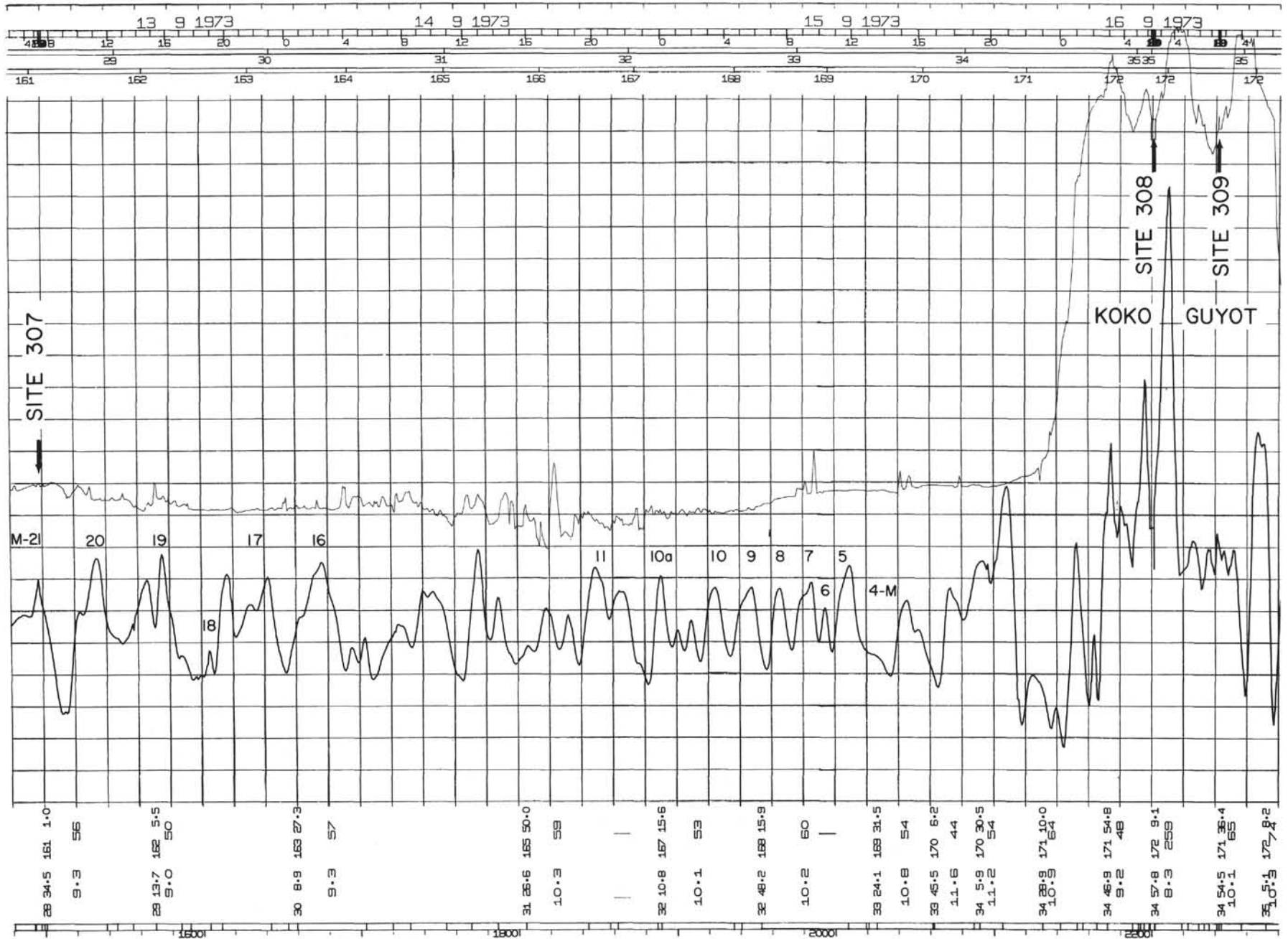


Figure 4. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.



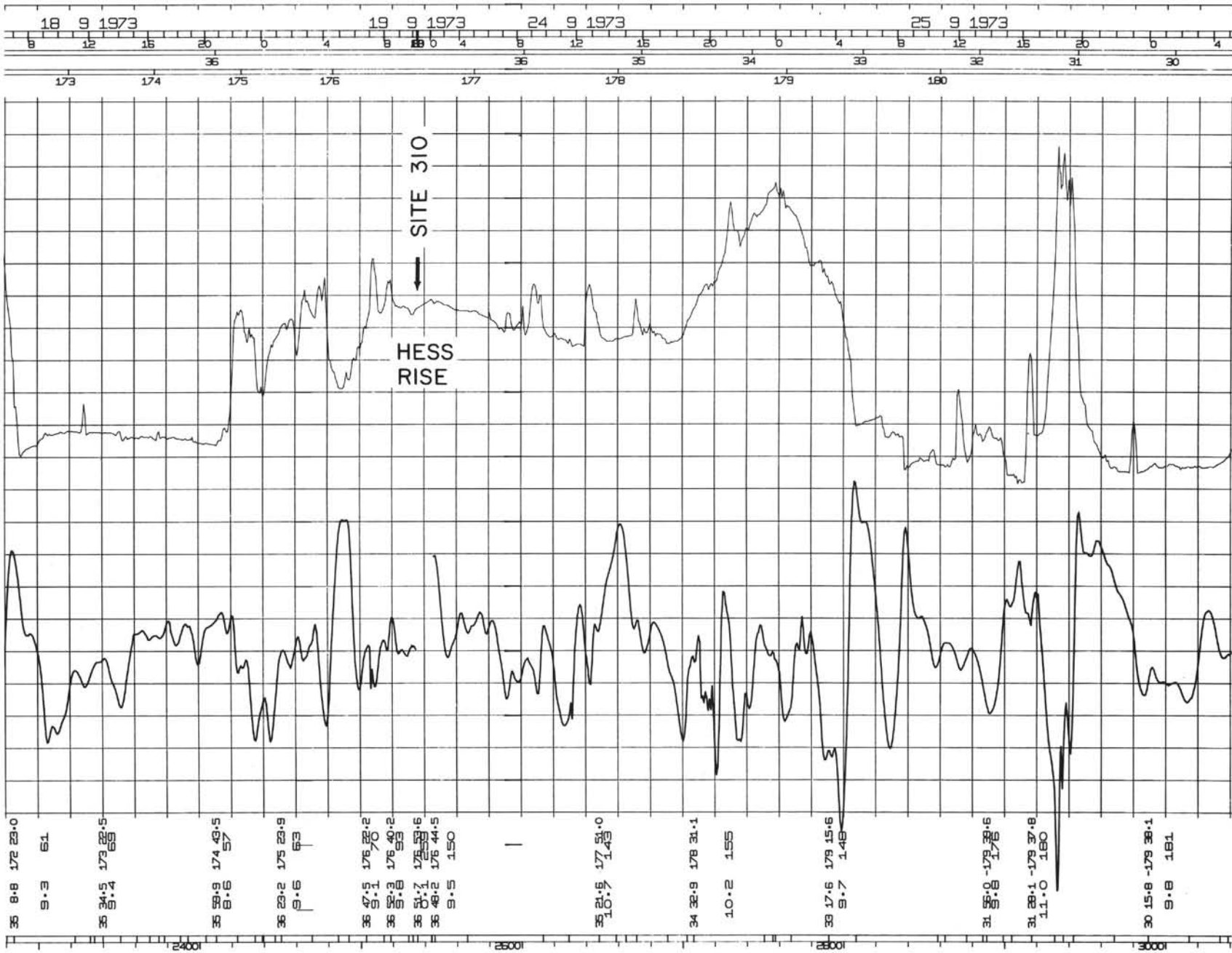


Figure 5. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.

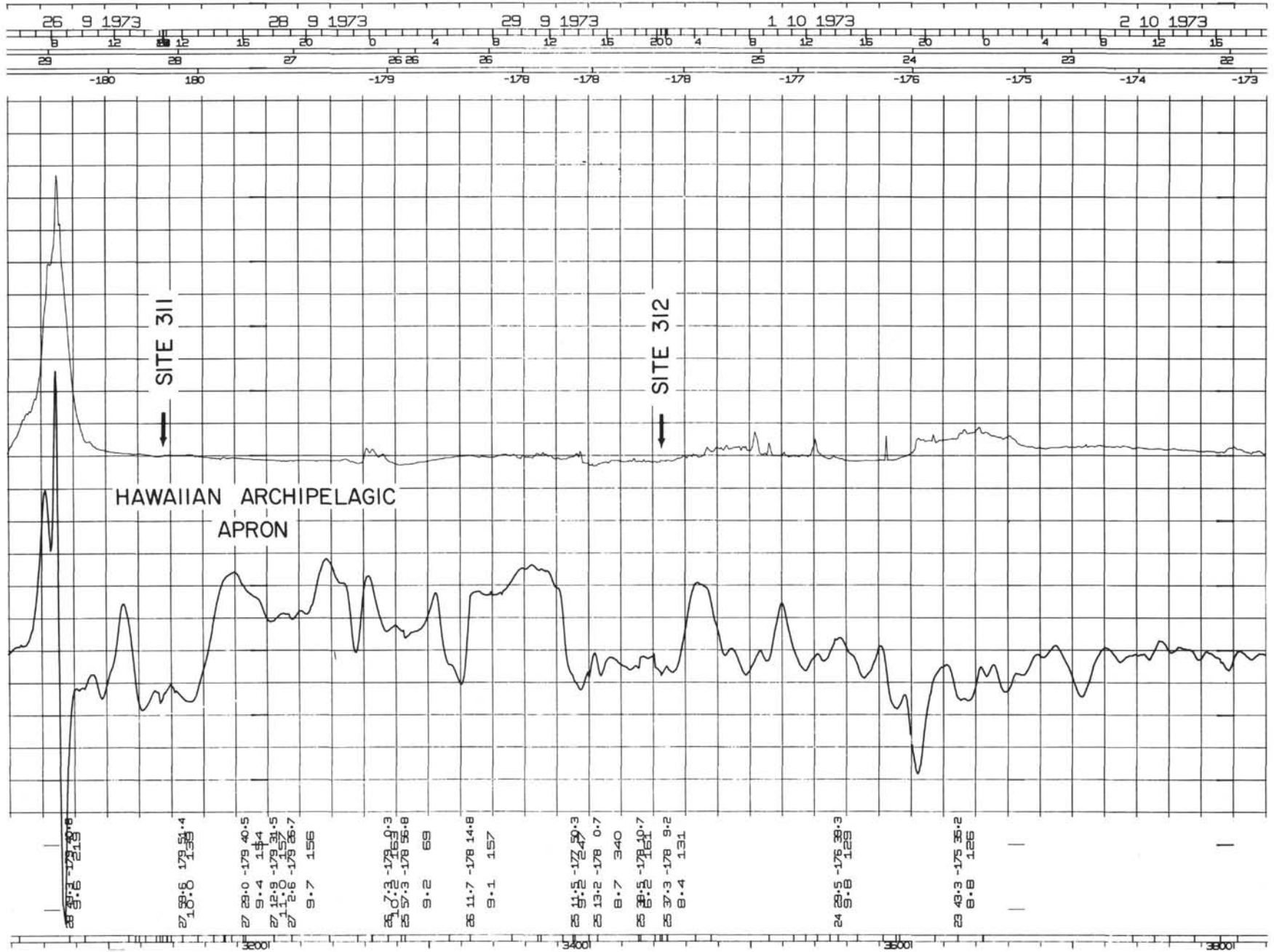


Figure 6. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.

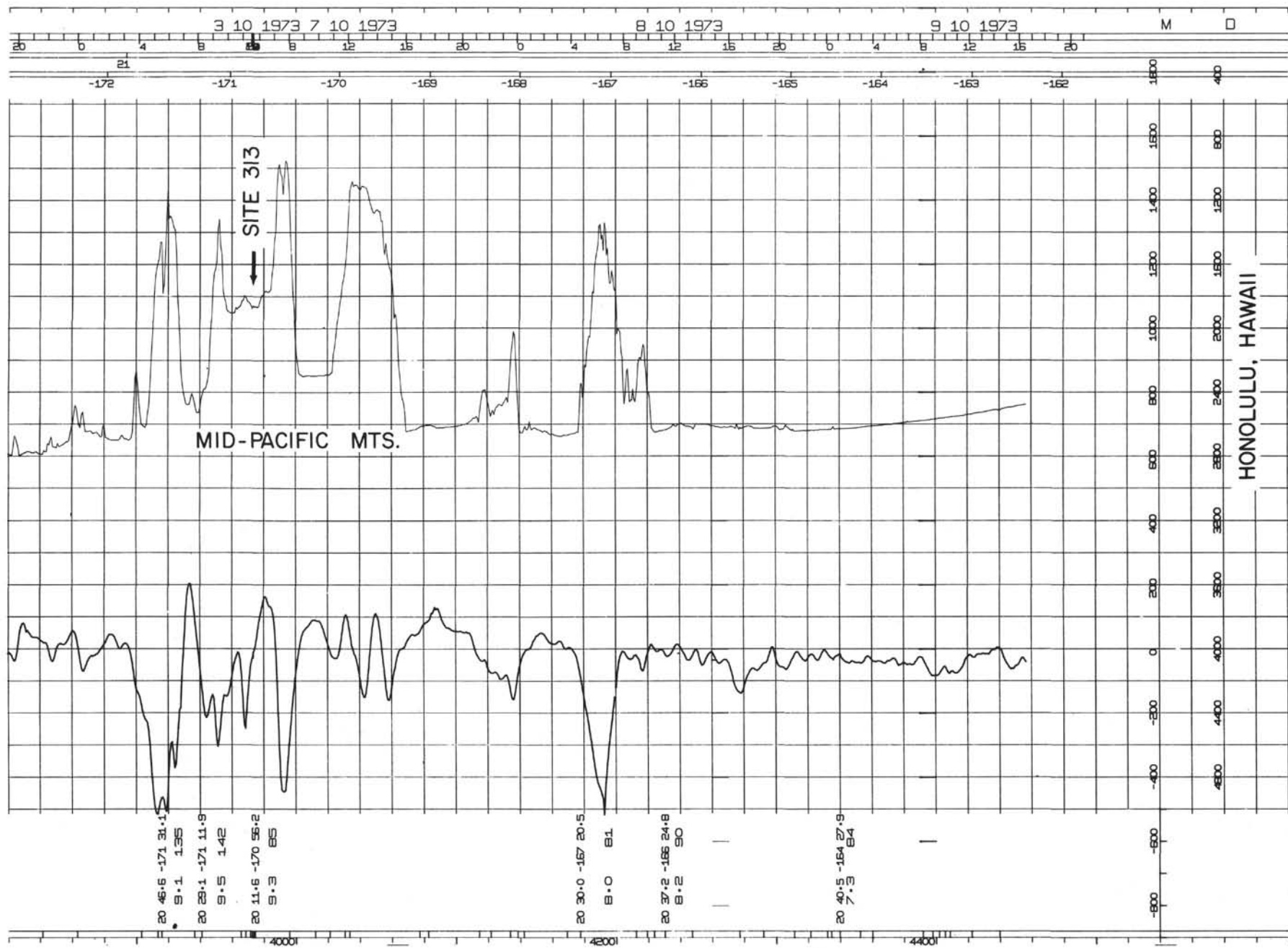


Figure 7. Magnetic anomaly and bathymetric profiles along the track of Leg 32 of Glomar Challenger. Plots and scales explained in text.

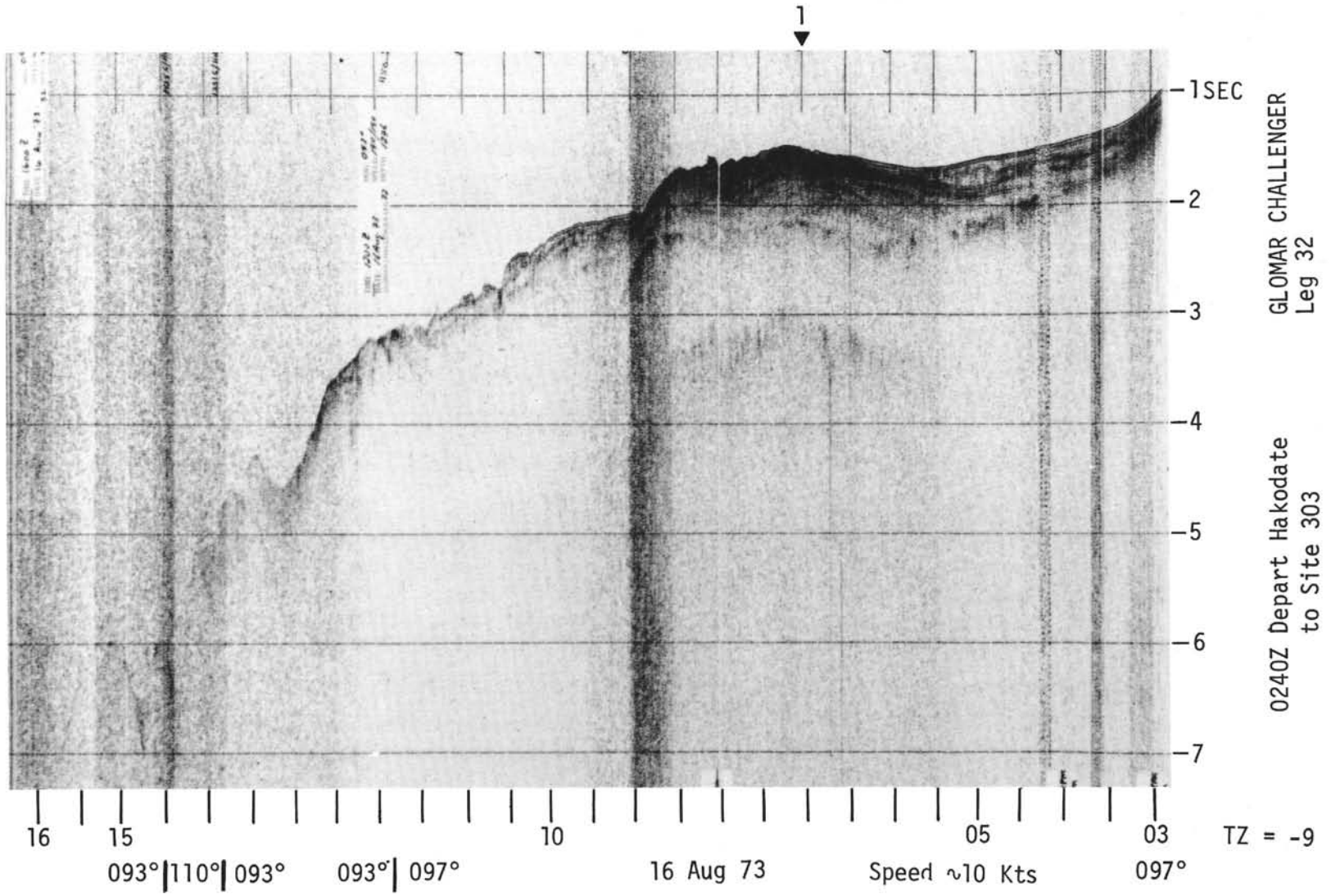


Figure 8. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.



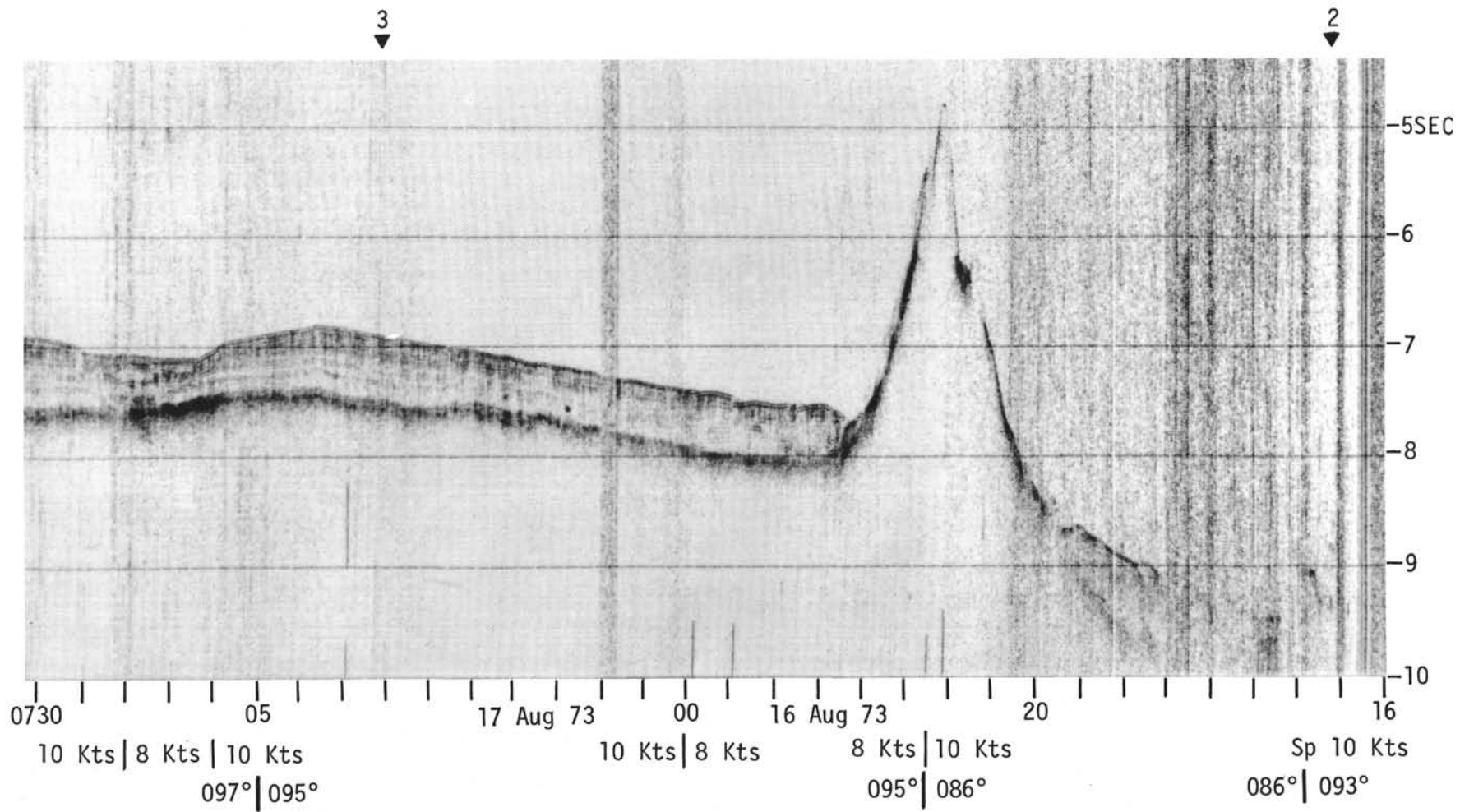


Figure 9. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

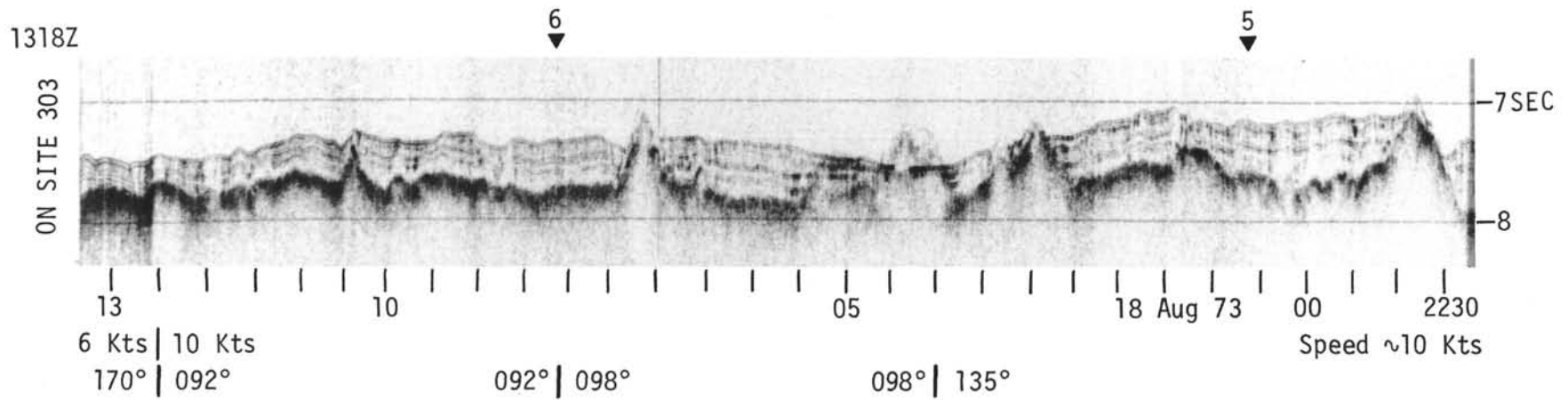
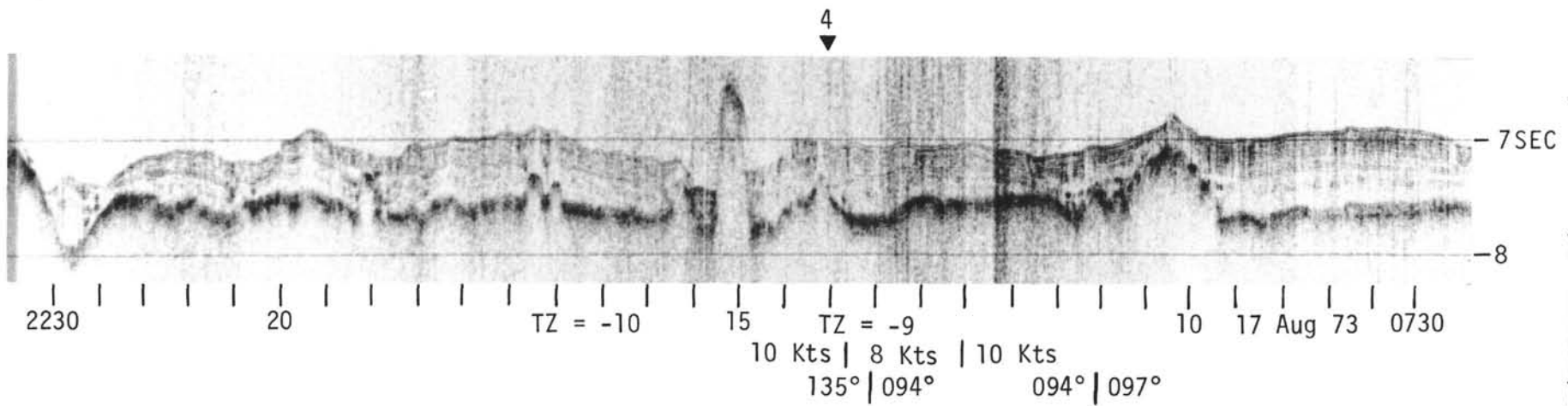


Figure 10. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

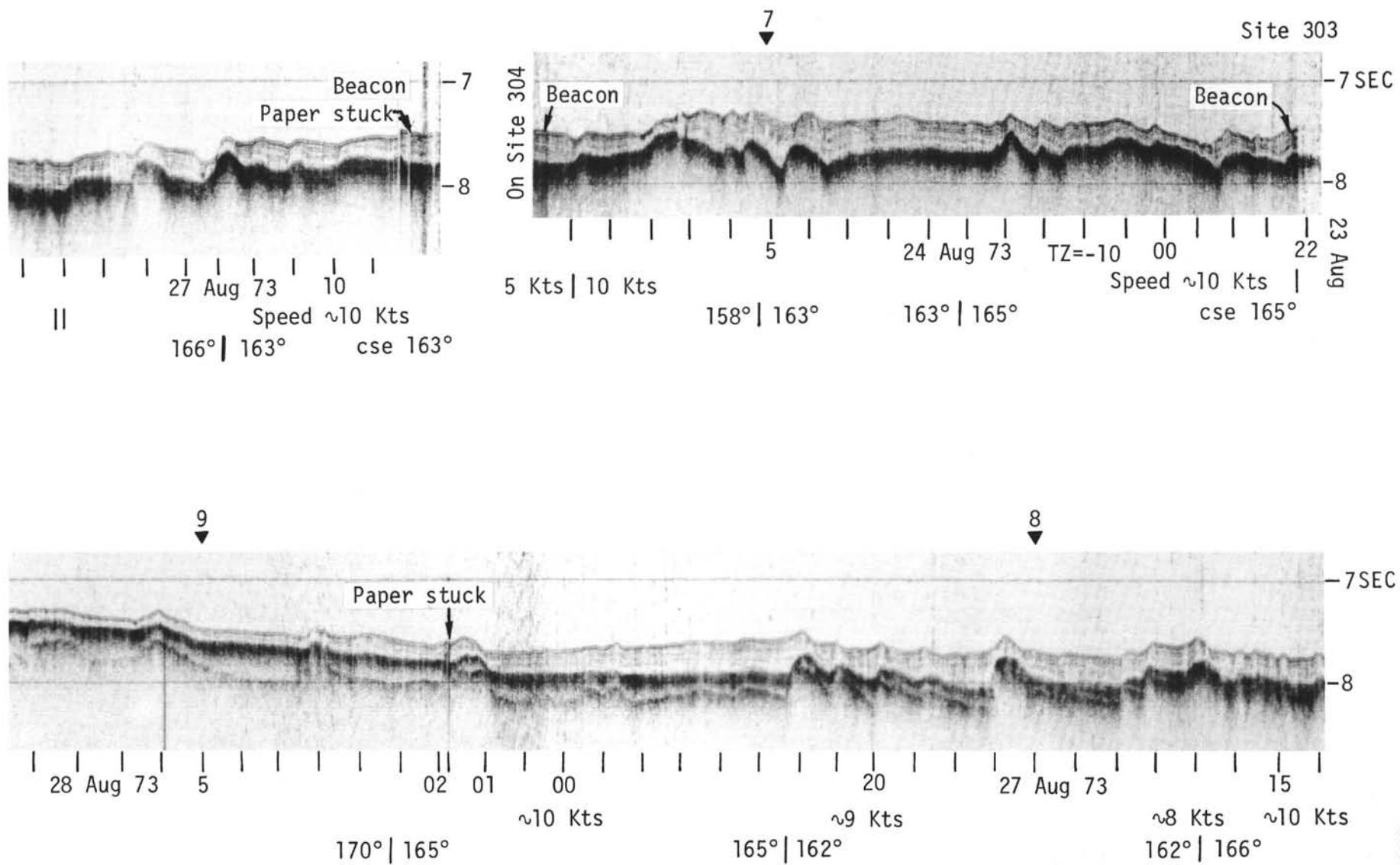


Figure 11. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

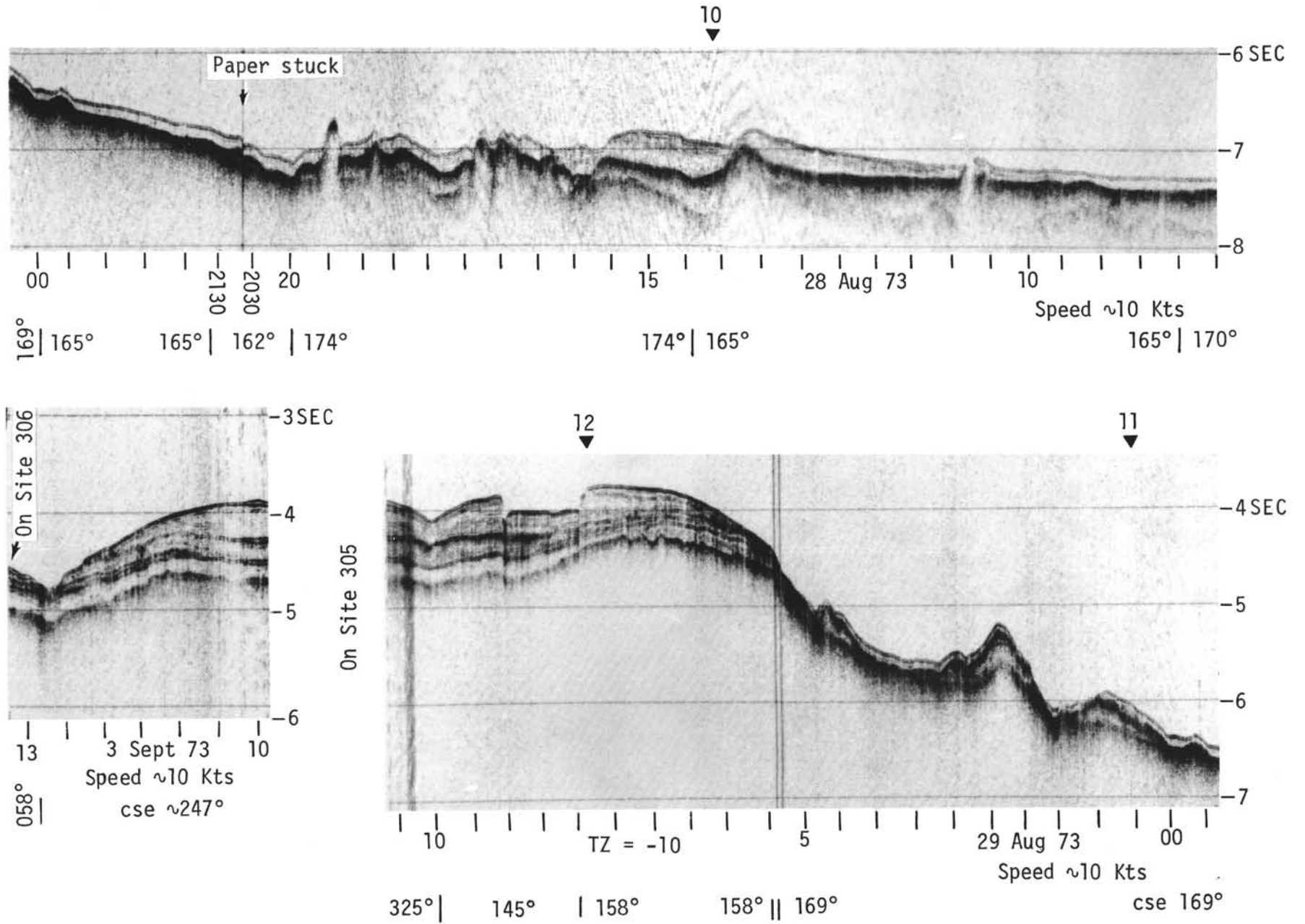
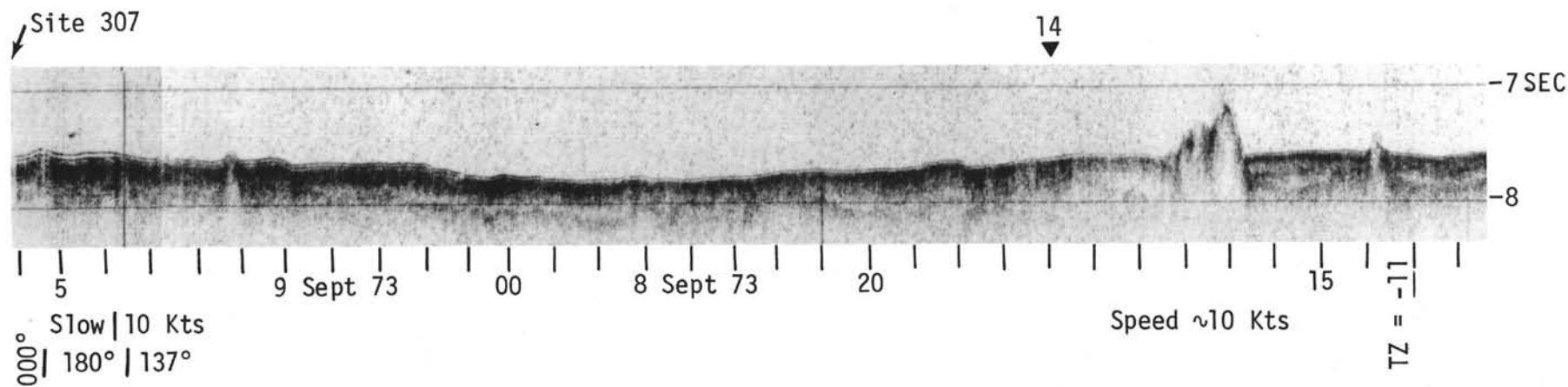
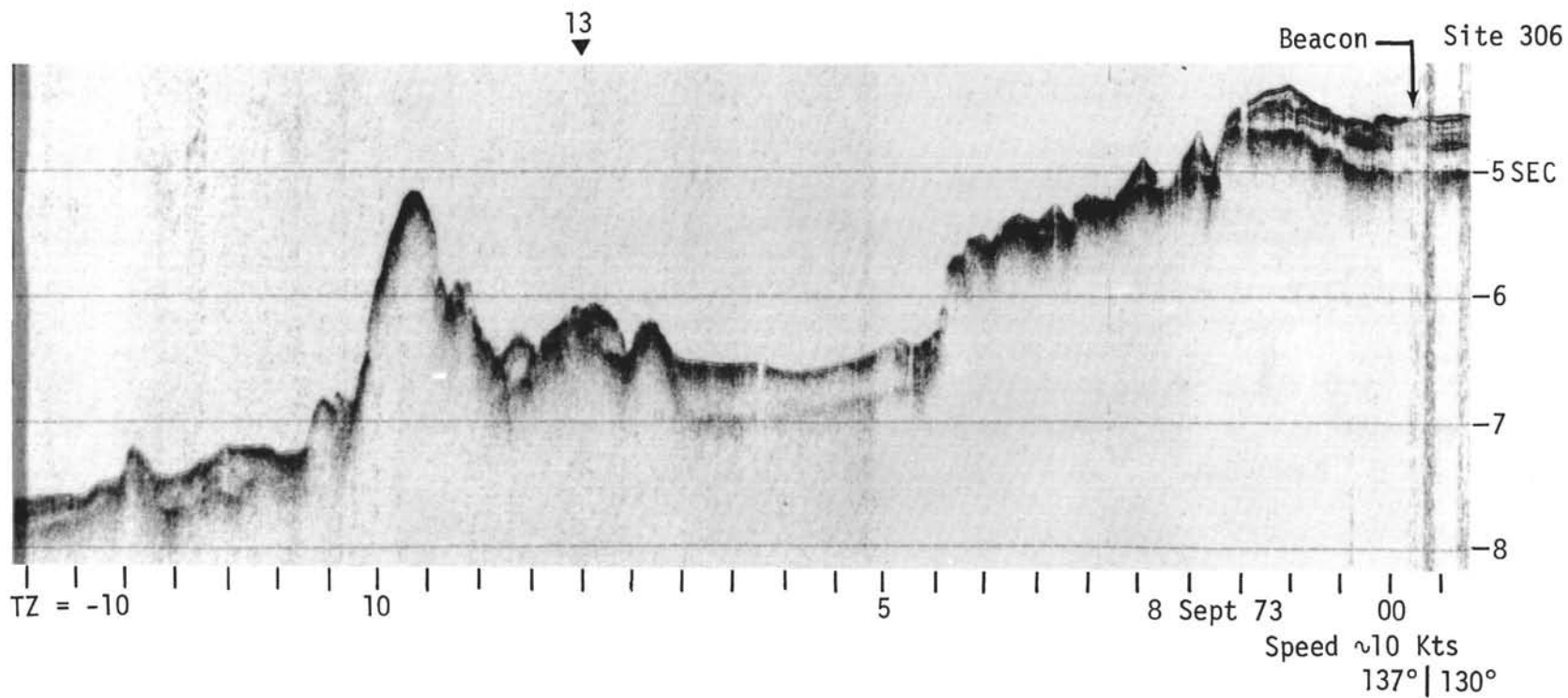


Figure 12. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.





UNDERWAY DATA

Figure 13. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

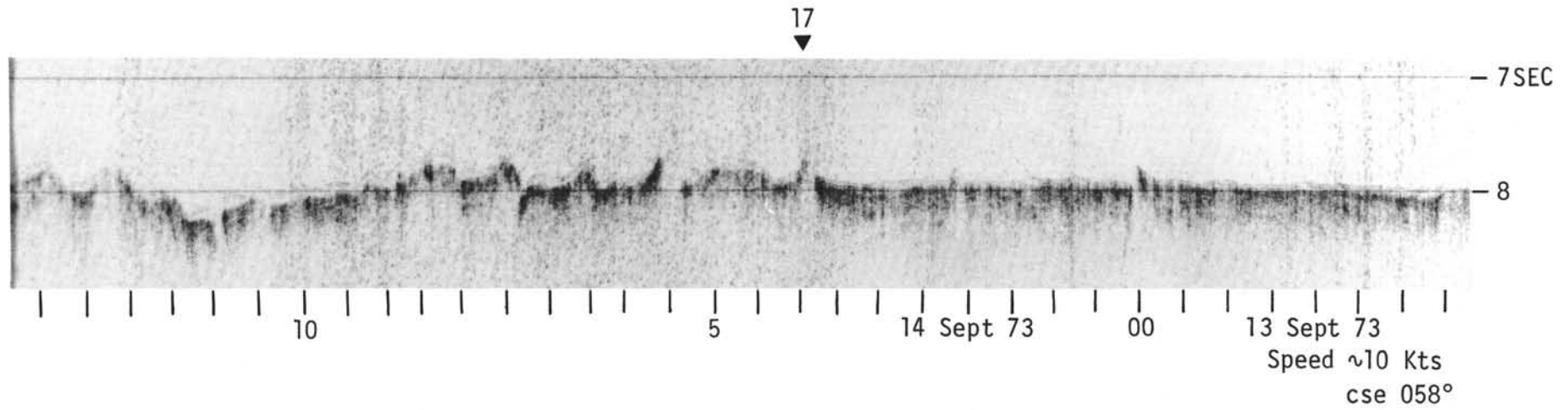
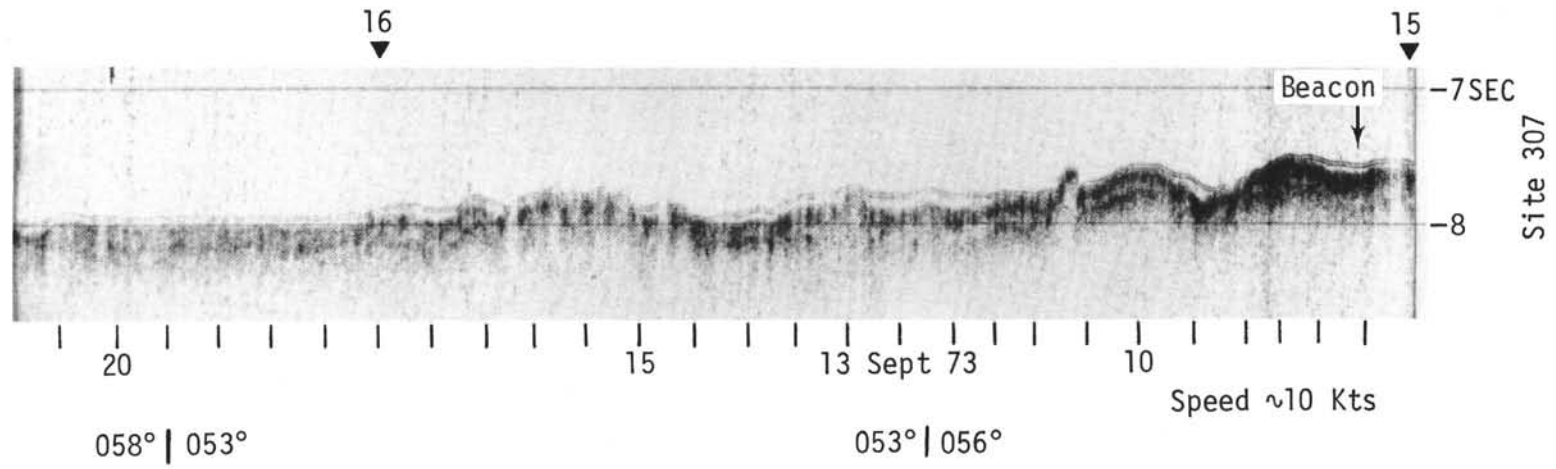


Figure 14. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

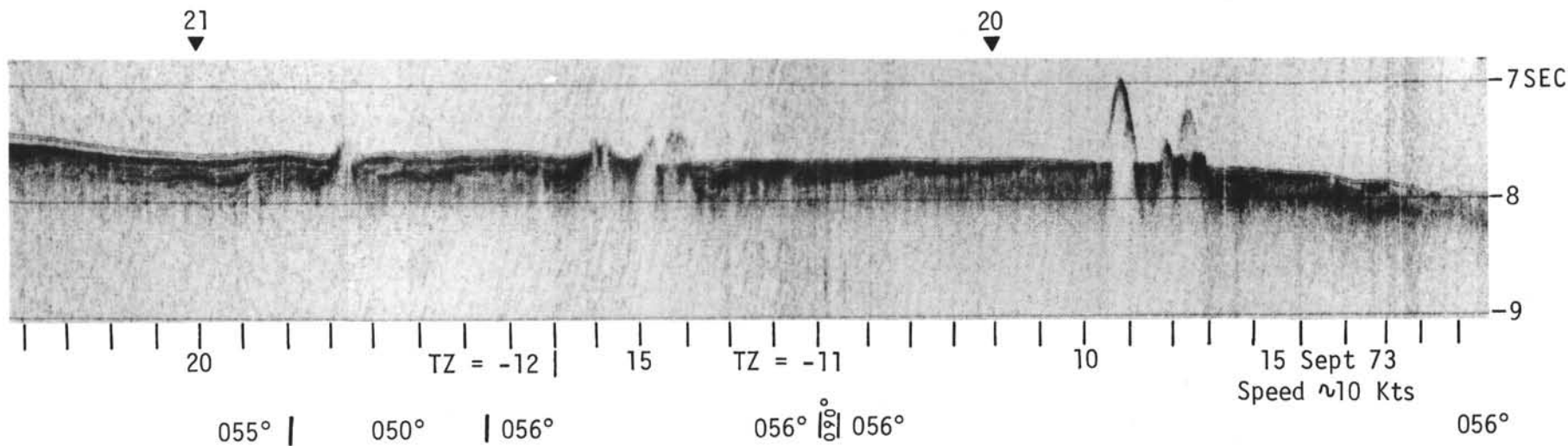
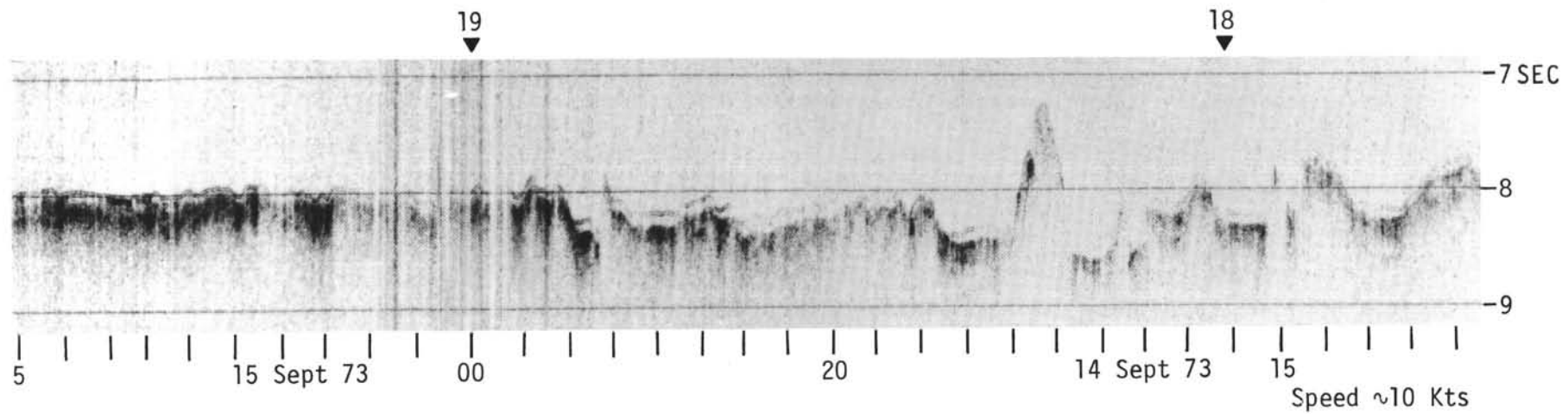


Figure 15. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

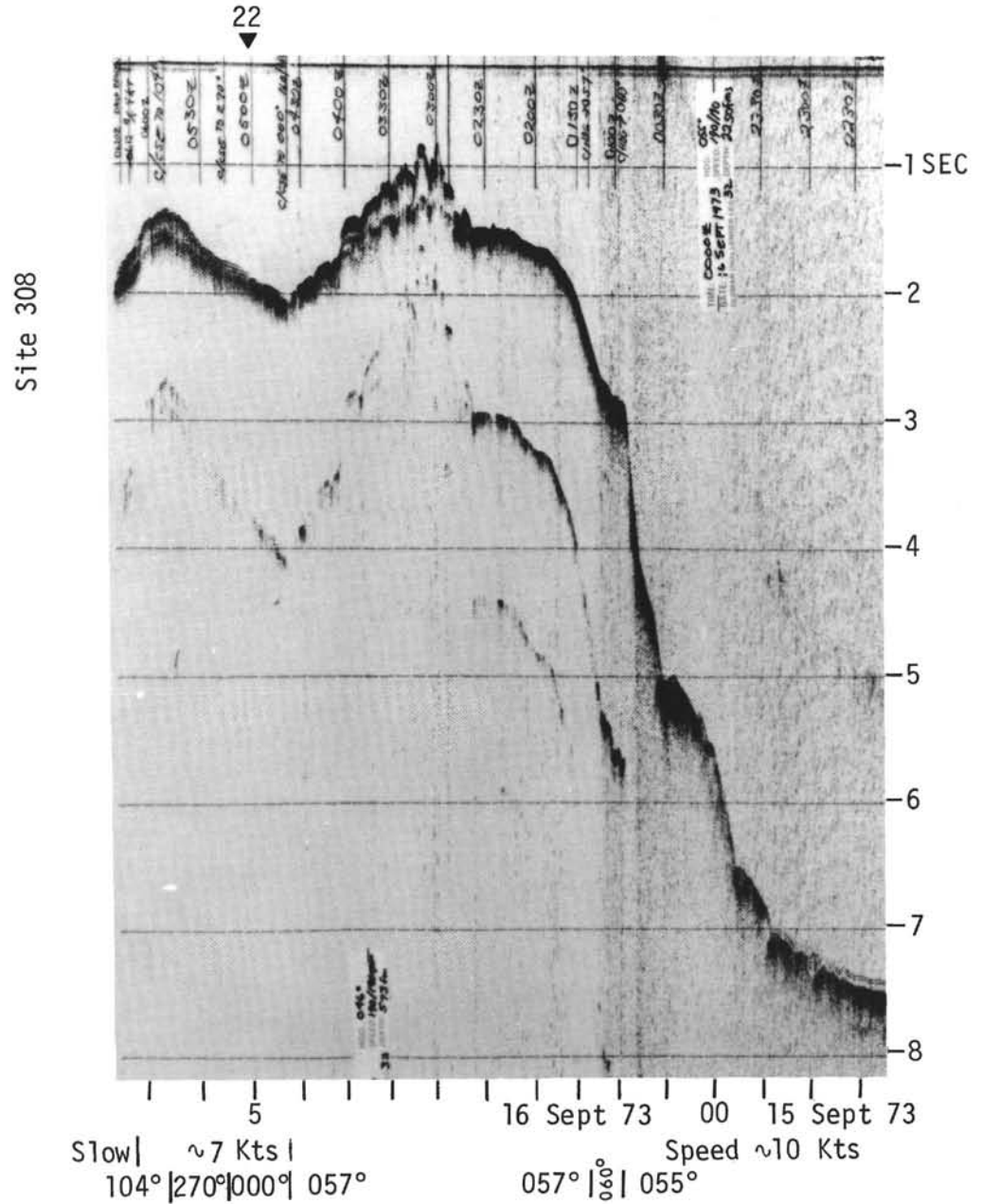
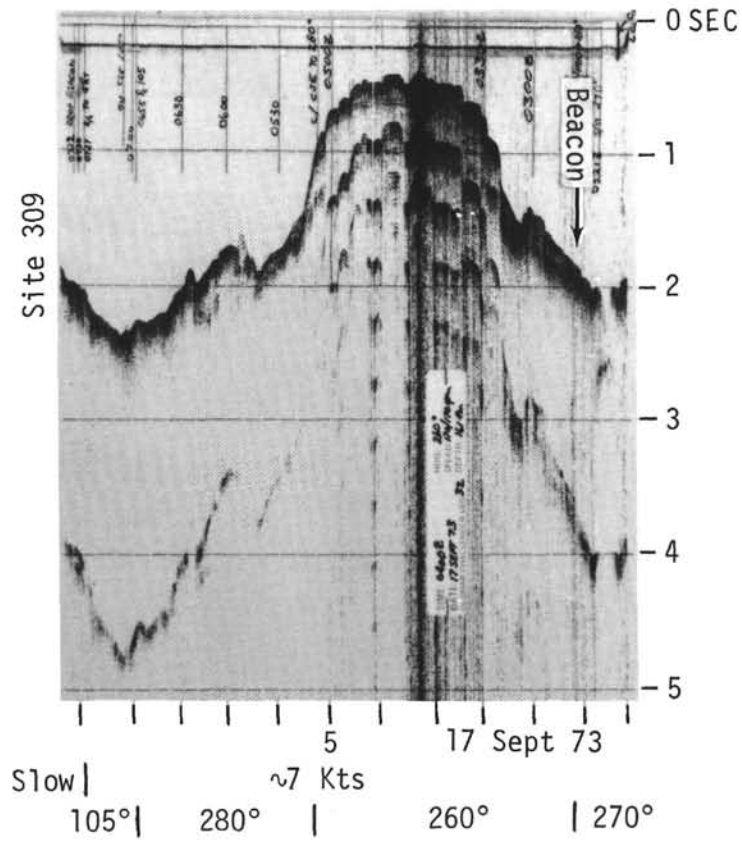


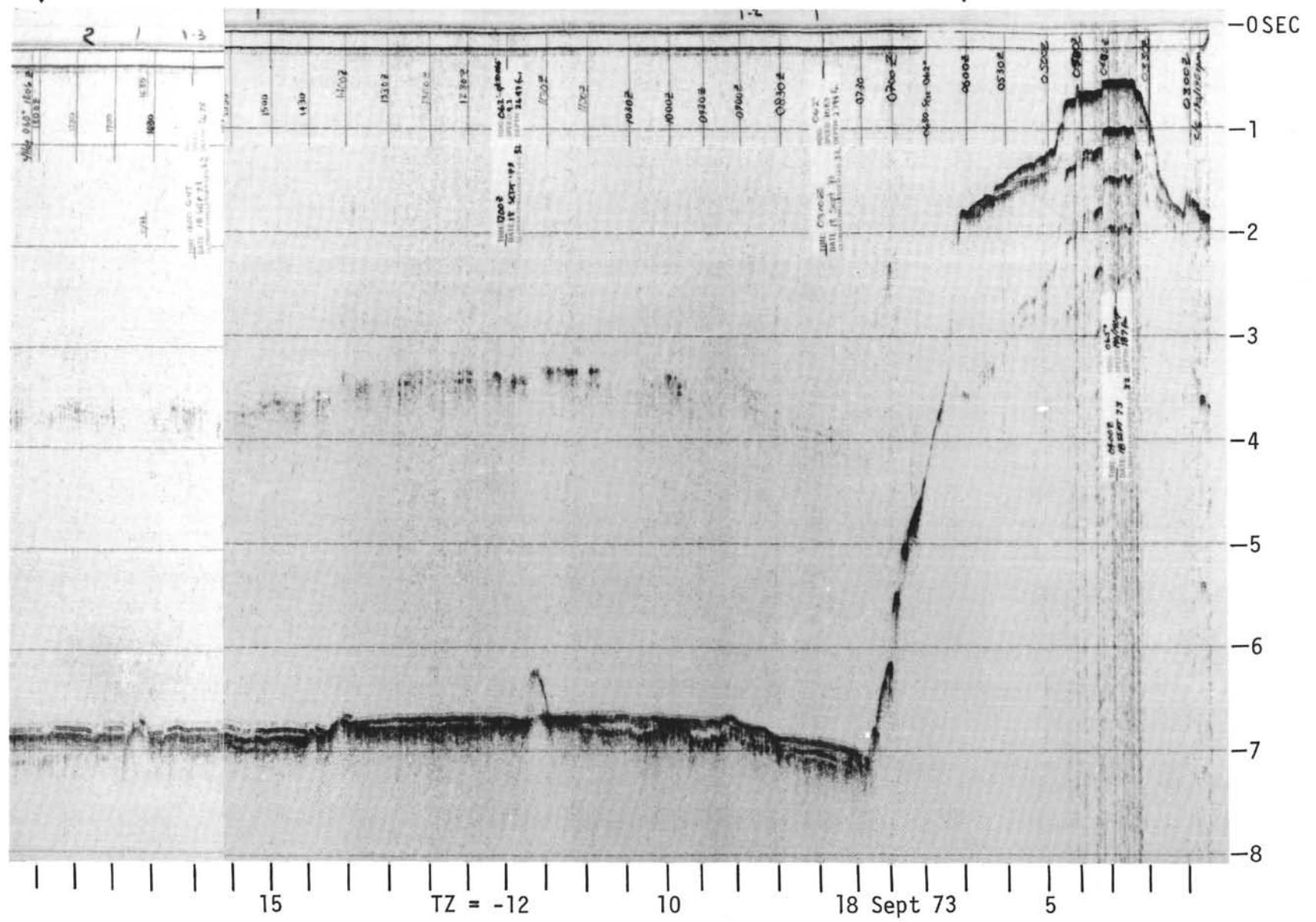
Figure 16. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.



24

23

Site 309



090 | 066°

066° | 062°

062° | 065°

Speed ~10 Kts |

Figure 17. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

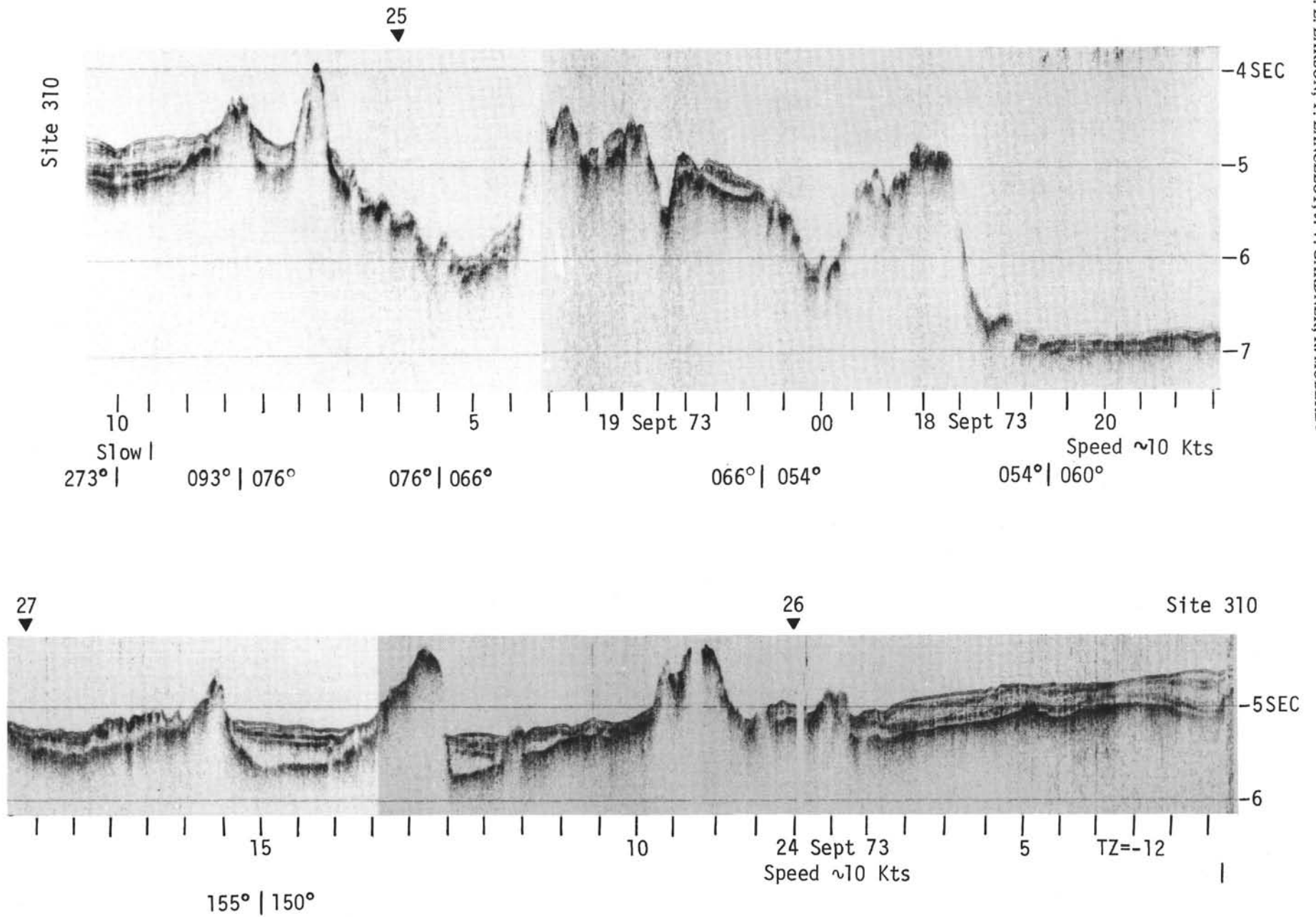


Figure 18. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

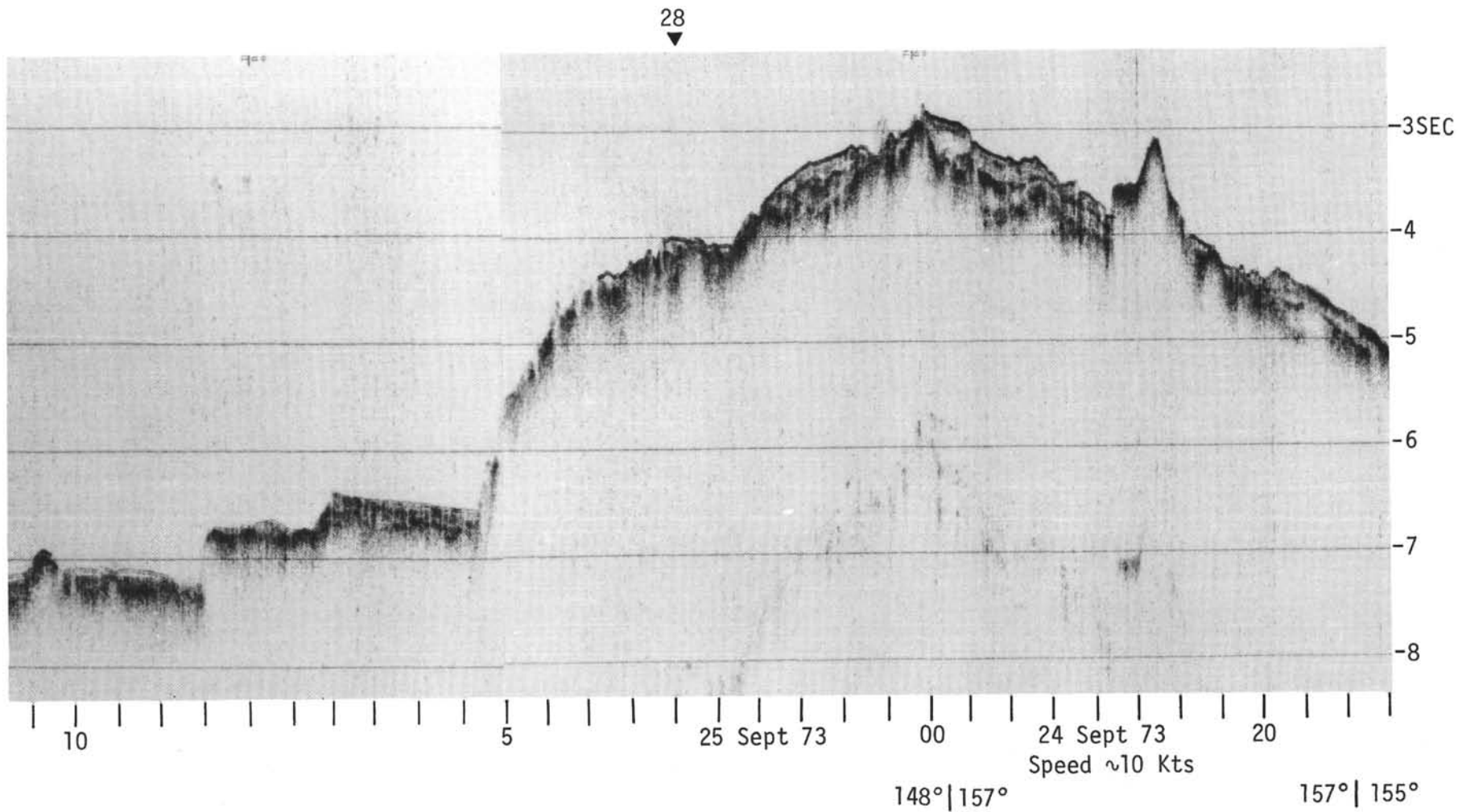


Figure 19. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

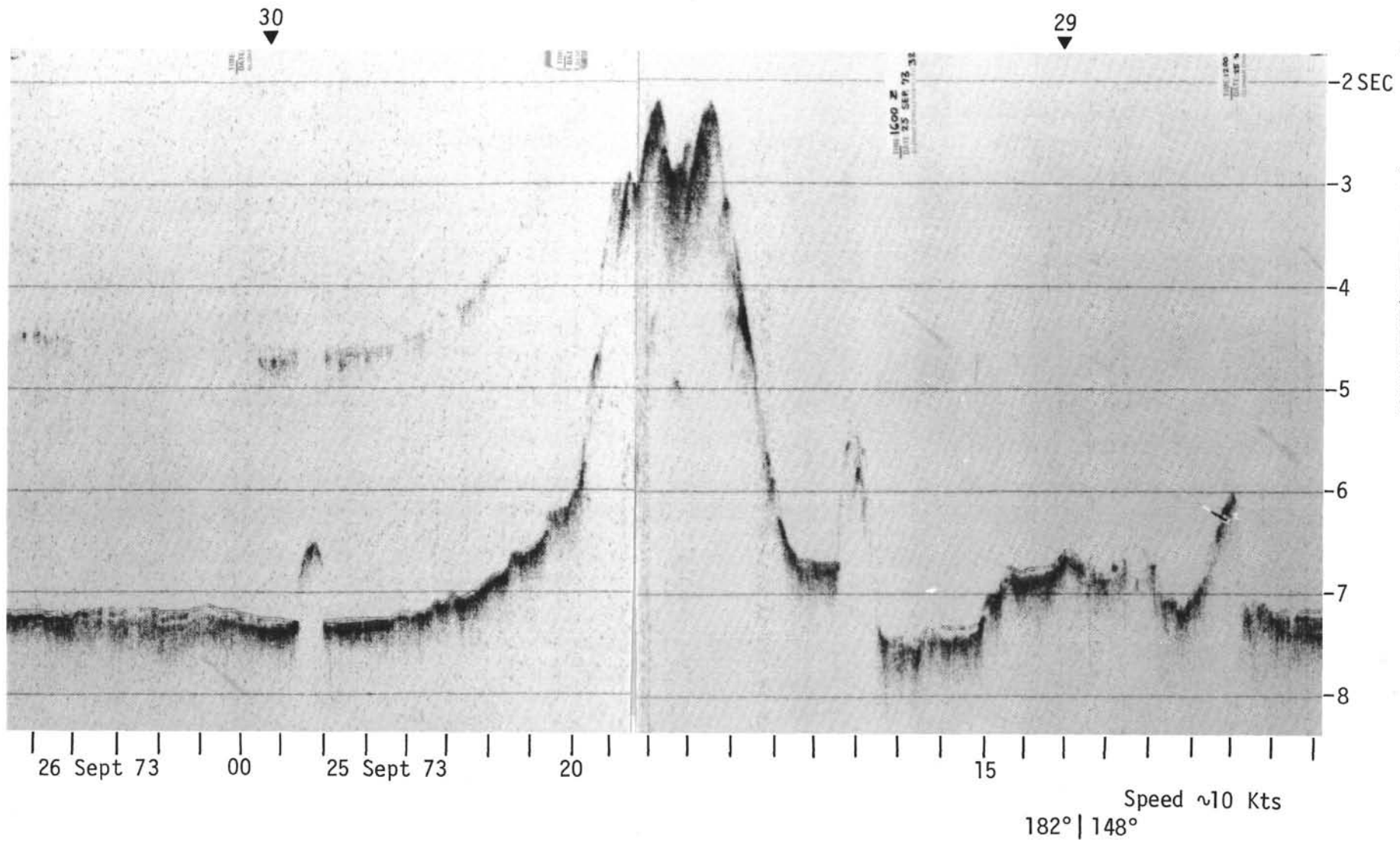


Figure 20. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

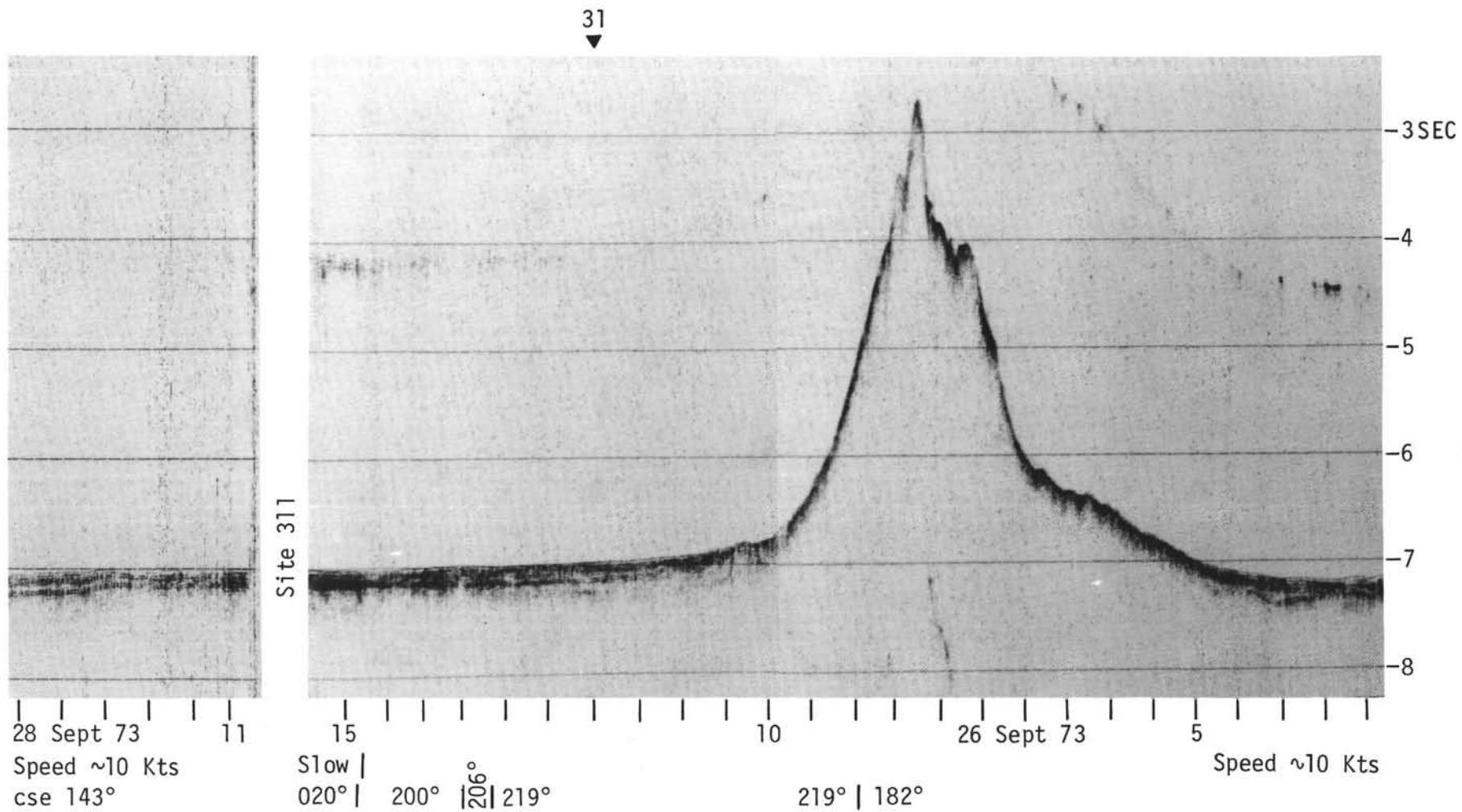


Figure 21. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.



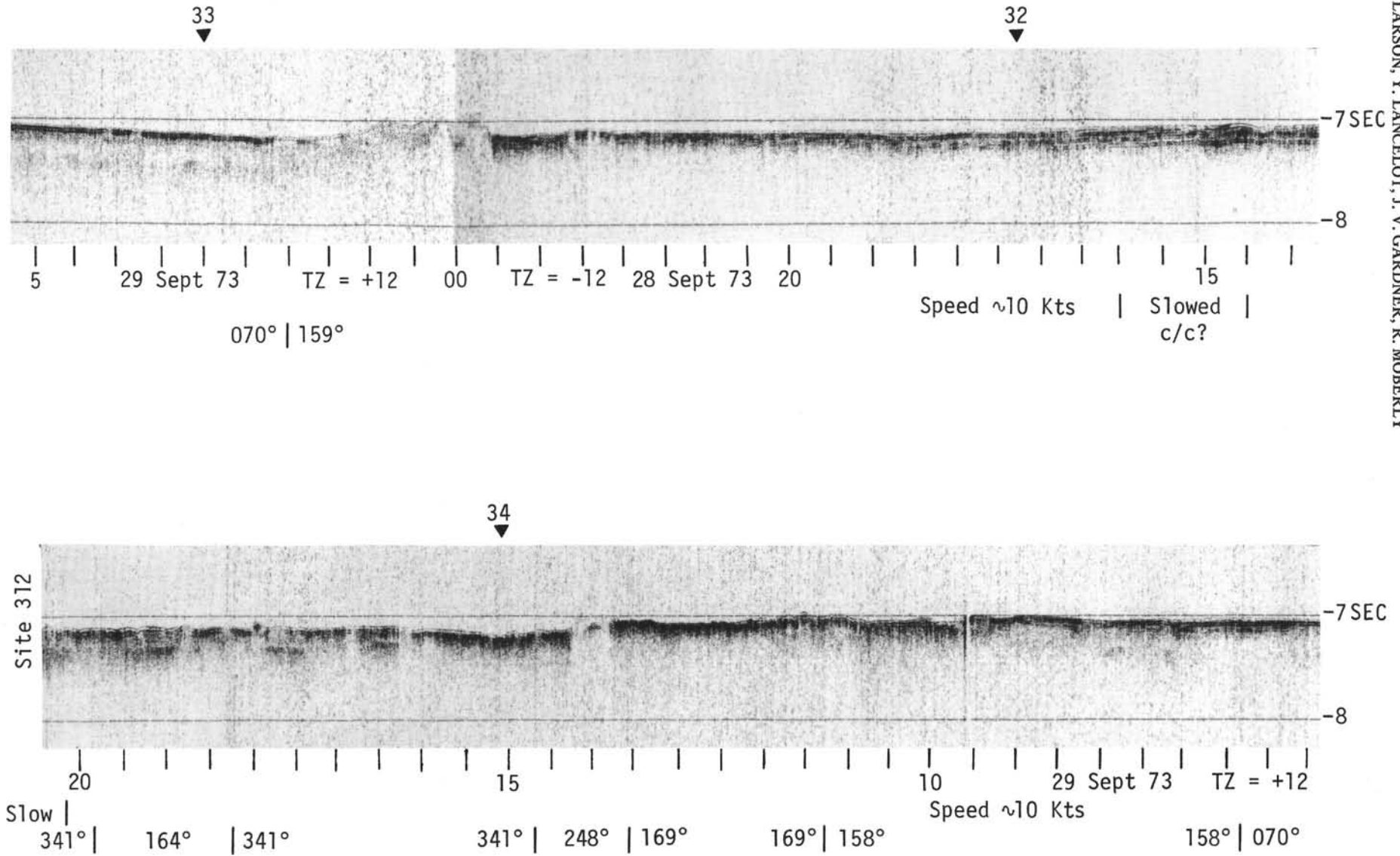


Figure 22. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

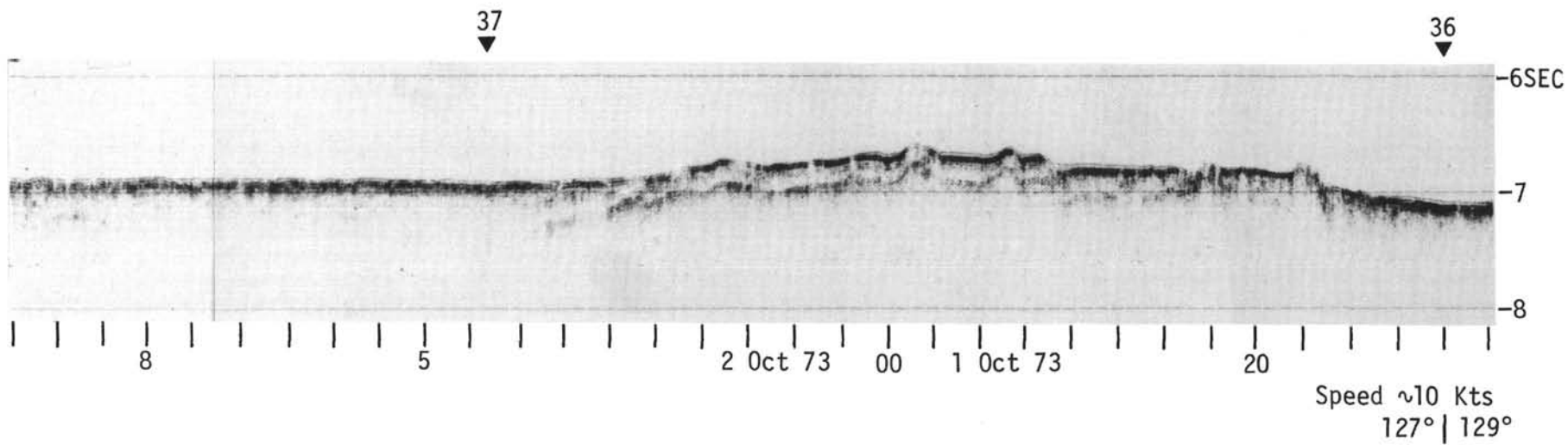
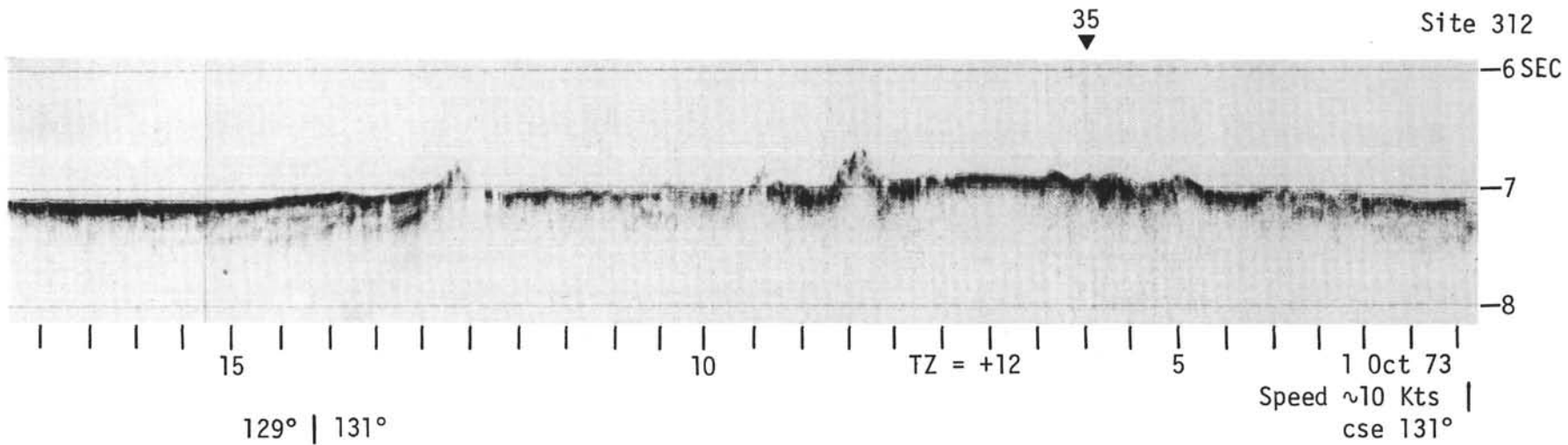


Figure 23. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

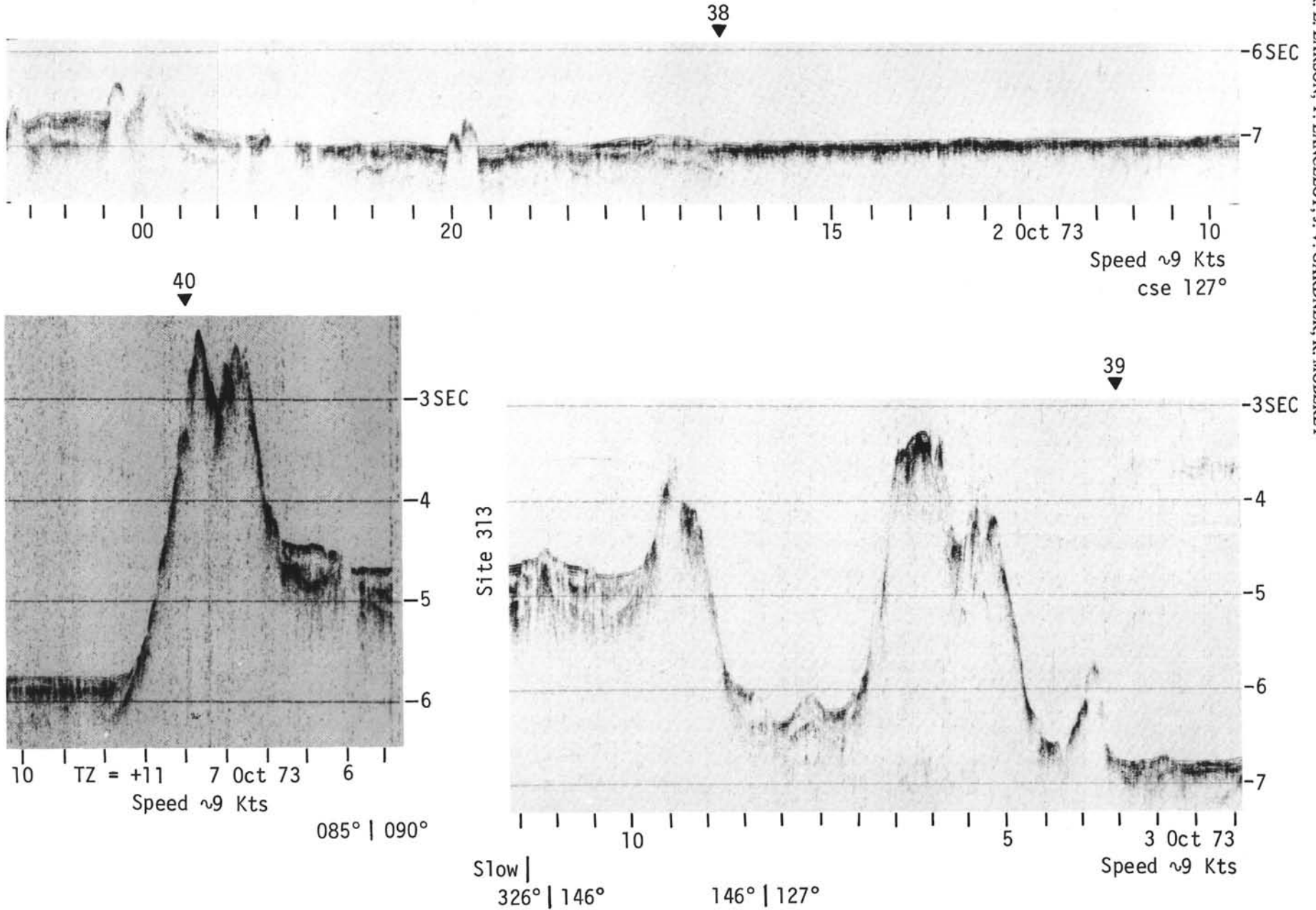


Figure 24. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

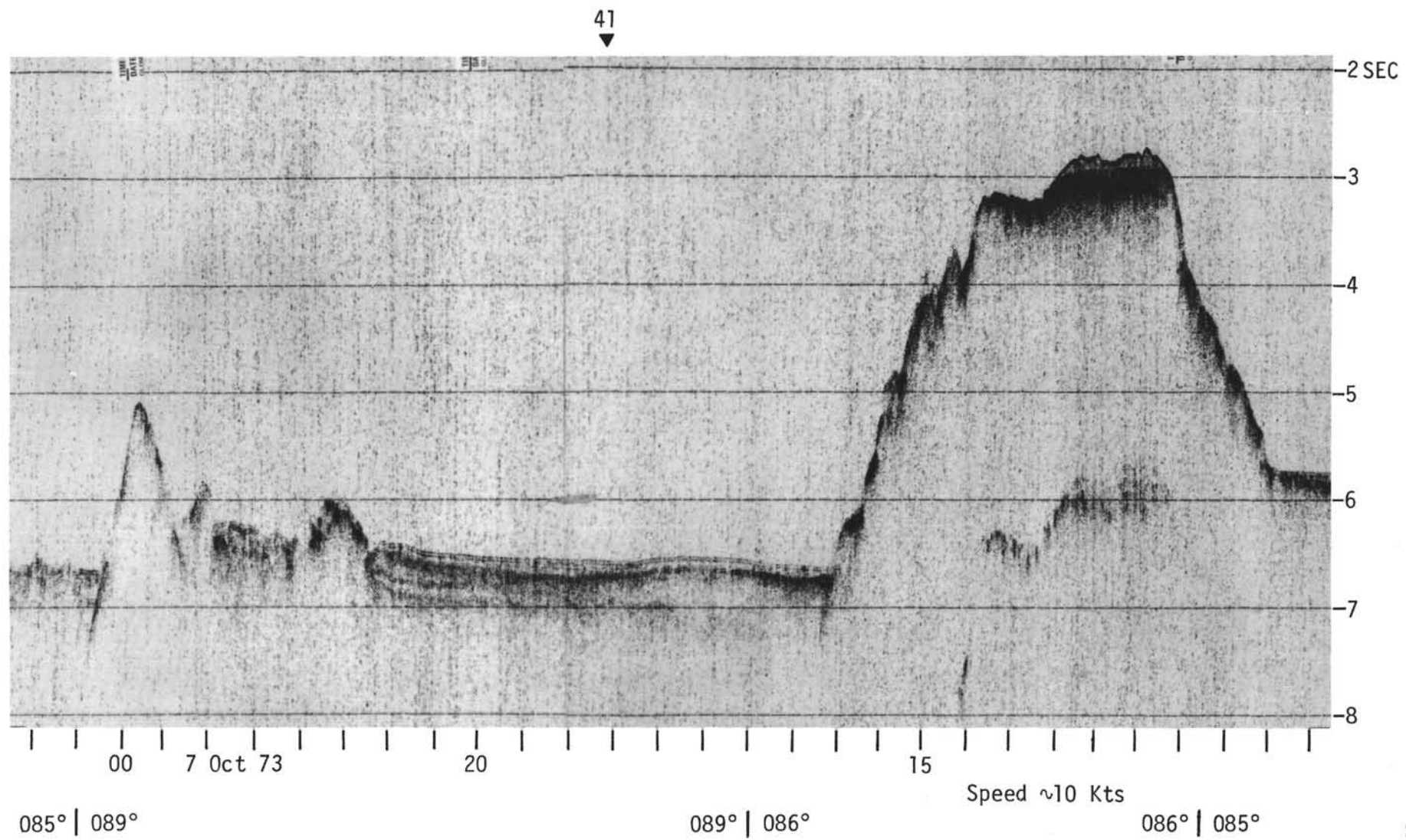


Figure 25. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.

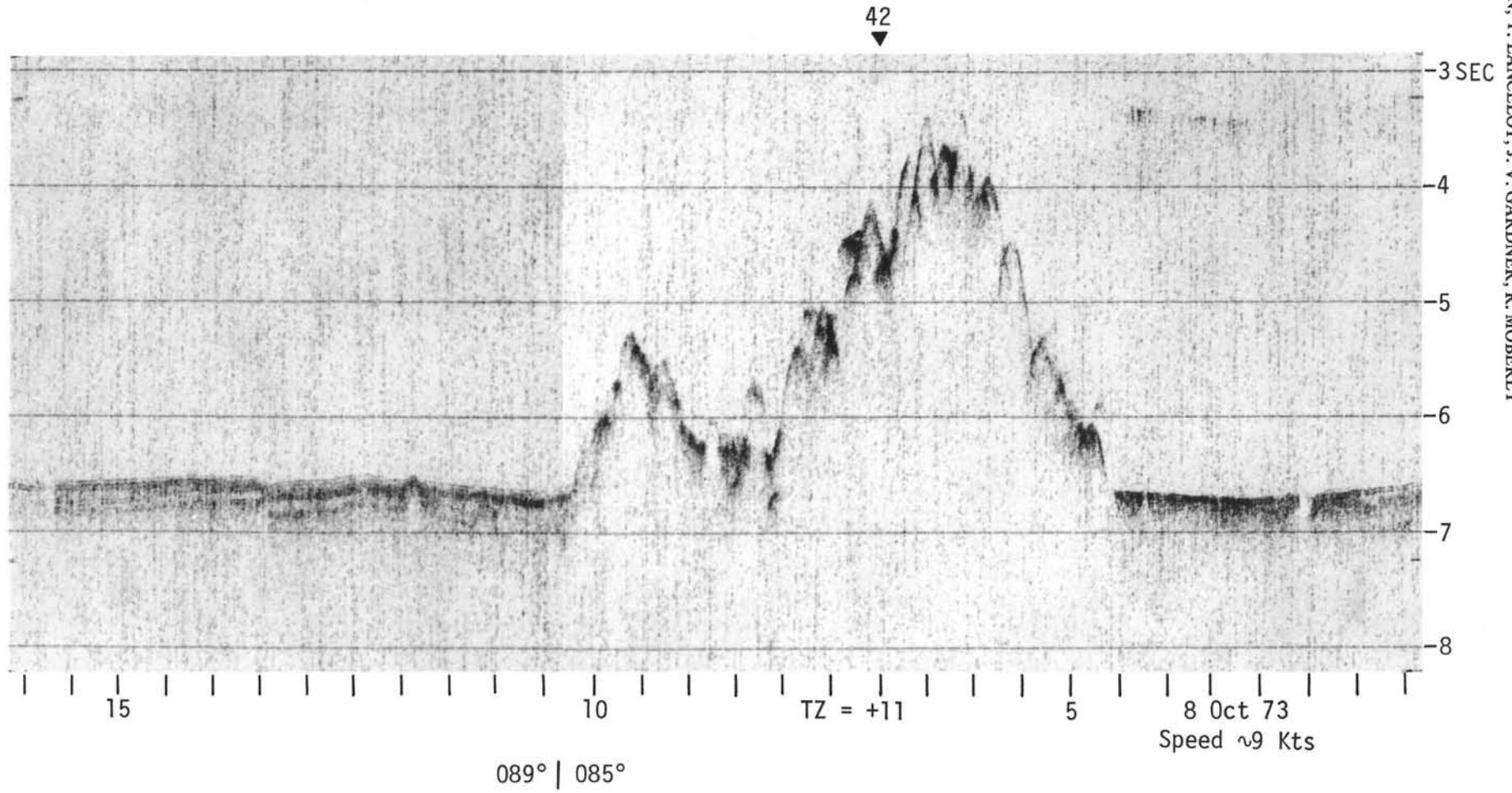


Figure 26. *Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.*



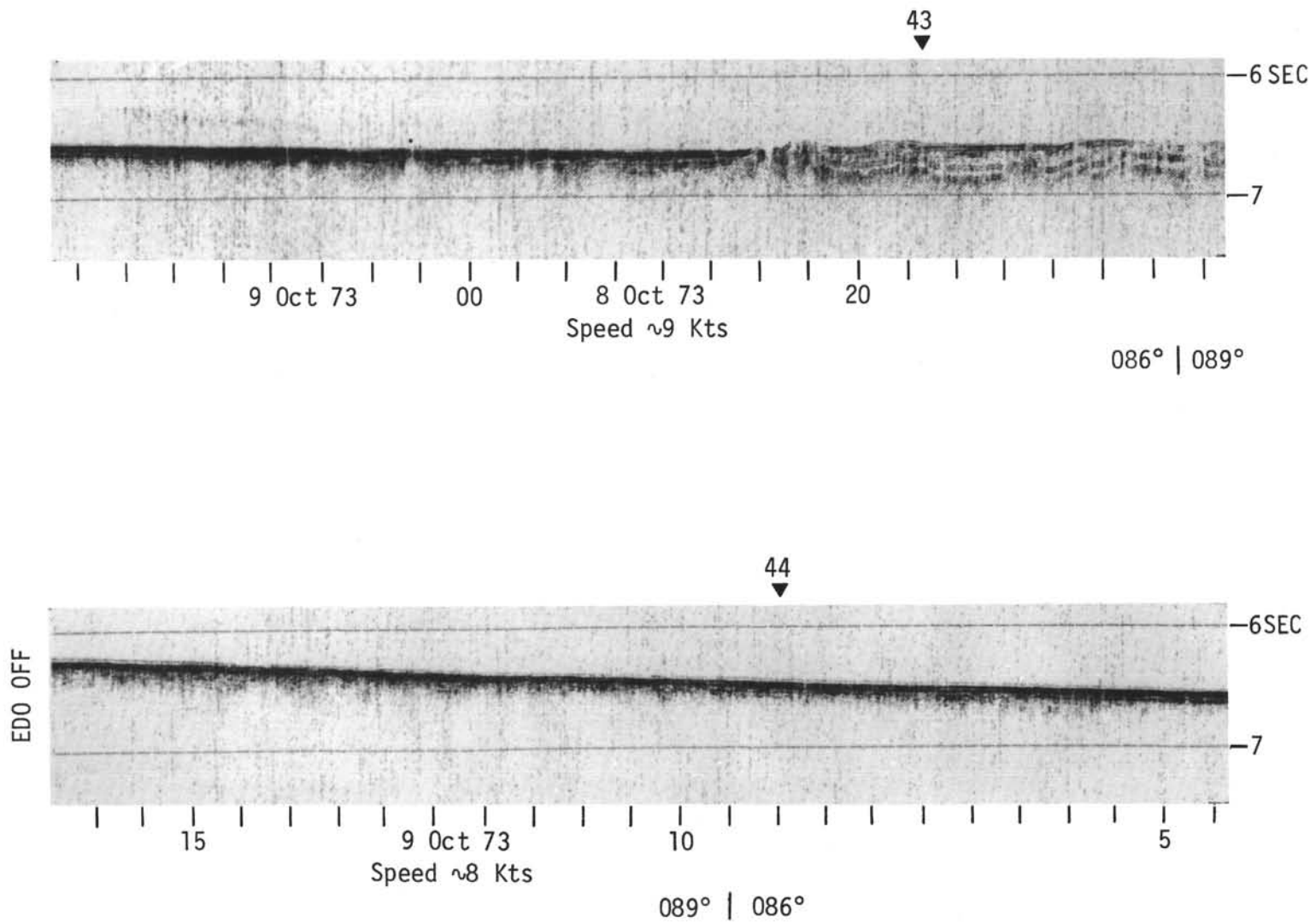


Figure 27. Seismic reflection profiles along the track of Leg 32 of Glomar Challenger.