R/V *Melville* Cruise MV1014
Eastern Equatorial Pacific Ocean

October 19 – November 11, 2010

Chief Scientist:	Mitchell W. Lyle
Principal Investigators:	Franco Marcantonio (NSF Award # 0851056)
	Mitchel W. Lyle (NSF Award # 0851056)
Start Port:	Puntarenas, Costa Rica
End Port:	Arica, Chile

Leg MV1014 Trackline
R/V Melville
Oct. - Nov., 2010

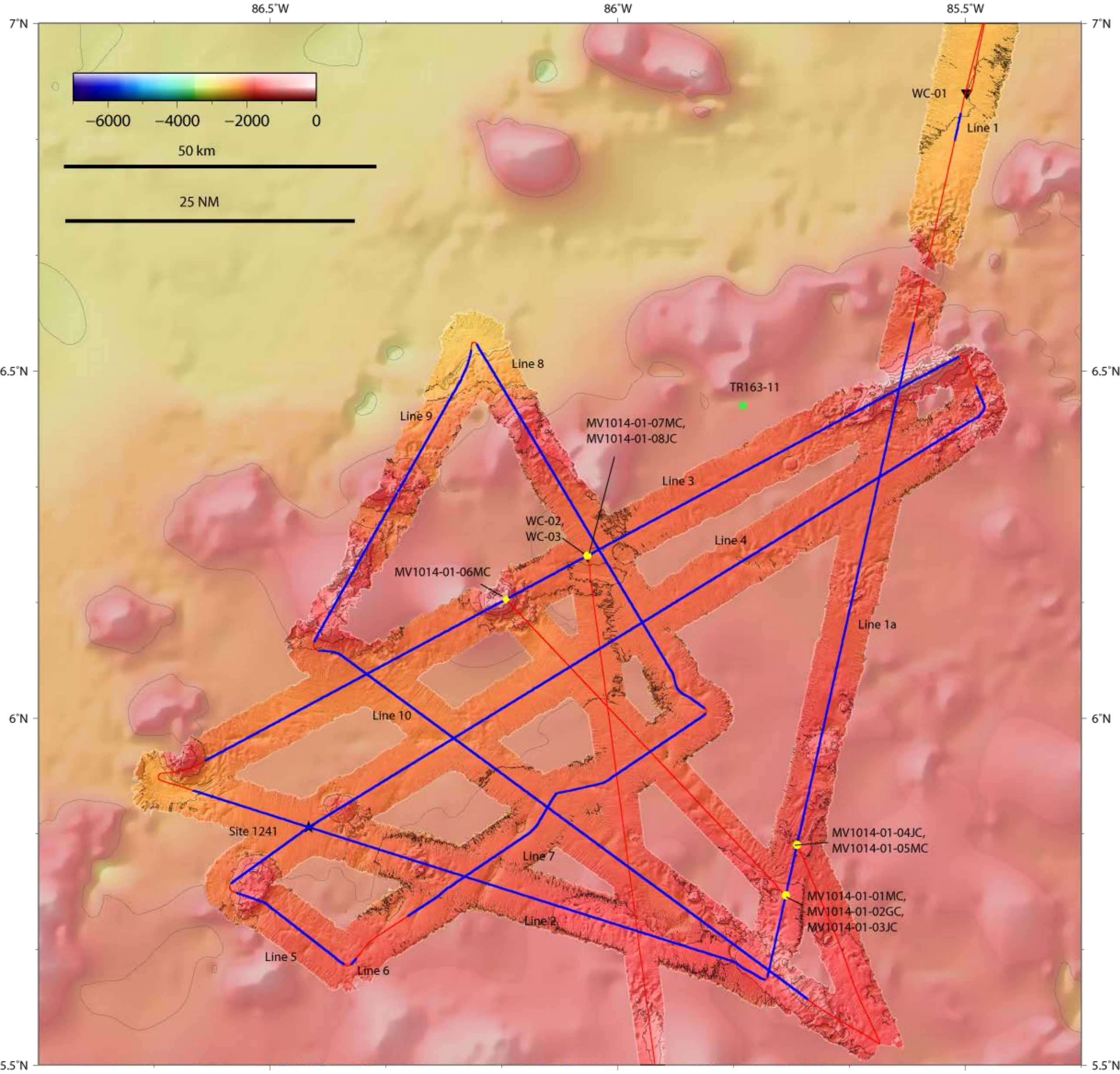
IWC-01
WC-02, WC-03
01-07MC, 01-08JC
01-06MC
Cocos Ridge
Hi-Res Survey
Site 1241
01-04JC, 01-05MC
01-01MC, 01-02GC, 01-03JC
Transit Line 1
Transit Line 2
WC-04
Transit Line 3
WC-05
Transit Line 4
Site 1240
WC-06
02-15JC, 02-16JC, 02-17MC
WC-07, WC-08
Carnegie Ridge
Hi-Res Survey
02-12JC, 02-13MC
02-09MC, 02-10GC, 02-11JC
WC-09
02-18MC, 02-19MC
Transit Line 5
WC-10
WC-11
Transit Line 6
WC-12
Transit Line 7
Peru Basin Survey
Hi & Lo Res
03-20MC, 03-21JC
WC-13
WC-14, WC-15, WC-16
03-22JC, 03-23MC
Transit Line 8
Transit Line 9
50 NM
100 km
-6000-4000-2000 0 2000 4000
88°W
86°W
84°W
82°W
6°N
4°N
2°N
0°
2°S
4°S
6°S
8°S
10°S
12°S

Cocos Survey MV1014
−6000 −4000 −2000 0
50 km
25 NM
WC-01
Line 1
Line 8
Line 9
TR163-11
MV1014-01-07MC,
MV1014-01-08JC
Line 3
WC-02,
WC-03
Line 4
MV1014-01-06MC
Line 1a
Line 10
Site 1241
Line 7
MV1014-01-04JC,
MV1014-01-05MC
Line 2
MV1014-01-01MC,
MV1014-01-02GC,
MV1014-01-03JC
Line 5
Line 6
86.5°W
86°W
85.5°W
7°N
6.5°N
6°N
5.5°N

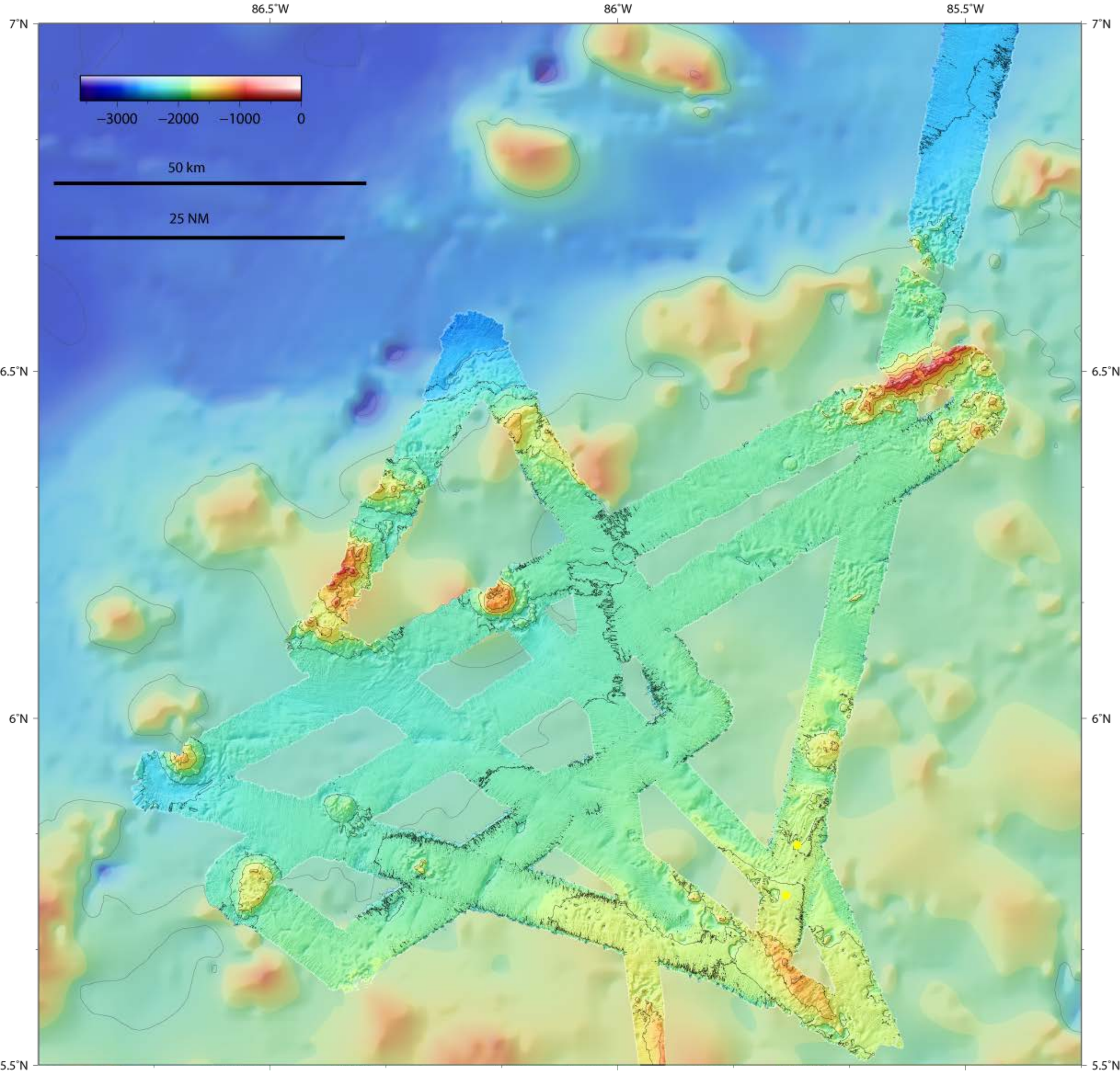
Carnegie Ridge Survey, Full Science Map
86°W
85°W
0°
1°S
Line 1
Site 1240
WC-06
Line 2
Line 6
02-15MC
02-16MC
02-17JC
WC-07
WC-08
Line 4
Line 5
Line 13
02-12JC
02-13MC
Line 3
Line 10
Line 11
Line 7
WC-09
02-18MC
02-19MC
02-09MC
02-10GC
02-11JC
Line 8
Line 12
Line 9
25 NM
50 km
−6000 −4000 −2000 0

Peru Basin Survey
88°W
87.5°W
87°W
8°S
8.5°S
9°S
Line 3
Line 2
MV1014-03-22JC
MV1014-03-23MC
WC-13
Line 1
WC-14
WC-15
WC-16
MV1014-03-20MC
MV1014-03-21JC
25 NM
50 km
−6000 −4000 −2000 0

Cocos Survey MV1014

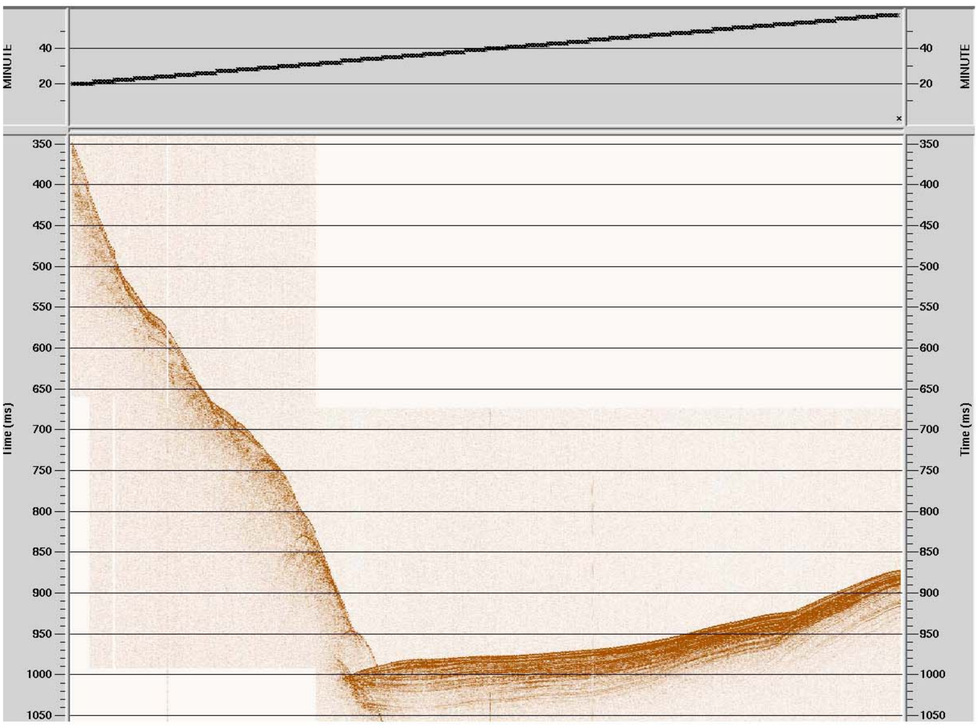


Cocos Bathymetry Survey MV1014

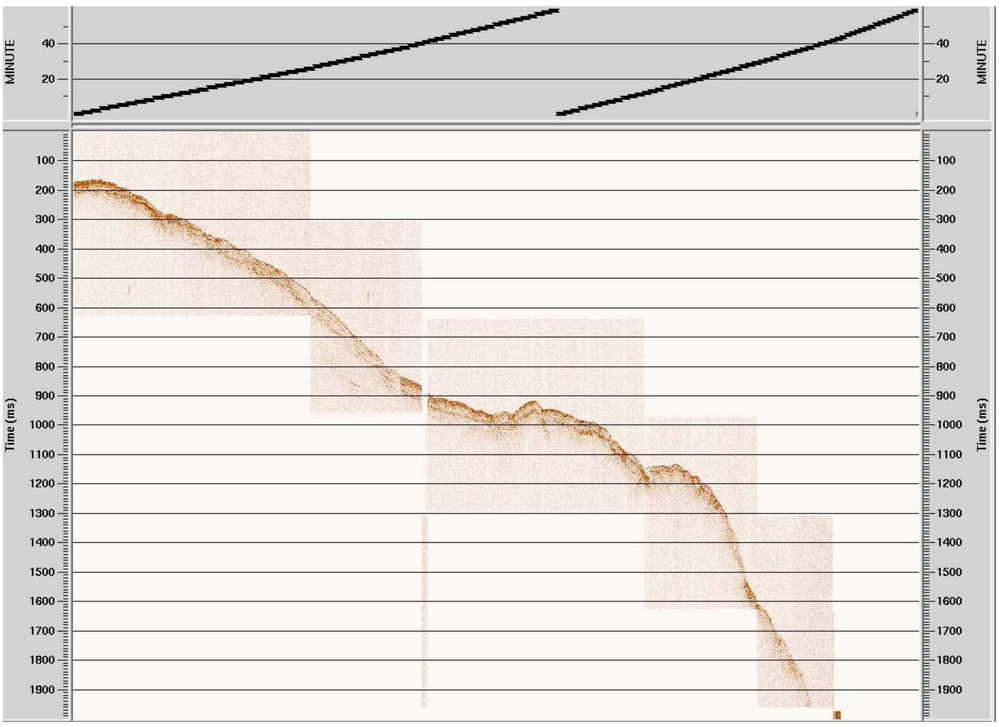


Pre-survey Chirp
No Bathymetry
01:20-0200 GMT

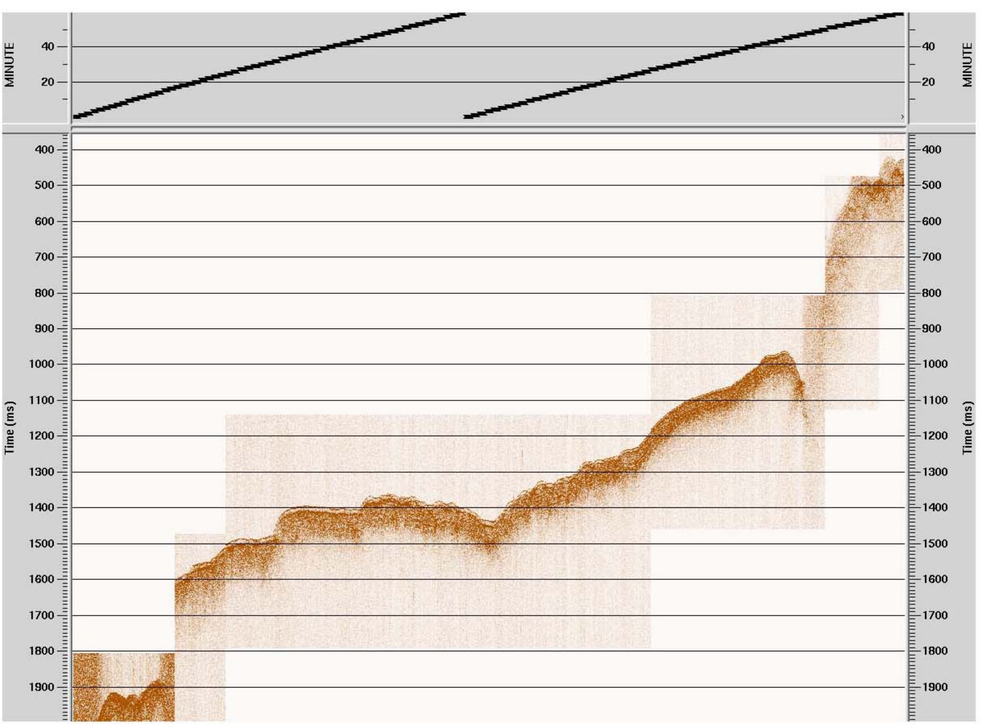
JD 293



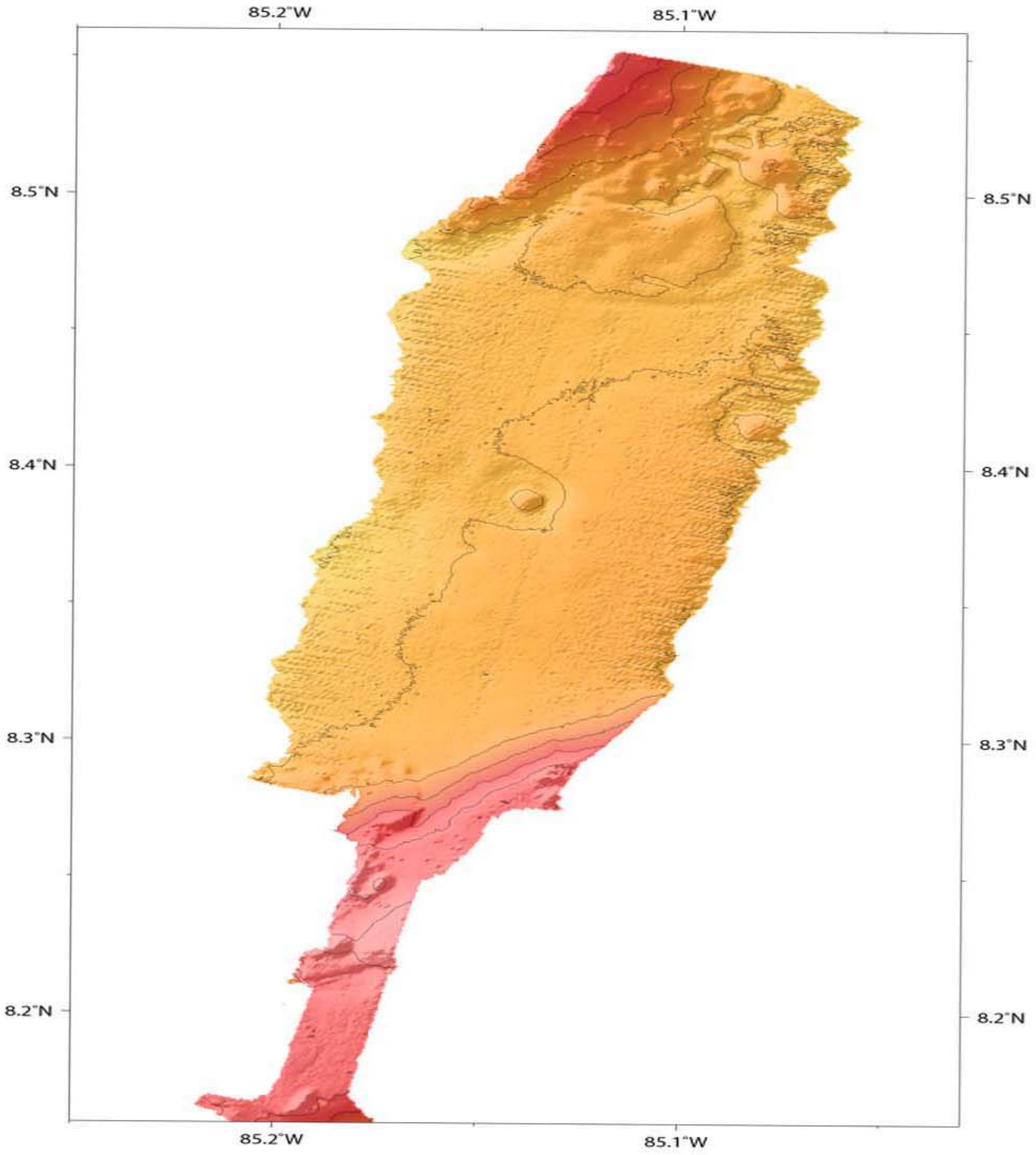
02:00-04:00



04:00-06:00

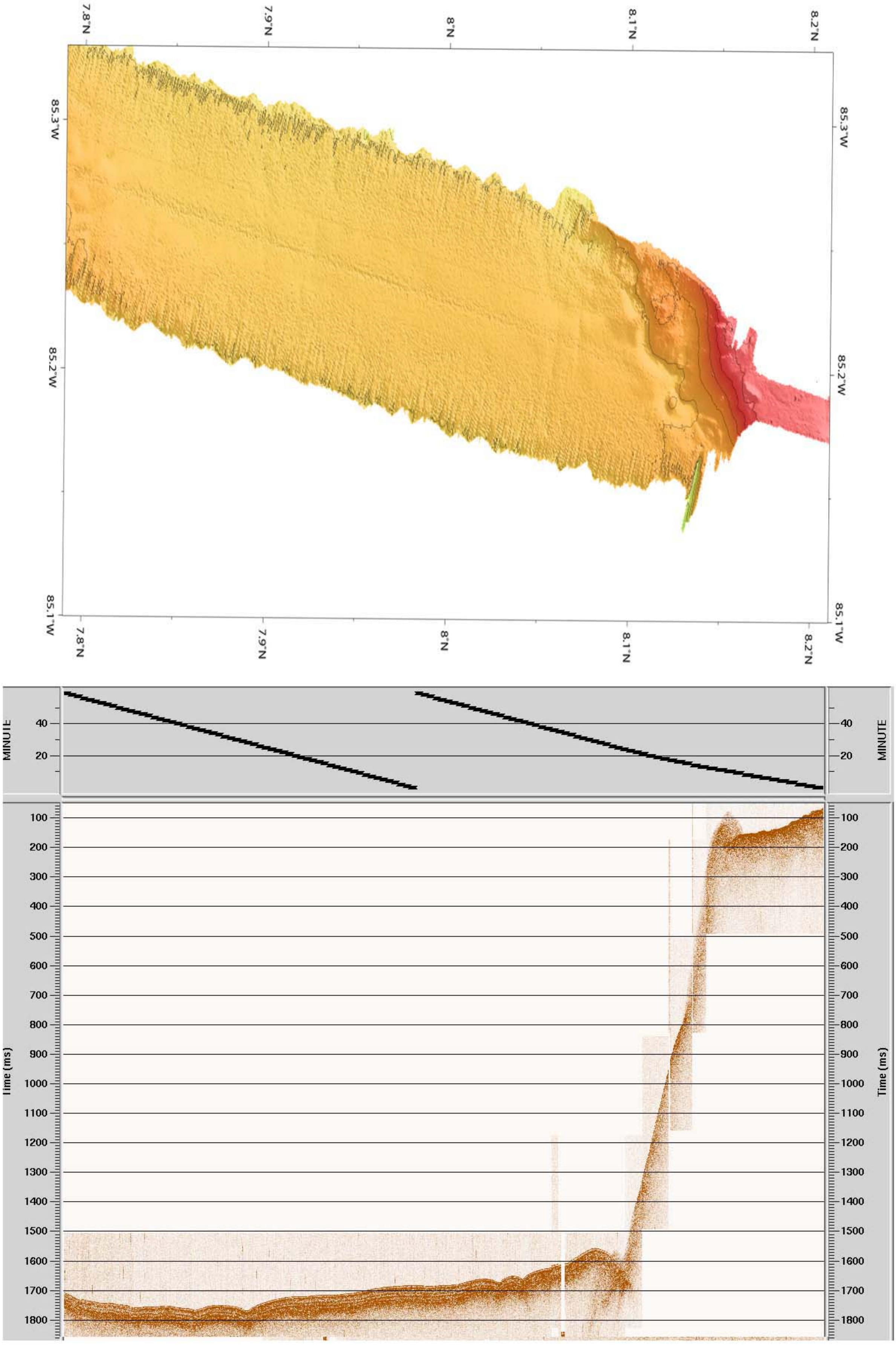


Pre-Survey
JD: 293
06:00-08:00





Pre-Survey
JD: 293
08:00-10:00



Pre-Survey
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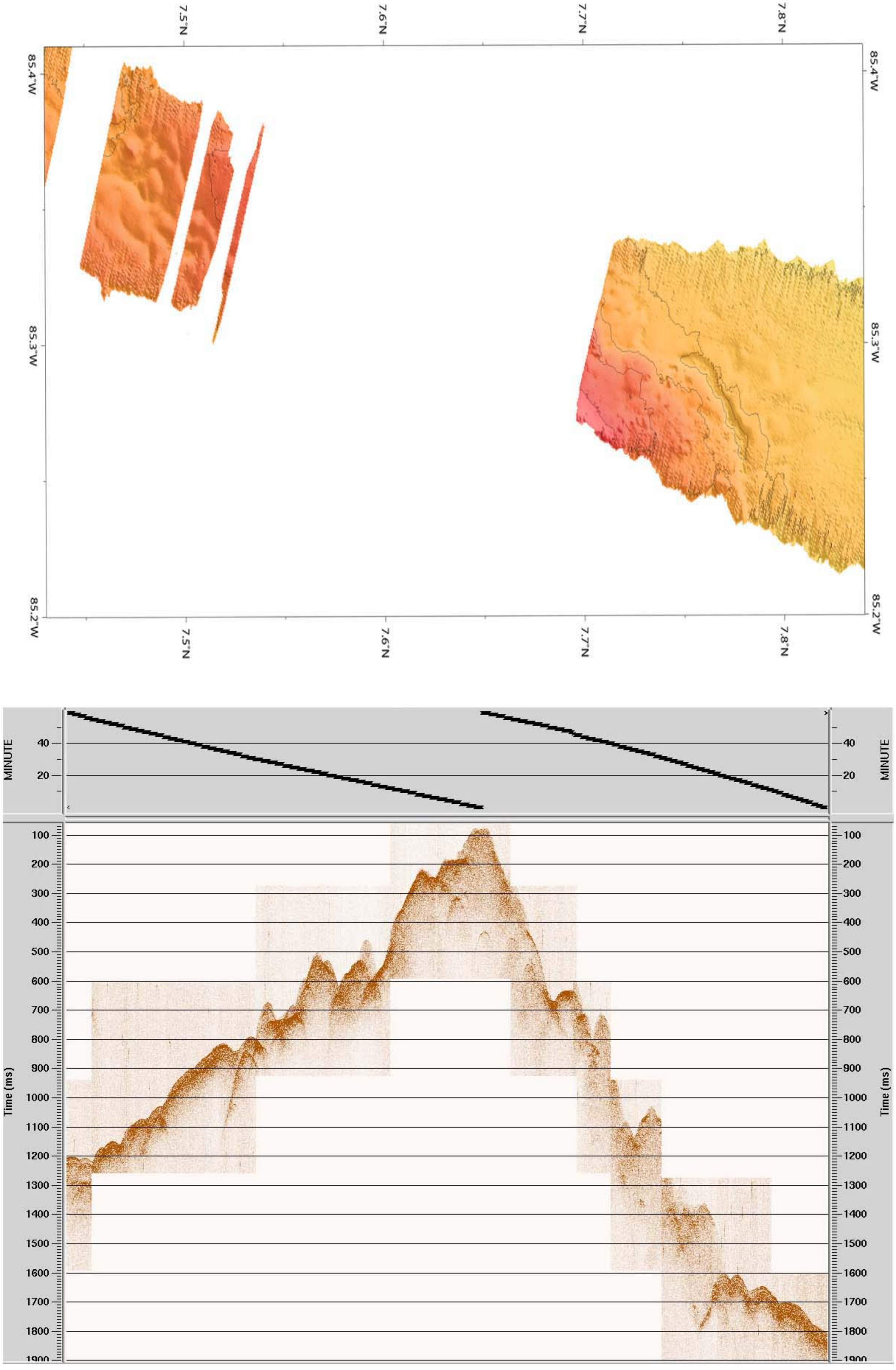
10:00-12:00



Pre-Survey
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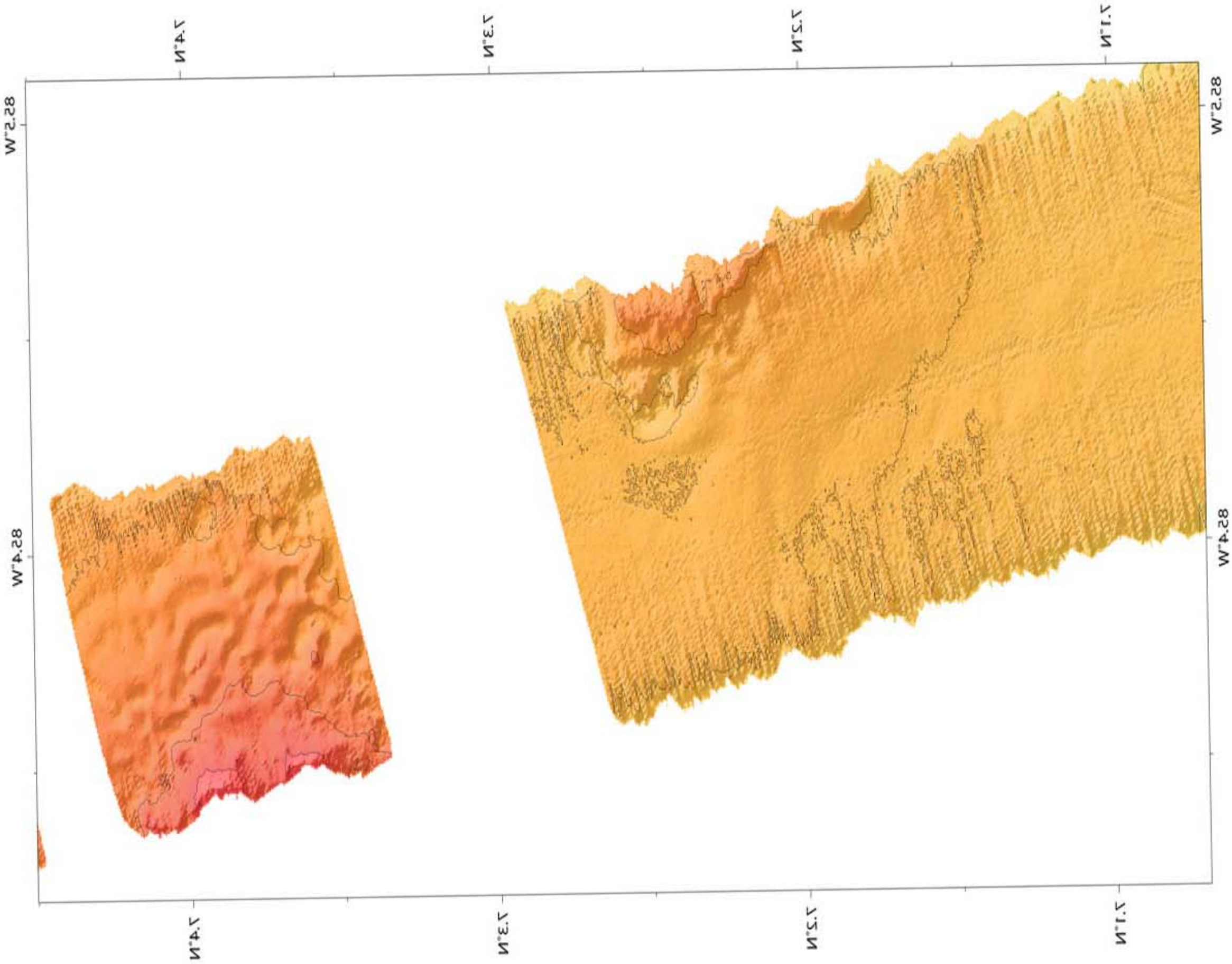
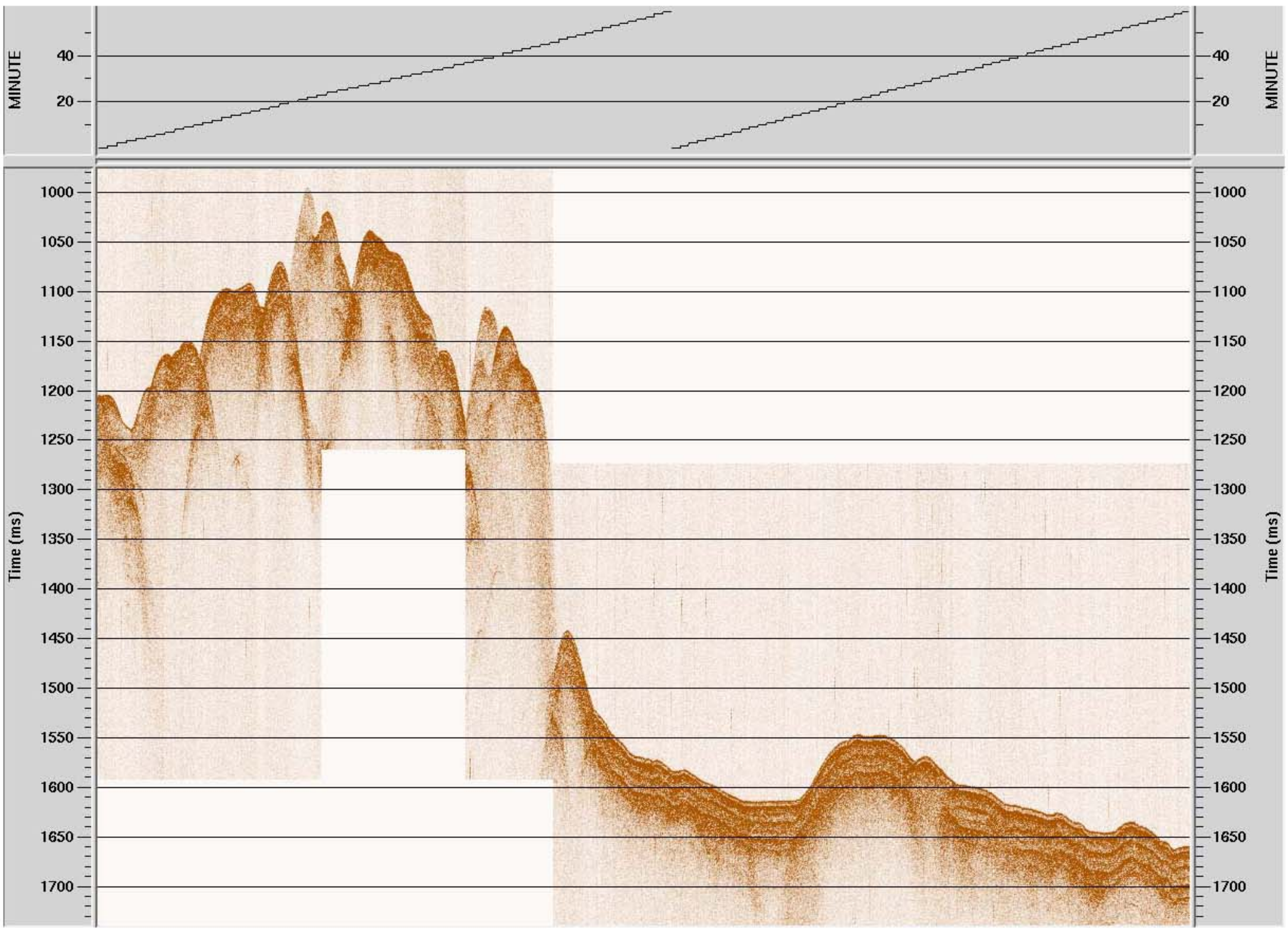
12:00-1400





Pre-Survey
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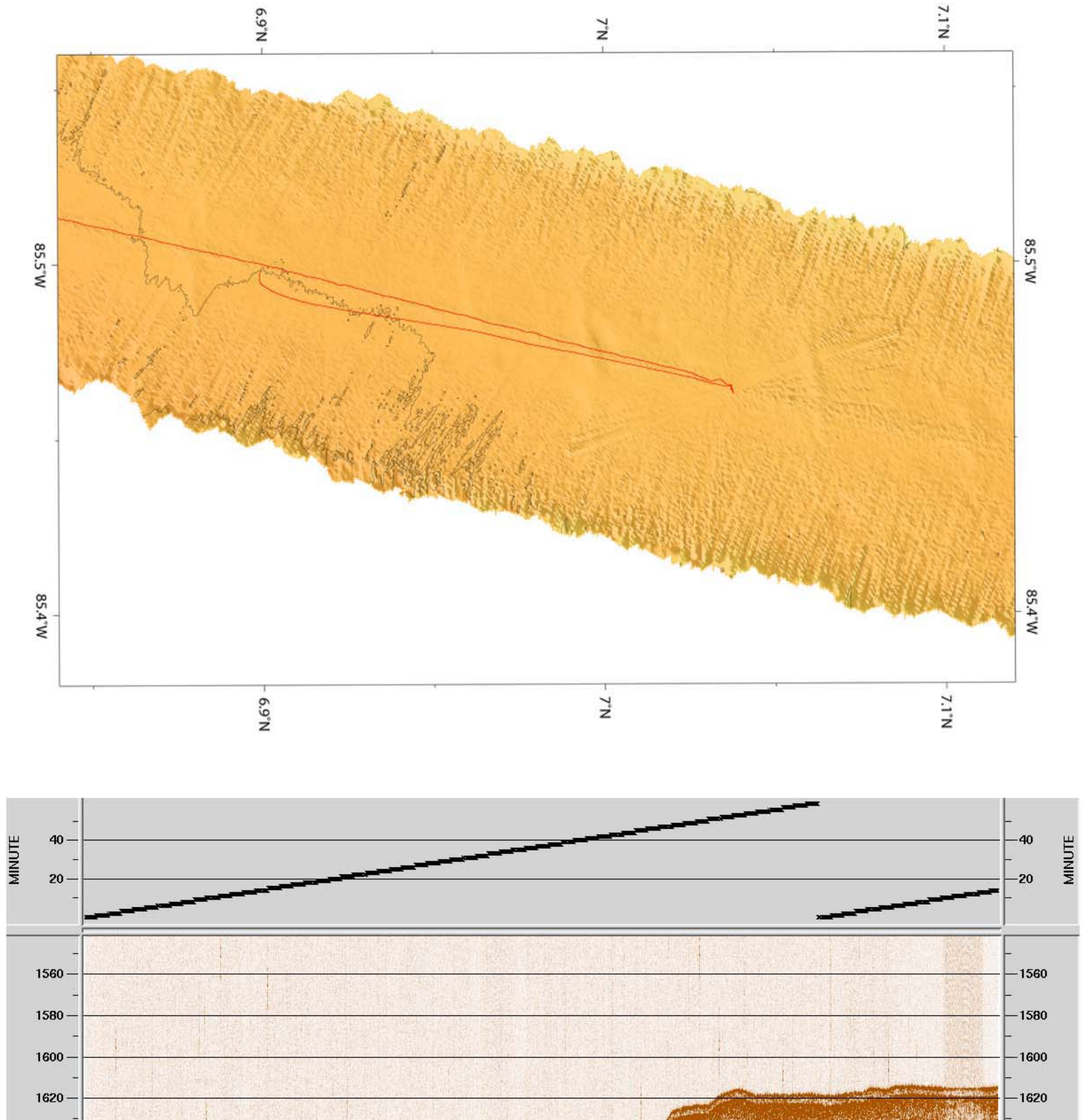
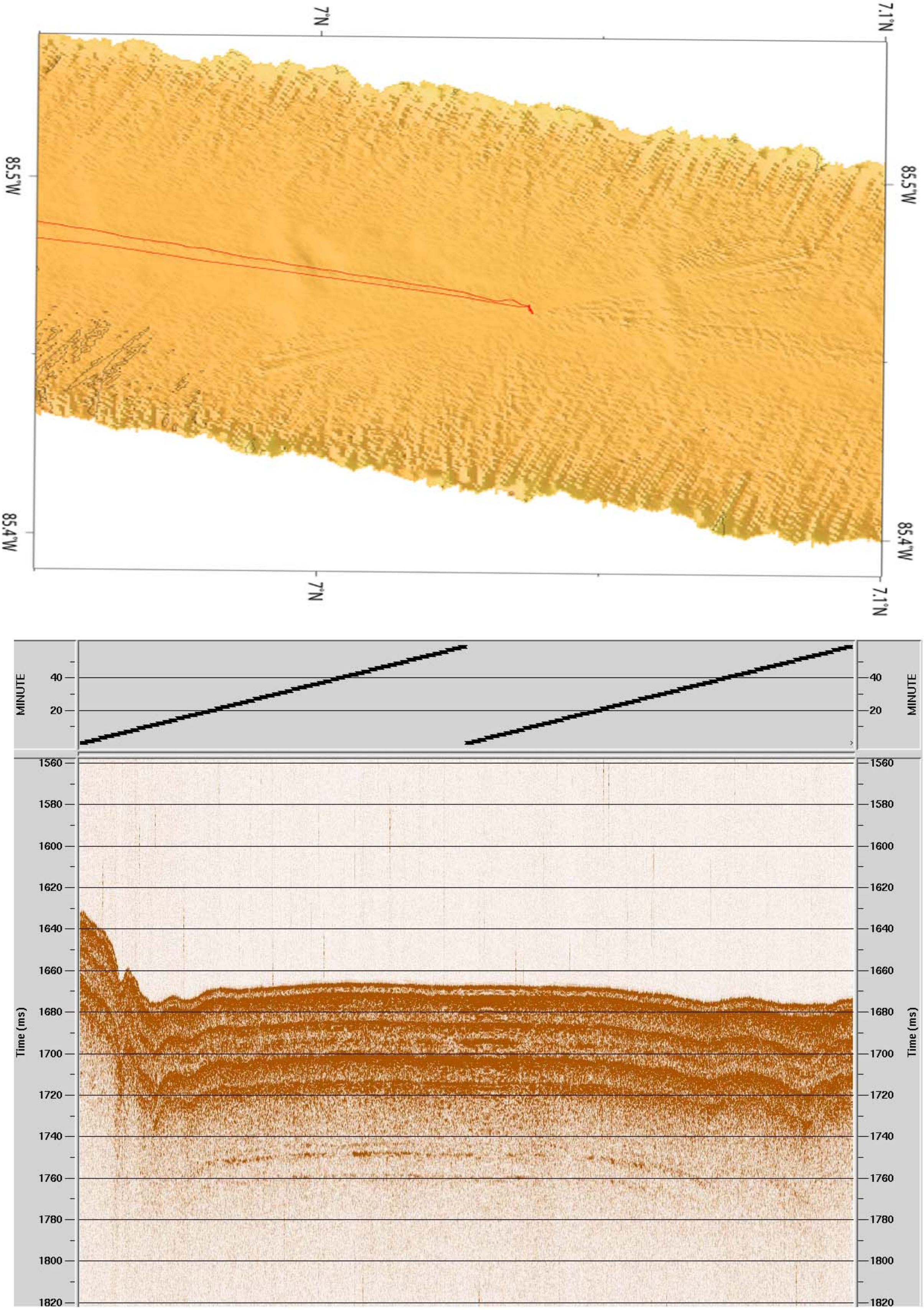
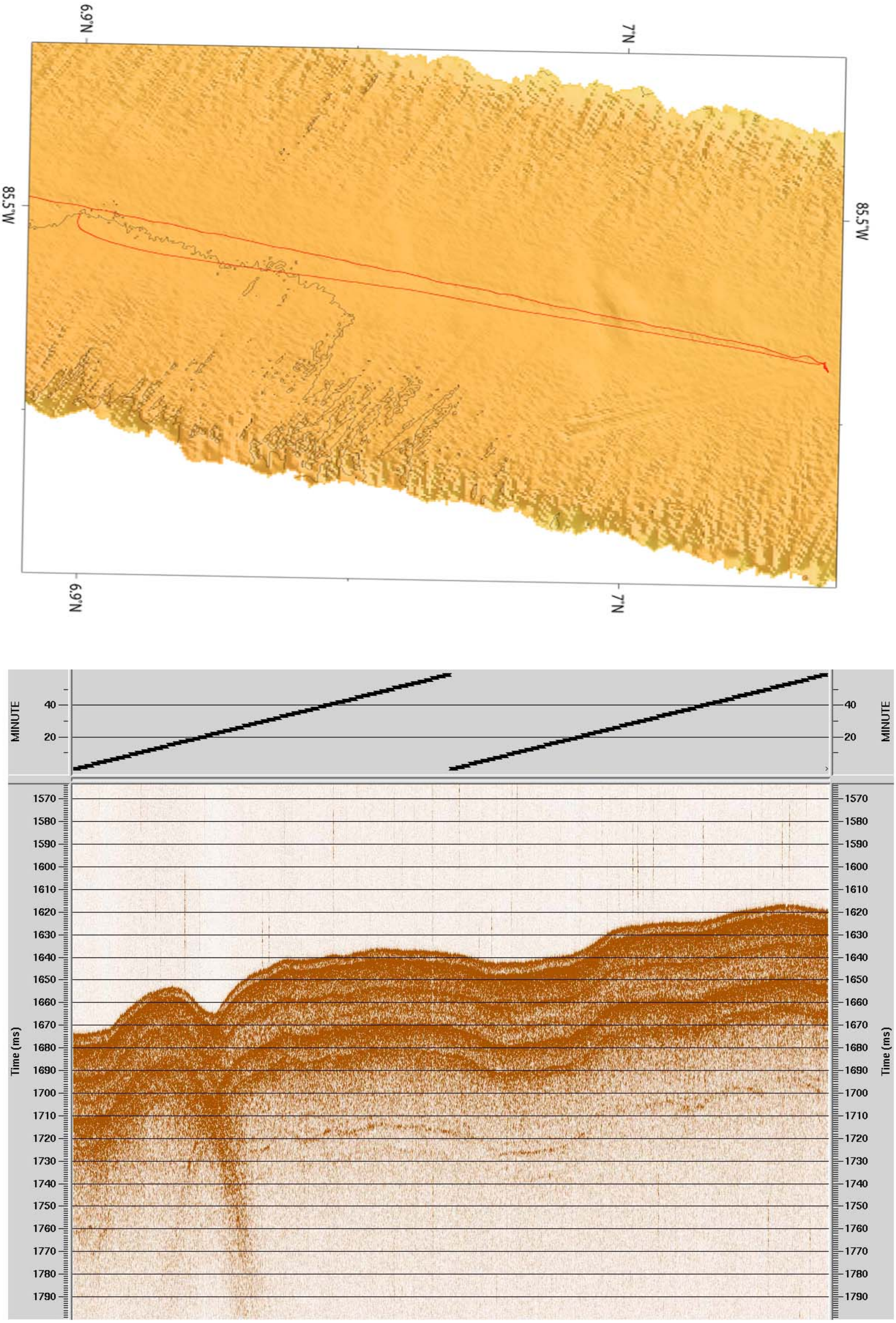
14:00-16:00



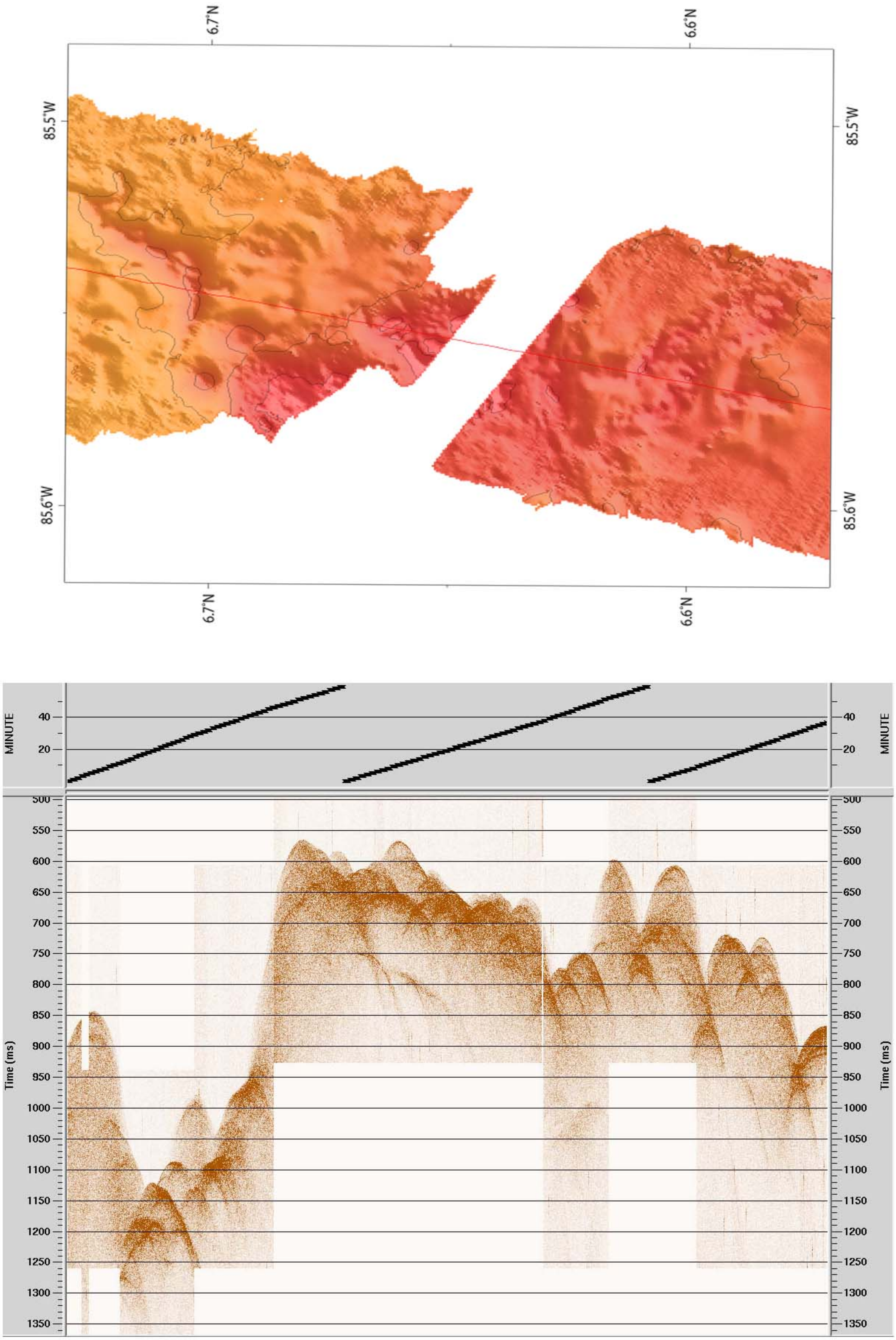
Pre-survey
JD 293
18:00-2000 GMT



Pre-survey
JD 293
20:00-22:00 GMT



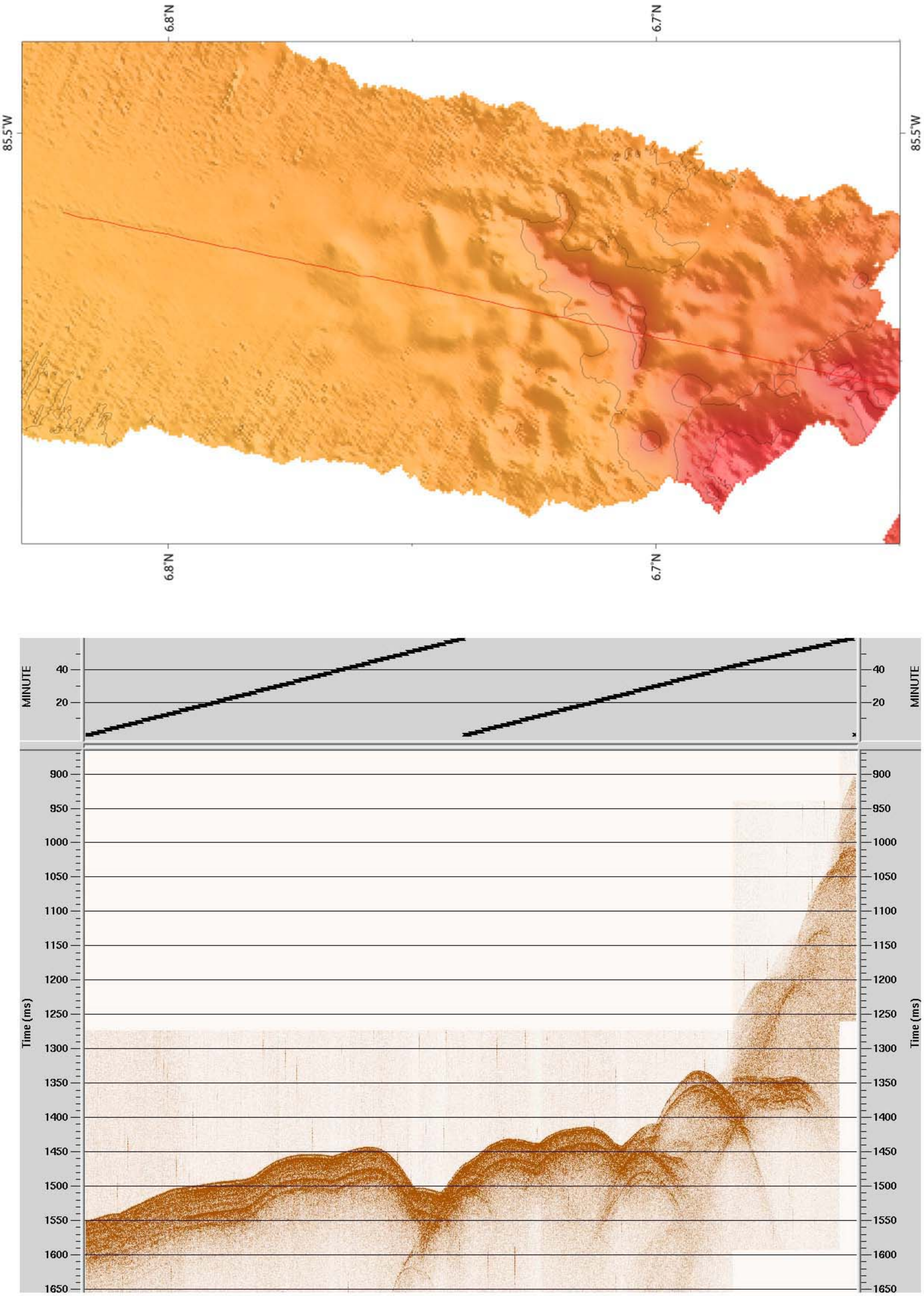
Between Cocos Line 1 and 1a
JD 294
02:00-04:00 GMT



Between Cocos Line 1 and 1a

JD 294

00:00-02:00 GMT

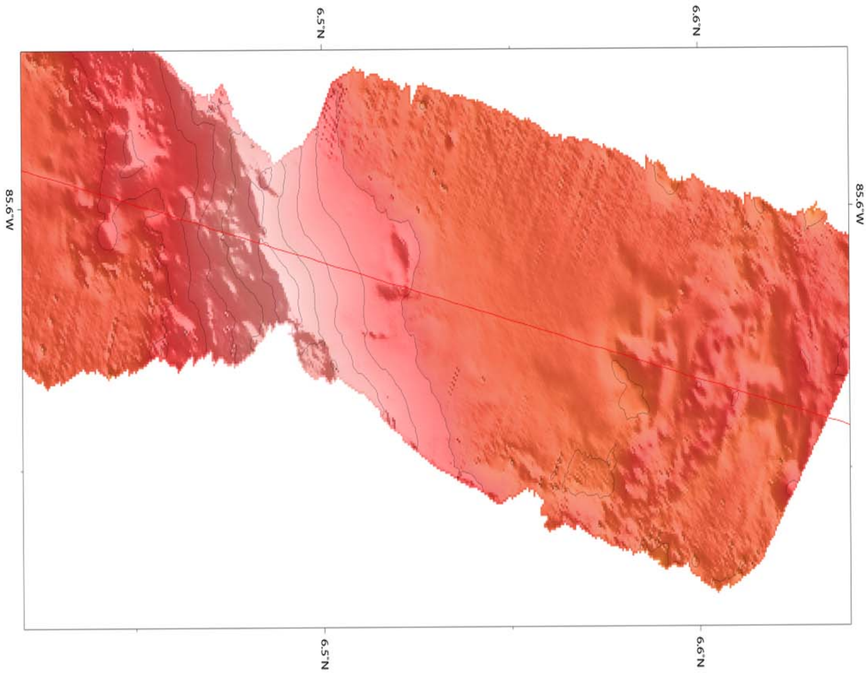


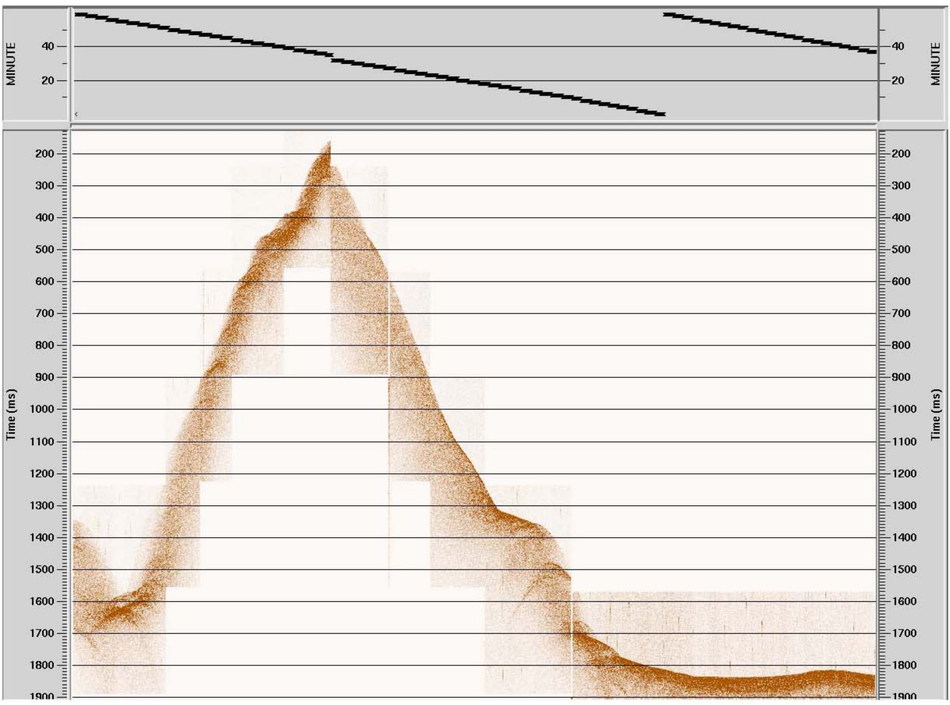
Cocos Ridge
Line 1a
JD: 294
04:37-06:00 GMT

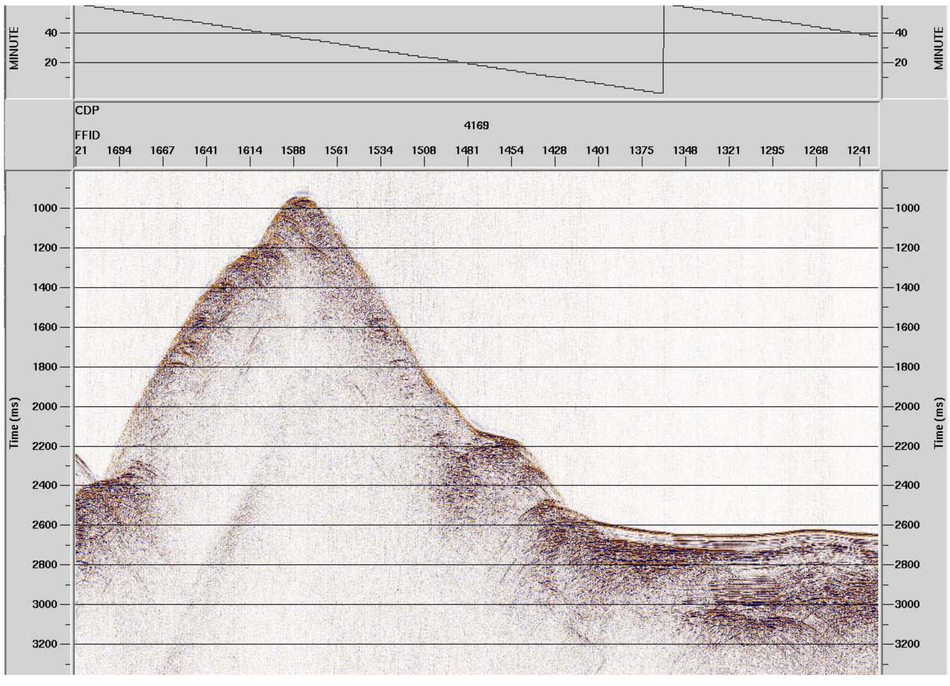
Direction of travel
NW ← SE

06:00 GMT

04:37 GMT





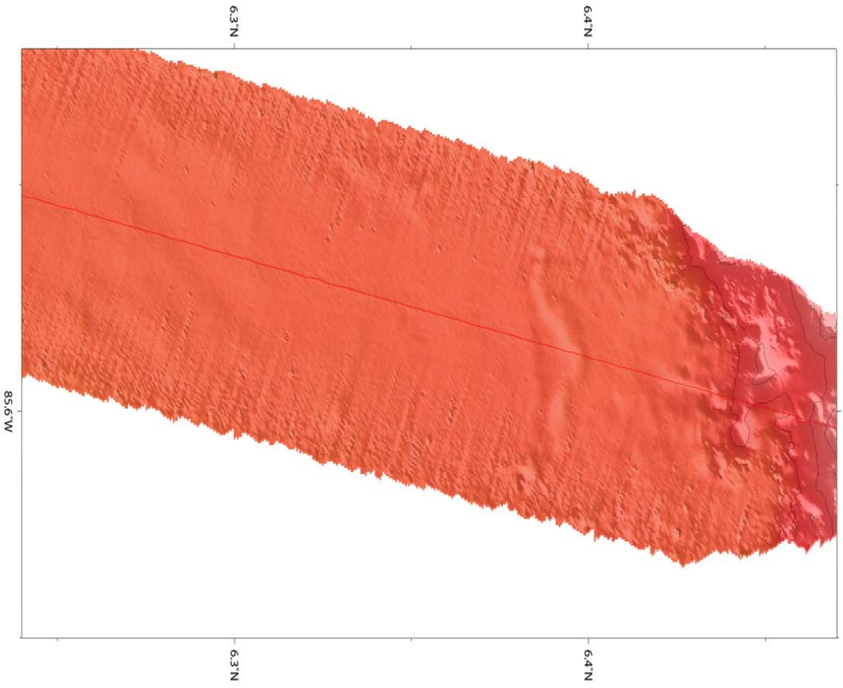


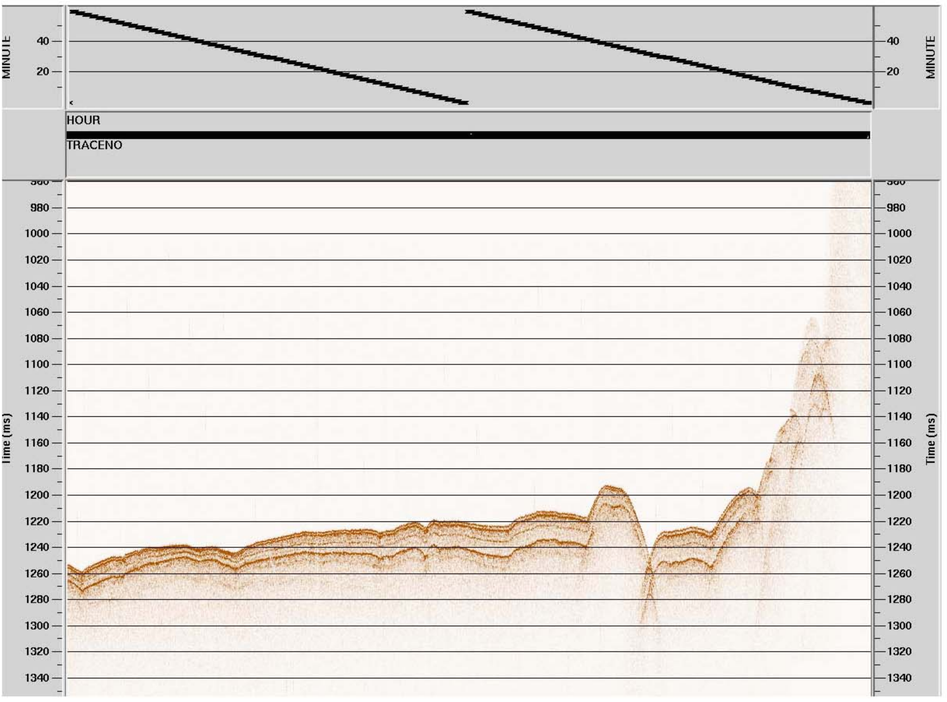
Cocos Ridge
Line 1a
JD: 294
06:00-08:00 GMT

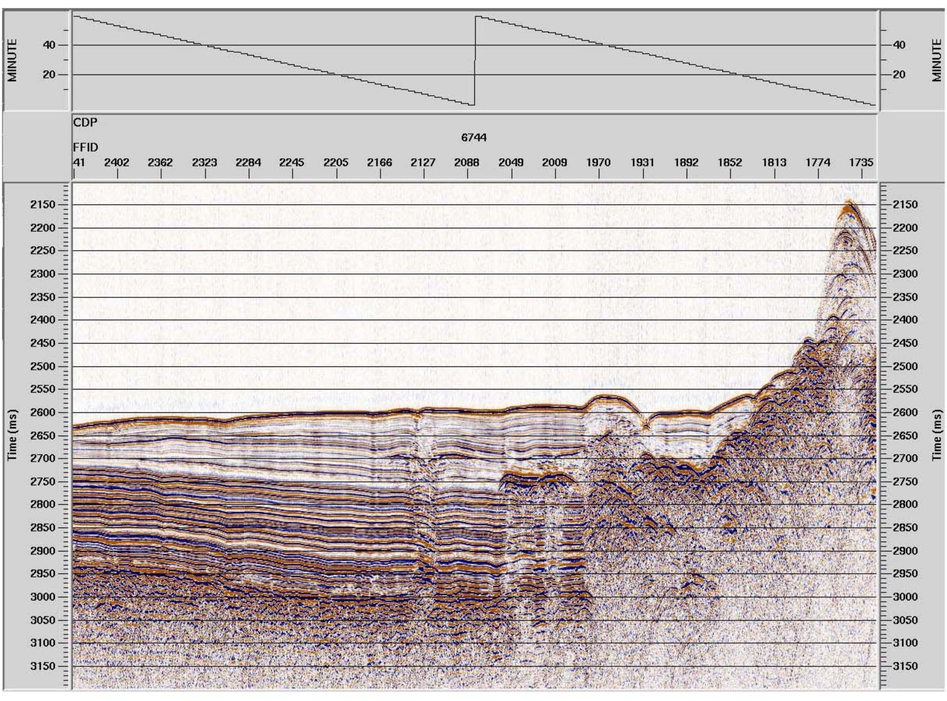
Direction of travel
NW ← SE

08:00 GMT

06:00 GMT



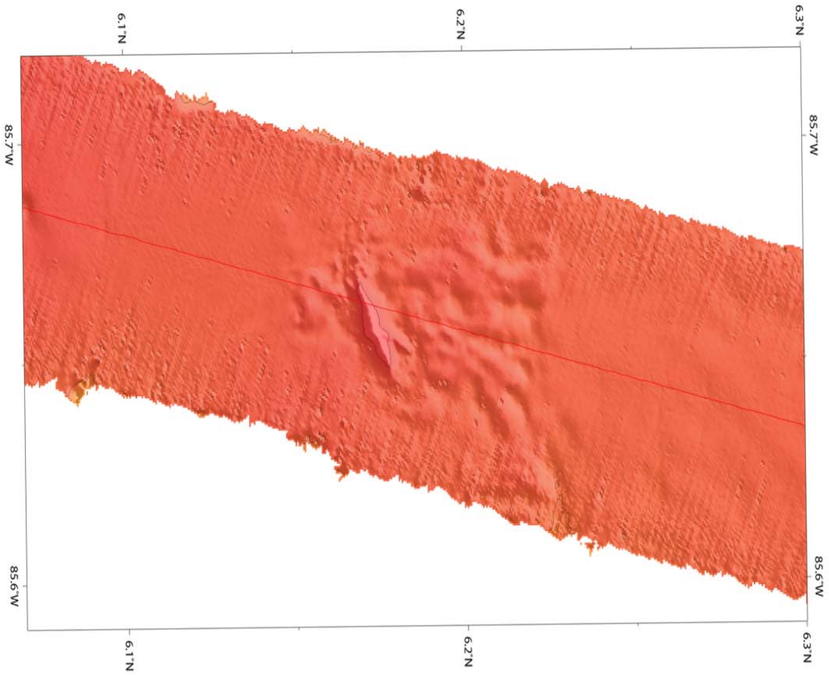


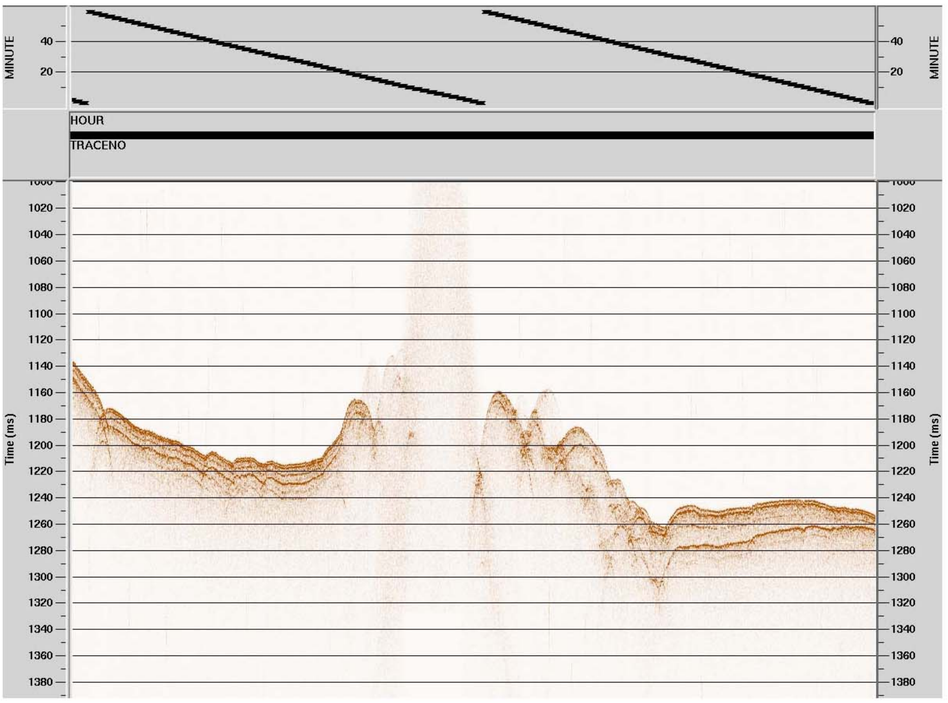


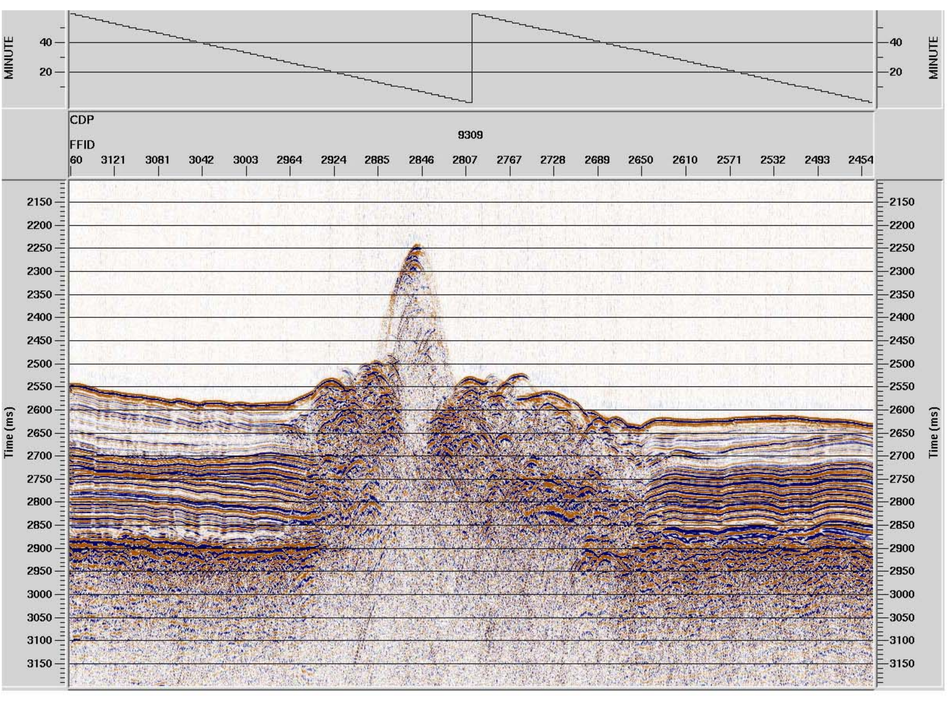
Cocos Ridge
Line 1a
JD: 294
08:00-10:00 GMT

Direction of travel
NW ← SE

10:00 GMT 08:00 GMT



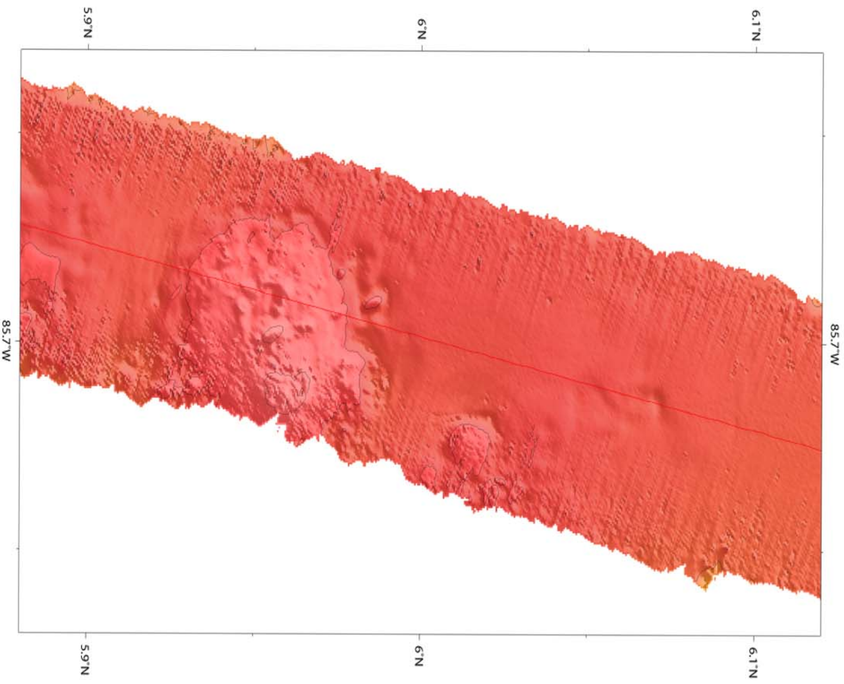


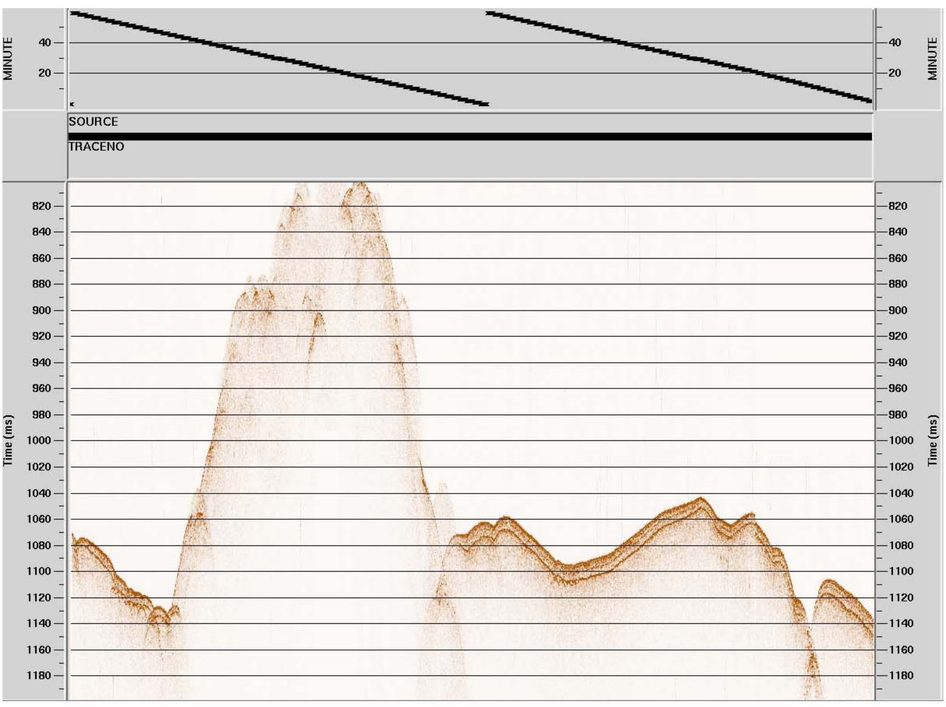


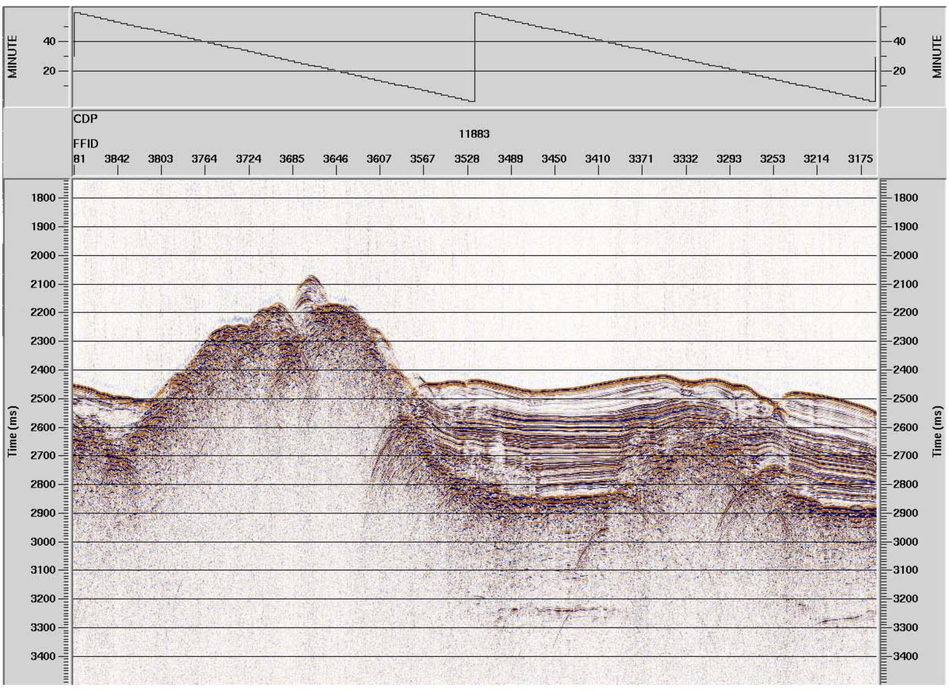
Cocos Ridge
Line 1a
JD: 294
10:00-12:00 GMT

Direction of travel
NW ← SE

12:00 GMT 10:00 GMT



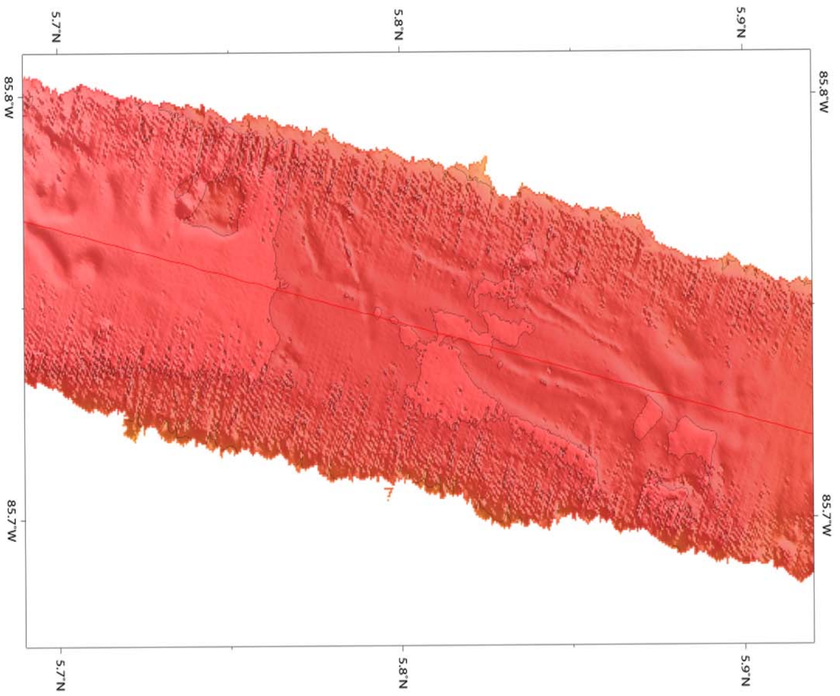


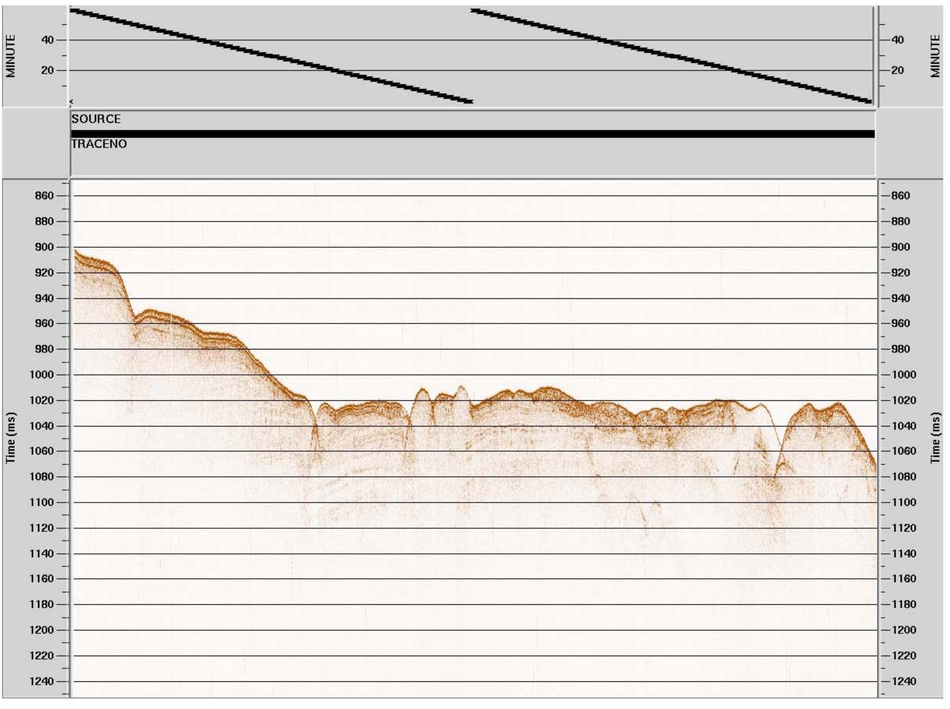


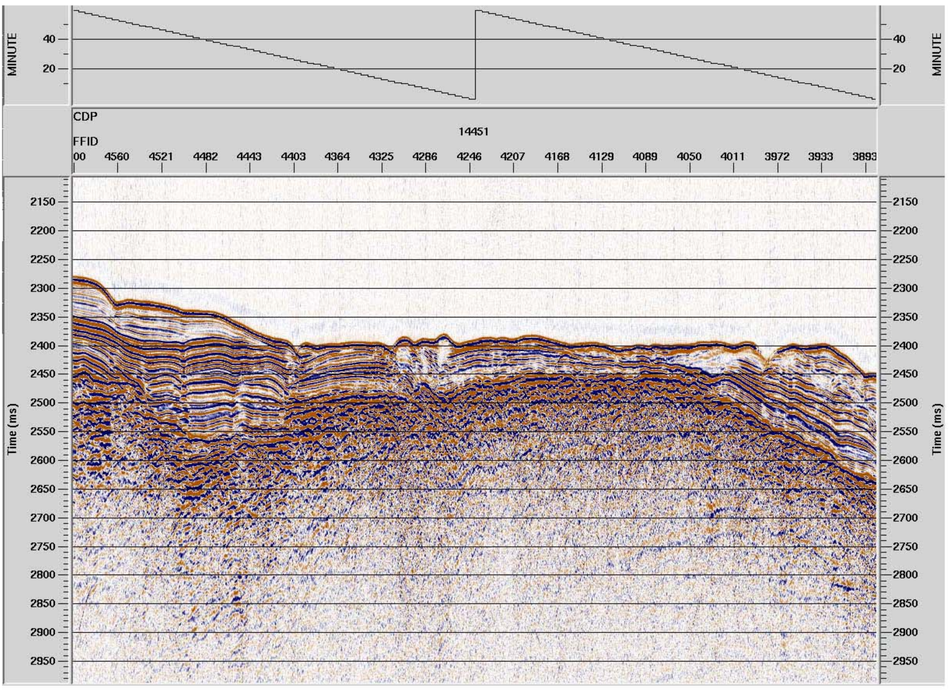
Cocos Ridge
Line 1a
JD: 294
12:00-14:00 GMT

Direction of travel
NW ← SE

14:00 GMT 12:00 GMT

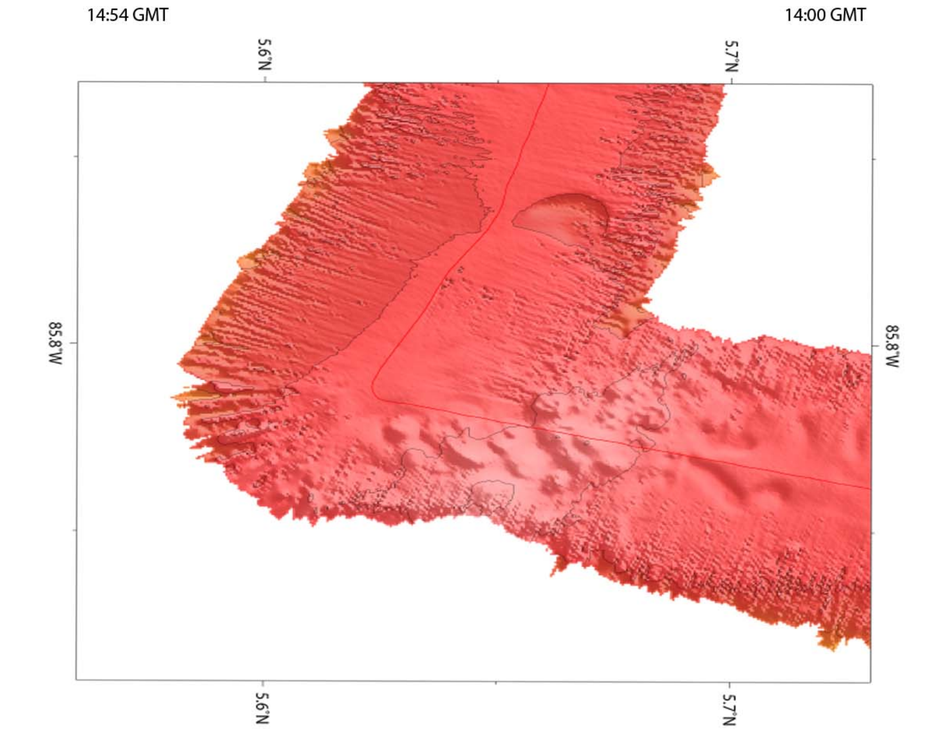


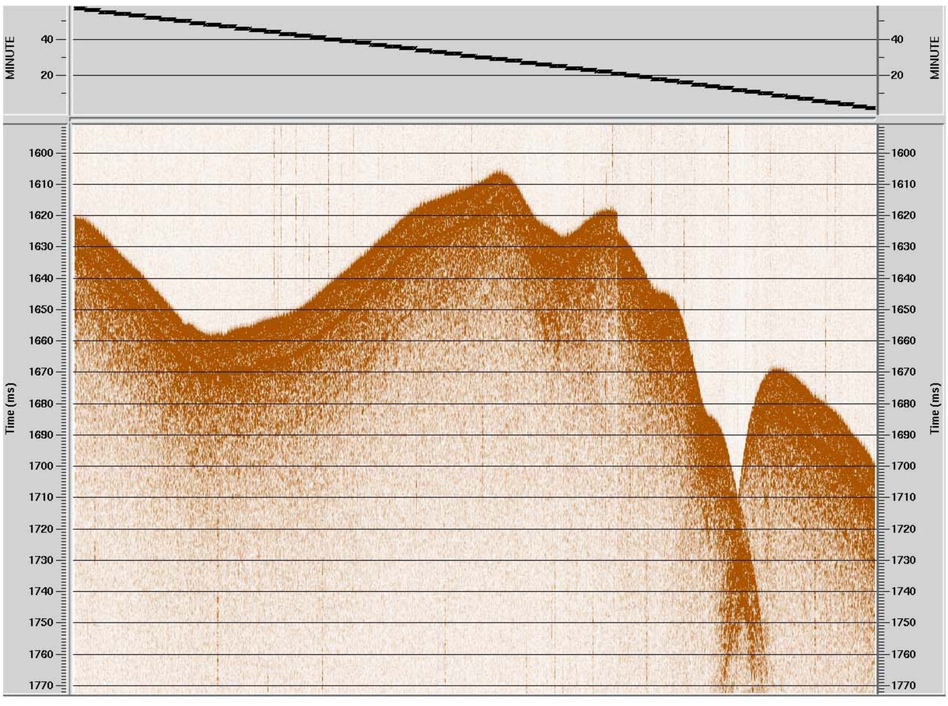


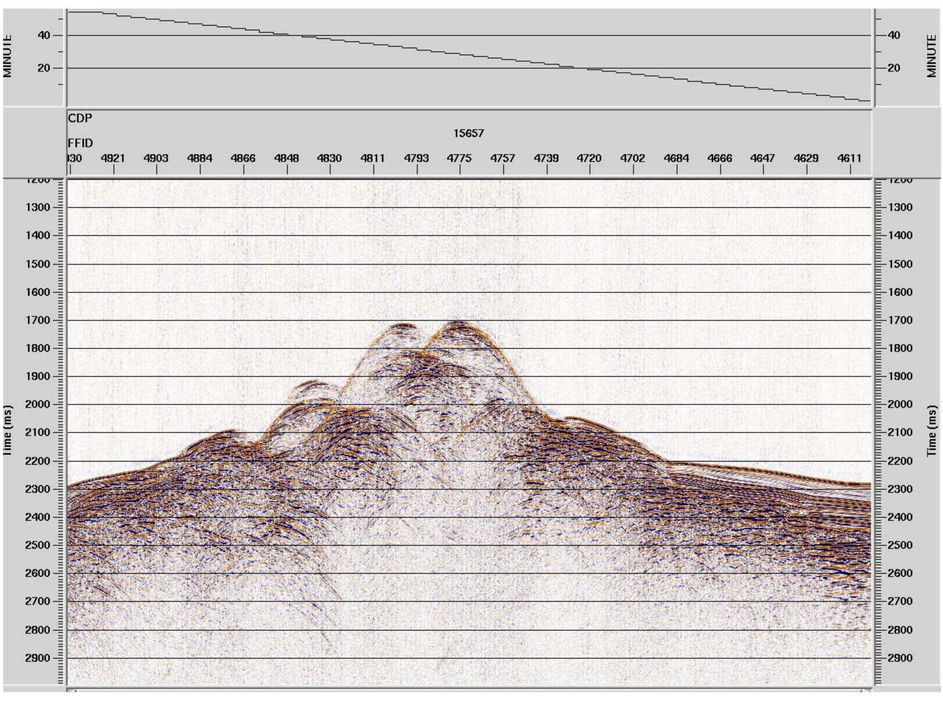


Cocos Ridge
Line 1a
JD: 294
14:00-14:54 GMT

Direction of travel
NW ← SE





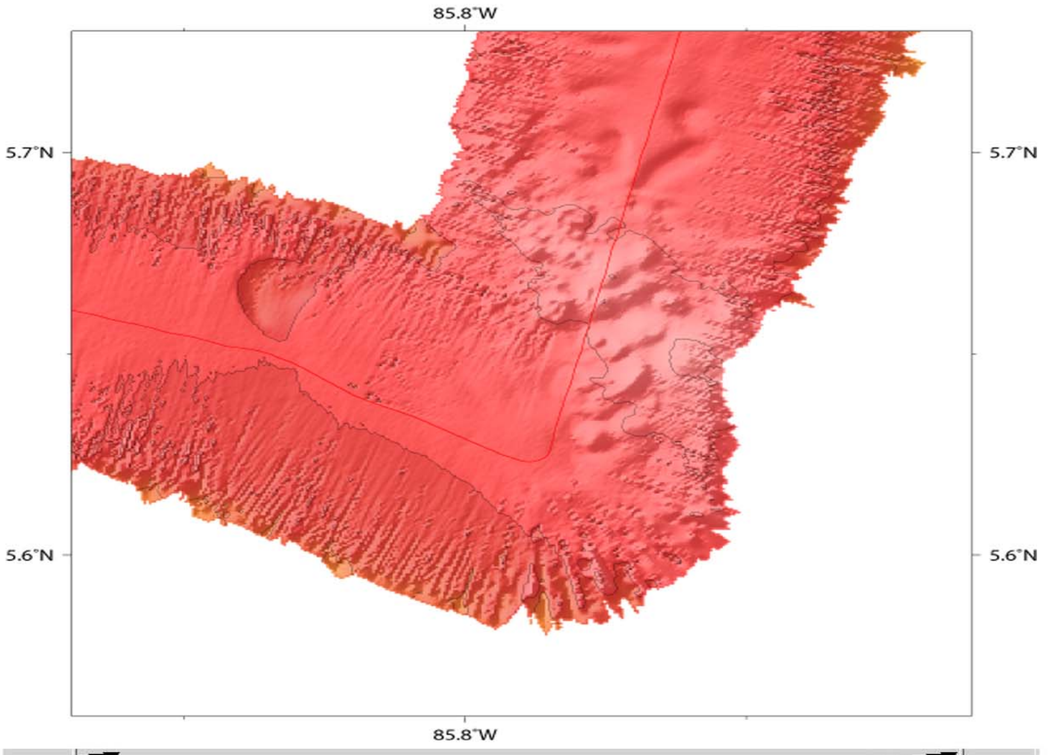


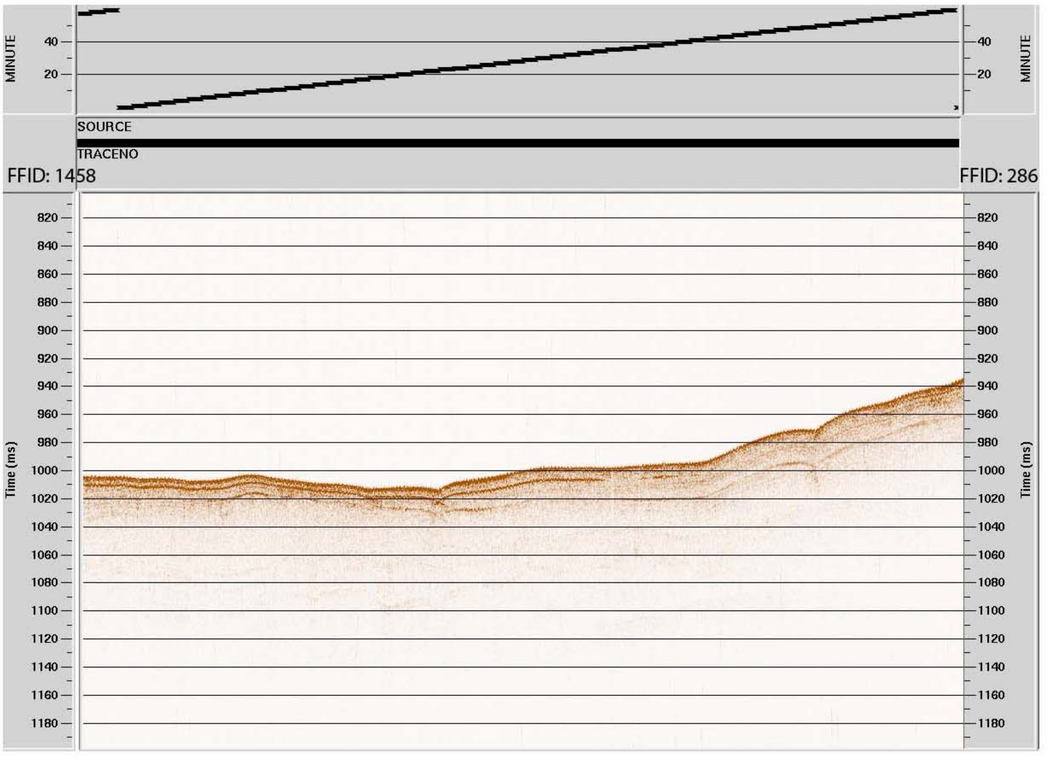
Cocos Ridge Line 2
JD 294
14:57-16:00 GMT

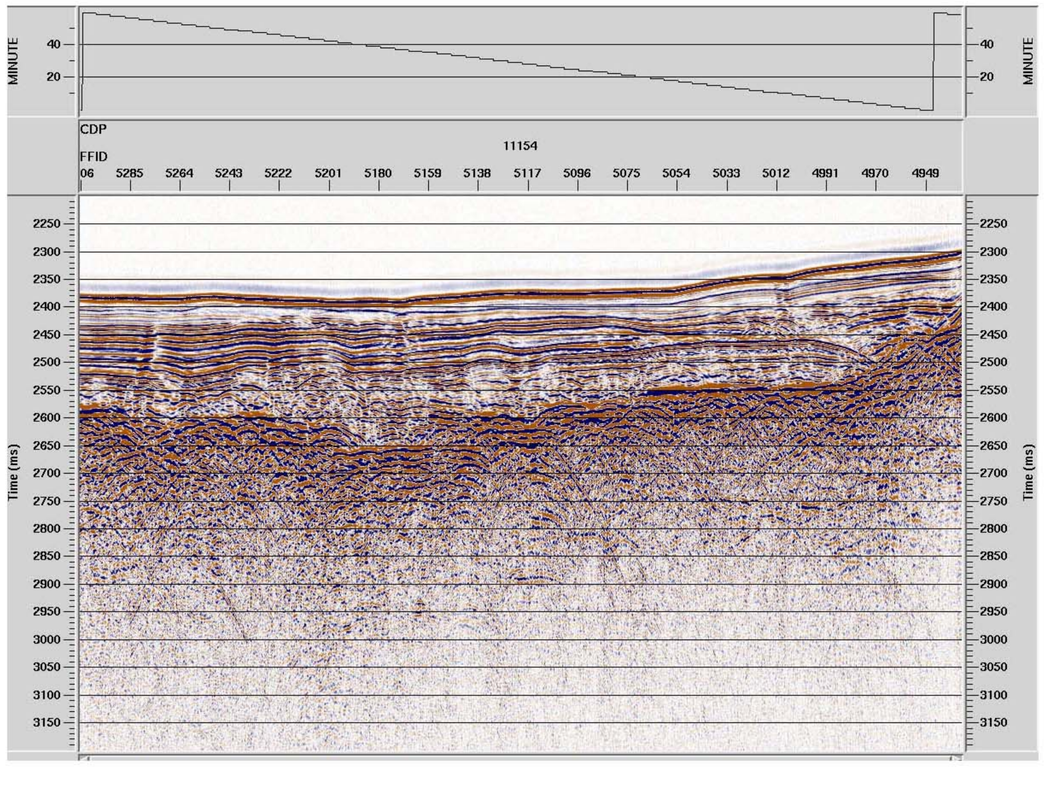
Direction of travel
NW ← → SE

16:00 GMT

14:57 GMT







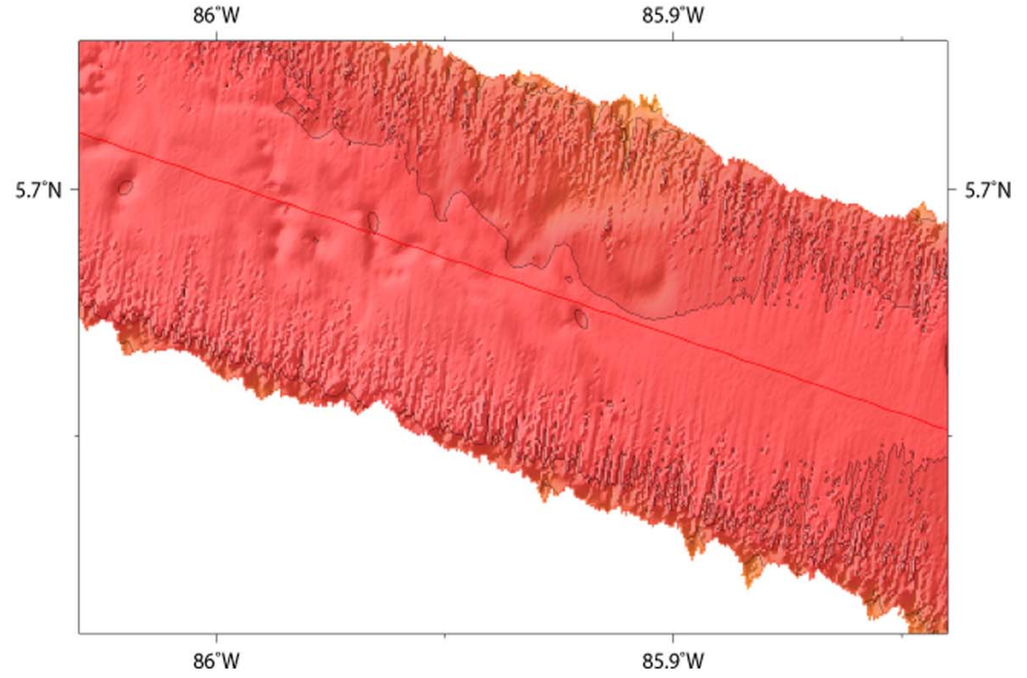
Cocos Ridge
JD 294
16:00-18:00 GMT

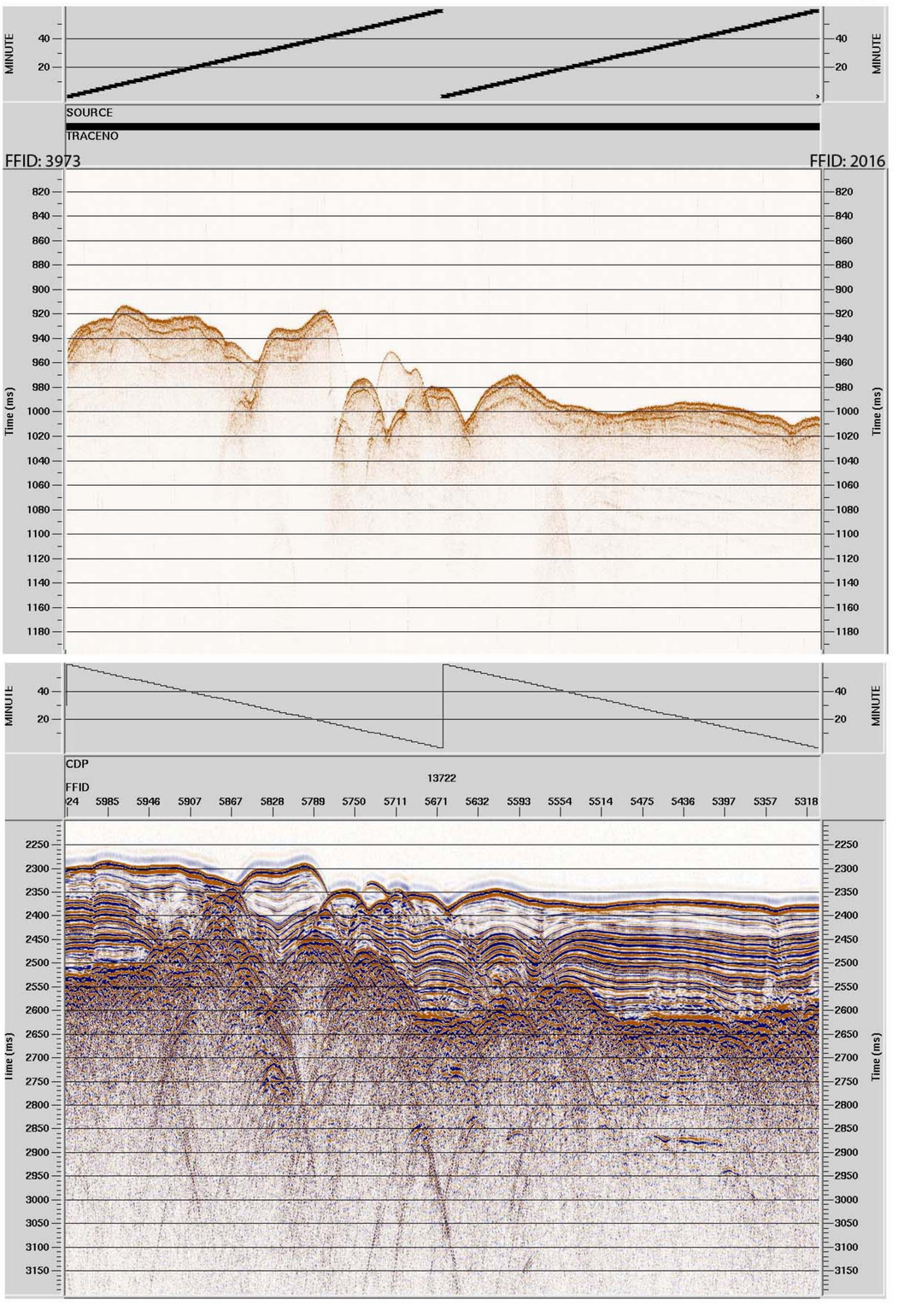
18:00 GMT

Direction of travel

NW ← → SE

16:00 GMT



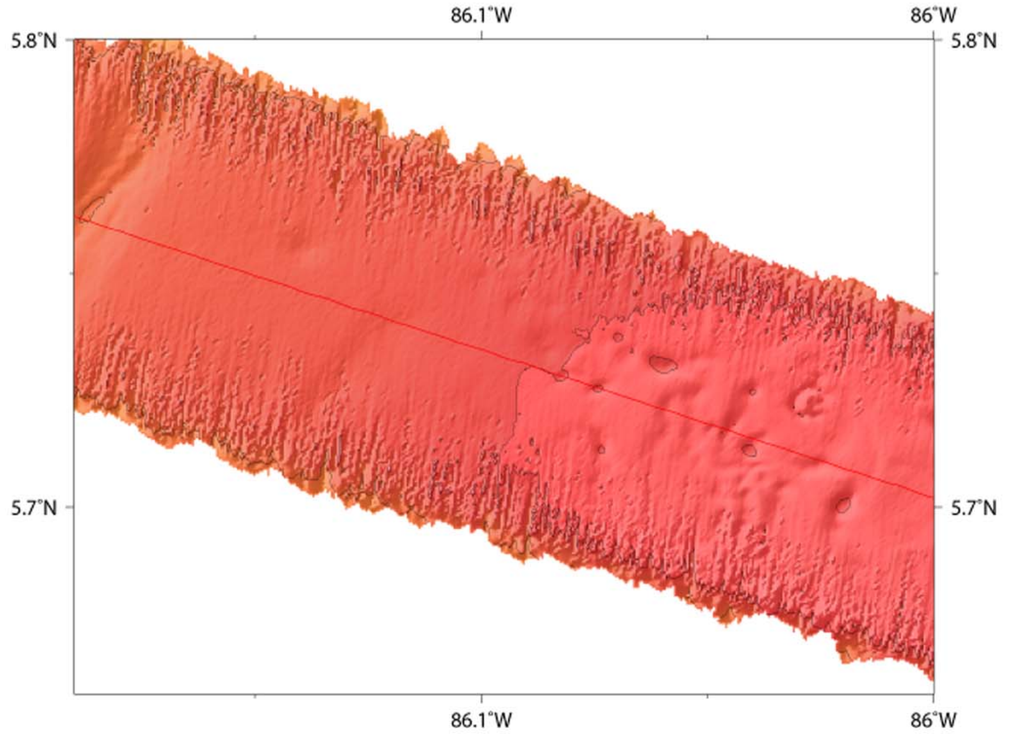


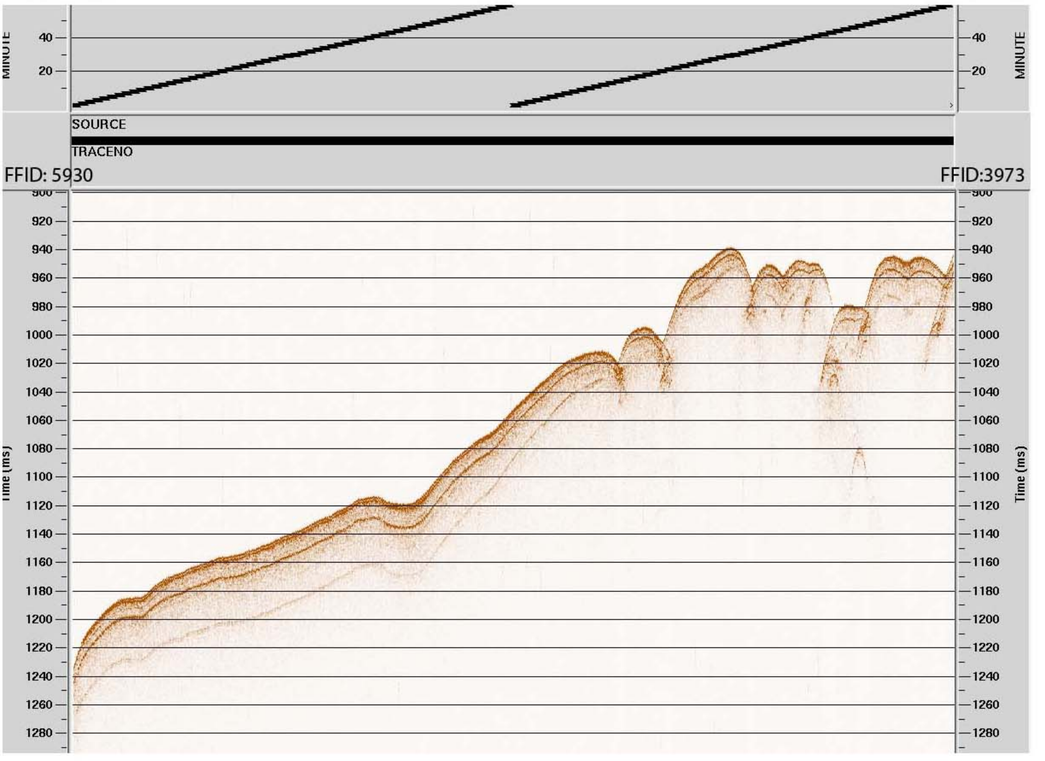
Cocos Ridge
Line 2
JD 294
18:00-20:00 GMT

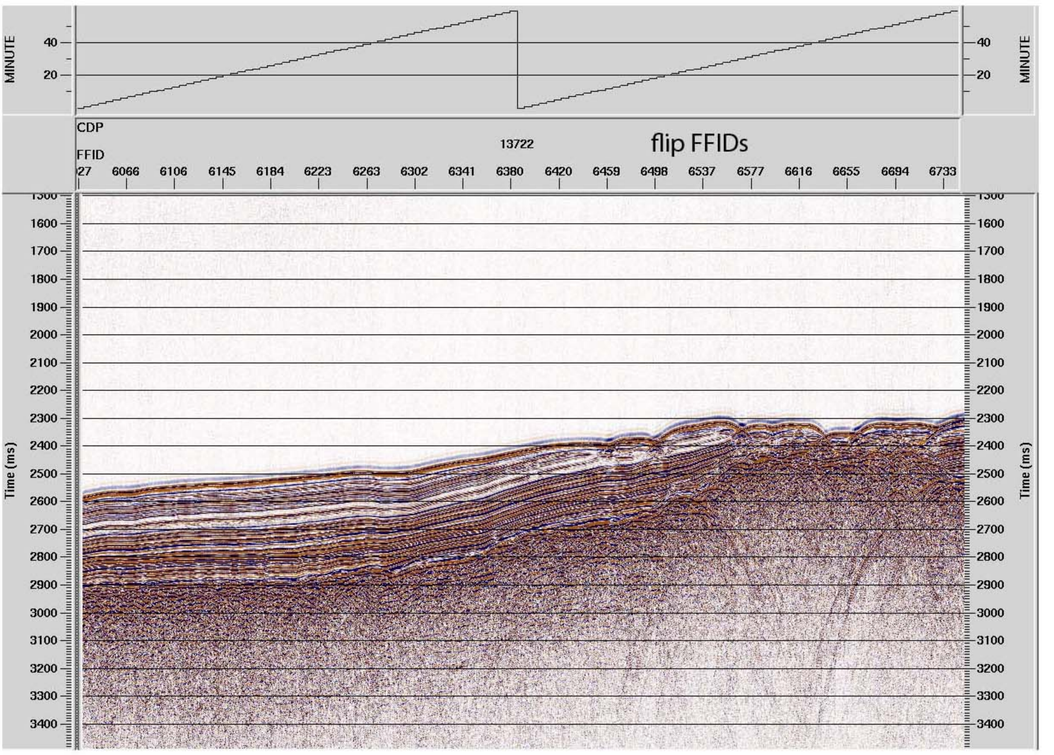
NW ← Direction of travel — SE

20:00 GMT

18:00 GMT

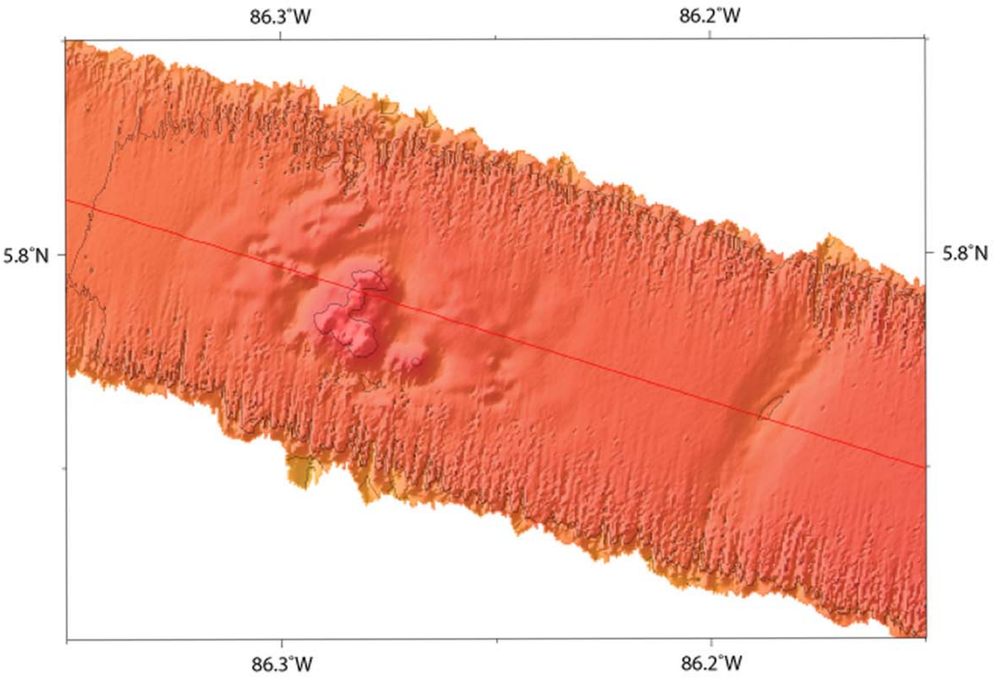


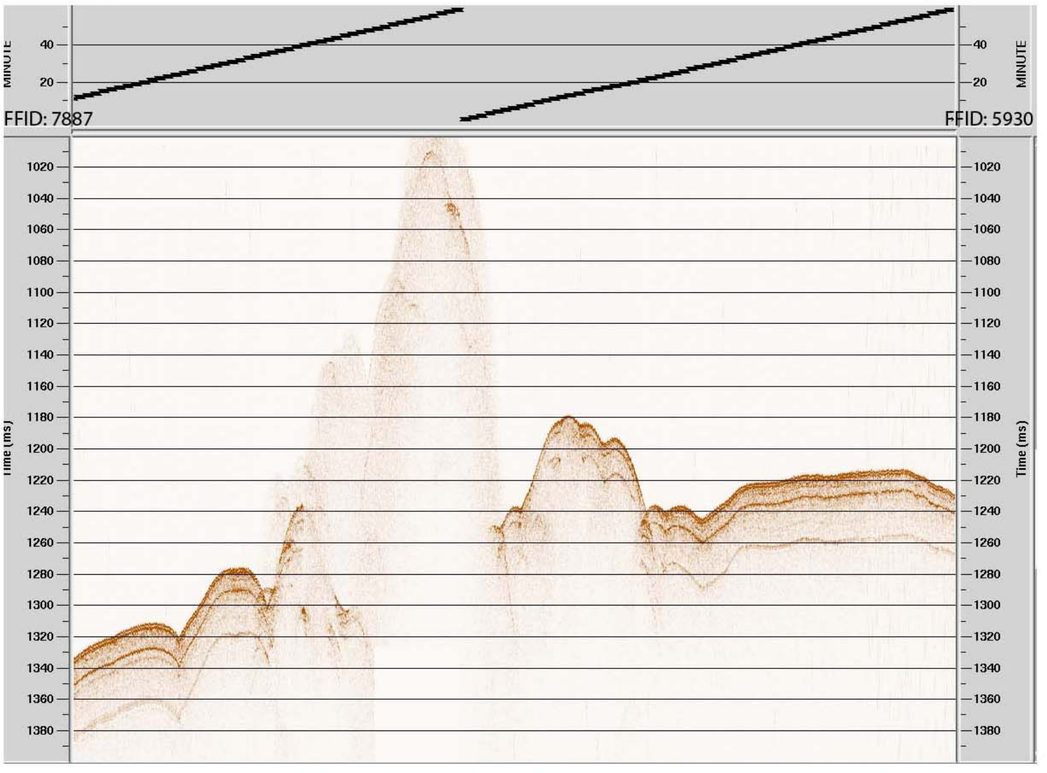


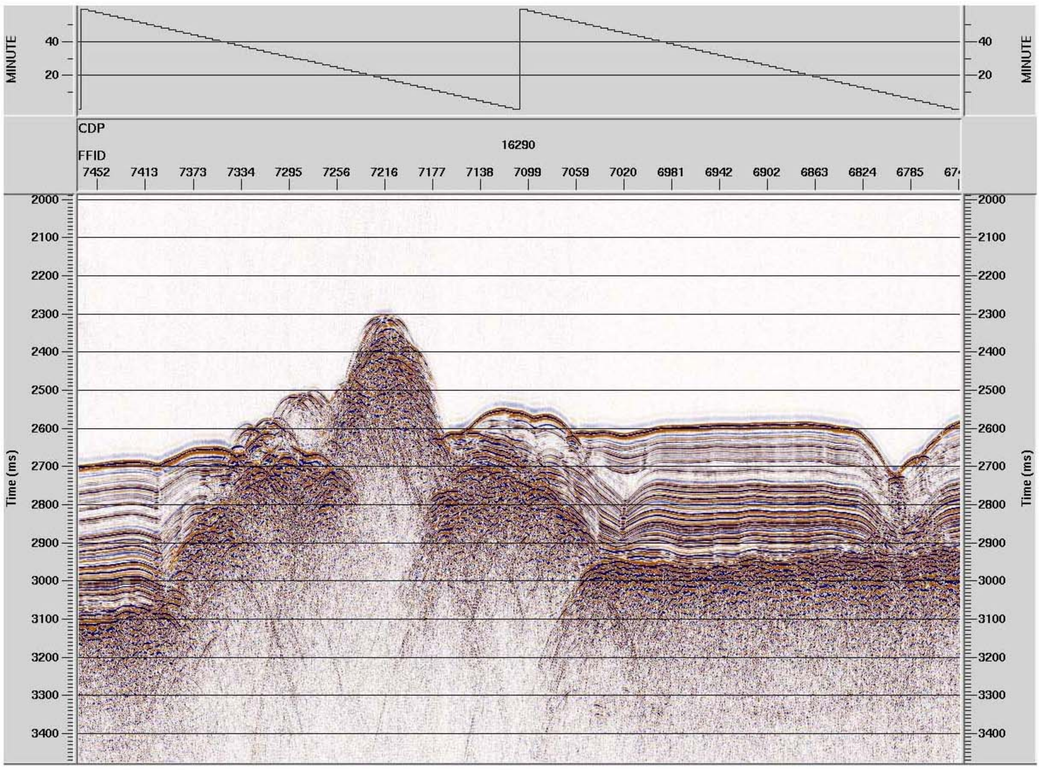


Cocos Ridge
Line 2
JD 294
20:00-22:00 GMT

22:00 GMT NW Direction of travel SE 20:00 GMT



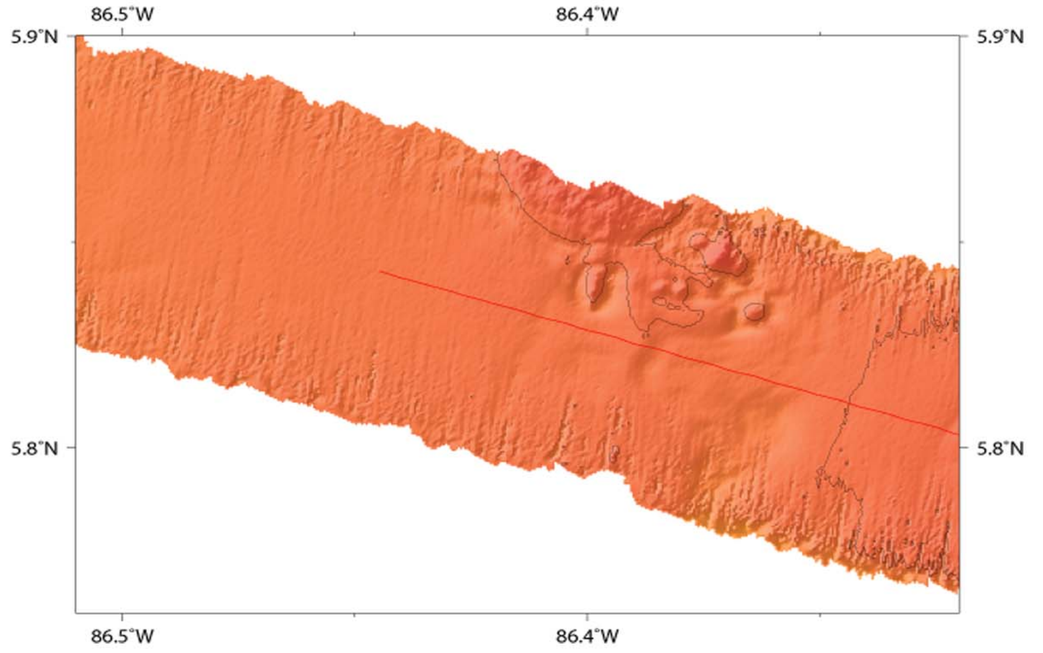


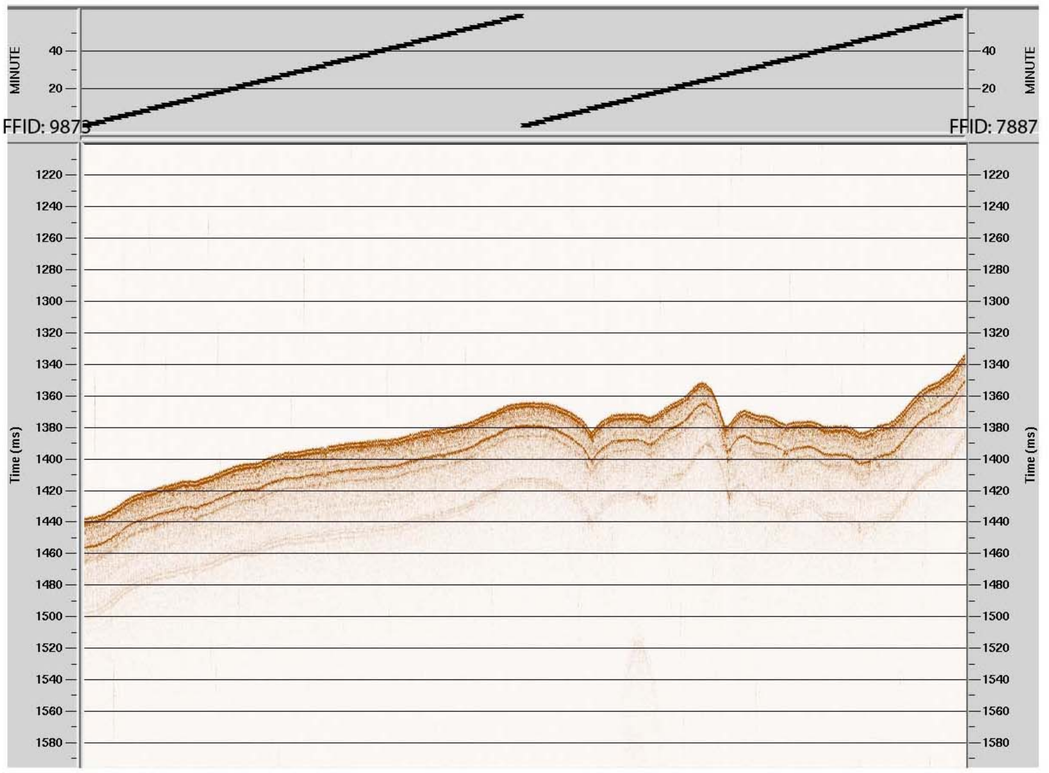


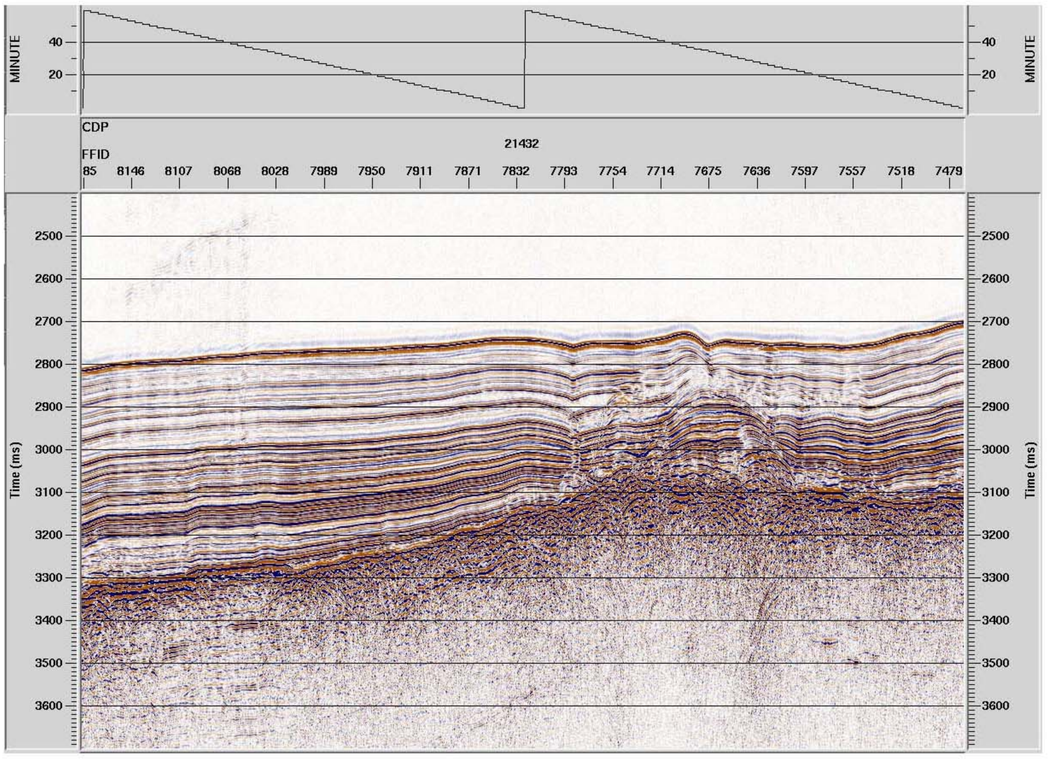
Cocos Ridge
Line 2
JD 294
22:00-00:00 GMT

NW ← Direction of travel → SE

00:00 GMT 22:00 GMT



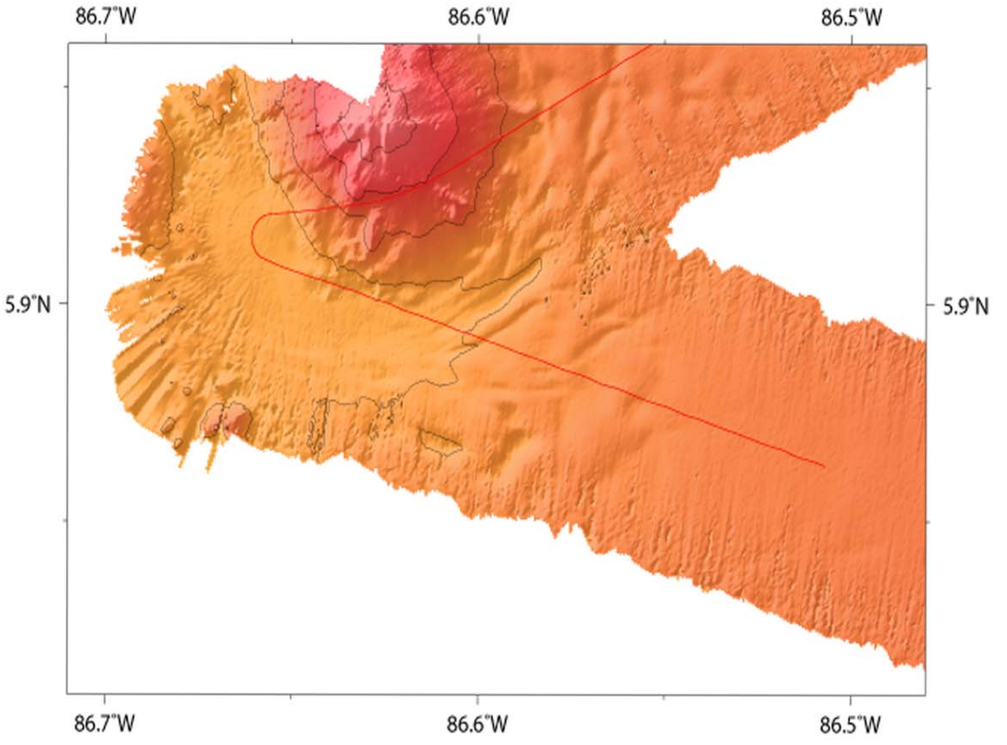


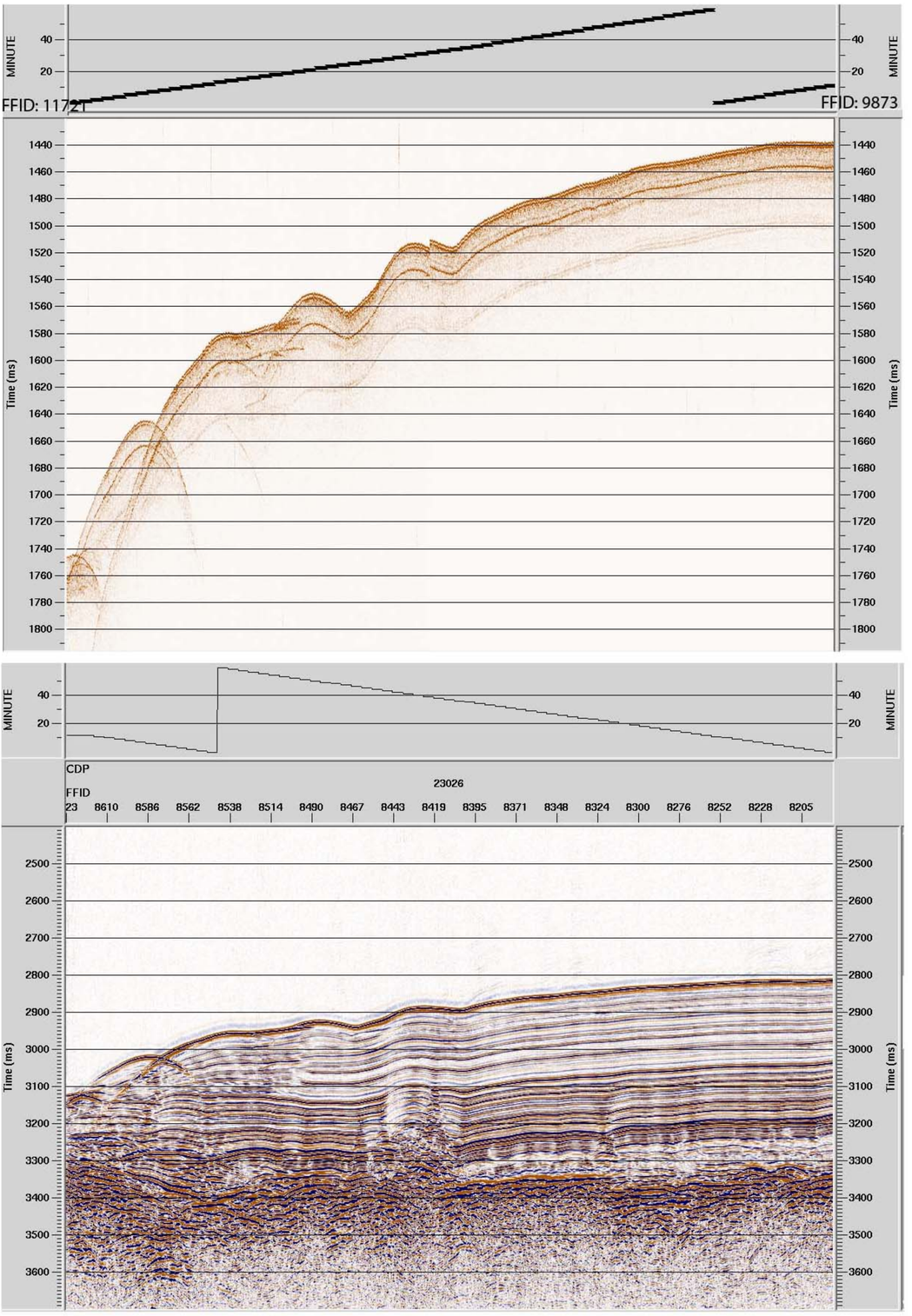


Cocos Ridge
Line 2
JD 295
00:00-01:12 GMT

NW Direction of travel SE

01:12 GMT 00:00 GMT



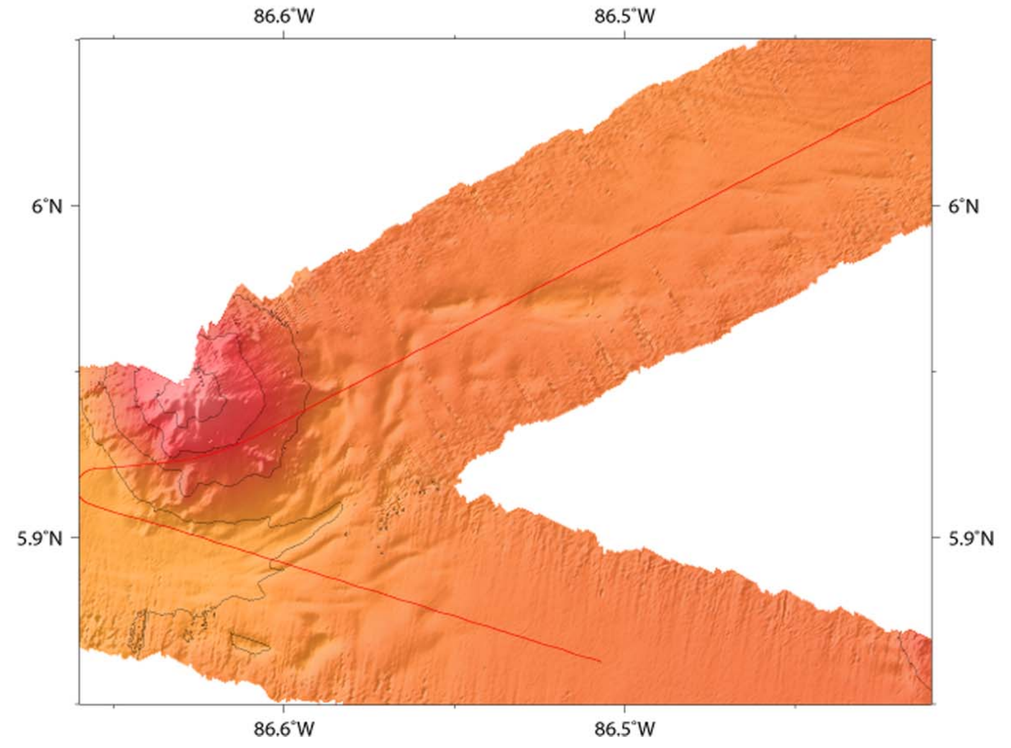


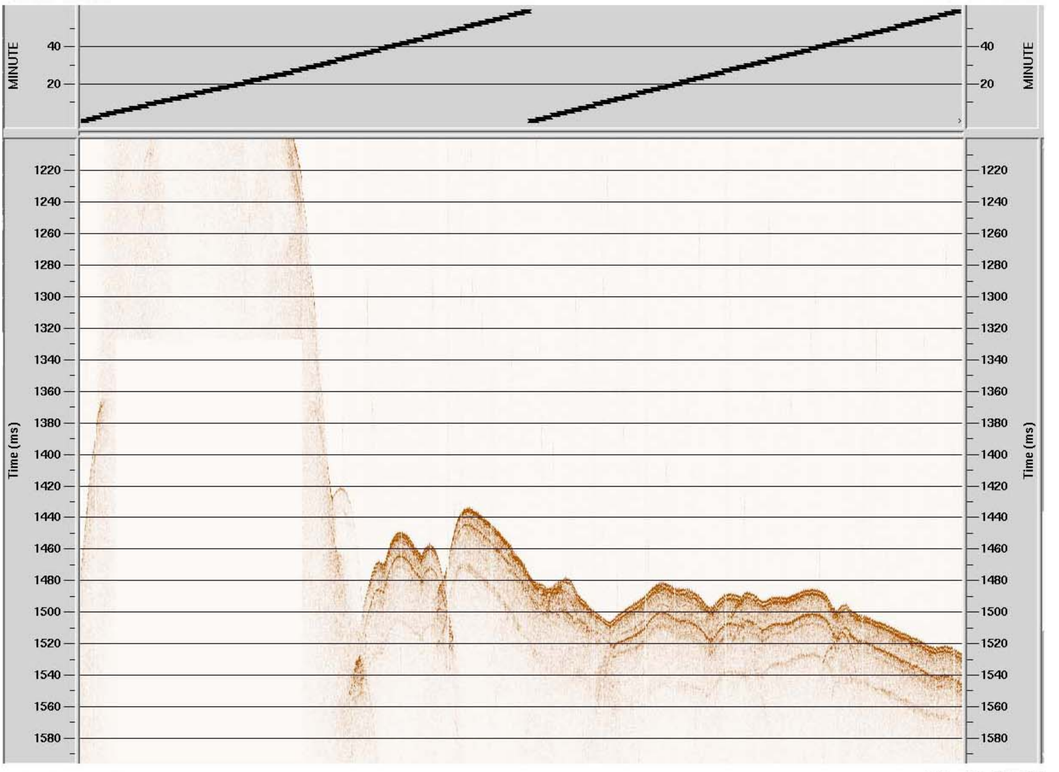
Cocos Ridge
LIne 3
JD: 295
02:00-04:00 GMT

NW Direction of travel SE

02:00 GMT

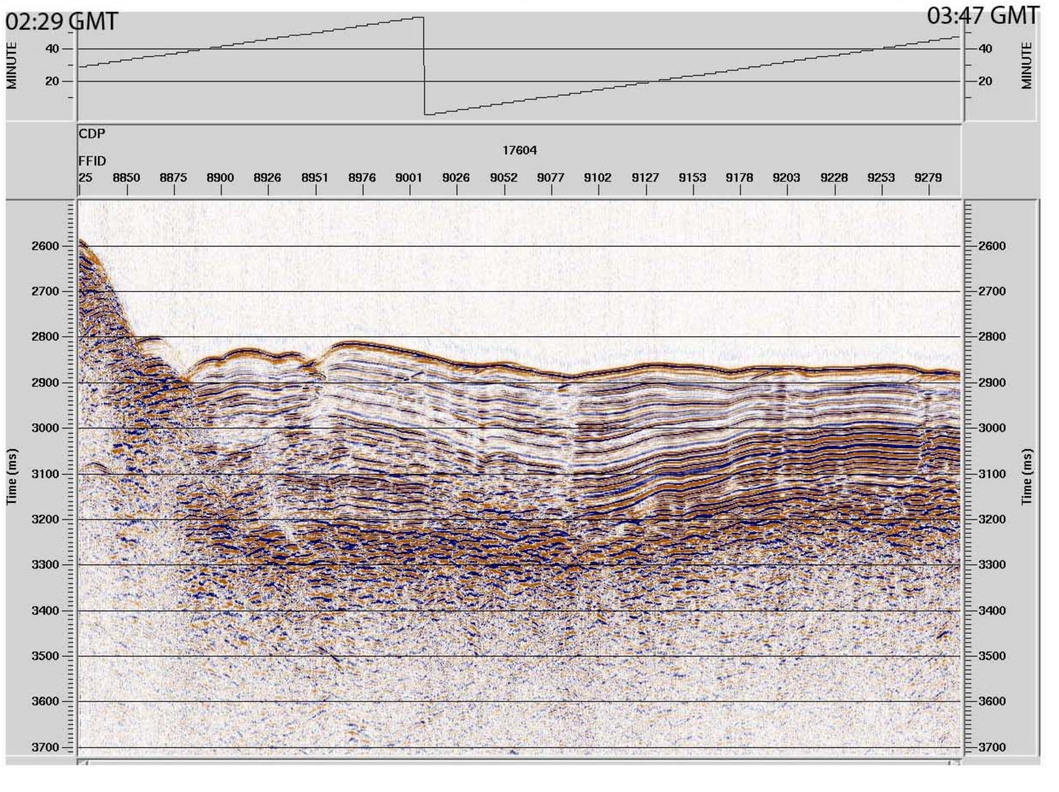
04:00 GMT





02:29 GMT

03:47 GMT

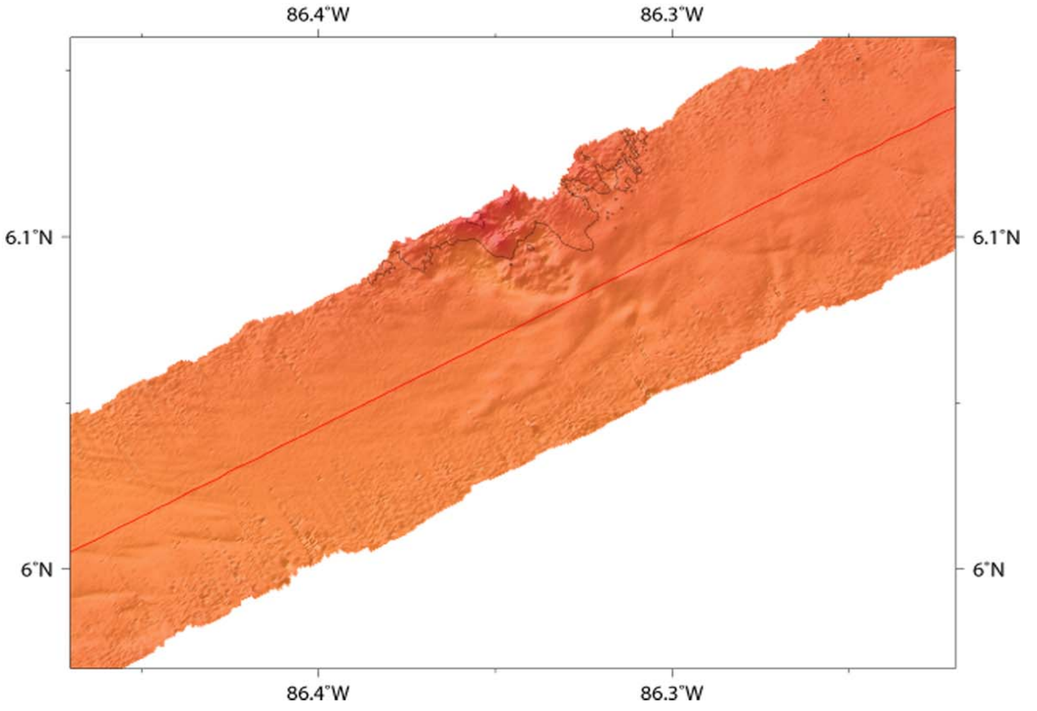


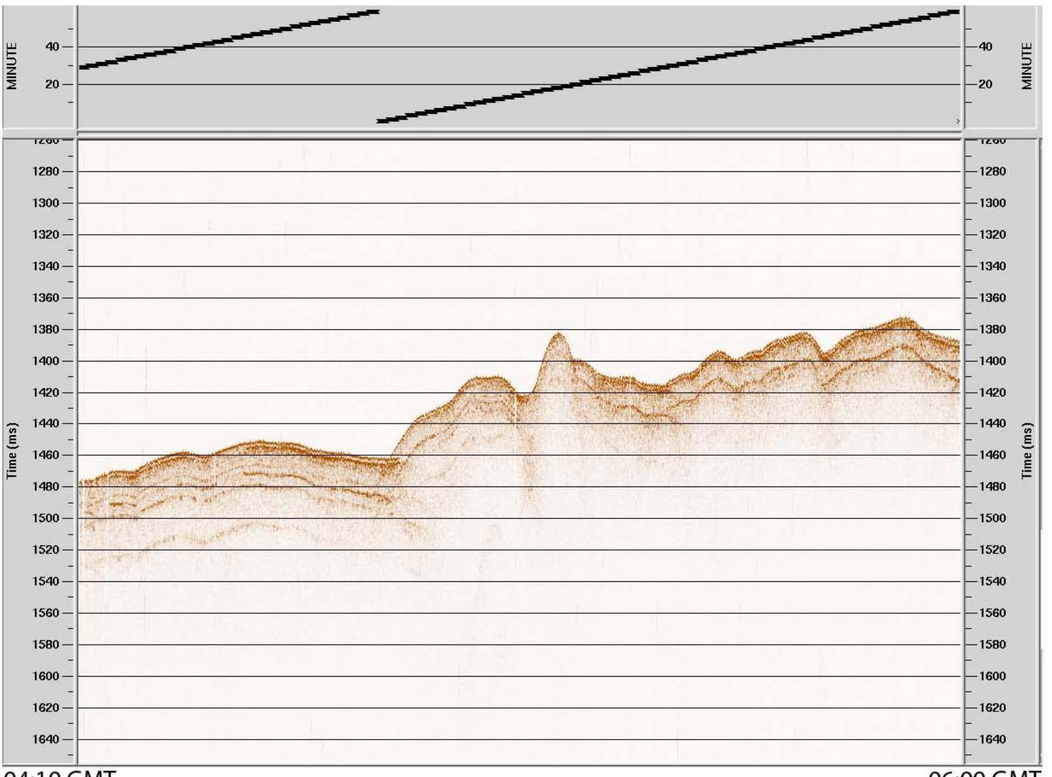
Cocos Ridge
Line 3
JD 295
0400-0600 GMT

04:00 GMT

NW — Direction of travel → SE

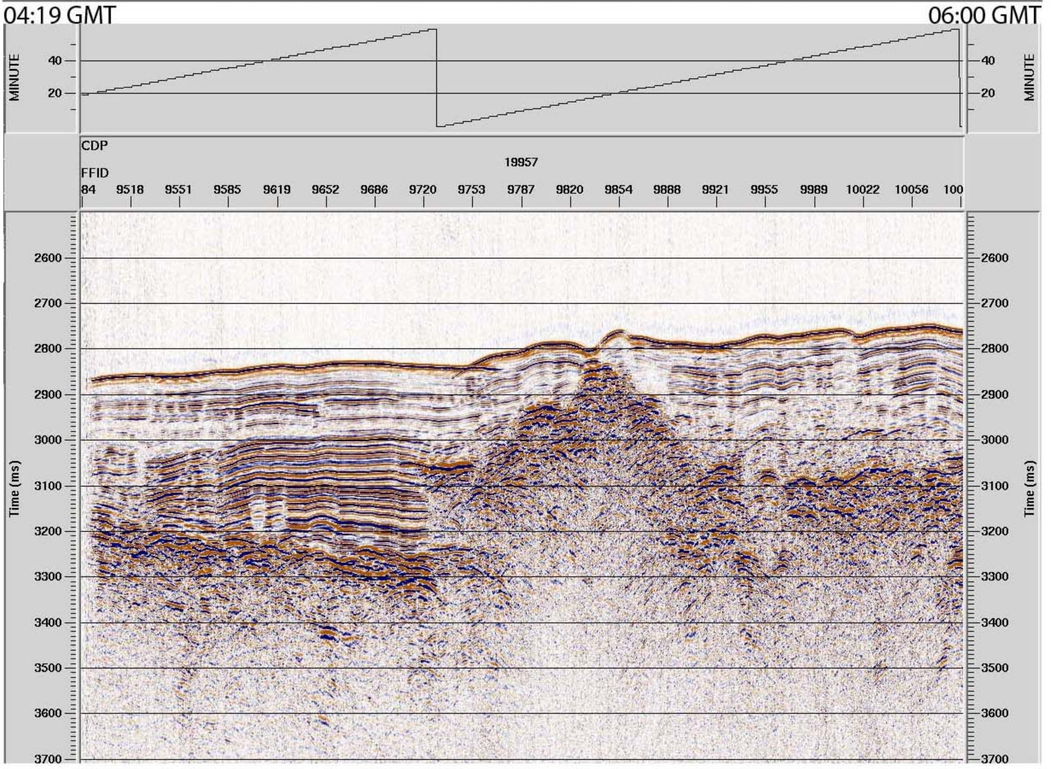
06:00 GMT





04:19 GMT

06:00 GMT

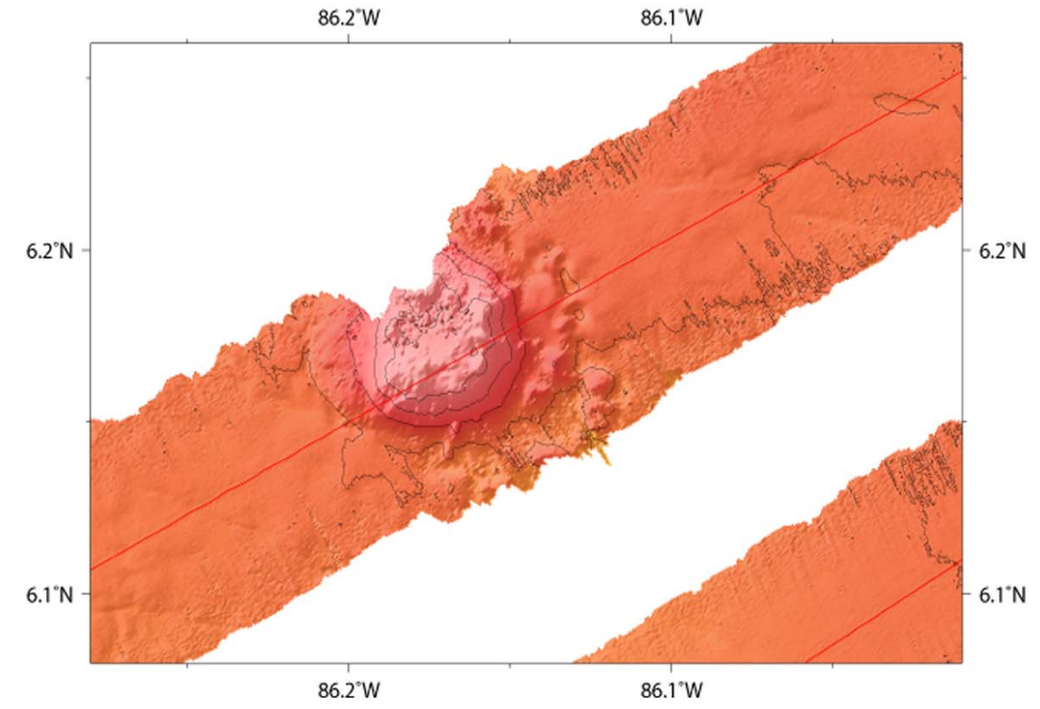


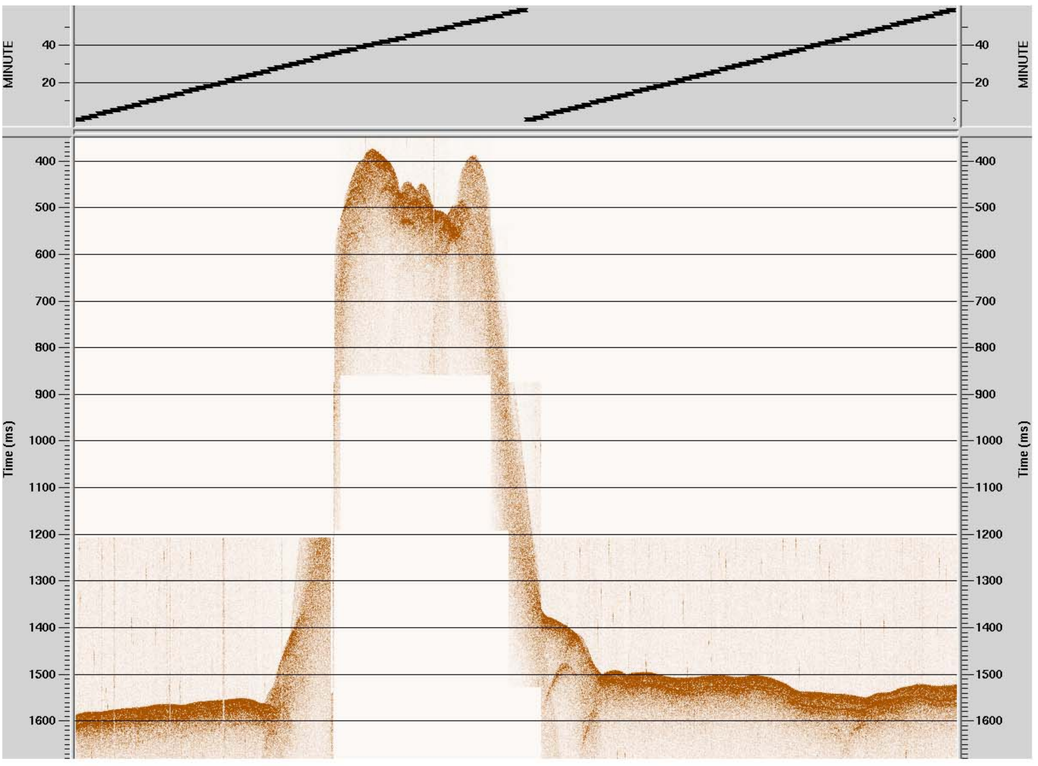
Cocos Ridge
Line 3
JD 295
06:00-08:00 GMT

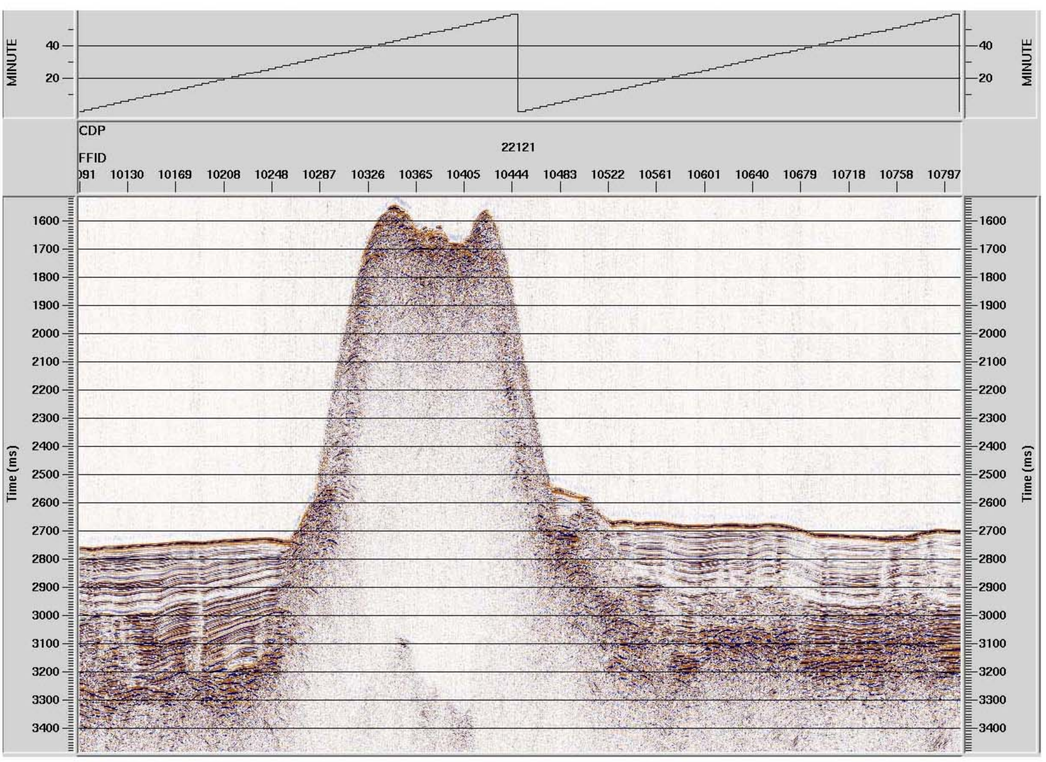
NW Direction of travel SE

06:00GMT

08:00 GMT





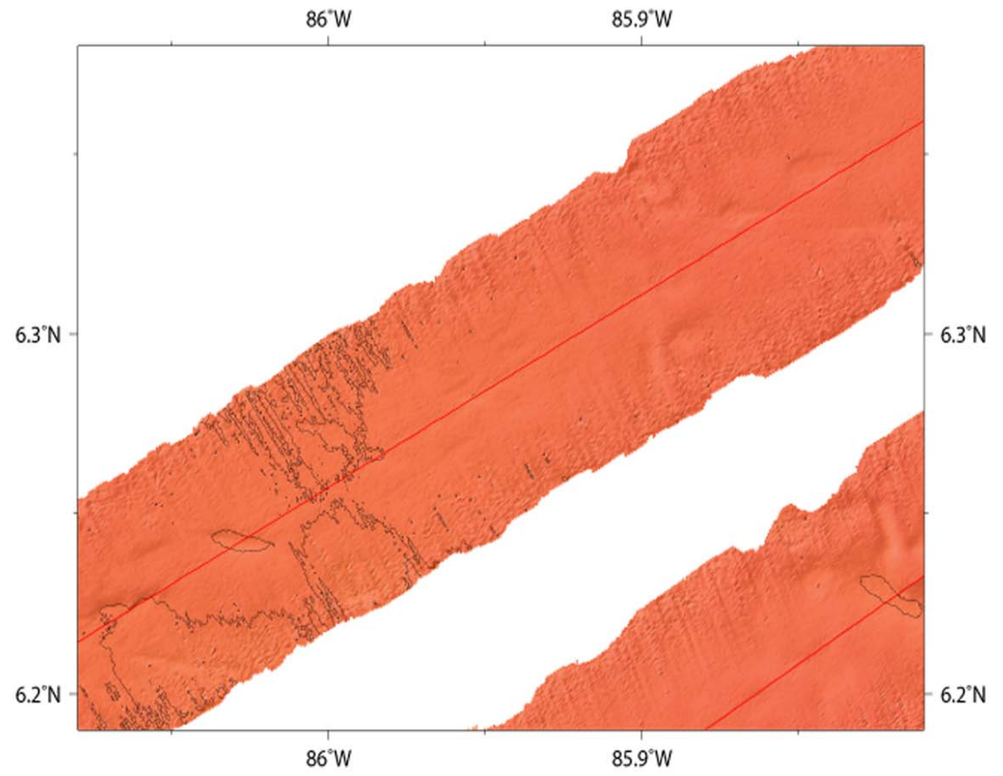


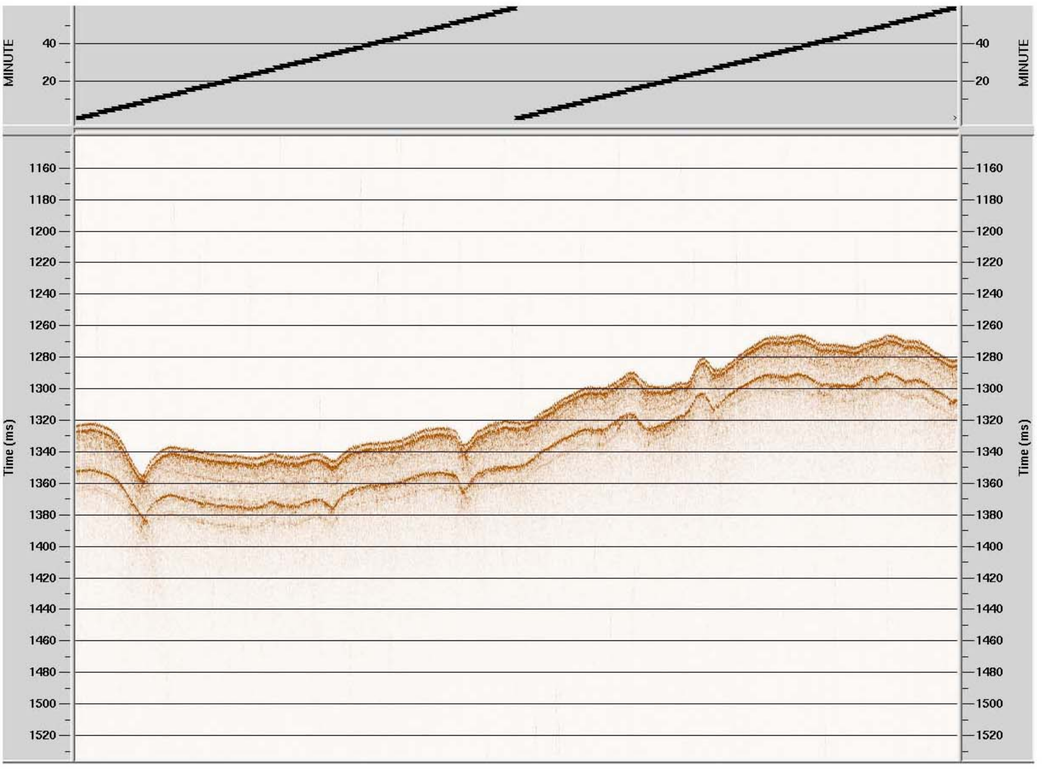
Cocos Ridge
Line 3
JD 295
08:00-10:00 GMT

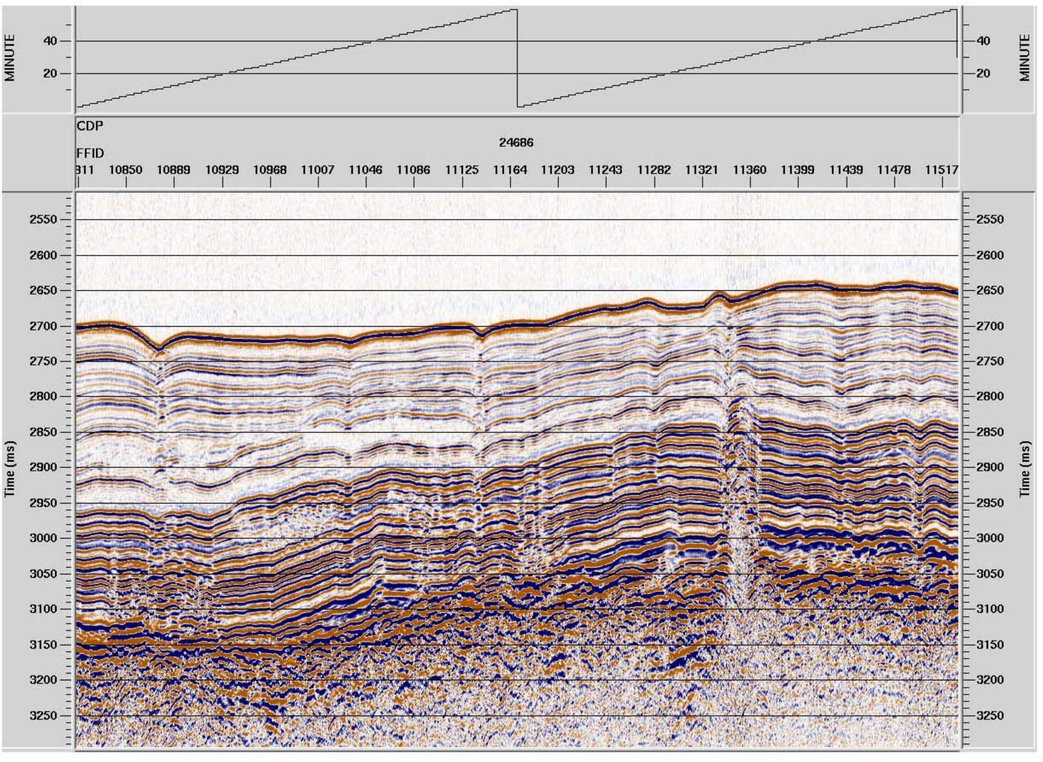
08:00 GMT

NW — Direction of travel → SE

10:00 GMT

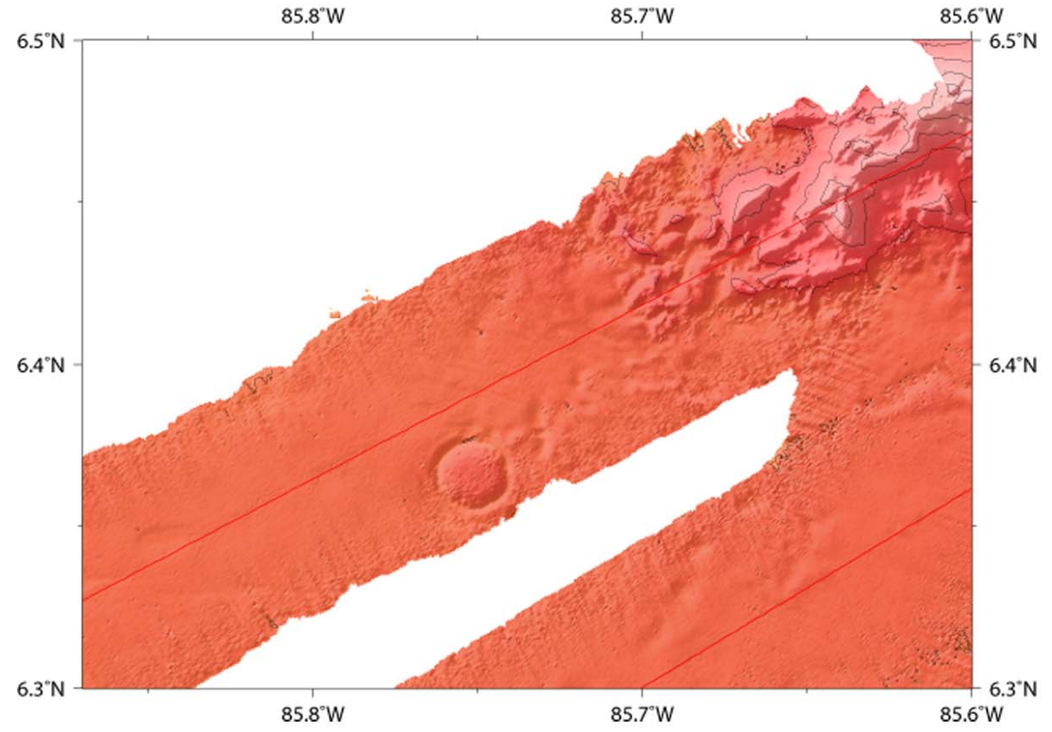


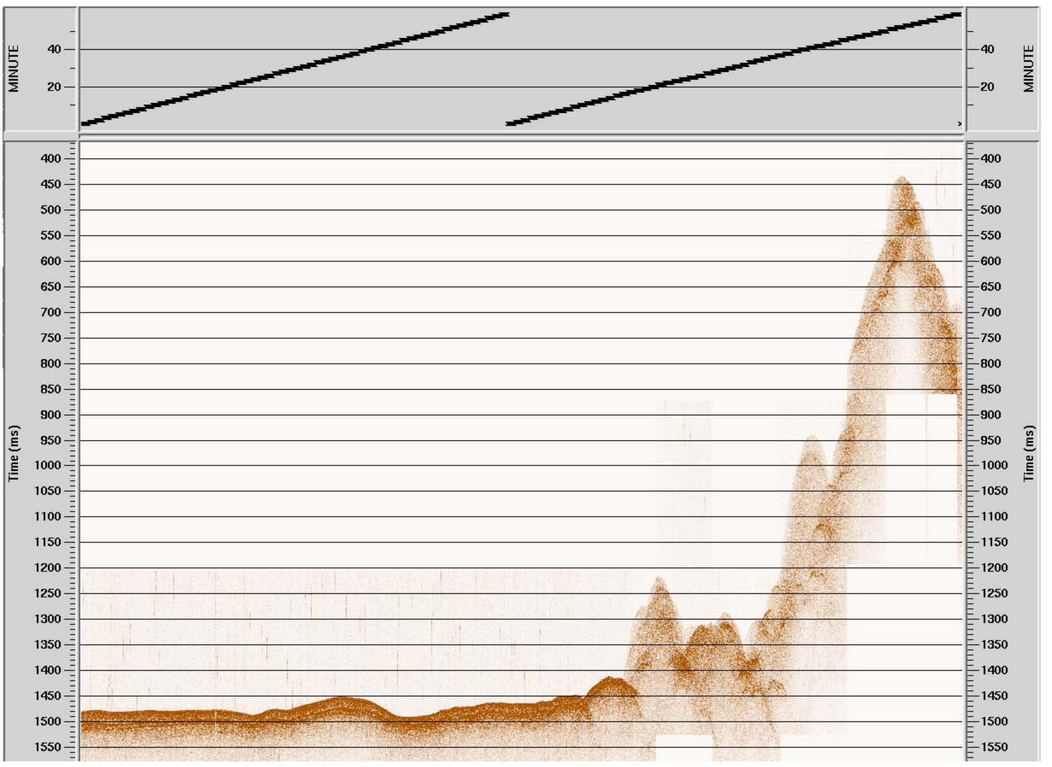


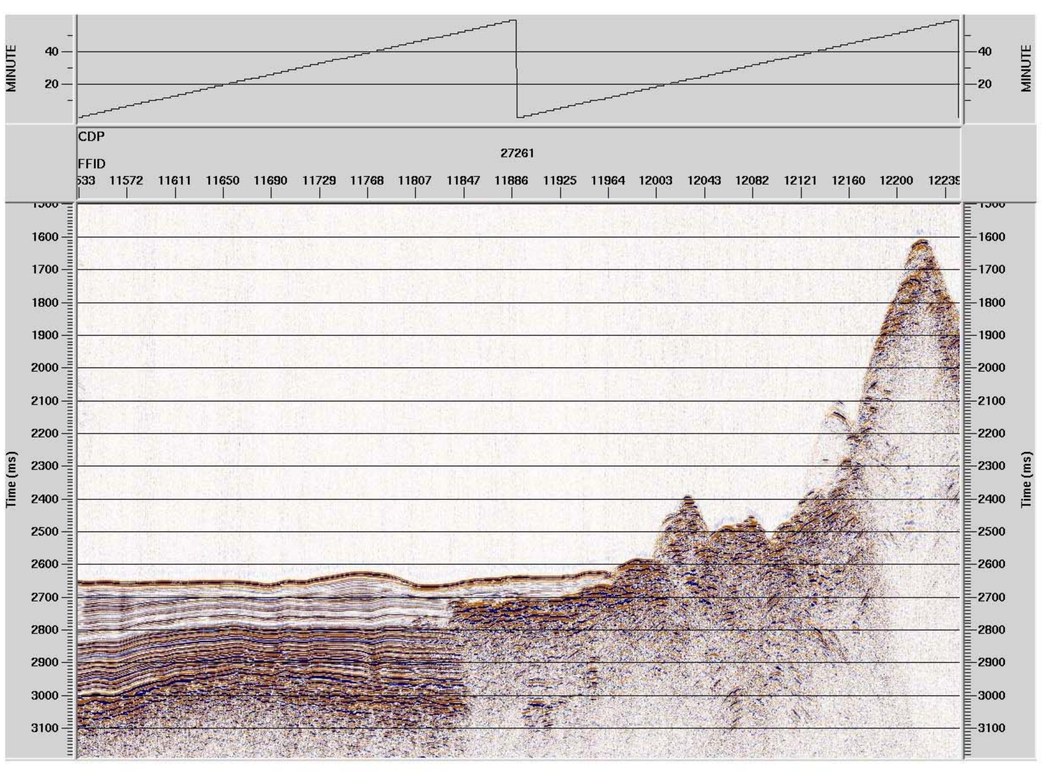


Cocos Ridge
Line 3
JD 295
10:00-12:00 GMT

10:00 GMT NW Direction of travel SE 12:00 GMT





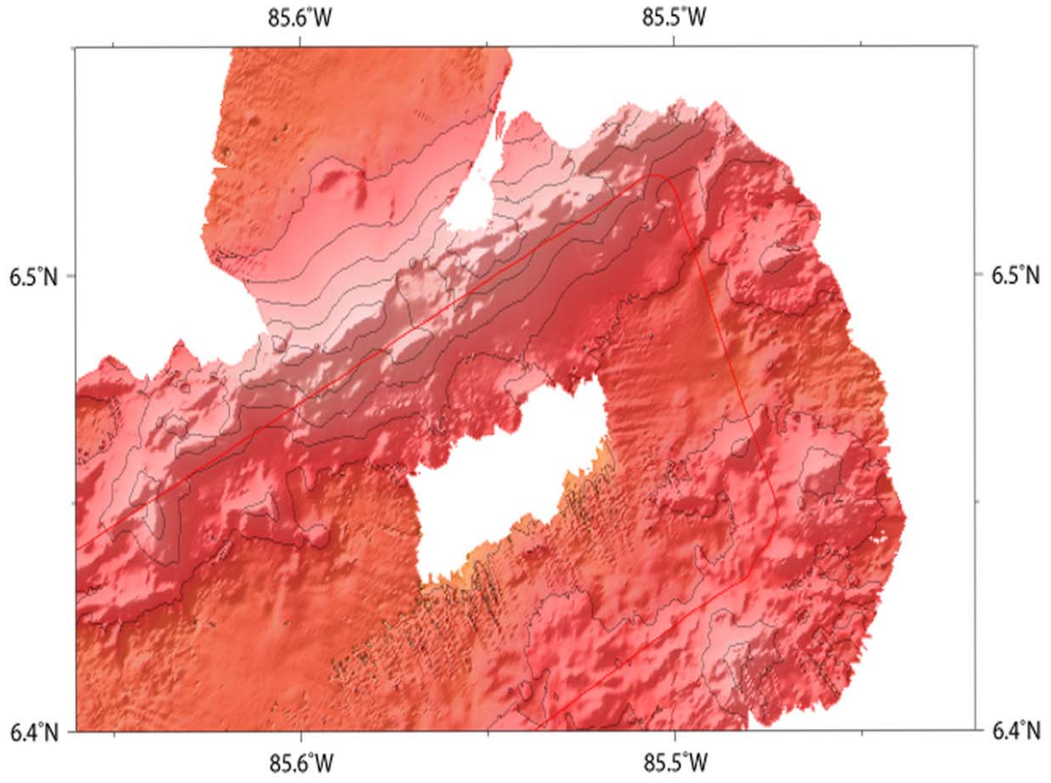


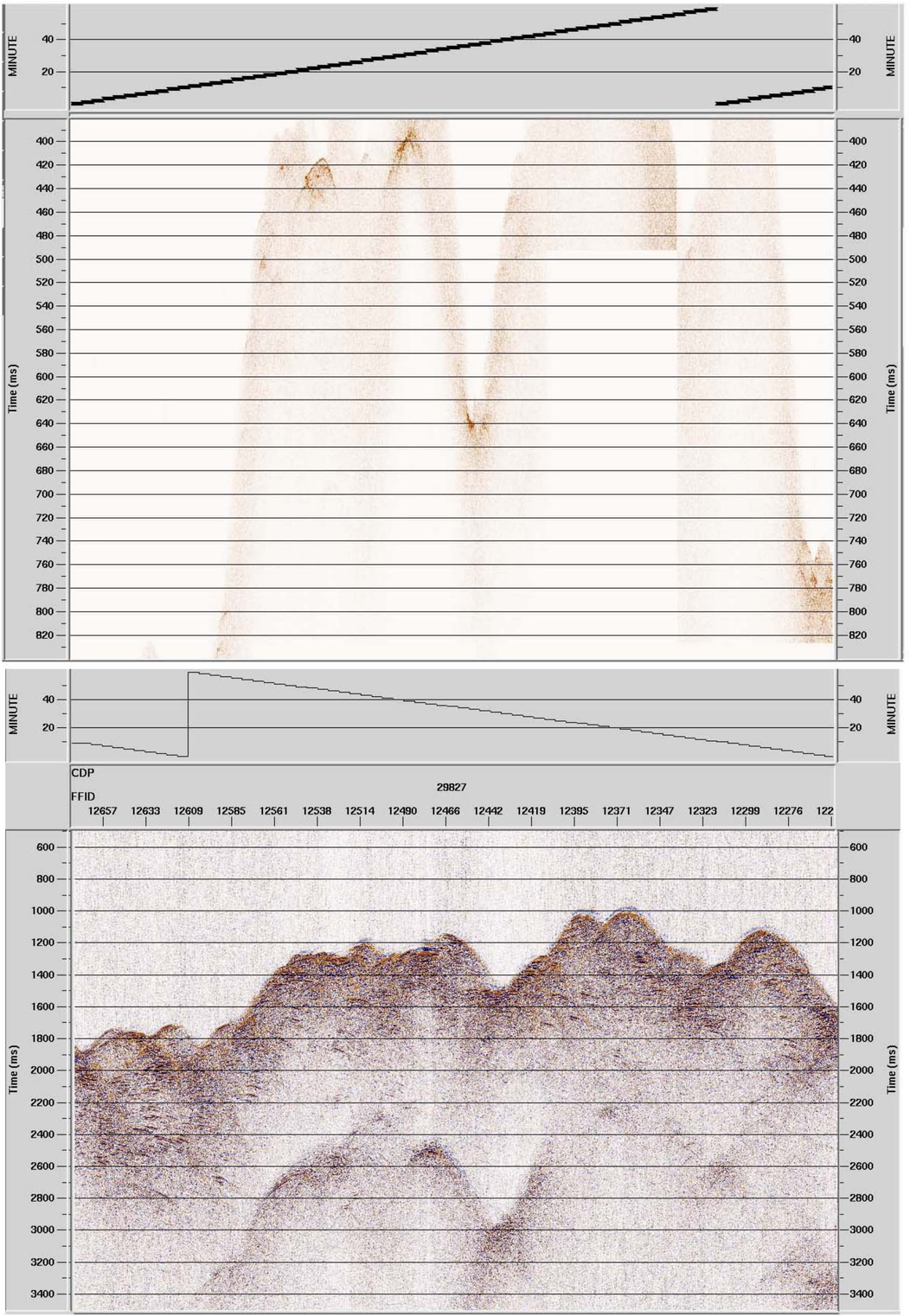
Cocos Ridge
Line 3
JD 295
12:00-13:08 GMT

NW — Direction of travel → SE

12:00 GMT

13:08 GMT



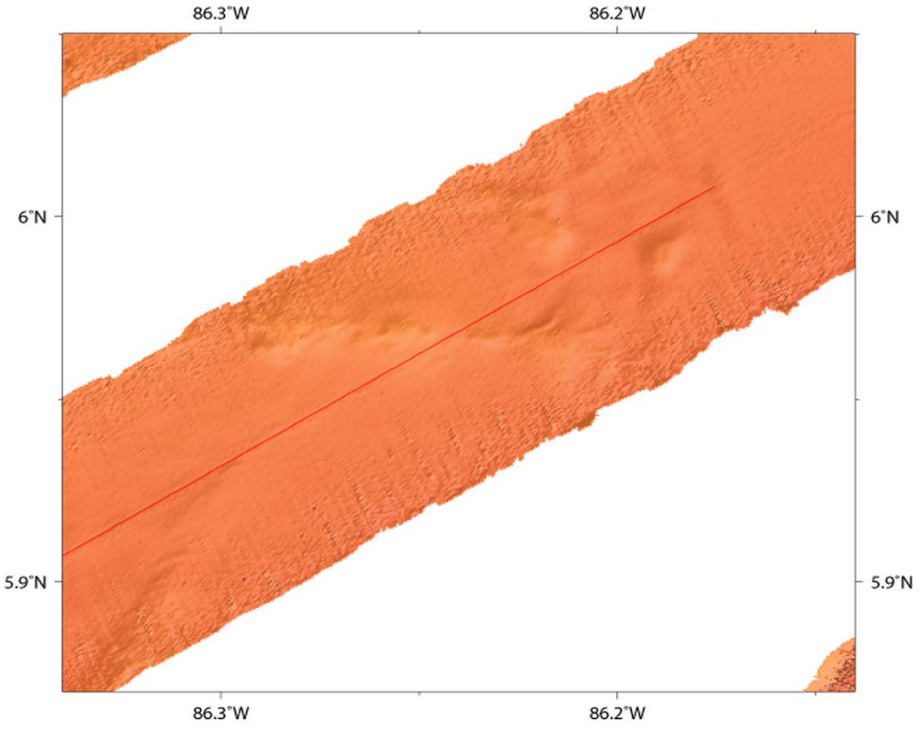


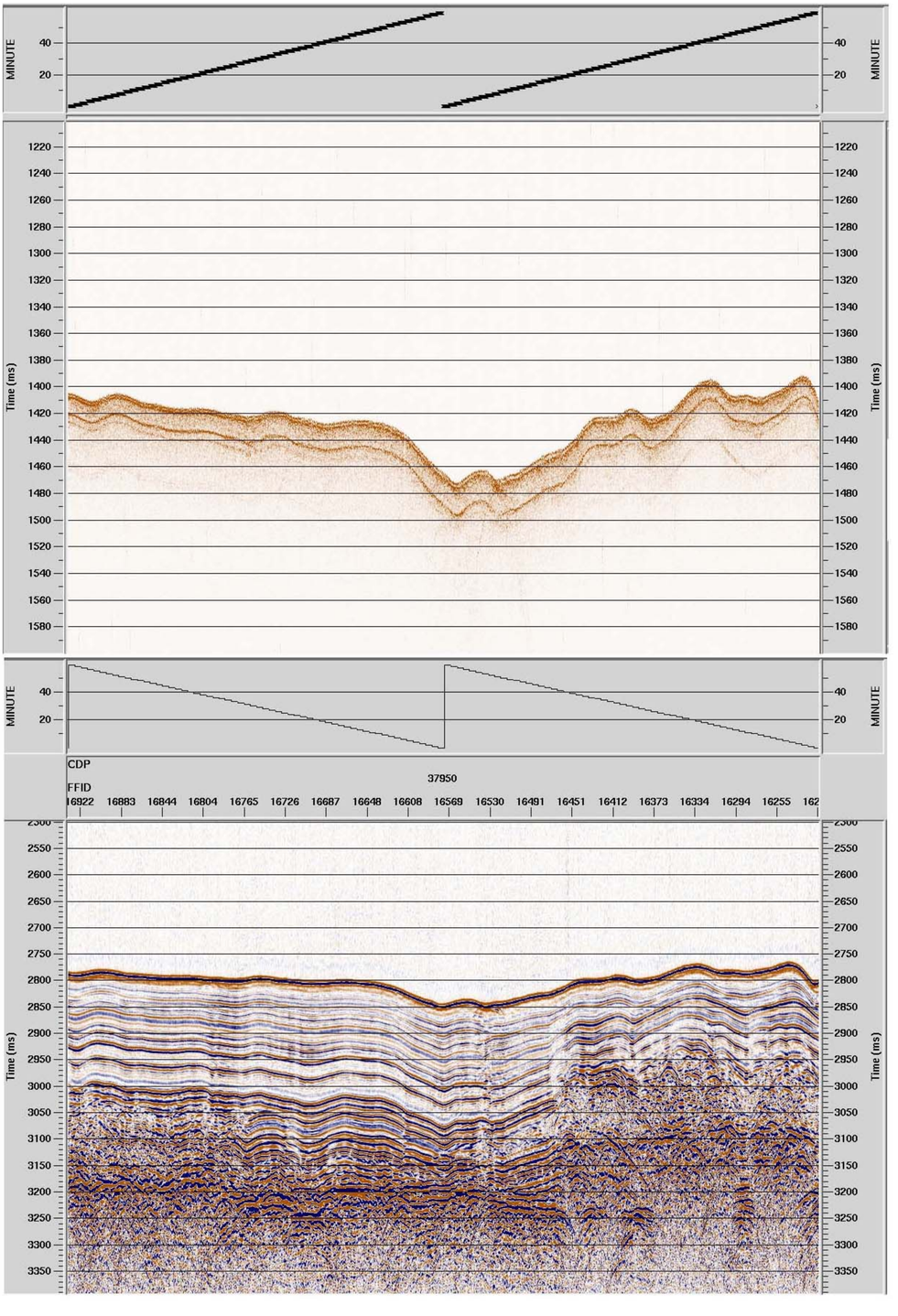
Cocos Ridge
Line 4
JD 296
00:00-02:00 GMT

NW ← Direction of travel → SE

02:00 GMT

00:00 GMT



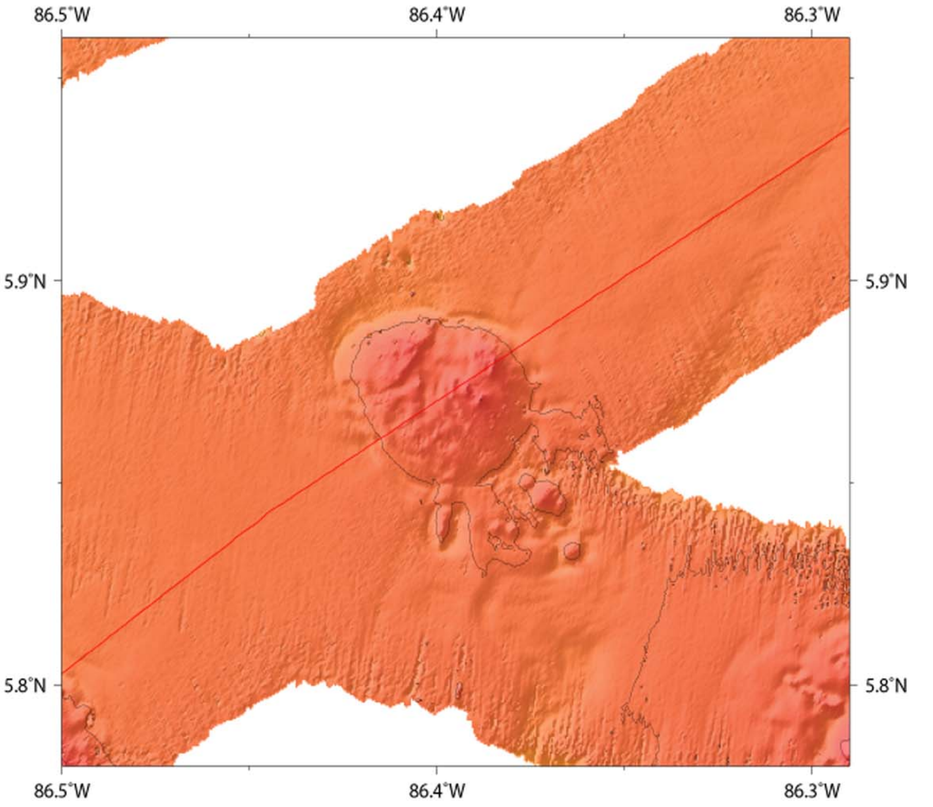


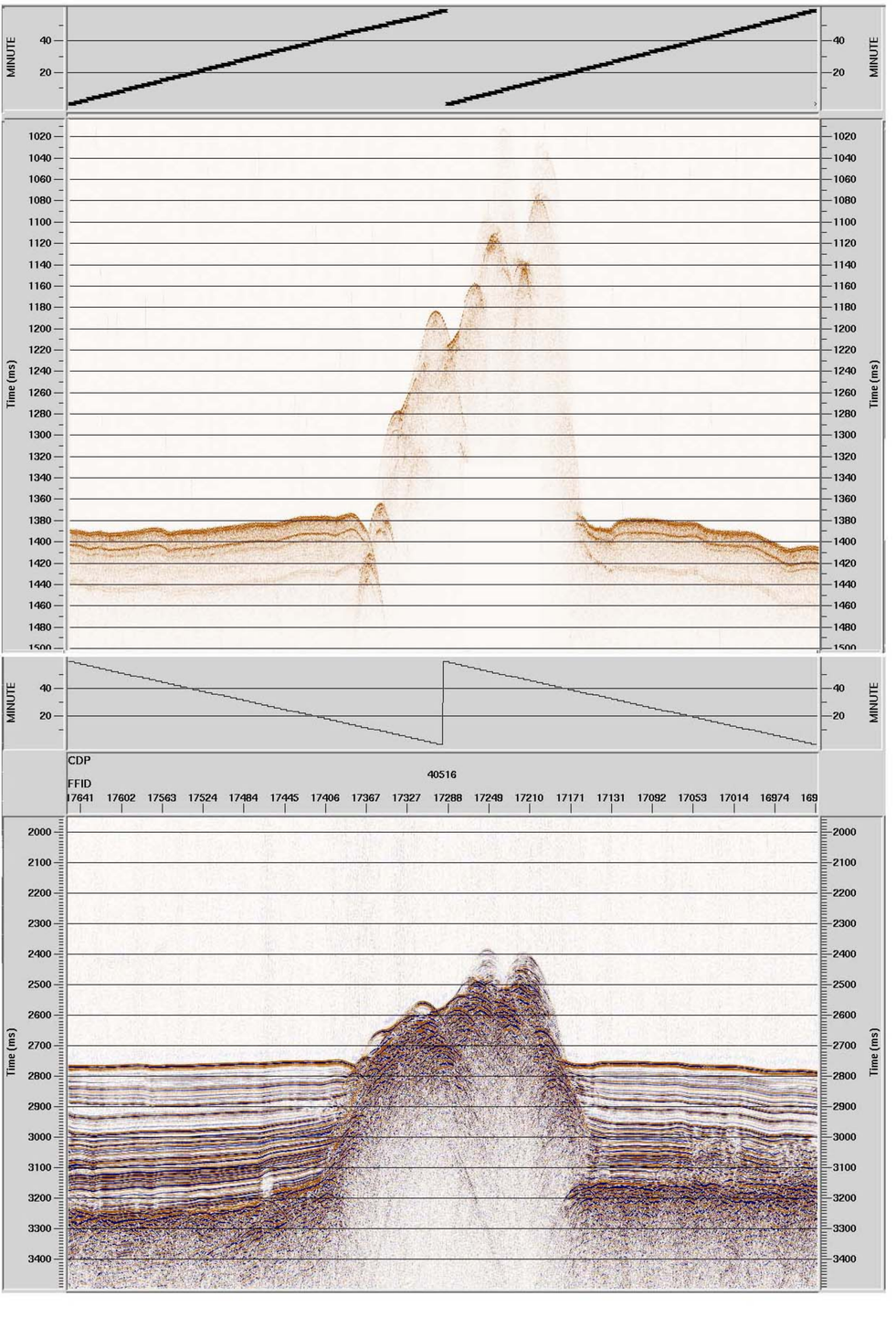
Cocos Ridge
Line 4
JD 296
02:00-04:00 GMT

NW ← Direction of travel → SE

04:00 GMT

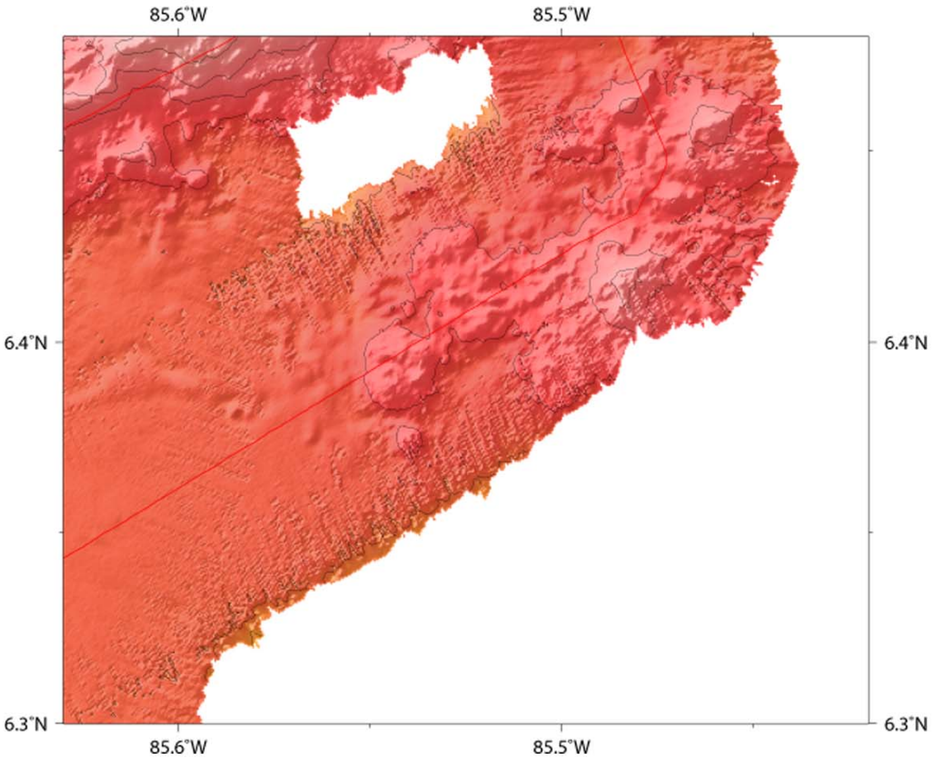
02:00 GMT

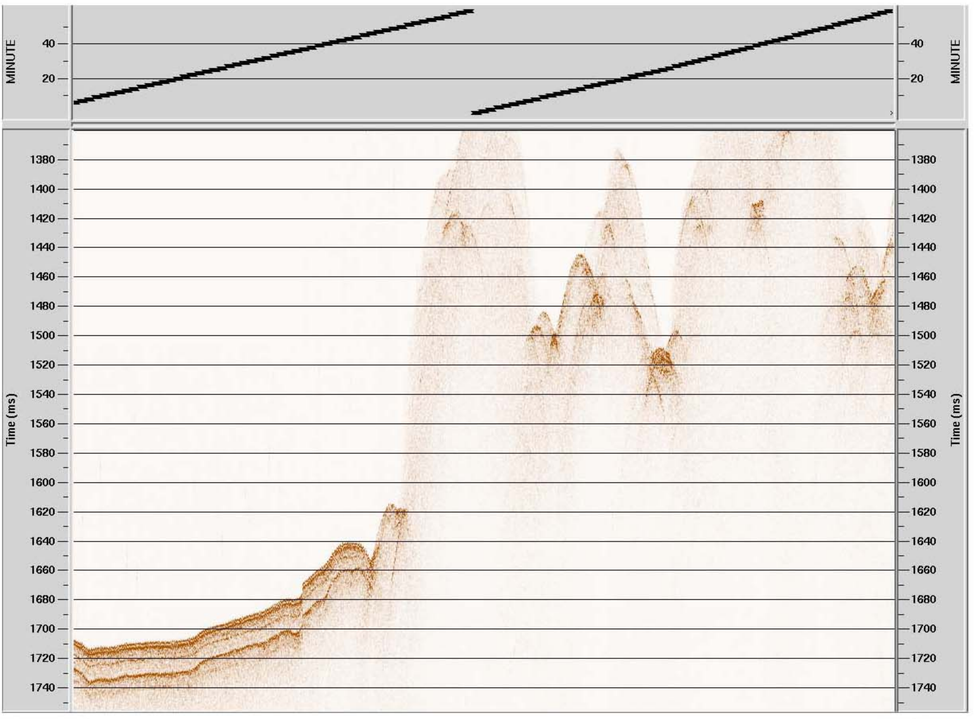




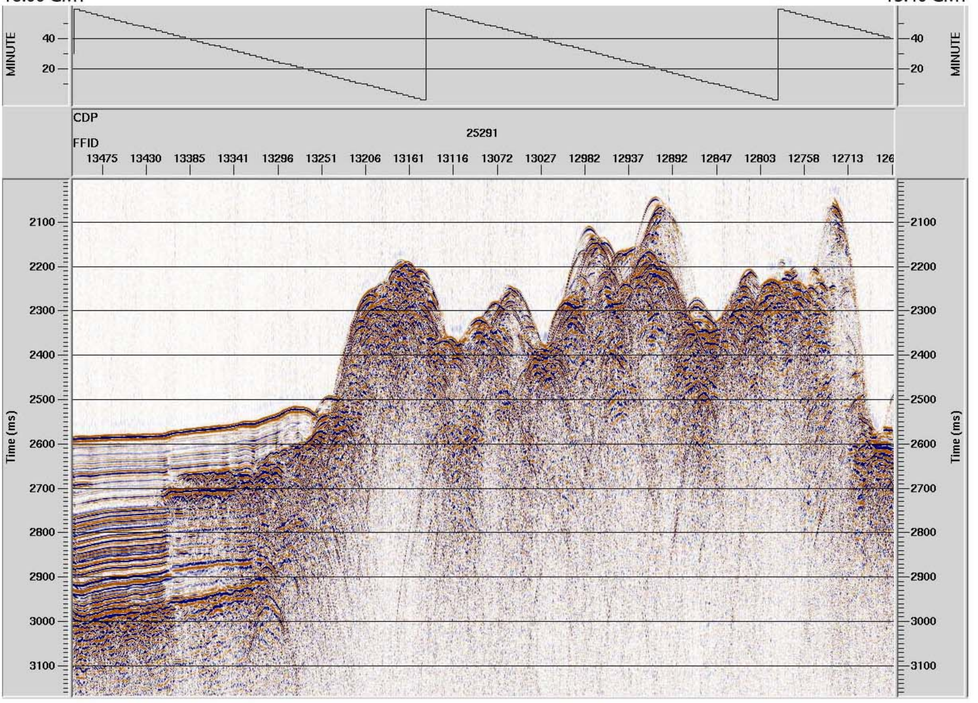
Cocos Ridge
Line 4
JD 295
14:00-16:00GMT

16:00 GMT — NW ← Direction of travel → SE — 14:00 GMT





16:00 GMT — 13:40 GMT

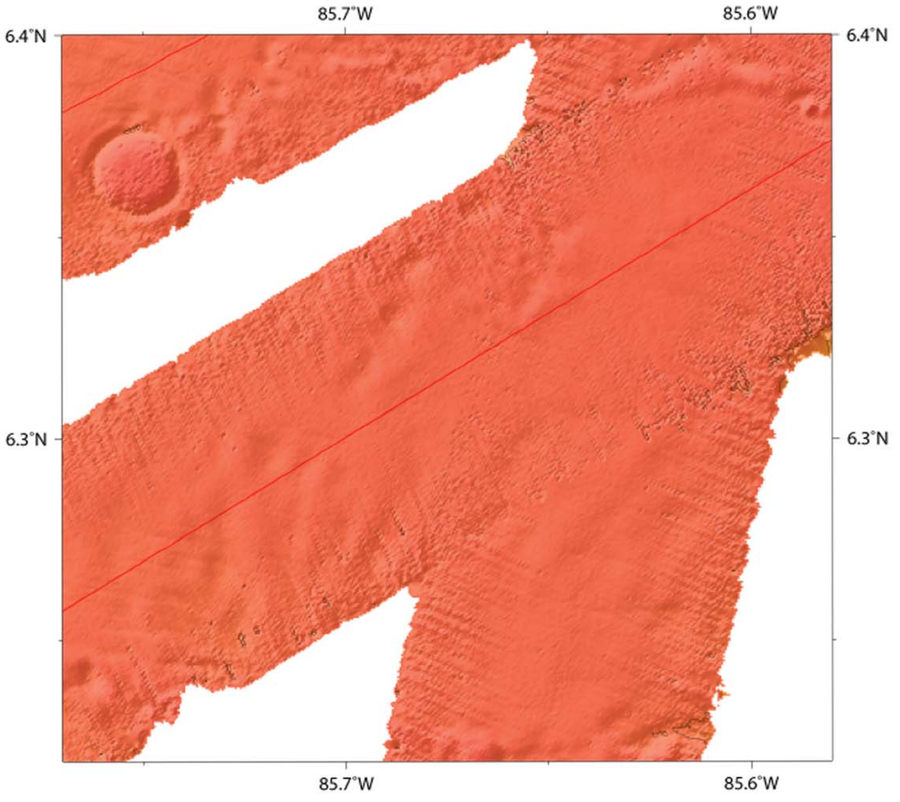


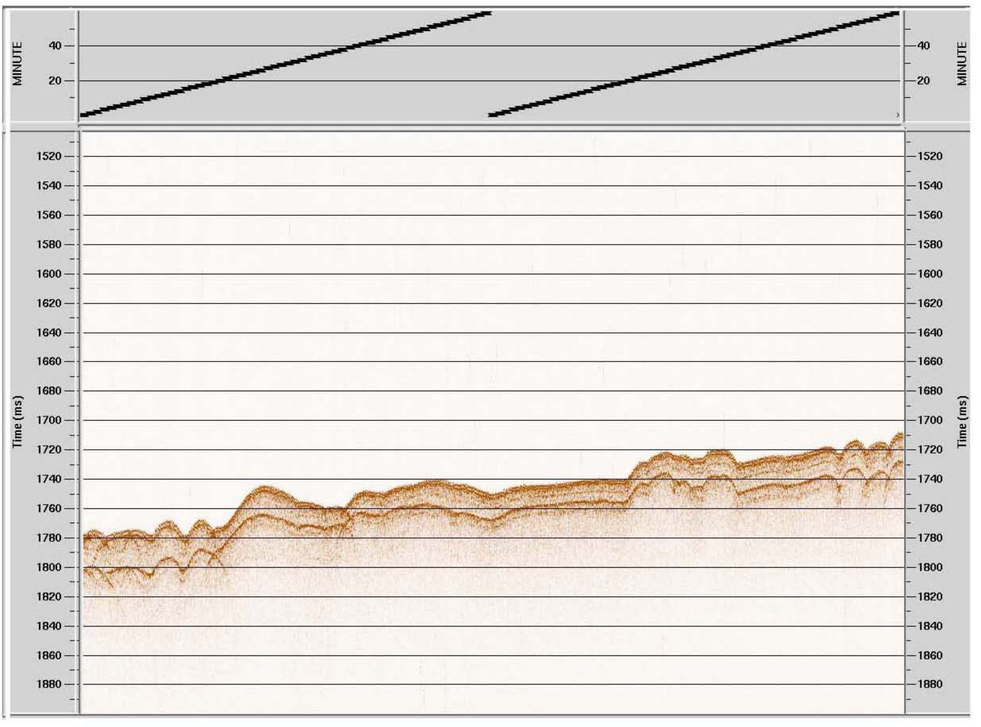
Cocos Ridge
Line 4
JD 295
16:00-18:00 GMT

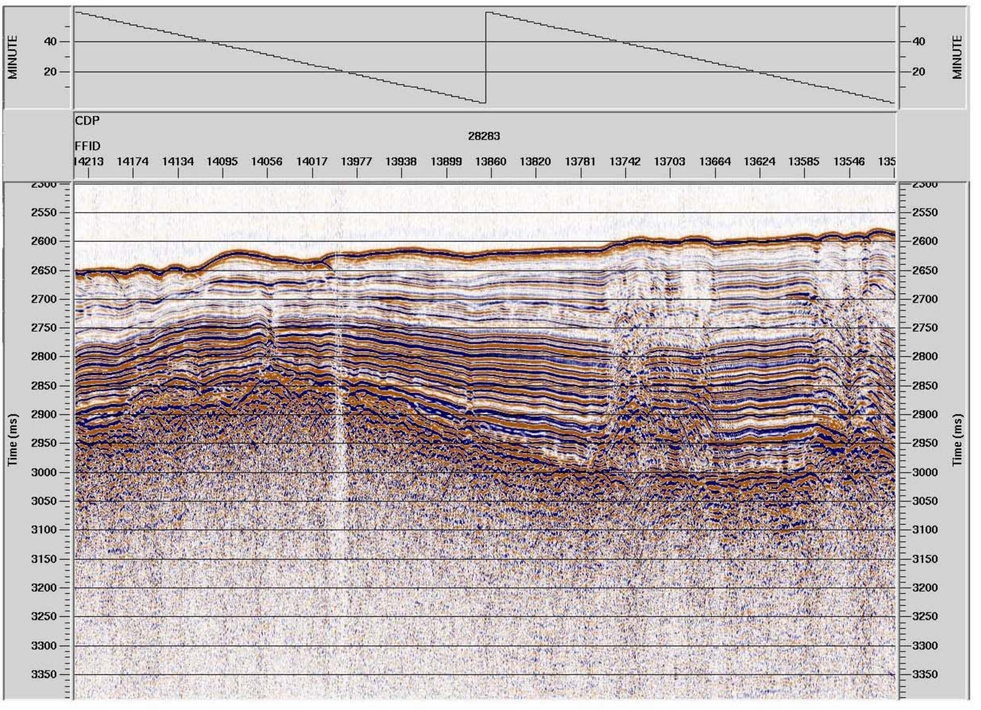
NW ← Direction of travel → SE

18:00 GMT

16:00 GMT



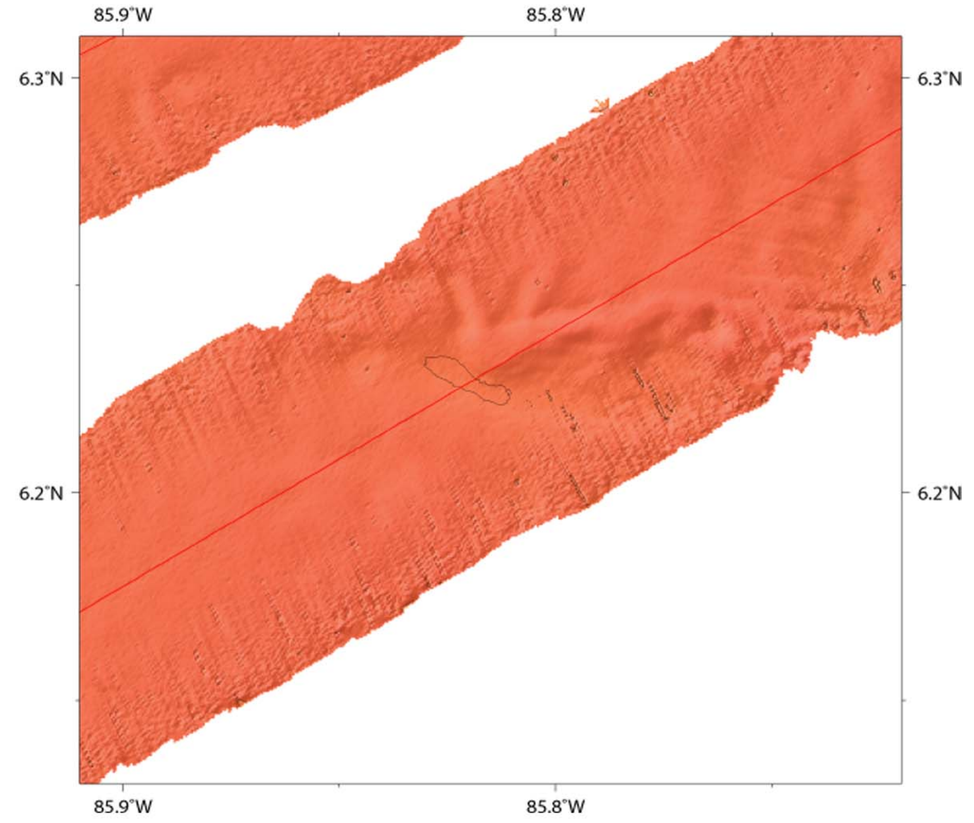


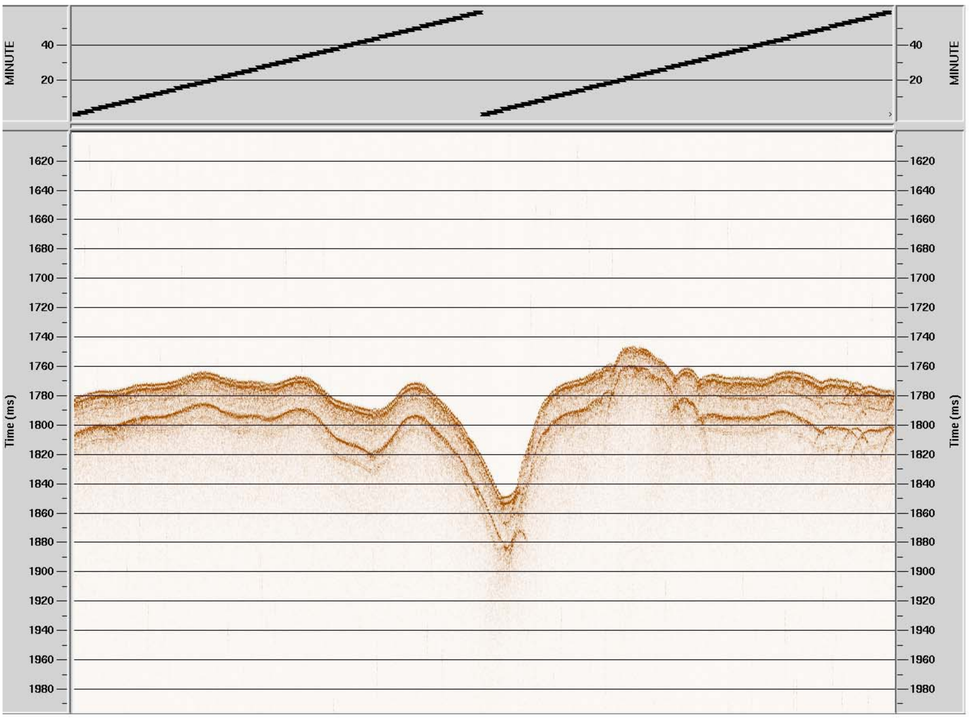


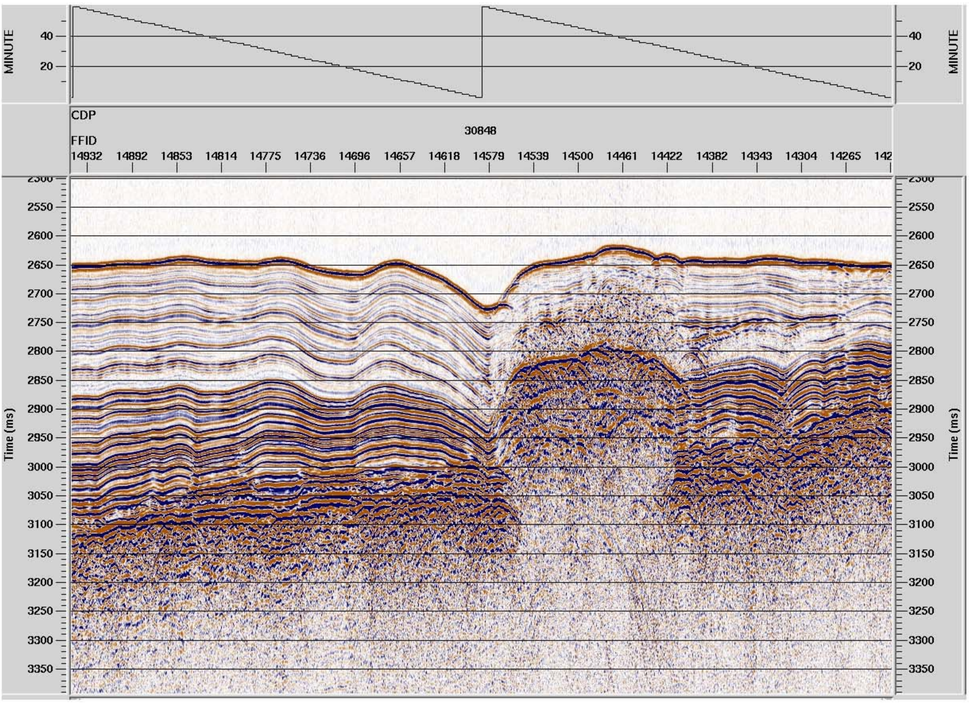
Cocos Ridge
Line 4
JD 295
18:00-20:00 GMT

Direction of travel
NW ← → SE

20:00 GMT 18:00 GMT





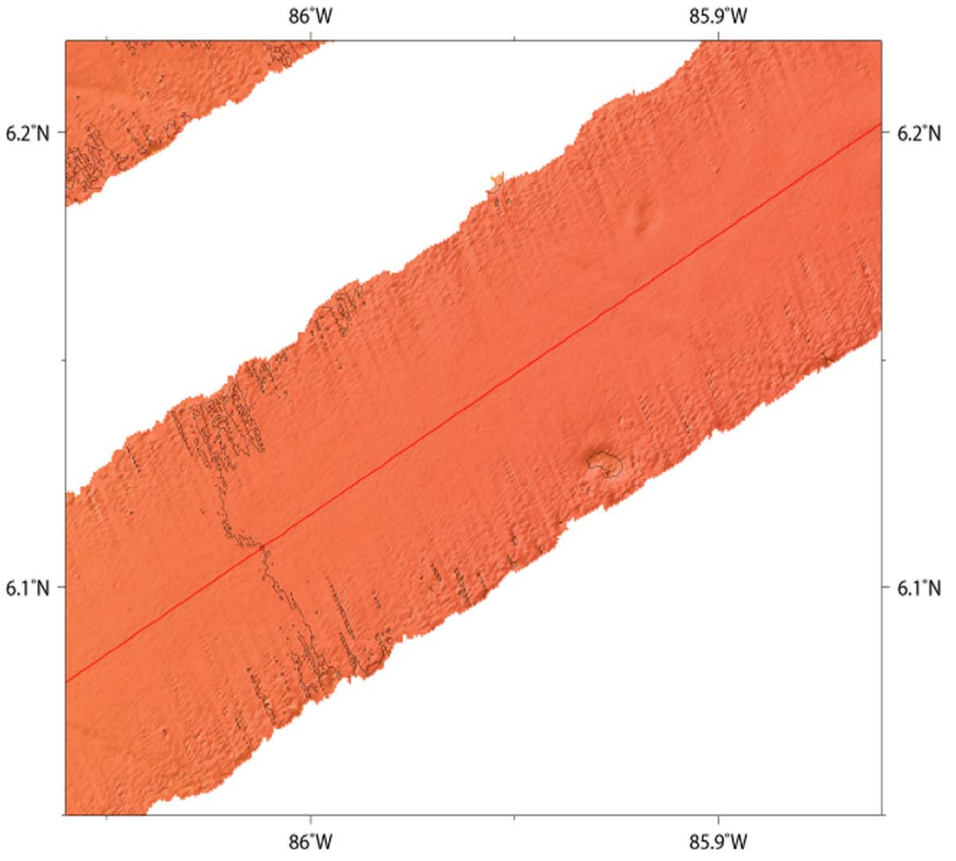


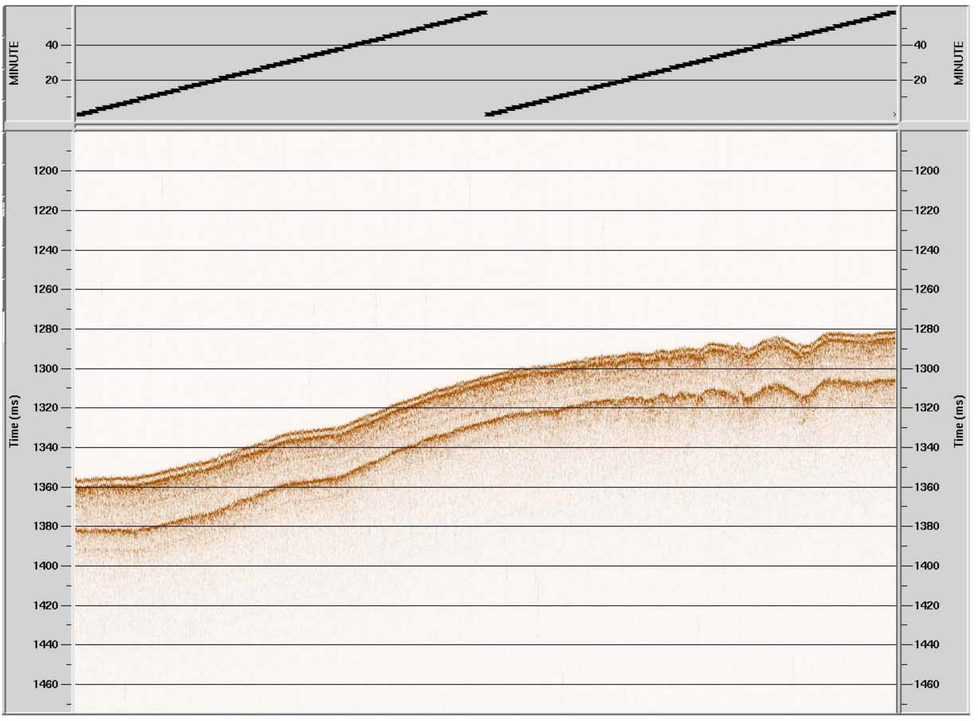
Cocos Ridge
Line 4
JD 295
20:00-22:00 GMT

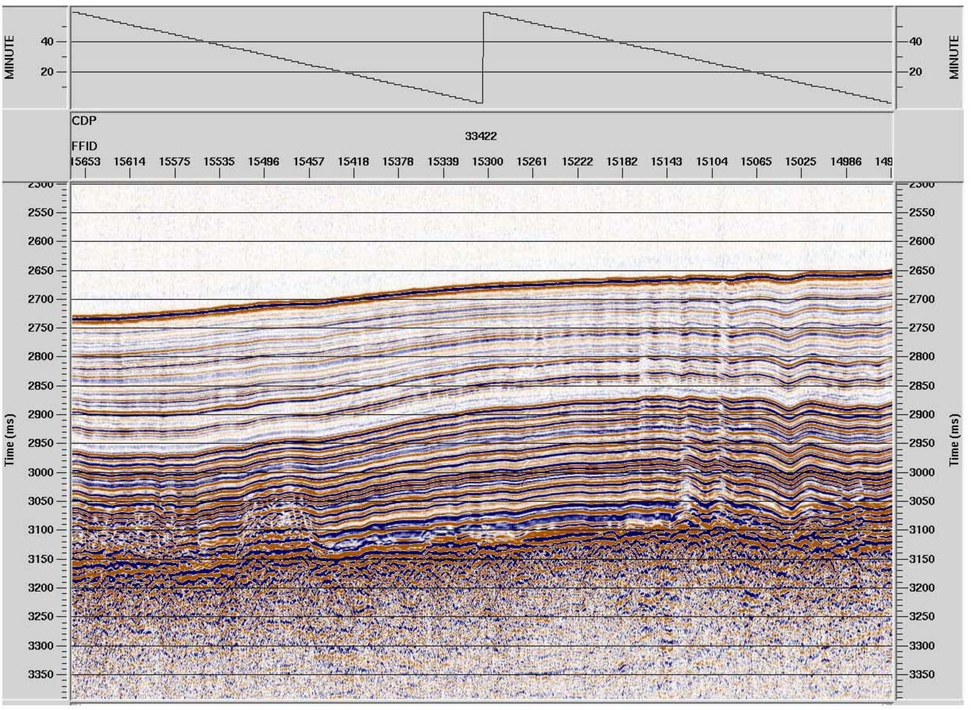
Direction of travel
NW ← → SE

22:00 GMT

20:00 GMT





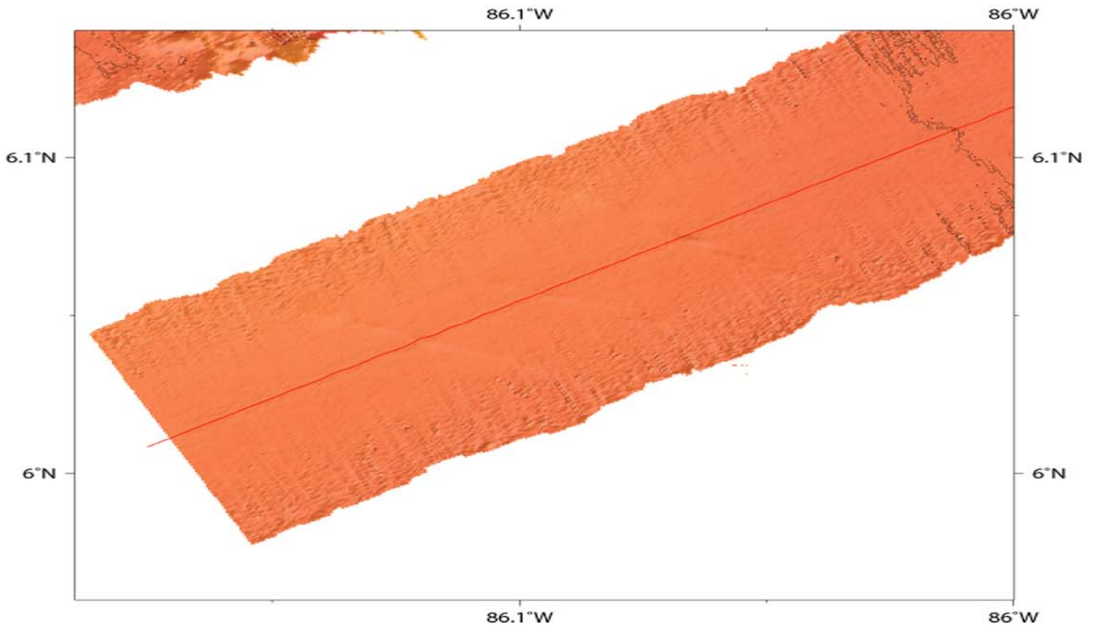


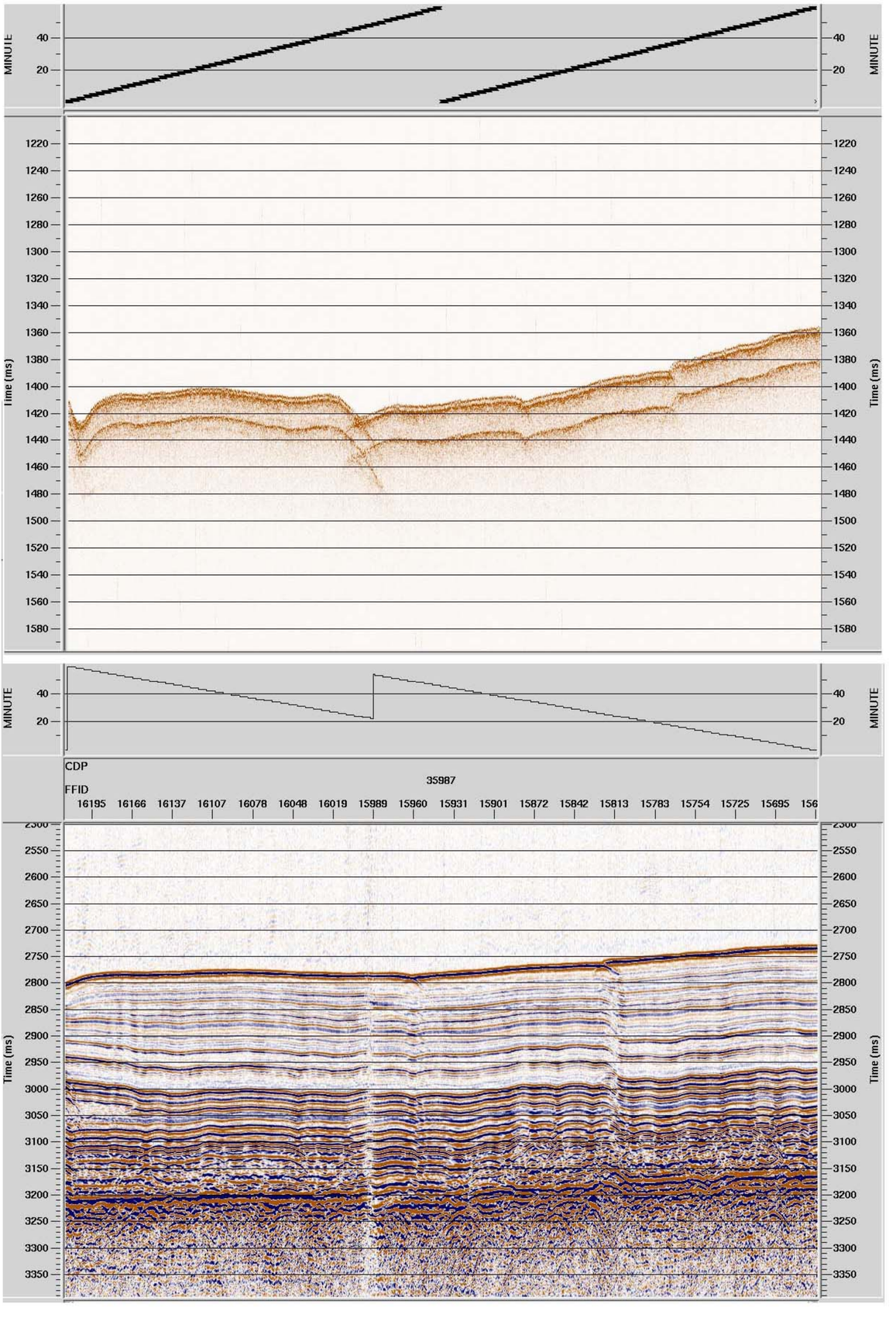
Cocos Ridge
Line4
JD 295
22:00-00:00 GMT

NW ← Direction of travel → SE

00:00 GMT

22:00 GMT

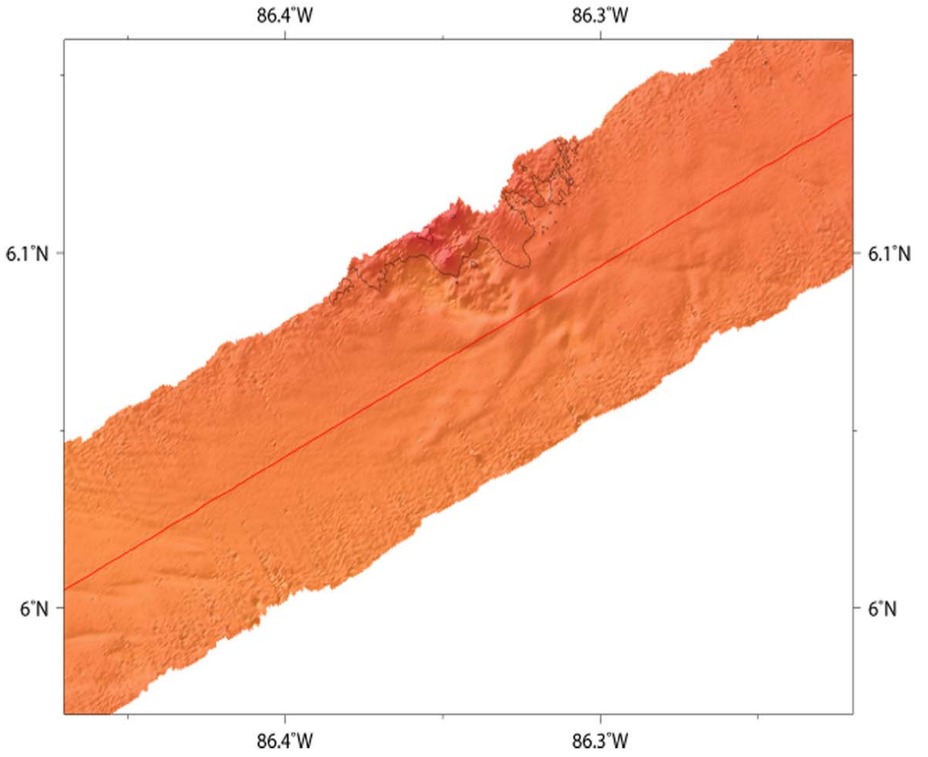


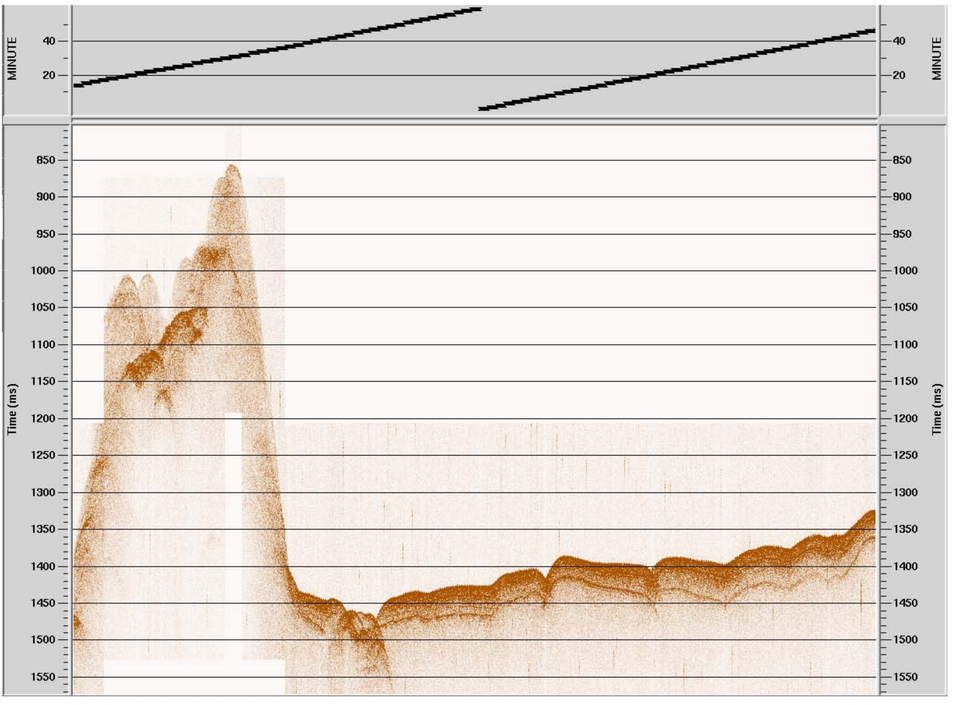


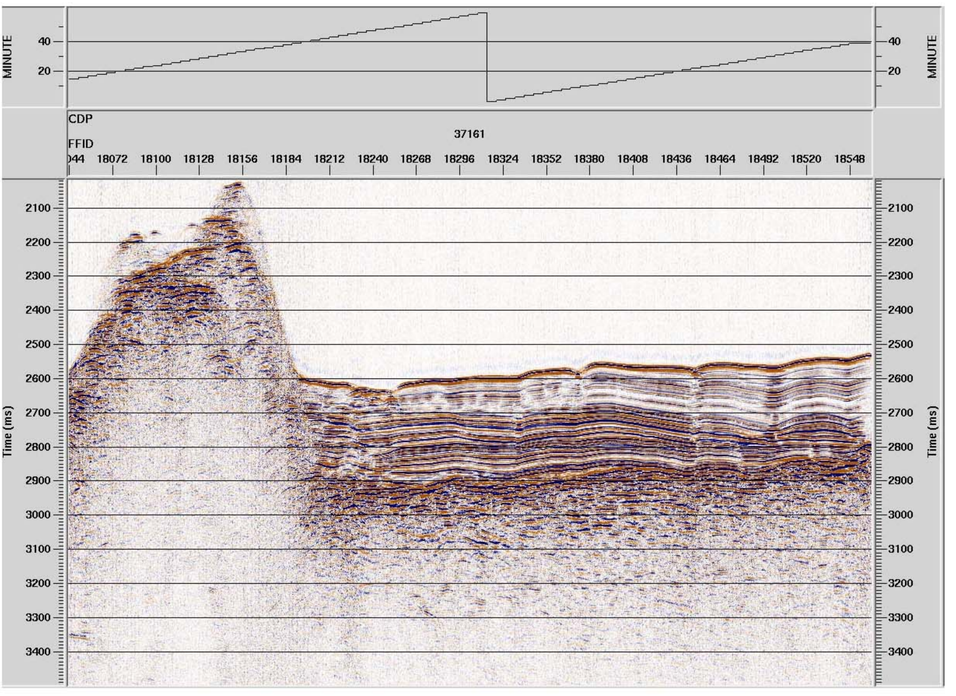
Cocos Ridge
Line 5
JD: 296
05:14-06:47 GMT

NW Direction of travel SE

05:14 GMT 06:47 GMT



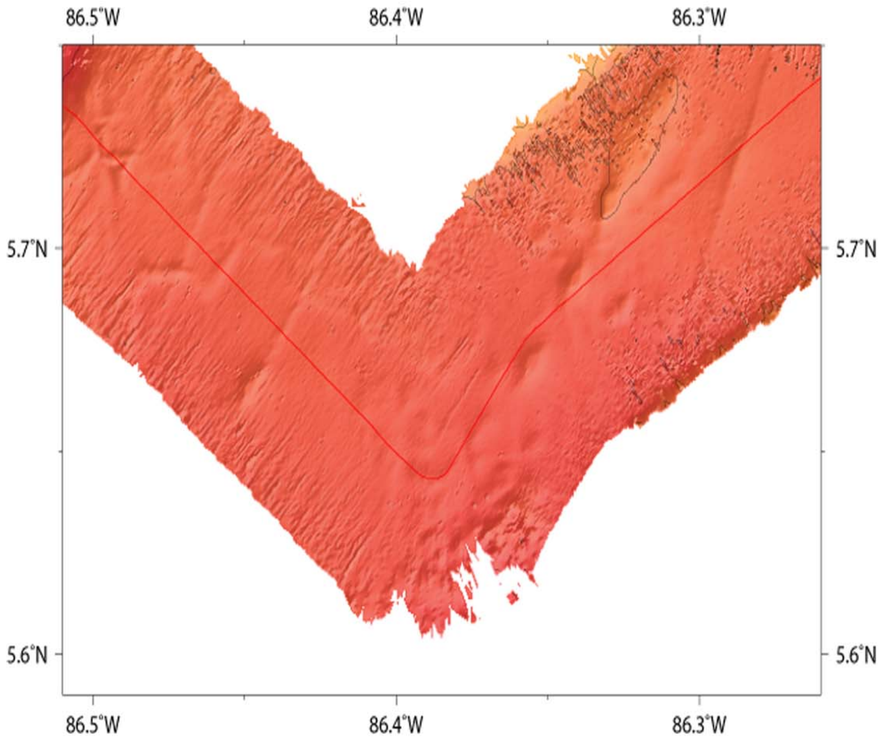


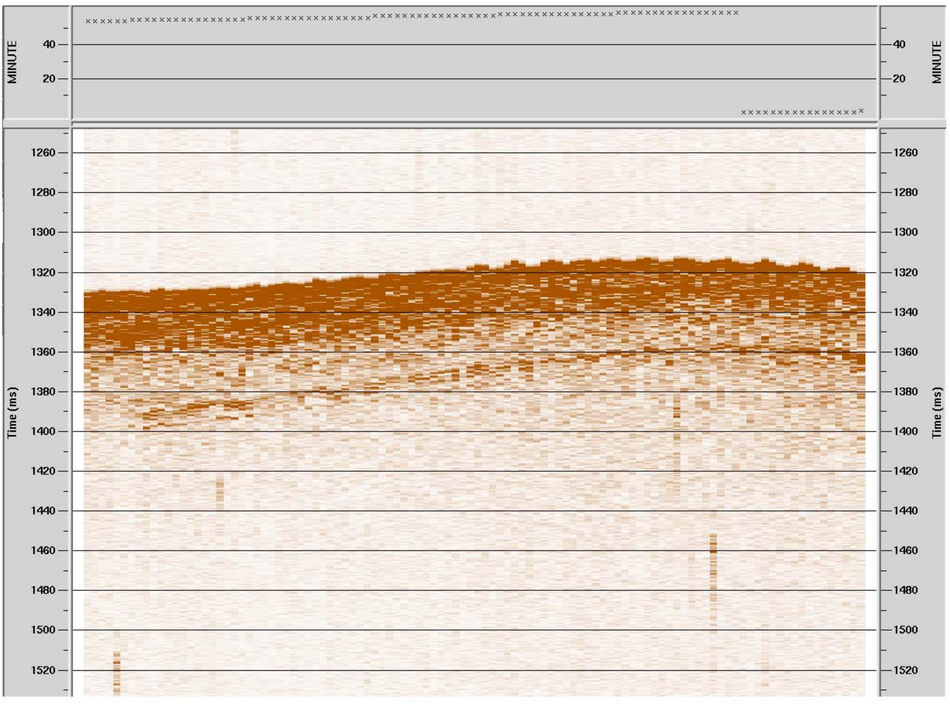


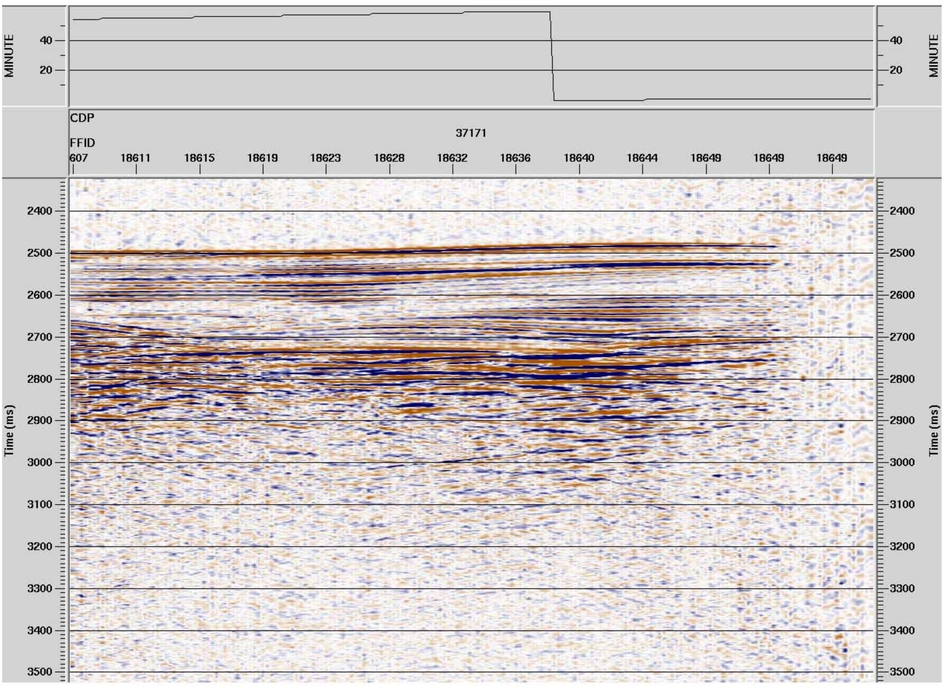
Cocos Ridge
Line 6
JD: 296
06:54-07:01 GMT

NW Direction of travel SE

06:54 GMT 07:01 GMT



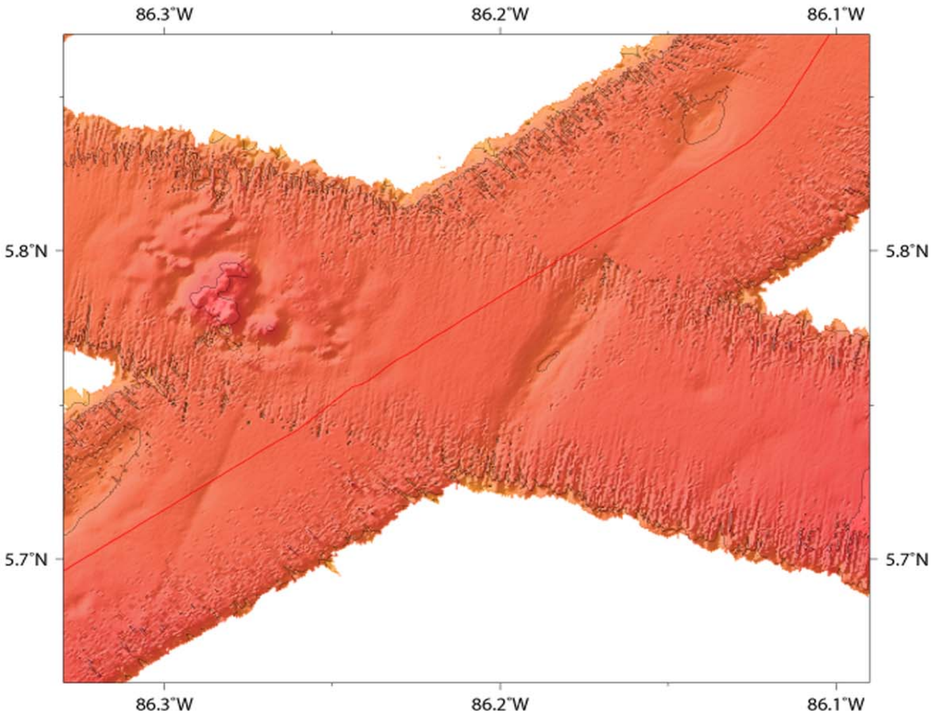


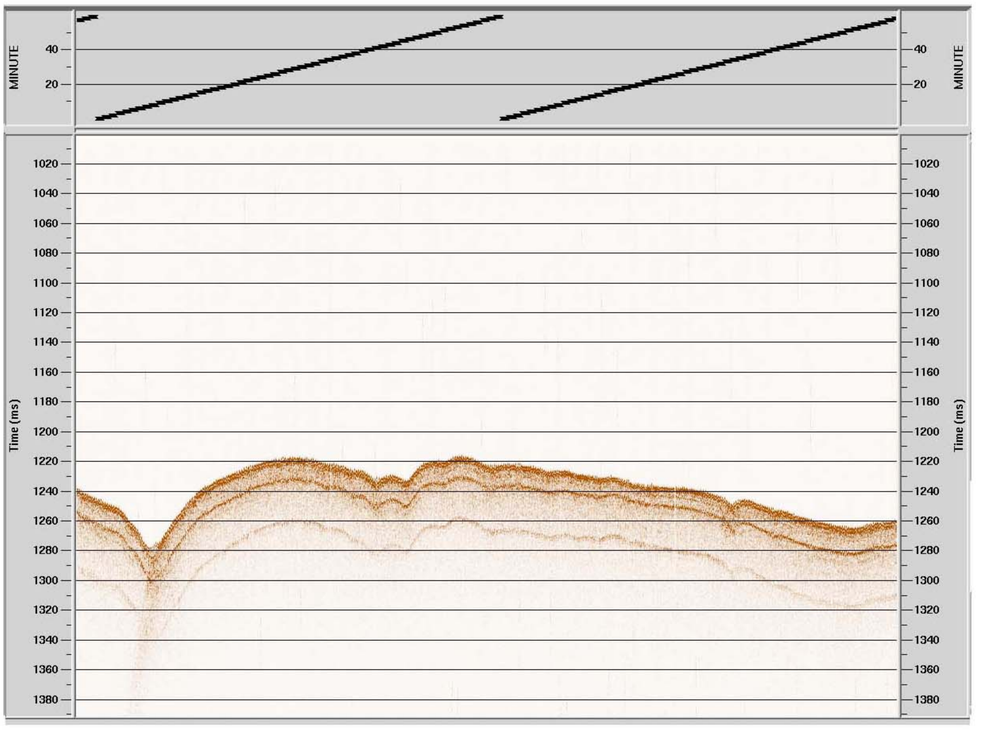


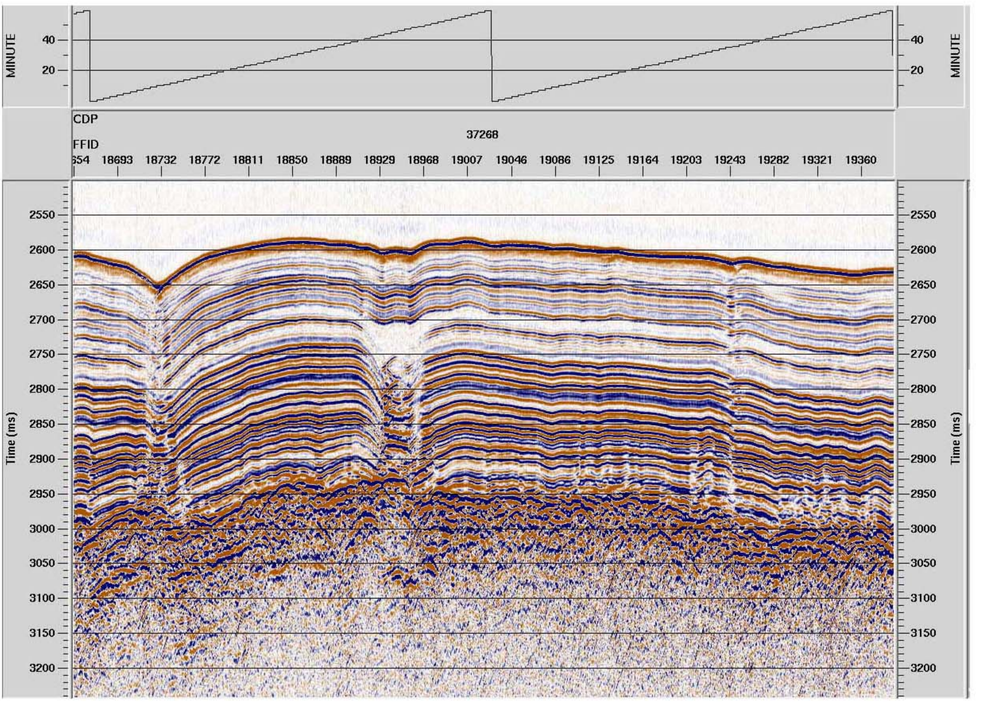
Cocos Ridge
Line 7
JD 296
08:00-10:00 GMT

NW Direction of travel SE

08:00 GMT 10:00 GMT



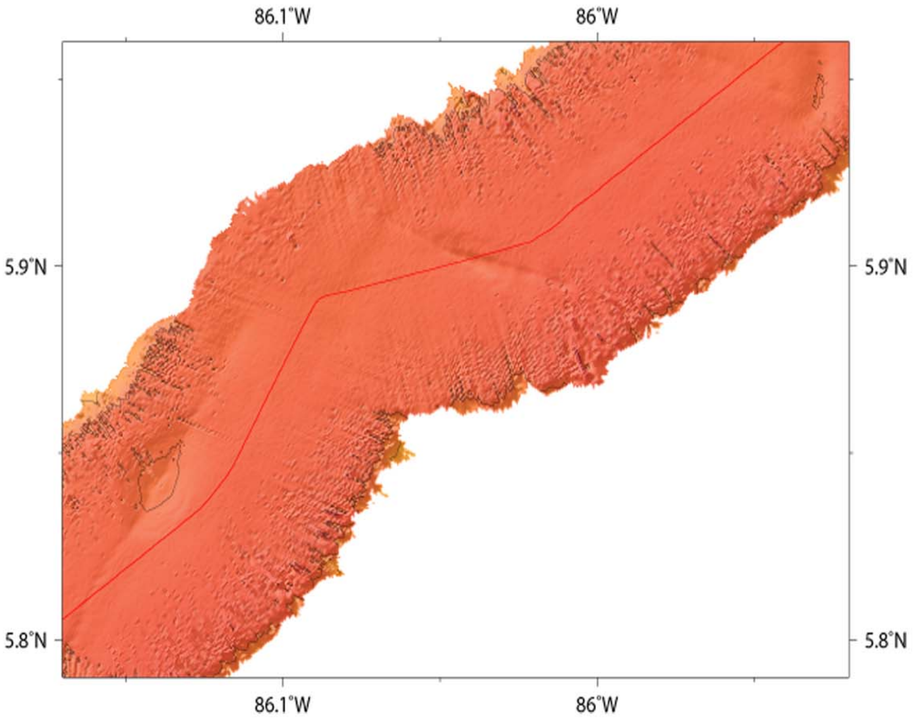


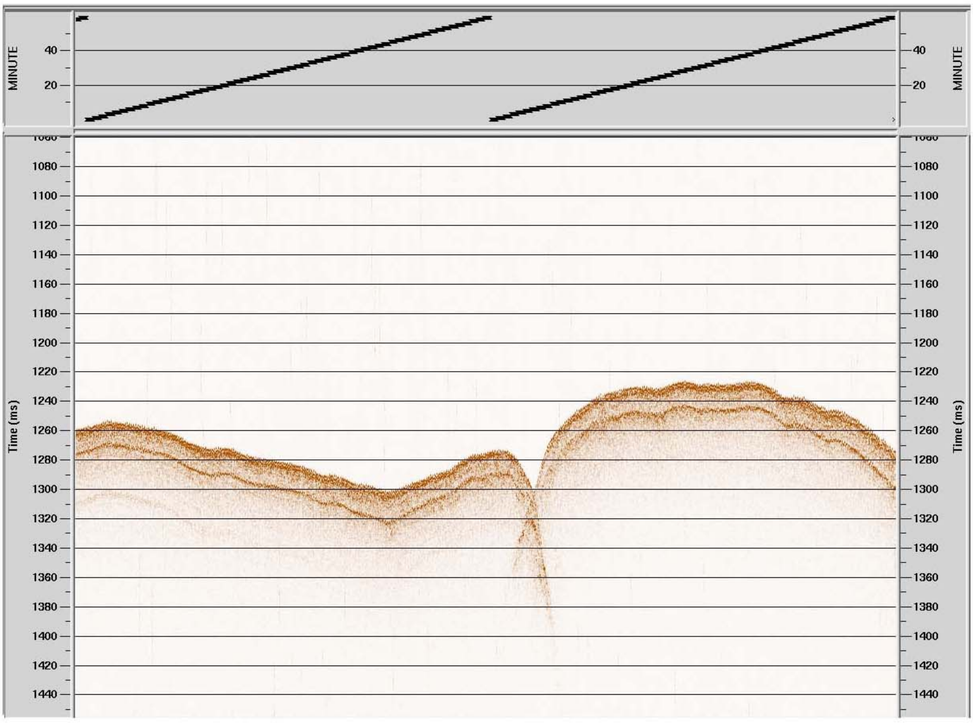


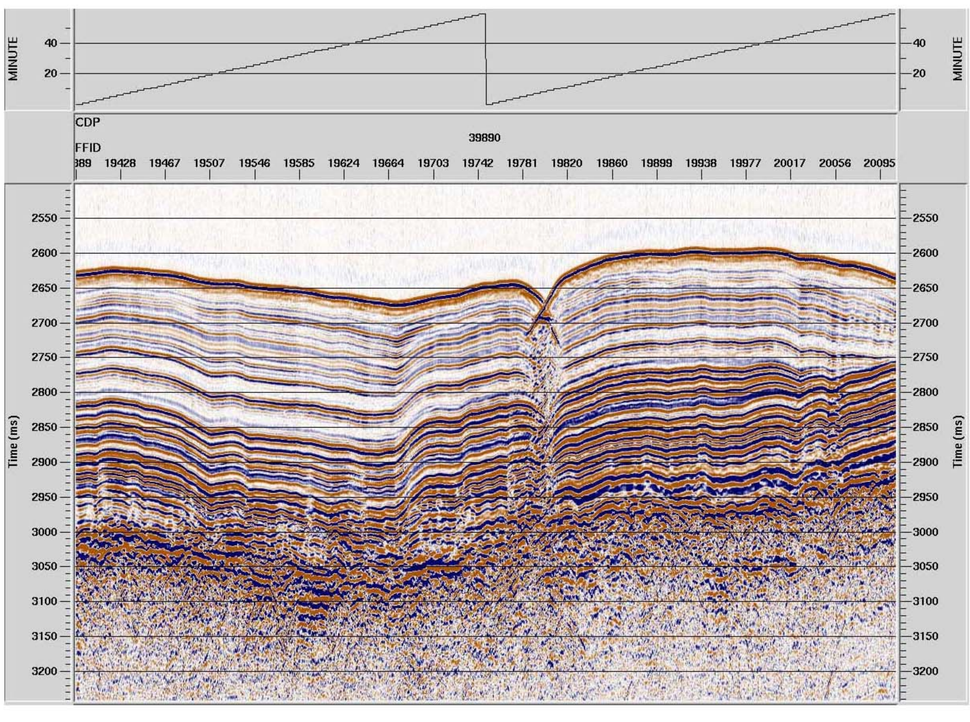
Cocos Ridge
Line 7
JD 296
10:00-12:00 GMT

NW Direction of travel SE

10:00 GMT 12:00 GMT





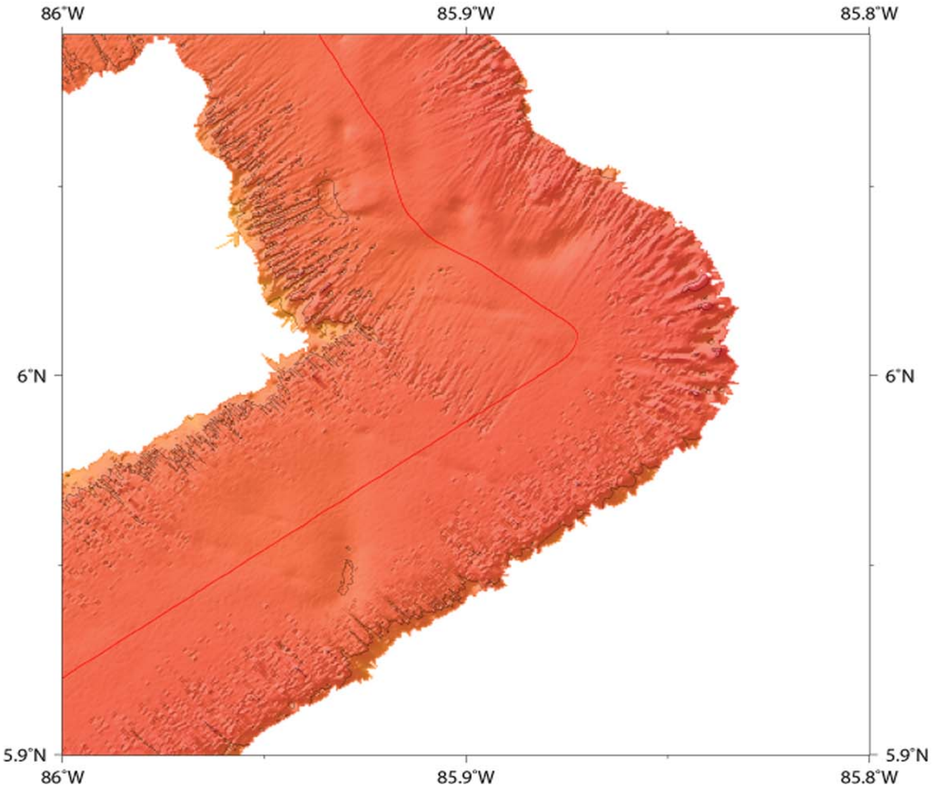


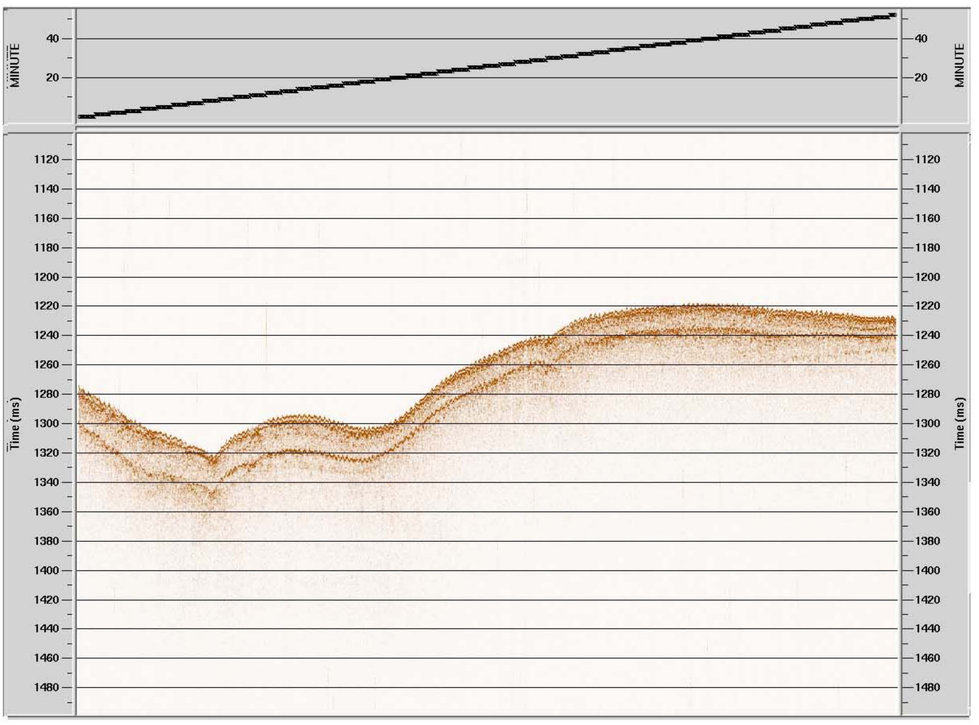
Cocos Ridge
Line 7
JD 296
12:00-12:55 GMT

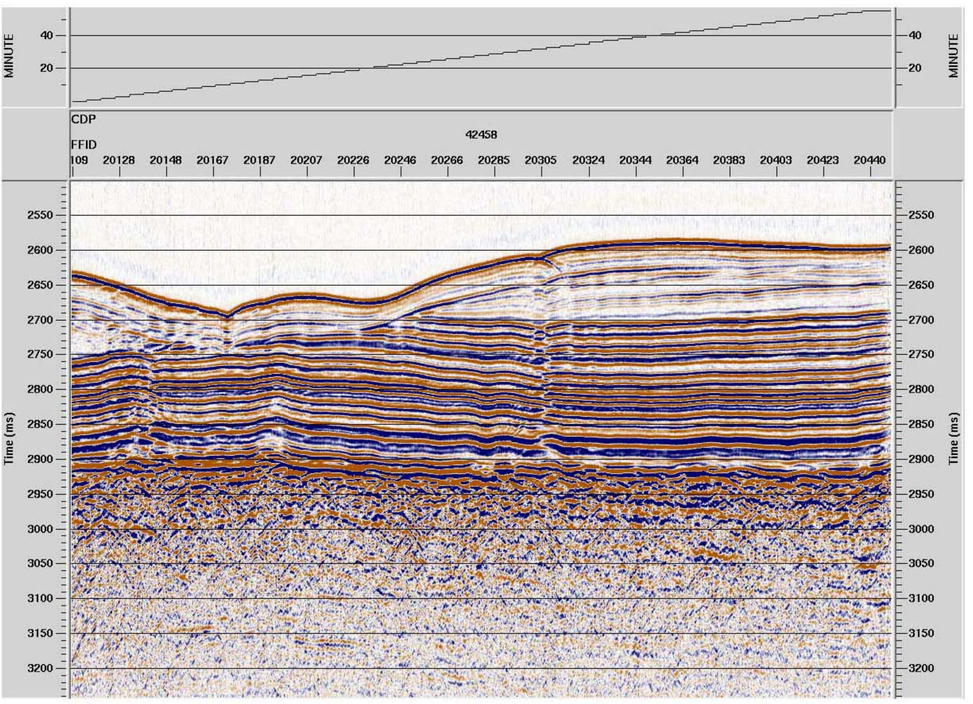
12:00 GMT

NW — Direction of travel → SE

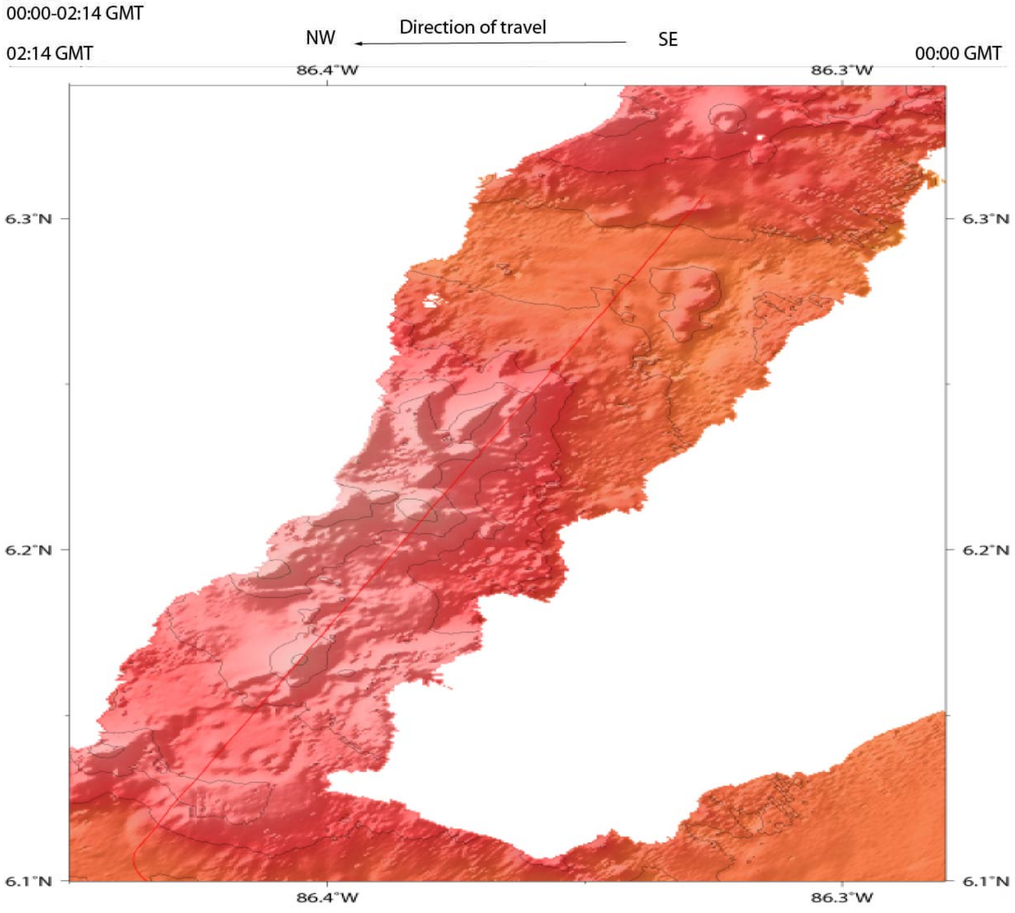
12:55 GMT

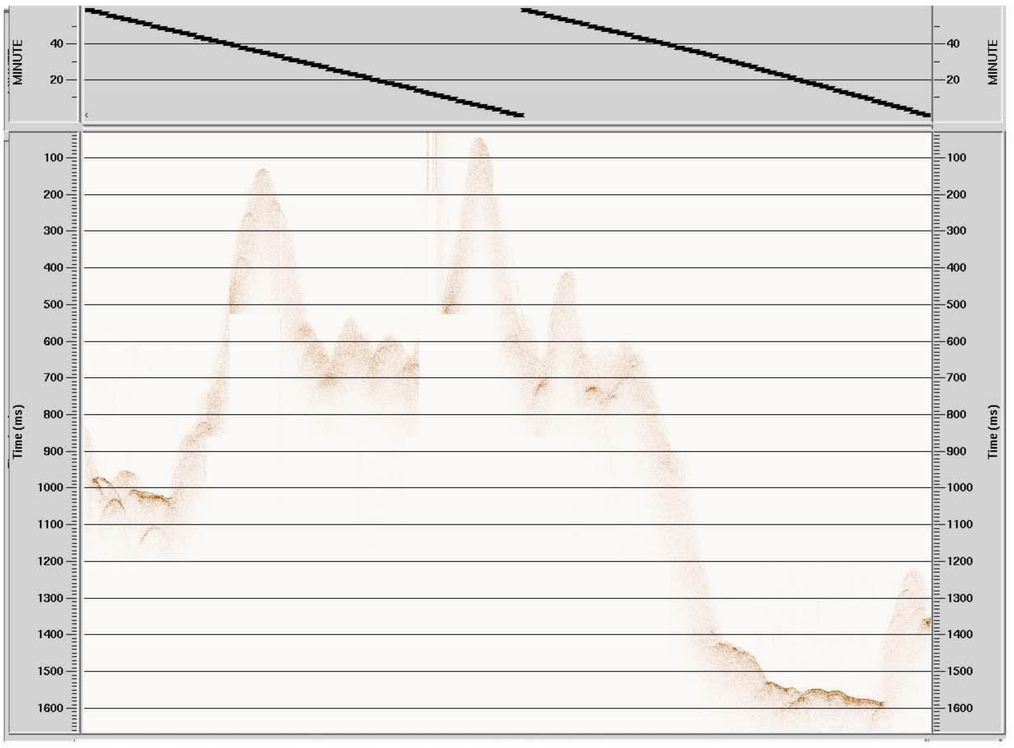


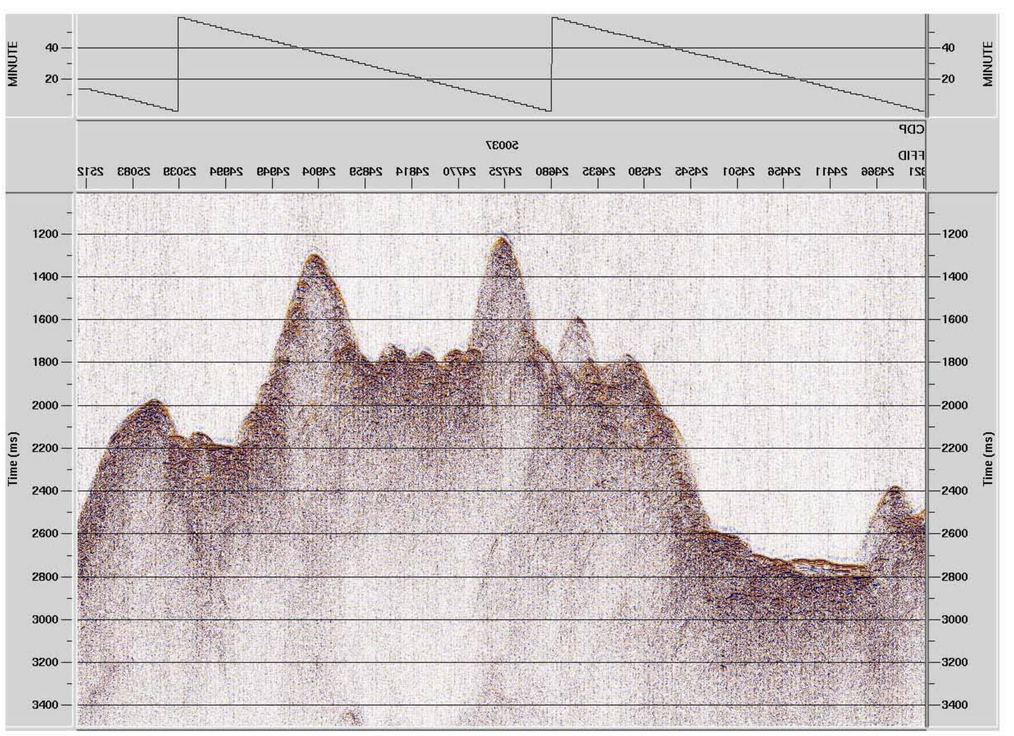




Cocos Ridge
Line 9
JD 296
00:00-02:14 GMT

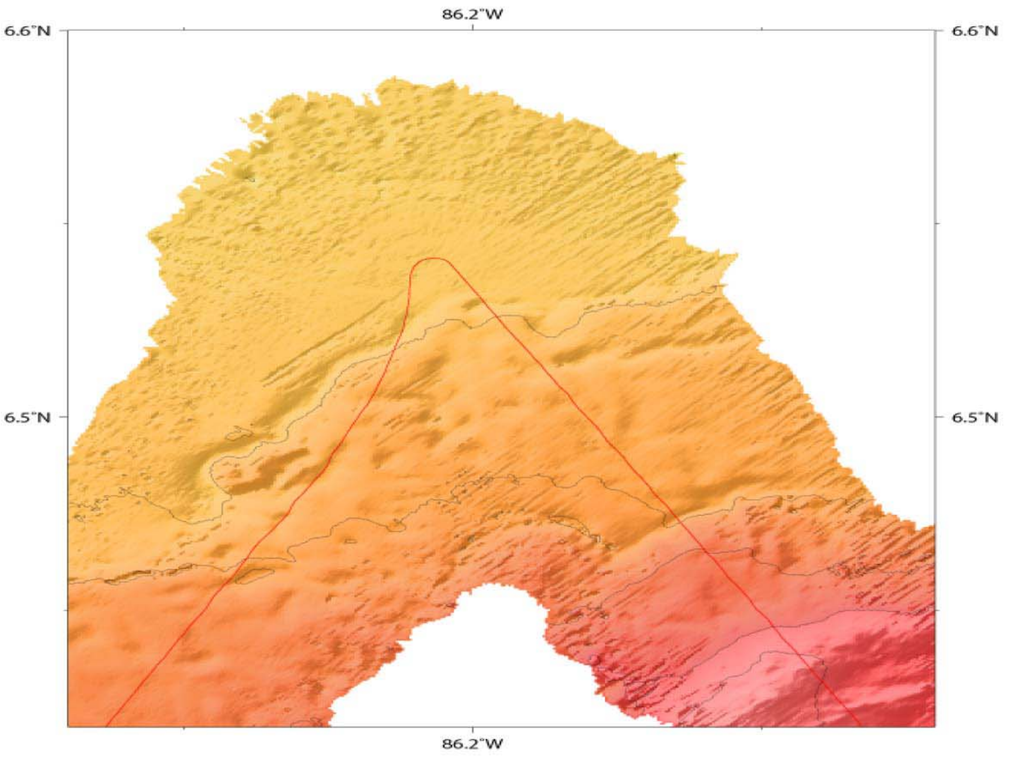


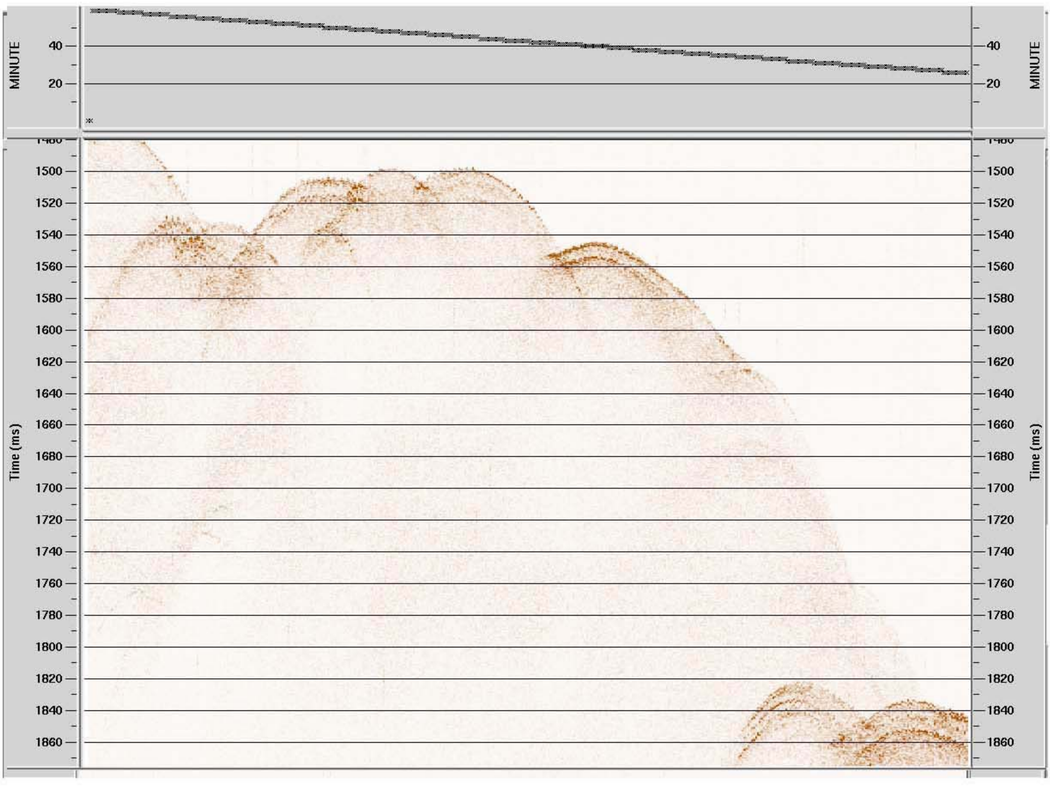


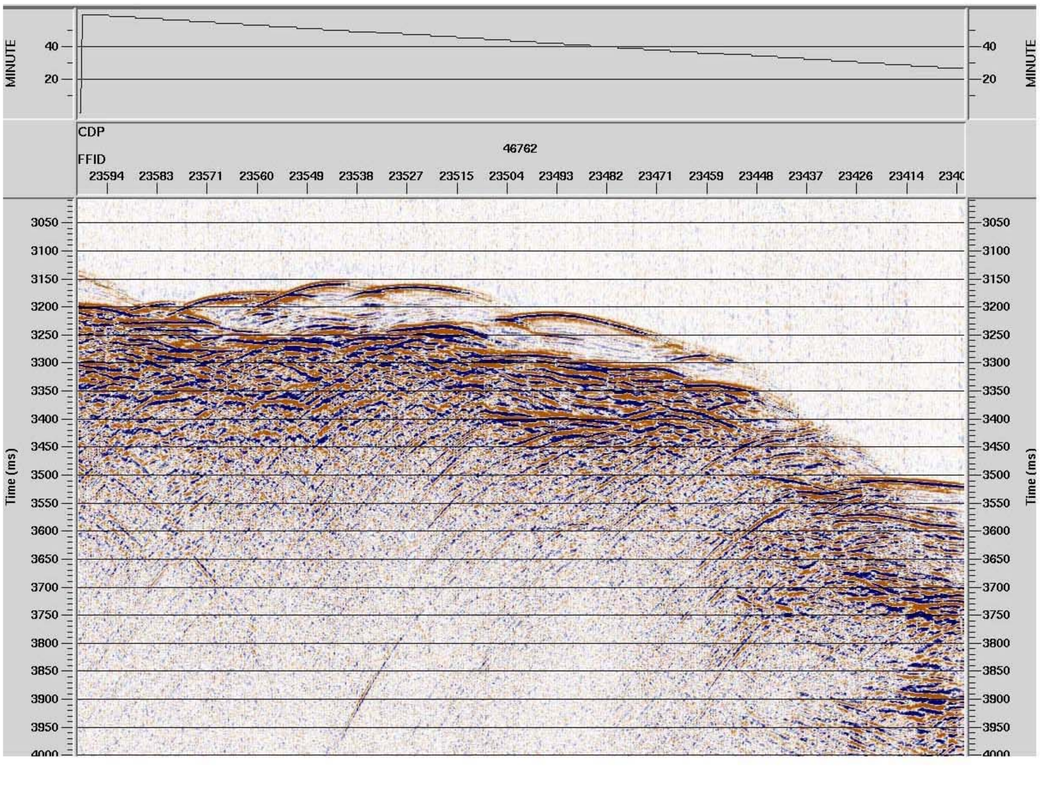


Cocos Ridge
Line 9
JD 296
21:26-22:00 GMT

22:00 GMT NW Direction of travel SE 21:26 GMT





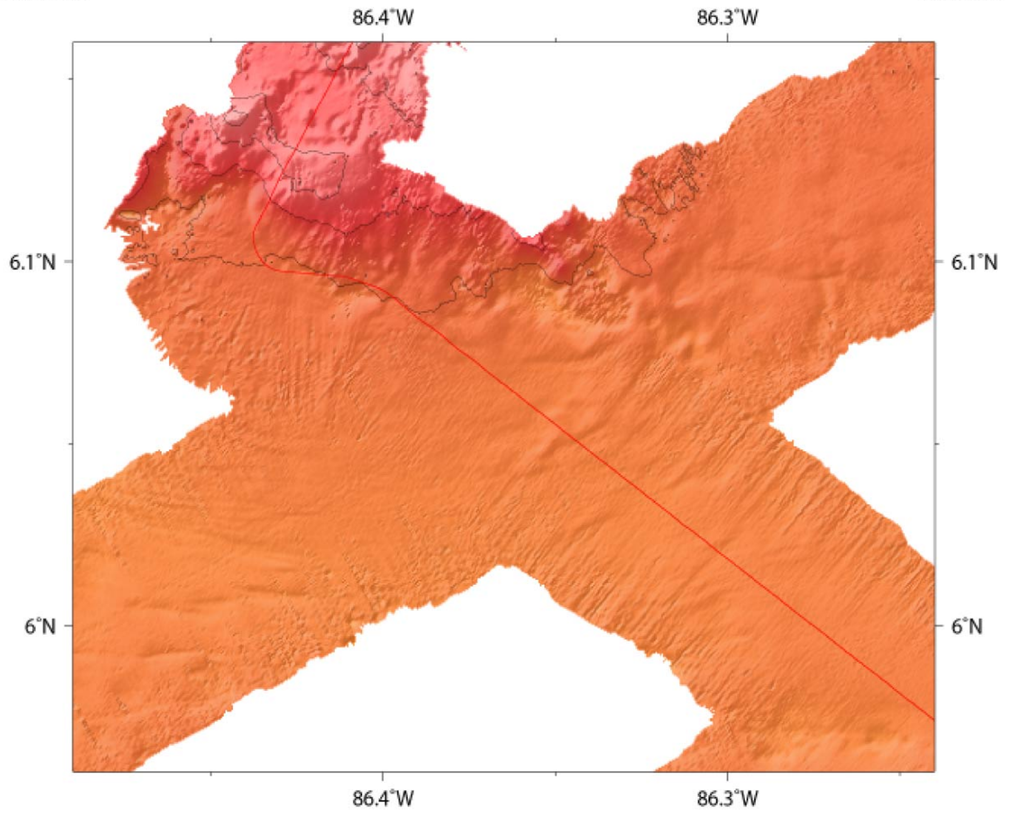


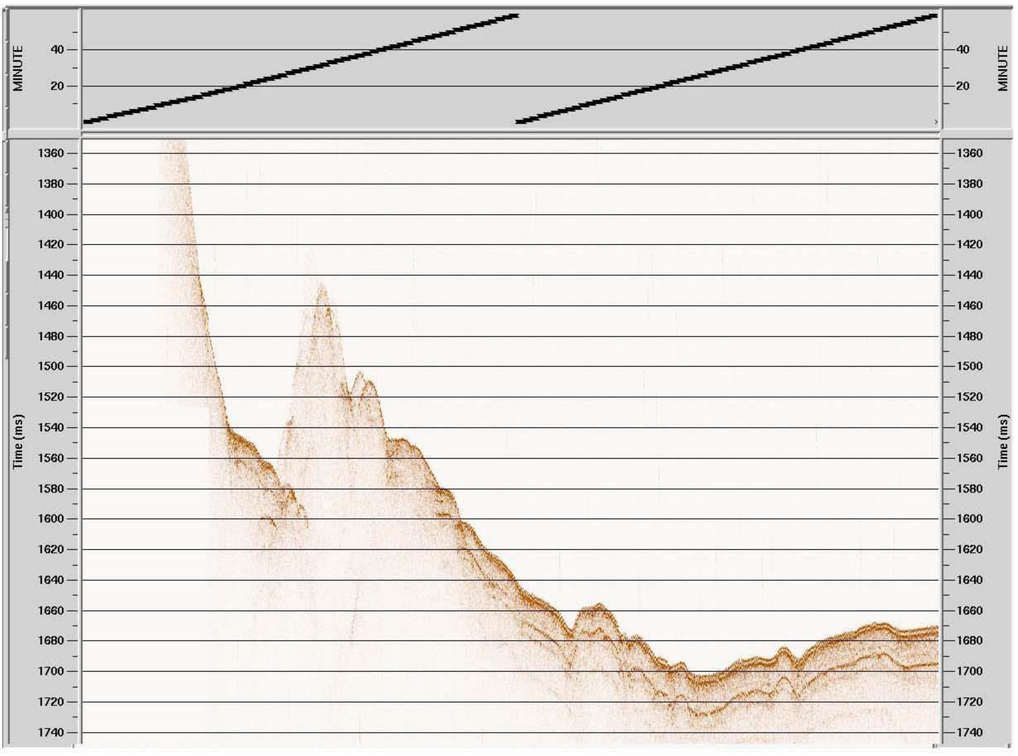
Cocos Ridge
Line 10
JD 297
02:22-04:00 GMT

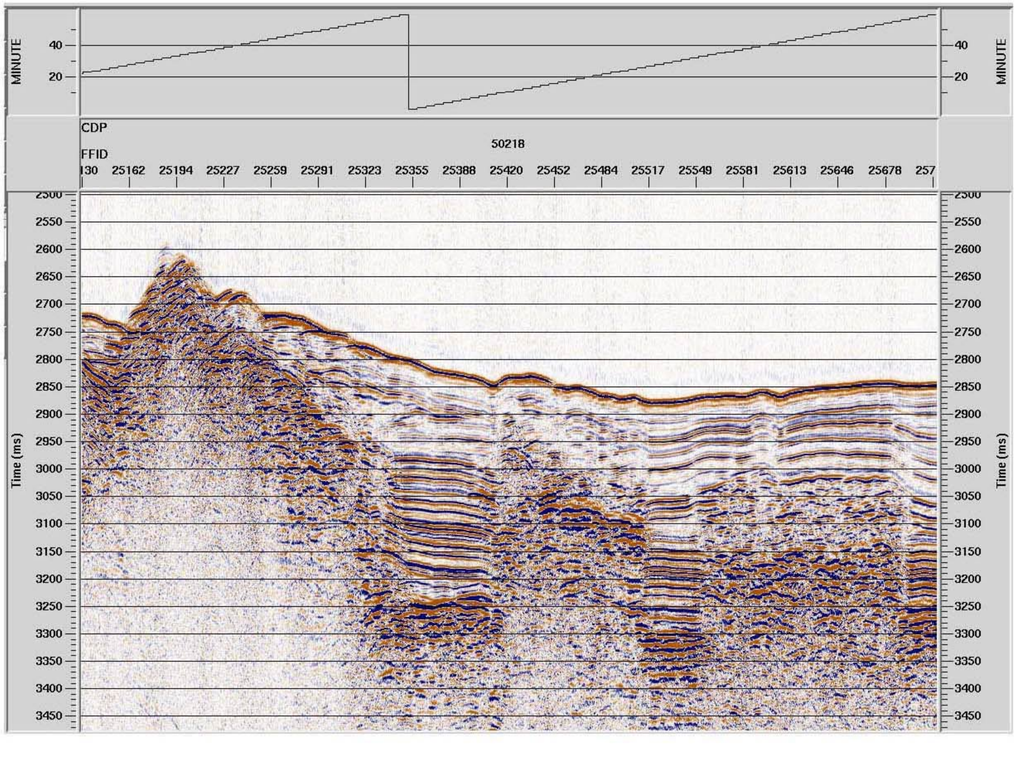
02:22 GMT

NW Direction of travel SE

04:00 GMT





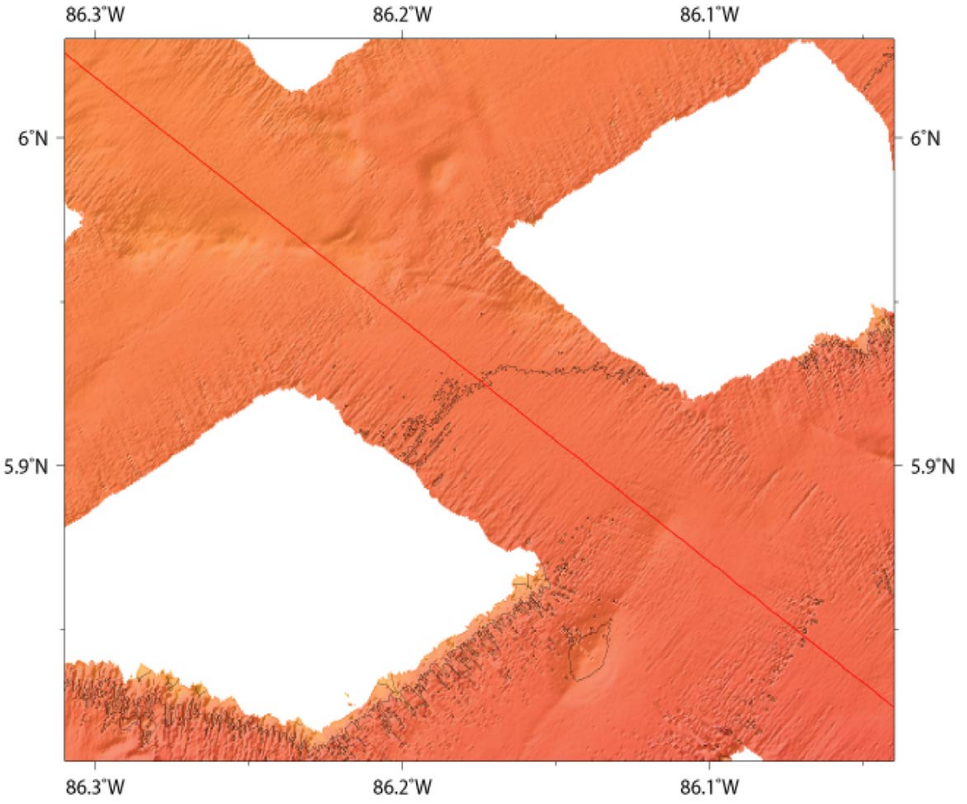


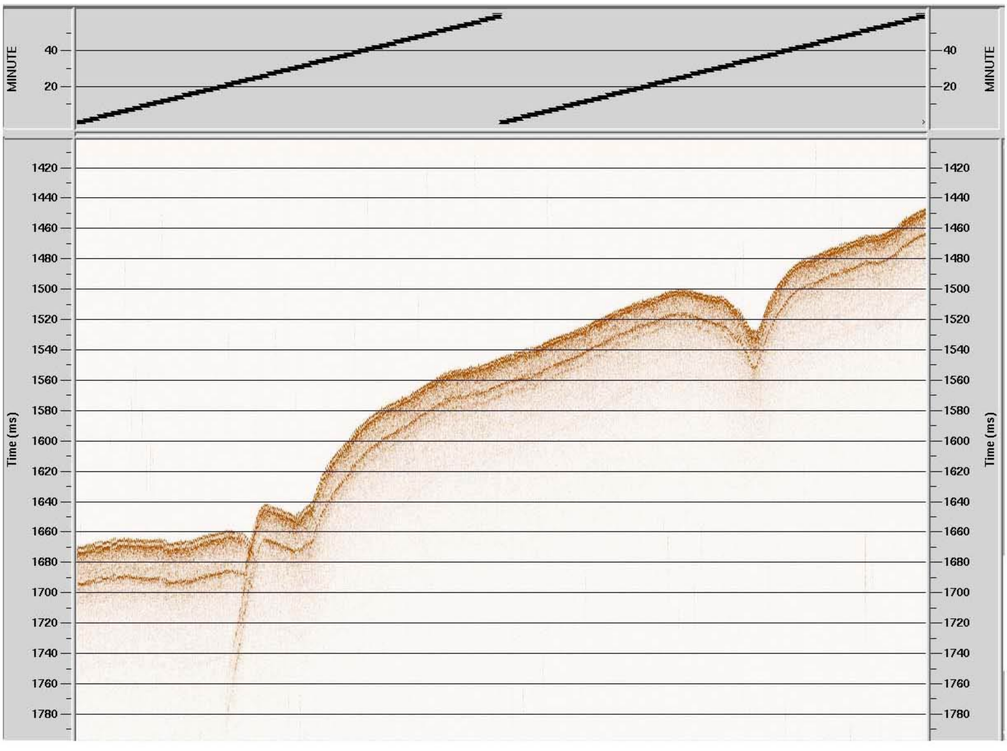
Cocos Ridge
Line 10
JD 297
04:00-06:00 GMT

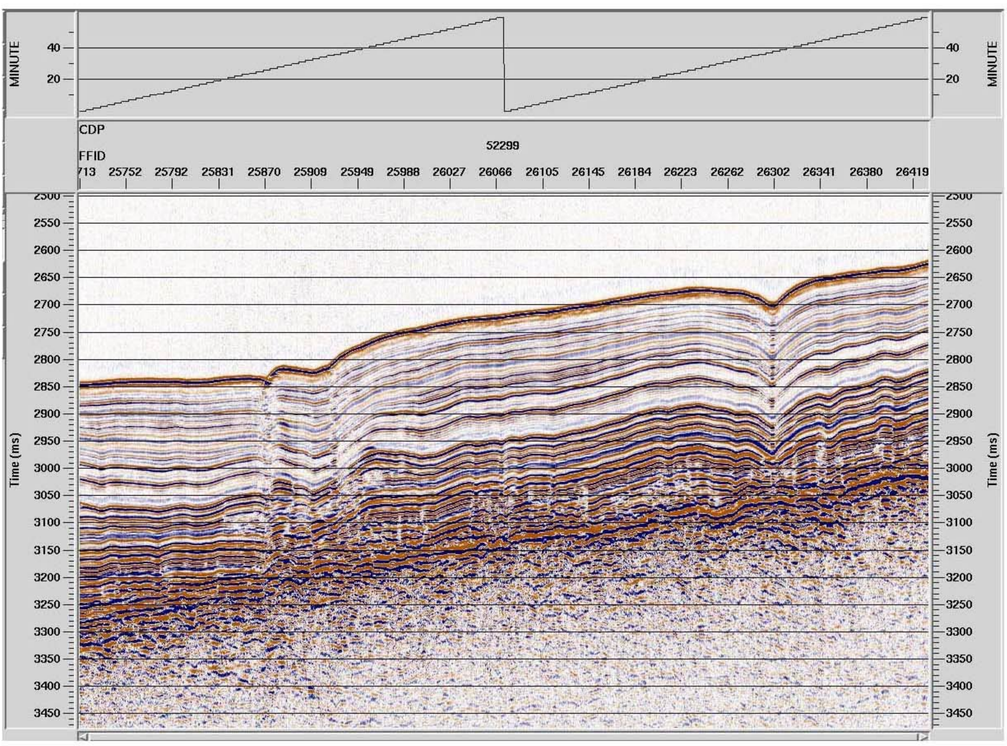
04:00 GMT

NW Direction of travel SE

06:00 GMT





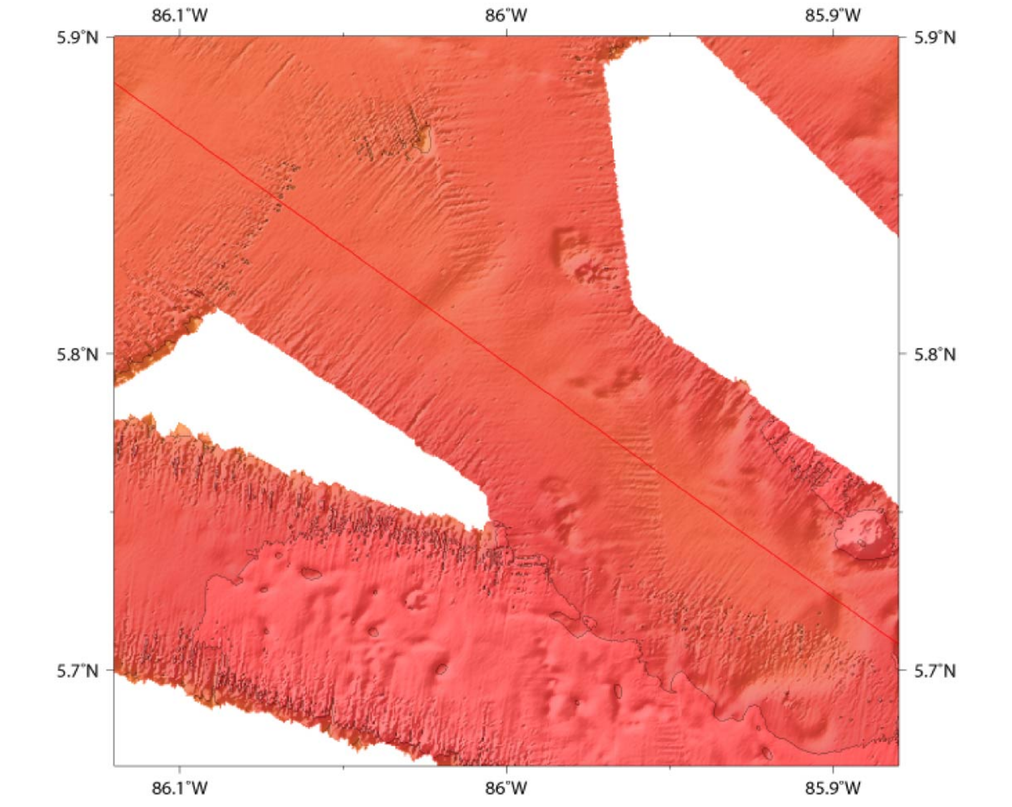


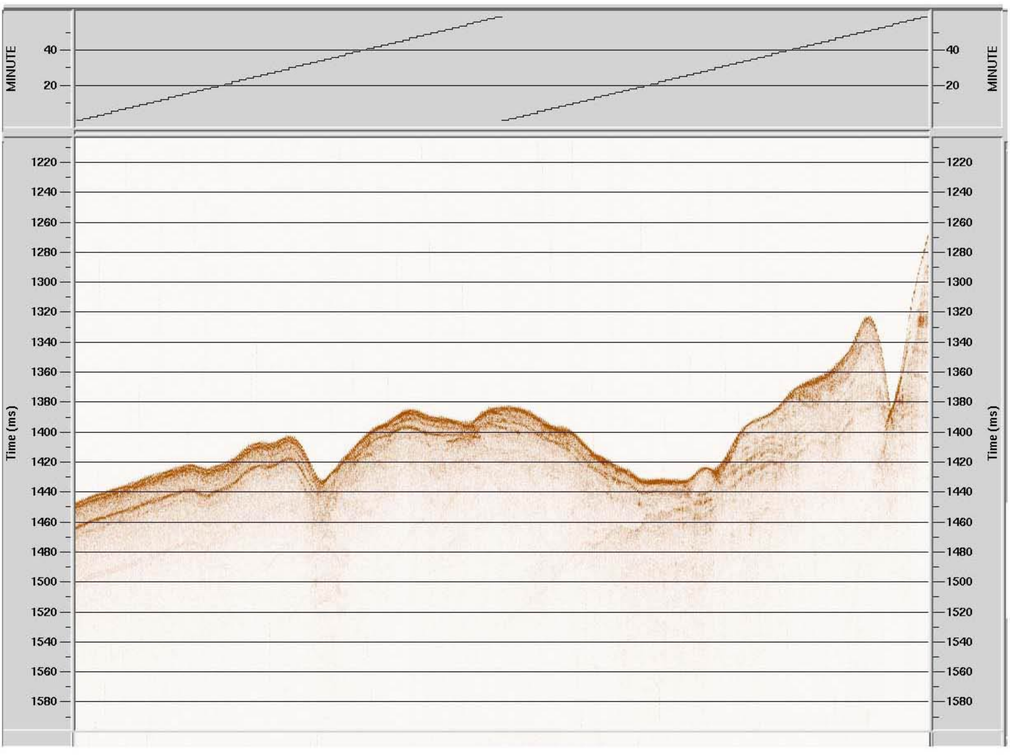
Cocos Ridge
Line 10
JD 297
06:0-08:00 GMT

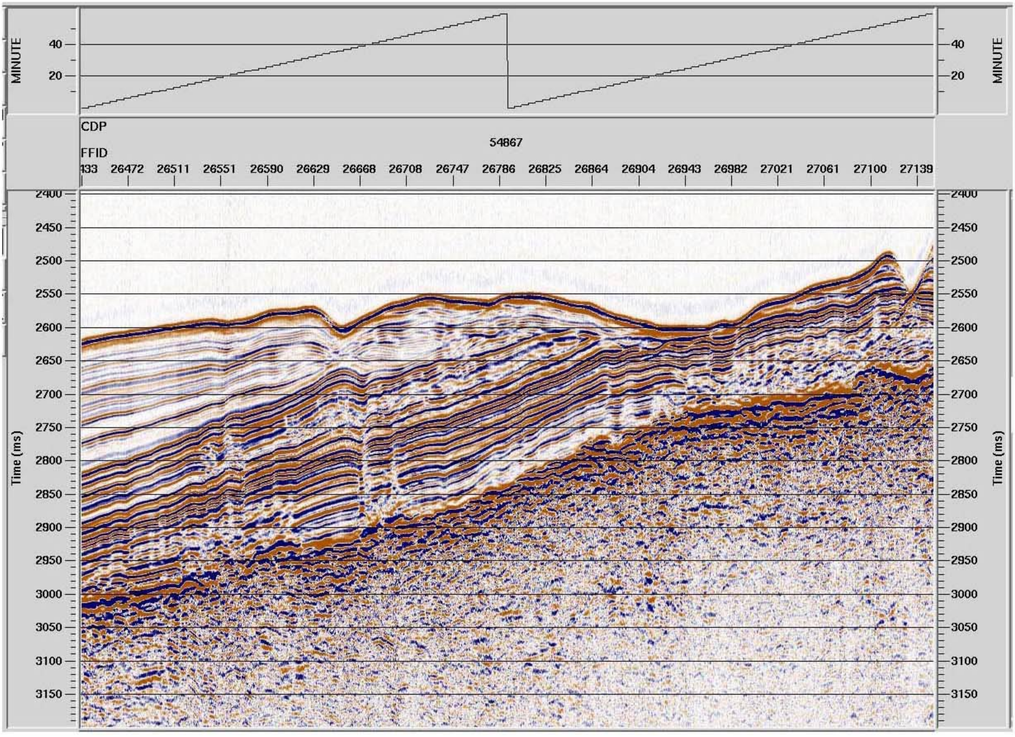
06:00 GMT

NW Direction of travel SE

08:00 GMT





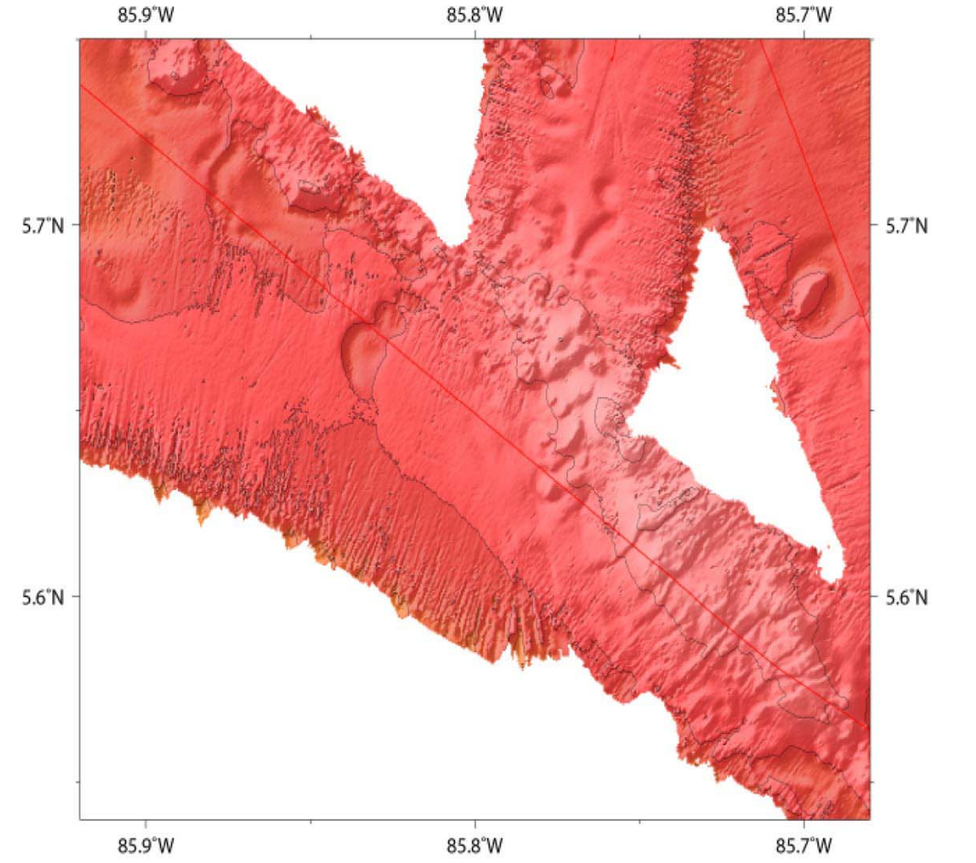


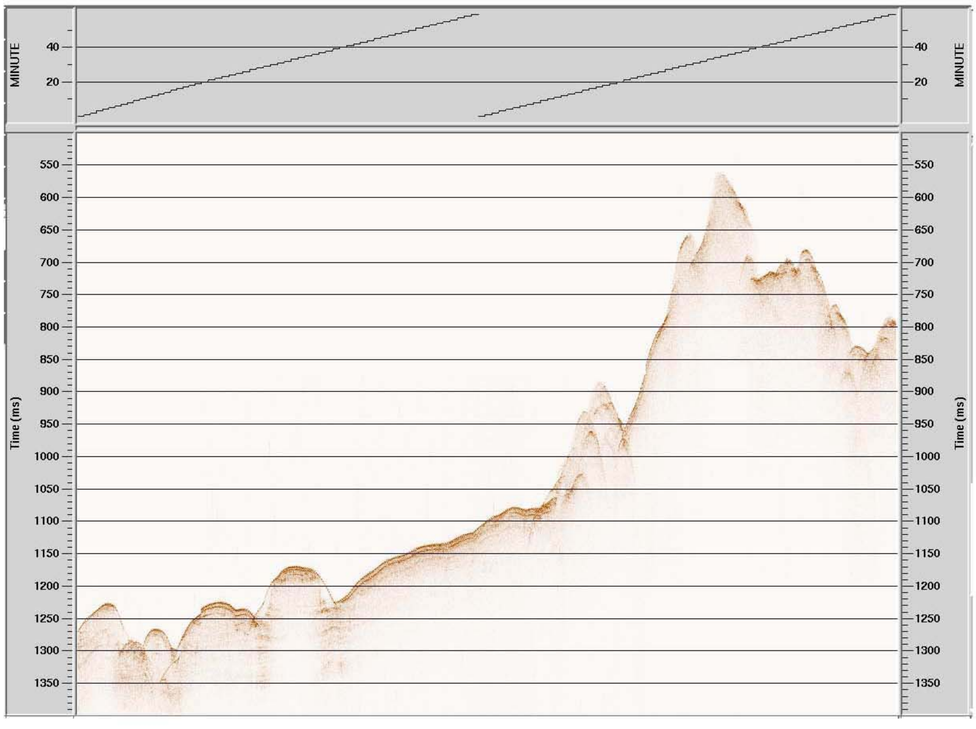
Cocos Ridge
Line 10
JD 297
08:00-09:47GMT

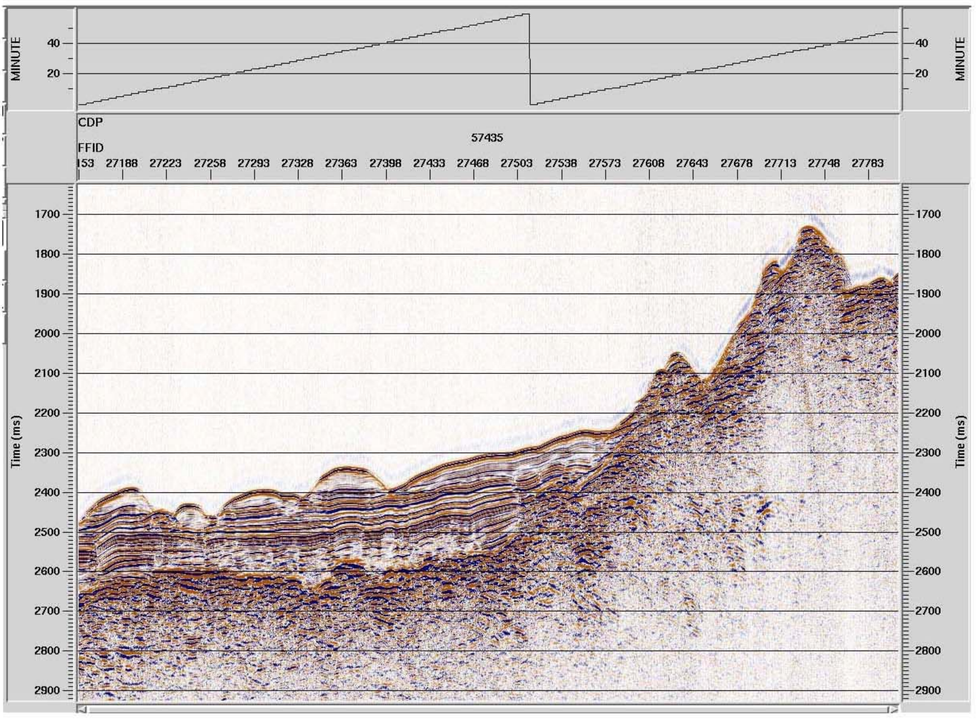
08:00 GMT

NW Direction of travel SE

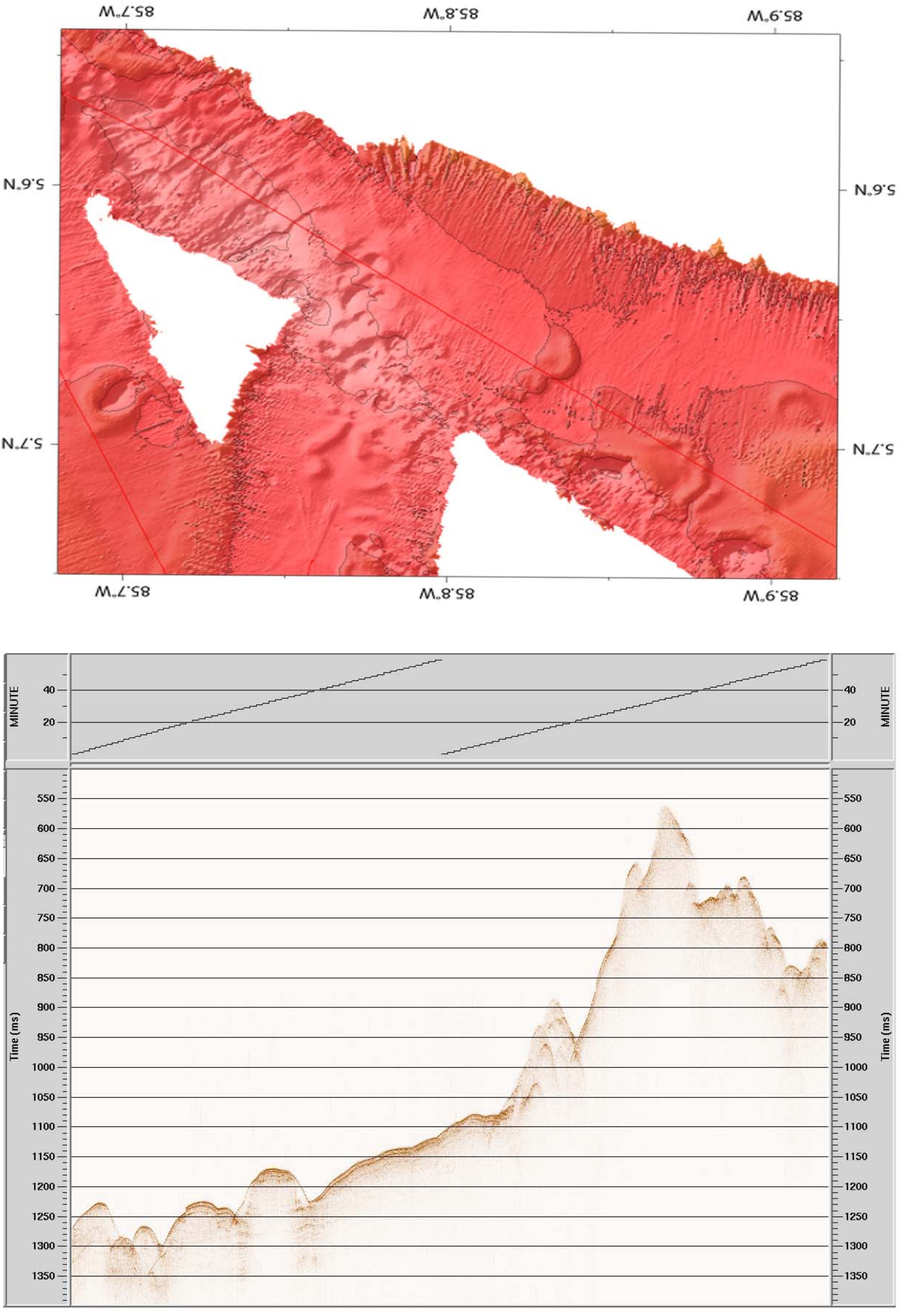
09:47 GMT







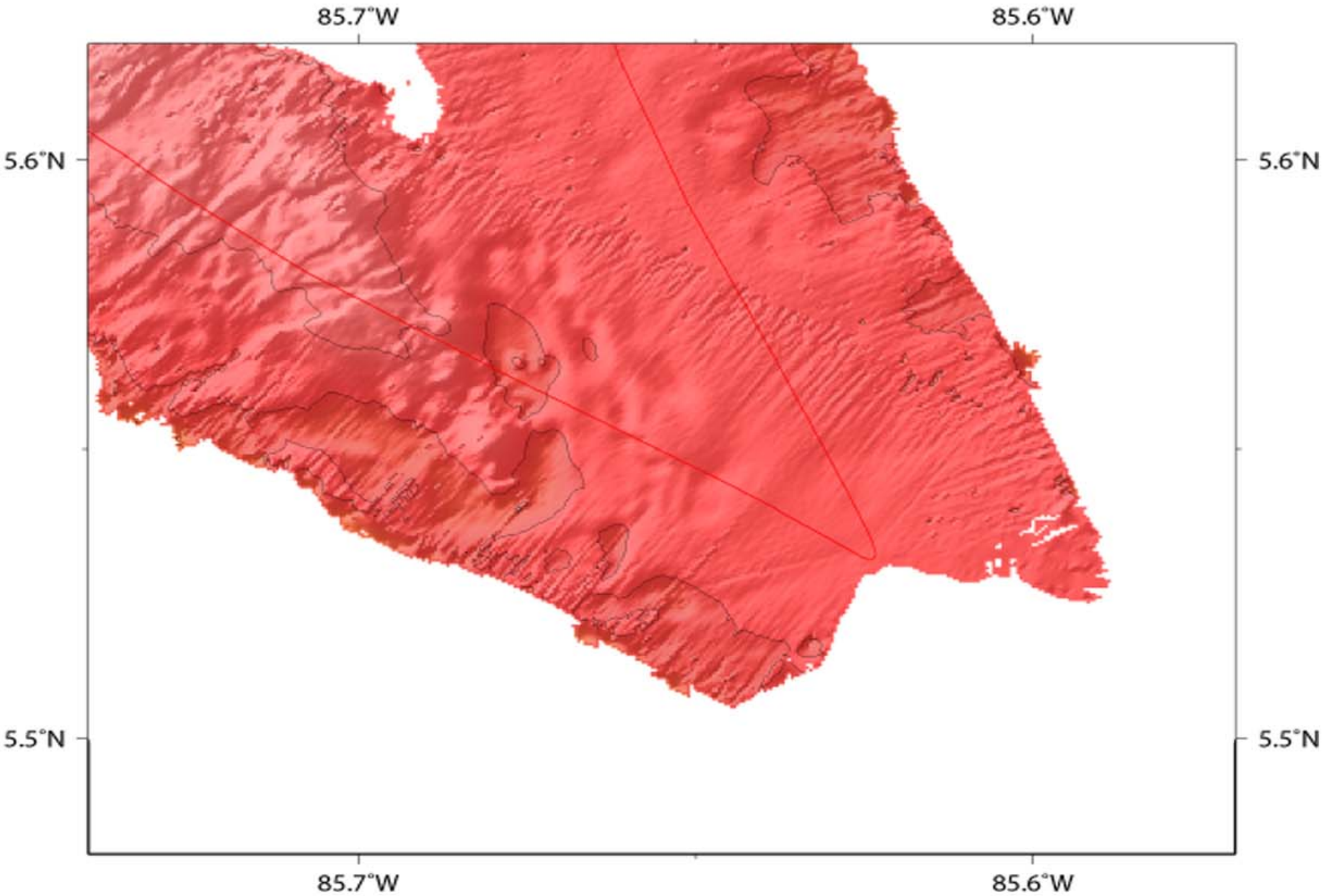
After end of Cocos Survey/Before Transit Line 1
JD 297
08:00-10:00 GMT



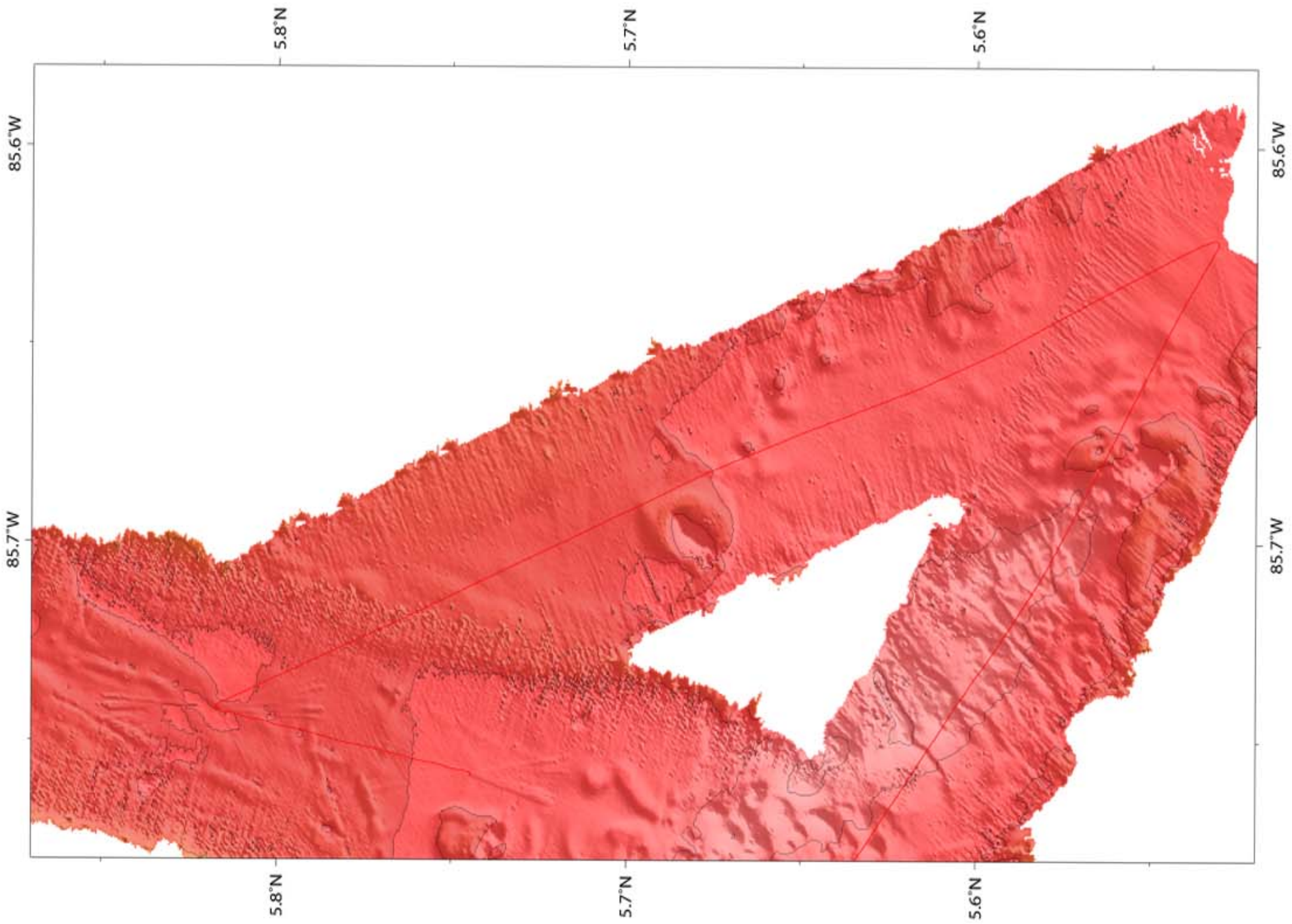
After end of Cocos Survey/Before Transit Line 1

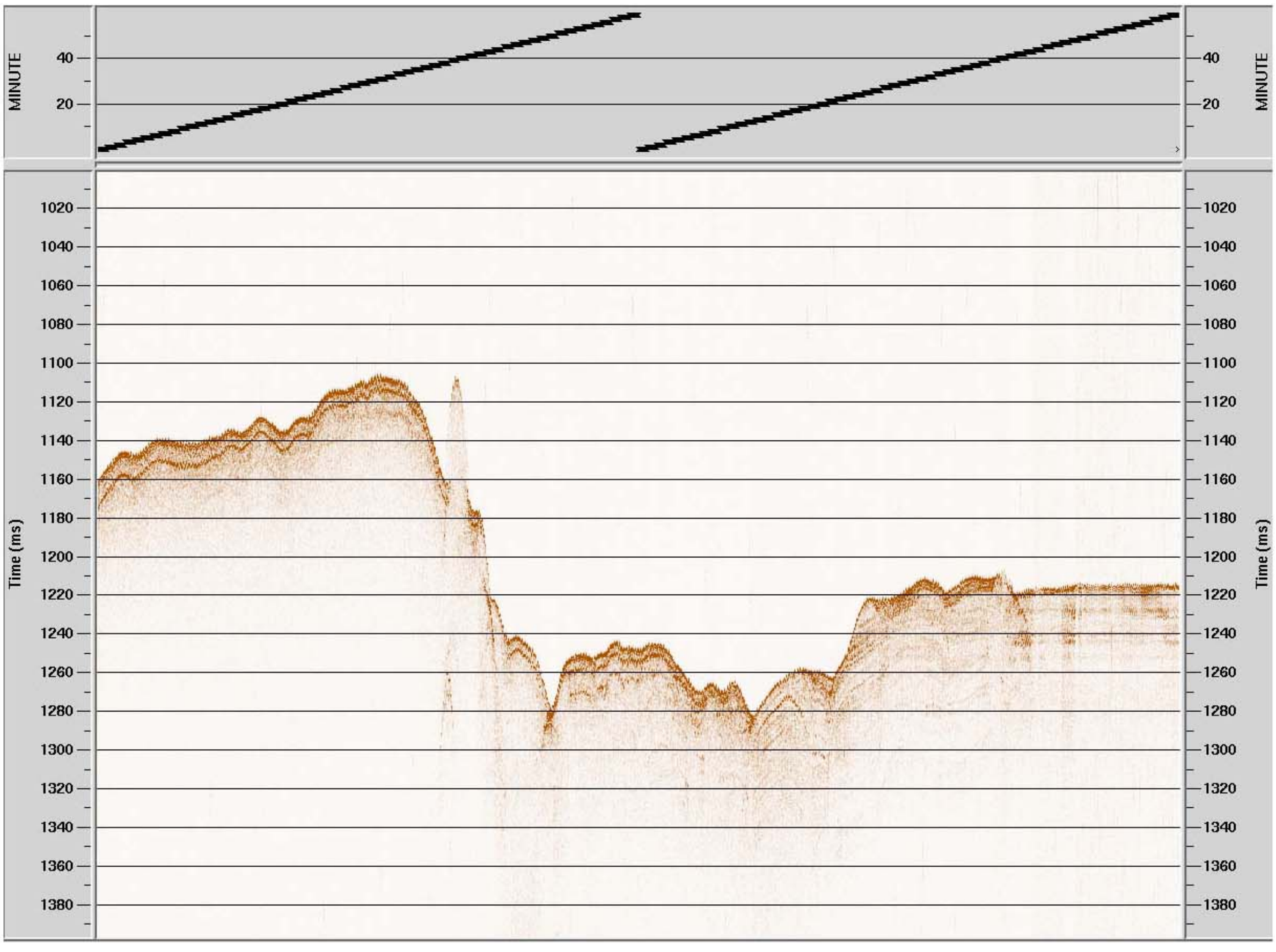
JD 297

10:00-12:00 GMT



After end of Cocos Survey/Before Transit Line 1
JD 297
12:00-14:00 GMT

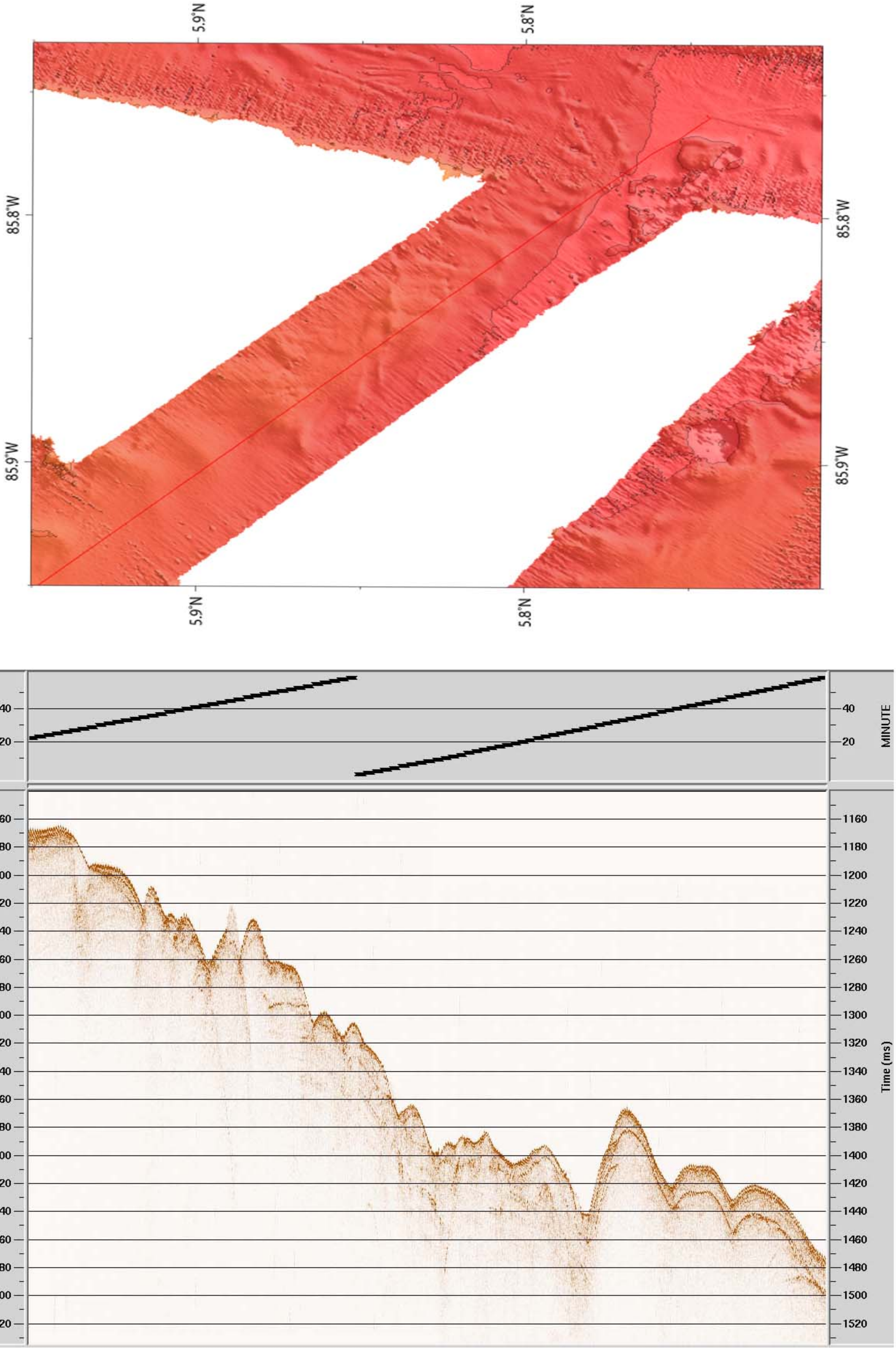




After end of Cocos Survey/Before Transit Line 1

JD 298

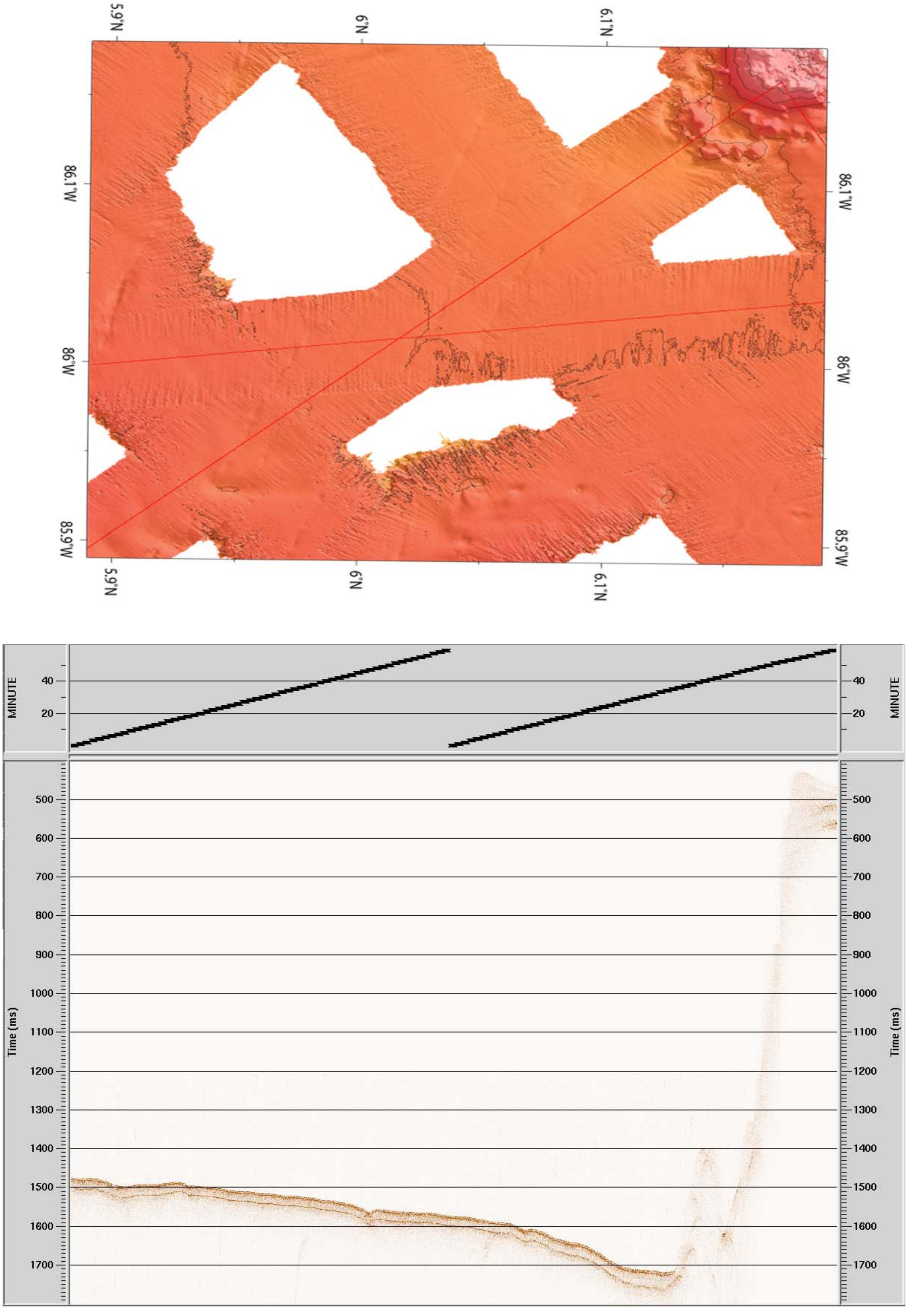
04:22-06:00 GMT



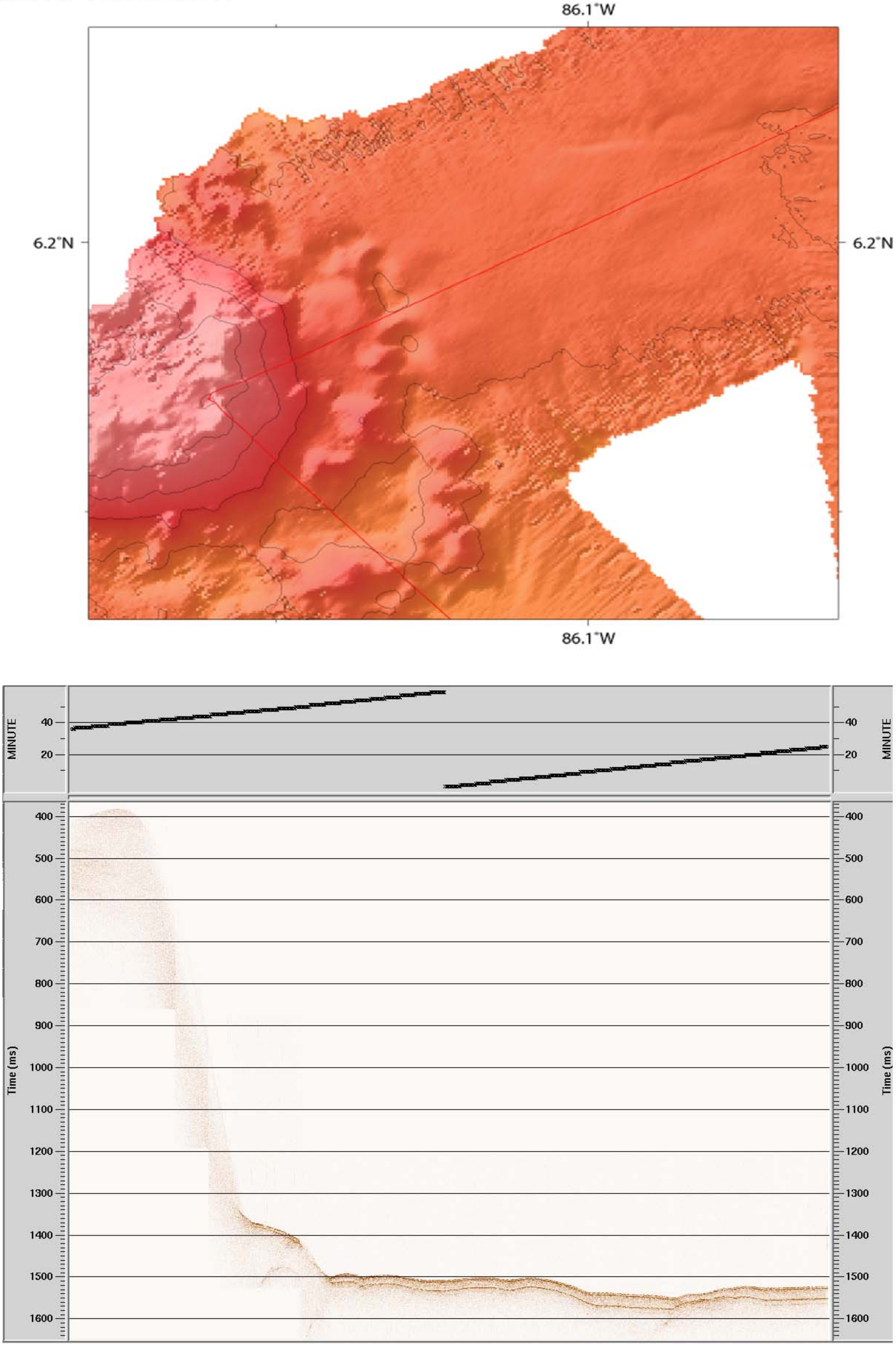
After end of Cocos Survey/Before Transit Line 1

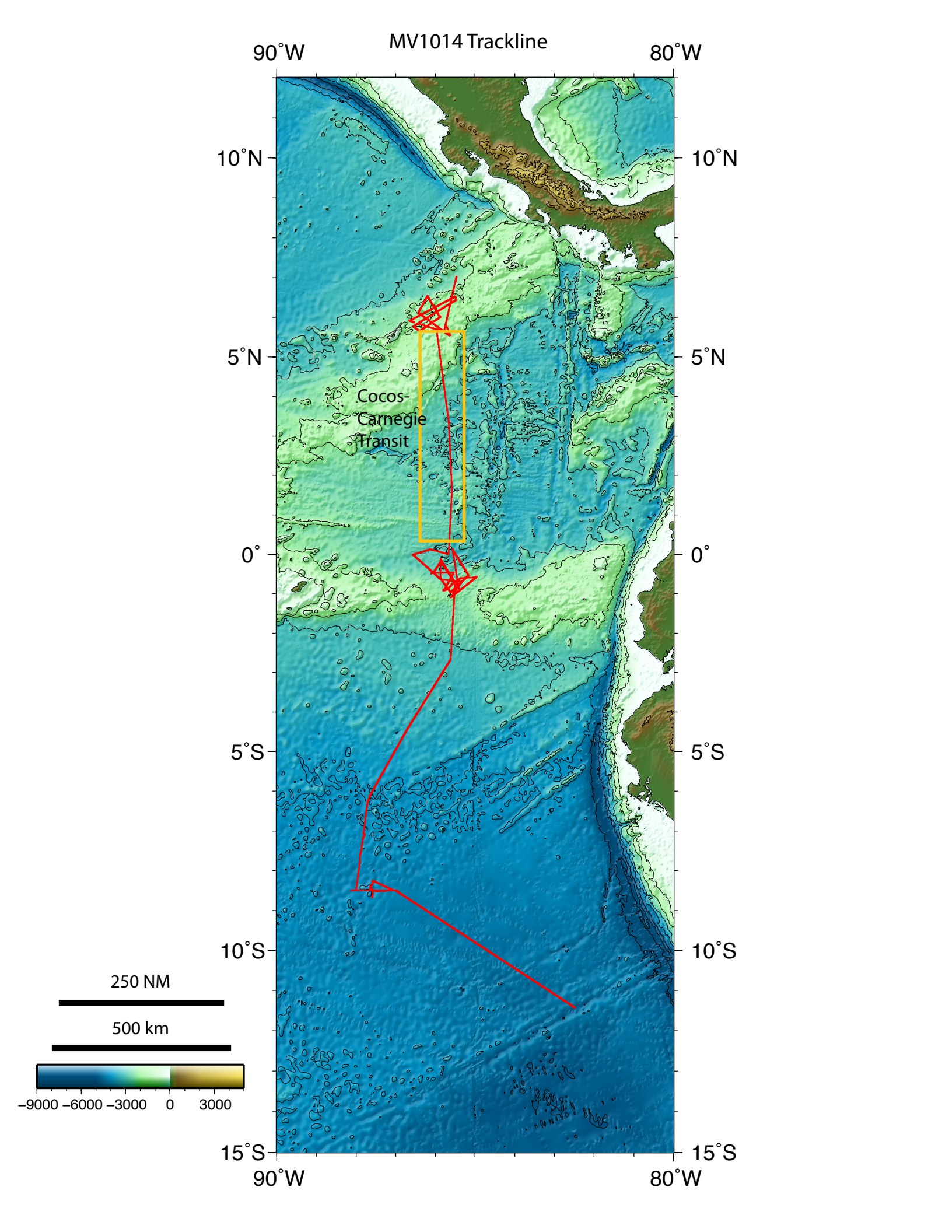
JD 298

06:00-08:00 GMT

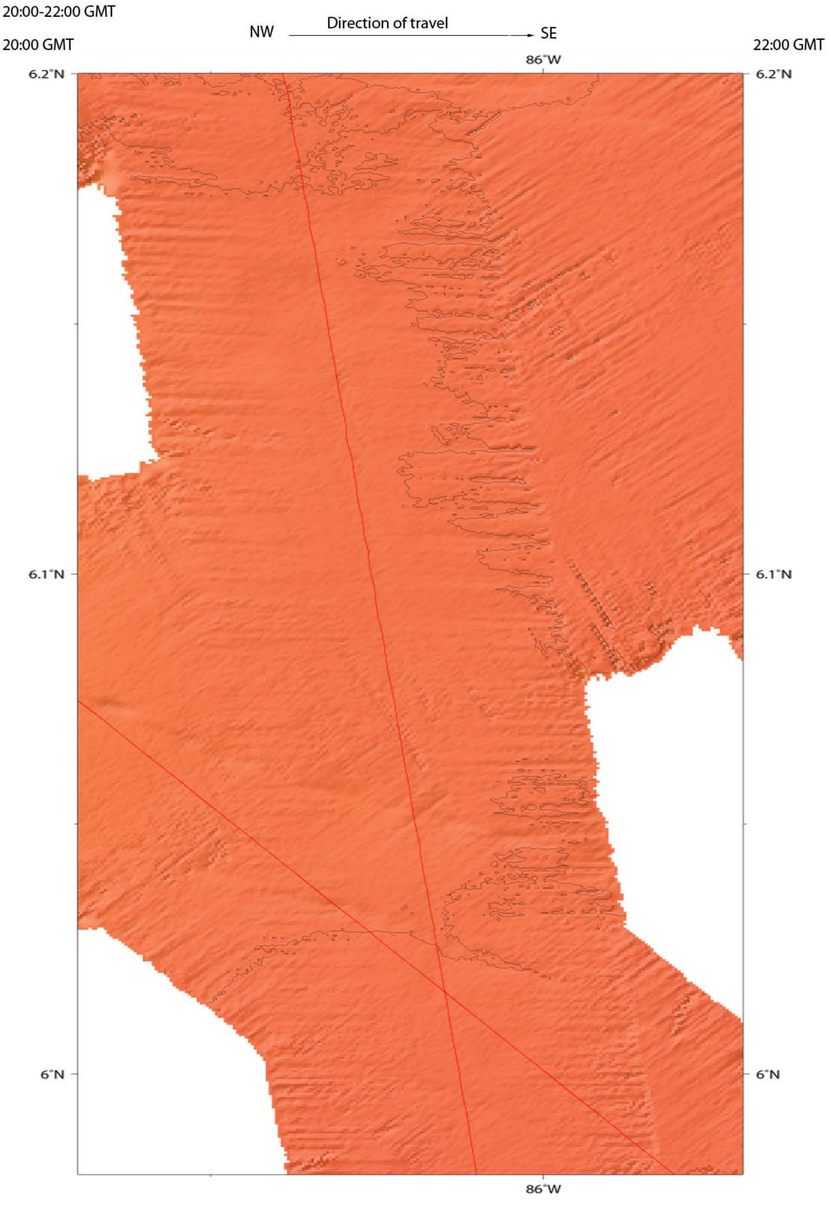


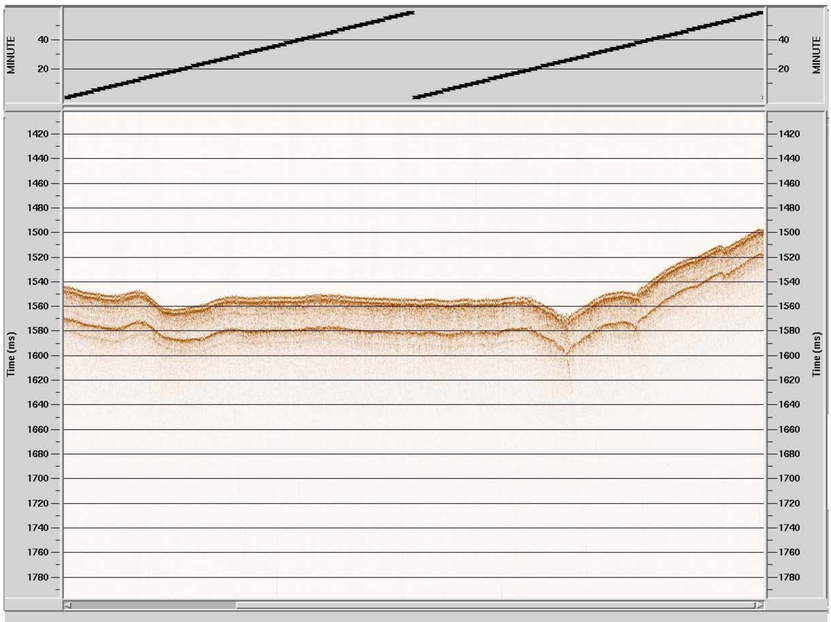
After end of Cocos Survey/Before Transit Line 1
JD 298
09:36-10:25 GMT



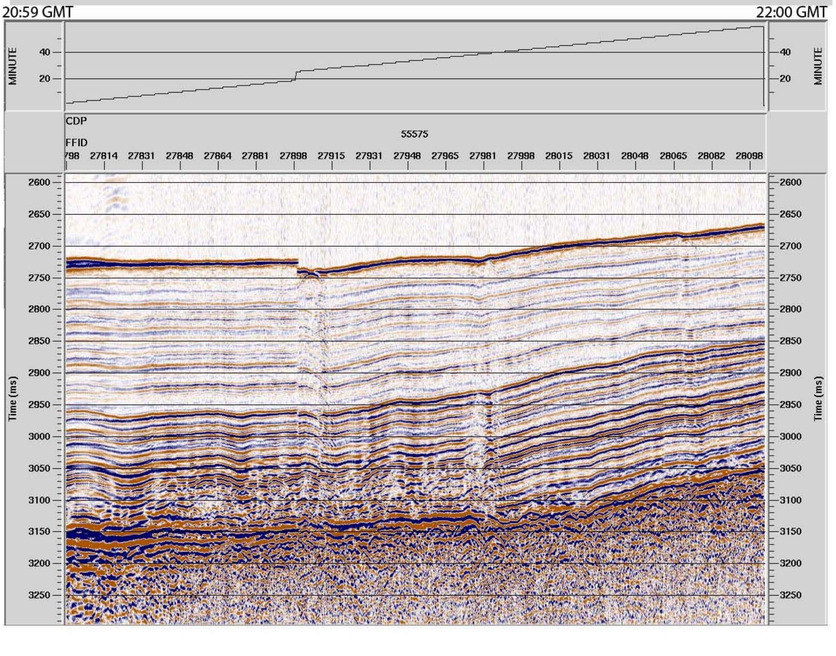

MV1014 Trackline
90˚W
80˚W
10˚N
5˚N
0˚
5˚S
10˚S
15˚S
Cocos-
Carnegie
Transit
250 NM
500 km
–9000 –6000 –3000 0 3000

Transit
Line 1
JD 298
20:00-22:00 GMT





20:59 GMT
22:00 GMT

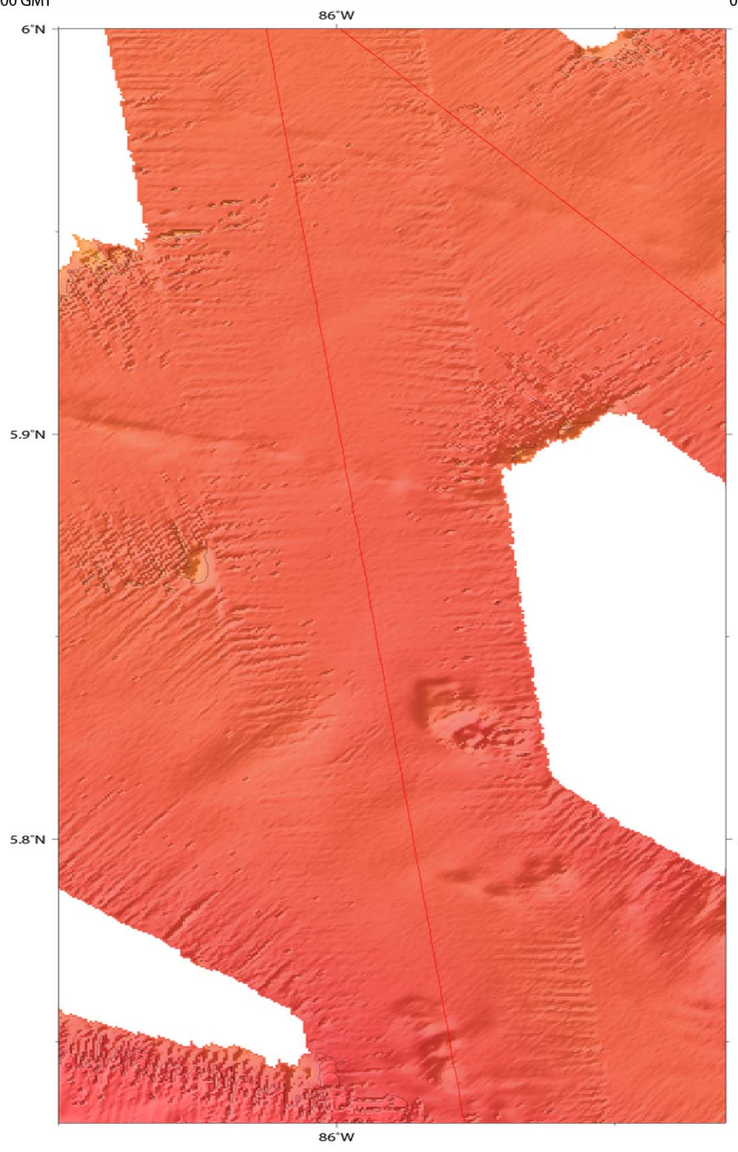


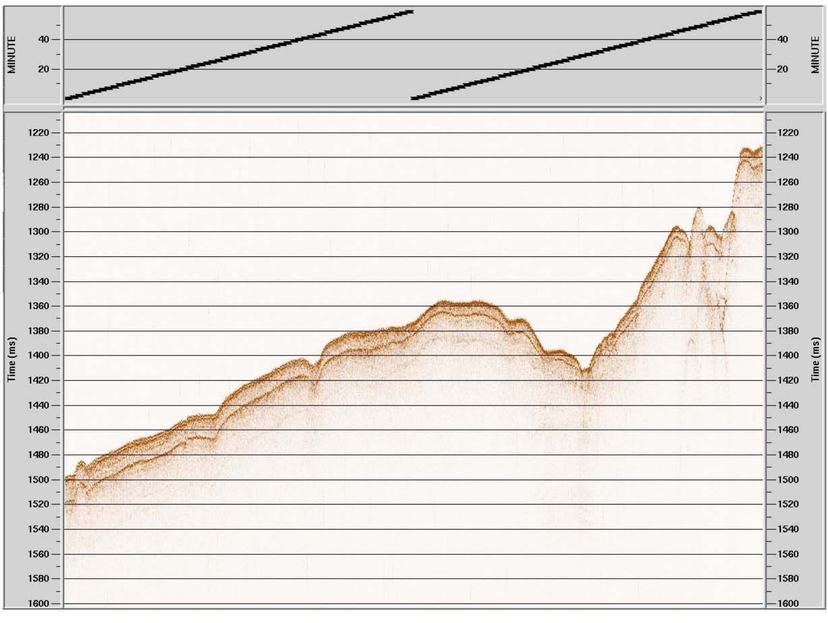
Transit
Line 1
JD 298
22:00-00:00 GMT

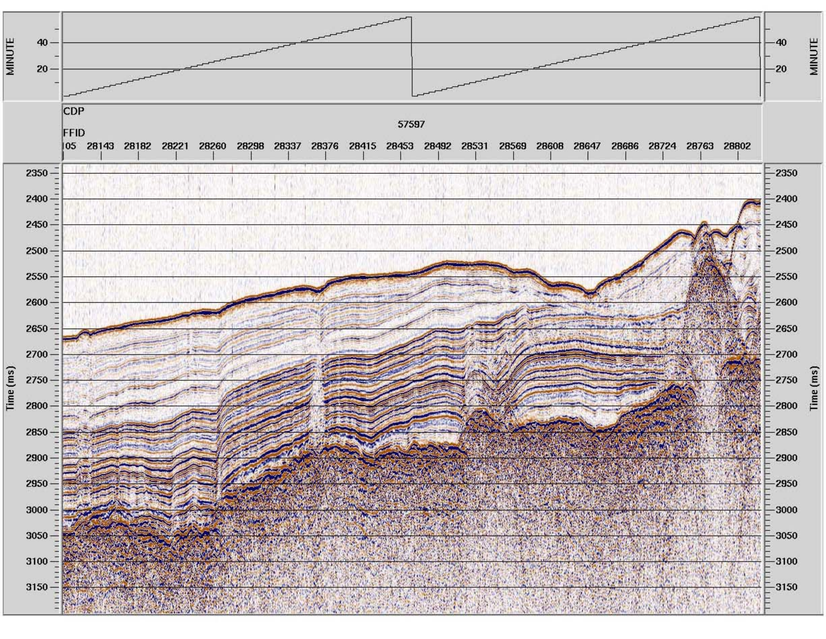
22:00 GMT

NW Direction of travel SE

00:00 GMT



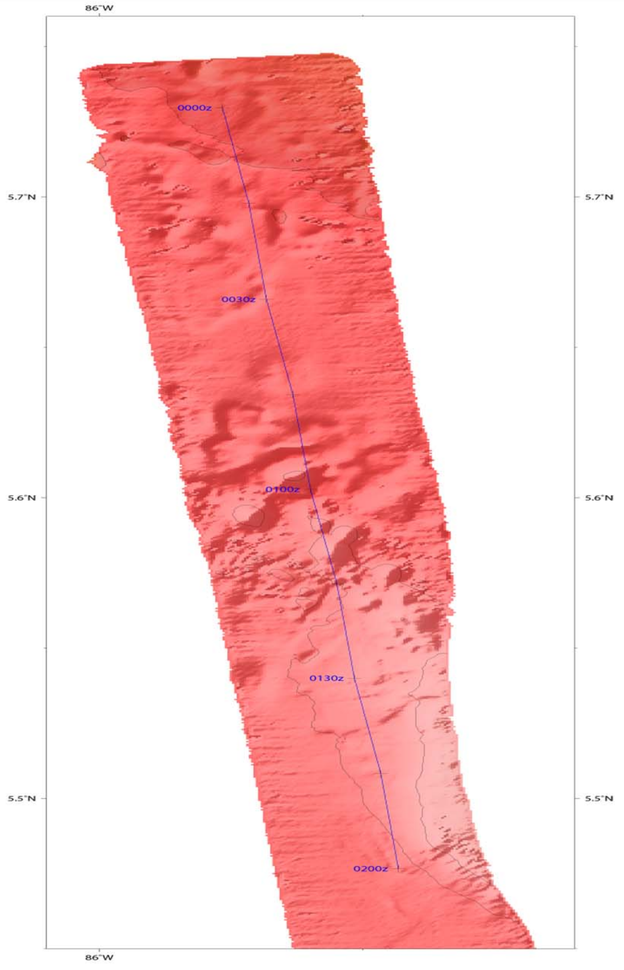


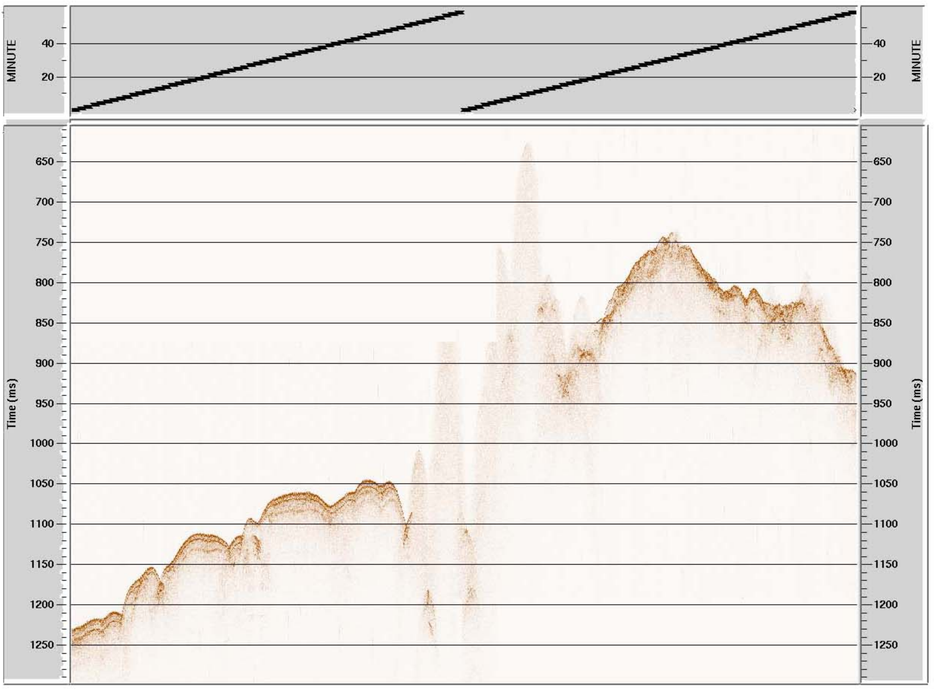


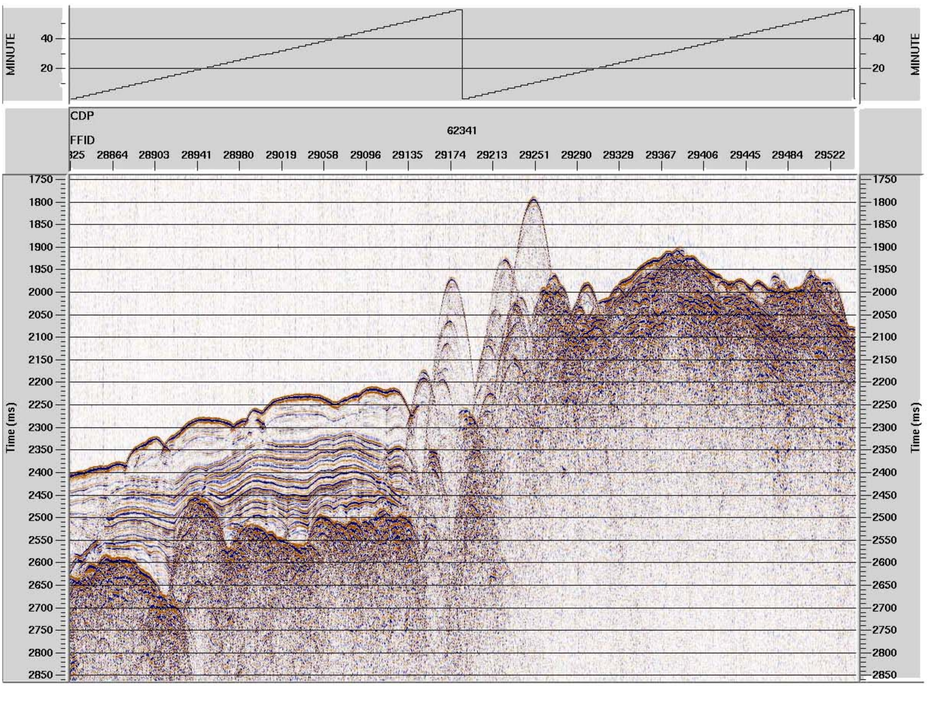
Transit
Line 1
JD 299
00:00-02:00 GMT

NW Direction of travel SE

00:00 GMT 02:00 GMT





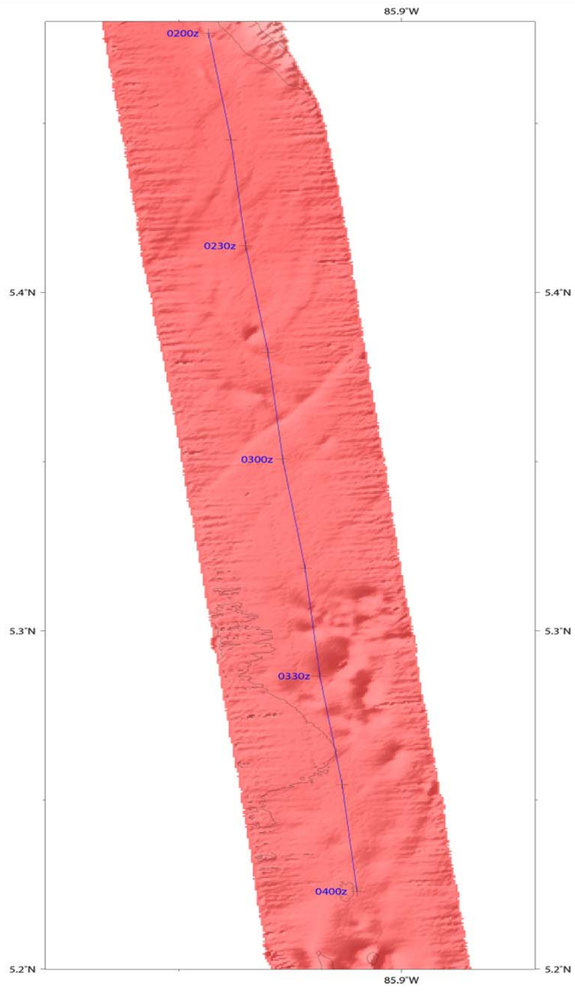


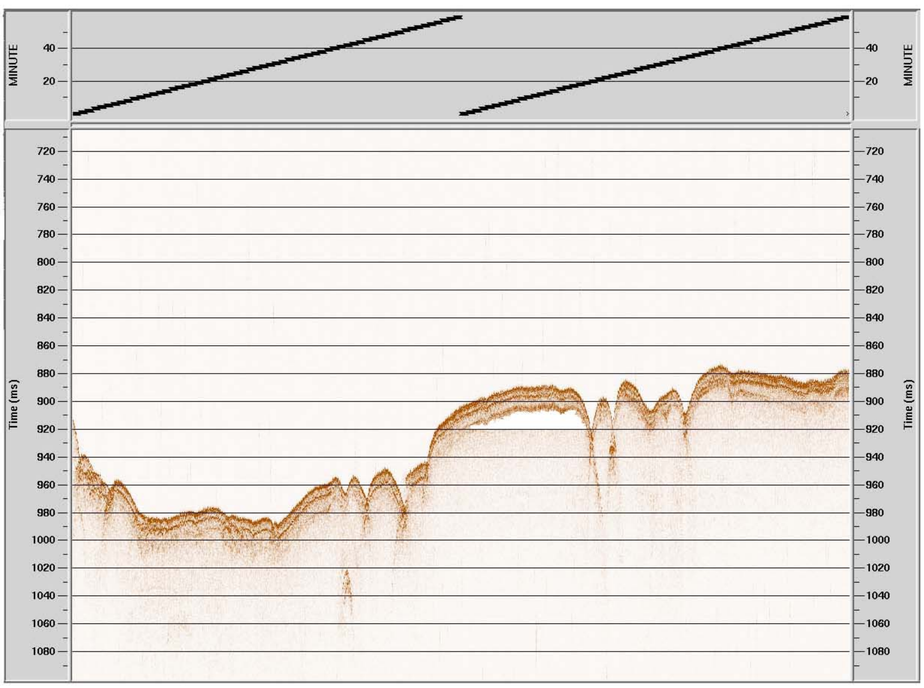
Transit
Line 1
JD 299
02:00-04:00 GMT

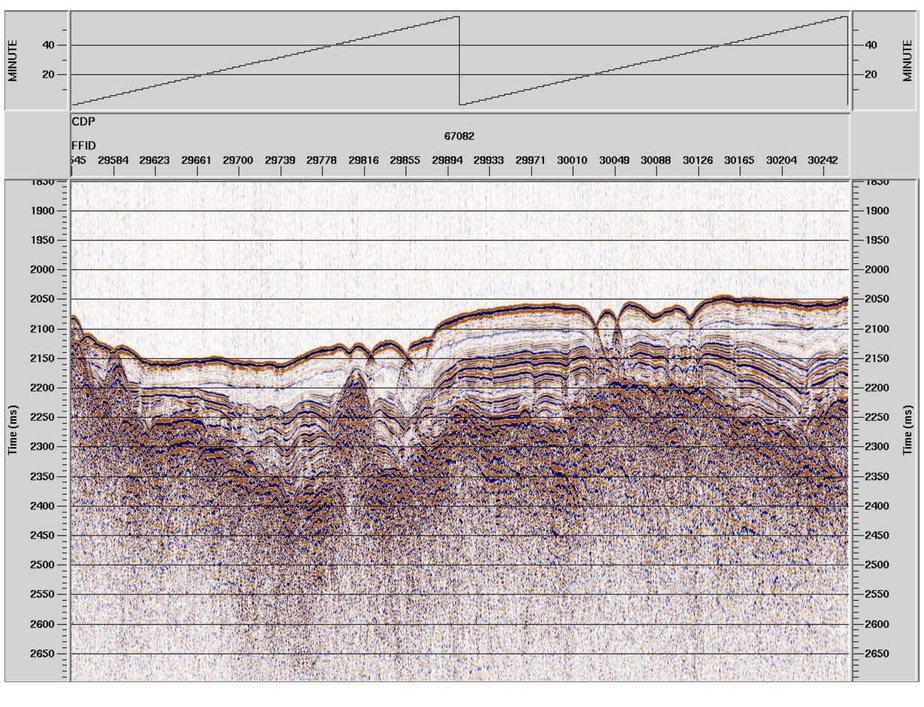
02:00 GMT

NW — Direction of travel → SE

04:00 GMT





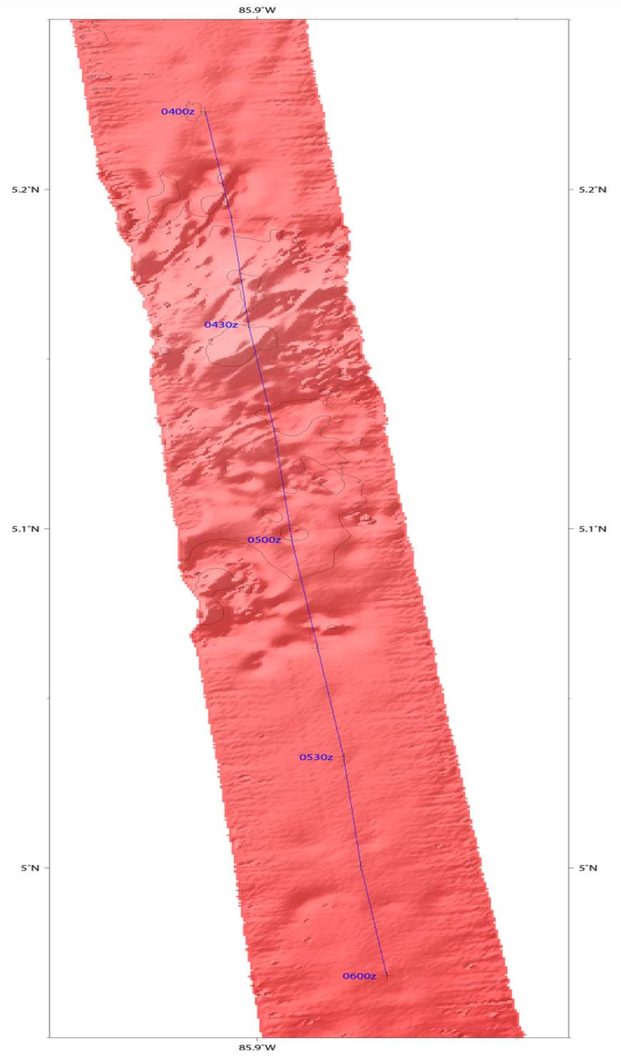


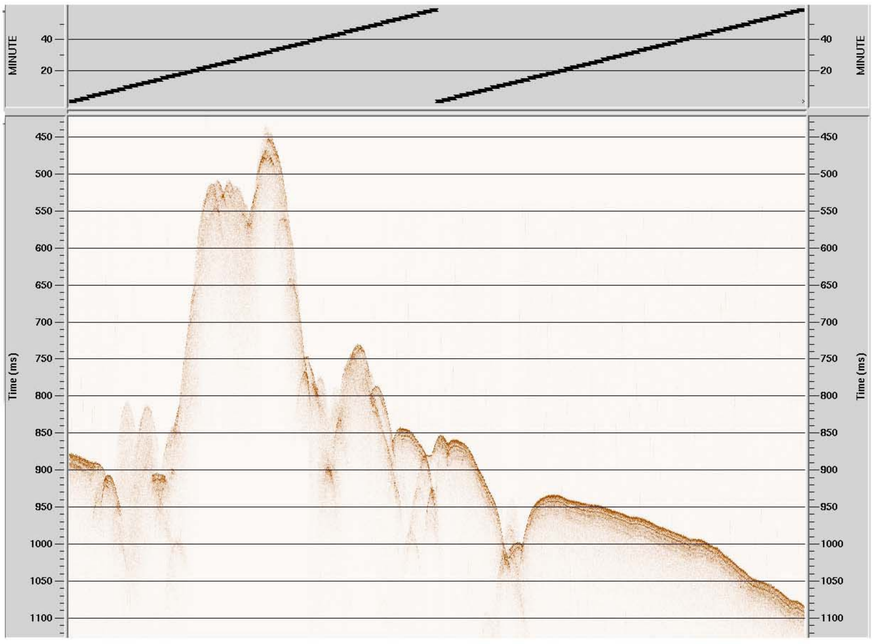
Transit
Line 1
JD 299
04:00-06:00 GMT

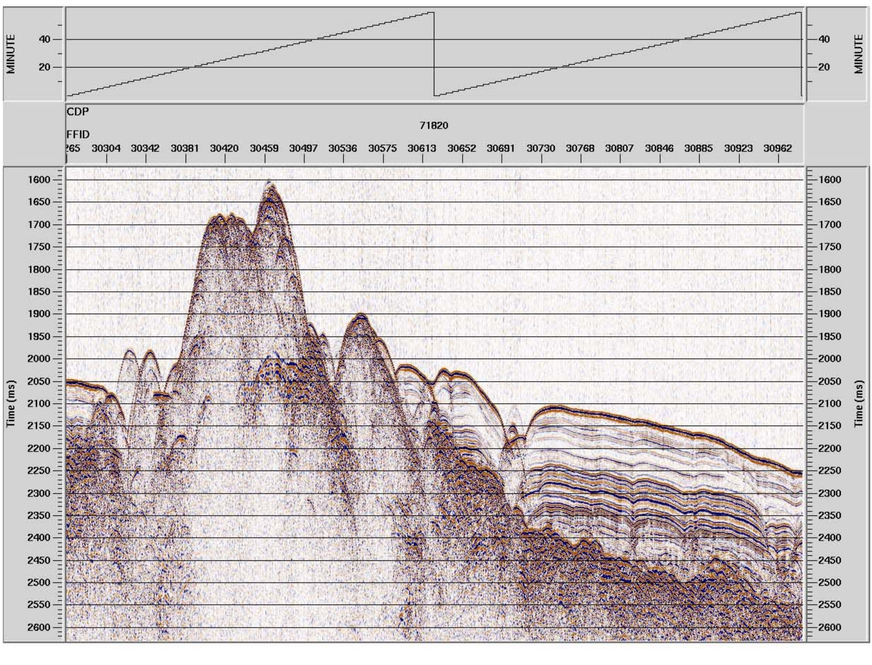
NW — Direction of travel → SE

04:00 GMT

06:00 GMT





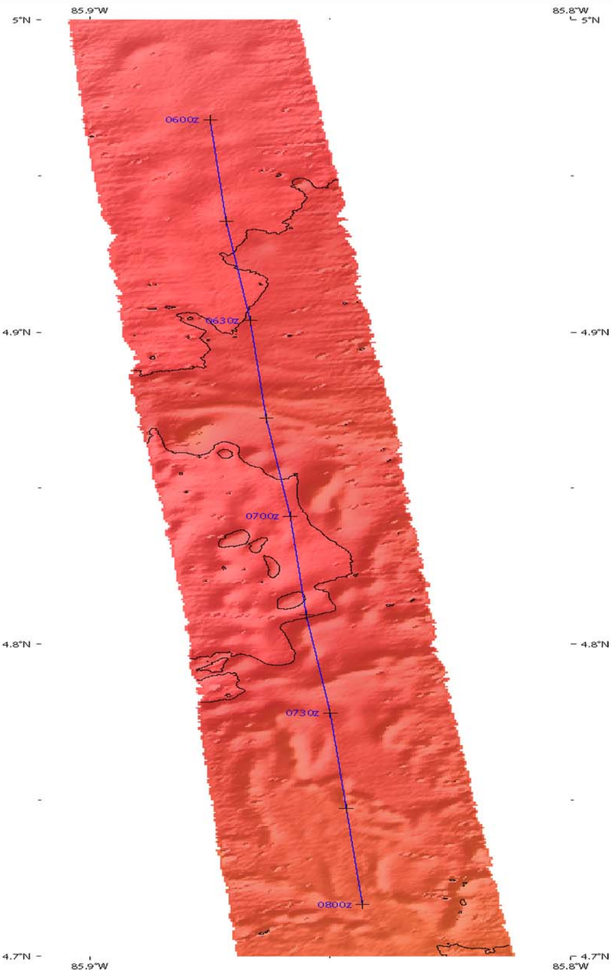


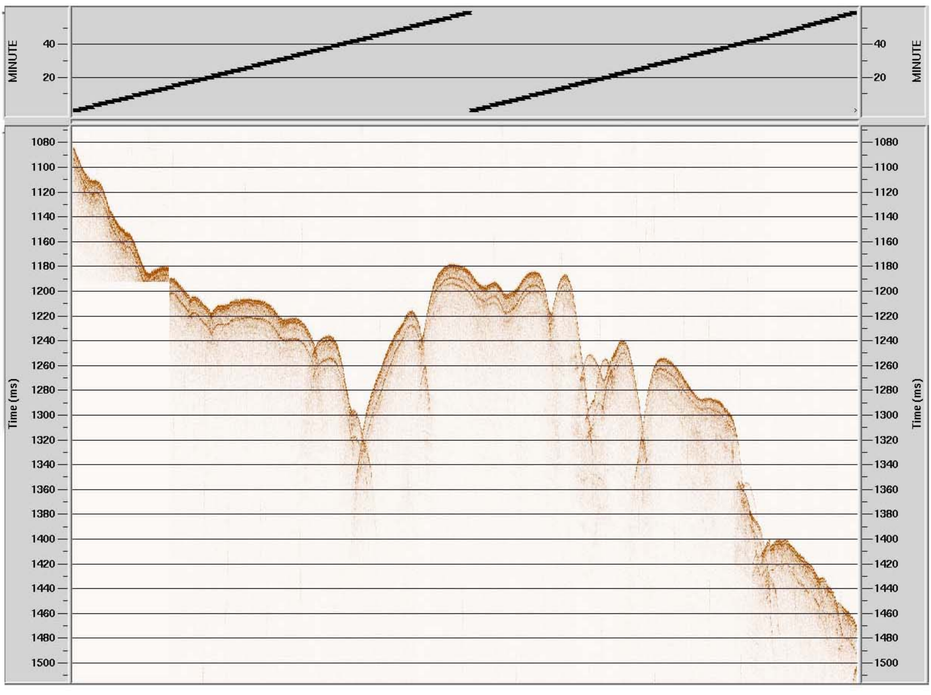
Transit
Line 1
JD 299
06:00-08:00 GMT

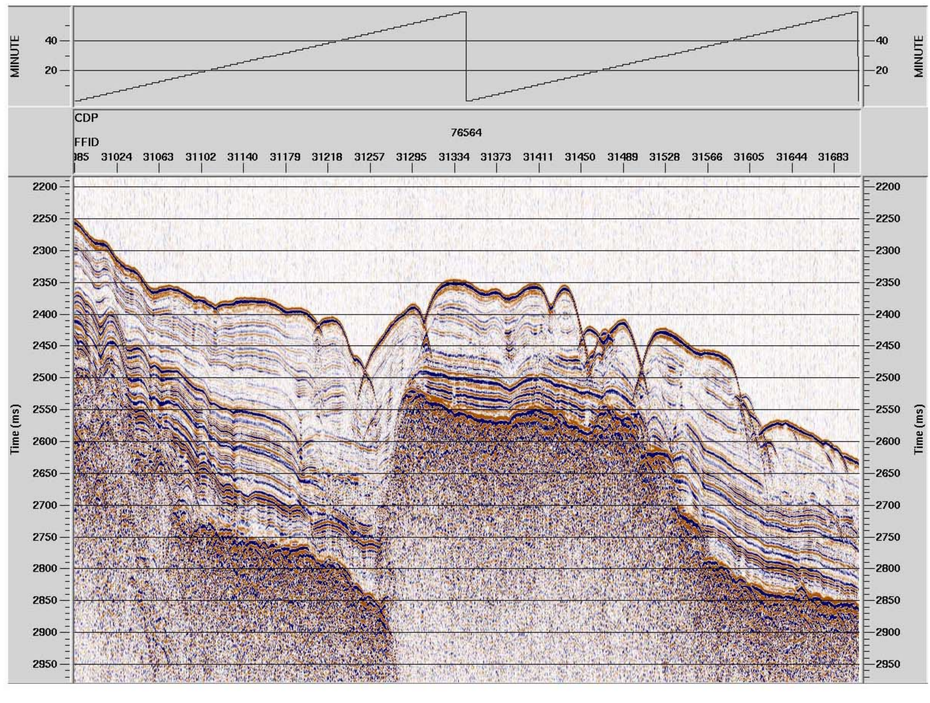
06:00 GMT

NW Direction of travel SE

08:00 GMT





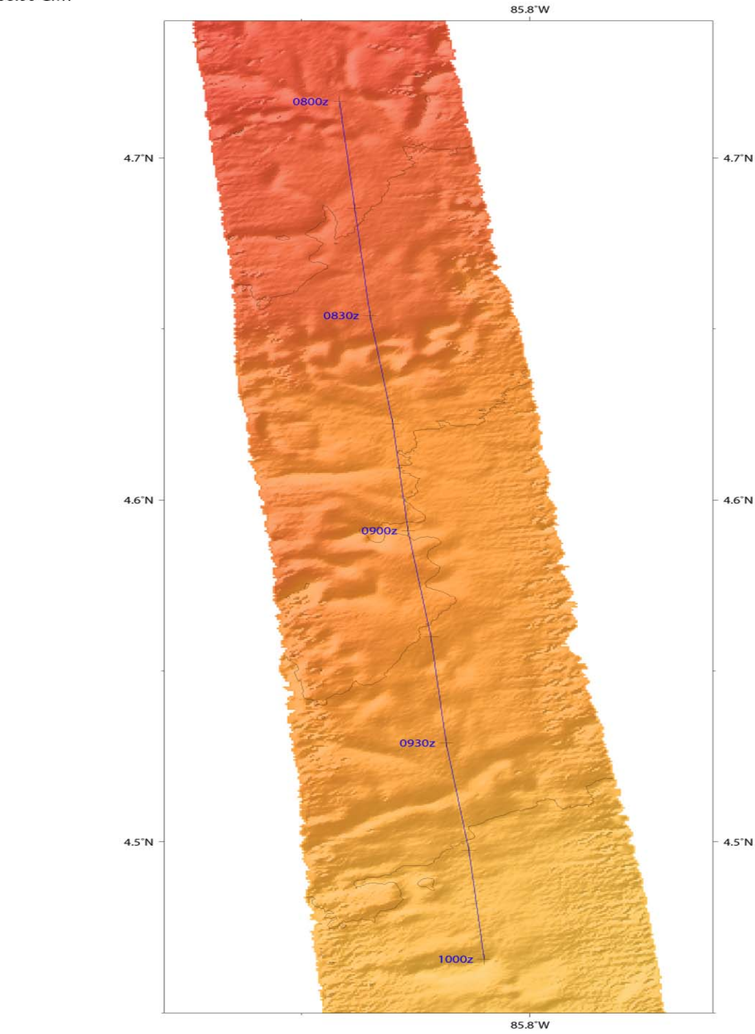


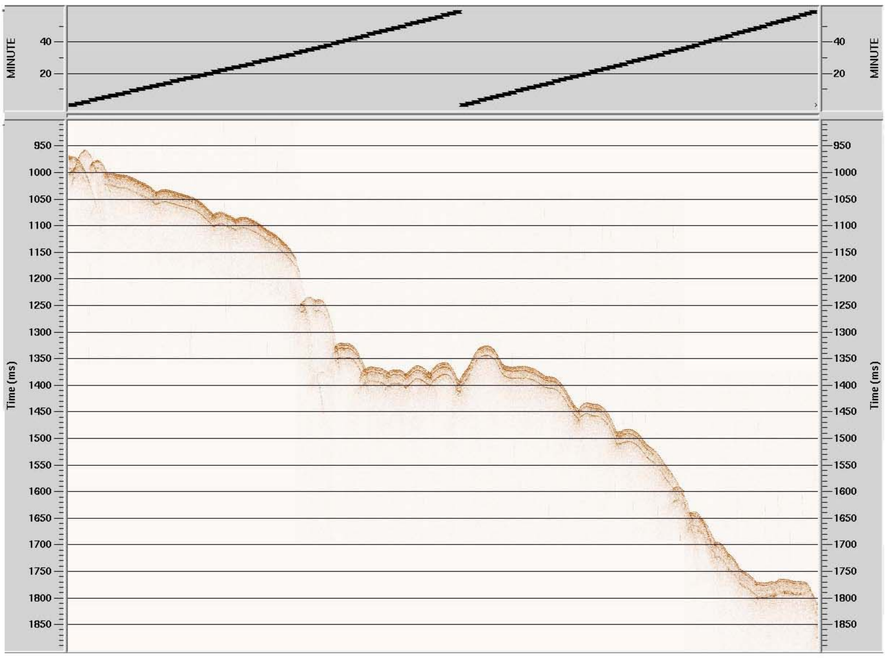
Transit
Line 1
JD 299
08:00-10:00 GMT

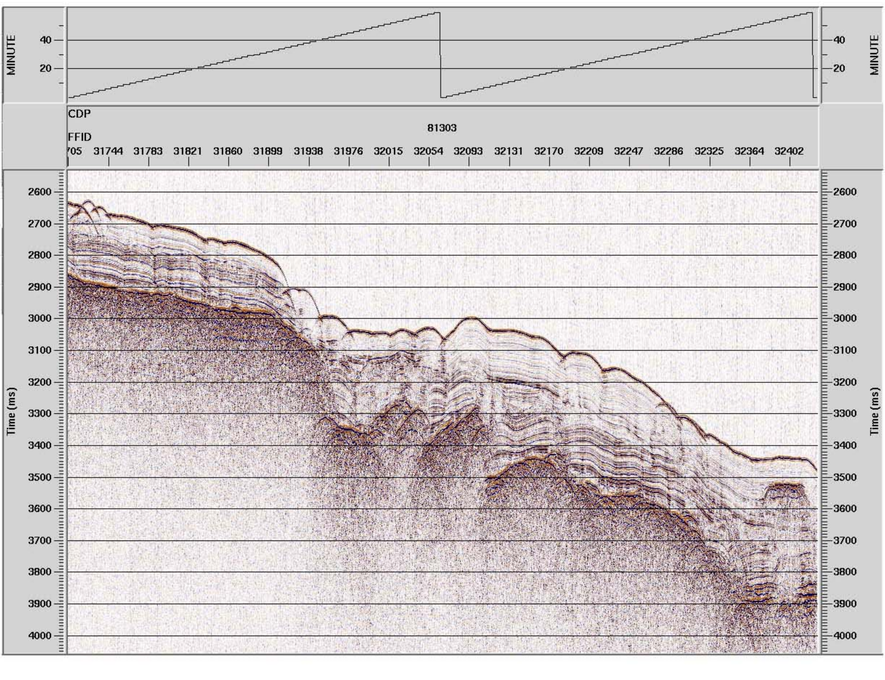
08:00 GMT

NW Direction of travel SE

10:00 GMT





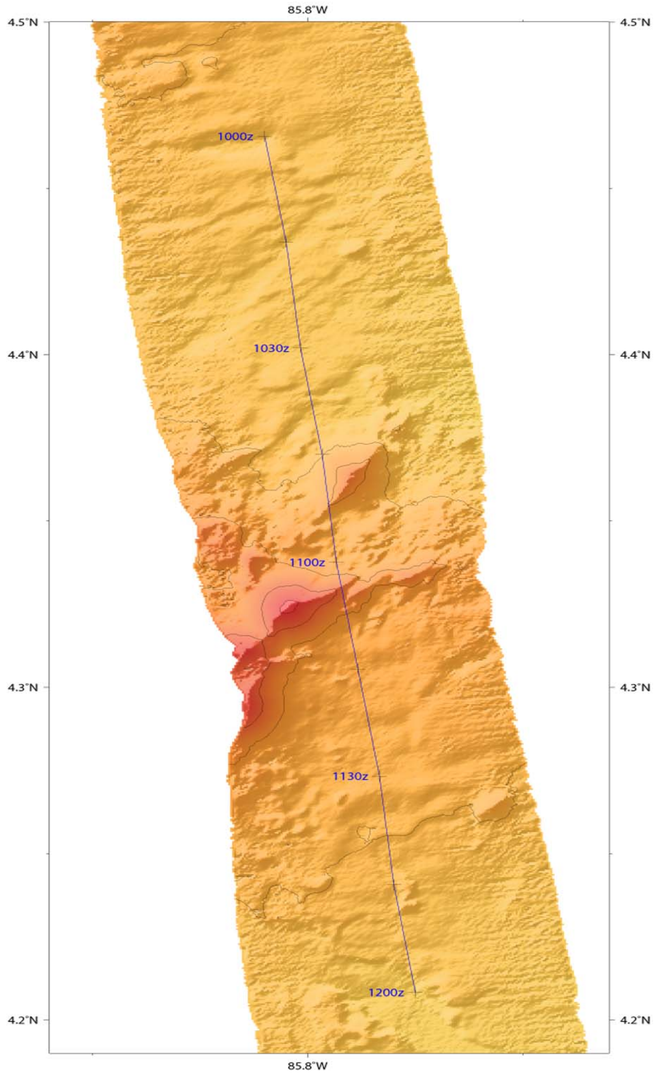


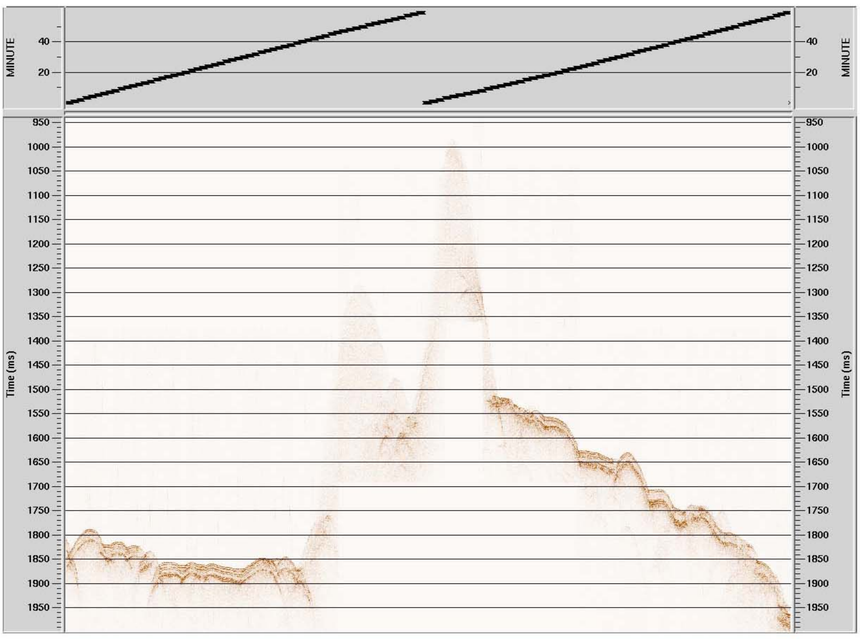
Transit
Line 2
JD 299
10:00-12:00 GMT

10:00 GMT

NW — Direction of travel → SE

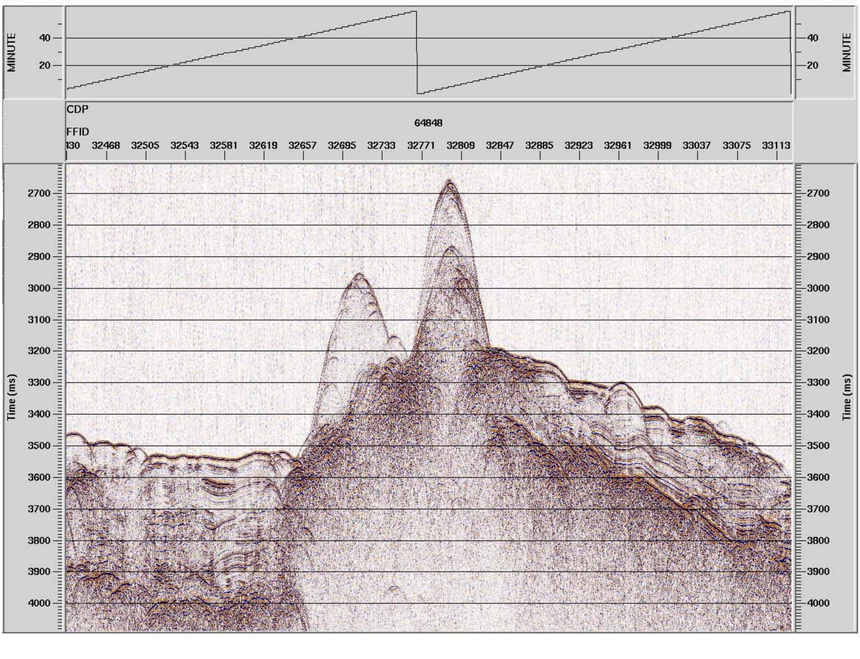
12:00 GMT





10:03 GMT

12:00 GMT

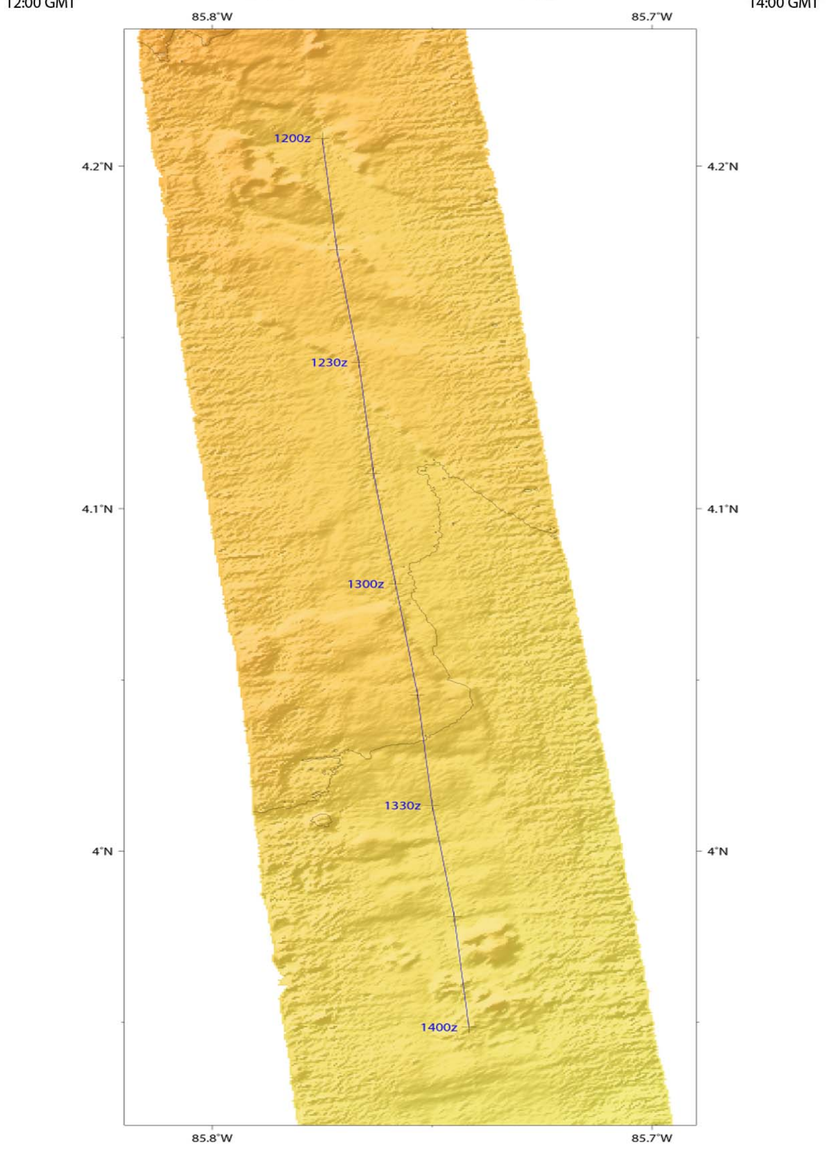


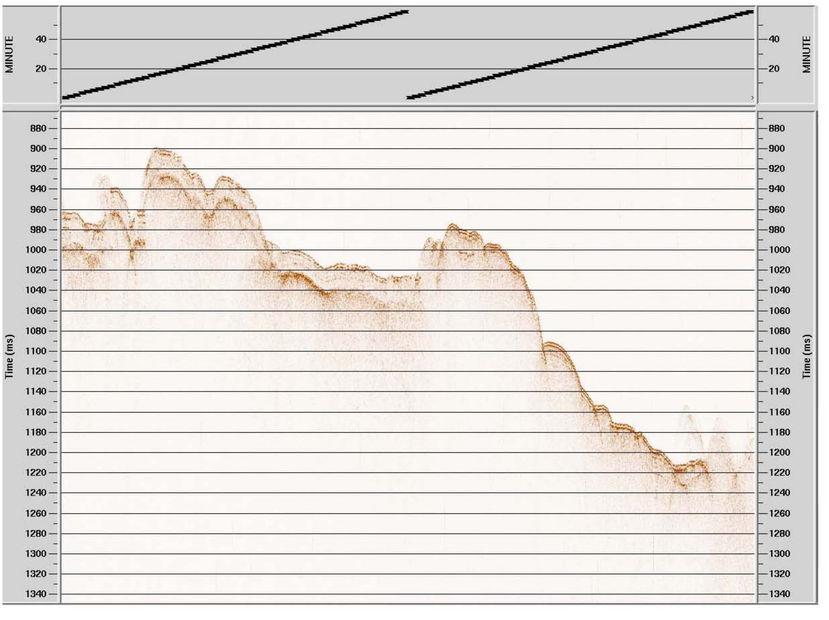
Transit
Line 2
JD 299
12:00-14:00 GMT

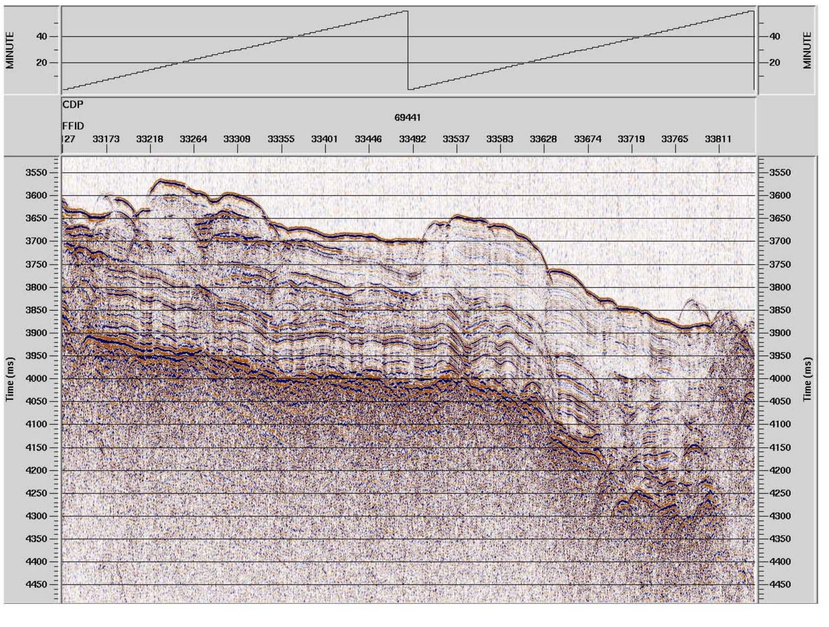
12:00 GMT

NW Direction of travel SE

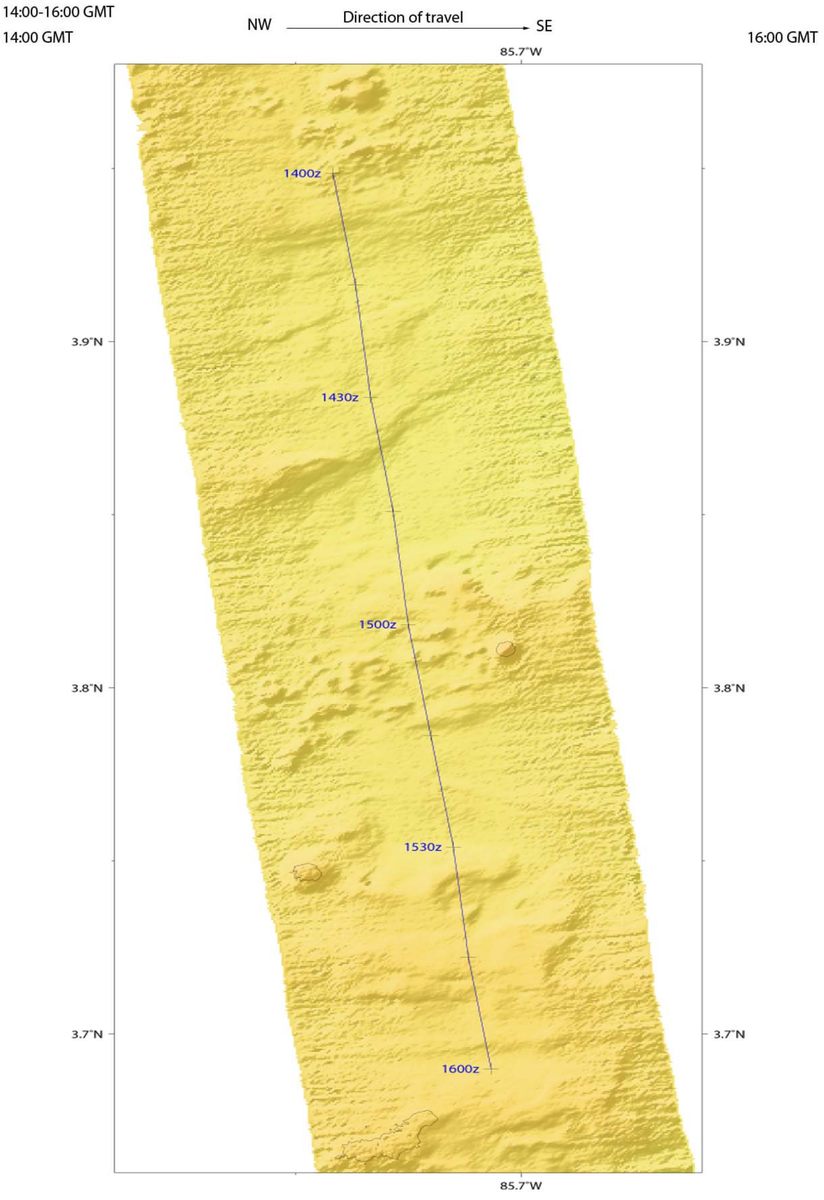
14:00 GMT

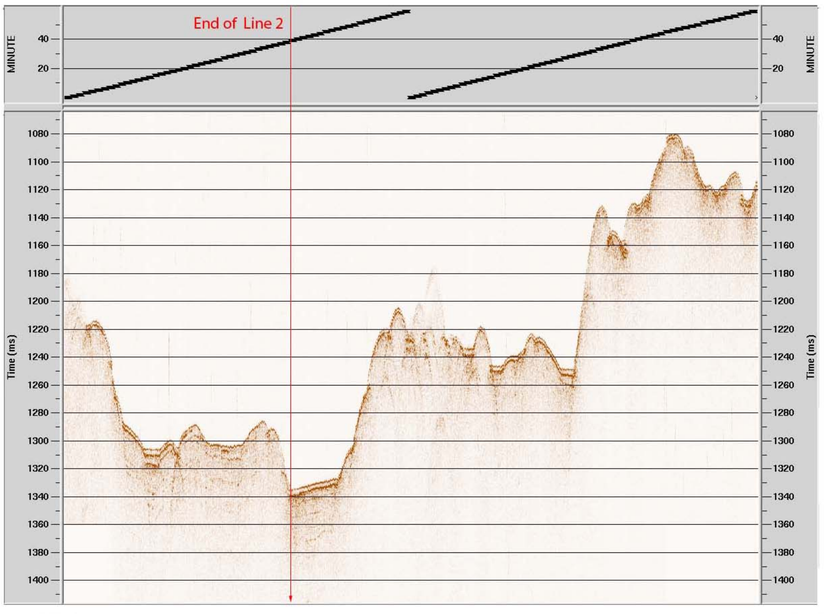


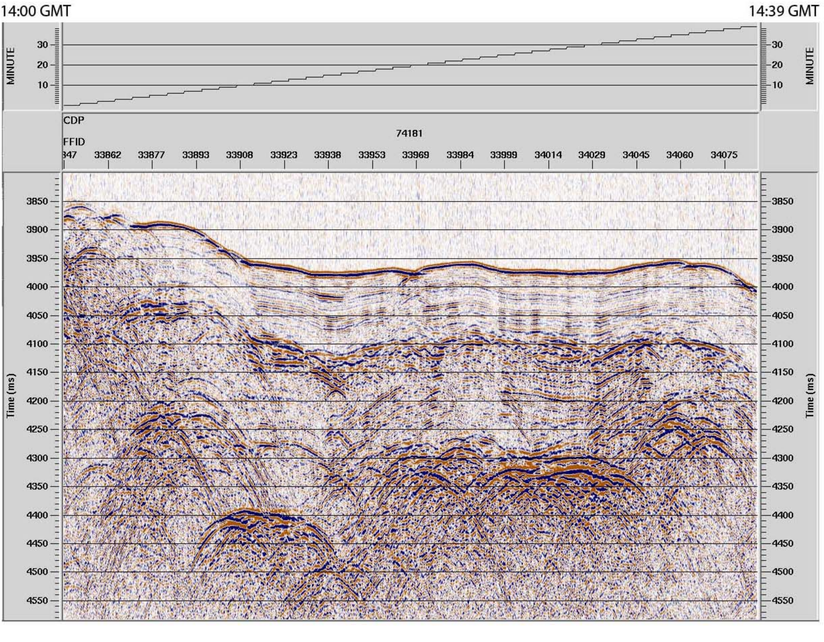




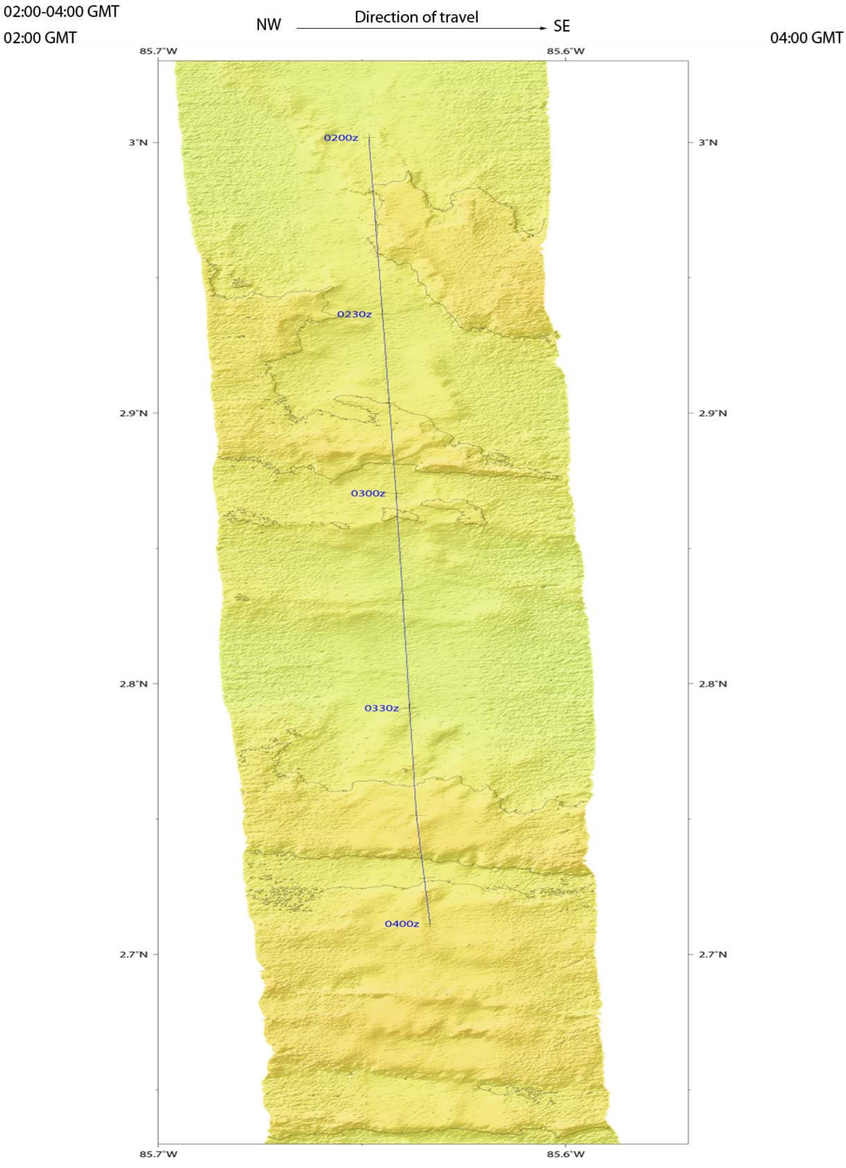
Transit
Line 2
JD 299
14:00-16:00 GMT

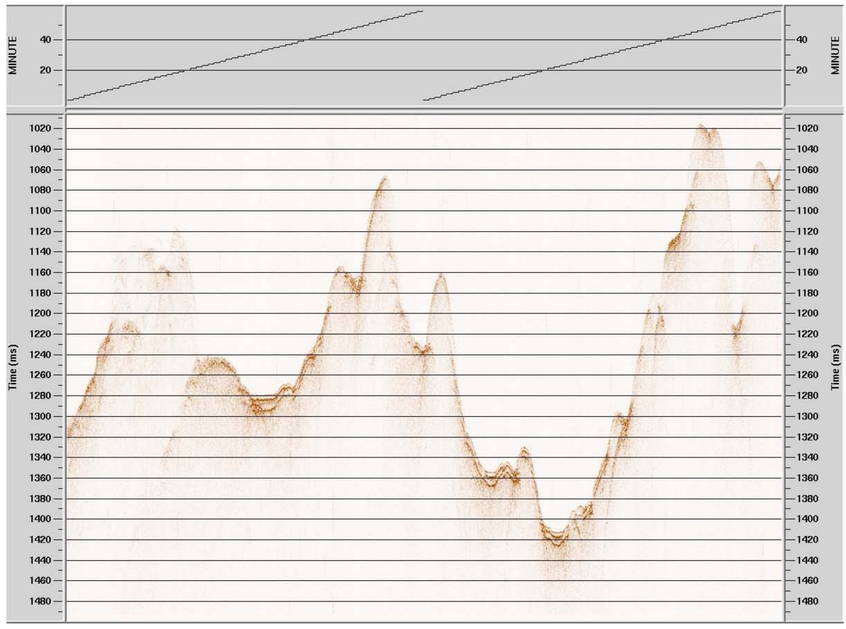


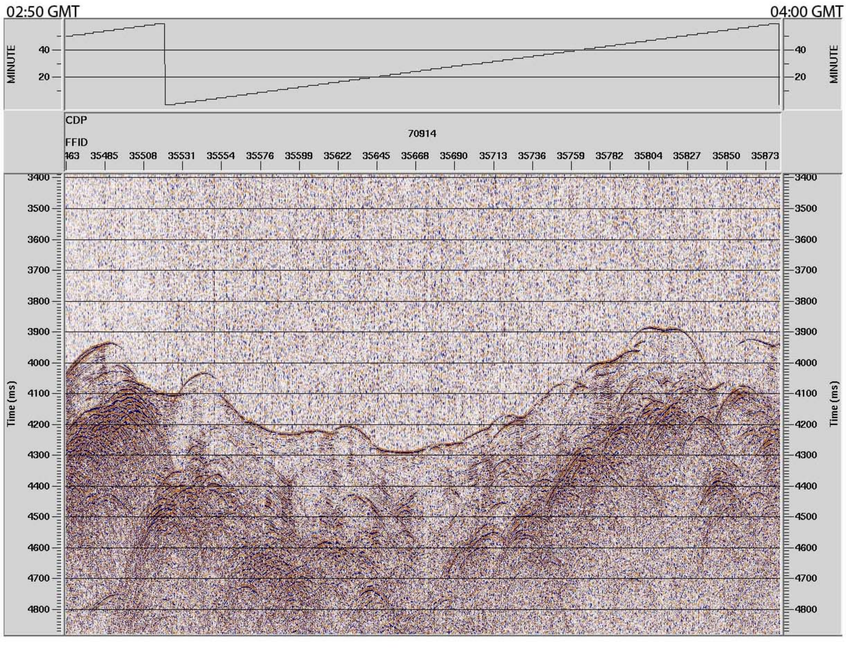




Transit
Line 3
JD 300
02:00-04:00 GMT







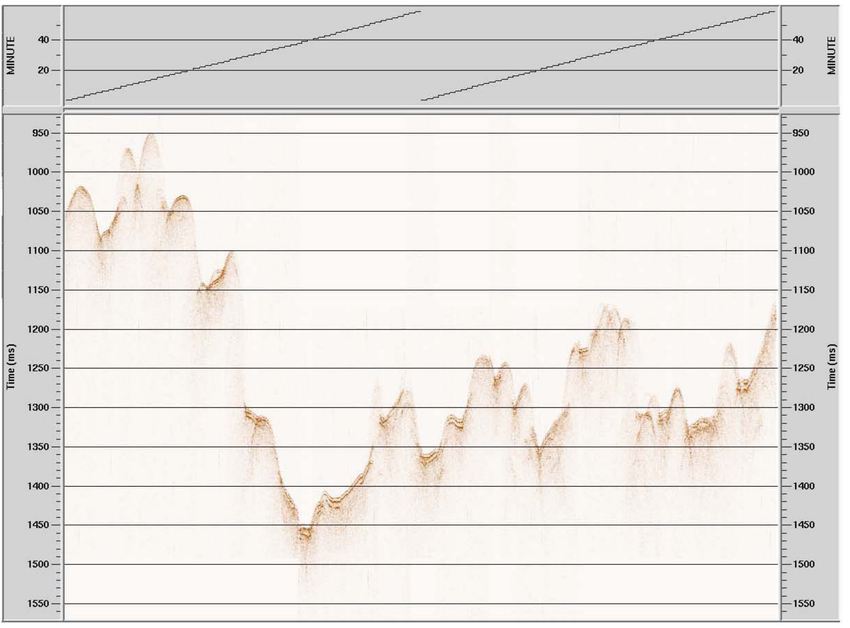
Transit
Line 3
JD 300
04:00-06:00 GMT

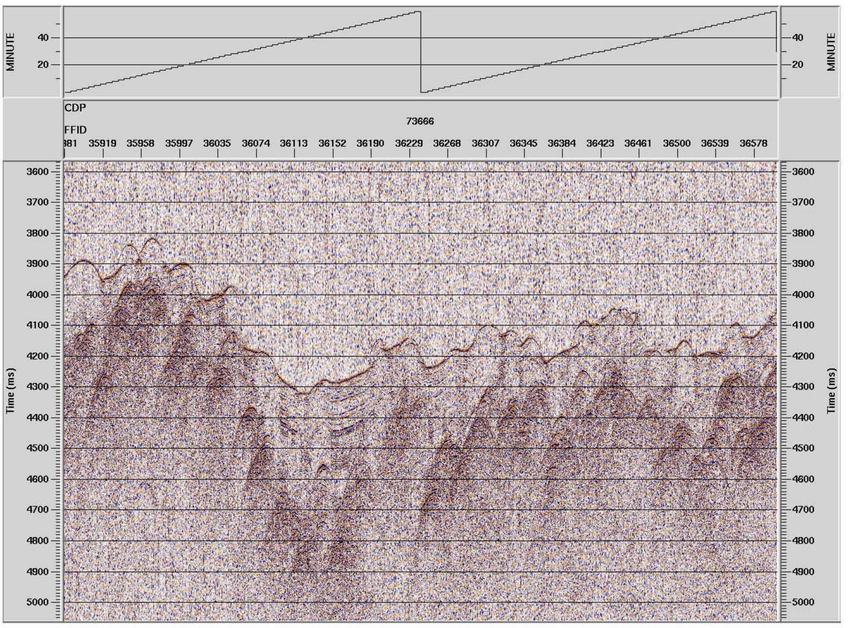
NW — Direction of travel → SE

04:00 GMT

06:00 GMT





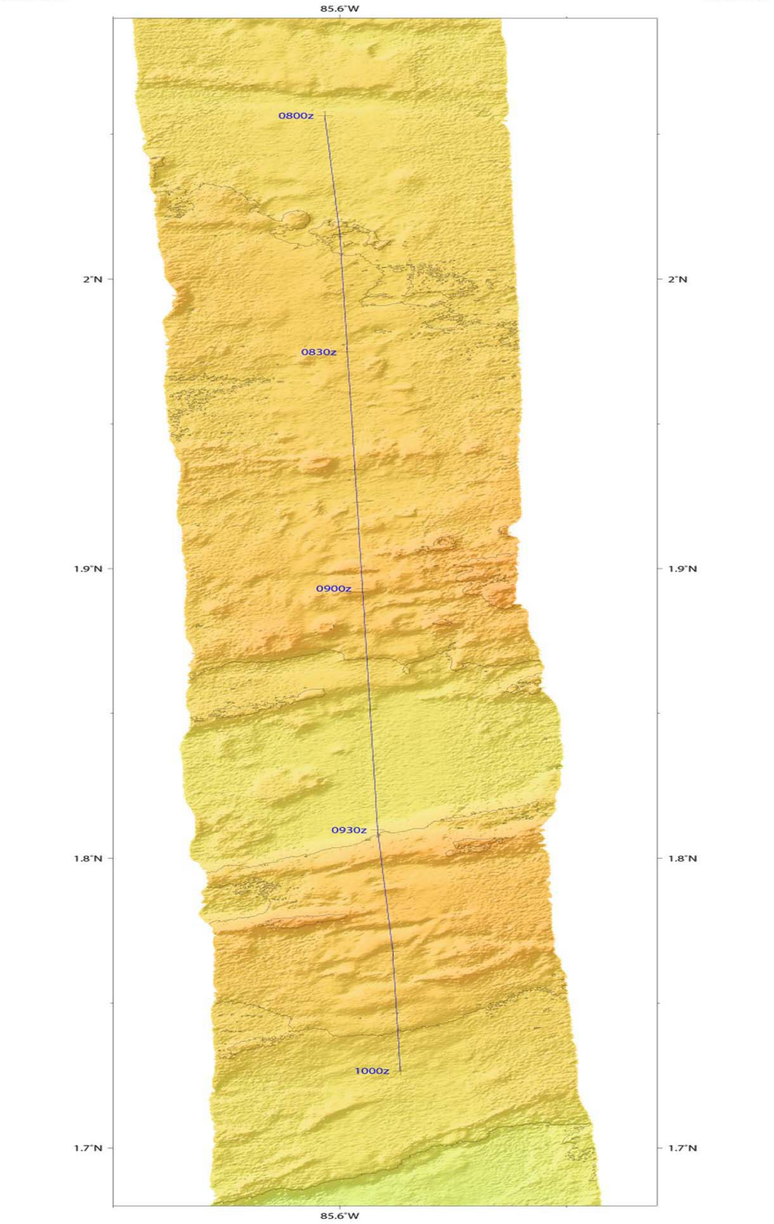


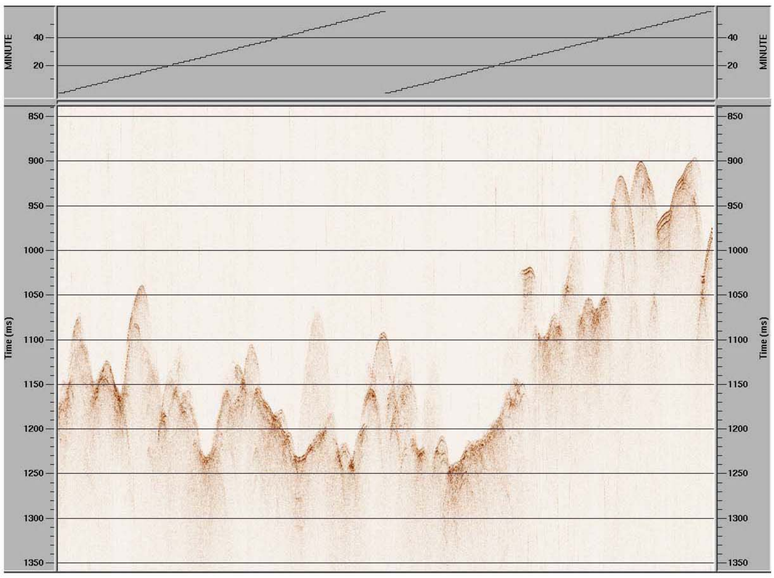
Transit
Line 3
JD 300
06:00-08:00 GMT

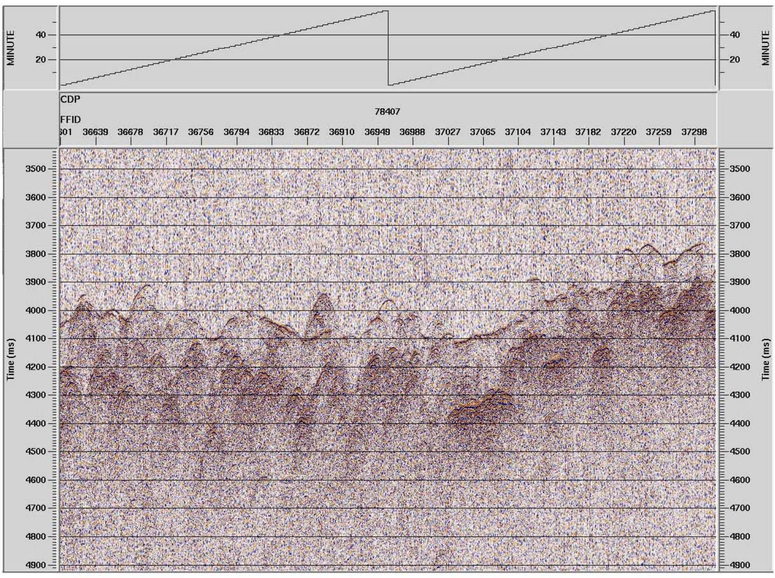
06:00 GMT

NW Direction of travel SE

08:00 GMT

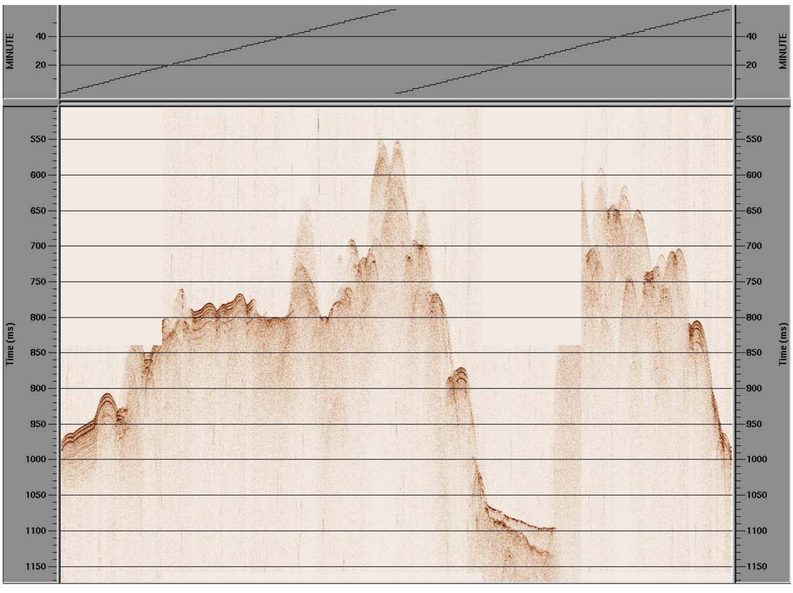


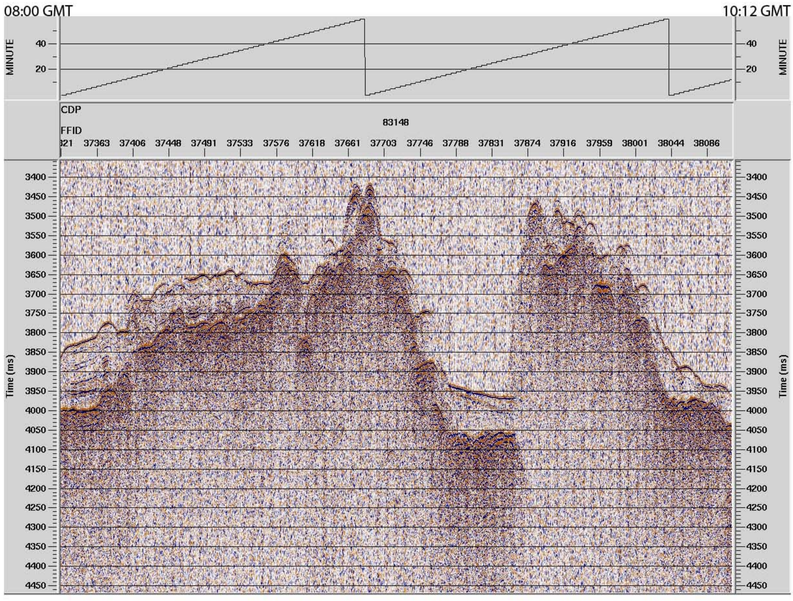




Transit
Line 3
JD 300
08:00-10:00 GMT





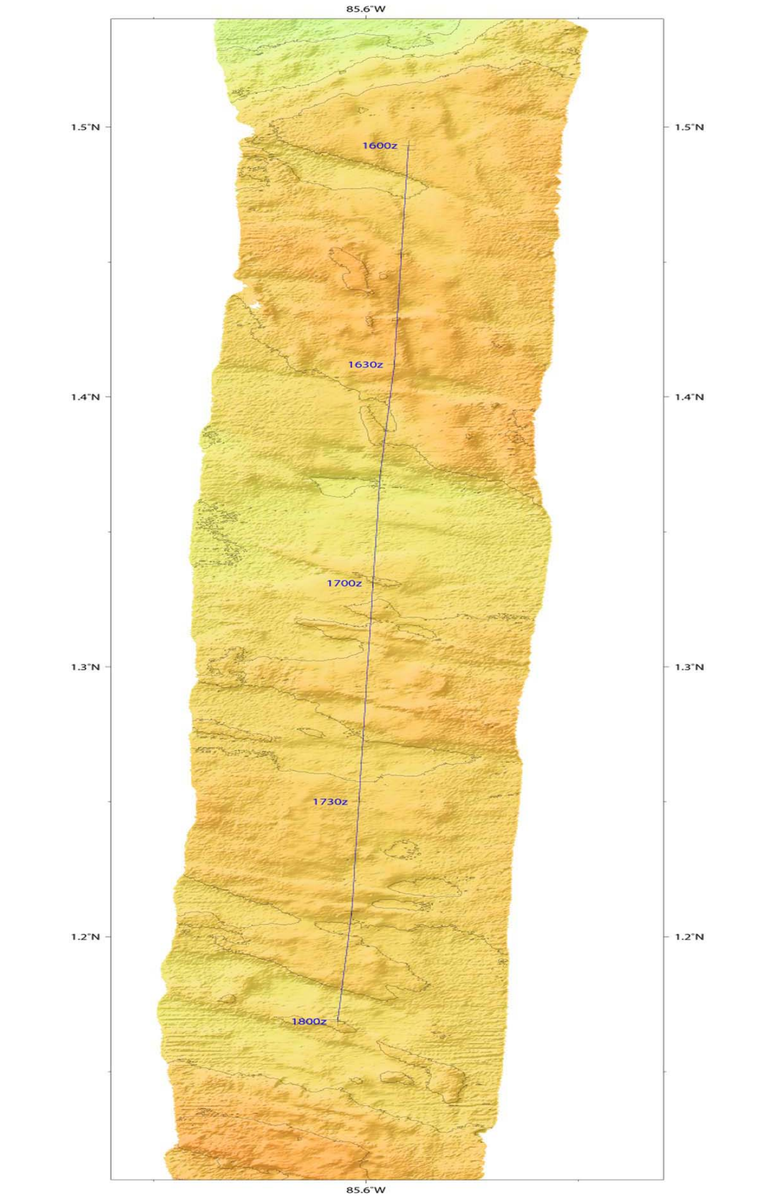


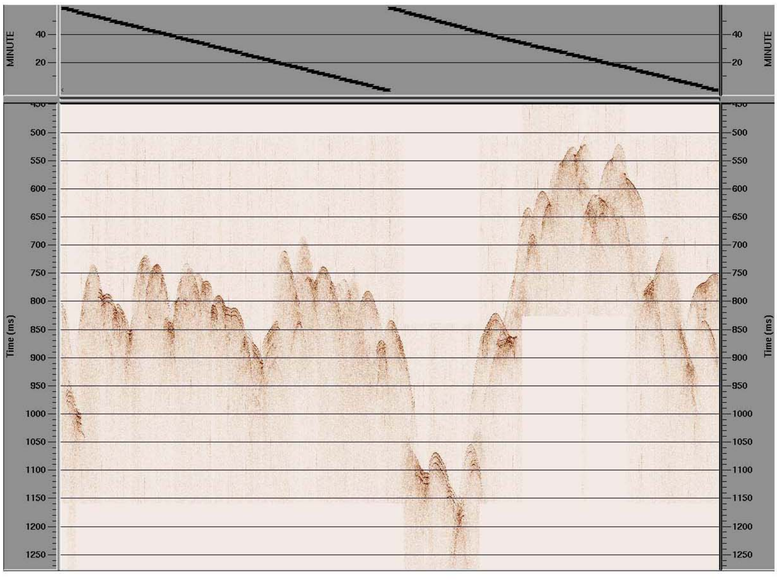
Transit
Line 4
JD 300
15:34-18:00 GMT

18:00 GMT

NW ← Direction of travel → SE

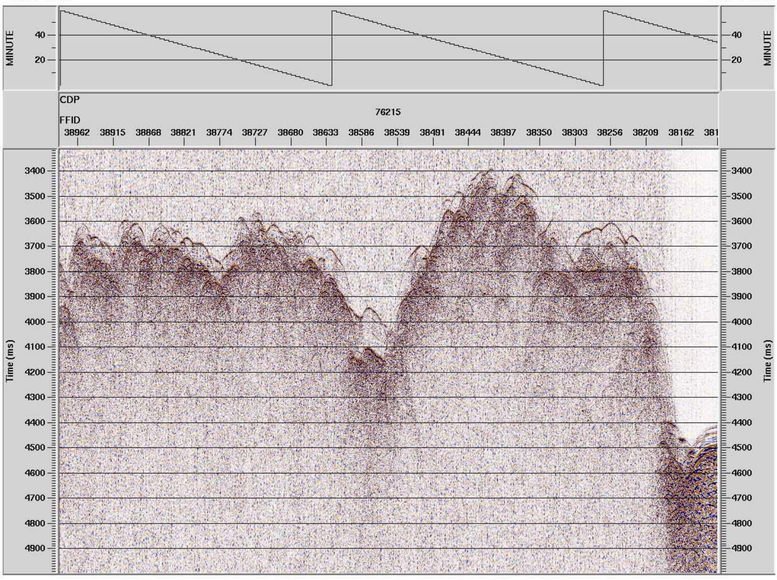
16:00 GMT





18:00 GMT

15:34 GMT

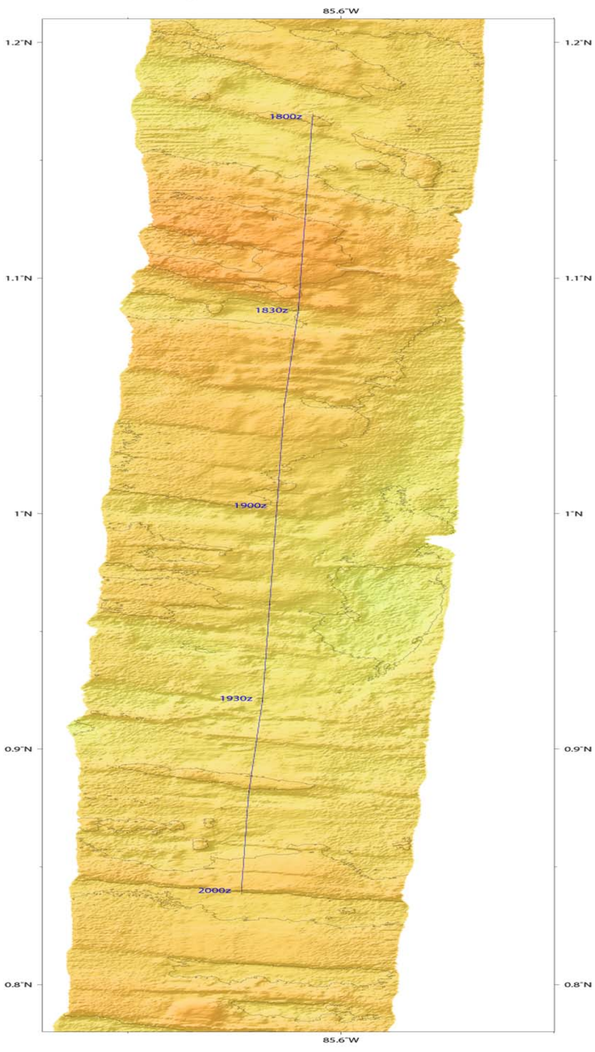


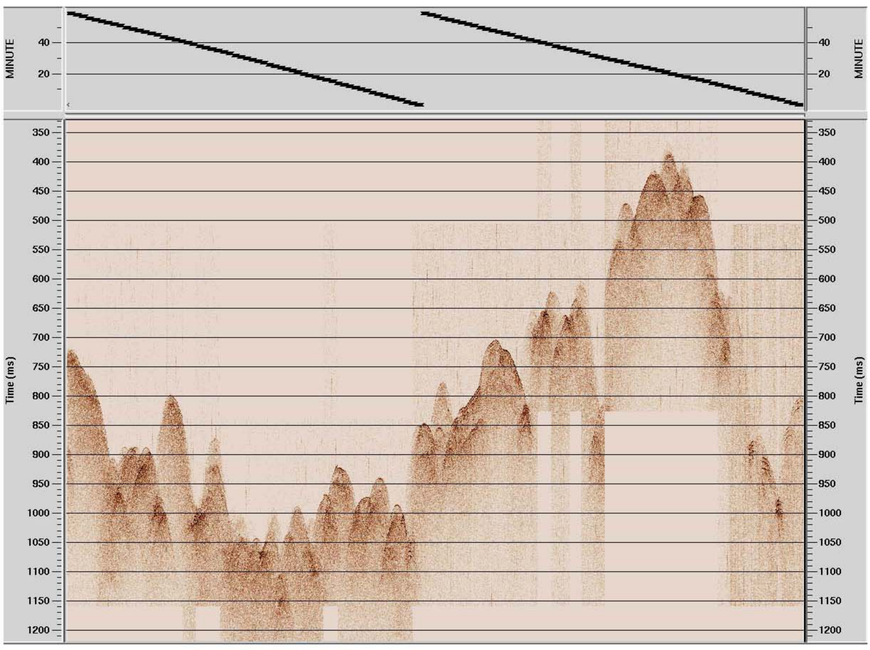
Transit
Line 4
JD 300
18:00-20:00 GMT

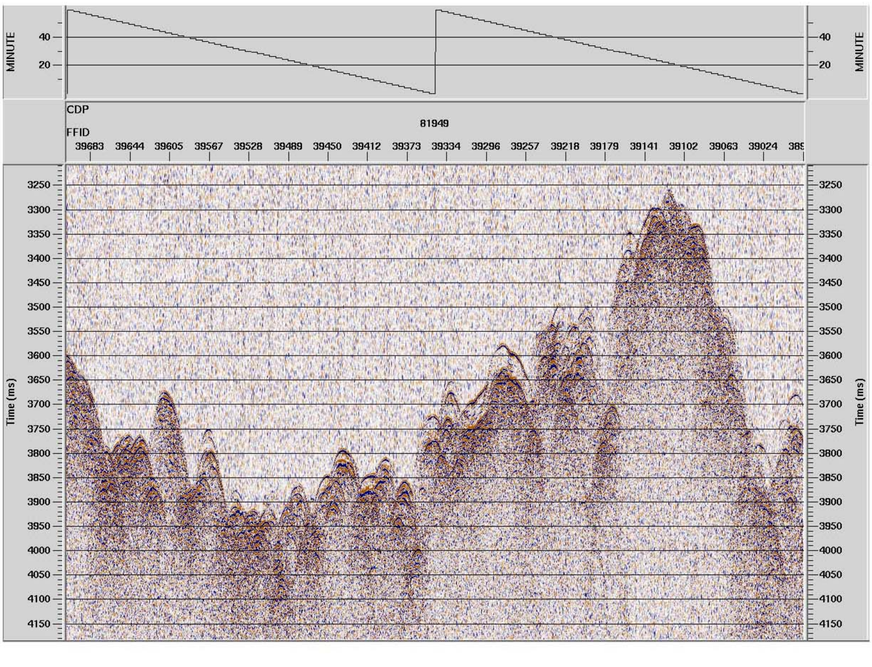
20:00 GMT

NW ← Direction of travel → SE

18:00 GMT





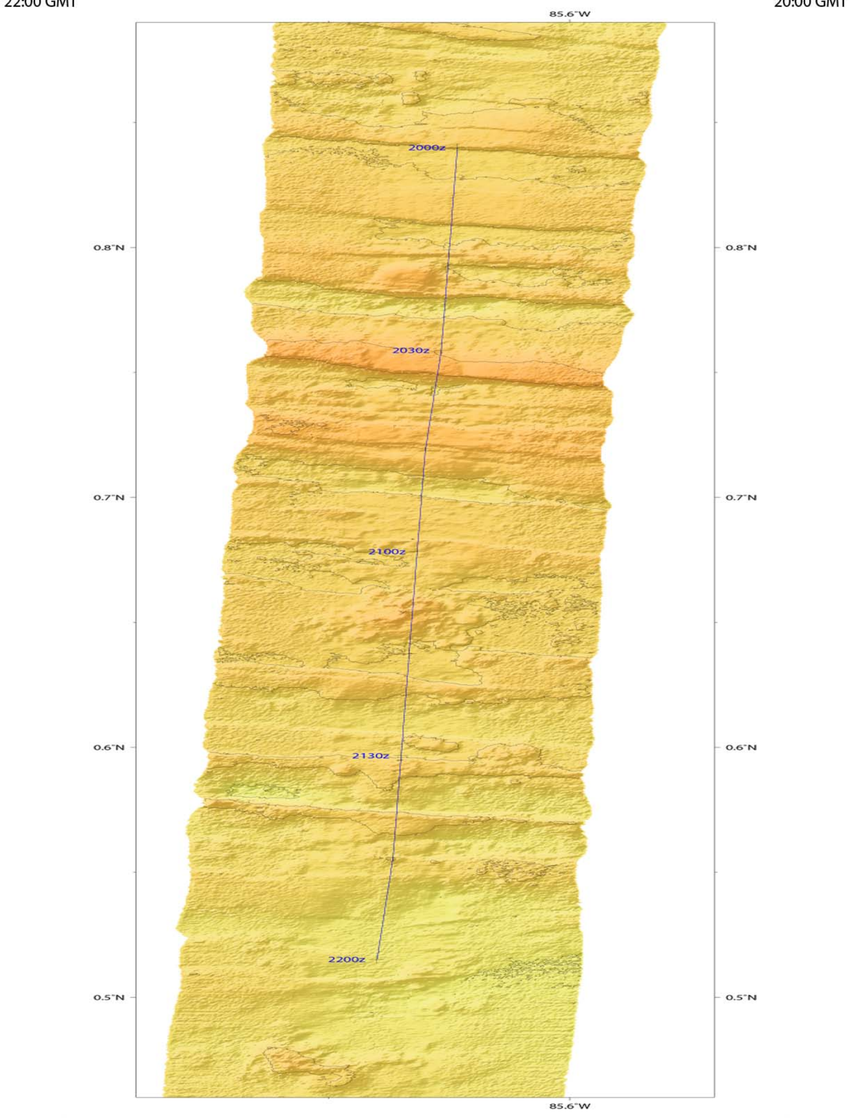


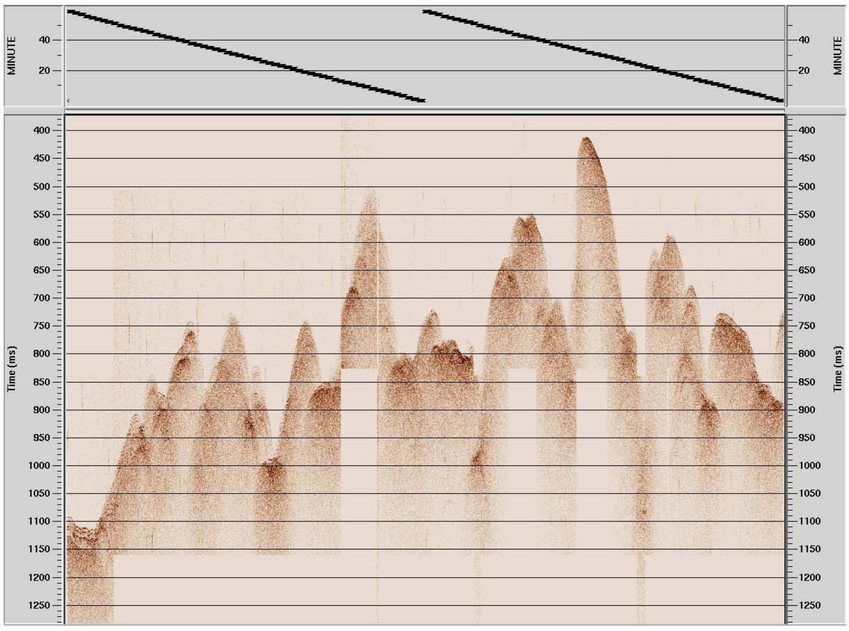
Transit
Line 4
JD 300
20:00-22:00 GMT

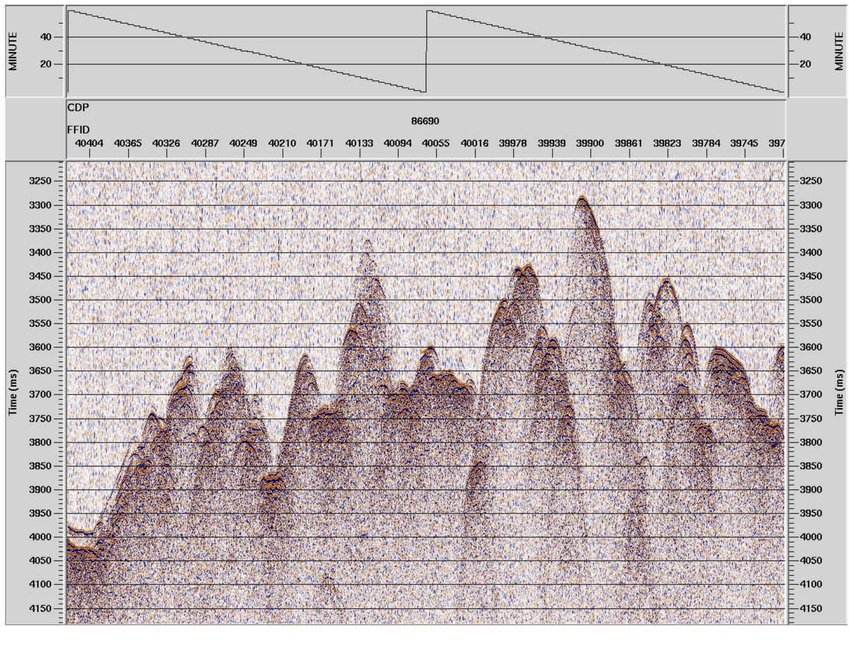
22:00 GMT

NW ← Direction of travel → SE

20:00 GMT





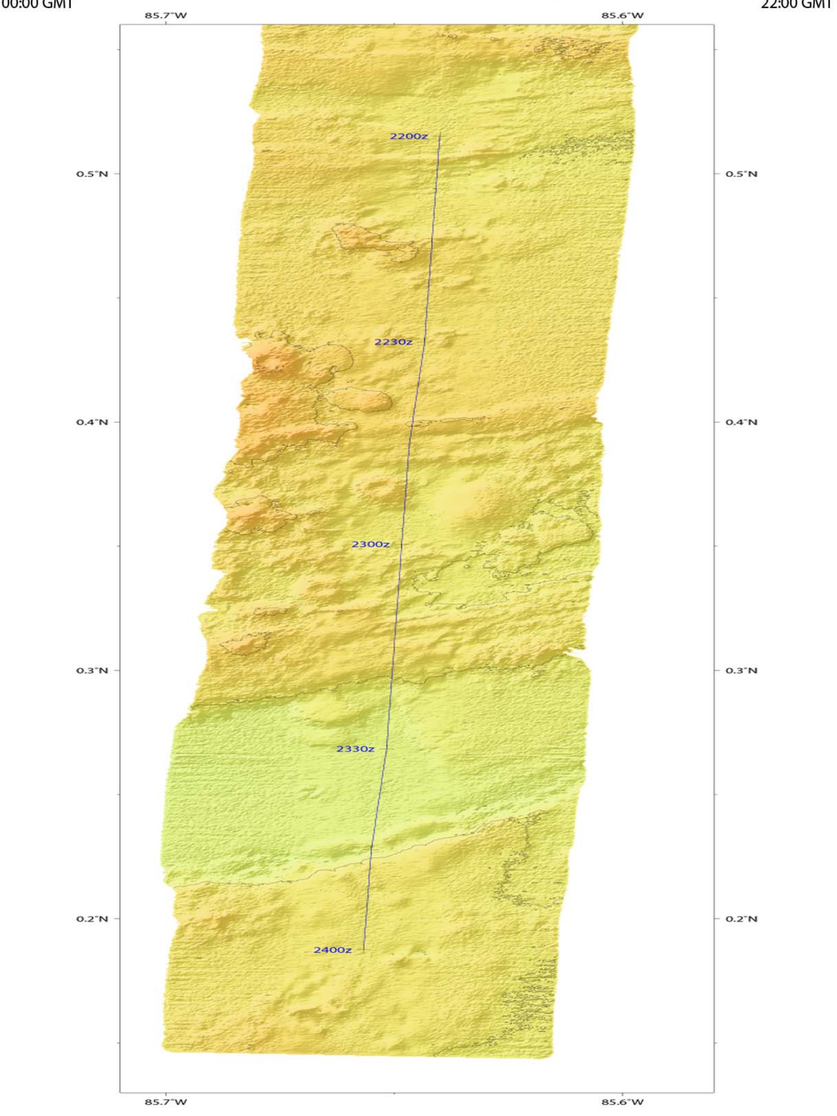


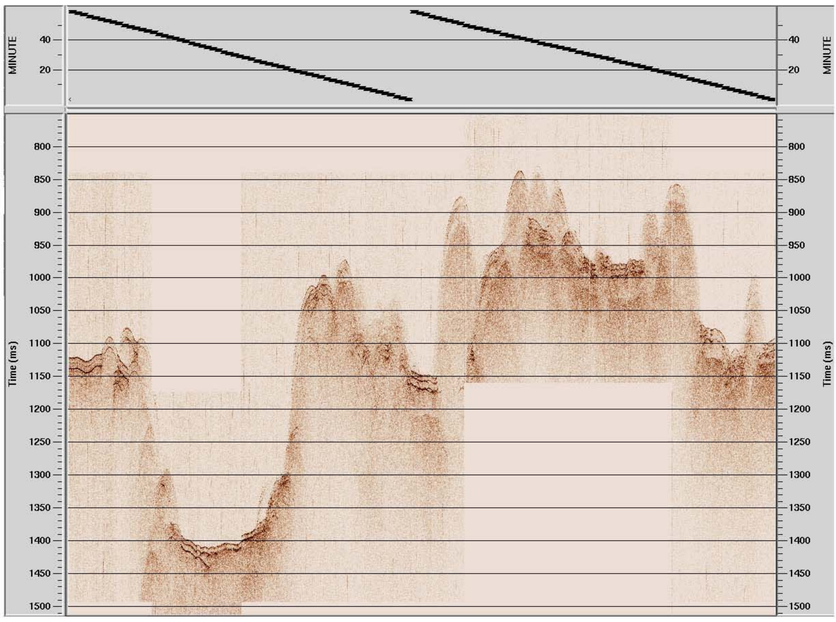
Transit
Line 4
JD 300
22:00-00:00 GMT

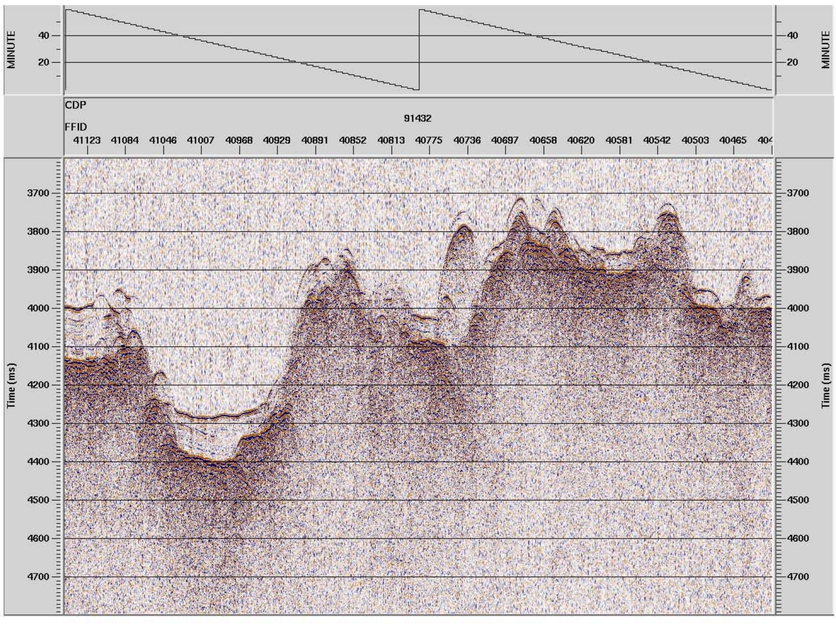
00:00 GMT

NW ← Direction of travel → SE

22:00 GMT



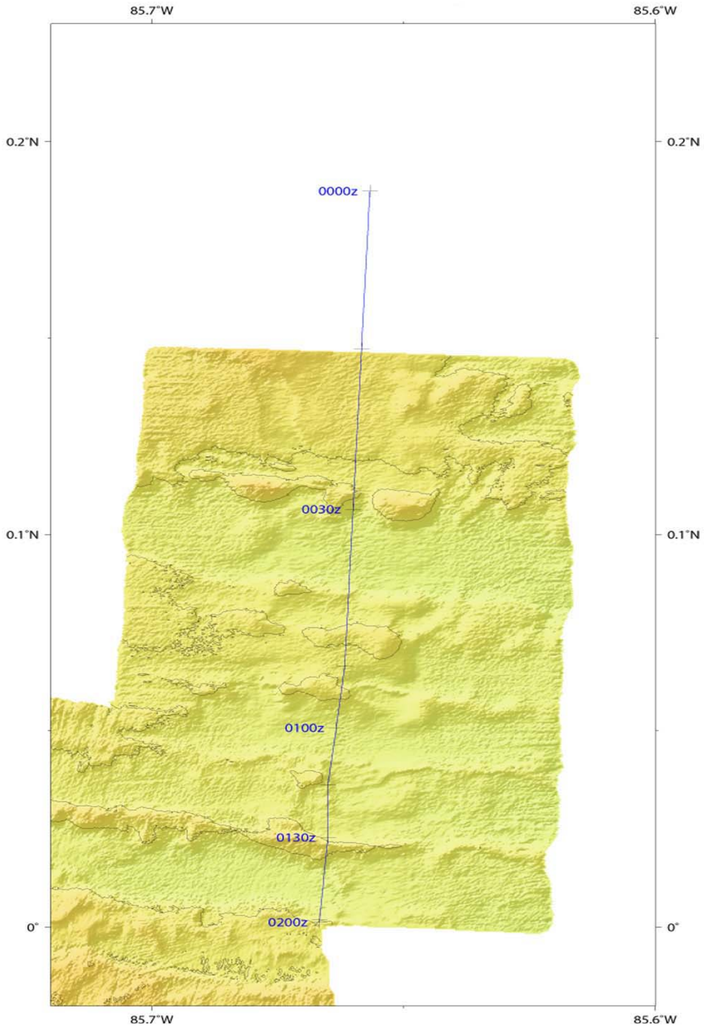


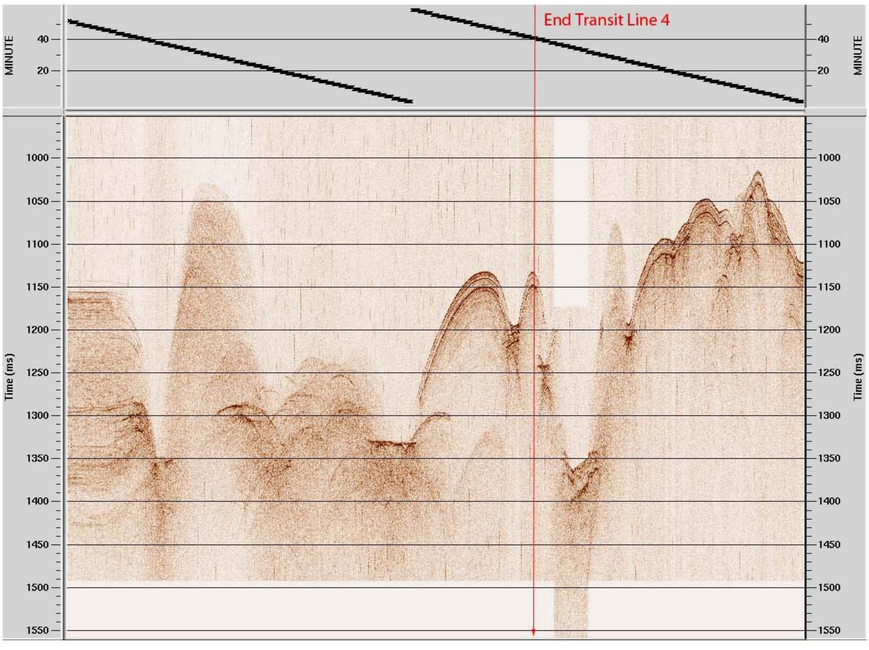


Transit
Line 4
JD 301
00:00-02:00 GMT
01:52 GMT

NW ← Direction of travel → SE

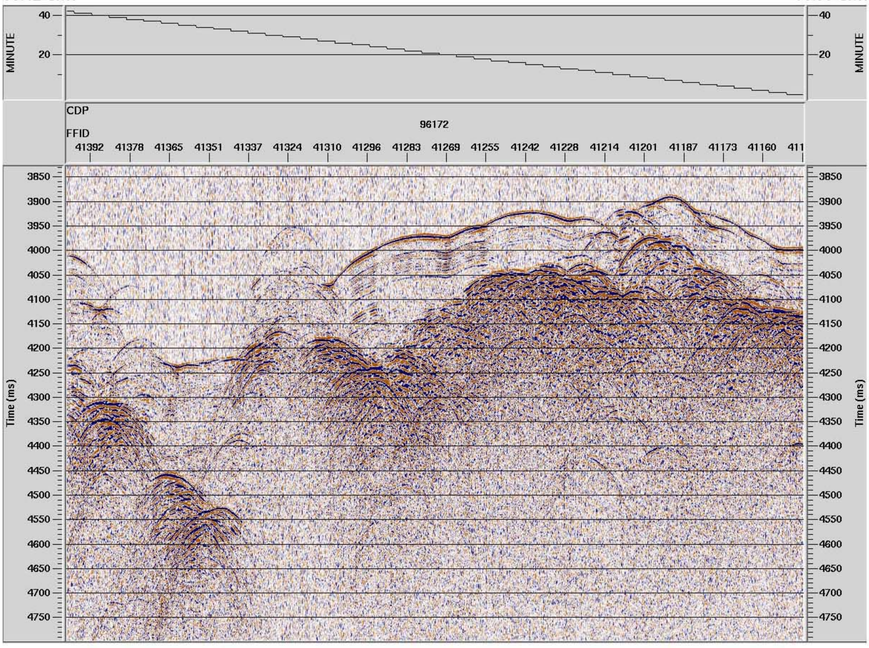
00:00 GMT





00:42 GMT

00:00 GMT



Carnegie Ridge Survey, Full Science Map

86°W

85°W

0°

1°S

Line 1

Site 1240

Line 2

WC-06

Line 6

02-15MC
02-16MC
02-17JC

WC-07
WC-08

Line 4

Line 5

Line 13

02-12JC
02-13MC

Line 3

Line 10

Line 11

Line 7

WC-09

02-18MC
02-19MC

02-09MC
02-10GC
02-11JC

Line 8

Line 12

Line 9

25 NM

50 km

−6000 −4000 −2000 0

Carnegie Ridge Bathymetry Map

86°W

85°W

0°

1°S

25 NM

50 km

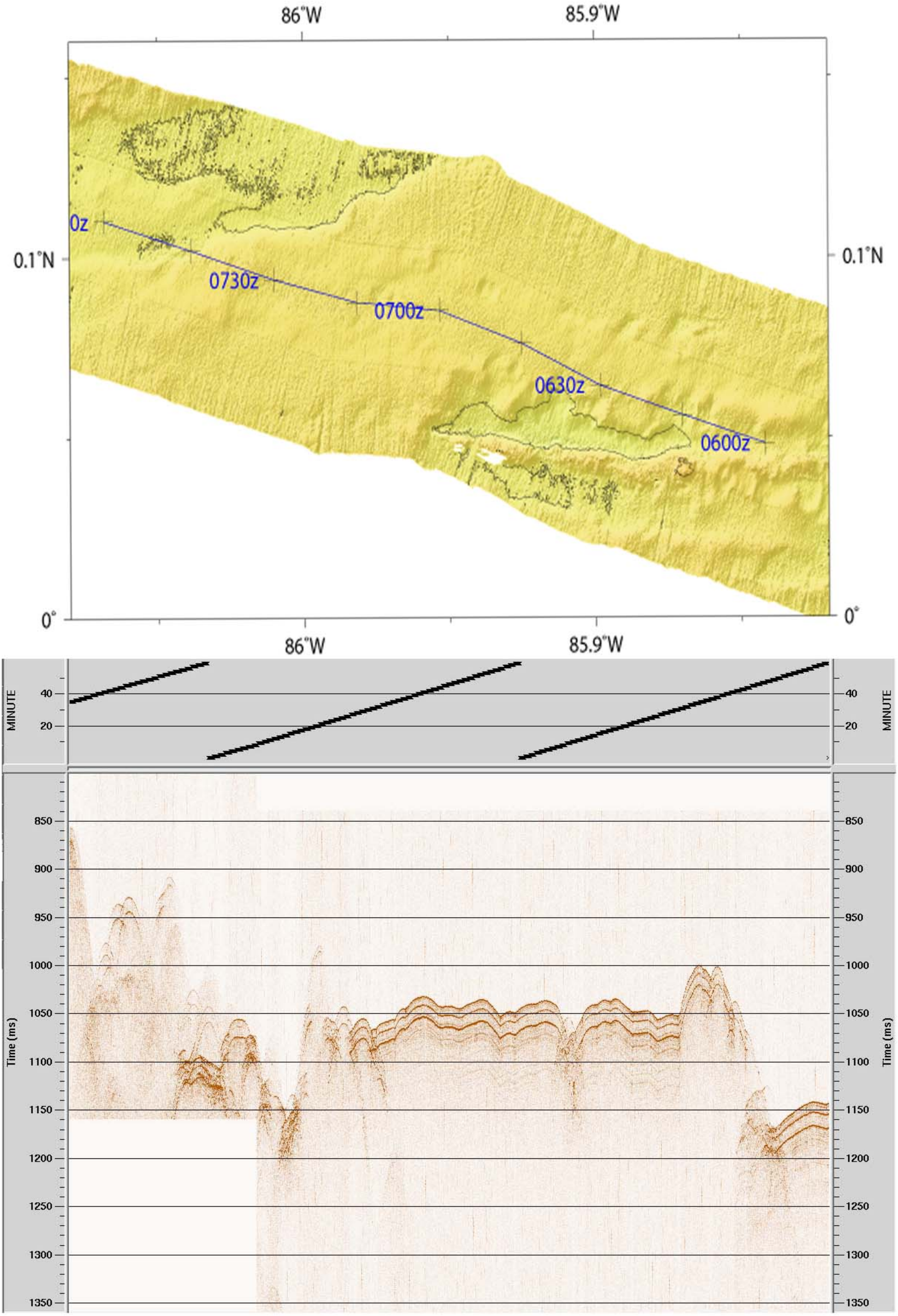
−3000

−2000

After Transit Line 4/ Before Start of Carnegie

JD 301

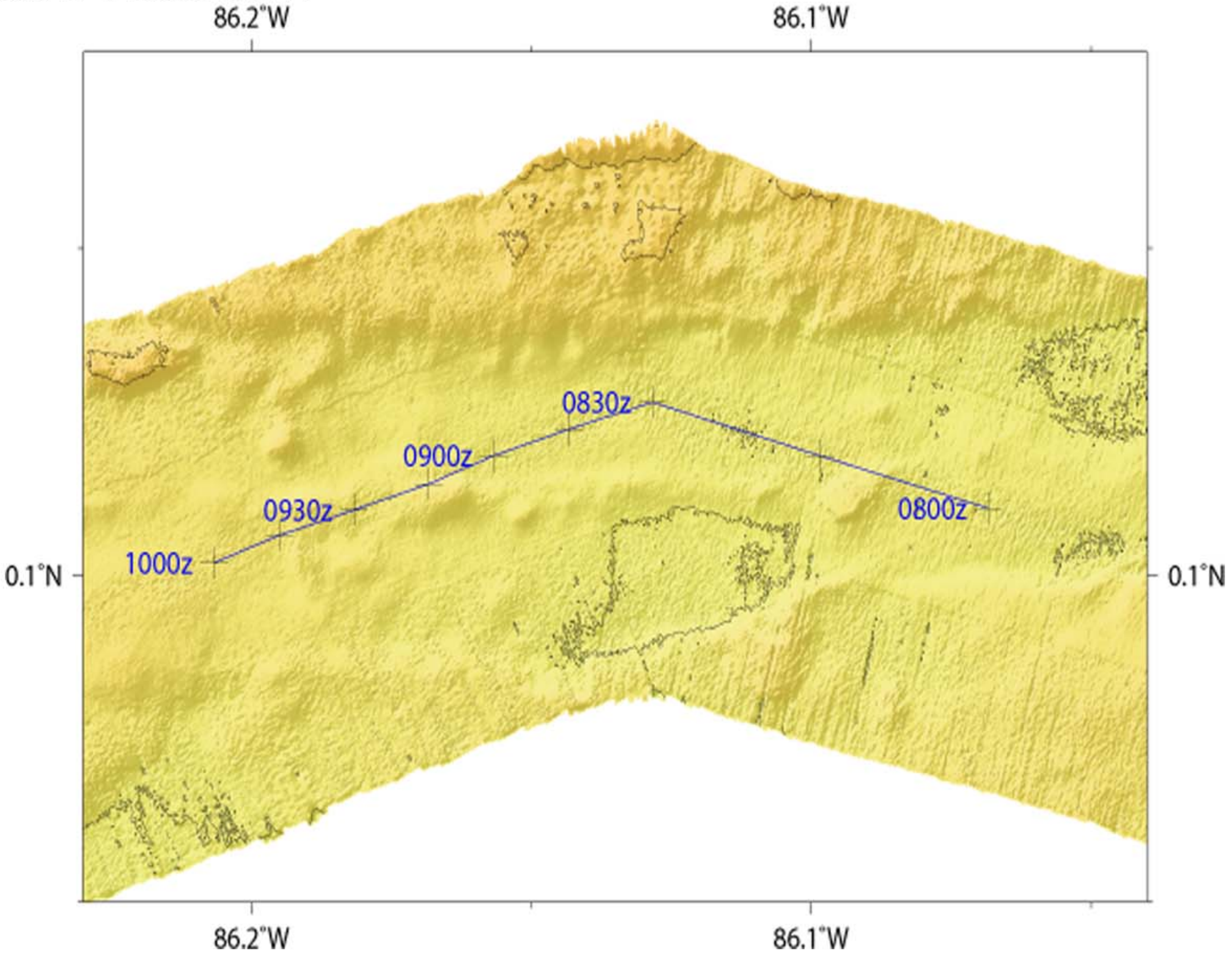
05:35-08:00 GMT



After Transit Line 4/ Before Start of Carnegie

JD 301

08:00-10:00 GMT

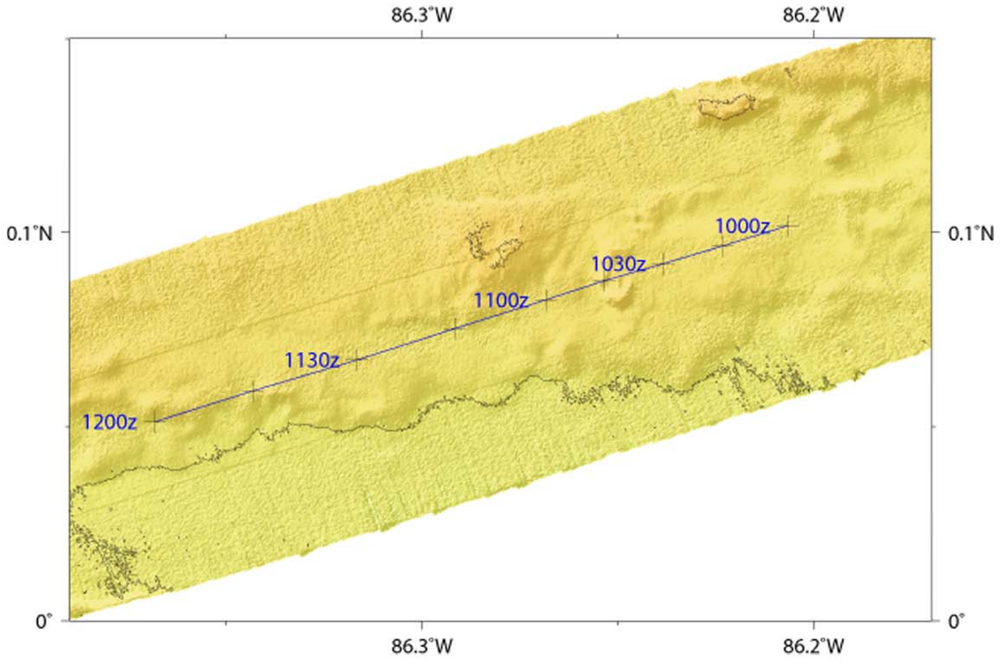


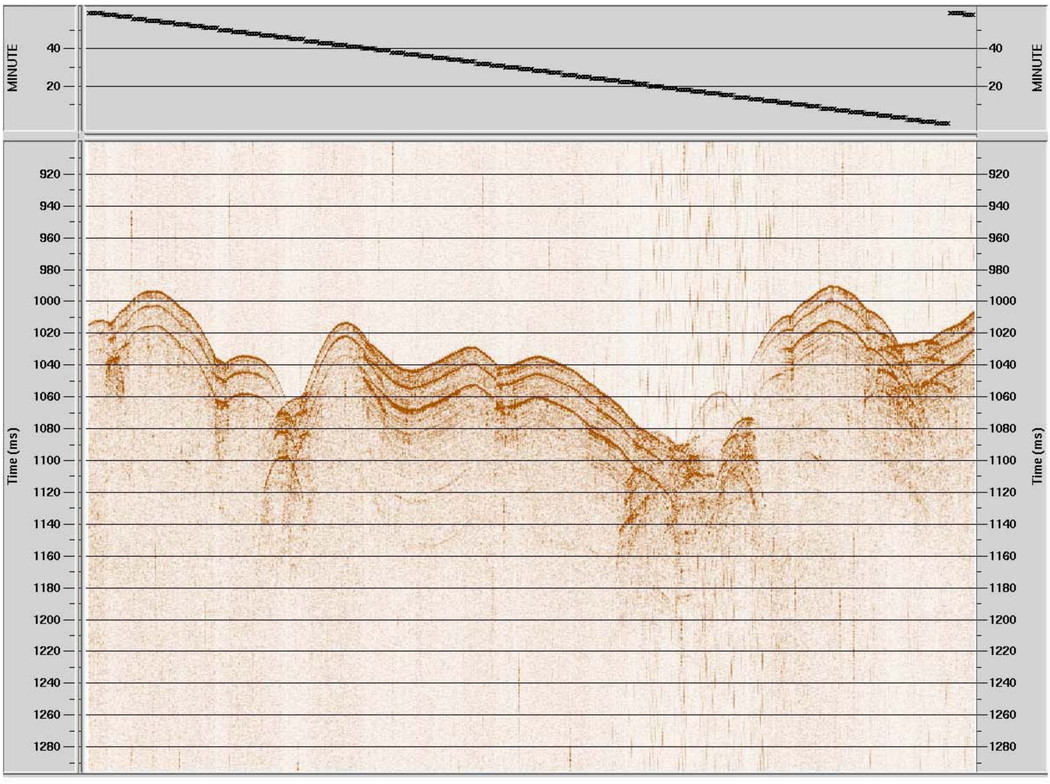
Carnegie Ridge
Line 1
JD: 301
10:58-12:00 GMT

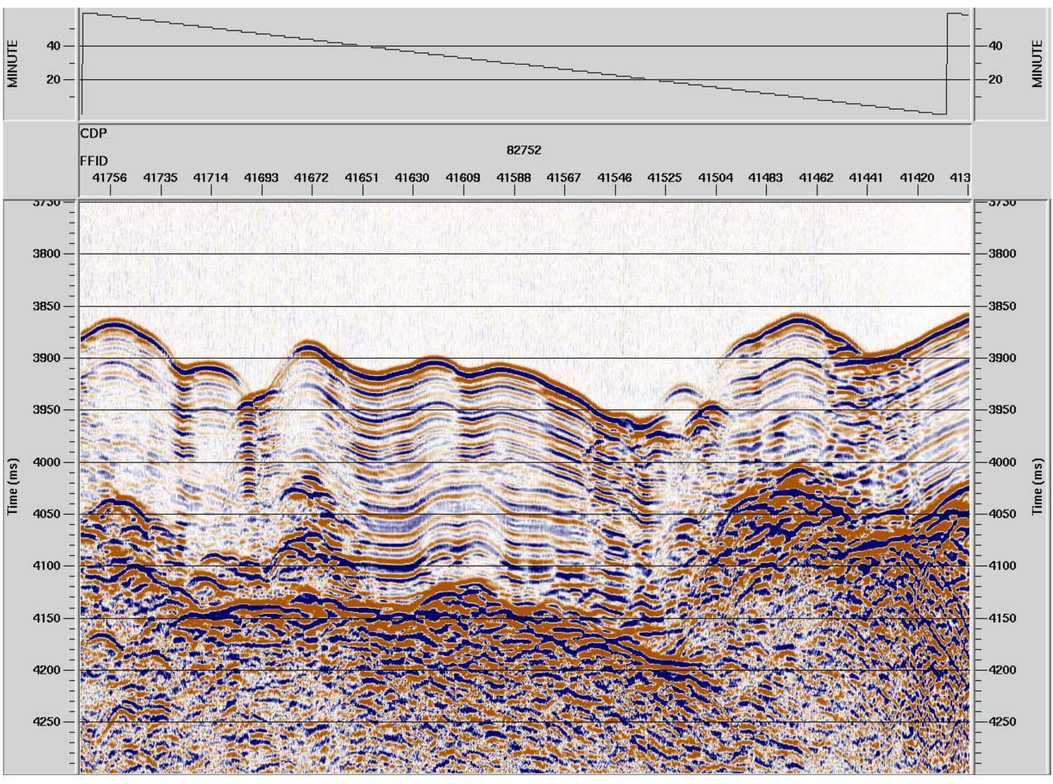
NW ← Direction of travel → SE

12:00 GMT

10:58 GMT





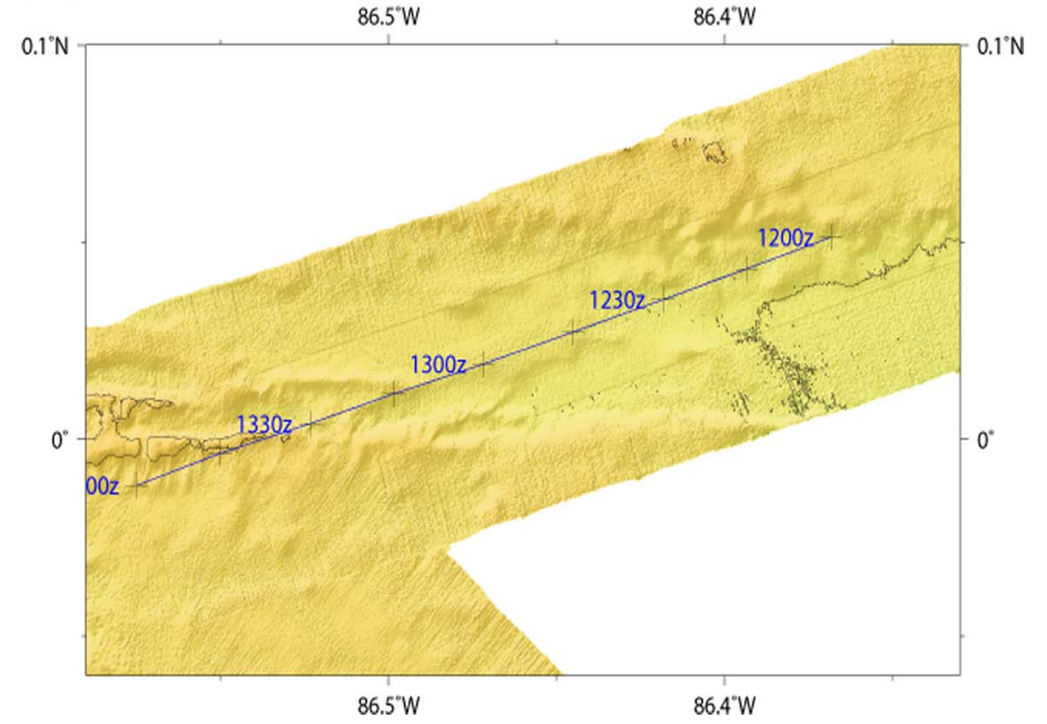


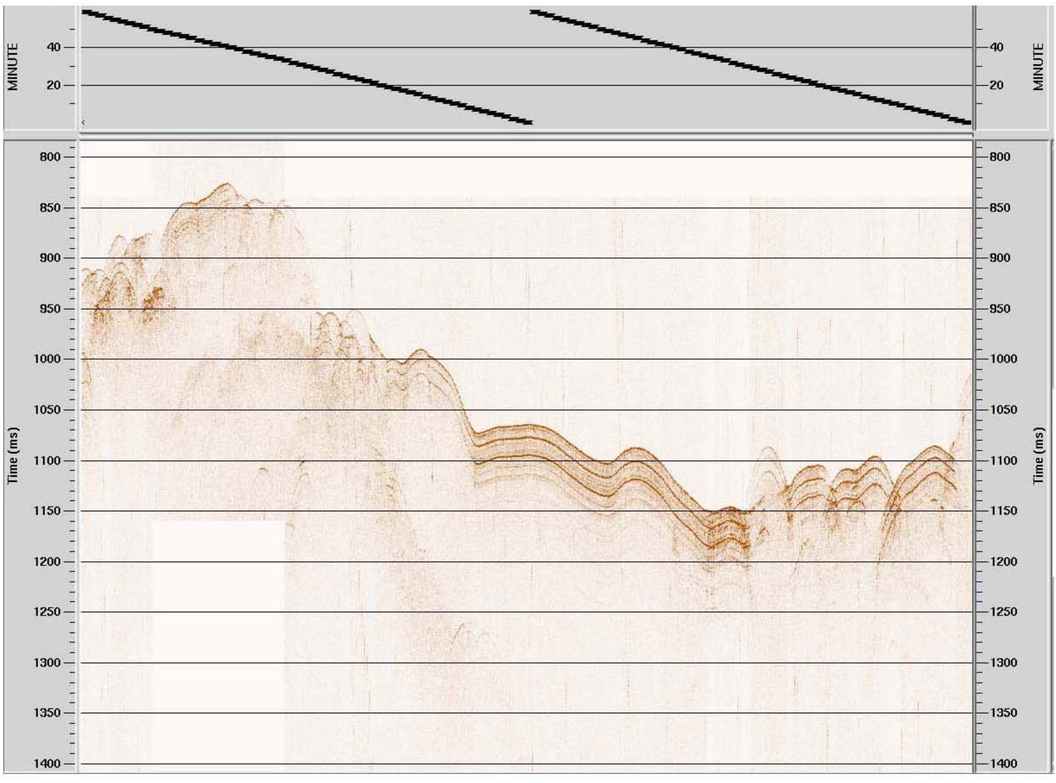
Carnegie Ridge
Line1
JD: 301
12:00-13:57 GMT

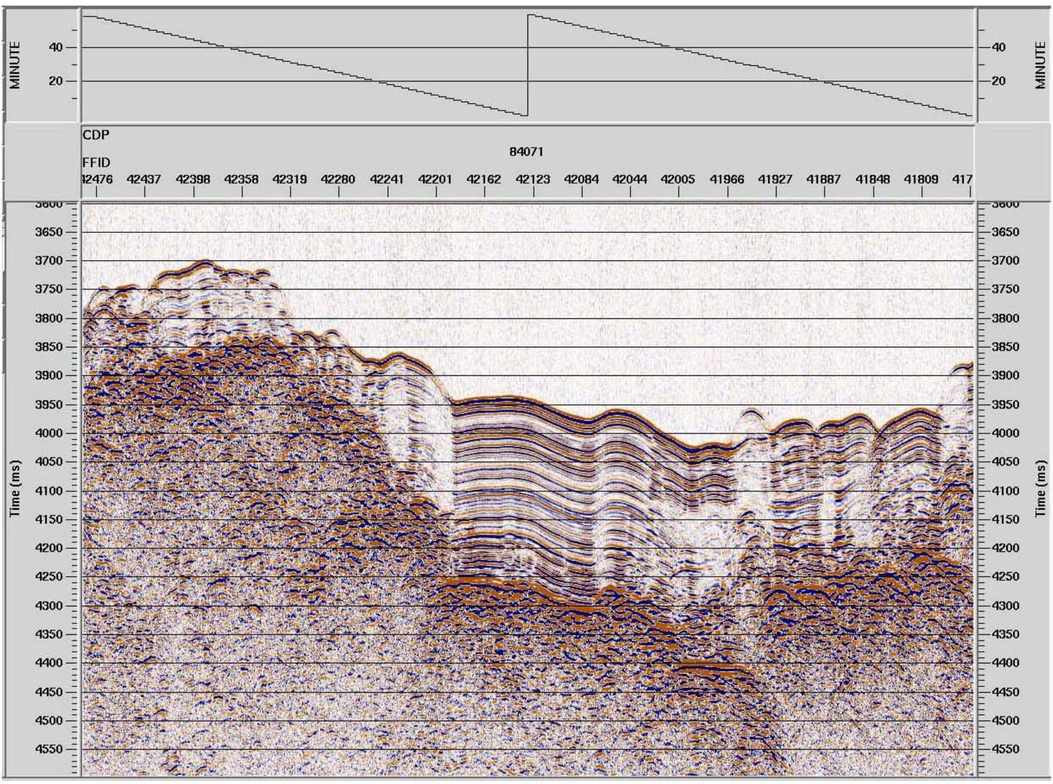
NW ← Direction of travel → SE

13:57 GMT

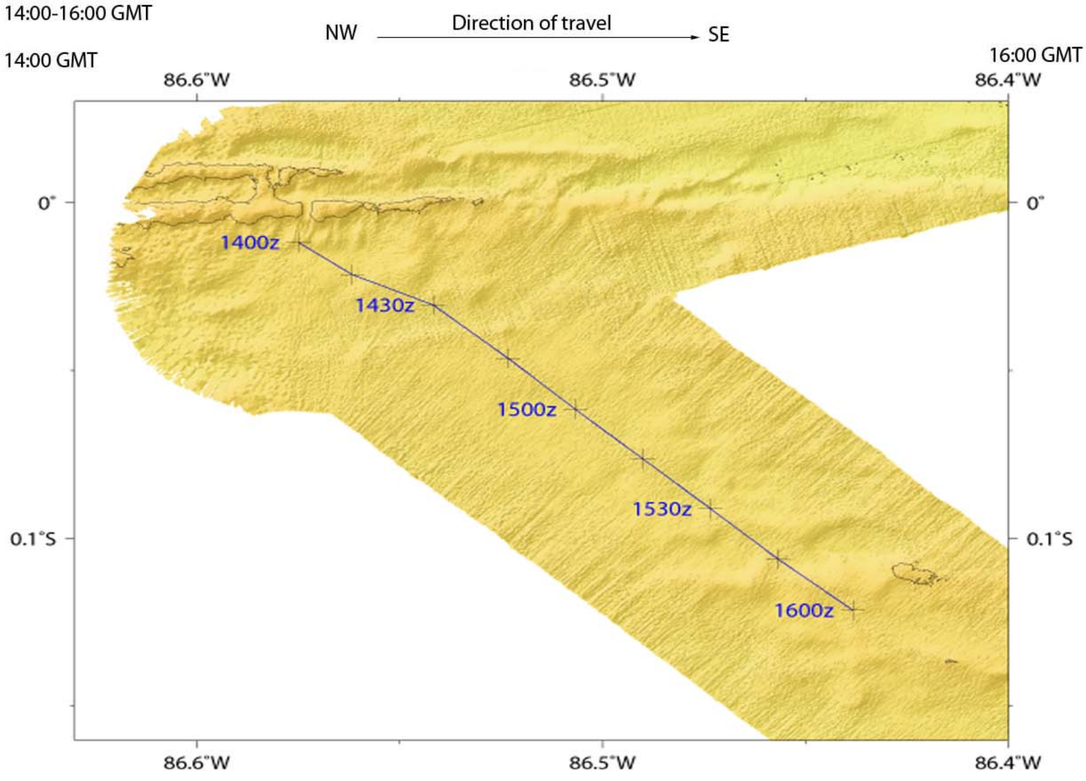
12:00 GMT

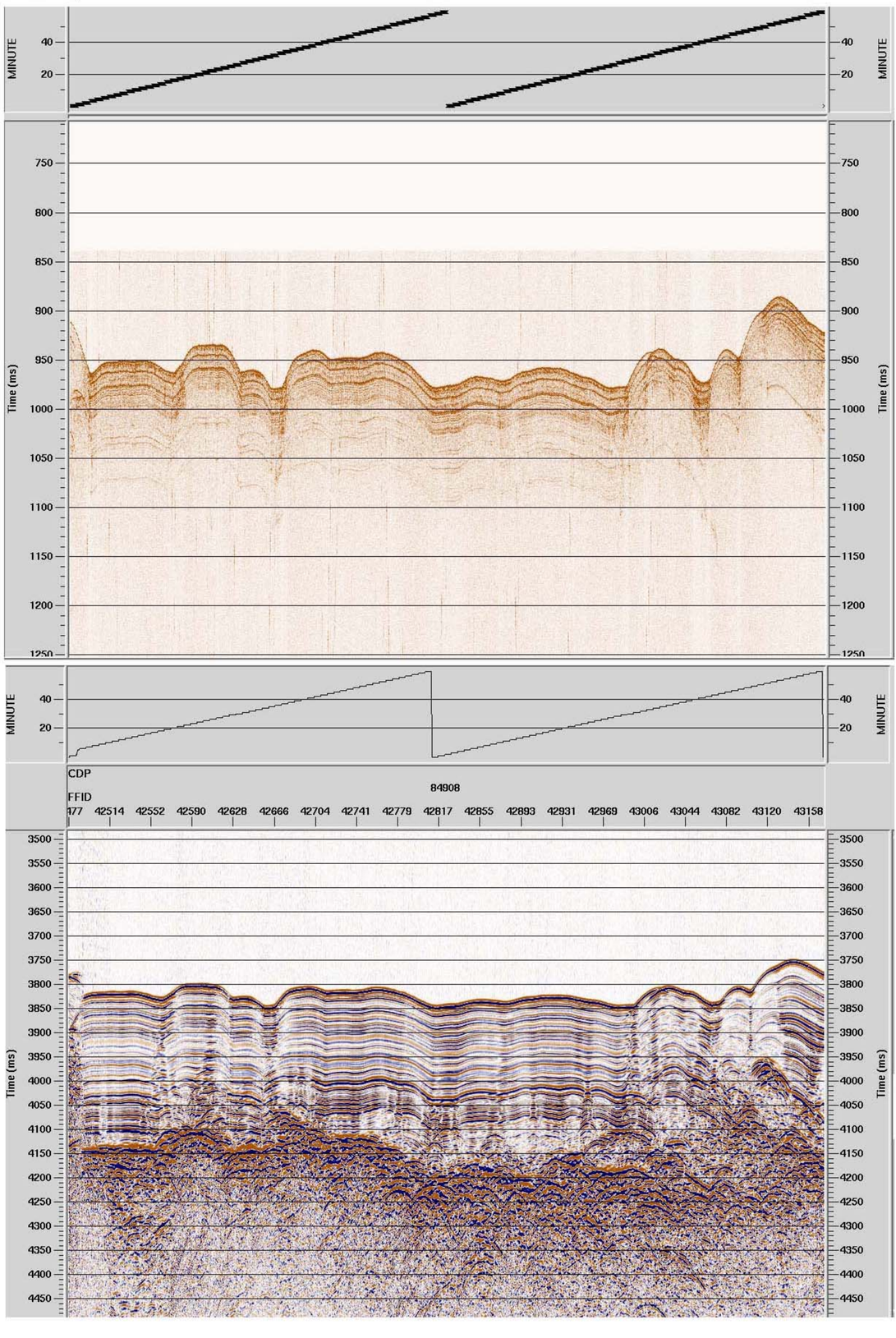




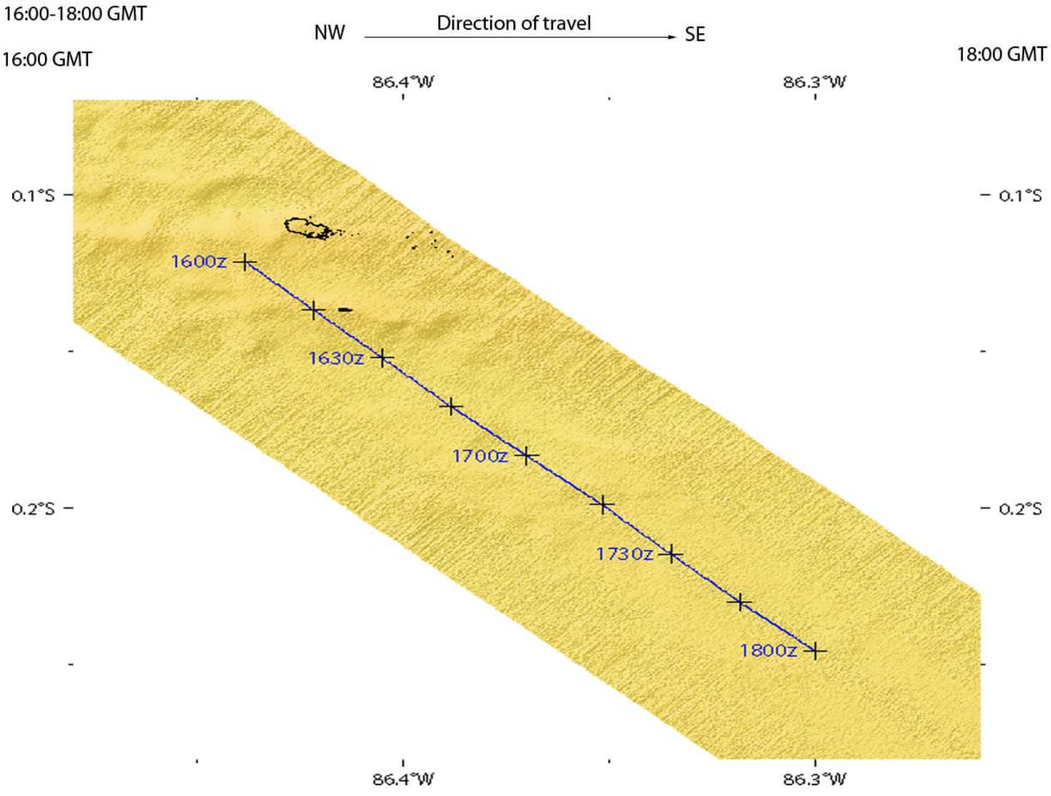


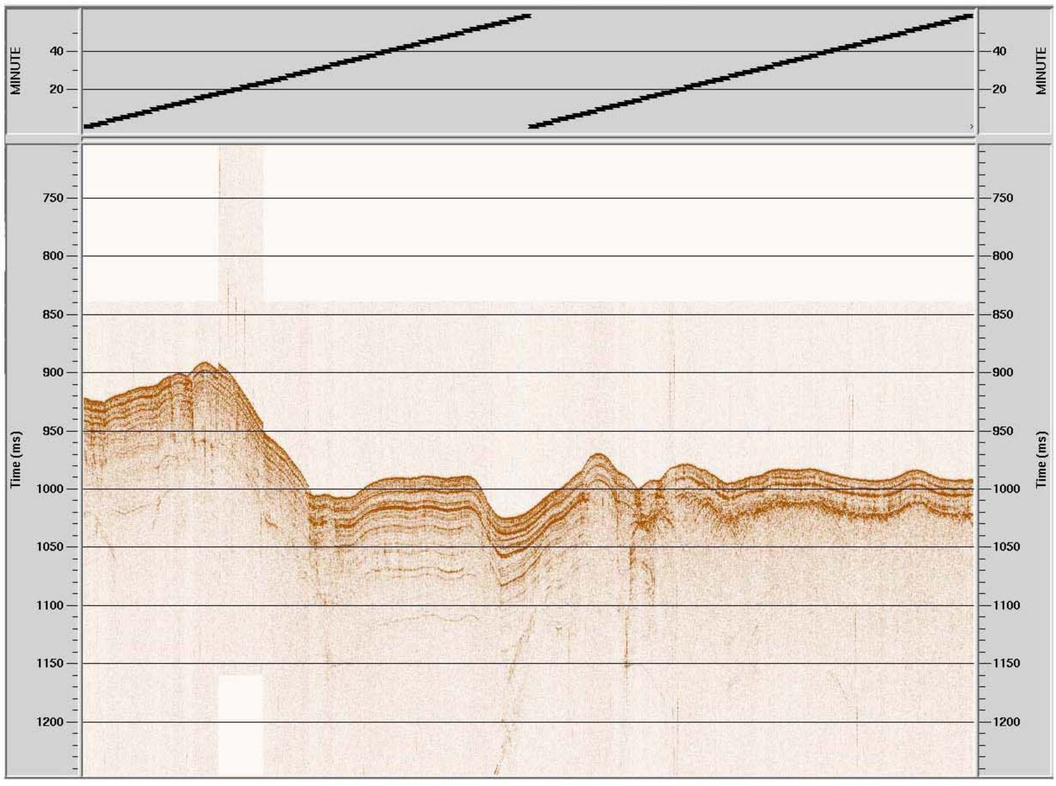
Carnegie Ridge
Line 2
JD: 301
14:00-16:00 GMT

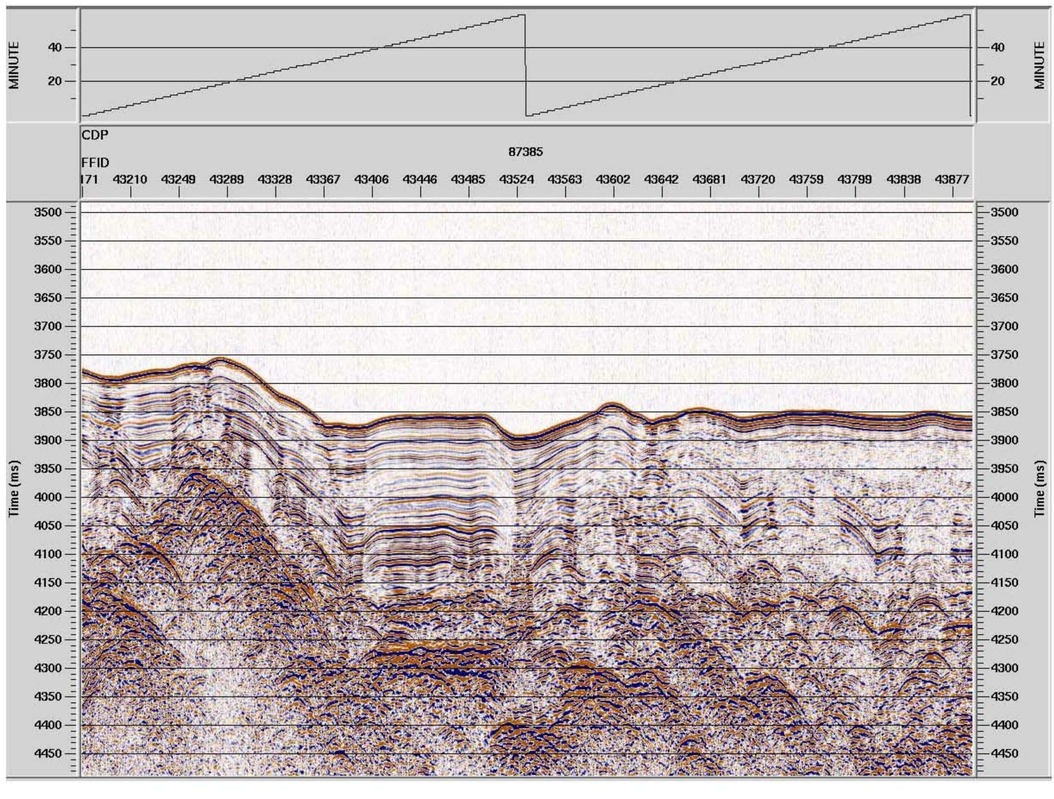




Carnegie Ridge
Line 2
JD: 301
16:00-18:00 GMT



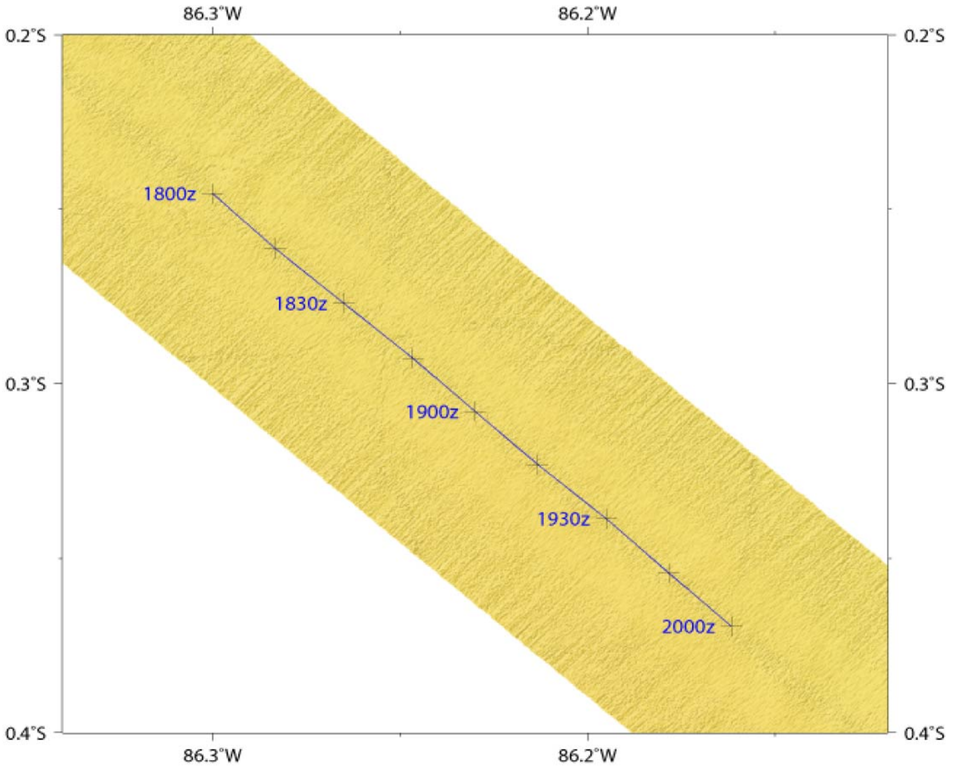


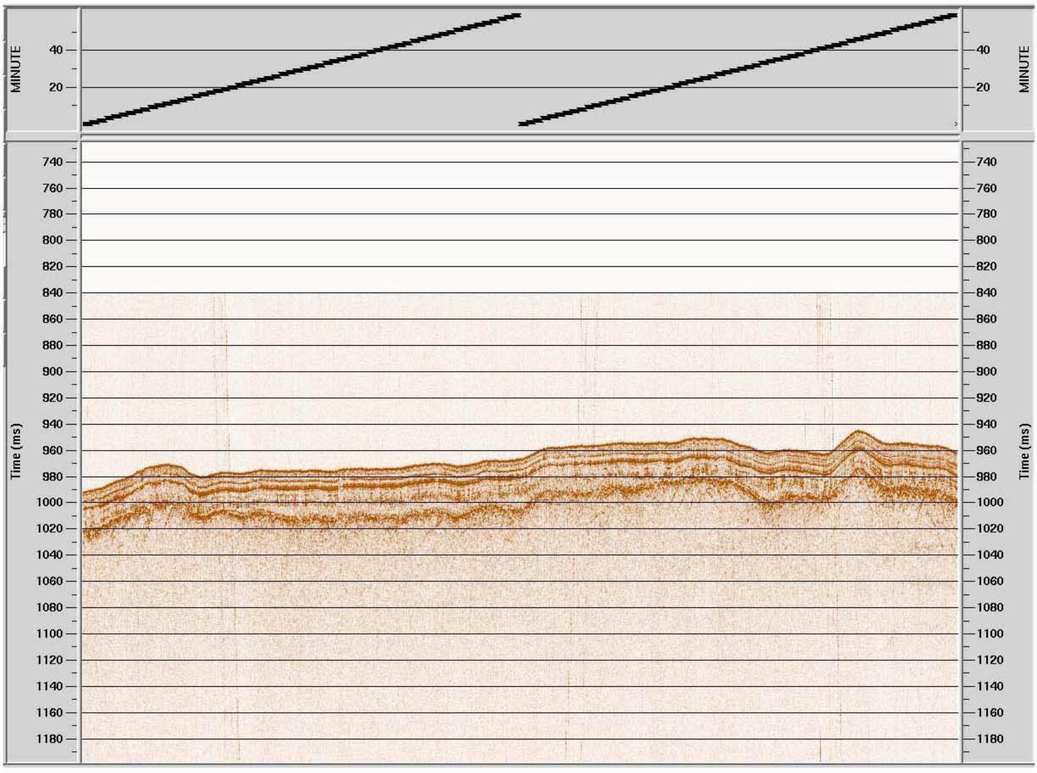


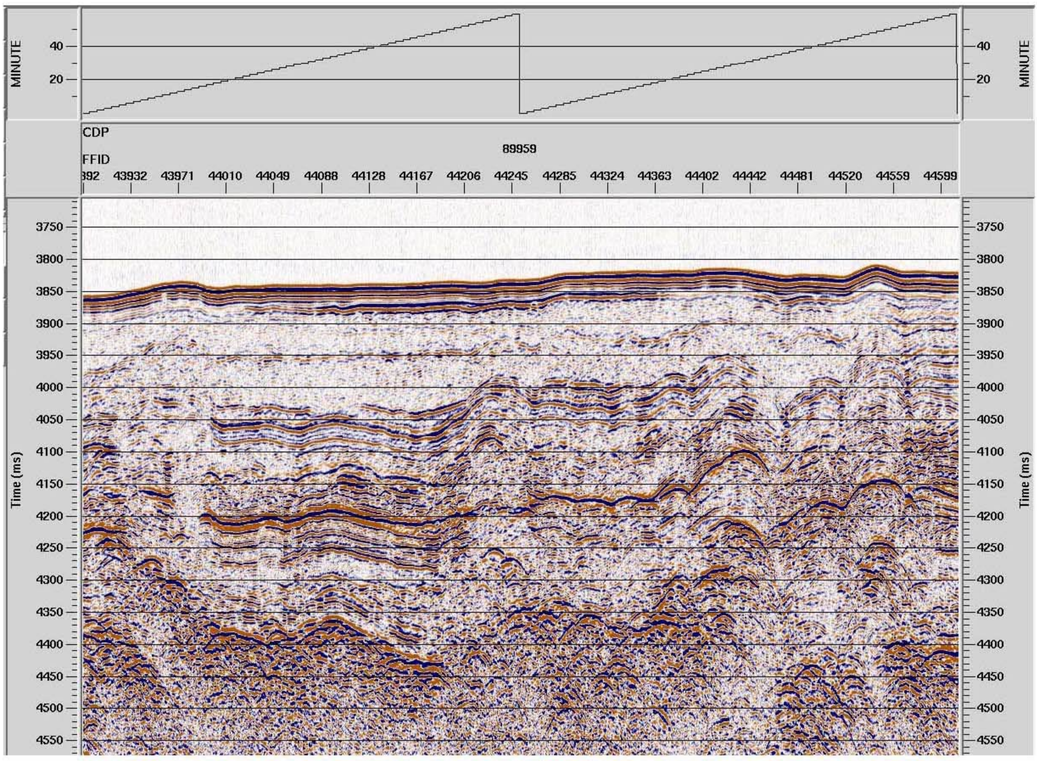
Carnegie Ridge
Line 2
JD: 301
18:00-20:00 GMT

NW Direction of travel SE

18:00 GMT 20:00 GMT



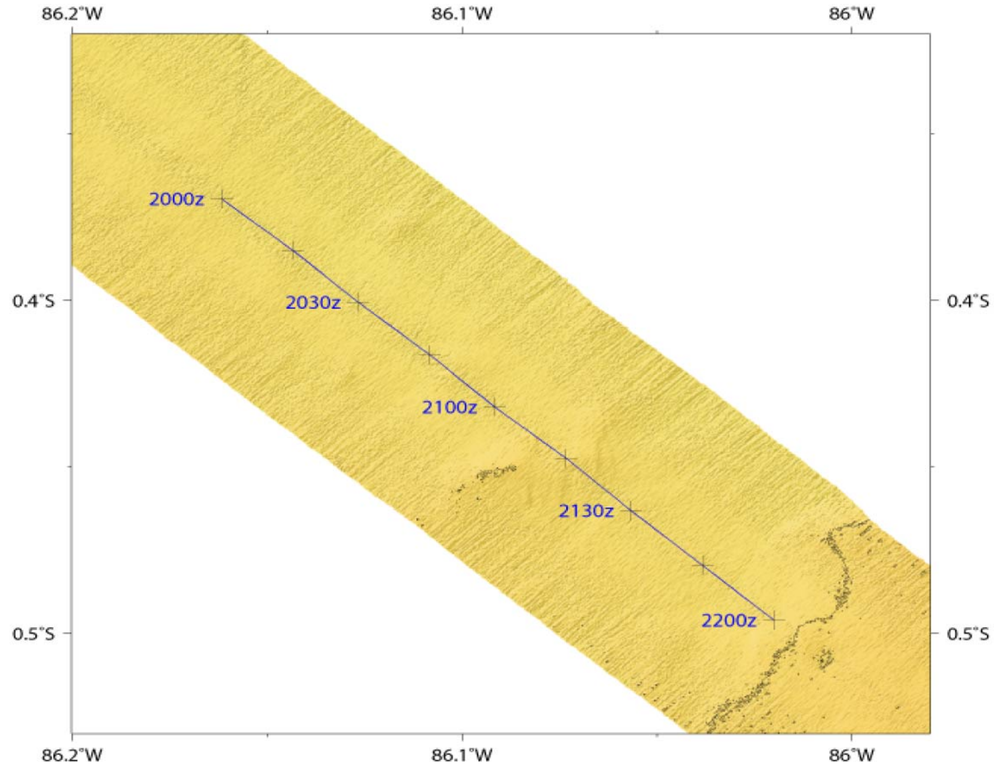


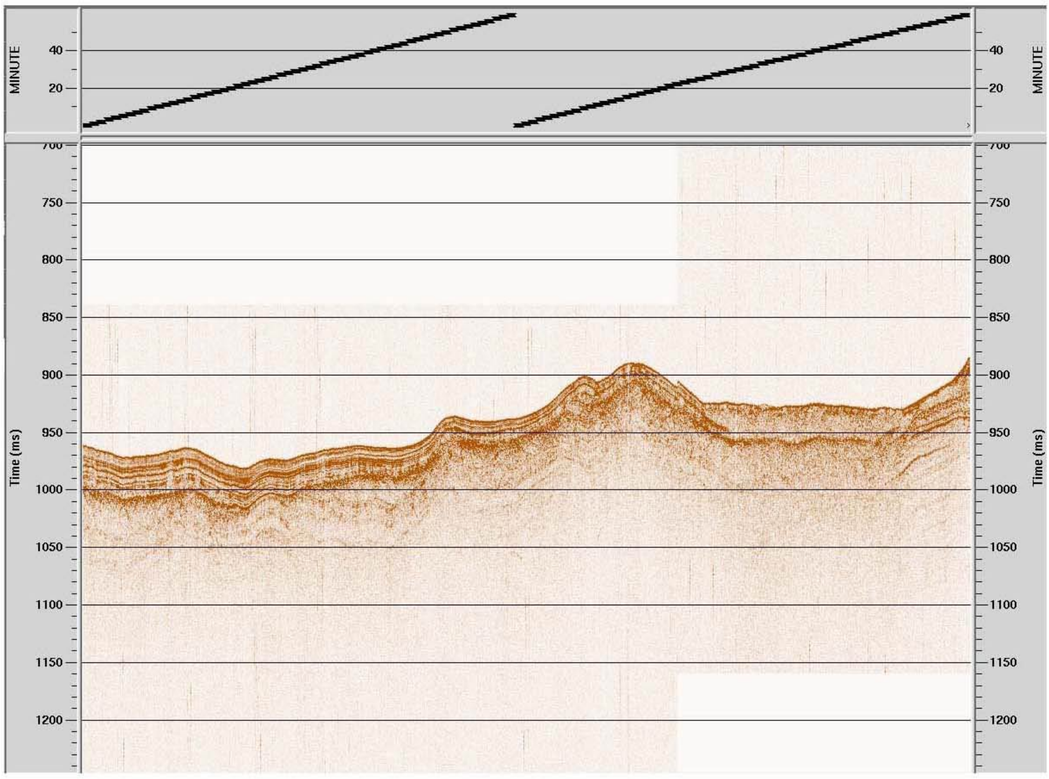


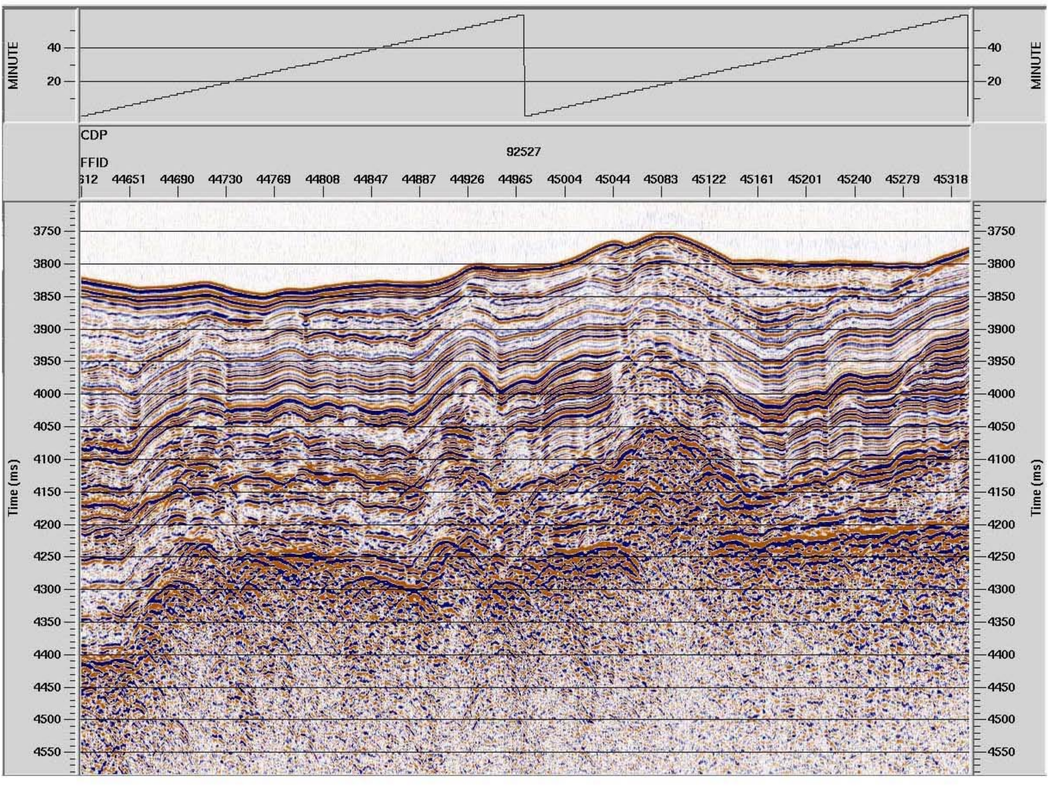
Carnegie Ridge
Line 2
JD: 301
20:00-22:00 GMT

NW Direction of travel SE

20:00 GMT 22:00 GMT



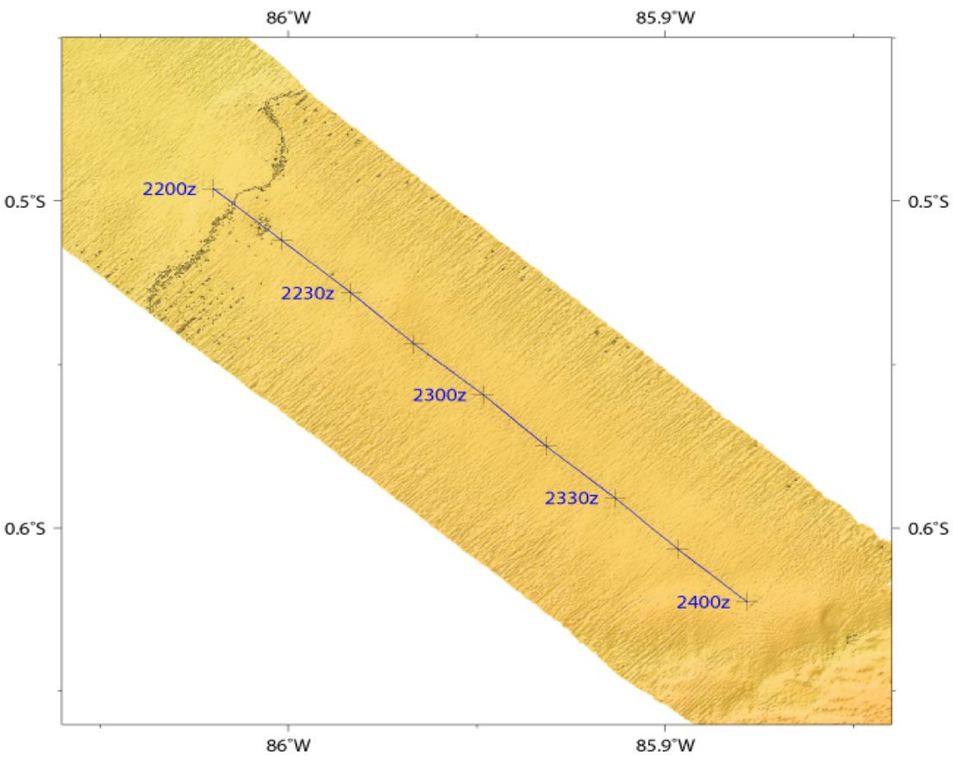


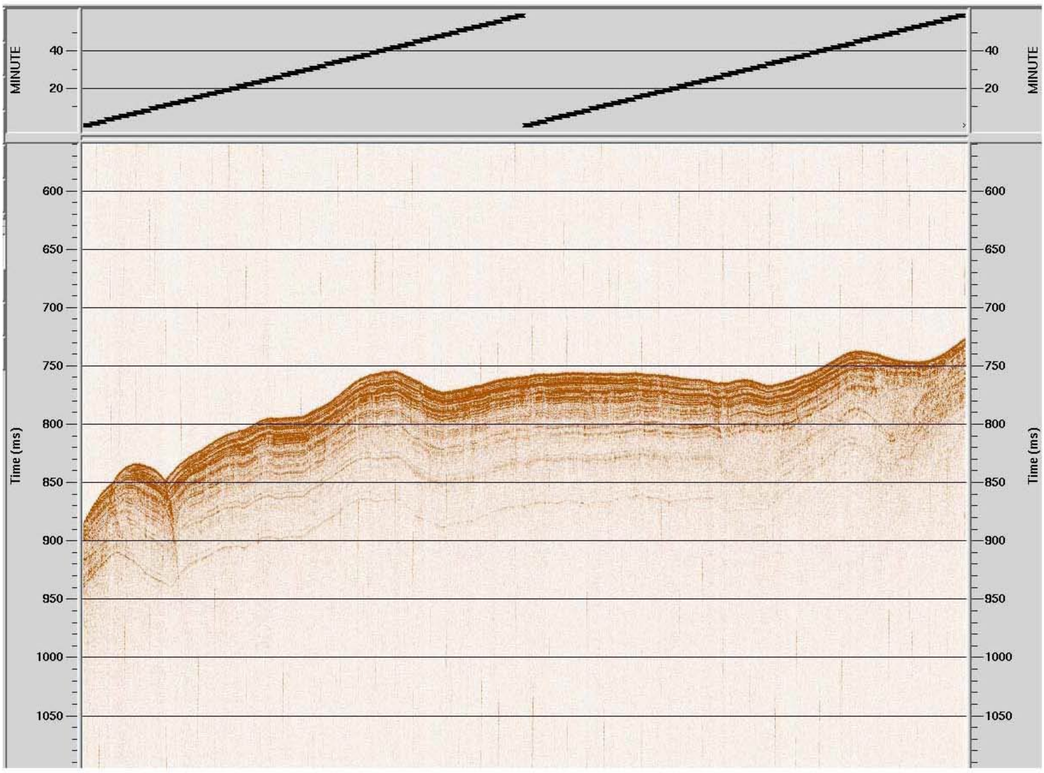


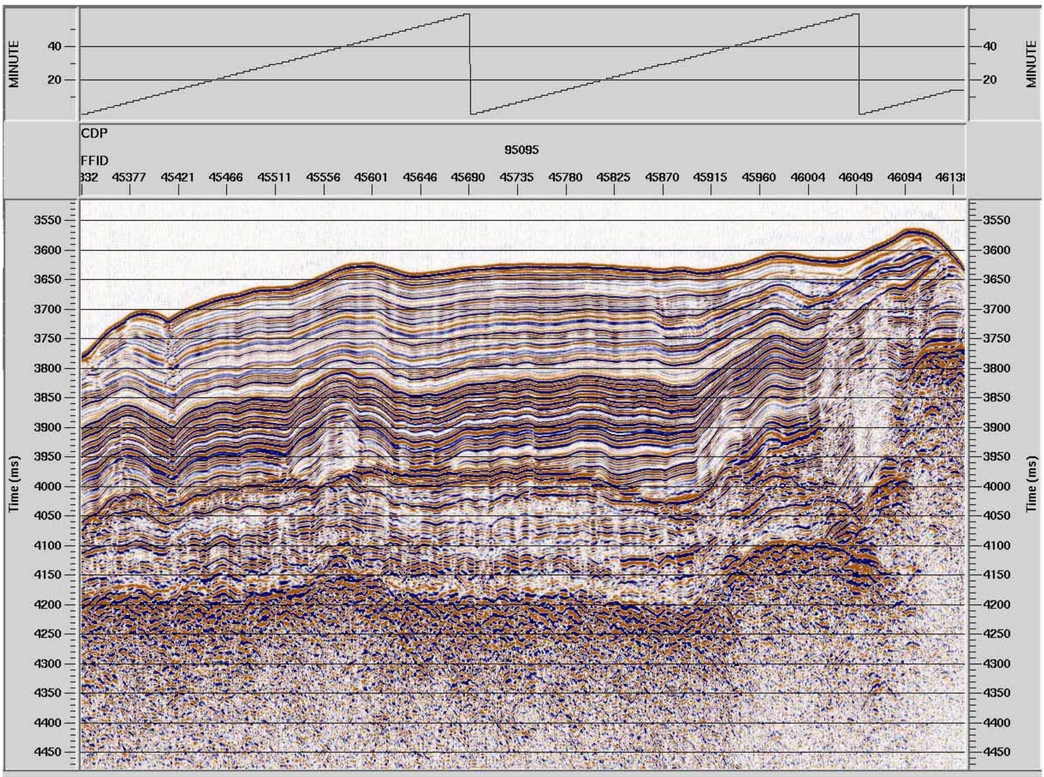
Carnegie Ridge
Line 2
JDs: 301-302
22:00-00:14 GMT

NW Direction of travel SE

22:00 GMT 00:14 GMT





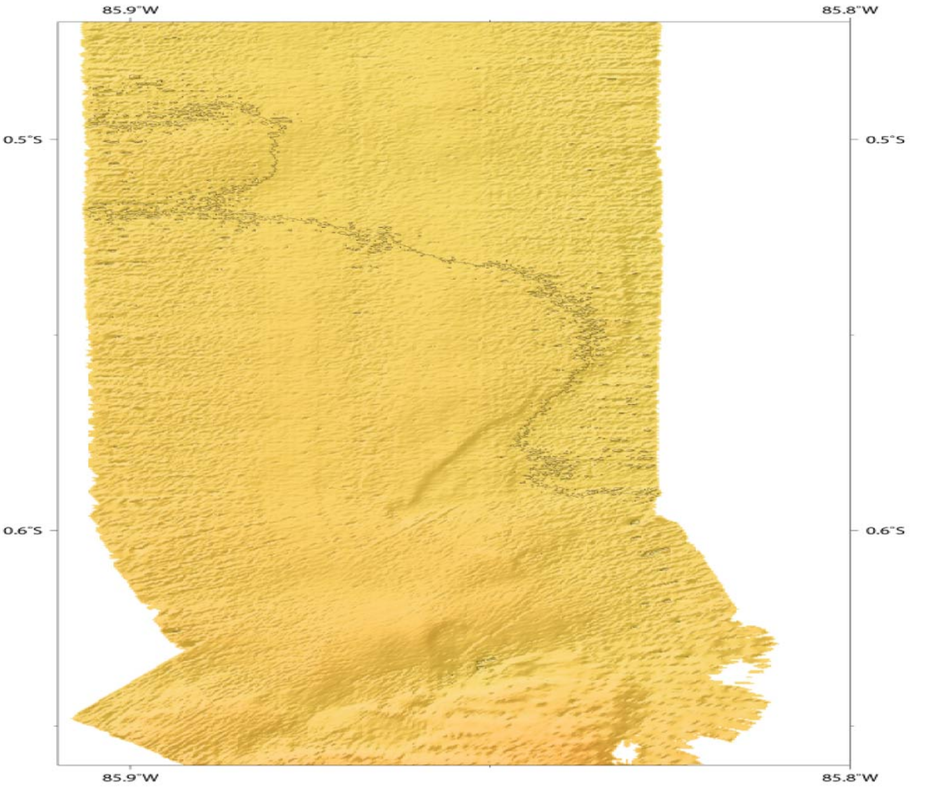


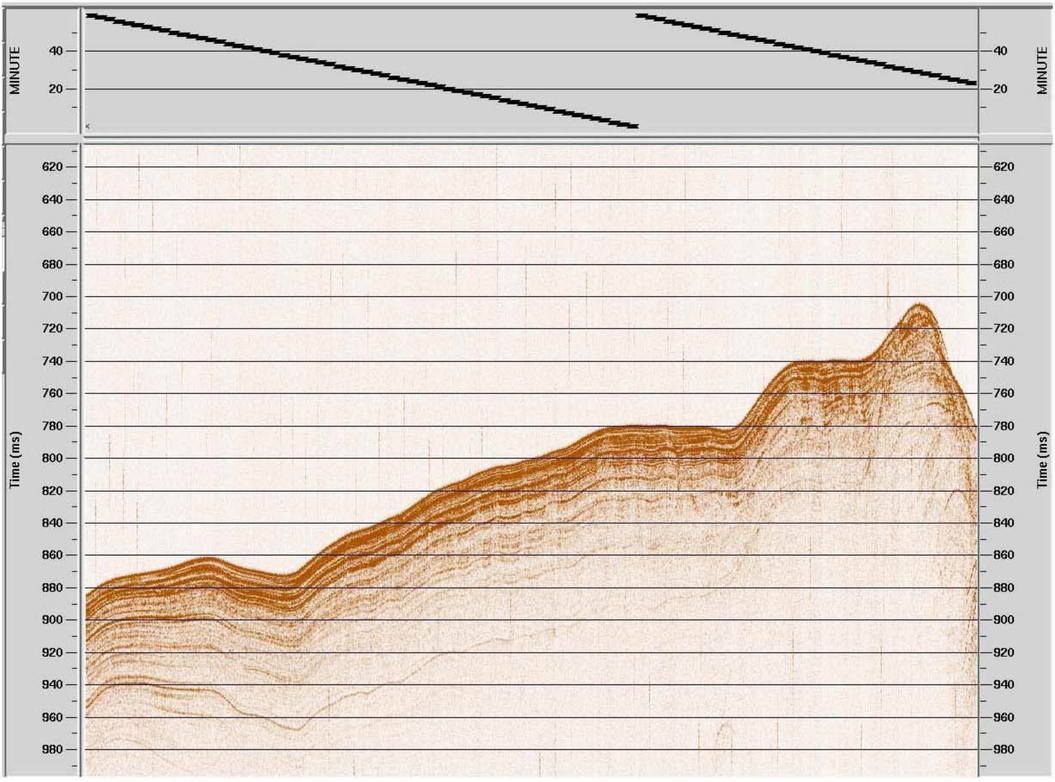
Carnegie Ridge
Line 3
JD: 302
00:23-02:00 GMT

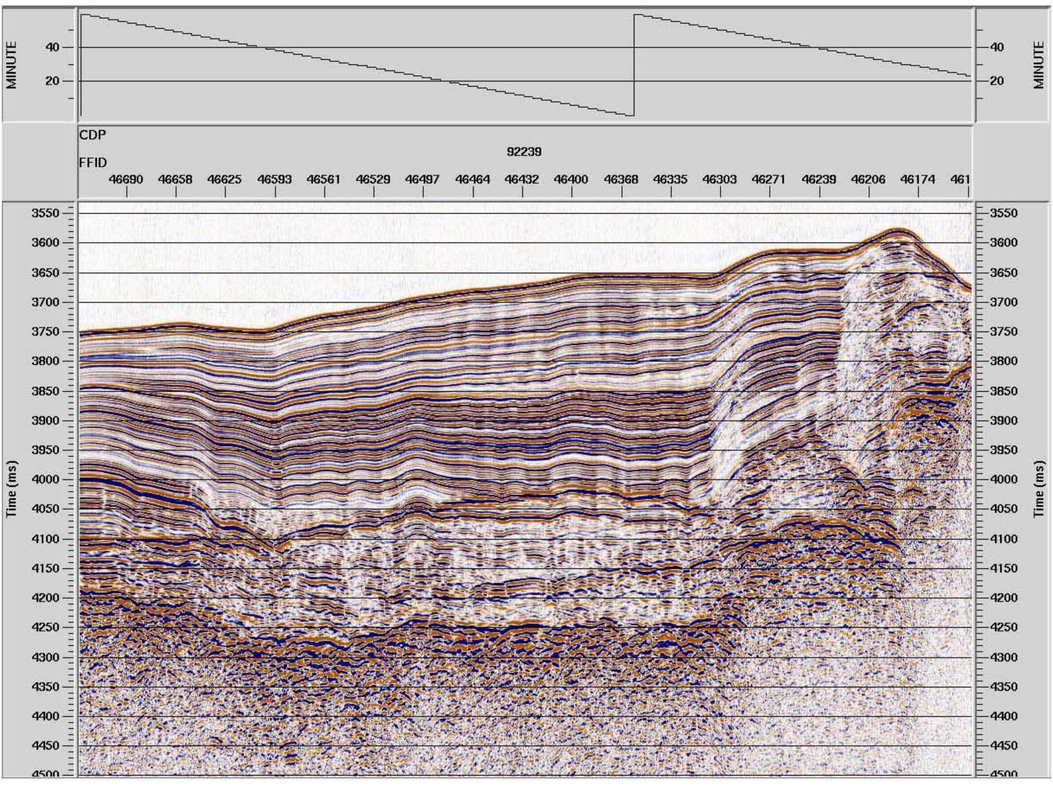
NW ← Direction of travel → SE

02:00 GMT

00:23 GMT





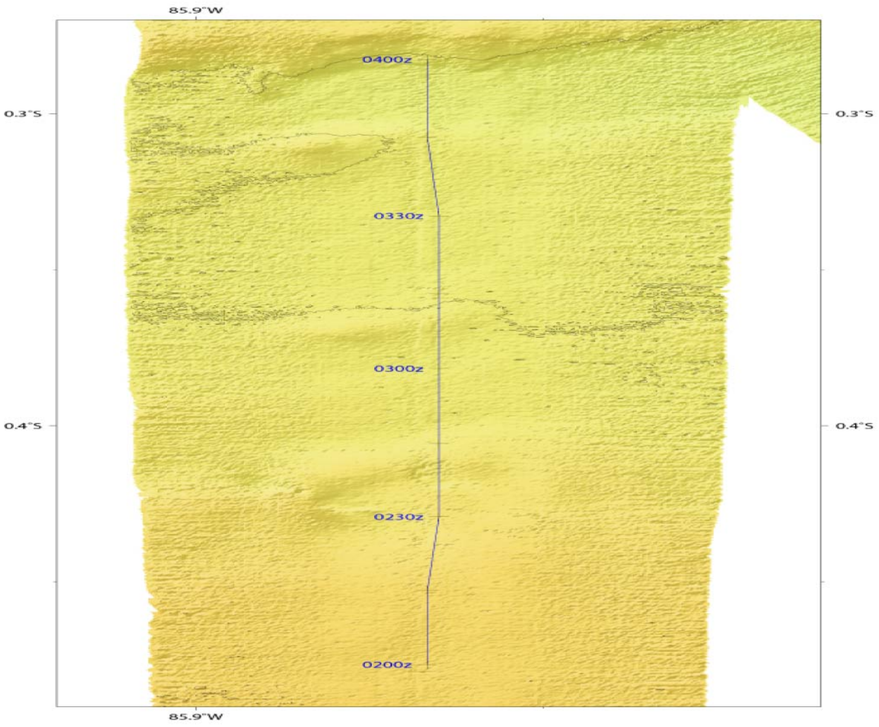


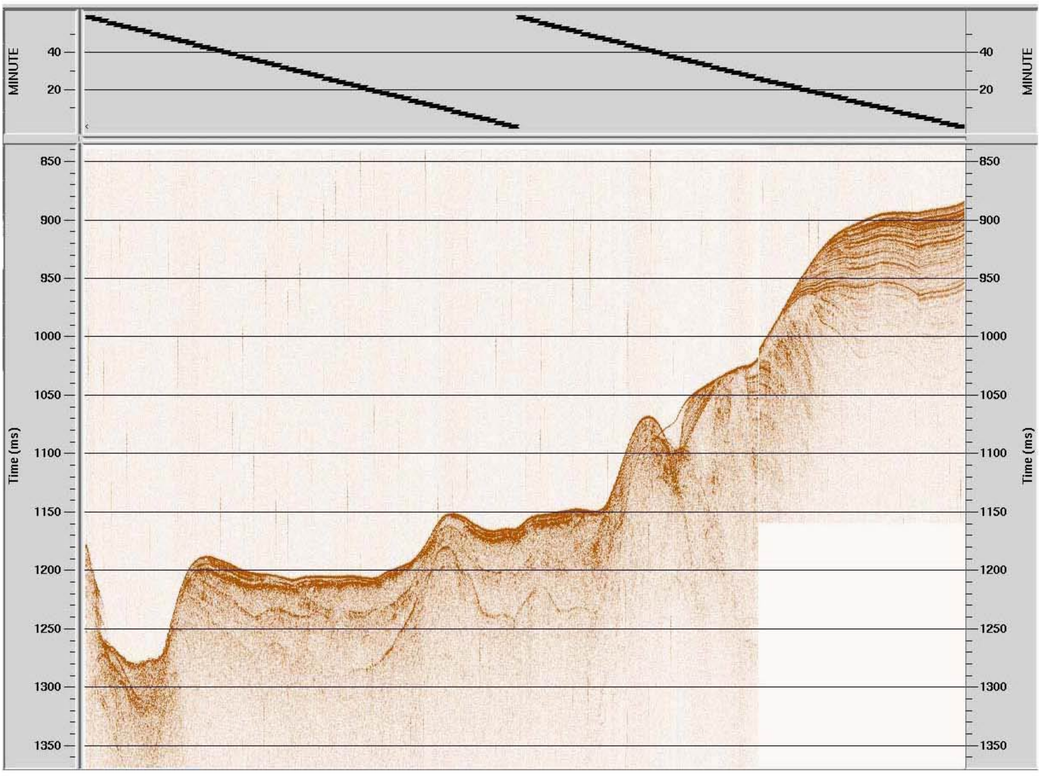
Carnegie Ridge
Line 3
JD: 302
02:00-04:00 GMT

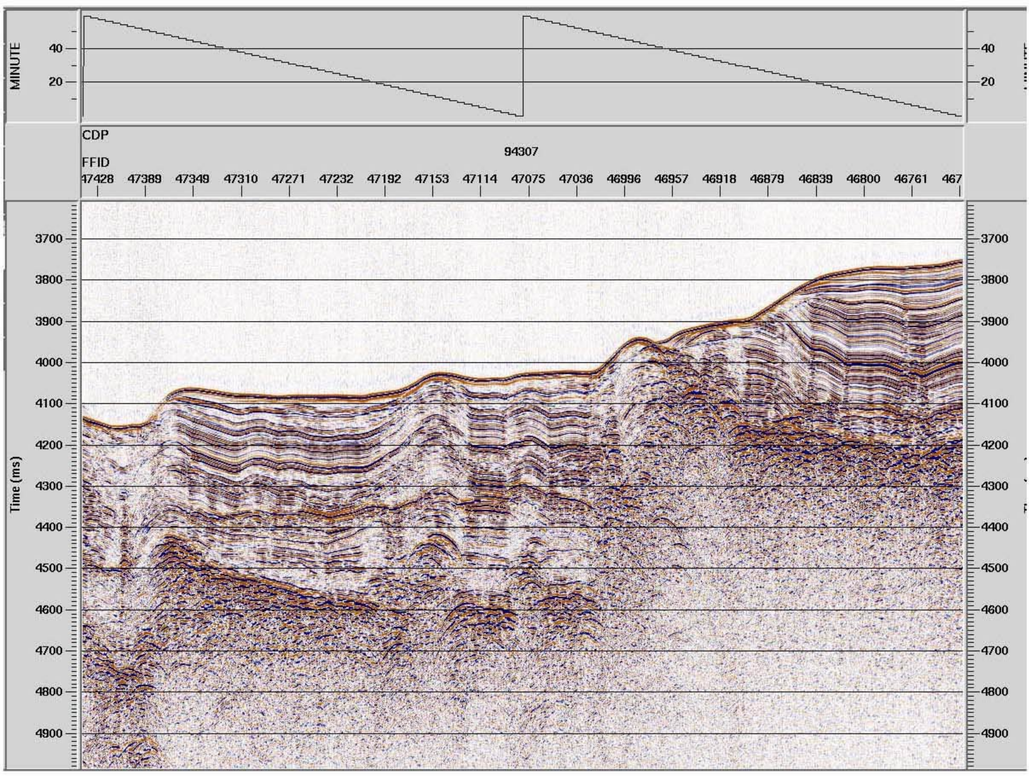
NW ← Direction of travel → SE

04:00 GMT

02:00 GMT





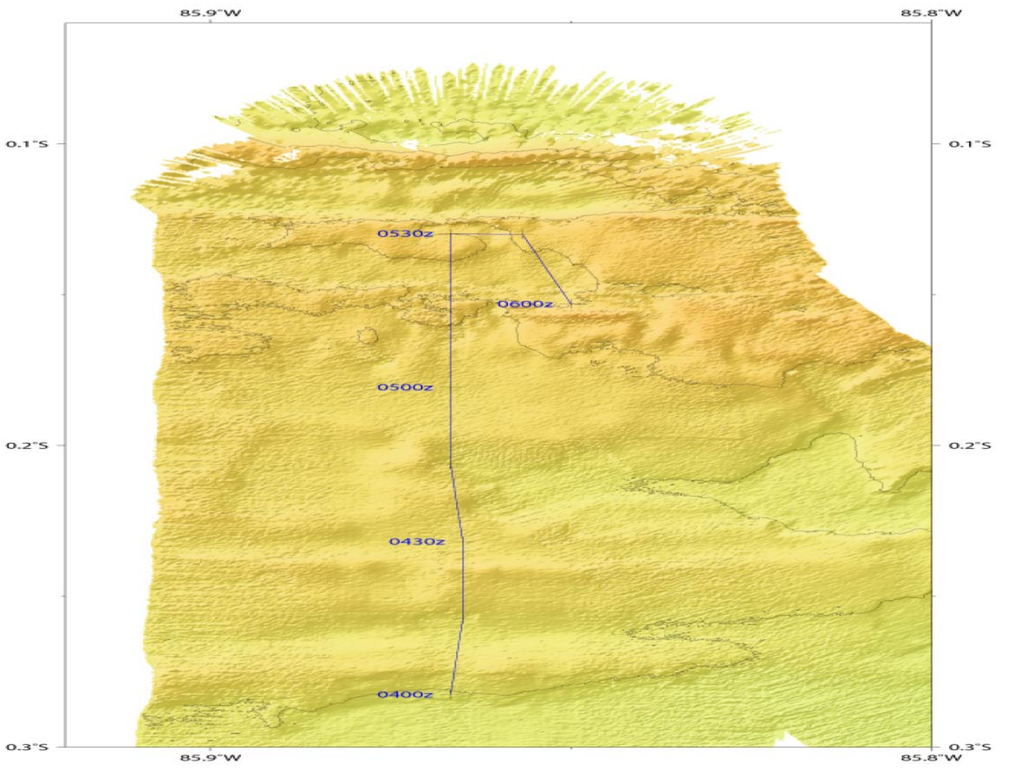


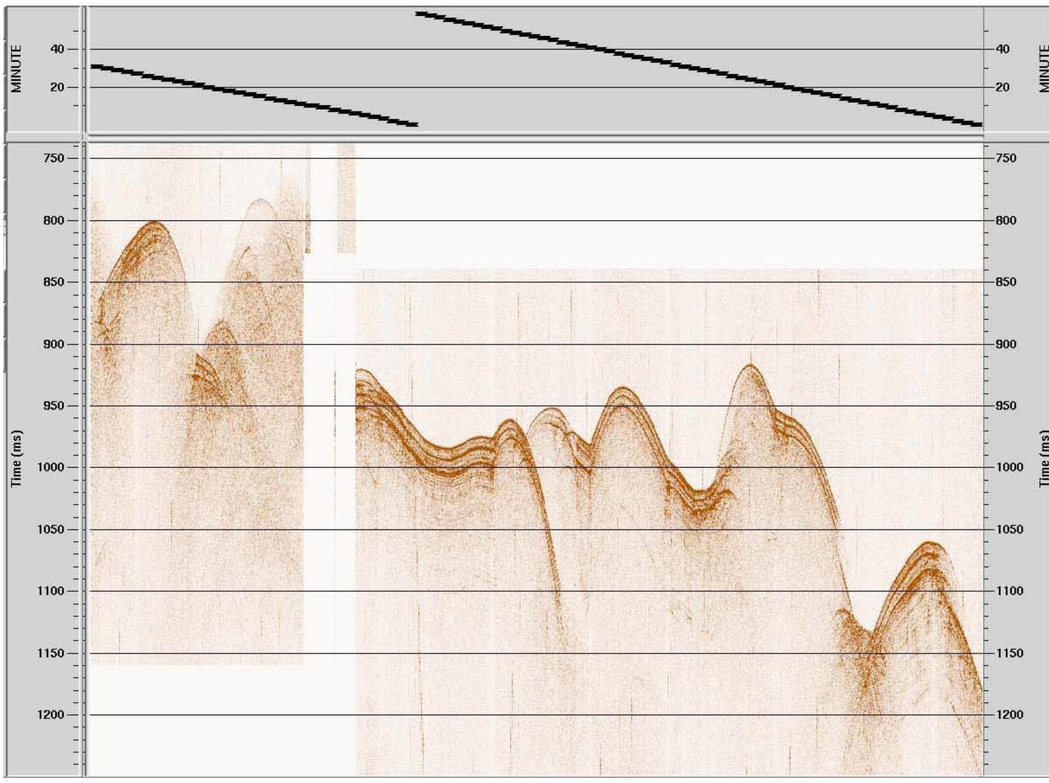
Carnegie Ridge
Line 3
JD: 302
04:00-05:32 GMT

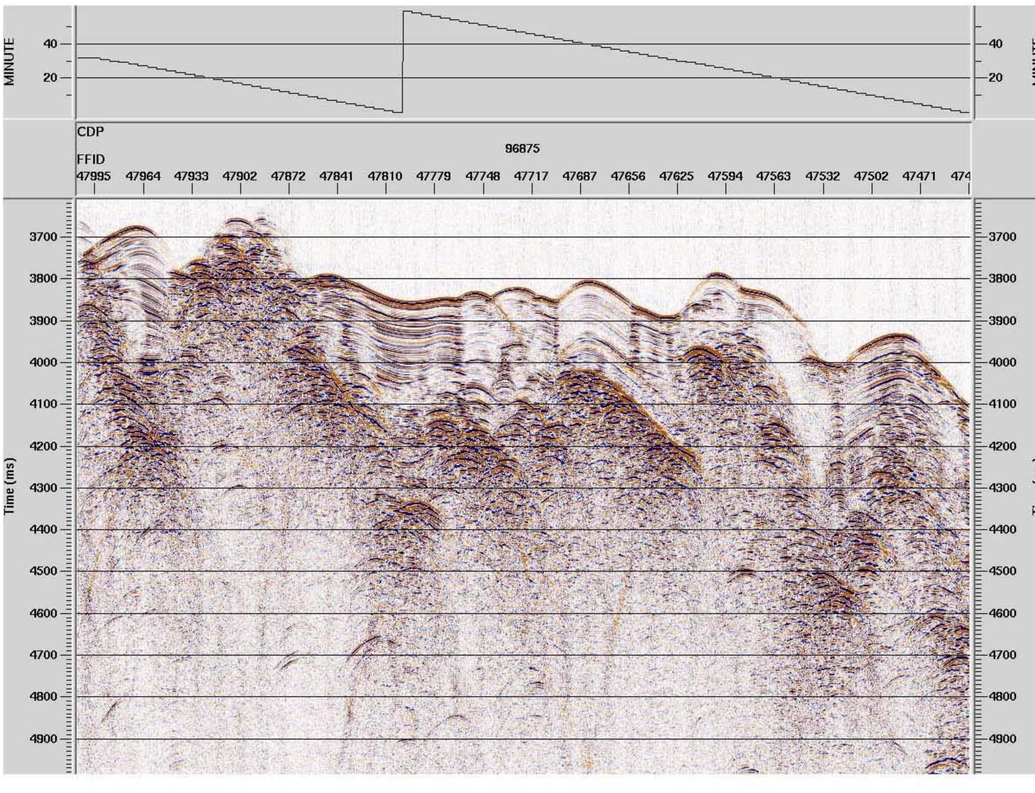
NW ← Direction of travel → SE

05:32 GMT

04:00 GMT



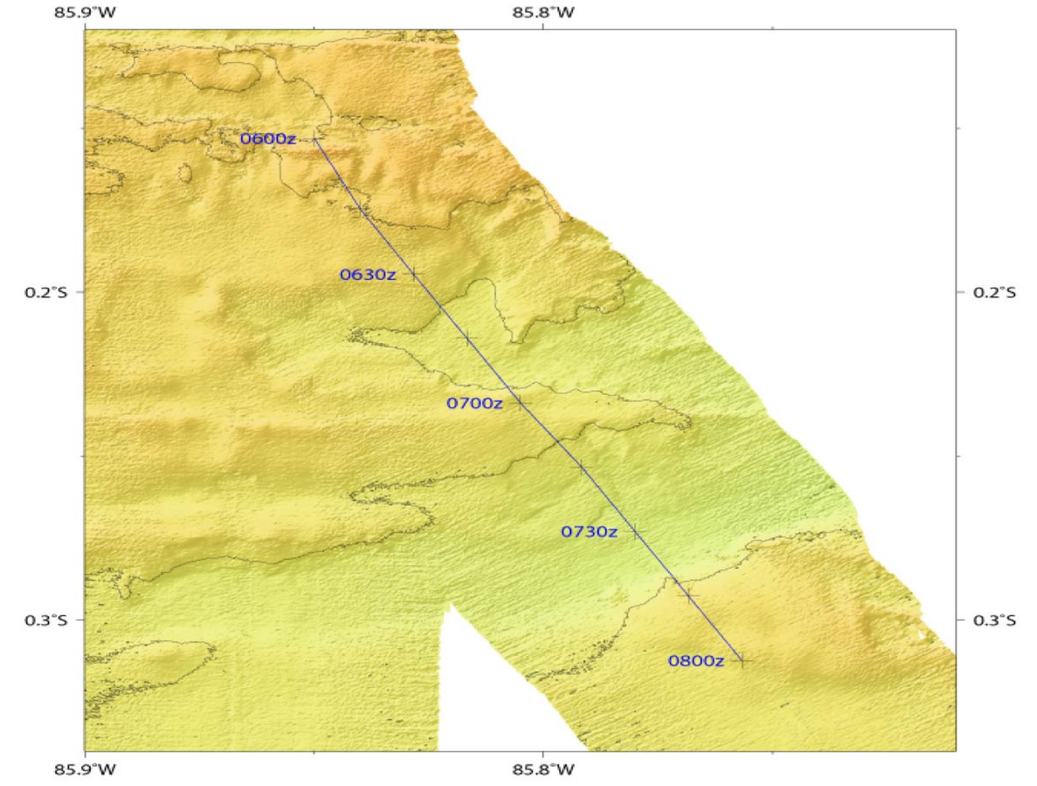


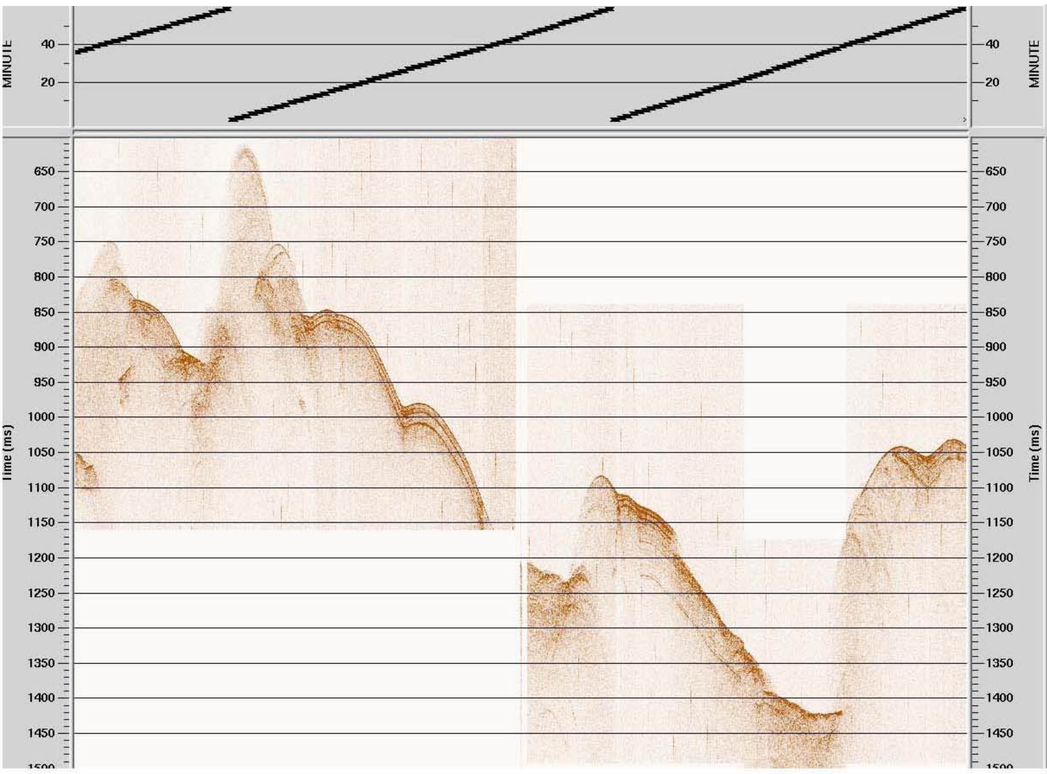


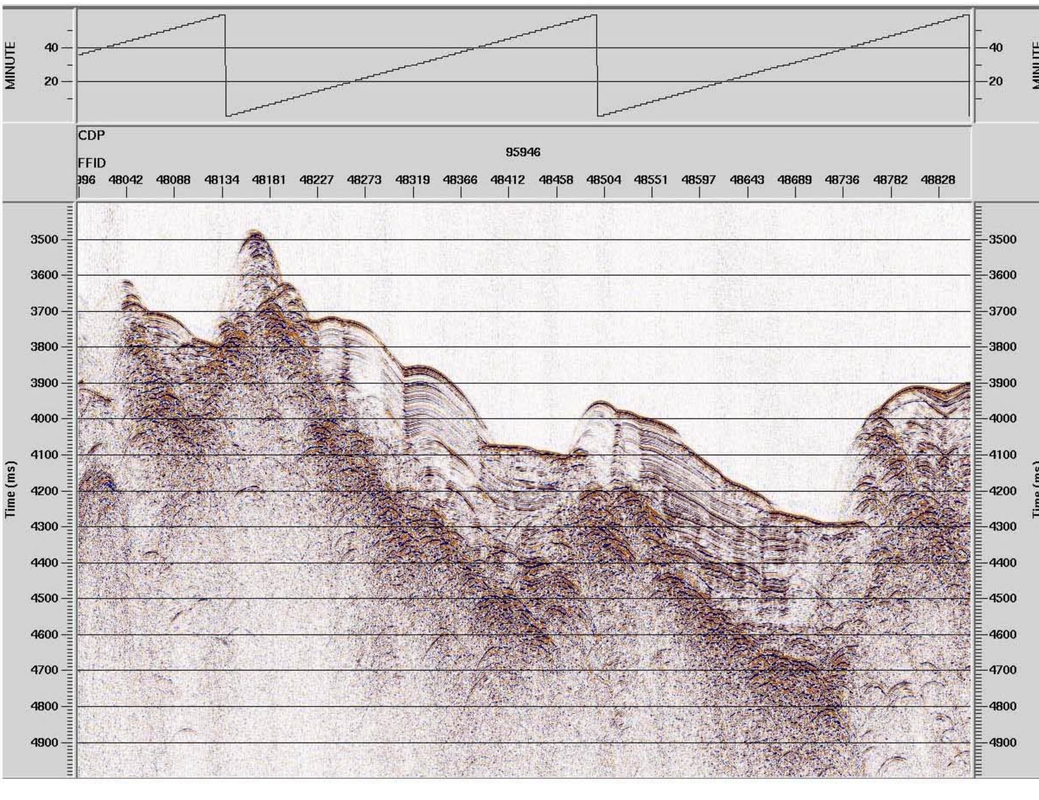
Carnegie Ridge
Line 4
JD: 302
05:36-08:00 GMT

NW Direction of travel SE

05:36GMT 08:00 GMT



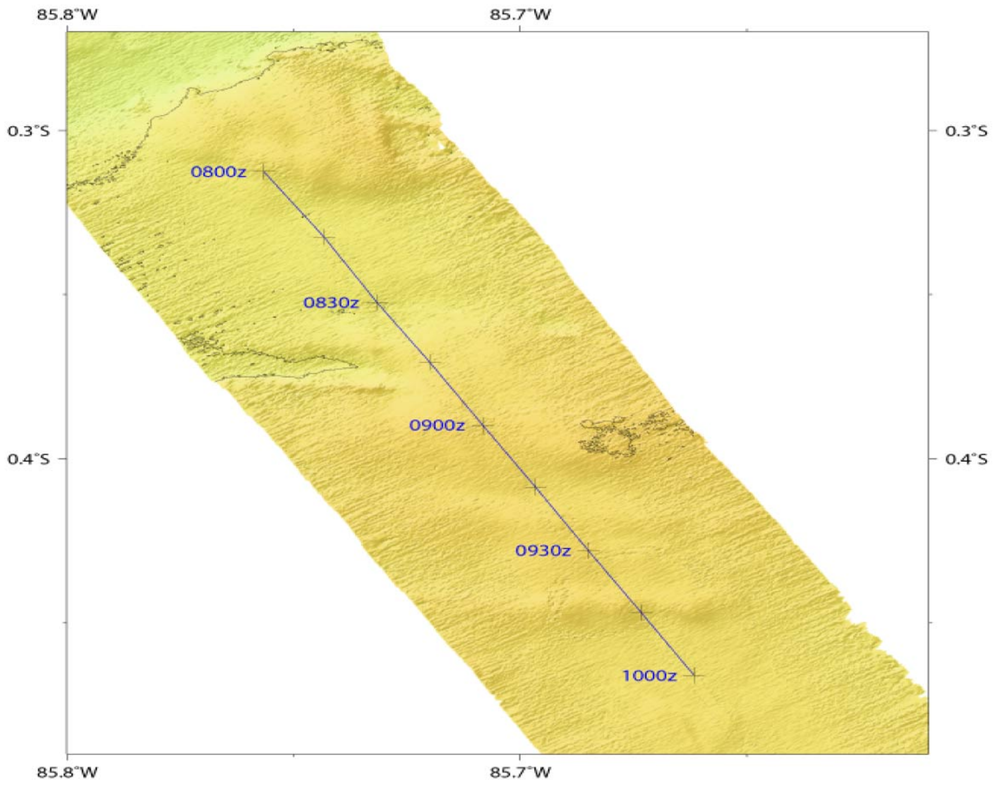


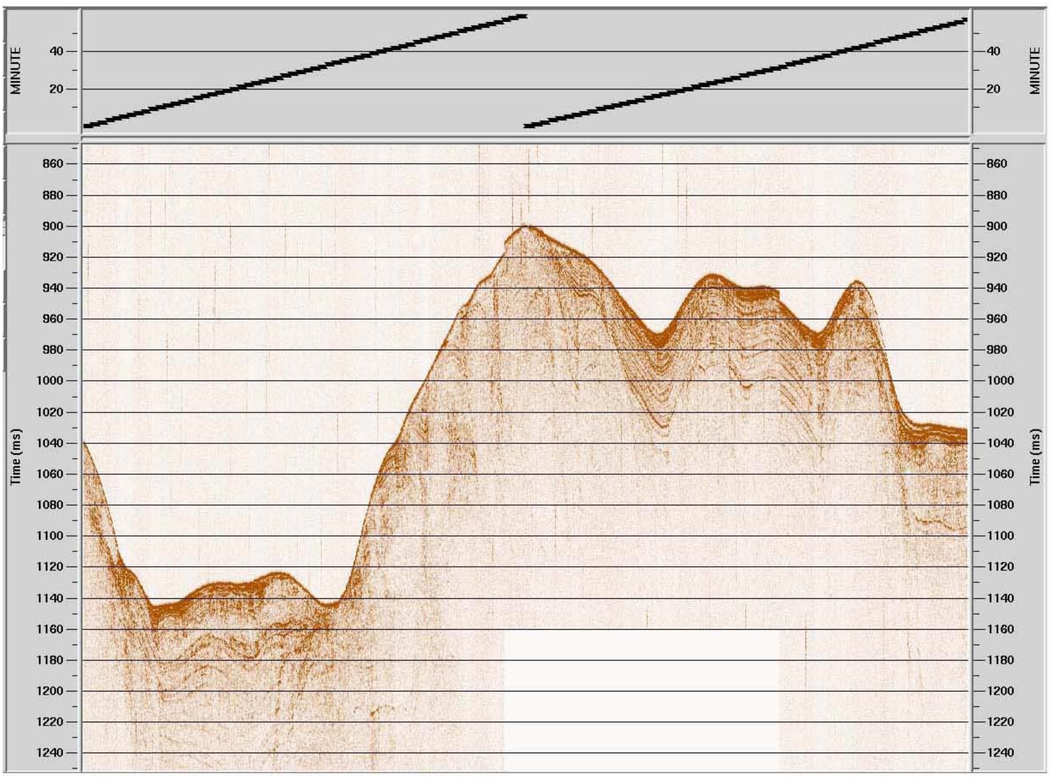


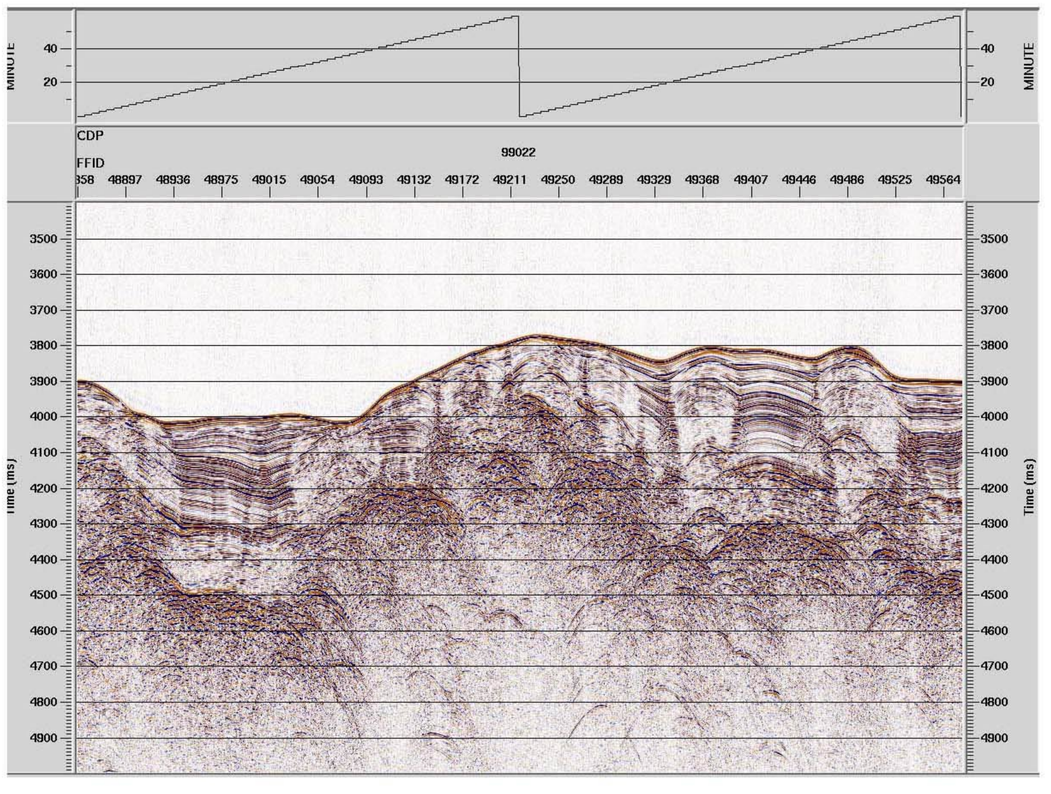
Carnegie Ridge
Line 4
JD: 302
08:00-10:00 GMT

NW Direction of travel SE

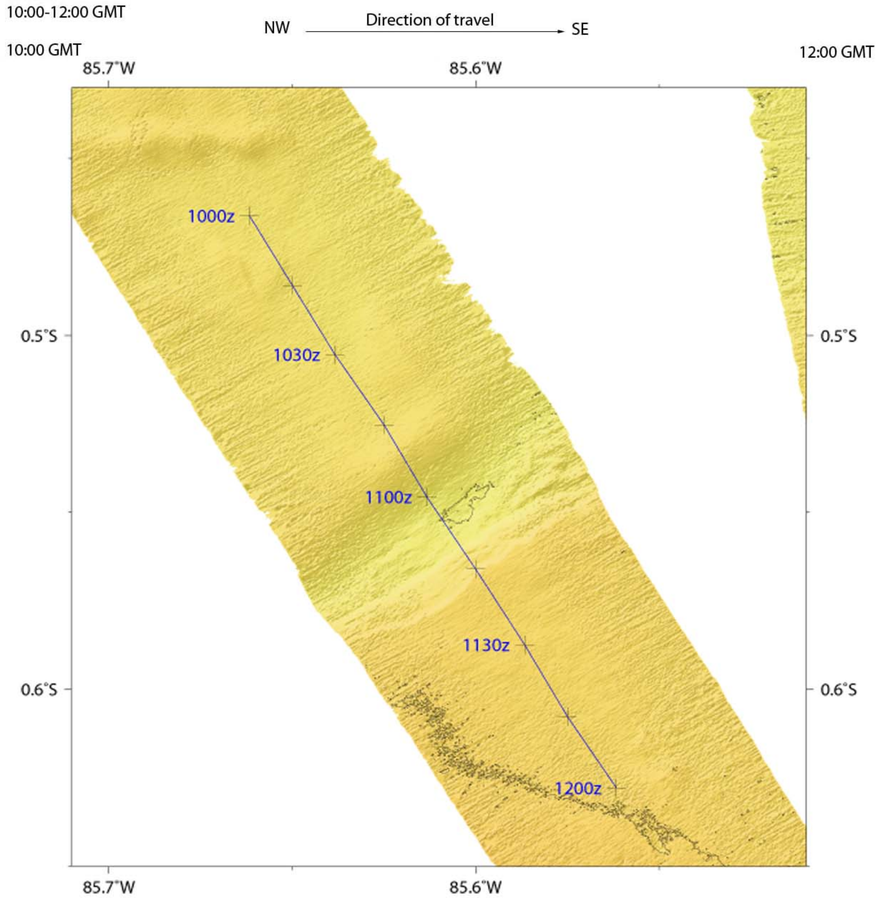
08:00 GMT 10:00 GMT

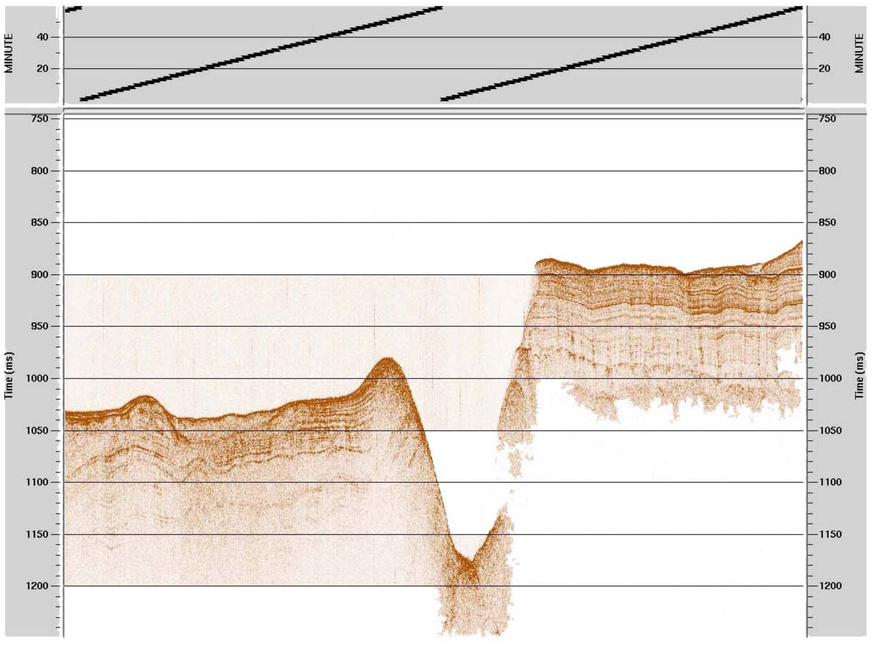


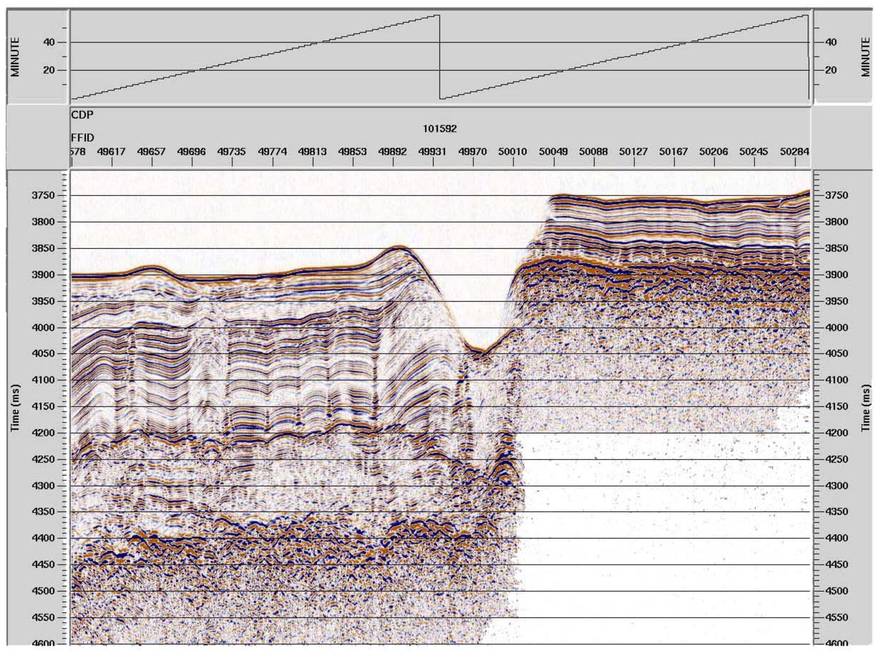




Carnegie Ridge
Line 4
JD: 302
10:00-12:00 GMT



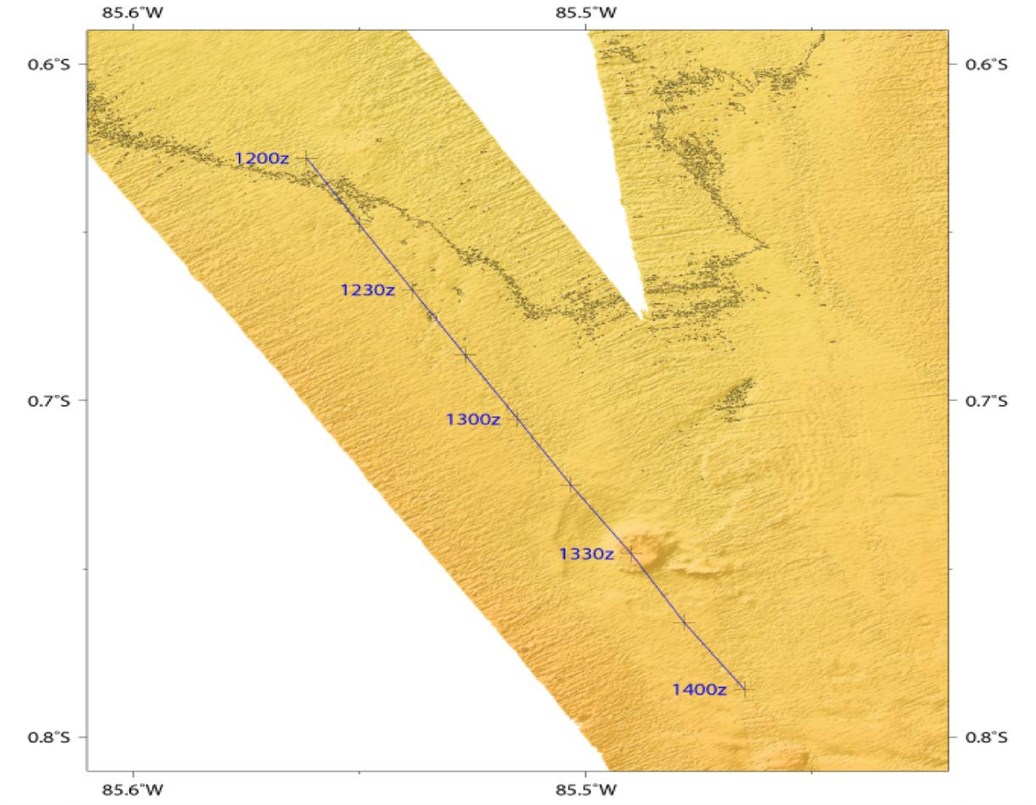


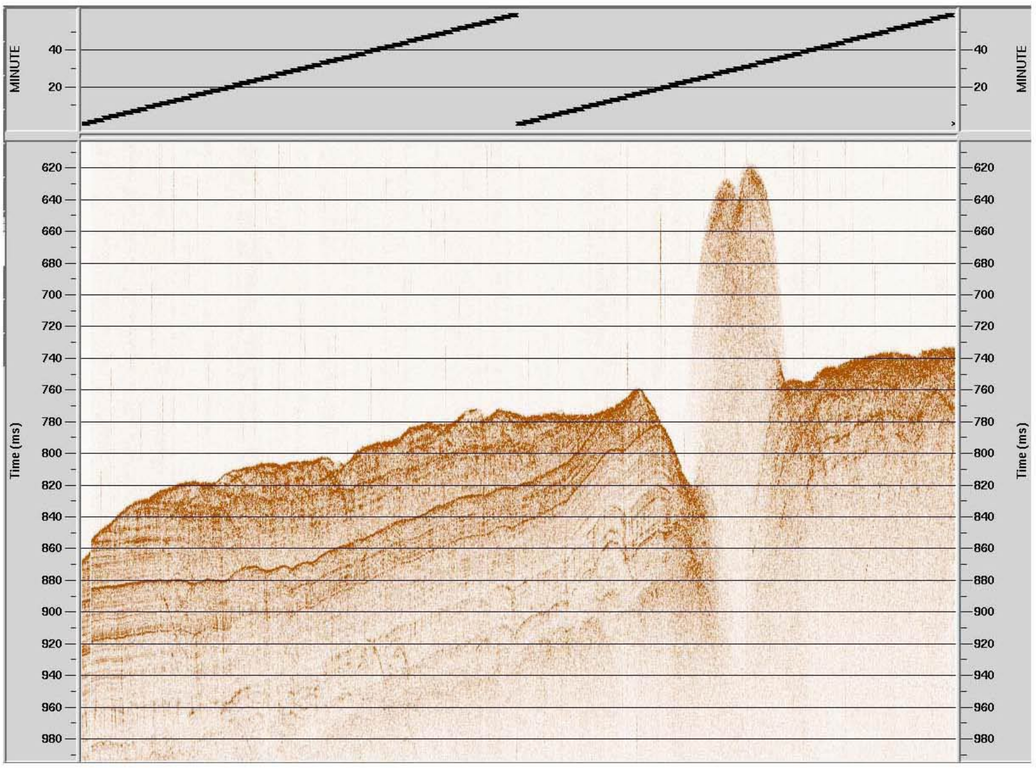


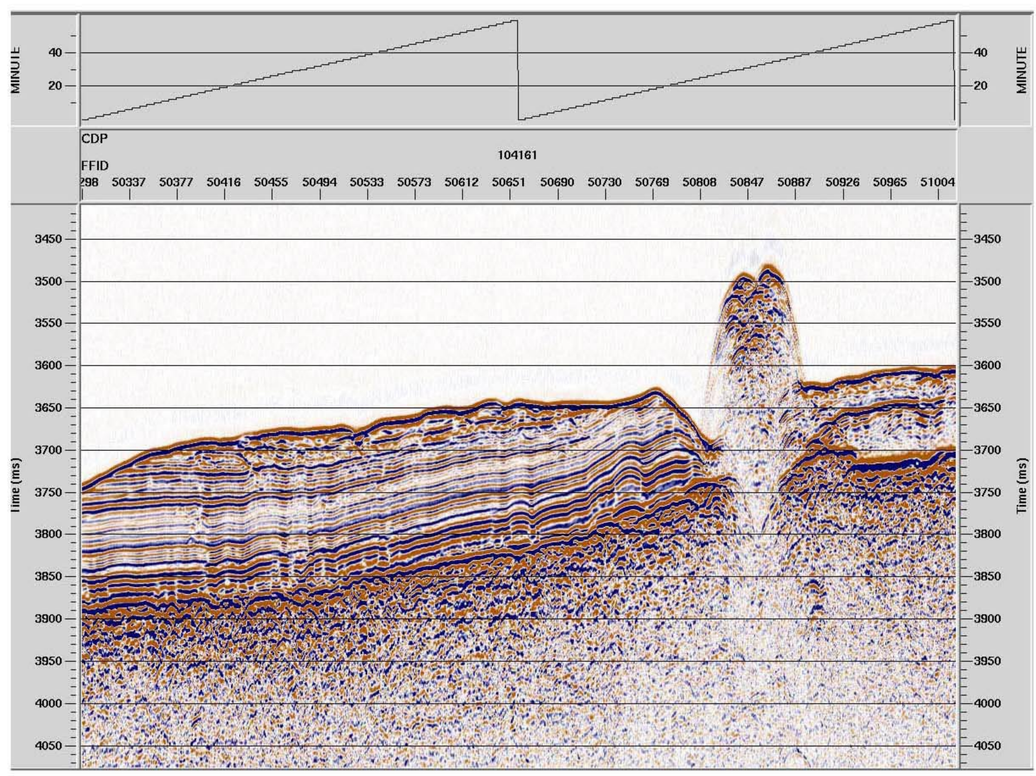
Carnegie Ridge
Line 4
JD: 302
12:00-14:00 GMT

NW Direction of travel SE

12:00 GMT 14:00 GMT





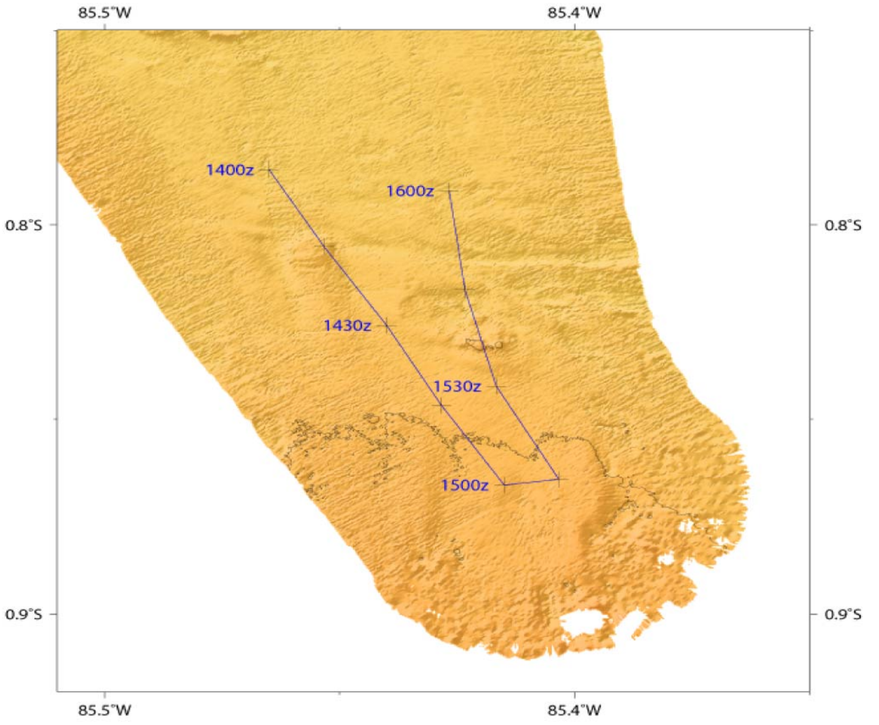


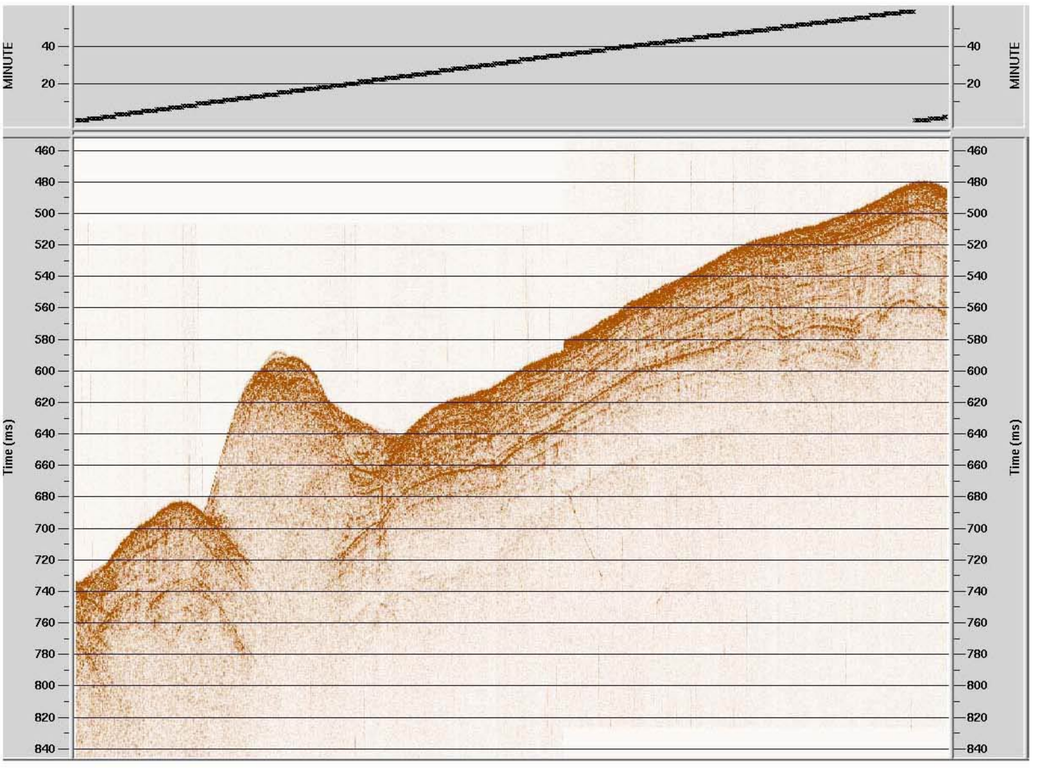
Carnegie Ridge
Line 4
JD: 302
14:00-15:02 GMT

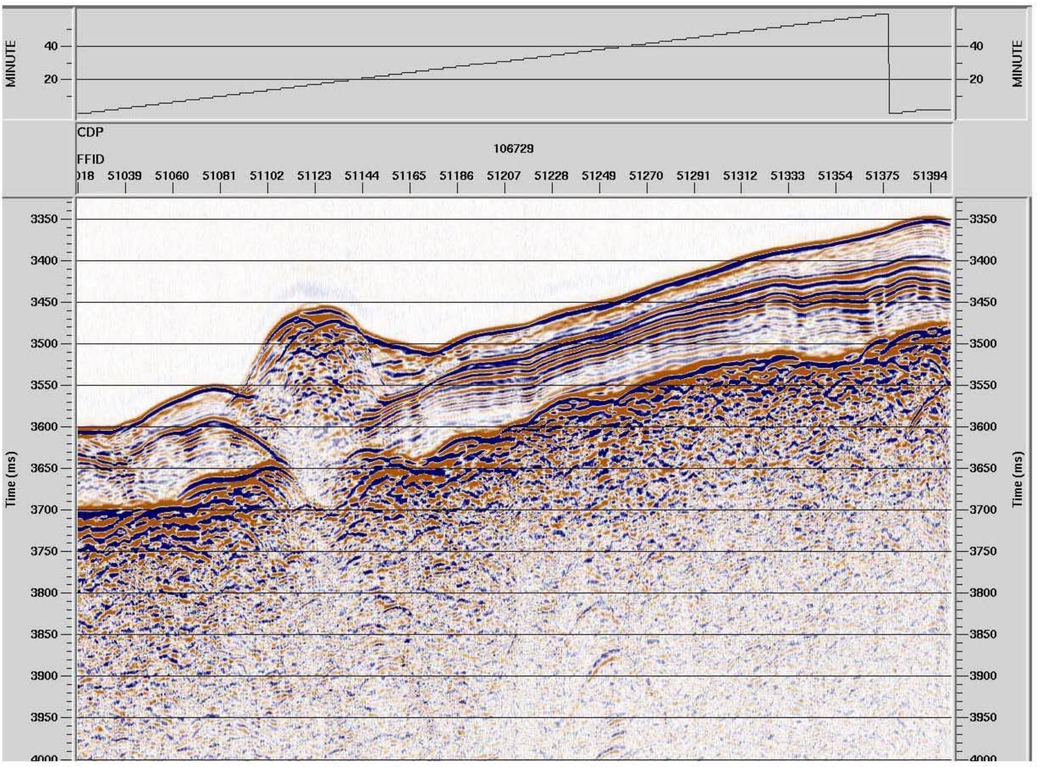
NW Direction of travel SE

14:00 GMT

15:02 GMT





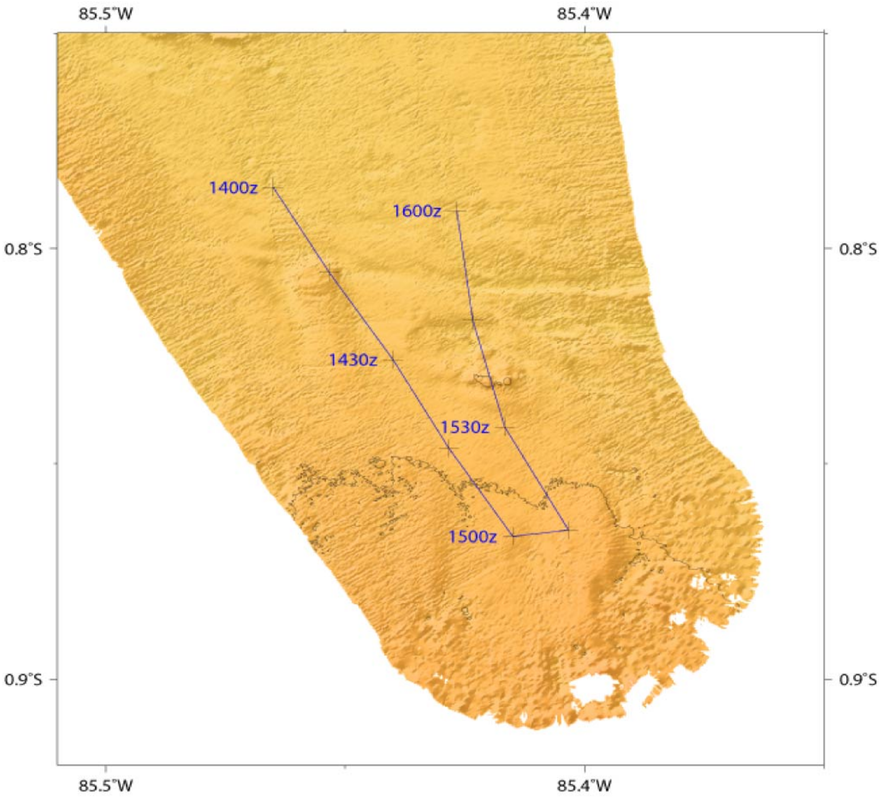


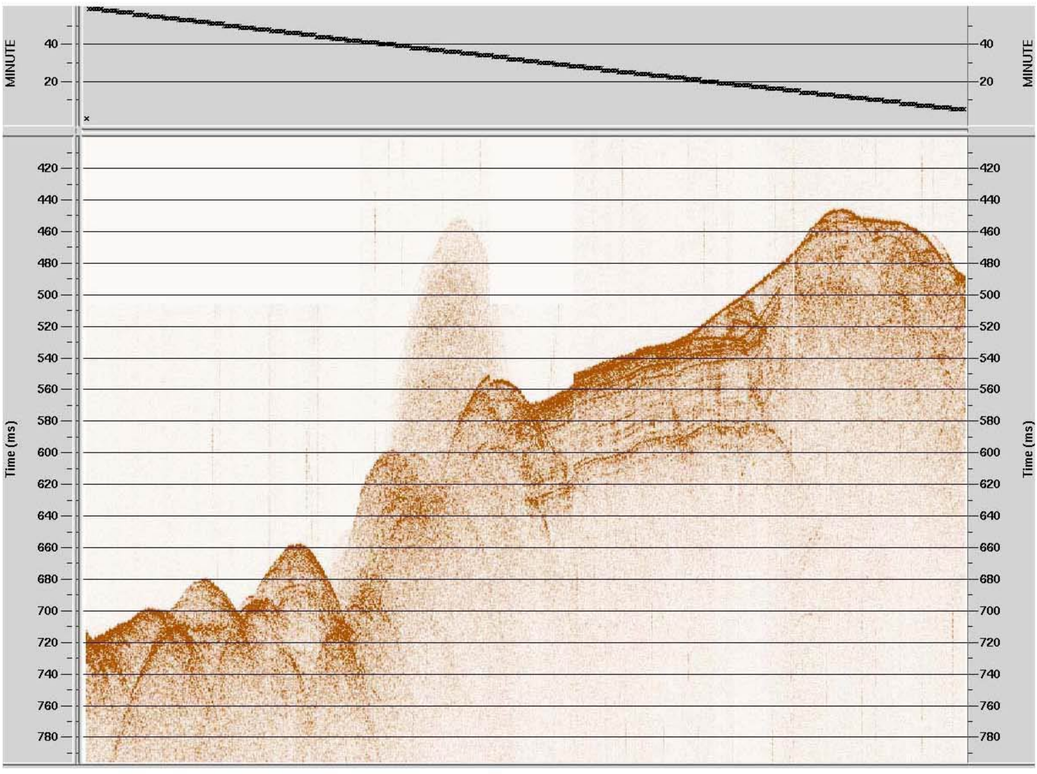
Carnegie Ridge
Line 5
JD: 302
15:05-16:00 GMT

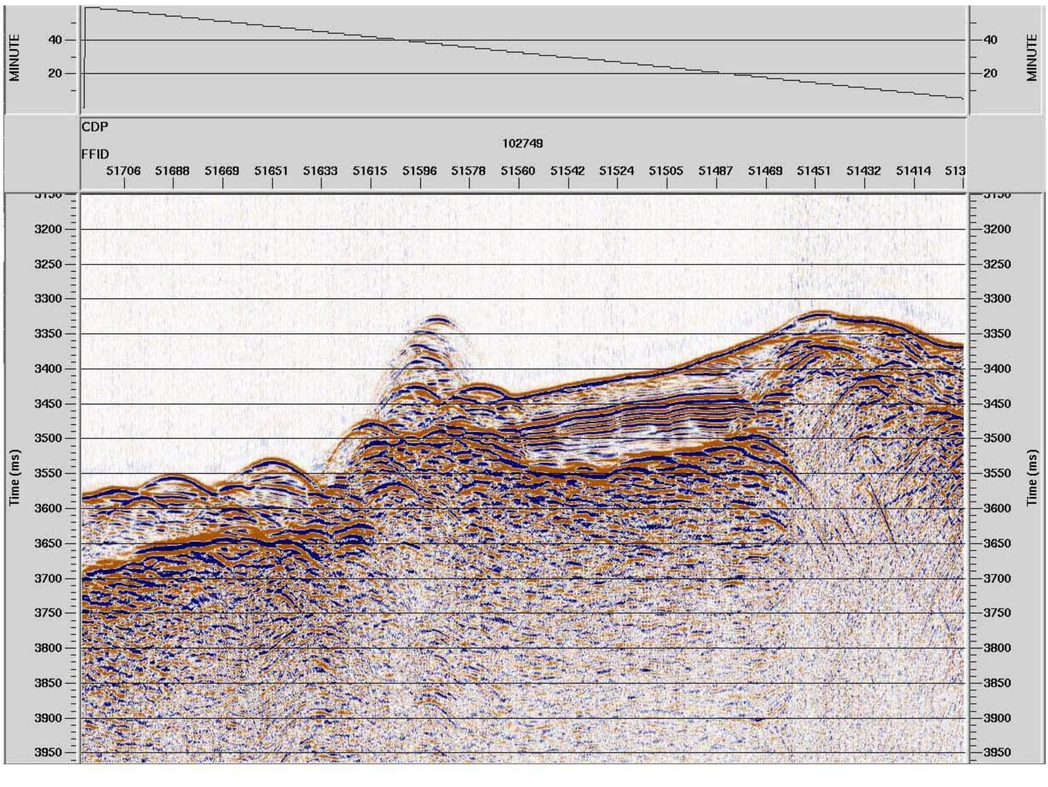
NW ← Direction of travel → SE

16:00 GMT

15:05 GMT





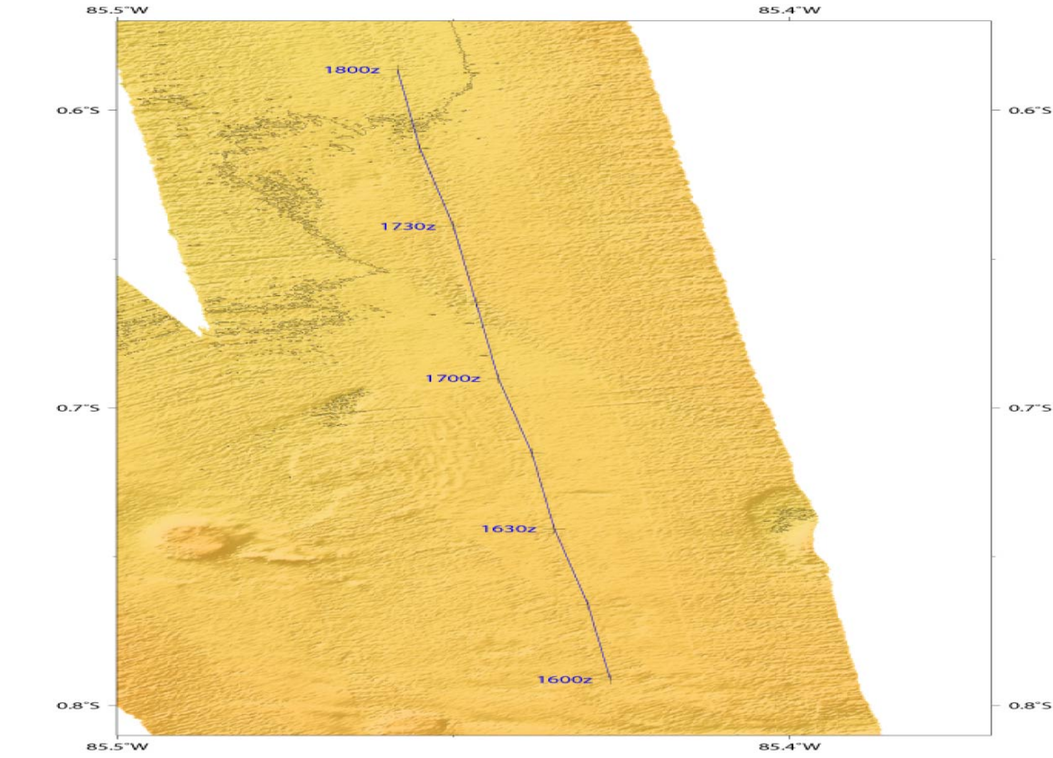


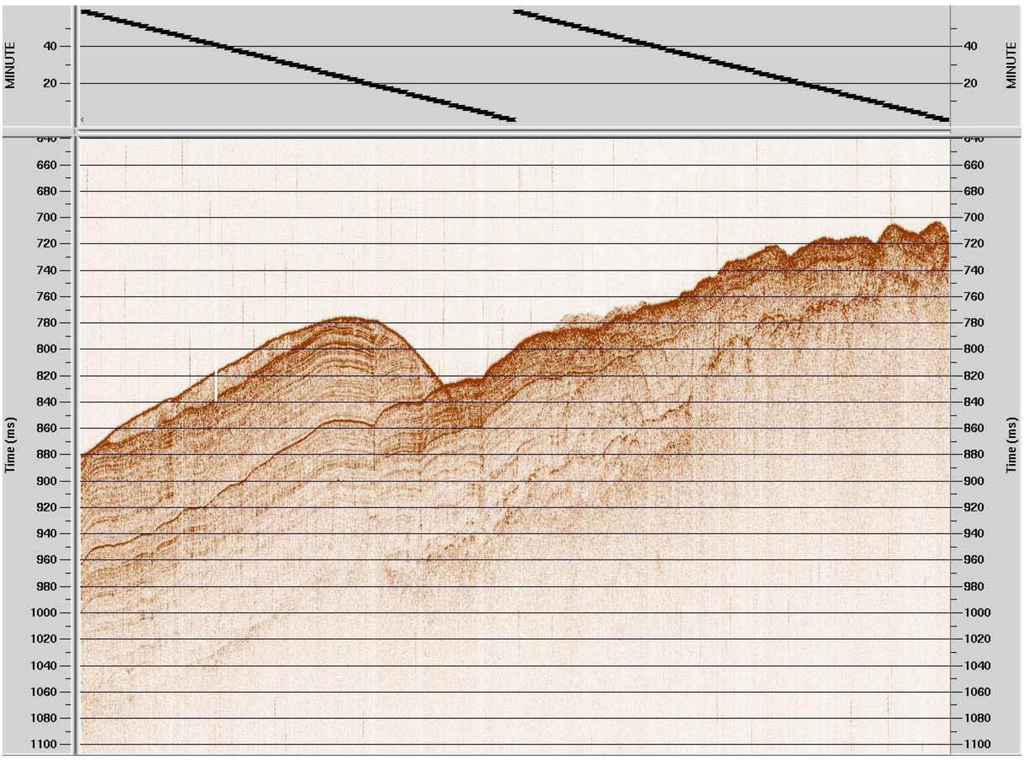
Carnegie Ridge
Line 5
JD: 302
16:00-18:00 GMT

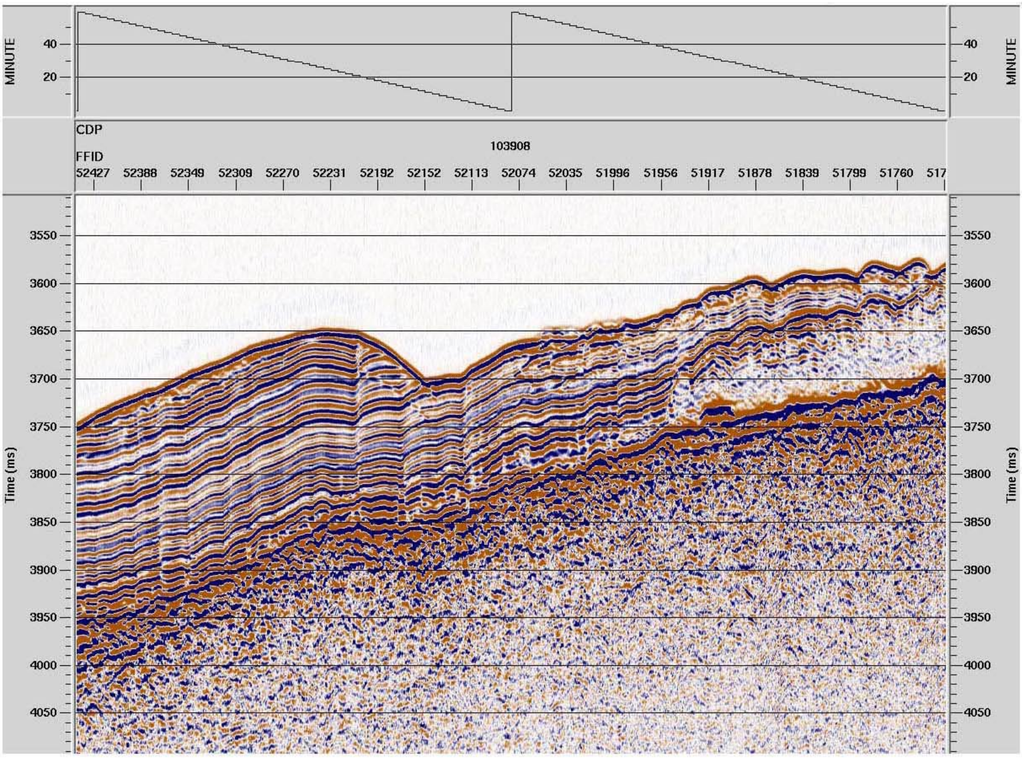
NW ← Direction of travel → SE

18:00 GMT

16:00 GMT





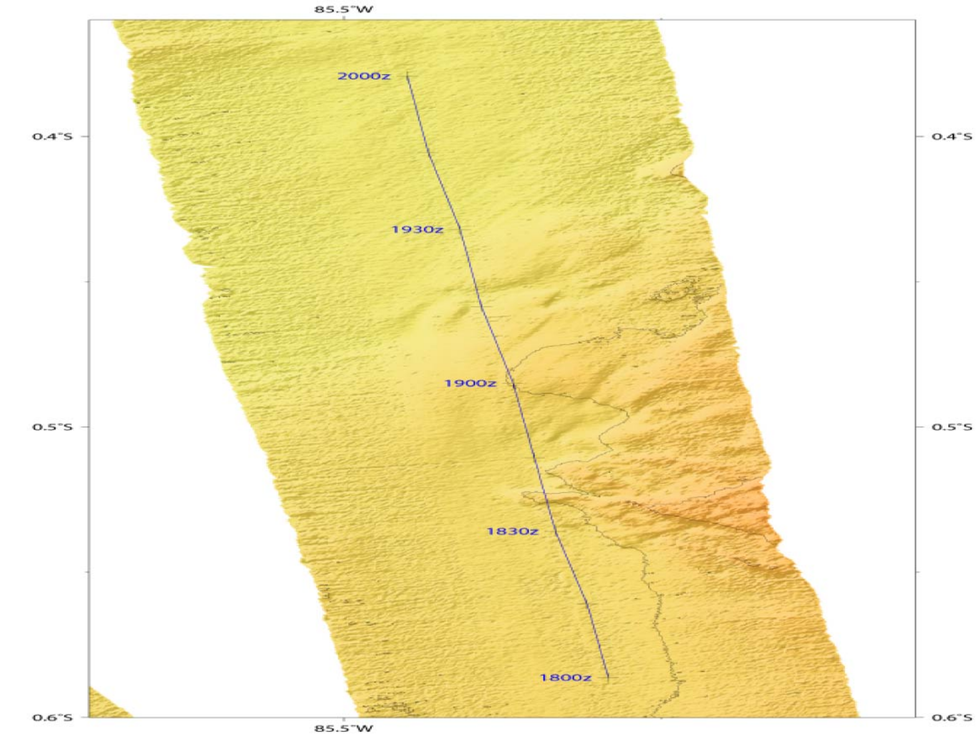


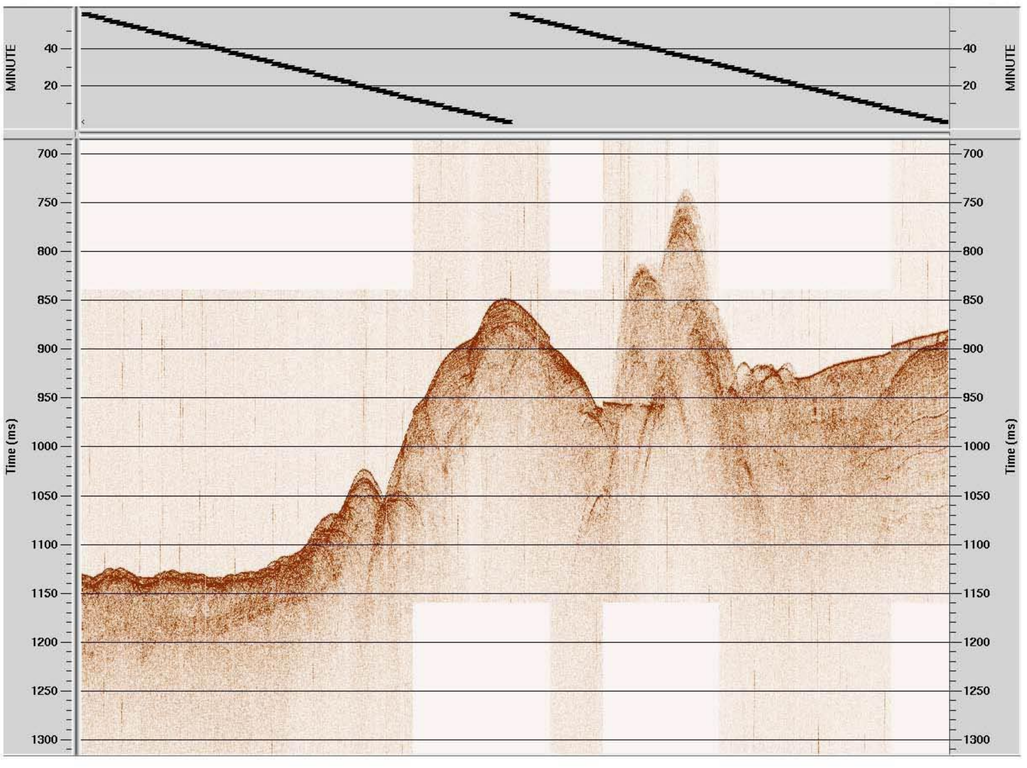
Carnegie Ridge
Line 5
JD: 302
18:00-20:00 GMT

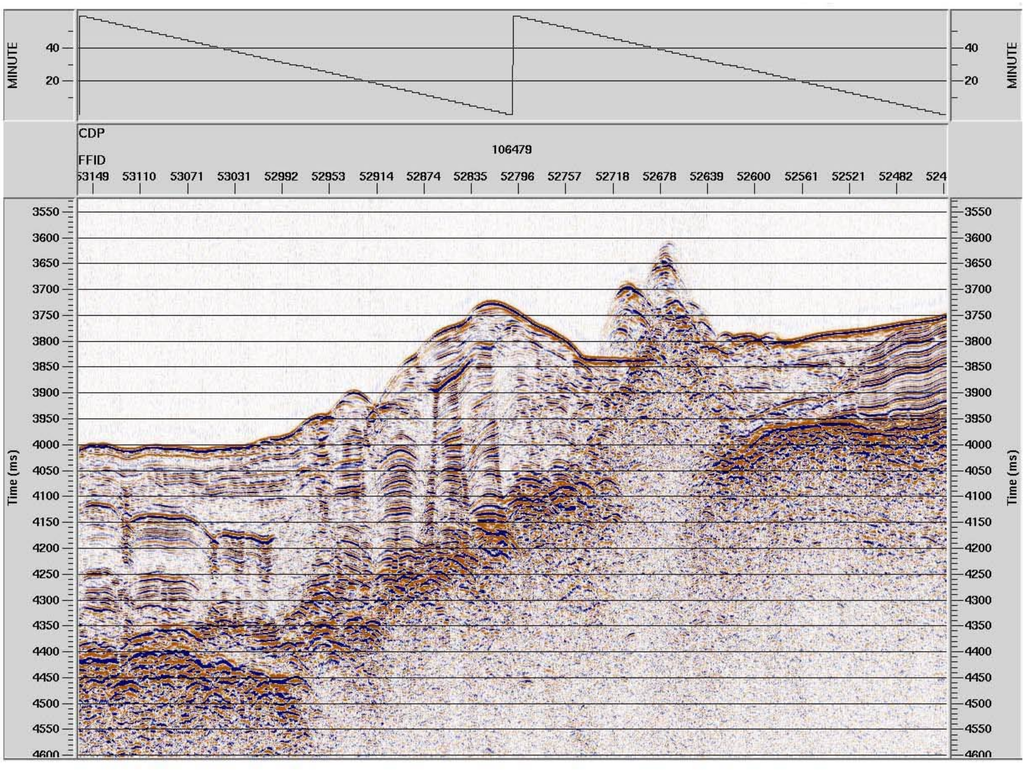
NW ← Direction of travel → SE

20:00 GMT

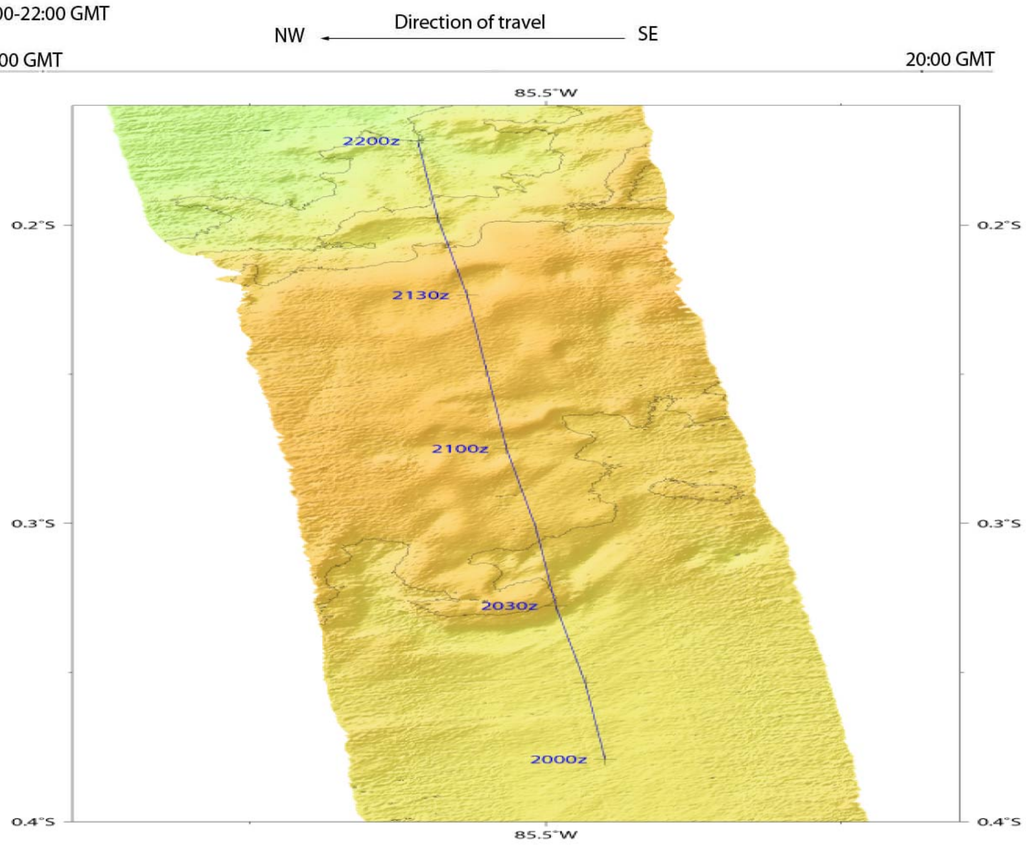
18:00 GMT

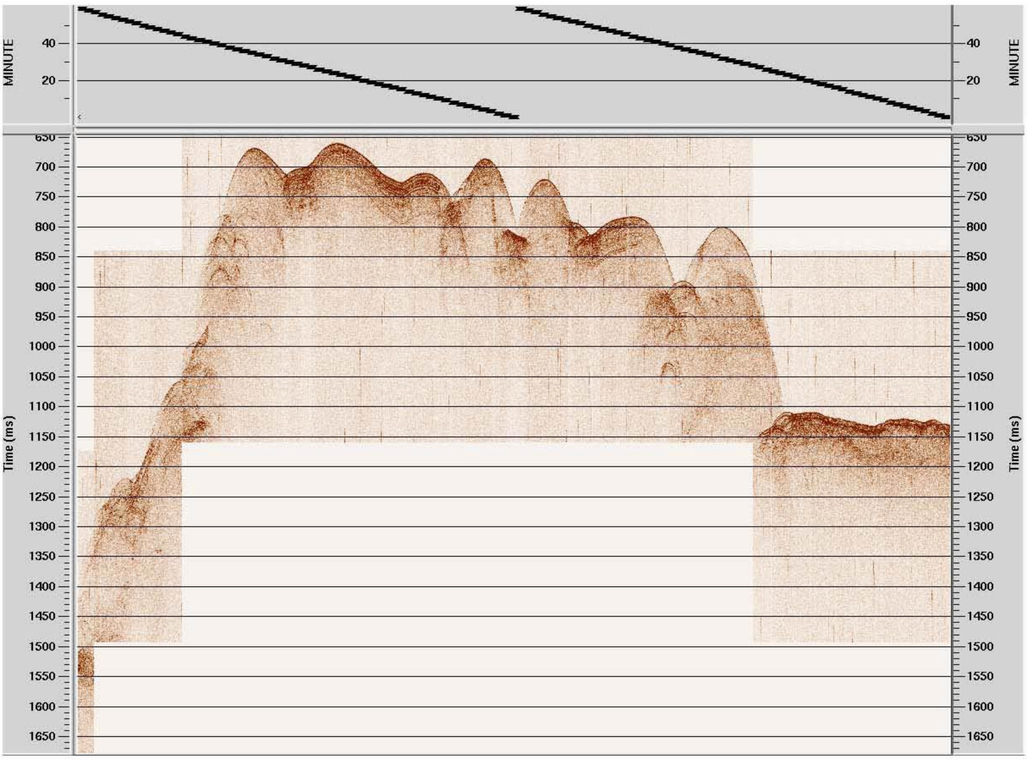


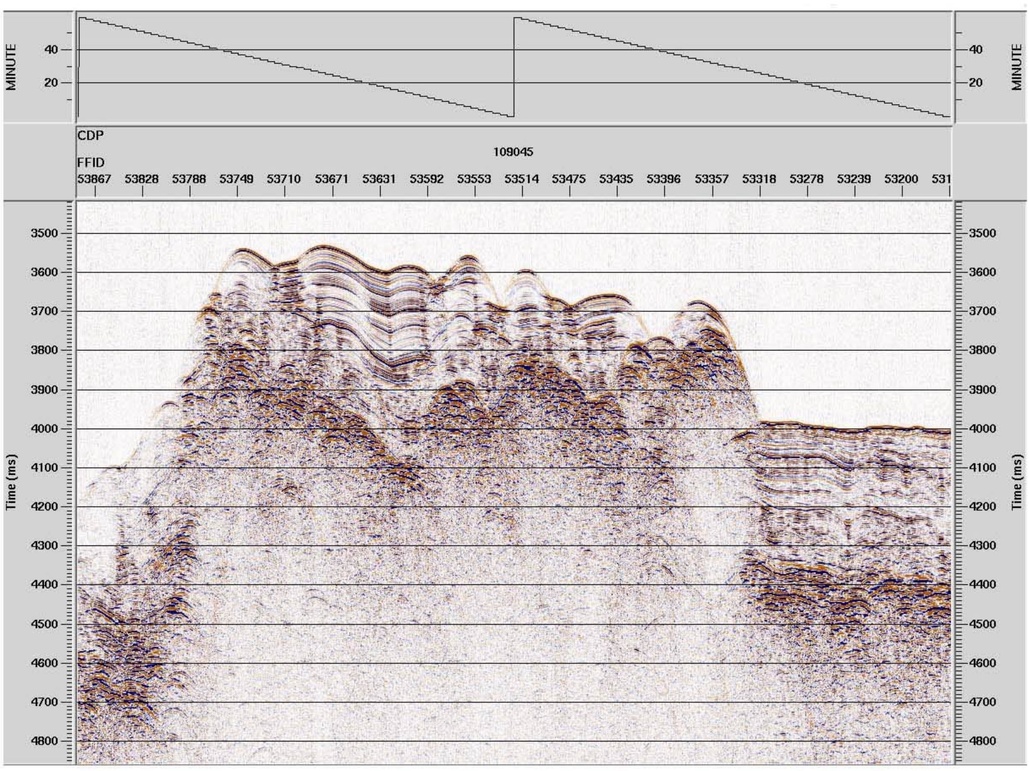




Carnegie Ridge
Line 5
JD: 302
20:00-22:00 GMT



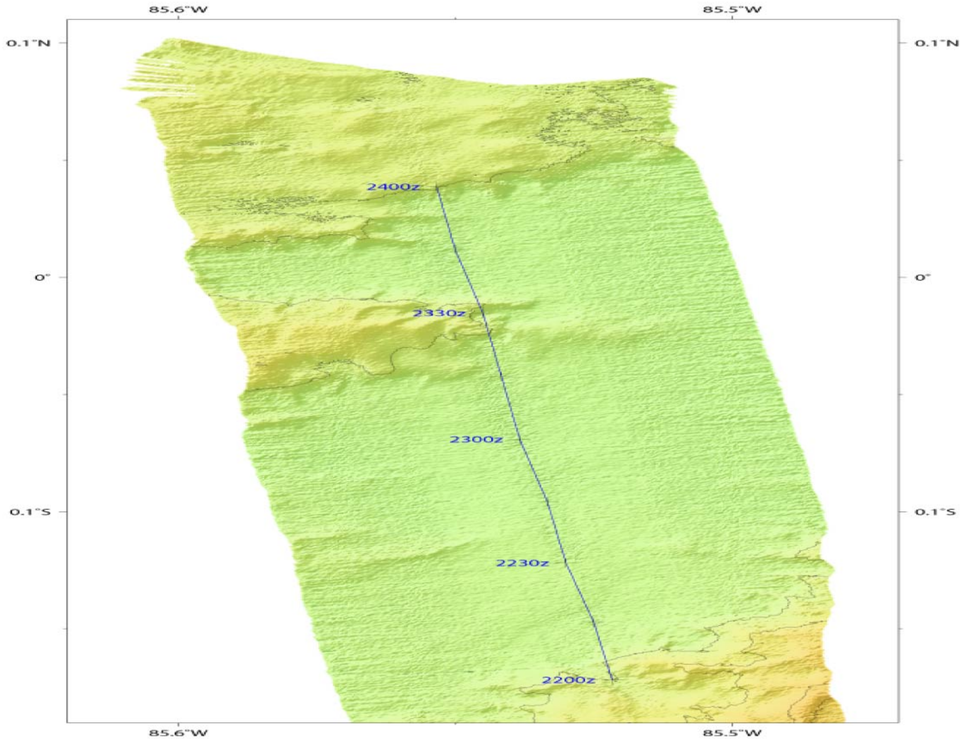


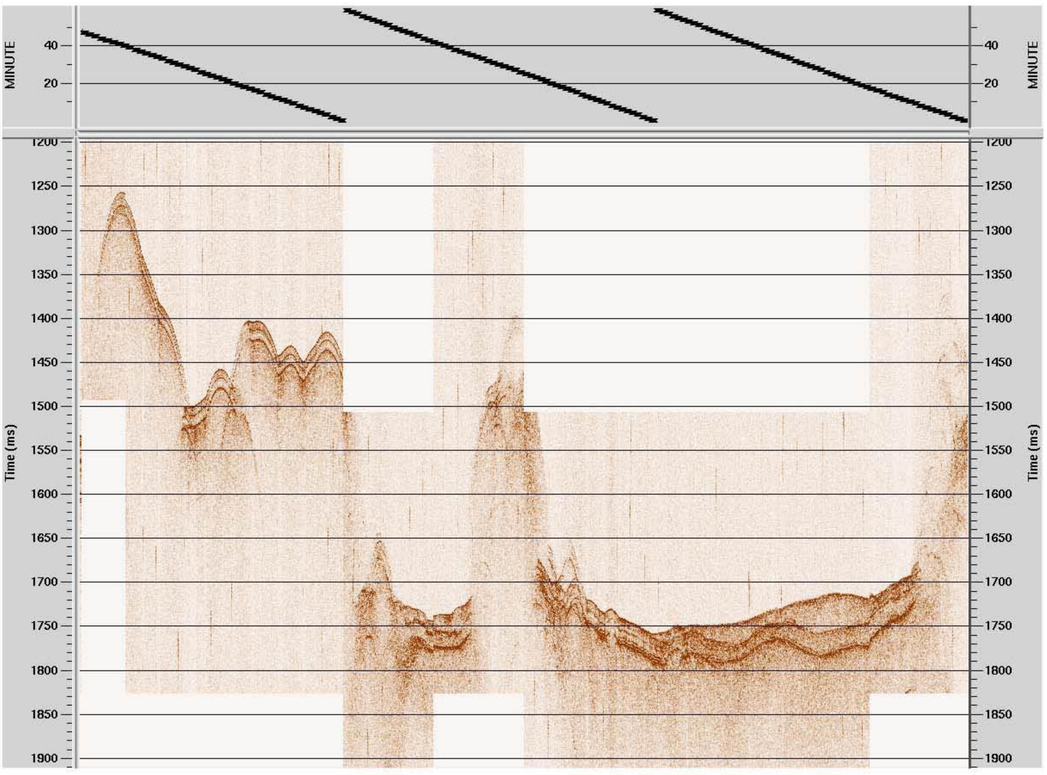


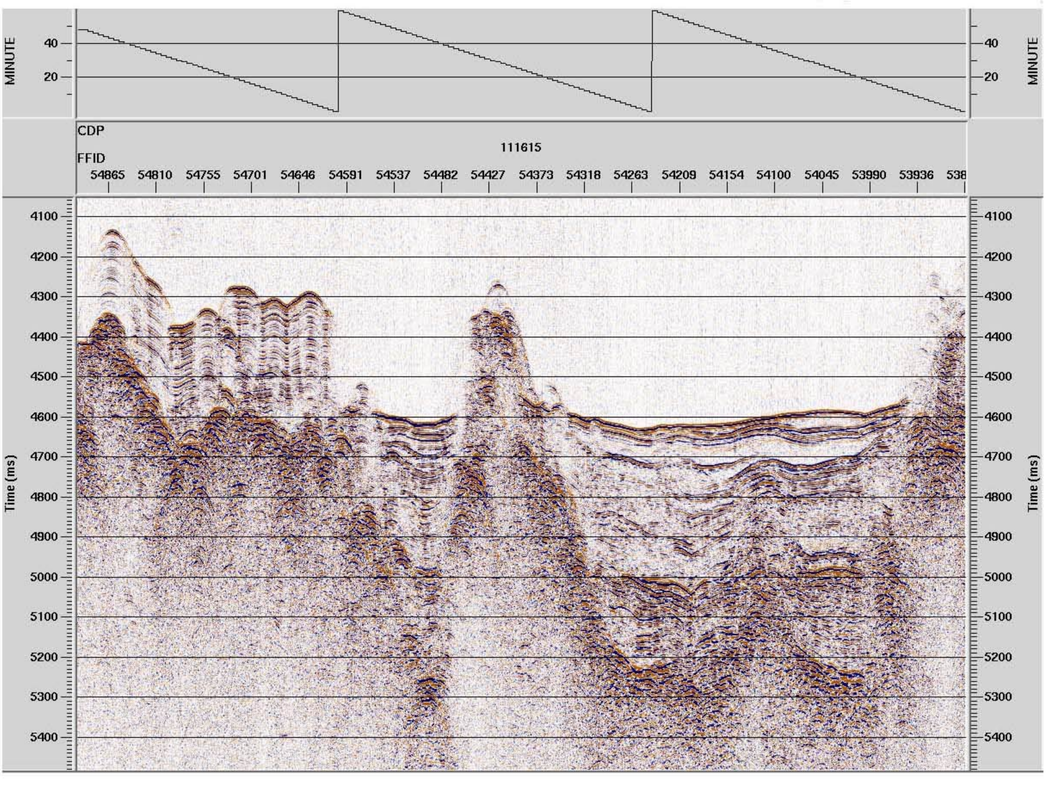
Carnegie Ridge
Line 5
JD: 302-303
22:00-00:48 GMT

NW ← Direction of travel → SE

00:48 GMT 22:00 GMT



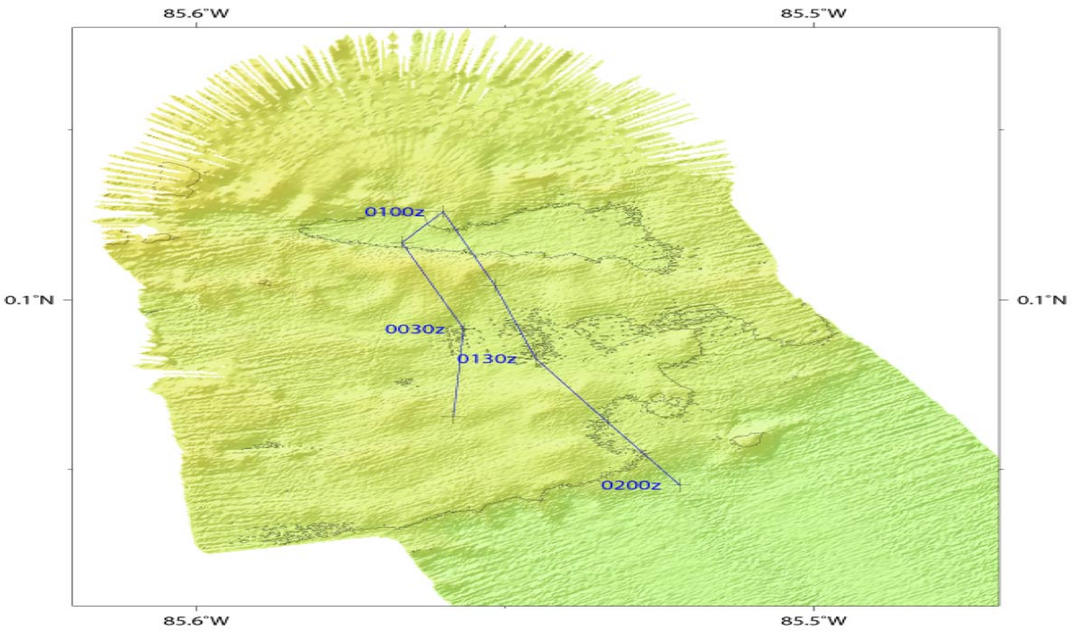


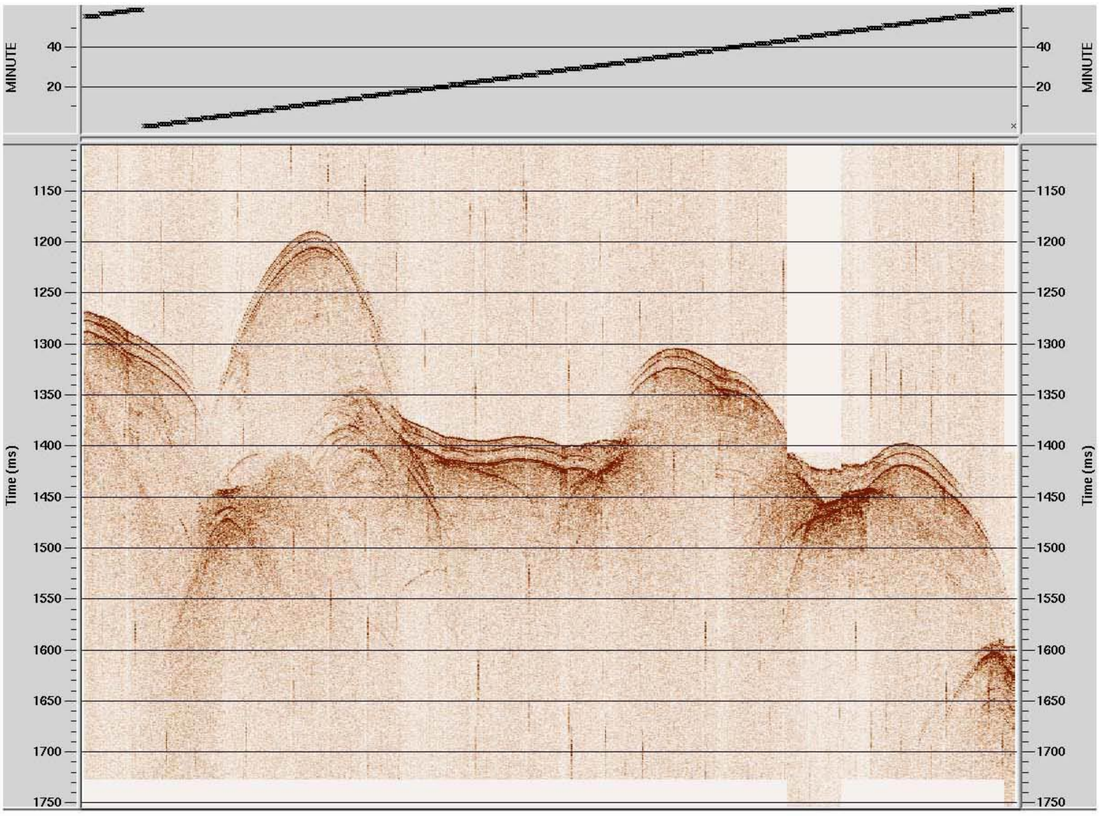


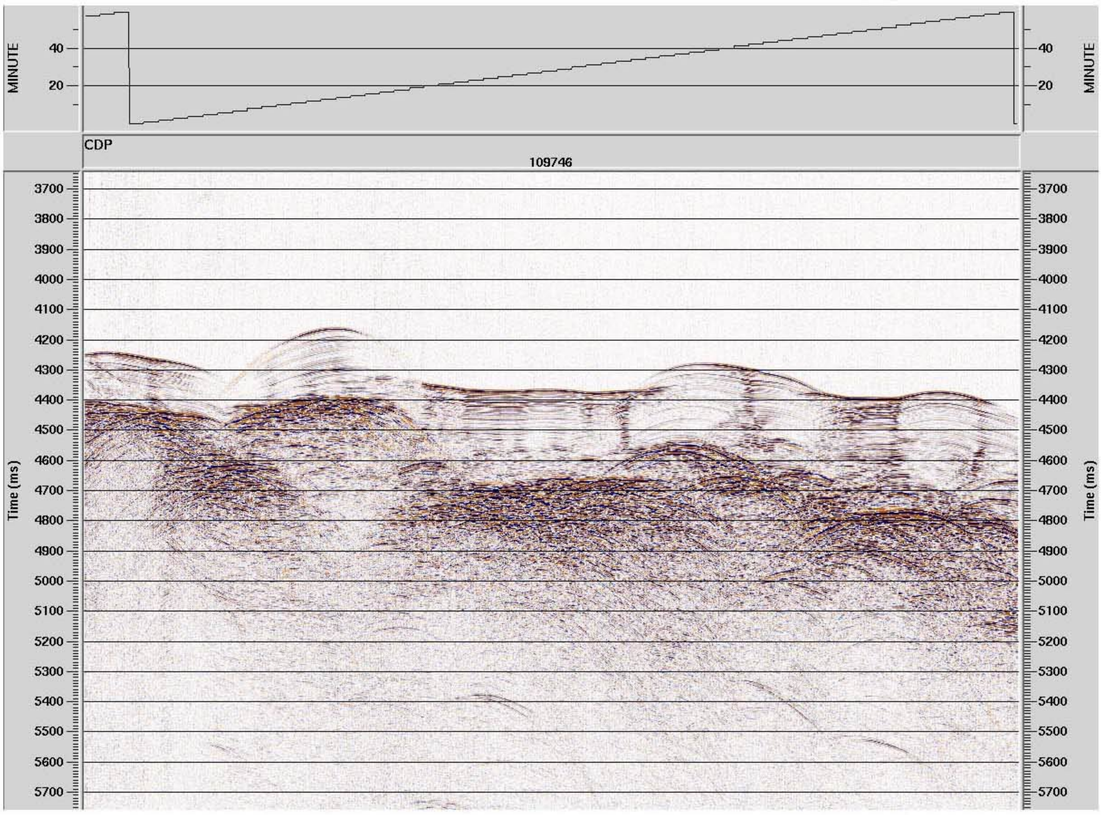
Carnegie Ridge
Line 6
JD: 303
00:56-02:00 GMT

NW Direction of travel SE

00:56 GMT 02:00 GMT



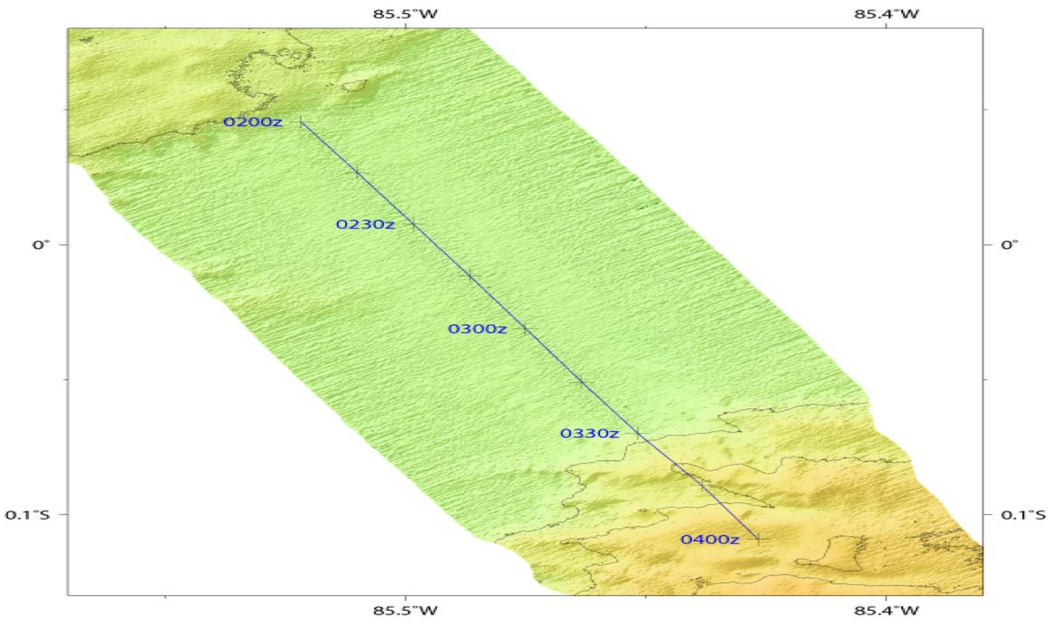


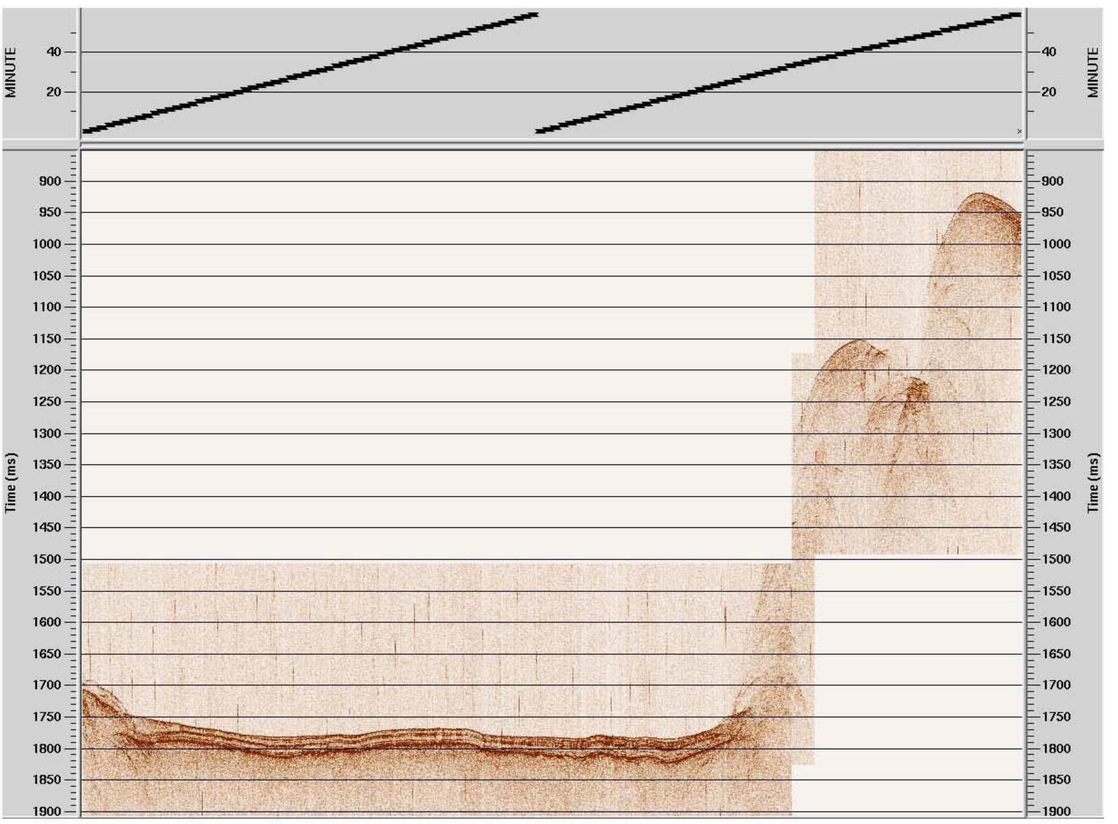


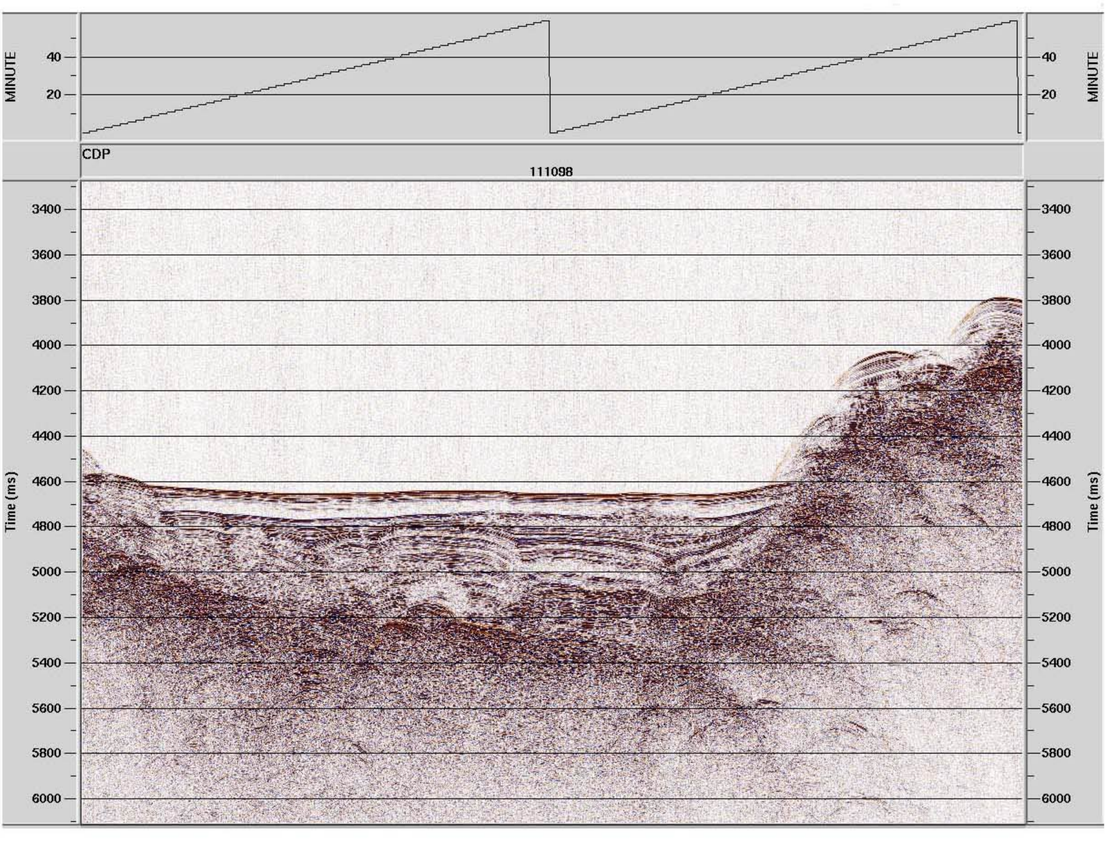
Carnegie Ridge
Line 6
JD: 303
02:00-04:00 GMT

NW Direction of travel SE

02:00 GMT 04:00 GMT



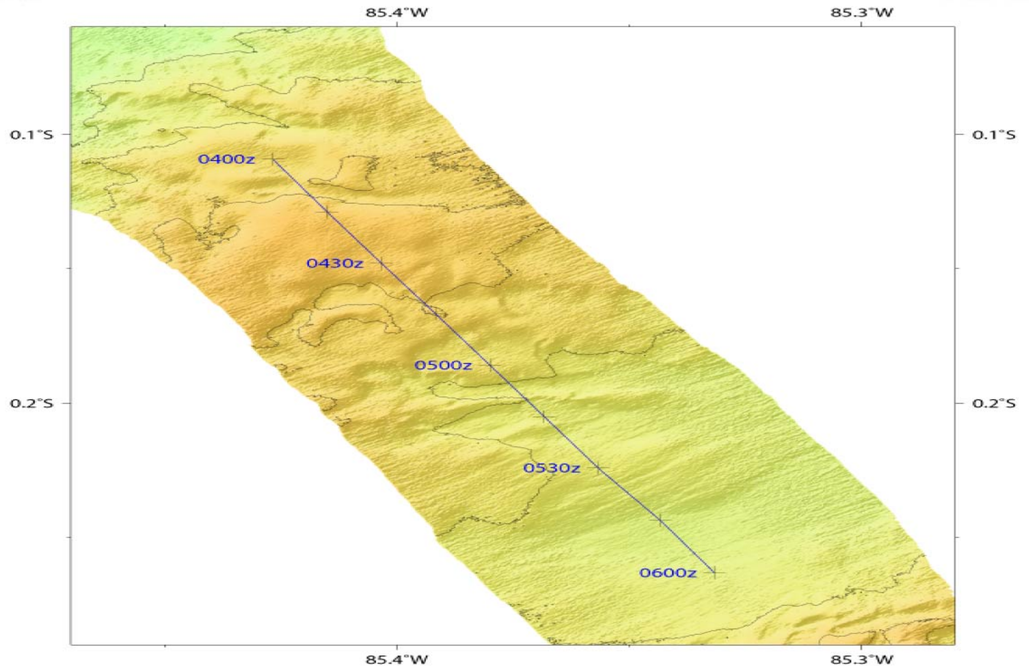


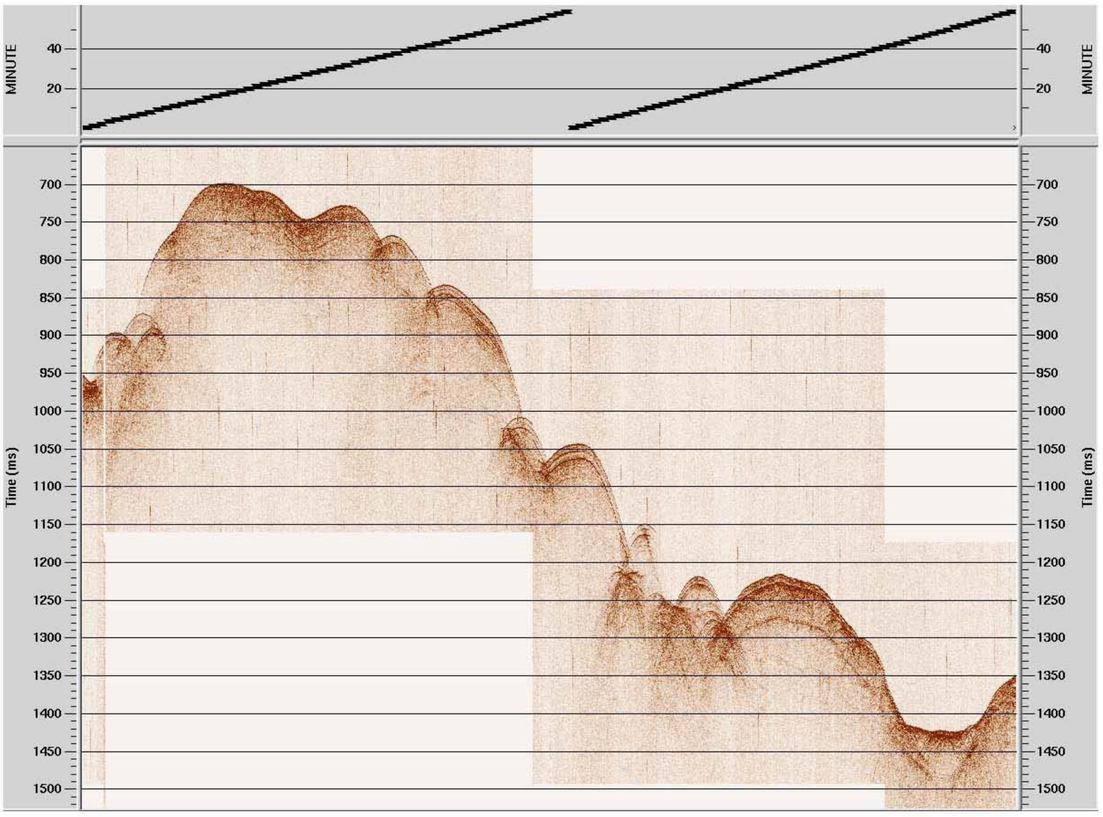


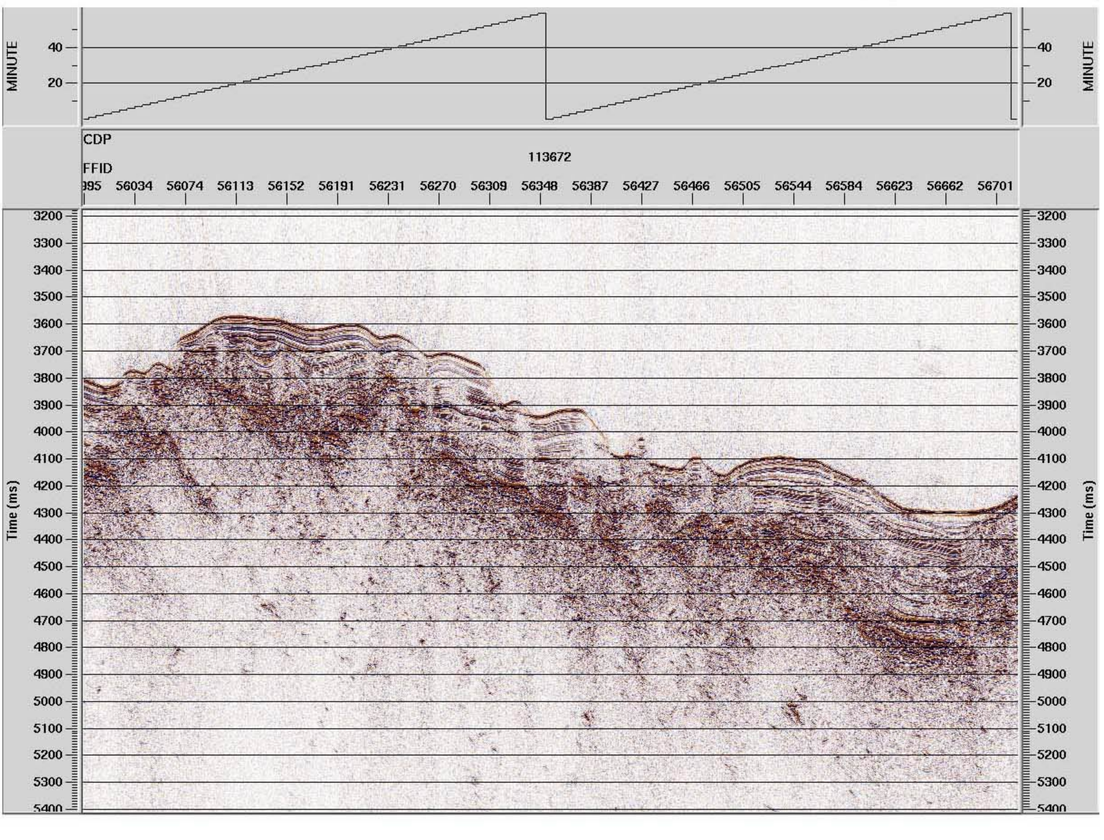
Carnegie Ridge
Line 6
JD: 303
04:00-06:00 GMT

NW Direction of travel SE

04:00 GMT 06:00 GMT





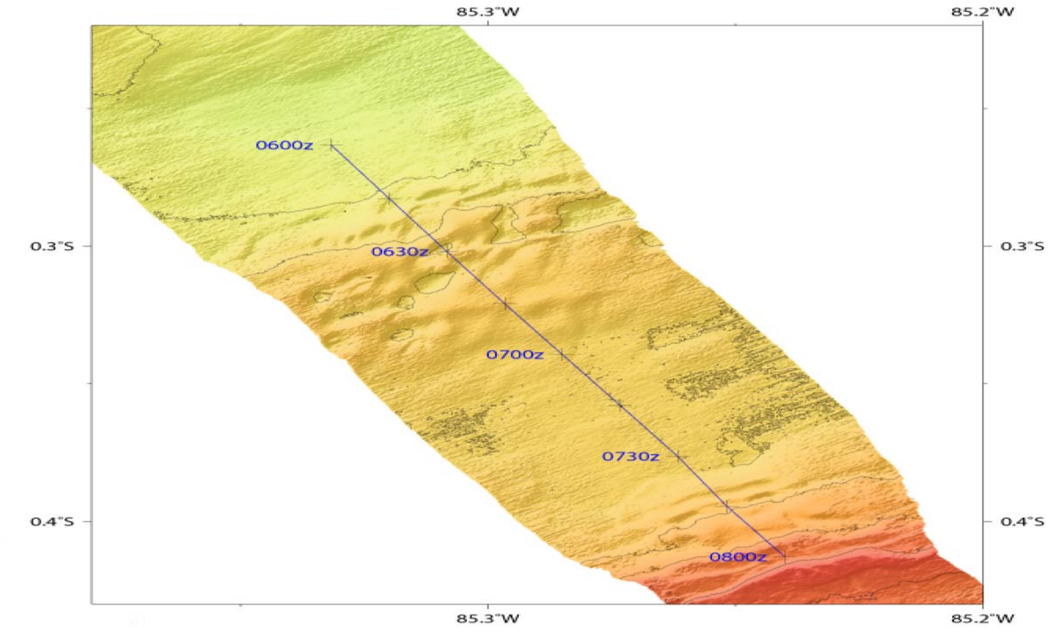


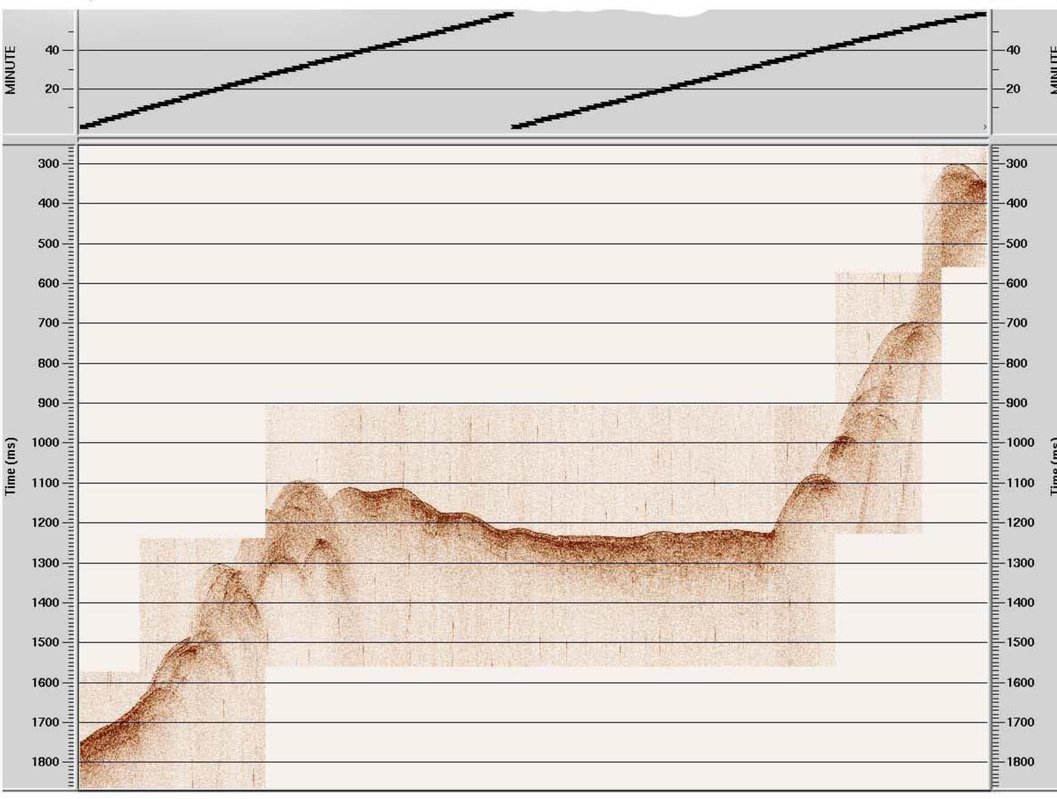
Carnegie Ridge
Line 6
JD: 303
06:00-08:00 GMT

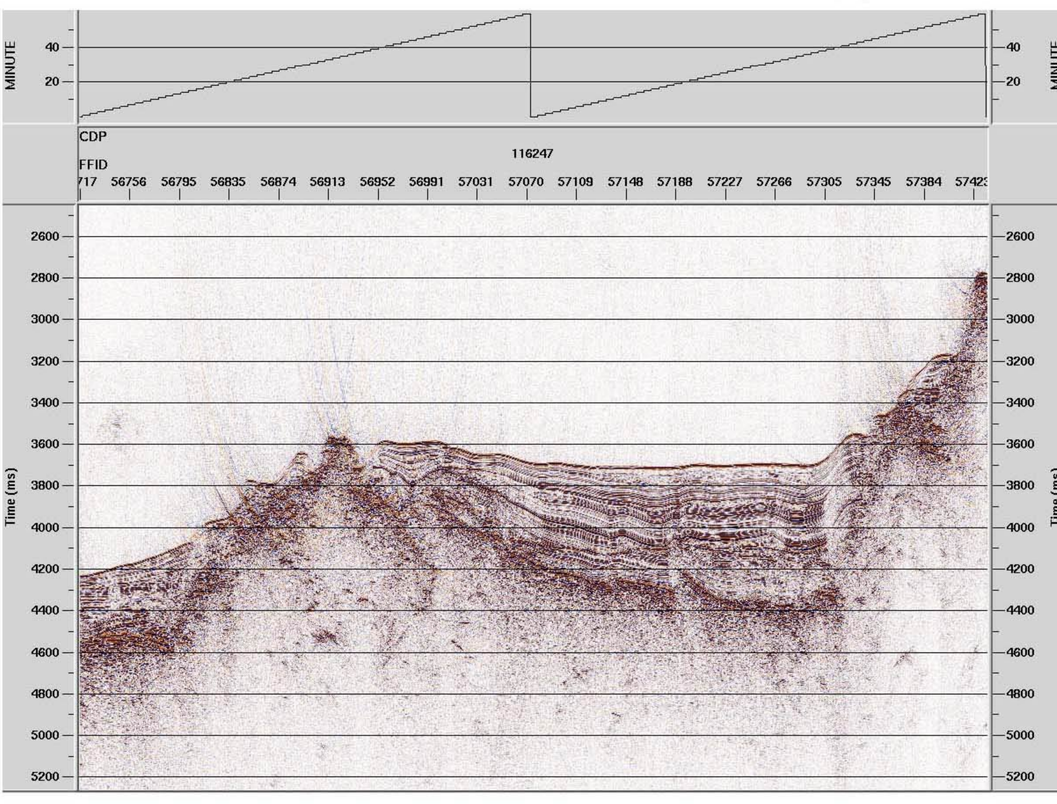
NW — Direction of travel → SE

06:00 GMT

08:00 GMT



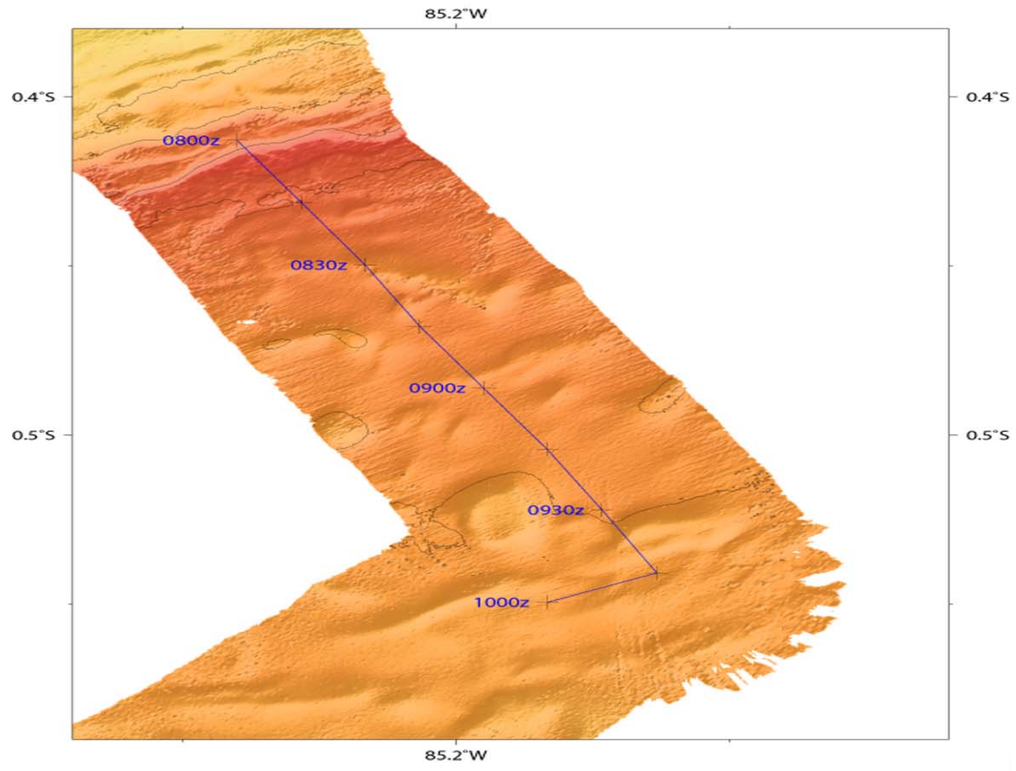


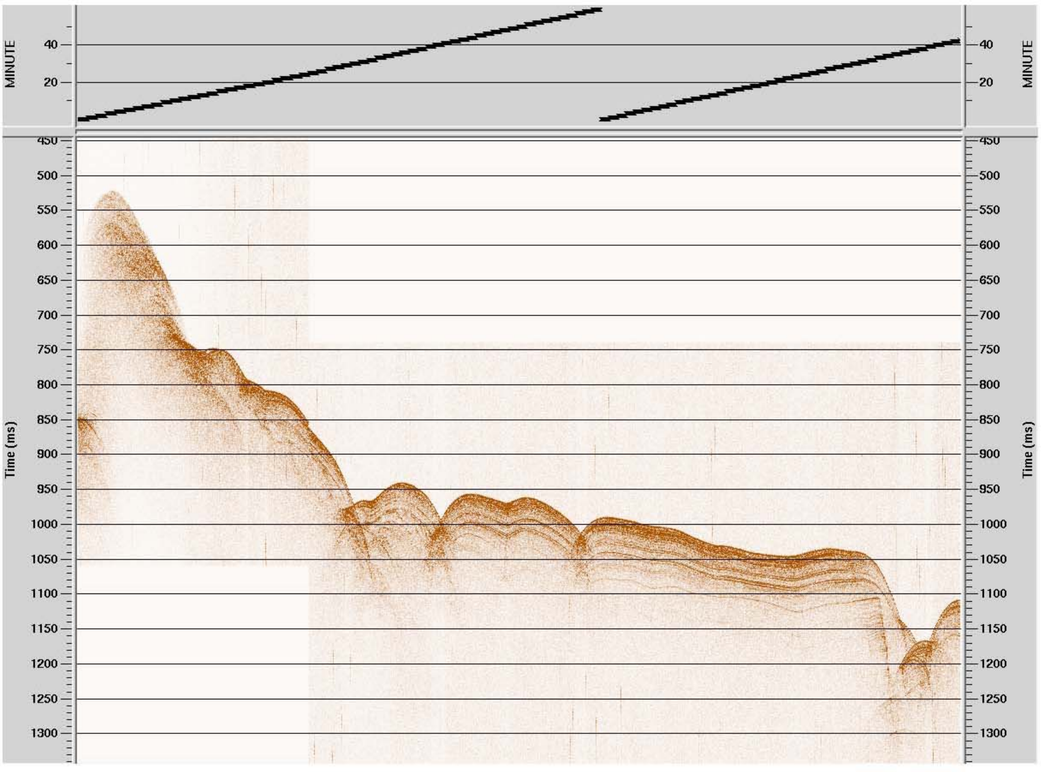


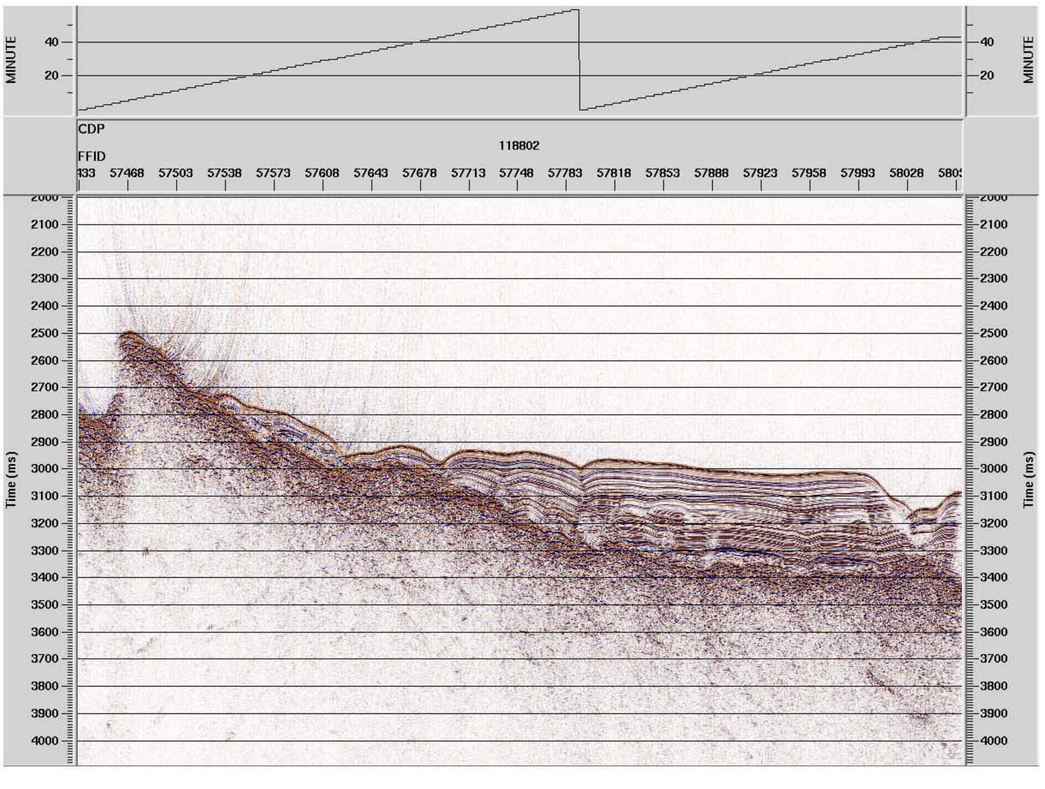
Carnegie Ridge
Line 6
JD: 303
08:00-09:43 GMT

NW Direction of travel SE

08:00 GMT 09:43 GMT







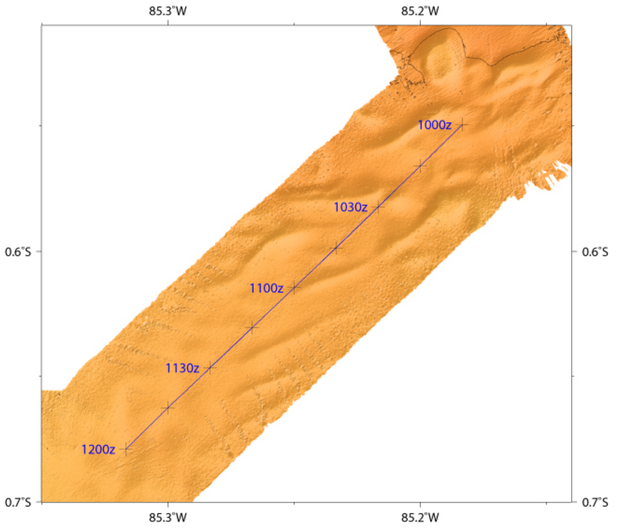
Carnegie Ridge
Line 7
JD 303
09:46-12:00 GMT

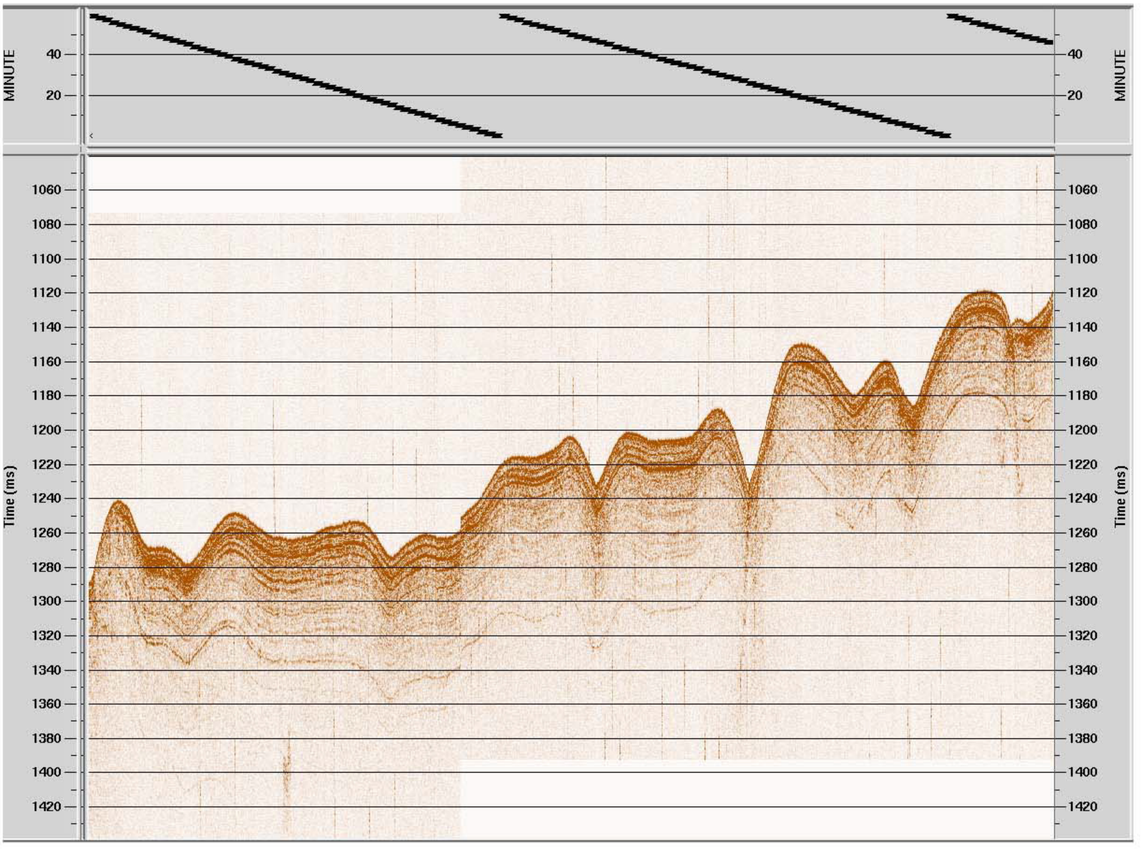
Direction of travel

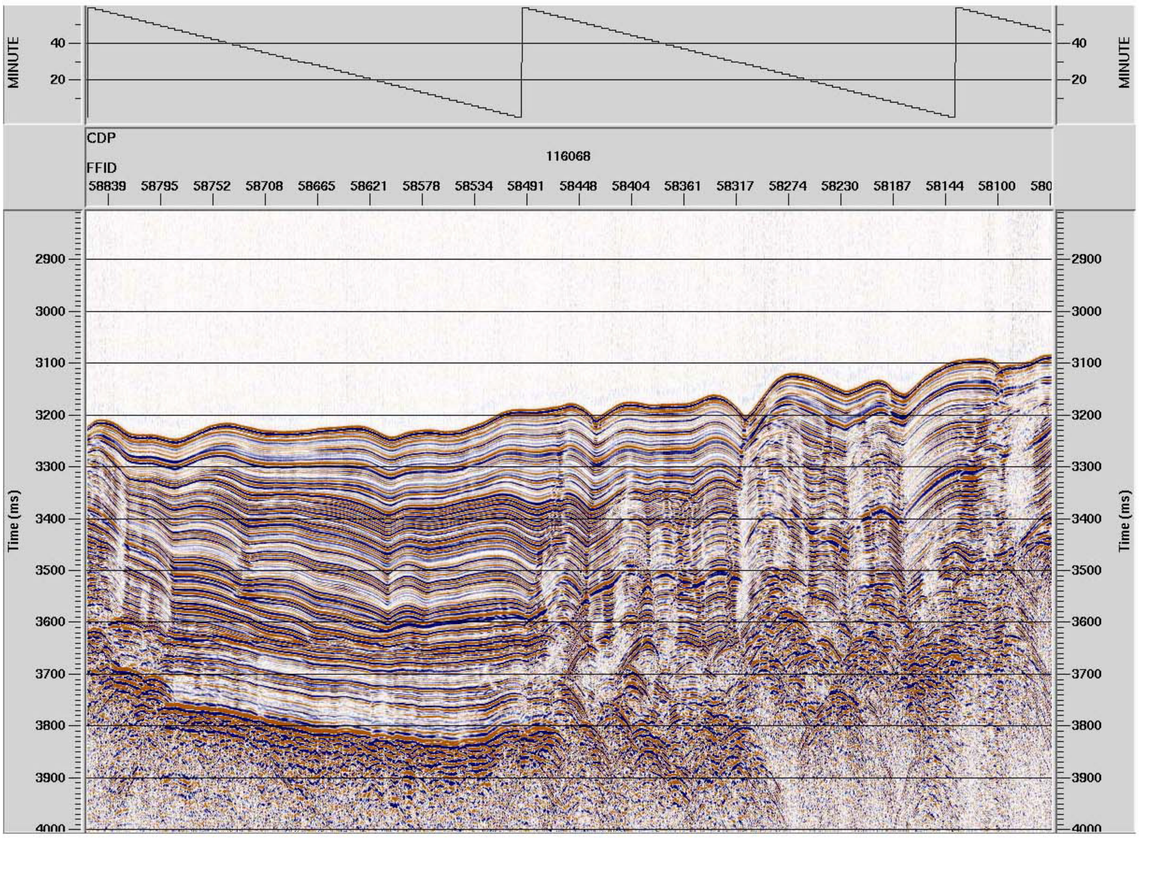
NW ← SE

12:00 GMT

09:46 GMT







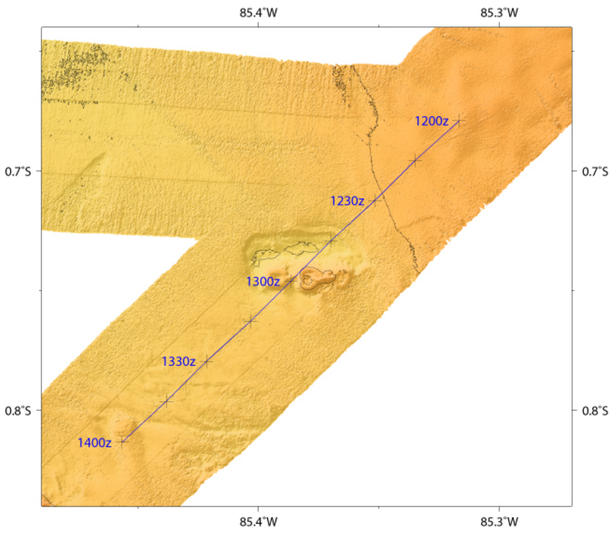
Carnegie Ridge
Line 7
JD 303
12:00-14:00 GMT

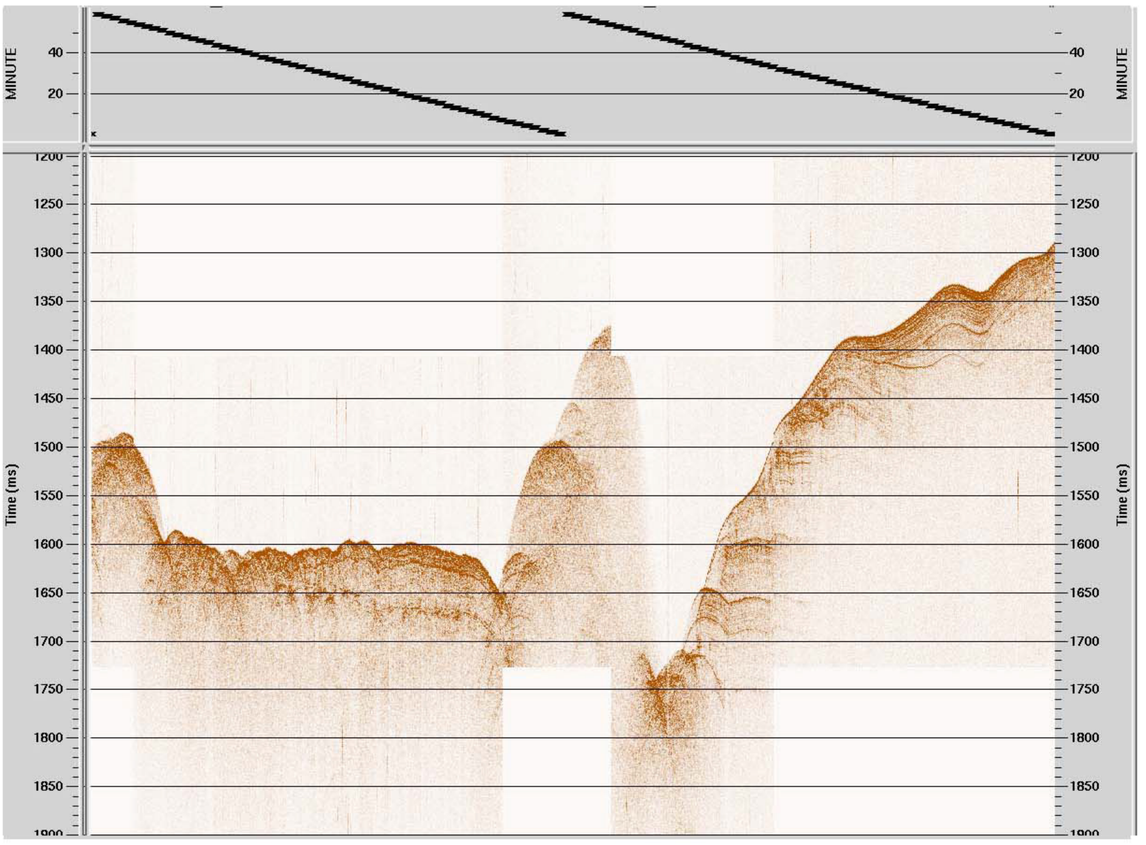
Direction of travel

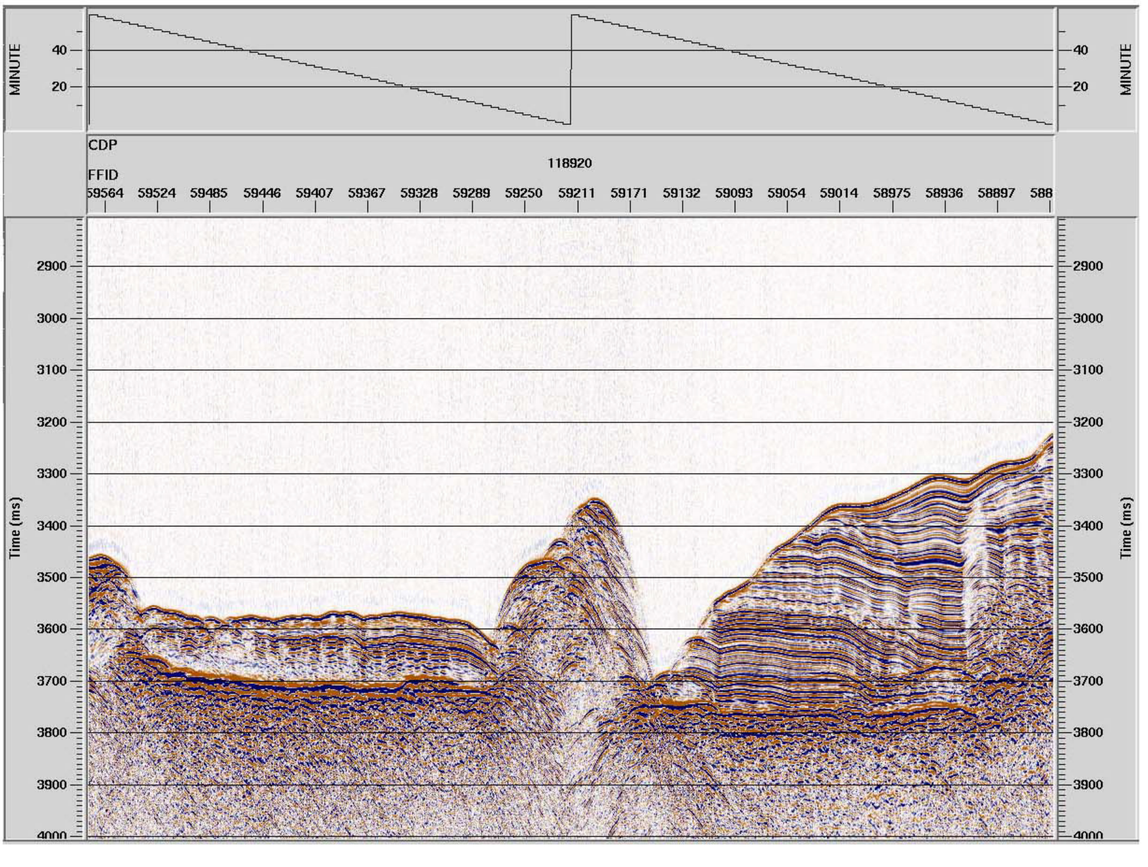
NW ← SE

14:00 GMT

12:00 GMT





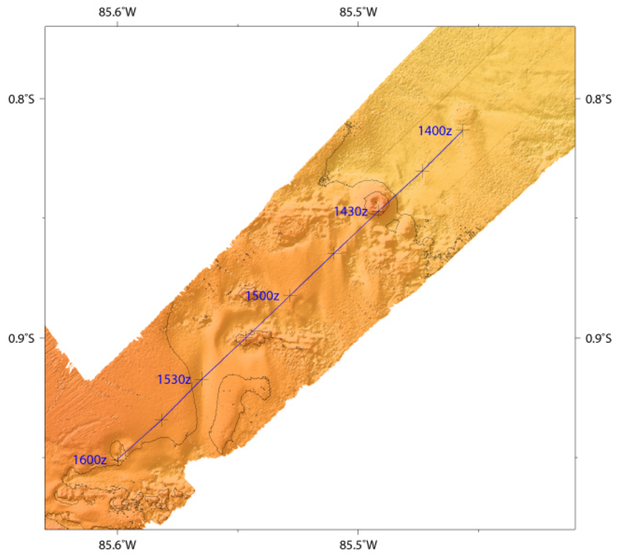


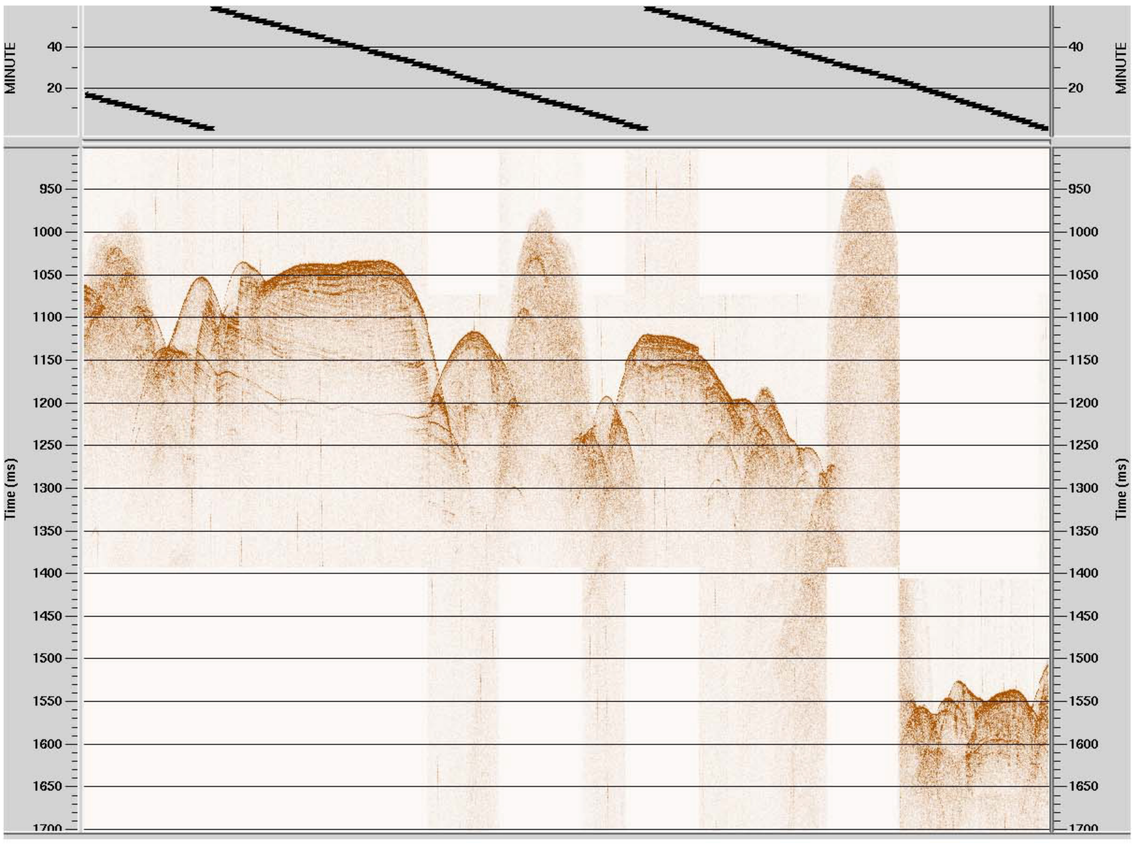
Carnegie Ridge
Line 7
JD 303
14:00-16:17 GMT

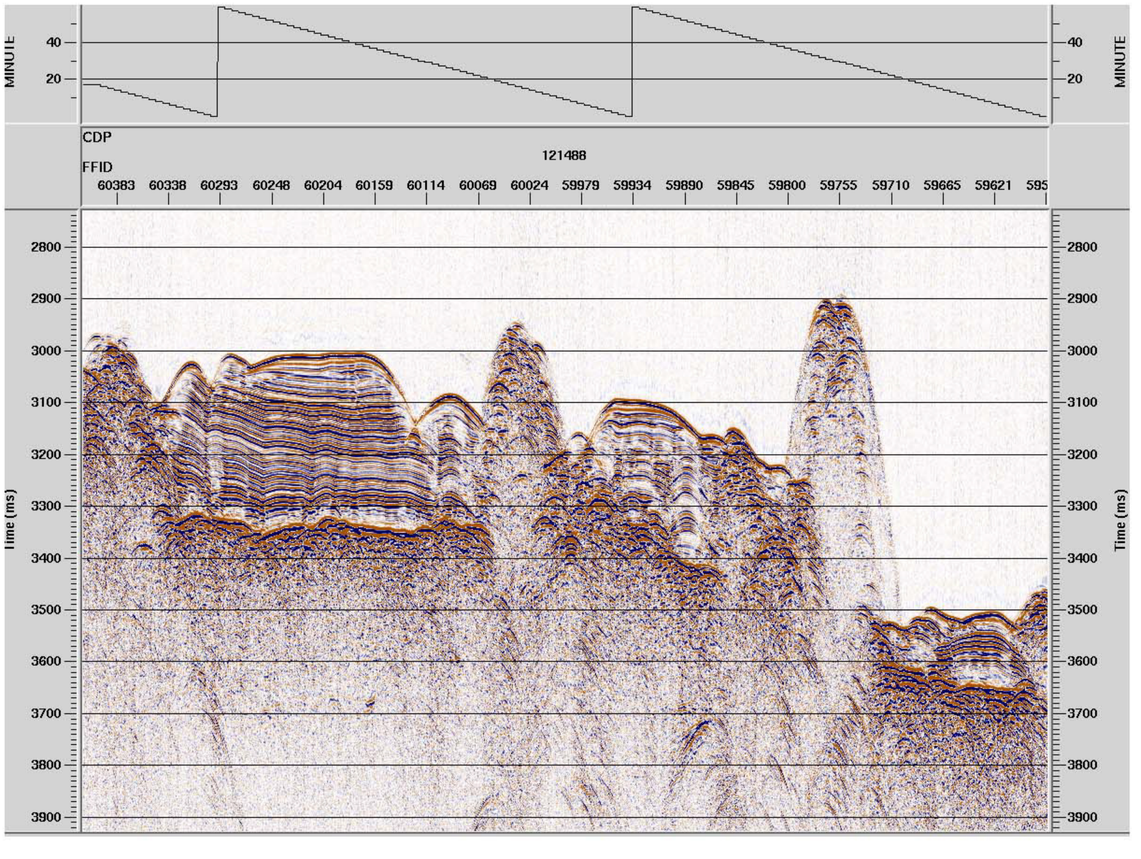
Direction of travel

16:00 GMT

14:00 GMT







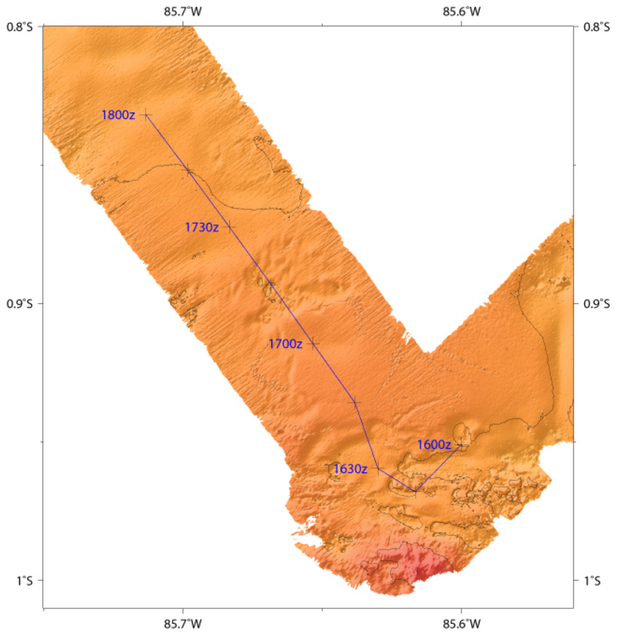
Carnegie Ridge
Line 8
JD 303
16:20-18:00 GMT

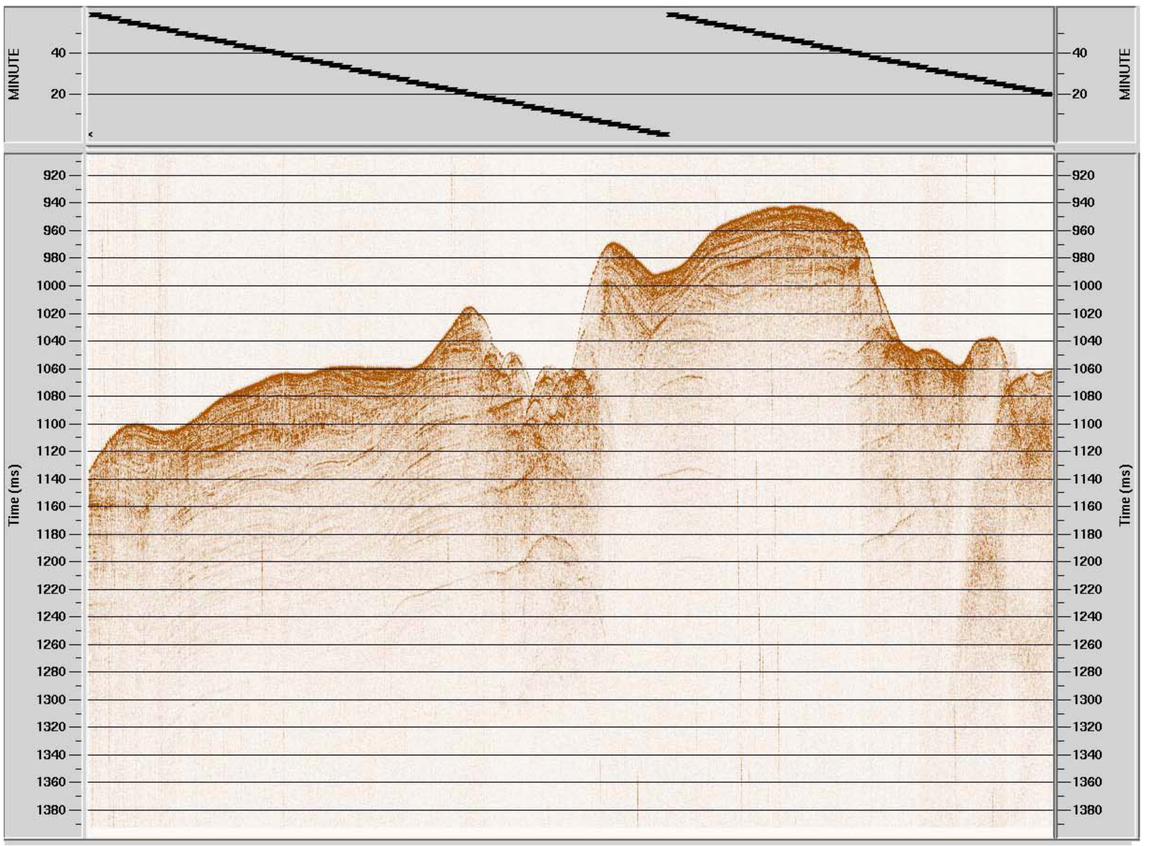
Direction of travel

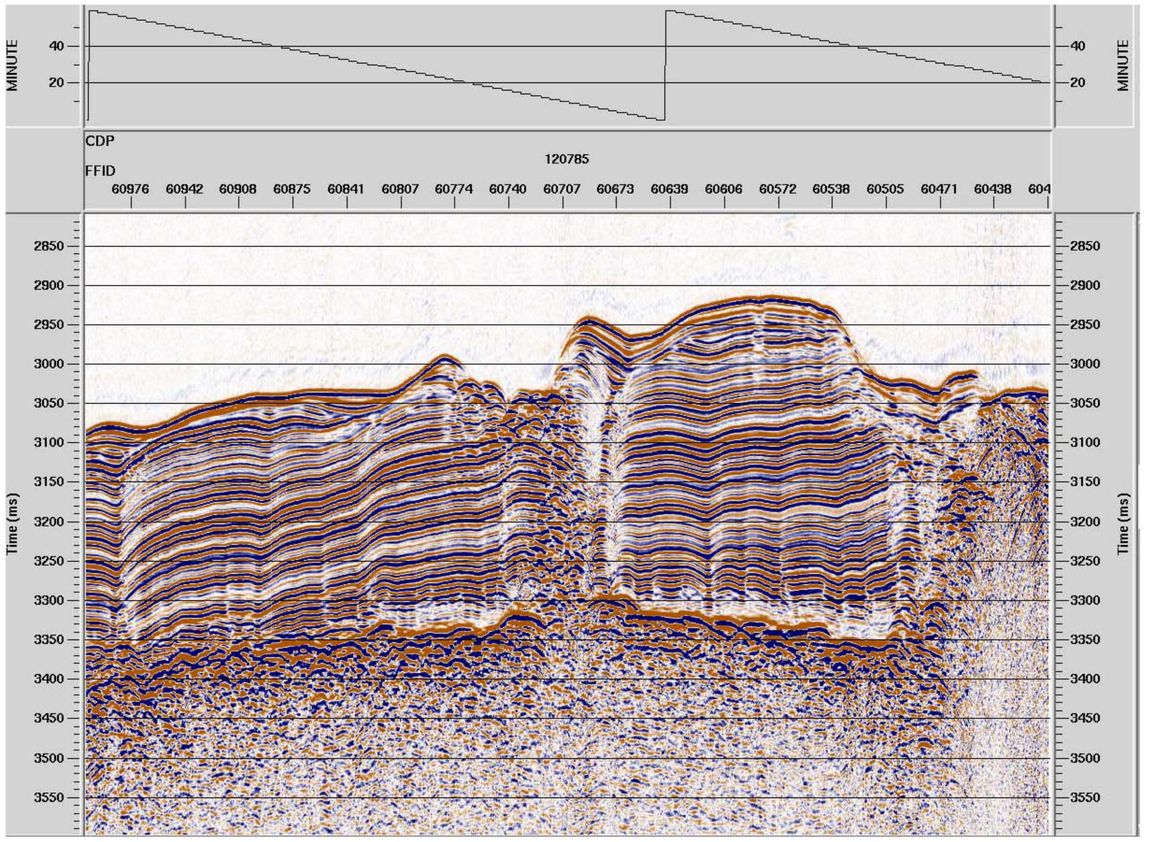
NW ← SE

18:00 GMT

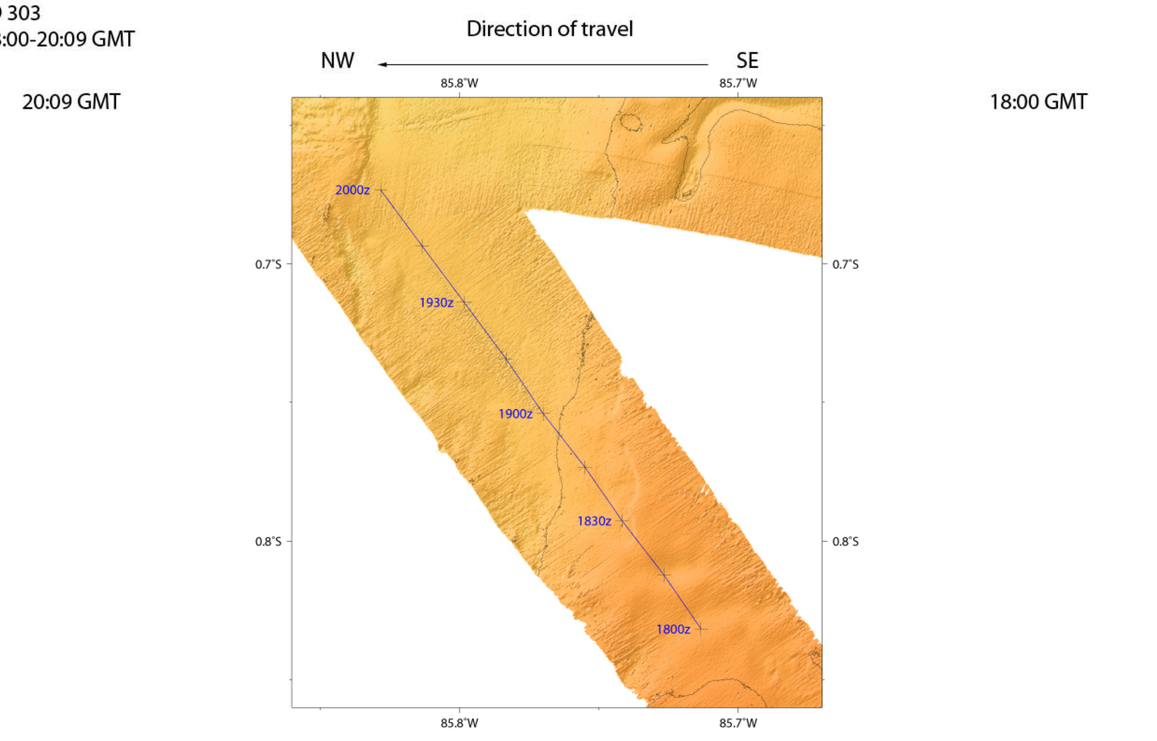
16:20 GMT

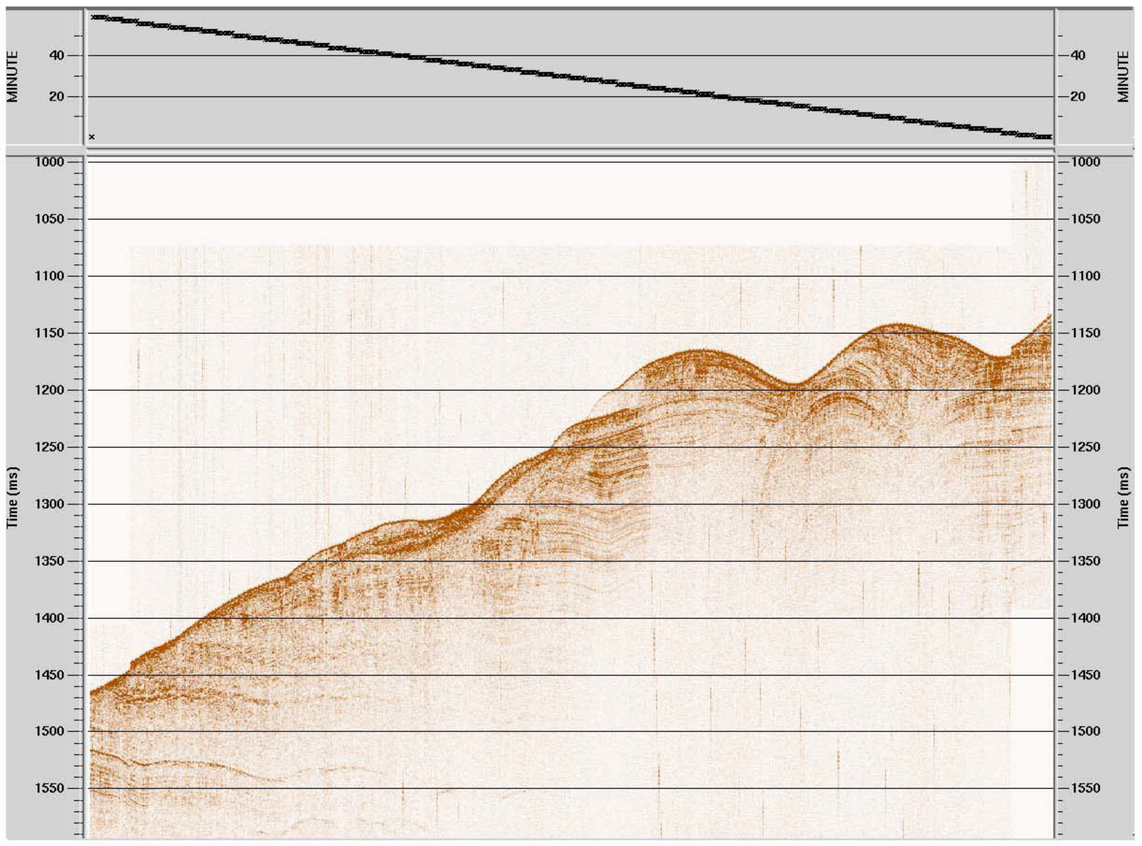


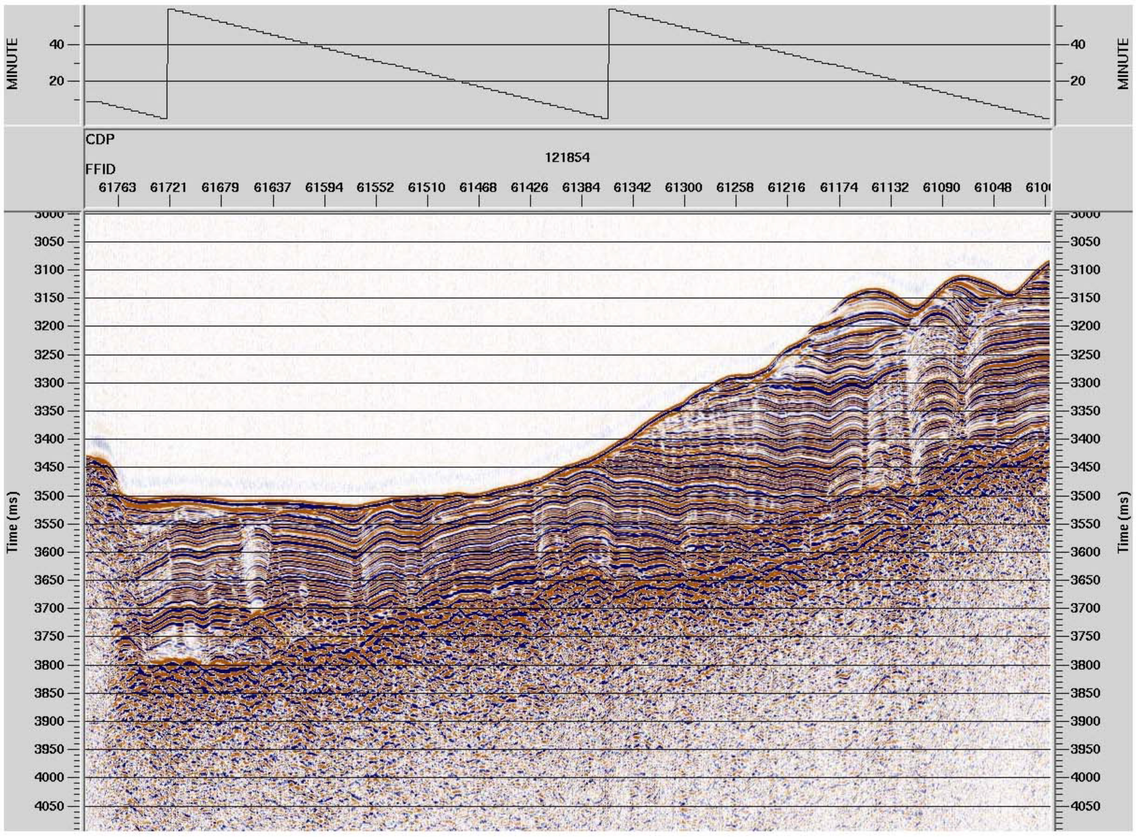




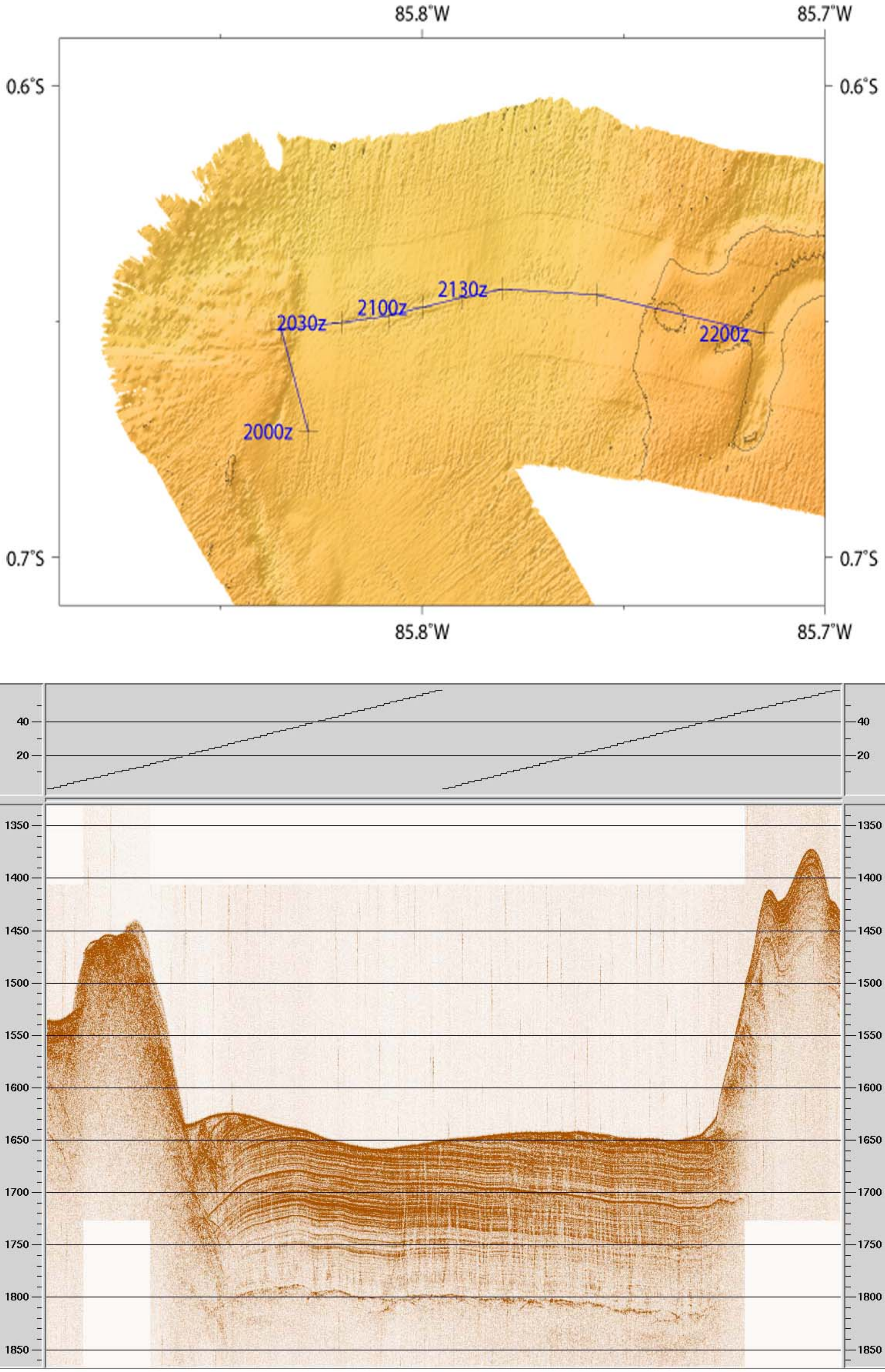
Carnegie Ridge
Line 8
JD 303
18:00-20:09 GMT



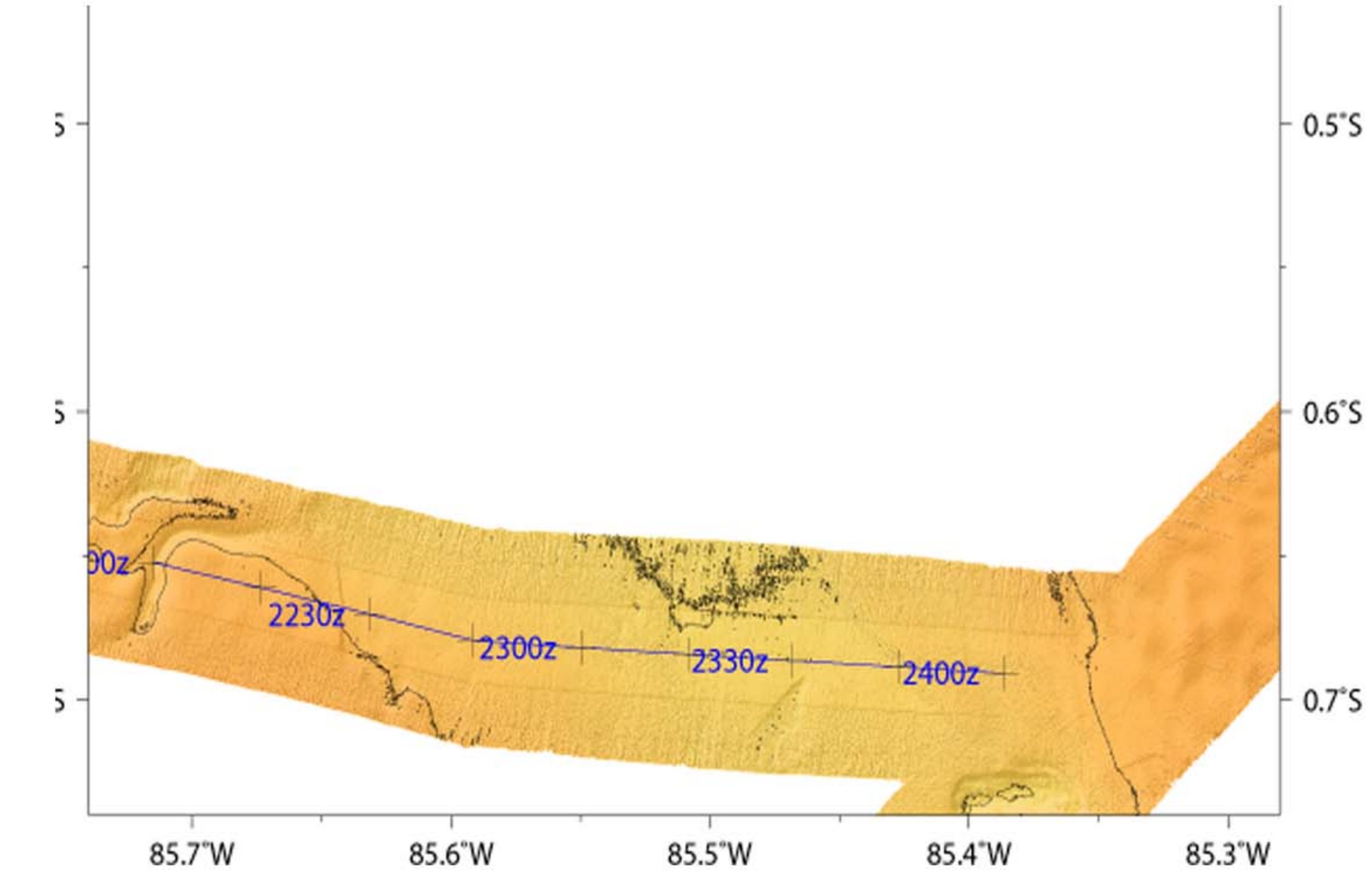


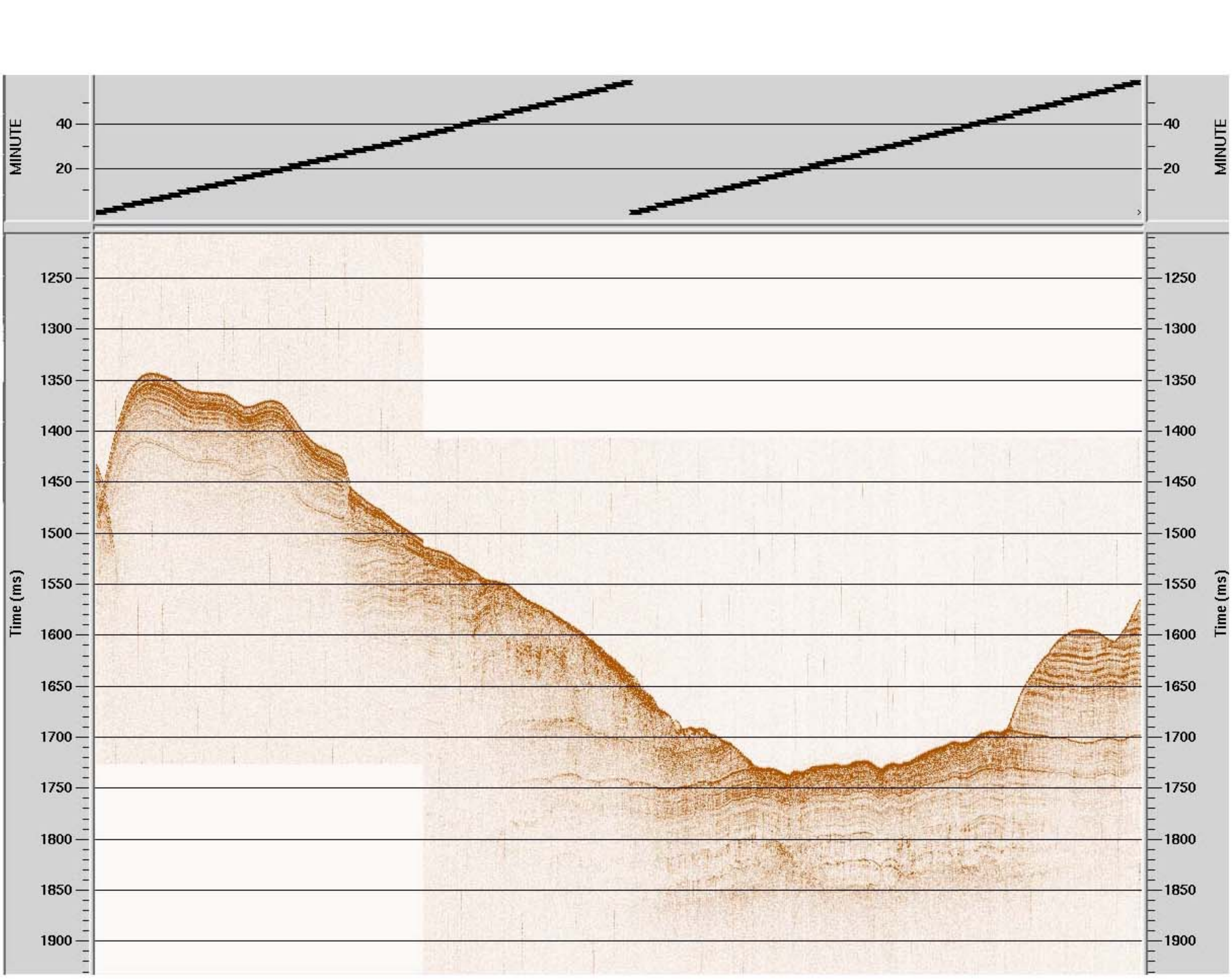


Carnegie Survey: Between Line 8 and Line 9
JD 303
20:00-22:00 GMT



Carnegie Survey: Between Line 8 and Line 9
JD 303
22:00-00:00 GMT



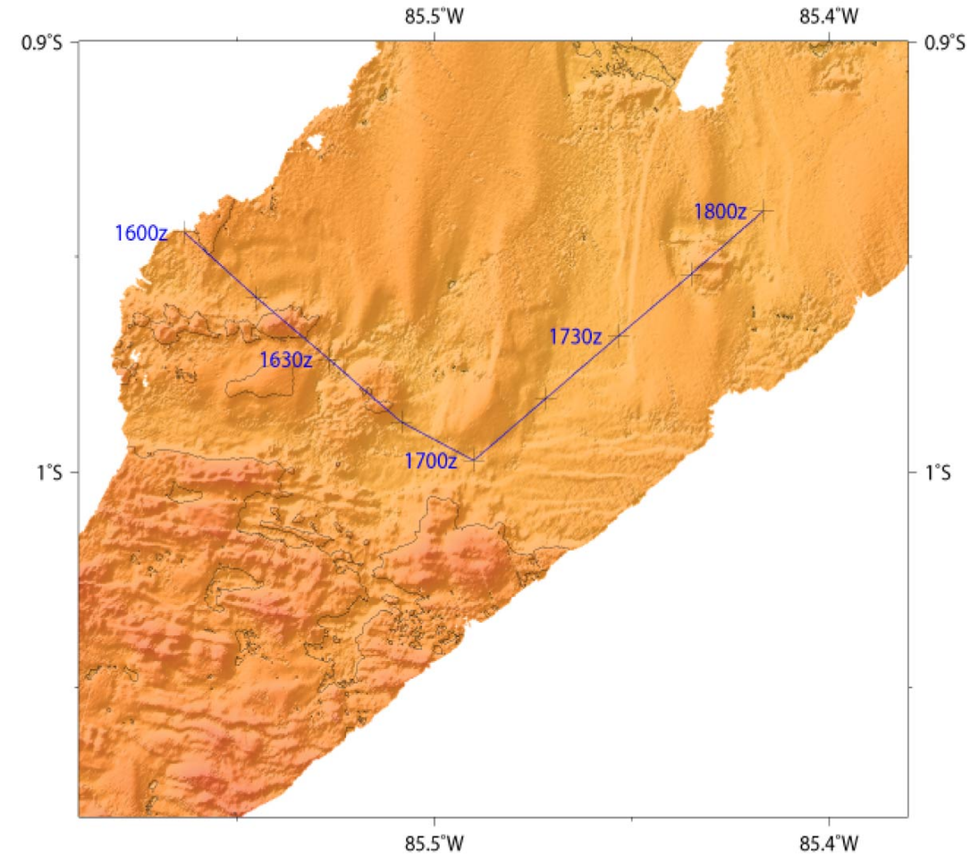


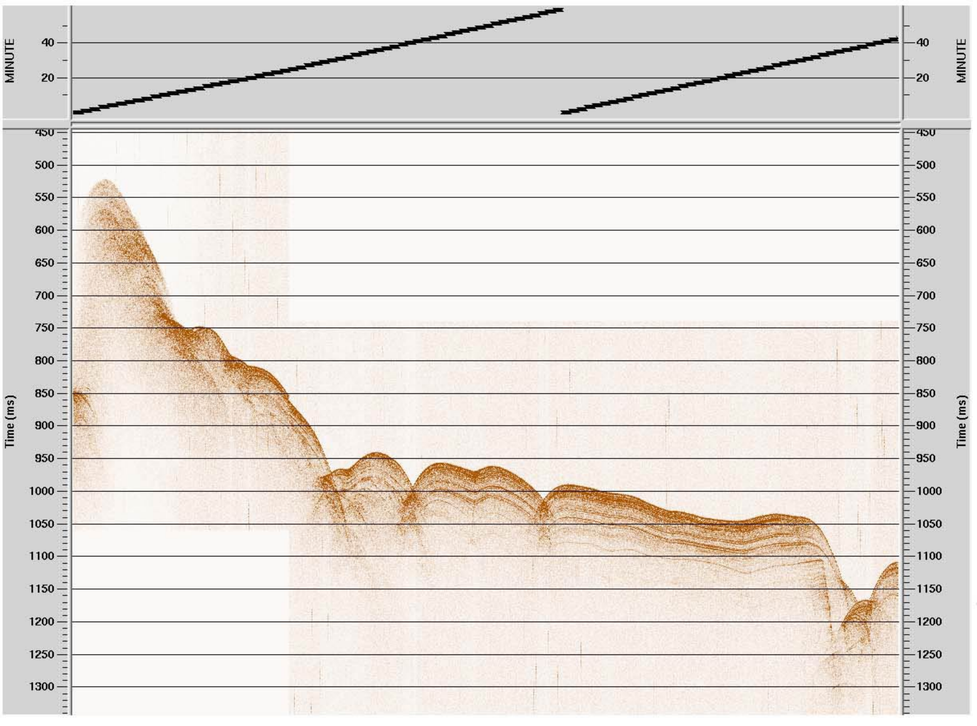
Carnegie Ridge
Line 9
JD: 304
15:26-18:00 GMT

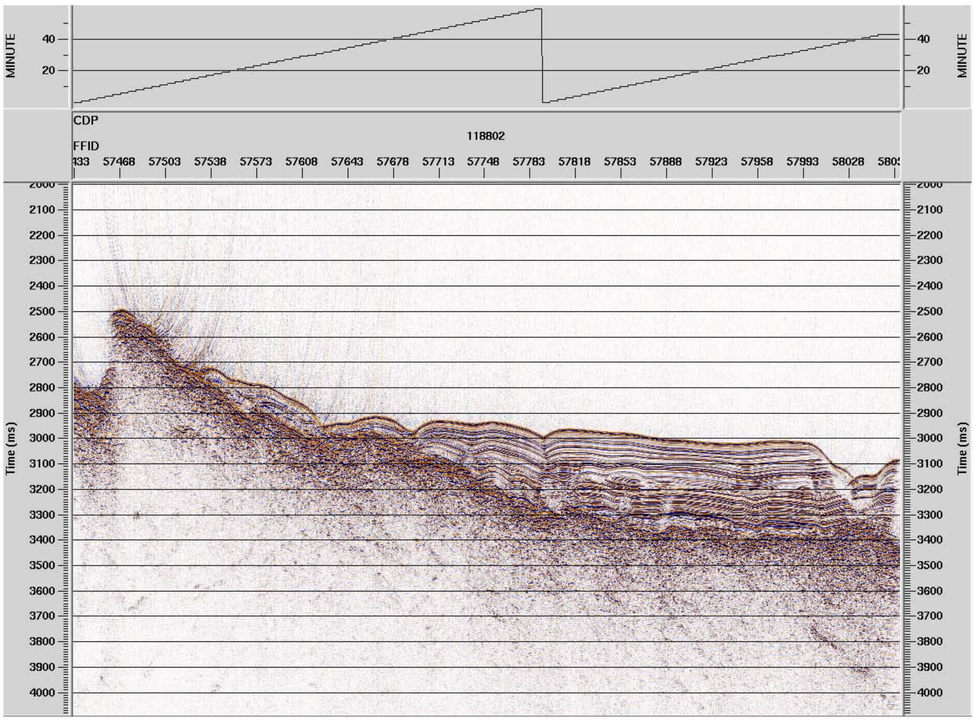
15:26 GMT

NW — Direction of travel → SE

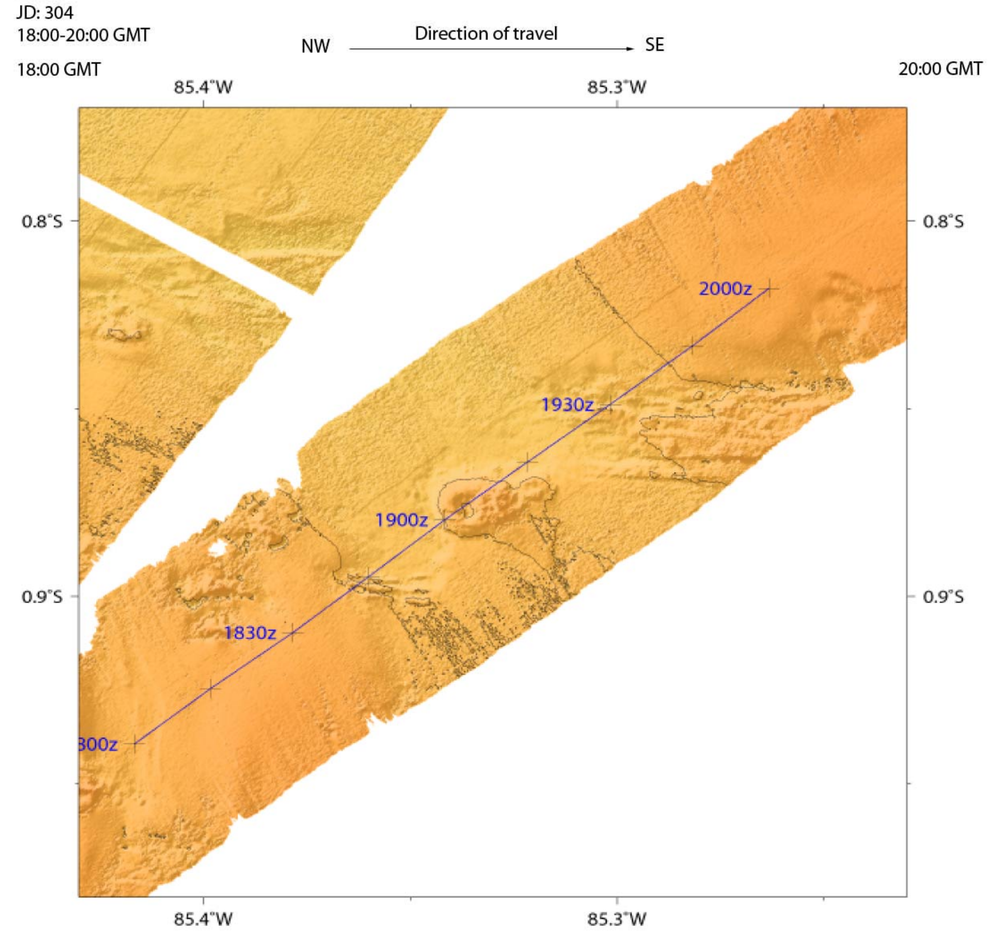
18:00 GMT

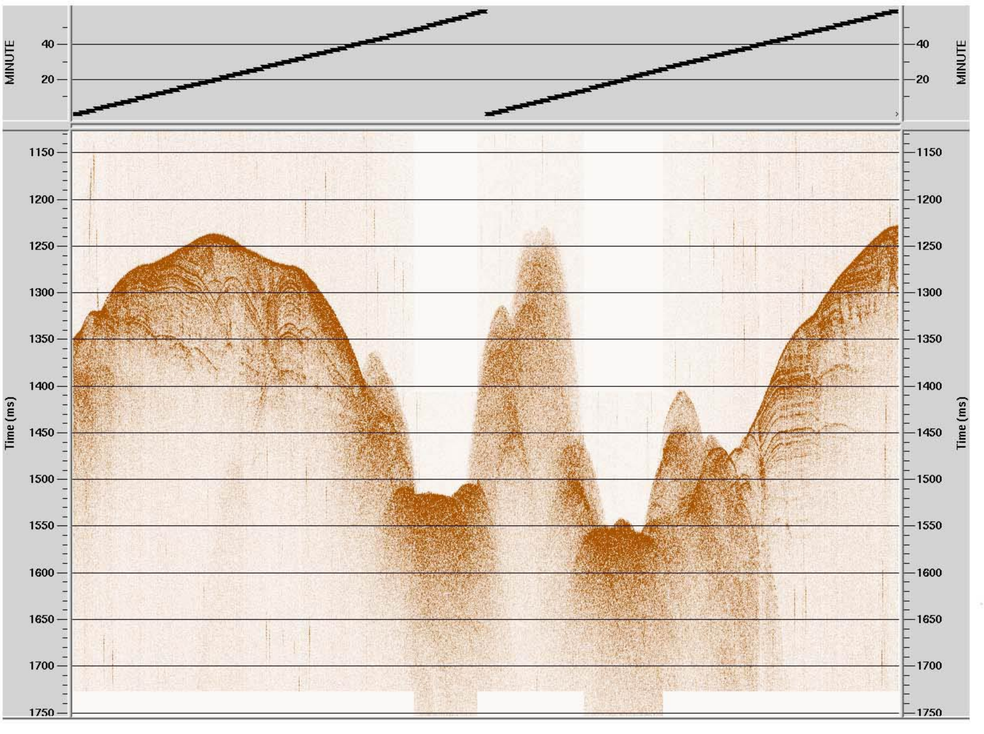


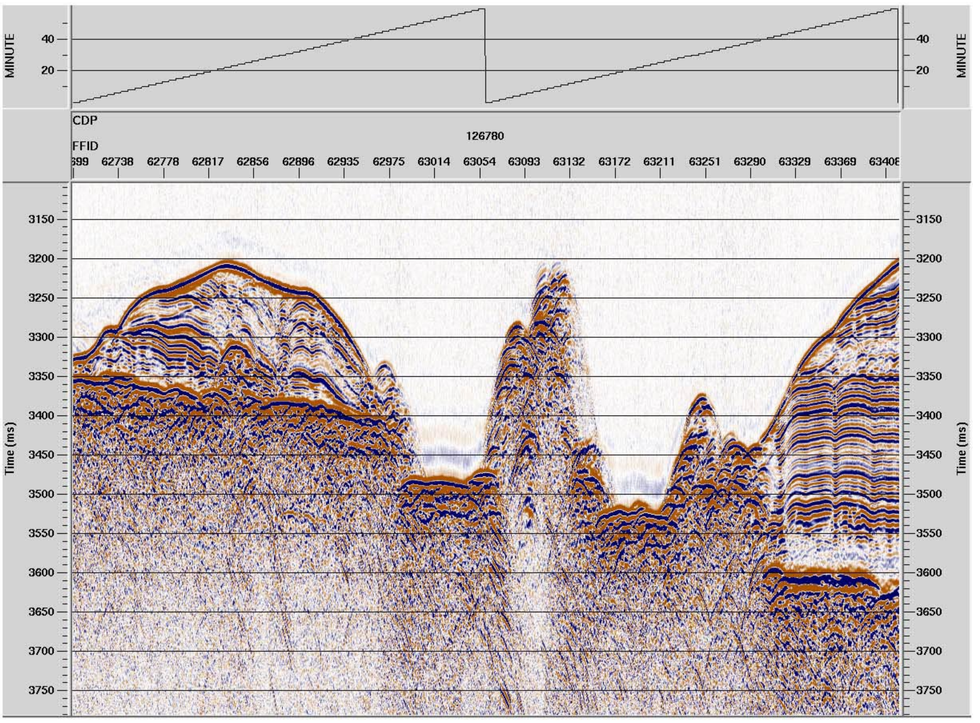




Carnegie Ridge
Line 9
JD: 304
18:00-20:00 GMT



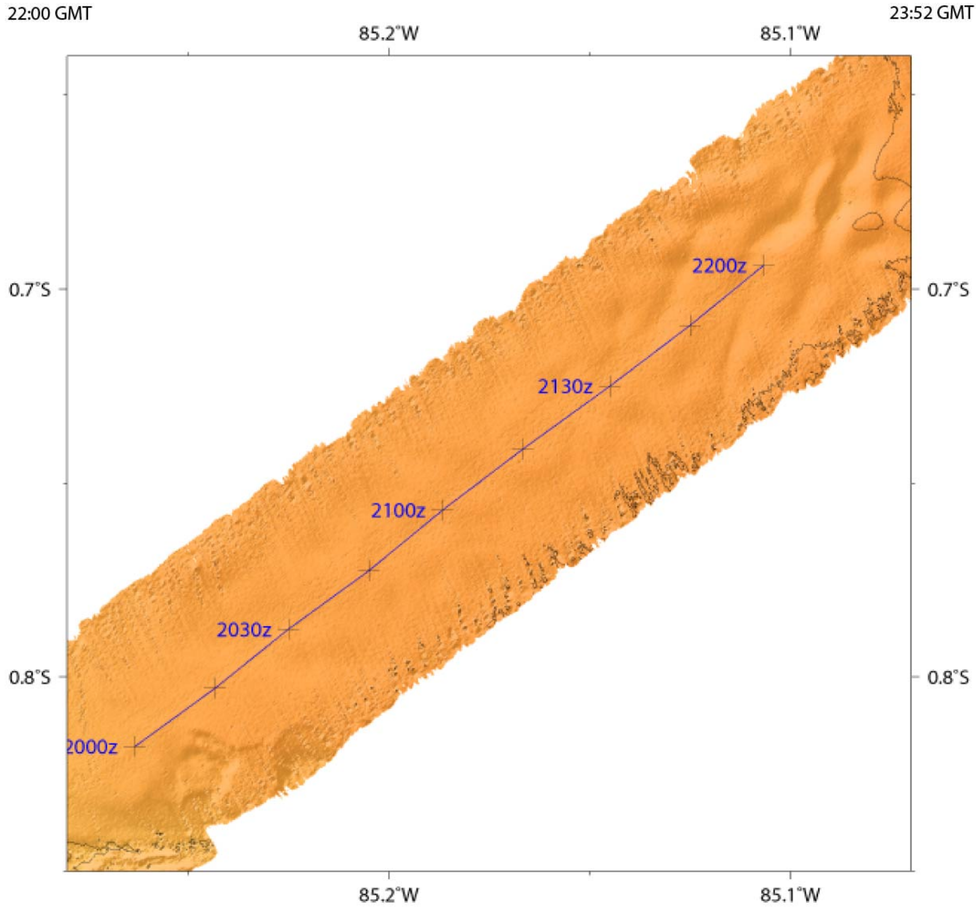


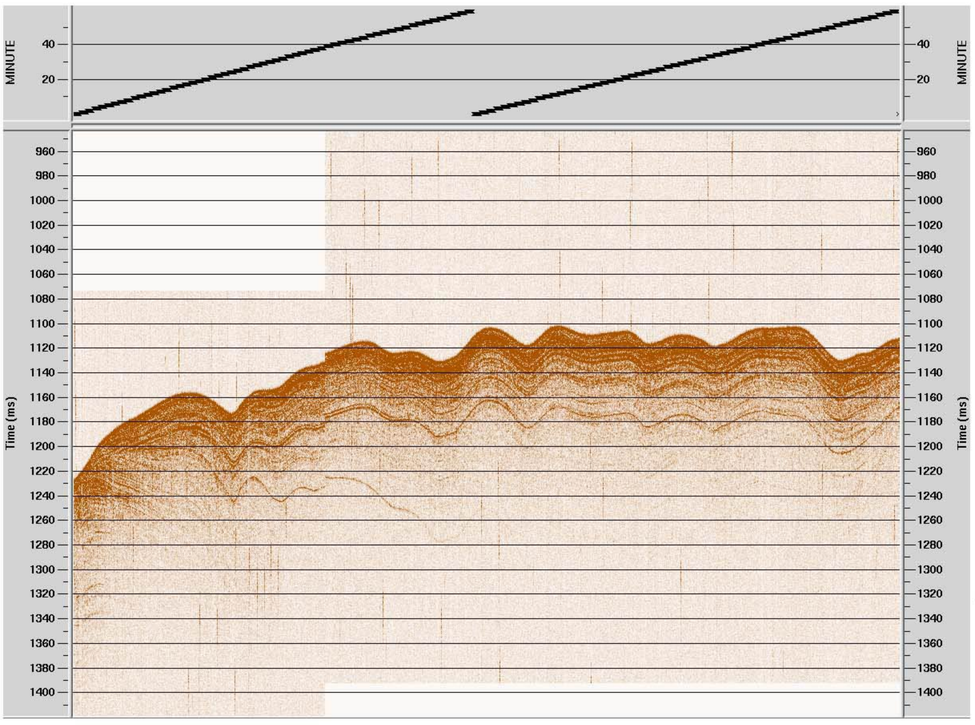


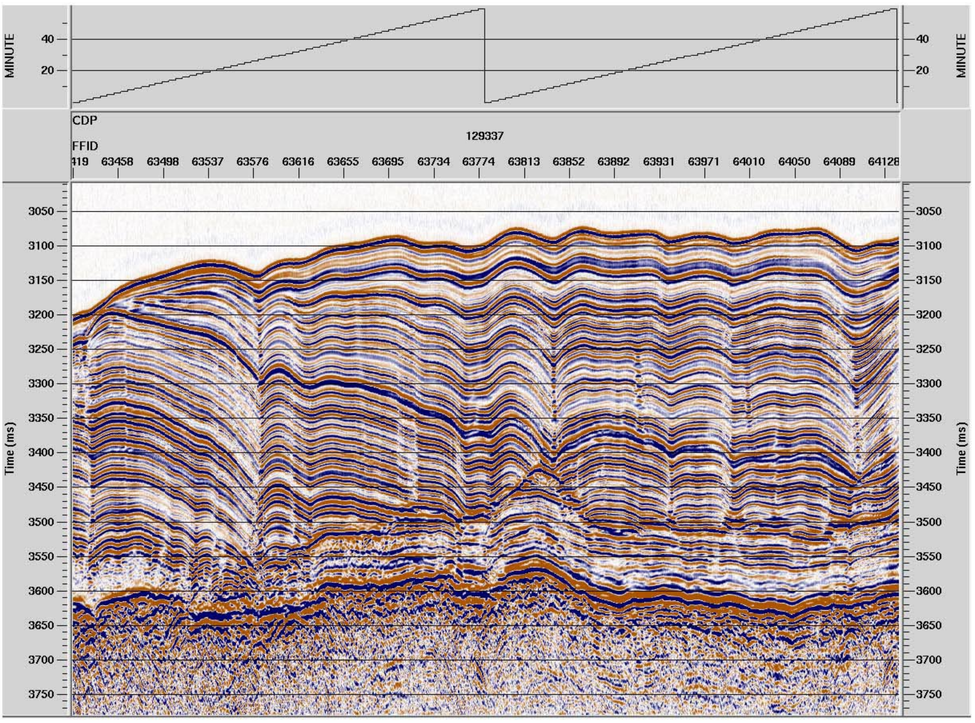
Carnegie Ridge
Line 9
JD: 304
22:00-23:52 GMT

NW Direction of travel SE

22:00 GMT 23:52 GMT



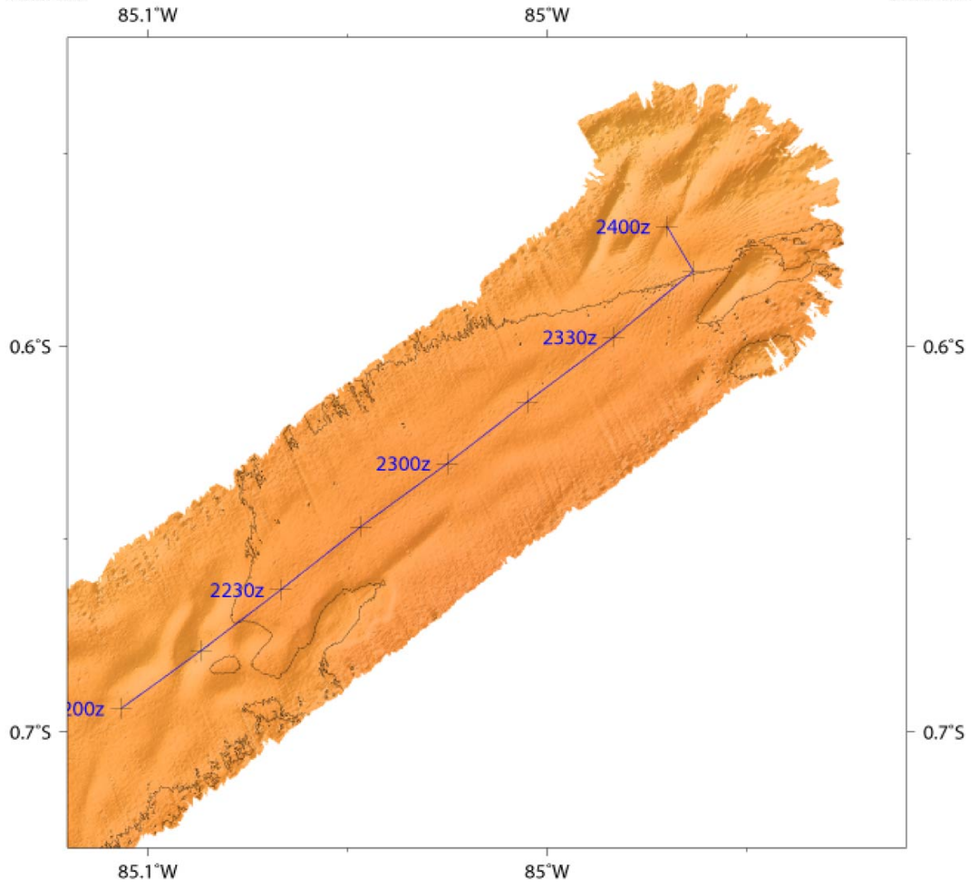


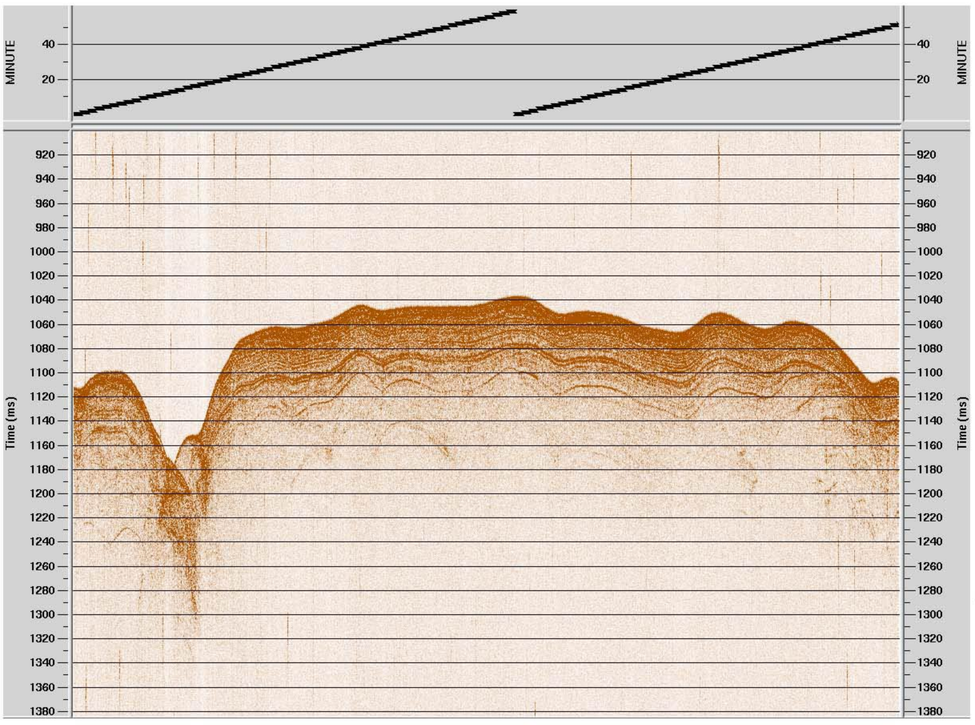


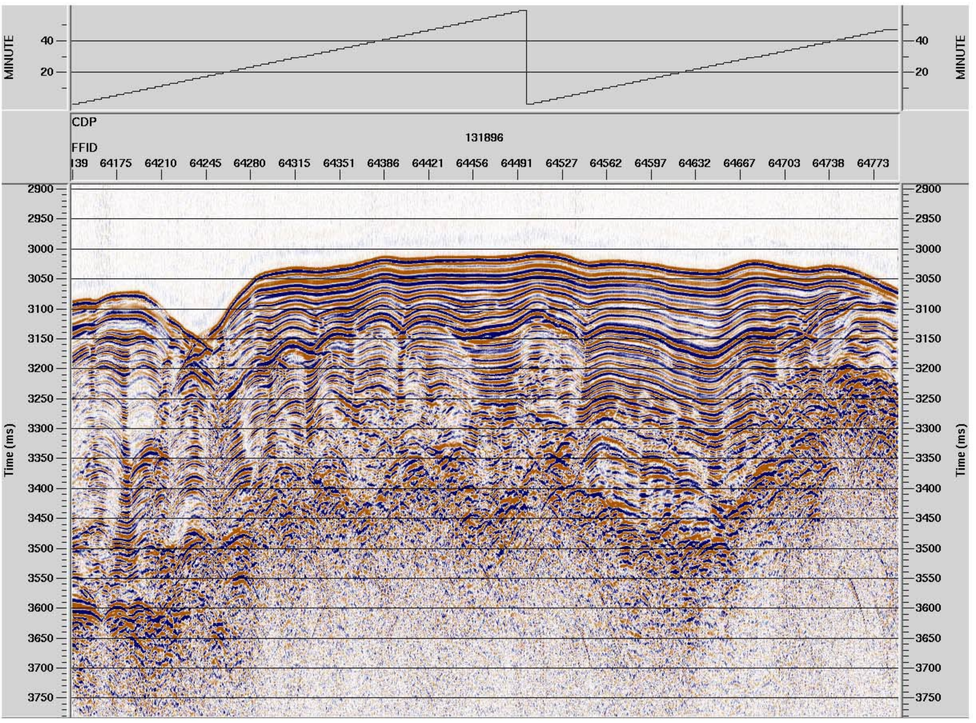
Carnegie Ridge
Line 9
JD: 304
22:00-23:52 GMT

NW Direction of travel SE

22:00 GMT 23:52 GMT





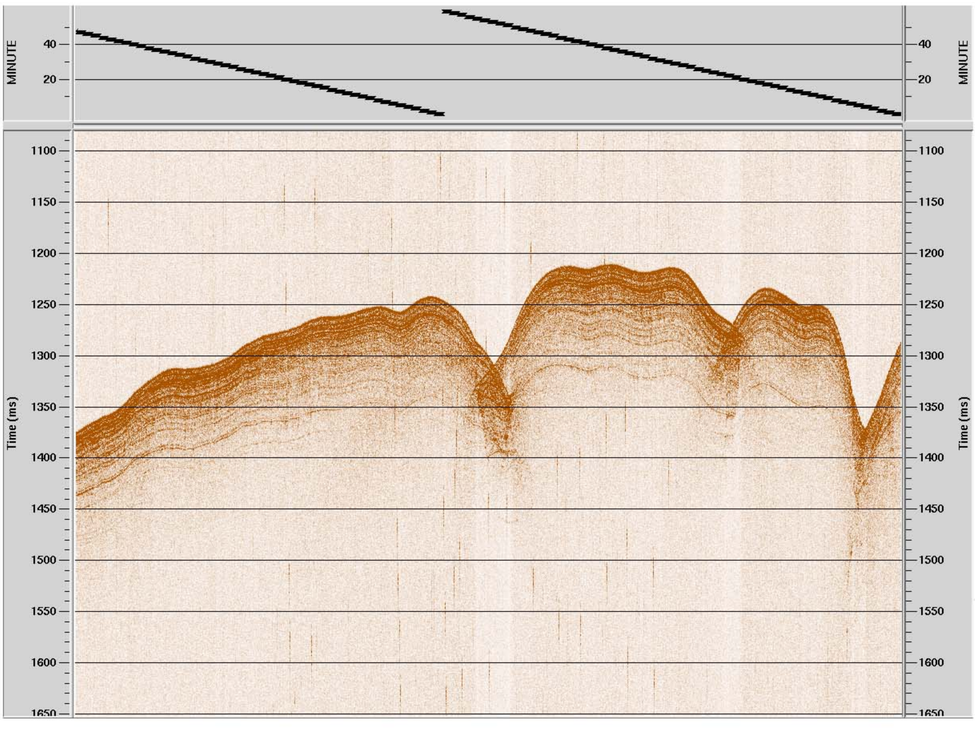


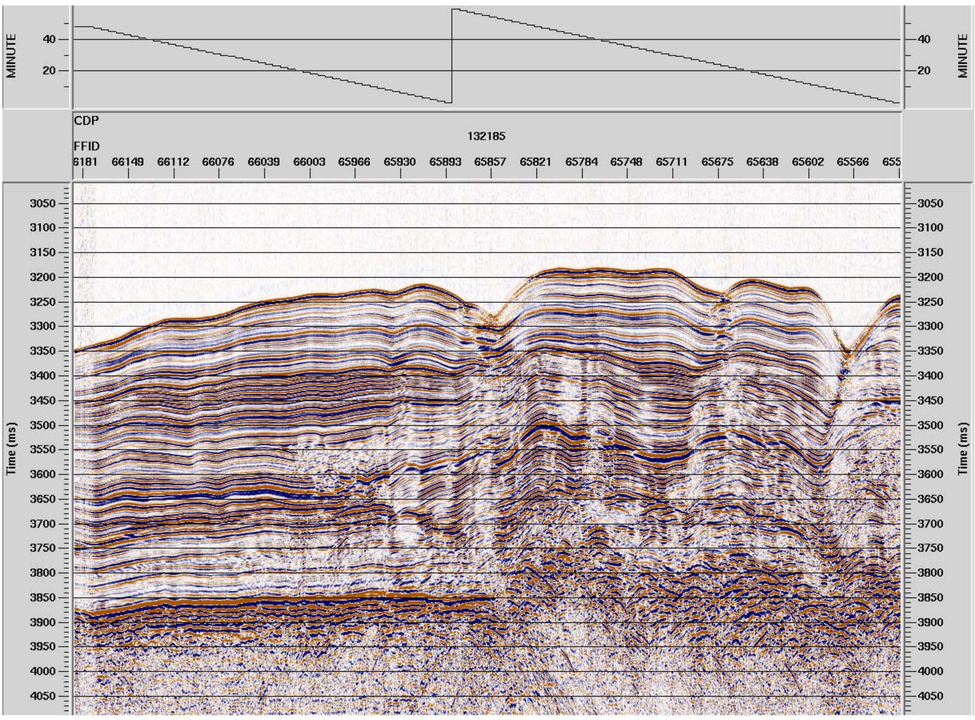
Carnegie Ridge
Line 10
JD: 305
23:55-02:00 GMT

NW ← Direction of travel → SE

03:48 GMT

02:00 GMT



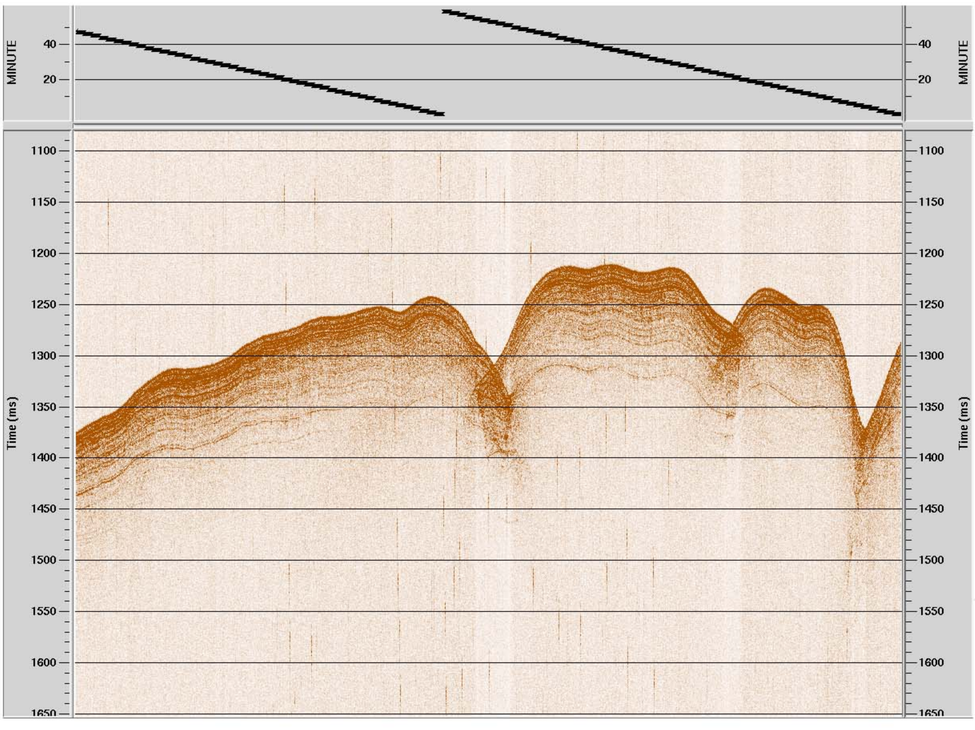


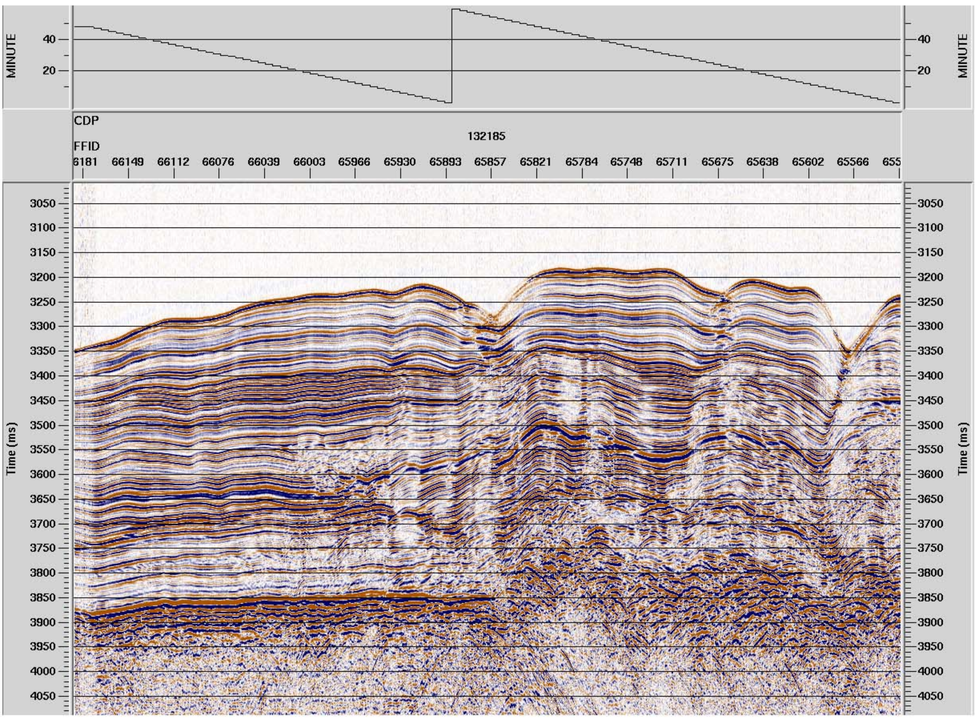
Carnegie Ridge
Line 10
JD: 305
23:55-02:00 GMT

NW ← Direction of travel → SE

03:48 GMT

02:00 GMT



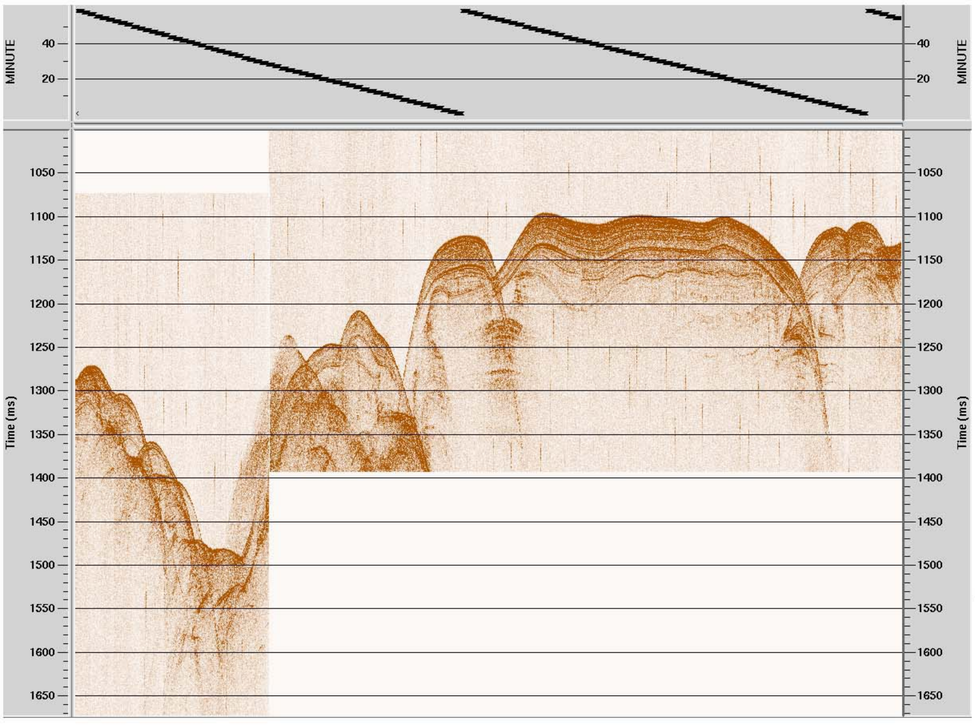


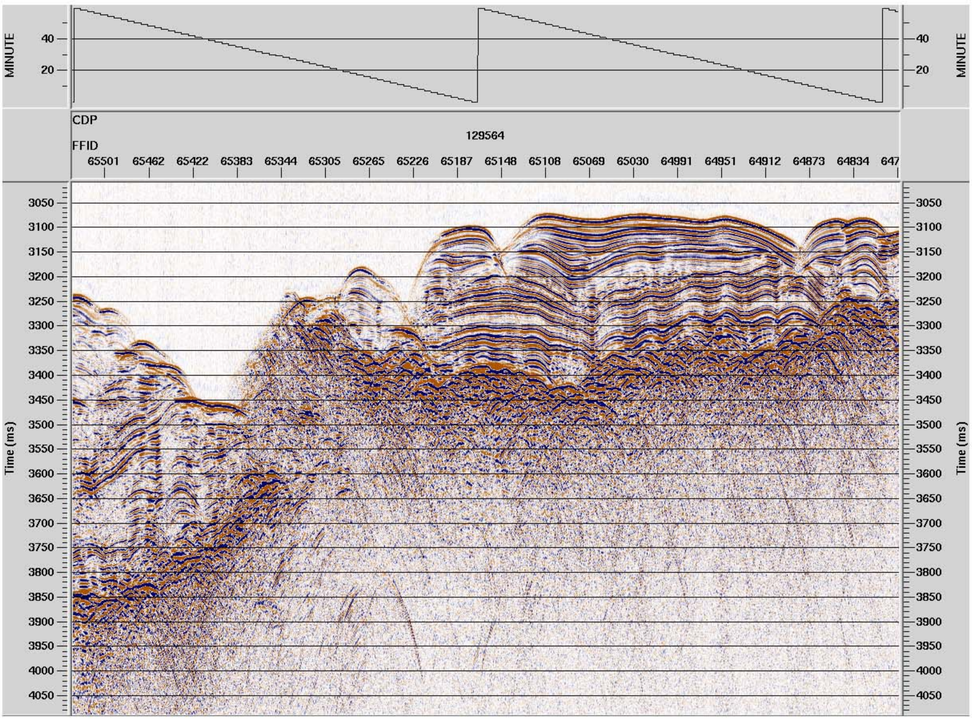
Carnegie Ridge
Line 10
JD: 304-305
23:55-02:00 GMT

NW ← Direction of travel → SE

02:00 GMT

23:55 GMT



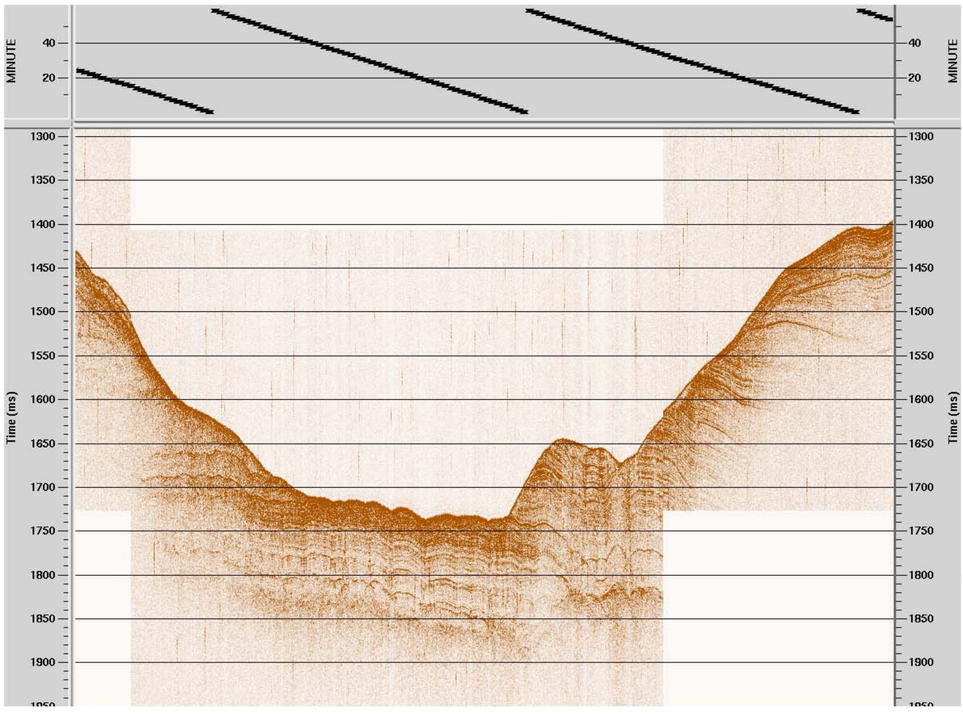


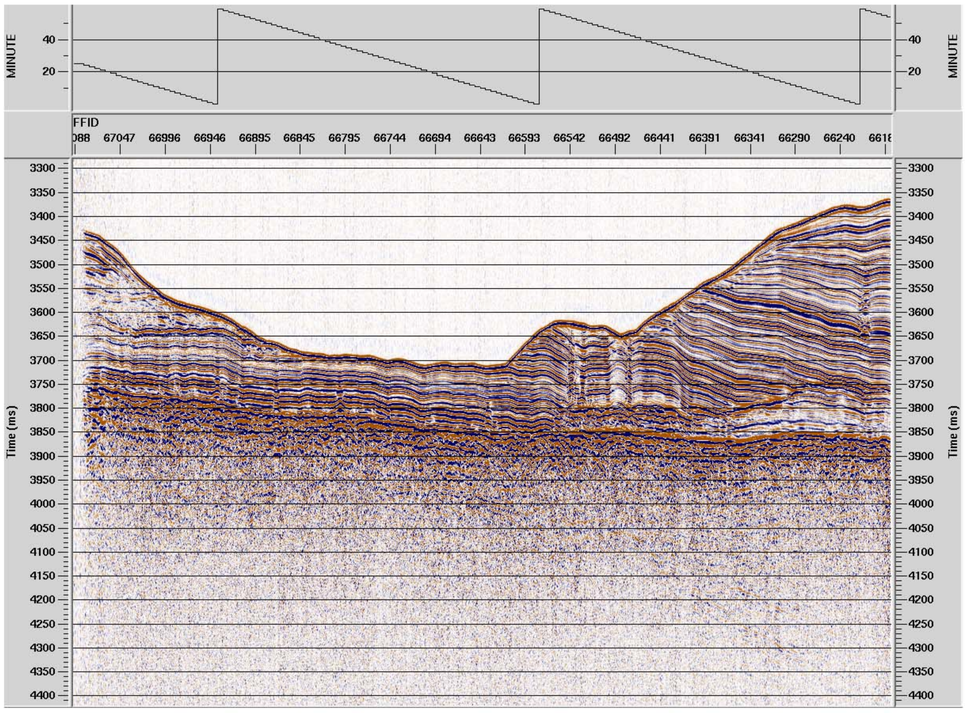
Carnegie Ridge
Line 11
JD: 305
03:54-06:25 GMT

NW ← Direction of travel → SE

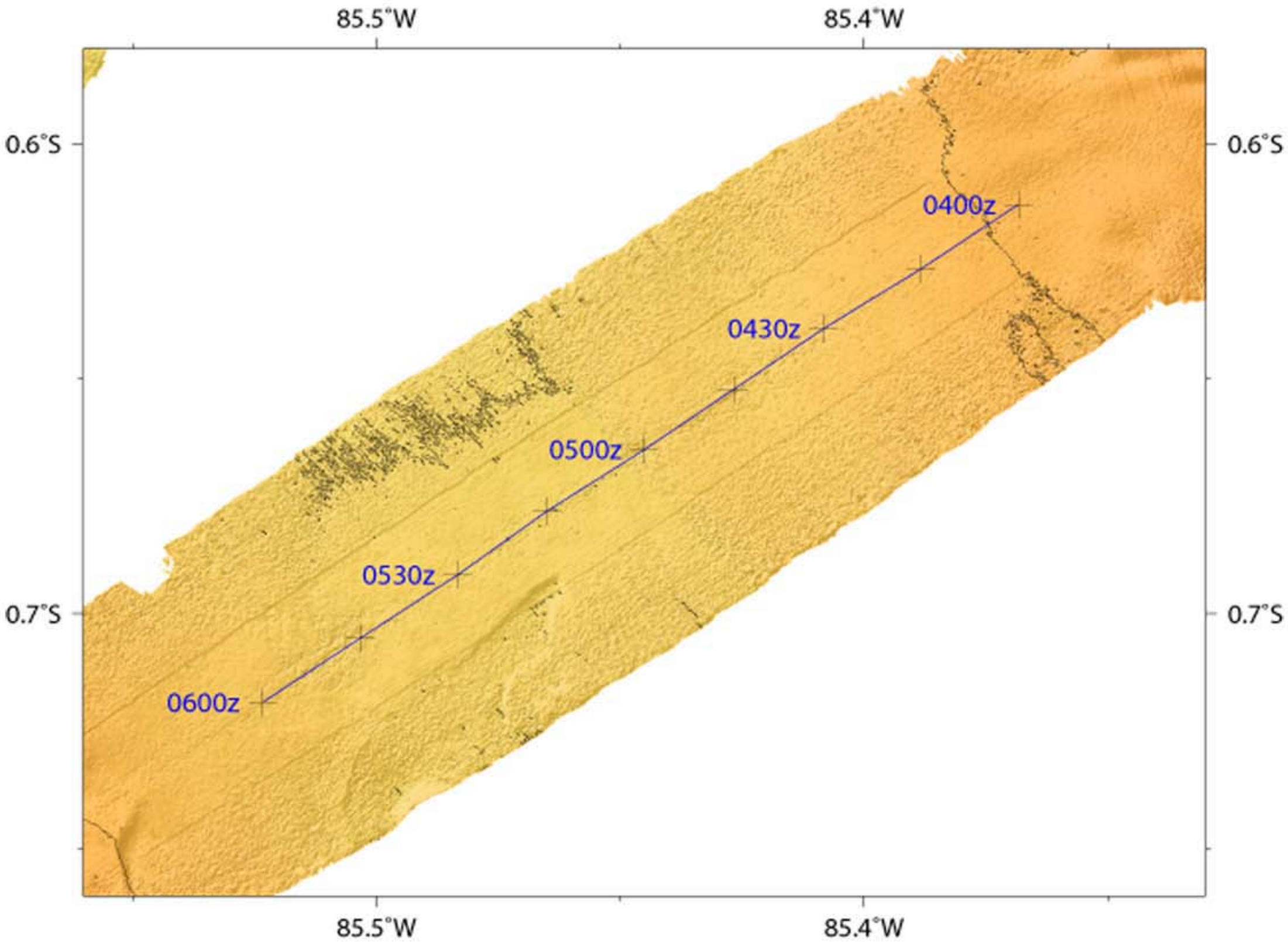
06:25 GMT

03:54 GMT

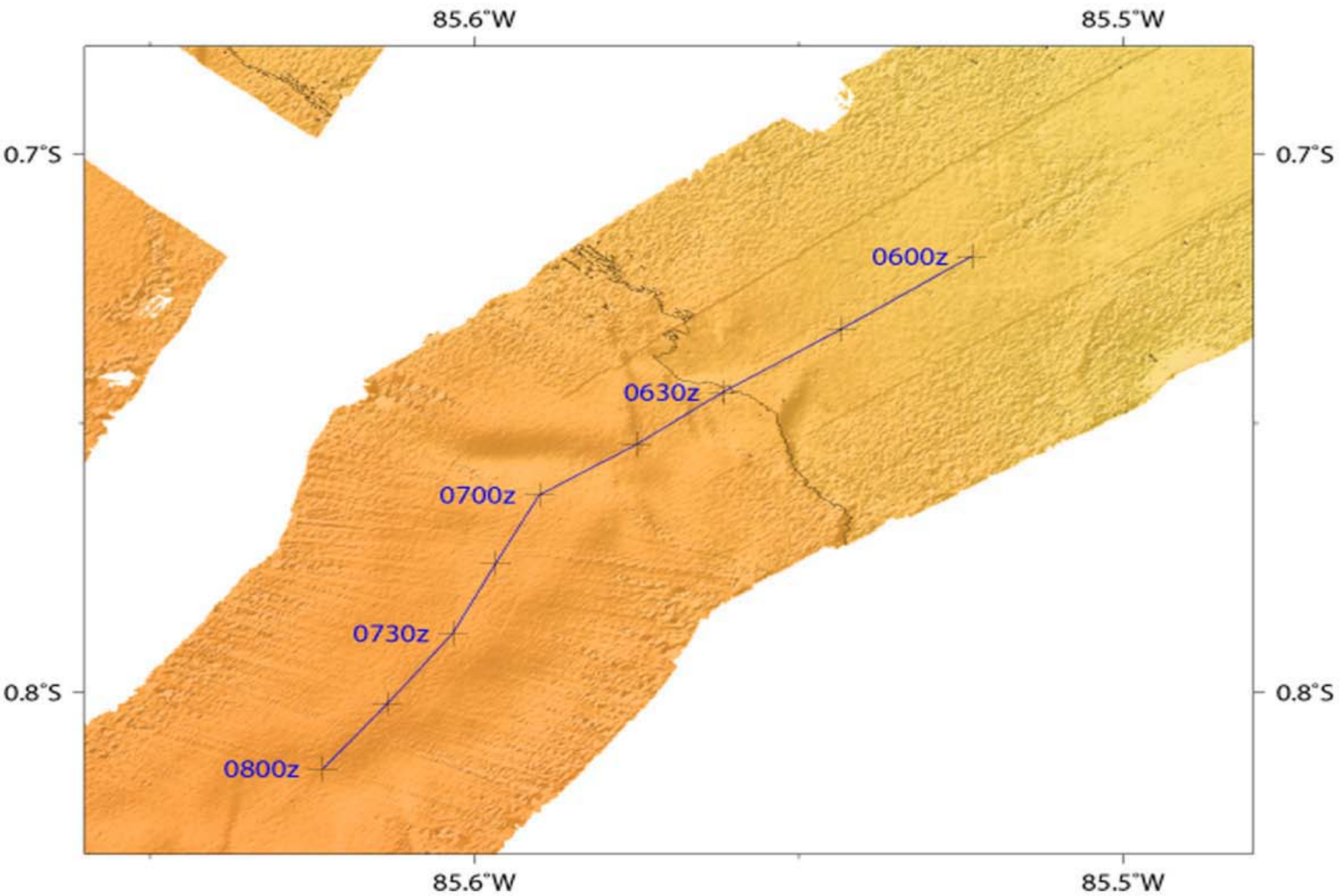


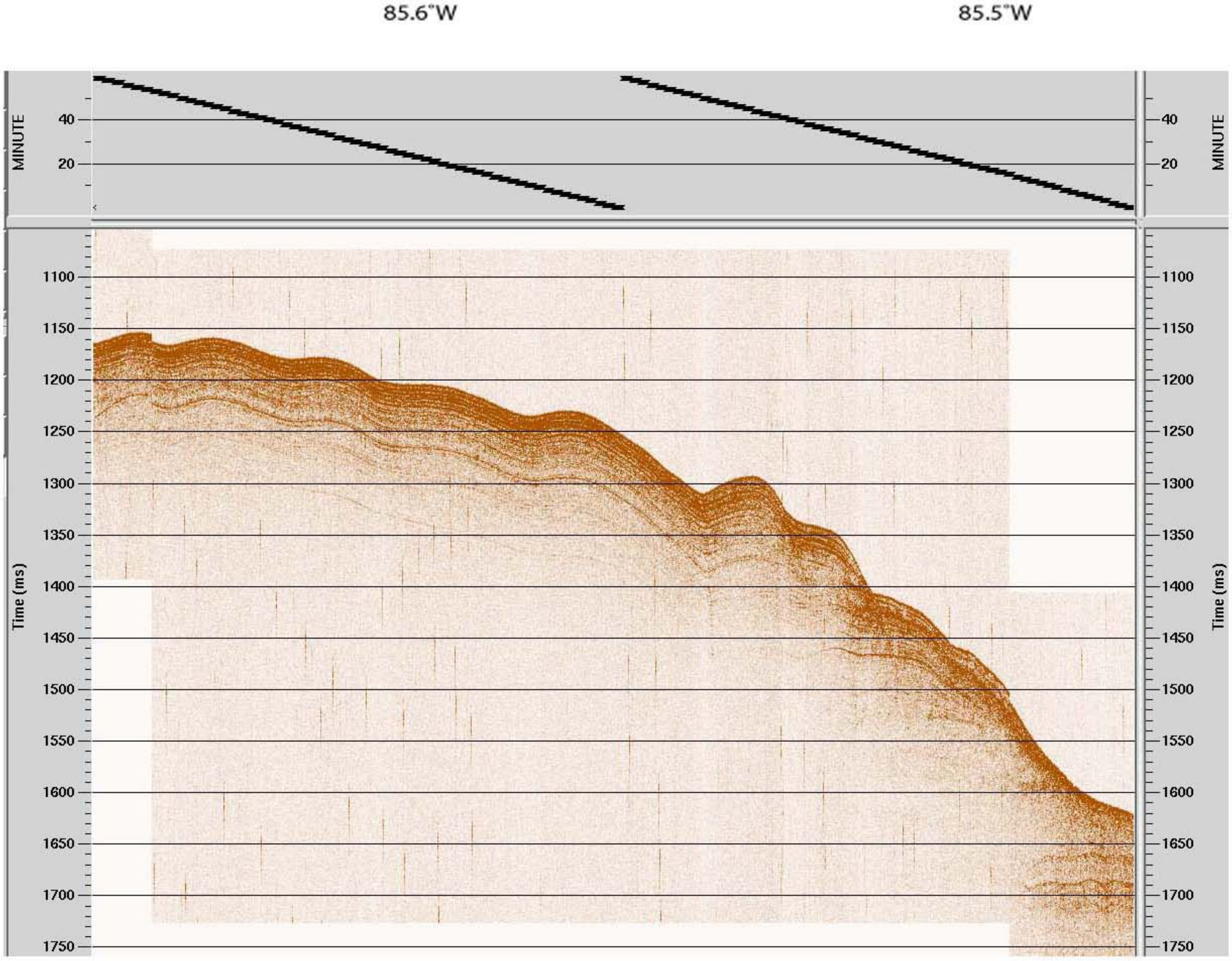


Carnegie Survey: Between Line 11 and Line 12
JD 305
04:00-06:00 GMT

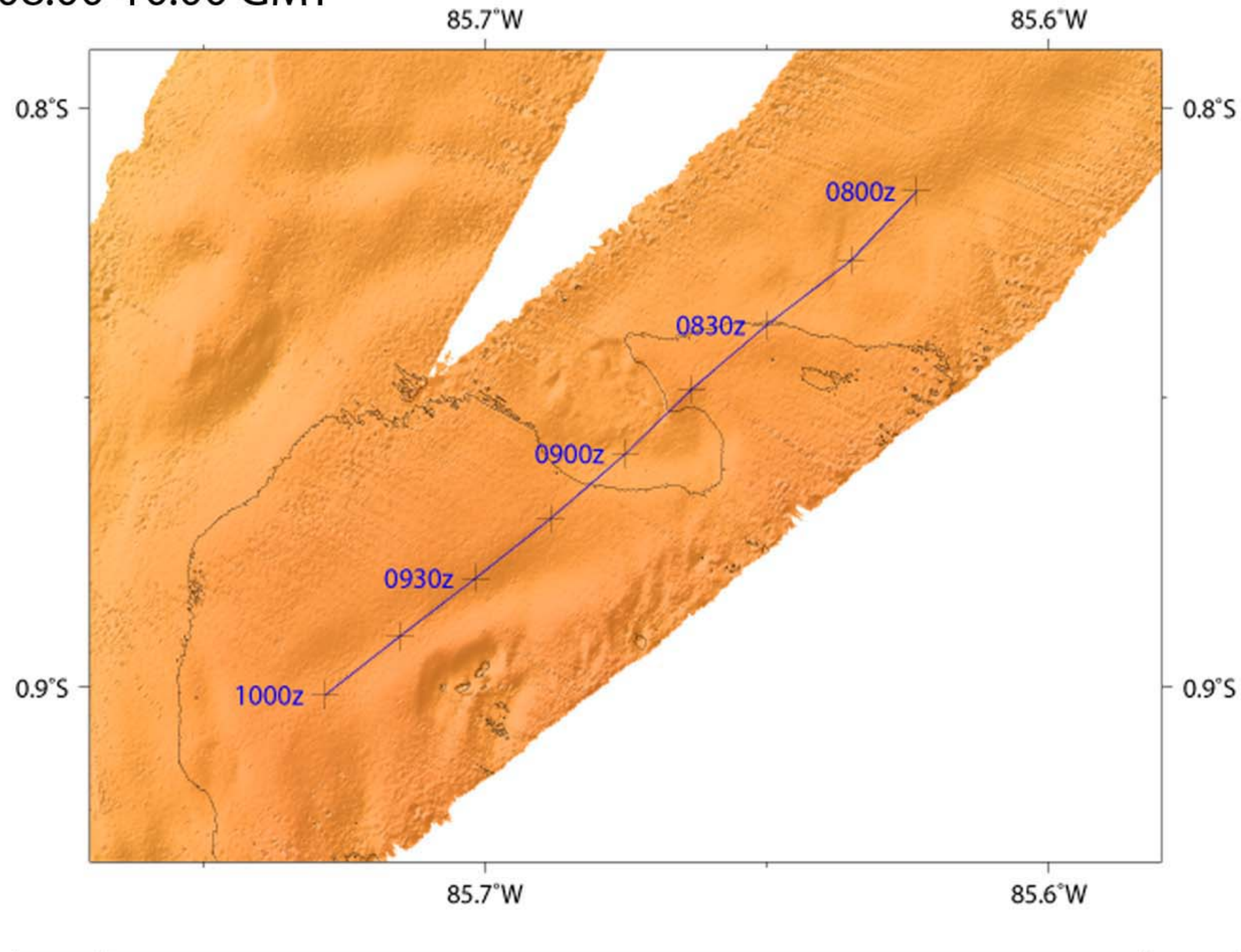


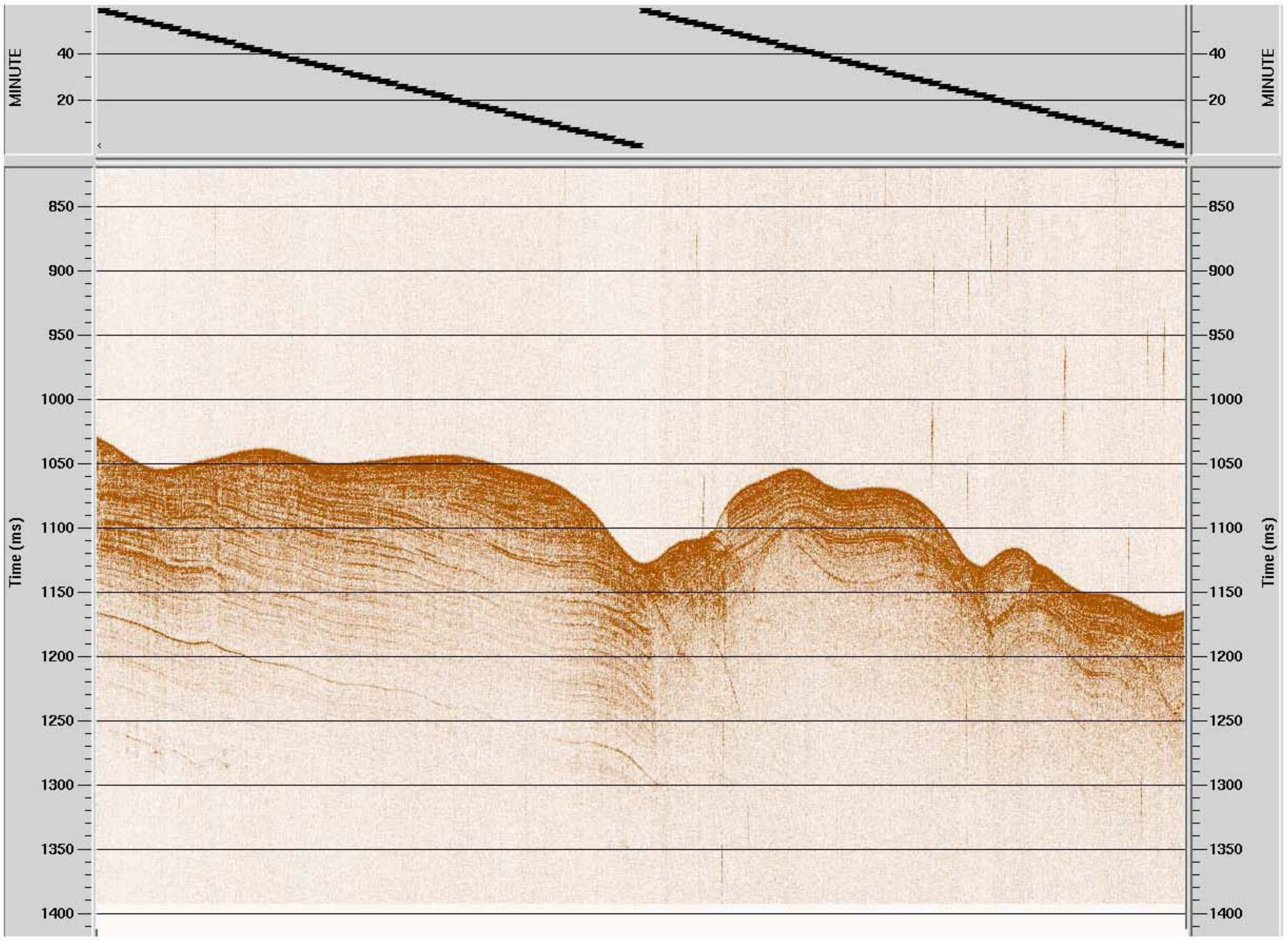
Carnegie Survey: Between Line 11 and Line 12
JD 305
06:00-08:00 GMT





Carnegie Survey: Between Line 11 and Line 12
JD 305
08:00-10:00 GMT



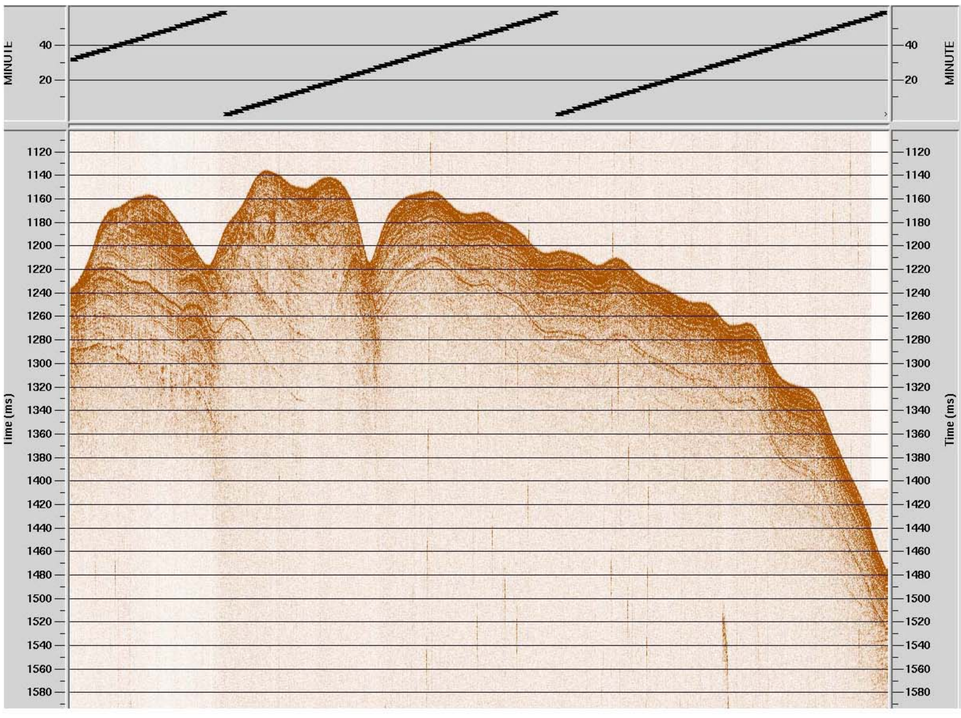


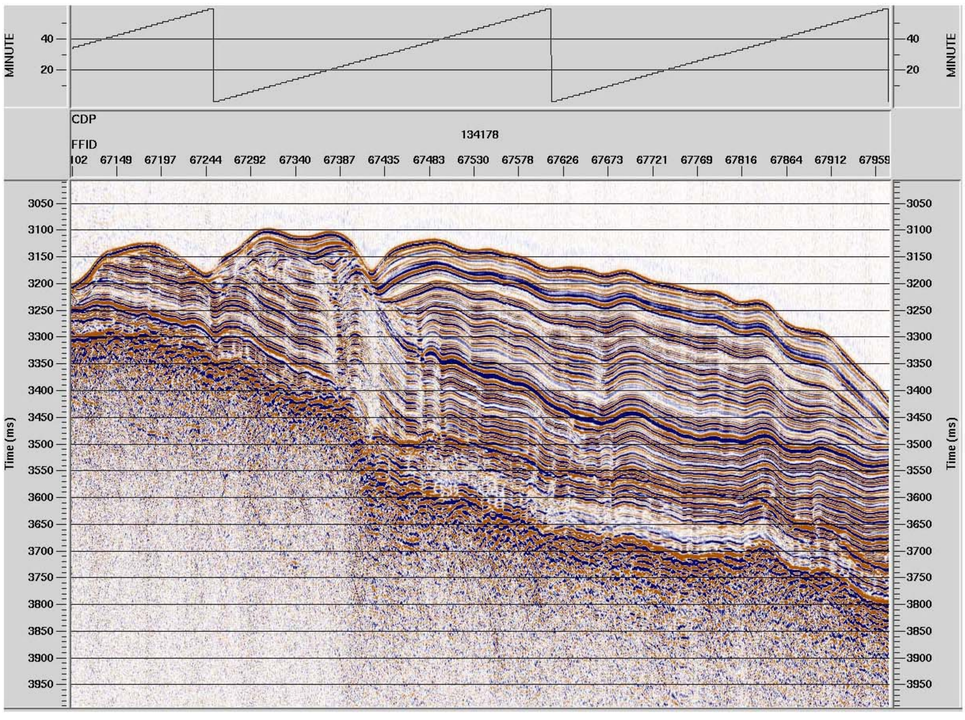
Carnegie Ridge
Line 12
JD: 305
11:32-14:00 GMT

NW Direction of travel SE

11:32GMT

14:00 GMT

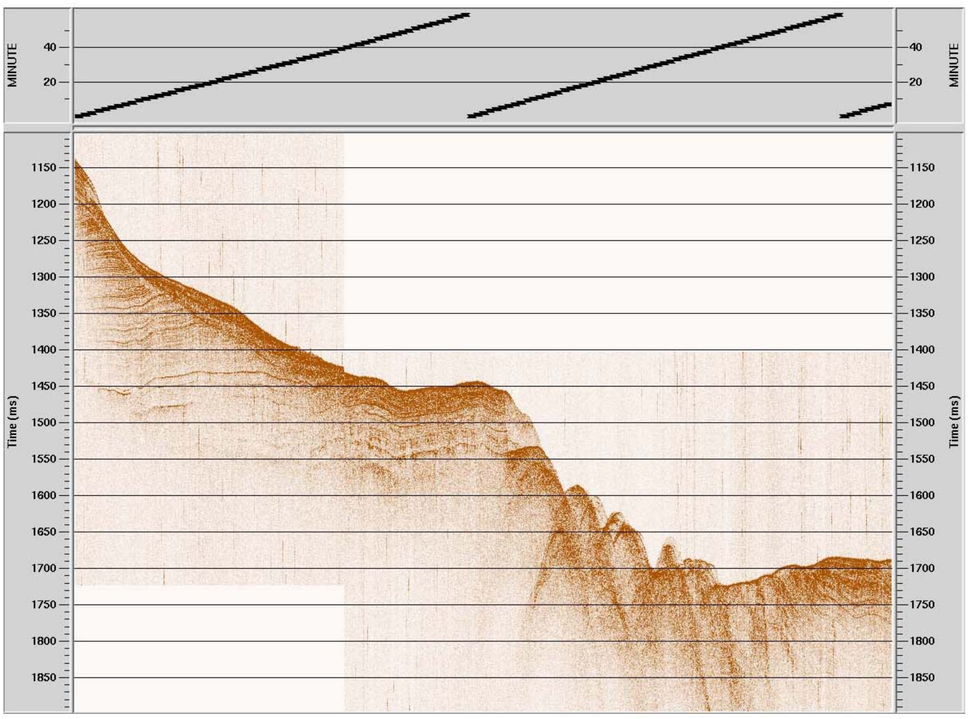


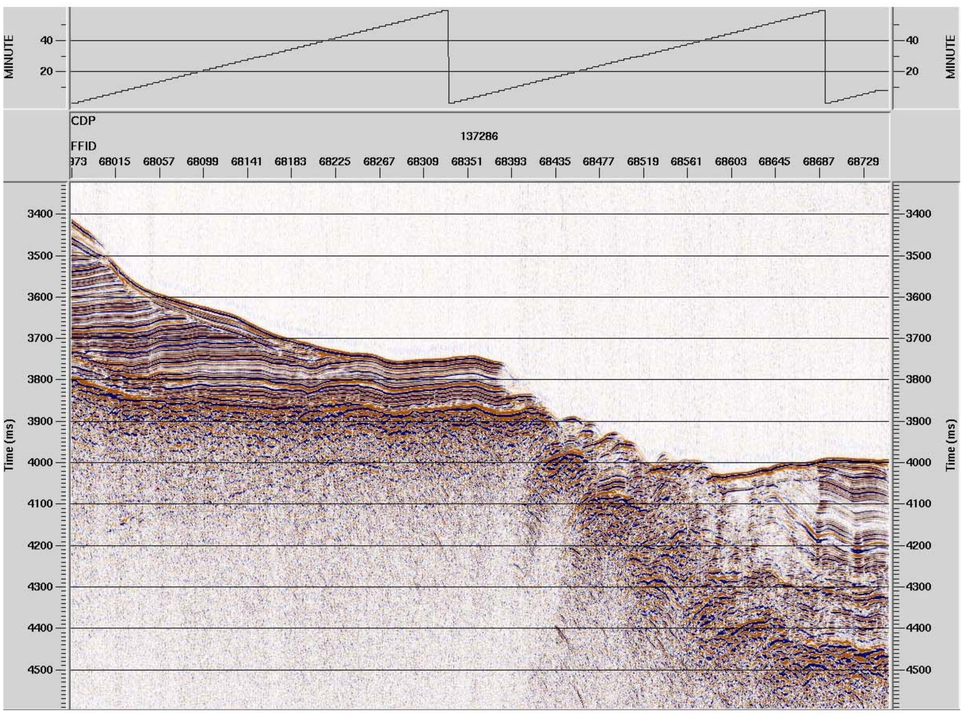


Carnegie Ridge
Line 12
JD: 305
14:00-16:08 GMT

NW Direction of travel SE

14:00 GMT 16:08 GMT



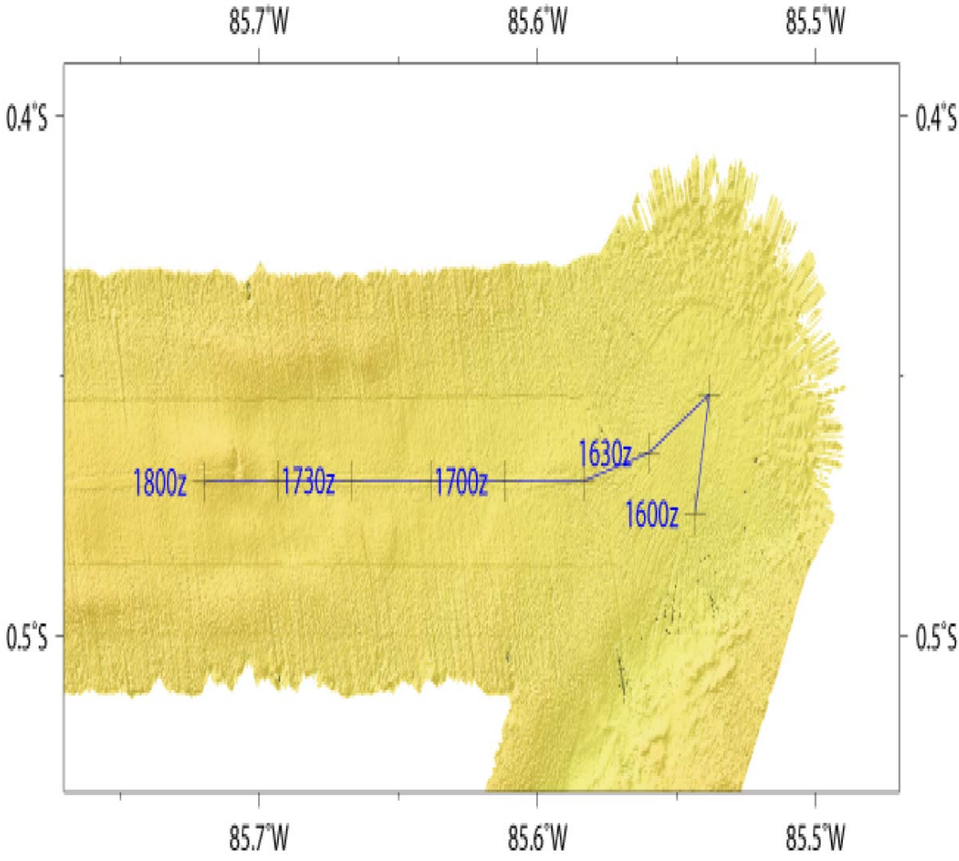


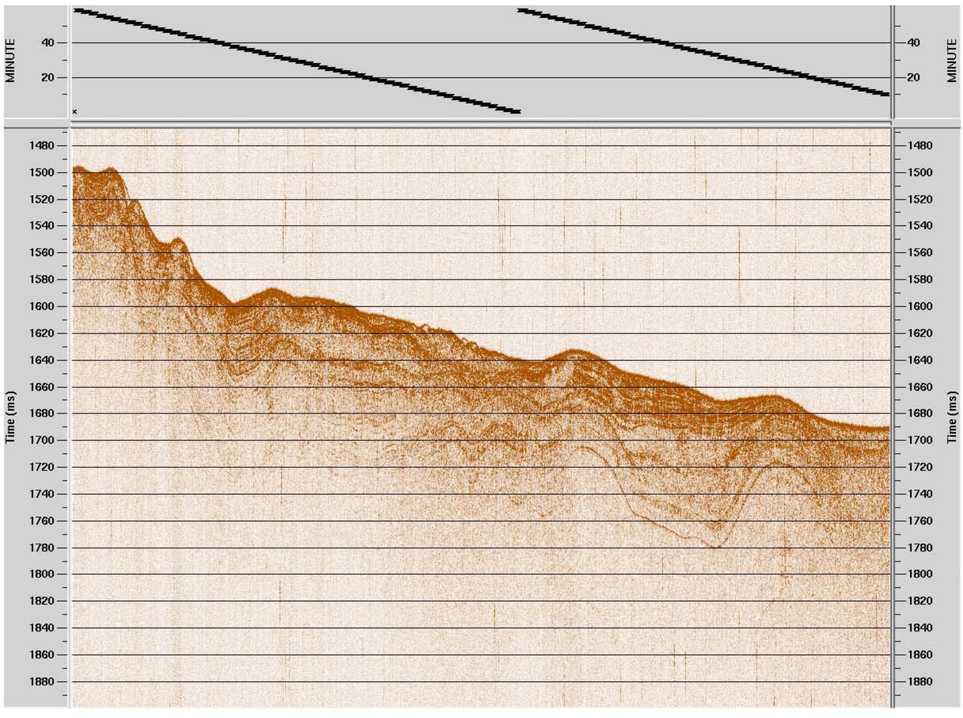
Carnegie Ridge
Line 13
JD: 305
16:10-18:00 GMT

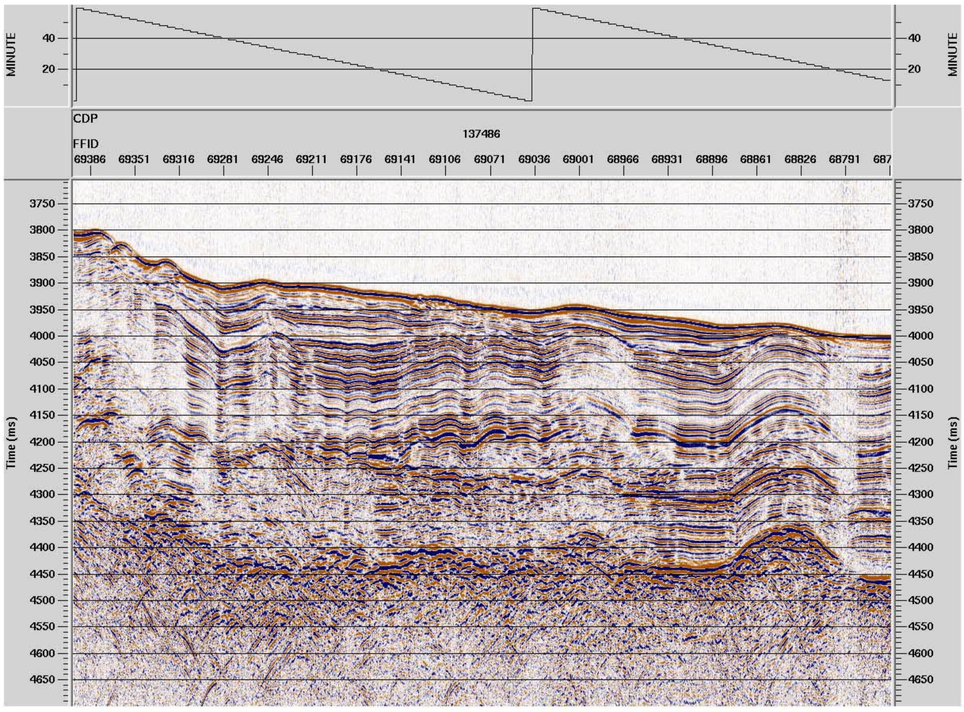
18:00 GMT

NW ← Direction of travel → SE

16:10 GMT





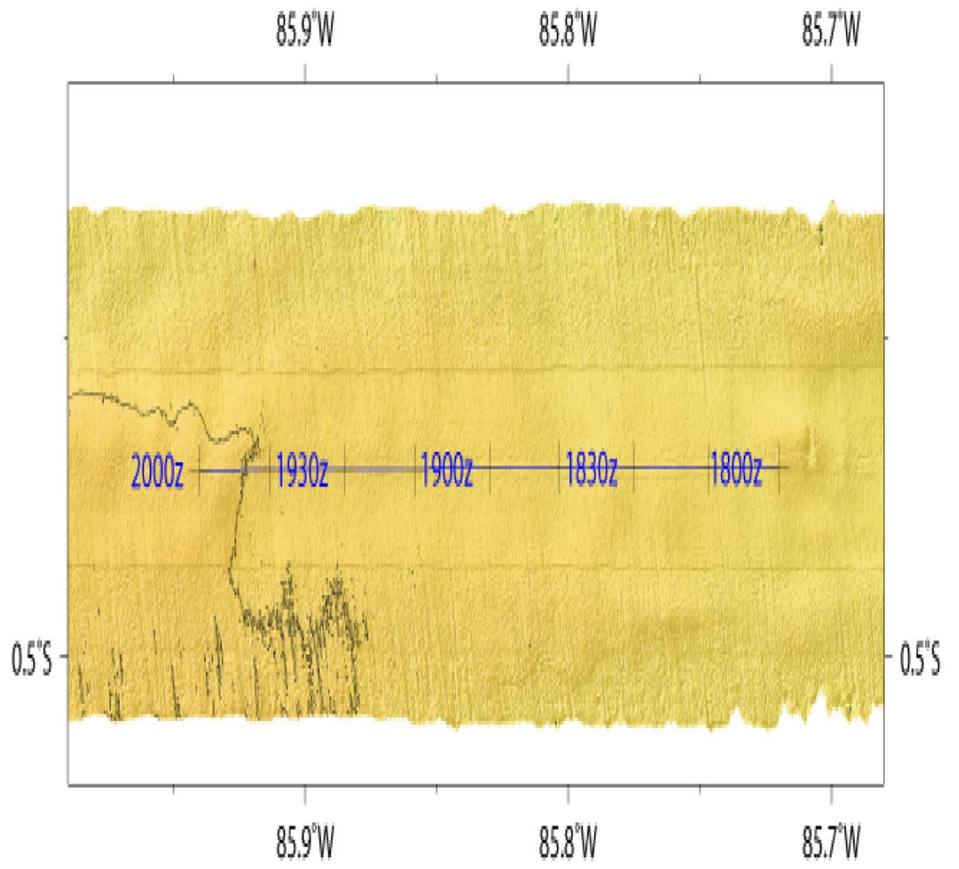


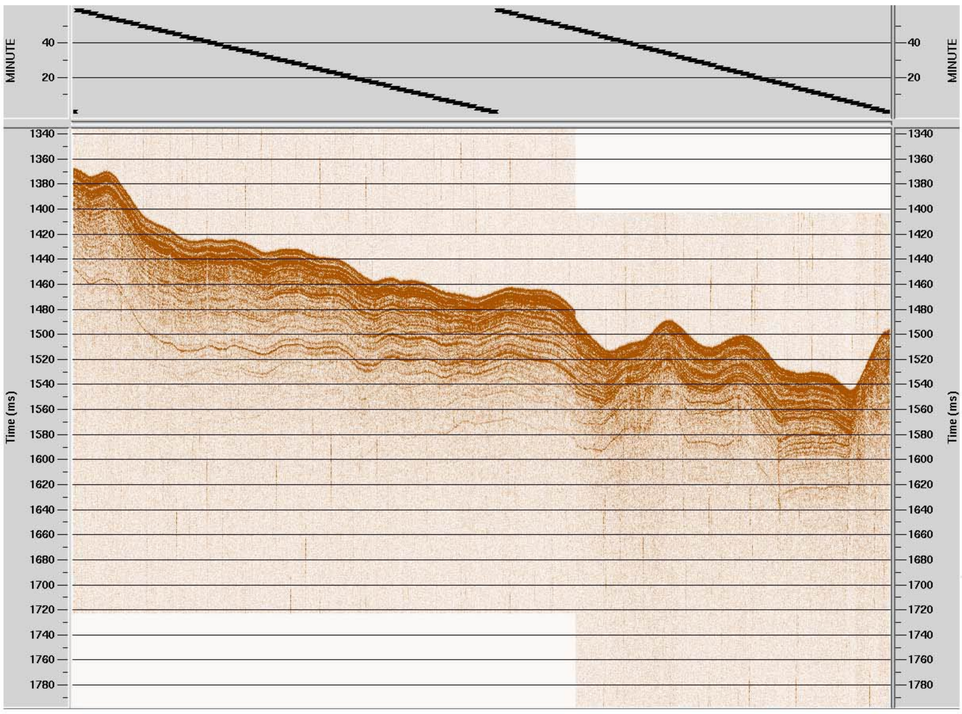
Carnegie Ridge
Line 13
JD: 305
18:00-20:00 GMT

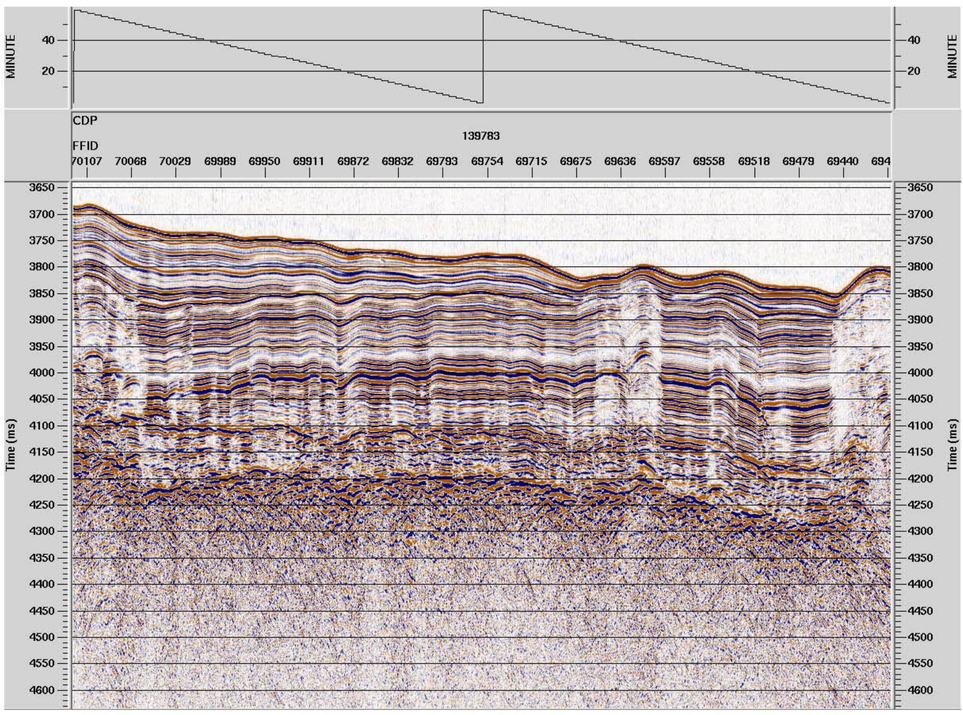
NW ← Direction of travel → SE

20:00 GMT

18:00 GMT





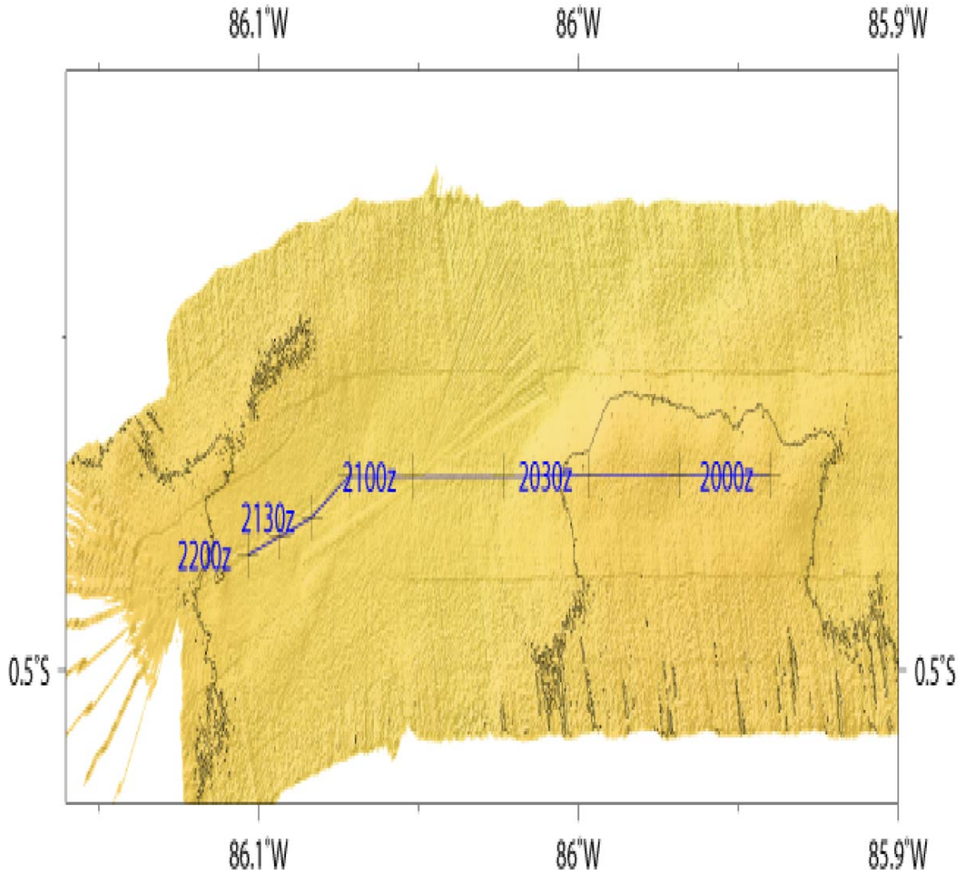


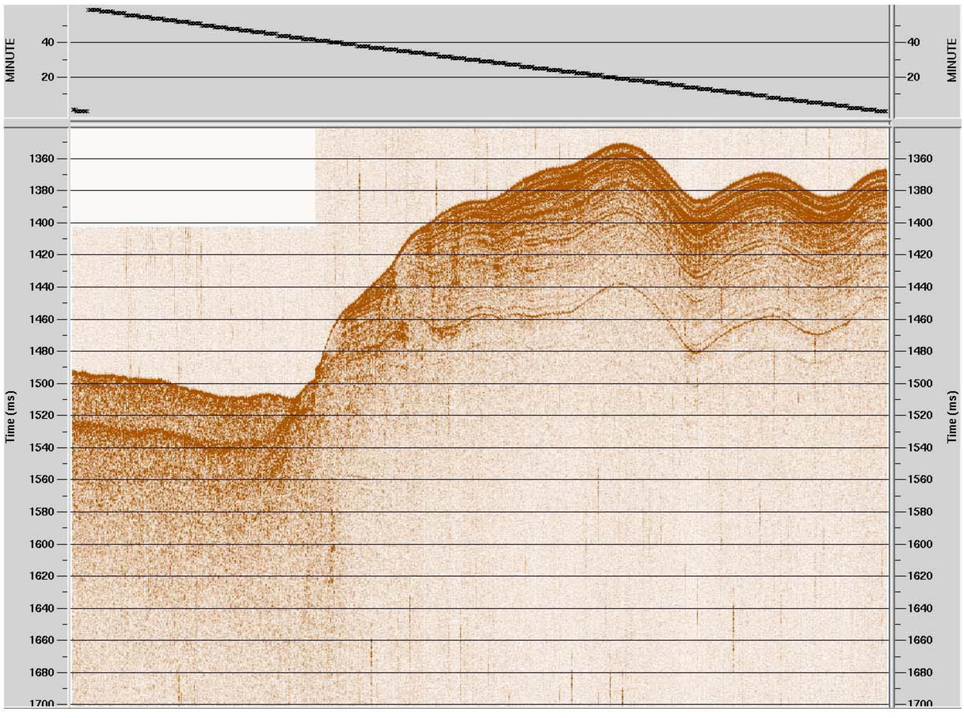
Carnegie Ridge
Line 13
JD: 305
20:00-21:01 GMT

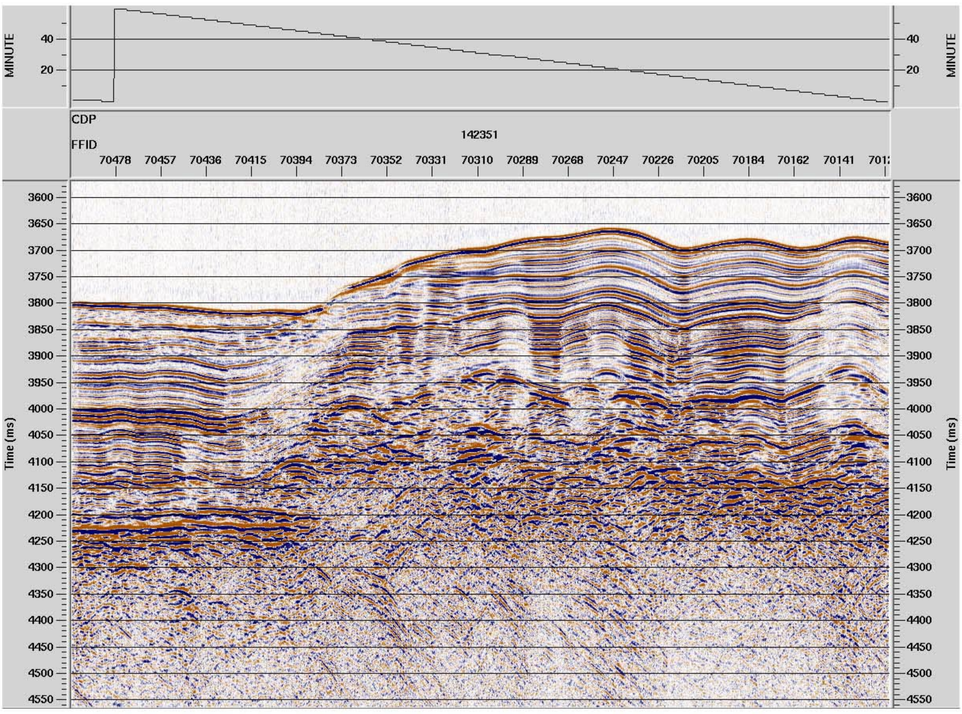
NW ← Direction of travel → SE

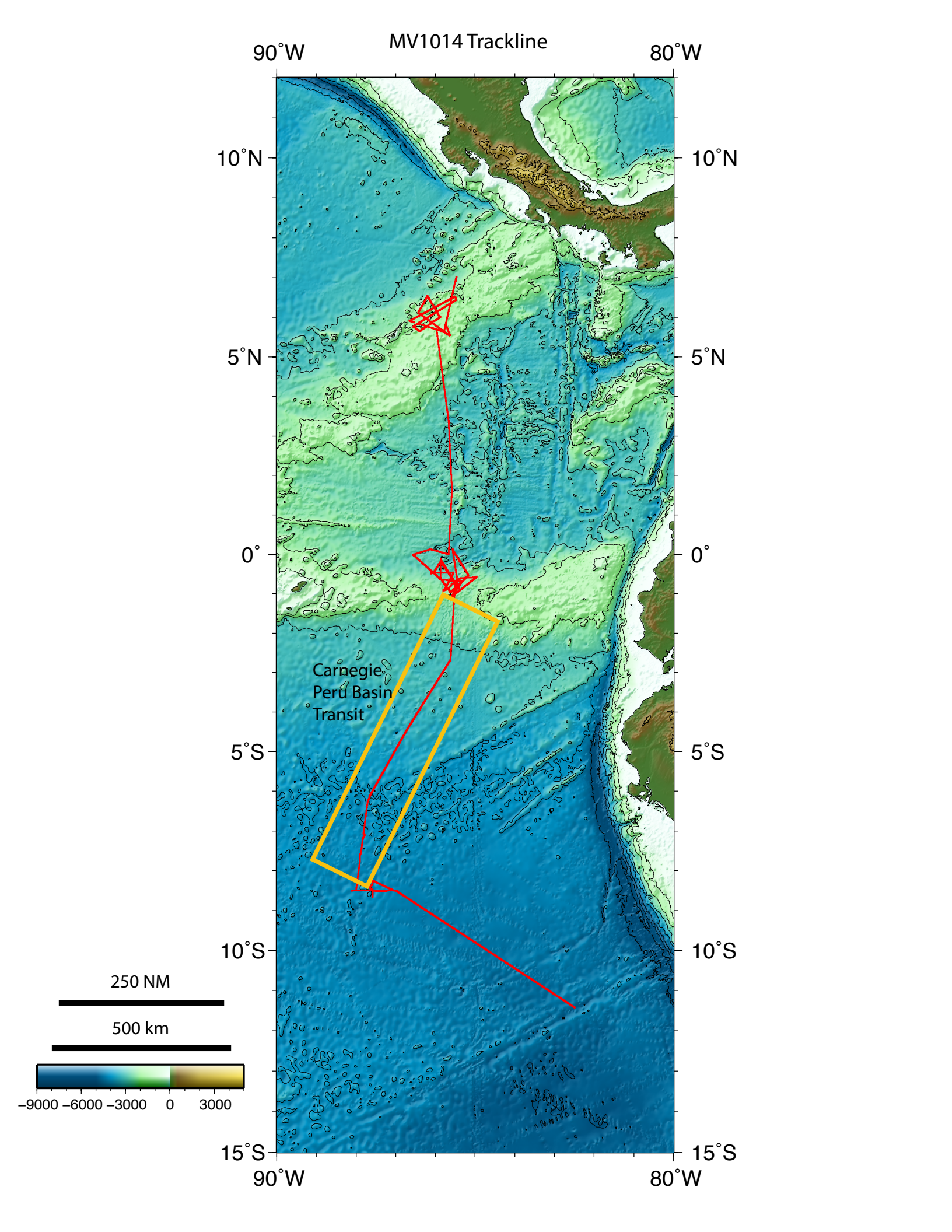
21:01 GMT

20:00 GMT







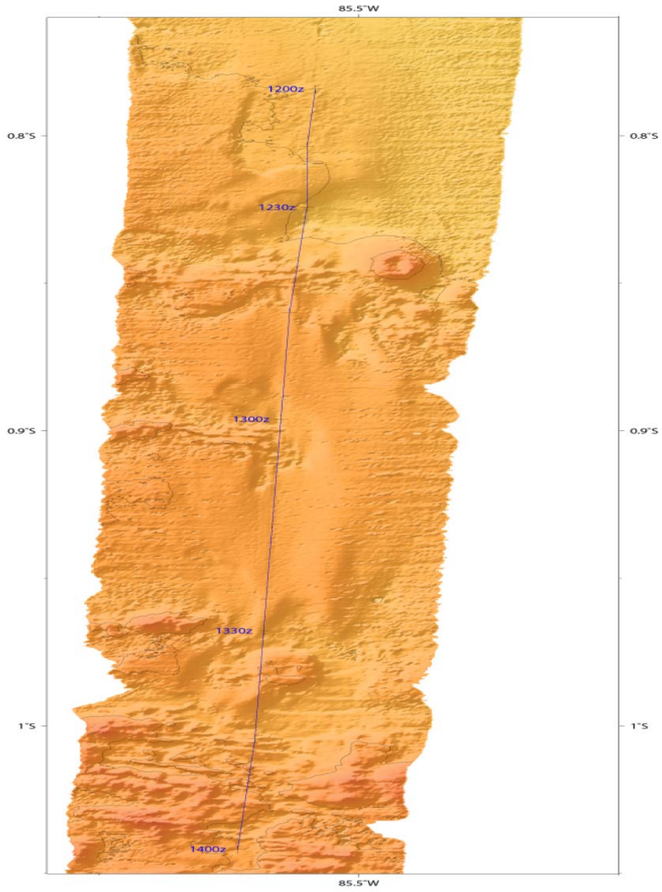

MV1014 Trackline
90˚W
80˚W
10˚N
5˚N
0˚
5˚S
10˚S
15˚S
Carnegie
Peru Basin
Transit
250 NM
500 km
–9000 –6000 –3000 0 3000

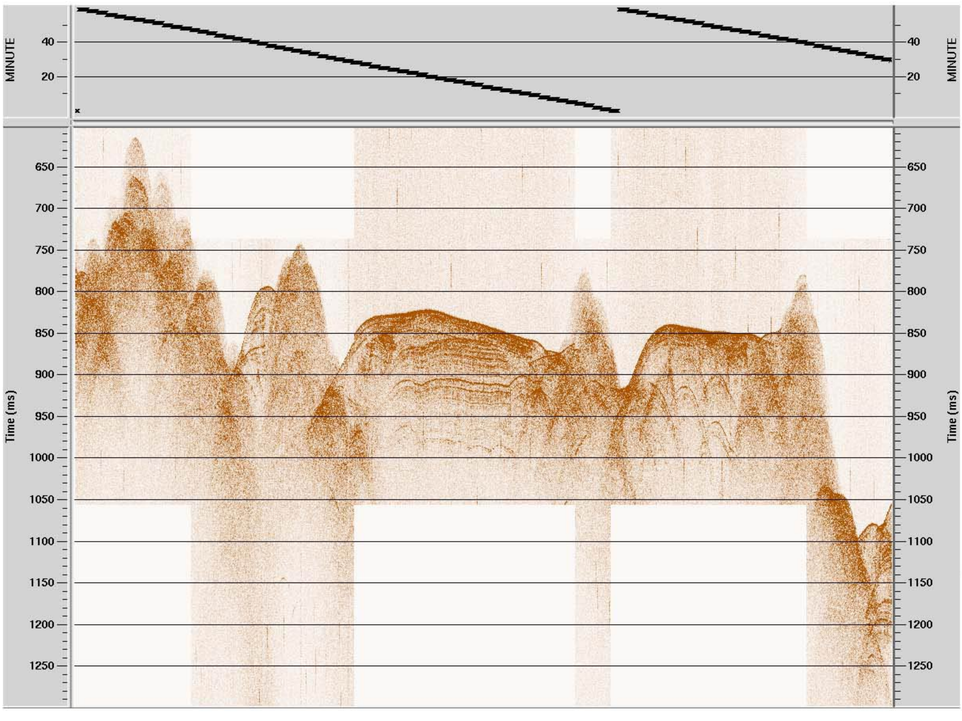
Transit
Line 5
JD: 307
12:25-14:00 GMT

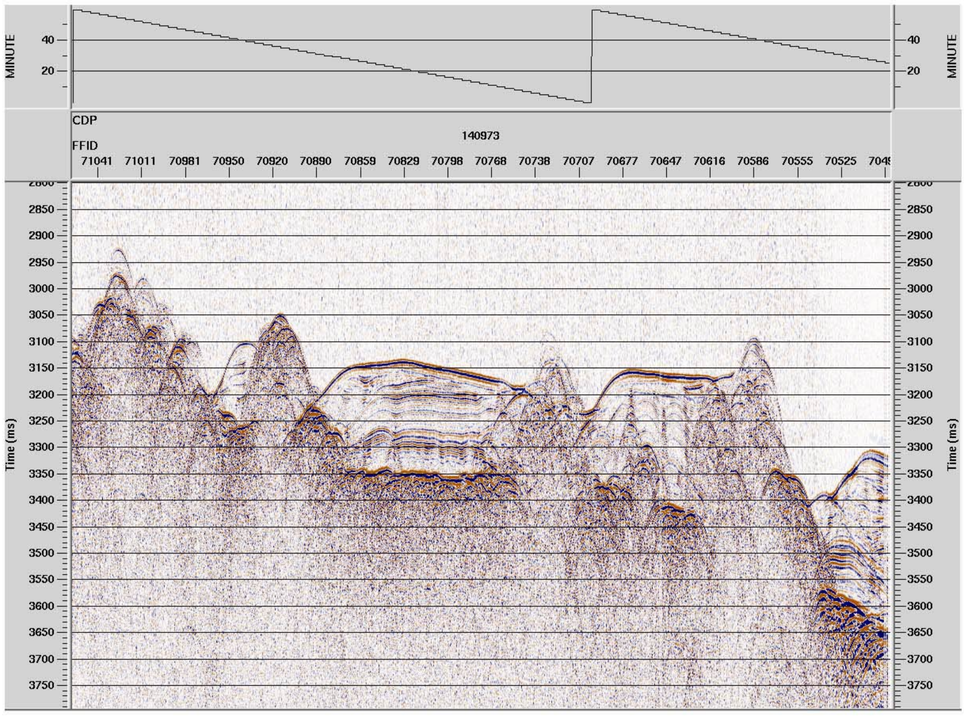
NW ← Direction of travel → SE

14:00 GMT

12:25 GMT





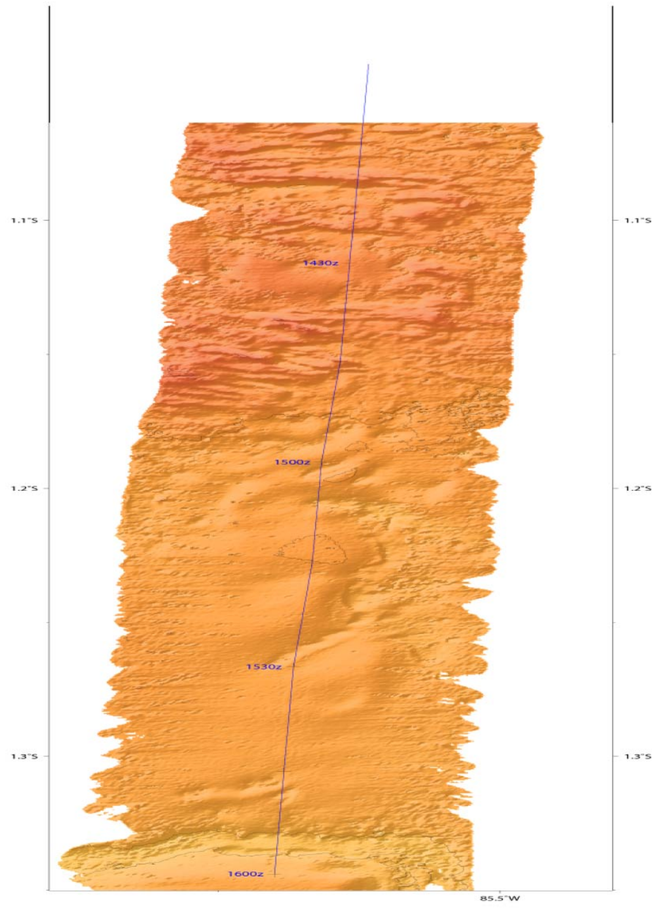


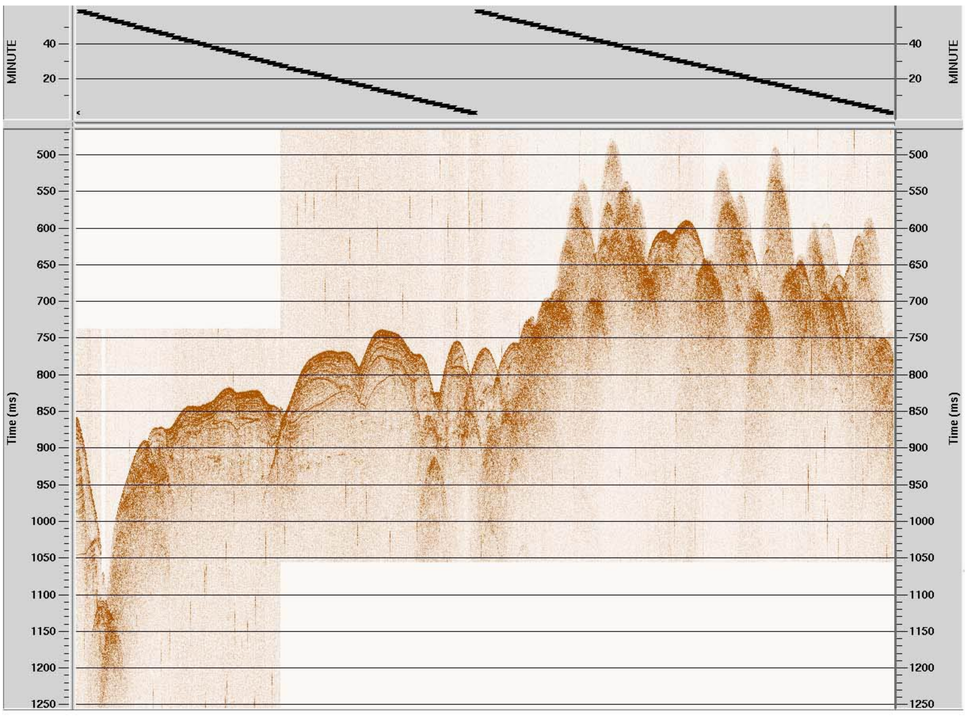
Transit
Line 5
JD: 307
14:00-16:00 GMT

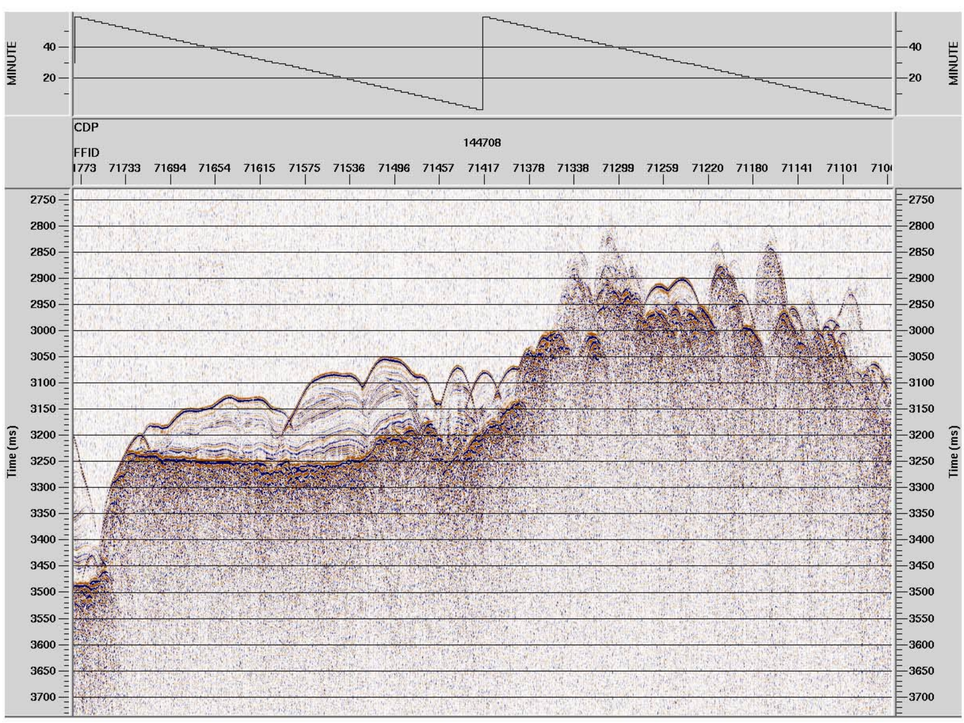
NW ← Direction of travel → SE

16:00 GMT

14:00 GMT





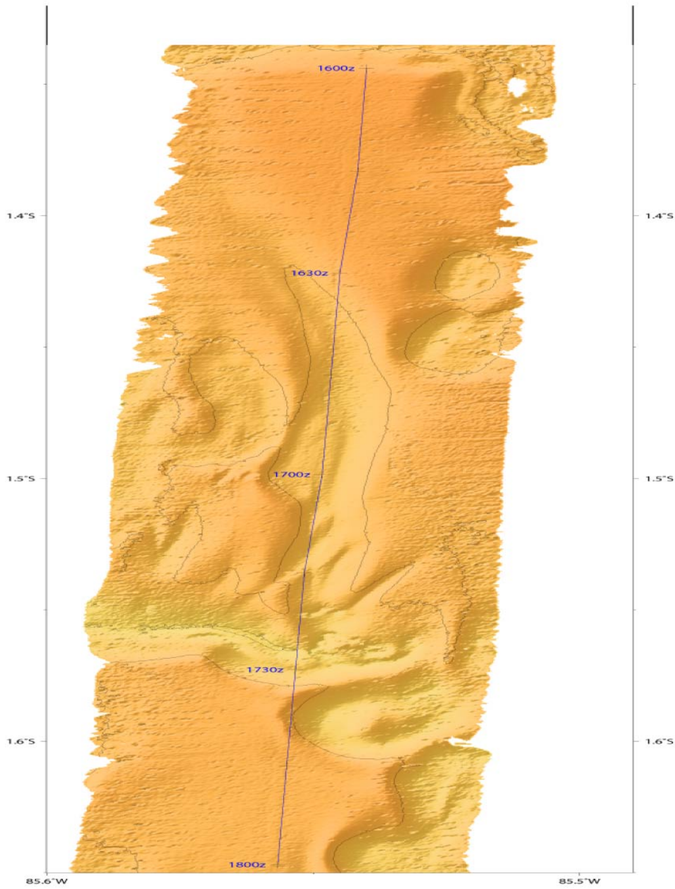


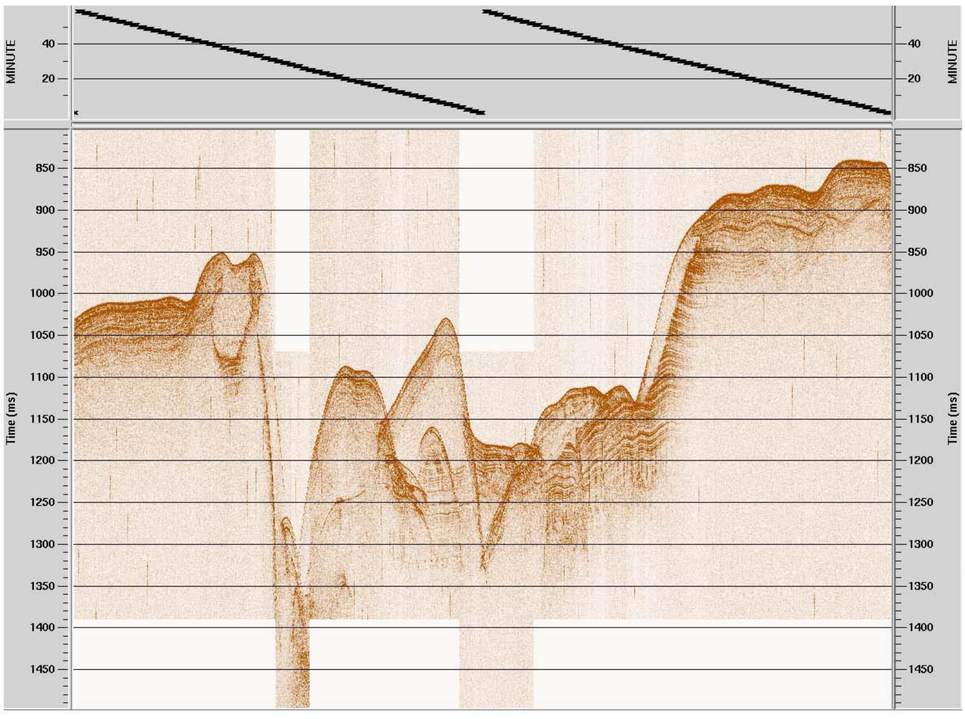
Transit
Line 5
JD: 307
16:00-18:00 GMT

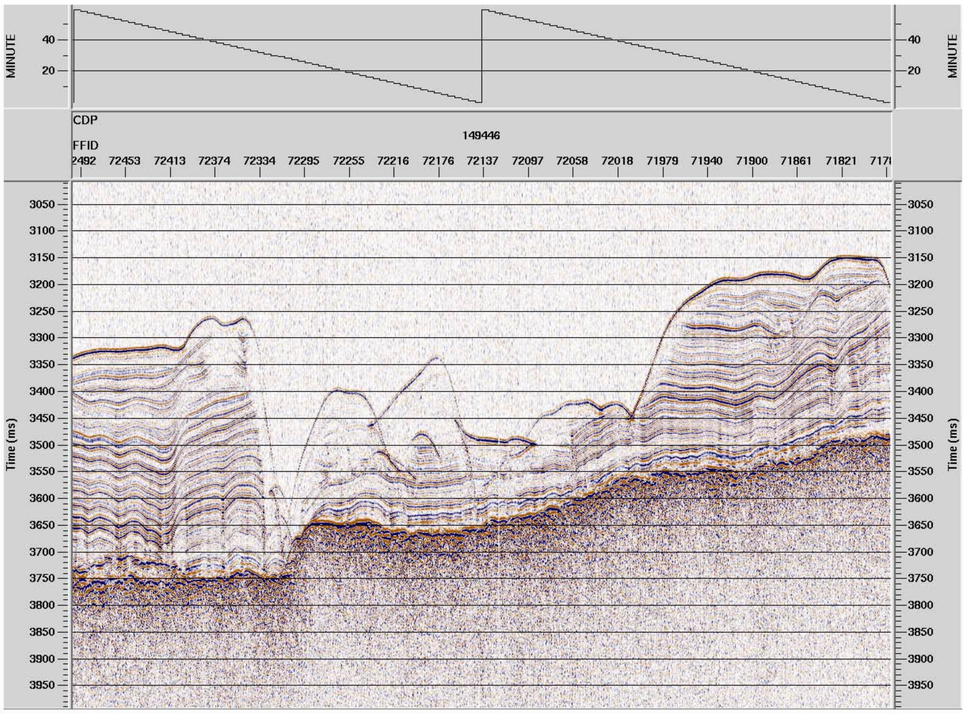
NW ← Direction of travel → SE

18:00 GMT

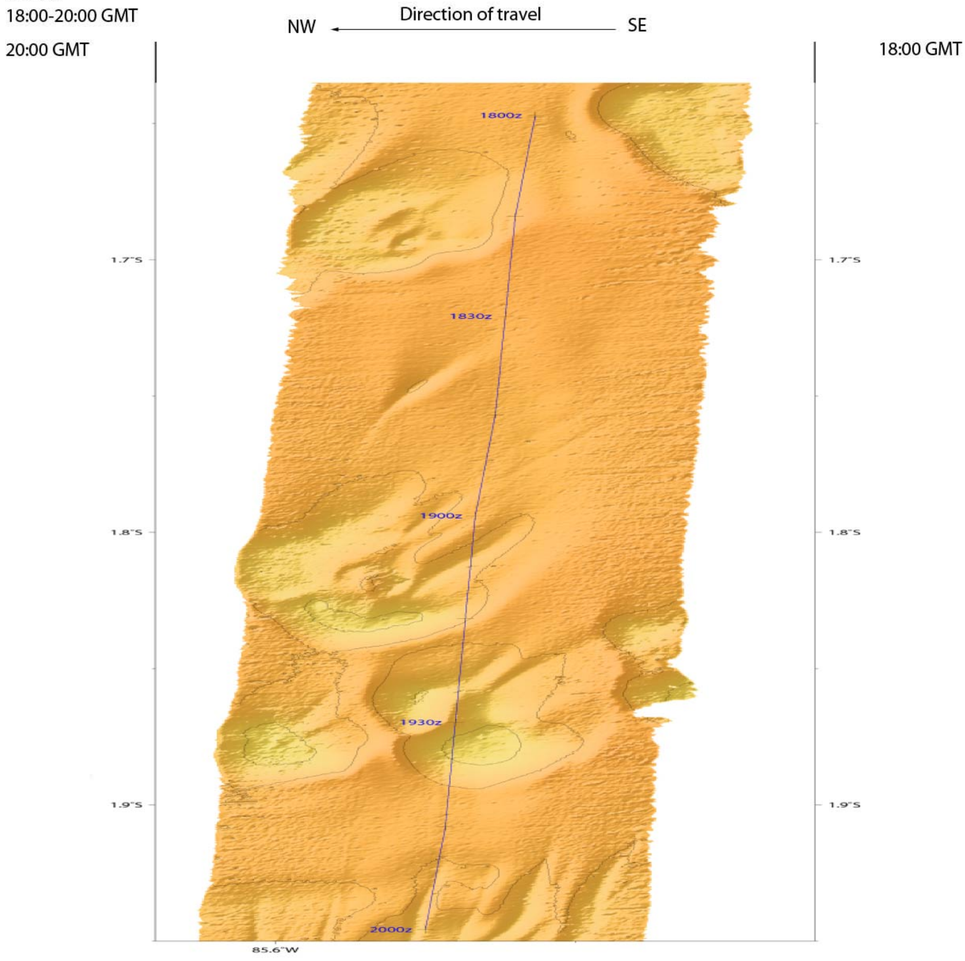
16:00 GMT

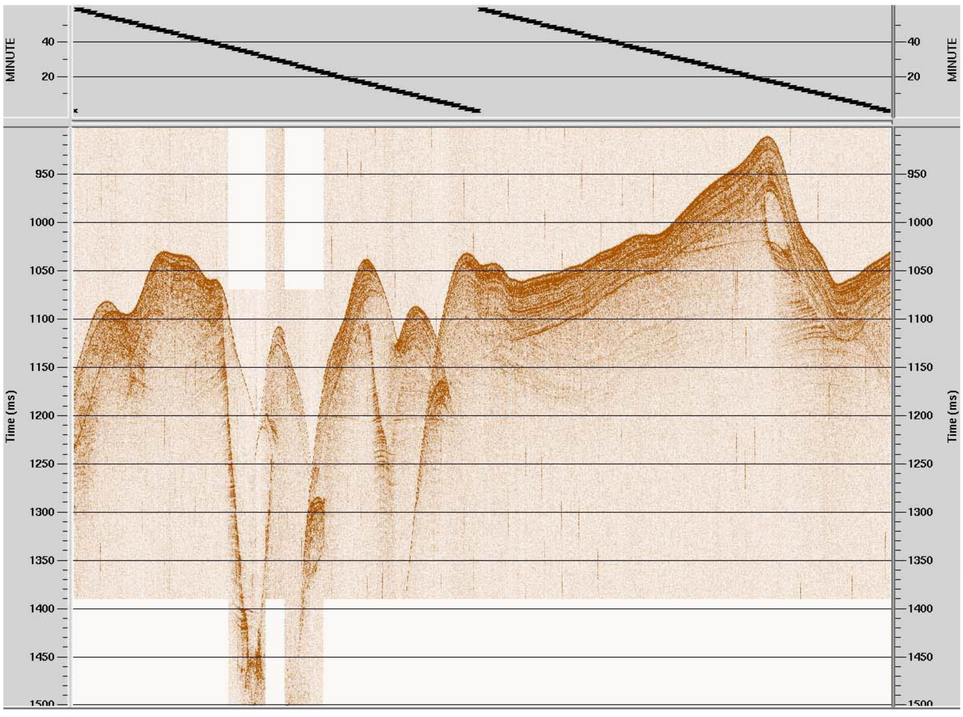


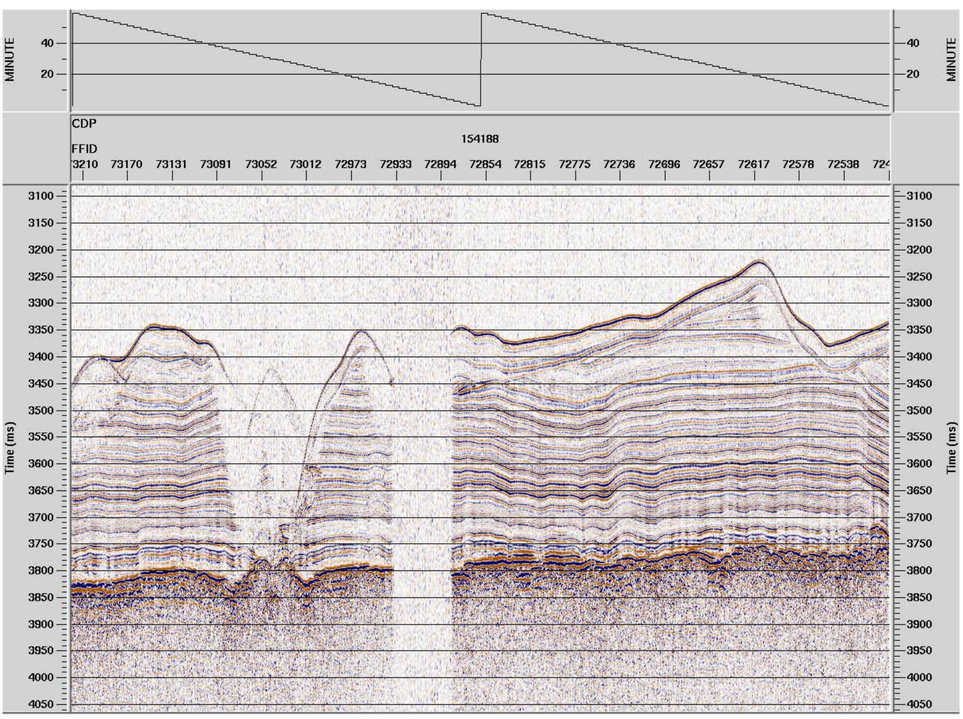




Transit
Line 5
JD: 307
18:00-20:00 GMT





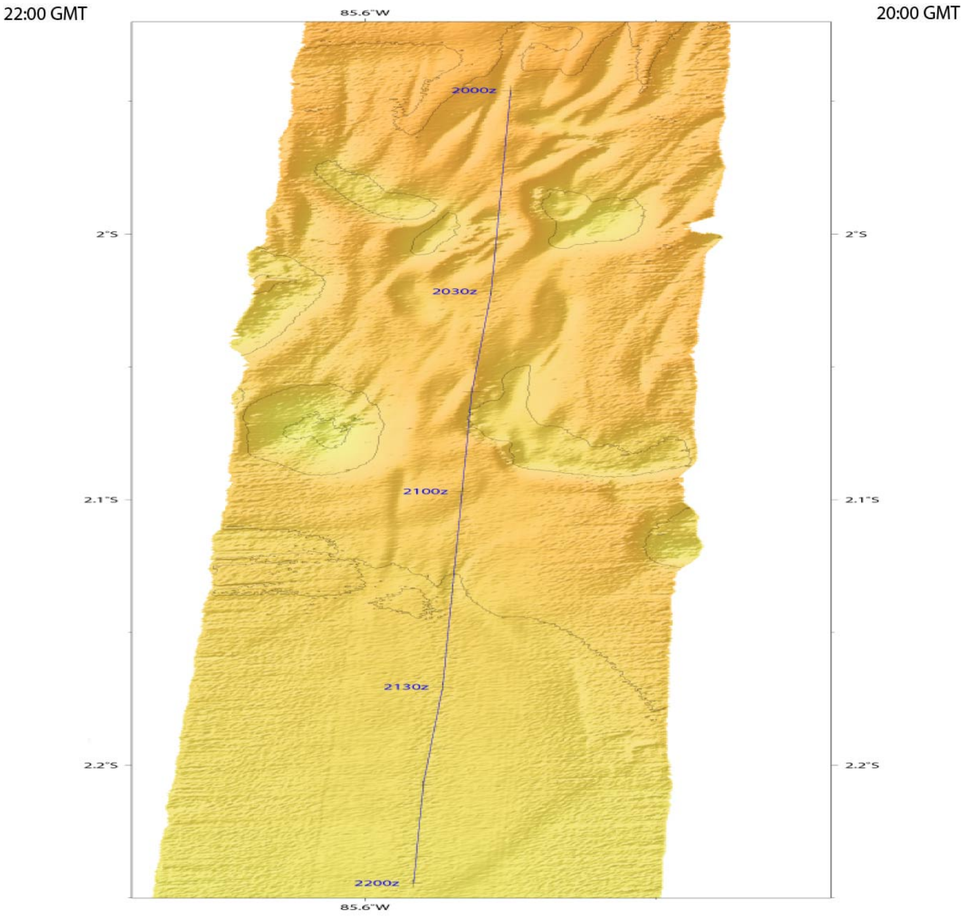


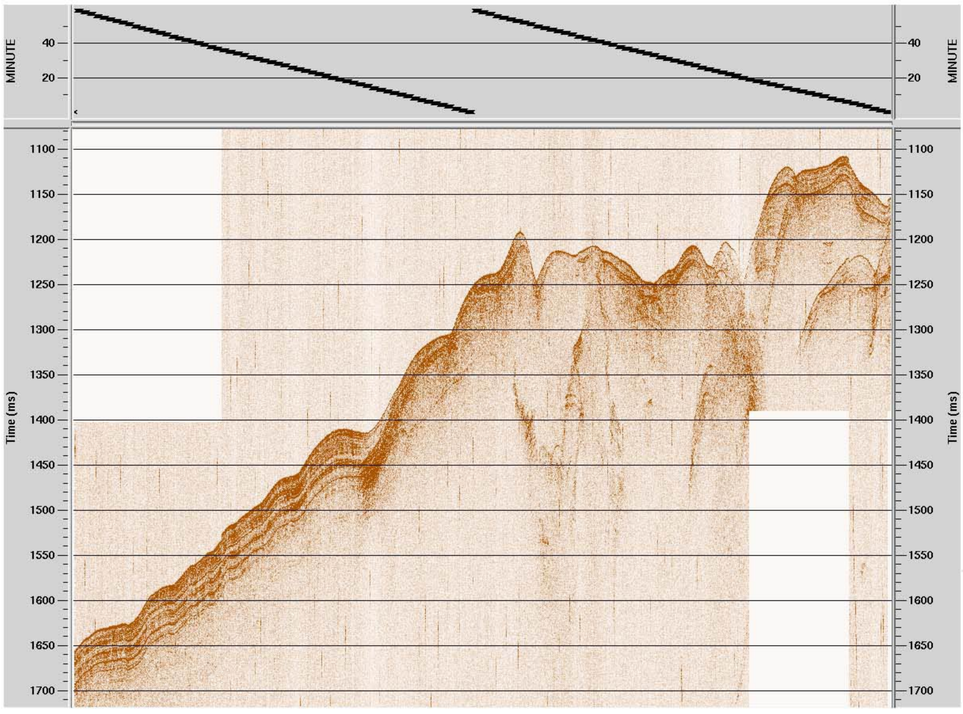
Transit
Line 5
JD: 307
20:00-22:00 GMT

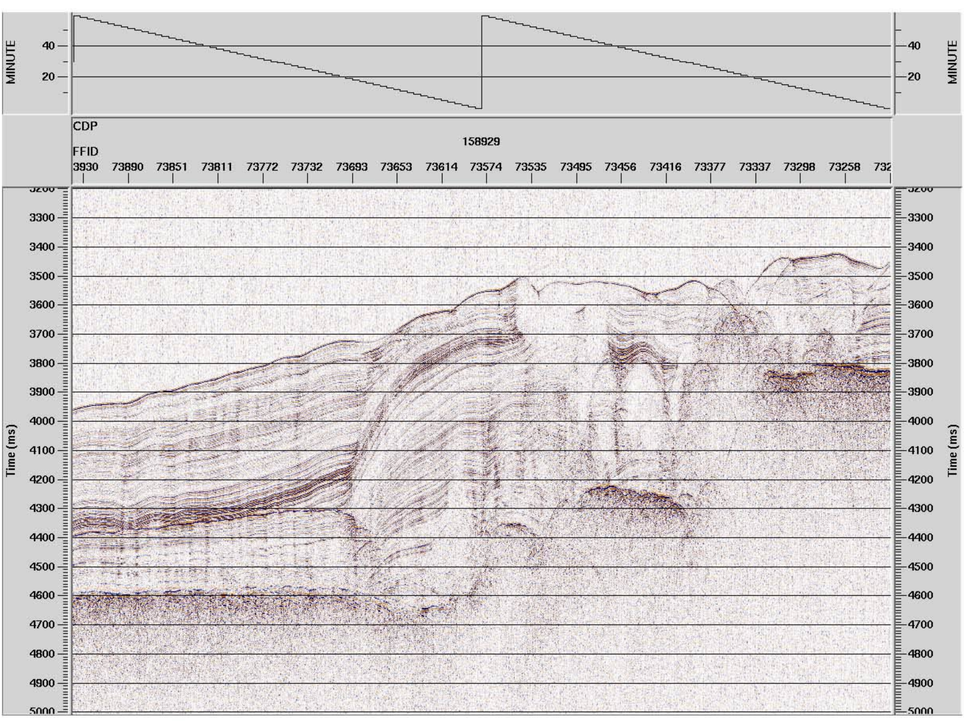
22:00 GMT

NW ← Direction of travel → SE

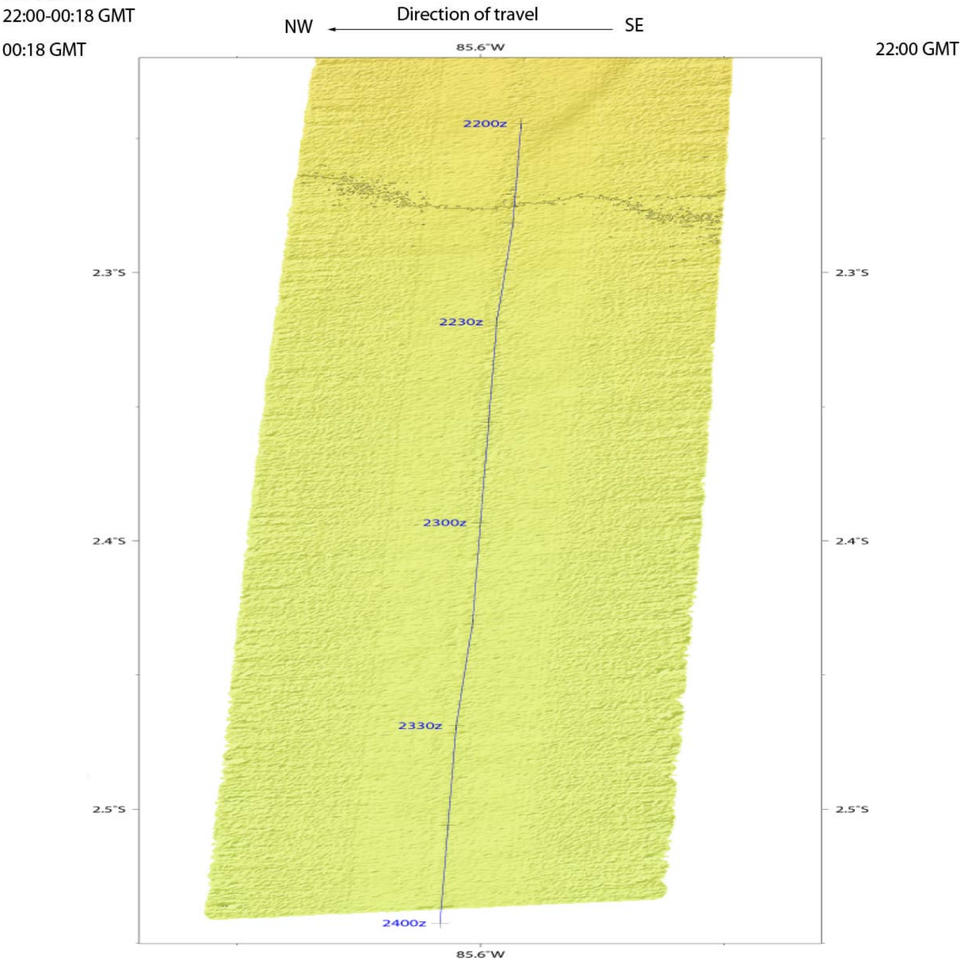
20:00 GMT

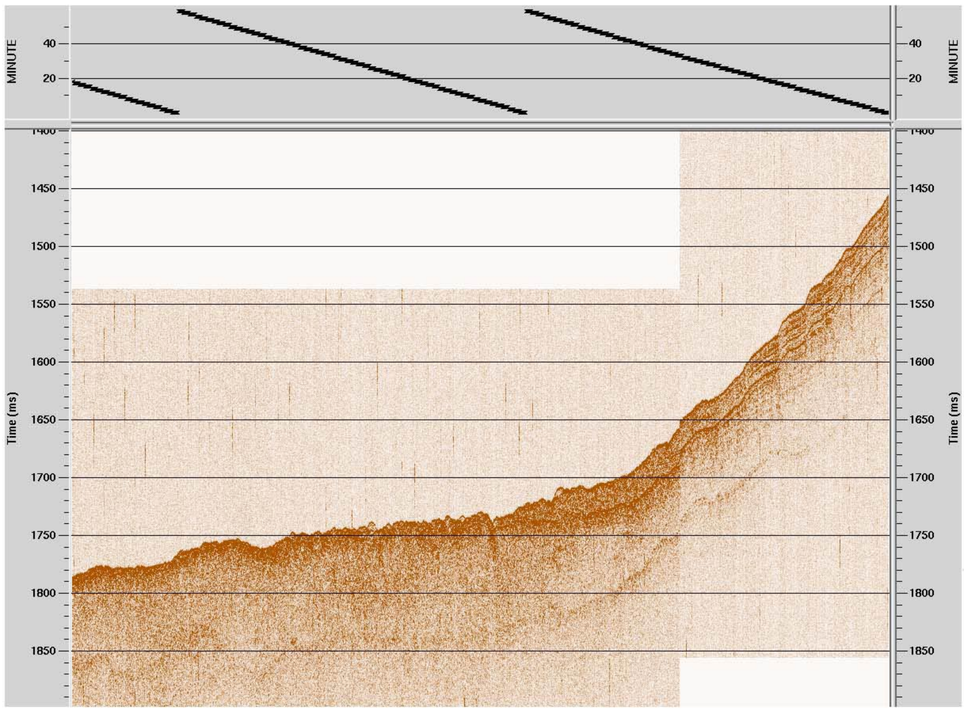


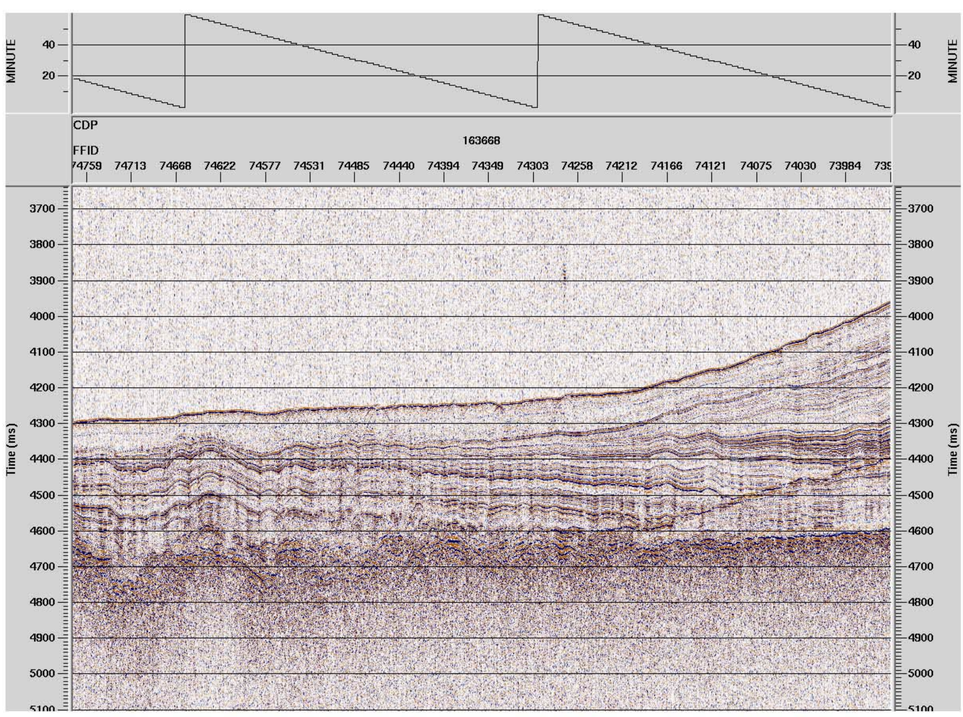




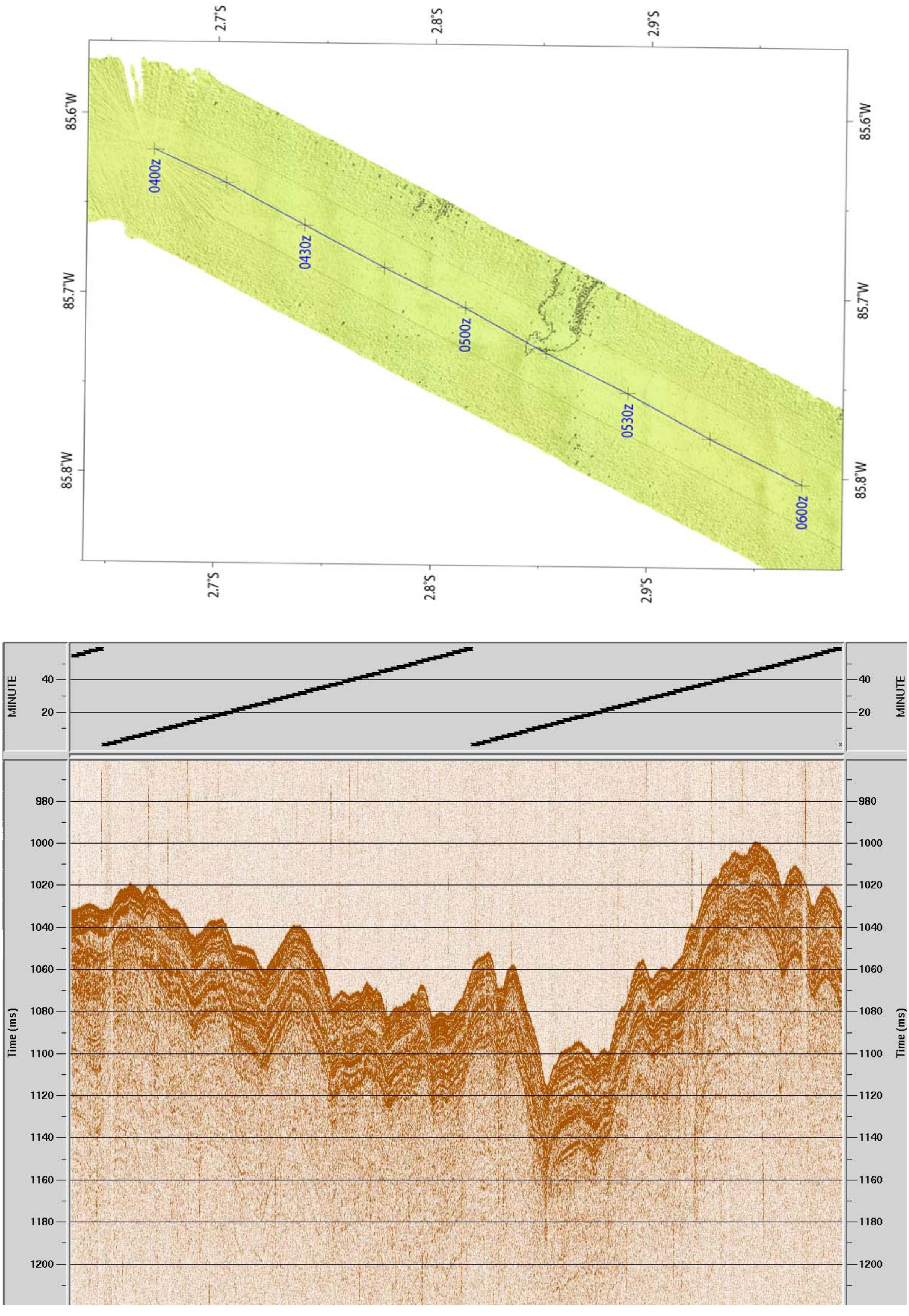
Transit
Line 5
JD: 307-308
22:00-00:18 GMT



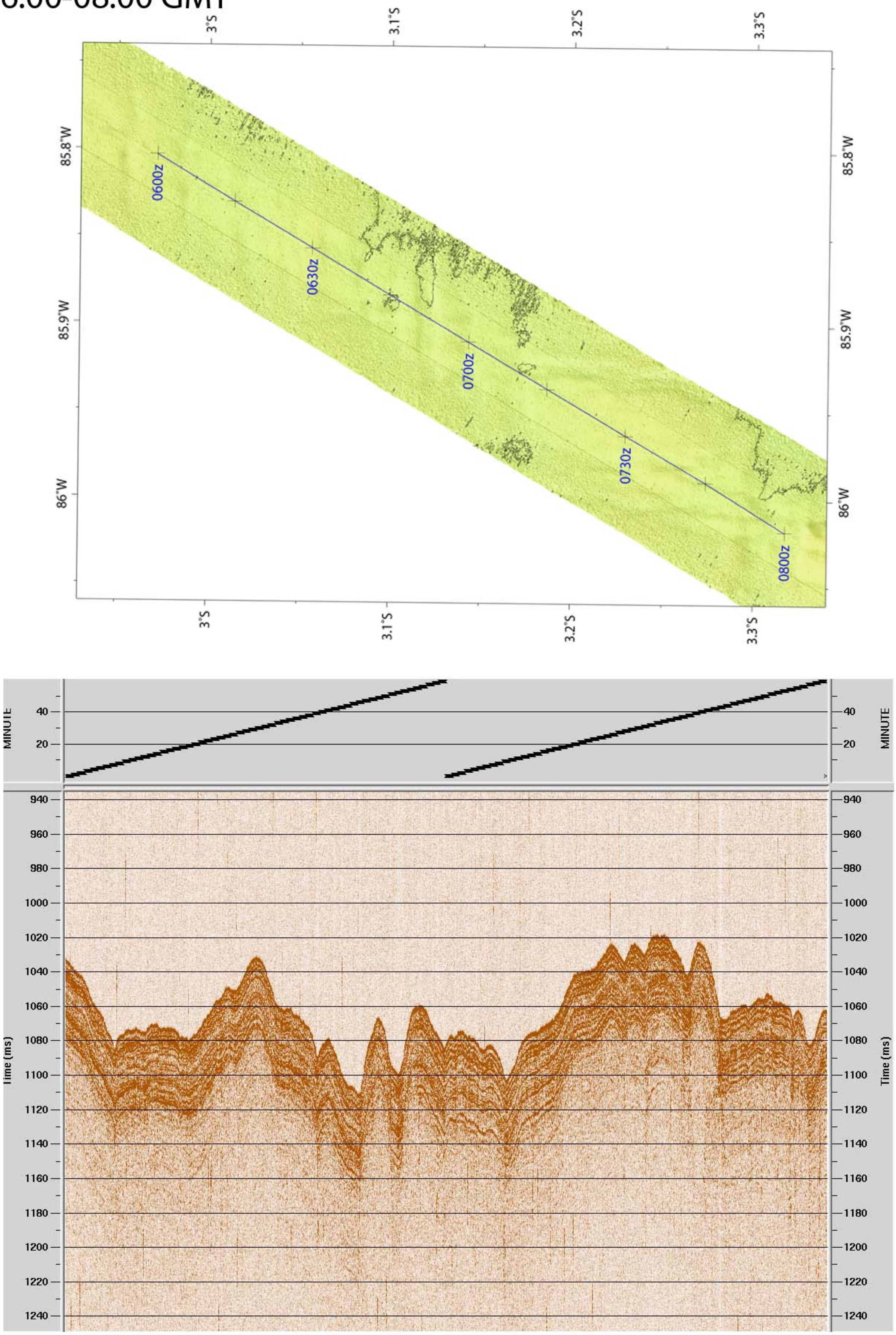




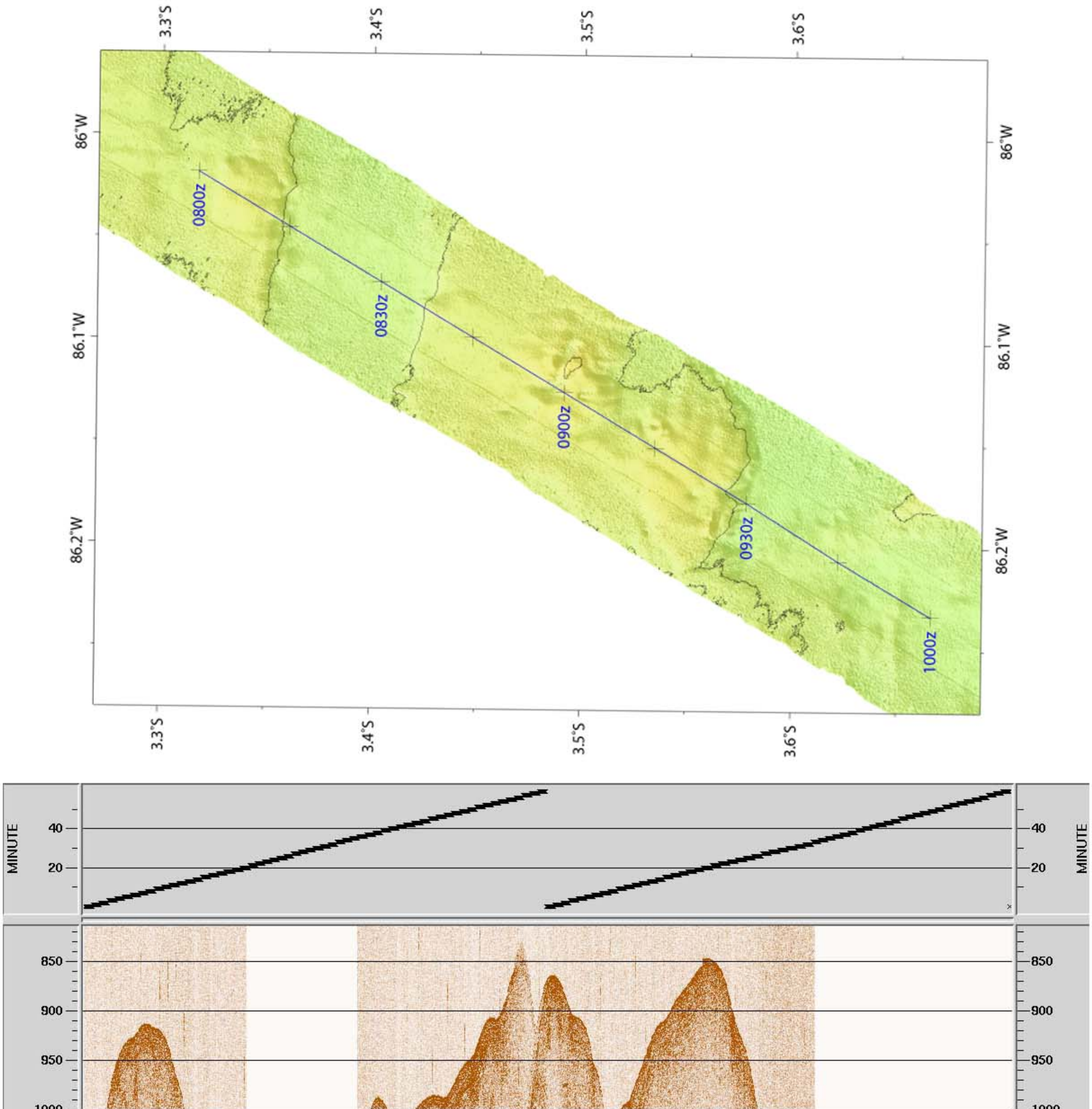
Between Transit Line 5 and Transit Line 6
JD 308
0355-0600 GMT



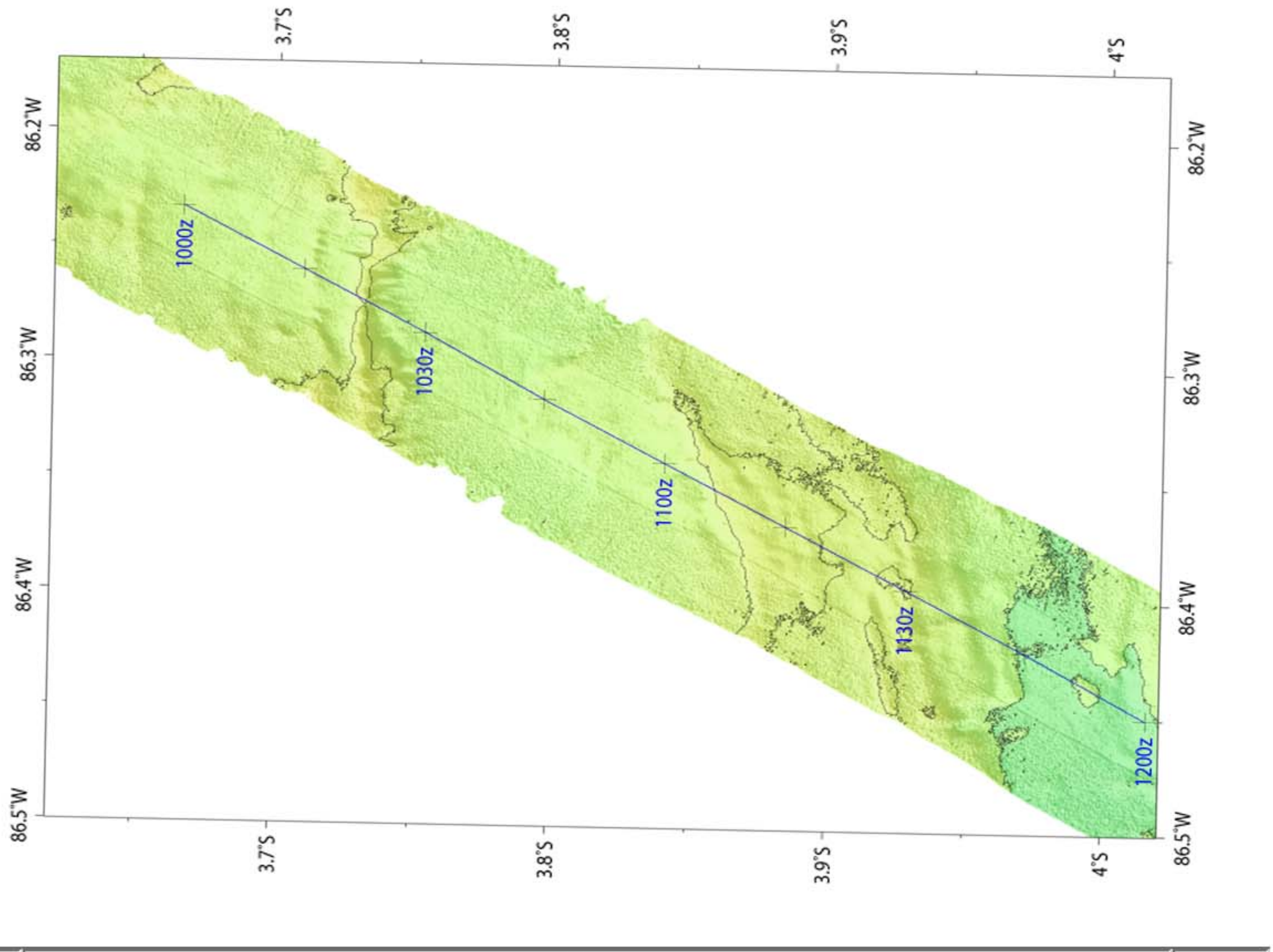
Between Transit Line 5 and Transit Line 6
JD 308
06:00-08:00 GMT



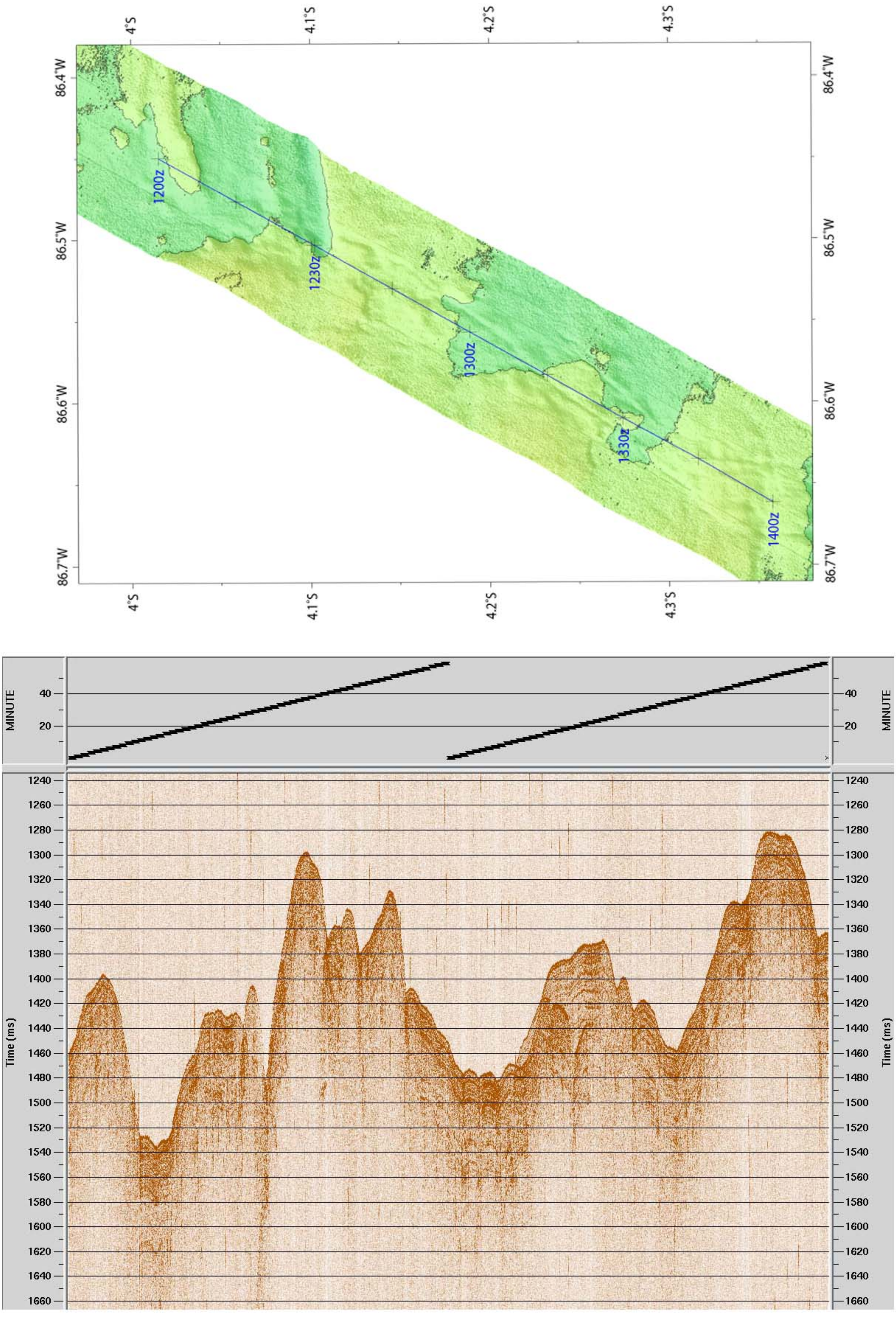
Between Transit Line 5 and Transit Line 6
JD 308
08:00-10:00 GMT



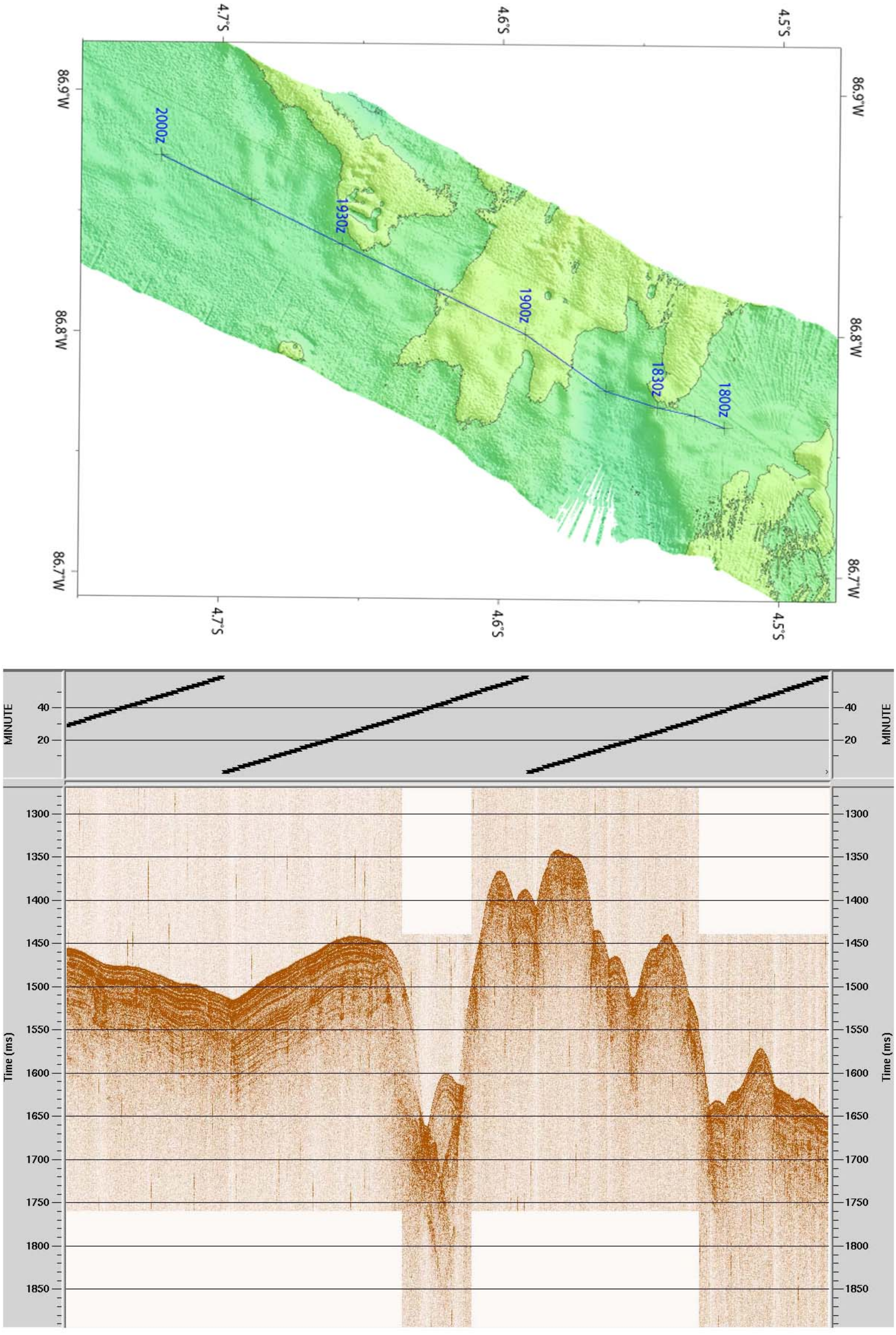
Between Transit Line 5 and Transit Line 6
JD 308
10:00-12:00 GMT



Between Transit Line 5 and Transit Line 6
JD 308
12:00-14:00 GMT



Between Transit Line 5 and Transit Line 6
JD 308
17:29-20:00 GMT

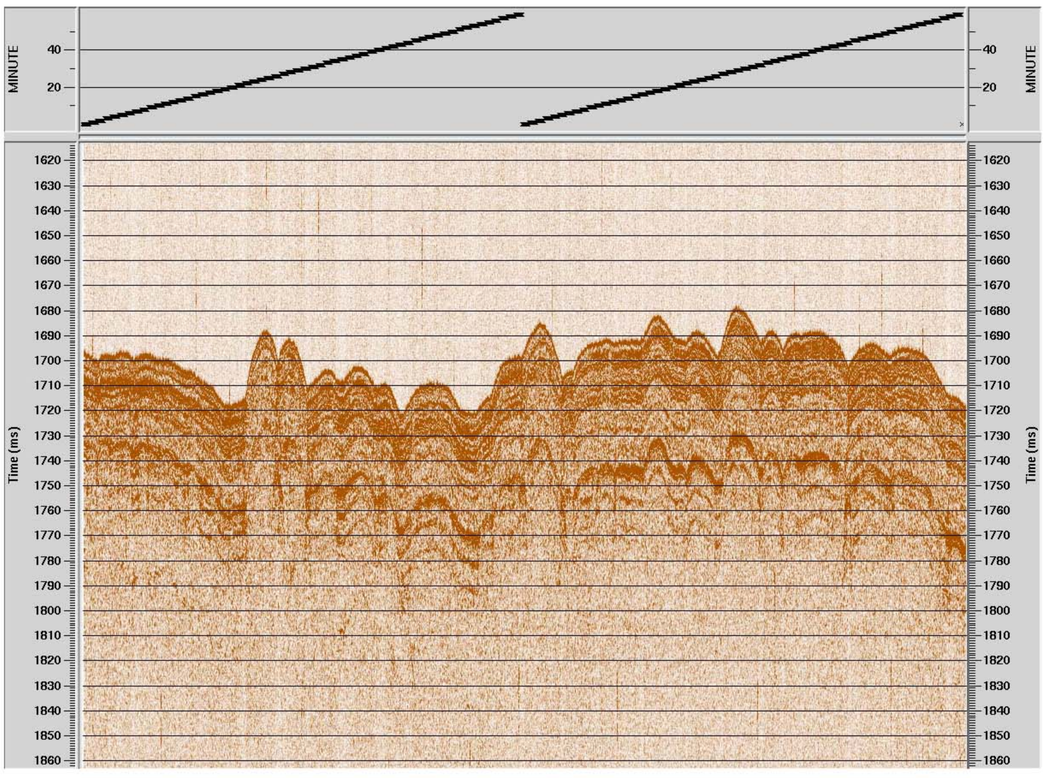


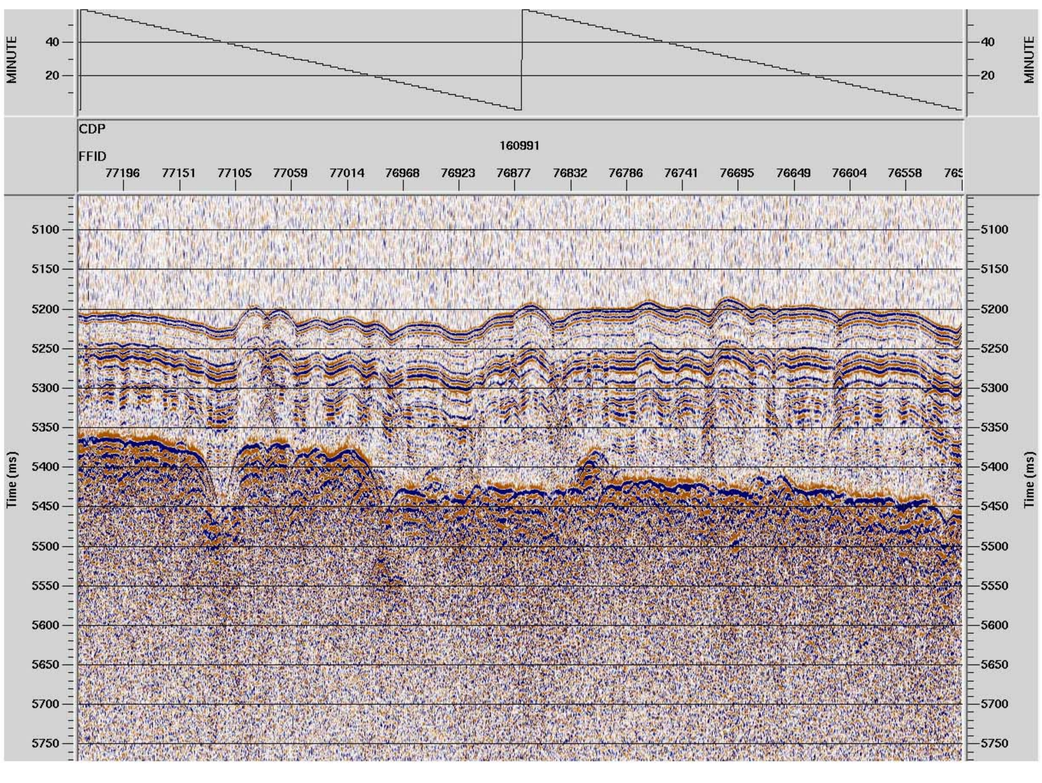
Transit
Line 6
JD: 309
00:00-02:00 GMT

NW ← Direction of travel → SE

02:00 GMT

00:00 GMT



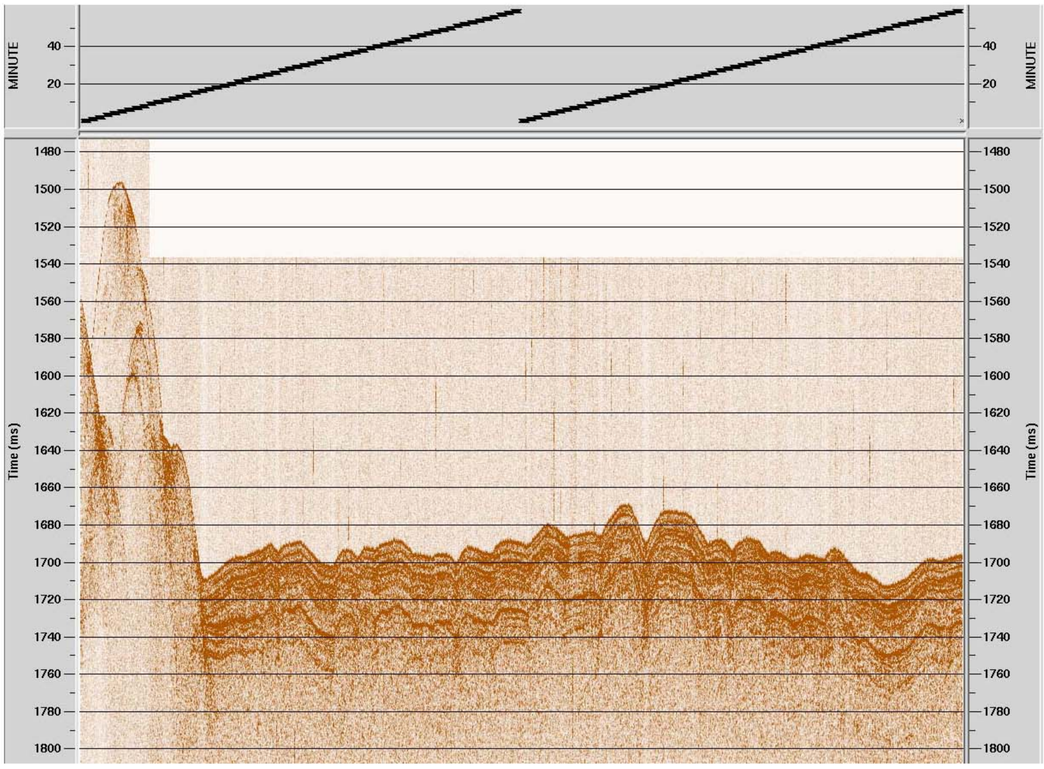


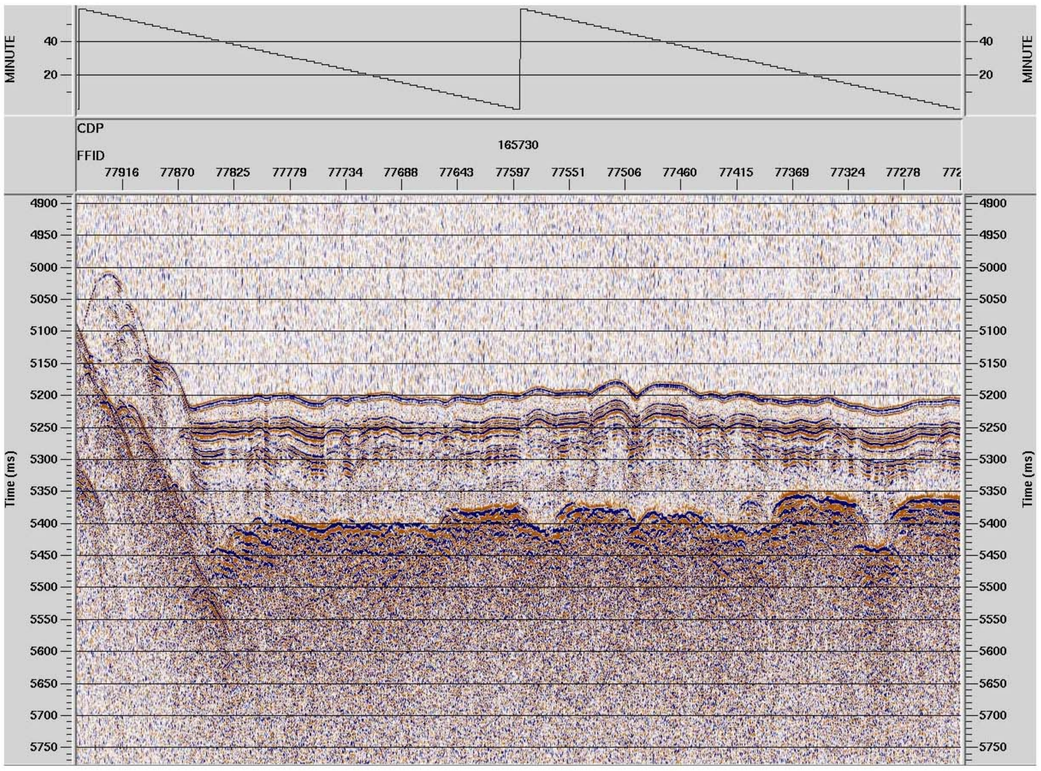
Transit
Line 6
JD: 309
02:00-04:00 GMT

NW ← Direction of travel → SE

04:00 GMT

02:00 GMT



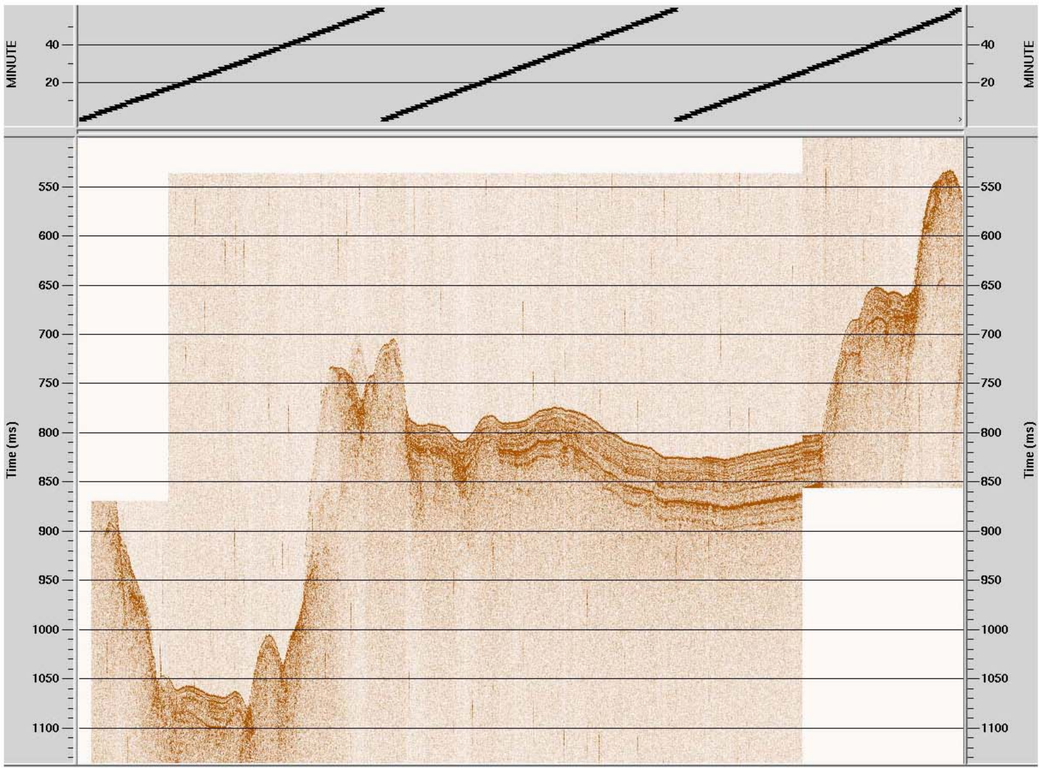


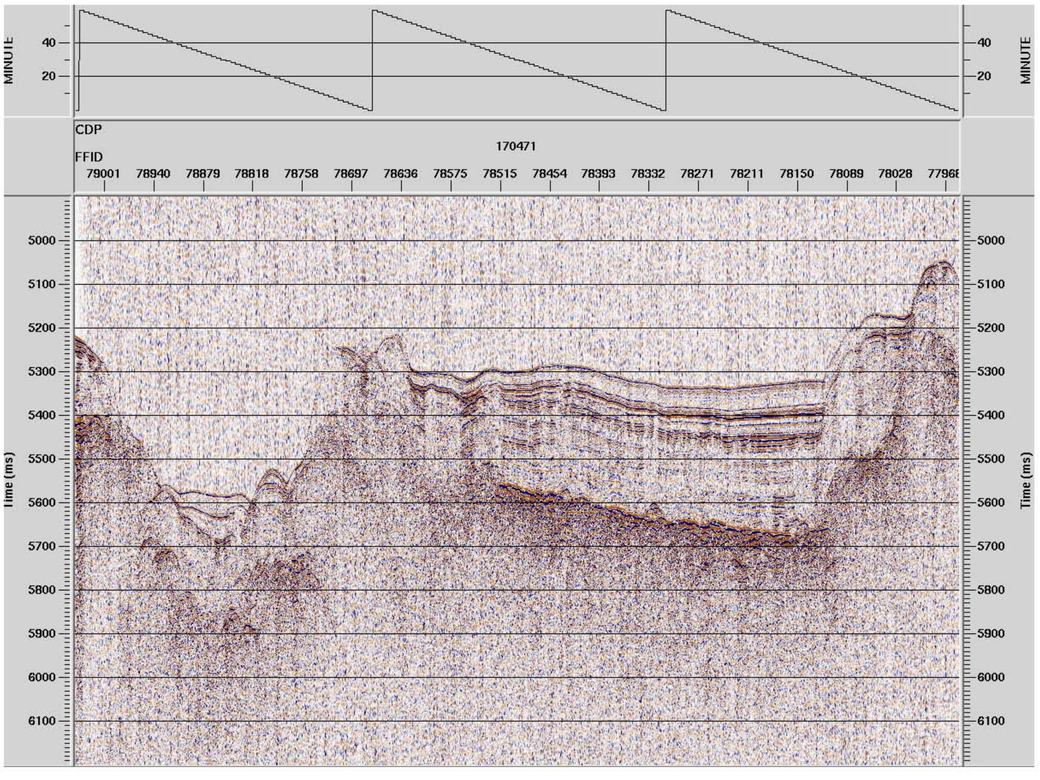
Transit
Line 6
JD: 309
04:00-04700 GMT

NW ← Direction of travel → SE

07:00 GMT

04:00 GMT



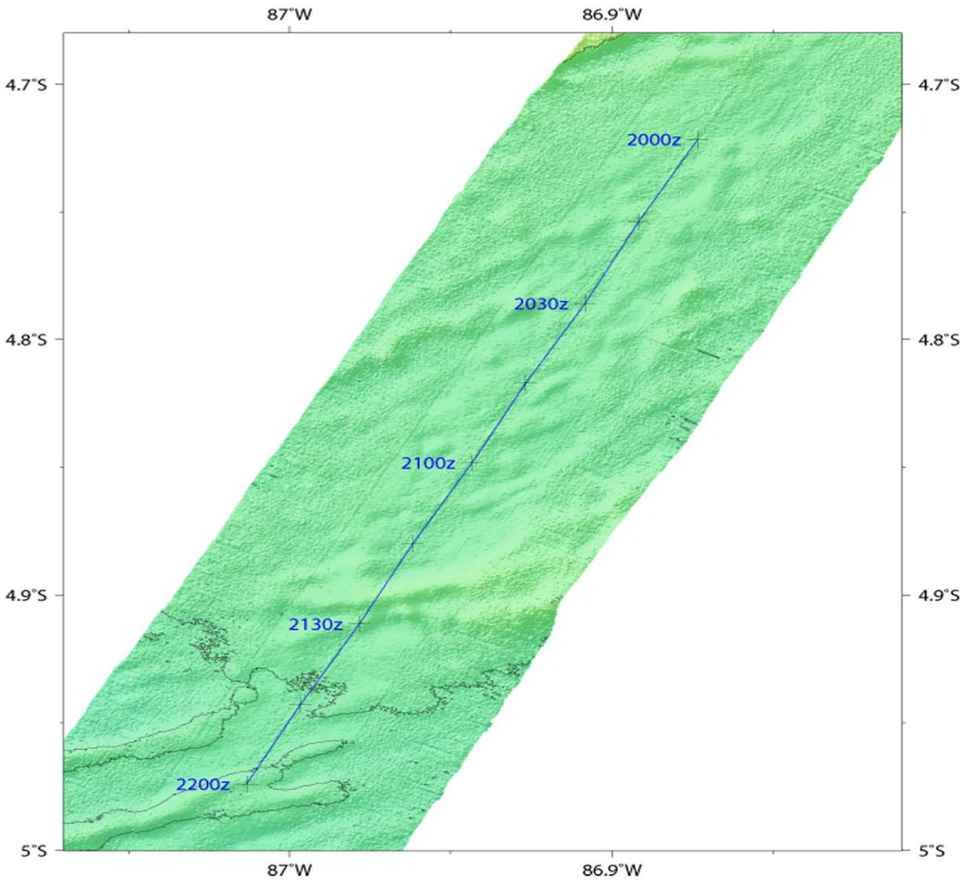


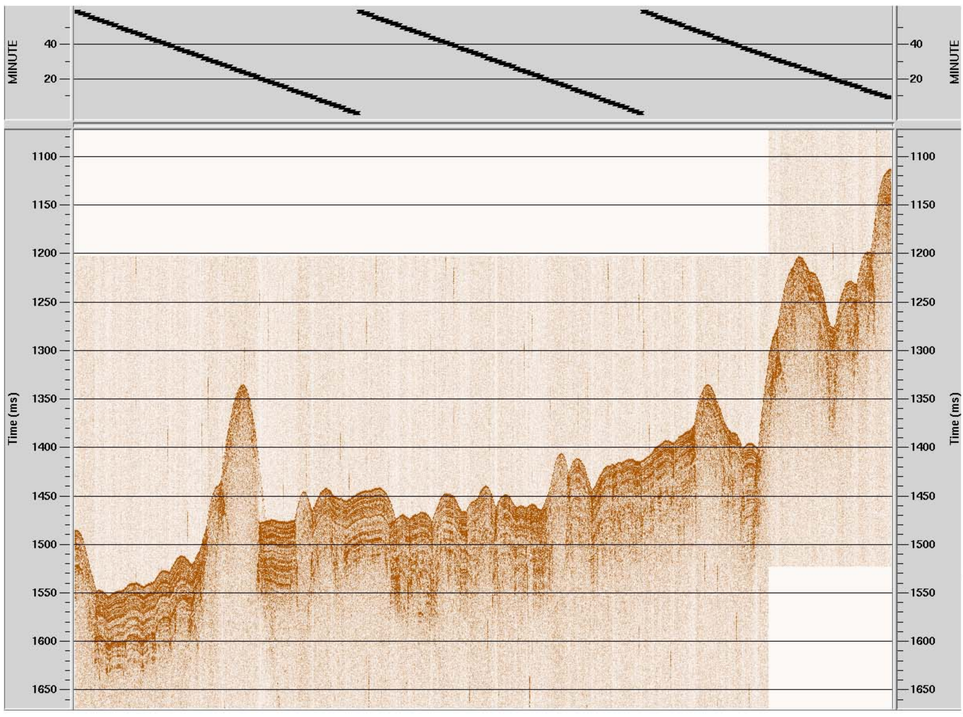
Transit
Line 6
JD: 308
19:09-22:00 GMT

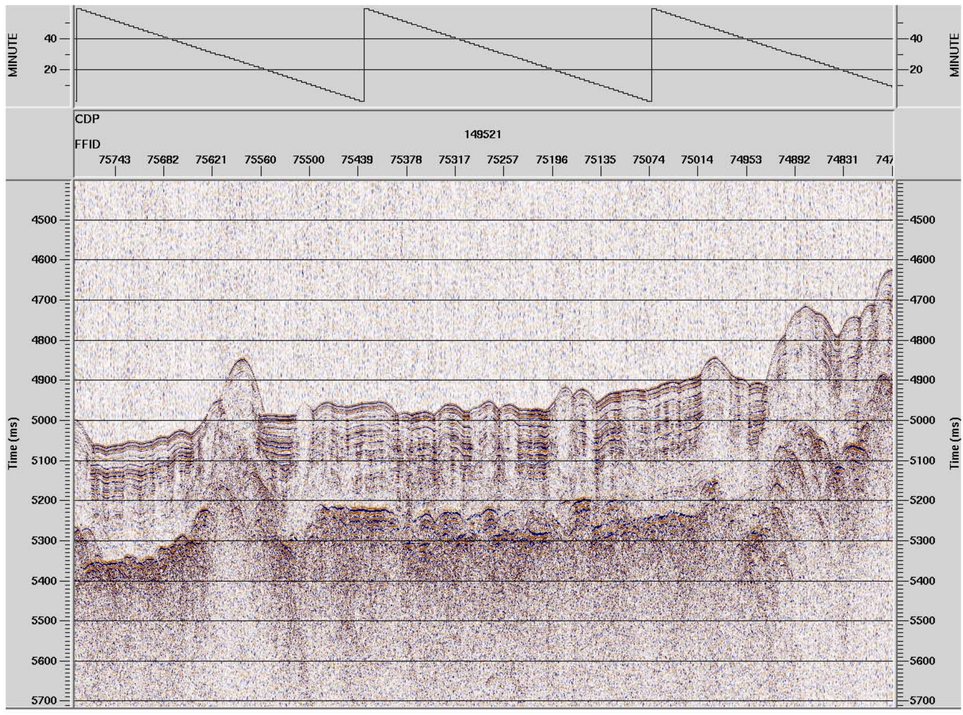
22:00 GMT

NW ← Direction of travel → SE

19:09 GMT





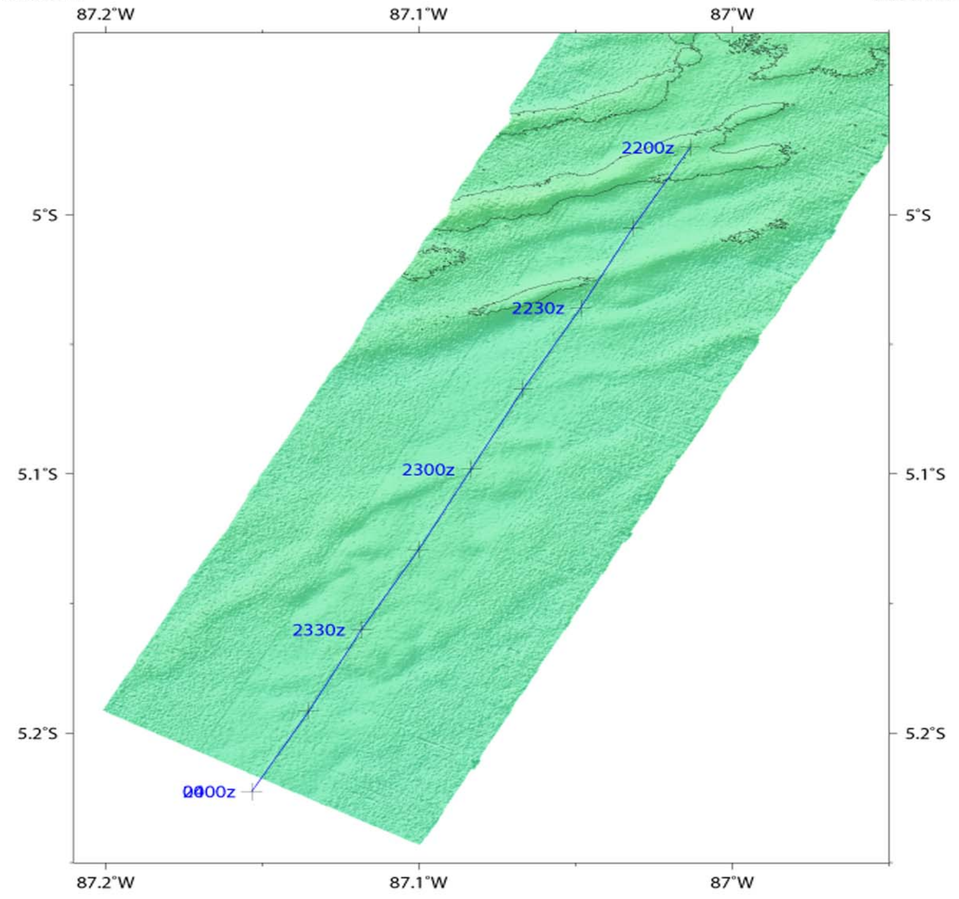


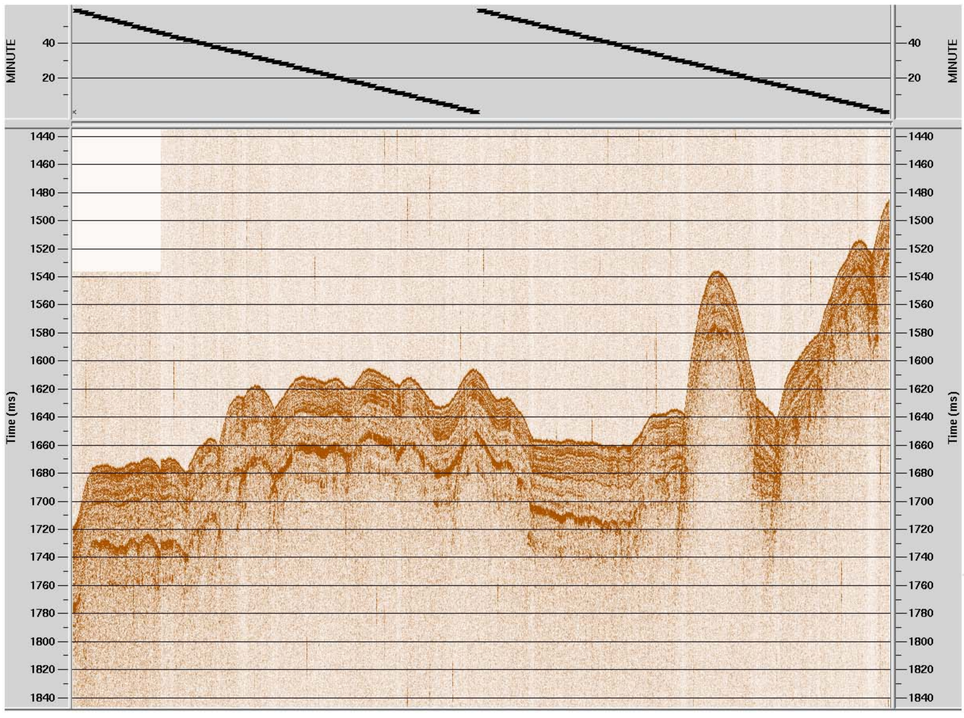
Transit
Line 6
JD: 308
22:00-00:00 GMT

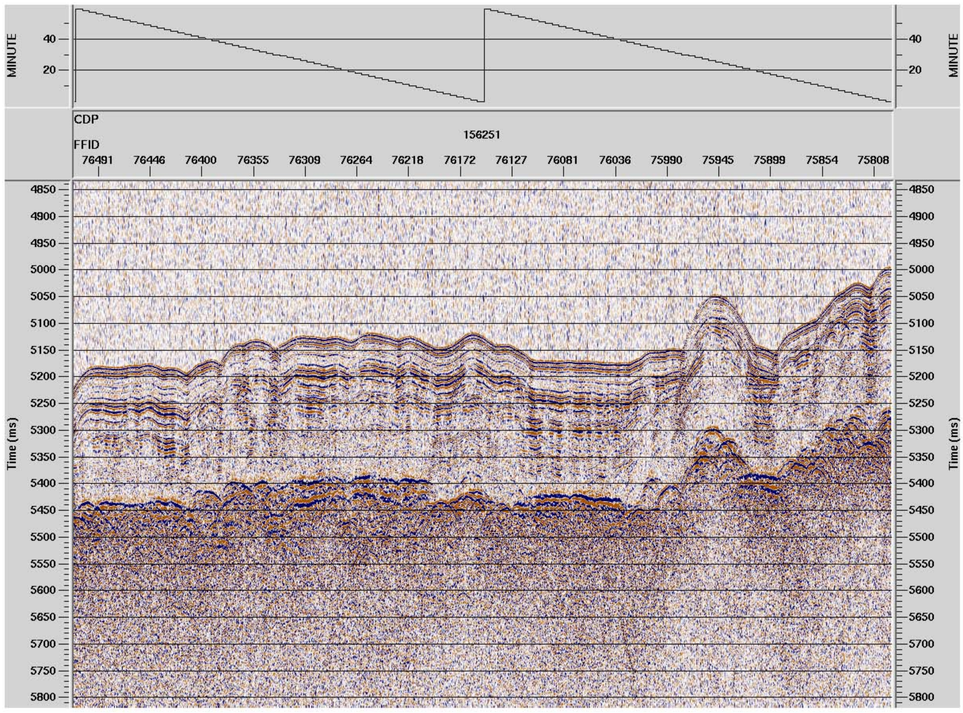
NW ← Direction of travel → SE

00:00 GMT

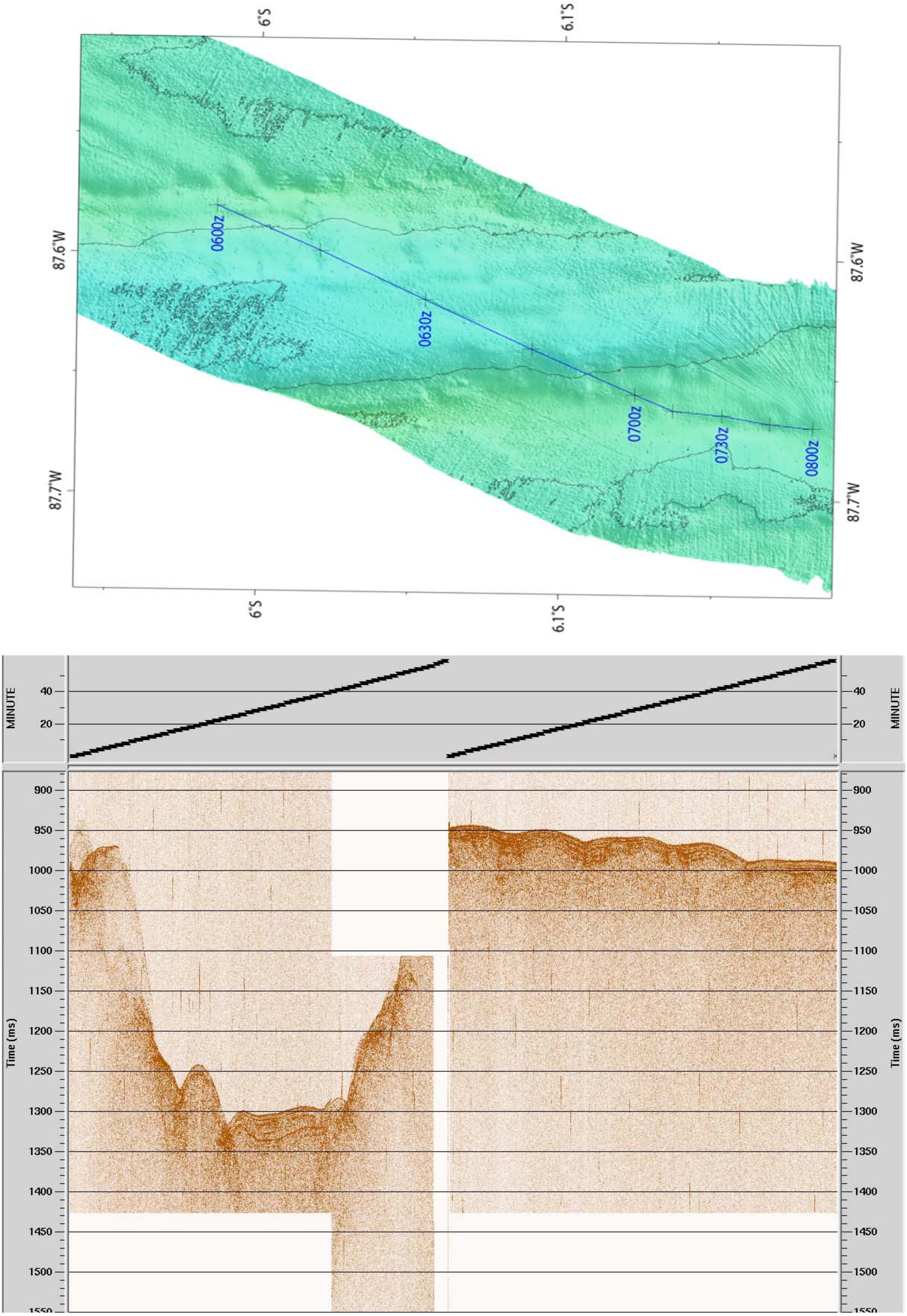
22:00 GMT



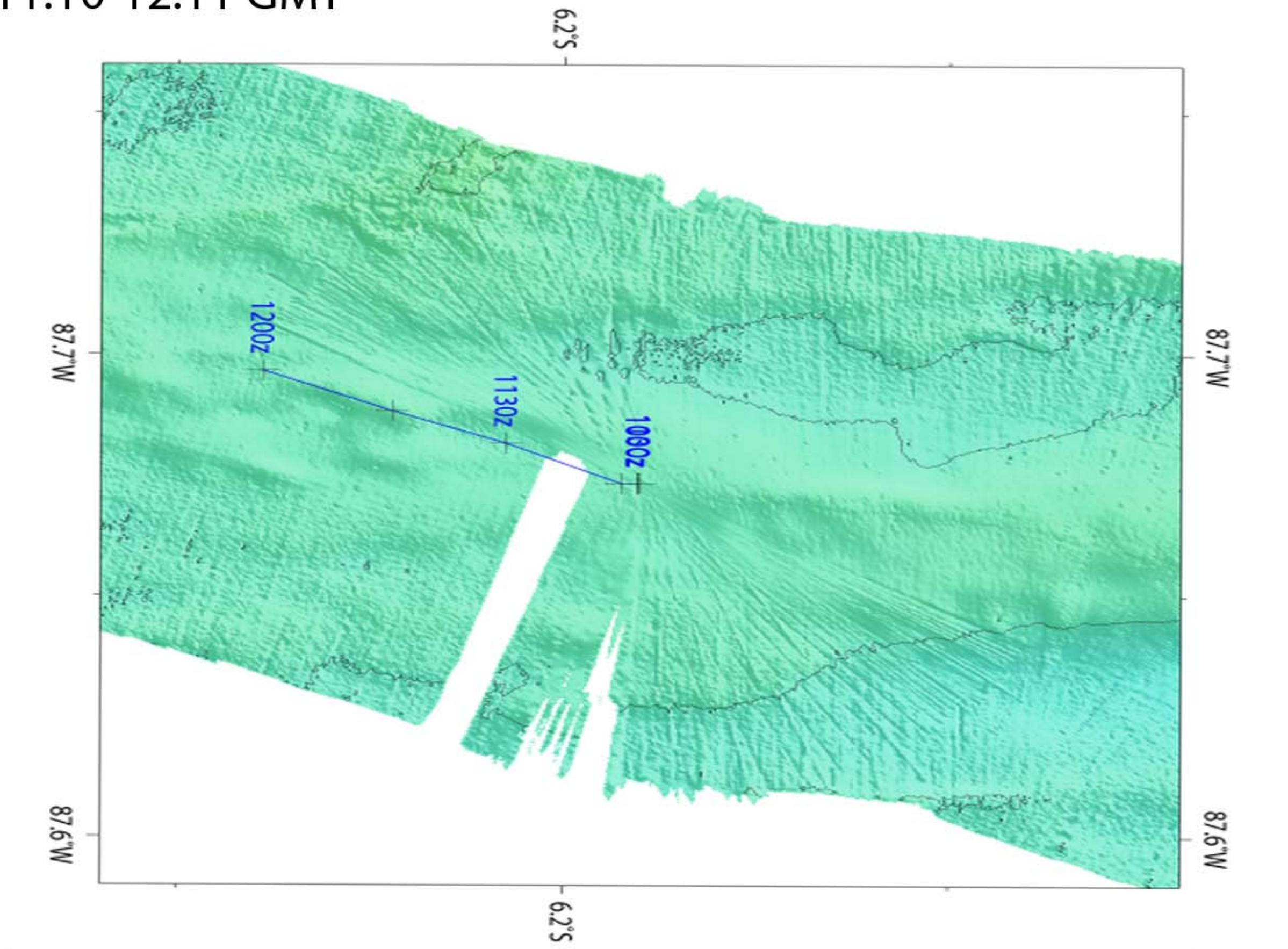




Between Transit Line 6 and Transit Line 7
JD 309
06:00-08:00 GMT



Between Transit Line 6 and Transit Line 7
JD 309
11:10-12:11 GMT

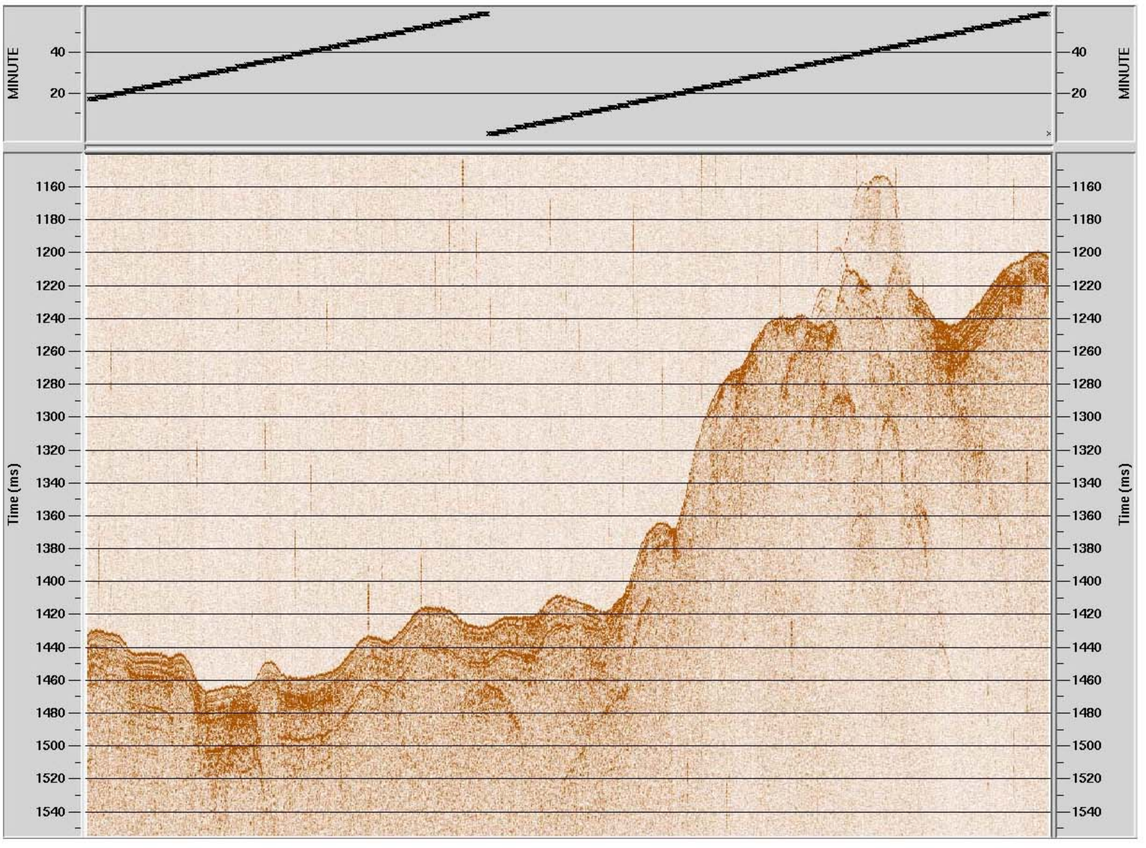


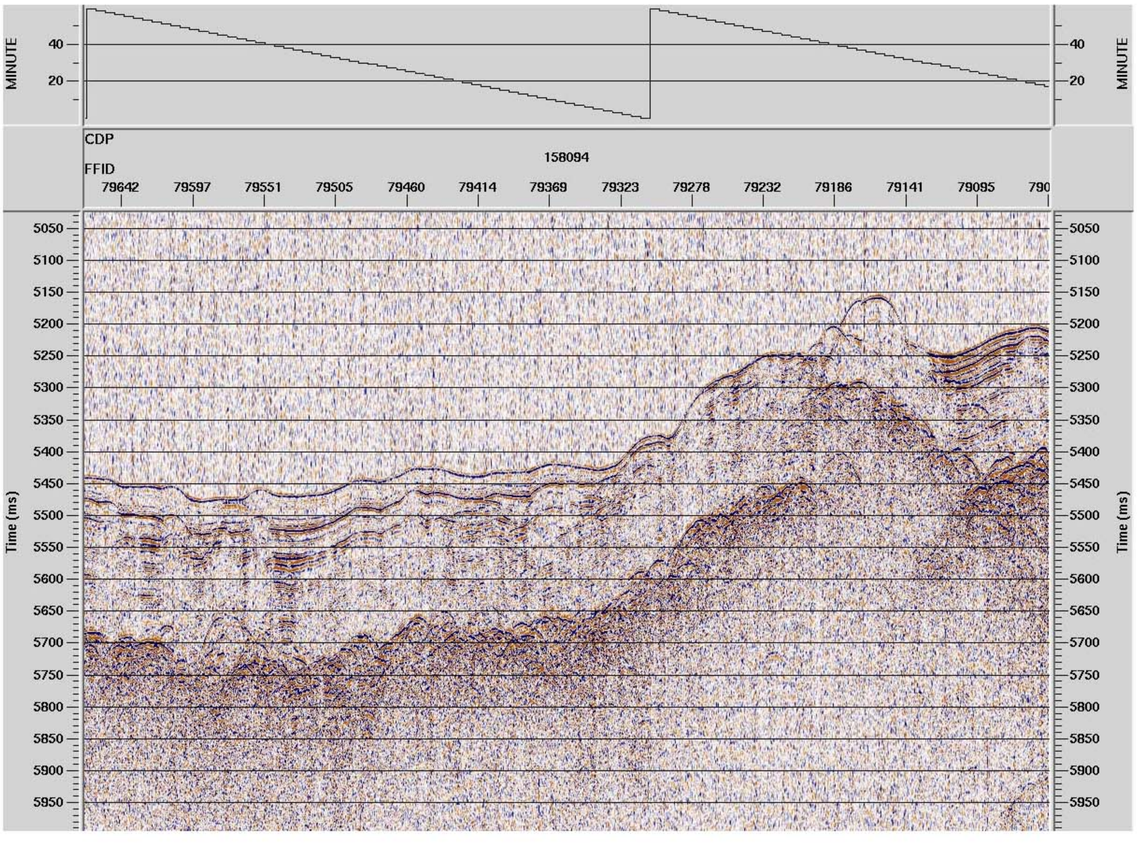
Transit
Line 7
JD: 309
12:17-14:00 GMT

Direction of travel
NW ← SE

14:00 GMT

12:17 GMT



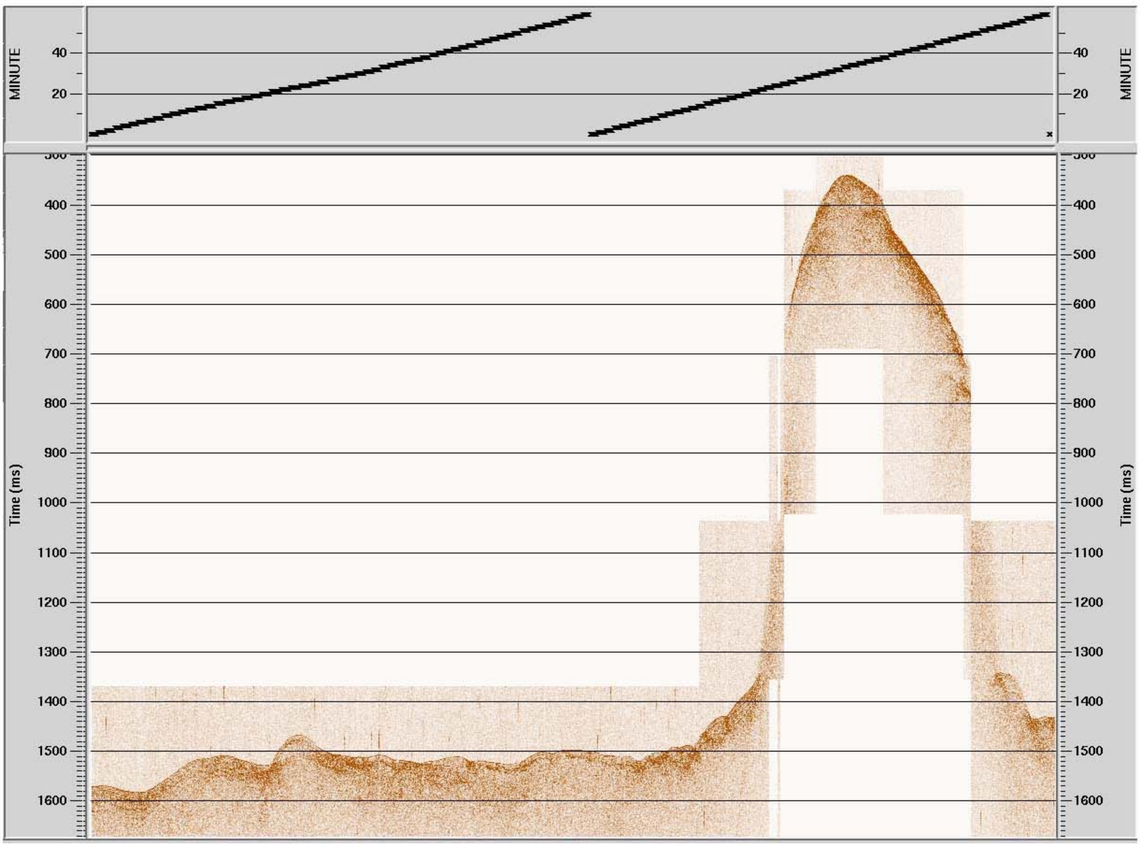


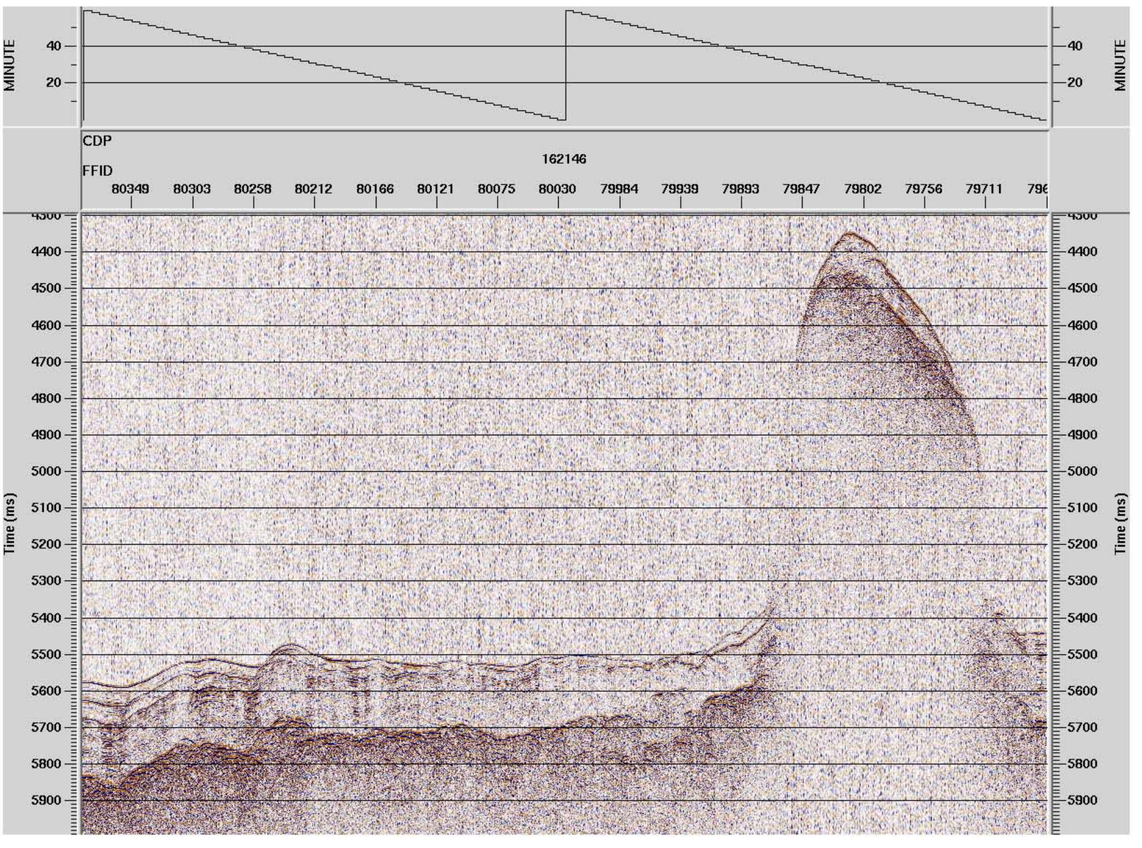
Transit
Line 7
JD: 309
14:00-16:00 GMT

Direction of travel
NW ← SE

16:00 GMT

14:00 GMT



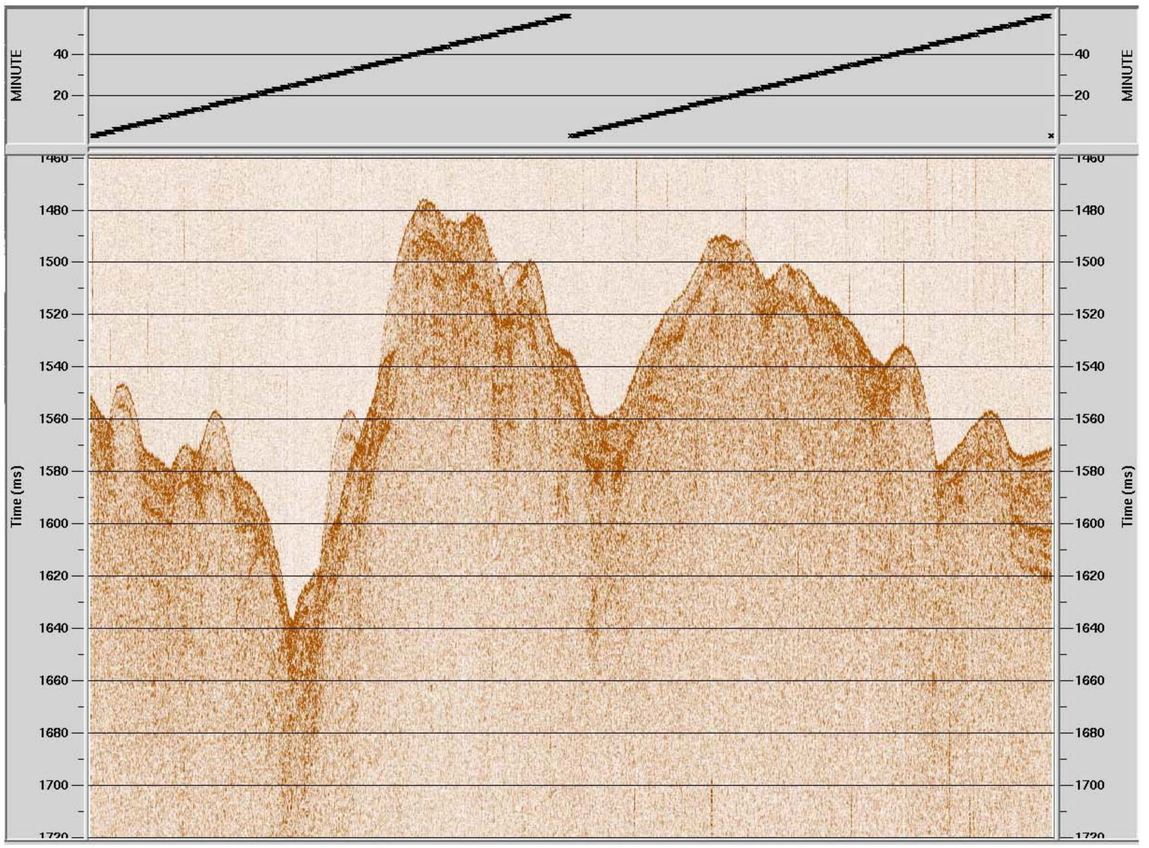


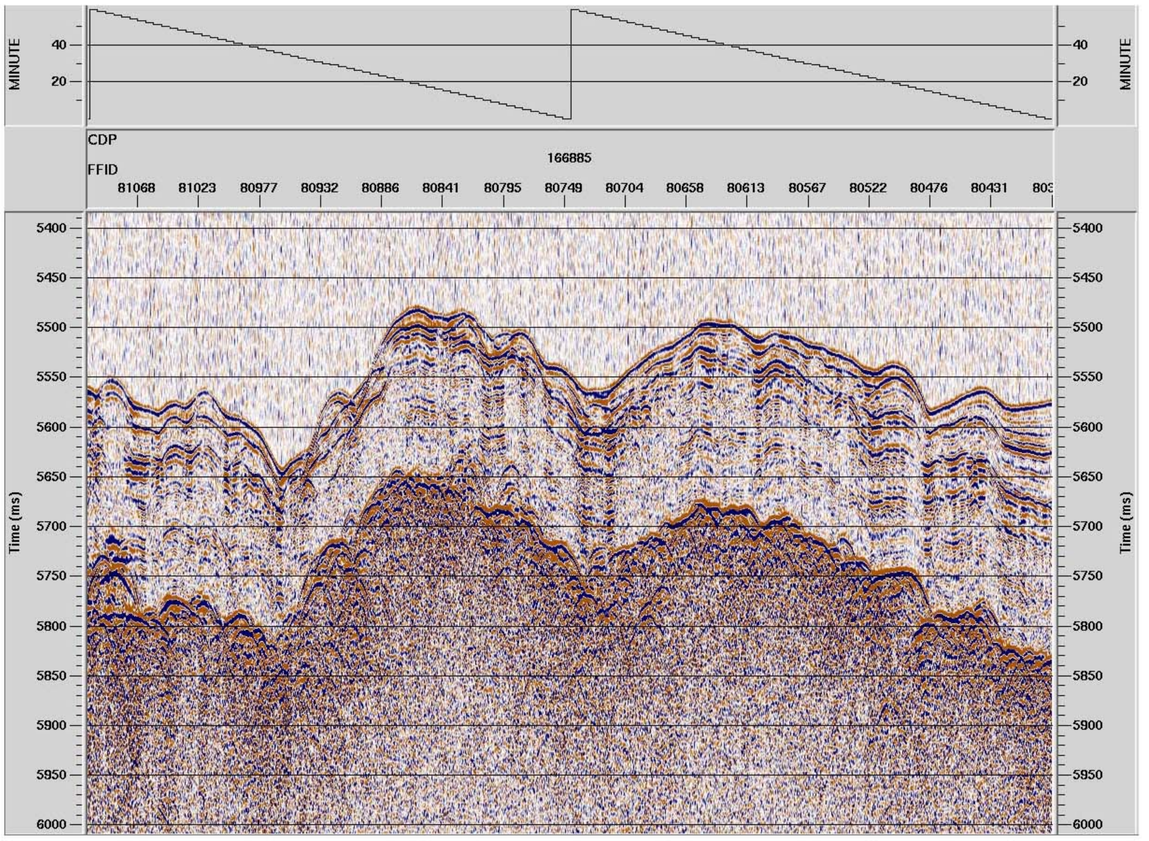
Transit
Line 7
JD: 309
16:00-18:00 GMT

Direction of travel
NW ← SE

18:00 GMT

16:00 GMT



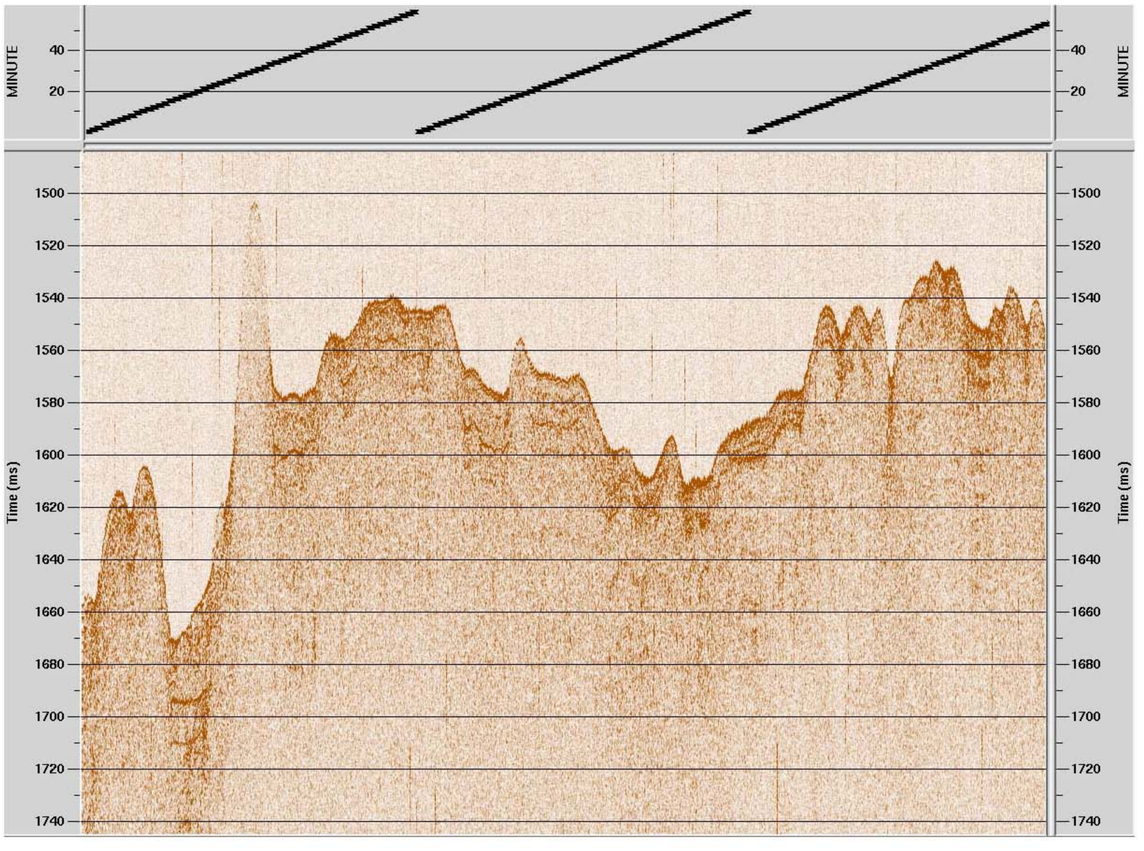


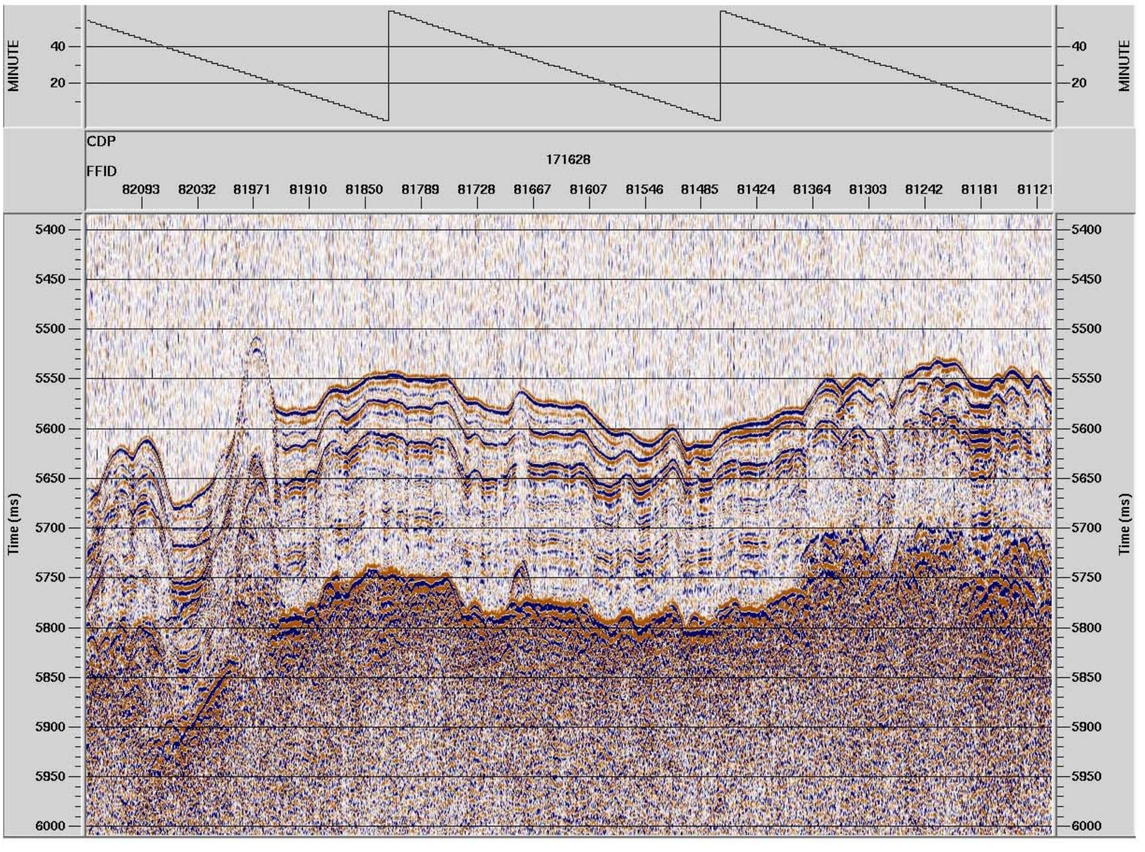
Transit
Line 7
JD: 309
18:00-20:54 GMT

Direction of travel
NW ← SE

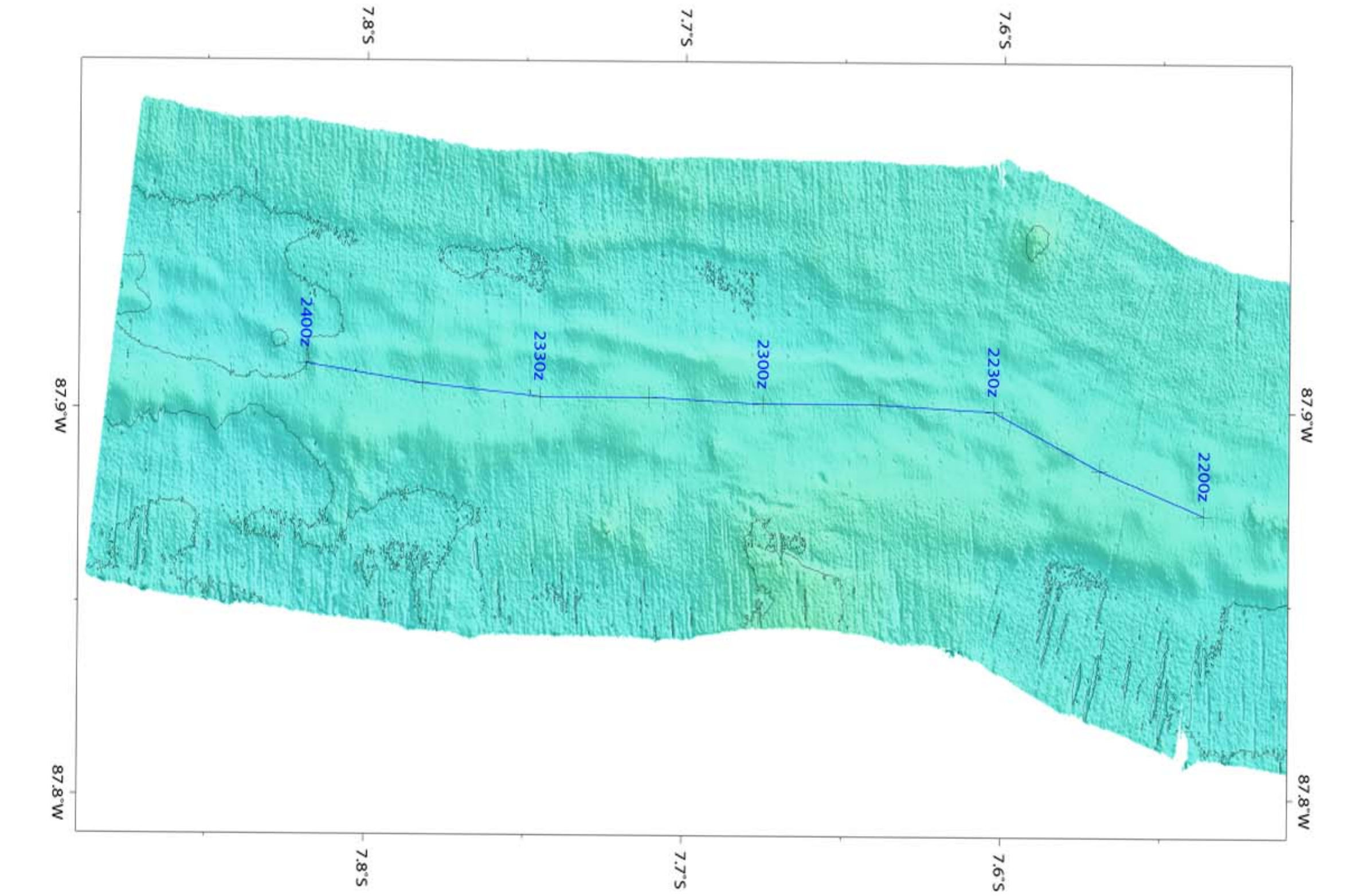
20:54 GMT

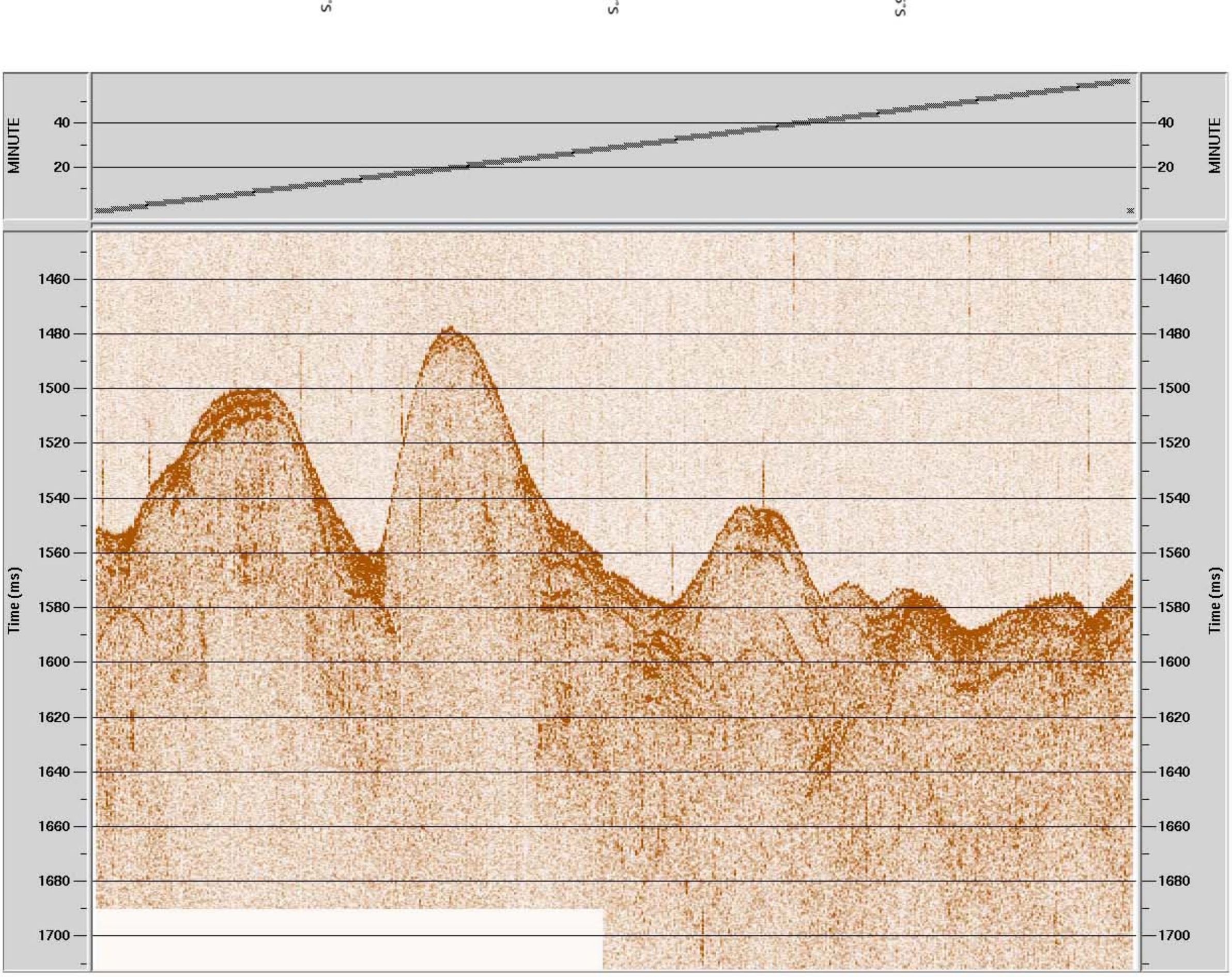
18:00 GMT



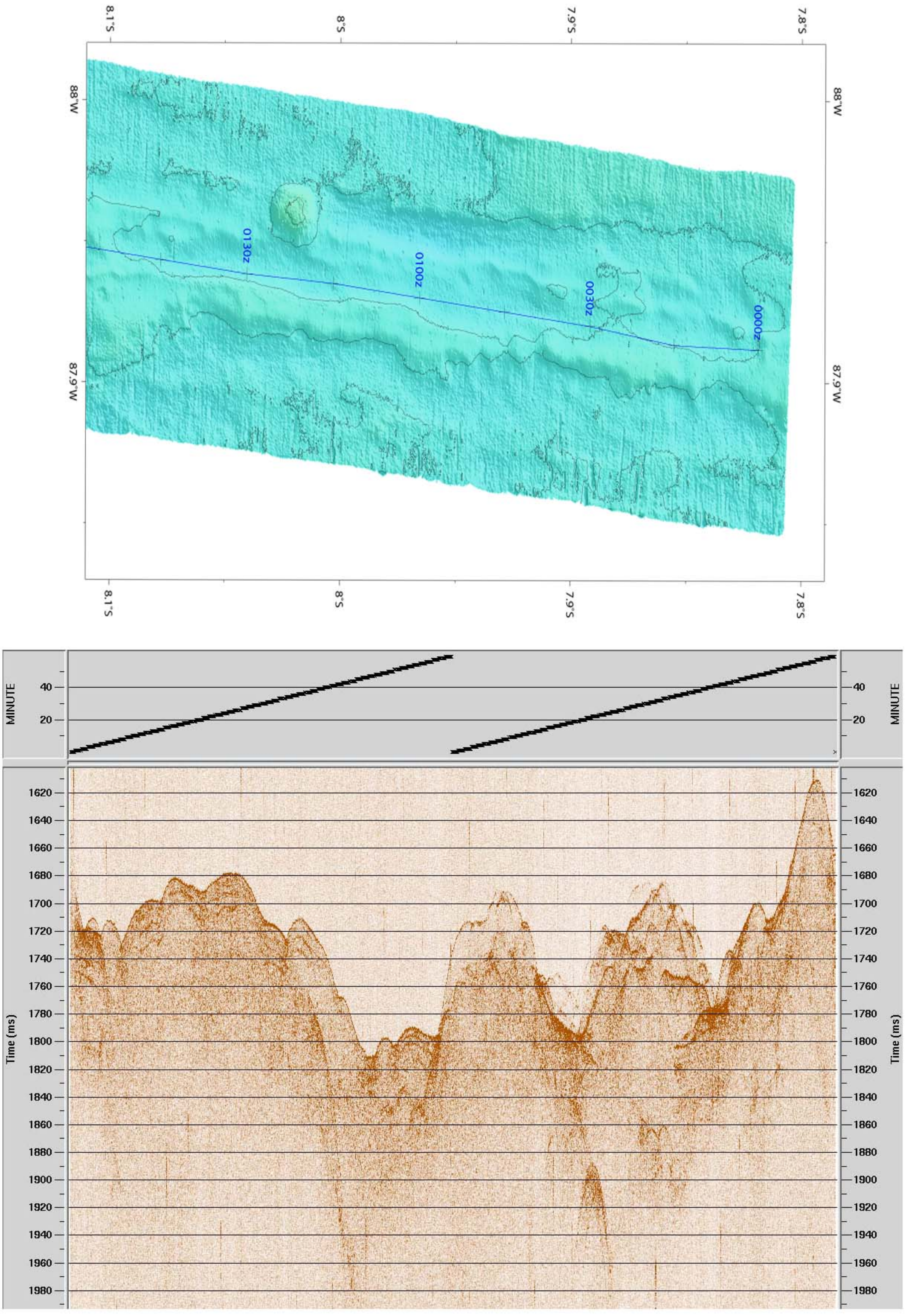


Between Transit Line 7 and Start of Peru Basin Survey
JD 309
22:00-00:00 GMT

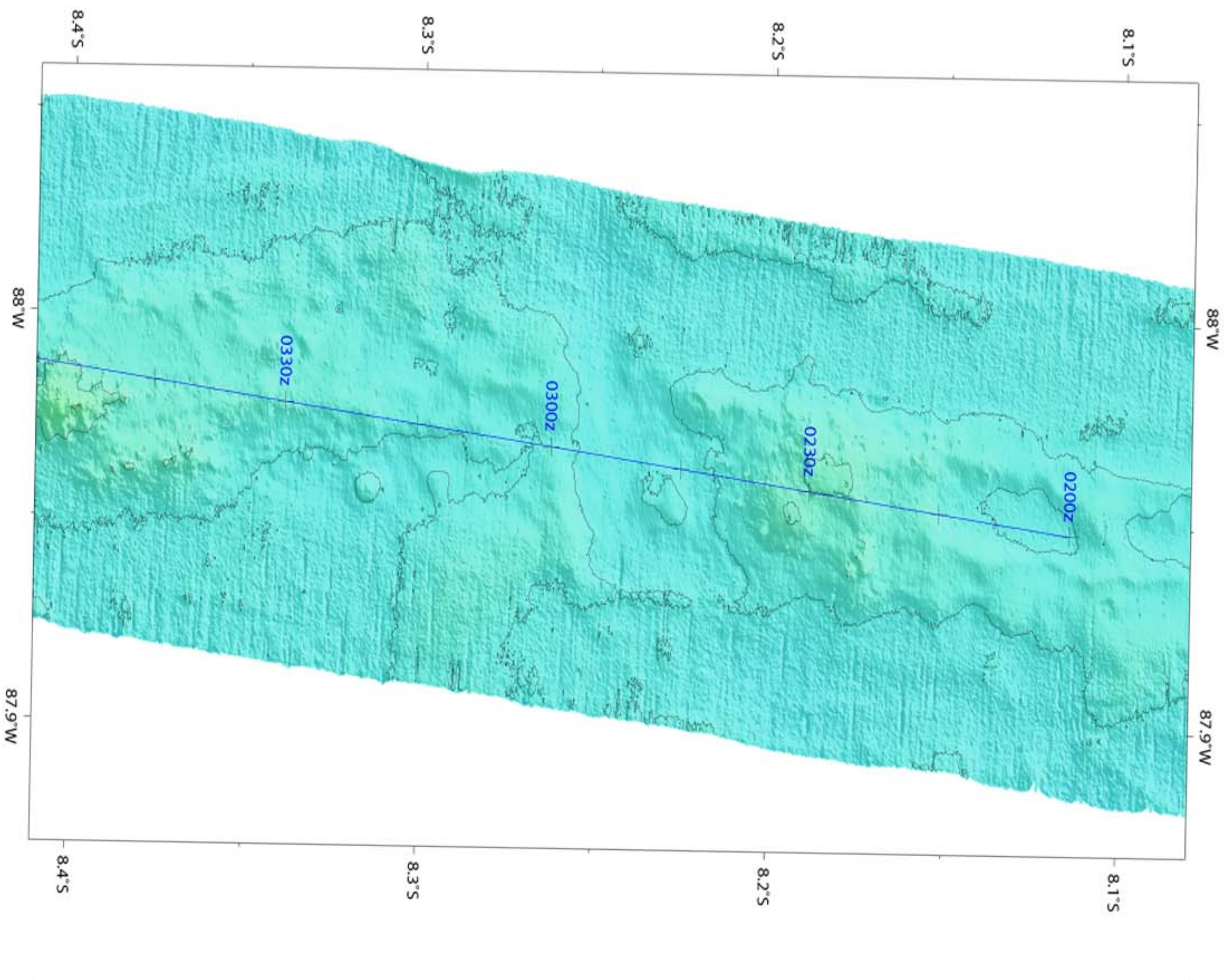


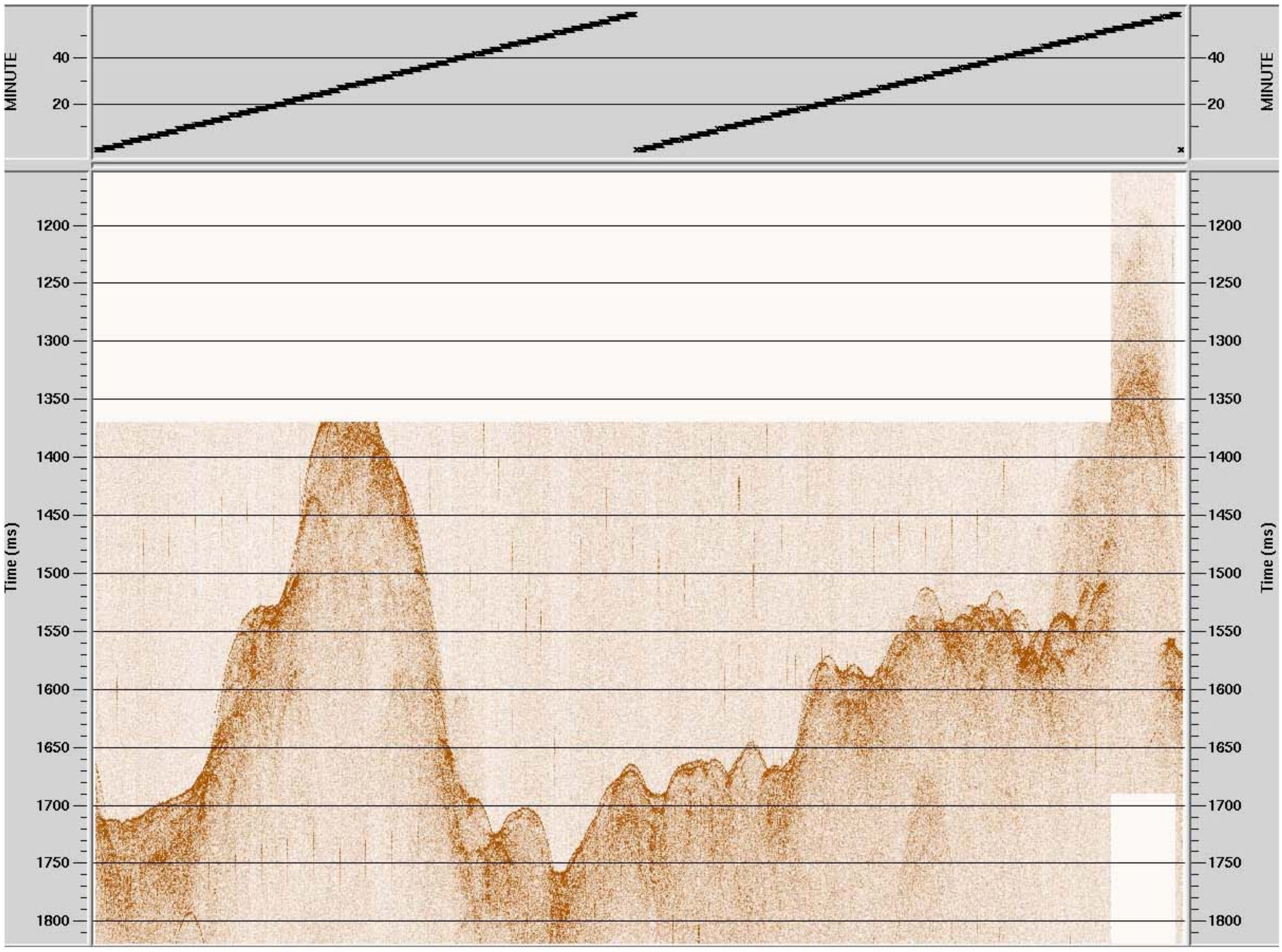


Between Transit Line 7 and Start of Peru Basin Survey
JD 310
00:00-02:00 GMT

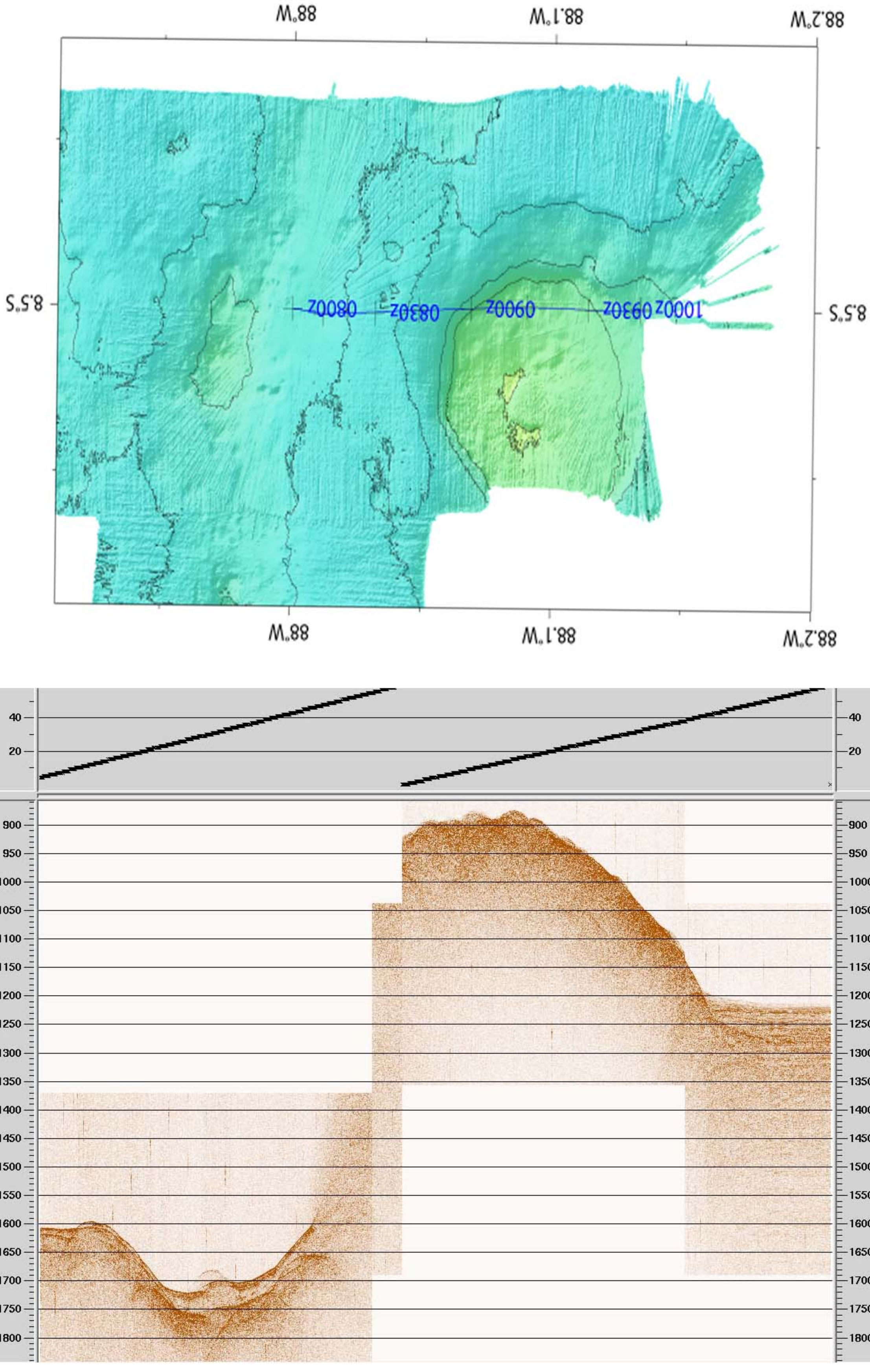


Between Transit Line 7 and Start of Peru Basin Survey
JD 310
02:00-04:00 GMT

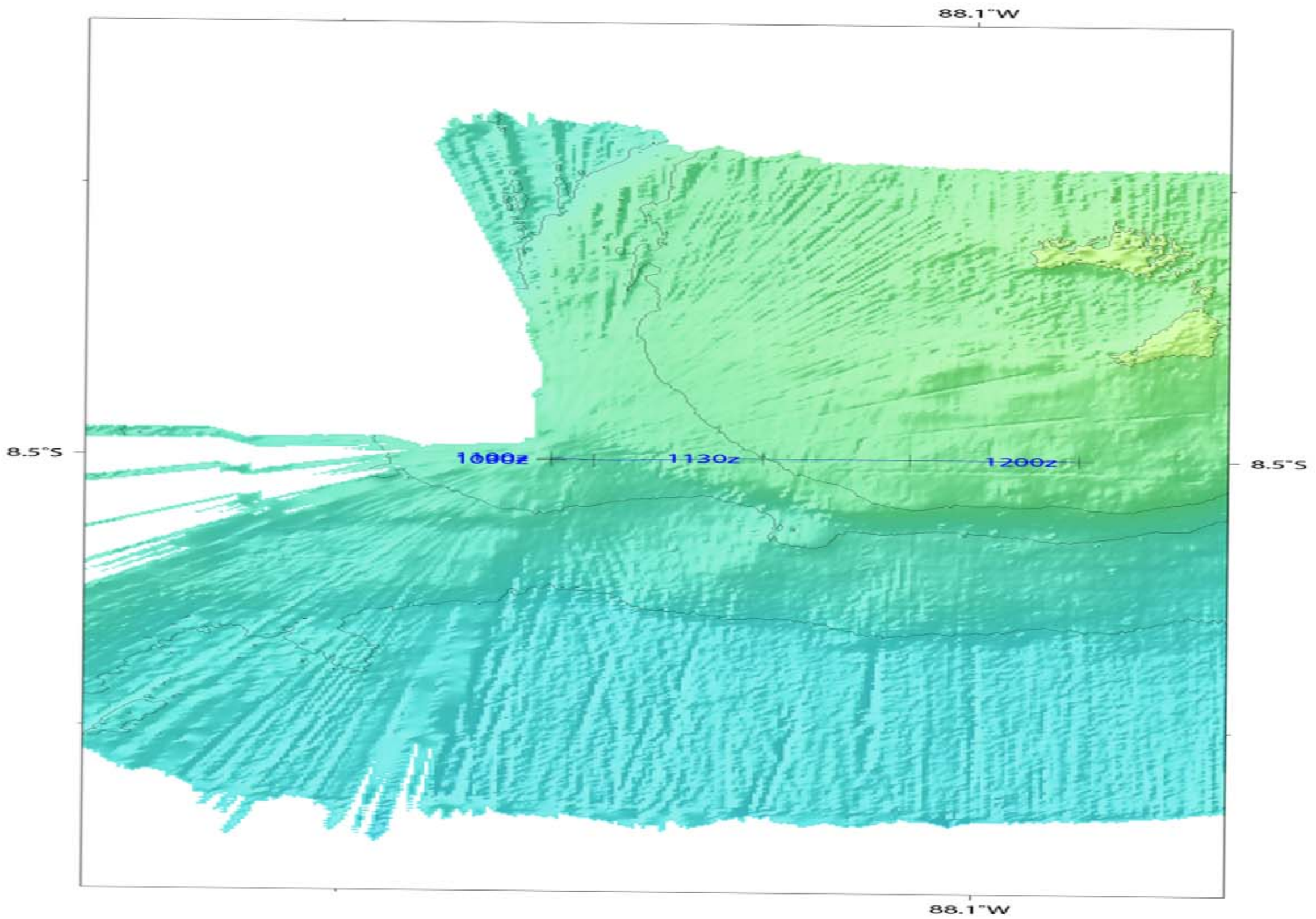




Between Transit Line 7 and Start of Peru Basin Survey
JD 310
08:04-10:00 GMT



Between Transit Line 7 and Start of Peru Basin Survey
JD 310
10:00-12:00 GMT



Peru Basin Survey

88°W 87.5°W 87°W

8°S 8.5°S 9°S

Line 3

Line 2

Line 1

MV1014-03-22JC
MV1014-03-23MC

WC-13

WC-14
WC-15
WC-16

MV1014-03-20MC
MV1014-03-21JC

25 NM

50 km

−6000 −4000 −2000 0

Peru Basin Survey Bathymetry

88°W

87.5°W

87°W

8°S

8.5°S

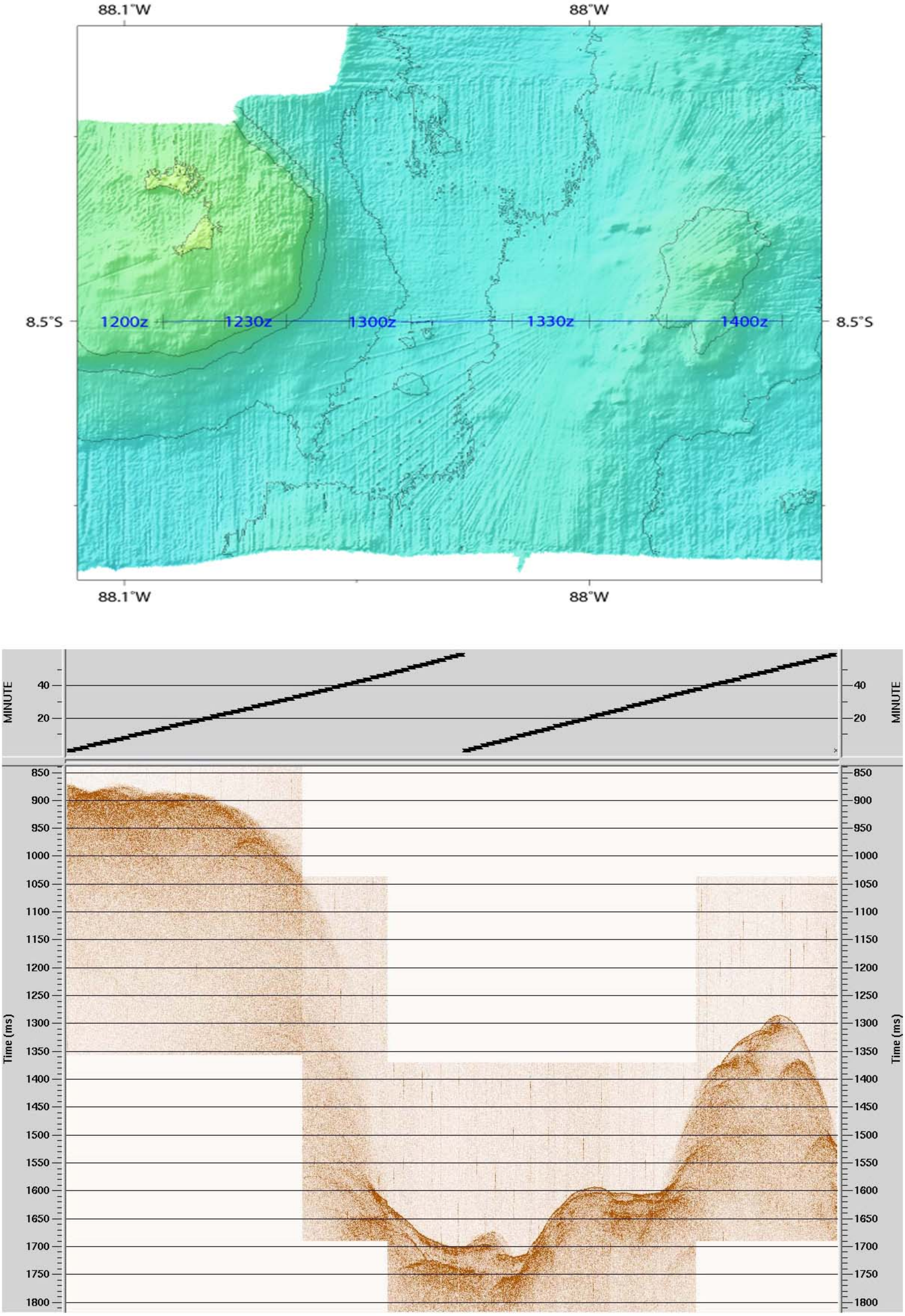
9°S

25 NM

50 km

−5000 −4500 −4000 −3500

Between Transit Line 7 and Start of Peru Basin Survey
JD 310
12:00-14:00 GMT



Time (ms)
1800
1750
1700
1650
1600
1550
1500
1450
1400
1350
MINUTE
20
40
87.1°W
87°W
8.4°S
8.5°S
1400z
1330z
1300z
1230z
1200z

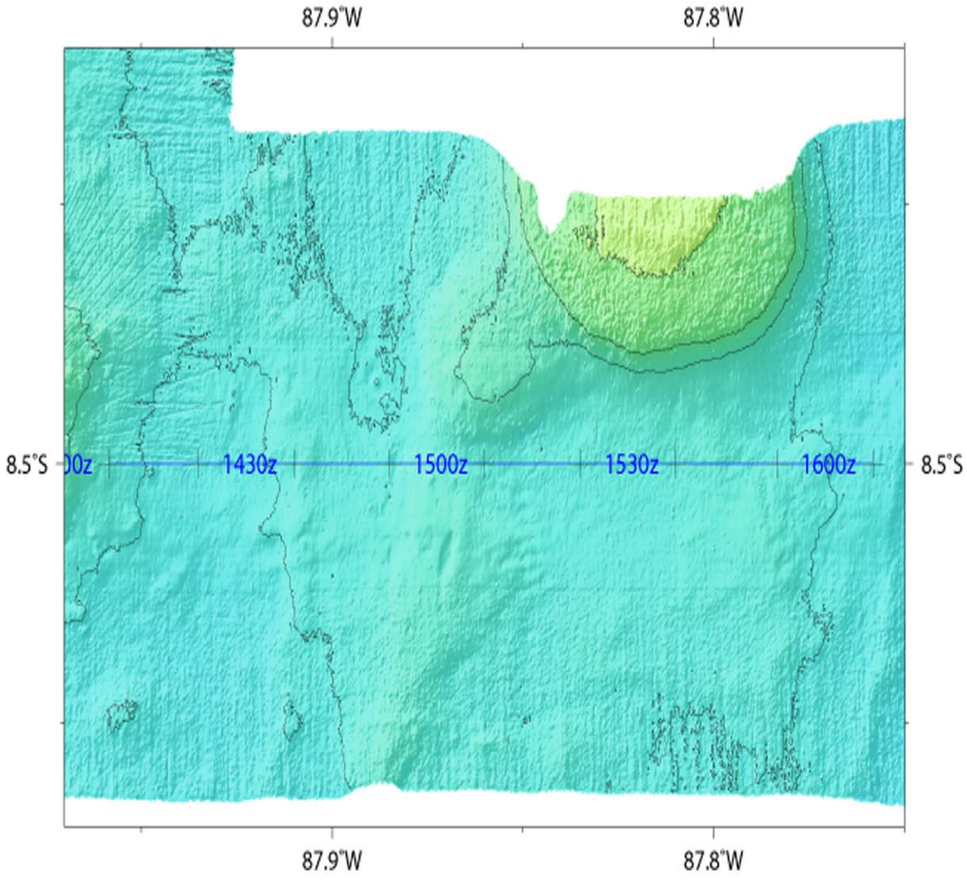
Peru Basin Survey: Between Lines 1 and 2
JD 311
11:00-14:00 GMT

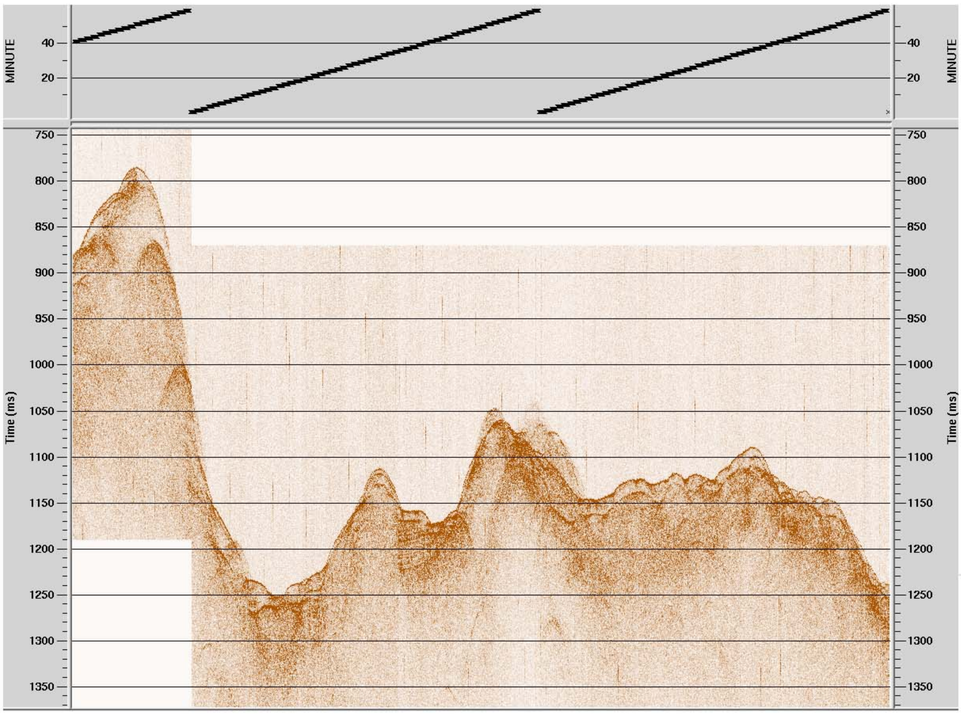
Peru Basin
Line 1
JD: 310
13:41-16:00 GMT

13:41 GMT

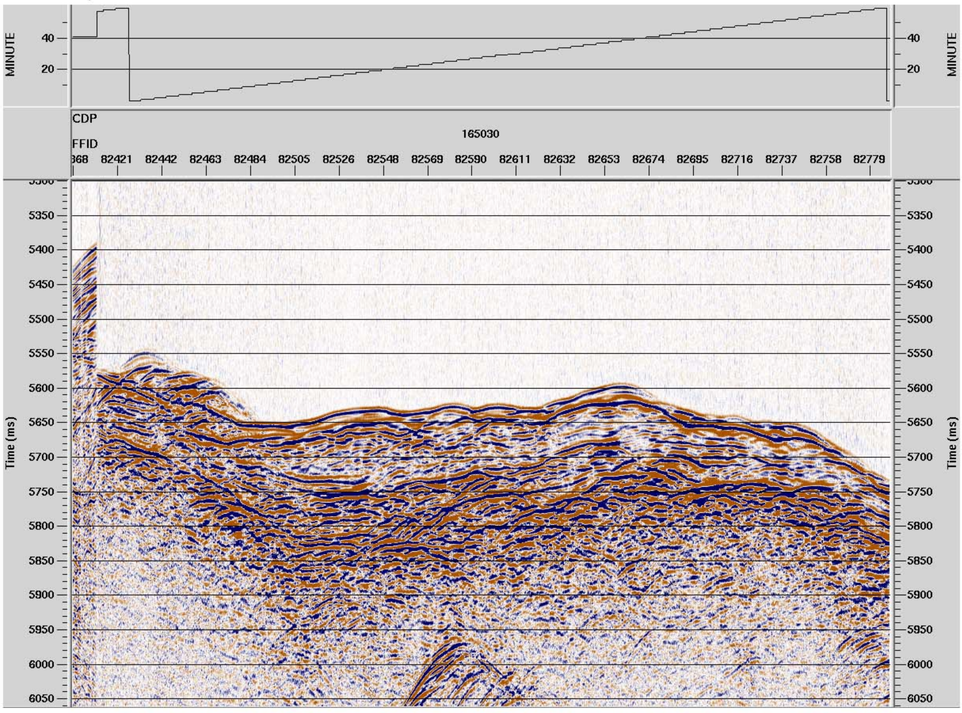
NW Direction of travel SE

16:00 GMT





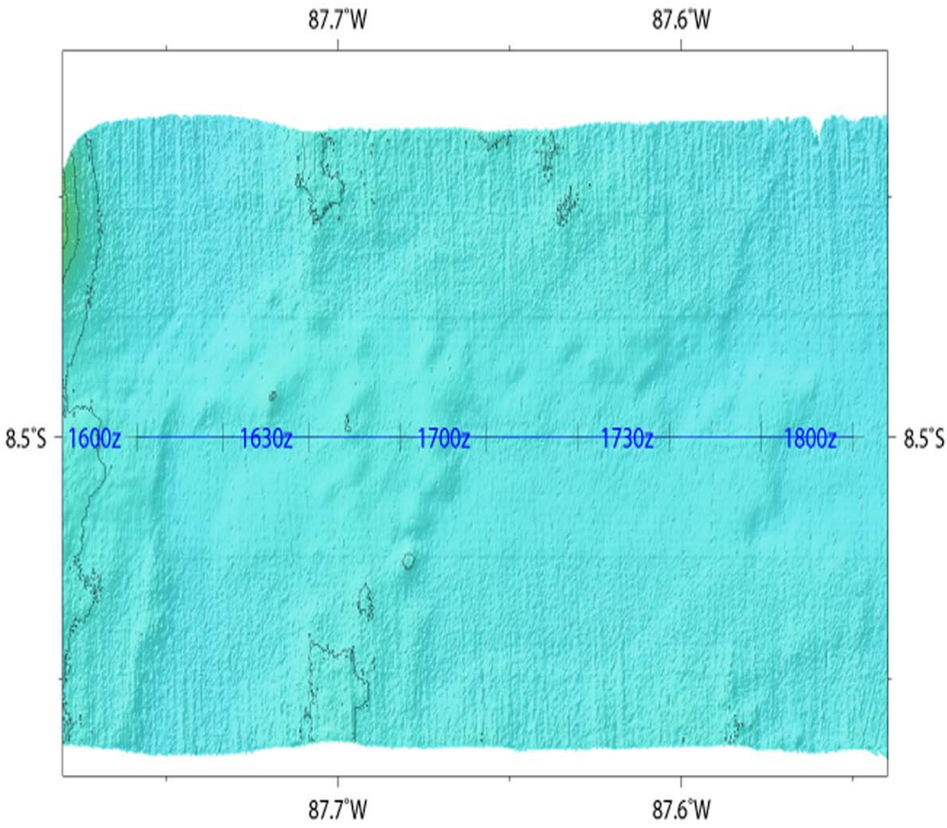
Whale Gap 14:00-15:00 GMT

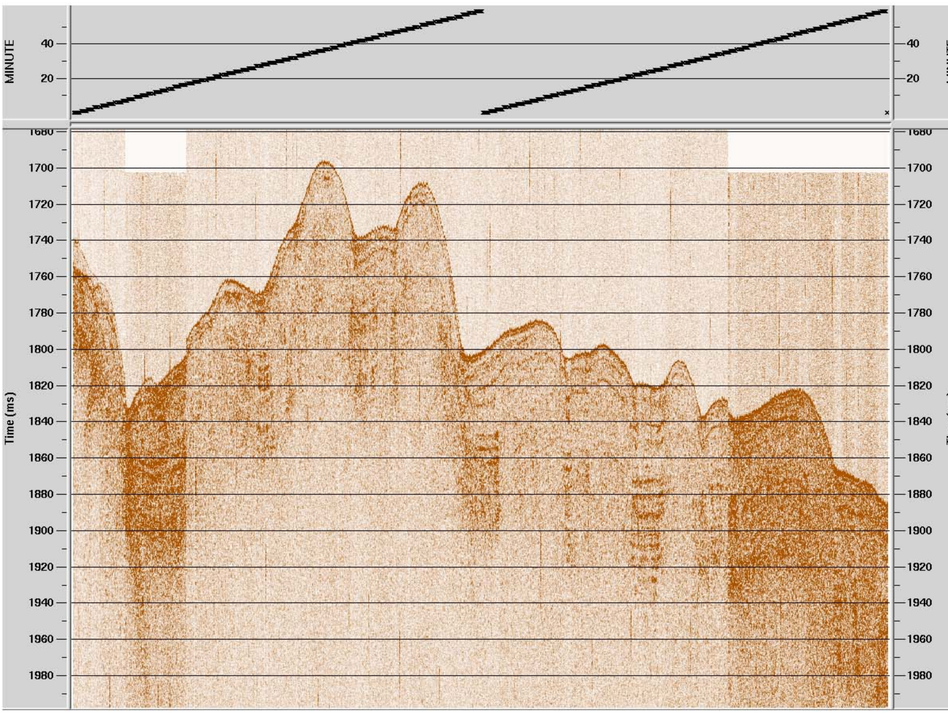


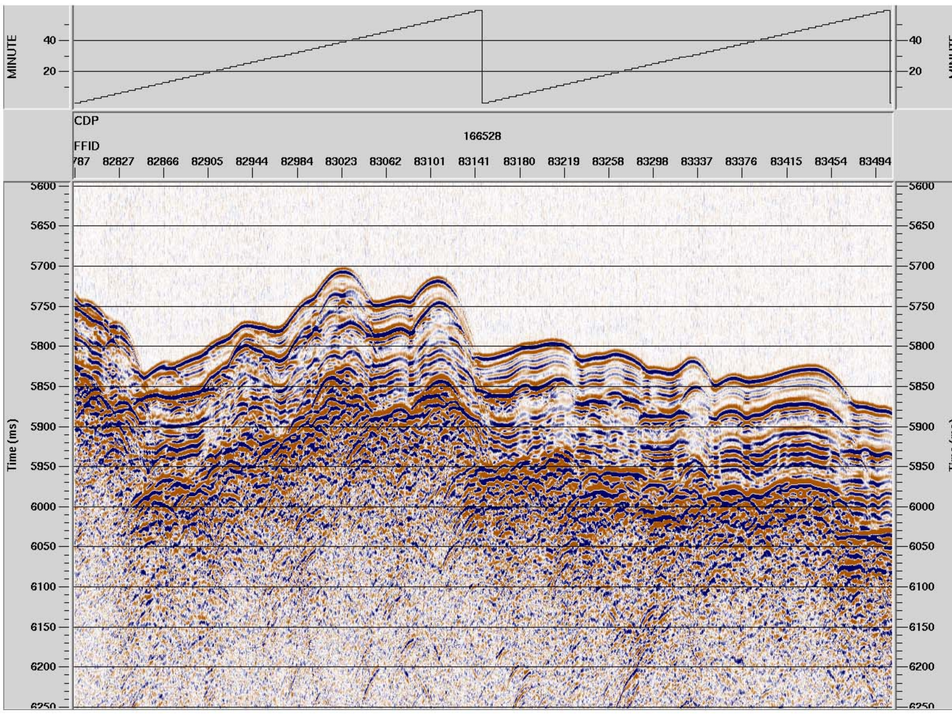
Peru Basin
Line 1
JD: 310
16:00-18:00 GMT

NW Direction of travel SE

16:00 GMT 18:00 GMT



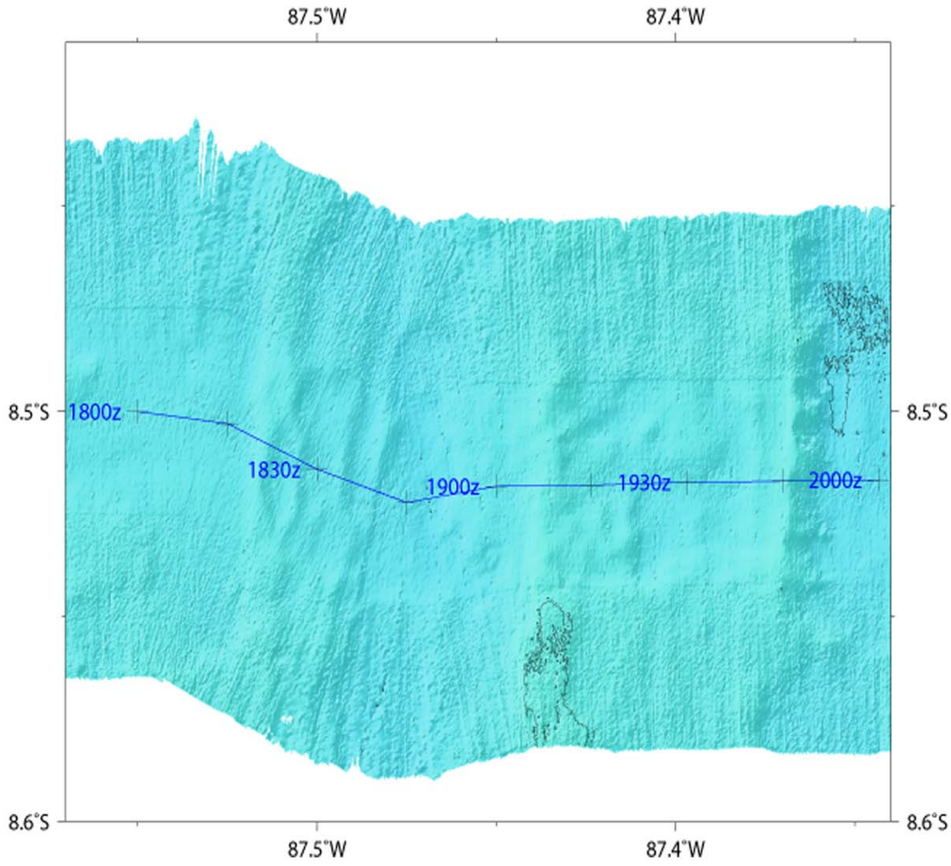


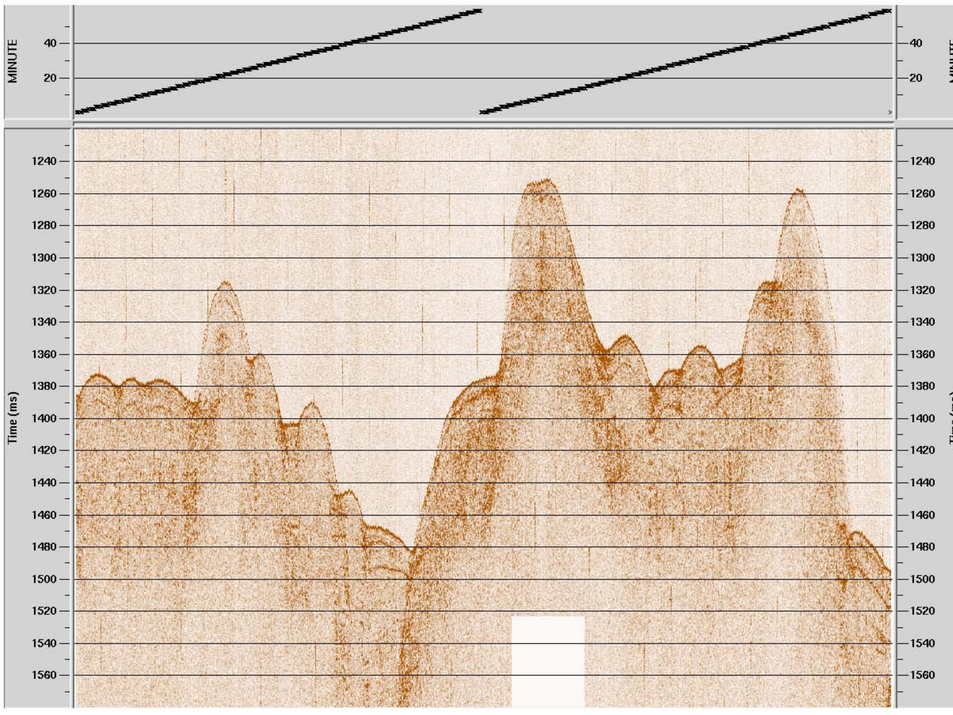


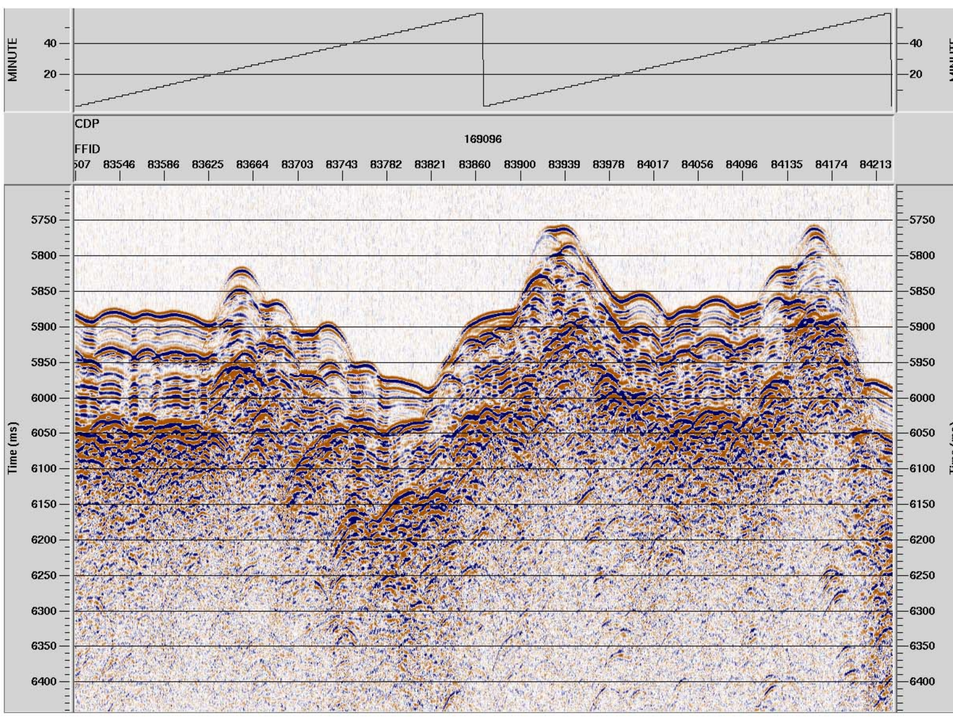
Peru Basin
Line 1
JD: 310
18:00-20:00 GMT

NW Direction of travel SE

18:00 GMT 20:00 GMT



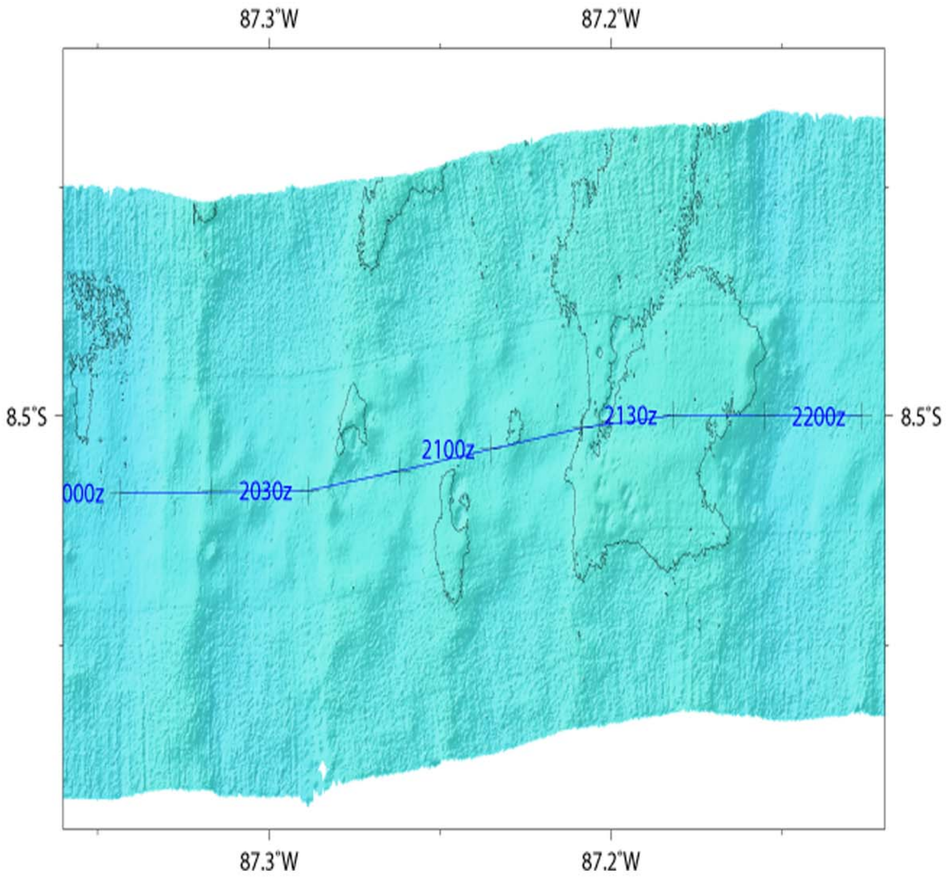


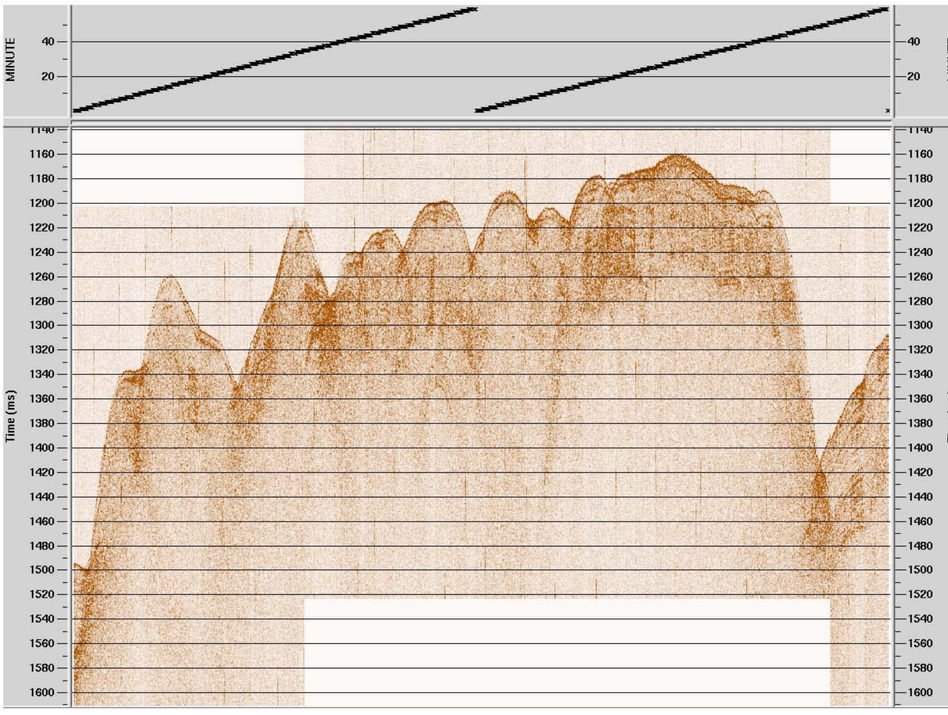


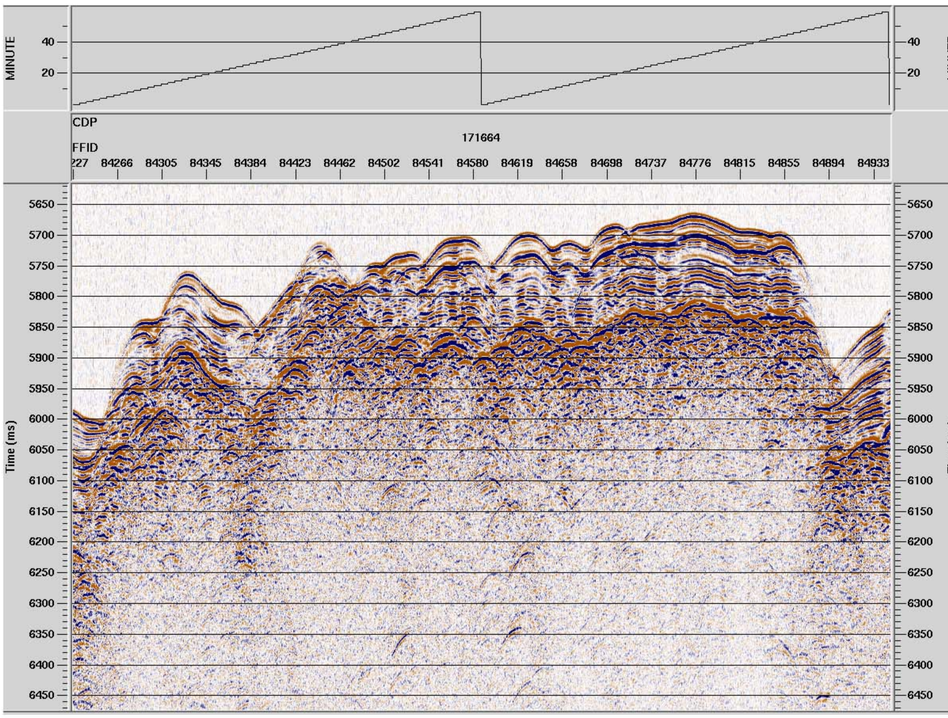
Peru Basin
Line 1
JD: 310
20:00-22:00 GMT

NW Direction of travel SE

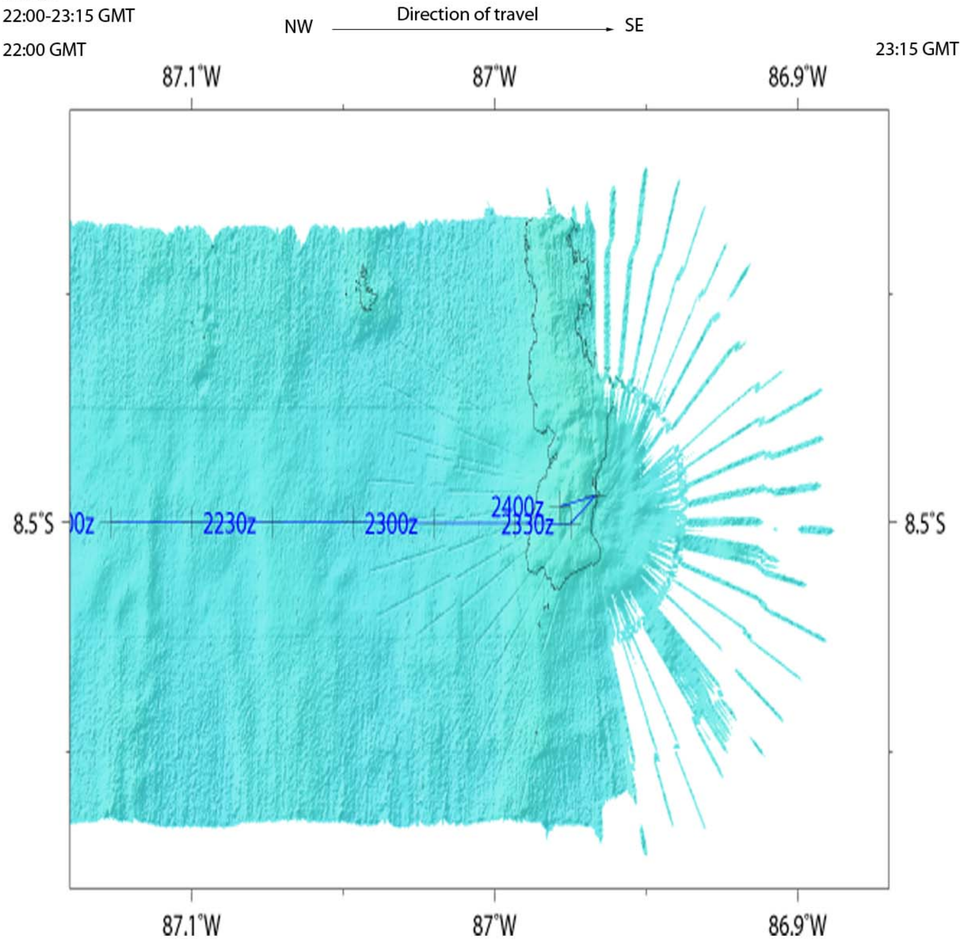
20:00 GMT 22:00 GMT

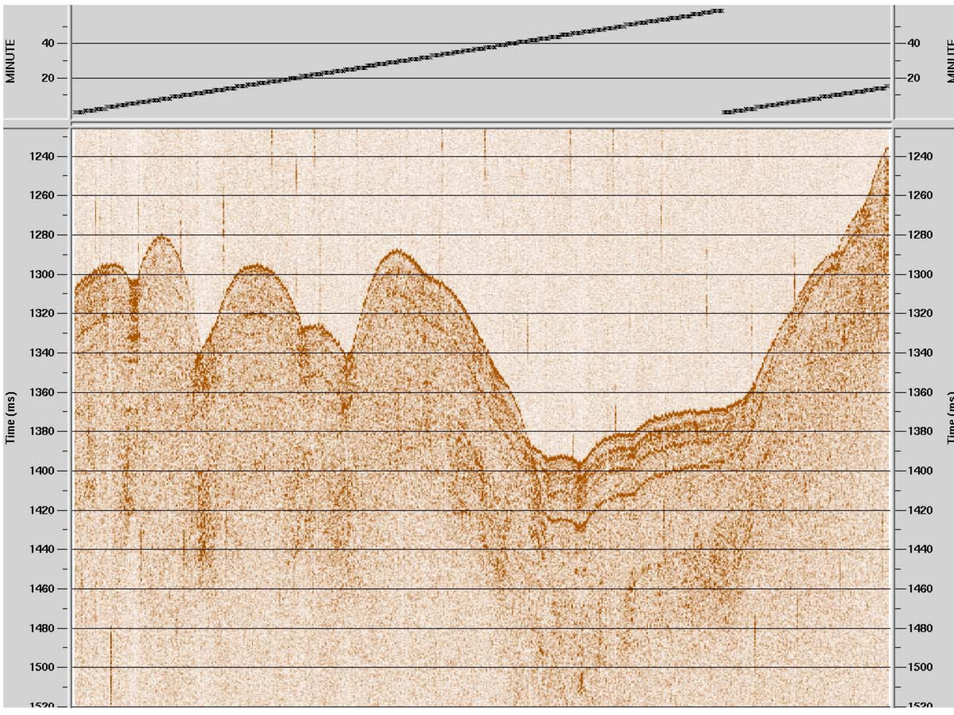


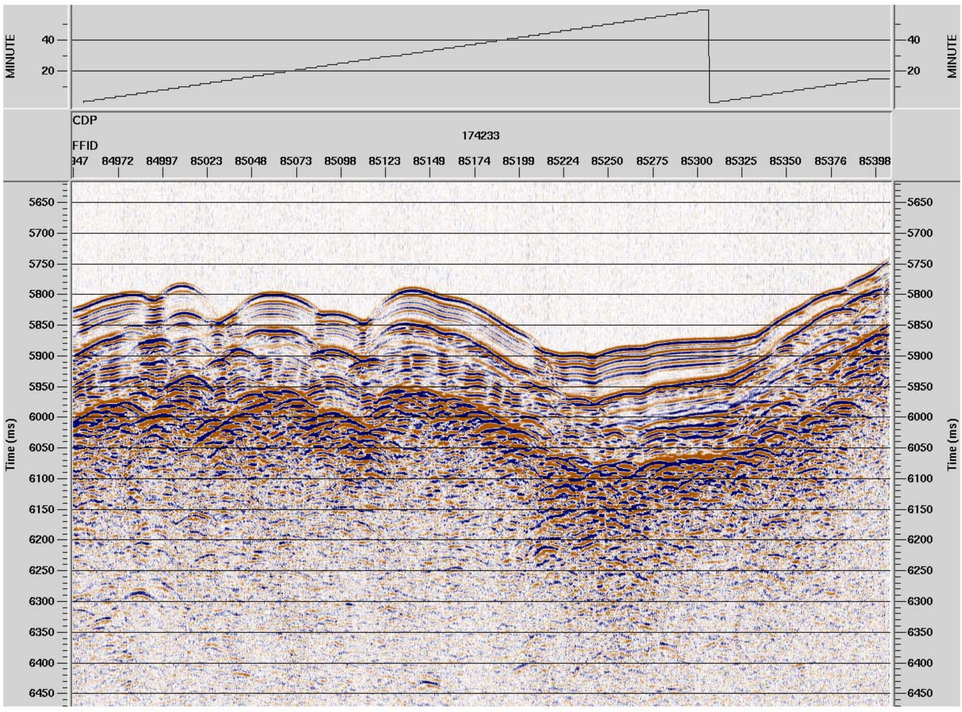




Peru Basin
Line 1
JD: 310
22:00-23:15 GMT





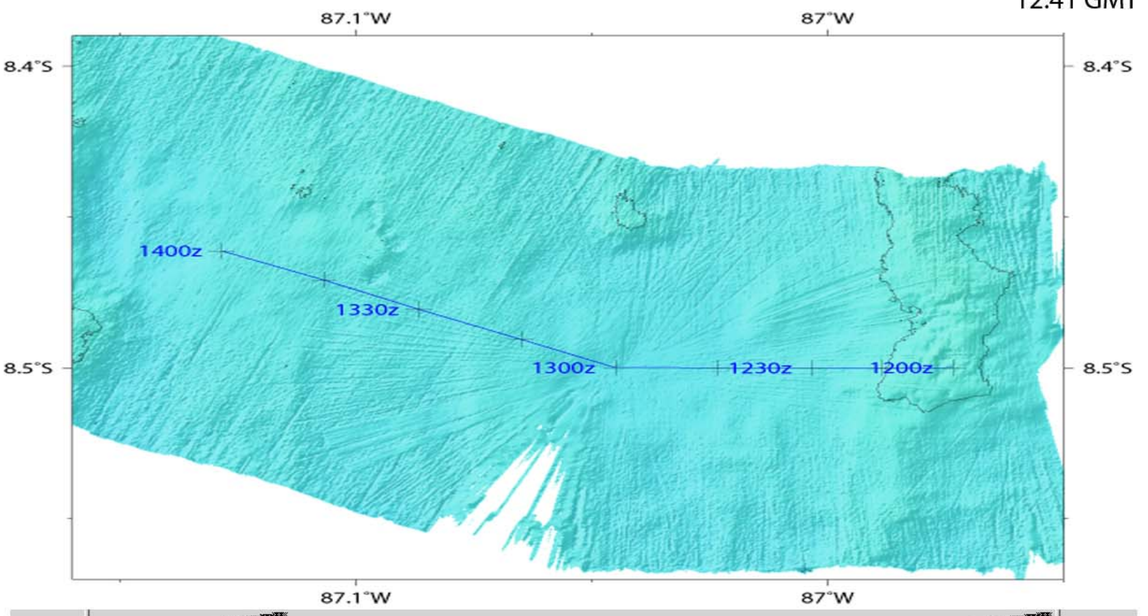


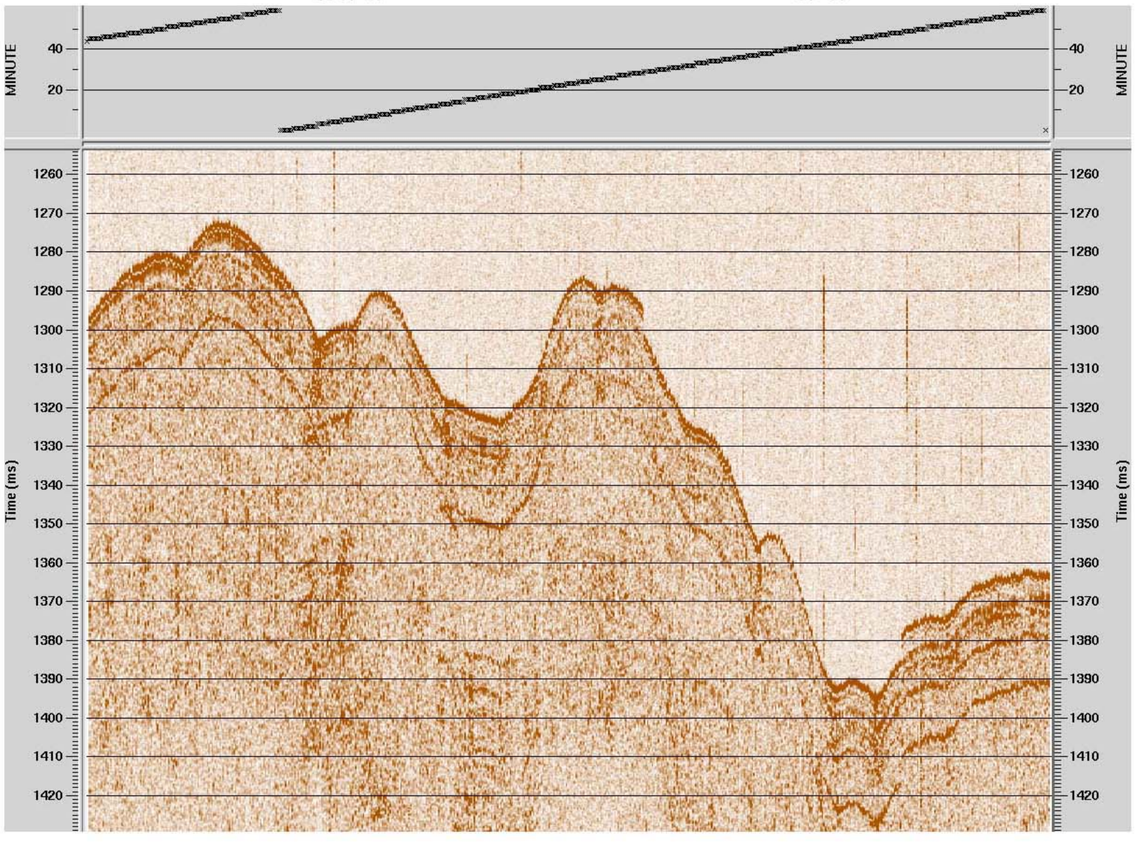
Peru Basin
Line 2
JD: 311
12:41-14:00 GMT

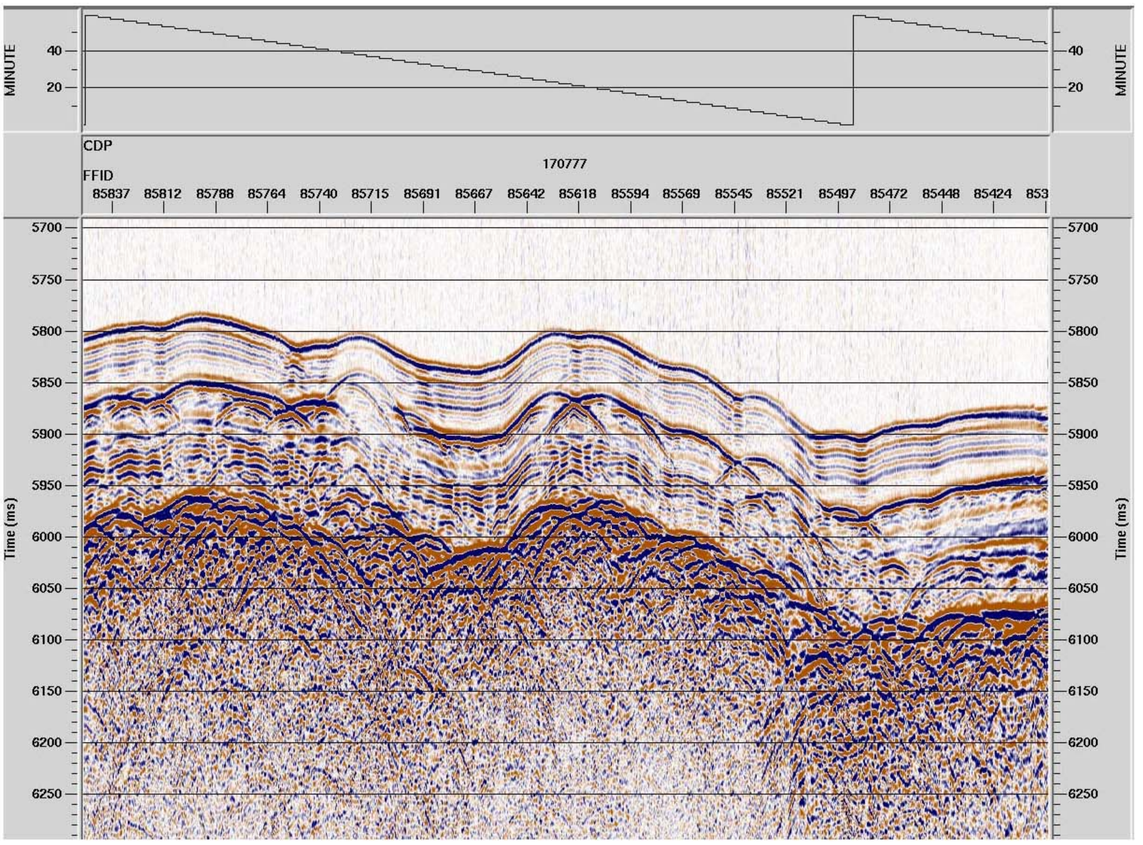
Direction of travel
NW ← SE

14:00 GMT

12:41 GMT





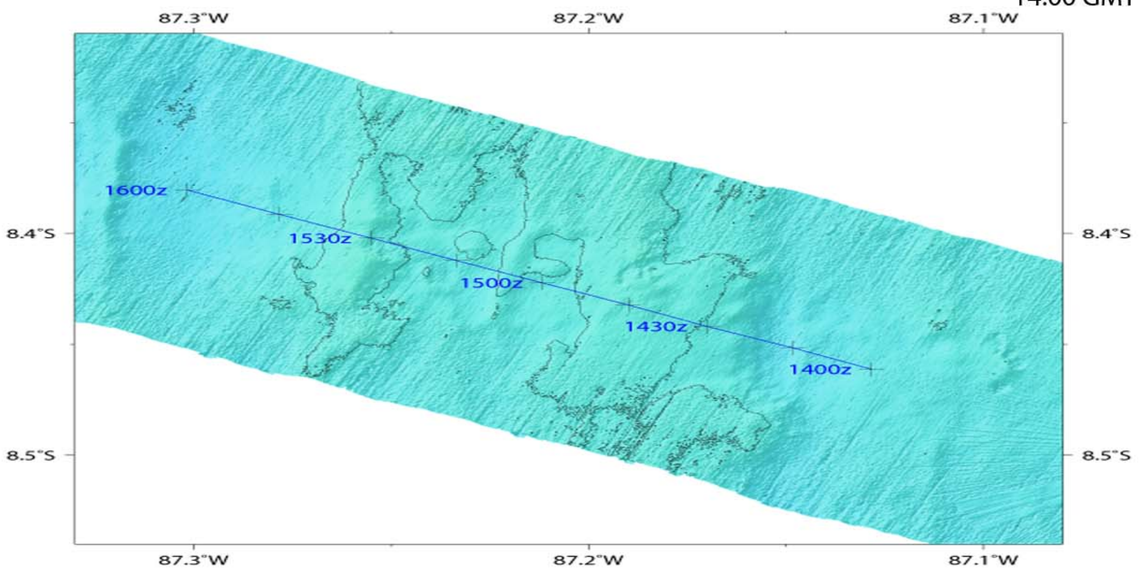


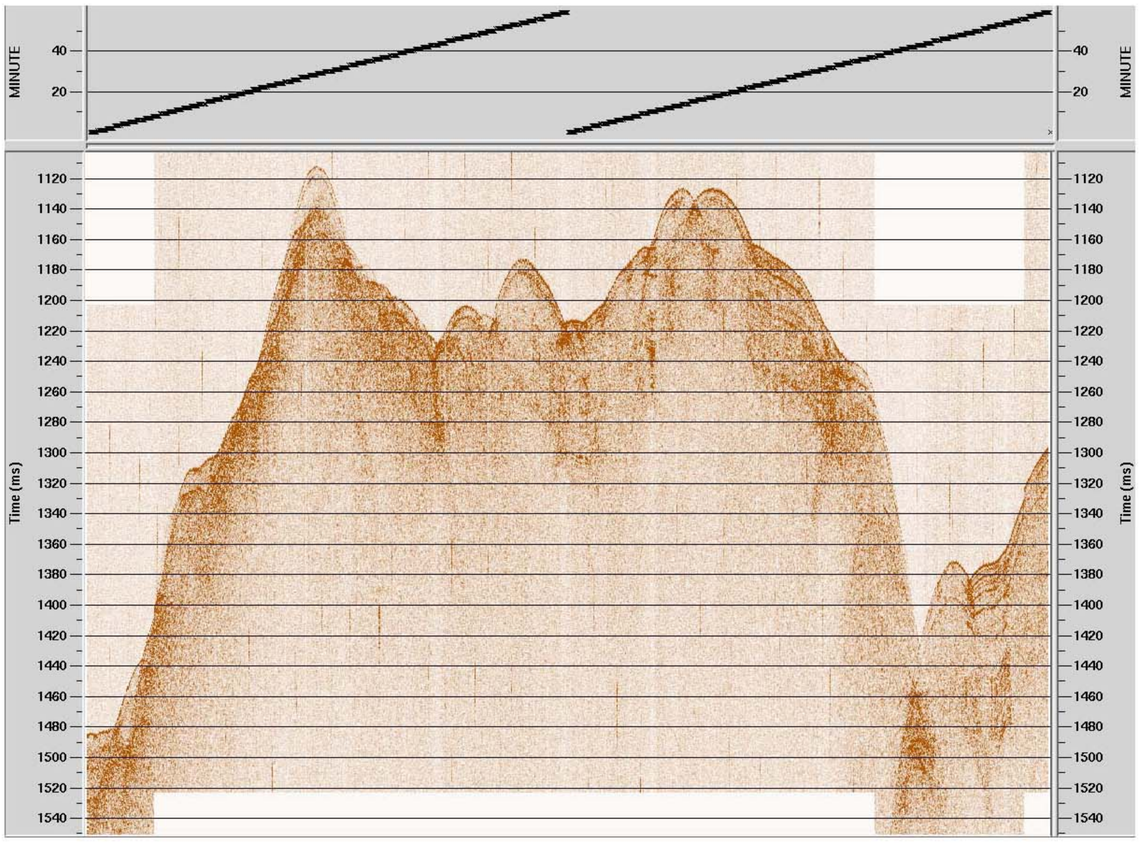
Peru Basin
Line 2
JD: 311
14:00-16:00 GMT

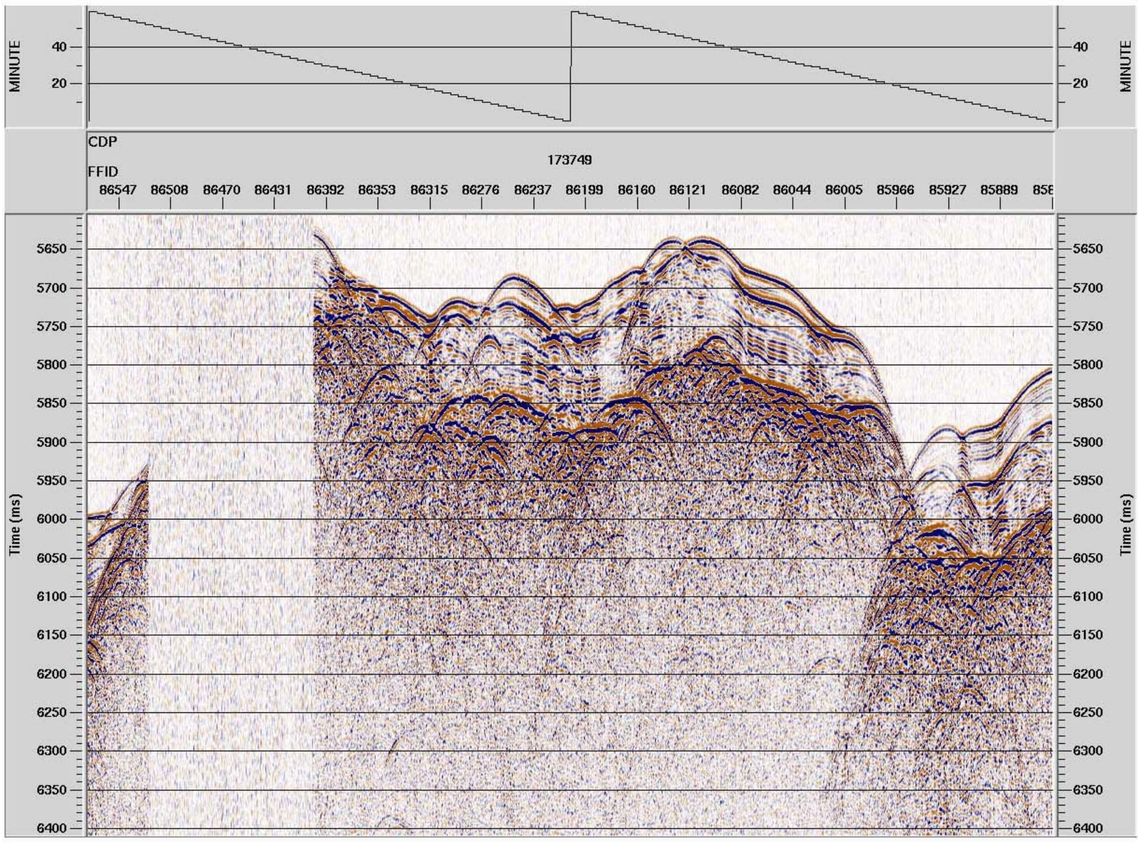
Direction of travel
NW ← → SE

16:00 GMT

14:00 GMT

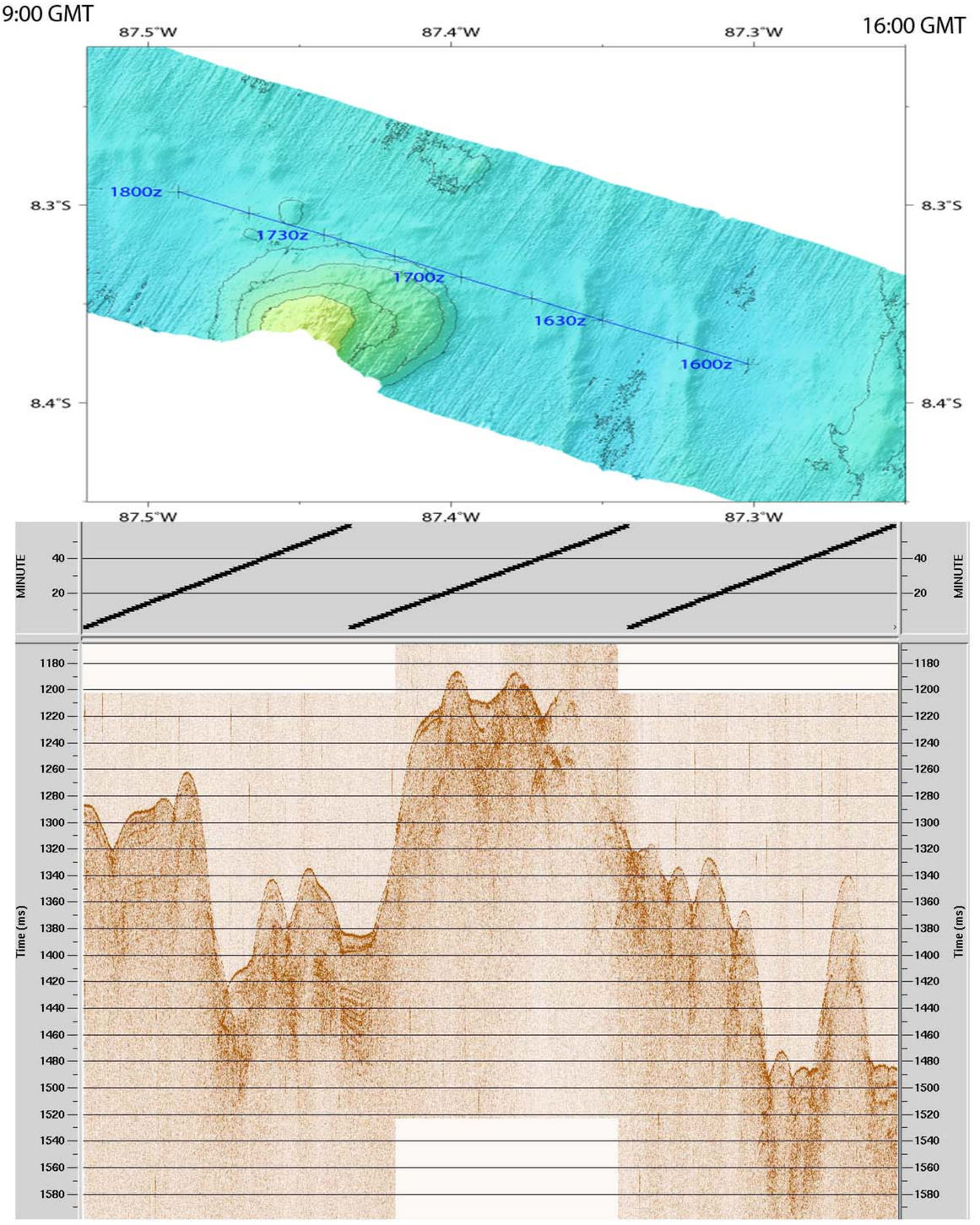


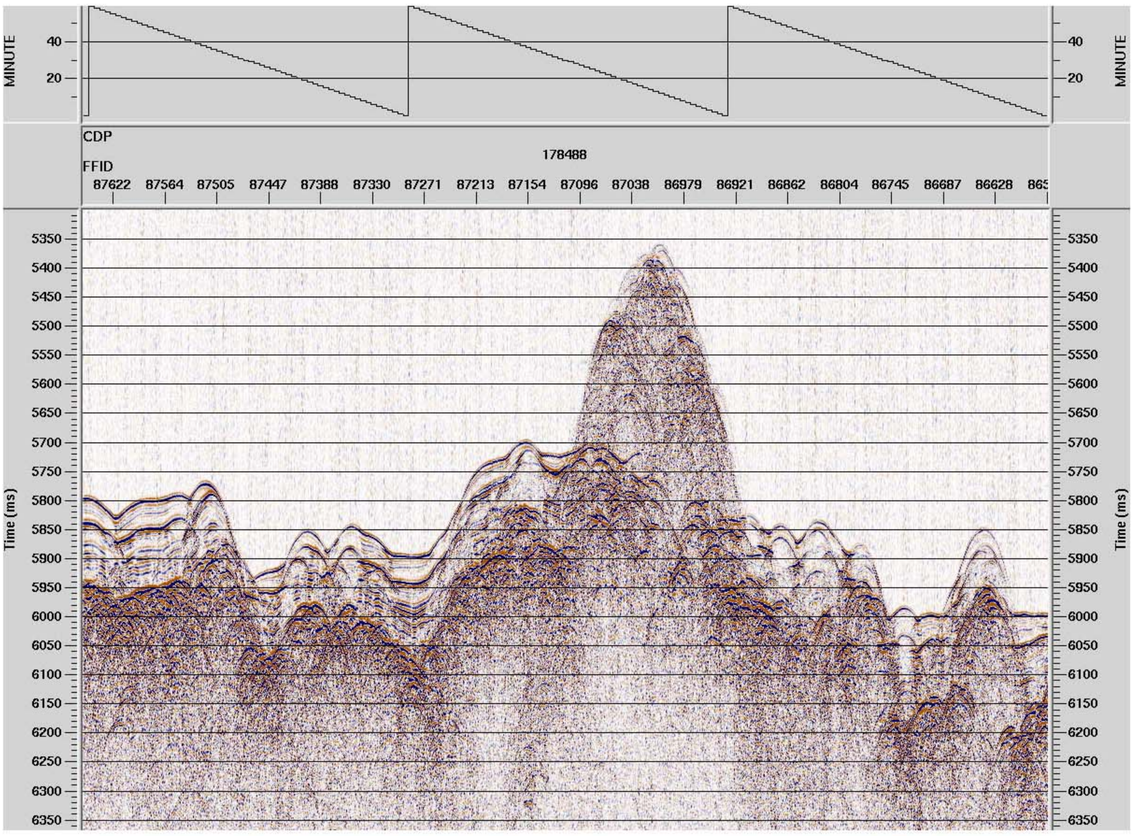




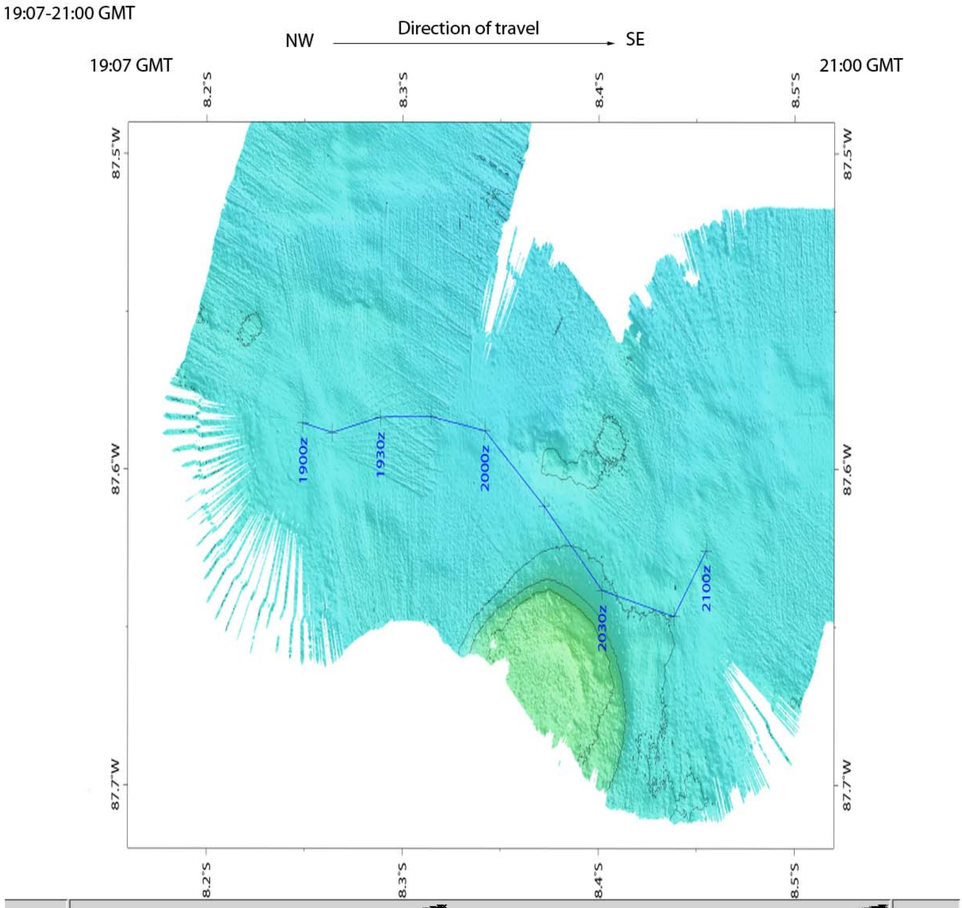
Peru Basin
Line 2
JD: 311
16:00-19:00 GMT

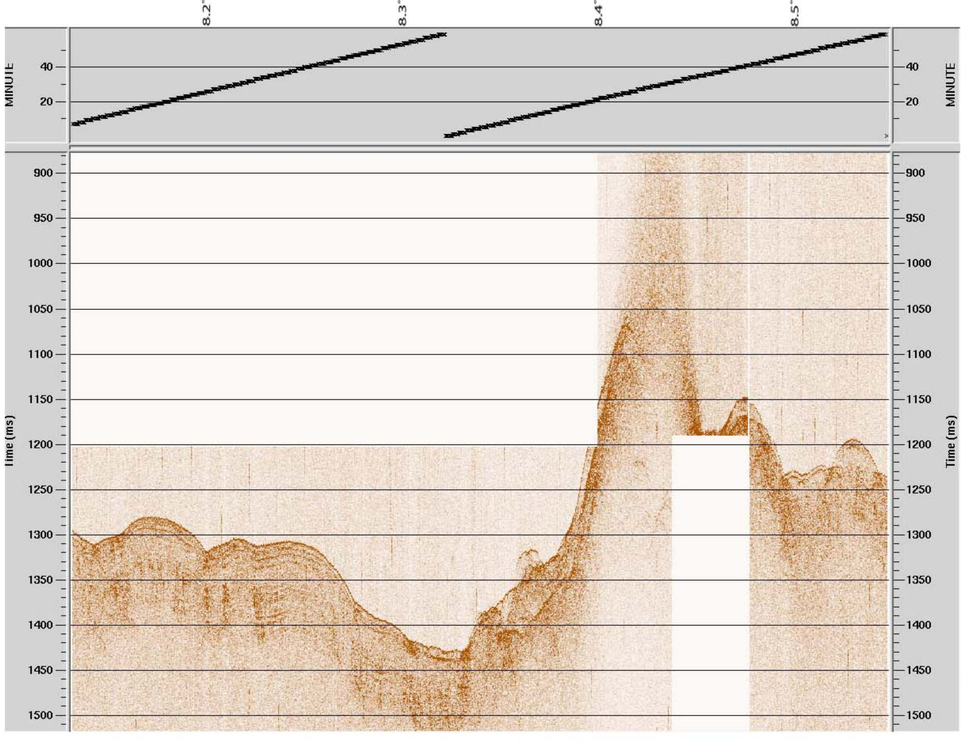
Direction of travel
NW ← → SE

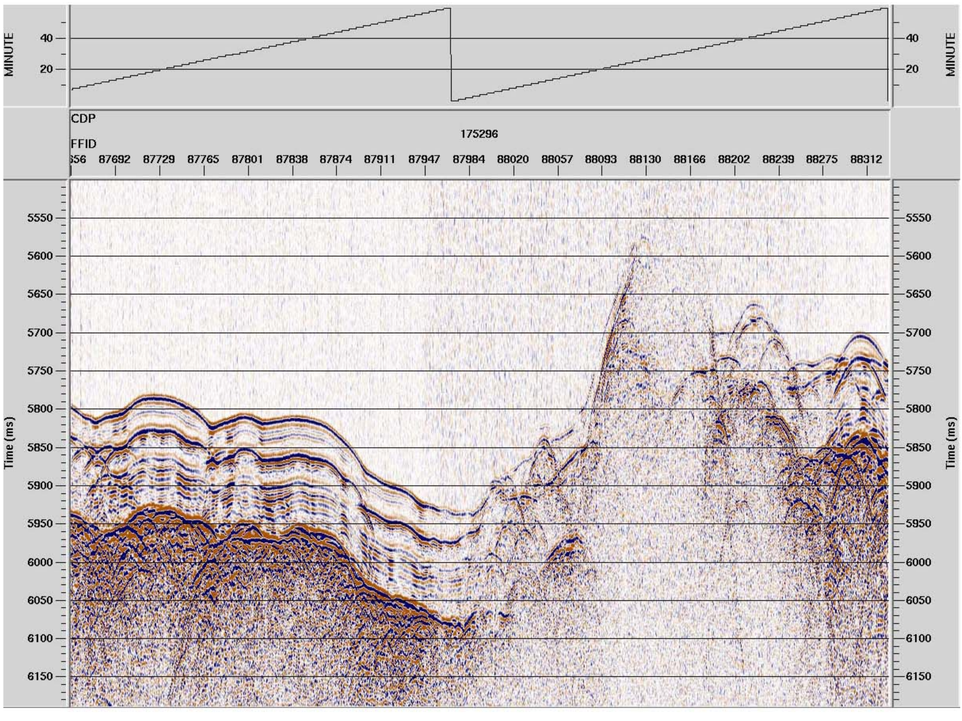




Peru Basin
Line 3
JD: 311
19:07-21:00 GMT

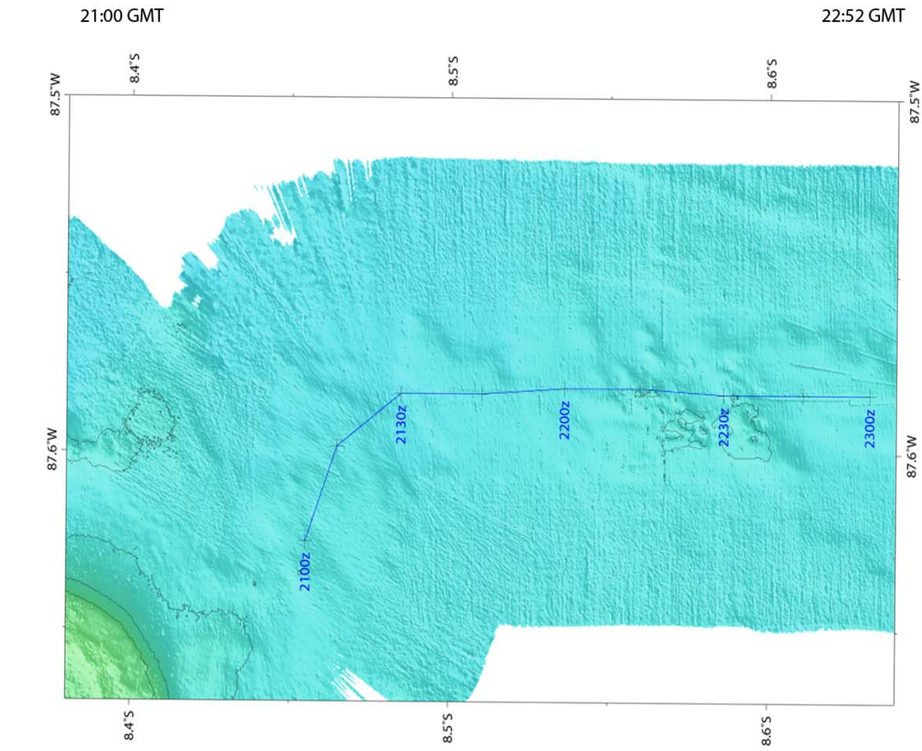


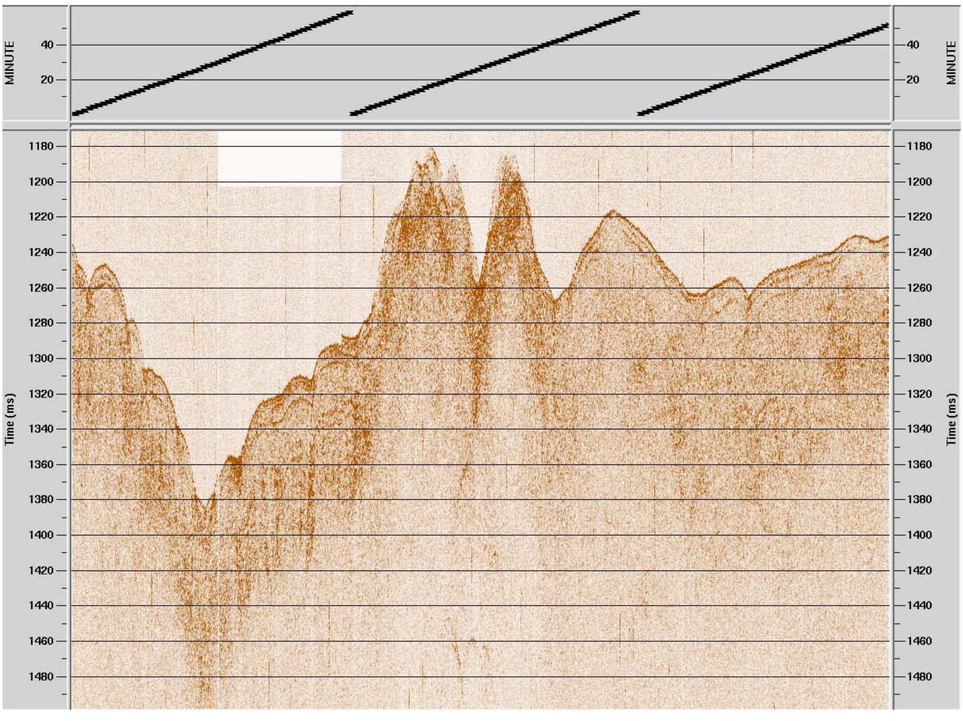


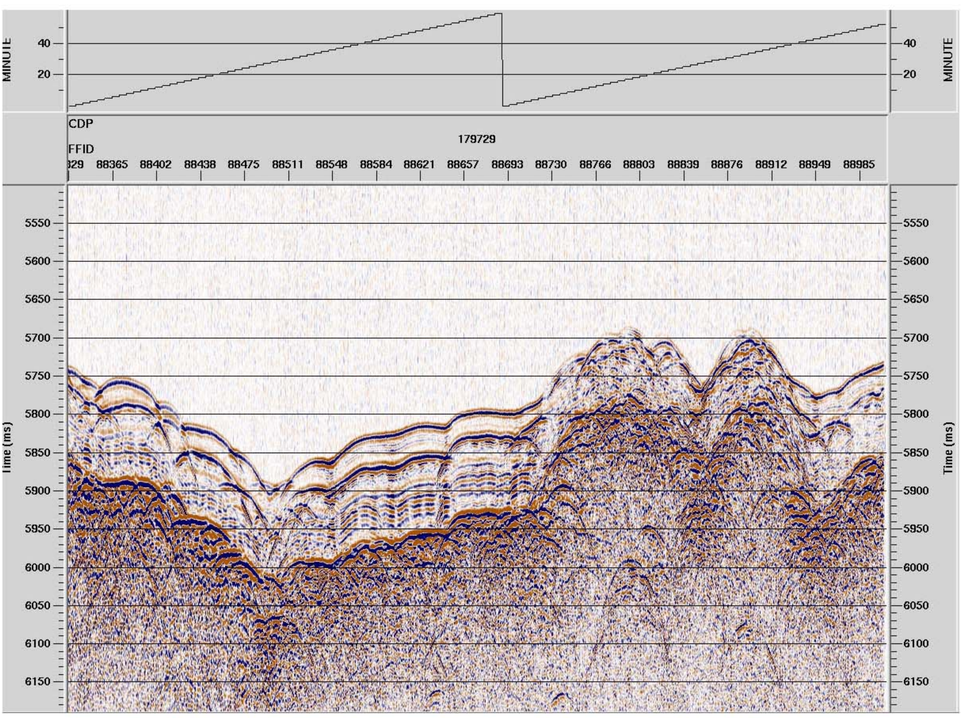


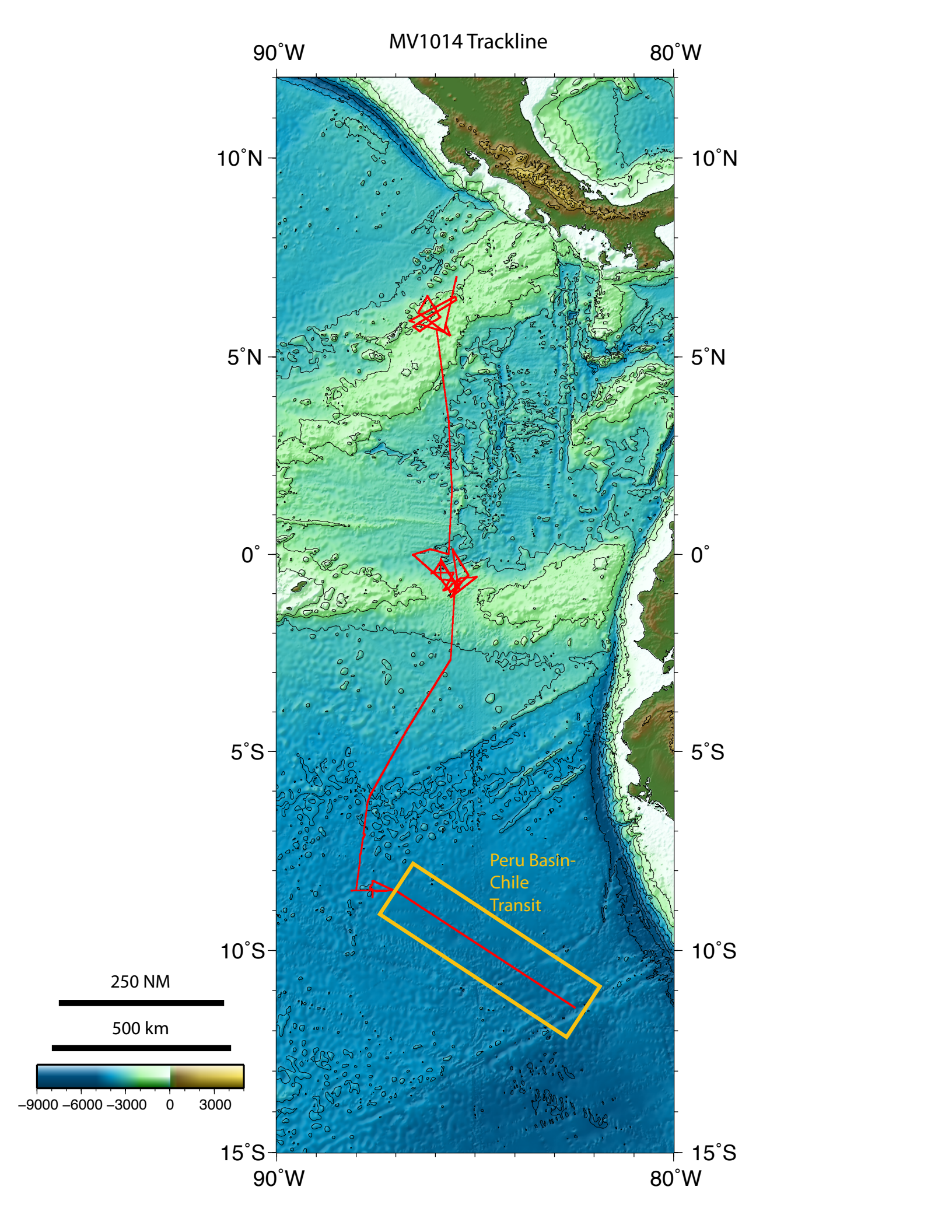
Peru Basin
Line 3
JD: 311
21:00-22:52 GMT

NW Direction of travel SE







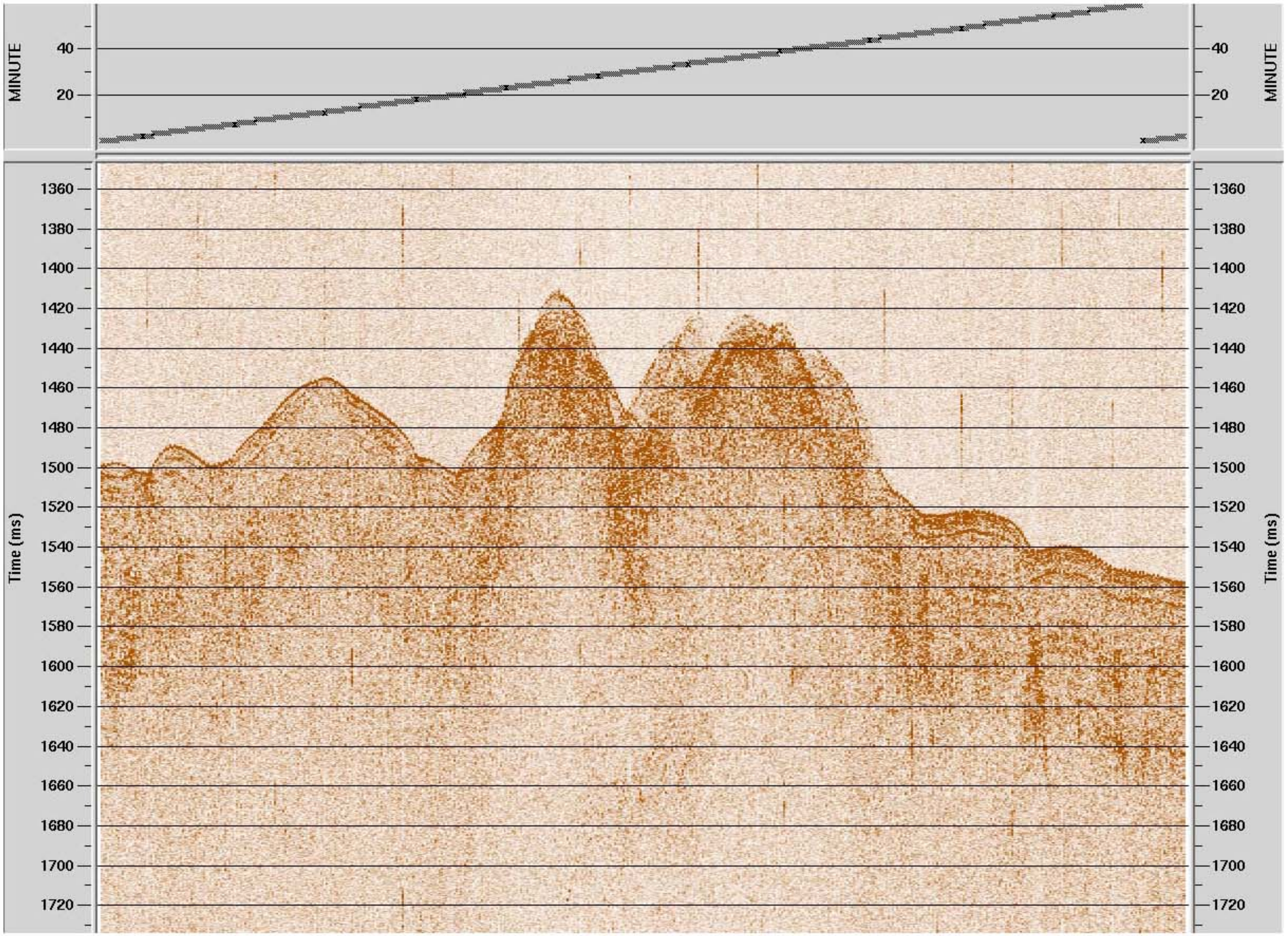

MV1014 Trackline
90˚W
80˚W
10˚N
5˚N
0˚
5˚S
10˚S
15˚S
Peru Basin-
Chile
Transit
250 NM
500 km
–9000 –6000 –3000 0 3000

Between Peru Basin Line 3 and Transit Line 8

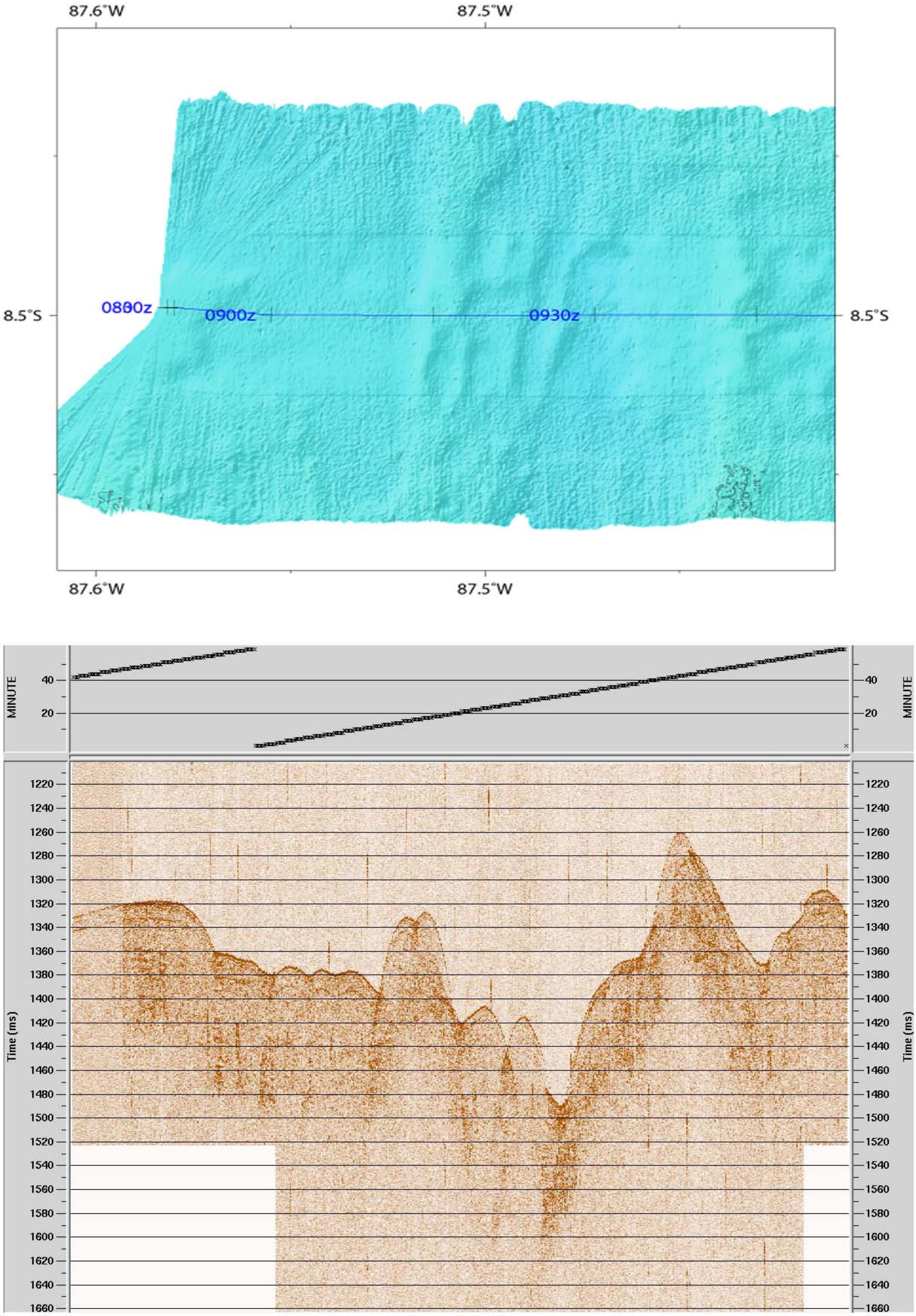
JD 312

00:00-01:02 GMT

No bathymetry



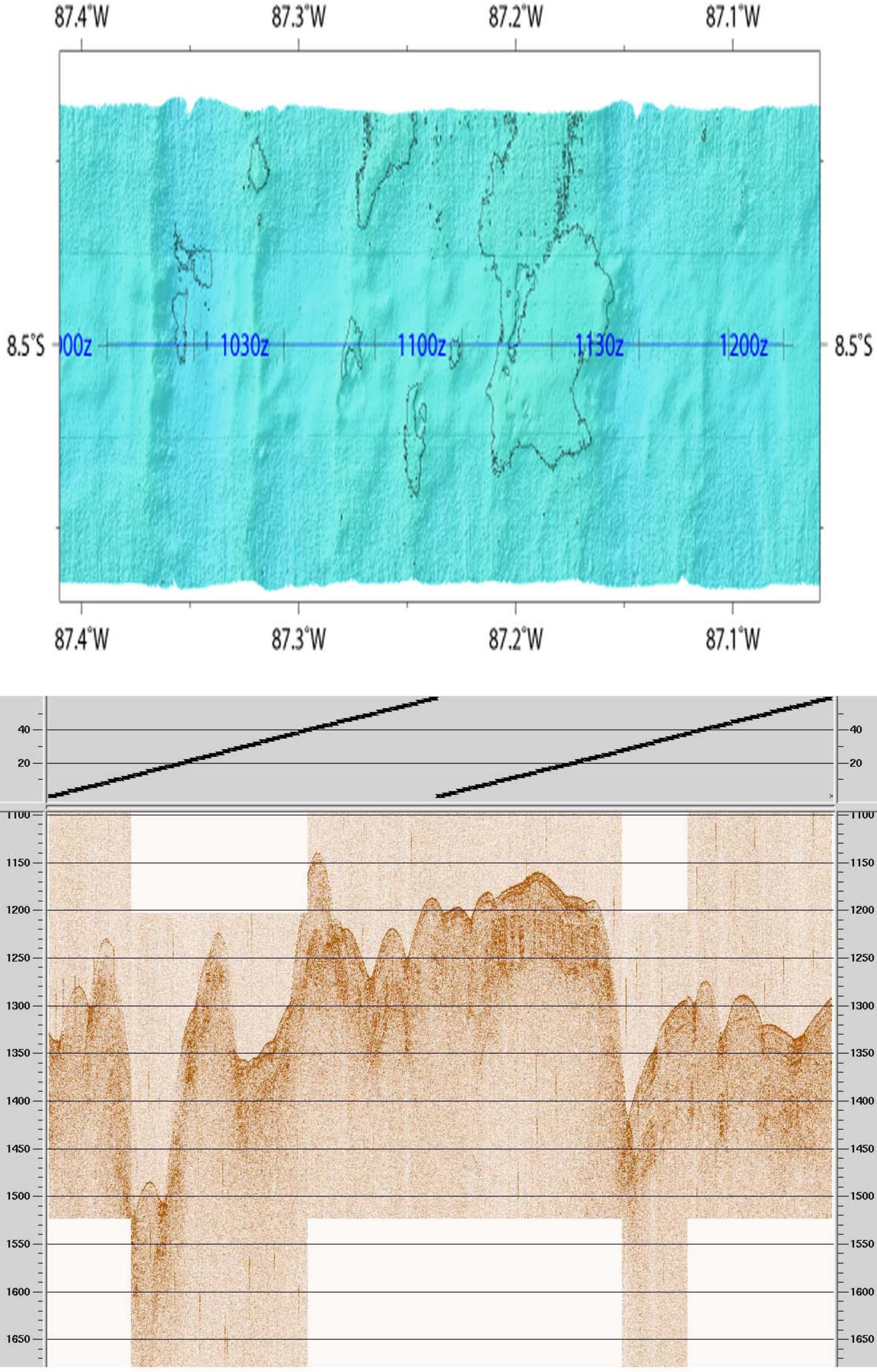
Between Peru Basin Line 3 and Transit Line 8
JD 313
08:42-10:00 GMT



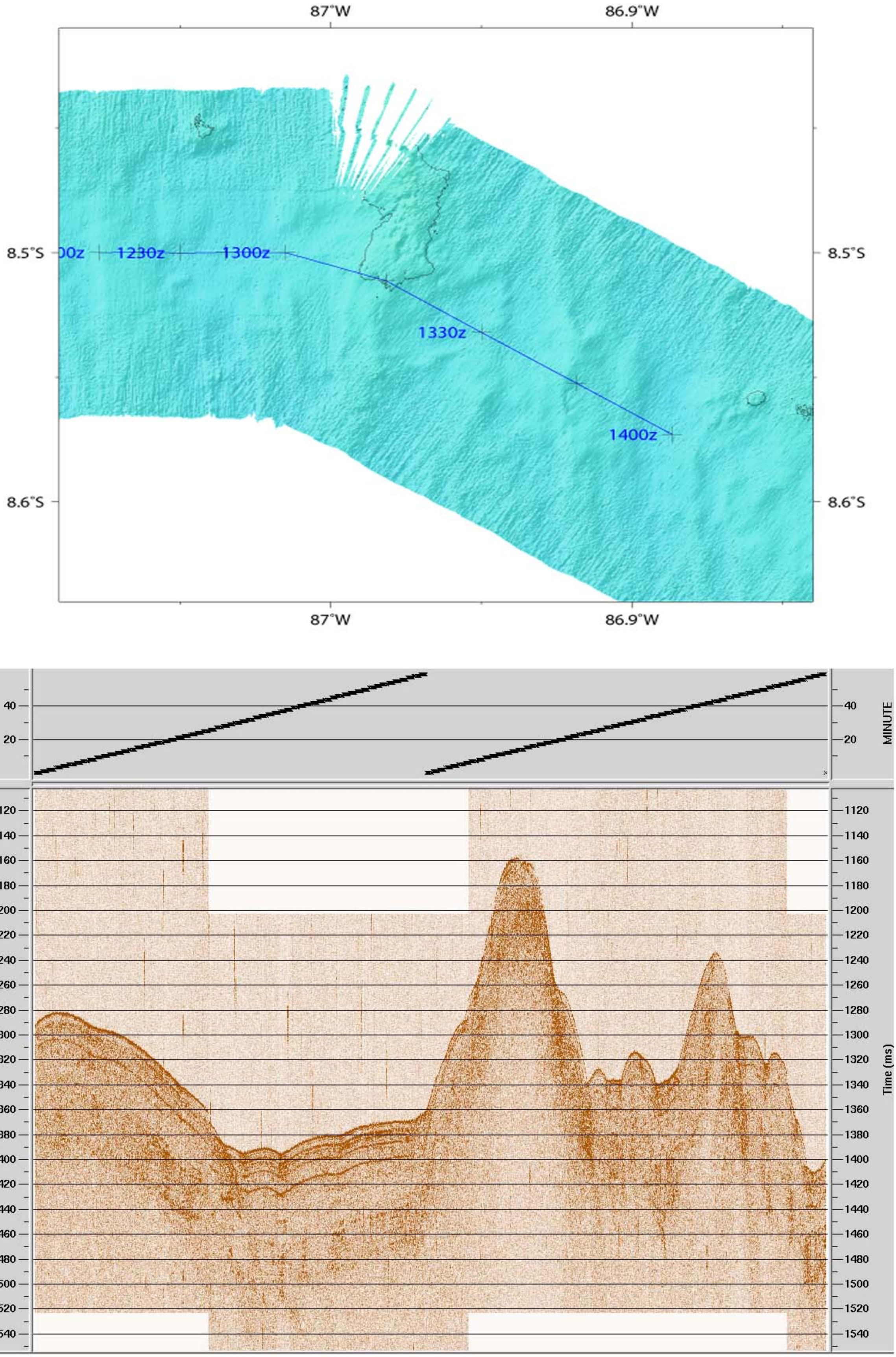
Between Peru Basin Line 3 and Transit Line 8

JD 313

10:00-12:00 GMT



Between Peru Basin Line 3 and Transit Line 8
JD 313
12:00-14:00 GMT

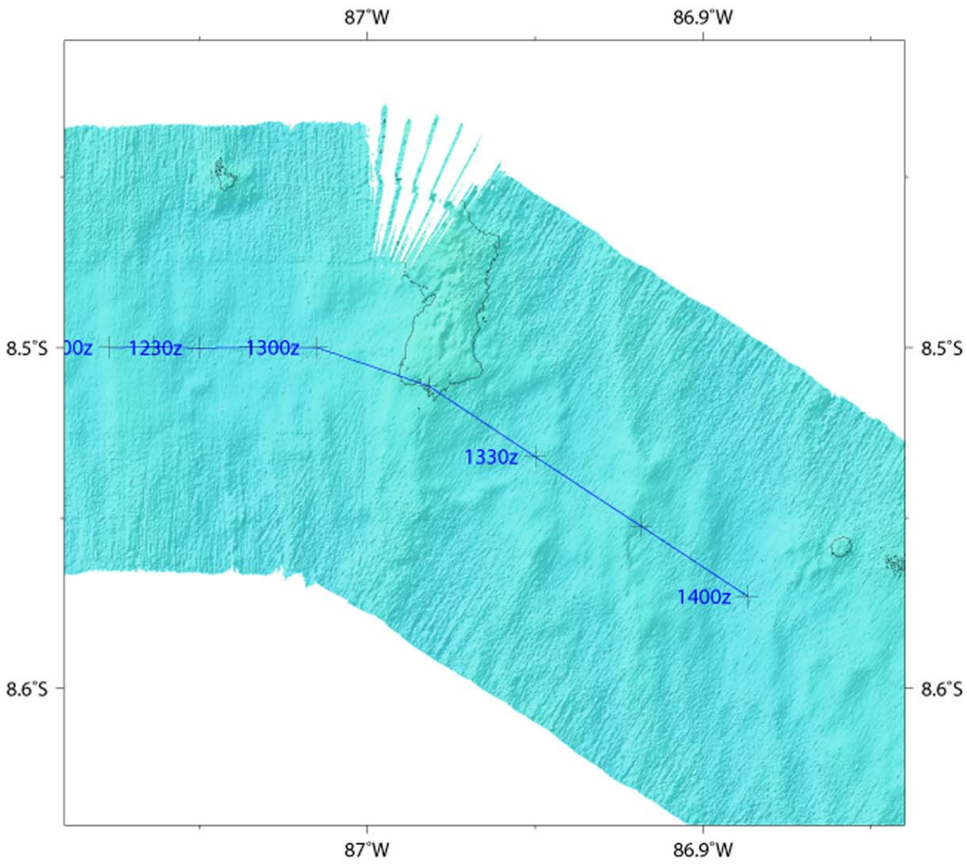


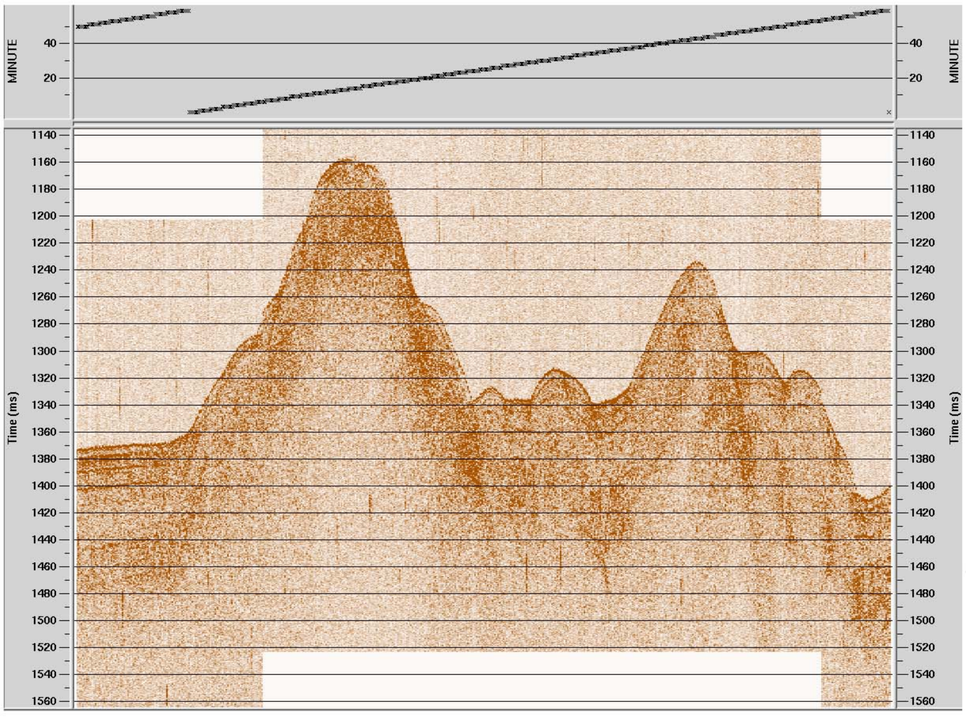
Transit
Line 8
JD: 313
12:50-14:00 GMT

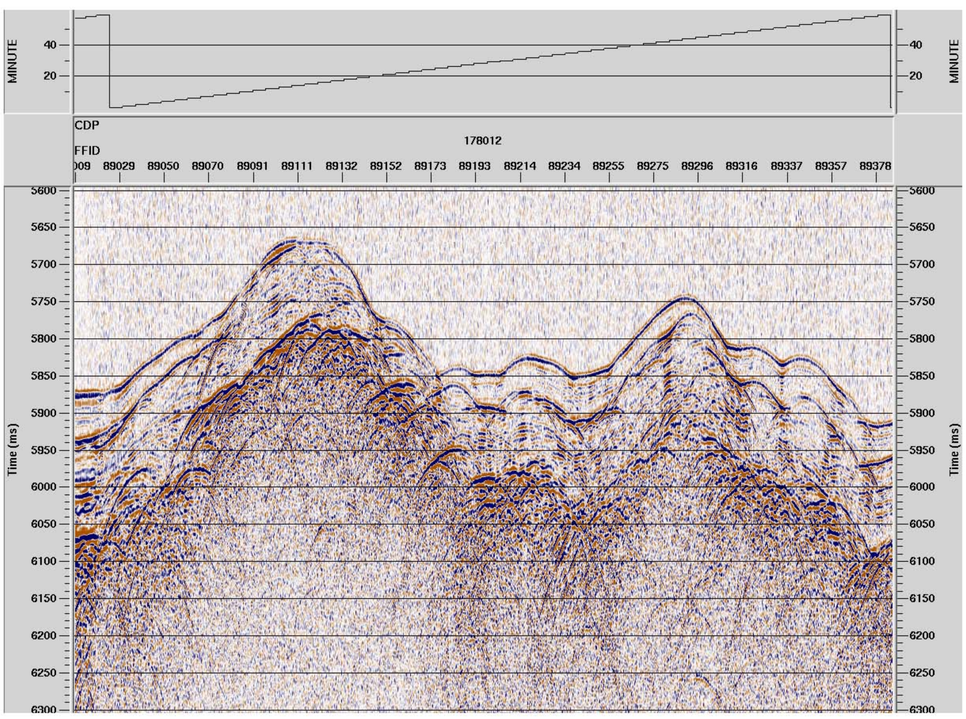
12:50 GMT

NW Direction of travel SE

14:00 GMT



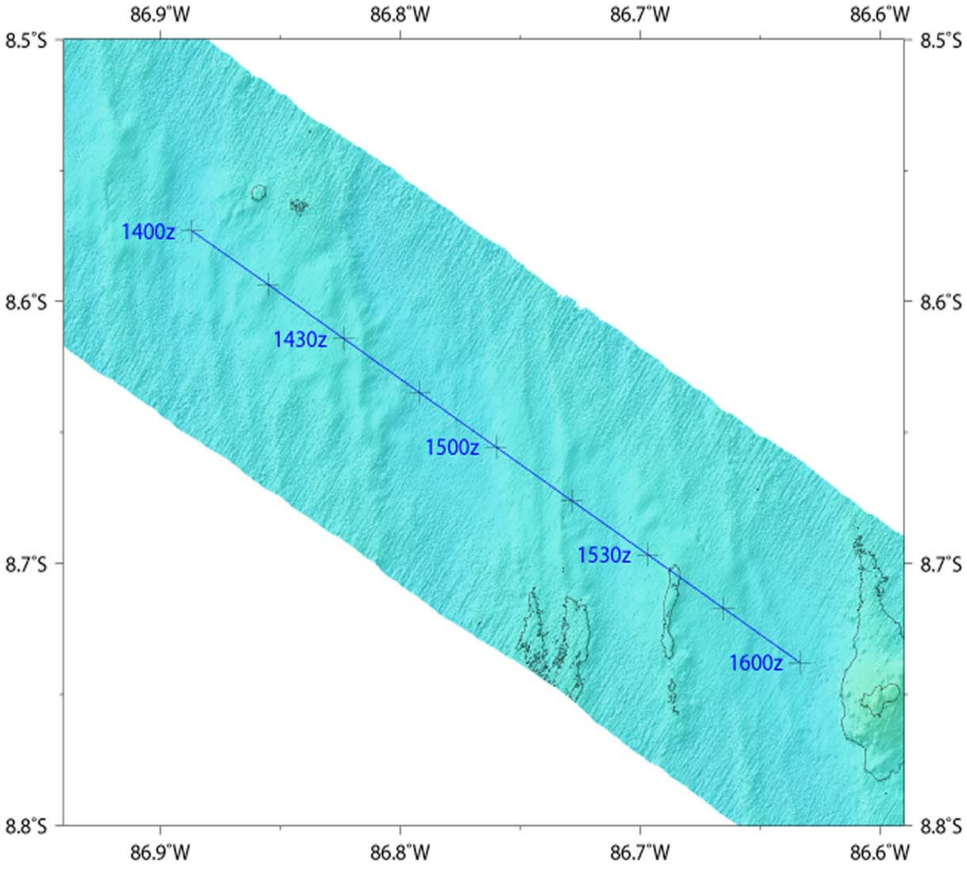


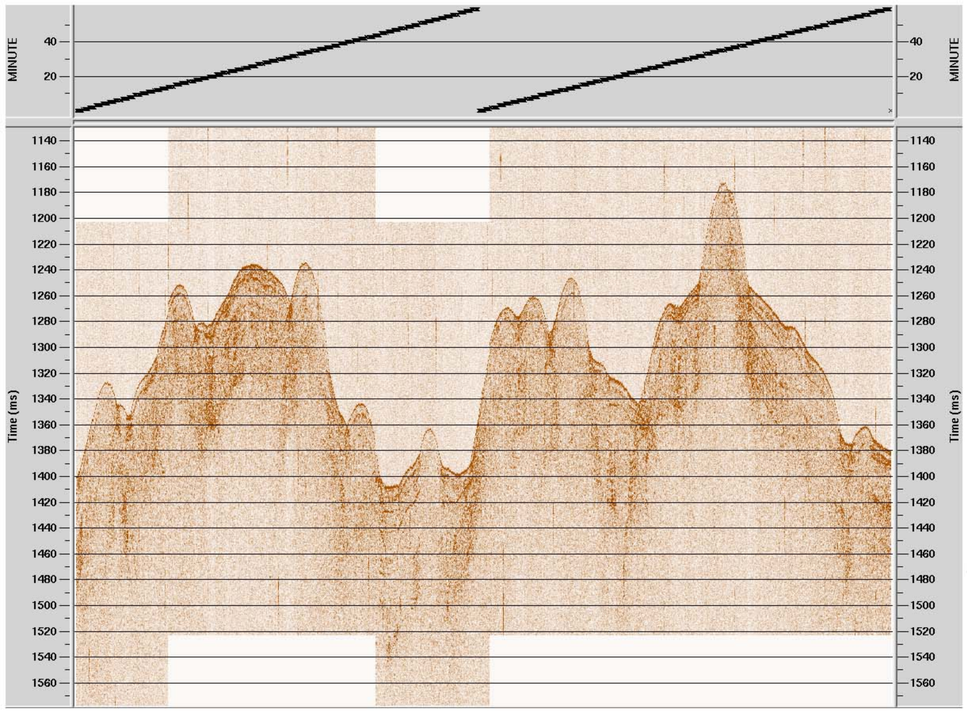


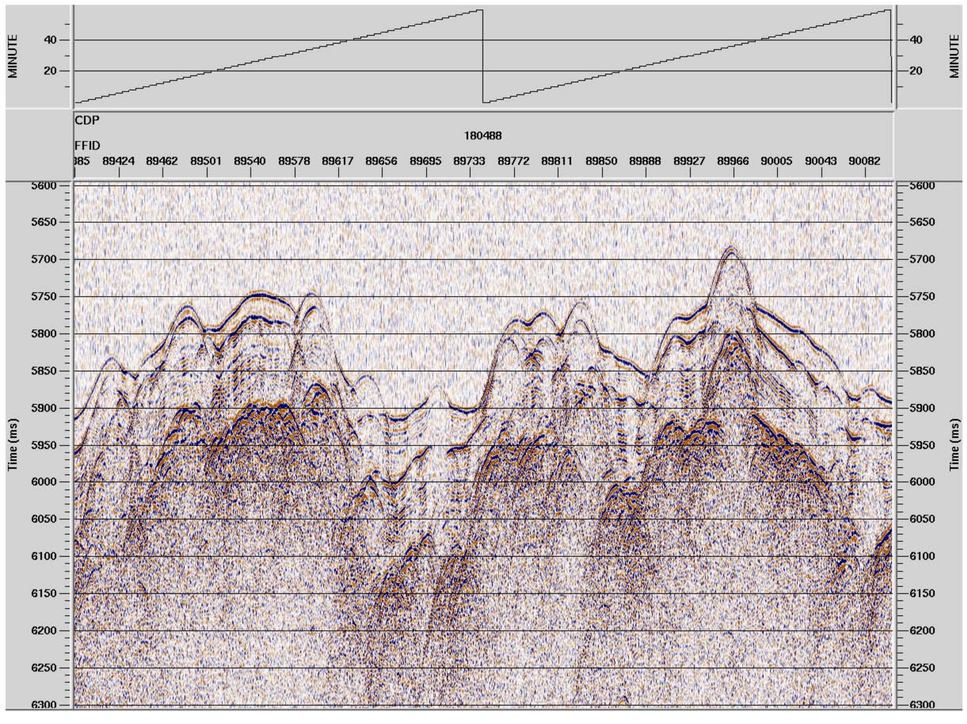
Transit
Line 8
JD: 313
14:00-16:00 GMT

NW Direction of travel SE

14:00 GMT 16:00 GMT



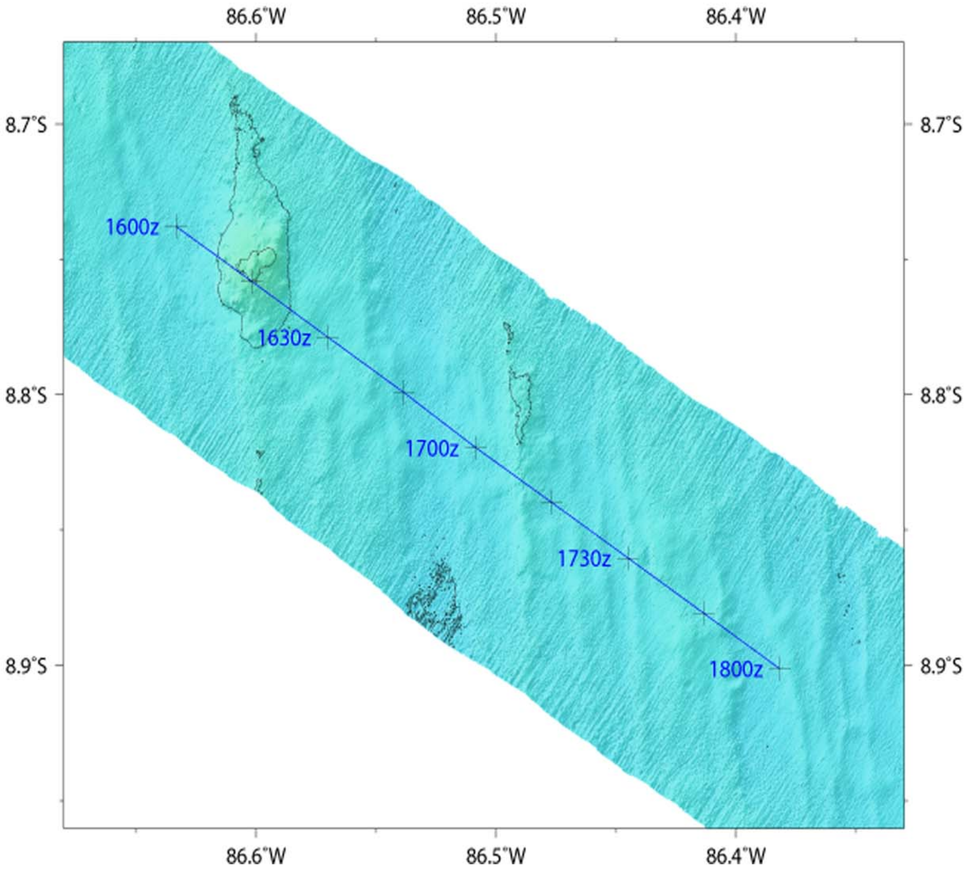


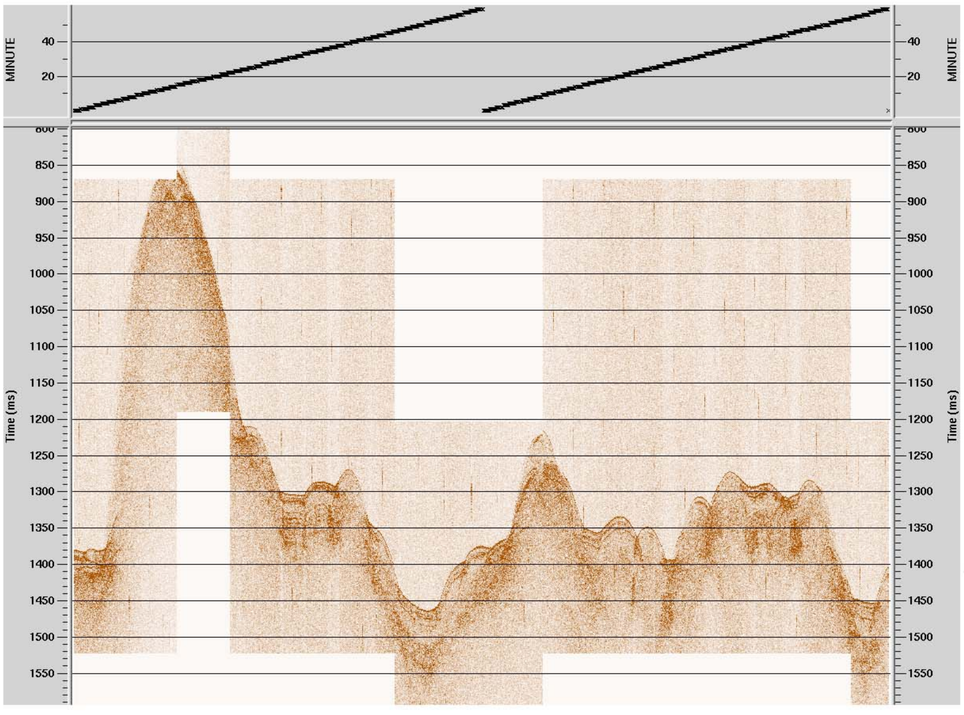


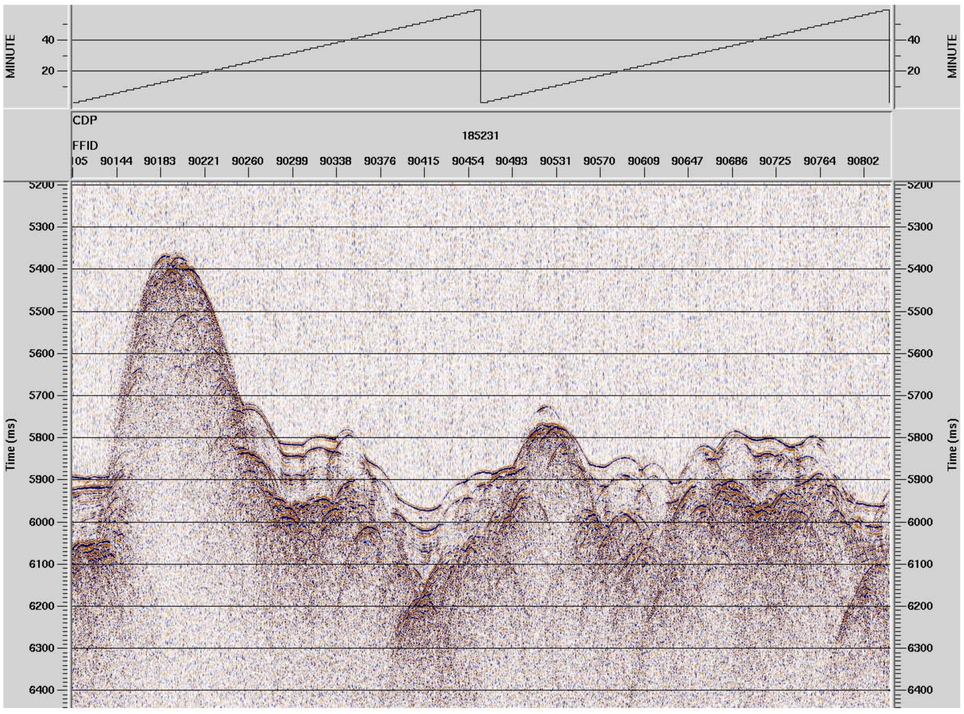
Transit
Line 8
JD: 313
16:00-18:00 GMT

NW Direction of travel SE

16:00 GMT 18:00 GMT



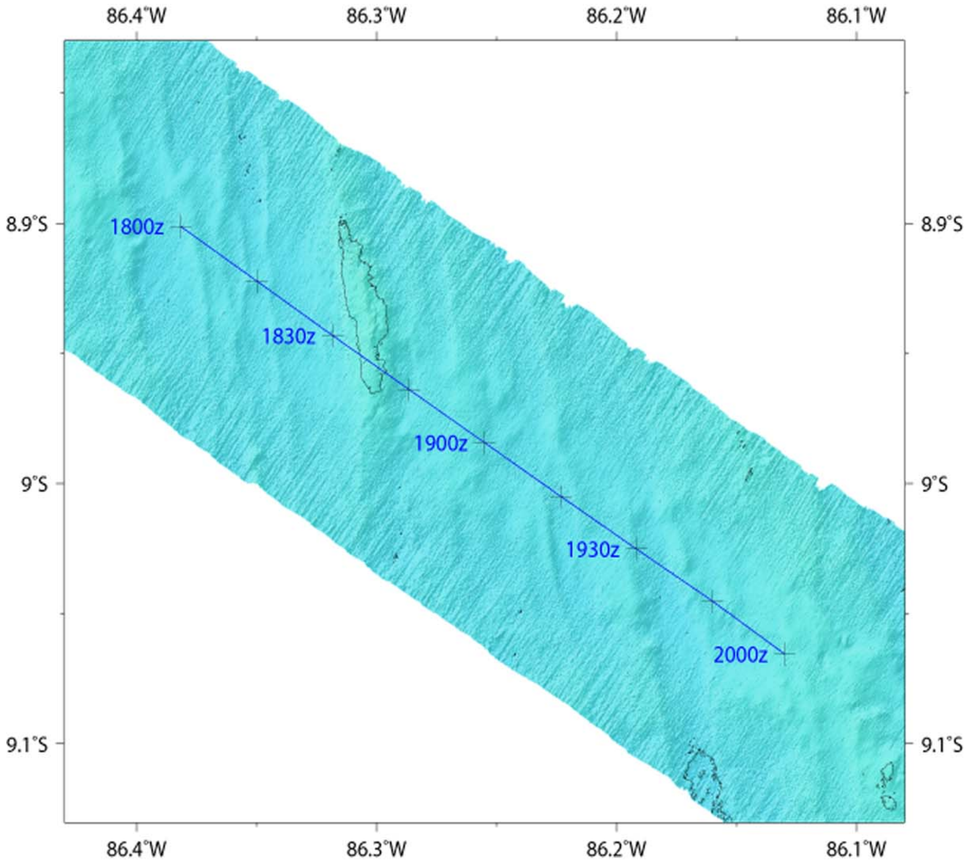


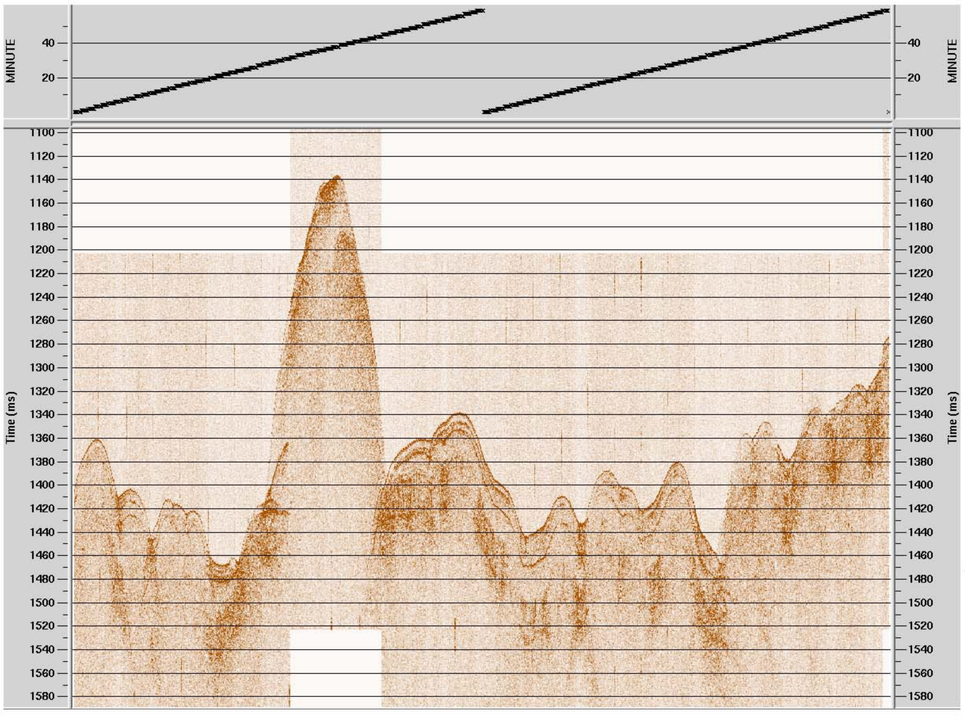


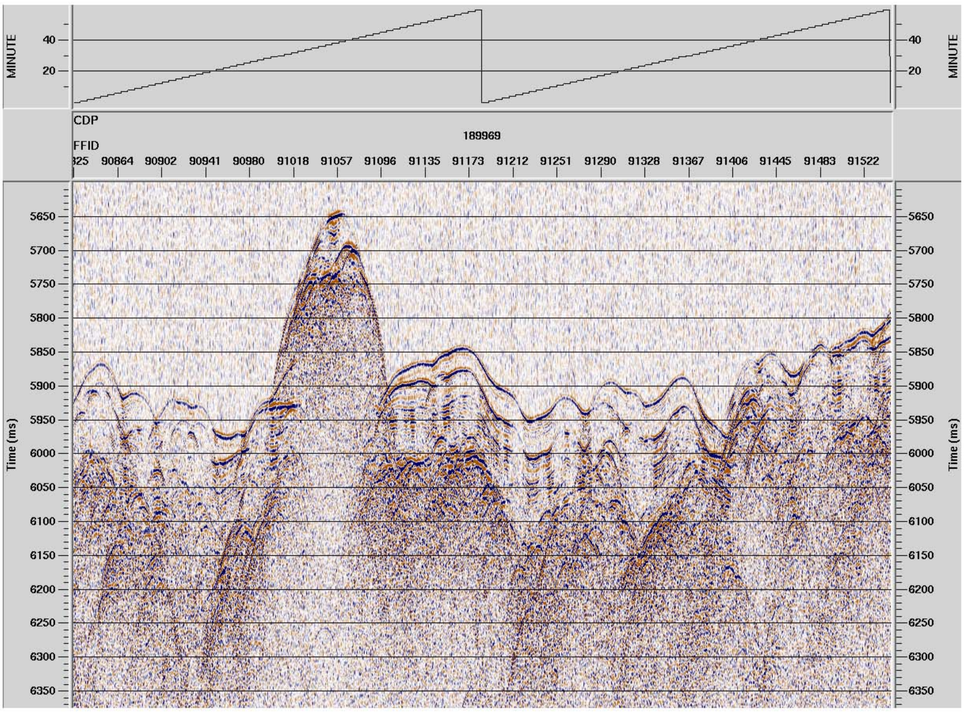
Transit
Line 8
JD: 313
18:00-20:00 GMT

NW Direction of travel SE

18:00 GMT 20:00 GMT



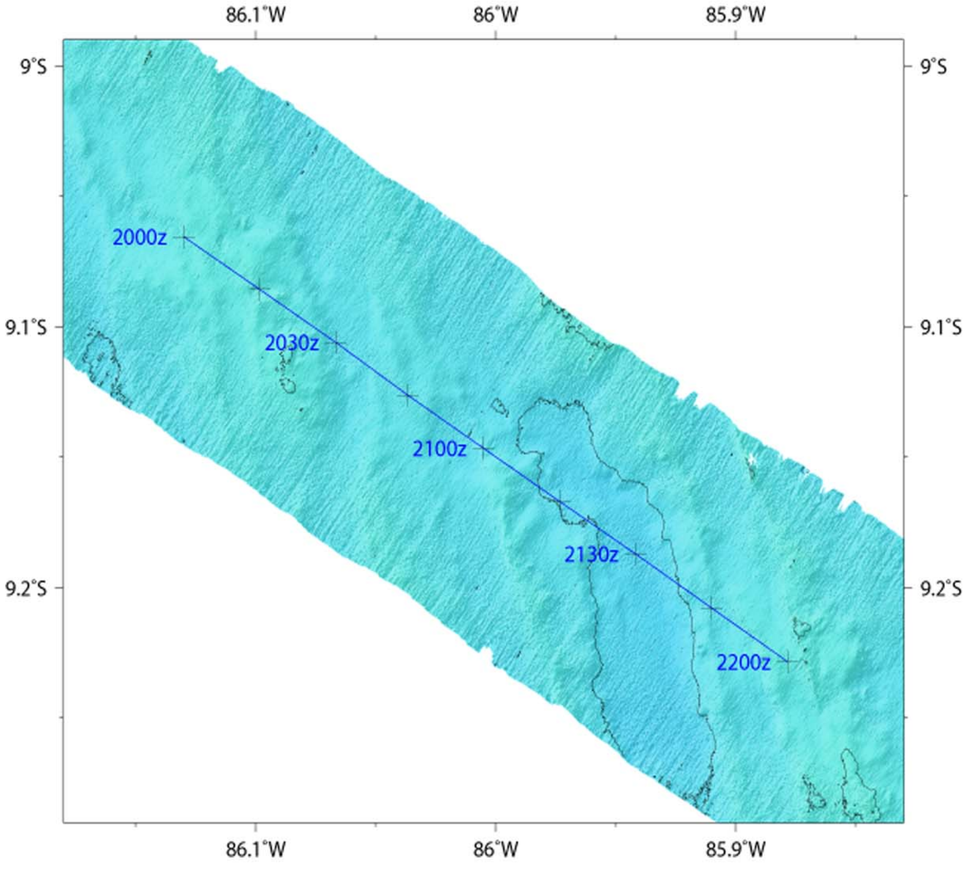


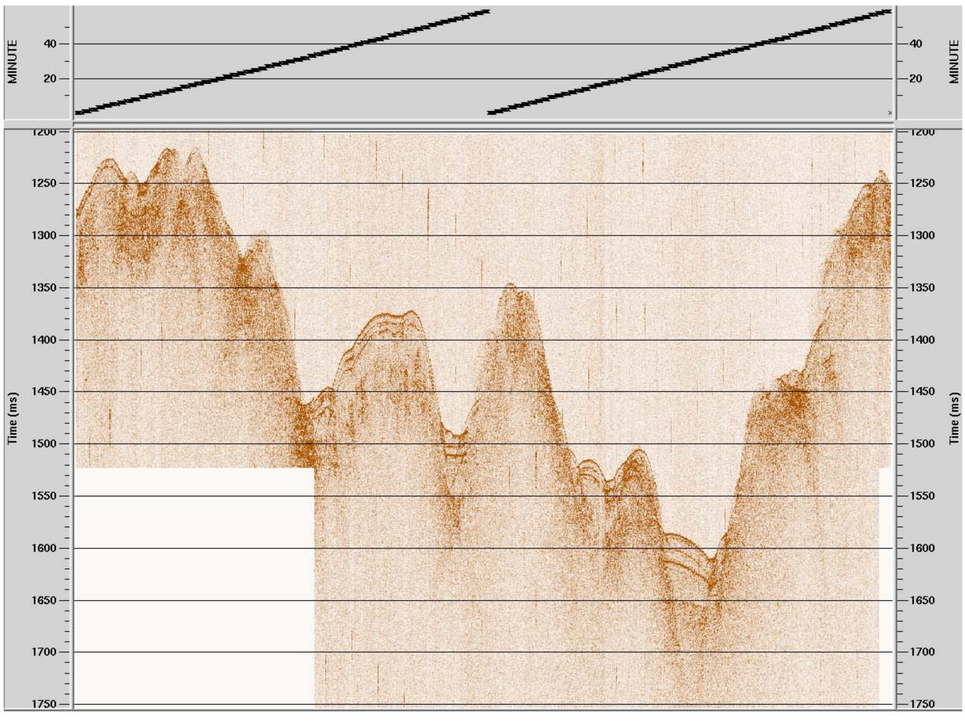


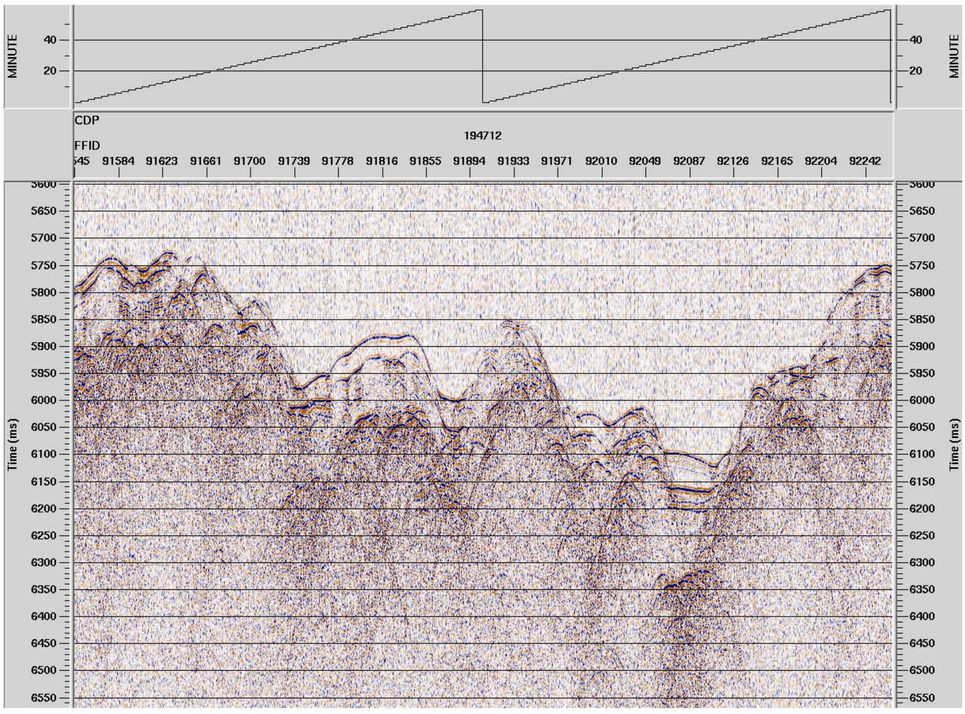
Transit
Line 8
JD: 313
20:00-22:00 GMT

NW Direction of travel SE

20:00 GMT 22:00 GMT



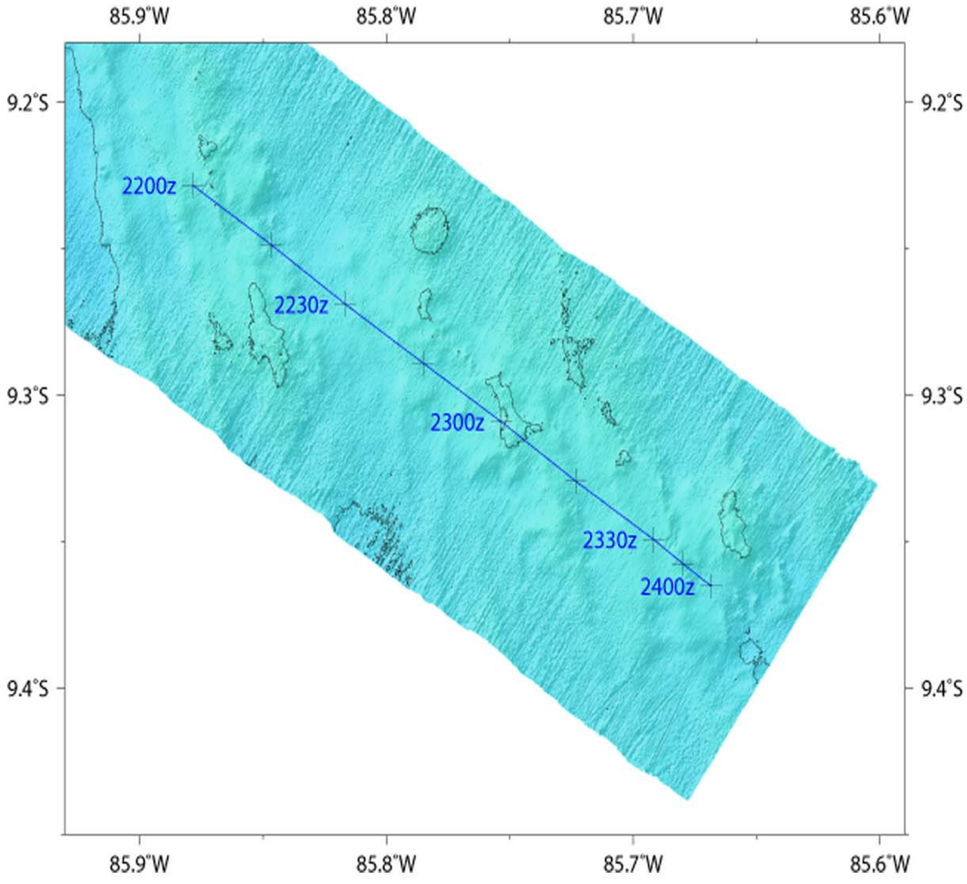


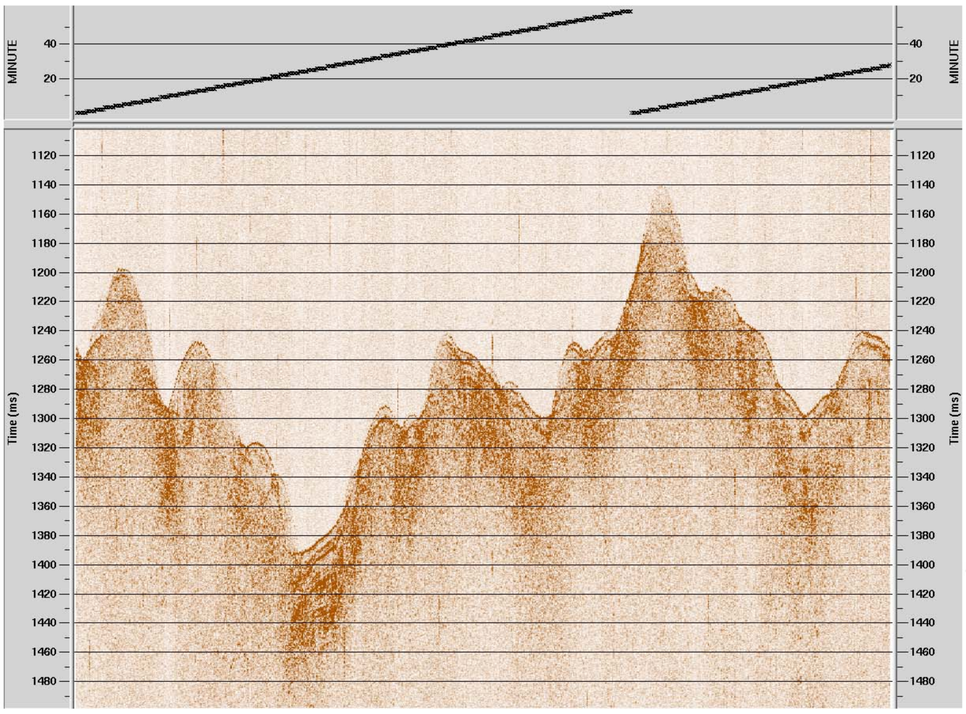


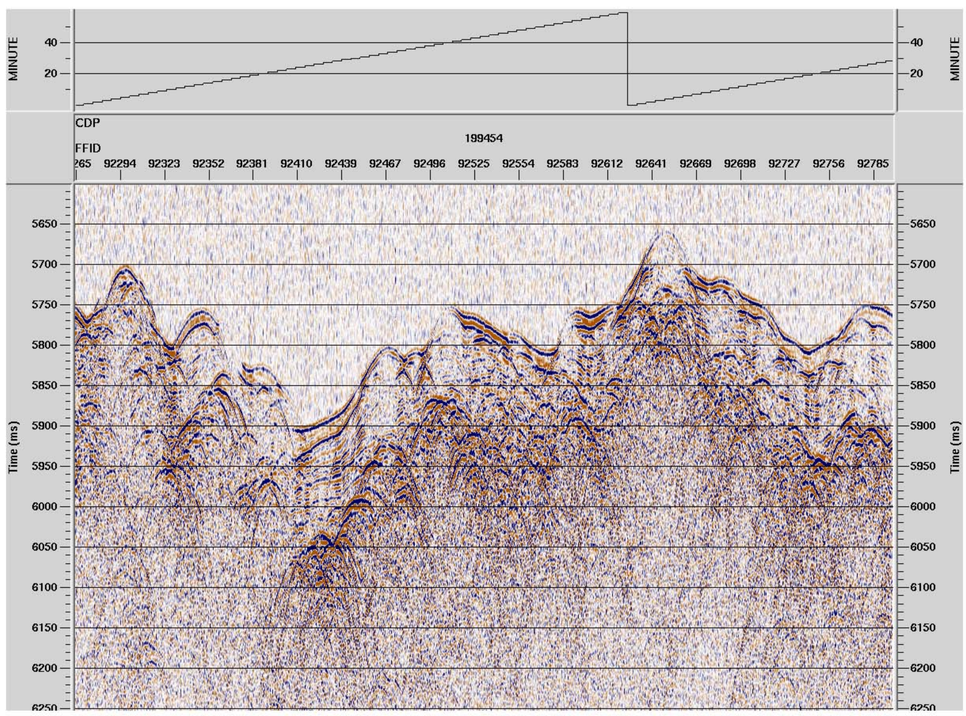
Transit
Line 8
JD: 313
22:00-23:28 GMT

NW Direction of travel SE

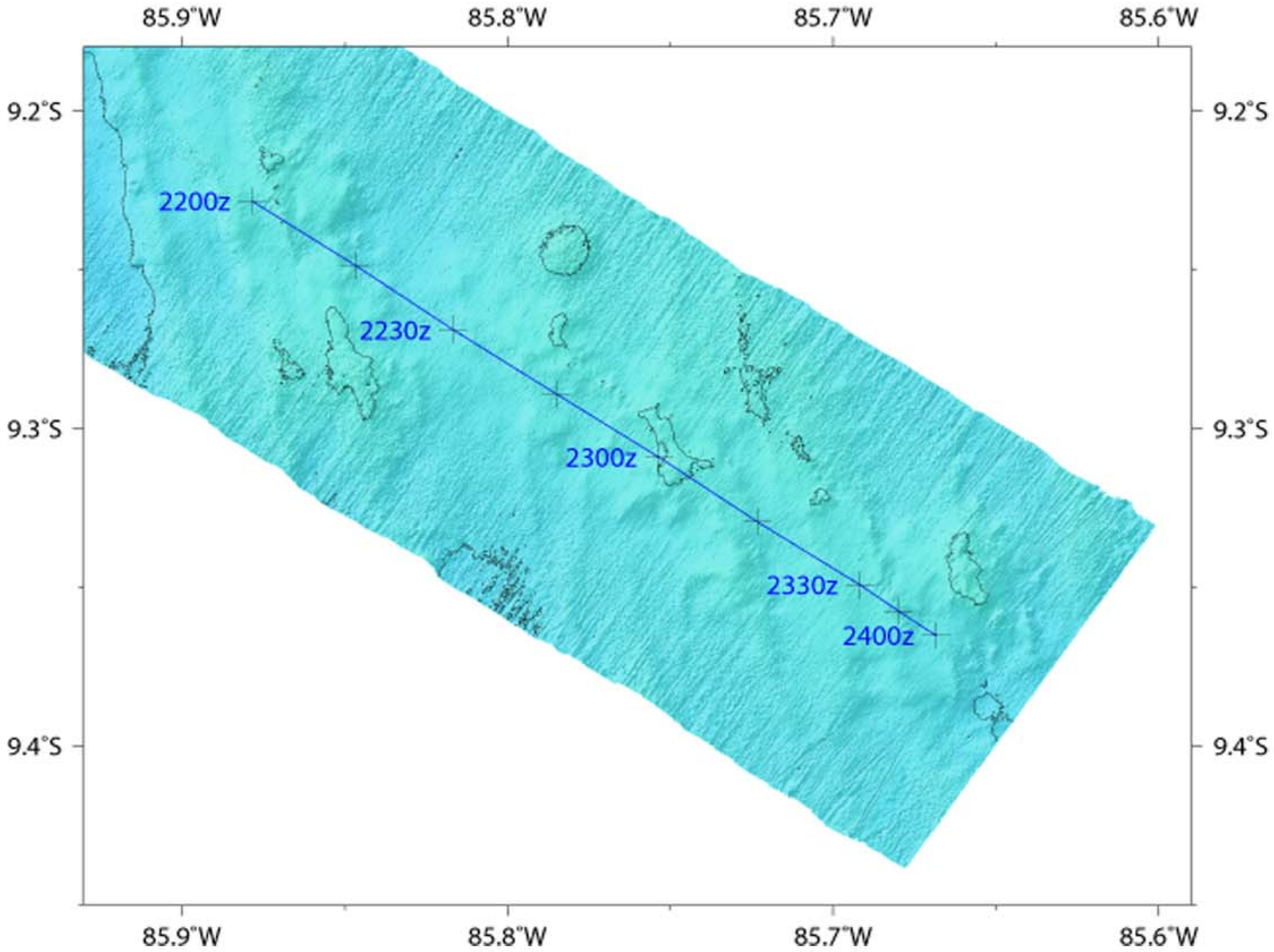
22:00 GMT 23:28 GMT

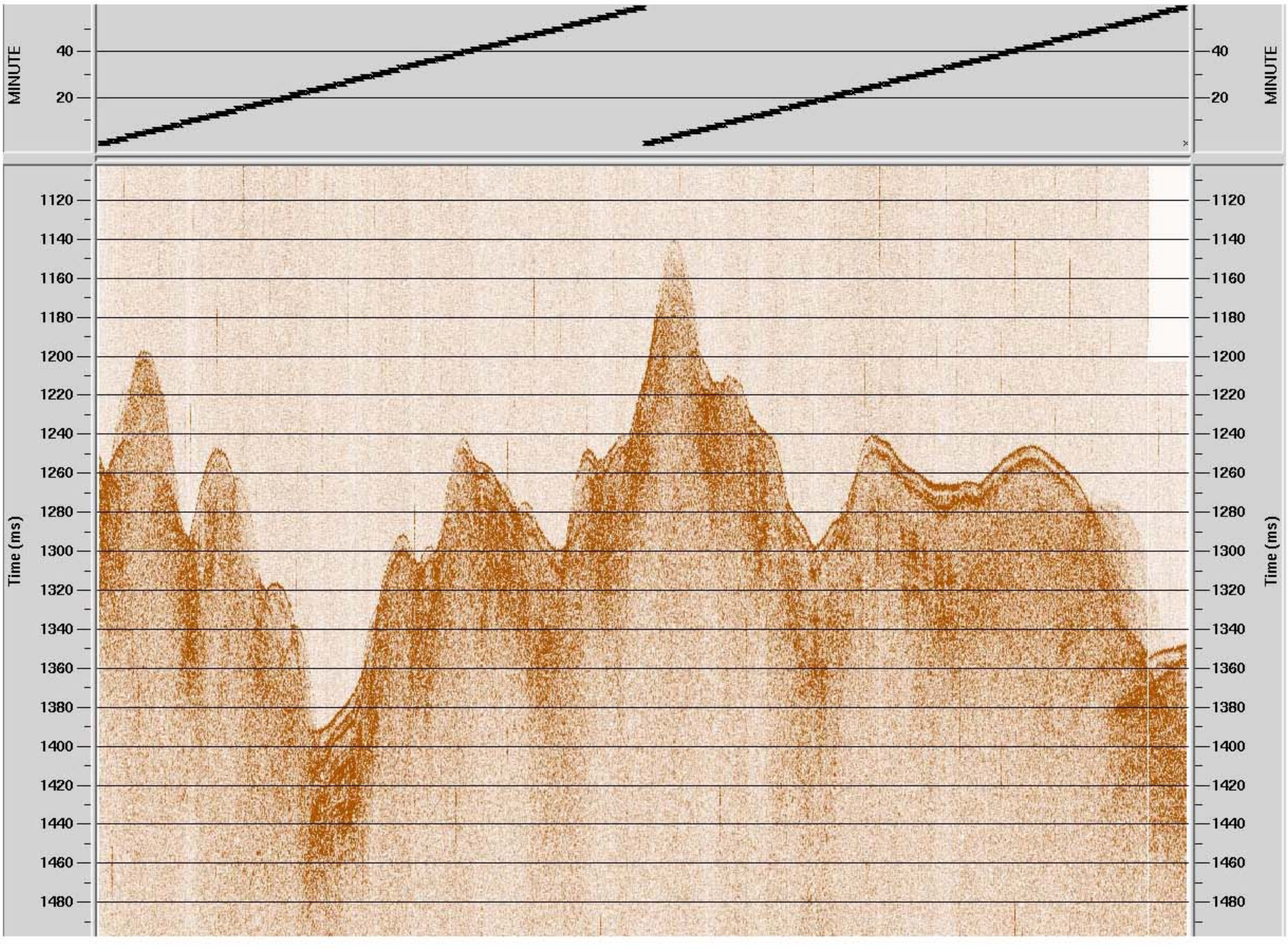




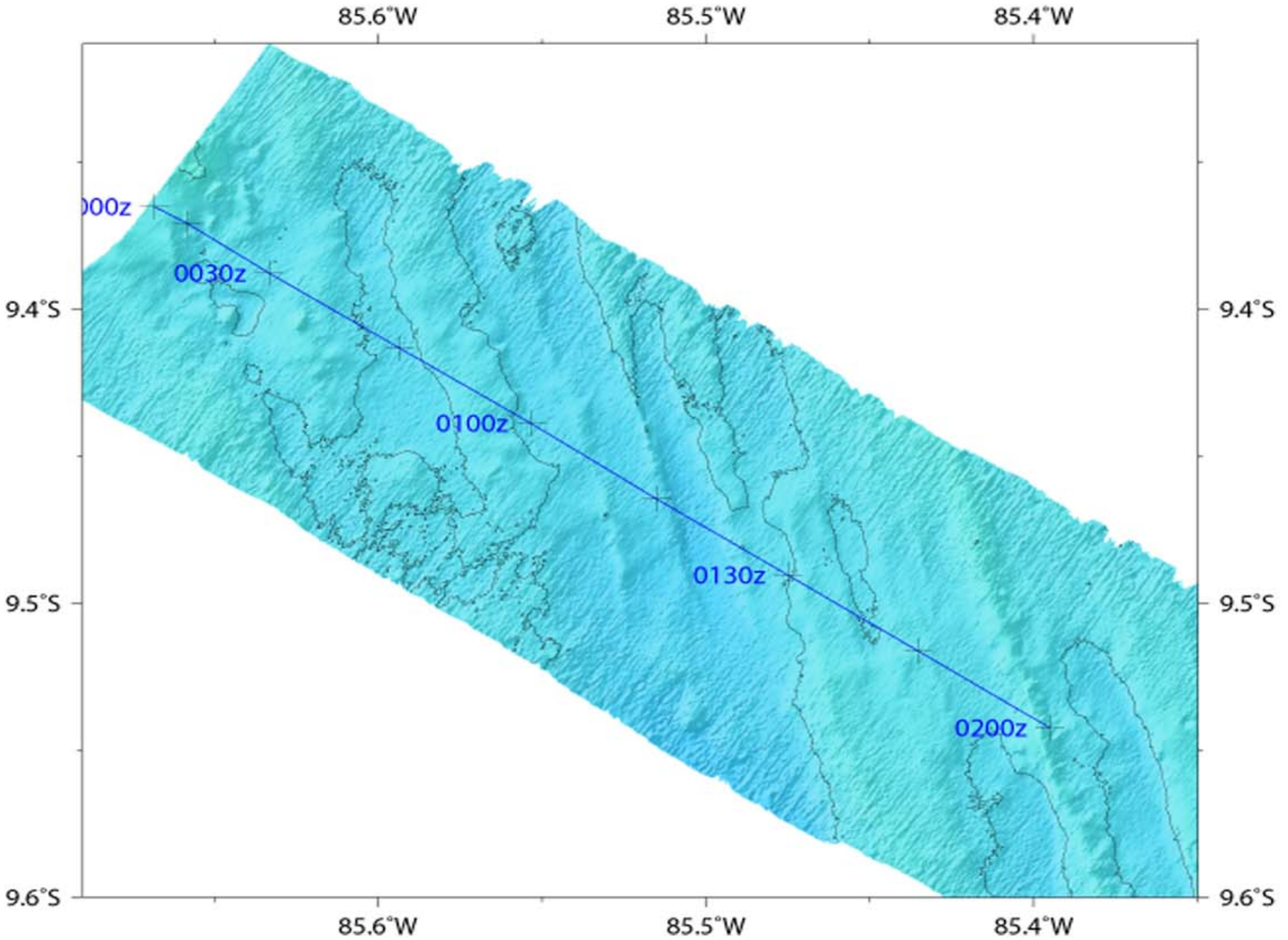


Between Transit Line 8 and Transit Line 9
JD 313
22:00-00:00 GMT

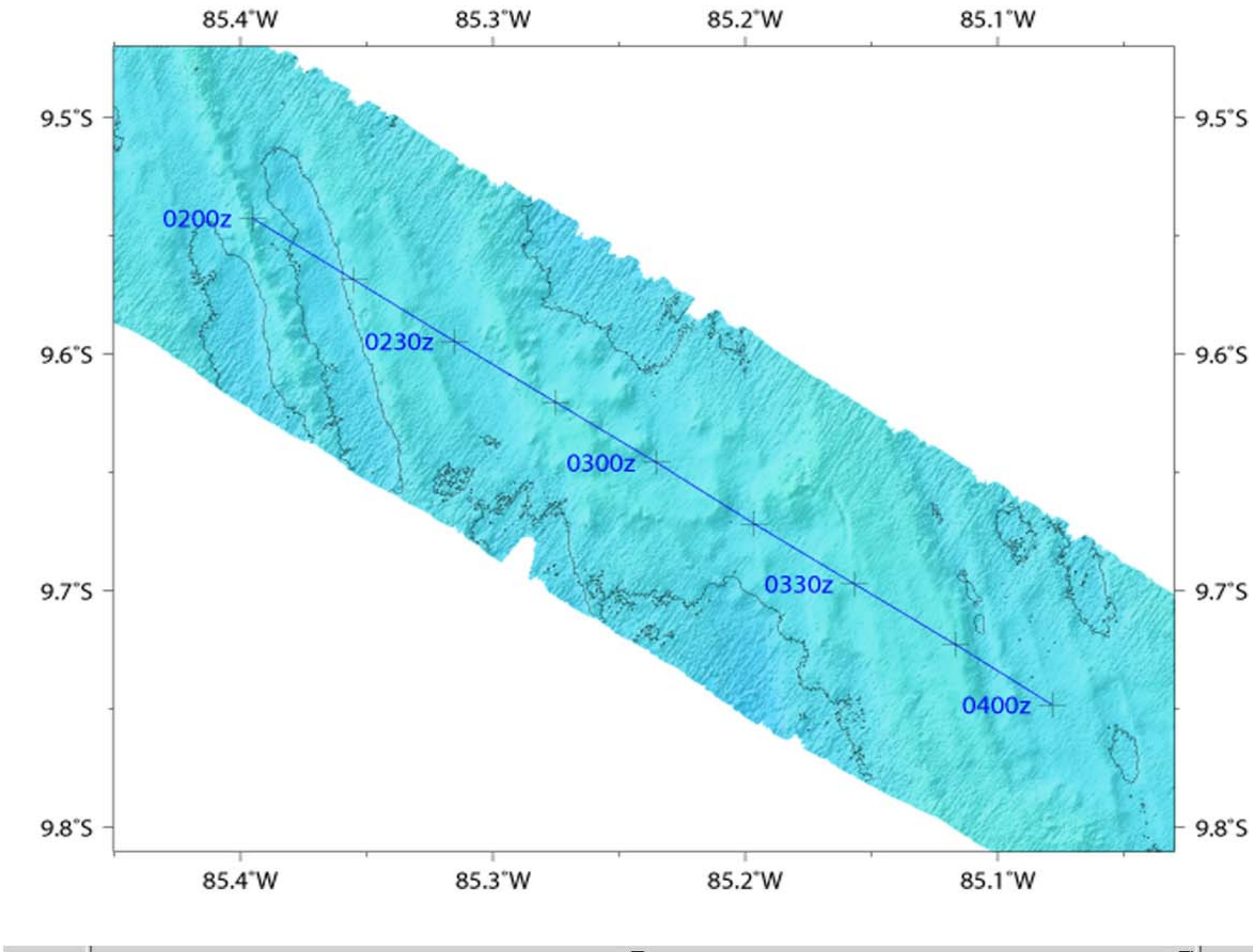


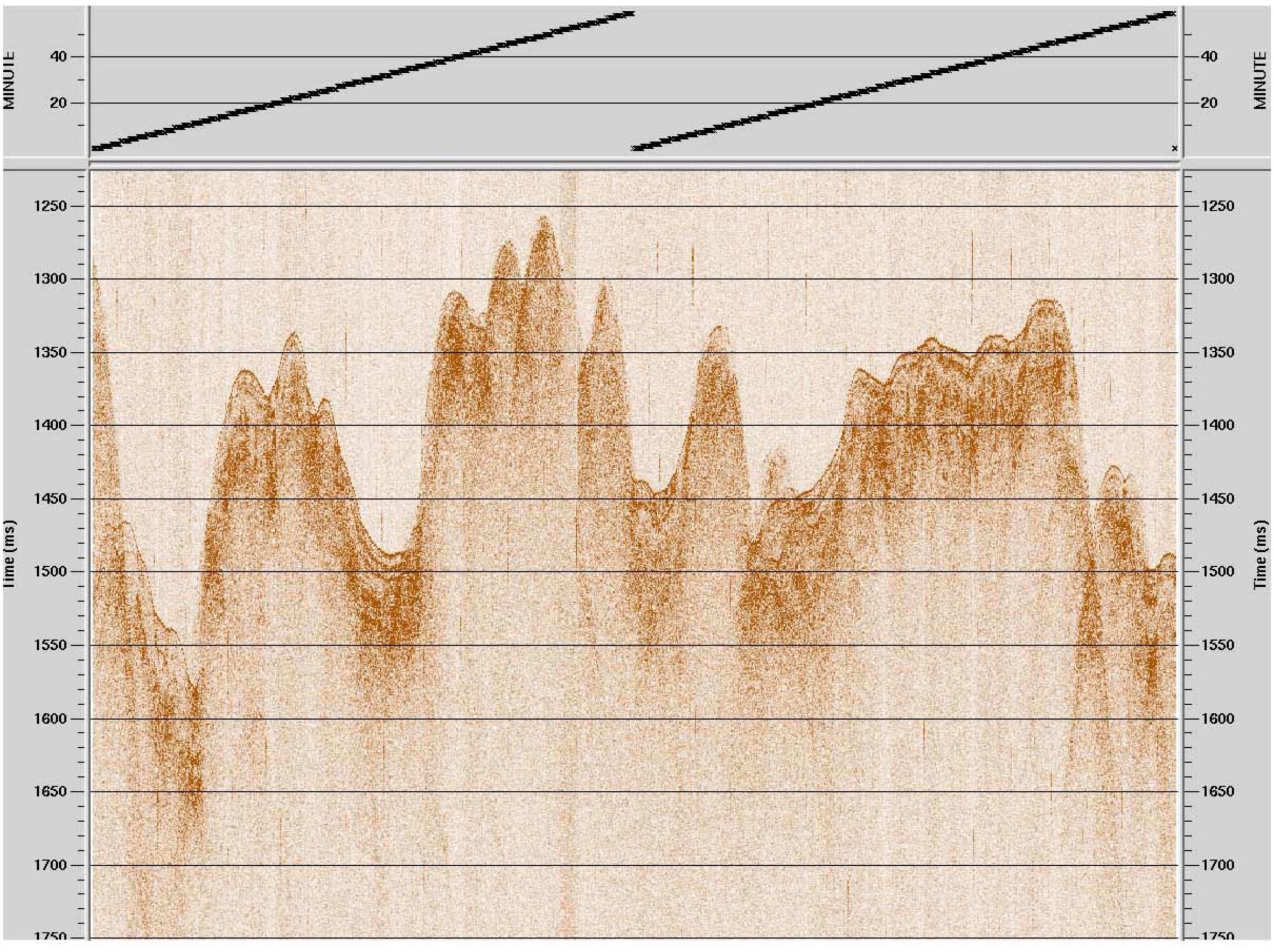


Between Transit Line 8 and Transit Line 9
JD 314
00:00-02:00 GMT

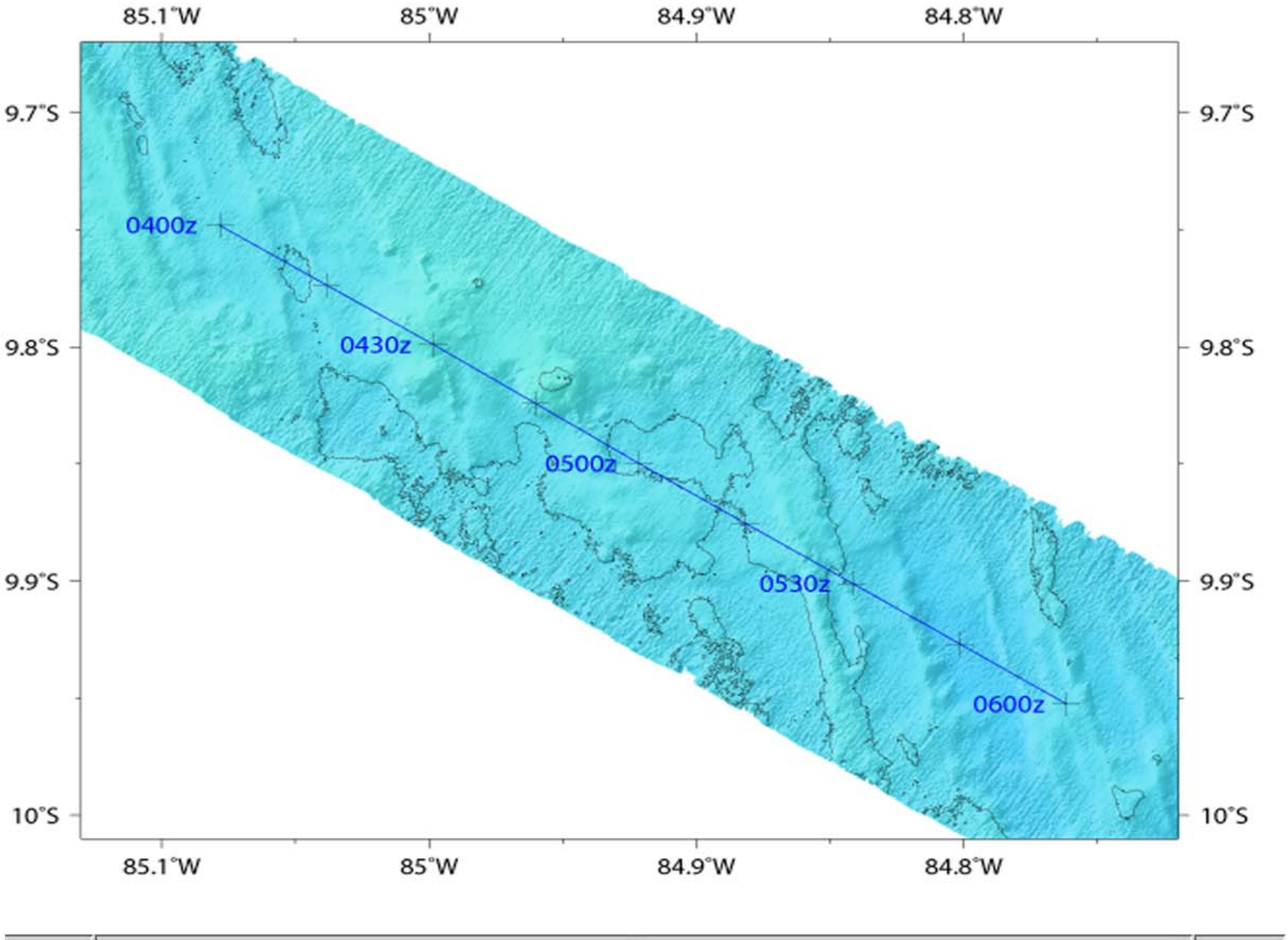


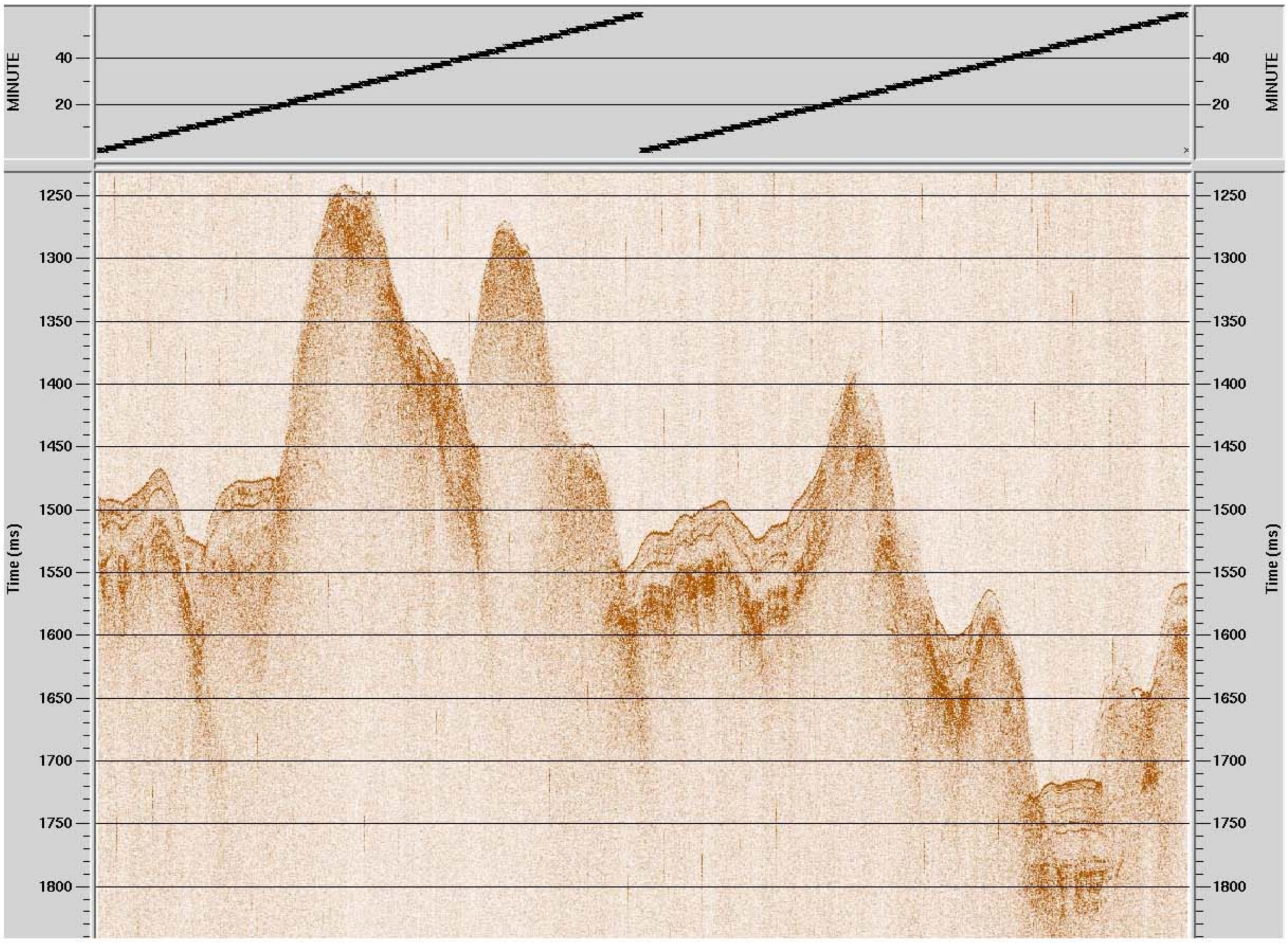
Between Transit Line 8 and Transit Line 9
JD 314
02:00-04:00 GMT



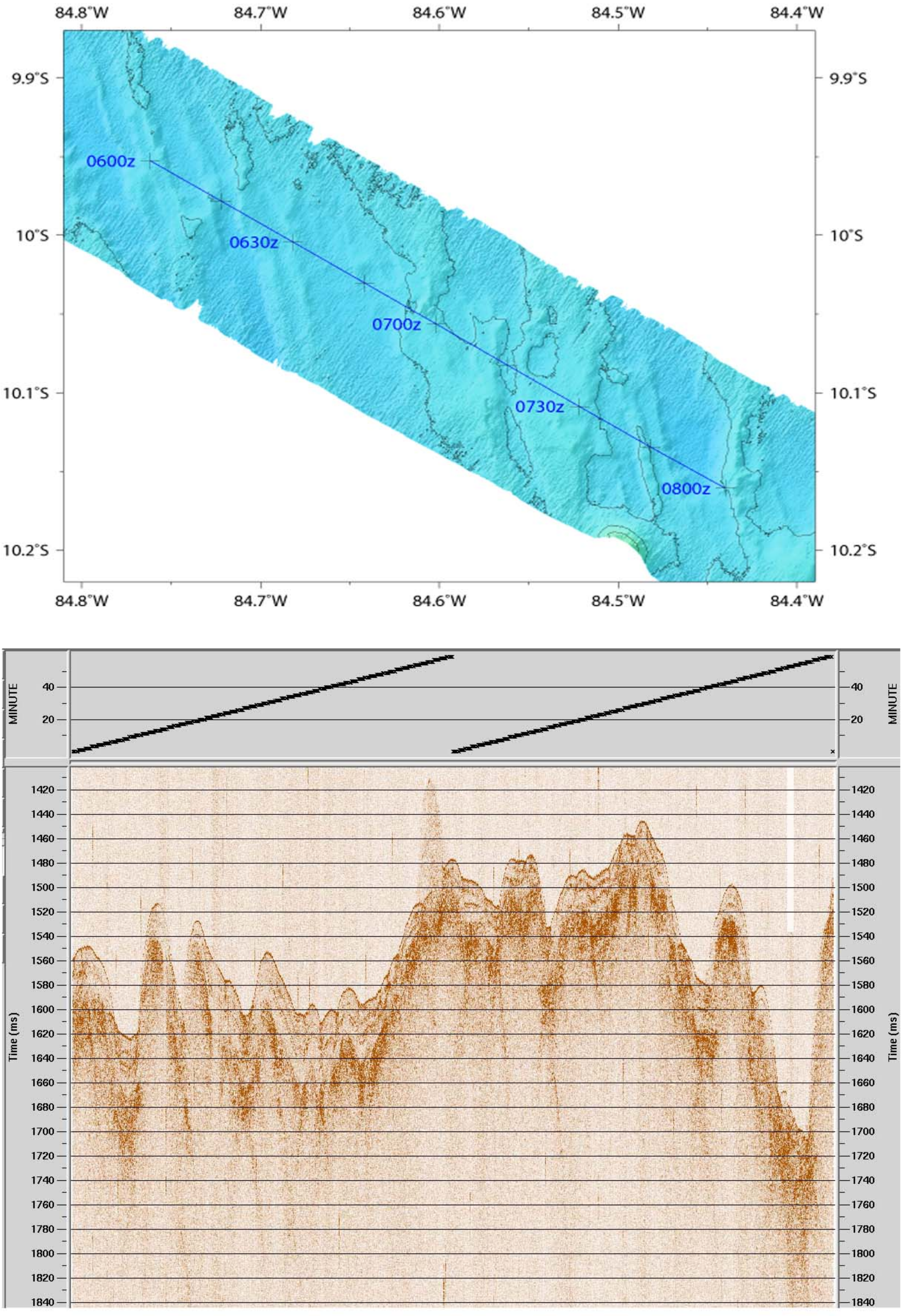


Between Transit Line 8 and Transit Line 9
JD 314
04:00-06:00 GMT

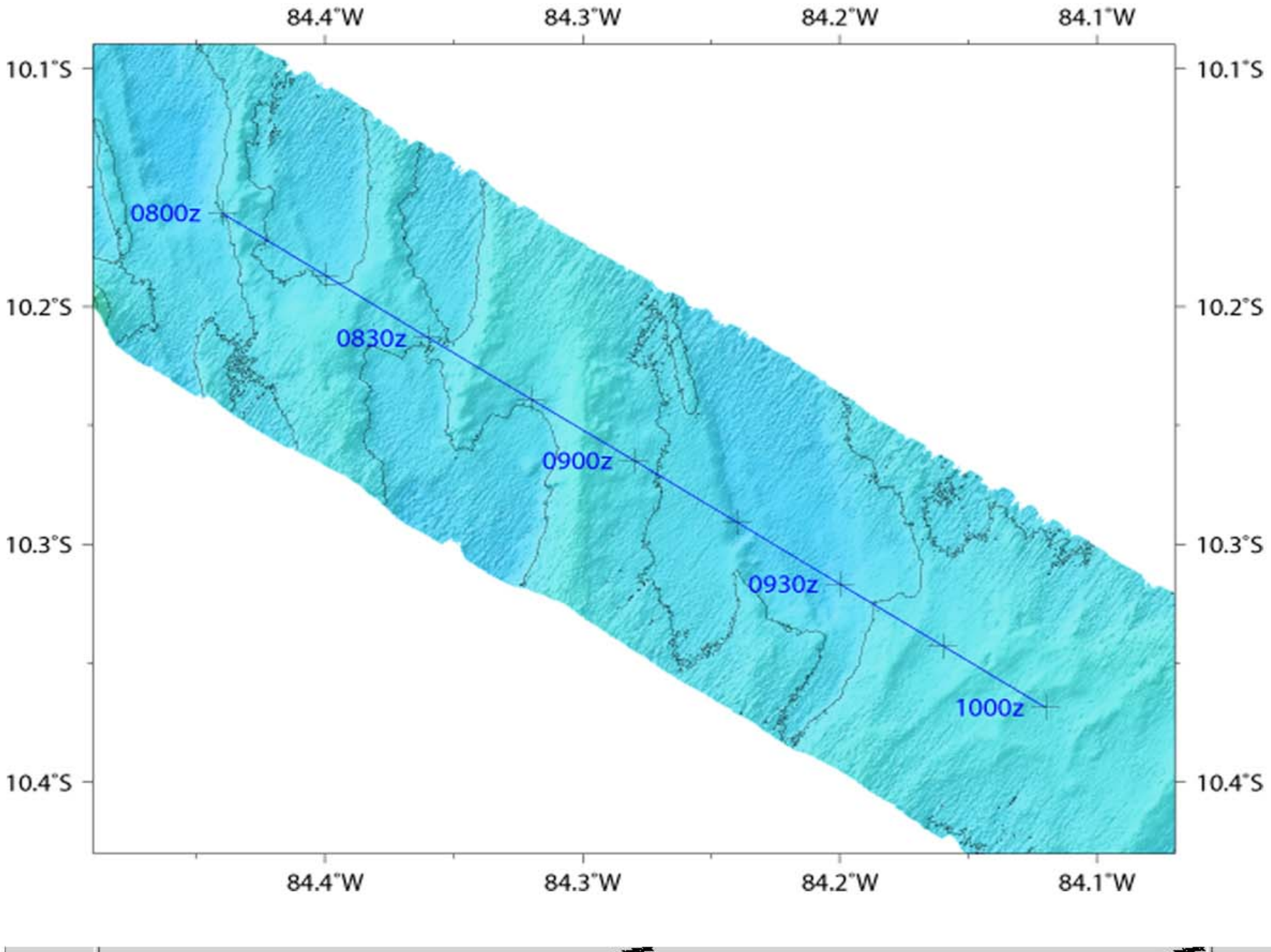


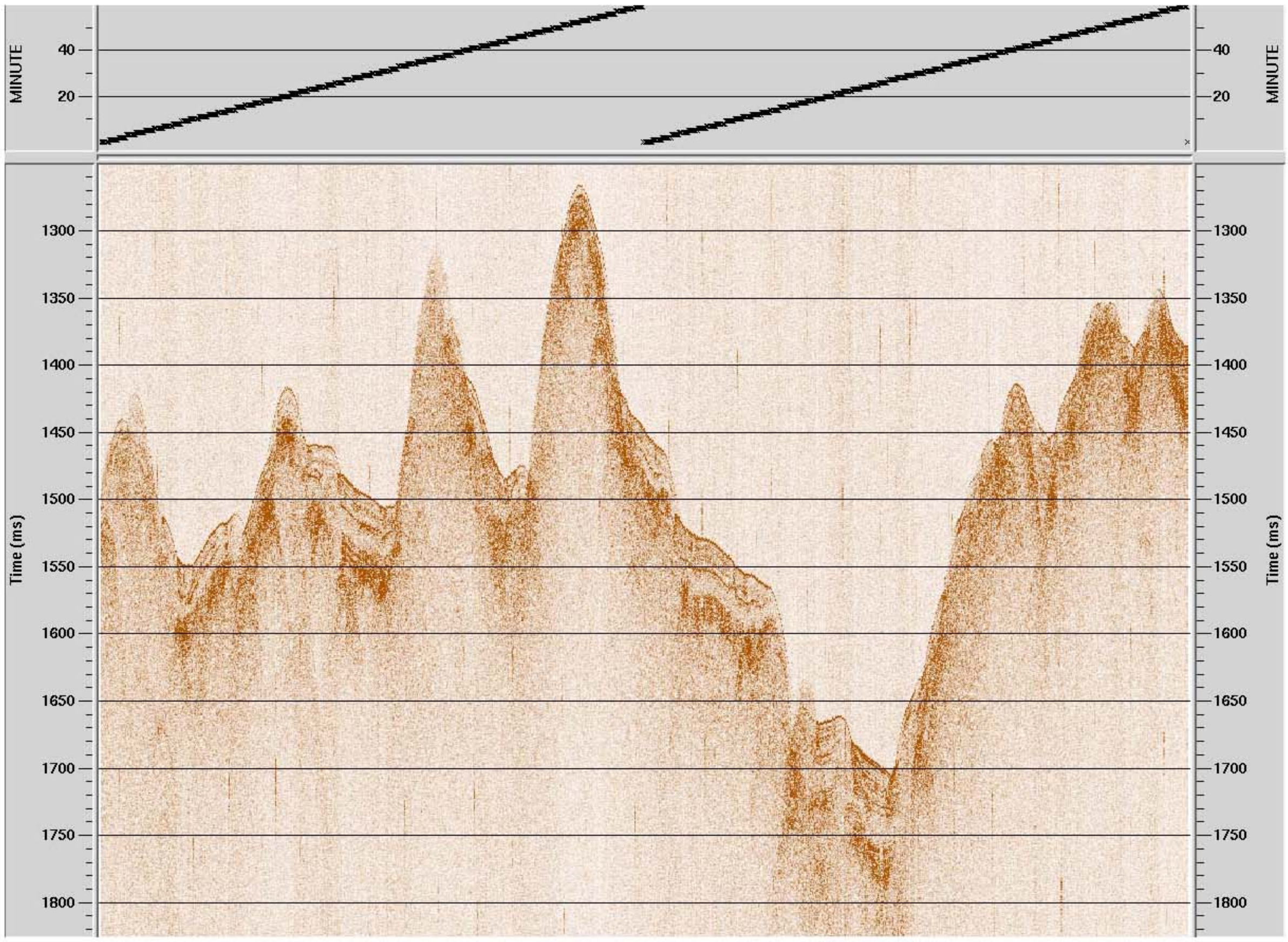


Between Transit Line 8 and Transit Line 9
JD 314
06:00-08:00 GMT

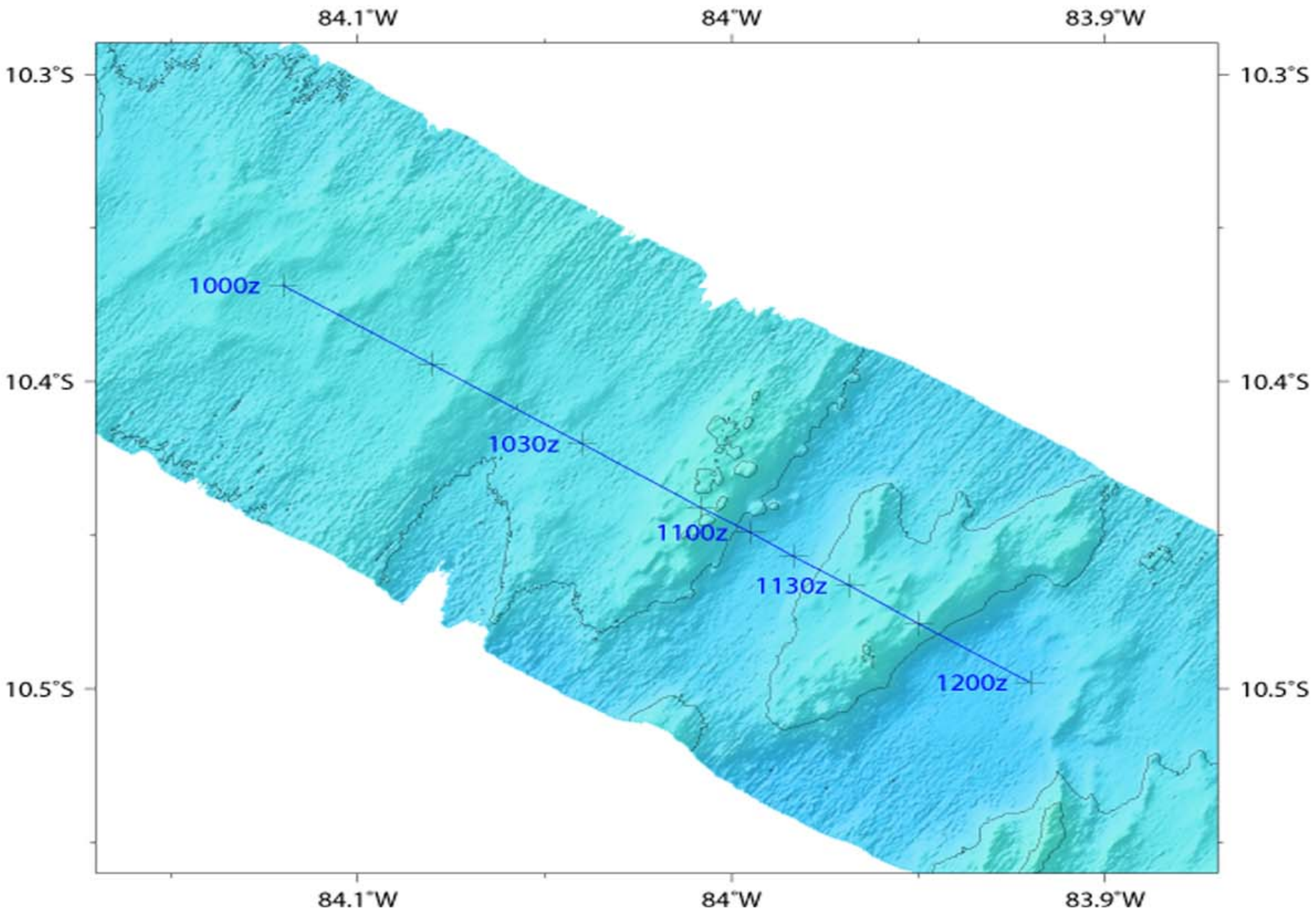


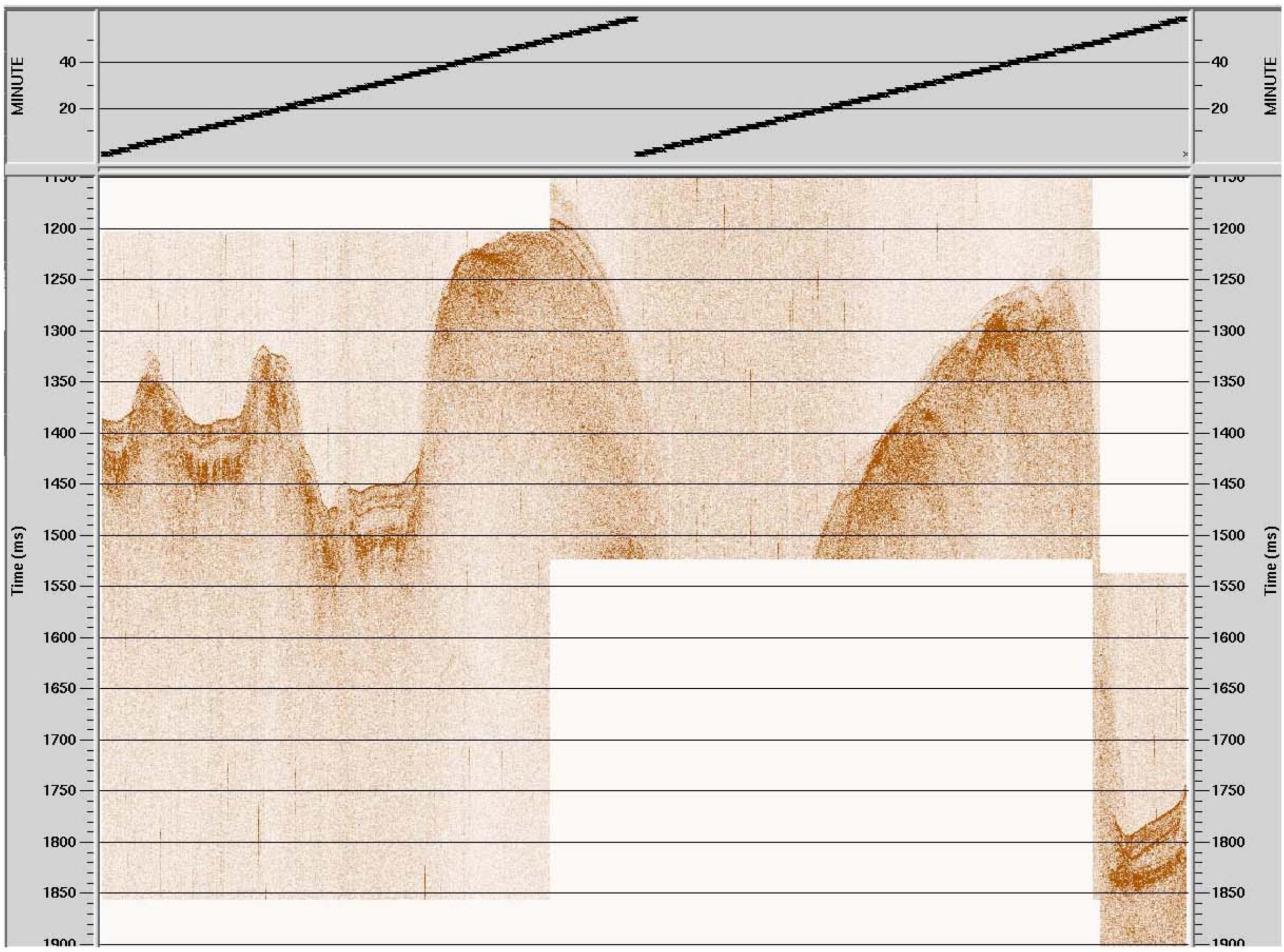
Between Transit Line 8 and Transit Line 9
JD 314
08:00-10:00 GMT





Between Transit Line 8 and Transit Line 9
JD 314
10:00-12:00 GMT



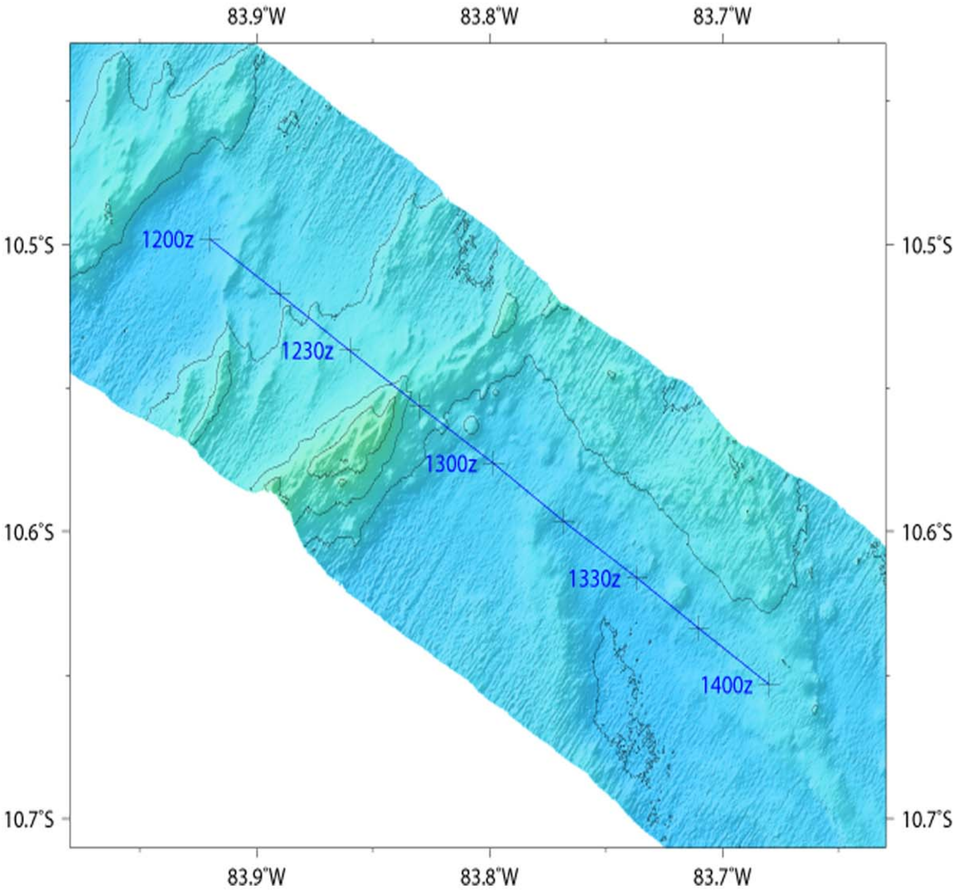


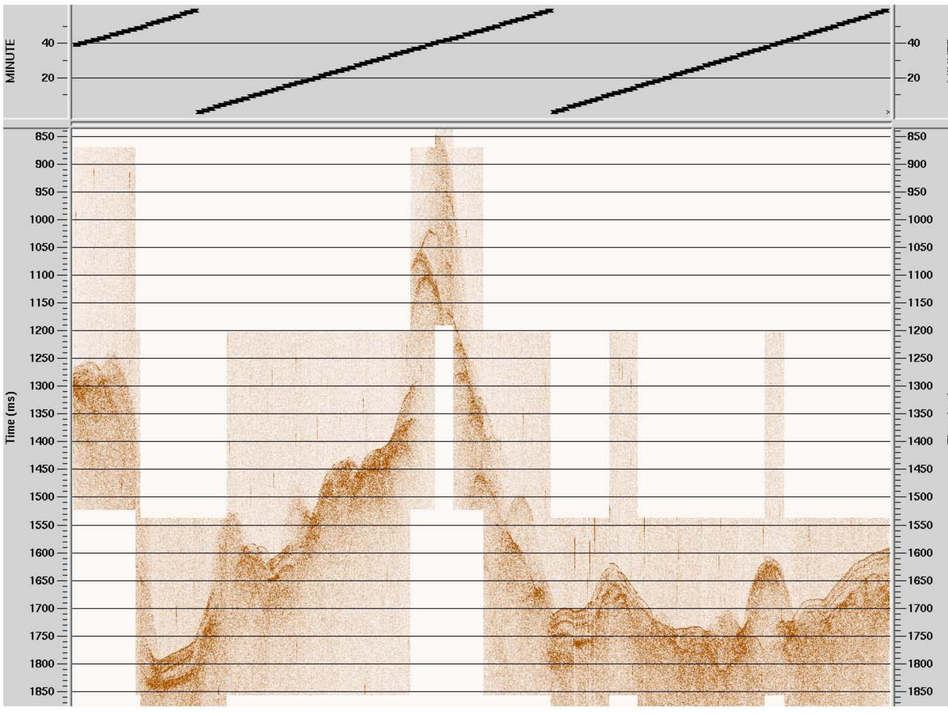
Transit
Line 9
JD: 314
11:37-14:00 GMT

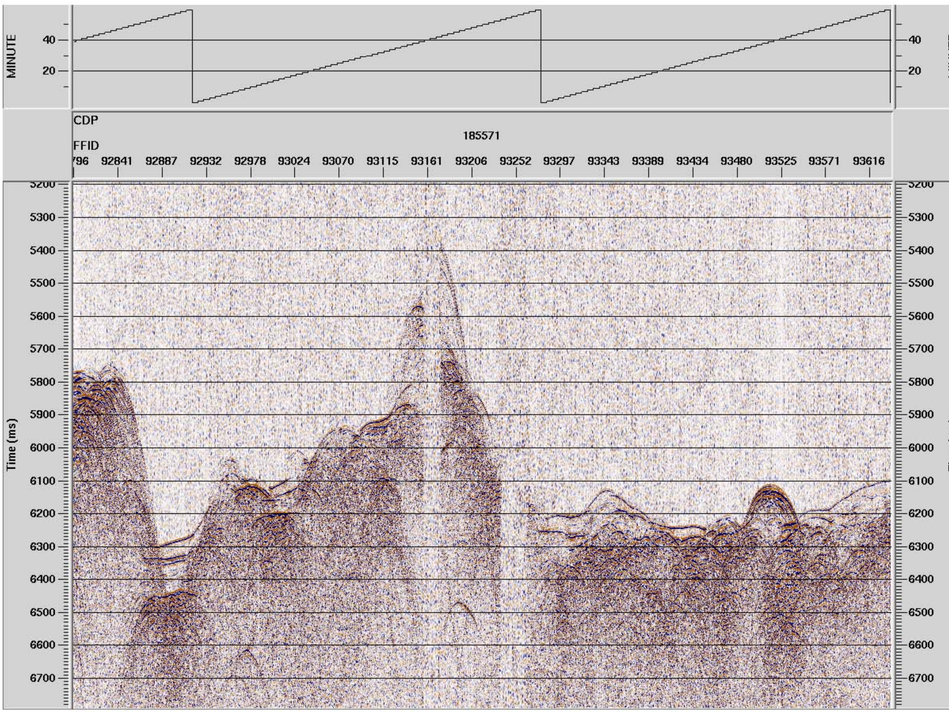
11:37 GMT

NW Direction of travel SE

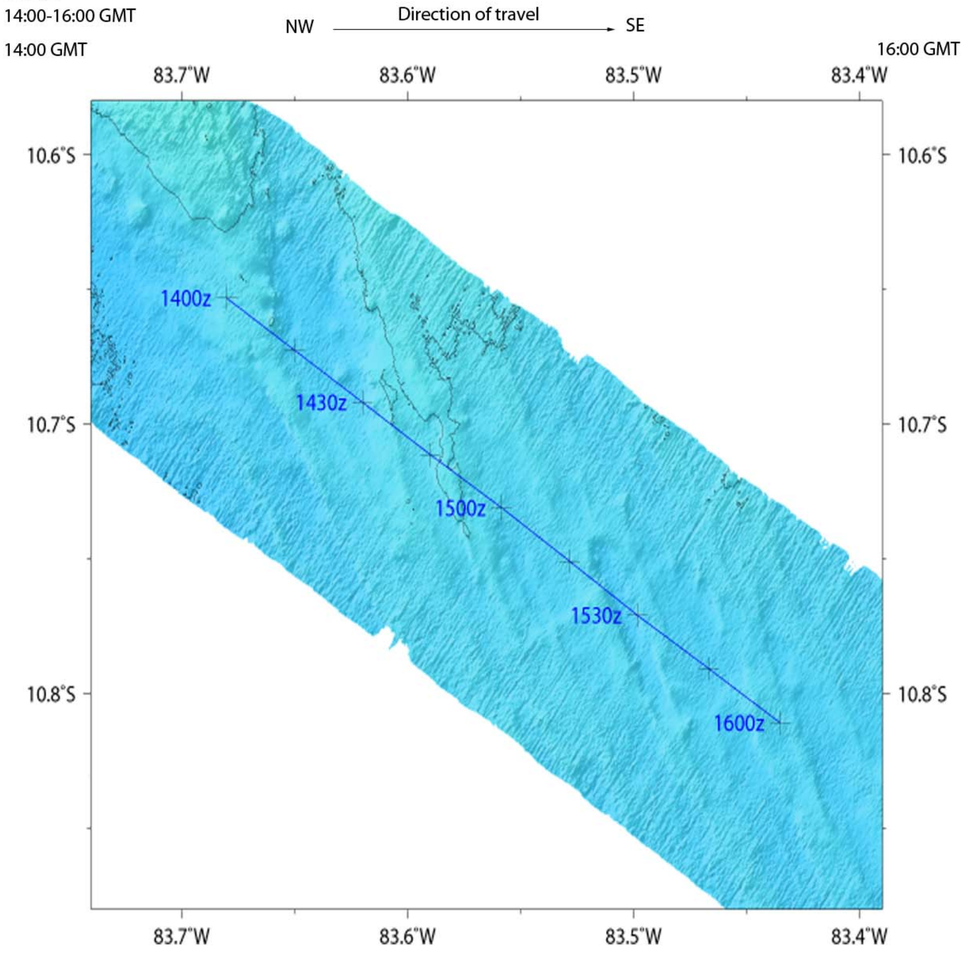
14:00 GMT

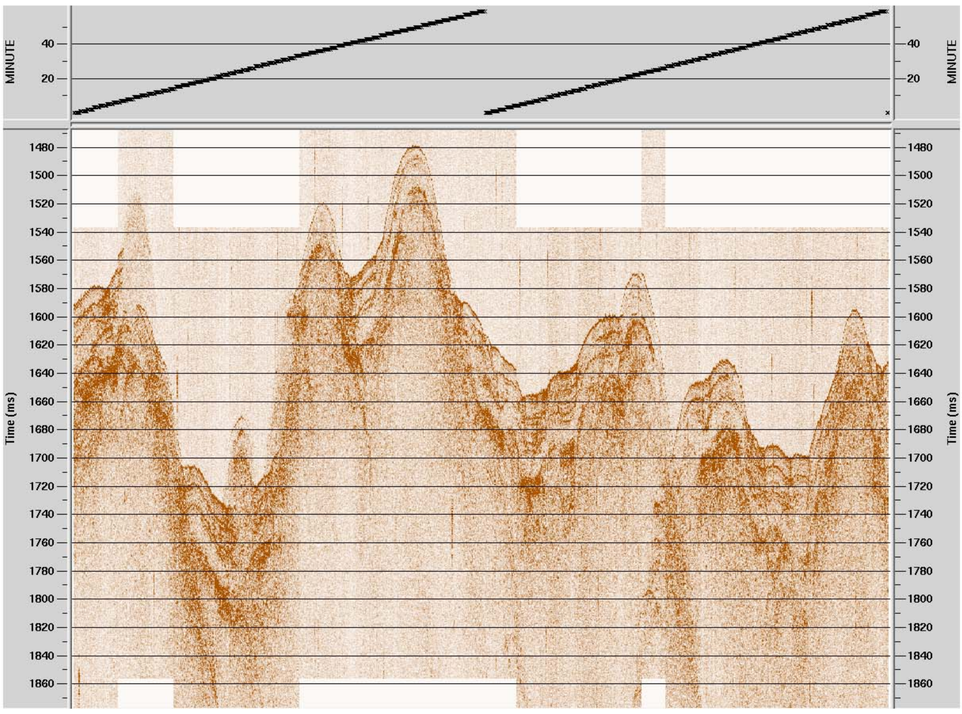


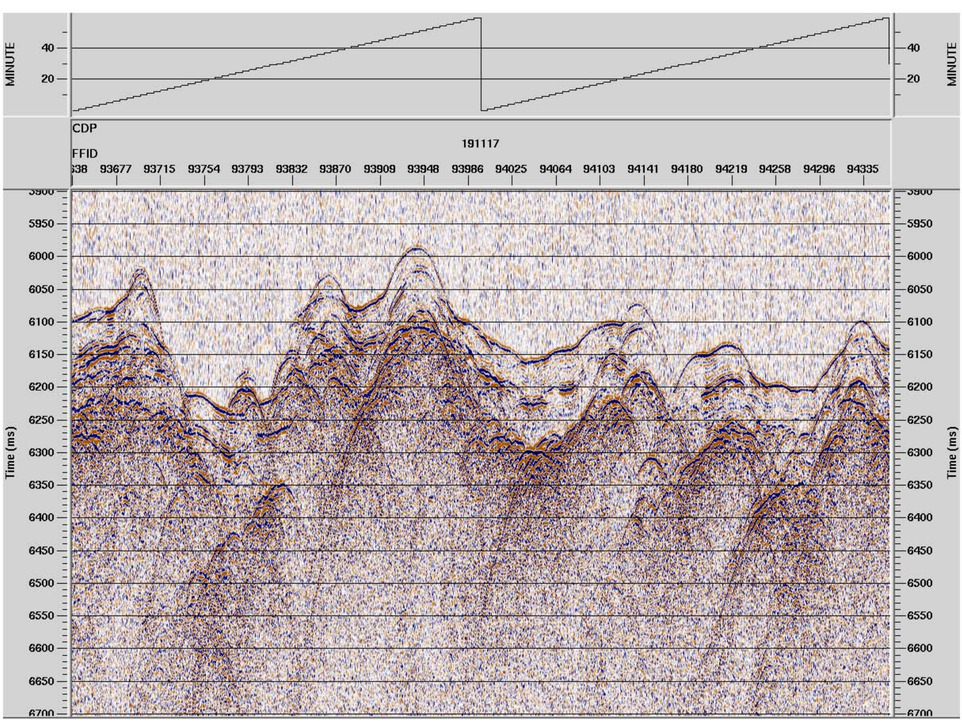




Transit
Line 9
JD: 314
14:00-16:00 GMT





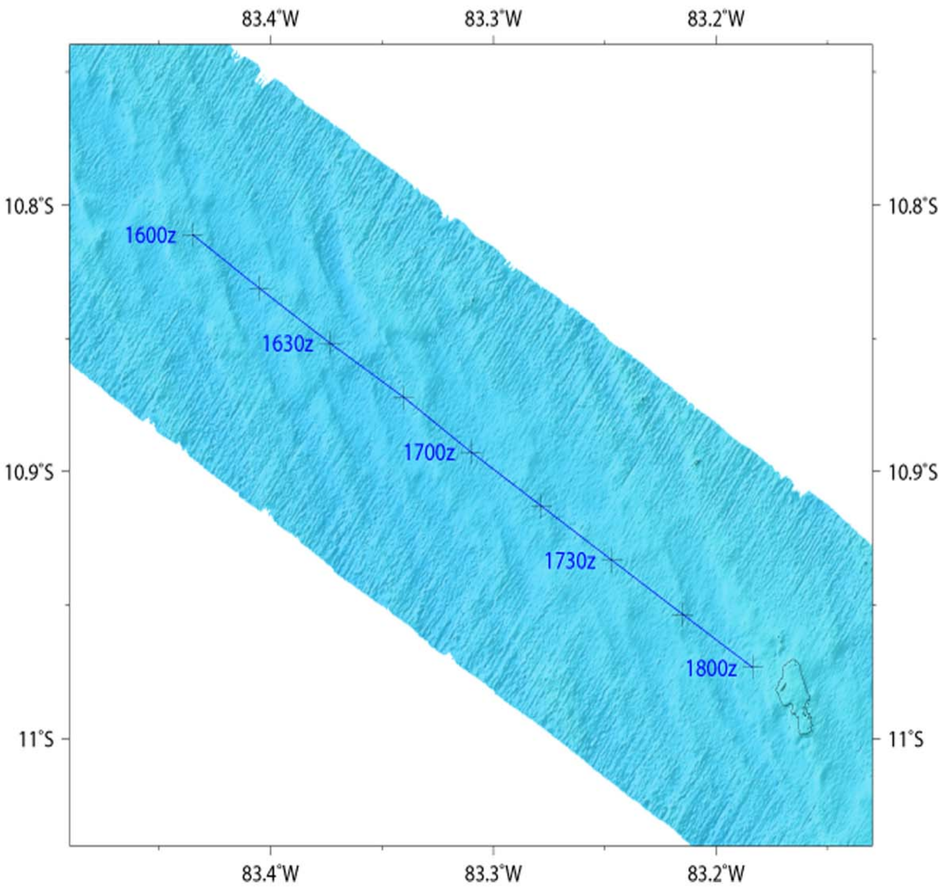


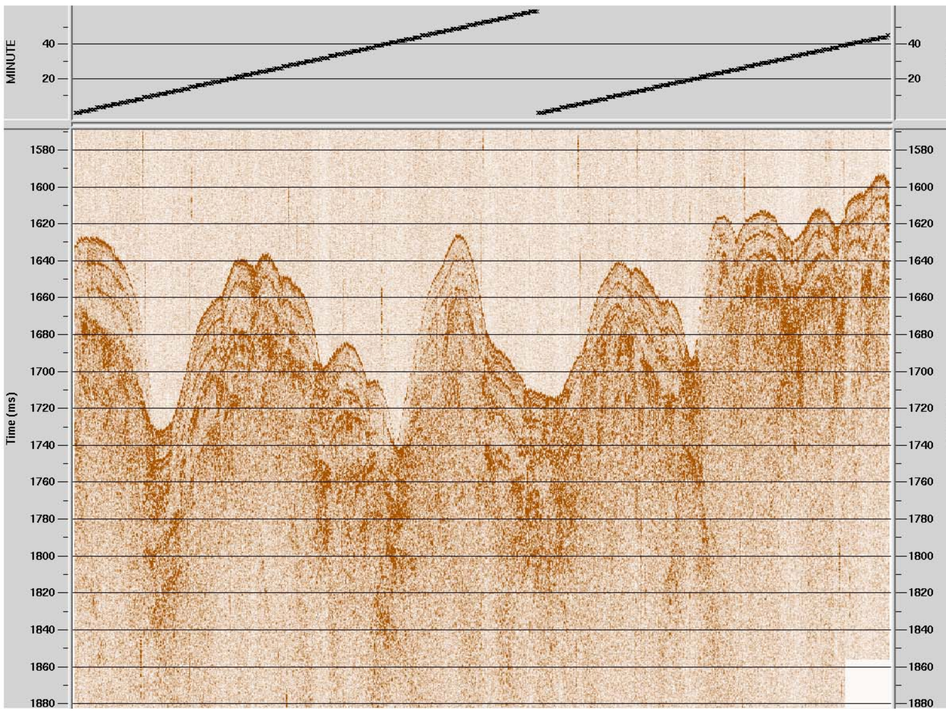
Transit
Line 9
JD: 314
16:00-18:00 GMT

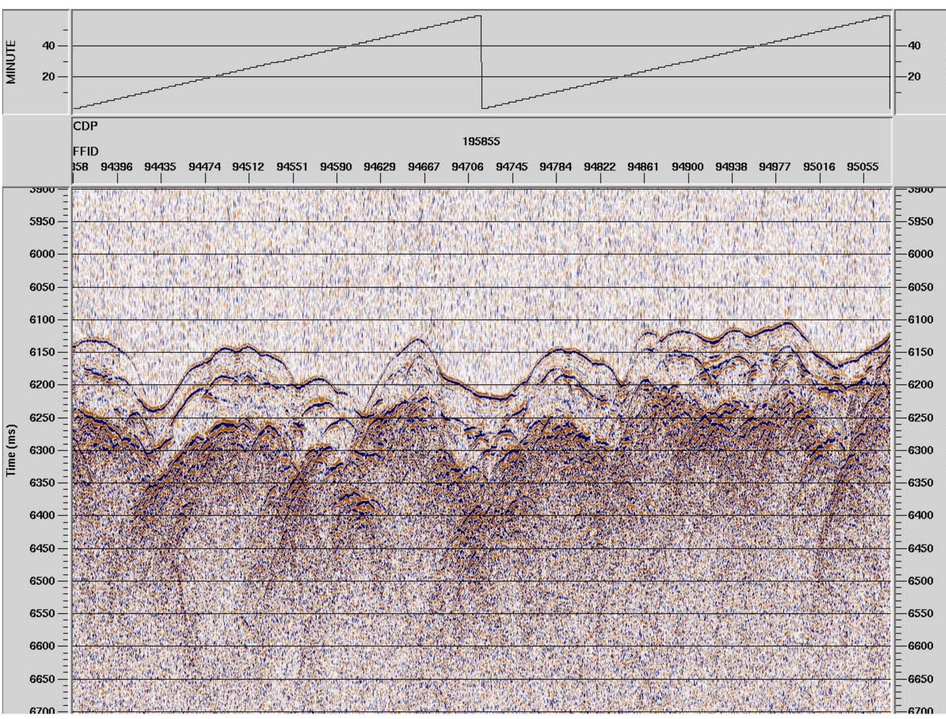
16:00 GMT

NW Direction of travel SE

18:00 GMT



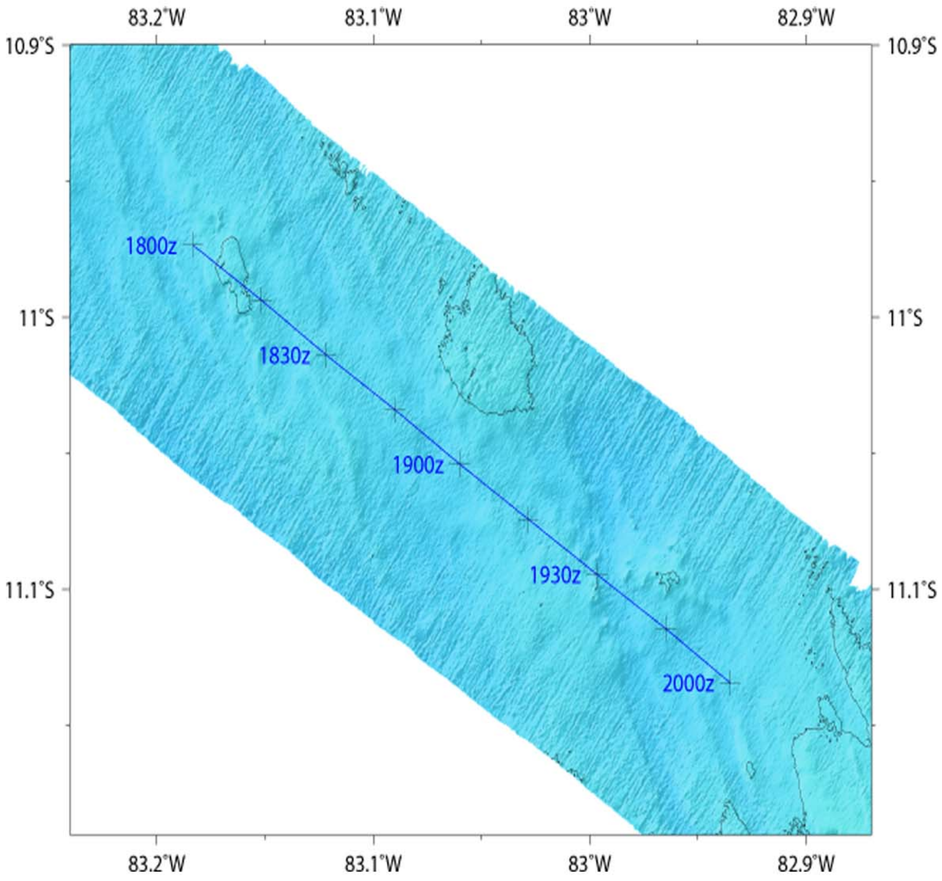


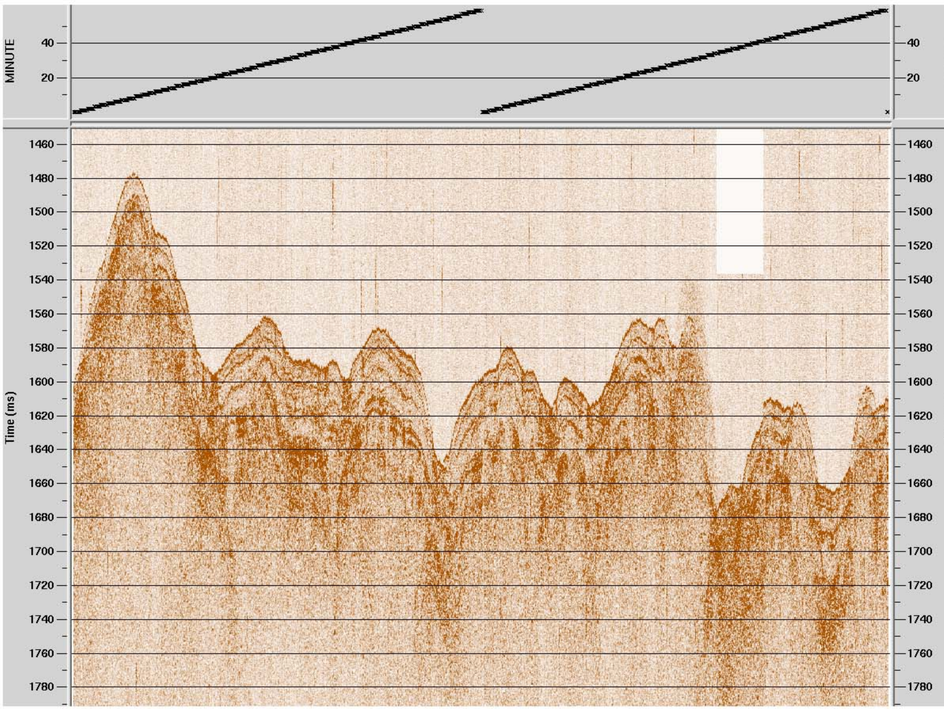


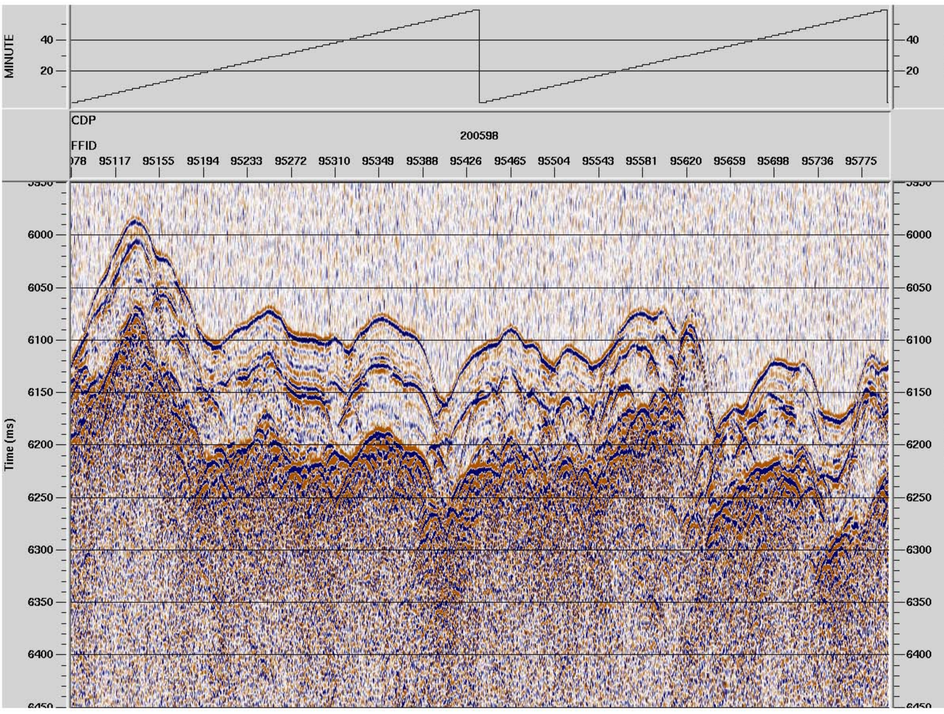
Transit
Line 9
JD: 314
18:00-20:00 GMT

NW Direction of travel SE

18:00 GMT 20:00 GMT



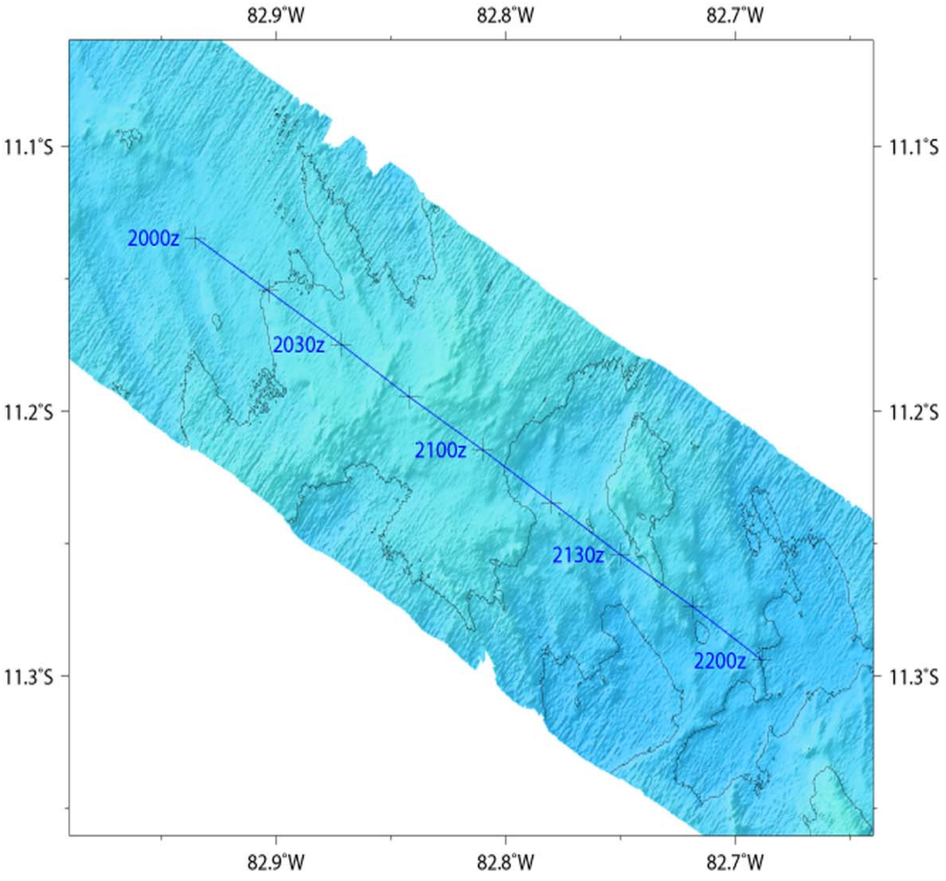


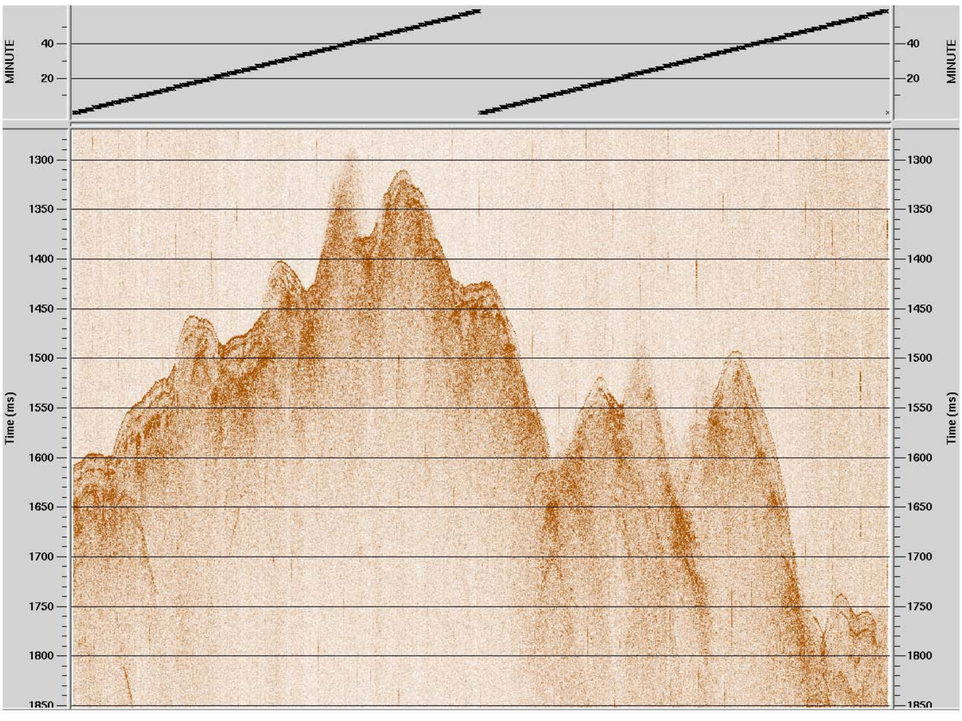


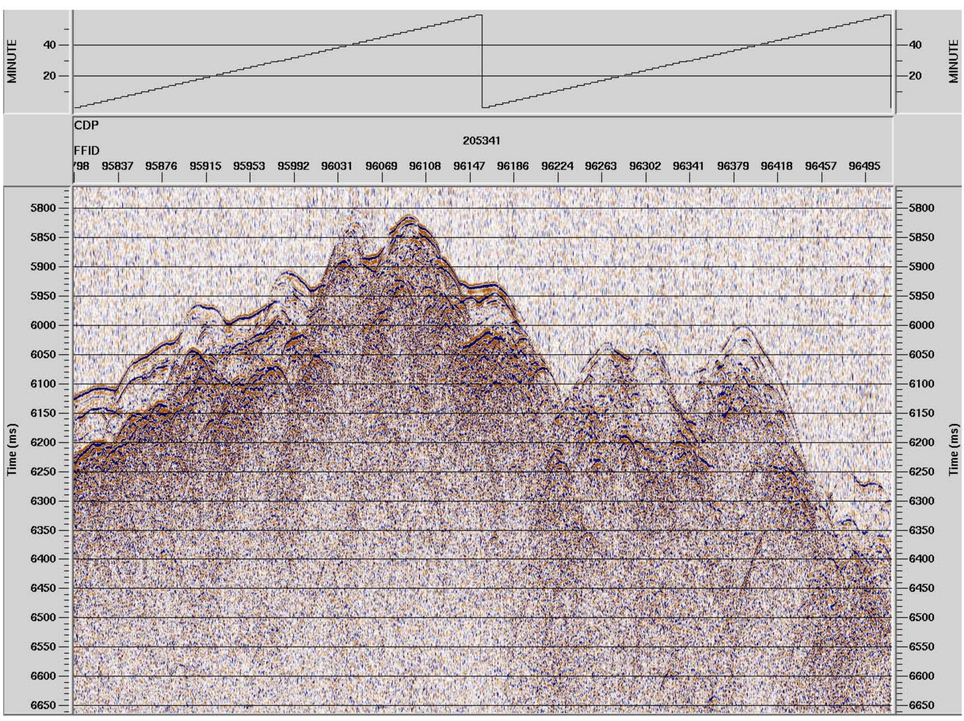
Transit
Line 9
JD: 314
20:00-22:00 GMT

NW Direction of travel SE

20:00 GMT 22:00 GMT





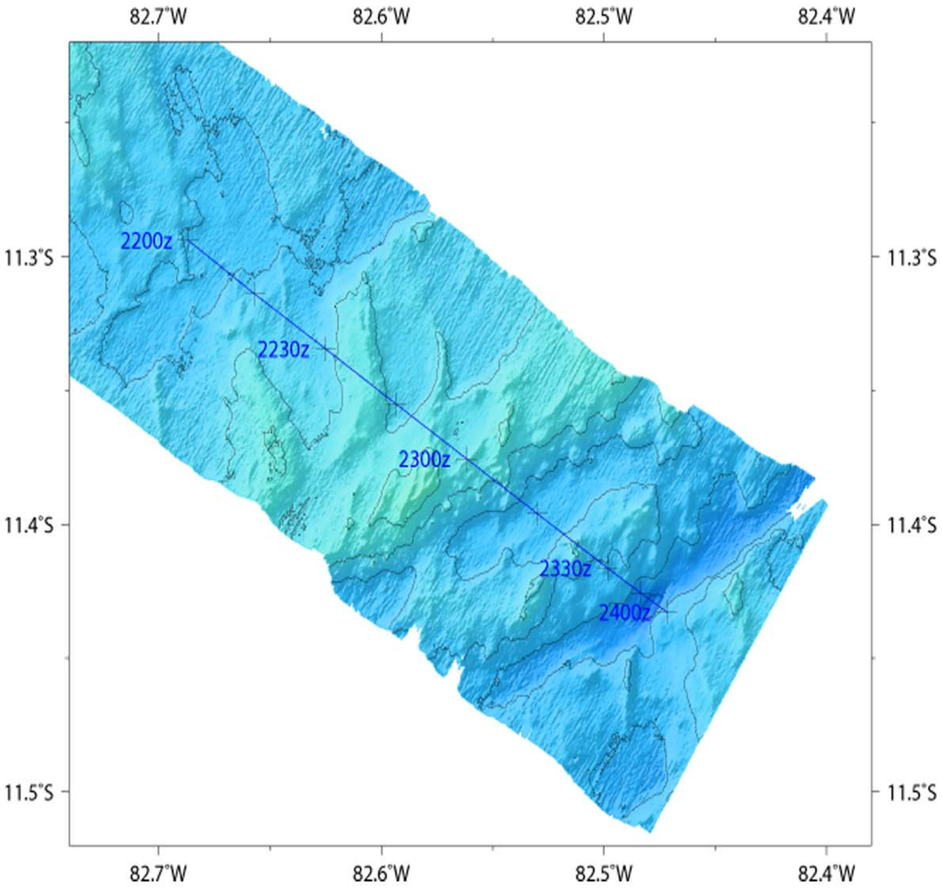


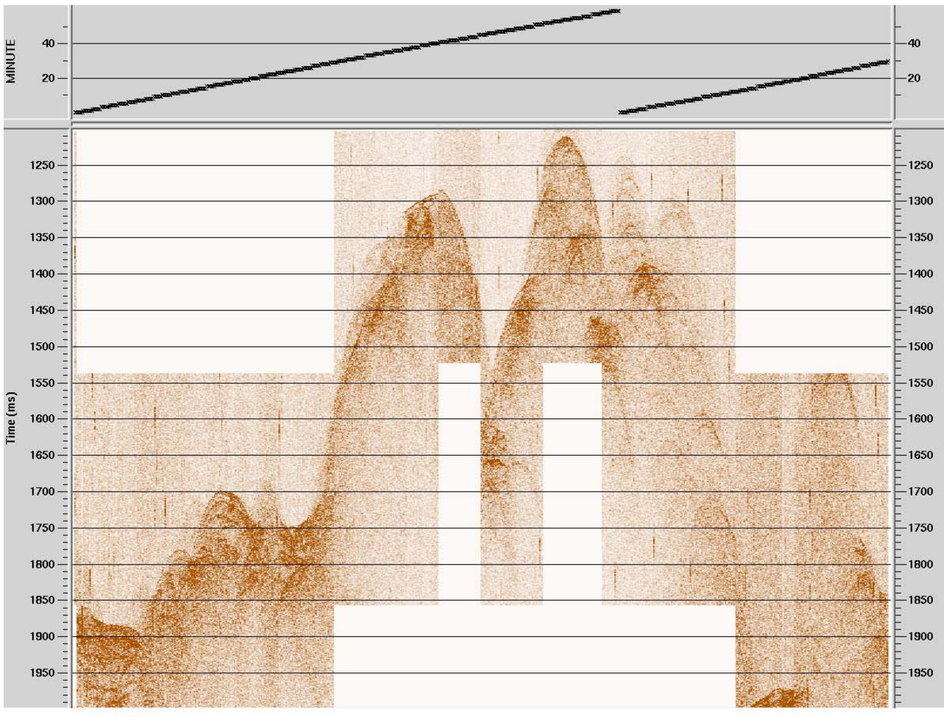
Transit
Line 9
JD: 314
22:00-23:30 GMT

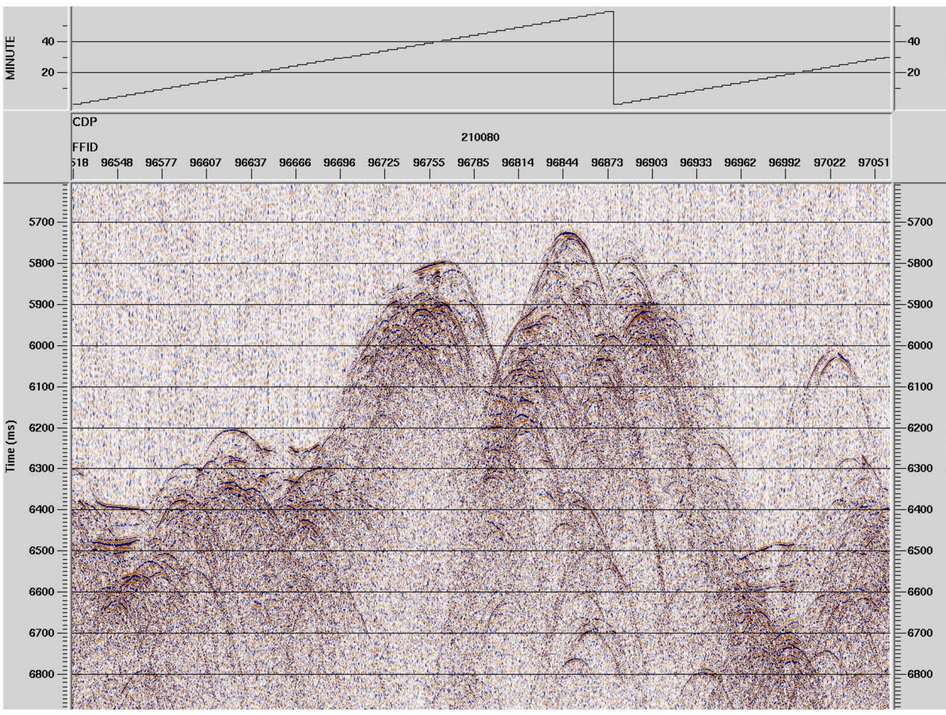
22:00 GMT

NW Direction of travel SE

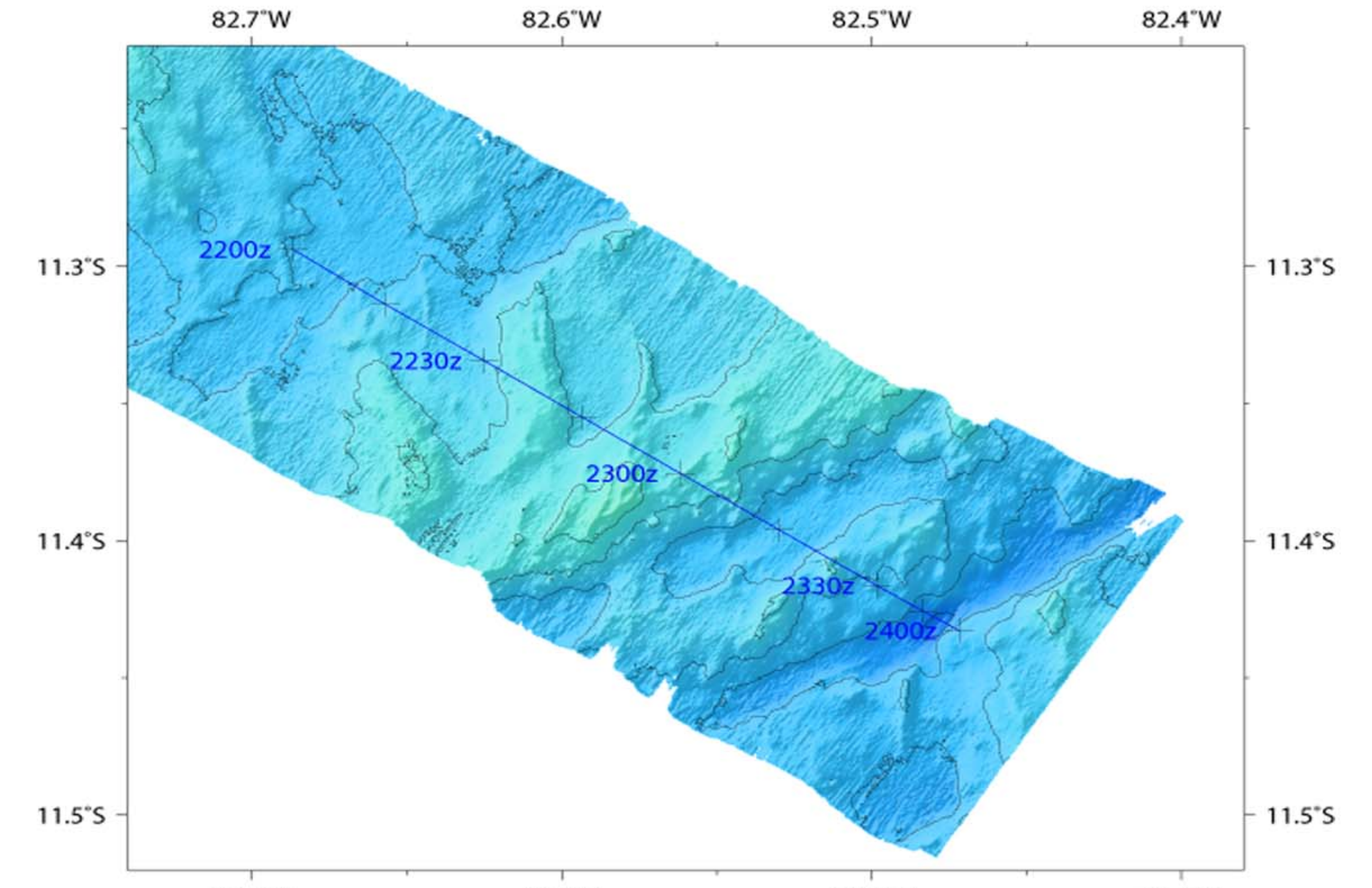
23:30 GMT

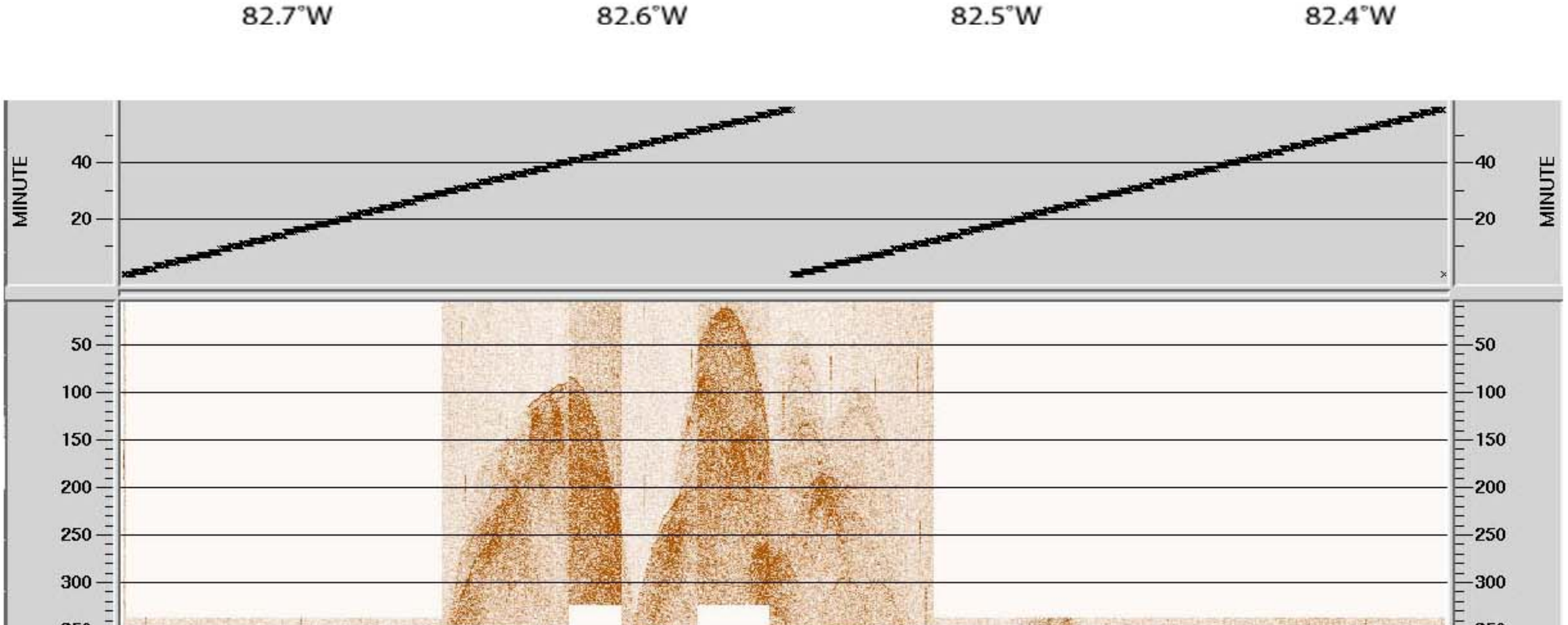




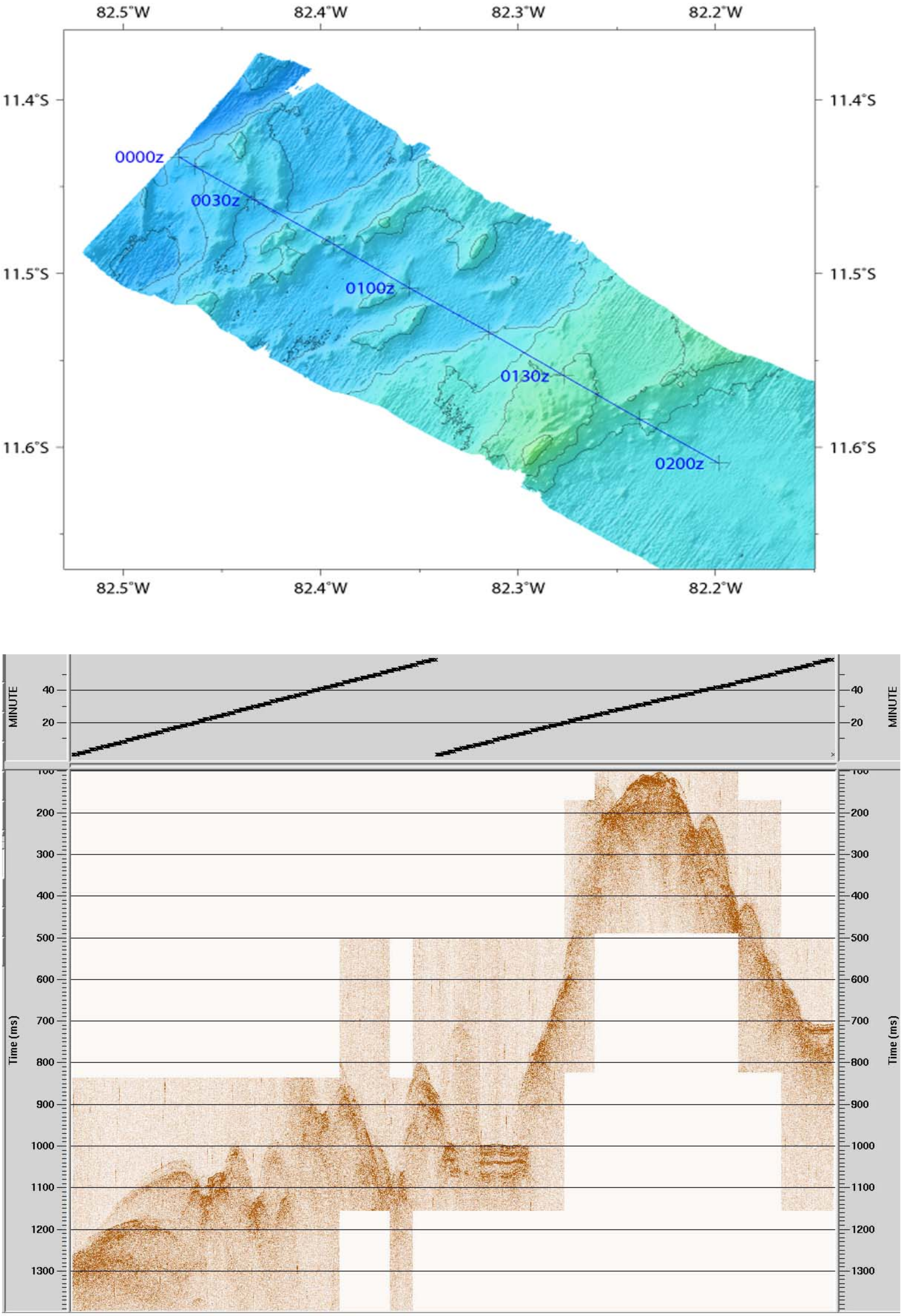


After Transit Line 9/Final leg of Panama Basin Survey
JD 314
22:00-00:00 GMT

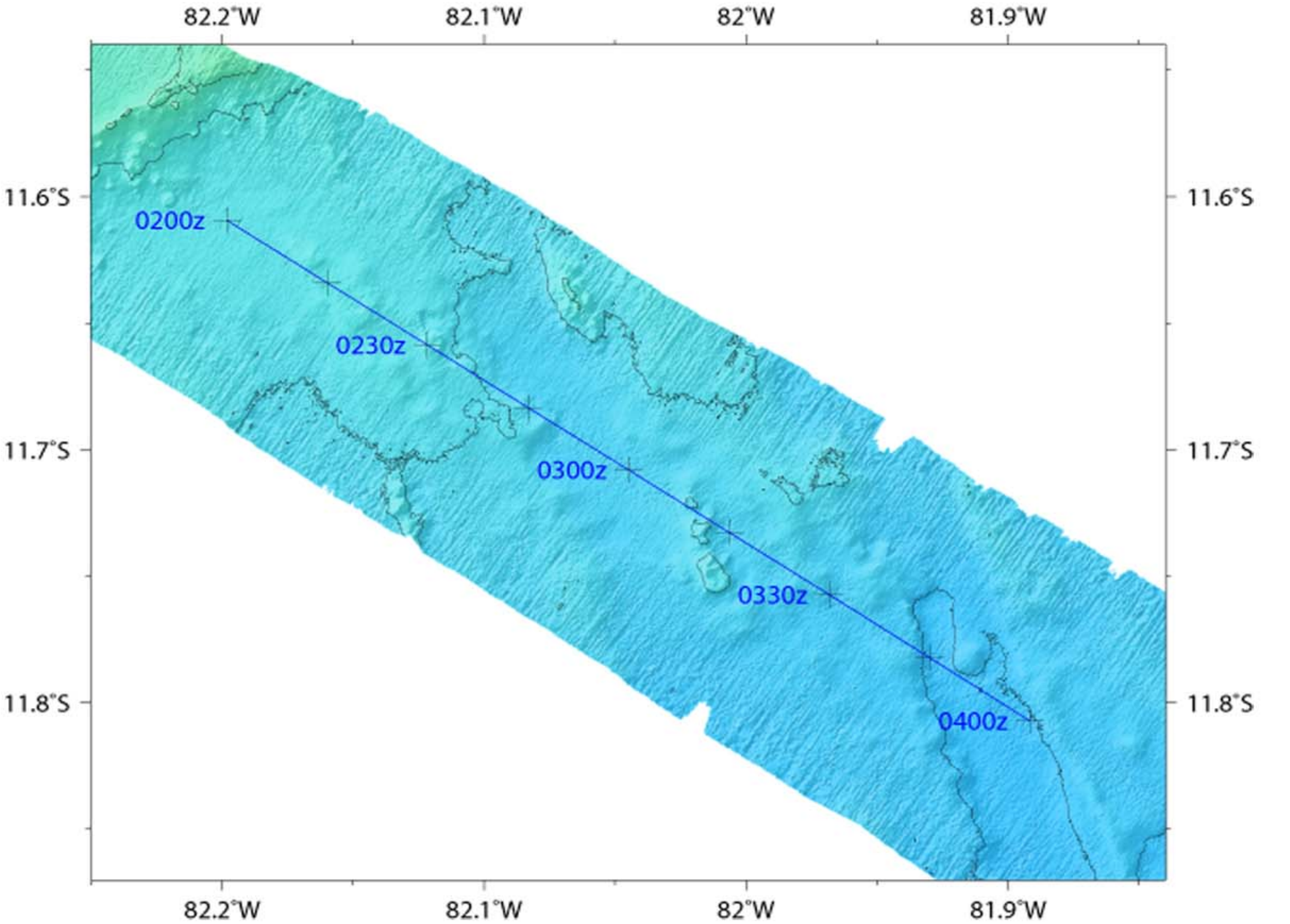


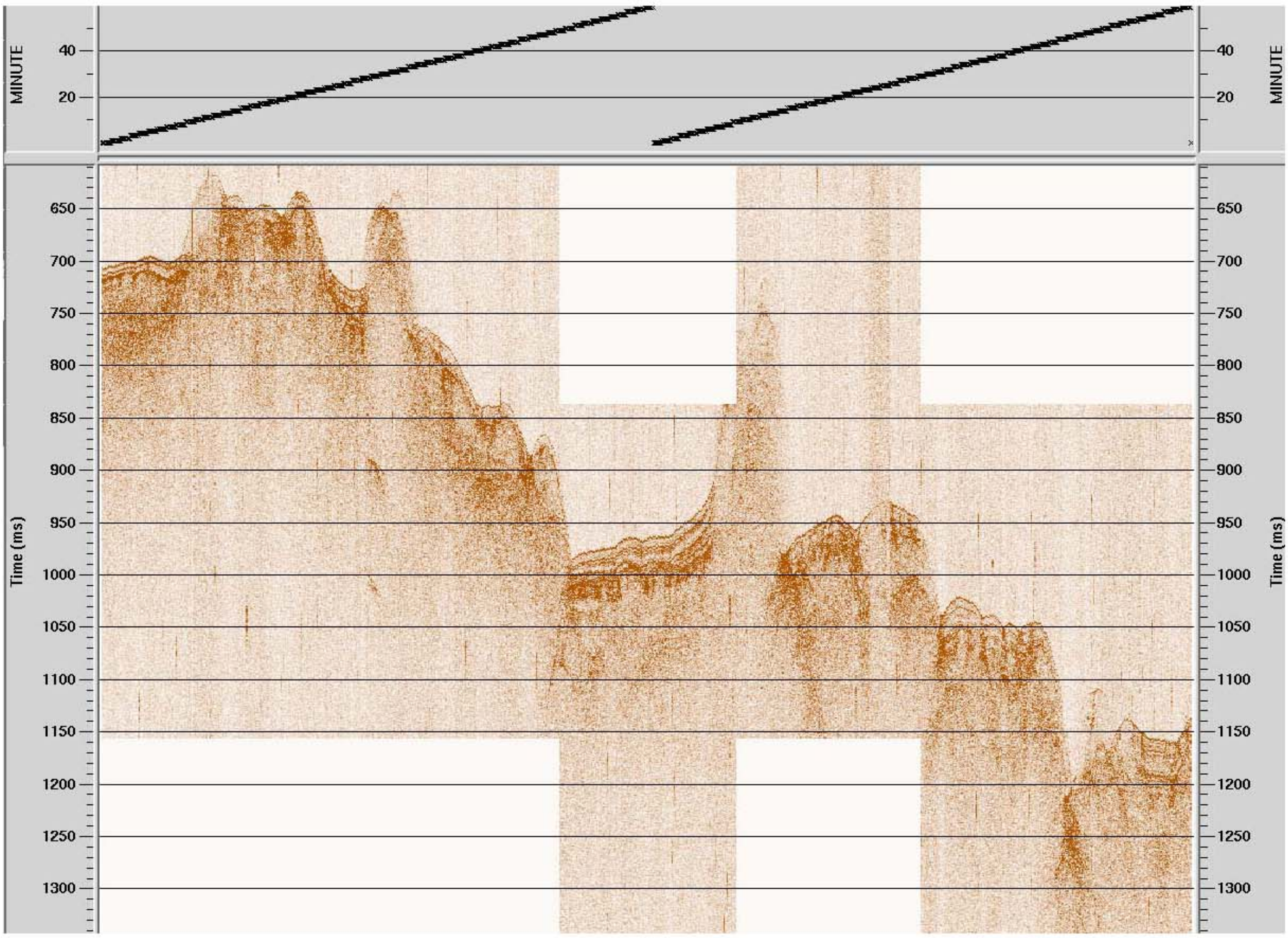


After Transit Line 9/Final leg of Panama Basin Survey
JD 315
00:00-02:00 GMT

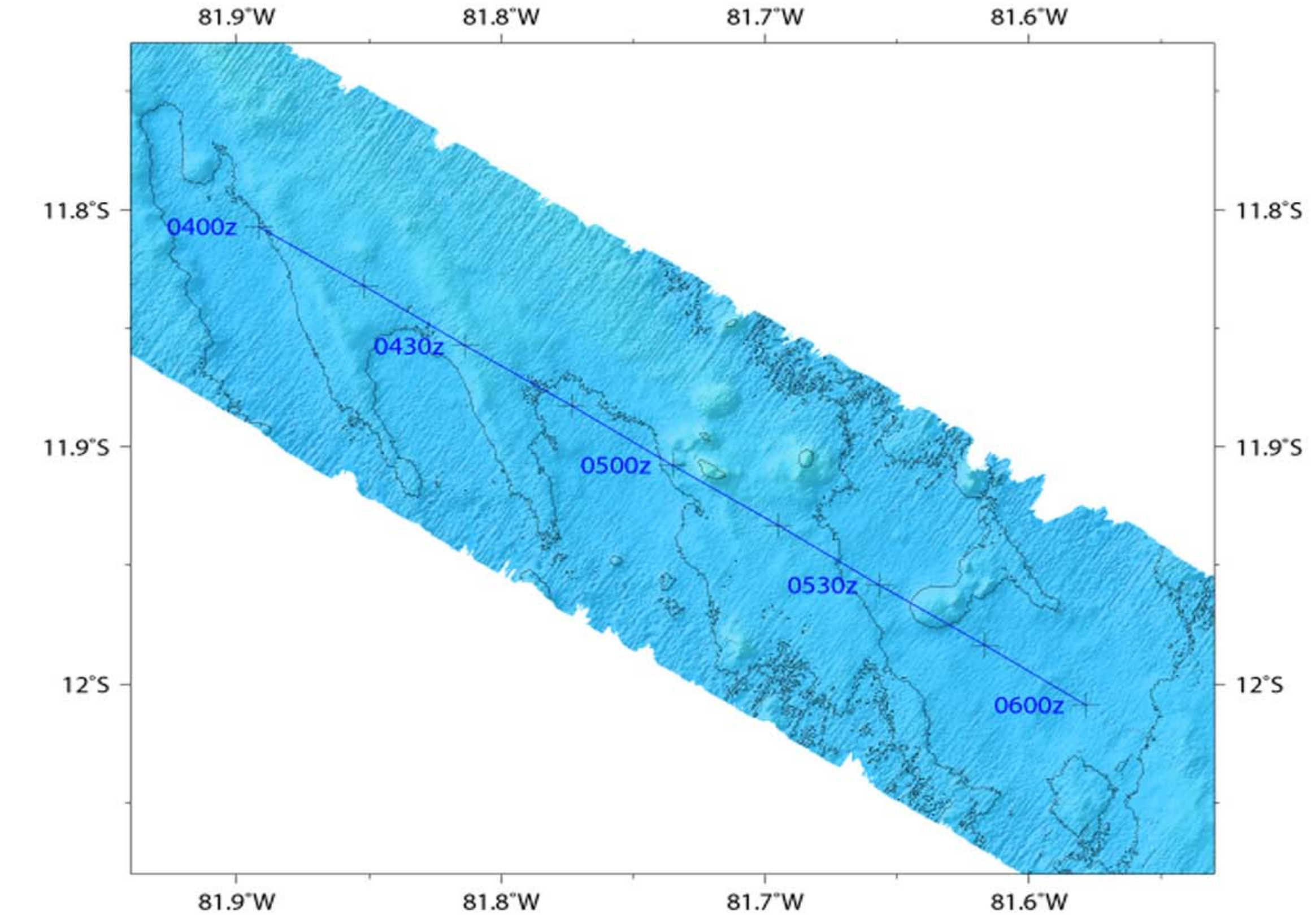


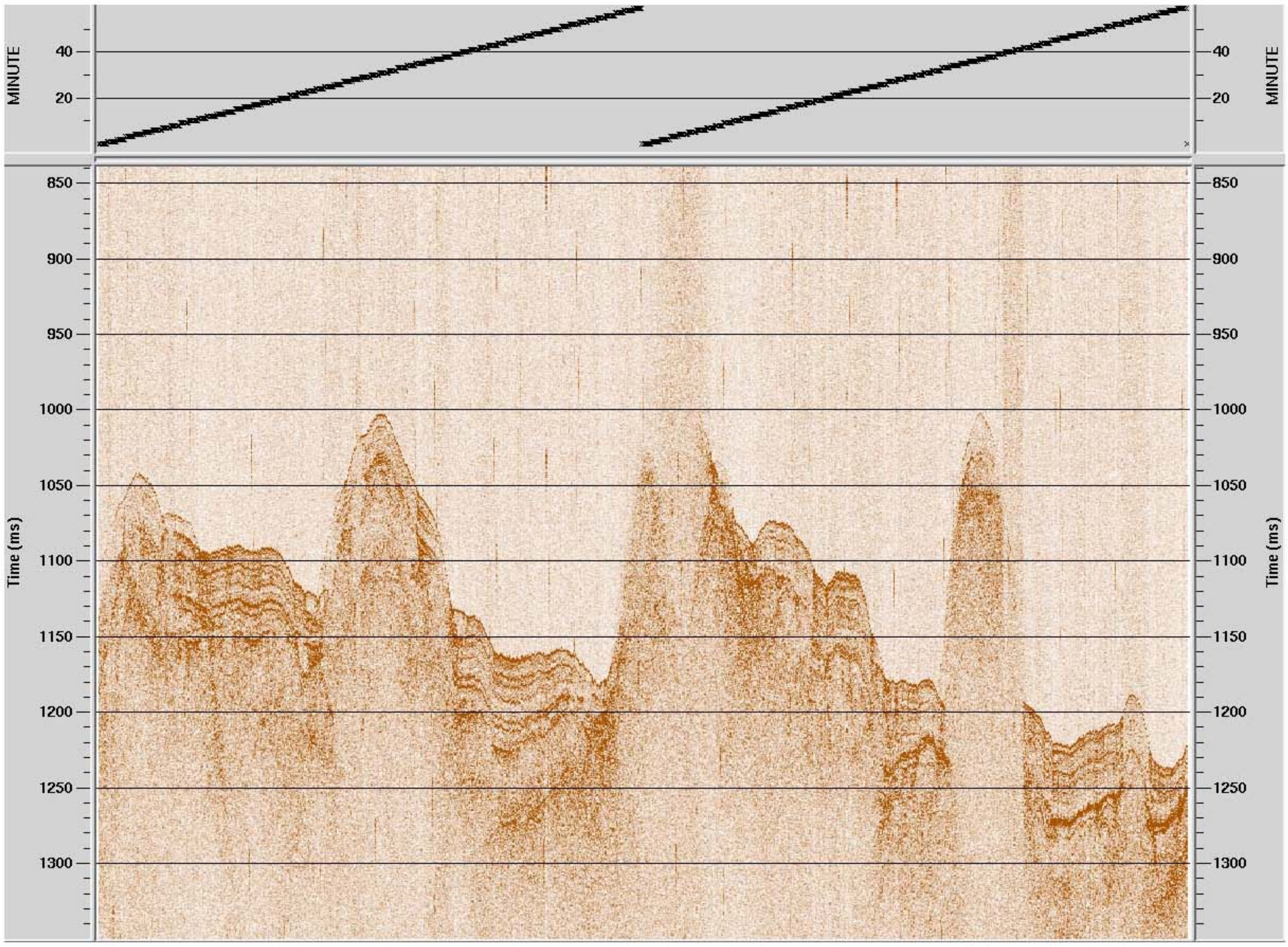
After Transit Line 9/Final leg of Panama Basin Survey
JD 315
02:00-04:00 GMT



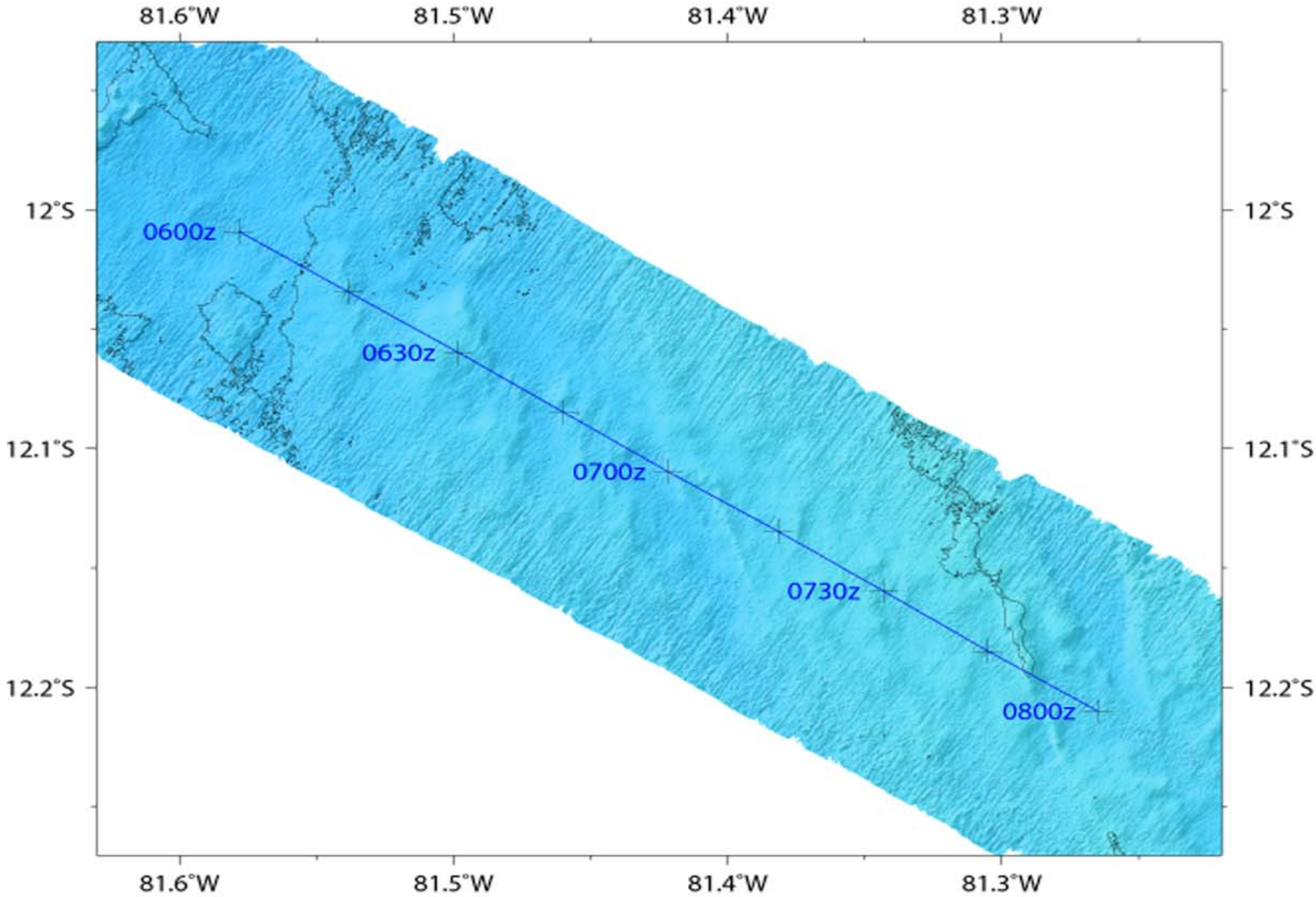


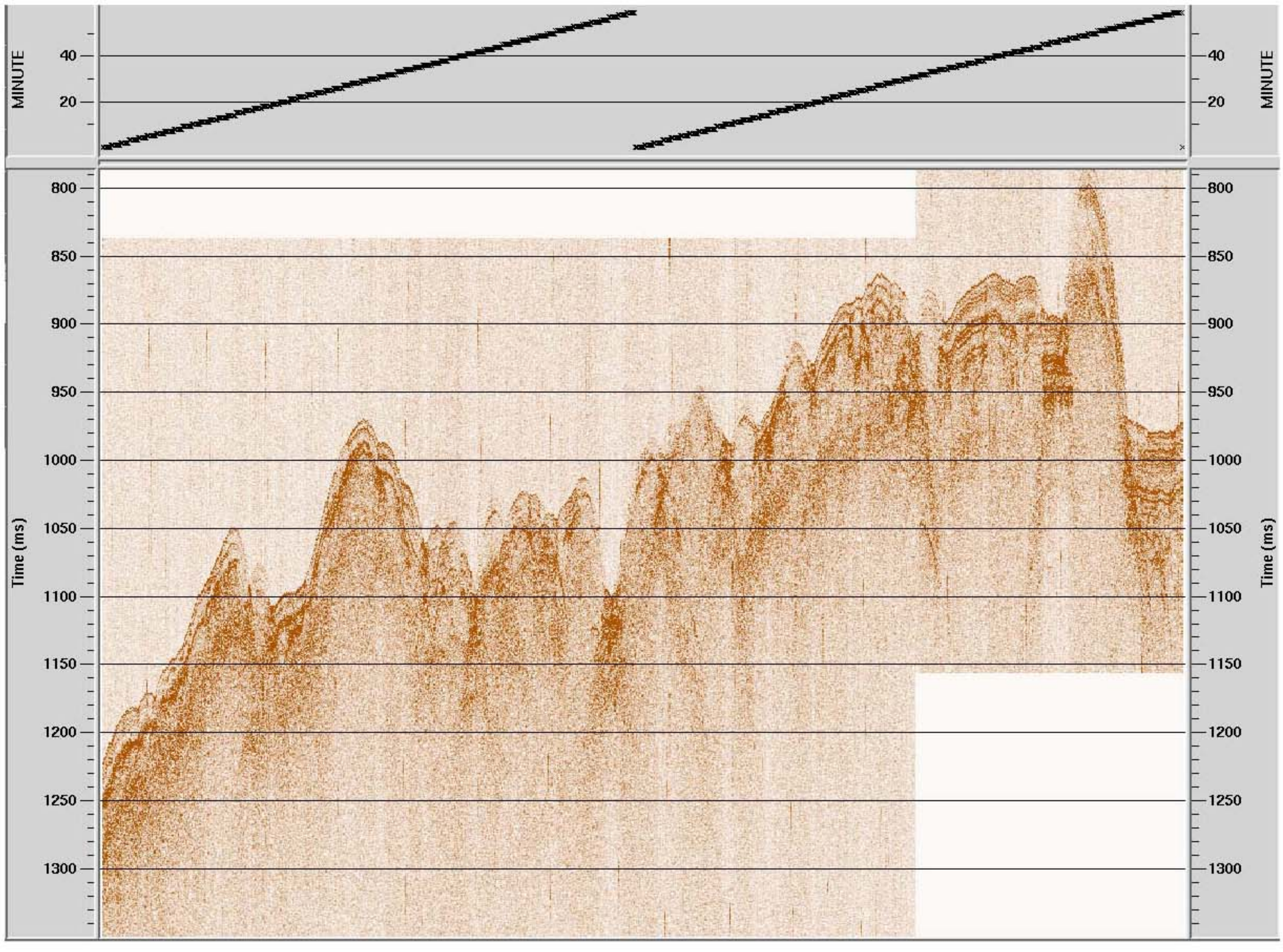
After Transit Line 9/Final leg of Panama Basin Survey
JD 315
04:00-06:00 GMT





After Transit Line 9/Final leg of Panama Basin Survey
JD 315
06:00-08:00 GMT





After Transit Line 9/Final leg of Panama Basin Survey
JD 315
08:00-08:45 GMT

