

ACADIANA 87-2

June 14-26, 1987

Chandeaur Islands

J. Kindinger

NAVIGATION &  
GEOPHYSICS SUMMARY

#87023 Syd  
#87025 Sei  
#87026 Sei

Legs 2,3

87-1,2,3  
ACAD 101574  
#87023

## ACADIANA 87-1 SEISMIC CRUISE LEG III

Personnel: John R. Suter, Louisiana Geological Survey  
 Steve Anderson, Louisiana Geological Survey  
 Jack Kindinger, United States Geological Survey  
 Ken Parolski, United States Geological Survey  
 C. Lee Black, LUMCON  
 Wayne Simoneaux, LUMCON

Tuesday, June 23, 1987

0800 Arrive @ Broadwater Beach marina. Morning spent in getting supplies, groceries, plotting Leg III tracklines, and working on log from Leg II.

1021 Depart from Broadwater dock.

1029 Initial problem of day: no LORAN signal to Northstar 6000.

1045 LORAN signal coming back up.

1240 Deploy gear southwest of Dog Keys Pass. We are heading for waypoint 46,  
 30 12.70  
 88 47.40

Depth of 3.5 kHz is 3.5 ft. This has been the depth of deployment during the entire cruise.

Benthos hydrophone now deployed on boom out on starboard side of vessel.

1259 SOL 42

Position: 30 12.70  
 88 47.40

Course	Speed	Tape Count	Paper Roll
149	5.6	21/0035	1/12, 2/8

1303 Boomer started at 105J, so we have upped the power to 175J for now.

1310 3.5 kHz lowered an additional 8." Boom deployment of hydrophone seems to have curtailed the cross talk.

1320 Shallow channel system present in upper unit. At present data quality on the boomer is pretty good, but penetration is limited to about 20-25 msec.

1340 Position: 30 09.57  
88 45.61

Course	Speed	Tape count	Paper Roll
148	4.9	21/0310	1/12, 2/08

1400 Position: 30 08.07  
88 44.68

Course	Speed	Tape Count	Paper Roll
148	5.2	21/0434	1/12, 2/08

1430 Position: 30 05.87  
88 43.45

Course	Speed	Tape Count	Paper Roll
148	4.9	21/0587	1/12, 2/08

Seas about 1', very calm. Data on ORE reflects this, excellent resolution, penetration about 30-40 msec at present. A series of stacked channel systems are visible on the ORE data. 3.5 kHz data not showing much at present.

1438 Course change to 162° as we arrive at waypoint 46. Now steering to waypoint 48, Coordinates:  
29 54.90  
88 40.00

1500 Position: 30 03.91  
88 42.61

Course	Speed	Tape Count	Paper Roll
162	4.2	21/0711	1/12, 2/08

From 1420 to 1450 there is a zone of southerly dipping clinoformal reflectors, just below the upper unit, about 5-10 msec in thickness. This feature occurs about 8 nautical miles east of Hewes Point on the Chandeleur Islands.

1540 Position: 30 00.96  
88 41.82

Course	Speed	Tape Count	Paper Roll
162	4.5	21/ 0865	1/12, 2/08

The uppermost unit has thickened fairly rapidly to about 10 msec in this area. Ken turned up the power on the 3.5 kHz, so there is some cross talk showing up on the two records now. Data quality still very good on the boomer, fairly good on the 3.5 kHz.

1605 Position: 29 58.86  
88 41.17

Course	Speed	Tape Count	Paper Roll
162	4.3	21/0980	1/12, 2/8

1:250,000 mylar plotting square disappeared from chart table due to increasing clutter. Took about ten minute search to discover it. On the data front, the upper unit, composed of even parallel reflectors continues to thicken as we go south.

1700 Position: 29 54.90  
88 40.00

Course Change to 185.

Course	Speed	Tape Count	Paper Roll
185	4.8	21/1160	1/12, 2/08

Upper sequence is separating into two units, interfingering towards the north. Data quality is somewhat lower than before. Seas still about 1', coming out of southeast.

1730 Position: 29 52.72  
88 40.48

Course	Speed	Tape count	Paper roll
185	5.0	21/1270	1/12, 2/08

Data quality has fallen off to not much. Definitely on the delta now.

1800 Position: 29 50.72  
88 40.88

Course	Speed	Tape Count	Paper Roll
185	4.3	21/1360	1/12, 2/08

Penetration and resolution somewhat better on boomer. Channeling visible on both 3.5 and boomer.

1823 Paper Roll changed 2/09

1830 Position: 29 48.10  
88 41.33

Course	Speed	Tape Count	Paper roll
184	4.3	21/1466	1/12, 2/09

Watch change. Steve and Jack on duty.

1859 3.5 changed to 1/4 sec.

1900 Position: 29 45.97  
88 41.64

Course	Speed	Tape Count	Paper Roll
185	5.2	1548	1/12, 2/09

1925 Tape Changed from 21 to 22.

1930 Position: 29 43.99  
88 42.00

Course	Speed	Tape Count	Paper Roll
184	4.5	22/0100	1/12, 2/09

1954 Course change to 209 heading for waypoint 48

2000 Position 29 41.71  
88 42.52

Course	Speed	Tape Count	Paper Roll
209	4.3	22/0303	1/12, 2/09

2030 Position: 29 39.99  
88 43.81

Course	Speed	Tape Count	Paper Roll
210	4.6	456	1/12, 2/09

2100 Position: 29 38.03  
88 45.23

Course	Speed	Tape Count	Paper Roll
210	4.1	598	1/12 2/09

2130 Position: 29 36.25  
88 46.59

Course	Speed	Tape Count	Paper Roll
212	4.6	734	1/12 2/09

2144 Position 29 35.43  
88 47.39

Changed course to 218 heading for waypoint 49

2200 Position 29 34.60  
88 48.16

Course	Speed	Tape Count	Paper Roll
218	3.4	848	1/12 2/09

2230 Position 29 33.16  
88 49.73

Course	Speed	Tape Count	Paper Roll
218	4.1	968	1/12 2/09

2300 Position 29 31.54  
88 51.36

Course	Speed	Tape Count	Paper Roll
219	4.4	1078	1/12 2/09

2330 Position: 29 29.87  
88 53.25

Course	Speed	Tape Count	Paper Roll
218	4.1	1187	1/12 2/09

2400 Position: 29 28.31  
88 54.80

Course	Speed	Tape Count	Paper Roll
218	4.4	1276	1/12 2/09

Wednesday, June 24, 1987

0030 Position: 29 26.58  
88 56.61

Course	Speed	Tape Count	Paper Roll
219	5.1	22/1383	1/12, 2/09

Both 3.5 and Geopulse showing highly irregular channelized(?) unit in upper sediments.

0120 Position: 29 23.89  
88 59.44

Course	Speed	Tape Count	Paper Roll
219	5.0	22/1525	1/12, 2/09

Data uniformly delta-like-i.e., very little penetration and not much resolution, either.

0200 Approaching the end of line 42. Data continues fair, with contorted but conformable reflectors the norm in the Geopulse line.

0205 EOL 42, SOL 43

Position: 29 21.30N  
89 02.20W

0205 continued

Course	Speed	Tape Count	Paper Roll
131	5.4	23/0010	1/12, 2/09

Next waypoint (50): 29 11.25  
88 50.80

Seas very calm, about 1' about from the SE, so we have head seas right now. Data quality continues OK, nothing spectacular.

0300 Position: 29 17.25  
66 57.52

Course	Speed	Tape Count	Paper Roll
131	5.3	23/0464	1/12, 2/09

Water Depth: 14 fathoms. Data quality improving for Geopulse. There is a large but indistinct channel present around 0240.

0350 Position: 29 14.28  
88 54.15

Course	Speed	Tape Count	Paper Roll
131	5.7	23/0635	1/12, 2/09

Penetration and resolution has gone to essentially nothing. Slumping apparent on data.

0430 Position: 29 11.40  
88 50.94

Course	Speed	Tape Count	Paper Roll
131	5.6	23/0830	1/12, 2/09

0440 EOL 43, SOL 44

Course 42

Heading for waypoint 50, which is the same as waypoint 34, coordinates:

29 20.60N  
88 39.80W

0530 Position: 29 13.95  
88 47.76

Course	Speed	Tape count	Paper roll
42	4.7	23/1080	1/12, 2/09

Large channel system with clinoformal fill visible in Geopulse data, with about 15 msec of sediments overlying it.

0600 Position: 29 16.14  
88 45.07

Course	Speed	Tape count	Paper roll
42	4.7	23/1148	1/12, 2/09

Running Line 44. Seas <1', data quality fair to good. Channel system still visible.

0630 Position 29 17.60  
88 43.32

Course	Speed	Tape count	Paper roll
42	4.8	1228	1/12 2/10

0700 Position 29 19.40  
88 41.11

Course	Speed	Tape count	Paper roll
42	5.2	1319	1/12 2/10

0717 Position 29 20.67  
88 39.83

Changed course to 311 now running line 45

0720 EOL 44, SOL 45

0730 Position 29 21.15  
88 40.48

Course	Speed	Tape count	Paper roll
311	4.7	1408	1/12 2/10

0800 Position 29 22.82  
88 42.37

Course	Speed	Tape count	Paper roll
311	4.8	1496	1/12 2/10

End of tape 23. Start 24

0830 Position 29 24.53  
88 44.26

Course	Speed	Tape count	Paper roll
311	3.1	48	1/12 2/10

0845 Belt changed on 3.5

0900 Position 29 26.13  
88 46.18

Course	Speed	Tape count	Paper roll
311	4.0	256	1/12 2/10

0930 Position 29 27.82  
88 48.12

Course	Speed	Tape count	Paper roll
311	5.1	440	1/12 2/10

1000 Position 29 29.49  
88 50.18

Course	Speed	Tape count	Paper roll
311	4.2	596	1/12 2/10

1030 Position 29 31.11  
88 52.06

Course	Speed	Tape count	Paper roll
311	3.8	724	1/12 2/10

1100 Position 29 32.78  
88 53.98

Course	Speed	Tape count	Paper roll
311	4.3	853	1/12 2/10

1102 Paper changed 1/13

1130 Position 29 34.40  
88 55.75

Course	Speed	Tape count	Paper roll
310	4.6	962	1/13 2/10

1200 Position 29 36 13  
88 57.75

Course	Speed	Tape count	Paper roll
308	3.9	1077	1/13 2/10

1216 Position 29 37.04  
88 58.82

EOL 45, SOL 46

Line 46 is being run parallel to the gaps between Curlew and Grand Gosier Islands in about 12 ft. of water.

1300 Position: 29 33.79  
89 00.79

Course	Speed	Tape Count	Paper Roll
206	5.0	24/1294	1/13, 2/10

Profiling conditions ideal with seas <1', virtually no wind. This close to shore it also means numerous mosquitoes on the back deck. That problem will take care of itself when we turn offshore in about 30 minutes. Data here is not showing much. There seems to be a fairly strong current coming out from in between the islands, causing us to drift slowly off course to the southeast.

1330 Position: 29 31.83  
89 02.14

There are a series of small shoal sand bodies showing up on this line parallel to the inlet in between Grand Gosier and Curlew Islands.

1335 EOL 46, SOL 47

Position: 29 31.56  
89 02.31

Course	Speed	Tape Count	Paper Roll
125	4.0	24/1385	1/13, 2/10

Now turning to the southeast to fill in grid spaces left from Leg I activities in this area.

1430 Position: 29 28.88  
88 57.60

Course	Speed	Tape count	Paper Roll
128	5.2	24/1540	1/13, 2/10

3.5 kHz indicates much shallow channeling in this area, Geopulse looks like the sediments are gas charged. Currently, penetration is about 15 msec.

1442 Pull in boomer to clean of seaweed. There wasn't much. However, there were a lot of mosquitos.

1525 Position: 29 25.85  
88 53.77

Course	Speed	Tape count	Paper Roll
128	5.1	25/0087	1/13, 2/10

Conditions are as before, data still showing much shallow channeling. Not much penetration on the Geopulse, about 15-20 msec.

1540 The appearance of the uppermost sequence of sediments showing up on the Geopulse data is a very close approximation to the types of units that Ship Shoal rests on, that have usually been called distributary channeling for want of a better term.

1600 Position: 29 23.67  
88 50.90

Course	Speed	Tape count	Paper Roll
128	4.7	25/0350	1/13, 2/10

Both 3.5 and Geopulse are showing a 20 msec thick sequence of seaward dipping clinoformal reflectors.

1640 Position: 29 21.85  
88 48.58

Course	Speed	Tape count	Paper Roll
127	4.5	25/0523	1/13, 2/10

Seas <1', out of the southeast. Winds >5 knots, but not by much. Data looking fair, obvious clinoforms pinched out.

1710 Position: 29 20.34N  
88 46.56W

EOL 47, SOL 48

Course	Speed	Tape Count	Paper Roll
288	4.5	25/0667	1/13, 2/11

Turning onto new course, headed for seaward terminus of MRGO. Plan then is to go into Breton Sound and proceed north to run some more lines.

1800 Position: 29 21.70  
88 50.28

Course	Speed	Tape Count	Paper Roll
287	4.8	25/0860	1/13, 2/11

Data shows only the sediments of the St. Bernard delta. Seas beginning to pick up slightly, coming out of the southwest. Wind building slightly, some whitecaps visible.

1830 Position: 29 22.61  
88 53.03

Course	Speed	Tape Count	Paper Roll
287	4.2	25/0988	1/13, 2/11

1900 Position: 29 23.25  
88 55.14

Course	Speed	Tape Count	Paper Roll
288	3.8	25/1095	1/13, 2/11

Course	Speed	Tape count	Paper Roll
287	6.3	25/1198	1/13, 2/11

1932 Northstar 800 LORAN down

1942 Northstar 800 back up

1944 Northstar 800 down

1952 Northstar 6000 has low signal strength

2003 Position: 29 25.09  
88 59.15

Course	Speed	Tape count	Paper Roll
325	3.7	25/1305	1/13, 2/11

2010 Entering MRGO.

2030 Position: 29 26.05  
89 00.87

Course	Speed	Tape Count	Paper Roll
294	4.5	25/1386	1/13, 2/11

2100 Position: 29 27.58  
89 02.89

Course	Speed	Tape Count	Paper roll
--------	-------	------------	------------

295 3.9 25/1476 1/13, 2/11  
2130 Position: 29 28.34  
89 04.99

Course	Speed	Tape Count	Paper Roll
292	4.2	26/0098	1/13, 2/11

2156 Moving to right of channel to avoid large boat traffic.

2200 Position: 29 29.65  
89 07.47

Course	Speed	Tape Count	Paper Roll
306	4.6	26/0300	1/13, 2/11

2220 Back in MRGO channel

2300 Position: 29 31.03  
89 09.60

Course	Speed	Tape Count	Paper Roll
303	5.5	26/0469	1/13, 2/11

2330 Position: 29 34.11  
89 11.72

Course	Speed	Tape Count	Paper Roll
295	4.3	26/0608	1/13, 2/11

2400 Position: 29 35.26  
89 16.40

Course	Speed	Tape Count	Paper Roll
298	4.9	26/0868	1/13, 2/11

Thursday, June 25, 1987

0020 Position: 29 37.00  
89 17.91

Course	Speed	Tape Count	Paper Roll
288	4.5	26/0948	1/13, 2/11

Data we are getting is truly pitiful. Some ideas work out properly, but not this one.

0030 Position: 29 37.42  
89 18.65

EOL 48, SOL 49

Course	Speed	Tape count	Paper Roll
28	4.5	26/0984	1/13, 2/11

0030 continued

Running northeast as close to the landward margins of Breton and Chandeleur Sounds as we feel safe. Data won't be very good, but hopefully distributary positions will be visible.

0056 Maneuvering to avoid yet another uncooperative shrimper. Most of these guys don't respond to radio hails. Sometimes there is no one in the wheelhouse. Makes life interesting.

0115 Position: 29 40.98  
89 16.19

Course	Speed	Tape Count	Paper Roll
25	6.8	26/1150	1/13, 2/11

Data looks relatively pitiful, but we'll keep going, looking for distributaries. Checked on condition of tow as we are doing close to 7 knots; everything looks good.

0157 Change power on Geopulse to 105J.

0200 Position: 29 44.33  
89 14.08

Course	Speed	Tape Count	Paper Roll
25	5.3	26/1286	1/13, 2/11

Getting about 5-8 msec penetration on both tools. However, there is some resolution, enough to make continuing the line quasi-worthwhile.

0315 Position: 29 49.96  
89 10.43

Course	Speed	Tape Count	Paper Roll
23	5.2	26/1509	1/13, 2/11

Data has shown a few channels, but nothing much. Bommer down briefly, knocked out by A/C problem.

0325 Course change to 325

0330 Change to data tape 27.

0405 Position: 29 53.31  
89 07.45

Course	Speed	Tape Count	Paper Roll
34	4.3	27/0214	1/13, 2/11

0405 continued

Windstill conditions, which augurs well for the seas we will experience later today and tomorrow when we are once again offshore. Current data is not showing much.

0430 Position: 29 54.68  
89 06.19

Course	Speed	Tape Count	Paper Roll
35	4.8	27/1357	1/13, 2/12

Change to paper roll 2/12.  
Change course to 38.

0510 Position: 29 57.17N  
89 03.58W

Course	Speed	Tape Count	Paper Roll
38	4.8	27/0550	1/13, 2/12

Boomer shut down again by power surge. Doesn't matter as it is not showing much anyway. However, it is back on.

0530 Position: 29 58.34N  
89 02.37W

Course	Speed	Tape Count	Paper Roll
38	4.6	27/0653	1/13, 2/12

0600 Shift change

0630 Position: 30 02.26  
88 58.29

Course	Speed	Tape Count	Paper Roll
38	6.2	27/0912	1/13, 2/12

0700 Position: 30 04.40  
88 56.04

Course	Speed	Tape Count	Paper Roll
38	5.6	27/1034	1/13, 2/12

0730 Position 30 06.05  
88 54.30

Course	Speed	Tape Count	Paper Roll
38	5.4	27/1128	1/13, 2/12

0800 Position: 30 08.04  
88 52.28

Course	Speed	Tape Count	Paper Roll
38	5.3	27/1230	1/13, 2/12

0830 Position: 30 09.79  
88 50.45

Course	Speed	Tape Count	Paper Roll
38	5.2	27/1324	1/13, 2/12

0900 Position: 30 11.69  
88 48.36

Course	Speed	Tape Count	Paper Roll
36	5.0	27/1415	1/13, 2/12

0914 Position: 30 12.72  
88 47.41

EOL 49, SOL 50

0930 Position: 30 12.57  
88 45.91

Course	Speed	Tape Count	Paper Roll
91	5.3	27/1502	1/14, 2/12

1000 Position: 30 12.37  
88 43.02

Course	Speed	Tape Count	Paper Roll
91	5.2	27/1588	1/14, 2/12

1030 Position: 30 12.15  
88 39.97

Course	Speed	Tape Count	Paper Roll
92	5.1	28/0216	1/14, 2/12

1044 Position: 30 11.94  
88 38.46

Course	Speed	Tape Count	Paper Roll
176	5.1	28/0308	1/14, 2/12

EOL 50, SOL 51

1130 Position: 30 08.61  
88 38.49

Course	Speed	Tape Count	Paper Roll
--------	-------	------------	------------

1200 176 3.7 28/0551 1/14, 2/12  
Position: 30 06.40  
88 38.49

Course	Speed	Tape Count	Paper Roll
176	4.4	28/0690	1/14, 2/12

1235 Position: 30 03.82N  
88 38.48W

Course	Speed	Tape count	Paper Roll
176	5.1	28/0840	1/14, 2/12

Power on Geopulse raised to 175J. Penetration is about 30-40 msec, data quality fair. 3.5 penetration less than 10 msec.

1252 Position: 30 02.50  
88 38.50

EOL 51, SOL 52

Course	Speed	Tape Count	Paper Roll
256	5.2	28/0900	1/14, 2/12

Heading onshore to northern Chandealeurs to fill in grid. Currently, seas are about 2' out of the south-southeast.

1330 Position: 30 02.38  
88 48.86

Course	Speed	Tape Count	Paper Roll
254	3.9	28/1030	1/14, 2/12

Getting good records at present, penetration about 50 msec on Geopulse. Side seas making the boat rock and roll. R/V Acadiana doesn't like anything but tail seas.

1405 Position: 30 01.17  
88 44.01

Course	Speed	Tape Count	Paper Roll
256	4.1	28/1170	1/14, 2/12

Penetration on 3.5 better, 20 msec. Geopulse getting excellent penetration, showing an irregular surface at about 40 msec.

1410 Data quality on both records went south.

1435 Shut down 3.5 kHz due to bad belt, poor data quality, and proximity to end of line.

1445 Position: 30 01.25  
88 46.99

EOL 52

Haul in gear and run to next point.

1538 Deploy gear, configuration as before.

1545 Resume operation of seismic devices, heading for beginning of Line 53.

1551 SOL 53

Position: 29 52.00  
88 48.75

Course	Speed	Tape Count	Paper Roll
93	4.8	28/1294	1/14, 2/12

1615 Position: 29 51.81  
88 46.22

Course	Speed	Tape Count	Paper Roll
93	4.8	28/1375	1/14, 2/12

Data quality fair. Side seas currently 2-3', rocking the boat severely. Any more than this and we will not be able to hold the course. Winds currently about 10 knots, judging by a few whitecaps. These seas are very short period, probably spawned by thunderstorms.

1700 Position: 29 51.47  
88 41.54

Course	Speed	Tape Count	Paper Roll
93	5.0	28/1515	1/14, 2/12

Data quality fair. Passing over shallow channel system.

1730 Position: 29 51.07  
88 38.70

Course	Speed	Tape Count	Paper Roll
93	5.0	29/0113	1/14, 2/12

Data, sea state as before.

1750 Change power on Geopulse to 280J.

1800 Position: 29 50.78  
88 36.00

Course	Speed	Tape Count	Paper Roll
93	5.2	29/0289	1/14, 2/12

Neither of the tools is showing much right now.

1830 Position: 29 50.46  
88 32.86

Course	Speed	Tape Count	Paper Roll
93	5.4	29/0460	1/14, 2/13

1900 Position: 29 50.15  
88 29.97

Course	Speed	Tape Count	Paper Roll
93	5.1	29/0607	1/14, 2/13

1930 Position: 29 49.76  
88 26.89

Course	Speed	Tape Count	Paper Roll
93	5.5	29/0738	1/14, 2/13

2000 Position: 29 49.65  
88 26.68

Course	Speed	Tape Count	Paper Roll
94	4.9	29/0866	1/14, 2/13

2030 Position: 29 49.04  
88 20.46

Course	Speed	Tape count	Paper Roll
93	5.6	29/0985	1/14, 2/13

2100 Position: 29 48.77  
88 17.35

Course	Speed	Tape Count	Paper Roll
94	5.6	29/1087	1/14, 2/13

2130 Position: 29 48.40  
88 14.06

Course	Speed	Tape Count	Paper Roll
93	5.7	29/1190	1/14, 2/13

2200 Position: 29 47.98  
88 10.86

Course	Speed	Tape Count	Paper Roll
93	5.7	29/1286	1/14, 2/13

2217 Position: 29 47.75  
88 08.95

EOL 53, SOL 54

Course	Speed	Tape Count	Paper Roll
356	5.2	29/1340	1/14, 2/13

2230 Position: 29 48.74  
88 09.02

Course	Speed	Tape Count	Paper Roll
356	4.5	29/1380	1/14, 2/13

2300 Position: 29 51.27  
88 09.03

Course	Speed	Tape Count	Paper Roll
356	4.8	29/1470	1/14, 2/13

2330 Position: 29 53.80  
88 09.02

Course	Speed	Tape Count	Paper Roll
356	5.1	29/1556	1/14, 2/13

2400 Position: 29 55.22  
88 09.03

Course	Speed	Tape Count	Paper Roll
356	5.0	30/0000	1/14, 2/13

Friday, June 26, 1987

0100 Position: 30 01.30  
88 08.95

Course	Speed	Tape Count	Paper Roll
356	4.7	30/1507	1/14, 2/13

Crosstalk seems to be getting worse. Can't be removed without synchronizing the recorders. Unfortunately, everytime the air conditioner cycles on, it removes synchronization, so we have just left the crosstalk in. Currently, 3.5 data is not very good, while Geopulse is showing >50 msec of penetration, mostly parallel reflectors,

with about a three cycle pulse width.  
0130 Position: 30 03.69  
88 08.99

Course	Speed	Tape Count	Paper Roll
356	4.0	30/0609	1/14, 2/13

Passed over two small ridges at 0125.

0200 Position: 30 05.74  
88 09.00

Course	Speed	Tape Count	Paper Roll
356	4.6	30/0774	1/14, 2/13

Passing over a shallow, surface channel system.

0240 Position: 30 08.94  
88 08.98

Course	Speed	Tape Count	Paper Roll
356	5.4	30/0925	1/14, 2/13

Penetration on Geopulse about 50 msec. 3.5 kHz  
looks OK, but not great.

0330 Position: 30 13.88  
88 09.00

Course	Speed	Tape Count	Paper Roll
356	4.7	30/1130	1/14, 2/13

Data quality fair. Approaching end of Line 54.

0345 Position: 30 14.80  
88 08.96

EOL 54, SOL 55

Course	Speed	Tape Count	Paper Roll
253	4.7	30/1160	1/14, 2/13

New course runs parallel to western end of Dauphin  
Island.

0400 Position: 30 14.55  
88 10.32

Course	Speed	Tape Count	Paper Roll
253	5.1	30/1210	1/14, 2/13

Data quality poor, as side seas are making it too  
rough.

0430 Position: 30 14.00  
88 13.00

Course	Speed	Tape Count	Paper Roll
180	4.0	30/1310	1/14, 2/13

EOL 55, SOL 56

Turn made right in central portion of large Pleistocene channel.

0515 Position: 30 10.51  
88 12.97

Course	Speed	Tape Count	Paper Roll
176	4.8	30/1450	1/14, 2/14

Data quality OK for both devices, but not showing very much at present. Paper changed on 3.5 kHz recorder.

0600 Position: 30 06.76  
88 13.02

Course	Speed	Tape Count	Paper Roll
176	5.0	30/1580	1/14, 2/14

Nearing end of line 56. Since 0528 we have been profiling down dip of a good sized near surface channel system.

0610 Position: 30 05.90  
88 13.00

Course	Speed	Tape Count	Paper Roll
268	5.0	end 30	1/14, 2/14

EOL 56, SOL 57. Good records with Geopulse in this area. 3.5 doesn't show much.

0630 Position: 30 05.99  
88 14.68

Course	Speed	Tape Count	Paper Roll
266	4.1	31/0138	1/14, 2/14

0651 Position: 30 06.02  
88 16.52

EOL 57, SOL 58

Course	Speed	Tape Count	Paper Roll
--------	-------	------------	------------

356 4.9 31/0286 1/14, 2/14  
0730 Position: 30 09.18  
88 16.50

Course Speed Tape Count Paper Roll  
356 5.6 31/0490 1/14, 2/14

0800 Position: 30 11.59  
88 16.46

Course Speed Tape Count Paper Roll  
355 5.3 31/0628 1/14, 2/14

0821 Position: 30 13.48  
88 16.46

EOL 58, SOL 59

Course Speed Tape Count Paper Roll  
242 4.6 31/0726 1/15, 2/14

0900 Position: 30 12.27  
88 19.76

Course Speed Tape Count Paper Roll  
236 4.4 31/0883 1/15, 2/14

0902 Position: 30 12.14  
88 20.02

EOL 59, SOL 60

Course Speed Tape Count Paper Roll  
176 4.4 31/0897 1/15, 2/14

0930 Position: 30 09.88  
88 19.95

Course Speed Tape Count Paper Roll  
176 5.4 31/0998 1/15, 2/14

1003 Position: 30 06.96  
88 19.97

Course Speed Tape Count Paper Roll  
261 5.0 31/1117 1/15, 2/14

EOL 60, SOL 61

1030 Position: 30 06.68  
88 22.29

Course Speed Tape Count Paper Roll  
260 4.6 31/1203 1/15, 2/15

1100 Position: 30 06.45  
88 24.97

Course	Speed	Tape Count	Paper Roll
258	4.9	31/1301	1/15, 2/14

1143 Position: 30 06.03  
88 29.00

EOL 61, SOL 62

Course	Speed	Tape Count	Paper Roll
243	4.7	31/1434	1/15, 2/14

1200 Position: 30 05.49  
88 30.46

Course	Speed	Tape Count	Paper Roll
243	5.0	31/1481	1/15, 2/14

1230 Position: 30 04.40  
88 33.28

Course	Speed	Tape Count	Paper Roll
243	5.4	31/1530	1/15, 2/14

Data quality during the past few hours has been very good. Ran across the zone of sand ridges south of Petit Bois Island and got some excellent records showing them localized over probable channel facies. Penetration on the Geopulse averaged about 25 msec, limited by a strong seafloor multiple. 3.5 kHz quality good to fair. Currently running towards a point off of the northern Chandeleur Islands, tying into our previous grid. This will complete the profiling, and should occur circa 1320.

1300 Position: 30 03.38  
88 36.00

Course	Speed	Tape Count	Paper Roll
244	5.7	31/1570	1/15, 2/14

3.5 kHz records are not showing much. Geopulse has about 25 msec penetration with fair resolution, although it shows mostly parallel reflectors. The weather has been very kind the last few days, with the exception of the rough water around Dauphin Island. Right now we have about 1' ground swell, but no seas to speak of.

1320 End of tape 31. No new one being put in due to proximity to end of line and profiling.

1327 Position: 30 02.50  
88 38.50

EOL 62. EOC!

1341 All gear on deck, commence run for Broadwater Beach Marina via Dog Keys pass.

1632 Arrive Broadwater Beach Marina amidst drizzle and threats of thunderstorms.

1800 Packing and loading of various gear is completed. R/V Acadiana prepares to leave for return trip to Cocodrie.

TAPE  
#

START  
END

COMMENTS AND OBSERVATIONS

PAGE \_\_\_\_\_

ACADIANA  
87-2

ACADIANA  
87-2  
Chandeleur Isl.  
June 20-26  
1987  
Less 2 & 3  
J. Kindinger

SEISMICS  
LOG

78 00 91



TAPE  
#

START  
END

COMMENTS AND OBSERVATIONS

PAGE

4

EOL 38/SOL 39

CHANGES NAV TAPES TAPES 10

CHANGES NUMB TAPES 19 TO 20

CHANGES 3.5 kHz ROLL 2-6 TO 2-7

EOL 39/SOL 40

EOL 40/SOL 41

EOL 41 END OF LEG 2

SOL 42 23/06/87 12:59

DROPT BILATI FOR LK6 3

PWR UP ON 2300 kHz 1758

C/E 162

C/E 185

WP # 48 20/209 47

WP # 48 21/218

CHANGES TO TAPE # 23

EOL 42/SOL 43

SOL 43/SOL 44

ROLL 219 ON

EOL 44/SOL 45

New Belt 3.5

Change to tape # 24

Change paper to Roll 1.3 Geopulse

5

GMT				LINE #	SHIPS		NAVIGATION						QUAL.
DAY	MO	YR	TIME		COURSE	SPD	FIX TIME	LATITUDE		LONGITUDE		TYPE	
								± DEGREES ±	MINUTES	± DEGREES ±	MINUTES		
24	06	87	1215	45				29	36.7	88	58.6		
			1217	46					37.0		58.5		
			1335	47					31.4	89	02.2		
			1448	47				29	27.9	88	56.4		
			1515	47					26.3		54.2		
			1651	47					21.2		47.2		
			1710	48					20.2		46.5		
			2011	48					25.3		59.5		
			2117	48					.		.		
			2200	48					29.5	89	07.3		
			2220	48					30.4		08.7		
25	06	87	0015	48				29	36.5		17.4		
			0030	49					37.4		18.5		
			0156	49					44.0		14.2		
									50.5		10.0		
			0330	49				29	50.7	89	09.7		
			0425	48					54.4		06.3		
			0430	49					54.6		06.0		
			0716	49				30	04.9		55.2		
			0915	49					12.5		47.4		
			0927	50					.		.		
			1045	50					11.8	88	38.5		
			1230	51				30	03.9		38.4		
			1252	51				30	02.4	88	38.4		
			1444	52					01.1		47.0		
			1551	53				29	51.8	88	48.7		
			1715	53					51.6		40.3		
			1751	53					50.6		36.8		
			2218	53					47.4		08.9		
			2345	54					.		.		

TAPE  
#

START  
END

COMMENTS AND OBSERVATIONS

PAGE 6

EOL 45 / SOL 46

EOL 46 / SOL 47

CLEAR CAPAMPAN

START TAPE # 25 (SILCO TAPE)

START 3.5 KHZ ROLL 2/12

~~SOL~~ EOL 47 / SOL 48

M.R.G.O. CANAL SEAWARD BOW

EOT 25 / SOT 24

Ship traffic going outside of channel

Back to channel

CHANGE TO NAVIGATION TAPE # 11

C/E - 025° SOL 49

GOODMAN AT 105 JOULKS

C/E 035°

CHANGE TO TAPE # 27

START 3.5 KHZ TO ROLL 2/12

C/E 036°

Time on silent 200 updated

EOL 49 / SOL 50

Change Paper #/13 → #/14

EOL 50 / SOL 51

GOODMAN AT 175 JOULKS

EOL 51 / SOL 52 C/E 250

EOL 52 / SOL 53

SOL 53

START ROLL 2/13 AND TAPE # 29

GOODMAN WITHOUT TO 280 JOULKS

EOL 53 / SOL 54

EOT 29 / SOT 30



COMMENTS AND OBSERVATIONS

TAPE #

START END

EOL 54 SOL 55

EOL 55 SOL 56

ANGLE 3.5 REWIND TO ROLL 2/14

EOL 56 / SOL 57

0653 EOL 57 / SOL 58

EOL 58 / SOL 59

Paper Change Roll 1/14 to 1/15

EOL 59 / SOL 60

EOL 60 / SOL 61

EOL 61 / SOL 62

EOL 62