#105319 NECH N87-3
NEECHO 87032
Boston Harbor
July 30-August 7, 1987
R.Rendigs
CORE LOG
(July 30-August 7, 1987)

U.S.G.S.
INTEGRATED NAVIGATION SYSTEM
AND
NORTHSTAR LORAN-C NAVIGATION LOG

SHIP R/V NEECHO

CRUISE NO. N87-3

DATE 7/30/87 → 8/7/87

CHIEF SCIENTIST M. BOTHNER

N87-3
#105919

NAVIGATION LOG

R/V NEECHO
BOSTON HARBOR
7/30/87 - 8/7/87

BOSTON HARBOR - R/V NEECHO
N87-3
CORING + GRAB LOG
7/30/87 - 8/7/87

N 87-3

(1)

The Good Ship R/V Neecho ~~[illegible]~~

7/30/87

OPS							
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	COMMENTS AND OBSERVATIONS

~~SITE B deployed float NNS~~ Joe N.
lv. whse 0630 - full of gear - Mike, R³, Bill W., Dave S.,
at Pt. Allerton dock 0800 - unloading -
setting up - differential loran NFG -
warm, p. cldy, gentle seas. Using megapulse nav.

@ 12:30 - away to site B - lunch in transit

13:43 - deployed float - all time is in local
4220.59/7048.02 13960.71, 25772.52, 44266.03
13:46 - on W. computer - records updating OK

13:56 - a hit - but then the fun of bringing it
back on - almost a big ooops - Joe had
to overide the pressure relief valve. No Fun here!
4220.60/7048.05 13960.92, 25772.81, 44266.16 core 31-1
51.5-52.5cm.
15:11 - Joe ~~[illegible]~~ recognizes, repairs, + replays
the same old winch song. Adjusted controller
valve on starboard engine - tested a few
yo-yo's on the winch and picks up OK.
Off for more fun at "B".

15:26:15 a hit - + recovered with a high degree
of happiness. Good core 31-2
4020.59/7448.00 13960.61, 25772.40, 44266.04 42cm.
wind picking up a bit from WSW but
still liveable!

56.5cm

15:54:55 - another big hit - another happy core 31-3
4020.61/~~7048~~7048.01 13960.63, 25772.59, 44266.13

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OPS: 12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA

COMMENTS AND OBSERVATIONS

16:19:10 - another glorious hit core 31-4
smooth recovery
42 20.60/7048.00 13960.57, 25772.47, 44266.06

Selby up to do an Eh core - broke out the staff probe + standardized OK.

16:41:30 - hit 31-5 will use for Eh measurement w. Orion model 407A ionanalyzer

sample depth	Eh - mV
42 20.61/7047.99	13960.50, 25772.49, 44266.08

Zobel +200mV, soln B = +258mV (stds)

sample depth (cm)	Eh - mV
6	-345
12	-310
18	-260
24	-420
30	-200
Top hole	-170 then -390 further in

of core (36.5cm)

at btm an old bottle (ampule?) marked pancreatin. also bits of glass, + sinters.

Then end back to the barn @ 17:30

T O'Brien at dock w. diff equipment - decided leave P.O. alerton till 20:00 - back to WHSE by 22:00 - right!

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N87-3

OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	COMMENTS AND OBSERVATIONS
							7/31/87
							Away from WHSE 0700 – at PD. all
							Dock 0830 – load on nav. gear (diff.), +
							etc – more setup –
							Dave M., Mike, me, Dave L., Dave S., Bill W.
							Sunny, clear, lt. NW breeze ~ 7 knots
							10:00 – away to site A – very HDC so what
							on bottom of WD. stand
							10:45 – at site A – pulling over buoy
							10:55 – float over
							11:15 – a slight fuck up in communication – recover
							float – + do it again! The diff loran
							signal is not coming though – was
							OK at dock but not out here.
							11:27 – buoy in da wa – wa 42 23.66/7054.46
							13987.04, 25835.39, 44295.58 Water depth 72'
							11:52 – hit 30-1 – but lost core tube –
							so back to the inner harbor to core ??
							There's
							12:45 – Were here in Dorchester Bay – getting
							our act together

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OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	COMMENTS AND OBSERVATIONS
							13:21 - unbeknownst to me, they tossed the ball over. abt 15' water at this time.
							13:24 - a hit - 4219.60/7100.45 14045.09, 25855.06, V 44 chain absent station 3-1 (core) Dorchester Bay 54 cm. long
							13:48 - core 3-2 4219.59/7100.45 14045.11, 25854.99, 44283.96 a happy core + happier people as were inside the harbor + no more "Neecho" upset stomachs. 45.5cm
							14:16 core 3-3 4219.57/7100.45 14045.26, 25854.96, 44283.62 slight leak at ball but otherwise happy uneven surface 54.5 - 57 cm. Away to next station - Quincy Bay - Sta. 10
							14:49 at sta 10 - Quincy Bay
							15:10 buoy away 4217.79/7058.13 14038.78, 25827.79, 44269.06 water depth 26'
							15:21 10-1 core 4217.79/7058.14 14038.93, 25827.96, 44269.06 59.5cm We are in organic matter heaven
							15:38 10-2 4217.78/7058.15 14038.95, 25827.97, 44269.17 smooth recovery - muchos high organic goop on feet of core 47cm.

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OPS: 12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA

COMMENTS AND OBSERVATIONS

15:45 - forgot to initialize disc - did so at this time.

15:52:30 - core 10-3 4217.79/7058.15 14038.94, 25828.01, 44269.24
V. smooth recovery synonomous w. R³ the winch driver!
51.5 cm weather: bright - sunny. work quality: bright - sunny. Core consistency - muddy, organic, crap.

16:09 - core 10-4 4217.79/7058.13 14038.85, 25827.89, 44269.28
36.5 cm
P.S. It's still a happy crew on the good ship NEECHO!

16:27:30 - core 10-5 - good one Eh-ph
4217.78/7058.13 14038.87, 25827.88, 44269.01

16:30 off to Heighan Bay

~~Depth~~ (cm) ~~Eh~~ mV ~~Ph~~

17:32 buoy away at Heighan Bay station 8

17:41:30 core 8-1 hit water depth
4217.45/7055.68 14024.61, 25808.28, 44292.06 20'
We're pooped but pressing on - sigh!
37.5 cm

1756:30 core 8-2 hit
4217.46/7055.68 14024.55, 25808.30, 44292.15 57 cm.

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OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	COMMENTS AND OBSERVATIONS

18:09:30 8-3 hit - good one

4217.44/7055.67 14024.58, 25808.13, 44292.03

58cm.

The end - back to the barn!

Have a nice day someplace else!!

8/3/87

[redacted] Were here - left WHSE at 0730 arrived at PD. alleston 0930.

Cloudy, windy (15-20 knts), should be clearing by this afternoon (hope springs eternal).

Bill W., Dave M., Mike B, Dave Lubbie, Dave Snyder, + moi.

OFF to station F_1 -

11:00 were here - setting up for coring

11:05 - buoy over 13987.235/25788.827

11:52:28 35-1 core - previous 2 attempts no good - rocking + rolling on the good ship Neecho.

4220.40/7050.60 13978.21, 25789.12, 44269.55

45cm.

2 more no good cores - a few "modifications" are now in progress at this time ☺

12:55 - Back to the Harbor - magnificent

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OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	COMMENTS AND OBSERVATIONS
							13:55 Were at sta. 103 in Boston Harbor (Hull Bay)
							14:20 core 103-1 hit - 54cm. 4216.83/7053.96 14016.44, 25792.44 lost 44,000 (Y) chan on megapulse but Northstar 6000 OK. Another monday enigma, //
							15:00 Drop cores off at dock - off to grab in Hull Bay - Hingham Bay.
							15:36 - 109-1 - grab 4217.46/7055.67 14024.52, 25808.24 Flash the Y chan is back on the megapulse - came back on the printer at 15:28 - also it now has a happy signal on the megapulse display. → and we're doing Eh-ph on this and an undetermined # of future grabs.
							16:14:30 110-1 hit 4217.46/7055.20 ~~14021.50~~ 14021.50, 25804.90, 44291.34
							16:33 111-1 hit - 4217.47/7054.52 14017.08, 25800.04, 44300.01
							17:02:30 112-1 - hit 4217.46/7053.67 14011.66, 25793.95, 44298.36

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OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	COMMENTS AND OBSERVATIONS

8/3/87 contd

17:30 101-1 hit 4218.20/7053.50
14006.97, 25797.15, 44302.96
Eh + ph taken here - had to tie up to mooring in Hull Yacht Club - 17 - JF - + sit on it to take a grab

17:52 102-1 hit
4217.65/7053.64 14010.77, 25795.17, 44299.51

18:09 103-2 hit 4217.69/7054.24
14014.22, 25799.35, 44300.77
Loam seems a little flakey down in this area.

Off sit on a channel buoy #1 in Hull Bay

18:33 finish gathering position data at Buoy #1

19:00 Wire done - tied up at mooring

8/4 Spent nite in Cohasset - Kimballs by the Wire here 0730 - Joe W, moi, [redacted] Mike B., Dave L., Dave S., Bill W.
Put cover back on - cleaning up, to.

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OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	COMMENTS AND OBSERVATIONS

8/4/87 cont'd

retaminating ~~was~~ winch wire - done + OK

started wire - OK

0915 - off to station C - a beauty of a day - sunny - warm + most calm - not wind.

P.S. = gentle seas

10:30 - wire here at C - water depth 230 ft

10:48 over w. buoy 13892.85, 25736.90, 44268.3

10:58:30 - site C hit 32-1 4223.67/7039.72

13892.55, 25736.61, 44268.25 56.5 cm.

11:20 - 32-2 hit 4223.67/7039.71 48 cm.

13892.51, 25736.51, 44268.13 smooth

11:38 - 32-3 hit 42 23.68/ 70°39.73

13892.54 25736.57 44268.14

11:54:30 32-4 hit 42 23.68/ 70° 39.73

13892.56 25736.59 44268.15

Fish on 32-4 - strobe for both are right on the money.

Off to "beyond C"

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OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	
							12:54 at STATION 33 loading cover
							bouy over 13:12 4224.74/7032.79
							13843.37, 25699.70, 44261.42 ~~44.5cm~~
							13:39:30 HAT 33-2 4224.75/7032.81
							13843.63, 25699.99, 44261.53
							38.5cm
							13:18:30 hit 33-1 4224.74/7032.82
							13843.58, 25699.91, 44261.44 44.5cm
							14:07:30 hit 33-3 4224.74/7032.82 32.5cm
							13843.55, 25699.90, 44261.43
							Have a nice calm day
							14:31:30 ~~422~~ hit 33-4 Eh-ph
							4224.72/7032.80 13843.57, 25699.63, 44261.29
							water depth 270 ft.
							Off to site D_2 (sta 34) 15:00
							we're tired campers as of this time!
							16:15 - we're here
							16:29 - Bouy over 4223.86/7049.32 water depth
							13952.86, 25801.29, 44287.07 90 ft.

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OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	

16:38:30 34-1 hit 4223.88/7049.35
13952.96, 25801.57, 44287.00 18.5 cm
v. sandy

17:33:30 - after 2 abortive trys a good one -
34-2 4223.87/7049.34 13952.97, 25801.52,
24 cm. 44287.15
We appear to be coring a beach - gr rounded gravel ~~[illegible]~~ - coarse sand grains on ball! Yipes!!

17:45 (approx) 34-3 4223.85/7049.29
13952.75, 25801.08, 44286.85 - a shorty core!
13.5 cm.

Fini - back to the barn

19:00 We're here at the dock - joy forever

Wednesday Aug 5

Leave dock at 0805 heading for station A to core.
Adam Brown. Mike B. Bill Winter, Dave Schmidt.
Dave Lubinski, Dave Marsan.

0858. deploy marker float.

OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO	STA	Aug. 5. 87 COMMENTS AND OBSERVATIONS
							0906 – Brucks station A, run #30-1
							42 23.675, 7054.487, 13987.00, 25835.49 44295.61
							0924:50 30-2
							42 23.68 70°59.747 139 86.99 25835.59 44295.51
							0937:00 30-3
							42 23.67 70°54.48 139 87.11 25835.56 44295.54
							0957 30-4 EH. Water content one
							42° 23.68 70°54.45 13986.82 25835.40 44295.31
							1246 STATION 104 in Hull Bay
							1305 STATION 105 14019.84, 25805.75
							1331 STATION 106-2
							1351:00 STATION 107
							1412:30 STATION 108
							1438:30 STATION 116
							1525 118
							1537:30 117
							15:53:00 120
							16 07:00 129
							Fill up at Hewitt Marina,
							17 07 hrs. 139-1
							1715 HRS 139-2
							1730 137-1
							1758 140-1

OPS

12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA

COMMENTS AND OBSERVATIONS

8-6-87 TH	135-1	@ 10:40:45 TD's	14018.24, 25785.10	9'
8-6-87 TH	127-1	@ 11:10:26 TD's	14022.51, 25793.33	19'
"	133-1	@ 11:30:50	14021.18, 25788.10	9.7'
"	124-1	@ 11:45	14016.73 25789.17	8.7'
"	121-1	@ 12:07	14027.08 25801.79	10'
"	130-1	@ 1221	14034.32 25806.96	8'

1350 hrs - Megapulse back on line, recording all TDs on disk.

STATION 131

1351 00 42°15.77 70°56.38 14037.19 25803.37

Aug. 7, 1987

0915

0920 tied to NE side of Buoy #1

0938 115-1 Note - Loran may have been off by ~.5 μsec
Changed antenna type near station.

10:03:00 STA 123-1 42 16.7699 70°54.3870, 14019.59 25794.93 worked a little

10:10:00 STA 123-2 42 16.7464 70°54.43, 14020.06, 25795.12

10:15 START PLAYING WITH

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							12:20 Sidescan in, end of line ~~[illegible]~~ 44296
							1414 stop. Sidescan. around transponder
							1433:30 - hanging off float that did not give transponder signal: low return
							1455 Wind out of SE 10 KTS. Checking location of float at high return location.

115	42 ~~17 04.2~~ 17.07	70° ~~55 29~~ 55.40	
122	42° ~~16 52"~~ 16.867	70 ~~54 38~~ 54.633	
123	42 ~~16 52"~~ 16.867	70 ~~54 23"~~ 54.383	