Serial #90030

CRUISE REPORT

SHIP: R/V Asterias

CRUISE: Asterias 90-8-23

PARENT PROJECT: OBS Development (9470-30100)

AREA: Buzzards Bay

DATE: 23 August, 1990

PORT: Woods Hole, MA

PERSONNEL: Deborah Hutchinson, Chief Scientist, USGS
Greg Miller, USGS
Elizabeth Knapp, USGS
Steve Holbrook, WHOI
Beecher Wooding, WHOI
Rob Handy, WHOI
Dave Olmstead, Captain, WHOI

PURPOSE: A comparison of the hydrophone response of the WHOI OBH and USGS OBS to the same shots, and a test of the hard mount to the Tattletale model 6 in the USGS OBS.

NAVIGATION: Northstar 800 LORAN C aboard the Asterias

SCIENTIFIC EQUIPMENT: USGS OBS C4 and anchor
USGS Benthos Release Equipment
WHOI OBH 1 and anchor
WHOI EG&G Release Equipment

STATISTICS:
Days at Sea: .13 (3 hours)
OBS Stations occupied: 1
Shots fired: 6 x 6-in primacord/electrical cap

OBS/OBH LOCATIONS:

OBH deployment: 10:40 EDT 41°32.31'N 70°43.54'W WD: 51' (15.2 m)

OBS deployment: 10:48 EDT 41°32.31'N 70°43.52'W WD: 50' (15.5 m)

Note: OBH/OBS separation a minimum of 36 m, probably about 55 - 60 m.

SHOT INFORMATION:

Shot 1	11:36:00 EDT	41°32.33'N	70°43.53'W	above instruments
Shot 2	11:40:00 EDT	41°32.21'N	70°43.72'W	
Shot 3	11:43:00 EDT	41°32.14'N	70°43.87'W	
Shot 4	11:47:00 EDT	41°32.06'N	70°44.15'W	
Shot 5	11:51:00 EDT	41°31.89'N	70°44.40'W	
Shot 6	11:56:00 EDT	41°31.77'N	70°44.85'W	

NOTE: Shots fired from a countdown to a Timex analog watch synched to satellite time just prior to the cruise. Due to peculiarities in the movement of the minute hand, all times could have been read as 1 minute too early.

23 AUGUST 1990 ASTERIAS TESTS OBS / OBH
Dave Olmsted, capt.

All times local

OBH - 1? (Ask Ken) - programmed to turn on 11:30 EDT

OBS C4 - running already, tattletale hardmounted, diff. unit than before
Greg had software acquisition problems
program = running continuously. - turned on
9:00-ish EDT ?

EDT
9:10 Asterias arrives, WHOI dock.
9:40 All gear aboard

Deborah Hutchinson
Steve Holbrook
Beecher Wooding
Rob Handy
Elizabeth Knapp
Greg Miller

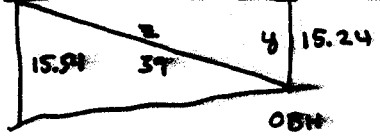
INSTRUMENT DROP:	41° 32.32'	70° 43.53'
SHOT 1	"	"
2.	32.24	43.70
3.	32.18	43.85
4.	32.07	44.13
5.	31.91	44.40
6.	31.80	44.82

All positions programmed into Northstar 800 LoranC Navigator

10:00 Depart WHOI dock
10:11 Clear WH passage
Weather - overcast 15 kts wind } Rougher than last
Whitecaps 1-2' chop. } Asterias cruise.

10:22 On site - prepare to rig winch. - head into seas
10:29 Steam back to site - will go down wind, then head up and steam slowly back towards site
10:33 OBH Anchor over

10:40 OBH OVER 41 32.31 WD = 50' = 15.24 m
70 43.54



$x^2 + y^2 = z^2$
$x^2 = z^2 - y^2$
$= (39)^2 - (15.24)^2$
$x = 36$ m

10:44 OBS rigged & ready, steam back to site
10:48 OBS over side 41° 32.31 WD = 51 = 15.54 m
70° 43.52

10:50 Range to OBH: 39 m. ← probably minimum separation
10:51 " 30 m i.e. drifting back towards OBH.

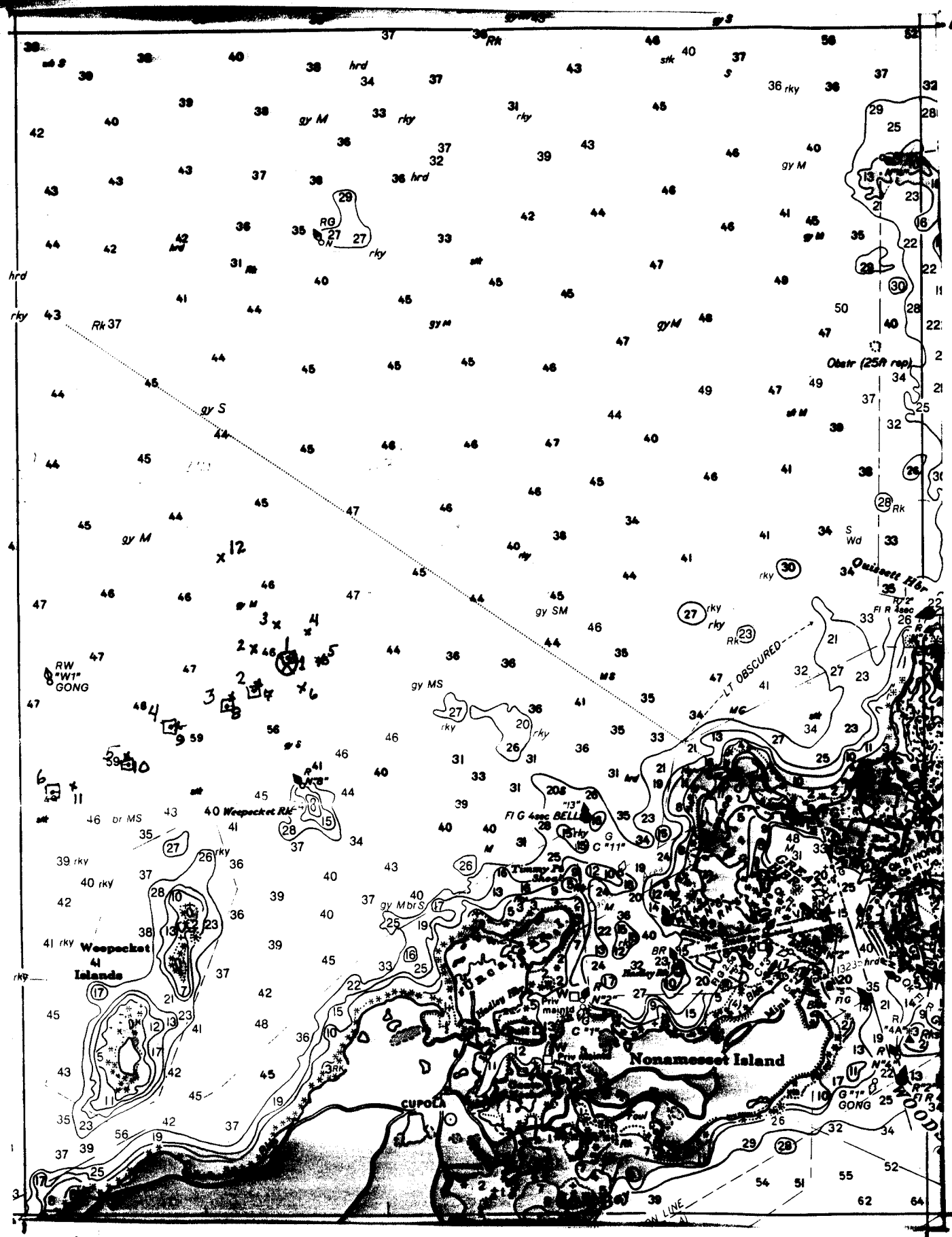
10:53 Range to OBS m. i.e. drifting away.

Standby 'til 11:30 to start shooting

11:30 start rigging for shooting - same caps as last time, 6" primer cord
almost on site. short leads (~7')

EDT					
11:36:00	SHOT 1	41°	32.33	70° 43.53	on top of instruments
11:40:00	2		32.21	43.72	
11:43:00	3		32.14	43.87	
11:47:00	4		32.06	44.15	
11:51:00	5		31.89	44.40	
11:56:00	6		31.77	44.85	

12:07 at site 39 m away - range to OBS
12:08 on surface - SE, as expected
12:10 hooked
12:11 on board
12:13 back on site - release OBH
12:14 at the surface
12:16 hooked
12:17 back on board
12:19 head for the barn
12:38 back at WHOI dock..



○ OBS/OBH location

×10 SHOT AST-8-13

□2 SHOT AST-8-23