Sodenberg

BRANCH OF ATLANTIC MARINE GEOLOGY
U.S. GEOLOGICAL SURVEY
Woods Hole, MA 02543

DLWR #93006

CRUISE REPORT

5-17-93

Ship name: NOAA Ship Delaware II

Cruise No.: 93-03

Project: Shelf mapping - Stellwagen Bank

Funding agency: USGS, NMFS

Area of operations: Stellwagen Bank, southwestern part

Cruise dates: April 19-27, 1993

Chief Scientist: Page Valentine, USGS

Scientific Party:
Andrew Brill, USGS
Carol Brown, USGS
Milton Carlo, USGS
Dave Nichols, USGS
Carol Parmenter, USGS
Eric Schmuck, USGS

Ship's captain: Gunnar Gudmundsson

Cruise purpose: Collaborative research with USGS and NMFS; echo sounding, side scan sonar surveys, video, and bottom sampling of the southwestern part of Stellwagen Bank to map sedimentary environments and biological habitats.

Navigation: GPS, Loran-C; recorded on 3.5 diskettes.

Scientific equipment: Klein 100 kHz sidescan sonar; digital collection of sonar data with Q-MIPS system; Simrad EC-810 echo sounder, 38 kHz; Osprey color video system; Van Veen grab.

Days at sea: 9 (7 days in study area).

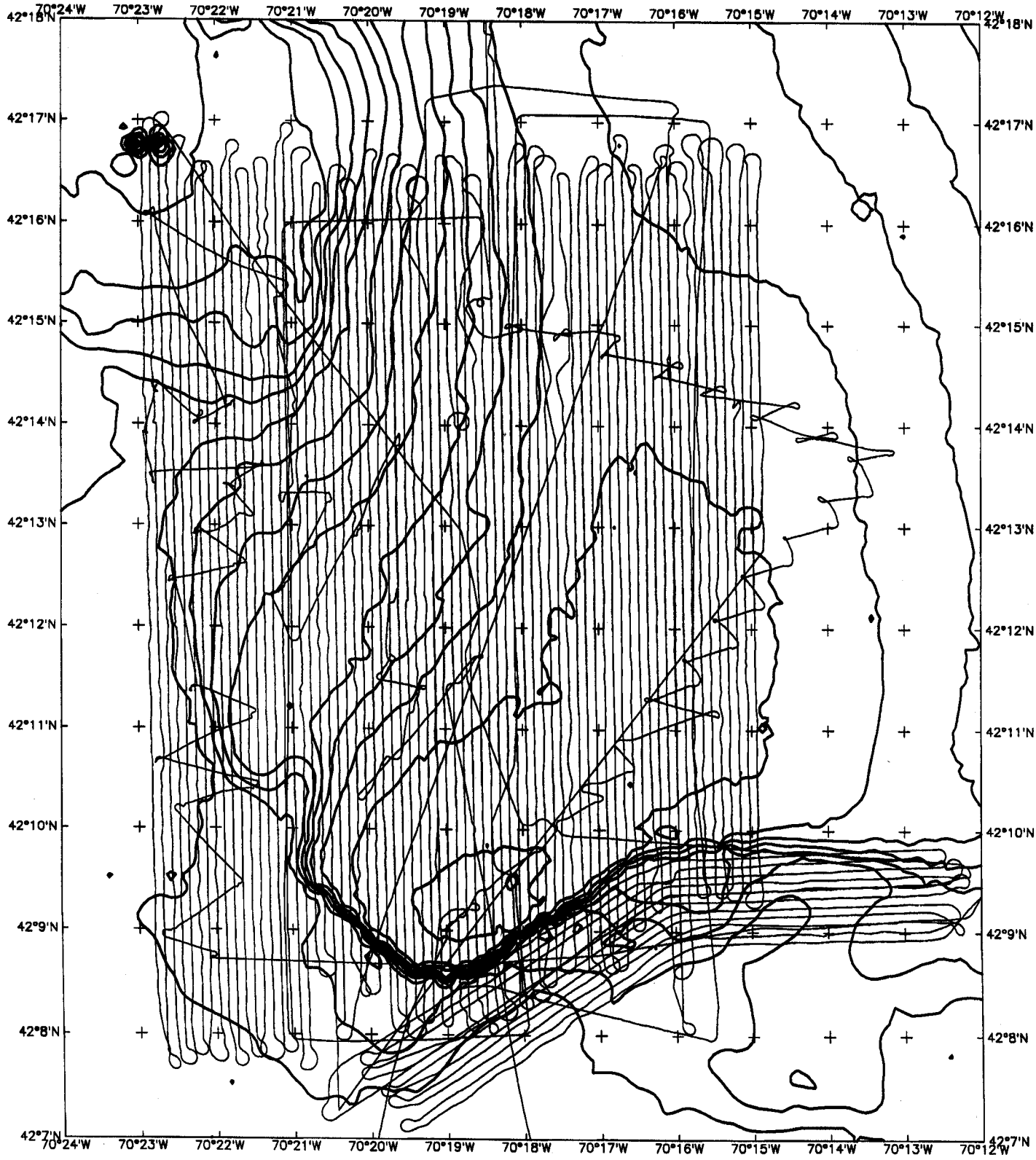
Continuous data collected: 1013 line km of side scan sonar data comprising 162 sq km of continuous coverage (see attached trackline map).

Stations occupied: color video camera (mounted on Van Veen grab) deployed at 56 sites, and 52 sediment samples taken, in the study area; locations listed below.

Sta. 1:	42° 09.00′ N,		70° 19.00" W	
Sta. 2:	42	09.55	70	18.26
Sta. 3:	42	09.75	70	17.91
Sta. 4:	42	10.22	70	17.20
Sta. 5:	42	10.55	70	16.73
Sta. 6:	42	11.01	70	16.22
Sta. 7:	42	11.41	70	15.91
Sta. 8:	42	11.79	70	15.42
Sta. 9:	42	12.18	70	15.06
Sta. 10:	42	12.61	70	14.67
Sta. 11:	42	12.00	70	14.04
Sta. 12:	42	13.31	70	13.61
Sta. 13:	42	13.72	70	13.32
Sta. 14:	42	13.94	70	14.01
Sta. 15:	42	14.22	70	14.51
Sta. 16:	42	14.37	70	15.49
Sta. 17:	42	14.62	70	16.01
Sta. 18:	42	14.80	70	16.82
Sta. 19:	42	14.94	70	17.46
Sta. 20:	42	14.99	70	18.10
Sta. 21:	42	15.25	70	18.58
Sta. 38:	42	08.34	70	22.12
Sta. 39:	42	09.00	70	22.57
Sta. 40:	42	09.43	70	21.71
Sta. 41:	42	10.21	70	22.42
Sta. 42:	42	10.41	70	21.49
Sta. 43:	42	10.66	70	22.77
Sta. 44:	42	11.13	70	21.53
Sta. 45:	42	11.39	70	22.32
Sta. 46:	42	12.45	70	22.56
Sta. 47:	42	12.62	70	21.68
Sta. 48:	42	12.94	70	22.19
Sta. 49:	42	13.09	70	21.57
Sta. 50:	42	13.39	70	21.78
Sta. 51:	42	13.45	70	22.80
Sta. 52	42	13.91	70	22.89
Sta. 53:	42	14.35	70	22.78
Sta. 54:	42	14.18	70	21.81

Sta. 57:	42	16.11	70	22.85	
Sta. 59:	42	15.30	70	21.13	
Sta. 60:	42	14.12	70	20.96	
Sta. 61:	42	13.25	70	21.11	
Sta. 62:	42	13.25	70	20.49	
Sta. 81:	42	13.83	70	19.60	
Sta. 83:	42	12.31	70	19.64	
Sta. 85:	42	11.26	70	19.40	
Sta. 87:	42	10.66	70	19.82	No sediment sample
Sta. 87a:	42	10.56	70	19.89	No sediment sample
Sta. 87b:	42	10.48	70	19.93	No sediment sample
Sta. 97:	42	11.65	70	18.65	No sediment sample
Sta. 137:	42	11.64	70	19.77	
Sta. 146:	42	12.93	70	20.14	
Sta. 151:	42	12.37	70	21.14	
Sta. 152:	42	08.73	70	22.06	
Sta. 164:	42	13.59	70	21.36	
Sta. 165:	42	14.03	70	22.23	

Page Valentine
Geologist

gbgrav\del29303.rep

STELLWAGEN BANK NATIONAL MARINE SANCTUARY (DE93-03)