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CRUISE REPORT

WHITEFOOT (WF 80-3)

September 22 - 24, 1980

David C. Twichell
U.S. Geological Survey
Woods Hole, MA 02543

October 16, 1980

Vessel: WHITEFOOT, Cruise WF 80-3

Area of Operations: Georges Bank

Dates: Depart Woods Hole 1650 (EDT) 22 Sept., 1980
Arrive Woods Hole 2100 (EDT) 24 Sept., 1980

Personnel: Roy Campbell, Captain
David Twichell, Chief Scientist, U.S.G.S.
John West, U.S.G.S.
Andrew Eliason, Eliason Data Services

Equipment: Navigation: Northstar Loran-C
ATNAV acoustic transponder
navigation system.
Seismics: Klein side-scan sonar ORE
3.5 kHz echo sounder.

Objectives:

The WHITEFOOT 80-3 cruise was the second of three cruises to be considered to evaluate sand wave migration rates in a small area (about 1.5 x 1.5 km) on Georges Bank. During this cruise two transponders which were deployed on the WF 80-2 cruise were enabled, and a third transponder was deployed. The three transponders were surveyed in to establish the navigation grid. Two side-scan sonar reflectors were deployed to serve as reference markers. After establishing the navigation grid and deploying the sonar reflectors, a side-scan sonar and 3.5 kHz echo-sounding survey was conducted. At the end of the survey all three transponders were shut off and left for the final survey in May, 1981.

Narrative:

22 Sept., 1980	1650 (EDT)	Depart Woods Hole
23 Sept., 1980	0700 (EDT)	Arrive at survey area on Georges Bank.
	0830	Enable transponders 6027 and 6022.
	1012	Deploy transponder 6024.
	1021	Start surveying in transponder net.
	1330	Deploy side-scan reflectors.
	1455	Deploy side-scan and 3.5 kHz fish.
	1500	Start bathymetry and side-scan survey.
24 Sept., 1980	0152	Complete bathymetry and side-scan survey.
	0230	Disable transponders.
	0300	Depart for Woods Hole
	2100	Arrive Woods Hole

Tabulated Information:

a. Days at sea: 3

b. Instruments Deployed:

Instrument	Latitude	Longitude
Transponder 6024	41°09.00N	68°02.66W
Side-scan reflector	41°08.79N	68°02.31W
Side-scan reflector	41°08.77N	68°02.76W

41.15

(Locations based on 9960 Loran-C chain)

c. Seismic Survey

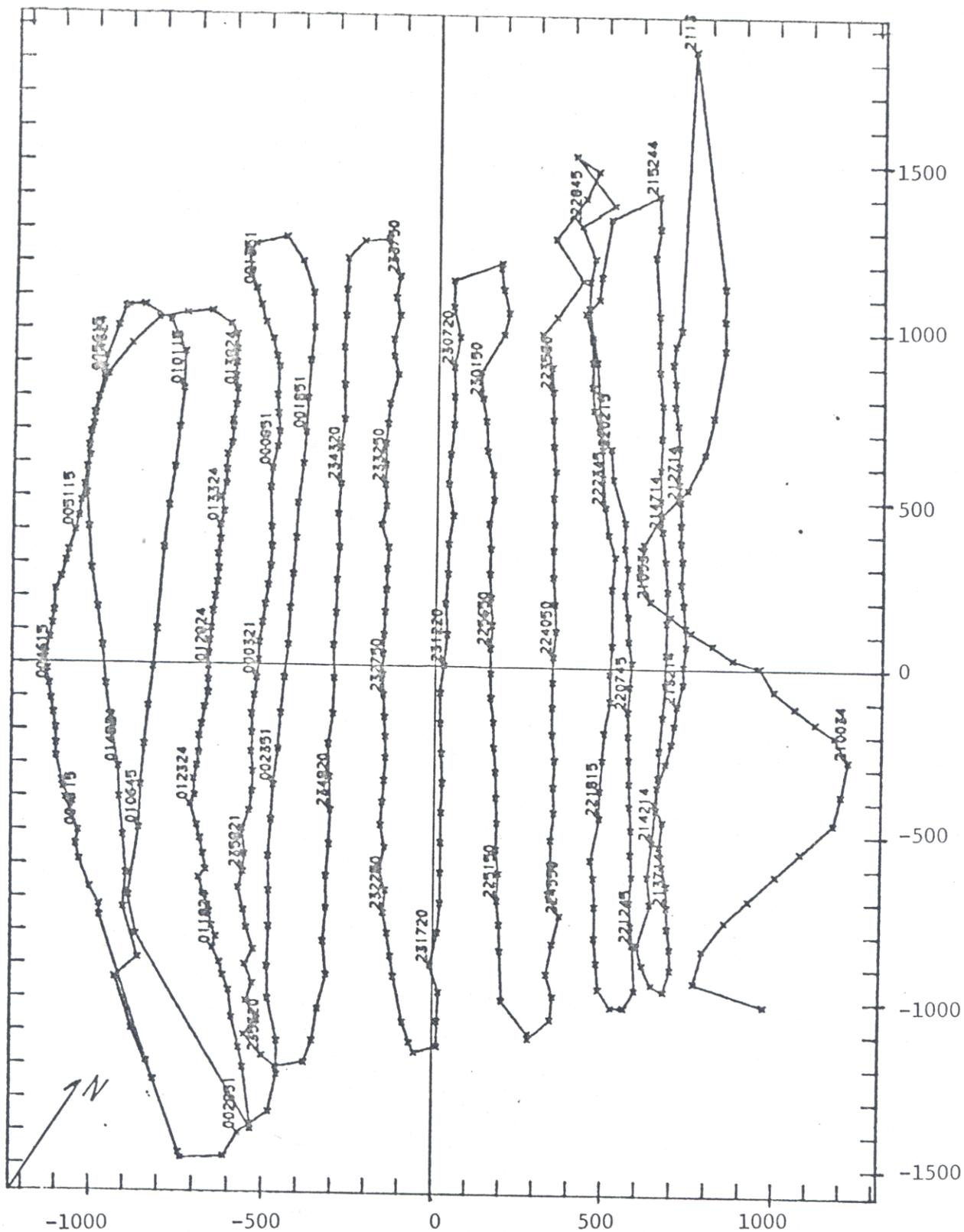
Equipment	Latitude	Longitude
Deploy 3.5 kHz and side-scan	41°08.25N	68°02.63W
Recover 3.5 kHz and side-scan	41°07.88N	68°02.48W

68
68.1

41.1

d. Amount of Side-Scan and 3.5 kHz Data Collected:

System	Time Spent	Km of Data Collected
3.5 kHz	10 hr 52 min	70
Side-scan	10 hr 52 min	70



WHITEFOOT 80-3 ACOUSTIC TRANSPONDER NAVIGATION
 23-24 Sept., 1980 2054-0153 EDT. Lines run approximately NW-SE.
 Grid around border is in 100 m increments, origin is approximately
 at 41°08.63N, 68°02.40W, and north is shown by arrow in lower left
 corner of figure.

