

78018

Cruise Report

Tug WHITEFOOT

7-18 July 1978

B. Butman
U.S.G.S.
Woods Hole, MA

TUG WHITEFOOT

Area of Operations: South Carolina Shelf

Dates: 7 July Load and depart Woods Hole, Mass.
11 July 2200 Arrive Georgetown, South Carolina
13 July 0200 Depart Georgetown, South Carolina
14 July 1100 Arrive Georgetown, South Carolina
14 July 1800 Depart Georgetown, South Carolina
18 July Arrive Woods Hole, Mass.

Objectives:

The WHITEFOOT cruise was part of a continuing study of currents and sediment transport on the U.S. east coast Continental Shelf. The purpose of the curise was to recover two bottom tripods and deploy one tripod on the South Carolina shelf, to conduct hydrographic observations (XBT), to relight two surface marker buoys at the tripod site locations, and to obtain samples of the surface sediments at the tripod locations.

For logistic reasons, U.S.G.S. utilized the tug WHITEFOOT for the deployment. It was felt that assembling and offloading the tripod instrumentation at Woods Hole would be safer and more convenient than shipping the large quantity of instrumentation and assembling for deployment by a local vessel. U.S.G.S. personnel met the WHITEFOOT in Georgetown, South Carolina, a port close to the tripod deployment locations.

Personnel:

Ray Campbell, Master

Brad Butman, Chief Scientist U.S.G.S.

Bill Strahle, Electrical Engineer, U.S.G.S.

Narrative:

7 July Load WHITEFOOT in Woods Hole
8-11 July Transit to Georgetown, South Carolina
12 July Prepare ship and tripods
13 July 0200 Depart Georgetown, South Carolina
1000 Arrive Station A (see Chart)
1110 Deploy new surface marker buoy
1220 Deploy tripod (U.S.G.S. mooring 152)
Steam to Station D, survey depth
1535 Deploy tripod at Station D, confirm upright
(U.S.G.S. mooring 153)
1800 Recover tripod at station A (U.S.G.S. mooring 147)
1900 Recover surface marker at Station A
2000 - 2200 Surface grab sample at station A & D

13 July	2300	Commence cross-shelf XBT section
14 July	0700	Complete XBT section
	1000	Arrive Georgetown, S.C.
14-18 July		Transit to Woods Hole
18 July		Offload

Mooring Condition (147)

The tripod had moderate biological growth on the frame and instrument housings. The camera window had several barnacles and a light coating of slime. The transmissometer prism also had a light coating of slime. Some aluminum oxide corrosion had formed on the transmissometer light port. The current rotor and vane were free. There was some difficulty in recovering the tripod through a rear A-frame installed on the WHITEFOOT. The current sensor was damaged on recovery. Although it took several minutes to get the tripod aboard, quick visual observation of the instrument in the water showed several fish inhabiting the savarius rotor current sensor. Crabs, one small octopus, and several fish also inhabited the corner box frames, open structural pipes, and the top lifting plate of the tripod. The camera strobe would not fire on deck, indicating malfunction or low batteries.

Instrumentation Recovered

1. Mooring 147 (Station A)
(32° 33.7' N, 78° 39.5' W)

Instrumentation Deployed

1. Mooring 152 (Station A, 47 m)
(32° 34.5' N, 78° 39.9' W)
2. Mooring 153 (Station D, 85 m)
(32° 32.5' N, 78° 37.5' W)

Stations

Surface salinity	10
XBT	10
Surface grab	2

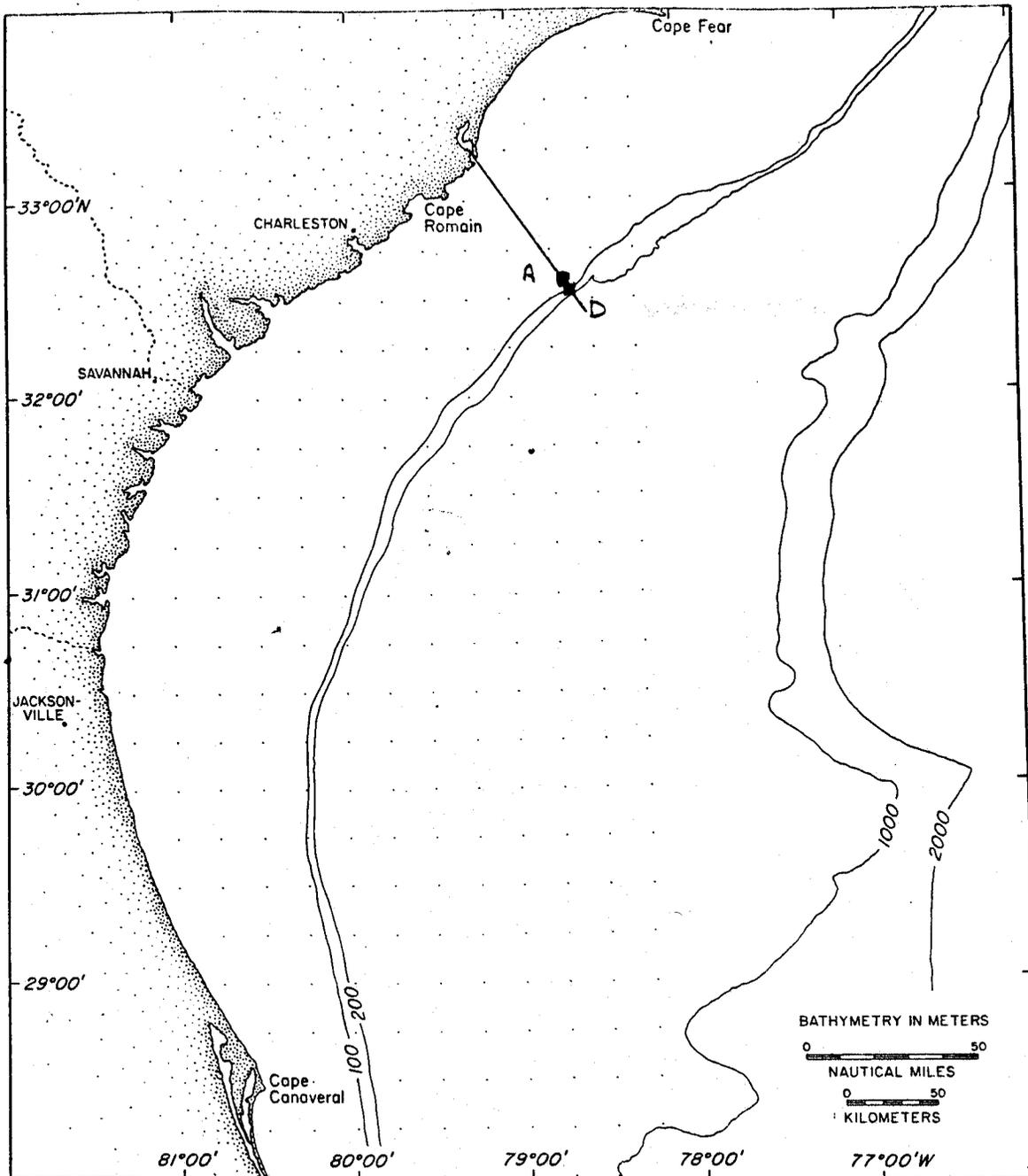
WHITEFOOT

Station List
(13-14 July, 1978)

Sta.	Date	Lat.	Long.	Depth (m)	XBT	SS
1	13 July	32° 23.9' N	78° 31.8'W	275	x	x
2	14 July	32° 27.3' N	78° 35.0'W	275	x	x
3	"	32° 29.9' N	78° 38.0'W	230	x	x
4	"	32° 32.2' N	78° 38.3'W	85	x	x
5	"	32° 34.5' N	78° 39.9'W	45	x	x
6	"	32° 38.2' N	78° 43.5'W	44	x	x
7	"	32° 43.0' N	78° 51.5'W	33	x	x
8	"	32° 48.6' N	78° 54.5'W	30	x	x
9	"	32° 56.5' N	79° 0.8'W	22	x	x
10	"	32° 3.6' N	79° 4.5'W	15	x	x

Surface Grab Samples

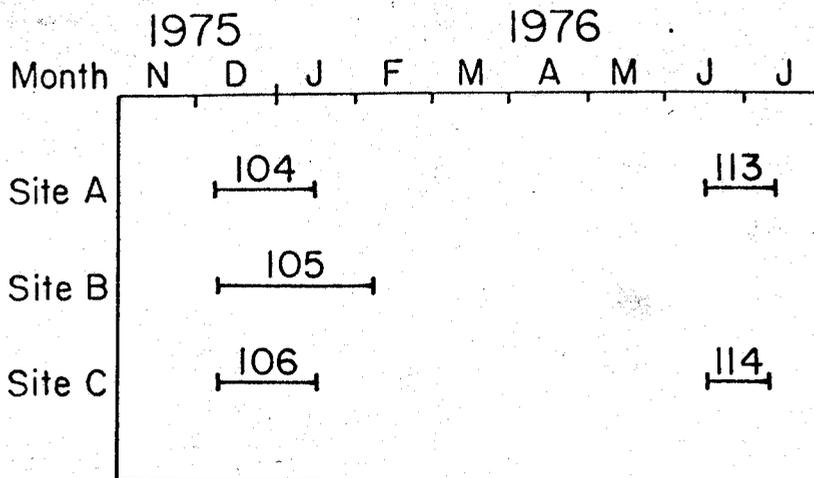
4625	13 July	32° 34.5'N	78° 39.9'W	47
4626	"	32° 32.5'N	78° 37.5'W	91



Cruise Track - Tug WHITEFOOT
13-14 July, 1978

Tripods deployed at Station A and D

Tripod recovered at Station A



AVERAGE ROTOR SPEED and VANE NUV
 Dec. 1975 - Feb. 1976

