

#90048

CRUISE REPORT
SEDIMENT TRANSPORT ON SHELVES AND SLOPES (STRESS) EXPERIMENT

R/V WECOMA
November 19-21, 1990

Brad Butman
November 30, 1990
U.S. Geological Survey
Woods Hole, MA 02543

VESSEL: RV WECOMA

DATES: November 19-21, 1990

PORTS: Yerba Buena, CA to Yerba Buena, A

PERSONNEL: B. Butman, USGS
W. Strahle, USGS
M. Martini, USGS
J. Kemp, WHOI
J. Bouthillette, WHOI
H. Clifford, WHOI
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R. Wheatcroft, WHOI
P. Snelgrove, WHOI
C. Sherwood, U. Washington
D. Jackson, APL
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OBJECTIVES: Deploy surface marker buoys, bottom tripods and current moorings on the California Continental Shelf as part of the STRESS (Sediment Transport Events on Shelves and Slopes) experiment. This winter experiment is designed to study the resuspension and transport of fine-grained sediments by winter storms and involves the deployment of 9 bottom tripod systems and 3 subsurface current moorings at 3 locations across the continental shelf (see attached figure). CTD transects and boxcores will provide supporting instrumentation.

NARRATIVE:

11/19 1900	Depart Yerba Buena, CA
11/20 0400	Arrive Site C2
0642	Deploy Sonar tripod at C2
0924	Deploy Radio float at C3
1142	Deploy subsurface mooring at C3 (USGS mooring 363)
1302	Deploy FVSK tripod at C3
1451	Deploy subsurface mooring at C4 (USGS mooring 364)
1400	Repair radio buoy at C3
1730	Deploy subsurface mooring at C2 (USGS mooring 362)
1700	Box core at C2
2400	Begin CTD transect at C2
11/21 0230	Complete CTD transect at C4
0945	Arrive Yerba Buena, CA

INSTRUMENTATION DEPLOYED

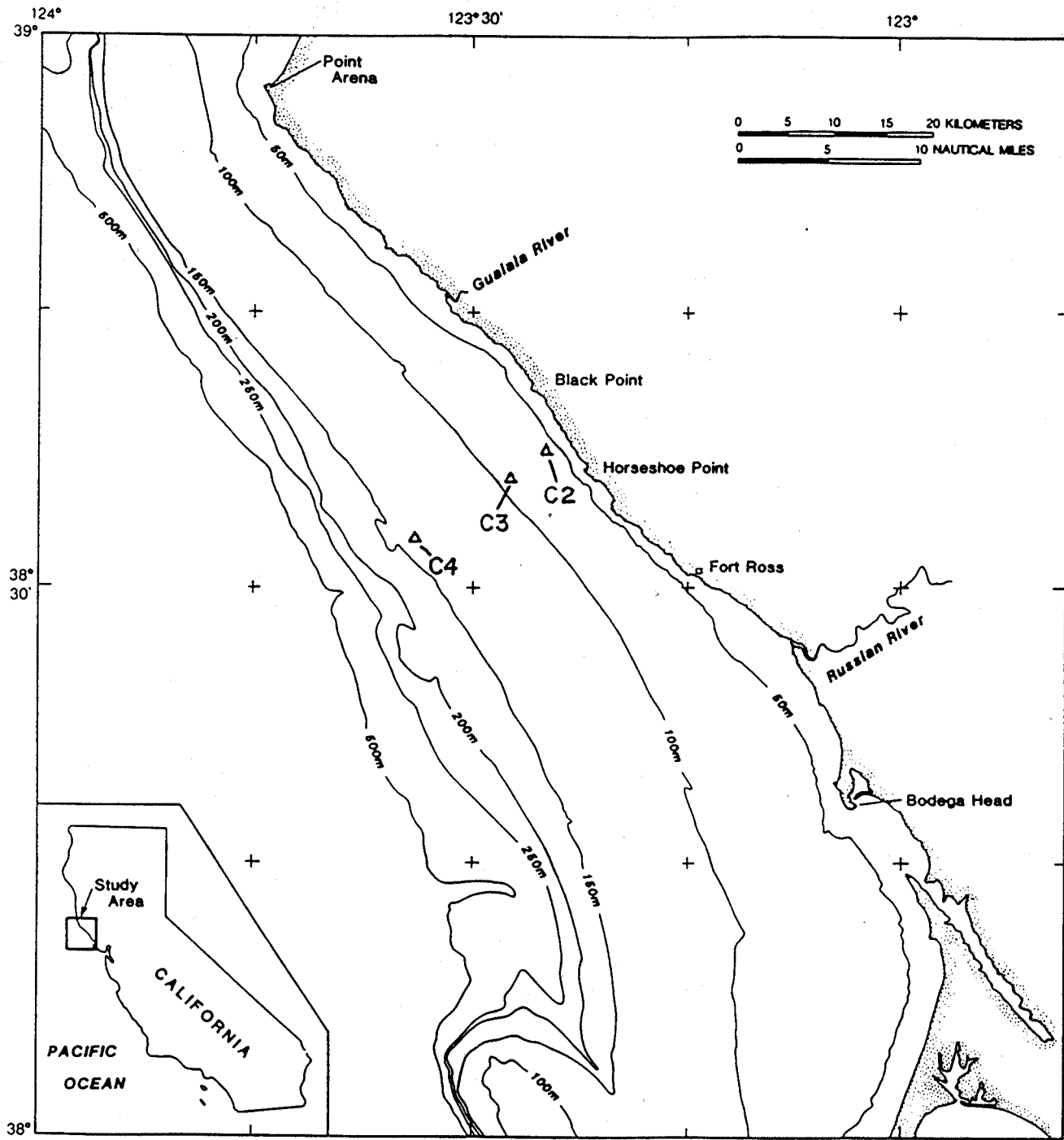
<u>Type</u>	<u>Location</u>	<u>Date</u>	<u>Time</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
Sonar tripod	C2	11/20	0642			
Radio float	C3	11/20	0924		38 37.92	123 28.45
Subsurface (363)	C3	11/20	1142	90	38 38.14	123 28.31
FVSK (camera)	C3	11/20	1302		38 38.01	123 28.55
Subsurface (364)	C4	11/20	1451	130	38 35.64	123 32.32
Subsurface (362)	C2	11/20	1730	49	38 39.50	123 25.64

SAMPLES OBTAINED

<u>Type</u>	<u>Location</u>	<u>Date</u>	<u>Time</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
Boxcore	C2	11/20	2313	57	38 39.58	123 26.00
			2200	61	38 39.72	123 26.17*
			2136	60	38 29.59	123 25.85
Grasshopper/CTD	C2	11/20	2124	58	38 39.54	123 25.82
			11/21 0032	77	38 39.74	123 26.84
	C3	11/21	0112	88	38 37.55	123 38.25
			0139	105	38 36.87	123 30.26
	C4	11/21	0208	130	38 35.24	123 32.12

All positions determined by GPS

*GPS down; position calculated from range and bearing to northern marker buoy



Location of STRESS moorings C2, C3, and C4 on California Continental Shelf.