

data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 5607
6-25 July 1956

CCOFI Cruise 5608
7-19 August 1956

CCOFI Cruise 5609
5-17 September 1956

CCOFI Cruise 5610
27 September - 5 October 1956

CCOFI Cruise 5611
30 October - 5 November 1956

SIO Reference 60-35
27 April 1960

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

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CCOFI CRUISE 5607

6-25 July 1956

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30 October - 5 November 1956

Sponsored by

Marine Research Committee

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27 April 1960

Approved for distribution:



Roger Revelle, Director

CONTENTS

INTRODUCTION	iii
CRUISE 5607	
List of Figures.	v
Personnel	vi
Tabulated Data	193
Observations at 10 Meters (Net-Tow Stations)	193
CRUISE 5608	
List of Figures.	viii
Personnel	ix
Tabulated Data	204
Hydrographic Casts.	204
Observations at 10 Meters (Net-Tow Stations)	207
CRUISE 5609	
List of Figures.	xi
Personnel	xii
Tabulated Data	209
Hydrographic Casts.	209
Observations at 10 Meters (Net-Tow Stations)	212
CRUISE 5610	
List of Figures.	xiv
Personnel	xv
Tabulated Data	214
Observations at 10 Meters (Net-Tow Stations)	214
CRUISE 5611	
List of Figures.	xvii
Personnel	xviii
Tabulated Data	217
Observations at 10 Meters (Net-Tow Stations)	217
DISTRIBUTION LIST	221

INTRODUCTION

The data presented in this report were collected on the eighty-sixth, eighty-seventh, eighty-eighth, eighty-ninth and ninetieth consecutive cruises of the California Co-operative Oceanic Fisheries Investigations program. The R/V Black Douglas of the U. S. Fish and Wildlife Service participated in all five cruises; the R/V Paolina-T of the Scripps Institution participated in Cruise 5607; the R/V Orca of the Scripps Institution participated in Cruises 5607, 5610 and 5611.

The data are tabulated at observed depths; the interpolated and computed values tabulated at standard depths and are accompanied by charts of horizontal distribution. The presentation of data in this report does not constitute publication; however, the data contained in this report have been carefully edited and no modifications should be necessary before final publication.

STANDARD PROCEDURES

To indicate degree of accuracy, temperatures are recorded in tenths of a degree when obtained by bucket thermometer, thermograph, or bathythermograph, while temperatures from reversing thermometers are recorded in hundredths of a degree. Extrapolated values and values interpolated between remote observations are entered within parentheses. A hyphen is used to indicate a missing observed value. The time is the time of messenger release. When more than one cast was made on a station, messenger times and wire angles are given in the order of increasing depth. A line is left blank between the observed data of each cast.

FOOTNOTES

Footnotes which appear frequently are "loose bottle cap" and "possible evaporation." To avoid any confusion as to their meaning the following explanation is included.

Laboratory personnel, before titrating the salinity samples, note any possible imperfections in the sealing of the bottles as follows:

Loose bottle cap:

The cap is definitely loose so that it could be moved with very little applied pressure. The salinity values obtained from these samples may be usable depending on time and/or conditions of storage.

Possible evaporation: Either the cap was sealed with less than usual pressure, the bottle edge chipped, the rubber washer cracked, or the bale broke on opening, etc.

Use of the above values in interpolation depends upon consistency with other values of salinity and other properties, and these footnotes are supplemented with "falls on property curve" or "does not fall on property curve," depending upon whether the property curve was drawn through the value or not.

In addition to footnotes, three special notations are used without footnotes because their meaning is always the same.

To indicate a premature or a delayed reversal of the water-sampling device which results in certain depth and property errors, the following notation is used.

p: pretrip or posttrip

Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

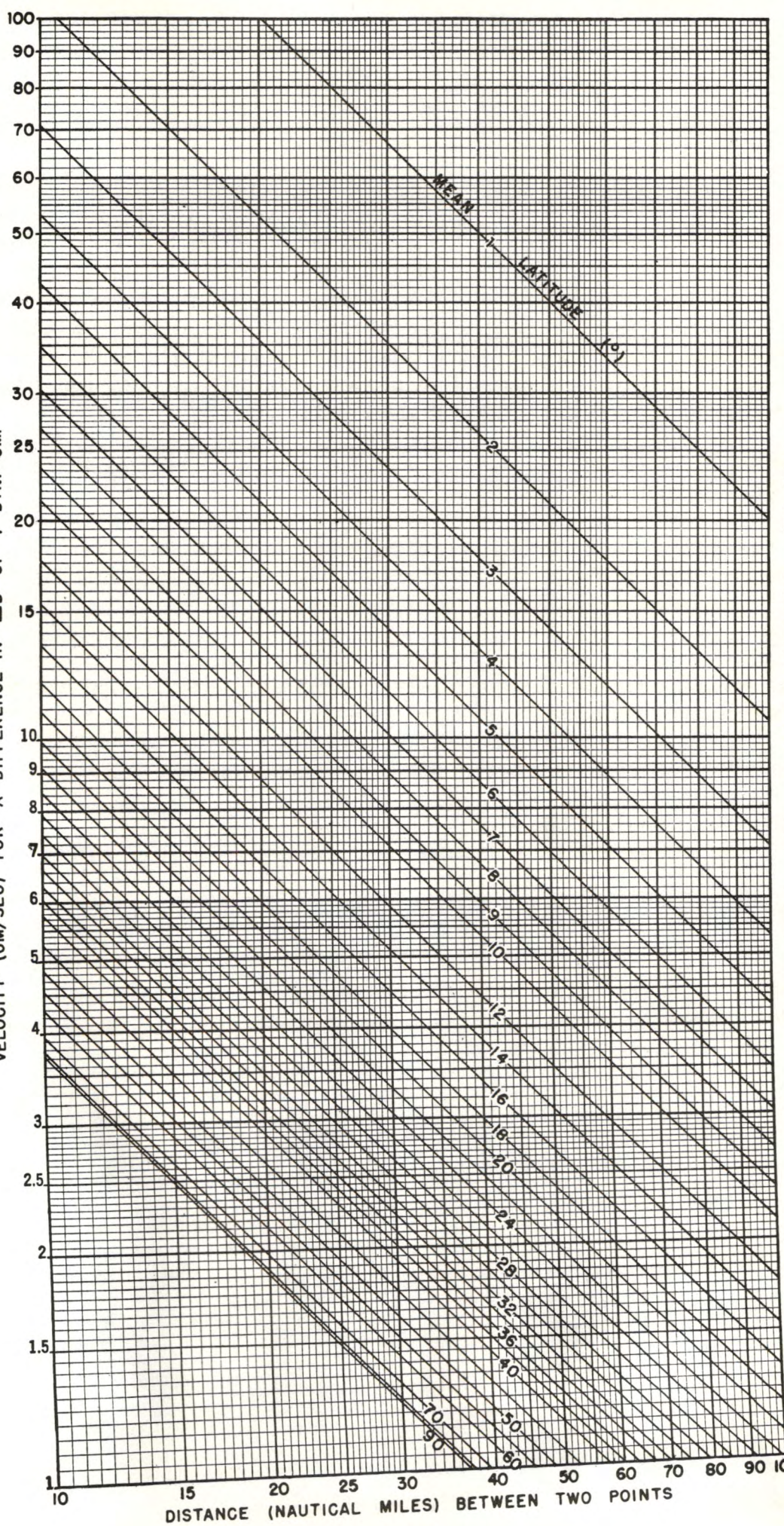
r: rejected value (value seems to be definitely wrong),

u: uncertain value (value may be correct; occasionally it can influence the drawing of the property curve).

FORMAT

These data are typed in the format of the University of California Press publication, Oceanic Observations of the Pacific. So that these pages can be used as copy for the 1956 volume, the first page of the Cruise 5607 data is numbered 193; 5608, 204; 5609, 209; 5610, 214; 5611, 217.

VELOCITY (CM/SEC) FOR A DIFFERENCE IN ΔD OF 1 DYN. CM.



VELOCITY OF GEOSTROPHIC FLOW

DISTANCE (NAUTICAL MILES) BETWEEN TWO POINTS G.I.R.

FIGURES

1. CCOFI Cruise 5611, station positions
2. Horizontal distribution of temperature at 10 meters
3. Horizontal distribution of salinity at 10 meters

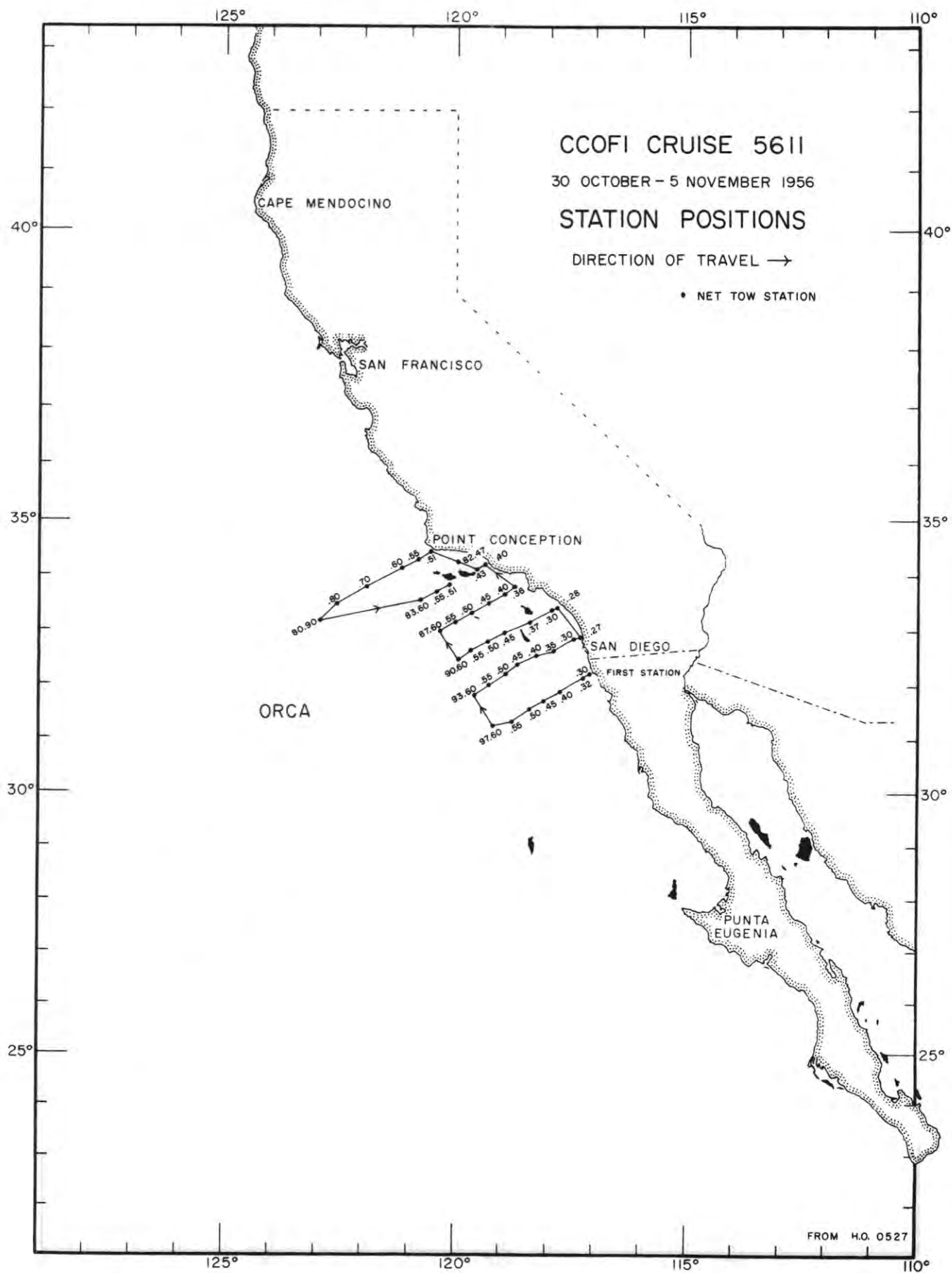


FIGURE 1

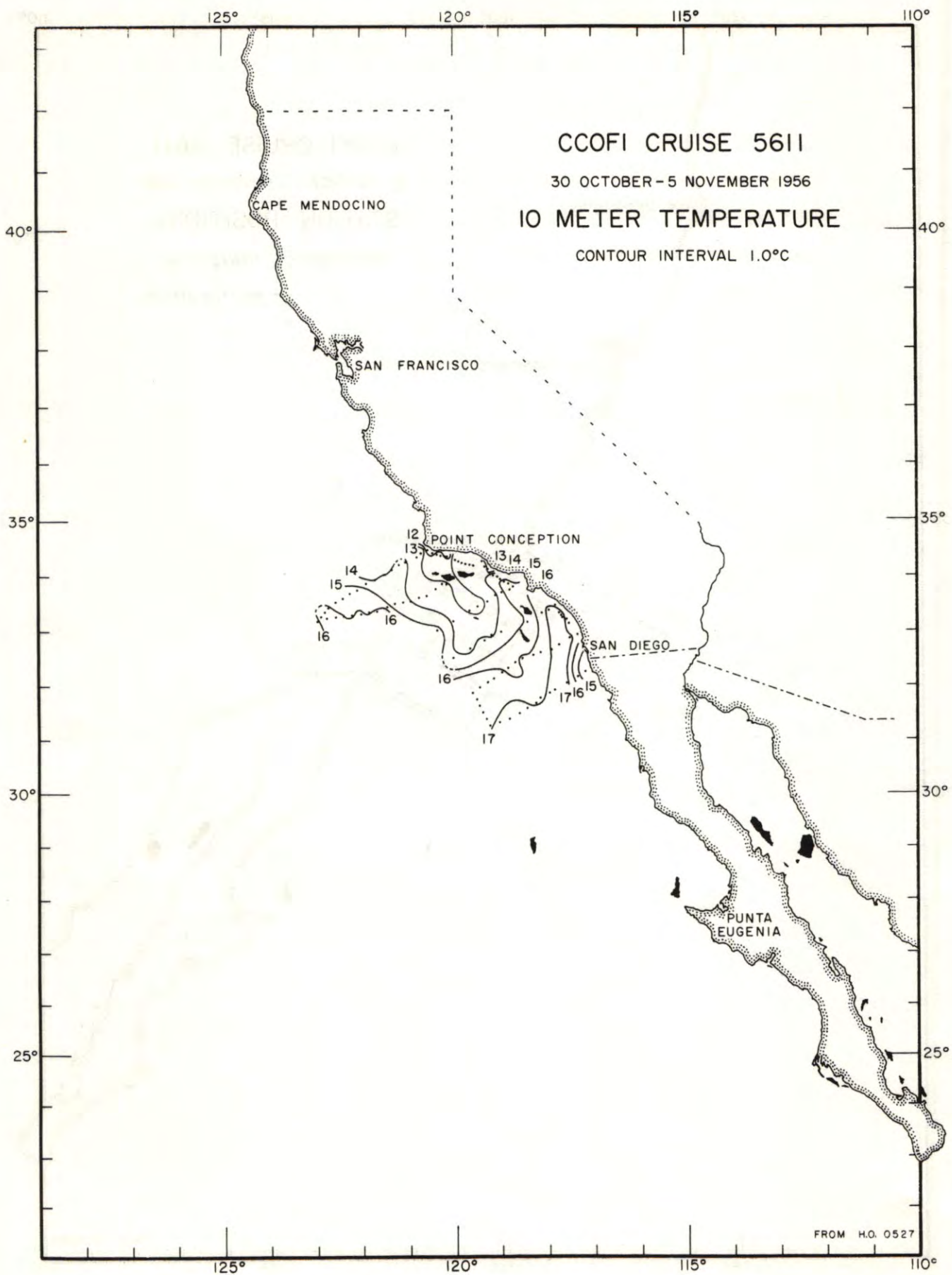


FIGURE 2

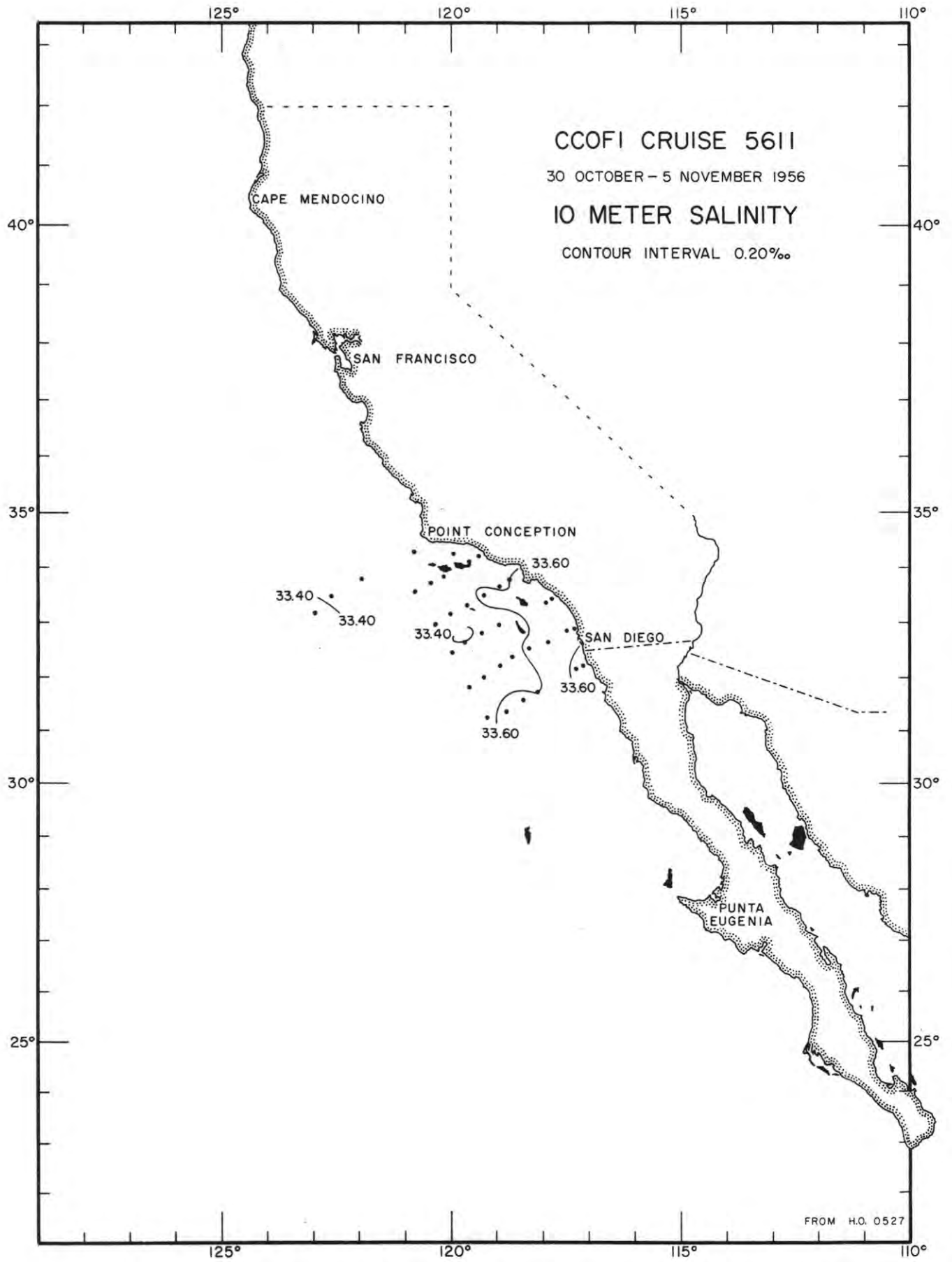


FIGURE 3

PERSONNEL
Cruise 5611

SHIPS' CAPTAINS

Forster, Charles W., R/V Black Douglas
Colbeth, Clifford W., R/V Orca

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

O'Connell, Charles P., Fishery Research Biologist, U. S. Fish and Wildlife
Service
Vorobiov, Alexander V., Fishery Aid, U. S. Fish and Wildlife Service

R/V Orca

Farrar, Lloyd J., Fishery Aid, U. S. Fish and Wildlife Service
Brown, Daniel M., Marine Technician

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
80.51-O	XI-3	1610	34°26.5'	120°32.5'	50	090°	3	clear	slight	11.54	-
80.55-O	3	1845	34°18.5'	120°48.0'	400	090°	3	clear	slight	13.60	33.46
80.60-O	3	2120	34°09.0'	121°10.0'	1000+	090°	3	clear	slight	14.58	-
80.70-O	4	0220	33°49.0'	121°54.0'	1000+	140°	3	clear	slight	14.24	33.46
80.80-O	4	0630	33°29.0'	122°32.0'	-	140°	2	clear	smooth	15.88	33.49
80.90-O	4	1050	33°11.0'	122°56.5'	1000+	140°	2	clear	smooth	15.89	33.28
82.47-O	3	1155	34°15.0'	119°58.5'	300	120°	3	clear	slight	13.68	33.58
83.40-O	3	0706	34°13.5'	119°22.0'	11	290°	2	clear	slight	13.23	33.55
83.43-O	3	0850	34°08.0'	119°34.0'	120	070°	2	clear	slight	13.66	33.57
83.51-O	5	0525	33°51.0'	120°09.5'	200	270°	4	clear	smooth	13.17	33.57
83.55-O	5	0235	33°44.0'	120°24.0'	500	270°	1	clear	smooth	13.54	33.58
83.60-O	4	2319	33°34.0'	120°45.0'	1000+	210°	1	clear	smooth	13.64	33.58
87.36-O	3	0200	33°49.0'	118°42.0'	480	270°	2	clear	smooth	15.10	33.60
87.40-O	3	0000	33°41.0'	118°58.5'	485	280°	2	partly cloudy	smooth	13.95	33.58
87.45-O	2	2115	33°31.5'	119°16.0'	550	290°	1	partly cloudy	moderate	13.22	33.64
87.50-O	2	1800	33°20.5'	119°39.0'	44	270°	1	fog	moderate	12.96	33.58
87.55-O	2	1500	33°10.0'	120°00.0'	500	310°	2	fog	moderate	13.88	33.57
87.60-O	2	1100	33°00.0'	120°21.0'	1000+	310°	3	clear	moderate	15.26	33.53
90.28-O	1	0400	33°28.0'	117°48.0'	200	310°	4	overcast	missing	17.79	33.66

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
90.30-O	XI-1	0530	33°24.5'	117°55.0'	350	310°	5	overcast	missing	17.27	33.68
90.37-O	1	0915	33°10.5'	118°23.5'	1000+	310°	5	overcast	moderate	15.10	-
90.45-O	1	1730	32°59.0'	118°58.5'	950	320°	5	clear	rough	14.57	33.46
90.50-O	1	2030	32°49.0'	119°19.5'	174	300°	6	partly cloudy	rough	14.46	33.48
90.55-O	2	0000	32°40.0'	119°39.0'	800	310°	7	clear	very rough	13.40	33.40
90.60-O	2	0310	32°28.0'	119°58.0'	1000+	310°	6	clear	rough	14.12	33.46
93.27-O	X-31	2200	32°57.0'	117°18.5'	20	280°	2	partly cloudy	slight	16.20	33.68
93.30-O	31	2000	32°52.5'	117°29.0'	400	310°	4	partly cloudy	slight	17.83	33.69
93.35-O	31	1715	32°40.0'	117°52.5'	250	280°	4	partly cloudy	slight	17.02	33.67
93.40-O	31	1430	32°33.0'	118°15.0'	900	330°	3	partly cloudy	slight	16.22	33.62
93.45-O	31	1050	32°23.5'	118°39.0'	450	320°	3	partly cloudy	rough	15.87	33.59
93.50-O	31	0815	32°13.0'	118°57.0'	1000+	320°	3	missing	moderate	16.26	33.55
93.55-O	31	0530	32°01.5'	119°16.0'	1000+	320°	3	missing	missing	16.66	33.53
93.60-O	31	0235	31°50.0'	119°34.0'	1000+	320°	4	partly cloudy	moderate	16.64	33.53
97.30-O	30	0310	32°15.0'	117°08.5'	28	220°	2	clear	smooth	14.14	33.46
97.32-O	30	0408	32°10.5'	117°17.0'	700	220°	2	clear	smooth	15.14	33.58
97.40-O	30	0845	31°55.0'	117°46.5'	1000	220°	2	clear	smooth	17.59a)	-

a) Alternate value, 15.09°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
97.45-O	X-30	1210	31°45.0'	118°04.0'	1000+	290°	2	clear	smooth	16.54	33.60
97.50-O	30	1500	31°33.5'	118°24.0'	1000+	330°	2	partly cloudy	moderate	17.26	33.68
97.55-O	30	1800	31°21.5'	118°47.0'	1000+	310°	4	partly cloudy	moderate	17.62a)	33.66
97.60-O	30	2045	31°16.5'	119°11.0'	1000+	310°	4	partly cloudy	missing	16.92	33.54

a) Mean value of 17.55 and 17.70° C.

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