UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7303
6–23 March 1973

GULF CRUISE 7305
23–26 May 1973

SIO Reference 88-5
15 March 1988

UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7303
6–23 March 1973

and

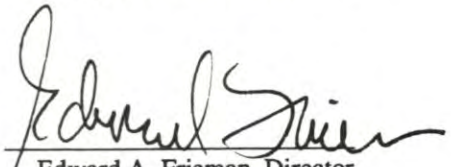
GULF CRUISE 7305
23–26 May 1973

Sponsored by

Marine Research Committee

SIO Reference 88-5
15 March 1988

Approved for distribution:



Edward A. Frieman, Director

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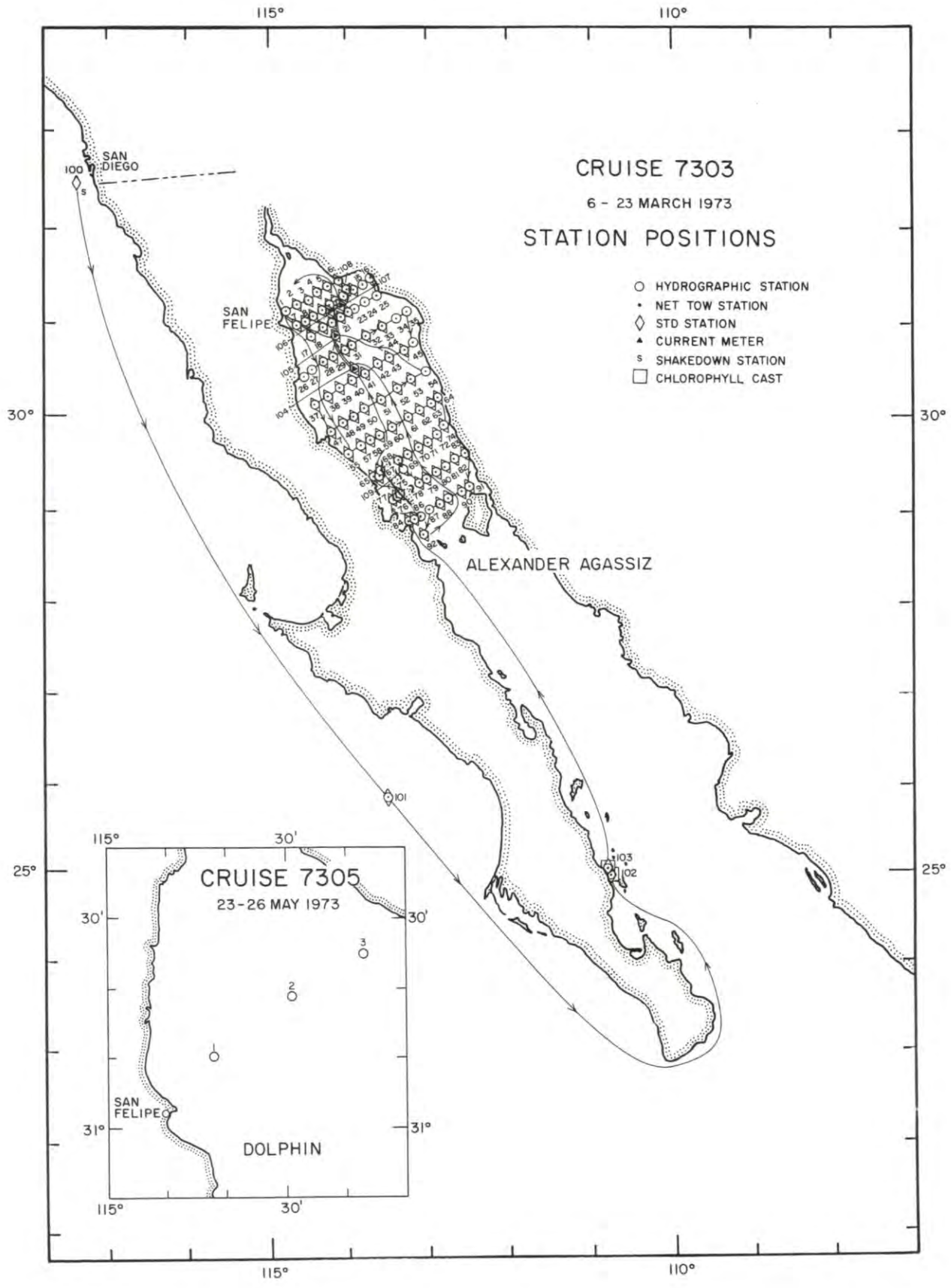
115°
110°
30°
25°
SAN DIEGO
100
S
SAN FELIPE
ALEXANDER AGASSIZ
101
102
103
CRUISE 7303
6 - 23 MARCH 1973
STATION POSITIONS
HYDROGRAPHIC STATION
NET TOW STATION
STD STATION
CURRENT METER
SHAKEDOWN STATION
CHLOROPHYLL CAST
CRUISE 7305
23-26 MAY 1973
30'
31°
SAN FELIPE
DOLPHIN

GULF CRUISE 7305

INTRODUCTION

The data in this report were collected during a cruise in May 1973 aboard the RV *David Phillip Dolphin* on loan to the Scripps Institution of Oceanography, University of California, San Diego.

The purpose of this cruise to the northern Gulf of California was the investigation of the daily fluctuation of the physical and chemical parameters and the currents. Three 24-hour anchor stations were occupied between San Felipe and the eastern shore of the Gulf.

These data were collected and processed by personnel of the Data Collection and Processing Group, Marine Life Research Group (DCPG*, MLRG), Scripps Institution of Oceanography, and of the Escuela Superior de Ciencias Marinas**, Universidad Autonoma de Baja California.

STANDARD PROCEDURES

Most of the hydrographic casts consisted of three to five Nansen bottles lowered to 25 meters, bottom depth permitting. The following data and samples were collected every two hours from the surface to the bottom: temperature, salinity, oxygen, nutrients, chlorophyll, pH and alkalinity. Tabulations in this report include the temperature, salinity, chlorophyll-a and phaeophytin. Because the *Dolphin* was not equipped as a research vessel and because the personnel were generally inexperienced, the data may not have the accuracy usually presented in these reports.

The temperatures were determined using one protected reversing thermometer at each level. Because the casts were lowered in very shallow water, the depths reported are corrected wire lengths.

Salinity samples were analyzed on inductive-type salinometers approximately two months after the cruise. The values are recorded to three decimal places.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971). The oxygen procedures were carried out by inexperienced personnel and the resultant values show a scatter of ±5%. They are tabulated in hundredths.

Chlorophyll data were processed by fluorometer at the Escuela Superior de Ciencias Marinas. Correspondence concerning these data should be directed to authors of publications listed in this report.

Four current meters which had been deployed some time prior to this cruise were recovered. The current meters were 10 meters off the bottom in water depths ranging between 80 and 170 meters.

A small bathymetric survey was made around Consag Rock. An area at more than 100 meters depth was discovered on the east side; the average depth in this area is about 35 meters.

TABULATED DATA

The reported hydrographic cast time is the Greenwich Mean Time (GMT) of the messenger release. The very shallow bottom depths were determined acoustically. Weather conditions have been coded using WMO code 4051.

The hydrographic cast data tabulated for only the observed depths includes temperature, salinity, oxygen, chlorophyll-a and phaeophytin with the computed values of sigma-t and thermosteric anomaly, delta-t.

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* Now the Oceanographic Data Facility (ODF).

** Now the Facultad de Ciencias Marinas.

PERSONNEL

GULF CRUISE 7305

Schwartzlose, Richard A. (Chief Scientist)	Academic Administrator	SIO
Badan, Antoine	Student	ESCM, UABC
Brown, Daniel M.	Development Engineer	SIO
Gendrop, Victor	Student	ESCM, UABC
Islas, Rene	Student	ESCM, UABC
Reyes, Mario	Department of Tourism	UABC
Sessions, Meredith H.	Development Engineer	SIO

ABBREVIATIONS USED:

ESCM	Escuela Superior de Ciencias Marinas, Ensenada, Baja California, Mexico
SIO	Scripps Institution of Oceanography, La Jolla, California, USA
UABC	Universidad Autonoma de Baja California,

STATION 1 A — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 B

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/23/73	1525 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
330	12 KT	330 01 02	0	1015.9 MB	24.8 C	22.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.62	36.347	5.32	4.00	0.91	24.493	344.9	0.000
5	24.61	36.366	5.34	5.59	1.65	24.511	343.2	0.017
10	24.35	36.589	4.38	4.74	1.69	24.758	319.7	0.034
15		36.580	4.29	7.28	3.50			

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/23/73	1755 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
350	05 KT	350 01 02	0	1016.3 MB	25.7 C	22.6 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	25.30	36.438	5.13	3.22	0.96	24.355	358.1	0.000
5	24.91	36.452		7.11	1.90	24.485	345.7	0.018
10	24.51	36.605		11.51	2.32	24.722	323.2	0.034
15		36.626		6.94	2.39			

STATION 1 C — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 D

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/23/73	2020 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
080	09 KT	070 02 02	0	1016.3 MB	25.2 C	23.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	25.51	36.312	5.23	2.54	0.68	24.195	373.3	0.000
5	24.80	36.392	5.57	5.25	1.51	24.473	346.9	0.018
10	24.74	36.387	5.28U	10.49	2.85	24.488	345.5	0.035

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/23/73	2215 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
110	14 KT	120 02 02	0	1015.2 MB	26.1 C	22.2 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	25.18	36.189	5.26	2.88	0.34	24.204	372.5	0.000
5	24.23	36.270	5.67	12.53	2.27	24.553	339.3	0.018
10	24.41	36.576	4.38	3.72	0.78	24.730	322.4	0.034
15	24.44	36.615	4.21			24.750	320.4	0.050

STATION 1 E — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 F

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	0030 GMT	20 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
110	10 KT	110 01 01	0	1013.2 MB	24.2 C	22.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	25.03	36.120	5.44	2.73	0.67	24.198	373.1	0.000
5	24.53	36.230	5.51	4.91	1.20	24.432	350.7	0.018
10	24.00	36.392	4.58	14.04	1.39	24.714	323.9	0.035
15	24.40	36.591	4.28	10.83	2.51	24.744	321.0	0.051

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	0240 GMT	20 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
170	10 KT	140 02 03	0	1012.9 MB	24.5 C	20.9 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.74	36.172	5.32	2.54	0.52	24.325	360.9	0.000
5	24.53	36.206	5.84	7.96	1.69	24.414	352.4	0.018
10	24.06	36.394	4.54	9.99	1.91	24.697	325.5	0.035
15	24.32	36.514	4.08	15.23	1.49	24.710	324.2	0.051

STATION 1 G — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 H

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	0430 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
120	04 KT		0	1013.2 MB	24.2 C	21.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.78	36.268	5.37	4.57	0.74	24.386	355.2	0.000
5	24.69	36.302	5.51	3.72	2.55	24.438	350.1	0.018
10	24.52	36.580	4.47	9.82	3.37	24.700	325.3	0.035
15	24.51	36.631	4.17	13.71	2.69	24.741	321.3	0.051

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	0655 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
	00 KT		0	1013.5 MB	24.4 C	20.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.90	36.386	5.37	4.74	1.05	24.438	350.2	0.000
5	24.94	36.391	5.41	3.72	1.10	24.430	351.0	0.018
10	24.62	36.592	4.28	6.77	2.88	24.679	327.2	0.035
15	24.64	36.658	4.16	9.99	3.04	24.722	323.1	0.051

STATION 1 I — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 J

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	0915 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
110	05 KT		0	1013.2 MB	24.0 C	21.2 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.89	36.400	5.16	3.55	0.95	24.452	348.9	0.000
5	24.90	36.394	5.20	4.23	1.24	24.444	349.6	0.017
10	24.45	36.541	4.35	5.08	2.48	24.691	326.0	0.034
15	24.63	36.641	4.03	8.12	3.45	24.713	324.0	0.051

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	1055 GMT	19 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
120	01 KT		0	1013.2 MB	23.7 C	21.5 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.81	36.368	4.28U	3.55	1.91	24.452	348.9	0.000
5	24.82	36.366	5.19	3.89	1.57	24.447	349.3	0.017
10	24.27	36.455	4.31	4.40	1.71	24.681	327.1	0.034
15	24.58	36.635	4.14	10.66	2.52	24.723	323.0	0.051

STATION 1 K — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305 — STATION 1 L

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	1300 GMT	20 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
	00 KT		0	1013.2 MB	24.0 C	22.4 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.71	36.329	5.32	5.08	1.35	24.453	348.8	0.000
5	24.71	36.332	5.38	4.91	1.68	24.455	348.6	0.017
10	24.17	36.358	4.68	5.59	2.78	24.637	331.2	0.034
15	24.54	36.605	4.06	14.39	2.50	24.713	324.0	0.051

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 10.5 N	114 42.0 W	05/24/73	1510 GMT	20 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
320	03 KT	180 02 03	0	1013.9 MB	24.6 C	20.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.75	36.313	5.46	4.13	1.41	24.429	351.1	0.000
5	24.70	36.308	5.33	6.09	1.62	24.440	350.0	0.018
10	24.32	36.463	4.50	10.66	3.33	24.672	327.9	0.034
15	24.61	36.633	3.95	11.00	2.99	24.713	324.0	0.051

M) THE OXYGEN BOTTLE ORDER FOR THIS CAST DIFFERS ON THE ORIGINAL DATA AND OXYGEN DETERMINATION SHEETS. THE OXYGEN VALUES ARE ASSUMED TO BE IN THE CORRECT ORDER.

N) THE SALINITY BOTTLE ORDER FOR THIS CAST DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEETS. THE SALINITY VALUES ARE ASSUMED TO BE IN THE CORRECT ORDER.

STATION 2 A — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/24/73	1727 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
170	14 KT	170 02 03	0	1015.2 MB	23.8 C	19.9 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.76	35.743	5.33	1.15	0.40	24.294	363.9	0.000
5	23.66	35.749	5.32	1.03	0.29	24.328	360.7	0.018
10	23.52	35.756	5.32	1.52	0.73	24.375	356.2	0.036
15	22.69	35.773	5.30	2.79	0.78	24.628	332.1	0.053
25	21.95	35.775	4.90	2.43	1.20	24.839	312.0	0.086

STATION 2 B — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/24/73	2050 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
160	14 KT	160 02 03	0	1014.9 MB	25.8 C	21.6 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.92	35.743	5.25	0.84	0.30	24.247	368.4	0.000
5	23.87	35.738	5.24	0.93	0.30	24.258	367.3	0.018
10	23.49	35.749	5.34	1.41	0.60	24.378	355.9	0.036
15	22.57	35.811	4.87	7.28	1.73	24.691	326.1	0.054
25	21.93	35.776	4.78	6.60	3.05	24.845	311.4	0.086

STATION 2 C — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/24/73	2240 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
160	17 KT	160 03 03	0	1013.5 MB	27.0 C	20.2 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.79	35.752	5.32	1.46	0.39	24.292	364.1	0.000
5	23.76	35.752	5.34	1.03	0.18	24.301	363.3	0.018
10	23.53	35.742	5.39	1.33	0.51	24.361	357.5	0.036
15	22.50	35.792	5.13	3.28	1.45	24.696	325.6	0.053
25	21.90	35.776	4.70	2.67	0.96	24.854	310.6	0.085

STATION 2 D — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	0037 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
160	15 KT	160 03 03	1	1012.5 MB	24.1 C	20.0 C	4/8 CI

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.93	35.748	5.43	1.21	0.52	24.248	368.3	0.000
5	23.65	35.748	5.47	1.27	0.40	24.330	360.5	0.018
10	23.31	35.741	5.59	1.21	0.63	24.424	351.5	0.036
15	22.46	35.777	5.29	5.76	2.29	24.696	325.6	0.053
25	21.80	35.762	4.71	4.57	1.86	24.871	308.9	0.085

STATION 2 E — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	0237 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
180	05 KT	180 02 03	1	1012.2 MB	23.9 C	20.8 C	3/8 CI

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.53	35.747	5.45	1.52	0.50	24.365	357.2	0.000
5	23.57	35.748	5.52	1.21	0.52	24.354	358.2	0.018
10	23.52	35.742	5.48	1.46	0.73	24.364	357.2	0.036
15	22.37	35.766	5.18	6.26	1.94	24.714	323.9	0.053
25	21.85	35.767	4.84	6.26	3.71	24.861	309.9	0.085

STATION 2 F — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	0432 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
170	06 KT			1011.9 MB	23.3 C	21.0 C	

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.60	35.752	5.34	1.58	0.90	24.348	358.7	0.000
5	23.58	35.760	5.41	1.33	0.57	24.360	357.6	0.018
10	23.57	35.754	5.37	1.64	0.67	24.358	357.8	0.036
15	22.59	35.764	5.27	3.58	1.72	24.649	330.0	0.053
25	22.00	35.779	4.75	6.26	3.39	24.828	313.0	0.085

STATION 2 G — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	0650 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
110	06 KT			1011.9 MB	23.3 C	21.5 C	

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.65	35.762	5.26	1.27	1.09	24.341	359.4	0.000
5	23.67	35.763	5.27	1.09	0.75	24.336	359.9	0.018
10	23.46	35.760	5.36	1.15	0.40	24.395	354.3	0.036
15	22.54	35.769	5.32	3.46	1.79	24.668	328.3	0.053
25	22.14	35.783	4.84	4.73	2.24	24.791	316.5	0.085

STATION 2 H — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	0825 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
070	02 KT			1011.9 MB	23.1 C	22.1 C	

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.87	35.786	5.12	1.27	0.40	24.294	363.9	0.000
5	23.69	35.777	4.64U	1.21	0.63	24.340	359.5	0.018
10	23.47	35.766	5.19	1.09	1.50	24.397	354.1	0.036
15	22.48	35.771	4.84	4.61	1.61	24.686	326.5	0.053
25	22.15	35.798	4.59	7.45	3.49	24.800	315.7	0.085

STATION 2 I — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	1030 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
080	04 KT			1011.5 MB	23.8 C	22.2 C	

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.73	35.777	5.18	0.67	1.23	24.329	360.6	0.000
5	23.71	35.772	5.23	1.52	0.39	24.331	360.4	0.018
10	22.79	35.772	5.19	4.79	1.95	24.598	334.9	0.035
15	22.38	35.788	5.03	2.00	0.82	24.727	322.6	0.052
25	22.05	35.794	4.51	6.26	3.22	24.825	313.3	0.084

STATION 2 J — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	1230 GMT	28 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
	00 KT	140 03 03	1	1011.5 MB	23.6 C	21.5 C	2/8 CI

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	23.66	35.761	5.26	1.27	0.34	24.337	359.8	0.000
5	23.67	35.757	5.21	1.58	0.15	24.331	360.4	0.018
10	23.01	35.764	5.32	1.52	0.21	24.529	341.5	0.036
15	22.27	35.834	4.98	4.74	2.01	24.793	316.3	0.052
25	21.95	35.789	4.52	10.83	4.28	24.850	311.0	0.083

STATION 2 K — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 19.0 N	114 29.0 W	05/25/73	1425 GMT	28 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
160	10 KT	160 03 03	1	1012.2 MB	23.3 C	21.9 C	1/8 CI

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.761	5.35	1.09	0.41			
5	23.66	35.759	5.38	1.46	0.39	24.336	359.9	
10	22.89	35.763	5.20	2.12	0.76	24.563	338.3	
15	22.21	35.778	4.92	4.91	1.68	24.768	318.7	
25	21.89	35.777	4.50	10.49	3.66	24.857	310.2	

STATION 3 A — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	0357 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
160	02 KT	160 03 03	1	1010.2 MB	23.8 C	20.6 C	1/8 CI

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.696	5.51	5.08	2.32			
5	23.60	35.698	5.61	4.06	1.08	24.307	362.7	
10	23.62	35.705	5.57	4.40	1.71	24.307	362.7	
15	23.61	35.713	5.51	7.11	2.22	24.316	361.8	
25	23.58	35.842	4.80	7.11	2.38	24.422	351.7	

STATION 3 B — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	0648 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
060	02 KT		0	1010.8 MB	23.6 C	21.2 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.710	5.47	3.55	1.59			
5	23.64	35.716	5.44	4.06	0.76	24.309	362.5	
10	23.61	35.711	5.39	4.23	1.07	24.314	362.0	
15	23.68	35.728	5.32	5.42	1.50	24.306	362.7	

STATION 3 C — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	0900 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
100	06 KT		0	1010.2 MB	23.7 C	21.4 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.728	5.31	3.22	1.61			
10	23.68	35.723	5.33	4.57	0.90	24.303	363.1	
15	23.69	35.746	5.34	4.23	1.40	24.317	361.7	
25	23.74	35.765	5.19	6.94	1.74	24.317	361.8	

STATION 3 D — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	1055 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
360	13 KT		0	1010.2 MB	23.7 C	20.9 C	

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.751	5.27	4.57	0.74			
5	23.73	35.750	5.31	3.72	0.78	24.308	362.6	
10	23.74	35.747	5.29	4.06	1.40	24.303	363.1	
15	23.72	35.749	5.29	4.40	1.07	24.310	362.3	

STATION 3 E — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	1248 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
020	20 KT	140 04 04	0	1010.2 MB	22.3 C	21.1 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.785	5.10	6.43	1.45			
10	23.77	35.781	5.20	7.11	1.25	24.320	361.4	
15	23.78	35.773	5.22	6.77	1.27	24.311	362.3	
25	23.68	35.828	4.68	13.03	2.24	24.382	355.5	

STATION 3 F — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	1443 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
040	22 KT	140 04 04	3	1011.9 MB	23.2 C	16.9 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.701	5.31	6.60	1.60			
5	23.61	35.705	5.54	7.28	1.57	24.309	362.4	
10	23.62	35.700	5.40	6.94	1.10	24.303	363.1	
15	23.63	35.701	5.21	6.43	1.61	24.301	363.3	

STATION 3 G — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	1650 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
020	12 KT	140 03 04	3	1016.3 MB	24.1 C	17.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.668	5.33	6.77	1.91			
10	23.61	35.680	5.31	8.29	1.35	24.291	364.2	
15	23.62	35.672	5.33	10.83	1.55	24.282	365.1	
25	23.55	35.688	5.20	6.77	1.75	24.314	362.0	

STATION 3 H — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	1855 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
300	09 KT	150 02 04	0	1013.2 MB	24.4 C	18.1 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.00	35.692	5.08	4.23	0.59	24.185	374.3	0.000
5	23.66	35.681	5.15	5.59	1.81	24.277	365.5	0.019
10	23.62	35.686	5.16	8.97	1.80	24.292	364.1	0.037
15	23.60	35.695	4.96	12.87	1.61	24.305	362.9	0.055

STATION 3 I — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	2100 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
240	02 KT	140 01 03	0	1012.9 MB	24.8 C	18.9 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.789	4.76	4.57	0.58			
5	23.92	35.741	5.39	6.94	1.58	24.245	368.5	
10	23.85	35.737	5.04	13.71	1.57	24.263	366.9	
15	23.77	35.735	5.10	13.37	1.90	24.285	364.8	

STATION 3 J — RV DAVID PHILLIP DOLPHIN — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/26/73	2256 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
210	10 KT	160 01 03	0	1012.2 MB	25.0 C	21.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0		35.770	5.00	4.06	0.92			
10	23.92	35.747	5.12	15.23	1.49	24.250	368.1	
15	23.80	35.763	5.00	12.70	1.94	24.298	363.6	
25	23.91	35.994	3.97	5.92	3.56	24.439	350.0	

STATION 3 K — GULF CRUISE 7305

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM
31 25.0 N	114 17.0 W	05/27/73	0043 GMT	29 M

WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
190	10 KT	160 02 03	0	1011.5 MB	24.8 C	22.0 C	0/8

Z	T	S	O2	CHL-A	PHAEO	SIGT	DT	DD
0	24.44	35.710	4.96	2.54	0.19	24.067	385.5	0.000
10	23.92	35.705	5.46	4.23	0.43	24.218	371.1	0.038
15	23.74	35.725	5.19	10.49	2.37	24.286	364.6	0.056
25	23.93	35.976	4.29	10.49	2.69	24.420	351.9	0.092

FOR CASTS F THROUGH K STATION 3, SLIGHTLY MORE SCATTER THAN NORMAL WOULD BE EXCPECTED IN THE OXYGEN DATA BECAUSE THE REAGENT LEVELS WERE LOW, AND THERE WERE MINOR PROBLEMS WITH THE TITRATION APPARATUS.

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