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DEPARTMENT OF TRANSPORTATION

COAST GUARD

**OCEANOGRAPHY IN THE GULF OF
MAINE AND ADJACENT WATERS IN
SUPPORT OF THE INTERNATIONAL
COMMISSION FOR NORTHWEST
ATLANTIC FISHERIES**

January 1968: January-February 1969

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January 1968; January-February 1969

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USCGC EVERGREEN (WAGO-295), ICNAF CRUISE 68-1

BCF R/V ALBATROSS IV, ICNAF CRUISE 69-1

ABSTRACT

The physical oceanography of the Gulf of Maine and adjacent waters in January 1968 and January-February 1969 is described. Temperature, salinity, and density data are presented in surface contours and profiles. Dissolved oxygen and chlorophyll data are presented in section profiles. Climatic conditions of the region were reflected in the temperature and salinity of the surface waters. Intrusion of Gulf Stream water into the Gulf of Maine is inferred from T-S relations and dissolved oxygen data.

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OCEANOGRAPHY IN THE GULF OF MAINE AND ADJACENT WATERS IN SUPPORT OF ICNAF

January 1968; January-February 1969

by

MELVIN LIGHT AND SCOTT J. HENDERSON¹

INTRODUCTION

This is the second report on a series of oceanographic surveys of Northwest Atlantic coastal waters conducted by the U.S. Coast Guard in cooperation with the Bureau of Commercial Fisheries (BCF; now the National Marine Fisheries Service). These surveys were carried out in support of a fisheries research program planned by the International Commission for the Northwest Atlantic Fisheries (ICNAF). Whitcomb (1970) reported on two earlier surveys (ICNAF Cruises 67-2 and 67-3) which encompassed the waters of the Mid-Atlantic Bight. This report presents the physical oceanographic data observed on two later surveys (ICNAF Cruises 68-1 and 69-1) which included the Gulf of Maine and adjacent waters (Figs. 1-3). Coast Guard oceanographers and marine science technicians aboard the USCGC EVERGREEN (WAGO-295) conducted ICNAF Cruise 68-1 (15-26 January 1968). ICNAF Cruise 69-1 (28 January-27 February 1969) was conducted by Coast Guard and BCF personnel aboard the BCF ALBATROSS IV.

The purpose of these surveys was to describe the physical and chemical environment of the region to gain a better understanding of the factors affecting the seasonal and annual distribution and abundance of living marine resources. Shortly after each oceanographic cruise, BCF and other ICNAF research groups conducted groundfish surveys of the same areas.

PROCEDURES

Oceanographic Sampling

Oceanographic sampling procedures, sample analyses, bathymetric and meteorological observation methods, and quality control procedures employed during these two cruises were generally the same as those described by Whitcomb (1970). Oceanographic parameters measured at each station included temperature, salinity, dissolved oxygen, and chlorophyll. Beginning with ICNAF cruise 69-1, water samples were routinely analyzed for nutrients. As on the previous two ICNAF cruises, drift bottles and sea-bed drifters were released for the Woods Hole Oceanographic Institution. Expendable bathythermograph (XBT) casts were generally made midway between oceanographic stations.

Rosette Multi-Sampler

For the first time during a Coast Guard oceanographic survey, a General Oceanics Rosette Multi-Bottle Array sampler was used during ICNAF Cruise 69-1 with the Salinity-Temperature-Depth Measuring System (STD) to obtain salinity samples and temperature measurements. This sampler allowed for calculation of thermometric depths for quality control of the STD system. This device enables one or more of a cluster of 12 Niskin sampling bottles to be triggered and their deep-sea thermometers (installed on every other bottle) to be reversed upon command from a deck control unit via the electrical conducting STD cable. Because of the configuration of the A-frames and oceanographic

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winches aboard the R/V ALBATROSS IV, the rosette multi-sampler was clamped to the protective cage of the STD "fish", rather than directly to the STD cable immediately above the "fish". This arrangement allowed a maximum of 9 sample bottles to be used. Since this device could be triggered to collect water samples for chemical analyses from selected depths, the need for separate Nansen casts was eliminated.

Nutrient Analyses

Water samples collected during ICNAF Cruise 69-1 for nutrient determination were frozen and stored aboard ship for later analyses ashore. The samples were analyzed at the U.S. Coast Guard Academy, using a Beckman DU-2 spectrophotometer. Inorganic phosphorous was determined by the method of Murphy and Riley (1962), using an ascorbic acid single-solution reagent. Inorganic nitrate-nitrogen was analyzed by reduction with cadmium-mercury amalgam and the development of an azo dye complex with sulfanilamide (Morris and Riley, 1963). Silicate-silicon was determined by the method of Grasshoff (1965).

The nutrient data are included in the oceanographic data listings in appendix A.

Shipboard Operational Summary

	1968	1969
Oceanographic stations occupied	56	66
STD casts	56	19
Nansen casts	56	48
Bathythermograph casts	15	46
Dissolved oxygen analyses	465	560
Chlorophyll extractions	403	472
Nutrient samples processed	---	561
Drift bottles released	280	325
Sea-bed drifters released	215	195

DATA PRESENTATION

Data listings for ICNAF cruises 68-1 and 69-1 are contained in Tables I and II of Appendix A. Surface isotherms, isohalines and isopycnals are presented in figures 9 through 14. Profiles of temperature, salinity, sigma-t, oxygen, and chlorophyll are depicted in figures 15 through 79.

RESULTS

Temperature Distribution

Gulf of Maine Basin:

Surface Layer (0-100 meters)

Surface waters in the Gulf of Maine Basin (that region north of the 50 fathom (91.4 m.) isobath along the Eastern and South Channel slopes) tended to be slightly warmer in 1969 than in 1968. In 1968 surface isotherms ranged from 3°-4° C., whereas in 1969 they ranged from 4°-5° C. This 1.0° C. difference (in surface waters) was also evident in the upper 100 meters in the same region as shown by temperature profiles (figs. 15-17 and 47-49). Both years were characterized by weak temperature gradients. However, the gradients in 1968 tended to be vertical, whereas in 1969 they were more horizontal. On ICNAF 68-1, a pocket of very cold water (2.0° C.) was observed at station 8, extending from the surface down to 50 meters. Other than this small pocket, waters in this region appeared to be very well mixed.

The temperature of the upper 100 meters of water is governed mainly by local climatic influences. "The gulf owes the particular temperatures proper to it, and especially the wide seasonal range of temperature, chiefly to its geographic location to the leeward of the continent and to the rigorous land climate. Only to a much smaller degree is it influenced by warm or cold currents flowing into it," (Bigelow, 1927). Weather records (Local Climatological Data Annual Summaries 1967, 1968, 1969, Mariners Weather Logs, and U.S. Coast Guard Weather Observation Logs for various light vessels and light stations) were examined for months preceding and during both cruises. These records show that the 1969 winter season was 1°-2° C. warmer than that of 1968. The 1°-2° C. deviation is significant in view of the ninety day observation period, the temperature difference between the two years being reflected by the surface water temperatures. Table 1 summarizes air temperatures, wind data, and precipitation observed at selected inland, coastal, and offshore stations.

The surface radiates out very large amounts of heat from September on, whenever the air is colder than the water. The coldest winter winds of the region blow from land out over the gulf, and these cold westerly winds predominate in the western side of the gulf during the three winter months (Bigelow, 1927).

TABLE 1—Meteorological data averages for the Gulf of Maine region and New England coast, December, 1967-February 1968 and December, 1968-February, 1969. * Averages are taken over 90 day periods (Dec.-Feb.). ** Precipitation values include snowfall.

LOCATION	Type of Sta.	Average* Temperature (°C)		Average* Precipitation** (In.)		Average Wind* Dir. Speed (kn.)		Dir. Speed (kn.)	
		'67-'68	'68-'69	'67-'68	'68-'69	'67-'68		'68-'69	
Concord, N.H.	Inl	- 6.4	- 5.2	2.80	5.61	30	4.6	31	4.8
Gorham, N.H.	Inl	-15.4	-13.3	5.69	16.75	--	--	--	--
Portland, Me.	Coast	- 6.0	- 4.0	4.50	5.87	30	3.8	31	4.8
Boston, Mass.	Coast	- 1.7	- 1.2	5.13	5.19	31	6.8	31	9.1
Milton, Mass.	Coast	- 3.4	- 2.9	6.06	5.98	--	--	--	--
Nantucket, Mass.	Coast	0.7	0.9	3.34	3.90	34	14.2	32	15.2
Mt. Desert L/V	Off Sh.	--	- 0.9	--	--	--	--	--	--
Portland L/Sta	Off Sh.	- 0.8	- 0.4	--	--	330	10.0	330	9.0
Boston L/Sta	Off Sh.	1.1	1.1	--	--	316	7.0	306	10.0
Nantucket L/Sta	Off Sh.	4.4	3.5	--	--	324	4.0	321	9.0

Table 1 summarizes precipitation data from the New England Climatological Data Summaries (1967 through 1969). It can be seen that total precipitation for New England inland and coastal weather stations in December 1967 and January-February 1968 was not significantly higher than the total precipitation for the same period one year later.

Shore and inland stations showed northeasterly winds while the offshore light stations recorded northwesterly winds. The latter would thus explain the colder temperatures found in the gulf in 1968.

Intermediate and Bottom Waters (100 meters to bottom)

A distinct region of cold ($<5^{\circ}$ C.) mid layer water extending from 100 to 150 meters is generally observed during most of the year in the Gulf of Maine Basin except during winter months when thorough mixing occurs (Hachey et al., 1954). As expected, no distinct mid layer was observed during the periods of these surveys.

Mid and bottom waters (150 to 250 meters) in the basin were also found to be approximately 1° - 2° C. warmer in 1969 than in 1968. In 1968, temperatures of these waters ranged from approximately 4.5° - 6.3° C., whereas in 1969, they ranged from 5.5° - 8.0° C.

Transition Zone

The surface layer waters overlying the shelf edge represent a transition zone between Coastal (Gulf of Maine Basin) and Slope Waters. As can be seen from examinations of the profiles of

temperature for sections 1, 2, and 3 for ICNAF 68-1 (figs. 15, 16, and 17) and for sections 3, 4, and 5 for ICNAF 69-1 (figs. 47, 48, and 49), the temperature gradients in this zone tend to be strong and horizontal. On ICNAF 68-1 a marked increase in temperature from about 5° - 10° C. was observed over a horizontal distance (to the south) of approximately 30 nautical miles. This same phenomenon was again observed on the 1969 survey, but with temperatures ranging approximately 1.0° C. higher.

Slope Water

Slope Water along the east coast of the United States is considered to be a mixture of Gulf Stream and Coastal Waters (McLellan, 1957) (fig. 4). ICNAF cruise 68-1 stations 1, 2, and 24-27, and ICNAF cruise 69-1 stations 16-20 and 41-46 are considered to lie within the Slope Water region adjacent to the Gulf of Maine Basin. Temperature-Salinity curves constructed from 1968 temperature and salinity data (figs. 6 and 8) were shown to be characteristic of Slope Water as determined by McLellan (1957) (fig. 5). However, the warmer temperatures and higher salinity values of the 1969 observations indicated the presence of Gulf Stream water in the region normally occupied by Slope Water. Comparison of T-S profiles constructed from the 1969 data (figs. 7 and 8), again with McLellan's T-S relations for Gulf Stream water (fig. 5) further confirmed the intrusion of Gulf Stream water over the slope region. This intrusion is examined further in the forthcoming discussion.

Surface Layer

ICNAF 68-1 profiles for temperature in the surface layer of the slope water region (figs. 15, 16 and 17) show strong horizontal gradients with little apparent mixing. Temperatures in this region ranged approximately from 6°-14° C.

Vertical sections of ICNAF 69-1 temperature data in this region disclose a somewhat different picture. Moderate mixing was evident as portrayed by the weak gradients of sections 3 and 5 (figs. 47 and 49). Temperature data for most stations showed an increase of 2°-3° C. over temperatures observed at the same locations in 1968. Inspection of the sea surface temperature chart for 1969 (fig. 10) revealed a band of dense temperature gradients extending roughly along the 1000 fathom (1829 m.) isobath; in 1968 (fig. 9) however, this band extended shoreward only as far as the 3000 fathom (5486 m.) isobath.

A region of extremely warm water was found in the southeastern section of the Gulf of Maine off Georges Bank during ICNAF 69-1 (sections 1-3; figs. 45-47). In this region temperatures increased some 15° C. over a horizontal span (southerly direction) of approximately 40 nautical miles. Temperatures as high as 19° C. were observed at the surface as well as to a depth of 80 meters. A pocket of very warm water centered around station 20 in section 3 (fig. 47) was also characterized by strong surrounding gradients with temperatures of adjacent stations as much as 4°-5° C. lower at the surface and 2°-3° C. lower at 50-75 meter depths. Analysis of these anomalies indicated Gulf Stream influence.

According to Bigelow (1927), at most times there is no dominant drift of the Gulf Stream across Georges Bank into the Gulf of Maine, but on rare occasions overflows of tropic waters take place at the surface, probably via that route. Small amounts of Gulf Stream water have been known to drift as far west as the coastline bounded by Martha's Vineyard and Narragansett Bay. Although the data in this report do not encompass that immediate area, evidence that such an intrusion occurred in 1969 is apparent by examination of surface contours and T-S diagrams of the Slope Water region.

Intermediate and Bottom Waters

Warmer temperatures were also evident in the deeper waters off the shelf in 1969. Water tem-

peratures of the 150 to 300 meter depth range (9°-18° C.) were approximately 2° C. higher than those observed in 1968.

This increase in temperature at these lower depths was probably attributable to horizontal mixing of coastal water overlying the shelf with Gulf Stream-influenced offshore waters, and the subsequent sinking of the products of the mixing—a process known as caballing.

Mixing takes place most efficiently along surfaces of constant sigma-t where exchange is not inhibited by buoyant forces. When two different water types—coastal and Gulf Stream in this case—each with the same sigma-t value mix, the product, represented by a straight line on a T-S diagram, will be of greater density (sigma-t) than either of the two parent water types. This resultant "heavy water", having a greater density, will thus tend to sink. This is the caballing process.

Caballing can potentially contribute to vertical circulation. As indicated by relatively weak isopycnals, the vertical stability in the Gulf of Maine is quite low as expected during the winter months (Bigelow, 1927). Accordingly, the "heavy water" formed, as outlined above, will sink and flow under lighter waters. In the shelf region this is probably seen as what McLellan (1953) has called underrunning shoreward (fig. 4). This process might then help explain the increase in temperature at the greater depths.

McLellan (1957) discussed the three distinctly different oceanographic regions found off the New England and Nova Scotian coasts—Coastal Slope, and Gulf Stream waters. These waters are not only separated by sharp geographical boundaries, but are also well defined graphically through T-S plots. Temperature-Salinity relations as presented by McLellan (1957) for the upper 150 meters of water off the Scotian shelf are shown in figure 5. The three groups indicated on this T-S plot do not overlap and, in addition, are separated by blank areas into which no observations fall.

A fourth water mass, Nova Scotian Current Water, is often included in discussions of the Gulf of Maine region. This cold (2°-8° C.), low saline (<32‰) water is usually restricted to the coast off Cape Sable. Bigelow (1927) has noted that this Nova Scotian Current Water exerts its chief thermal effect to the eastward of

Cape Sable, although for only a few weeks during the spring, it can act to retard vernal warming in the Gulf of Maine.

Hayes (in press) identifies Gulf of Maine Bottom Water (below 150 m.) as Slope Water, which, on entering the Gulf of Maine through the Eastern Channel, is slightly modified. However, for the purposes of the present discussion, this Bottom Water will be considered to be in the realm of Slope Water.

T-S diagrams were constructed from data observed during ICNAF cruises 68-1 and 69-1 for selected offshore stations (figs. 6, 7, and 8). It is readily apparent from examination of figures 7 and 8 that the 1969 T-S curves fall within McLellan's boundaries for Gulf Stream Water as well as within his limits for Coastal Water and Slope Water. The T-S curves drawn for 1968 data do not fall within the boundaries for Gulf Stream Water. However, it should be noted that the 1968 station locations do not extend quite as far seaward as those for 1969. This is not to say that a Gulf Stream intrusion did occur in 1968, for as previously noted water temperatures of this region in this year were significantly lower than those of 1969. It should be emphasized that the ICNAF cruise data were observed in midwinter (January-February), whereas McLellan's data were collected during June when vernal warming is well in progress.

The T-S curves for 1968 and 1969 did not reveal the presence of distinct bounded regions with blank areas between them, thus indicating thorough horizontal mixing throughout the region. In both years the distribution of T-S points for the surface layer (0-150 meters) was confined to a relatively narrow band nearly

parallel with the isopycnals. McLellan (1957) presents a detailed discussion of "isopycnic mixing" and stirring as determined from T-S diagrams.

"The distinction between 'stirring' and 'mixing' as brought out by Eckart (1948) is important. Stirring obviously can, and probably always does, take place on surfaces of equal density, since low internal friction in the fluid makes hydrostatic equilibrium (or quasi-equilibrium) the only state admissible. The very nature of mixing, however, implies a change in entropy. At the same time, the physical nature of sea water is such that the mixing of waters of equal density is accompanied by an increase in density in the product (except for the trivial case where the original constituents are identical as to temperature and salinity) . . . but it must be remembered that the products are represented by a straight line on the T-S plot and not by the curve of equal sigma-t."

When points at like depths for several stations within the narrow band are joined, a straight line relationship is apparent. This strengthens the above inference to horizontal mixing.

Dissolved oxygen measurements were made at most stations occupied during both ICNAF cruises. Water types can be identified as Coastal, Slope, or Gulf Stream according to their characteristic dissolved oxygen values (McLellan, 1957). Table 2 compares typical dissolved oxygen values observed by McLellan with dissolved oxygen data from selected ICNAF stations. It is evident that Gulf Stream Water was present at the 1969 stations, while the 1968 data indicated only Slope and Coastal Water.

TABLE 2—Dissolved oxygen values for selected ICNAF stations, 1968 and 1969.

Depth (m)	McLellan's Stations (ml/l)			ICNAF 68-1 Stations (ml/l)				ICNAF 69-1 Stations (ml/l)			
	Gulf	Slope	Coast	1	2	24	25	1	2	15	16
0	--	--	--	6.6	7.0	7.1	5.7	4.7	4.7	5.0	5.0
50	--	--	--	6.0	5.8	6.8	5.4	4.7	4.8	4.7	4.7
100	4.9	4.4	6.3	5.5	4.6	5.2	5.3	4.7	4.8	4.6	4.5
150	5.0	4.8	6.5	3.9	4.0	3.5	5.2	4.6	4.5	4.7	4.8
200	4.7	4.1	5.5	5.3	3.8	3.6	5.2	4.6	4.5	5.4	4.3
250	--	--	--	4.0	4.0	3.7	3.9	4.8	--	5.2	5.0
300	4.7	3.9	5.7	--	--	--	--	--	--	--	--
400	--	3.3	6.1	--	--	--	--	--	--	--	--
500	--	3.9	6.1	--	--	--	--	--	--	--	--

TABLE 3—Pemigwasset River runoff (in inches) Plymouth, N.H. Higher values in late 1967 and early 1968 are typical of most New England stations.

	Jan	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1967		6.64	5.87	2.24	0.84	0.51	0.73	2.22	1.95	2.37
1968	0.72	7.61	4.14	4.07	1.34	0.43	0.47	0.44	1.04	1.77
1969	0.61									

Hachey et al. (1954) claim that an incursion of warm Slope Water into the Gulf of Maine would adversely affect the haddock and cod fisheries on Georges Bank. Examination of catch statistics for these species could prove to be interesting.

Salinity Distribution

Gulf of Maine Basin

Surface Layer

Comparison of surface salinity and temperature contours for 1968 and 1969 (figs. 9, 10, 11, and 12) showed that the surface isohaline distribution resembled that of surface isotherms during both years. The areas of strong surface salinity gradients were located further northwest in 1969 than in 1968. The average surface salinity in 1968 (31.5‰ – 33‰) was approximately 0.5‰ – 1‰ lower than the 1969 average.

Salinity gradients of the surface layer in 1969 (figs. 54, 55 and 56) were stronger and tended to be more horizontal than those in 1968 (figs. 21, 22, and 23).

River runoff for the major New England rivers in 1968–1969 appeared to have a more conclusive effect than did precipitation on surface salinity. Table 3 summarizes the runoff for the Pemigwasset River extracted from "Water Resources Data-Surface Water Records" (1967, 1968, and 1969). The flow for the Pemigwasset River is considered to be typical of the major New England rivers (Chase, 1972). These data show that the monthly flows for the major rivers during the period of September–December 1967 were from two to five times as great as the runoff observed for the same four month period in 1968. It has been estimated that it takes approximately 3 to 4 months for flow conditions observed upstream on major New England rivers to be reflected in offshore salinity conditions (Bigelow, 1927; Ketchum and Keen, 1955). Thus, the lower salinity conditions observed in the surface layer of the Gulf of Maine in January 1968 were

at least partially influenced by the high river runoff of the preceding few months.

Wind conditions observed for the periods of December 1967 through February 1968 and December 1968 through February 1969 for selected coastal, inland, and offshore stations of the Gulf of Maine region were also studied. Inland and coastal observation station data showed that the predominant direction of wind set for both years was from the northeast with an average speed of 4 to 6 knots. Wind observations recorded at Coast Guard offshore light stations and light vessels showed that the resultant average wind set was from the northwest with average speeds of 6 knots for the 1968 season and 9 to 10 knots for 1969.

Undoubtedly, weather conditions immediately preceding and during the cruise periods did affect the surface salinity conditions in the Gulf of Maine in both years.

Intermediate and Bottom Waters

Comparison of salinity vertical profiles for the midwater layer inside Georges Bank for both years revealed similar salinity values and distribution of salinity gradients (figs. 21–23 and 54–56). The salinity gradients showed a weak to moderate vertical distribution throughout the region, with values ranging from 32.8‰ at 100 meters to 34.3‰ at 150 meters. Bottom waters within the Gulf of Maine Basin were well mixed and had a salinity approximately 0.5‰ higher than that of the midwater layer directly above.

Transition Zone

Salinity gradients of transition zone waters approximated those of temperature for both 1968 and 1969. Again, a narrow band of strong horizontal gradients was observed for both years. For example, in 1968 between stations 3 and 4 of section 1 (fig. 21), there was a change of $>2\text{‰}$ within a distance of 15 nautical miles.

Slope Water

Surface Layer

In 1969 the pocket of warm water centered around station 20 noted under the temperature discussion was also characterized by salinity values typical of Gulf Stream water ($>36\text{‰}$) (fig. 54). Vertical gradients are apparent in the surface layer waters in section 1 of the 1968 salinity profiles. However, to the west (sections 2 and 3) there was a shift to moderate horizontal gradients. This feature is similarly exhibited in the temperature and sigma-t profiles.

Intermediate and Bottom Waters

Both years were manifest of weak gradients. Salinity values ranged from 35.3‰ at the 150 meter level to 34.9‰ in the deeper waters in 1968 while 1969 values averaged 0.2‰ higher.

SIGMA-T

Examination of profiles of sigma-t for both cruises revealed one feature of particular interest. Isopycnals for ICNAF 69-1 sigma-t section 4 (fig. 62) indicated a moderate current through the Eastern Channel. Isopycnals with a slope of one meter per nautical mile or greater were observed in this vicinity. Salinity and temperature profiles for the same section (figs. 48 and 55) also suggested this same movement as the isohalines and isotherms were nearly congruent with the isopycnals.

The comparatively warm (6° – 7° C.) and highly saline ($>34\text{‰}$) bottom water in the Gulf of Maine basin alludes to an origin of Slope Water or even, perhaps, Gulf Stream Water. Dissolved oxygen content of the water in the basin (4.3–5.4 ml/l) (fig. 68) was typical of Gulf Stream Water.

The distribution of density along the edge of the continental slope is probably the motive power that brings water of these characteristics into the Gulf of Maine via the Eastern Channel. A considerable body of evidence has been accumulated to the effect that the zone along which coastal and oceanic waters mix and where Slope Water is formed averages somewhat higher in density than water on the continental slope. Bigelow (1927) confirmed the findings of several earlier surveys in this region. He concluded that lower densities exist along the outer edge of the offshore banks, abreast of the Gulf of Maine and

off Nova Scotia, than along the continental slope that bounds the banks on the offshore sides.

Examination of sigma-t profiles for stations 2–5 of section 1, and for stations 12–14 of section 2, reveals strikingly steep density gradients down to 250 meters, with the higher values toward the offshore side of the slope. Consequently, the mass of water on the shelf above 250 meters had a tendency to drift seaward (to the south).

With dynamic forces tending to drive Slope Water out to sea from the continental shelf (southerly off Cape Sable and La Have Bank), the Coriolis force would deflect this drift to the right. In this manner a dominant drift from east to west develops along the upper part of the continental slope off La Have and Browns Banks.

So long as the dynamic motion for this drift persists, the entrance of the Eastern Channel is supplied with the Slope Water from the east. In this fashion, the current that flows into the bottom of the Gulf of Maine basin draws from Slope Water formed at approximately equal depths on the Nova Scotian slope. This is confirmed by the fact that temperatures and salinities proved to be very nearly the same in the bottom of the Channel (7° – 8° C. and 33.50‰ – 34.75‰ at 150–200 meters) as at equal depths on the slope off La Have and Browns Banks (6.5° – 9° C. and 33.50‰ – 35.25‰).

The Slope Water, moving westward is forced against Browns Bank by the earth's rotation (Coriolis force). Consequently with the Eastern Channel offering an open route for this water to the right, Bigelow (1927) has suggested that "... it is reasonable to think of a screwing motion as taking place into the Eastern Channel ..." so long as the necessary density gradients exist off the Scotian Slope.

CIRCULATION

A knowledge of the circulation patterns in the Gulf of Maine should provide further insight into the seasonal variance of isothermal and isohaline conditions.

Circulation patterns in this region have been described by various authors. Bigelow (1927) determined the circulation pattern in the Gulf of Maine to be a general counterclockwise eddy augmented by an inflow of water on the eastern side from over the Nova Scotian banks. The inflow causes a displacement of water south and

east across the end of Georges Bank (fig. 80). This counterclockwise eddy is fed by the inflow of water from without the Gulf of Maine in the winter and early spring. Cold water ($<5^{\circ}\text{C.}$) shown in ICNAF 69-1 temperature sections 3, 4, and 5 (figs. 47, 48, and 49) suggests a similar pattern. Bumpus (1969) and Bumpus and Lauzier (1965), from analysis of surface current observations, suggested that, in the winter, the northward flow from Browns Bank into the Bay of Fundy will be considerably diminished, and that some of the water will be deflected along the southeastern coast of Nova Scotia.

Pronounced southerly movement along the western shore of the Gulf of Maine for late February and early March was noted by Day (1958). He also noted indications of a strong seaward movement east of Cape Cod through South Channel during this same period. It is not possible from the present data to evaluate the outflow movement from the Gulf of Maine eddy. However, the presence of water with a temperature of less than 5°C. and salinity near 33‰ in slope areas of sections (ICNAF 69-1) 4, 5 and 7 (figs. 48, 49 and 51) supports Day's premise.

Although poorly defined at this time of the year, the cyclonic circulation of the inshore areas appears to be present. A more definitive analysis of circulation patterns cannot be made because of insufficient data.

CONCLUSIONS

As a result of variances in climatic conditions between 1968 and 1969 coupled with pronounced Gulf Stream influences in 1969, oceanographic features of the Gulf of Maine differed for those years. Water temperatures throughout the Gulf were $1^{\circ}\text{--}2^{\circ}\text{C.}$ warmer in 1969, reflecting an unusually mild winter and an apparent intrusion of Gulf Stream water. The higher salinities and characteristic dissolved oxygen values observed in the same year apparently were also a result of a Gulf Stream influx. The considerably heavier river runoff for the 1968 season resulted in lower salinity values for that year. Surface temperature and salinity maxima in 1969 extended as far shoreward as the 1000 fathom (1829 m.) isobath, whereas in 1968 these maxima extended shoreward only to the 3000 fathom (5486 m.) isobath.

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FIGURE 1.—Orientation chart of the Gulf of Maine (Colton, J. B., 1964).

FIGURE 2.—Oceanographic stations and XBT locations, ICNAF 68-1, 15-26 January 1968.

FIGURE 3.—Oceanographic stations and XBT locations, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 4.—Schematic diagram showing the way in which Slope Water may be formed (McLellan et al., 1953).

FIGURE 5.—T-S relations in the upper 150 m off the Scotian Shelf as observed during June 1952, (McLellan, 1957).

FIGURE 6.—T-S relations for the upper 150 m for stations 1-4, 22-28, 49, 50 (Sections 1-4) ICNAF 68-1, 15-26 January 1968.

FIGURE 7.—T-S relations for the upper 150 m for stations 1-3, 14-21, 41-46, 48 (Sections 1-5), ICNAF 69-1, 28 January-27 February 1969.

FIGURE 8.—T-S distribution in upper 150 m over the Eastern Channel and Georges Bank; stippled lines are drawn for stations 1, 2, 3, 4, 25, 26 (Sections 1-3) ICNAF 68-1, 15-26 January 1968 and solid lines are drawn for stations 1, 2, 15, 16, 17, 20, 42, 46 (Sections 1-5) ICNAF 69-1, 28 January-27 February 1969.

FIGURE 9.—Surface temperature (°C.) distribution, ICNAF 68-1, 15-26 January 1968.

FIGURE 10.—Surface temperature (°C.) distribution, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 11.—Surface salinity ($^{\circ}/_{\text{oo}}$) distribution, ICNAF 68-1, 15-26 January 1968.

FIGURE 12.—Surface salinity (‰) distribution, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 13.—Surface sigma-t (g/l) distribution, ICNAF 68-1, 15-26 January 1968.

FIGURE 14.—Surface sigma-t (g/l) distribution, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 15.—Profile of temperature (°C.) section 1, ICNAF 68-1, 15-26 January 1968.

FIGURE 16.—Profile of temperature (°C.) section 2, ICNAF 68-1, 15-26 January 1968.

FIGURE 17.—Profile of temperature ($^{\circ}\text{C}.$), section 3, ICNAF 68-1, 15-26 January 1968.

FIGURE 18.—Profile of temperature ($^{\circ}\text{C}.$), section 4, ICNAF 68-1, 15-26 January 1968.

FIGURE 19.—Profile of temperature ($^{\circ}\text{C}.$), section 5, ICNAF 68-1, 15-26 January 1968.

FIGURE 20.—Profile of temperature (°C.), section 6, ICNAF 68-1, 15-26 January 1968.

FIGURE 21.—Profile of salinity (‰), section 1, ICNAF 68-1, 15-26 January 1968.

FIGURE 22.—Profile of salinity ($^{\circ}/_{\text{oo}}$), section 2, ICNAF 68-1, 15-26 January 1968.

FIGURE 23.—Profile of salinity (‰), section 3, ICNAF 68-1, 15-26 January 1968.

FIGURE 24.—Profile of salinity (‰), section 4, ICNAF 68-1, 15-26 January 1968.

FIGURE 25.—Profile of salinity (‰), section 5, ICNAF 68-1, 15-26 January 1968.

FIGURE 26.—Profile of salinity (‰), section 6, ICNAF 68-1, 15-26 January 1968.

FIGURE 27.—Profile of sigma-t (g/l), section 1, ICNAF 68-1, 15-26 January 1968.

FIGURE 28.—Profile of sigma-t (g/l), section 2, ICNAF 68-1, 15-26 January 1968.

FIGURE 29.—Profile of sigma-t (g/l), section 3, ICNAF 68-1, 15-26 January 1968.

FIGURE 30.—Profile of sigma-t (g/l), section 4, ICNAF 68-1, 15-26 January 1968.

FIGURE 31.—Profile of sigma-t (g/l), section 5, ICNAF 68-1, 15-26 January 1968.

FIGURE 32.—Profile of sigma-t (g/l), section 6, ICNAF 6S-1, 15-26 January 1968.

FIGURE 33.—Profile of dissolved oxygen (ml/l), section 1, ICNAF 68-1, 15-26 January 1968.

FIGURE 34.—Profile of dissolved oxygen (ml/l), section 2, ICNAF 68-1, 15-26 January 1968.

FIGURE 35.—Profile of dissolved oxygen (ml/l), section 3, ICNAF 68-1, 15-26 January 1968.

FIGURE 36.—Profile of dissolved oxygen (ml/l), section 4, ICNAF 68-1, 15-26 January 1968.

FIGURE 37.—Profile of dissolved oxygen (ml/l), section 5, ICNAF 68-1, 15-26 January 1968.

FIGURE 38.—Profile of dissolved oxygen (ml/l), section 6, ICNAF 68-1, 15-26 January 1968.

FIGURE 39.—Profile of chlorophyll (mg/m^3), section 1, ICNAF 68-1, 15-26 January 1968.

FIGURE 40.—Profile of chlorophyll (mg/m^3), section 2, ICNAF 68-1, 15-20 January 1968.

FIGURE 41.—Profile of chlorophyll (mg/m^3), section 3, ICNAF 68-1, 15-26 January 1968.

FIGURE 42.—Profile of chlorophyll (mg/m^3), section 4, ICNAF 68-1, 15-26 January 1968.

FIGURE 43.—Profile of chlorophyll (mg/m³), section 5, ICNAF 68-1, 15-26 January 1968.

FIGURE 44.—Profile of chlorophyll (mg/m^3), section 6, ICNAF 68-1, 15-26 January 1968.

FIGURE 45.—Profile of temperature ($^{\circ}\text{C}$.), section 1, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 46.—Profile of temperature ($^{\circ}\text{C}.$), section 2, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 47.—Profile of temperature (°C.), section 3, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 48.—Profile of temperature ($^{\circ}\text{C}.$), section 4, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 49.—Profile of temperature ($^{\circ}\text{C}.$), section 5, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 50.—Profile of temperature ($^{\circ}\text{C}.$), section 6, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 51.—Profile of temperature ($^{\circ}\text{C}.$), section 7, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 52.—Profile of salinity (‰), section 1, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 53.—Profile of salinity (‰), section 2, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 54.—Profile of salinity ($^{\circ}/_{\text{oo}}$), section 3, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 55.—Profile of salinity (‰), section 4, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 56.—Profile of salinity (‰), section 5, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 57.—Profile of salinity ($^{\circ}/_{\text{oo}}$), section 6, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 58.—Profile of salinity (‰), section 7, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 59.—Profile of sigma-t (g/l), section 1, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 60.—Profile of sigma-t (g/l), section 2, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 61.—Profile of sigma-t (g/l), section 3, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 62.—Profile of sigma-t (g/l), section 4, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 63.—Profile of sigma-t (g/l), section 5, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 64.—Profile of sigma-t (g/l), section 6, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 65.—Profile of sigma-t (g/l), section 7, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 66.—Profile of dissolved oxygen (ml/l), section 1, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 67.—Profile of dissolved oxygen (ml/l), section 2, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 68.—Profile of dissolved oxygen (ml/l), section 3, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 69.—Profile of dissolved oxygen (ml/l), section 4, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 70.—Profile of dissolved oxygen (ml/l), section 5, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 71.—Profile of dissolved oxygen (ml/l), section 6, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 72.—Profile of dissolved oxygen (ml/l), section 7, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 73.—Profile of chlorophyll (mg/m^3), section 1, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 74.--Profile of chlorophyll (mg/m^3), section 2, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 75.—Profile of chlorophyll (mg/m^3), section 3, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 76 —Profile of chlorophyll (mg/m^3), section 4, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 77.—Profile of chlorophyll (mg/m^3), section 5, ICNAF 69-1, 28 January-27 February 1969.

Figure 78.—Profile of chlorophyll (mg/m^3), section 6, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 79.—Profile of chlorophyll (mg/m^3), section 7, ICNAF 69-1, 28 January-27 February 1969.

FIGURE 80.—Schematic representation of the dominant nontidal circulation of the Gulf of Maine (Bigelow, 1927).

APPENDIX A

OCEANOGRAPHIC DATA

Cruises Listed

Table	Page
I. Observed and interpolated oceanographic data taken by USCG EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-84034.	92
II. Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.	123

A complete description of the codes utilized in the tabulation of oceanographic station data can be found in National Oceanographic Data Center publication M-2, *Processing Physical and Chemical Data from Oceanographic Stations*. (Rev. August 1964, supplement issued May 1966.)

To facilitate use of the oceanographic station data listing, entry headings which are not self-explanatory are described below.

Depth to Bottom -----Corrected or uncorrected sounding in meters.

Max. Depth of Samples -----Depth of deepest sample to nearest multiple of one hundred meters.

Wave observations

DIR. -----Rounded to nearest multiple of 10 degrees.

HGT. -----In increments of $\frac{1}{2}$ m. Sum of 5 meters plus increments of $\frac{1}{2}$ m if 50 is added to direction.

PER. -----If numerals 2 through 9 are entered, period in seconds is twice the numeric entry or 2X (numeric entry) + 1. For other entries see WMO Code 3155.

SEA -----Sea state according to WMO Code 3700.

Weather Code -----If preceded by X, weather according to WMO Code 4501. If a two-digit entry, weather according to WMO Code 4677.

Cloud Code

Type -----Cloud type according to WMO Code 0500.

Amount -----Cloud amount in eights. Entry of the numeral 9 indicates cloud amount could not be estimated.

Water

Color Code -----Color according to Forel-Ule scale.

Trans. -----Transparency in whole meters as determined by Secchi disc.

Wind

Dir. -----Rounded to nearest multiple of 10 degrees.

Speed or Force -----If preceded by letter S, wind speed in knots; if preceded by letter F, wind force according to Beaufort scale.

Barometer -----Barometric pressure given in 10, units and tenths of millibars.

Air Temp. °C. -----Air temperature to tenths of a degree centigrade.

Vis. Code -----Visibility according to WMO Code 4300.

No obs. depths -----Number of observed levels associated with the station.

Messenger time -----Entered in hours and tenths of an hour GMT. For Nansen casts, indicates time of release of messenger applicable to the observational level. For STD casts, indicates the starting time of lowering the sensor.

Card type -----OBS designates observed levels. STD indicates the values at this standard level were interpolated by a modified 3-point LaGrange formula.

Depth (m) ----- Depth to nearest meter. A postscript T indicates depth was obtained thermometrically; Z indicates uncorrected "wire out" depth. Postscript Q indicates value was marked doubtful by originator; P indicates value was considered doubtful by NODC. Postscripts P and Q retain this meaning throughout the following entries.

T °C. ----- Temperature to hundredths of a degree Centigrade.

S ‰ ----- Salinity in parts-per-thousand.

SIGMA-T ----- Entered to hundredths.

Specific-volume ----- Multiply entry by 10^{-7} to obtain specific-volume anomaly in cubic centimeters per gram.

$\Sigma\Delta$ Dyn. M. $\times 10^3$ ----- Multiply entry by 10^{-3} to obtain anomaly of dynamic height in dynamic meters referenced to the sea surface.

Sound Velocity ----- Sound velocity according to Wilson's formula entered to tenths of a meter per second.

O₂ ml/l ----- Dissolved oxygen in milliliters per liter entered to hundredths.

PO₄-P ug-at/l ----- Inorganic phosphate in microgram-atoms per liter entered to hundredths.

Total-P ug-at/l ----- Total phosphorus in microgram-atoms per liter entered to hundredths.

NO₂-N ug-at/l ----- Nitrite-nitrogen in microgram-atoms per liter entered to hundredths.

NO₃-N ug-at/l ----- Nitrate-nitrogen in microgram-atoms per liter entered to tenths.

SiO₄-Si ug-at/l ----- Silicate-silicon in microgram-atoms per liter entered to whole units.

CHL-A ----- Chlorophyll-A (total pigment) in milligrams per cubic meter entered to hundredths.

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSDEN SQUAT 10' 1"		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CTW CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSden SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAB. DEPTH OF SMBL	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER					
						10'	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	NG	PER				SEA				
						WATER	WIND	AIR TEMP. °C																
					COLOR CODE	TEMP. (°C)	DIR.	SPEED (KTS)	BARO- METER (mb)	* OBS RULS	WET RULS	VIS. CODE	NO. OBS DEPTH	SPECIAL OBSERVATIONS										
					OT	50	31	508	298	017	011	34												
MESSAGE TIME NR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Δ D DYN. M x 10 ³	SOUND VELOCITY	D ₂ m/s	PO ₂ -P x 10 ⁻⁴ g/l	TOTAL-P x 10 ⁻⁴ g/l	NO ₂ -N x 10 ⁻⁴ g/l	OH-A	SiO ₂ -Si x 10 ⁻⁴ g/l	PH	S	C						
	225	STO	0000	0592	3321	2617	0018558	0000	14724	701														
		OBS	0000	0592	33206	2617			14724	701							029							
		STO	0010	0740	3376	2641	0016309	0017	14792	685														
		OBS	0010	0740	33758	2641			14792	685							032							
		STO	0020	0761	3381	2642	0016245	0034	14802	674														
		OBS	0020	0761	33807	2642			14802	674							038							
		OBS	0025	0765	33855	2645			14805															
		STO	0030	0820	3402	2649	0015519	0050	14829	657														
		OBS	0030	0820	34018	2649			14829	657							036							
		OBS	0040	0911	34347	2661			14869	652							039							
		STO	0050	0950	3449	2666	0014033	0079	14887	583														
		OBS	0050	0950	34488	2666			14887	583							022							
		OBS	0055	1017	34688	2670			14915															
		OBS	0060	0960	34598	2673			14894															
		STO	0075	0972	3473	2681	0012668	0113	14902	508														
		OBS	0075	0972	34727	2681			14902	508							010							
		OBS	0085	0975	34777	2684			14906															
		STO	0100	0870	3472	2697	0011163	0142	14869	466														
		OBS	0100	0870	34722	2697			14869	466							003							
		OBS	0110	0843	34747	2703			14860															
		STO	0125	0837	3481	2709	0010064	0169	14861	433														
		STO	0150	0820	3490	2718	0009229	0193	14860	407														
		OBS	0150	0820	34895	2718			14860	407														
		OBS	0165	0805	34927	2723			14857															
		OBS	0175	0820	34980	2725			14865															
		STO	0200	0800	3499	2728	0008352	0437	14862	379														
		OBS	0200	0800	34986	2728			14862	379														
		STO	0250	0740	3497	2736	0007716	0277	14847	403														
		OBS	0250	0740	34967	2736			14847	403														
		OBS	0280	0692	34970	2743			14833															
		STO	0300	0700	3503	2746	0006802	0313	14840															
		OBS	0300	0700	35026	2746			14840															
		OBS	0340	0620	34890	2746			14813															
		OBS	0350	0567	34905	2754			14794															
		STO	0400	0550	3493	2758	0005707	0376	14795															
		OBS	0400	0550	34927	2758			14795															
		STO	0500	0488	3494	2766	0005011	0430	14787															
		OBS	0500	0488	34935	2766			14787															
		STO	0600	0465	3495	2769	0004758	0478	14794															
		OBS	0600	0465	34947	2769			14794															
		STO	0700	0447	3496	2772	0004575	0525	14803															
		OBS	0700	0447	34957	2772			14803															
		STO	0800	0439	3497	2774	0004516	0570	14817															
		OBS	0800	0439	34966	2774			14817															
		STO	0900	0423	3497	2776	0004378	0615	14827															
		OBS	0900	0423	34972	2776			14827															
		STO	1000	0415	3497	2777	0004370	0659	14840															
		OBS	1000	0415	34973	2777			14840															
		STO	1100	0403	3497	2778	0004339	0702	14852															
		OBS	1100	0403	34970	2778			14852															
		STO	1200	0399	3497	2778	0004403	0746	14867															
		OBS	1200	0399	34967	2778			14867															
		STO	1300	0390	3497	2779	0004380	0790	14880															
		OBS	1300	0390	34967	2779			14880															
		STO	1400	0385	3497	2780	0004390	0834	14894															
		OBS	1400	0385	34969	2780			14894															
		STO	1500	0382	3498	2781	0004387	0878	14910															
		OBS	1500	0382	34976	2781			14910															

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CIRCUIT NO.	ID. NO.	SHIP CODE	LATITUDE °	LONGITUDE °	MARDEN SQUARE 10° 1'	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAR. DEPTH OF SOUND	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES TIME (GMT)	NOOD STATION NUMBER
						10°	1'	MO	DAT		HR	10°			CRUISE NO.	STATION NUMBER					
						151	06	01	18		018	1968			003	2012	15	11			
		WATER		WIND		BARO- METER		AIR TEMP °C		NO. OBS. DEPTH		SPECIAL OBSERVATIONS									
		COLOR CODE	TEMP (°C)	DIR.	DIR. OF FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS									
		DT	50	30	510	301	-011	-011	8	35											
HISTORICAL TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND SALINITY	Σ Δ ρ DTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml	TOTAL-P μg - ml	NO ₃ -N μg - ml	CHL-A	SiO ₂ -S μg - ml	pH					
	018	ST0	0000	0573	3302	2605	0019717	0000	14714	699											
		085	0000	0573	33022	2605			14714	699											
		ST0	0010	0778	3389	2645	0015867	0018	14808	694						036					
		085	0010	0778	33887	2645			14808	694											
		ST0	0020	0900	3416	2648	0015606	0034	14860	681						041					
		085	0020	0900	34163	2648			14860	681											
		085	0025	0960	34487	2664			14887							034					
		ST0	0030	1000	3462	2668	0013801	0048	14904	643											
		085	0030	1000	34622	2668			14904	643						028					
		085	0040	1112	34942	2673			14950	648						031					
		ST0	0050	1125	3498	2673	0013313	0075	14957	629											
		085	0050	1125	34981	2673			14957	629											
		085	0057	1130	35006	2674			14960							024					
		085	0067	1251	35323	2676			15007												
		ST0	0075	1161	3510	2676	0013115	0108	14975	599											
		085	0075	1161	35103	2676			14975	599											
		085	0082	1063	34884	2677			14939							029					
		085	0090	1166	35158	2679			14980												
		ST0	0100	1180	3523	2682	0012609	0141	14987	510											
		085	0100	1180	35227	2682			14987	510											
		085	0102	1141	35161	2684			14973							008					
		085	0103	1157	35282	2691			14980												
		ST0	0125	1150	3525	2690	0011946	0171	14981	405											
		ST0	0150	1079	3522	2700	0011011	0200	14960	353											
		085	0150	1079	35217	2700			14960	353											
		085	0195	0780	34700	2709			14850												
		ST0	0200	0815	3490	2719	0009210	0250	14866	407											
		085	0200	0815	34900	2719			14866	407											
		085	0210	0880	35096	2724			14895												
		085	0220	0880	35119	2726			14897												
		ST0	0250	0860	3507	2726	0008726	0295	14894	345											
		085	0250	0860	35070	2726			14894	345											
		ST0	0300	0744	3500	2738	0007599	0336	14857												
		085	0300	0744	35002	2738			14857												
		085	0350	0608	34912	2749			14810												
		ST0	0400	0558	3490	2754	0006038	0404	14798												
		085	0400	0558	34896	2754			14798												
		ST0	0500	0482	3491	2765	0005095	0460	14784												
		085	0500	0482	34914	2765			14784												
		ST0	0600	0453	3493	2769	0004741	0509	14789												
		085	0600	0453	34930	2769			14789												
		ST0	0700	0439	3495	2772	0004568	0556	14800												
		085	0700	0439	34945	2772			14800												
		ST0	0800	0427	3496	2774	0004445	0601	14811												
		085	0800	0427	34956	2774			14811												
		ST0	0900	0420	3496	2776	0004423	0645	14825												
		085	0900	0420	34961	2776			14825												
		ST0	1000	0418	3497	2777	0004407	0689	14841												
		085	1000	0418	34973	2777			14841												
		ST0	1100	0403	3497	2778	0004361	0733	14852												
		085	1100	0403	34967	2778			14852												
		ST0	1200	0399	3497	2778	0004403	0777	14867												
		085	1200	0399	34967	2778			14867												
		ST0	1300	0391	3497	2779	0004393	0821	14880												
		085	1300	0391	34967	2779			14880												
		ST0	1400	0386	3497	2780	0004418	0865	14895												
		085	1400	0386	34967	2780			14895												
		ST0	1500	0380	3497	2780	0004427	0909	14909												
		085	1500	0380	34967	2780			14909												

TABLE I.—Observed and interpolated oceanographic data taken by USC'G' EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
						10"	1'	MO. DAY HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT.	PER.				SEA	TPP.
318034	EV		4100 N	06630 W	151	16	01	18 043	1968	004	004	0101	01	12	1	2	X1	0	3	0004	

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CIR CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SITY	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10'	1"	MO	DAY		HR	MIN			SEC	CRUISE NUMBER	STATION NUMBER				DIR
318034	EV	4154 N	06626 W	151	16	01	18	098	1968	006		0077	00	10	0	2	X1	0	3	0006
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OF DEPTHS		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS- MIS	DIR.	SPED OF WIND	DRY BULB		WET BULB		VSL CODE								
				07	50	22	505	315	-017	-022	8	07								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		SOUND VELOCITY		D ₂ ml/l		PO ₂ -P pg - ml/l	PO ₂ -H pg - ml/l	NO ₂ -H pg - ml/l	CHL-A	SiO ₂ -Si pg - ml/l	pH	S C C	
	098	STO	0000	0359	3235	2574	0022622	0000	14615	728										
		OBS	0000	0359	32347	2574			14615	728							019			
		STO	0010	0374	3238	2575	0022535	0023	14624	728										
		OBS	0010	0374	32377	2575			14624	728							023			
		STO	0020	0386	3240	2576	0022454	0045	14631	727										
		OBS	0020	0386	32403	2576			14631	727							022			
		OBS	0025	0389	32416	2577			14633											
		STO	0030	0389	3243	2578	0022315	0067	14634	730										
		OBS	0030	0389	32426	2578			14634	730							021			
		OBS	0040	0391	32443	2579			14637	719							018			
		STO	0050	0390	3244	2579	0022208	0112	14638	714										
		OBS	0050	0390	32443	2579			14638	714							017			

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS- DEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10'	1"	MO	DAY		HR	MIN			CRUISE NO.	STATION NUMBER	DIR				PER
318034	EV	4211 N	06626 W	151	26	01	18	116	1968	007		0174	01	09	0	2	X1	0	3	0007
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OF SPECIAL DEPTHS								
				COLOR CODE	TRANS- MISST	DR.	SPED OF ADVICE			DRY BULB	WET BULB	VSL CODE								
				DT	SO	27	S06	315	-006	-011	8	17								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		SOUND VELOCITY		D ₂ ml/l	PO ₂ -P % - ml/l	TO-TAL-P % - ml/l	PO ₂ -M % - ml/l	CHL-A	SiO ₂ -Si % - ml/l	pH	S C C	
116		STO	0000	0290	3195	2548		0025070		0000	14580	746								
		OBS	0000	0290	31947	2548					14580	746					026			
		STO	0010	0290	3195	2548		0025073		0025	14582	748								
		OBS	0010	0290	31947	2548					14582	748					027			
		OBS	0016	0290	31947	2548					14583									
		STO	0020	0321	3207	2556		0024368		0050	14599	747								
		OBS	0020	0321	32074	2556					14599	747					022			
		OBS	0025	0334	32113	2556					14606									
		STO	0030	0347	3216	2560		0023944		0074	14613	764								
		OBS	0030	0347	32160	2560					14613	764					019			
		OBS	0034	0355	32197	2563					14617									
		OBS	0036	0391	32590	2574					14636									
		OBS	0040	0401	32415	2575					14641	735					022			
		STO	0050	0416	3253	2583		0021800		0120	14650	730								
		OBS	0050	0416	32530	2583					14650	730					015			
		OBS	0066	0425	32583	2586					14657									
	OBS	0069	0467	32625	2599					14687										
	STO	0075	0487	3299	2612		0019106		0171	14690	668									
	OBS	0075	0467	32967	2612					14690	668					011				
	OBS	0094	0594	33827	2666					14748										
	STO	0100	0608	3389	2669		0013782		0212	14756	539									
	OBS	0100	0608	33887	2669					14756	539					004				
	OBS	0120	0620	34055	2680					14766										
	STO	0125	0622	3409	2683		0012473		0245	14768	524									
	STO	0150	0630	3423	2693		0011564		0275	14777	509									
	OBS	0150	0630	34230	2693					14777	509									

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

				DT		SD 23		S05		312		-011		-011		8		19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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[illegible]

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE CODE	SHIP CODE NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	WARDEN SQUARE 10° 1'	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					MO	DAY	HR:1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER			
					10°	1'	MO											
318034	EV	43010N	066235W	151	36	01	18 183	1968	009		0128	01	06	10	12	X1	0 3	0010
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS DEPTHS	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS CODE								
				OT	50	23	510	159	006	006	8	12						
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DIN. M $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	CHL-A	SiO ₂ -Si µg - ml/l	pH	CLC	
	183	STD	0000	0300	3194	2547	0025187	0000	14585	747								
		OBS	0000	0300	31942	2547			14585	747					019			
		STD	0010	0300	3194	2547	0025191	0025	14586	769								
		OBS	0010	0300	31942	2547			14586	769					019			
		STD	0020	0300	3194	2547	0025194	0050	14588	757								
		OBS	0020	0300	31942	2547			14588	757					019			
		OBS	0025	0299	31947	2548			14588									
		STD	0030	0302	3198	2550	0024948	0075	14591	740								
		OBS	0030	0302	31977	2550			14591	740					018			
		OBS	0035	0302	31977	2550			14592									
		OBS	0040	0338	32227	2566			14611	781					023			
		OBS	0043	0358	32269	2568			14621									
		STD	0050	0362	3229	2569	0023105	0124	14624	748								
		OBS	0050	0362	32290	2569			14624	748					019			
		STD	0075	0393	3237	2572	0022839	0181	14642	679								
		OBS	0075	0393	32365	2572			14642	679					014			
		STD	0100	0400	3239	2573	0022770	0238	14650	670								
		OBS	0100	0400	32385	2573			14650	670					014			
		OBS	0112	0400	32386	2573			14652									

REFERENCE CRUISE CODE	SHIP CODE NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	WARDEN SQUARE 10° 1'	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					MO	DAY	HR:1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER			
					10°	1'	MO											
318034	EV	4328 N	066287W	151	36	01	18 235	1968	010		0091	01	05	12		X1	0 3	0011
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS DEPTHS	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS CODE								
				OT	50	23	512	281	028	028	8	09						
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DIN. M $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	CHL-A	SiO ₂ -Si µg - ml/l	pH	CLC	
	235	STD	0000	0290	3184	2539	0025910	0000	14579	749								
		OBS	0000	0290	31836	2539			14579	749					023			
		STD	0010	0290	3184	2539	0025913	0026	14580	750								
		OBS	0010	0290	31836	2539			14580	750					022			
		STD	0020	0290	3184	2539	0025916	0052	14582	749								
		OBS	0020	0290	31836	2539			14582	749					016			
		OBS	0025	0290	31836	2539			14583									
		STD	0030	0290	3184	2539	0025919	0078	14584	749								
		OBS	0030	0290	31836	2539			14584	749					019			
		OBS	0040	0290	31836	2539			14585	744					021			
		STD	0050	0290	3184	2539	0025925	0130	14587	758								
		OBS	0050	0290	31836	2539			14587	758					019			
		STD	0075	0290	3184	2539	0025932	0194	14591	751								
		OBS	0075	0290	31836	2539			14591	751					010			
		OBS	0081	0290	31836	2539			14592									

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1: prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WASDEN SQUATS		STATION TIME		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER																																										
				10"	1"	MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DR			NO	PER SEC	SEA																																							
318034	EV	44205N	056315W	151	46	01	19	1968	011		0101	01	07	1		0 3	0012																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO-METER</th><th colspan="2">AIR TEMP °C</th><th colspan="2">VIS CODE</th><th colspan="2">NO. OBS. DEPTHS</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS (m)</th><th>DIR</th><th>SPEED OF FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTHS</th><th>WET BULB</th><th>DRY BULB</th><th>SPECIAL OBSERVATIONS</th></tr><tr><td>DT</td><td>50</td><td>24</td><td>512</td><td>261</td><td>033</td><td>033</td><td>8</td><td>08</td><td></td><td></td><td></td><td></td><td></td></tr></table>																		WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS	DT	50	24	512	261	033	033	8	08					
WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																															
COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS																																														
DT	50	24	512	261	033	033	8	08																																																			
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ OBS. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	CHL-A	SIO ₂ -Si µg - ml/l	pH	LOC																																										
010	STD	0000	0317	3212	2560	0023994	0000	14594	738																																																		
	OBS	0000	0317	32118	2560			14594	738						020																																												
	STD	0010	0317	3212	2560	0023998	0024	14596	759																																																		
	OBS	0010	0317	32118	2560			14596	759						015																																												
	STD	0020	0317	3212	2560	0023994	0048	14598	750																																																		
	OBS	0020	0317	32119	2560			14598	750						018																																												
	OBS	0025	0317	32119	2560			14598																																																			
	STD	0030	0317	3213	2560	0023953	0072	14599	744																																																		
	OBS	0030	0317	32125	2560			14599	744						018																																												
	OBS	0040	0317	32126	2560			14601	744						020																																												
STD	0050	0317	3213	2560	0023946	0120	14603	744																																																			
OBS	0050	0317	32127	2560			14603	744						020																																													
STD	0075	0318	3213	2560	0023956	0180	14607	743																																																			
OBS	0075	0318	32128	2560			14607	743						017																																													

REFERENCE	SHIP CODES	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	HR	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER																																										
								CRUISE NO.	STATION NUMBER			DR	HGT	PER																																												
318034	EV	44230N	066330W	15	1	19	1968	012		0201	01	07	1		X1 0 3	0013																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO-METER</th><th colspan="2">AIR TEMP °C</th><th colspan="2">VIS CODE</th><th colspan="2">NO. OBS. DEPTHS</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS (m)</th><th>DIR</th><th>SPEED OF FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTHS</th><th>WET BULB</th><th>DRY BULB</th><th>SPECIAL OBSERVATIONS</th></tr><tr><td>DT</td><td>50</td><td>23</td><td>510</td><td>254</td><td>039</td><td>039</td><td>8</td><td>09</td><td></td><td></td><td></td><td></td><td></td></tr></table>																	WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS	DT	50	23	510	254	039	039	8	09					
WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																														
COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS																																													
DT	50	23	510	254	039	039	8	09																																																		
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D OBS. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	CHL-A	SIO ₂ -Si µg - ml/l	pH																																										
	030	STD	0000	0364	3259	2593	0020870	0000	14621	714																																																
		OBS	0000	0364	32585	2593			14621	714					020																																											
		STD	0010	0364	3259	2593	0020861	0021	14622	721																																																
		OBS	0010	0364	32587	2593			14622	721					016																																											
		STD	0020	0366	3260	2594	0020771	0042	14625	724																																																
		OBS	0020	0366	32602	2594			14625	724					017																																											
		OBS	0025	0369	32606	2594			14627																																																	
		STD	0040	0369	3261	2594	0020767	0062	14628	725																																																
		OBS	0030	0369	32607	2594			14628	725					013																																											
		OBS	0040	0374	32647	2596			14632	722					015																																											
		STD	0050	0375	3267	2598	0020396	0104	14635	713																																																
		OBS	0050	0375	32665	2598			14635	713					013																																											
		STD	0075	0405	3289	2613	0019024	0153	14655	685																																																
		OBS	0075	0405	32887	2613			14655	685					013																																											
		STD	0100	0458	3303	2618	0018523	0200	14683	660																																																
		OBS	0100	0458	33027	2618			14683	660					012																																											

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 7/10	MARPEN SQUARE	STATION TIME		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																											
					MO	DAY		HR	MIN			CRUISE NO.	STATION NUMBER	DR				HGT	PER SEC																																									
318034	EV	44229N	067310W	151	47	01	19	072	1968	013		0091	01			X0 0 3		0014																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO-METER</th><th colspan="2">AIR TEMP °C</th><th colspan="2">VIS CODE</th><th colspan="2">NO. OBS. DEPTHS</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS (m)</th><th>DIR</th><th>SPEED OF FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTHS</th><th>WET BULB</th><th>DRY BULB</th><th>SPECIAL OBSERVATIONS</th></tr><tr><td>DT</td><td>50</td><td>30</td><td>504</td><td>230</td><td>022</td><td>022</td><td>8</td><td>09</td><td></td><td></td><td></td><td></td><td></td></tr></table>																			WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS	DT	50	30	504	230	022	022	8	09					
WATER		WIND		BARO-METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																																
COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTHS	WET BULB	DRY BULB	SPECIAL OBSERVATIONS																																															
DT	50	30	504	230	022	022	8	09																																																				
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ OBS. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	CHL-A	SIO ₂ -Si µg - ml/l	pH	LOC																																											
	072	STD	0000	0254	3259	2602	0019922	0000	14573	739																																																		
		OBS	0000	0254	32590	2602			14573	739					017																																													
		STD	0010	0260	3261	2603	0019842	0020	14578	751																																																		
		OBS	0010	0260	32607	2603			14578	751					017																																													
		STD	0020	0272	3262	2604	0019826	0040	14585	752																																																		
		OBS	0020	0272	32622	2604			14585	752					020																																													
		OBS	0025	0277	32634	2604			14588																																																			
		STD	0030	0280	3264	2604	0019757	0060	14590	750																																																		
		OBS	0030	0280	32640	2604			14590	750					016																																													
		OBS	0040	0285	32655	2605			14596	735					020																																													
		STD	0050	0307	3269	2606	0019639	0099	14606	734																																																		
		OBS	0050	0307	32686	2606			14606	734					016																																													
		OBS	0053	0317	32707	2607			14611																																																			
		STD	0075	0318	3271	2607	0019571	0148	14615	726																																																		
		OBS	0075	0318	32709	2607			14615	726					014																																													

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WATERS SQUARE 10° 1'	STATION TIME		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER
					10°	1'		MO	DAY			HR	10°	CRUISE NO.			
318034	EV	44 10N	06732W	151	47	01	19	096	1968	014	0214	01			X2	0 3	00151
				WIND TYPE OF FORCE	WIND SPEED KNOTS	DIR.	BARO- METER (mm)	AIR TEMP °C		VIS COOL	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
								DRY	WET								
				DT	SD	22	507	224	056	044	7	17					
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SINCH VOLUME ANOMALY-10 ³	Σ Δ D DYN. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	CHL-A	SiO ₄ -Si μg - ml/l	pH	
		STO	0000	0345	3275	2607		0019472	0000	14615	734						
	046	OBS	0000	0345	32748	2607				14615	734				023		
		STO	0010	0345	3275	2607		0019470	0019	14617	738						
		OBS	0010	0345	32749	2607				14617	738				028		
		STO	0020	0345	3275	2607		0019475	0039	14618	740						
	046	OBS	0020	0345	32749	2607				14618	740				023		
		OBS	0025	0345	32749	2607				14619							
		STO	0030	0345	3285	2615		0018734	0058	14621	730						
		OBS	0030	0345	32848	2615				14621	730				026		
		OBS	0040	0345	32850	2615				14623	736				021		
		STO	0050	0345	3285	2615		0018730	0096	14624	734						
		OBS	0050	0345	32850	2615				14624	734				021		
		OBS	0068	0345	32850	2615				14627							
		STO	0075	0332	3275	2608		0019413	0143	14622	732						
		OBS	0075	0332	32746	2608				14622	732				018		
		OBS	0093	0327	32759	2610				14623							
		STO	0100	0461	3320	2631		0017271	0189	14686	689						
		OBS	0100	0461	33198	2631				14686	689				012		
		OBS	0106	0521	33332	2635				14714							
		OBS	0111	0521	33332	2635				14715							
		OBS	0117	0581	33612	2650				14744							
		STO	0125	0596	3363	2650		0015586	0230	14752	619						
		OBS	0126	0597	33639	2650				14752							
		OBS	0146	0597	33879	2669				14759							
		STO	0150	0608	3393	2672		0013518	0266	14764	521						
		OBS	0150	0608	33931	2672				14764	521						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WATERS SQUARE 10° 1'	STATION TIME		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER
CRUISE NO.	ID. NO.					CRUISE NO.	STATION NUMBER		CR	PER			SEA					
318034	EV		43310N	067315W	151	37	01 19 125	1968	015		0247	02	02	1	2	X1	0 3	0016
				WIND DIRECTION	WIND SPEED KNOTS	BARO- METER (mm)	AIR TEMP °C		VIS COOL	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
							COLOR CODE	TRANS MITS			DRY	WET						
				OT	50	22	507	213	033	028	8	20						
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SINCH VOLUME ANOMALY-10 ³	Σ Δ D DYN. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	CHL-A	SiO ₄ -Si μg - ml/l	pH		
		STD	0000	0342	3271	2605	0019717	0000	14613	735								
125		OBS	0000	0342	32712	2605			14613	735				022				
		STD	0010	0342	3271	2605	0019705	0020	14615	749								
		OBS	0010	0342	32714	2605			14615	749				016				
		STD	0020	0342	3271	2605	0019713	0039	14616	751								
		OBS	0020	0342	32714	2605			14616	751				019				
		OBS	0025	0342	32714	2605			14617									
		STD	0030	0342	3272	2605	0019711	0059	14618	749								
		OBS	0030	0342	32715	2605			14618	749				017				
		OBS	0040	0342	32715	2605			14620	756				014				
		STD	0050	0342	3272	2605	0019722	0099	14621	754								
		OBS	0050	0342	32715	2605			14621	754				016				
		STD	0075	0353	3278	2609	0019366	0147	14631	742								
		OBS	0075	0353	32777	2609			14631	742				011				
		OBS	0077	0353	32795	2610			14632									
		OBS	0080	0389	32891	2614			14649									
		OBS	0091	0403	32935	2617			14657									
		OBS	0097	0498	33086	2618			14700									
		STD	0100	0495	3311	2621	0018277	0194	14699	658								
		OBS	0100	0495	33112	2621			14699	658				006				
		OBS	0102	0495	33257	2632			14702									
		OBS	0110	0581	33657	2654			14743									
		STD	0125	0584	3379	2664	0014247	0235	14749	573								
		OBS	0140	0596	33902	2671			14758									
		STD	0150	0609	3397	2675	0013240	0269	14765	521								
		OBS	0150	0609	33970	2675			14765	521								
		OBS	0170	0633	34045	2678			14779									
		STD	0200	0625	3417	2688	0012039	0333	14783	513								
		OBS	0200	0625	34167	2688			14783	513								
		OBS	0210	0625	34167	2688			14784									

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP	LATITUDE	LONGITUDE	MARS DEN	STATION TIME				YEAR	ORIGINATOR'S		DEPTH	MAR. DEPTH	WAVE				WEA-	CLOUD	NODC
CRUISE	ID.	CODE	° 1/10	° 1/10	SQUARE	16°	17°	MO	DAY	HR. 1/10		CRUISE	NO.	TO	OF	CH	PER	SEA	CODE	TIME	NUMBER
318034	EV		43010N	067315W		151	37	01	19	159	1968		016	0198	02	03	1	2	X0	03	
					WATER	WIND		BARO-		AIR TEMP. °C		VS	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	WIND OR FORCE	METER	DRY	WET										
					OT	50	23	510	203	050	050	7	14								
MESSING TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t		SPECIFIC VOLUME ANOMALY (σ _t)		Σ Δ D DTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	CHL-A	SiO ₄ -Si μg - ml/l	pH	CTD		
159		STD	0000	0360	3259	2593		0020819		0000	14619	725									
		085	0000	0360	32587	2593					14619	725					020				
		STD	0010	0360	3259	2593		0020825		0021	14621	730									
		085	0010	0360	32587	2593					14621	730					019				
		STD	0020	0360	3259	2593		0020831		0042	14622	728									
		085	0020	0360	32587	2593					14622	728					018				
		085	0025	0360	32590	2593					14623										
		STD	0030	0360	3259	2593		0020814		0062	14624	725									
		085	0030	0360	32590	2593					14624	725					016				
		085	0040	0360	32589	2593					14626	722					018				
		STD	0050	0360	3259	2594		0020802		0104	14627	720									
		085	0050	0360	32593	2594					14627	720					016				
		085	0065	0360	32617	2595					14630										
		STD	0075	0482	3336	2642		0016277		0150	14693	708									
		085	0075	0482	33357	2642					14693	708					013				
		085	0080	0541	33497	2646					14720										
		STD	0100	0592	3378	2662		0014424		0189	14748	565									
		085	0100	0592	33775	2662					14748	565					003				
	STD	0125	0593	3388	2670		0013683		0224	14754	532										
	085	0135	0600	33972	2676					14759											
	STD	0150	0619	3416	2689		0011962		0256	14772	499										
	085	0150	0619	34158	2689					14772	499										
	085	0170	0619	34178	2690					14775											

REFERENCE CRUISE CODE	SHIP CODE NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	CRUISE MO/NO	MARS DEN SQUARE MILES	STATION TIME				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS				WATER TEMPERATURE CODE	CLOUD CODES	NODC STATION NUMBER	
											CRUISE NO.	STATION NUMBER										
						16°	17°	MO	DAY						HR	1/10	DR	HC				PER
318034	EV	42315N	06731 W	151	27	01	19	195	1968		017	0220	02	03	2	2		X1	03		0018	
						WATER		WIND		BARO- METER		AIR TEMP °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR	TRANSP.	DIR	WIND OR FORCE	METER	DRY	WET	VS CODE									
						DT	50	21	518	176	061	061	14									
MESSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SPEICIFIC VOLUME ANOMALY (σ _t)		Σ Δ D DTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	CHL-A	SiO ₄ -Si μg - ml/l	pH	CTD				
195		STD	0000	0371	3259	2592	0020918		0000	14624	724											
		085	0000	0371	32587	2592				14624	724					020						
		STD	0010	0370	3257	2592	0020907		0021	14625	729											
		085	0010	0370	32585	2592				14625	729					020						
		STD	0020	0370	3259	2592	0020906		0042	14627	730											
		085	0020	0370	32585	2592				14627	730					018						
		085	0025	0369	32590	2592				14627												
		STD	0030	0369	3259	2593	0020865		0063	14628	727											
		085	0030	0369	32594	2593				14628	729					020						
		085	0040	0368	32595	2593				14629	723					018						
		STD	0050	0368	3260	2593	0020860		0104	14631	724											
		085	0050	0368	32595	2593				14631	724					017						
		085	0057	0368	32604	2594				14632												
		085	0071	0530	33289	2631				14711												
		STD	0075	0530	3329	2631	0017311		0152	14712	715											
		085	0075	0530	33269	2631				14712	715					014						
		STD	0100	0592	3373	2658	0014783		0192	14747	586											
		085	0100	0592	33727	2658				14747	588					003						
		STD	0125	0613	3414	2688	0011988		0226	14765	533											
		STD	0150	0626	3442	2708	0010105		0253	14778	497											
		085	0150	0626	34414	2708				14778	497											
		STD	0200	0629	3458	2720	0009037		0301	14790	486											
		085	0200	0629	34577	2720				14790	486											
		085	0210	0629	34606	2723				14792												

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER			
						10"	1"	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER									
						10"	1"	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER									
318034	EV		42145N	06731 W	151	27	01	19 208	1968	018		0271	03	03	2	4	X1	0 3		0019
						WATER		WIND	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS- MIS- SITY	DIR. OF FORCE	BARO- METER (mmHg)	DRY BULB	WET BULB									
						DT	SO	21	518	159	067	067	7	15						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OTN M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	CHL-A	SiO ₂ -S μg - ml/l	PH			
	206	STD	0000	0409	3271	2598	0020380		0000	14642	735									
		OBS	0000	0409	32705	2598				14642	735					026				
		STD	0010	0409	3271	2598	0020387		0020	14643	722									
		OBS	0010	0409	32705	2598				14643	722					019				
		STD	0020	0409	3271	2598	0020394		0041	14645	726									
		OBS	0020	0409	32705	2598				14645	726					022				
		OBS	0025	0409	32705	2598				14646										
		STD	0030	0409	3271	2598	0020401		0061	14646	715									
		OBS	0030	0409	32705	2598				14646	715					022				
		OBS	0040	0409	32705	2598				14648	716					028				
		STD	0050	0400	3270	2598	0020352		0102	14646	717									
		OBS	0050	0400	32702	2598				14646	717					021				
		STD	0075	0400	3274	2601	0020082		0152	14650	716									
		OBS	0075	0400	32740	2601				14650	716					025				
		OBS	0083	0400	32777	2604				14652										
		STD	0100	0458	3297	2613	0018973		0201	14682	706									
		OBS	0100	0458	32967	2613				14682	706					025				
		OBS	0110	0460	33057	2620				14686										
		STD	0125	0513	3345	2646	0015967		0245	14715	612									
		STD	0150	0581	3396	2678	0012987		0281	14754	548									
		OBS	0150	0581	33958	2678				14754	548									
		STD	0200	0635	3444	2709	0010142		0339	14790	513									
		OBS	0200	0635	34439	2709				14790	513									
		STD	0250	0619	3474	2734	0007805		0384	14796	497									
		OBS	0250	0619	34735	2734				14796	497									
		OBS	0262	0614	34750	2736				14796										

REFERENCE CTRY CODE	SHIP ID. NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10"	1"	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER							
					10"	1"	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER							
318034	EV	42000N	067310W	151	27	01 19 229	1968	019		0040	00	04	2 4	X1	0 3	0020	
				WATER		WIND	AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
				COLOR CODE	TRAN- SMI- TY	DIR. OF FORCE	BARO- METER (mmHg)	DRY BULB	WET BULB	VIS. CODE							
				DT	SD	22	522	152	061	061	7	05					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OTN M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	CHL-A	SiO ₂ -S μg - ml/l	PH
		STD	0000	0399	3266	2595	0020617		0000	14637	729						
	229	OBS	0000	0399	32661	2595				14637	729					024	
		STD	0010	0399	3266	2595	0020624		0021	14638	720						
		OBS	0010	0399	32661	2595				14638	720					018	
		STD	0020	0399	3266	2595	0020631		0041	14640	715						
		OBS	0020	0399	32661	2595				14640	715					025	
		OBS	0025	0399	32661	2595				14641							
		STD	0030	0399	3266	2595	0020637		0062	14642	720						
		OBS	0030	0399	32661	2595				14642	720					022	

REFERENCE	SHIP	LATITUDE	LONGITUDE	MARSEN	STATION TIME				YEAR	ORIGINATOR'S		DEPTH	MAR	WAVE			WEA-	CLOUD	NODC	
CTRY	ID.	"	"	SQUARE	10"	1"	MO	DAY		HR.	CRUISE	STATION	TO	DEPTH	DIR	NGR	PER	THIR		CODES
CODE	NO.									NO.	NUMBER	BOTTOM	OF				CODE		NUMBER	
318034	EV	41310N	067310W	151	17	01	20	025	1968	020		0044	00	07	3	2	X0	0	3	0021
					WATER		WIND	BARO-		AIR TEMP. °C		NO.		SPECIAL						
					COLOR	TRANS-	DIR.	SPEED	METER	DRY	WET	VIS	OBS.	OBSERVATIONS						
					CODE	SMI-		OF	(mmHg)	BULB	BULB	CODE	DEPTHS							
					DT	SO	24	520	169	050	050	7	05							
MESSAGE	CAST	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME		Σ Δ D	SOUND	O ₂ ml/l	PO ₂ -P	TOTAL-P	NO ₂ -N	CHL-A	SiO ₂ -S	PH			
TIME	NO.	TYPE					ANOMALY-σ _t	OTN M	x 10 ³	VELOCITY		μg - ml/l	μg - ml/l	μg - ml/l		μg - ml/l				
HR 1/10																				
		STD	0000	0328	3253	2591	0020979	0000		14605	756									
025		OBS	0000	0328	32529	2591				14605	756					040				
		STD	0010	0328	3253	2592	0020946	0021		14606	758									
		OBS	0010	0328	32534	2592				14606	758					041				
		STD	0020	0328	3254	2592	0020928	0042		14608	758									
		OBS	0020	0328	32537	2592				14608	758					037				
		OBS	0025	0328	32540	2592				14609										
		STD	0030	0328	3254	2592	0020903	0063		14610	756									
		OBS	0030	0328	32541	2592				14610	756					034				

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
CRUISE CODE	NO.					10'	1'	MO	DAT	HR 1/10	CRUISE NO.	STATION NUMBER		OK	NG	PER	SEA		TPN	AMT	
31B034	EV		40595N	067310W	151	07	01	20	056	1968	021	0075	00	07	12			X0	0 3		0022
				WATER		WIND		BARO- METER		AIR TEMP °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
				COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	INCHES	MMHG	DRY BULB	WET BULB										
				07	50	28	512	183	050	050	7	07									
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ OTN. M. Σ 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	CHL-A	SiO ₂ -S μg - ml/l	pH	S CTD				
	056	STO	0000	0376	3248	2583	0021793	0000	14624	746											
		085	0000	0376	32477	2583			14624	746					050						
		STO	0010	0376	3248	2583	0021799	0022	14626	744											
		085	0010	0376	32477	2583			14626	744					046						
		STO	0020	0376	3248	2583	0021805	0044	14628	748											
		085	0020	0376	32477	2583			14628	748					065						
		085	0025	0376	32477	2583			14629												
		STO	0030	0376	3248	2583	0021811	0065	14629	738											
		085	0030	0376	32477	2583			14629	738					062						
		085	0040	0376	32477	2583			14631	738					056						
		STO	0050	0376	3248	2583	0021822	0109	14633	738											
		085	0050	0376	32477	2583			14633	738					050						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
CRUISE CODE	NO.					10'	1'	MO	DAT	HR 1/10	CRUISE NO.	STATION NUMBER		OK	NG	PER	SEA		TPN	AMT	
31B034	EV		40270N	067300W	151	07	01	20	086	1968	022	0155	01	09	1	12		X0	0 3		0023
				WATER		WIND		BARO- METER		AIR TEMP °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
				COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	INCHES	MMHG	DRY BULB	WET BULB										
				07	50	27	509	163	056	050	7	12									
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ OTN. M. Σ 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	CHL-A	SiO ₂ -S μg - ml/l	pH	S CTD				
	086	STO	0000	0507	3285	2598	0020315	0000	14684	708											
		085	0000	0507	32845	2598			14684	708					033						
		STO	0010	0506	3285	2599	0020299	0020	14686	726											
		085	0010	0506	32847	2599			14686	726					036						
		STO	0020	0506	3285	2599	0020308	0041	14687	710											
		085	0020	0506	32847	2599			14687	710					034						
		085	0025	0506	32850	2599			14688												
		STO	0030	0507	3286	2600	0020223	0061	14689	723											
		085	0030	0507	32861	2600			14689	723					031						
		085	0040	0507	32861	2600			14691	708					034						
		STO	0050	0510	3287	2600	0020222	0101	14694	705											
		085	0050	0510	32868	2600			14694	705					034						
		085	0066	0511	32887	2601			14697												
		STO	0075	0581	3315	2614	0018928	0150	14731	687											
		085	0075	0581	33151	2614			14731	687					031						
		085	0085	0607	33227	2617			14744												
		085	0093	0949	34246	2647			14891												
		STO	0100	1084	3458	2650	0015641	0193	14945	538											
		085	0100	1084	34584	2650			14945	538					017						

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSden SQUARE NO.	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					15°	1'	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			DIR	PER	STA			
318034	EV	40160N	067300W	151	07	01	20 101	1968	023		1554	15	11	1	1	X1	0 3	0024
				WATER COLOR CODE	WIND		BARO- METER (mm)	AIR TEMP °C		WET BULB	WET BULB	NO. OBS DEPTH	SPECIAL OBSERVATIONS					
					TRANS	DIR		DRY	WET									
				DT	SO	29	510	193	056	050	7	41						
MESSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ DTN, Δ g/g ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₃ -N µg - ml/l	CHL-A	SiO ₂ -Si µg - ml/l	PH	3 CITE	
	101	STD	0000	0530	3301	2609	0019348	0000.	14696	700								
		OBS	0000	0530	33007	2609			14696	700					045			
		STD	0010	0554	3305	2609	0019287	0019	14708	715								
		OBS	0010	0554	33052	2609			14708	715					036			
		STD	0020	0560	3307	2610	0019246	0039	14712	709								
		OBS	0020	0560	33068	2610			14712	709					036			
		OBS	0025	0565	33101	2612			14716									
		STD	0030	0600	3326	2620	0018321	0057	14733	709								
		OBS	0030	0600	33255	2620			14733	709					037			
		OBS	0040	0641	33346	2622			14752	723					036			
		STD	0050	0715	3351	2625	0017670	0094	14785	708								
		OBS	0050	0715	33512	2625			14785	708					047			
		OBS	0060	0745	33646	2631			14800									
		STD	0075	0828	3402	2648	0015721	0136	14839	666								
		OBS	0075	0828	34017	2648			14839	666					034			
		OBS	0081	0819	34004	2648			14837									
		STD	0100	0952	3435	2655	0015164	0174	14894	610								
		OBS	0100	0952	34353	2655			14894	610					018			
		OBS	0105	0960	34474	2660			14907									
		OBS	0115	1328	35498	2674			15043									
		STD	0125	1106	3507	2684	0012504	0209	14963	506								
		OBS	0133	1000	34891	2689			14924									
		STD	0150	0983	3498	2698	0011139	0438	14922	426								
		OBS	0150	0983	34980	2698			14922	426								
		OBS	0158	0972	34968	2699			14919									
		OBS	0170	1061	35180	2700			14956									
		OBS	0188	1010	35083	2702			14939									
		OBS	0198	1017	35109	2703			14944									
		STD	0200	0900	3510	2722	0009027	0289	14901	342								
		OBS	0200	0900	35100	2722			14901	342								
		OBS	0221	0838	35000	2724			14880									
		STD	0250	0815	3500	2727	0008562	0333	14876	365								
		OBS	0250	0815	35000	2727			14876	365								
		OBS	0275	0695	34780	2727			14831									
		OBS	0289	0695	34940	2740			14835									
		STD	0300	0683	3497	2744	0006983	0372	14833									
		OBS	0300	0683	34970	2744			14833									
		OBS	0308	0658	34940	2745			14824									
		OBS	0369	0611	34900	2748			14815									
		OBS	0373	0580	34900	2752			14803									
		STD	0400	0536	3489	2757	0005609	0435	14789									
		OBS	0400	0536	34890	2757			14789									
		STD	0500	0494	3491	2764	0005239	0491	14789									
		OBS	0500	0494	34914	2764			14789									
		STD	0600	0465	3492	2768	0004936	0542	14794									
		OBS	0600	0465	34923	2768			14794									
		STD	0700	0450	3493	2770	0004826	0590	14804									
		OBS	0700	0450	34928	2770			14804									
		STD	0800	0445	3494	2771	0004759	0638	14819									
		OBS	0800	0445	34943	2771			14819									
		STD	0900	0438	3496	2773	0004687	0686	14833									
		OBS	0900	0438	34955	2773			14833									
		STD	1000	0424	3496	2775	0004577	0732	14844									
		OBS	1000	0424	34960	2775			14844									
		STD	1100	0413	3496	2776	0004522	0777	14856									
		OBS	1100	0413	34962	2776			14856									
		STD	1200	0401	3496	2778	0004465	0822	14867									
		OBS	1200	0401	34962	2778			14867									
		STD	1300	0400	3496	2778	0004544	0867	14884									
		OBS	1300	0400	34962	2778			14884									
		OBS	1360	0399	34962	2778			14893									
		STD	1400	0389	3496	2779	0004507	0913	14896									
		OBS	1400	0389	34960	2779			14896									
		STD	1500	0378	3496	2780	0004452	0957	14908									
		OBS	1500	0378	34960	2780			14908									

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

MESSAGE TIME HR	CAS- T NO. 1/10	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANDWALJ-1187	Z Δ D DYN. M. E 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ =P pg - 0.17	TOTAL-P pg - 0.17	NO ₂ =N pg - 0.07	CHL-A	SiO ₂ -S pg - 0.07	pH
124		STD	0000	0491	3287	2602	0019951	0000	14678	716						
		085	0000	0491	32871	2602			14678	716				036		
		STO	0010	0670	3342	2624	0017889	0019	14760	732						
		085	0010	0670	33424	2624			14760	732				036		
		085	0016	0675	33470	2627			14763							
		085	0018	0708	33600	2633			14778							
		STO	0020	0695	3373	2645	0015962	0036	14775	720						
		085	0020	0695	33727	2645			14775	720				036		
		085	0022	0686	33767	2649			14772							
		085	0025	0750	33898	2650			14800							
		STO	0030	0800	3413	2661	0014424	0051	14823	698						
		085	0030	0800	34127	2661			14823	698				047		
		085	0040	0895	34317	2661			14863	714				038		
		STD	0050	1000	3455	2662	0014413	0080	14906	679						
		085	0050	1000	34545	2662			14906	679				029		
		STD	0075	1200	3506	2665	0014153	0116	14988	565						
		085	0075	1200	35058	2665			14988	565				008		
		085	0083	1206	35087	2666			14991							
		085	0097	1018	34647	2667			14922							
		STO	0100	1040	3481	2675	0013250	0150	14932	522						
		085	0100	1040	34807	2675			14932	522				004		
		085	0105	1182	35200	2680			14988							
		085	0122	1245	35587	2697			15019							
		STO	0125	1237	3556	2697	0011284	0181	15015	416						
		STO	0150	1142	3533	2697	0011313	0209	14983	354						
		085	0150	1142	35327	2697			14983	354						
		085	0175	1057	35167	2700			14955							
		085	0181	0941	35027	2709			14912							
		085	0187	0967	35087	2710			14924							
		STD	0200	0898	3504	2717	0009446	0261	14900	363						
		085	0200	0898	35039	2717			14900	363						
		085	0215	0810	34987	2727			14868							
		085	0222	0848	35062	2727			14885							
		STD	0250	0821	3505	2730	0008304	0305	14879	372						
		085	0250	0821	35047	2730			14879	372						
		085	0265	0785	35027	2734			14867							
	085	0267	0752	34980	2735			14854								
	085	0290	0740	34967	2736			14853								
	STD	0300	0700	3495	2740	0007358	0344	14839								
	085	0300	0700	34951	2740			14839								
	085	0320	0652	34914	2744			14823								
	085	0330	0595	34886	2749			14802								
	STO	0400	0527	3486	2755	0005922	0411	14785								
	085	0400	0527	34860	2755			14785								
	STD	0500	0490	3491	2764	0005228	0466	14787								
	085	0500	0490	34909	2764			14787								
	STO	0600	0467	3493	2768	0004901	0517	14795								
	085	0600	0467	34931	2768			14795								
	STD	0700	0453	3494	2770	0004774	0565	14805								
	STO	0800	0440	3495	2773	0004617	0612	14817								
	085	0800	0440	34954	2773			14817								
	STO	0900	0430	3497	2775	0004478	0658	14829								
	STO	1000	0420	3498	2777	0004402	0702	14842								
	085	1000	0420	34977	2777			14842								
	STO	1100	0411	3498	2778	0004365	0746	14855								
	STO	1200	0402	3498	2779	0004331	0789	14868								
	085	1200	0402	34982	2779			14868								
	STO	1300	0394	3498	2780	0004314	0833	14881								
	STO	1400	0386	3498	2781	0004300	0876	14895								
	STO	1500	0379	3498	2782	0004289	0919	14909								
	085	1500	0379	34984	2782			14909								

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-S034.—Continued

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSON SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
					10'	1'	MO	DAY	HR 1/10	CRUISE NO.	DIR			HGT	PER	SEA	TH	AMT						
318034	EV	3929 N	06722 W	115 97	01	20	156	1968		025		2658	15	00	0		x1	0	3		0026			
				COLOR CODE	WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS											
					TEMP	DIR	SPD	OR		CRY	WET													
								SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		SOUND VELOCITY	O ₂ ml/l												
MISSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰									PO ₄ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₃ -N µg - ml/l	CHL-A	SiO ₄ -S µg - ml/l	pH					
	156	STO	0000	1435	3556	2656		0014816	0000	15060	570													
		OBS	0000	1435	35560	2656				15060	570													
		STO	0010	1455	3567	2660		0014451	0015	15069	578							024						
		OBS	0010	1455	35670	2660				15069	576													
		STO	0020	1498	3580	2661		0014426	0029	15086	563							021						
		OBS	0020	1498	35800	2661				15086	563													
		OBS	0025	1508	35840	2662				15091								024						
		STO	0030	1522	3589	2663		0014306	0043	15097	573													
		OBS	0030	1522	35890	2663				15097	573							023						
		OBS	0040	1532	35920	2663				15102	555							024						
		STO	0050	1534	3593	2663		0014303	0072	15104	536													
		OBS	0050	1534	35934	2663				15104	536													
		STO	0075	1535	3594	2664		0014359	0108	15109	542							022						
		OBS	0075	1535	35940	2664				15109	542													
		STO	0100	1535	3594	2663		0014458	0144	15113	527							017						
		OBS	0100	1535	35937	2663				15113	527													
		OBS	0110	1540	35954	2664				15116								013						
		STO	0125	1599	3613	2664		0014523	0180	15139	523													
		OBS	0127	1604	36145	2664				15141														
		STO	0150	1609	3616	2664		0014606	0217	15147	520													
		OBS	0150	1609	36160	2664				15147	520													
		OBS	0190	1623	36202	2664				15158														
		STO	0200	1616	3618	2664		0014770	0290	15157	518													
		OBS	0200	1616	36181	2664				15157	518													
		OBS	0219	1498	35940	2672				15121														
		STO	0250	1329	3573	2691		0012179	0357	15068	386													
		OBS	0250	1329	35727	2691				15068	386													
		STO	0300	1180	3561	2712		0010335	0414	15025														
		OBS	0300	1180	35606	2712				14923														
		STO	0400	0869	3519	2733		0008294	0507	14923														
		OBS	0400	0869	35187	2733				14853														
		STO	0500	0650	3503	2753		0006372	0580	14853														
		OBS	0500	0650	35033	2753				14834														
		OBS	0550	0581	35017	2761				14831														
		STO	0600	0555	3500	2763		0005525	0640	14820														
		OBS	0600	0555	34995	2763				14822														
		OBS	0630	0515	34977	2766				14828														
		STO	0700	0492	3499	2770		0004882	0692	14828														
		STO	0800	0466	3500	2773		0004626	0739	14828														
		OBS	0800	0466	34996	2773				14839														
		STO	0900	0453	3500	2775		0004564	0785	14850														
		STO	1000	0439	3500	2776		0004485	0830	14850														
		OBS	1000	0439	34998	2776				14861														
		STO	1100	0424	3499	2777		0004454	0875	14872														
		STO	1200	0412	3499	2779		0004413	0919	14872														
		OBS	1200	0412	34988	2779				14886														
		STO	1300	0405	3499	2779		0004425	0964	14900														
		STO	1400	0399	3499	2780		0004446	1008	14900														
		OBS	1400	0399	34986	2780				14910														
		OBS	1470	0395	34987	2780																		

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-I; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE 1/10	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES TYPE (amt)	HODC STATION NUMBER			
CRUISE CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	PER			SEA		
318034	EV		3932 N	06823 W	115 98 01 20 210	1968					026		2926	15	9	1	2	X1	03	0027		
		WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS.		SPECIAL OBSERVATIONS										
		COLOR		TRANSM. (m)		DIR.		SPEED (KTS)		DAY BULB		WET BULB		VIL CODE		OBS. DEFINIS						
		DT		SD		27		508		193		078		072		7		21				
MESSAGE HR 1/10	CAS- NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-319	Σ Δ ρ DYN. M. R 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	CHL-A	SI O ₂ -S μg - ml/l	pH	S C					
		STD	0000	1303	3520	2656	0014865	0000	15012	582												
210		OBS	0000	1303	35197	2656			15012	582				044								
		STD	0010	1304	3521	2656	0014838	0015	15014	581												
		OBS	0010	1304	35207	2656			15014	581				047								
		STD	0020	1306	3523	2658	0014720	0030	15017	579												
		OBS	0020	1306	35232	2658			15017	579				040								
		OBS	0025	1308	35238	2658			15018													
		STD	0030	1308	3524	2658	0014742	0044	15019	583												
		OBS	0030	1308	35238	2658			15019	583				039								
		OBS	0040	1309	35241	2658			15021	569				041								
		STD	0050	1309	3525	2658	0014757	0074	15023	571												
		OBS	0050	1309	35246	2658			15023	571				034								
		STD	0075	1320	3533	2662	0014445	0110	15032	561												
		OBS	0075	1320	35327	2662			15032	561				024								
		STD	0100	1339	3540	2664	0014321	0146	15043	558												
		OBS	0100	1339	35404	2664			15043	558				023								
		OBS	0120	1344	35495	2670			15049													
		STD	0125	1321	3549	2675	0013408	0181	15042	511												
		STD	0150	1221	3546	2692	0011783	0212	15012	460												
		OBS	0150	1221	35460	2692			15012	460												
		STD	0200	1105	3534	2705	0010702	0269	14979	343												
		OBS	0200	1105	35337	2705			14979	343												
		STD	0250	0962	3521	2720	0009313	0319	14934	314												
		OBS	0250	0962	35210	2720			14934	314												
		STD	0300	0865	3511	2728	0008590	0363	14905													
		OBS	0300	0865	35112	2728			14905													
		STD	0400	0679	3501	2748	0006759	0440	14848													
		OBS	0400	0679	35014	2748			14848													
		STD	0500	0560	3500	2762	0005452	0501	14817													
		OBS	0500	0560	34996	2762			14817													
		STD	0600	0501	3499	2769	0004876	0553	14809													
		OBS	0600	0501	34990	2769			14809													
		STD	0700	0472	3500	2773	0004560	0600	14814													
		STD	0800	0449	3500	2776	0004372	0645	14821													
		OBS	0800	0449	35002	2776			14821													
		STD	0900	0435	3499	2776	0004392	0689	14832													
		STD	1000	0422	3499	2777	0004361	0732	14843													
		OBS	1000	0422	34986	2777			14843													
		STD	1100	0409	3499	2779	0004296	0776	14854													
		STD	1200	0399	3499	2780	0004271	0818	14867													
		OBS	1200	0399	34985	2780			14867													
		STD	1300	0391	3498	2780	0004297	0861	14880													
		STD	1400	0384	3498	2781	0004297	0904	14894													
		STD	1500	0380	3498	2781	0004346	0948	14909													
		OBS	1500	0380	34978	2781			14909													

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE SHIP CODE	SHIP CODE	LATITUDE ° ' 10"	LONGITUDE ° ' 10"	DATE 1968	STATION TIME 151 08 01 21 011			YEAR	ORIGINATOR'S CRUISE NO. STATION NUMBER		DEPTH TO BOTTOM	WAVE OBSERVATIONS	WIND DIRECTION SPEED	CLOUD CODES	NODC STATION NUMBER	
					151	08	01		027	2250	15	9	1	2		
318034	EV	4002 N	06828 W	151	08	01	21	011	1968	027	2250	15	9	1	2	0028
					WATER		WIND		BARO-		AIR TEMP °C		VIS		NO. OBS.	
					COLOR		DIR.		METER		DRY		WET		OBS.	
					CODE		OR		SMALL		BULB		BULB		DEPTH	
					OT		50		27		179		050		050	
MEASURED TIME OF DAY	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Δρ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ (m/l)	PO ₄ -P μg - m/l	TOTAL-P μg - m/l	NO ₃ -N μg - m/l	CHL-A	SIO ₄ -Si μg - m/l	pH
	011	STO	0000	0600	3316	2612	0019012	0000	14726	693						
		OBS	0000	0600	33158	2612			14726	693				043		
		OBS	0005	0860	33716	2620			14836							
		STO	0010	0800	3376	2632	0017097	0018	14815	705						
		OBS	0010	0800	33763	2632			14815	705				038		
		STO	0020	0839	3395	2641	0016289	0035	14834	641						
		OBS	0020	0839	33949	2641			14834	641				022		
		OBS	0025	0900	34227	2653			14861							
		STO	0030	0907	3425	2654	0015109	0050	14865	682						
		OBS	0030	0907	34247	2654			14865	682				050		
		OBS	0040	0931	34297	2654			14876	649				043		
		STO	0050	0966	3438	2655	0015070	0081	14892	642						
		OBS	0050	0966	34382	2655			14892	642				018		
		STO	0075	1020	3454	2658	0014824	0118	14918	630						
		OBS	0075	1020	34541	2658			14918	630				024		
		STO	0100	1202	3519	2675	0013306	0153	14994	596						
		OBS	0100	1202	35187	2675			14994	596						
		OBS	0110	1257	35400	2681			15017					035		
		OBS	0115	1163	35387	2698			14986							
		STO	0125	1164	3540	2699	0011106	0184	14988	582						
		OBS	0130	1164	35407	2699			14989							
		STO	0150	1114	3535	2704	0010675	0211	14974	533						
		OBS	0150	1114	35346	2704			14974	533						
		STO	0200	0979	3520	2717	0009529	0261	14932	327						
		OBS	0200	0979	35204	2717			14932	327						
		STO	0250	0868	3511	2727	0008583	0307	14897	327						
		OBS	0250	0868	35106	2727			14897	327						
		STO	0300	0783	3505	2736	0007831	0348	14873							
		OBS	0300	0783	35047	2736			14873							
		OBS	0340	0721	35047	2745			14855							
		OBS	0360	0650	34944	2746			14829							
		STO	0400	0592	3499	2758	0005765	0416	14813							
		OBS	0400	0592	34991	2758			14813							
		OBS	0420	0527	34905	2759			14789							
		OBS	0445	0541	34954	2761			14800							
		OBS	0465	0501	34922	2763			14786							
		STO	0500	0487	3493	2765	0005058	0470	14786							
		OBS	0500	0487	34927	2765			14786							
		STO	0600	0462	3495	2770	0004737	0519	14793							
		OBS	0600	0462	34945	2770			14793							
		STO	0700	0441	3494	2772	0004600	0565	14800							
		OBS	0700	0441	34944	2772			14800							
		STO	0800	0439	3496	2773	0004560	0611	14816							
		OBS	0800	0439	34960	2773			14816							
		STO	0900	0431	3497	2775	0004527	0657	14830							
		OBS	0900	0431	34965	2775			14830							
		STO	1000	0420	3497	2776	0004469	0702	14842							
		OBS	1000	0420	34968	2776			14842							
		STO	1100	0416	3497	2776	0004523	0747	14857							
		OBS	1100	0416	34967	2776			14857							
		STO	1200	0408	3497	2777	0004510	0792	14870							
		OBS	1200	0408	34968	2777			14870							
		STO	1300	0400	3497	2778	0004508	0837	14884							
		OBS	1300	0400	34967	2778			14884							
		STO	1400	0391	3497	2779	0004482	0882	14897							
		OBS	1400	0391	34967	2779			14897							
		STO	1500	0384	3497	2780	0004457	0927	14911							
		OBS	1500	0384	34970	2780			14911							

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SST NO.		STATION TIME		YEAR	ORIGINATOR'S		DEPTH OF BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODE TYPE AMT	MOOD STATION NUMBER				
CIT CODE	ID. NO.				15"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	AIR TEMP °C	SEA TEMP °C	NO. DIR. SUN				VIS SM	NO. DIR. WIND	NO. DIR. SEA	
318034	EV		40150N	068290W	151	08	01	21	030	1968	028		0174	01	06	2	4	X0	0	3		0029		
					WATER		WIND				AIR TEMP °C		NO. DIR. SUN		VIS SM		NO. DIR. WIND		NO. DIR. SEA					
					COLOR	TRAN.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.	DIR.			
					CODE	PH	OR.	SPED OR FORCE	BARO- METER	DRY BULB	WET BULB	WIL CODE	NO. DIR. SUN	VIS SM	NO. DIR. WIND	NO. DIR. SEA	NO. DIR. WIND	NO. DIR. SEA	NO. DIR. WIND	NO. DIR. SEA	NO. DIR. WIND			
					DT	50	26	514	179	050	050	7	14											
MESSINGS TIME HR 1/10		CAS NO.	CARD TYPE	DEPTH m	T °C	S %	SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		S Δ D OFN. M. ± 10'	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P mg - ml/l	TOTAL-S mg - ml/l	NO ₃ -N mg - ml/l	CHL-A	SiO ₂ -Si mg - ml/l	pH					
030			STO	0000	0475	3264	2585		0021544		0000	14668	725											
			OBS	0000	0475	32637	2585					14668	725						034					
			STO	0010	0475	3266	2587		0021364		0021	14670	740											
			OBS	0010	0475	32662	2587					14670	740						033					
			STO	0020	0559	3304	2608		0019452		0042	14711	723											
			OBS	0020	0559	33039	2608					14711	723						040					
			STO	0030	0581	3311	2610		0019221		0061	14723	679											
			OBS	0030	0581	33105	2610					14723	679						022					
			OBS	0037	0600	33267	2621					14734												
			OBS	0040	0648	33587	2640					14758	683						019					
			STO	0050	0760	3380	2641		0016331		0097	14806	671											
			OBS	0050	0760	33800	2641					14806	671						020					
			OBS	0060	0959	34200	2642					14888												
			STO	0075	1065	3445	2643		0016248		0137	14933	624						023					
			OBS	0075	1065	34450	2643					14933	624											
			OBS	0080	1094	34570	2647					14945												
		STO	0100	1129	3468	2649		0015718		0177	14962	604						020						
		OBS	0100	1129	34680	2649					14962	604												
		STO	0125	1174	3492	2660		0014809		0216	14985	591												
		OBS	0132	1186	34940	2659					14991													
		OBS	0136	1181	34940	2660					14990													
		STO	0150	1181	3495	2661		0014787		0253	14992	584												
		OBS	0150	1181	34950	2661					14992	584												

REFERENCE		SHIP CODE	LATITUDE ° S/N	LONGITUDE ° E/W	MARSIGEN SQUARE		STATION TIME DATE				YEAR	ORIGINATOR'S CRUISE NO. STATION NUMBER		DEPTH TO BOTTOM	MAR DEPTH OF SURFACE	WAVE OBSERVATIONS				WIND CODE	CLOUD CODES TYPE AMT	HOC STATION NUMBER
CTRY CODE	ID NO.				10"	1'	MO	DAY	HR	MIN						DIR	HEIGHT	SWA				
318034	EV	40310N	068280W	151	08	01	21	047	1968			029	0088	01	09	1	4		X1	0	3	0030
					WATER		WIND		BARO-METER		AIR TEMP °C		NO. ORL		VIS CODE		SPECIAL OBSERVATIONS					
					COLOUR CODE	TRANS	DIR	OF FORCE	INCHES	FEET	RULE	WEST RULE	DEPTHS									
					01	50	27	508	176	050	050	7	08									
MESSAGE TIME & NR		CASIT NO.	CARD TYPE	DEPTH MET	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-10°C		$\Sigma \Delta OYN$ # 103	SOUND VELOCITY		P ₀ =P ₀ -P ₀ -P ₀ /m/l	TOTAL-E ₀ =E ₀ -E ₀ -E ₀ /m/l	NO ₂ -N ₂ =N ₂ -N ₂ -N ₂ /m/l	OR-A	SIO ₄ -S ₄ =S ₄ -S ₄ -S ₄ /m/l	pH			
047			STO	0000	0397	3231	2567		0023268		0000	14631	735									
		OBS	0000	0397	32307	2567						14631	735							074		
		STD	0010	0397	3232	2568		0023198		0023	14633	738										
		OBS	0010	0397	32317	2568						14633	738							057		
		STD	0020	0397	3232	2568		0023182		0046	14635	749										
		OBS	0020	0397	32320	2568						14635	749							068		
		OBS	0025	0402	32326	2568						14638										
		STD	0030	0404	3234	2569		0023103		0070	14639	742										
		OBS	0030	0404	32340	2569						14639	742							068		
		OBS	0040	0415	32362	2570						14646	740							076		
		STD	0050	0421	3237	2570		0023030		0116	14650	733										
		OBS	0050	0421	32373	2570						14650	733							074		
		STD	0075	0425	3238	2570		0023018		0173	14656	722										
		OBS	0075	0425	32382	2570						14656	722							071		

[illegible]

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
							CRUISE NO.	STATION NUMBER						
31B034	EV	41310N	068255W	151 18 01 21	102	1968	031	0044	00	02	0 2	x2	0 3	0032

WATER	WIND	BARO- METER (mb)	AIR TEMP °C	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M	DIR. OR FORCE	DRY BULB	WET BULB	VIS CODE
07	50	21	504	190	050
050	050	050	7	06	

MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	1 °C	5 %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN, M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - dl/l	TOTAL-P pg - dl/l	NO ₂ -N pg - dl/l	CHL-A	SI O ₄ -S pg - dl/l	PH	S CT
		STO	0000	0387	3257	2589	0021215	0000	14630	726							
		OBS	0000	0387	32567	2589			14630	726							
		STO	0010	0387	3257	2589	0021221	0021	14632	727					048		
		OBS	0010	0387	32567	2589			14632	727							
		STO	0020	0387	3257	2589	0021227	0042	14634	730					051		
		OBS	0020	0387	32567	2589			14634	730							
		OBS	0025	0387	32567	2589			14634	730					038		
		STO	0030	0387	3257	2589	0021233	0064	14635	726							
		OBS	0030	0387	32567	2589			14635	726							
		OBS	0040	0387	32567	2589			14637	724					043		
															044		

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
							CRUISE NO.	STATION NUMBER						
31B034	EV	41450N	068305W	151 18 01 21	118	1968	032	0166	01	09	0 2	x2	0 3	0033

WATER	WIND	BARO- METER (mb)	AIR TEMP °C	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M	DIR. OR FORCE	DRY BULB	WET BULB	VIS CODE
07	50	21	504	183	050
050	050	050	7	14	

MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	1 °C	5 %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN, M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - dl/l	TOTAL-P pg - dl/l	NO ₂ -N pg - dl/l	CHL-A	SI O ₄ -S pg - dl/l	PH	S CT
		STO	0000	0400	3263	2593	0020830	0000	14637	720							
		OBS	0000	0400	32634	2593			14637	720							
		STO	0010	0400	3263	2593	0020837	0021	14638	734					039		
		OBS	0010	0400	32634	2593			14638	734							
		STO	0020	0402	3264	2593	0020802	0042	14641	738					033		
		OBS	0020	0402	32642	2593			14641	738							
		OBS	0025	0403	32645	2594			14642						029		
		STO	0030	0404	3265	2594	0020790	0062	14644	723							
		OBS	0030	0404	32647	2594			14644	723					031		
		OBS	0040	0403	32645	2594			14645	717					031		
		STO	0050	0404	3265	2594	0020804	0104	14647	726							
		OBS	0050	0404	32647	2594			14647	726							
		OBS	0070	0405	32666	2595			14651						038		
		STO	0075	0415	3273	2599	0020325	0155	14657	699							
		OBS	0075	0415	32727	2599			14657	699					021		
		STO	0100	0477	3313	2624	0017987	0203	14692	625							
		OBS	0100	0477	33125	2624			14692	625					006		
		OBS	0110	0487	33227	2631			14699								
		OBS	0115	0504	33455	2647			14710								
		STO	0125	0518	3356	2654	0015200	0245	14719	559							
		OBS	0130	0523	33610	2657			14722								
		STO	0150	0536	3378	2669	0013801	0281	14733	502							
		OBS	0150	0536	33778	2669			14733	502							

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
							CRUISE NO.	STATION NUMBER						
31B034	EV	42005N	068275W	151 28 01 21	137	1968	033	0177	02	00	0 1	x2	0 3	0034

WATER	WIND	BARO- METER (mb)	AIR TEMP °C	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M	DIR. OR FORCE	DRY BULB	WET BULB	VIS CODE
07	50	21	512	125	056
056	056	056	7	13	

MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	1 °C	5 %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN, M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - dl/l	TOTAL-P pg - dl/l	NO ₂ -N pg - dl/l	CHL-A	SI O ₄ -S pg - dl/l	PH	S CT
		STO	0000	0405	3261	2590	0021081	0000	14638	722							
		OBS	0000	0405	32607	2590			14638	722							
		STO	0010	0405	3262	2592	0020959	0021	14640	735					029		
		OBS	0010	0405	32624	2592			14640	735							
		STO	0020	0405	3263	2592	0020936	0042	14642	730					039		
		OBS	0020	0405	32628	2592			14642	730							
		OBS	0025	0405	32629	2592			14643						036		
		STO	0030	0405	3263	2592	0020928	0063	14644	731							
		OBS	0030	0405	32630	2592			14644	731							
		OBS	0040	0405	32641	2593			14646	720					039		
		STO	0050	0405	3267	2596	0020610	0104	14648	721					035		
		OBS	0050	0405	32674	2596			14648	721							
		STO	0075	0405	3271	2598	0020356	0156	14652	705					037		
		OBS	0075	0405	32710	2598			14652	705							
		STO	0100	0418	3277	2602	0020019	0206	14663	708					021		
		OBS	0100	0418	32774	2602			14663	708							
		OBS	0120	0453	33052	2621			14684						018		
		STO	0125	0474	3320	2630	0017415	0253	14696	654							
		OBS	0135	0501	33398	2643			14711								
		STO	0150	0508	3344	2645	0016027	0295	14717	536							
		OBS	0150	0508	33438	2645			14717	538							
		OBS	0159	0509	33447	2646			14719								

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP CODE	LATITUDE ° 1°/10	LONGITUDE ° 1°/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	HOOC STATION NUMBER	
CITY CODE	IO. NO.					10'	1"	MO	DAY		HR	1°/10			CRUISE NO.	STATION NUMBER	DR				HGT
318034	EV		42315N	068270W	151	28	31	21	169	1968	034		0216	02	03	02		X2	03		0035
				WATER		WIND		BARO- METER		AIR TEMP °C		VIL CODE	NO. OBS DEPTH	SPECIAL OBSERVATIONS							
				COLOR CODE	WAVE DIR.	WAVE HGT	WAVE PER	WAVE DIR.	WAVE HGT	WAVE PER	WAVE DIR.					WAVE HGT					
				OT	50	21	512	091	050	044	7	20									
MESSAGE NO.	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	S.D. D OBS. M $\pm 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₃ -N µg - ml/l	Chl-A	SiO ₄ -Si µg - ml/l	pH	IC				
169		STO	0000	0407	3286	2610	0019223	0000	14643	713											
		OBS	0000	0407	32856	2610			14643	713					036						
		STO	0010	0403	3285	2610	0019215	0019	14643	722											
		OBS	0010	0403	32853	2610			14643	722					027						
		STO	0020	0403	3285	2610	0019222	0036	14644	720											
		OBS	0020	0403	32853	2610			14644	720					031						
		OBS	0025	0403	32853	2610			14645												
		STO	0030	0403	3286	2610	0019199	0058	14646	720											
		OBS	0030	0403	32857	2610			14646	720					033						
		OBS	0040	0401	32857	2611			14647	710					030						
		STO	0050	0401	3288	2613	0019006	0096	14649	715											
		OBS	0050	0401	32882	2613			14649	715					027						
		OBS	0070	0415	32927	2615			14659												
		STO	0075	0428	3297	2617	0018648	0143	14665	724											
		OBS	0075	0428	32967	2617			14665	724					020						
		OBS	0085	0460	33026	2618			14681												
		STO	0100	0476	3308	2621	0018299	0189	14691	690											
		OBS	0100	0476	33082	2621			14691	690					014						
		STO	0125	0514	3332	2635	0016949	0233	14714	587											
		OBS	0128	0519	33350	2637			14717												
	OBS	0132	0500	33347	2639			14710													
	OBS	0138	0507	33417	2644			14715													
	OBS	0140	0527	33480	2646			14724													
	STO	0150	0529	3353	2650	0015583	0274	14727	520												
	OBS	0150	0529	33529	2650			14727	520												
	OBS	0160	0529	33706	2664			14731													
	OBS	0170	0540	33818	2671			14739													
	OBS	0190	0601	34417	2711			14775													
	STO	0200	0603	3448	2716	0009468	0336	14778	495												
	OBS	0200	0603	34475	2716			14778	495												

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	HOOC STATION NUMBER		
					10°	1'	MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DR				HGT	PER
31B034	EV	43010N	068260W	151	38	01	21	213	1968		035		0196	02	05	2	2	X2	03		0036
				WATER		WIND		AIR TEMP °C		VIL CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				COLOR CODE	WAVE DIR.	WAVE HGT	WAVE PER	WAVE DIR.	WAVE HGT	WAVE PER	WAVE DIR.	WAVE HGT									
				OT	50	25	515	054	044	044	7	14									
MESSAGE NR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	S.D. D OBS. M ± 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₃ -N µg - ml/l	Chl-A	SiO ₄ -Si µg - ml/l	pH	IC				
213		STO	0000	0375	3291	2617	0018540	0000	14630	727											
		OBS	0000	0375	32907	2617			14630	727					022						
		STO	0010	0375	3291	2617	0018547	0019	14631	729											
		OBS	0010	0375	32907	2617			14631	729					019						
		STO	0020	0375	3291	2617	0018553	0037	14633	729											
		OBS	0020	0375	32907	2617			14633	729					020						
		OBS	0025	0376	32910	2617			14634												
		STO	0030	0376	3292	2618	0018509	0056	14635	726											
		OBS	0030	0376	32915	2618			14635	726					016						
		OBS	0040	0380	32924	2618			14639	751					022						
		STO	0050	0380	3293	2618	0018469	0093	14640	713											
		OBS	0050	0380	32927	2618			14640	713					018						
		STO	0075	0389	3297	2620	0018284	0139	14649	714											
		OBS	0075	0389	32965	2620			14649	714					019						
		STO	0100	0401	3303	2624	0017965	0184	14659	704											
		OBS	0100	0401	33025	2624			14659	704					012						
	OBS	0124	0441	33252	2638			14683													
	STO	0125	0452	3328	2639	0016583	0227	14688	650												
	OBS	0127	0470	33317	2640			14696													
	OBS	0141	0495	33436	2646			14710													
	STO	0150	0530	3362	2657	0014936	0266	14729	552												
	OBS	0150	0530	33617	2657			14729	552												
	OBS	0180	0551	33705	2661			14743													

ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSDEN SOLAR TIME		STATION TIME		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES		WDC STATION NUMBER																											
CITY CODE	ID. NO.				10'	1"	MO	DAY		HR.	1/10			CRUISE NO.	STATION NUMBER		DIR	PER		SEA	TYPE	AMT																								
318034	EV	43310N	068285W	151	38	01	21	233	1968	036	0168	02	Q8	1	2	X1	0	3	0037																											
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">AIR TEMP. °C</th><th colspan="2">NO. OBS. DEPTHS</th><th rowspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS. UNIT</th><th>DIR.</th><th>SPEED OR FORCE</th><th>BARD-METER</th><th>DRY BULB</th><th>WET BULB</th><th>VIS CODE</th></tr><tr><td>0T</td><td>50</td><td>29</td><td>518</td><td>058</td><td>044</td><td>046</td><td>7</td><td>14</td><td></td></tr></table>																				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARD-METER	DRY BULB	WET BULB	VIS CODE	0T	50	29	518	058	044	046	7	14	
WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																						
COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARD-METER	DRY BULB	WET BULB	VIS CODE																																							
0T	50	29	518	058	044	046	7	14																																						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MWT-C10°	Σ Δ D DYN. M. ± 10'	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P ± 0.1	TOTAL P ± 0.1	NO ₃ -N ± 0.1	OR-A	S/O ₂ -S ± 0.1	pH																														
233		STD	0000	0367	3284	2612	0019008	0000	14625	715																																				
		OBS	0000	0367	32836	2612			14625	715					021																															
		STD	0010	0367	3284	2612	0019014	0019	14627	729																																				
		OBS	0010	0367	32836	2612			14627	729					018																															
		STD	0020	0367	3284	2612	0019020	0038	14629	722																																				
		OBS	0020	0367	32836	2612			14629	722					021																															
		OBS	0025	0367	32836	2612			14630																																					
		STD	0030	0367	3284	2612	0019027	0057	14630	720																																				
		OBS	0030	0367	32836	2612			14630	720					019																															
		OBS	0040	0367	32836	2612			14632	708					020																															
		STD	0050	0374	3285	2613	0018958	0095	14637	718																																				
		OBS	0050	0374	32855	2613			14637	718					021																															
		STD	0075	0380	3287	2614	0018894	0142	14644	717																																				
		OBS	0075	0380	32873	2614			14644	717					018																															
		OBS	0087	0395	32909	2615			14653																																					
		STD	0100	0455	3307	2622	0018142	0188	14682	689																																				
	OBS	0100	0455	33074	2622			14682	689					010																																
	OBS	0120	0482	33167	2627			14698																																						
	STD	0125	0487	3319	2628	0017631	0233	14701	633																																					
	OBS	0137	0500	33247	2631			14709																																						
	STD	0150	0573	3352	2644	0016132	0275	14745	549																																					
	OBS	0150	0573	33525	2644			14745	549																																					
	OBS	0160	0590	33567	2646			14754																																						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARGIN SOFT	STATION TIME			YEAR	ORIGINATOR'S		DEPTH 10 BOTTOM	MAX DEPTH DI S'MPL'S	WAVE OBSERVATIONS	WEA- TH CODE	CLOUD CODES	NDDC STATION NUMBER		
CTRY CODE	IO NO.					10"	1"	MO		DAY	HR 1/10							CRUISE NO.	STATION NUMBER
318034	EV	43500N	68280 W	213	32	01	22	016	1968	037	0137	01	12	3	2	X0	0 3	0038	
						WATER		WIND		AIR TEMP °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						CODE CODE		TRANS- MIT DIR.		SPEED OF CURRENT		BARO- METER		WET BULB		VIS CODE			
						0T		50 29		530		095		022		017 7		15	
RESIDUE TIME 5" HR 1/10	CALC NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D DIN M ± 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg ± 0.1/l	TOTAL-P μg ± 0.1/l	NO ₃ -N μg ± 0.1/l	CHL-A	SI O ₂ -S μg ± 0.1/l	PH	
	016	ST0	0000	0252	3270	2612		0019058		0000	14574	751							
		OBS	0000	0252	32702	2612					14574	751					027		
		ST0	0010	0254	3271	2612		0018986		0019	14577	758							
		OBS	0010	0254	32714	2612					14577	758					026		
		ST0	0020	0257	3272	2612		0018990		0038	14580	747							
		OBS	0020	0257	32711	2612					14580	747					022		
		OBS	0025	0260	32720	2612					14582								
		ST0	0030	0260	3272	2612		0018986		0057	14583	756							
		OBS	0030	0260	32721	2612					14583	756					025		
		OBS	0036	0261	32722	2612					14584								
		OBS	0037	0275	32737	2612					14591								
		OBS	0040	0273	32737	2613					14590	742					021		
		ST0	0050	0278	3275	2613		0018954		0095	14594	751							
		OBS	0050	0278	32745	2613					14594	751					023		
	OBS	0052	0282	32764	2614					14596									
	OBS	0058	0317	32802	2614					14613									
	OBS	0070	0338	32830	2614					14624									
	ST0	0075	0340	3283	2614		0018835		0142	14626	715								
	OBS	0075	0340	32832	2614					14626	715					020			
	OBS	0080	0342	32855	2616					14628									
	ST0	0100	0371	3290	2617		0018628		0189	14644	699								
	OBS	0100	0371	32899	2617					14644	699					017			

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	E 1/10	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
								CRUISE NO.	STATION NUMBER			DR	HGT M	PER SEC				SEA
318034	EV	4330 N	06930 W	151	39 01 22	065	1908	038		0146	01	11	2	2	X0	0 3	0039	
				E	WATER		WIND	BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
					COLOR CODE	TRANSL UNIT		DIL. OR FORCE	DRY BULB	WET BULB								
				DT	50	29	518	159	506	506	8	12						
MESSAGE TIME HB 1/10	CAS NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ	Σ Δ D DTN, M. S 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	CHL-A	SiO ₂ -Si pg - ml/l	pH	CONT.	
065	ST0	0000	0375	3283	2611	0019151	0000	14629	724									
	OBS	0000	0375	32826	2611			14629	724					030				
	ST0	0010	0375	3283	2611	0019158	0019	14630	717									
	OBS	0010	0375	32826	2611			14630	717					031				
	ST0	0020	0376	3283	2611	0019151	0038	14632	715									
	OBS	0020	0376	32829	2611			14632	715					024				
	OBS	0025	0376	32829	2611			14633										
	ST0	0030	0376	3283	2611	0019157	0057	14634	702									
	OBS	0030	0376	32829	2611			14634	702					028				
	OBS	0040	0376	32829	2611			14636	713					010				
	ST0	0050	0376	3283	2611	0019170	0096	14637	706									
	OBS	0050	0376	32829	2611			14637	706					023				
	ST0	0075	0376	3283	2611	0019186	0144	14642	697									
	OBS	0075	0376	32829	2611			14642	697					025				
	OBS	0082	0382	32845	2611			14645										
065	OBS	0090	0410	32927	2615			14660										
	OBS	0093	0454	33019	2618			14680										
	ST0	0100	0472	3307	2620	0018369	0191	14689	613									
	OBS	0100	0472	33067	2620			14689	613					022				

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	E 1/10	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
								CRUISE NO.	STATION NUMBER			DR	HGT M	PER SEC				SEA
318034	EV	42580N	06930 W	151	29 01 22	095	1968	039		0150	01	12	0	2	X0	0 3	0040	
				E	WATER		WIND	BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
					COLOR CODE	TRANSL UNIT		DIL. OR FORCE	DRY BULB	WET BULB								
				DT	50	30	520	190	506	506	7	09						
MESSAGE TIME HB 1/10	CAS NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ	Σ Δ D DTN, M. S 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	CHL-A	SiO ₂ -Si pg - ml/l	pH	CONT.	
095	ST0	0000	0410	3294	2617	0018589	0000	14645	734									
	OBS	0000	0410	32944	2617			14645	734					029				
	ST0	0010	0410	3294	2617	0018596	0019	14647	716									
	OBS	0010	0410	32944	2617			14647	716					029				
	ST0	0020	0410	3294	2617	0018604	0037	14648	708									
	OBS	0020	0410	32944	2617			14648	708					029				
	OBS	0025	0410	32944	2617			14649										
	ST0	0030	0410	3294	2617	0018611	0056	14650	700									
	OBS	0030	0410	32944	2617			14650	700					028				
	OBS	0040	0411	32945	2617			14652	704					027				
	ST0	0050	0412	3295	2617	0018623	0093	14654	706									
	OBS	0050	0412	32947	2617			14654	706					025				
	ST0	0075	0415	3295	2617	0018640	0140	14660	704									
	OBS	0075	0415	32951	2617			14660	704					027				
	ST0	0100	0418	3295	2617	0018666	0186	14665	696									
	OBS	0100	0418	32954	2617			14665	696					027				

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	E 1/10	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
								CRUISE NO.	STATION NUMBER			DR	HGT M	PER SEC				SEA
318034	EV	42598N	070298W	152	20 01 22	137	1968	040		0091	01					X0	0 3	0041
				E	WATER		WIND	BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
					COLOR CODE	TRANSL UNIT		DIL. OR FORCE	DRY BULB	WET BULB								
				DT	50	36	505	220	006	006	8	12						
MESSAGE TIME HB 1/10	CAS NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ	Σ Δ D DTN, M. S 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	CHL-A	SiO ₂ -Si pg - ml/l	pH	CONT.	
137	ST0	0000	0265	3260	2602	0019931	0000	14578	732									
	OBS	0000	0265	32600	2602			14578	732					034				
	ST0	0010	0265	3260	2602	0019934	0020	14580	732									
	OBS	0010	0265	32600	2602			14580	732					032				
	ST0	0020	0272	3261	2602	0019932	0040	14585	724									
	OBS	0020	0272	32608	2602			14585	724					030				
	OBS	0025	0273	32626	2604			14586										
	ST0	0030	0279	3263	2604	0019802	0060	14590	730									
	OBS	0030	0279	32633	2604			14590	730					031				
	OBS	0031	0279	32634	2604			14590										
	OBS	0034	0326	32685	2604			14611										
	OBS	0040	0340	32703	2604			14619	713					031				
	OBS	0044	0340	32704	2604			14619										
	ST0	0050	0379	3276	2605	0019740	0099	14638	710									
	OBS	0050	0379	32757	2605			14638	710					030				
	ST0	0075	0395	3282	2608	0019463	0148	14649	672									
	OBS	0075	0395	32816	2608			14649	672					021				
	OBS	0078	0395	32816	2608			14650										

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	MARSDEN SQUARE	STATION TIME ICMST	YEAR	ORIGINATOR'S		DEPTH NO. BOTTOM	MAX DEPTH OF SAMPLER'S	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																					
								CRUISE NO.	STATION NUMBER																											
31B034	EV	42294N	070302W	152	20	01 22 166	1968	041		0064	00	00	0	X	0042																					
<table border="1"> <tr> <td>WATER</td><td>WIND</td><td>BARO- METER</td><td>AIR TEMP °C</td><td>VIS. CODE</td><td>NO. OBS. DEPTHS</td><td>SPECIAL OBSERVATIONS</td></tr> <tr> <td>COLOR CODE</td><td>TRANS. DIR.</td><td>DIR. OF FORCE</td><td>DRY BULB</td><td>WET BULB</td><td></td><td></td></tr> <tr> <td>DT</td><td>SD</td><td>00</td><td>500</td><td>217</td><td>017</td><td>8 07</td></tr> </table>																WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB			DT	SD	00	500	217	017	8 07
WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																														
COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB																																
DT	SD	00	500	217	017	8 07																														
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. F 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - σ _t /l	TOTAL-P pg - σ _t /l	NO ₃ -N pg - σ _t /l	OR-A	SiO ₂ -Si pg - σ _t /l	pH	S C C																			
		STD	0000	0232	3227	2578	0022207	0000	14559	743																										
	166	OBS	0000	0232	32267	2578			14559	743																										
		STD	0010	0232	3227	2578	0022209	0022	14561	747					030																					
		OBS	0010	0232	32267	2578			14561	747																										
		STD	0020	0232	3227	2579	0022203	0044	14563	740					026																					
		OBS	0020	0232	32268	2579			14563	740																										
		OBS	0025	0231	32283	2580			14563						031																					
		STD	0030	0235	3232	2582	0021856	0066	14566	736																										
		OBS	0030	0235	32317	2582			14566	736						032																				
		OBS	0040	0281	32459	2590			14590	724					030																					
		STD	0050	0308	3252	2592	0020924	0109	14604	705																										
		OBS	0050	0308	32517	2592			14604	705						031																				

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN	STATION TIME	YEAR	ORIGINATOR'S		DEPTH	MAX	WAVE	WEA-	CLOUD	NODC																					
CRUISE	ID. NO.	° 1/10	° 1/10	MO DAY	SQUARE	ICMST		CRUISE	STATION	NO.	DEPTH	OBS.	THER	CODES	STATION																					
CODE	NO.																																			
31B034	EV	41595N	070303W	152	10	01 22 193	1968	042		0034	00	00	0	X	0043																					
<table border="1"> <tr> <td>WATER</td><td>WIND</td><td>BARO- METER</td><td>AIR TEMP °C</td><td>VIS. CODE</td><td>NO. OBS. DEPTHS</td><td>SPECIAL OBSERVATIONS</td></tr> <tr> <td>COLOR CODE</td><td>TRANS. DIR.</td><td>DIR. OF FORCE</td><td>DRY BULB</td><td>WET BULB</td><td></td><td></td></tr> <tr> <td>DT</td><td>SD</td><td>00</td><td>500</td><td>207</td><td>022</td><td>8 05</td></tr> </table>																WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB			DT	SD	00	500	207	022	8 05
WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																														
COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB																																
DT	SD	00	500	207	022	8 05																														
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. F 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - σ _t /l	TOTAL-P pg - σ _t /l	NO ₃ -N pg - σ _t /l	OR-A	SiO ₂ -Si pg - σ _t /l	pH	S C C																			
		STD	0000	0089	3192	2560	0023937	0000	14491	772																										
		OBS	0000	0089	31921	2560			14491	772						043																				
		STD	0010	0092	3194	2562	0023806	0024	14494	783																										
		OBS	0010	0092	31940	2562			14494	783						048																				
		STD	0020	0141	3202	2565	0023485	0048	14519	767																										
		OBS	0020	0141	32019	2565			14519	767						055																				
		OBS	0025	0169	32087	2569			14533																											
		STD	0030	0186	3210	2569	0023141	0071	14542	745																										
		OBS	0030	0186	32102	2569			14542	745						036																				

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN	STATION TIME	YEAR	ORIGINATOR'S		DEPTH	MAX	WAVE	WEA-	CLOUD	NODC																					
CRUISE	ID. NO.	° 1/10	° 1/10	MO DAY	SQUARE	ICMST		CRUISE	STATION	NO.	DEPTH	OBS.	THER	CODES	STATION																					
CODE	NO.																																			
31B034	EV	4231 N	06929 W	151	29	01 23 002	1968	043		0270	02	18	0	4	0044																					
<table border="1"> <tr> <td>WATER</td><td>WIND</td><td>BARO- METER</td><td>AIR TEMP °C</td><td>VIS. CODE</td><td>NO. OBS. DEPTHS</td><td>SPECIAL OBSERVATIONS</td></tr> <tr> <td>COLOR CODE</td><td>TRANS. DIR.</td><td>DIR. OF FORCE</td><td>DRY BULB</td><td>WET BULB</td><td></td><td></td></tr> <tr> <td>DT</td><td>SD</td><td>17</td><td>512</td><td>200</td><td>022</td><td>8 18</td></tr> </table>																WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB			DT	SD	17	512	200	022	8 18
WATER	WIND	BARO- METER	AIR TEMP °C	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																														
COLOR CODE	TRANS. DIR.	DIR. OF FORCE	DRY BULB	WET BULB																																
DT	SD	17	512	200	022	8 18																														
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. F 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - σ _t /l	TOTAL-P pg - σ _t /l	NO ₃ -N pg - σ _t /l	OR-A	SiO ₂ -Si pg - σ _t /l	pH	S C C																			
		STD	0000	0414	3296	2617	0018545	0000	14647	692																										
		OBS	0000	0414	32955	2617			14647	692						026																				
		STD	0010	0414	3296	2617	0018530	0019	14649	716																										
		OBS	0010	0414	32958	2617			14649	716						028																				
		STD	0020	0420	3297	2617	0018527	0037	14653	707																										
		OBS	0020	0420	32967	2617			14653	707						023																				
		OBS	0025	0420	32967	2617			14654																											
		STD	0030	0420	3297	2617	0018535	0056	14655	701																										
		OBS	0030	0420	32967	2617			14655	701						028																				
		OBS	0040	0420	32967	2617			14656	715						026																				
		STD	0050	0420	3297	2617	0018550	0093	14658	694																										
		OBS	0050	0420	32967	2617			14658	694						028																				
		STD	0075	0420	3297	2618	0018539	0139	14662	687																										
		OBS	0075	0420	32971	2618			14662	687						025																				
		STD	0100	0421	3297	2618	0018553	0185	14667	686																										
		OBS	0100	0421	32973	2618			14667	686						020																				
		OBS	0120	0426	32993	2619			14672																											
		STD	0125	0432	3303	2621	0018254	0231	14676	636																										
		OBS	0130	0440	33085	2625			14681																											
		STD	0150	0495	3339	2642	0016280	0275	14711	586																										
		OBS	0150	0495	33385	2642			14711	586																										
		OBS	0154	0509	33439	2645			14718																											
		OBS	0169	0526	33617	2657			14730																											
		OBS	0174	0546	33728	2664			14741																											
		STD	0200	0559	3396	2680	0012770	0347	14753	489																										
		OBS	0200	0559	33960	2680			14753	489																										
		OBS	0214	0569	34045	2686			14761																											
		STD	0250	0573	3407	2687	0012172	0410	14769	472																										
		OBS	0250	0573	34071	2687			14769	472																										

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MO/10	MARSSEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
						16"	1'		MO	DAT							HR.1/10	CRUISE NO.
318034	EV	42005N	069265W	151	29	01	23	035	1968	044	0210	02	02	1	2	X1	0 3	0045
WATER																		
COLOR CODE		TRANSP.		DIR.		WIND DIR. OF FORCE		BARO- METER (mm)		SPECIAL OBSERVATIONS								
DT		50		19		512		196		028		028		8		20		
MISSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Σ Δ D DTH. M. ± 10'	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. ± 0.1	TOTAL-P pg. ± 0.1	NO ₂ -N pg. ± 0.1	CHL-A	SiO ₂ -Si pg. ± 0.1	pH	
							ANOMALY-20°											
035	STD		0000	0398	3263	2592	0020879		0000	14636	723							
	OBS		0000	0398	32625	2592				14636	723						037	
	STD		0010	0398	3263	2592	0020886		0021	14637	722							
	OBS		0010	0398	32625	2592				14637	722						031	
	STD		0020	0399	3263	2592	0020887		0042	14640	714							
	OBS		0020	0399	32627	2592				14640	714						028	
	OBS		0025	0399	32627	2592				14640								
	OBS		0028	0402	32630	2592				14642								
	STD		0030	0392	3262	2592	0020896		0063	14638	710							
	OBS		0030	0392	32618	2592				14638	710						024	
	OBS		0032	0381	32627	2594				14634								
	OBS		0040	0381	32713	2601				14636	703						030	
	OBS		0050	0383	3274	2603	0019883		0103	14639	712							
	OBS		0050	0383	32743	2603				14639	712						031	
	STD		0075	0387	3276	2604	0019793		0153	14645	698							
	OBS		0075	0387	32762	2604				14645	698						031	
	OBS		0098	0388	32793	2607				14650								
	STD		0100	0392	3282	2609	0019413		0202	14652	714							
OBS		0100	0392	32821	2609				14652	714						027		
OBS		0112	0430	32926	2613				14672									
OBS		0122	0480	33177	2628				14698									
STD		0125	0487	3321	2629	0017480		0248	14701	604								
OBS		0131	0498	33288	2634				14708									
STD		0150	0509	3350	2650	0015582		0289	14718	524								
OBS		0150	0509	33499	2650				14718	524								
OBS		0182	0529	33798	2671				14736									
OBS		0190	0530	33810	2672				14738									
OBS		0195	0545	33925	2679				14746									
STD		0200	0546	3393	2680	0012809		0360	14748	458								
OBS		0200	0546	33934	2680				14748	458								

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MO/10	MARSSEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES (1/2, 3/4, 1/8)	NODC STATION NUMBER																																
						HR	MIN		CRUISE NO.	STATION NUMBER			DIR	HT				SEA																															
318034	EV	41300N	069310W	151	19	01	23	069	1968	045	0037	00	34	0	2	X0	0	3	0046																														
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">AIR TEMP. °C</td><td colspan="2">NO. OBS. DEPTHS</td><td colspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>TRANS. DIR. OF FORCE</td><td>WIND DIR. OF FORCE</td><td>BARO-METER (mb)</td><td>DRY BULB</td><td>WET BULB</td><td>VIS CODE</td><td></td><td></td><td></td></tr><tr><td>DT</td><td>50</td><td>16</td><td>515</td><td>186</td><td>067</td><td>067</td><td>8</td><td>05</td><td></td></tr></table>																				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	TRANS. DIR. OF FORCE	WIND DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE				DT	50	16	515	186	067	067	8	05	
WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																									
COLOR CODE	TRANS. DIR. OF FORCE	WIND DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE																																											
DT	50	16	515	186	067	067	8	05																																									
MISSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DTH. M. ± 10'	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. ± 0.1	TOTAL-P pg. ± 0.1	NO ₂ -N pg. ± 0.1	CHL-A	SIO ₂ -Si pg. ± 0.1	pH	CTD																																
069	STD	0000	0352	3263	2597	0020424	0000	14616	723																																								
	OBS	0000	0352	32630	2597			14616	723							025																																	
	STD	0010	0352	3263	2597	0020430	0020	14618	726																																								
	OBS	0010	0352	32630	2597			14618	726							024																																	
	STD	0020	0352	3263	2597	0020427	0041	14620	726																																								
	OBS	0020	0352	32631	2597			14620	726							025																																	
	OBS	0025	0352	32631	2597			14620																																									
	STD	0030	0352	3263	2597	0020425	0061	14621	726																																								
OBS	0030	0352	32632	2597			14621	726								024																																	

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MO/10	MARSSEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																								
						10'	1"		MO	DAY							HR.1/10	CRUISE NO.	STATION NUMBER																																					
318034	EV	41000N	069310W	151	19	01	23	099	1968	046	0026	00	36	0	2	X0	0	3		0047																																				
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">BARO-</td><td colspan="2">AIR TEMP. °C</td><td colspan="2">NO. OBS. DEPTHS</td><td colspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>TRANS. DIR. OF FORCE</td><td>OIL</td><td>DIR. OF FORCE</td><td>WATER</td><td>DIR. OF FORCE</td><td>DRY BULB</td><td>WET BULB</td><td>VIS CODE</td><td></td><td></td><td></td></tr><tr><td>DT</td><td>50</td><td>18</td><td>517</td><td>166</td><td>050</td><td>050</td><td>8</td><td>03</td><td></td><td></td><td></td></tr></table>																					WATER		WIND		BARO-		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	TRANS. DIR. OF FORCE	OIL	DIR. OF FORCE	WATER	DIR. OF FORCE	DRY BULB	WET BULB	VIS CODE				DT	50	18	517	166	050	050	8	03			
WATER		WIND		BARO-		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																														
COLOR CODE	TRANS. DIR. OF FORCE	OIL	DIR. OF FORCE	WATER	DIR. OF FORCE	DRY BULB	WET BULB	VIS CODE																																																
DT	50	18	517	166	050	050	8	03																																																
MISSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Σ Δ D DTH. M. ± 10'	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. ± 0.1	TOTAL-P pg. ± 0.1	NO ₂ -N pg. ± 0.1	CHL-A	SiO ₂ -Si pg. ± 0.1	pH																																							
	099	STD	0000	0284	3233	2579	0022123		0000	14583	773																																													
		OBS	0000	0284	32330	2579				14583	773						048																																							
		STD	0010	0284	3233	2579	0022127		0022	14585	764																																													
		OBS	0010	0284	32330	2579				14585	764						048																																							
		STD	0020	0284	3233	2579	0022123		0044	14586	772																																													
		OBS	0020	0284	32331	2579				14586	772						044																																							

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WATSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10"	1"	MO	DAY		CRUISE NO.	STATION NUMBER			DR	HGT	PER				
					10"	1"	MO	DAY												
318034	EV	40300N	069300W	151	09	01	23	126	1968	047	0062	00	36	1			X1	0 3	0048	
				WATER	WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
					COLOR CODE	TEMP. DR	WIND DR	DR	DR	DR										
				OT	50	18	518	179	050	050	8	09								
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Δ ρ DYN. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	OR-A	SiO ₂ -S μg - ml/l	pH	CTD		
		STD	0000	0491	3222	2551	0024859		0000	14669	708					045				
	126	085	0000	0491	32218	2551				14669	708									
		085	0006	0491	32221	2551				14670										
		STD	0010	0470	3221	2552	0024735		0025	14662	712									
		085	0010	0470	32207	2552				14662	712					048				
		085	0014	0452	32207	2554				14655										
		STD	0020	0450	3222	2555	0024452		0049	14656	702									
		085	0020	0450	32219	2555				14656	702					049				
		085	0025	0448	32230	2556				14656										
		STD	0030	0448	3223	2556	0024334		0074	14656	697									
		085	0030	0448	32233	2556				14656	697					042				
		085	0040	0446	32236	2557				14657	699					046				
		STD	0050	0446	3224	2557	0024291		0122	14659	693									
		085	0050	0446	32238	2557				14659	693					044				

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WATSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10"	1"	MO	DAY		CRUISE NO.	STATION NUMBER			DR	HGT	PER				
					10"	1"	MO	DAY												
318034	EV	40000N	069310W	151	09	01	23	157	1968	048	0137	01	35	1	2		X2	0 3	0049	
				WATER	WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
					COLOR CODE	TEMP. DR	WIND DR	DR	DR	DR										
				OT	50	17	516	169	122	111	7	15								
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Δ ρ DYN. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	OR-A	SiO ₂ -S μg - ml/l	pH	CTD		
		STD	0000	0455	3229	2560	0023952		0000	14655	719									
	157	085	0000	0455	32290	2560				14655	719					039				
		STD	0010	0451	3229	2560	0023958		0024	14655	719									
		085	0010	0451	32285	2560				14655	719					035				
		STD	0020	0451	3229	2560	0023942		0048	14657	721									
		085	0020	0451	32288	2560				14657	721					039				
		085	0025	0453	32318	2563				14659										
		STD	0030	0462	3234	2564	0023646		0072	14664	717									
		085	0030	0462	32343	2564				14664	717					046				
		085	0036	0481	32410	2567				14674										
		085	0040	0545	32640	2578				14704	658					032				
		STD	0050	0608	3275	2579	0022218		0118	14732	632									
		085	0050	0608	32750	2579				14732	632					024				
		085	0060	0631	32830	2582				14744										
		STD	0075	0635	3284	2583	0021900		0173	14749	621									
		085	0075	0635	32840	2583				14749	621					025				
		085	0087	0640	32930	2589				14754										
		STD	0100	0679	3308	2596	0020692		0226	14773	619									
		085	0100	0679	33080	2596				14773	619					015				
		085	0116	0688	33121	2598				14780										
		085	0128	0830	33790	2630				14846										
		085	0130	0887	34403	2669				14876										

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE	STATION ID. NO.	SHIP CODE	LATITUDE ° '"/10	LONGITUDE ° '"/10	WATERS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WTA- THER CODE	CLOUD CODE	NODC STATION NUMBER
						18°	1'	MO DAY HR. 1/10		CRUISE NO.	STATION NUMBER			OR.	HGT.	PER.			
318034	EV		39315N	06931 W		115	99	01 23 199	1968		050	2463	15	33	1	12		X2	0051
					WATER	WIND		BARO- METER		AIR TEMP. °C		NO. OF OBS. DEPTH	SPECIAL OBSERVATIONS						
					COLOR CODE	TEMP. °C	DIR. °	WET BULB	WET BULB	WET BULB	WET BULB								
					QT	50	15	511	152	100	100	7	27						
REFERENCE	STATION ID. NO.	SHIP CODE	LATITUDE ° '"/10	LONGITUDE ° '"/10	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY (°C ⁻¹)	S.D. DEV. IN °C	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P °C - ml/l	TOTAL-P °C - ml/l	NO ₂ -N °C - ml/l	CHL-A	SIO ₂ -Si °C - ml/l	PH	S.C.
199	STO	0000			0639	3293	2589	0021184	0000	14739	669								
	085	0000			0639	32930	2589			14739	669								
	STO	0010			0679	3308	2595	0020609	0021	14759	671						037		
	085	0010			0679	33075	2595			14759	671								
	STO	0020			0709	3317	2599	0020283	0041	14773	666						043		
	085	0020			0709	33172	2599			14773	666								
	085	0025			0728	33210	2599			14782							043		
	STO	0030			0760	3327	2600	0020245	0062	14796	666								
	085	0030			0760	33270	2600			14796	666								
	085	0040			0846	33600	2613			14835	647						041		
	STO	0050			1004	3408	2625	0017884	0100	14902	643						037		
	085	0050			1004	34084	2625			14902	643								
	085	0053			1060	34250	2628			14925							034		
	STO	0075			1120	3446	2634	0017113	0143	14952	580								
	085	0075			1120	34461	2634			14952	580								
	STO	0100			1204	3518	2674	0013394	0182	14995	549						015		
	085	0100			1204	35180	2674			14995	549								
	085	0110			1245	35299	2675			15012									
	085	0121			1262	35490	2687			15022									
	STO	0125			1250	3546	2687	0012263	0214	15018	434								
	STO	0150			1186	3534	2690	0012016	0244	14999	357								
	085	0150			1186	35340	2690			14999	357								
	085	0170			1150	35286	2692			14989									
	STO	0200			1019	3510	2702	0010961	0301	14945	320								
	085	0200			1019	35100	2702			14945	320								
	STO	0250			0887	3495	2712	0010030	0354	14903	329								
	085	0250			0887	34950	2712			14903	329								
	STO	0300			0765	3485	2723	0009004	0402	14863									
	085	0300			0765	34853	2723			14863									
	085	0329			0746	34889	2729			14861									
	STO	0400			0616	3463	2742	0007295	0483	14821									
	085	0400			0616	34827	2742			14821									
	085	0456			0553	34800	2747			14804									
	STO	0500			0540	3485	2753	0006266	0551	14807									
	085	0500			0540	34852	2753			14807									
	085	0532			0490	34779	2753			14791									
	STO	0600			0465	3481	2759	0005775	0611	14792									
	085	0600			0465	34810	2759			14792									
	STO	0700			0457	3483	2761	0005637	0668	14806									
	STO	0800			0445	3484	2763	0005529	0724	14817									
	085	0800			0445	34839	2763			14817									
	STO	0900			0425	3483	2765	0005452	0779	14826									
	STO	1000			0411	3482	2765	0005465	0833	14836									
	085	1000			0411	34818	2765			14836									
	STO	1100			0404	3482	2766	0005486	0888	14850									
	STO	1200			0398	3481	2766	0005524	0943	14864									
	085	1200			0398	34813	2766			14864									
	STO	1300			0392	3482	2767	0005522	0998	14878									
	STO	1400			0387	3482	2768	0005523	1054	14893									
	STO	1500			0382	3482	2768	0005529	1109	14908									
	085	1500			0382	34820	2768			14908									

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15–26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	MARCONI SQUARE				STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER
				15°	1'	10"	100"	MO	DAY		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		
318034	EV	3934 N	07029 W	116	90	01	24	009	1968		051		2468	15	36	1	2	X2	0052
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIR CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS- MIT	DIR.	SPED ON FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB								
				OT	50	19	512	149	100	100	5	35							
MESSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. E 10 ³	SOUND VELOCITY	D ₂ m/s	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	CHL-A	SiO ₂ -Si μg - ml/l	pH	1 CL		
	009	ST0	0000	0618	3276	2579	0022170	0000	14728	708									
		0B5	0000	0618	32765	2579			14728	708					043				
		ST0	0010	0640	3286	2584	0021702	0021	14740	708									
		0B5	0010	0640	32865	2584			14740	708					042				
		ST0	0020	0742	3310	2589	0021275	0043	14785	700									
		0B5	0020	0742	33098	2589			14785	700					055				
		0B5	0025	0873	33730	2619			14845										
		ST0	0030	1010	3415	2629	0017450	0062	14902	713									
		0B5	0030	1010	34151	2629			14902	713					048				
		ST0	0050	1066	3426	2628	0017616	0097	14926	630					033				
		0B5	0050	1066	34260	2628			14926	630									
		0B5	0061	1148	34466	2629			14960						018				
		0B5	0070	1101	34416	2634			14964										
		ST0	0075	1118	3449	2637	0016874	0141	14952	591									
		0B5	0075	1118	34490	2637			14952	591									
		ST0	0100	1263	3516	2661	0014646	0180	15015	574					011				
		0B5	0100	1263	35160	2661			15015	574									
		0B5	0110	1283	35279	2666			15024						009				
		ST0	0125	1288	3542	2676	0013318	0215	15030	456									
		0B5	0135	1292	35440	2677			15034										
		ST0	0150	1263	3538	2678	0013207	0248	15025	376									
		0B5	0150	1263	35375	2678			15025	376									
		0B5	0182	1080	35168	2696			14965										
		ST0	0200	1058	3516	2700	0011180	0309	14960	329									
		0B5	0200	1058	35161	2700			14960	329									
		ST0	0250	0946	3503	2709	0010383	0363	14925	322									
		0B5	0250	0946	35030	2709			14925	322									
		ST0	0300	0800	3478	2712	0010054	0414	14876										
		0B5	0300	0800	34781	2712			14876										
		0B5	0305	0771	34880	2724			14867										
		0B5	0325	0763	34897	2727			14867										
		0B5	0350	0681	34830	2733			14838										
		ST0	0400	0609	3481	2741	0007343	0501	14818										
		0B5	0400	0439	34809	2741			14818										
		0B5	0437	0541	34778	2747			14796										
		ST0	0500	0514	3478	2750	0006503	0570	14795										
		0B5	0500	0514	34777	2750			14795										
		ST0	0600	0469	3478	2755	0006074	0633	14793										
		0B5	0600	0469	34776	2755			14793										
		ST0	0700	0457	3479	2758	0005939	0693	14805										
		0B5	0700	0457	34790	2758			14805										
		ST0	0800	0441	3480	2760	0005772	0752	14815										
		0B5	0800	0441	34800	2760			14815										
		0B5	0850	0443	34829	2763			14825										
		ST0	0900	0435	3483	2763	0005593	0809	14830										
		0B5	0900	0435	34827	2763			14830										
		ST0	1000	0423	3483	2765	0005521	0864	14841										
		0B5	1000	0423	34830	2765			14841										
		ST0	1100	0411	3482	2766	0005524	0919	14853										
		0B5	1100	0411	34823	2766			14853										
		ST0	1200	0406	3482	2766	0005566	0975	14868										
		0B5	1200	0406	34821	2766			14868										
		ST0	1300	0399	3482	2767	0005547	1030	14881										
		0B5	1300	0399	34824	2767			14881										
		ST0	1400	0396	3483	2768	0005555	1086	14897										
		0B5	1400	0396	34829	2768			14897										
		ST0	1500	0387	3483	2769	0005522	1141	14910										
		0B5	1500	0387	34829	2769			14910										

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSden SQUARE 16° 1'	STATION TIME (GMT) MO DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS	WEA- THIR CODE	CLOUD CODE	NODC STATION NUMBER				
							CRUISE NO.	STATION NUMBER									
318034	EV	39450N	070305W	116 90	01 24 028	1968	052		1920	15 04 0 2	X4	0 3	0053				
WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		SPECIAL OBSERVATIONS							
COLOR CODE	TEMP. °C	DIR.	SPED. OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB								
0T	50 24	512	119	089	089	5	37										
MEASURING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	S Δσ OPN. M ± 10 ⁻¹	SOUND VELOCITY	D ₂ ml/l	P ₀ -P μB - μB/l	TOTAL-P μB - μB/l	N ₀ -N μB - μB/l	Ch-A	S ₀ -S μB - μB/l	pH	1/10
028		STD	0000	0621	3288	2588	0021334	0000	14731	697							
		085	0000	0621	32881	2588			14731	697						049	
		085	0009	0629	32938	2591			14737								
		STD	0010	0665	3311	2600	0020172	0021	14753	705							
		085	0010	0665	33110	2600			14753	705						055	
		STD	0020	1000	3385	2607	0019486	0041	14892	718							
		085	0020	1000	33850	2607			14892	718						035	
		085	0025	0967	34039	2628			14884								
		STD	0030	0975	3411	2632	0017199	0059	14888	698							
		085	0030	0975	34108	2632			14888	698						042	
		085	0040	1054	34359	2638			14922	680						040	
		STD	0050	1080	3446	2641	0016373	0092	14934	640							
		085	0050	1080	34460	2641			14934	640						039	
		085	0055	1119	34555	2641			14950								
		085	0065	1129	34590	2642			14955								
		085	0070	1114	34556	2642			14951								
		STD	0075	1119	3467	2650	0015564	0132	14955	578							
		085	0075	1119	34669	2650			14955	578						014	
		STD	0100	1160	3492	2662	0014497	0170	14976	511							
		085	0100	1160	34921	2662			14976	511						012	
		085	0115	1159	34923	2663			14978								
		085	0119	1220	35084	2663			15002								
		STD	0125	1237	3513	2664	0014438	0406	15009	465							
		085	0130	1241	35163	2665			15012								
		STD	0150	1168	3519	2682	0012773	0240	14991	421							
		085	0150	1168	35192	2682			14991	421							
		STD	0200	0981	3508	2707	0010476	0298	14931	336							
		085	0200	0981	35080	2707			14931	336							
		085	0202	0969	35064	2707			14926								
		085	0215	0966	35064	2708			14928								
		STD	0250	0839	3494	2719	0009366	0348	14884	320							
		085	0250	0839	34940	2719			14884	320							
		STD	0300	0760	3487	2725	0008791	0393	14861								
		085	0300	0760	34872	2725			14861								
		085	0340	0715	34798	2726			14850								
		085	0365	0593	34796	2742			14805								
		STD	0400	0561	3477	2744	0007019	0472	14798								
		085	0400	0561	34769	2744			14798								
		085	0419	0528	34754	2747			14787								
		STD	0500	0488	3478	2753	0006185	0538	14785								
		085	0500	0488	34777	2753			14785								
		STD	0600	0468	3479	2756	0005996	0599	14793								
		085	0600	0468	34785	2756			14793								
		STD	0700	0448	3480	2759	0005781	0658	14801								
		085	0700	0448	34796	2759			14801								
		STD	0800	0440	3481	2761	0005697	0716	14815								
		085	0800	0440	34808	2761			14815								
		STD	0900	0434	3481	2762	0005680	0772	14829								
		085	0900	0434	34814	2762			14829								
		STD	1000	0427	3482	2764	0005647	0829	14843								
		085	1000	0427	34820	2764			14843								
		STD	1100	0420	3482	2765	0005634	0885	14857								
		085	1100	0420	34823	2765			14857								
		STD	1200	0412	3483	2766	0005605	0942	14870								
		085	1200	0412	34826	2766			14870								
		STD	1300	0402	3482	2767	0005583	0998	14883								
		085	1300	0402	34824	2767			14883								
		STD	1400	0397	3482	2767	0005622	1054	14897								
		085	1400	0397	34822	2767			14897								
		STD	1500	0391	3482	2768	0005624	1110	14912								
		085	1500	0391	34823	2768			14912								

TABLE I.—Observed and interpolated oceanographic data taken by USCGC EVERGREEN, 15-26 January 1968, on ICNAF Cruise 68-1; prepared from NODC Listing No. 31-8034.—Continued

REFERENCE		SHIP	LATITUDE	LONGITUDE	MARTIN		STATION TIME		YEAR	ORIGINATOR'S		DEPTH	DATE	WAVE		WIND	CLOUD	NODC
CRUISE	NO.	CODE	1/10	1/10	10°	1°	MO	DAY	HR/10	CRUISE	STATION	NO.	DATE	PER	DIR	TYPE	CODE	NUMBER
318034	EV		4001 N	070305W	152	00	01	24	049	1968	053	0640	05	09	0	2	X4	0054
						WATER		WIND		AIR TEMP °C		NO. OF		SPECIAL				
						COLOR		DIRECTION		DRY		WET		DEPTH		OBSERVATIONS		
						OT		SO		27		508		119		067		067
MESSAGE	CASE	CARD	DEPTH	T	S	SIGMA-T		SPECIFIC VOLUME		SOUND		DENSITY		TOTAL		O ₂		SiO ₂
TIME	NO.	TYPE	M	°C	‰			ANOMALY-210		VELOCITY		M/1		M/1		M/1		M/1
HR	1710																	pH
049	STD		0000	0510	3231	2556		0024351		0000		14678		727				
	OBS		0000	0510	32312	2556						14678		727				048
	STD		0010	0539	3253	2570		0023035		0024		14695		742				
	OBS		0010	0539	32530	2570						14695		742				030
	STD		0020	0692	3317	2601		0020079		0045		14767		726				
	OBS		0020	0692	33170	2601						14767		726				039
	STD		0025	0742	33295	2604						14789						
	OBS		0030	0768	3335	2605		0019759		0065		14800		706				
	STD		0030	0768	33350	2605						14800		706				023
	OBS		0040	0795	33440	2608						14814		752				
	STD		0050	0807	3349	2610		0019292		0104		14820		629				
	OBS		0050	0807	33490	2610						14820		629				013
	STD		0054	0810	33510	2611						14823						
	OBS		0063	0913	33839	2621						14867						
	STD		0075	0939	3395	2625		0017891		0151		14880		594				
	OBS		0075	0939	33950	2625						14880		594				012
	STD		0100	1040	3431	2636		0016945		0194		14926		579				
	OBS		0100	1040	34306	2636						14926		579				011
	STD		0116	1169	34740	2646						14980						
	OBS		0120	1152	34720	2648						14974						
	STD		0125	1162	3477	2650		0015711		0235		14979		493				
	OBS		0143	1200	35080	2667						14999						
	STD		0149	1257	35235	2668						15022						
	OBS		0150	1250	3523	2669		0013985		0472		15019		424				
STD		0150	1250	35234	2669						15019		424					
OBS		0175	1145	35175	2685						14986							
STD		0176	1120	35174	2689						14978							
OBS		0200	1041	3510	2698		0011319		0335		14953		335					
STD		0200	1041	35102	2698						14953		335					
OBS		0233	0973	35102	2710						14934							
STD		0250	0894	3495	2711		0010155		0389		14905		319					
OBS		0250	0894	34948	2711						14905		319					
STD		0284	0840	34940	2719						14890							
OBS		0290	0780	34890	2724						14868							
STD		0300	0760	3486	2724		0008880		0437		14861							
OBS		0300	0760	34860	2724						14861							
STD		0325	0685	34831	2733						14836							
OBS		0400	0577	3476	2742		0007266		0517		14804							
STD		0400	0577	34763	2742						14804							
OBS		0425	0542	34771	2747						14794							
STD		0450	0533	34771	2748						14795							
OBS		0475	0508	34780	2751						14789							
STD		0500	0500	3479	2753		0006270		0585		14790							
OBS		0500	0500	34785	2753						14790							
STD		0550	0494	34789	2754						14795							

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[illegible]

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 7/10	MARSDEN NO. 1/10	STATION TIME				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAS DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER		
TYPE CODE	ID NO.					CAUSE NO.	STATION NUMBER	16" 1"	MO		DAY	HR. 1/10			16" 1"	MO				DAY	HR. 1/10
318034	EV		4059 N	070305W	152	00	01	24	11	10	1968	055	0044	00	13	2	2	X2	0	3	0056
WATER																					
COLOR CODE		WIND TRANS mi	DIR	WIND OF FORCE	BARO- METER INCH	AIR TEMP °C		DAT	WET BULB	VS CODE	NO. OBS DEPTHS	SPECIAL OBSERVATIONS									
DT		50	32	512	149	022	022	7	06												
MISSING TIME HR 7/10	CAS1 NO	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T		SPECIFIC VOLUME ANOMALY-10 ³		$\frac{\Delta D}{D}$ D IN M & 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₂ -P ug - dl/l	TOTAL-S ug - dl/l	NO ₃ -N ug - dl/l	OR - A	SiO ₂ -S ug - dl/l	PH			
110	STD	0000		0208	3179	2542		0025635	0000	14542	768										
	OBS	0000		0208	31793	2542				14542	768							049			
	STD	0010		0208	3179	2542		0025635	0026	14544	771										
	OBS	0010		0208	31793	2542				14544	771							047			
	STD	0020		0208	3180	2543		0025583	0051	14546	775										
	OBS	0020		0208	31800	2543				14546	775							049			
	OBS	0025		0208	31810	2544				14547											
	STD	0030		0208	3181	2544		0025500	0077	14547	763										
	OBS	0030		0208	31811	2544				14547	763							040			
	OBS	0040		0208	31815	2544				14549											

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.

REFERENCE SHIP CODE	SHIP ID. NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	STATION SQUARE	STATION TIME GMT	YEAR	ORIGINATOR'S CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX DEPTH OF SWATH	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER															
318084 A4 41000 064300W 151 14 01 30 017 1969 691 001 3840 03																														
WATER WIND BARO- AIR TEMP °C NO. OBS. SPECIAL																														
COLOR TRANSL DIR. SPEED OF FORCE METER (mbars) DRY WET RULE VIS CODE DEPTHS OBSERVATIONS																														
345 D44 10																														
MISSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	S Δ D CM. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg. - ml/l	TOTAL-P μg. - ml/l	NO ₃ -N μg. - ml/l	NO ₃ -N μg. - ml/l	SiO ₄ -S μg. - ml/l	CHL-A μg. - ml/l														
		STD	0000	1972	3653	2602	0019939	0000	15232																					
		OBS	0000	1972	36534	2602	0019939	0000	15232	4710	010		036	012	000	022														
		STD	0010	1973	3654	2603	0019955	0020	15234				032	013	000	017														
		OBS	0011	1973	36542	2603	0019971	0040	15235	4780	014		029	008	001	019														
		STD	0020	1972	3654	2603			15235																					
		OBS	0021	1972	36535	2602	0020139	0060	15237	4770	011		013	005	000	018														
		STD	0030	1975	3653	2601			15238	4800	009																			
		OBS	0032	1976	36531	2601	0020288	0100	15241				013	004	000	019														
		STD	0050	1976	3653	2601			15241	4700	007																			
		OBS	0053	1976	36524	2601	0020380	0151	15245																					
		STD	0075	1976	3653	2601			15246	4240	031		000	029	000	015														
		OBS	0080	1976	36525	2601	0018649	0200	15231																					
		STD	0100	1910	3655	2620			15228	4720	012		000	014	000	001														
		OBS	0106	1894	36560	2625	0017712	0245	15223																					
		STD	0125	1868	3655	2630	0017146	0289	15219																					
		OBS	T0160	1828	36530	2639			15218	4560	013		006	023	000															
		STD	0200	1799	3650	2644	0016676	0374	15215																					
		OBS	0213	1786	36482	2646			15216	4580	019		006	012	000															
		STD	0250	1736	3639	2651	0016157	0456	15204																					
		OBS	T0267	1708	36335	2654			15198	4800	009		021	006	000															

REFERENCE SHIP CODE	SHIP ID. NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	STATION SQUARE	STATION TIME GMT	YEAR	ORIGINATOR'S CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX DEPTH OF SWATH	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER															
318084 A4 41300 064300W 151 14 01 30 063 1969 691 002 3146 12																														
WATER WIND BARO- AIR TEMP °C NO. OBS. SPECIAL																														
COLOR TRANSL DIR. SPEED OF FORCE METER (mbars) DRY WET RULE VIS CODE DEPTHS OBSERVATIONS																														
35 512 312 022 7 15																														
		STD	0000	1915	3645	2611	0019106	0000	15215	469																				
		OBS	0000	1915	36454	2611	0019150	0019	15215	469	011		053	021	000	024														
		STD	0010	1915	3645	2611			15217	476																				
		OBS	0010	1915	36453	2611			15217	476	014		034	013	000	022														
		OBS	0019	1916	36444	2610			15218	016			029	023	000	014														
		STD	0020	1916	3645	2610	0019273	0038	15218	470																				
		OBS	0029	1918	36455	2610			15221	464	025		032	022	000	015														
		STD	0030	1918	3646	2611	0019247	0058	15221	466																				
		OBS	0038	1919	36482	2612			15223	474	048		038	024	000	021														
		OBS	0047	1915	36479	2613			15223	476	058		025	008	011	020														
		STD	0050	1915	3648	2613	0019106	0096	15223	477																				
		OBS	0071	1915	36480	2613			15227	480	033		038	021	000	017														
		STD	0075	1918	3648	2612	0019263	0144	15228	480																				
		OBS	T0093	1919	36480	2612			15232	479	015		034	010	000	013														
		STD	0100	1903	3650	2618	0018839	0192	15229	478																				
		OBS	0125	1853	3653	2633	0017493	0237	15219	470																				
		STD	0138	1832	36539	2639			15215	464	016		000	054	000															
		OBS	0150	1829	3653	2639	0017031	0280	15216	461																				
		STD	T0181	1789	36491	2646			15209	436	027		004	041	000															
		OBS	0200	1731	3637	2651	0016017	0363	15194	409																				
		STD	0226	1652	36223	2658			15173	358	060		006	067	002															
		OBS	0250	1575	3610	2667	0014610	0439	15152																					
		STD	0300	1424	3586	2682	0013279	0509	15109																					
		OBS	T0360	1257	35614	2697			15061																					
		STD	0400	1155	3548	2707	0011043	0631	15031																					
		OBS	0500	0930	3521	2725	0009308	0732	14963																					
		STD	T0526	0879	35152	2729			14948																					
		OBS	0600	0763	3509	2742	0007740	0818	14915																					
		STD	0700	0634	3502	2754	0006541	0889	14880																					
		OBS	0800	0537	3497	2763	0005727	0950	14857																					
		STD	0848	0501	34954	2766			14850																					
		OBS	0900	0492	3496	2767	0005360	1006	14855																					
		STD	1000	0474	3496	2770	0005206	1059	14864																					
		OBS	1100	0457	3497	2772	0005048	1110	14874																					
		STD	1160	0446	34969	2773			14879																					

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/2-1/2 SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS				CLOUD CODES	WMO STATION NUMBER	NODC STATION NUMBER
					10'	1'	MO		DAY	HR			MIN	CRUISE NO.	STATION NUMBER	DR			
318084	A4	42000	064295W	151	24	01	30	104	1969	691	003	2377	02						0003
					WATER		WIND		BARO-		AIR TEMP °C		NO. OBS DEPTHS	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. M	DIR.	SPEED OF FORCE	METER (mbars)	DIR. BULB	WET BULB	WET CODE							
								36	510	308	-006		11						
MISSING TIME HR 1/10	CAS NO.	TYPE	DEPTH (M)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ ρ OW. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₃ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₂ -Si μg - μl/l	CHL-A	CHL-C		
		STD	0000	0624	3342	2629	0017369	0000	14739	636									
		OBS	0000	0624	33416	2629			14739	636	070			011	040	004	033		
104		OBS	0009	0627	33616	2629			14742	642	072			011	014	003	034		
		STD	0111	0628	3342	2629	0017436	0017	14743	643									
104		OBS	0017	0634	33615	2627			14748	643	074			008	024	006	032		
		STD	0020	0634	3364	2635	0014945	0053	14770	631									
104		OBS	0026	0636						630	066			008	022	003	037		
		STD	0030	1218	3488	2667	0013911	0044	14949	673									
104		OBS	0034	1240	35137	2654			15013	673	046			015	017	000	039		
104		OBS	0042	1365	35287	2658			15042	545	037			019	024	004	034		
		STD	0050	1259	3520	2664	0014147	0076	15006	545									
104		OBS	0064	1150	35013	2671			14968	546	052			008	024	001	020		
		STD	0075	1152	3502	2671	0013580	0110	14971	546									
104		OBS	10084	1160	35042	2672			14975	542	053			006	059	001	020		
		STD	0100	1206	3518	2673	0014447	0144	14995	512									
		STD	0125	1277	3524	2676	0013248	0177	15026	480									
104		OBS	0128	1284	34616	2676			15030	478	049			000	027	006			
		STD	0150	0940	3485	2666	0012364	0210	14923	475									
104		OBS	10169	0871	34638	2690			14879	473	107			000	049	007			
		STD	0200	0946	3494	2702	0010946	0213	14916	414									
104		OBS	0112	1065	35263	2706			14965	378	107			000	048	006			

REFERENCE SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/2-1/2 SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS				CLOUD CODES	WMO STATION NUMBER	NODC STATION NUMBER
					10'	1'	MO		DAY	HR			MIN	CRUISE NO.	STATION NUMBER	DR			
318084	A4	42150	064300W	151	24	01	30	132	1969	691	004	1829	03	2				0004	
					WATER		WIND		BARO-		AIR TEMP °C		NO. OBS DEPTHS	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. M	DIR.	SPEED OF FORCE	METER (mbars)	DIR. BULB	WET BULB	WET CODE							
								36	512	308	-011		11						
MISSING TIME HR 1/10	CAS NO.	TYPE	DEPTH (M)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ ρ OW. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₃ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₂ -Si μg - μl/l	CHL-A	CHL-C		
		STD	0000	0335	3207	2554	0024507	0000	14601	748									
		OBS	0000	0335	32070	2554			14601	748	059			011	015	004	047		
		STD	0010	0359	3209	2553	0024598	0025	14614	740									
132		OBS	0011	0364	32088	2553			14616	737	055			013	035	006	043		
		STD	0020	0429	3237	2569	0023109	0048	14649	694									
132		OBS	0021	0437	32398	2570			14653	691	086			008	016	006	026		
		STD	0030	0507	3266	2584	0021732	0071	14687	679									
132		OBS	0032	0537	32759	2588			14701	670	064			008	018	003	025		
132		OBS	0042	0762	33505	2618			14802	592	066			000	021	006	010		
		STD	0050	0867	3393	2635	0016895	0109	14849	558									
132		OBS	0053	0901	34060	2640			14864	546	066			002	034	003	006		
		STD	0075	1036	3461	2661	0014581	0149	14924	481									
132		OBS	0080	1055	34704	2664			14933	469	076			000	034	003	002		
		STD	0100	1082	3494	2678	0012985	0183	14949	428									
132		OBS	10104	1084	34983	2681			14951	421	098			002	105	007	000		
		STD	0125	1071	3513	2695	0011454	0214	14952	382									
		STD	0150	1038	3523	2708	0010212	0241	14945	351									
132		OBS	0159	1021	35247	2713			14941	344	138			000	062	008			
		STD	0200	0907	3514	2724	0008841	0489	14904	343									
132		OBS	10212	0871	35116	2727			14892	343	130			000	053	007			
		STD	0250	0752	3504	2740	0007346	0329	14852	374									
132		OBS	0265	0702	35011	2745			14835	394	134			000	051	009			

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—(Continued)

REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SDEN SQUARE 10° 1'	STATION TIME 10MT MO. DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SWELL	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES (1/10) (amt)	NODC STATION NUMBER	
							CRUISE NO.	STATION NUMBER			DIR	HGT	PER				
							01	30			03						
318084	A4	42300	064300W	151	24 01 30 154	1969	691	005	0311	03				X2		0005	
				WATER		WIND		BARO- METER (mb)	AIR TEMP °C		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. MT	DIR.	SPEED OF FORCE		DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH					
							04	515	312	000	7	11					
MESSAGE TIME HR 1/10	CA. T NO.	F. NO. TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SPECIFIC VOLUME ANOMALY-20°	Σ Δ σ DYN. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P P ₂ -0.1/1	TOTAL-P P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	SI O ₄ -Si P ₂ -0.1/1	CHL-A	S C
		STO	0000	0326	3194	2544	0025445	0000	14596	741							
		OBS	0000	0326	31936	2544			14596	741	062			004	012	002	038
		STO	0010	0332	3193	2543	0025578	0026	14600	735							
		OBS	0011	0332	31924	2543			14600	734	066			004	033	003	038
		STO	0020	0328	3192	2543	0025568	0051	14600	712							
		OBS	0021	0327	31923	2543			14599	711	066			002	012	000	038
		STO	0030	0320	3203	2552	0024696	0076	14599	728							
		OBS	0032	0319	32048	2554			14599	729	057			004	009	001	030
		STO	0042	0321	32082	2556			14602	717	058			000	010	000	034
		OBS	0050	0325	3210	2557	0024243	0125	14606	706							
		STO	0053	0327	32102	2557			14607	6810	066			002	023	003	025
		OBS	0075	0547	3311	2615	0018843	0179	14717	671							
		STO	0080	0603	33328	2625			14743	664	094			000	033	004	007
		OBS	0100	0871	3415	2652	0015415	0222	14862	513							
		STO	T0107	0946	34391	2659			14894	473	065			000	011	001	000
		OBS	0125	1078	3486	2673	0013563	0258	14951	443							
		STO	0150	1183	3529	2687	0012327	0290	14997	406							
		OBS	0160	1200	35387	2691			15006	392	099			000	044	009	
		STO	0200	1088	3529	2704	0010748	0348	14972	339							
		OBS	T0211	1060	35270	2708			14964	331	116			000	044	000	
		STO	0250	0973	3520	2717	0009568	0399	14938	334							
		OBS	T0267	0940	35175	2721			14928	335	118			000	039	000	
REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SDEN SQUARE 10° 1'	STATION TIME 10MT MO. DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SWELL	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES (1/10) (amt)	NODC STATION NUMBER	
CRUISE NO.							STATION NUMBER	DIR			HGT	PER					
01							30	01									
318084	A4	43000	064300W	151	34 01 30 208	1969	691	006	0113	01				X2		0006	
				WATER		WIND		BARO- METER (mb)	AIR TEMP °C		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. MT	DIR.	SPEED OF FORCE		DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH					
							02	509	291	011	7	08					
MESSAGE TIME HR 1/10	CA. T NO.	F. NO. TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SPECIFIC VOLUME ANOMALY-20°	Σ Δ σ DYN. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P P ₂ -0.1/1	TOTAL-P P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	SI O ₄ -Si P ₂ -0.1/1	CHL-A	S C
		STO	0000	0184	3168	2535	0026341	0000	14530	742							
		OBS	0000	0184	31680	2535			14530	742	065			004	014	005	045
		STO	0010	0185	3167	2534	0026386	0026	14537	747							
		OBS	0010	0185	31674	2534			14532	747	074			000	038	003	037
		STO	0020	0187	3166	2535	0026386	0052	14535	741							
		OBS	0020	0187	31676	2535			14535	741	074			002	014	001	041
		STO	0030	0282	3197	2551	0024855	0078	14582	715							
		OBS	0030	0282	31969	2551			14582	715	059			013	010	000	033
		STO	0040	0312	32108	2559			14599	713	060			000	011	000	025
		OBS	0050	0333	3218	2564	0024642	0126	14610	703							
		STO	0051	0335	32189	2564			14611	701	060			011	012	003	021
		OBS	0075	0415					596								
		STO	0076	0419	3269P	2591P			592	092				000	023	003	008
		OBS	0100	0510					501								
		STO	T0101	0214					497	107				002	070	007	006
REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SDEN SQUARE 10° 1'	STATION TIME 10MT MO. DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SWELL	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES (1/10) (amt)	NODC STATION NUMBER	
CRUISE NO.							STATION NUMBER	DIR			HGT	PER					
01							31	002									
318084	A4	43300	064300W	151	34 01 31 002	1969	691	007	0097	01				X2		0007	
				WATER		WIND		BARO- METER (mb)	AIR TEMP °C		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. MT	DIR.	SPEED OF FORCE		DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH					
							36	507	288	017	07						
MESSAGE TIME HR 1/10	CA. T NO.	F. NO. TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SPECIFIC VOLUME ANOMALY-20°	Σ Δ σ DYN. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P P ₂ -0.1/1	TOTAL-P P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	NO ₃ -N P ₂ -0.1/1	SI O ₄ -Si P ₂ -0.1/1	CHL-A	S C
		STO	0000	0179	3145	2517	0028042	0000	14525	741							
		OBS	0000	0179	31451	2517			14525	741	068			008	013	001	032
		STO	0010	0176	3145	2517	0028015	0028	14525	744							
		OBS	0010	0176	31452	2517			14525	744	075			004	016	000	033
		STO	0020	0178	3147	2519	0027905	0056	14528	744							
		OBS	0020	0178	31468	2519			14528	744	071			015	009	001	035
		STO	0030	0197	3155	2524	0027429	0084	14539	751							
		OBS	0030	0197	31547	2524			14539	751	075			002	015	009	030
		STO	0040	0215	31621	2528			14550	727	075			000	023	004	028
		OBS	0050	0245	3170	2533	0026578	0138	14566	720							
		STO	0050	0245	31704	2533			14566	720	072			000	010	004	017
		OBS	0075	0247	3175	2536	0026279	0204	14571	715							
		STO	0075	0247	31746	2536			14571	715	063			000	013	003	017

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE STATION NO.	SHIP CODE	LATITUDE 1° 10'	LONGITUDE 1° 10'	17-SDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLES	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER
					10'	1'	MO	DAT	HR	1/10	CRUISE NO.	STATION NUMBER		DR	HGT	PER	SEA	
318084	A4	44000	064300W	151	44	01	31	032	1969	691	008	0077	00	2			X2	0008
				WATER	WIND		BARO-		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS- MIT	DIR.	INTG OF FORCE	METER IMBET	DRY BULB	WET BULB								
					04	510	261	022			8	06						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D CTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₂ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₄ -S μg - μl/l	CHL-A	S CTN.	
		STO	0000	0150	3126	2504	0029287	0000	14509	756								
	032	085	0000	0150	31264	2504			14509	756	078			006	014	004	027	
		STO	0010	0149	3127	2504	0029264	0029	14510	747								
	032	085	0010	0149	31266	2504			14510	747	079			002	017	000	022	
		STO	0020	0152	3127	2504	0029288	0059	14513	752								
	032	085	0020	0152	31265	2504			14513	752	075			000	017	000	029	
		STO	0030	0151	3126	2504	0029288	0088	14515	761								
	032	085	0030	0151	31264	2504			14515	761	078			000	023	005	028	
	032	085	0040	0149	31268	2504			14515	751	077			000	010	004	024	
		STO	0050	0150	3127	2504	0029256	0146	14518	751								
	032	085	0050	0150	31267	2504			14518	751	079			000	011	001	017	

REFERENCE STATION NO.	SHIP CODE	LATITUDE 1° 10'	LONGITUDE 1° 10'	17-SDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLES	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER
					10'	1'	MO	DAT	HR	1/10	CRUISE NO.	STATION NUMBER		DR	HGT	PER	SEA	
318084	A4	43150	065300W	151	35	02	02	195	1969	691	009	0058	00	1				0009
				WATER	WIND		BARO-		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS- MIT	DIR.	INTG OF FORCE	METER IMBET	DRY BULB	WET BULB								
								200	056		7	06						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D CTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₂ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₄ -S μg - μl/l	CHL-A	S CTN.	
		STO	0000	0210	3151	2520	0027782	0000	14539	742								
	195	085	0000	0210	31512	2520			14539	742	072			000	010	000	018	
		STO	0010	0208	3151	2519	0027822	0028	14540	746								
	195	085	0010	0208	31505	2519			14540	746	076			000	012	003	023	
		STO	0020	0207	3150	2519	0027823	0056	14541	750								
	195	085	0020	0207	31504	2519			14541	750	065			000	022	003	020	
		STO	0030	0207	3151	2520	0027793	0083	14543	746								
	195	085	0030	0207	31508	2520			14543	746	079			013	011	005	024	
	195	085	0040	0205	31509	2520			14544	744	069			019	006	002	022	
		STO	0050	0205	3151	2520	0027780	0139	14545	739								
	195	085	0050	0205	31508	2520			14545	739	081			027	011	005	024	

REFERENCE STATION NO.	SHIP CODE	LATITUDE 1° 10'	LONGITUDE 1° 10'	17-SDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLES	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER
					10'	1'	MO	DAT	HR	1/10	CRUISE NO.	STATION NUMBER		DR	HGT	PER	SEA	
318084	A4	43000	065300W	151	35	02	02	213	1969	691	010	0126	01	1			X1	0010
				WATER	WIND		BARO-		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS- MIT	DIR.	INTG OF FORCE	METER IMBET	DRY BULB	WET BULB								
					31	505	207	028			08							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D CTN. M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - μl/l	TOTAL-P μg - μl/l	NO ₂ -N μg - μl/l	NO ₃ -N μg - μl/l	SiO ₄ -S μg - μl/l	CHL-A	S CTN.	
		STO	0000	0243	3160	2524	0027368	0000	14555	753								
	213	085	0000	0243	31597	2524			14555	753	077			023	015	003	045	
		STO	0010	0240	3160	2524	0027355	0027	14555	753								
	213	085	0010	0240	31596	2524			14555	753	076			011	017	002	033	
		STO	0020	0231	3161	2526	0027155	0055	14553	748								
	213	085	0020	0231	31614	2526			14553	748	075			015	024	002	036	
		STO	0030	0233	3164	2528	0026996	0082	14556	744								
	213	085	0030	0233	31637	2528			14556	744	077			015	010	004	032	
	213	085	0040	0232	31648	2529			14557	746							033	
		STO	0050	0302	3203	2554	0024585	0133	14595	700								
	213	085	0050	0302	32026	2554			14595	700	071			008	009	002	015	
		STO	0075	0394	3266	2596	0020620	0190	14647	696								
	213	085	0075	0394	32661	2596			14647	696	105			015	017	007	006	
		STO	0100	0440	3284	2605	0019780	0240	14673	578								
	213	085	0103	0443	32856	2606			14675	556	104			000	015	010	006	

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TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/10 DEGREE EAST WEST	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10°	11°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			DR	NGTHER SEA			
318084	A4	41300	065300W	151	15	02	03 121	1969	691	014	2395	02	2		X2		0014
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. IN	DIR.	SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE					
								04	520	193	039		11				
MESSAGE TIME HR 1/10	CAJ NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-1000	$\Sigma \Delta D$ DTH. IN $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	CHL-A	1 C
		STD	0000	1293	3525	2662	0014314	0000	15009	541							
		OBS	0000	1293	35246	2662			15009	541							
121		STD	0010	1293	3524	2661	0014378	0014	15011	553	053		017	012	001	029	
		OBS	0010	1293	35241	2661			15011	553	049		019	017	008	035	
121		OBS	0019	1292	35253	2662			15012	556	049		027	014	002	034	
121		STD	0020	1295	3526	2662	0014304	0029	15014	555							
		OBS	0029	1344	35393	2663			15033	548	047		019	035	000	030	
121		STD	0030	1360	3545	2664	0014202	0043	15039	542							
		OBS	0040	1455	35798	2670			15076	499	051		011	016	000	017	
121		OBS	0049	1434	35762	2672			15070	494	060		015	016	000	012	
		STD	0050	1429	3575	2672	0013452	0071	15069	493							
		OBS	0073	1358	35657	2680			15048	455	072		000	019	000	003	
121		STD	0075	1360	3567	2681	0012719	0103	15049	449							
		OBS	0099	1370	35751	2685			15057	393	085		000	030	000		
121		STD	0100	1370	3575	2685	0012397	0135	15058	392							
		OBS	0125	1361	3574	2686	0012347	0166	15059	368							
121		OBS	0148	1335	35736	2691			15054	352	104		000	098	001		
		STD	0150	1331	3573	2691	0011918	0196	15053	352							
121		OBS	T0198	1224	35557	2699			15022	341	126		000	033	011		
		STD	0200	1219	3555	2700	0011216	0254	15021	341							
121		OBS	0248	1073	35369	2713			14976	329	143		004	038	006		

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/10 DEGREE EAST WEST	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10°	11°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			DR	NGTHER SEA			
318084	A4	41000	065300W	151	15	02	03 156	1969	691	015	3109	03					0015
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. IN	DIR.	SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE					
													11				
MESSAGE TIME HR 1/10	CAJ NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-1000	$\Sigma \Delta D$ DTH. IN $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	CHL-A	1 C
		STD	0100	1784	3625	2629	0017451	0000	15175	504							
		OBS	0100	1784	36250	2629			15175	504	024		012	006	000	024	
		STD	0110	1780	3624	2629	0017458	0017	15176	505							
156		OBS	0110	1780	36240	2629			15176	505	021		029	008	001	018	
		STD	0120	1781	3625	2629	0017447	0034	15178	505							
156		OBS	0121	1781	36240	2629			15178	505	024		029	011	000	019	
		STD	0130	1785	3624	2628	0017609	0052	15180	503							
156		OBS	0130	1785	36245	2628			15180	4910	046		000	039	000	020	
156		OBS	0140	1763	36134	2625			15174	510	032		038	007	000	019	
		STD	0150	1706	3608	2635	0017047	0087	15159	472							
156		OBS	0151	1702	36077	2635			15157	470	036		011	008	000	011	
		STD	0175	1672	3603	2638	0016756	0129	15152	468							
156		OBS	0177	1671	36025	2639			15152	469	042		000	011	000	012	
		STD	0100	1679	3608	2641	0016586	0171	15159	463							
156		OBS	T0103	1680	36084	2641			15159	461	032		021	017	000		
		STD	0125	1645	3603	2645	0016255	0212	15152	463							
		OBS	0150	1669	3598	2659	0015063	0251	15132	466							
156		OBS	0153	1557	35969	2661			15129	466	014		019	013	003		
		STD	0200	1263	3531	2672	0014817	0323	15033	548							
156		OBS	T0207	1250	35285	2673			15029	552	038		000	009	006		
		STD	0250	1343	3536	2675	0013696	0392	15071	532							
156		OBS	0256	1380	35654	2675			15085	523	158		046	014	009		

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CIR CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	WADSWORTH SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																										
					10°		1°			MO	DAY			HR	1/10				CRUISE NO.	STATION NUMBER	DIR.	PER SEC																																						
					10°	1°	MO	DAY															HR	1/10																																				
318084	A4	40000	066300W	151	06	02	04	095	1969	691	019	3383	02	4		X1		0019																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO- METER</th><th colspan="2">AIR TEMP. °C</th><th colspan="2">VIL CODE</th><th colspan="2">NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANSMI- SIVITY</th><th>DIR.</th><th>SPEED OF FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTH</th><th>NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><td></td><td></td><td></td><td>27</td><td>S35</td><td>997</td><td>044</td><td></td><td>11</td><td></td><td></td><td></td><td colspan="2"></td></tr></table>																			WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS		COLOR CODE	TRANSMI- SIVITY	DIR.	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					27	S35	997	044		11					
WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS																																																
COLOR CODE	TRANSMI- SIVITY	DIR.	SPEED OF FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																																																
			27	S35	997	044		11																																																				
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Δ Δ O DYN. M. S 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₄ -Si pg - M/L	OH-A	C																																										
		STD	0000	1336	3562	2682	0012408		0000	15028	550																																																	
	095	OBS	0000	1336	35619	2682				15028	550	057		000	016	004	020																																											
	095	OBS	0008	1338	35662	2683				15031	549	057		000	015	004	017																																											
		STD	0010	1337	3566	2685	0012155		0012	15031	551																																																	
	095	OBS	0017	1336	35654	2684				15032	553	049		000	016	001	019																																											
		STD	0020	1337	3566	2684	0012220		0024	15033	551																																																	
	095	OBS	0025	1338	35656	2684				15034	549	060		000	019	001	013																																											
		STD	0030	1338	3566	2684	0012253		0037	15034	549																																																	
	095	OBS	0033	1337	35658	2684				15035	548	055		000	033	004	015																																											
	095	OBS	0042	1333	35653	2685				15035	545	055		000	013	004	015																																											
		STD	0050	1333	3566	2685	0012197		0061	15036	545																																																	
	095	OBS	0064	1334	35661	2685				15039	544	056		000	013	004	014																																											
		STD	0075	1335	3566	2685	0012299		0092	15041	547																																																	
	095	OBS	10084	1336	35659	2685				15043	548	047		000	009	001	009																																											
		STD	0100	1334	3566	2685	0012367		0123	15045	546																																																	
		STD	0125	1330	3565	2686	0012392		0154	15047	543																																																	
	095	OBS	0128	1330	35653	2686				15048	543	057		000	030	003																																												
		STD	0150	1328	3564	2685	0012517		0185	15051	477																																																	
	095	OBS	10172	1290	35607	2690				15041	420	074																																																
		STD	0200	1191						360				000	031	012																																												
	095	OBS	0222	1072						323	143																																																	

REFERENCE CIR CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSDEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																											
					15°	1'		MO	DAY			HR	1/10				CRUISE NO.	STATION NUMBER	DIR.	HGT	PER SEC	TYP	FRA																																				
318084	A4	40300	066300W	151	06	02	05	169	1969	691	020	2560	03		X3		0020																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO- METER</th><th colspan="2">AIR TEMP. °C</th><th colspan="2">VIL CODE</th><th colspan="2">NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS- MIS</th><th>DIR.</th><th>SPEED OR FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTH</th><th>NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><td></td><td></td><td></td><td>32</td><td>530</td><td>051</td><td>006</td><td></td><td>4</td><td>11</td><td></td><td></td><td colspan="2"></td></tr></table>																		WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS		COLOR CODE	TRANS- MIS	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					32	530	051	006		4	11				
WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS																																															
COLOR CODE	TRANS- MIS	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																																															
			32	530	051	006		4	11																																																		
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Δ Δ O DYN. M. S 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₄ -Si pg - M/L	OH-A	C																																									
		STD	0000	1722	3629	2647	0015731		0000	15158																																																	
	169	OBS	0000	1722	36288	2647				15158	5630	024		019	011	000	037																																										
		STD	0010	1721	3629	2647	0015755		0015	15159																																																	
	169	OBS	0012	1721	36287	2647				15159	5740	022		017	011	000	028																																										
		STD	0020	1721	3629	2647	0015798		0031	15161																																																	
	169	OBS	0023	1721	36285	2647				15161	5760	025		013	011	000	024																																										
		STD	0030	1717	3628	2647	0015787		0047	15161																																																	
	169	OBS	0035	1715	36258	2646				15161	579	024		015	017	000	022																																										
		STD	0050	1559	3603	2665	0014124		0077	15113	571			008	007	000	032																																										
	169	OBS	0059	1495	35918	2671				15093	567	035		019	013	001	023																																										
		STD	0075	1403	3573	2676	0013162		0111	15064	558																																																
	169	OBS	0089	1350	35627	2679				15048		043		000	009	000	008																																										
		STD	0100	1339	3562	2681	0012718		0143	15046	547																																																
	169	OBS	10119	1322	35615	2684				15043	542	044		000	011	000	009																																										
		STD	0125	1318	3561	2685	0012476		0175	15043	542																																																
	169	OBS	0150	1303	3559	2686	0012388		0206	15042	543																																																
		STD	0179	1286	35572	2688				15040	543	078		000	049	002																																											
	169	OBS	10239	1106	35408	2710	0011503		0266	15021	543																																																
		STD	0250	1075	3537	2713	0010015		0319	14986	537	082		000	038	010																																											
	169	OBS	0300	0938	3521	2724	0009025		0367	14976																																																	
		STD	10301	0935	35207	2724				14932	3230	158		000	039	013																																											

REFERENCE CIR CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WADSWORTH SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS		WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																										
					16°	1°		MO	DAY			HR	1/10				CRUISE NO.	STATION NUMBER	DIR.	PER SEC																																						
318084	A4	40450	066300W	151	06 02 05	1969	691	021	2034	02		7		X7		0021																																										
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO- METER</th><th colspan="2">AIR TEMP. °C</th><th colspan="2">VIL CODE</th><th colspan="2">NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRAN- SMI</th><th>DIR.</th><th>SPEED OR FORCE</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>NO. OBS. DEPTH</th><th>NO. OBS. DEPTH</th><th colspan="2">SPECIAL OBSERVATIONS</th></tr><tr><td>32</td><td>530</td><td>051</td><td>-017</td><td>6</td><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="2"></td></tr></table>																	WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS		COLOR CODE	TRAN- SMI	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS		32	530	051	-017	6	11								
WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS																																														
COLOR CODE	TRAN- SMI	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	NO. OBS. DEPTH	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																																														
32	530	051	-017	6	11																																																					
MISSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Δ Δ O DYN. M. S 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₄ -Si pg - M/L	OH-A																																									
		STD	0000	1149	3530	2686	0011997		0000	14975	516																																															
193		OBS	0000	1149	35298	2686				14975	516	055		000	011	008	015																																									
193		OBS	0009	1190	35297	2686				14977	520	056		000	015	002	017																																									
		STD	0010	1190	3530	2686	0012034		0012	14977	520																																															
193		OBS	0017	1193	35305	2686				14979	519	061		000	017	002	015																																									
		STD	0020	1196	3530	2685	0012139		0024	14980	522																																															
193		OBS	0024	1199	35300	2684				14982	524	055		004	028	001	016																																									
		STD	0030	1194	3529	2684	0012291		0036	14983	524																																															
193		OBS	0033	1197	35289	2684				14983	524	055		006	012	001	017																																									
		OBS	0041	1223	35312	2681				14993	530	046		000	007	001	018																																									
		STD	0050	1263	35347	2685	0012235		0061	15010	550																																															
193		OBS	0063	1300	35604	2680				15027	531	061		004	005	004	012																																									
		STD	0075	1304	3560	2687	0012112		0091	15030	556																																															
193		OBS	0084	1306	35602	2686				15032	560	043		000	011	000	012																																									
		STD	0100	1306	3561	2687	0012213		0122	15035	518																																															
		STD	0125	1307	3561	2687	0012262		0152	15039	470																																															
193		OBS	0129	1307	35610	2687				15040	465	075		000	024	001																																										
		STD	0150	1308	3561	2687	0012314		0163	15044	436																																															
193		OBS	0177	1309	35620	2687				15048	445	056		000	012	000																																										
		STD	0200	1234	3554	2696	0011372		0243	15026	401																																															
193		OBS	0223	1109	35399	2709				14985	334	115		000	022	003																																										

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAP Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CTD CODE	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	C NO.	MARSDEN SQUARE	STATION TIME IGMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	41000	066300W	151	16	02 06 023	1969	691	022	0141	01	06	0		X3		0022
				C NO.	WATER		C NO.	WIND		C NO.	BARO- METER		AIR TEMP. °C		C NO.	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR		TRANSL.	DR.		DR.	DR.		DR.	DR.		DR.	DR.	DR.	DR.			
32		530						119			022		4		06		
MESSAGE TIME HE 1/18	CARD NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-35°	Σ Δ σ DTN. M. Σ 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₂ -Si pg - M/L	OR-A	C NO.
		STD	0000	0551	3334	2632	0017114	0000	14709	702							
023		OBS	0000	0551	3333	2632	0017114	0000	14709	702	090			008	017	006	025
		STD	0010	0553	3333	2632	0017159	0017	14711	728							
023		OBS	0012	0553	3333	2632	0017159	0017	14712	729	085			008	018	005	024
		STD	0020	0552	3333	2631	0017195	0034	14713	706							
023		OBS	0024	0552	3332	2631	0017195	0034	14713	699	081			000	014	001	035
		STD	0030	0553	3333	2631	0017222	0052	14715	699							
023		OBS	0034	0554	3333	2631	0017222	0052	14716	699	088			000	028	002	029
023		OBS	0049	0724	33993	2661	0014160	0083	14795	6460	068			000	008	000	022
		STD	0050	0759	3409	2664	0014160	0083	14810	624							
023		OBS	0061	1080	34920	2677	0012871	0117	14942	586	066			013	013	006	015
		STD	0075	1211	3526	2679	0012871	0117	14994	583							
023		OBS	0092	1301	35517	2681	0012871	0117	15031	560	042			000	006	000	015
		STD	0100	1294	3552	2683	0012871	0117	15029	542							
023		OBS	T0122	1273	35532	2686	0012871	0117	15026	471	075			006	019	006	006

REFERENCE CTD CODE	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	C NO.	MARSDEN SQUARE	STATION TIME IGMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	41300	066300W	151	16	02 06 075	1969	691	023	0086	01	4			X3		0023
				C NO.	WATER		C NO.	WIND		C NO.	BARO- METER		AIR TEMP. °C		C NO.	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR		TRANSL.	DR.		DR.	DR.		DR.	DR.		DR.	DR.	DR.	DR.			
32		530						125			039		4		07		
MESSAGE TIME HE 1/18	CARD NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-35°	Σ Δ σ DTN. M. Σ 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₂ -Si pg - M/L	OR-A	C NO.
		STD	0000	0497	3315	2623	0017948	0000	14684	714							
075		OBS	0000	0497	3314	2623	0017948	0000	14684	714	065			000	019	004	028
		STD	0010	0499	3315	2623	0017947	0018	14687	710							
075		OBS	0011	0499	3315	2623	0017947	0018	14687	710	085			015	011	002	028
		STD	0020	0499	3315	2623	0017959	0036	14688	710							
075		OBS	0021	0499	3314	2623	0017959	0036	14688	710	082			000	013	008	024
		STD	0030	0502	3315	2623	0017995	0054	14691	710							
075		OBS	0032	0502	3315	2623	0017995	0054	14692	710	089			000	016	000	027
075		OBS	0043	0501	3315	2623	0017995	0054	14693	710	087			000	023	004	020
		STD	0050	0499	3315	2623	0017979	0090	14693	712							
075		OBS	0053	0498	3315	2624	0017979	0090	14693	713	089			000	040	006	022
		STD	0075	0525	3322	2626	0017772	0135	14709	703							
075		OBS	T0081	0540	33260	2627	0017772	0135	14717	697	091			008	030	001	025

REFERENCE CTD CODE	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	C NO.	MARSDEN SQUARE	STATION TIME IGMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	42000N	066300W	151	26	02 06 157	1969	691	024	0087	01	5			X3		0024
				C NO.	WATER		C NO.	WIND		C NO.	BARO- METER		AIR TEMP. °C		C NO.	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR		TRANSL.	DR.		DR.	DR.		DR.	DR.		DR.	DR.	DR.	DR.			
32		527						159			000		5		07		
MESSAGE TIME HE 1/18	CARD NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-35°	Σ Δ σ DTN. M. Σ 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - M/L	TOTAL-P pg - M/L	NO ₃ -N pg - M/L	NO ₃ -N pg - M/L	SiO ₂ -Si pg - M/L	OR-A	C NO.
		STD	0000	0503	3340	2643	0016075	0000	14690	701							
		OBS	0000	0503	3340	2643	0016075	0000	14690	701	099			011	021	004	033
		STD	0010	0503	3341	2643	0016063	0016	14692	699							
157		OBS	0010	0503	3340	2643	0016063	0016	14692	699	096			000	022	010	030
		STD	0020	0505	3341	2645	0016102	0032	14694	724							
157		OBS	0020	0505	3340	2643	0016102	0032	14694	724	101			000	016	008	029
		STD	0030	0505	3341	2643	0016112	0048	14696	699							
157		OBS	0030	0505	3340	2643	0016112	0048	14696	699	091			000	026	021	029
157		OBS	0040	0506	3340	2643	0016112	0048	14698	699	094			002	035	019	028
		STD	0050	0506	3340	2643	0016166	0081	14700	700							
157		OBS	0051	0506	3340	2643	0016166	0081	14700	700	096			002	017	023	032
		STD	0075	0507	3341	2643	0016167	0121	14704	701							
157		OBS	0076	0507	3340	2643	0016167	0121	14704	701	096			000	020	014	032

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	STATION SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLING	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER		
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
318084	A4	42190	066300W	151	26	02	06 189 1969	691	025		0250	02				X7	4	0028	
					WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)	DRY RULE	WET RULE	WIL CODE							
								27	515	149	-011	5	11						
REFERENCE SHIP NO.	SHIP CODE	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t (°A)	S.D. DYN. M. × 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P M - M/L	TOTAL-P M - M/L	NO ₂ -N M - M/L	NO ₃ -N M - M/L	SiO ₂ -S M - M/L	CHL-A	S CODE	
			STD	0000	0485	3326	2633	0016989	0000	14681	691								
189	OBS	0000			0485	33257	2633			14681	691	073				002	011	006	034
189	OBS	0009			0484	33252	2633			14682	686	078				000	019	013	029
	STD	0010			0484	3325	2633	0017025	0017	14682	686								
189	OBS	0018			0486	33252	2633			14684	687	082				000	015	009	033
	STD	0020			0487	3326	2633	0017035	0034	14685	687								
189	OBS	0026			0490	33273	2634			14687	686	092				000	029	014	032
	STD	0030			0494	3329	2635	0016882	0051	14690	686								
189	OBS	0035			0498	33307	2636			14692	685	072				000	008	012	020
189	OBS	0045			0505	33344	2638			14697	683	093				002	021	010	029
	STD	0050			0510	3336	2638	0016560	0084	14700	681								
189	OBS	0068			0522	33395	2640			14709	676	094				002	018	007	020
	STD	0075			0523	3340	2641	0016389	0125	14711	676								
189	OBS	0093			0527					14717	674	093				000	020	007	007
	STD	0100			0528	3343	2642	0016262	0166	14717	673								
	STD	0125			0533	3346	2644	0016146	0206	14724	670								
189	OBS	T0139			0536	33473	2645			14727	668	097				002	036	006	
	STD	0150			0549	3356	2650	0015564	0246	14736	654								
	STD	0200			0658	3424	2689	0011957	0315	14797	533								
189	OBS	0224			0741	34712	2715			14839	441	117				000	021	008	

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	STATION SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLING	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER		
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
318084	A4	42300	066300W	151	26	02	06 211 1969	691	026		0252	01				X7		0026	
					WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)	DRY RULE	WET RULE	WIL CODE							
								32	515	152	-017	5	08						
REFERENCE SHIP NO.	SHIP CODE	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t (°A)	S.D. DYN. M. × 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P M - M/L	TOTAL-P M - M/L	NO ₂ -N M - M/L	NO ₃ -N M - M/L	SiO ₂ -S M - M/L	CHL-A	S CODE	
			STD	0000	0324	3230	2573	0022705	0000	14600	710								
211	OBS	0000			0324	32297	2573			14600	710	076				002	010	003	028
	STD	0010			0323	3229	2573	0022718	0022	14601	710								
211	OBS	0011			0323	32294	2573			14601	710	072				002	011	001	033
	STD	0020			0326	3229	2573	0022750	0045	14604	710								
211	OBS	0021			0326	32294	2573			14604	710	078				004	011	004	028
	STD	0030			0329	3229	2573	0022782	0068	14607	710								
211	OBS	0032			0330	32295	2573			14608	710	075				019	015	004	029
211	OBS	0042			0449	32845	2605			14667	685	086				017	011	006	028
	STD	0050			0505	3313	2621	0018233	0109	14695	659								
211	OBS	0053			0522	33210	2626			14704	651	082				000	011	002	016
	STD	0074			0560	3338	2635	0016974	0153	14725	642								
211	OBS	0081			0571	33425	2637			14731	638	083				000	011	003	009
	STD	0100			0610	3356	2643	0016236	0194	14752	620								
211	OBS	0108			0628	33619	2645			14761	610	091				000	017	005	008

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	STATION SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE DEPTH OF SAMPLING	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER		
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
					10°	1°	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER			OK	NG	FR			SEA	
318084	A4	43000	066300W	151	36	02	07 023 1969	691	027		0132	01				X7		0027	
					WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)	DRY RULE	WET RULE	WIL CODE							
								27	515	159	-011	5	08						
REFERENCE SHIP NO.	SHIP CODE	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t (°A)	S.D. DYN. M. × 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P M - M/L	TOTAL-P M - M/L	NO ₂ -N M - M/L	NO ₃ -N M - M/L	SiO ₂ -S M - M/L	CHL-A	S CODE	
			STD	0000	0248	3178	2538	0026016	0000	14560	729								
	OBS	0000			0248	31780	2538			14560	729	077				000	008	007	019
	STD	0010			0245	3178	2539	0025998	0026	14560	730								
023	OBS	0011			0245	31780	2539			14560	730	080				000	010	006	022
	STD	0020			0249	3178	2538	0026009	0052	14563	736								
023	OBS	0021			0249	31782	2538			14564	737	080				000	009	006	020
	STD	0030			0250	3180	2539	0025922	0078	14566	731								
023	OBS	0033			0256	31799	2539			14569	727	083				004	018	006	020
023	OBS	0043			0294	31919	2546			14589	710	083				000	008	007	018
	STD	0050			0308	3198	2549	0024982	0129	14597	704								
023	OBS	0054			0325	32052	2554			14606	696	085				000	009	006	014
	STD	0075			0563	3311	2613	0019026	0184	14723	588								
023	OBS	0082			0618	33363	2626			14750	565	101				002	012	007	008
	STD	0100			0701	3380	2649	0015614	0227	14792	534								
023	OBS	T0109			0712	33899	2656			14799	534	103				000	018	011	005

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	W/S SQUARE 1000'	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																											
					CRUISE NO.	STATION NUMBER																																				
318084	A4	44270	067300W	151	47	02 07 186	1969	691	031	0082	01		X1		0031																											
<table><tr><td>WATER</td><td>WIND</td><td colspan="4">AIR TEMP. °C</td><td></td></tr><tr><td>COLOR CODE</td><td>WAVE NO.</td><td>DR.</td><td>SPEED OR FORCE</td><td>BARO- METER UNITS</td><td>DRY BULB</td><td>WET BULB</td><td>VIS CODE</td><td>NO. OBS. DEPTH</td><td>SPECIAL OBSERVATIONS</td></tr><tr><td>29</td><td>505</td><td>176</td><td>-017</td><td>7</td><td>07</td><td></td><td></td><td></td><td></td></tr></table>																WATER	WIND	AIR TEMP. °C					COLOR CODE	WAVE NO.	DR.	SPEED OR FORCE	BARO- METER UNITS	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS	29	505	176	-017	7	07				
WATER	WIND	AIR TEMP. °C																																								
COLOR CODE	WAVE NO.	DR.	SPEED OR FORCE	BARO- METER UNITS	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																																	
29	505	176	-017	7	07																																					
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M Σ 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P P ₂ - M/L	TOTAL-P P ₂ - M/L	NO ₂ -N P ₂ - M/L	NO ₃ -N P ₂ - M/L	SiO ₂ -Si P ₂ - M/L	OH-A																										
		STO	0000	0341	3274	2607	0019512	0000	14613																																	
186		OBS	0000	0341	32738	2607			14613	7120	069		032	006	006	030																										
		STO	0010	0339	3274	2607	0019493	0020	14614	706																																
186		OBS	0010	0339	32739	2607			14614	706	074		000	008	008	032																										
		STO	0020	0342	3274	2607	0019547	0039	14617	714																																
186		OBS	0020	0342	32736	2607			14617	714	077		000	008	010	025																										
		STO	0030	0341	3274	2607	0019513	0059	14618	711																																
186		OBS	0030	0341	32740	2607			14618	711	075		008	011	011	019																										
186		OBS	0040	0336	32730	2607			14617	709	085		000	013	011	021																										
		STO	0050	0335	3273	2607	0019518	0098	14619	706																																
186		OBS	0051	0335	32733	2607			14619	706	075		000	013	009	016																										
		STO	0075	0337	3273	2607	0019570	0146	14624	706																																
186		OBS	0076	0337	32731	2607			14624	706	088		000	012	014	021																										

REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	W/S SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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318084	A4	44000	067310W	151	47	02 07 217	1969	691	032	0220	02		X1		0032																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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METER	AIR TEMP. °C	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS	COLOR CODE	WAVE NO.	DR. 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REFERENCE SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	W/S SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																					
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318084	A4	43300	067300W	151	37 02 08 013	1969	691	033	0201	01		X0		0033																					
<table><tr><th>WATER</th><th>WIND</th><th>BARO- METER</th><th>AIR TEMP. °C</th><th>VIS CODE</th><th>NO. OBS. DEPTH</th><th>SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>WAVE NO.</th><th>DR. OR FORCE</th><th>DRY BULB</th><th>WET BULB</th><th></th><th></th></tr><tr><td>32</td><td>507</td><td>200</td><td>-017</td><td>7</td><td>09</td><td></td></tr></table>															WATER	WIND	BARO- METER	AIR TEMP. °C	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS	COLOR CODE	WAVE NO.	DR. OR FORCE	DRY BULB	WET BULB			32	507	200	-017	7	09	
WATER	WIND	BARO- METER	AIR TEMP. °C	VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																													
COLOR CODE	WAVE NO.	DR. OR FORCE	DRY BULB	WET BULB																															
32	507	200	-017	7	09																														
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M Σ 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P P ₂ - M/L	TOTAL-P P ₂ - M/L	NO ₂ -N P ₂ - M/L	NO ₃ -N P ₂ - M/L	SiO ₂ -Si P ₂ - M/L	OH-A																			
		STD	0000	0286	3206	2558	0024188	0000	14580	716																									
013		OBS	0000	0286	32062	2558			14580	716	076		000	008	011	032																			
013		STD	0010	0282	32054	2558			14579	720	063		000	005	008	034																			
013		OBS	0018	0285	32053	2557	0024200	0024	14580	720																									
		STD	0020	0285	32053	2557			14583	722	077		006	010	010	028																			
013		OBS	0028	0287	32052	2557	0024237	0040	14583	721																									
		STD	0030	0292	3206	2557			14585	710	074		002	009	010	032																			
013		OBS	0037	0355	32277	2569	0024240	0073	14586	710																									
013		OBS	0047	0569	33157	2616			14619	695	080		004	016	012	028																			
		STD	0050	0577	3320	2618			14722	597	092		000	014	014	010																			
013		OBS	0071	0633	33501	2635	0018486	0115	14726	597																									
		STD	0075	0647	3356	2638			14756	586	091		000	014	011	011																			
013		OBS	T0095	0704	33848	2653	0016673	0159	14763	579																									
		STD	0100	0715	3391	2656			14793	544	100		000	018	008	008																			
		STD	0125	0751	3418	2672	0014901	0199	14798	536																									
013		OBS	T0143	0757	34316	2682	0013503	0234	14820	495																									
									14827	467	121		000	033	014																				

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WADSWORTH SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10°	1'	MO DAT HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYR	AMT

318084				A4	42590	067295W	151	27	02	12 016	1969	691	034	0230	02		X0		0034
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
COLOR CODE				TRANSP. (m)		DIR. SPEED OF FORCE		DRY BULB		WET BULB									
				32		515 091		011				7		10					

MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ σ DYN. M Σ 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	Chl-A	1 C
		STD	0000	0413	3284	2608	0019407	0000	14645	715							
	016	0BS	0000	0413	32840	2608	0019378	0019	14645	715	074			008	014	011	037
		STD	0010	0410	3284	2608			14645	720							
	016	0BS	0010	0410	32841	2608	0015991	0037	14645	720	078			006	019	011	031
		STD	0020	0416	3330	2644			14656	718							
	016	0BS	0020	0416	33299	2644	0015510	0052	14656	718	076			002	013	009	026
		STD	0030	0535	3353	2649			14710	656							
	016	0BS	0030	0535	33531	2649			14710	656	087			002	017	008	015
	016	0BS	0040	0591	33704	2656			14737	622	085			002	014	012	012
		STD	0050	0628	3408	2681	0012515	0080	14758	599							
	016	0BS	0051	0632	34110	2683			14760	597	087			000	014	006	009
		STD	0075	0723	3425	2682	0012492	0112	14802	544							
	016	0BS	0076	0725	34266	2683			14803	542	106			000	029	004	004
		STD	0100	0749	3474	2716	0009298	0139	14823	515							
	016	0BS	0102	0751	34765	2718			14824	513	112			000	017	012	002
		STD	0125	0774	3481	2719	0009121	0162	14837	478							
		STD	0150	0789	3485	2719	0009134	0185	14848	453							
	016	0BS	T0151	0789	34848	2719			14848	452	128			000	026	019	
		STD	0200	0783	3485	2720	0009139	0230	14854	443							
	016	0BS	T0202	0782	34846	2720			14853	443	117			000	020	010	

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WADSWORTH SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10°	1'	MO DAT HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYR	AMT

318084	A4	42300	067300W	151	27	02	12	051	1969	691	035	0283	03		2			X0	03	0035
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR CODE	TRANSP. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	VIS. CODE									
					DT	50	22	508	091	020		7	18							

MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ σ DYN. M Σ 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	Chl-A	1 C
		STD	0000	0453	3311	2625	0017800	0000	14665	694							
	051	0BS	0000	0453	33105	2625			14665	694	087			000	021	014	037
		STD	0010	0460	3312	2626	0017745	0010	14670	694							
		0BS	0010	0460	33123	2626			14670	694	088			000	017	010	035
		STD	0020	0468	3316	2628	0017535	0035	14676	688							
	004	0BS	0020	0468	33163	2628			14676	688	086			004	019	015	036
		STD	0030	0470	3317	2628	0017490	0053	14678	689							
		0BS	0030	0470	33173	2628			14678	689	070			000	011	009	032
		0BS	0040	0472	33176	2628			14681								
		0BS	0044	0473	33178	2628			14682								
		STD	0050	0530	3341	2640	0016415	0087	14709	654							
		0BS	0050	0530	33405	2640			14709	654	072			011	011	007	022
		0BS	0052	0561	33499	2644			14724								
		0BS	0059	0600	33663	2652			14743								
		STD	0075	0636	3379	2658	0014796	0126	14762	504							
		0BS	0075	0636	33793	2658			14762	504	107			000	022	011	009
		0BS	0080	0689	34023	2669			14784								
		STD	0100	0755	3436	2686	0012157	0160	14820	502							
		0BS	0100	0755	34363	2686			14820	502	094			000	024	009	002
		STD	0125	0772	3455	2698	0011027	0189	14833	483							
		0BS	0125	0772	34553	2698			14833								
		STD	0150	0778	3469	2709	0010116	0215	14841	447							
		0BS	0150	0778	34693	2709			14841	447	116			000	041	010	
		STD	0200	0725	3496	2737	0007466	0259	14833								
		0BS	0200	0725	34961	2737			14833								
		0BS	0230	0646	34803	2742			14805								
		STD	0250	0637	3498	2751	0006209	0293	14806								
		0BS	0250	0637	34981	2751			14806								
		0BS	0275	0634	34985	2752			14809								

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-S084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'WELL	WAVE OBSERVATIONS	WEA- TH- ER CODE	CLOUD CODES	NODC STATION NUMBER																												
							CRUISE NO.	STATION NUMBER																																		
							10'	1"							MO	DAY	HR/10																									
318084	A4	42150	067300W	151	27	02	12	085	1969	691	036	0272	03	2	X0	0 3	0036																									
<table><tr><th colspan="2">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO- METER</th><th colspan="2">AIR TEMP. °C</th><th rowspan="3">VIL CODE</th><th rowspan="3">NO. OBS. DEPTH</th><th rowspan="3">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS M</th><th>DIR.</th><th>SPEED OF FORCE</th><th>DRY BULB</th><th>WET BULB</th></tr><tr><th>DT</th><th>SD</th><th>22</th><th>508</th><th>085</th><th>033</th><th>7</th><th>26</th></tr></table>																		WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS	COLOR CODE	TRANS M	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DT	SD	22	508	085	033	7	26
WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS																																
COLOR CODE	TRANS M	DIR.	SPEED OF FORCE	DRY BULB	WET BULB																																					
DT	SD	22	508	085	033	7	26																																			
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. × 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -M pg - ml/l	SiO ₂ -Si pg - ml/l	CHL-A	S C																									
	STD	0000	0482	3336	2642	0016190	0000	14681	683																																	
085	085	0000	0482	33359	2642			14681	683	081			004	015	009	035																										
	STD	0010	0484	3337	2642	0016160	0016	14683	685																																	
	085	0010	0484	33367	2642			14683	685	097			000	022	011	030																										
	STD	0020	0488	3338	2643	0016092	0032	14687	683																																	
005	085	0020	0488	33383	2643			14687	683	102			000	026	009	033																										
	STD	0030	0490	3340	2644	0016011	0048	14690	681																																	
	085	0030	0490	33398	2644			14690	681	104			008	023	014	026																										
	085	0040	0492	33401	2644			14692																																		
	STD	0050	0492	3341	2645	0015962	0080	14694	683																																	
	085	0050	0492	33410	2645			14694	683	093			000	017	015	031																										
	STD	0075	0494	3341	2645	0015978	0120	14699	684																																	
	085	0075	0494	33414	2645			14699	684	101			000	027	010	027																										
	085	0088	0494	33424	2646			14701																																		
	085	0091	0508	33493	2649			14708																																		
	STD	0100	0518	3351	2650	0015955	0160	14714	637																																	
	085	0100	0518	33509	2650			14714																																		
	STD	0125	0553	3364	2656	0015031	0198	14734	596																																	
	085	0125	0553	33636	2656			14734																																		
	085	0140	0590	33752	2660			14753																																		
	085	0145	0670	34003	2670			14789																																		
	085	0147	0643	33963	2670			14778																																		
	STD	0150	0646	3400	2673	0013459	0234	14781	561																																	
	085	0150	0646	34003	2673			14781	561	132			000	026	014																											
	085	0160	0678	34132	2679			14797																																		
	085	0164	0679	34156	2680			14798																																		
	085	0167	0721	34303	2686			14817																																		
	085	0171	0711	34295	2687			14814																																		
	085	0193	0769	34649	2706			14844																																		
	085	0198	0761	34668	2709			14842																																		
	STD	0200	0778	3470	2709	0010129	0292	14850	509																																	
	085	0200	0778	34703	2709			14850																																		
	085	0230	0720	34853	2730			14834																																		
	STD	0250	0712	3487	2732	0008014	0338	14835	480																																	
	085	0250	0712	34874	2732			14835	480	133			000	029	018																											
	085	0262	0704	34887	2734			14834																																		
	085	0268	0686	34917	2739			14828																																		

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'WELL	WAVE OBSERVATIONS	WEA- TH- ER CODE	CLOUD CODES	NODC STATION NUMBER																																																						
CRUISE NO.	STATION NUMBER																																																																			
10'	1"	MO	DAY	HR/10																																																																
318084	A4	42000	067300W	151	27	02	12	146	1969	691	037	0036	00	2	X7	0 3	0037																																																			
	WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS		---------------	------------	------	----------------------	----------------	-------------	--------------	----	-------------	----------------------	-------------------------		COLOR CODE	TRANS M	DIR.	SPEED OF FORCE	DRY BULB	WET BULB							DT	SD	22	510	091	033	6	06																								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ_t	Σ Δ D DTN. M. × 10³	SOUND VELOCITY	O₂ ml/l	PO₂-P pg - ml/l	TOTAL-P pg - ml/l	NO₃-N pg - ml/l	NO₃-M pg - ml/l	SiO₂-Si pg - ml/l	CHL-A	S C																																																			
	STD	0000	0477	3336	2643	0016122	0000	14679	690																																																											
	085	0000	0477	33361	2643			14679	690	074			000	011	006	045																																																				
	STD	0010	0477	3336	2643	0016124	0016	14680	704																																																											
	085	0010	0477	33362	2643			14680	704	088			000	011	007	044																																																				
	STD	0020	0477	3336	2643	0016126	0032	14682	688																																																											
004	085	0020	0477	33363	2643			14682	688	102			008	024	010	047																																																				
	STD	0030	0477	3336	2643	0016136	0048	14684	690																																																											
	085	0030	0477	33363	2643			14684	690	099			002	013	009	045																																																				
	085	0040	0477	33363	2643			14685																																																												
	085	0041	0477	33363	2643			14686																																																												
REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'WELL	WAVE OBSERVATIONS	WEA- TH- ER CODE	CLOUD CODES	NODC STATION NUMBER																																																						
CRUISE NO.	STATION NUMBER																																																																			
10'	1"	MO	DAY	HR/10																																																																
318084	A4	41300	067300W	151	17	02	12	175	1969	691	038	0037	00		X7	0 3	0038																																																			
	WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS		---------------	------------	------	----------------------	----------------	-------------	--------------	--	-------------	----------------------	-------------------------		COLOR CODE	TRANS M	DIR.	SPEED OF FORCE	DRY BULB	WET BULB							DT	SD	00	500	075																									022	5	05
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ_t	Σ Δ D DTN. M. × 10³	SOUND VELOCITY	O₂ ml/l	PO₂-P pg - ml/l	TOTAL-P pg - ml/l	NO₃-N pg - ml/l	NO₃-M pg - ml/l	SiO₂-Si pg - ml/l	CHL-A	S C																																																			
	STD	0000	0402	3320	2638	0016569	0000	14645	707																																																											
	085	0000	0402	33202	2638			14645	707	069			002	010	004	057																																																				
	STD	0010	0402	3320	2638	0016569	0017	14647	715																																																											
	085	0010	0402	33203	2638			14647																																																												
	STD	0020	0402	3321	2638	0016554	0033	14649	717																																																											
004	085	0020	0402	33206	2638			14649	717	076			011	011	004	057																																																				
	STD	0030	0402	3321	2638	0016554	0050	14650	712																																																											
	085	0030	0402	33207	2638			14650	712	077			002	017	003	054																																																				
	085	0036	0402	33207	2638			14651																																																												

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO 1/10	DAY 1/10	YEAR	DUGUINAT'S			DEPTH TO BOTTOM	MAX. DEPTH OF SWELL	WAVE OBSERVATIONS	WEA- TH- ER CODE	CLOUD CODES	NODC STATION NUMBER				
							CRUISE NO.	STATION NUMBER	YEAR										
318084	A4	42000	067300W	151	27	02	146	1969	691	037	0036	00	2	X7	0 3	0037			
WATER																			
COLOR CODE		TRANSP M		OIL		WIND SPEED DIR FORCE		BARO- METER UNITS		AIR TEMP. °C		WET BULB		VIL CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS	
DT		SD		02		510		091		033		6		06					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. × 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -M pg - ml/l	SiO ₂ -Si pg - ml/l	CHL-A	S C		
146	STD	0000	0477	3336	2643	0016122	0000	14679	690										
	085	0000	0477	33361	2643			14679	690	074			000	011	006	045			
	STD	0010	0477	3336	2643	0016124	0016	14680	704										
	085	0010	0477	33362	2643			14680	704	088			000	011	007	044			
	STD	0020	0477	3336	2643	0016126	0032	14682	688										
004	085	0020	0477	33363	2643			14682	688	102			008	024	010	047			
	STD	0030	0477	3336	2643	0016136	0048	14684	690										
	085	0030	0477	33363	2643			14684	690	099			002	013	009	045			
	085	0040	0477	33363	2643			14685											
	085	0041	0477	33363	2643			14686											

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO 1/10	DAY 1/10	YEAR	ORIGINATOR'S STATION NUMBER		DEPTH TO BOTTOM	MAX. DEPTH OF SWELL	WAVE OBSERVATIONS	WEA- TH- ER CODE	CLOUD CODES	NODC STATION NUMBER																								
							10'	1"																														
318084	A4	41300	067300W	151	17	02	12 175	1969 691 038	0037	00			X7 0 3	0038																								
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td>BARO- METER</td><td colspan="2">AIR TEMP. °C</td><td rowspan="2">NO. OBS. DEPTH</td><td rowspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>TRANS M</td><td>DRY BULB</td><td>WET BULB</td><td>WET BULB</td><td>VIL CODE</td></tr><tr><td>DT</td><td>SD</td><td>00</td><td>500</td><td>075</td><td>022</td><td>5</td><td>05</td><td></td></tr></table>															WATER		WIND		BARO- METER	AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS	COLOR CODE	TRANS M	DRY BULB	WET BULB	WET BULB	VIL CODE	DT	SD	00	500	075	022	5	05	
WATER		WIND		BARO- METER	AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS																														
COLOR CODE	TRANS M	DRY BULB	WET BULB	WET BULB	VIL CODE																																	
DT	SD	00	500	075	022	5	05																															
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. × 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -M pg - ml/l	SiO ₂ -Si pg - ml/l	CHL-A	S C																					
	STD	0000	0402	3320	2638	0016569	0000	14645	707																													
175	085	0000	0402	33202	2638			14645	707	069			002	010	004	057																						
	STD	0010	0402	3320	2638	0016569	0017	14647	715																													
	085	0010	0402	33203	2638			14647																														
	STD	0020	0402	3321	2638	0016554	0033	14649	717																													
004	085	0020	0402	33206	2638			14649	717	076			011	011	004	057																						
	STD	0030	0402	3321	2638	0016554	0050	14650	712																													
	085	0030	0402	33207	2638			14650	712	077			002	017	003	054																						
	085	0036	0402	33207	2638			14651																														

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAP Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CITE NO.	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	WASDEN SQUARE	STATION TIME GMT				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF FATHOMS	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																																																									
					18°	1°	MO	DAY		HR:1/18	CRUISE NO.							STATION NUMBER																																																								
315084	A4	41000	067300W	151	17	02	12	219	1969	691	039	0070	01	1		X2	0 3	0039																																																								
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">BARO- METER</td><td colspan="2">AIR TEMP. °C</td><td colspan="2">SPEC. VOLUME</td><td colspan="2">SOUND</td><td colspan="2">SPECIAL</td></tr><tr><td>COLOR</td><td>TRANSP.</td><td>DIR.</td><td>SPEED</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td></tr><tr><td>CODE</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td></tr><tr><td>DT</td><td>SD</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td></tr></table>																			WATER		WIND		BARO- METER		AIR TEMP. °C		SPEC. VOLUME		SOUND		SPECIAL		COLOR	TRANSP.	DIR.	SPEED	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	CODE	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	DT	SD	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
WATER		WIND		BARO- METER		AIR TEMP. °C		SPEC. VOLUME		SOUND		SPECIAL																																																														
COLOR	TRANSP.	DIR.	SPEED	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND																																																													
CODE	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.																																																													
DT	SD	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO																																																													
MEASUREMENT TIME HR 1/18	CAST NO.	CARD TYPE	DEPTH m	T °C	S ‰	SGMA-T	SPECIFIC VOLUME AND SALTY-210°	S Δ D DTN. M. 1 10°	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P PS - ml/l	TOTAL-P PS - ml/l	NO ₃ -N PS - ml/l	NO ₃ -N PS - ml/l	SiO ₂ -Si PS - ml/l	CHL-A 1 C																																																										
		STD	0000	0399	3305	2626	0017701	0000	14642	711																																																																
	219	085	0000	0399	33048	2626			14642	711	074		006	017	003	039																																																										
		STD	0010	0399	3305	2626	0017693	0016	14644	712																																																																
		085	0010	0399	33050	2626			14644	712	067		017	027	008	037																																																										
		STD	0020	0398	3305	2626	0017668	0035	14645	714																																																																
	005	085	0020	0398	33053	2626			14645	714	069		008	013	004	033																																																										
		STD	0030	0398	3305	2626	0017666	0053	14646	714																																																																
		085	0030	0398	33054	2626			14646	714	062		008	015	004	043																																																										
		085	0040	0397	33056	2627			14648	716	093		013	009		040																																																										
		STD	0050	0397	3306	2627	0017643	0088	14649	726																																																																
		085	0050	0397	33058	2627			14649	726	062		015	028	007	041																																																										
		085	0060	0397	33058	2627			14651																																																																	

REFERENCE CITE NO.	SHIP CODE	LATITUDE ° 1/18	LONGITUDE ° 1/18	WASDEN SQUARE	STATION TIME GMT				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF FATHOMS	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER																																																									
					18°	1°	MO	DAY		HR:1/18	CRUISE NO.							STATION NUMBER																																																								
316084	A4	40300	06730 W	151	07	02	13	026	1969	691	040	0137	01	1		X4	0 3	0040																																																								
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">BARO- METER</td><td colspan="2">AIR TEMP. °C</td><td colspan="2">SPEC. VOLUME</td><td colspan="2">SOUND</td><td colspan="2">SPECIAL</td></tr><tr><td>COLOR</td><td>TRANSP.</td><td>DIR.</td><td>SPEED</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td><td>WIND</td></tr><tr><td>CODE</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td><td>NO.</td></tr><tr><td>DT</td><td>SD</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td><td>SO</td></tr></table>																			WATER		WIND		BARO- METER		AIR TEMP. °C		SPEC. VOLUME		SOUND		SPECIAL		COLOR	TRANSP.	DIR.	SPEED	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	CODE	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	DT	SD	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
WATER		WIND		BARO- METER		AIR TEMP. °C		SPEC. VOLUME		SOUND		SPECIAL																																																														
COLOR	TRANSP.	DIR.	SPEED	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND																																																													
CODE	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.																																																													
DT	SD	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO																																																													
MEASUREMENT TIME HR 1/18	CAST NO.	CARD TYPE	DEPTH m	T °C	S ‰	SGMA-T	SPECIFIC VOLUME AND SALTY-210°	S Δ D DTN. M. 1 10°	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P PS - ml/l	TOTAL-P PS - ml/l	NO ₃ -N PS - ml/l	NO ₃ -N PS - ml/l	SiO ₂ -Si PS - ml/l	CHL-A 1 C																																																										
		STD	0000	0588	3339	2632	0017149	0000	14725	674																																																																
	026	085	0000	0588	33388	2632			14725	674	076		006	024	006	035																																																										
		STD	0010	0590	3339	2632	0017147	0017	14727	678																																																																
		085	0010	0590	33393	2632			14727	678	076		015	017	008	035																																																										
		STD	0020	0597	3341	2632	0017137	0034	14732	672																																																																
		085	0020	0597	33407	2632			14732	672	077		008	016	006	032																																																										
	006	STD	0030	0607	3343	2635	0017073	0051	14738	670																																																																
		085	0030	0607	33433	2635			14738	670	075		004	012	006	030																																																										
		085	0040	0655	33657	2640			14774	652	077		013	018	006	027																																																										
		STD	0050	0987	3445	2657	0014897	0083	14900	443																																																																
		085	0050	0987	34451	2657			14900	443	071		000	013	007	005																																																										
		085	0058	1016	34661	2668			14915																																																																	
		085	0060	1069	34813	2670			14936																																																																	
		085	0062	1071	34835	2672			14937																																																																	
		STD	0075	1165	3519	2682	0012562	0118	14977	479																																																																
		085	0075	1165	35188	2682			14977	479	069		000	015	004	004																																																										
		085	0077	1172	35227	2684			14980																																																																	
		085	0092	1177	35273	2686			14985																																																																	
		STD	0100	1173	3530	2689	0011924	0148	14986	434																																																																
		085	0100	1173	35303	2689			14986	434	091		002	012	007	005																																																										
		STD	0125	1170	3532	2691	0011644	0178	14989																																																																	
		085	0125	1170	35315	2691			14989																																																																	

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER
					10'	1'	MD	DAT	HR	CRUISE NO.	STATION NUMBER			DR	NG	HEI			
318064	A4	40150	067300W	151	07	02	13	047	1969	691	041	1646	15	0			X4	03	0041
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
					TEMP (°C)	DR	DIR (°)	SPED (KTS)	DR	WET (mm)	DR	WET (°C)							
					DT	SO	22	501	098	056			6	47					
REFERENCE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND SALTY-1000		S Δ D DYN. M. 3 10 ³	SOUND VELOCITY	D ₂ m/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₂ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₄ -S pg - ml/l	OR-A	Z CODE	
047		STD	0000	0766	3401	2657	0014770		0000	14803	632								
	085		0000	0766	34010	2657				14803	632	071							
013		085	0003	0766	34013	2657				14804									
	085		0004	0792	34061	2657				14815									
	085		0005	0774	34064	2660				14808									
	085		0007	0798	34113	2660				14816									
	085		0009	0780	34081	2660				14811									
	STD		0010	0811	3416	2661	0014338		0015	14824	629								
	085		0010	0811	34155	2661				14824	629	064			004	011	006		
	085		0014	0928	34488	2669				14873									
	STD		0020	0922	3449	2670	0013542		0028	14872	591								
	085		0020	0922	34487	2670				14872	591	068			011	013	005	033	
	STD		0030	0932	3451	2671	0013517		0042	14878	596								
	085		0030	0932	34514	2671				14878	596	058			011	014	006	028	
	085		0040	0938	34532	2671				14882									
	STD		0050	0941	3454	2671	0013513		0069	14885	590								
	085		0050	0941	34539	2671				14885	590	069			006	011	007	032	
	085		0060	0943	34548	2671				14887									
	085		0065	0967	34643	2675				14898									
	085		0070	1054	34838	2675				14933									
	STD		0075	1038	3480	2675	0013205		0102	14927	580								
	085		0075	1038	34801	2675				14927	580	066			011	010	004	022	
	085		0082	1058	34867	2677				14937									
	085		0095	1150	35161	2683				14975									
	085		0096	1170	35222	2684				14983									
	STD		0100	1184	3526	2684	0012462		0135	14989	546								
	085		0100	1184	35257	2684				14989									
	085		0116	1217	35340	2684				15004									
	STD		0125	1209	3532	2684	0012522		0166	15002	514								
	085		0125	1209	35320	2684				15002									
	085		0134	1183	35263	2684				14994									
	085		0146	1191	35295	2685				14999									
	STD		0150	1213	3537	2687	0012316		0197	15008	485								
	085		0150	1213	35367	2687				15008	485	087			002	013	008		
	085		0172	1222	35439	2691				15016									
	085		0184	1220	35461	2693				15018									
	STD		0200	1162	3545	2703	0010917		0255	15000	436								
	085		0200	1162	35447	2703				15000									
	085		0205	1133	35395	2704				14990									
	085		0210	1132	35398	2704				14990									
	STD		0250	0986	3523	2718	0009540		0306	14943	398								
	085		0250	0986	35233	2718				14943	398	142			000	027	014		
	STD		0300	0845	3509	2730	0008422		0351	14897									
	085		0300	0845	35093	2730				14897									
	085		0333	0744	35016	2739				14863									
	085		0365	0719	35023	2743				14858									
	STD		0400	0643	3496	2748	0006705		0427	14833									
	085		0400	0643	34955	2748				14833									
	STD		0500	0535	3496	2762	0005387		0487	14806									
	085		0500	0535	34962	2762				14806									
	085		0555	0496	34963	2767				14799									
	STD		0600	0492	3496	2767	0005004		0539	14805									
	085		0600	0492	34958	2767				14805									
	STD		0700	0463	3496	2771	0004761		0588	14810									
	085		0700	0463	34958	2771				14810									
	STD		0800	0447	3496	2773	0004636		0635	14820									
	085		0800	0447	34963	2773				14820									
	STD		0900	0439	3497	2774	0004582		0681	14833									
	085		0900	0439	34971	2774				14833									
	STD		1000	0424	3496	2775	0004555		0727	14844									
	085		1000	0424	34963	2775				14844									
	STD		1100	0411	3496	2776	0004512		0772	14855									
	085		1100	0411	34960	2776				14855									
	STD		1200	0407	3496	2777	0004548		0817	14870									
	085		1200	0407	34961	2777				14870									
	STD		1300	0398	3496	2778	0004526		0863	14883									
	085		1300	0398	34961	2778				14883									
	STD		1400	0389	3496	2779	0004507		0908	14896									
	085		1400	0389	34960	2779				14896									
	STD		1500	0386	3496	2779	0004542		0953	14911									
	085		1500	0386	34962	2779				14911									

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

[illegible]

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CTD CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER																					
							CRUISE NO.	STATION NUMBER			OR	HGT	SEA																							
318084	A4	39300	067300W	115 97 02 13	112	1969	691	043	3720	11				013	0043																					
<table><tr><td>WATER</td><td>WIND</td><td>BARO- METER</td><td>AIR TEMP. °C</td><td>VIS.</td><td>NO. OBS. DEPTHS</td><td>SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>WIND DIR</td><td>WIND SPEED</td><td>WIND FORCE</td><td>WIND DIRECTION</td><td>WIND SPEED</td><td>WIND FORCE</td></tr><tr><td>01</td><td>50</td><td></td><td></td><td></td><td></td><td></td></tr></table>																WATER	WIND	BARO- METER	AIR TEMP. °C	VIS.	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	WIND DIR	WIND SPEED	WIND FORCE	WIND DIRECTION	WIND SPEED	WIND FORCE	01	50					
WATER	WIND	BARO- METER	AIR TEMP. °C	VIS.	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																														
COLOR CODE	WIND DIR	WIND SPEED	WIND FORCE	WIND DIRECTION	WIND SPEED	WIND FORCE																														
01	50																																			
MESSING TIME 1/10	CASE NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₂ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₂ -S pg - ml/l	OR-A	CTD																			
		STD	0000	0770	3401	2656	0014810	0000	14805																											
		OBS	0000	0770	34012	2656			14805																											
		STD	0010	0787	3405	2657	0014772	0015	14814	6400	085			006	011	004	037																			
		OBS	0010	0787	34051	2657			14814																											
		OBS	0018	0853	34309	2667			14814	5060	074			006	009	005	043																			
		STD	0020	0916	3444	2667	0013812	0029	14869																											
		OBS	0020	0916	34438	2667			14869																											
		STD	0030	1012	3472	2673	0013267	0043	14910	6140	058			006	014	005	038																			
		OBS	0030	1012	34710	2673			14910	593																										
		OBS	0034	1035	34772	2673			14910	593	066			006	015	003	035																			
		OBS	0040	1036	34775	2673			14921																											
		STD	0050	1059	3484	2674	0013214	0069	14931	571																										
		OBS	0050	1059	34840	2674			14931	571	061			011	018	006	039																			
		STD	0075	1157	3512	2679	0012889	0102	14974	556																										
		OBS	0075	1157	35124	2679			14974	556	061			008	014	007	026																			
		OBS	0078	1203	35238	2679			14992																											
		STD	0100	1253	3538	2680	0012840	0134	15014	546																										
		OBS	0100	1253	35380	2680			15014	546	054			006	017	001	003																			
		STD	0125	1280	3546	2681	0012834	0166	15028	494																										
		OBS	0125	1280	35460	2681			15028																											
		OBS	0131	1319	35565	2681			15044																											
		OBS	0136	1290	35533	2684			15034																											
		STD	0150	1267	3552	2688	0012249	0197	15029	442																										
		OBS	0150	1267	35515	2688			15029	442	083			002	015	006																				
		OBS	0166	1260	35543	2691			15029																											
		OBS	0188	1186	35460	2699			15006																											
		STD	0200	1169	3545	2702	0011001	0255	15002	341																										
		OBS	0200	1169	35453	2702			15002	341	122			008	033	007																				
		STD	0250	0999	3525	2717	0009639	0307	14948																											
		OBS	0250	0999	35249	2717			14948																											
		STD	0300	0879	3511	2726	0008838	0353	14910																											
		OBS	0300	0879	35108	2726			14910																											
		OBS	0310	0830	35080	2731			14893																											
		STD	0400	0672	3500	2748	0006766	0431	14845																											
		OBS	0400	0672	35000	2748			14845																											
		STD	0500	0573	3496	2758	0005863	0494	14822																											
		OBS	0500	0573	34963	2758			14822																											
		STD	0600	0494	3497	2768	0004969	0549	14806																											
		OBS	0600	0494	34966	2768			14806																											
		STD	0700	0466	3496	2771	0004761	0597	14811																											
		OBS	0700	0466	34963	2771			14811																											
		STD	0800	0449	3497	2773	0004586	0644	14821																											
		OBS	0800	0449	34973	2773			14821																											
		STD	0900	0433	3497	2775	0004500	0689	14831																											
		OBS	0900	0433	34972	2775			14831																											
		STD	1000	0419	3496	2776	0004486	0734	14841																											
		OBS	1000	0419	34964	2776			14841																											
		OBS	1087	0407	34963	2777			14851																											

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF TEMP.	WAVE OBSERVATIONS			WEA- TIME CODE	CLOUD CODES	NODC STATION NUMBER																																							
318084	A4	39000	068300W	115 98 02 22	136	1969	691	044	3292	02					0044																																								
									---------------	-------------	----------------	---------------	-------------------	-------------------	-------------------------		WATER	WIND	BARO- METER	AIR TEMP. °C	VIS.	NO. OBS. DEPTH	SPECIAL OBSERVATIONS		COLOR CODE	WIND DIR	WIND SPEED	WIND FORCE	WIND DIRECTION	WIND SPEED	WIND FORCE		02	530																					
MESSING TIME 1/10	CASE NO.	CARD TYPE	DEPTH m	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. 10³	SOUND VELOCITY	O₂ ml/l	PO₂-P pg - ml/l	TOTAL-P pg - ml/l	NO₂-N pg - ml/l	NO₃-N pg - ml/l	SiO₂-S pg - ml/l	OR-A	CTD																																						
		STD	0000	1219	3546	2693	0011340	0000	14987	555																																													
		OBS	0000	1219	35462	2693			14987	555																																													
		STD	0010	1216	3546	2693	0011340	0011	14988	552																																													
		OBS	0010	1216	35458	2693			14988	552																																													
		OBS	0019	1217	35457	2693			14988	552	056			008	013	010	028																																						
		STD	0020	1218	3546	2693	0011383	0023	14989	556	060			015	014	011	030																																						
		OBS	0029	1224	35470	2693			14990	555																																													
		STD	0030	1225	3547	2693	0011452	0034	14994	550	057			008	010	005	033																																						
		OBS	0038	1235	35493	2692			14994	549																																													
		OBS	0047	1262	35605	2696			14999	543	060			013	013	009	023																																						
		STD	0050	1266	3561	2695	0011265	0057	15011	5410	047			015	010	010	030																																						
		OBS	0071	1286	35656	2695			15013	543																																													
		STD	0075	1288	3567	2695	0011313	0085	15024	544	060			008	019	006	019																																						
		OBS	T0095	1290	35691	2697			15025	545																																													
		STD	0100	1289	3569	2697	0011254	0113	15030	546	060			019	017	009	022																																						
		STD	0125	1271	3565	2697	0011270	0141	15030	541																																													
		OBS	T0142	1247	35613	2699			15028	519																																													
		STD	0150	1230	3558	2700	0011072	0169	15022	503	073			017	019	012																																							
		OBS	T0189	1134	35433	2707			15017	469																																													
		STD	0200	1103	3539	2709	0010277	0223	14988	353	103			004	024	011																																							
		OBS	0237	0985	35251	2719			14979	335																																													
									14940	323	118			008	019	014																																							

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MASSON SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				CLOUD CODES	NOOC STATION NUMBER
					MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	CHL	PER		
318084	A4	39300	068300W	115	98	02 22 183	1969	691	045	3292	03	4				X2	0045
WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
COLOR CODE		TRANSL (m)		DIR.		SPEED OR FORCE		OBT RULE		WET RULE		VIR CODE					
						04		S15		220		100		7		11	
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₂ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₂ -S pg - ml/l	OH-A	2 CCT
		STO	0000	1042	3490	2662	0012350	0000	14918	618							
183	085	0000	1042	34903	2682				14918	618	041		011	008	008	044	
	STO	0010	1040	3488	2661		0012513	0012	14919	604							
183	085	0011	1040	34878	2681				14919	603	047		013	009	008	025	
	STO	0020	1042	3488	2680		0012577	0025	14921	605							
183	085	0021	1042	34878	2680				14921	605	059		019	014	014	043	
	STO	0030	1042	3490	2682		0012470	0037	14923	603							
183	085	0032	1042	34900	2682				14923	603	055		011	013	007	035	
183	085	0043	1043	34897	2682				14925	603	052		013	012	005	034	
	STO	0050	1044	3490	2682		0012527	0062	14927	603							
183	085	0054	1044	34899	2682				14927	603	049		017	010	007	039	
	STO	0075	1051	3493	2683		0012467	0094	14934	594							
183	085	0082	1053	34941	2683				14936	591	060		017	014	007	030	
	STO	0100	1109	3503	2680		0012791	0125	14960	653							
183	085	T0109	1131	35150	26850				670	053			011	010	011	018	
	STO	0125	1144	3514	2682		0012661	0157	14977	626							
	STO	0150	1161	3523	2686		0012368	0188	14989	575							
183	085	T0169	1170	35272	2688				14995	552	048		011	009	009		
	STO	0200	1177	3530	2688		0012268	0250	15003	555							
183	085	T0223	1182	35322	2689				15009	557	052		011	013	007		
	STO	0250	1156	3535	2696		0011644	0310	15005	486							
183	085	T0283	1096	35384	2710				14990	332	115		000	136	014		

REFERENCE CRUISE ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MASSON SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER				
					10"	1'		MO	DAT			HR	1/10	CRUISE NO.	STATION NUMBER		OK	NG		FF	SEA	TF	AMT
318084	A4	39450	068300W	115	98	02 22 205	1969	691	046	2651	03	4					X2		0046				
WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS													
COLOR CODE		TRANSM.		OIL		SPEED OR FORCE		OBT RULE		WET RULE		VIS CODE											
						04		S18		224		078		7		11							
MESSAGE TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₂ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₂ -S pg - ml/l	OH-A	2 CCT						
		STO	0000	1081	3505	2687	0011945	0000	14934	603													
205	085	0000	1081	35047	2687				14934	603	058		002	044	011	039							
	STO	0010	1076	3505	2687		0011883	0012	14934	605													
205	085	0010	1076	35047	2687				14934	605	044		004	038	008	031							
	STO	0020	1079	3505	2687		0011951	0024	14936	597													
205	085	0020	1079	35048	2687				14936	597	064		002	061	009	039							
	STO	0030	1079	3503	2685		0012129	0036	14938	605													
205	085	0030	1079	35027	2685				14938	605	061		000	046	004	043							
205	085	0040	1081	35046	2686				14940	604	044		000	033	004	040							
	STO	0050	1080	3504	2686		0012069	0060	14941	592													
205	085	0051	1080	35044	2686				14942	591	059		000	061	007	043							
	STO	0075	1080	3505	2687		0012097	0090	14946	598													
205	085	0077	1080	35048	2687				14946	598	060		002	047	009	039							
	STO	0100	1083	3504	2688		0012258	0121	14951	601													
205	085	T0101	1084	35041	2686				14951	601	060		002	066	006	035							
	STO	0125	1140	3521	2688		0012075	0151	14977	567													
	STO	0150	1174	3533	2691		0011869	0181	14994	521													
205	085	T0159	1180	35359	2692				14998	502	074		002	074	009								
	STO	0200	1164	3539	2698		0011365	0239	15000	381													
205	085	T0214	1146	35402	2702				14996	355	099		000	061	009								
	STO	0250	1073	3533	2710		0010309	0293	14975	339													
205	085	T0269	1018	35261	2714				14958	330	137		000	123	018								

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HARDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER			
					10°	1'	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			SEA		
316084	A4	40000	046300W	151	08	02	22	226	1969	691	047	2250	02			X2		0047		
					WATER		WIND		BARO-METER		AIR TEMP. °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
					COLOR CODE	TEMP. °C	DR	SPED OF FORCE	DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS					
						04	525	227	072				7		11					
MISSING TIME HR. 1/10	CAS NO.	CARD TYPE	DEPTH m	T °C	S %	SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		Σ Δ σ DTN, M. ± 10°		SOUND VELOCITY		O ₂ M/L	PO ₂ -P pg - m/l	TOTAL-P pg - m/l	NO ₂ -N pg - m/l	NO ₃ -N pg - m/l	SiO ₂ -Si pg - m/l	CHL-A
		STO	0000	1078										568						
226		085	0000	1078									588	042			000	023	004	039
226		085	0009	1073									594	060			002	061	004	039
		STO	0010	1074									591							
226		085	0019	1087									582	057			000	045	007	029
		STO	0020	1096									586							
226		085	0028	1146									600	053			000	033	006	033
		STO	0030	1153									592							
226		085	0038	1164									573	044			000	032	003	031
226		085	0047	1164									578	044			000	030	007	028
		STO	0050	1163									577							
226		085	0072	1181									574	059			000	042	008	020
		STO	0075	1181									575							
226		085	10096	1162									578	060			000	066	005	035
		STO	0100	1166									577							
		STO	0125	1182									570							
226		085	10144	1186									564	081			000	031	011	
		STO	0150	1186									535							
226		085	10197	1173									574	115			000	087	012	
		STO	0200	1169									588							
226		085	0249	1057									539	133			000	121	024	

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HARDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER					
					10°	1'	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			SEA				
318084	A4	40300	046300W	151	08	02	23	024	1969	691	048	0097	01				X2	0048				
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH		SPECIAL OBSERVATIONS							
					COLOR CODE	TEMP. °C	DR	SPED OR FORCE	DRY BULB	WET BULB	VS CODE	NO. OBS. DEPTH										
						02	520	240	044		07											
MISSING TIME HR. 1/10	CAS NO.	CARD TYPE	DEPTH m	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ σ DTN, M. ± 10°	SOUND VELOCITY	O ₂ M/L	PO ₂ -P pg - m/l	TOTAL-P pg - m/l	NO ₂ -N pg - m/l	NO ₃ -N pg - m/l	SiO ₂ -Si pg - m/l	CHL-A	CHL-B					
		STD	0000	0502	3322	2629	0017438	0000	14687	719												
		085	0000	0502	33221	2629	0017438	0000	14687	719	080			013	041	014	035					
		STD	0010	0500	3323	2629	0017369	0017	14688	715												
024		085	0010	0500	33226	2629	0017369	0017	14688	715	071			011	053	014	031					
		STD	0020	0516	3327	2631	0017227	0035	14697	711												
024		085	0020	0516	33272	2631	0017227	0035	14697	711	083			011	052	016	031					
		STD	0030	0558	3344	2640	0016425	0052	14710	698												
024		085	0030	0558	33443	2640	0016425	0052	14710	698	066			004	026	010	033					
024		085	0040	0574	33493	2642	0015991	0084	14727	692	083			015	064	013	028					
		STD	0050	0578	3354	2645	0015991	0084	14731	688												
024		085	0050	0578	33535	2645	0015991	0084	14731	688	083			013	052	014	024					
		STD	0075	0645	3372	2651	0015431	0123	14764	672												
024		085	0075	0645	33723	2651	0015431	0123	14764	672	082			013	045	013	030					

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HARDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
					10°	1'	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			SEA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
318084	A4	41000	046300W	151	18	02	23	054	1969	691	049	0049	00			2		X2	0	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

TABLE 11.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

[illegible]

REFERENCE		SHIP CODE	LATITUDE 1° 10'	LONGITUDE 1° 10'	MARPEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATORS		DEPTH TO BOTTOM	WAVE OBSERVATIONS	WATER TEMP CODE	CLOUD CODE	MOON STATION NUMBER			
CIM CODE	NO. NO.				15'	1'	MO	DAY	HR	MIN	SEC		OR	NO	TEMP	STA			
316084	A4	42000	066300W	151	28	02	23	117	1969	691	051	0174	02	2	X2	03	0051		
		WATER COLOR	WIND SPEED (KNOTS)	DIR. OF WIND	BARO. PRESSURE (MM HG)	TEMP. OF AIR	TEMP. OF SURF.	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER	TEMP. OF WATER		
		01	50	04	510	234	028	7	11										
MESSAGE TIME 1° 10'	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-1982	S & D OBS. 1° 10'	SOUND VELOCITY	D ₂ m/s	PQ = P m/s	TOTAL = m/s	NO ₂ = N m/s	NO ₃ = N m/s	SiO ₂ = S m/s	OR = A			
117		ST0	0000	0462	3341	2648	0015621	0000	14673	712									
		0B5	0000	0462	33407	2648			14673	712	105		000	050	020	046			
		ST0	0010	0463	3342	2648	0015566	0016	14675	707									
007		0B5	0010	0463	33417	2648			14675	707	102		002	076	016	044			
		ST0	0020	0463	3342	2646	0015575	0031	14677	707									
		0B5	0020	0463	33417	2648			14677	707	105		002	058	018	047			
		ST0	0030	0463	3342	2646	0015564	0047	14679	713									
		0B5	0030	0463	33417	2646			14679	713	102		004	049	021	033			
		0B5	0040	0467	33427	2649			14682	683	103		002	097	019	035			
		ST0	0050	0473	3344	2649	0015557	0078	14686	690									
		0B5	0050	0473	33437	2649			14686	690	103		002	061	017	029			
		ST0	0075	0487	3346	2651	0015392	0117	14697	662									
		0B5	0075	0487	33482	2651			14697	662	079		004	044	013	025			
		ST0	0100	0494	3350	2652	0015343	0155	14704	660									
		0B5	0100	0494	33502	2652			14704										
	ST0	0125	0547	3373	2663	0014281	0192	14733	658										
	0B5	0125	0547	33727	2663			14733											
	ST0	0150	0547	3373	2664	0014287	0228	14737	656										
	0B5	0150	0547	33730	2664			14737	656	126		000	115	024					
	0B5	0163	0547	33730	2664			14739											

REFERENCE	SHIP CODE	LATITUDE	LONGITUDE	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS	WEATHER CODE	CLOUD CODES	MOOD STATION NUMBER			
CTM CODE	IO. NO.	1/10	2/10	10" 1"	MO DAT HR LT/10		CRUISE NO.	STATION NUMBER		DIR	HC	WB	SIA	1/10	2/10	
318084	A4	42300	068300W	151	28	02 23 150	1969	691 052	0210	02	3			X2	0 3	0052
				WATER	WIND	BARO-METER	AIR TEMP. °C		NO. OBS. DIPS	SPECIAL OBSERVATIONS						
				COLOR CODE	TEMP. (m)	DR.	10% OF FORCE	DRY BULB	WET BULB	CODE						
				OT	SD	09	S15	247	044		6	12				
MESSAGE TIME 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDWALT-20°	Σ Δ D DTR. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ =P pg. × 10 ¹¹	TOTAL P pg. × 10 ¹¹	NO ₂ -N pg. × 10 ¹¹	NO ₂ -M pg. × 10 ¹¹	SIO ₂ =S pg. × 10 ¹¹	CHL-A
		STD	0000	0503	3349	2649	0015459	0000	14691	692						
150		0BS	0000	0503	33486	2649			14691	692	092			006	071	017 037
		STD	0010	0502	3349	2650	0015451	0015	14692	678						
		0BS	0010	0502	33487	2650			14692	678	088			006	085	017 037
		STD	0020	0502	3349	2650	0015454	0031	14694	678						
009		0BS	0020	0502	33488	2650			14694	678	092			000	077	016 039
		STD	0030	0502	3349	2650	0015457	0046	14696	678						
		0BS	0030	0502	33489	2650			14696	678	103			008	066	016 034
		0BS	0040	0502	33492	2650			14697							
		STD	0050	0504	3350	2650	0015454	0077	14700	671						
		0BS	0050	0504	33495	2650			14700							
		STD	0075	0514	3352	2651	0015440	0116	14708	651						
		0BS	0075	0514	33515	2651			14708							
		STD	0100	0524	3355	2652	0015338	0154	14717	616	103			000	093	018
		0BS	0100	0524	33547	2652			14717	616						
		STD	0125	0543	3363	2656	0014990	0192	14730							
		0BS	0125	0543	33626	2656			14730							
		STD	0150	0567	3373	2661	0014545	0229	14745							
		0BS	0150	0567	33727	2661			14745							
		STD	0200	0583	3387	2670	0013753	0300	14762							
		0BS	0200	0583	33867	2670			14762							
		0BS	0210	0585	33871	2670			14764							

TABLE 11.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE 10° 1'	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF T-MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOCC STATION NUMBER
							CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	43000	066300W	151 38 02 23	186	1969	691	053	0190	02	1			X1	0 3	0033
				WATER		WIND	BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
				COLOR CODE	TEMP. °C	DIR.	TEMP. °C	DRY BULB	WET BULB	VS CODE						
				DT	50	07	508	227	033	7	21					
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND DENSITY	Σ Δ D OTN, M. Σ 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P PB - M/L	TOTAL-P PB - M/L	NO ₂ -N PB - M/L	NO ₃ -N PB - M/L	SiO ₂ -Si PB - M/L	OR-A Σ CC
166	STD	0000	0413	3290	2612	0018972	0000	14646	709							
	085	0000	0413	32897	2612			14646	709	077			000	054	013	046
008	085	0002	0411	32897	2613			14645								
	STD	0010	0471	3315	2626	0017670	0018	14675	685							
	085	0010	0471	33148	2626			14675	685	080			006	054	015	
	085	0013	0495	33194	2627			14686								
	STD	0020	0480	3321	2630	0017337	0036	14681	678							
	085	0020	0480	33206	2630			14681	678	073			008	056	014	047
	STD	0030	0477	3323	2632	0017120	0053	14682	682							
	085	0030	0477	33232	2632			14682	682	076			002	058	013	038
	085	0040	0490	33272	2634			14690	685	087			008	061	016	037
	STD	0050	0510	3333	2636	0016787	0087	14700	624							
	085	0050	0510	33326	2636			14700	624	093			000	072	014	027
	085	0058	0916	33342	2637			14704								
	085	0067	0992	33498	2640			14739								
	STD	0075	0600	3355	2643	0016141	0128	14744	521							
	085	0075	0600	33554	2643			14744								
	085	0079	0604	33572	2644			14746								
	085	0084	0637	33696	2650			14762								
	STD	0100	0658	3380	2655	0015093	0167	14774	490							
	085	0100	0658	33795	2655			14774	490	117			002	086	021	012
	085	0113	0647	33819	2658			14773								
	STD	0123	0661	3391	2664	0014294	0204	14781								
	085	0125	0661	33912	2664			14781								
	085	0130	0683	34007	2668			14792								
	085	0139	0691	34033	2669			14797								
	085	0144	0723	34129	2672			14812								
	STD	0150	0735	3417	2674	0013367	0238	14818								
	085	0150	0735	34174	2674			14818								
	085	0170	0745	34235	2677			14826								

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE 10° 1'	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF T-MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOCC STATION NUMBER
							CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	43300	068300W	151 38 02 23	221	1969	691	054	0174	01	1			X2	0 3	0054
				WATER		WIND	BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
				COLOR CODE	TEMP. °C	DIR.	TEMP. °C	DRY BULB	WET BULB	VS CODE						
				DT	50	04	512	234	006	7	15					
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND DENSITY	Σ Δ D OTN, M. Σ 10 ³	SOUND VELOCITY	O ₂ M/L	PO ₂ -P PB - M/L	TOTAL-P PB - M/L	NO ₂ -N PB - M/L	NO ₃ -N PB - M/L	SiO ₂ -Si PB - M/L	OR-A Σ CC
221	STD	0000	0320	3225	2370	0022991	0000	14597	724							
	085	0000	0320	32254	2370			14597	724	079			008	052	014	039
	085	0007	0320	32256	2370			14599								
	STD	0010	0330	3230	2373	0022754	0023	14604	727							
007	085	0010	0330	32297	2373			14604	727	074			000	041	011	036
	STD	0020	0355	3249	2585	0021548	0045	14619	712							
	085	0020	0355	32486	2585			14619	712	081			008	048	015	045
	085	0024	0364	32542	2589			14624								
	085	0026	0387	32580	2590			14635								
	STD	0030	0380	3260	2592	0020920	0066	14633	726							
	085	0030	0380	32600	2592			14633	726	067			006	038	014	037
	085	0040	0365	32618	2595			14628	724	082			002	051	015	031
	STD	0050	0361	3263	2597	0020502	0108	14628	717							
	085	0050	0361	32634	2597			14628	717	071			008	039	014	025
	085	0060	0369	32660	2600			14634								
	085	0069	0427	32807	2604			14661								
	STD	0075	0435	3283	2605	0019733	0138	14666	719							
	085	0075	0435	32832	2605			14666	719	081			011	059	014	031
	STD	0100	0540	3319	2622	0018161	0205	14719	631							
	085	0100	0540	33194	2622			14719	631	090			000	062	014	015
	STD	0125	0590	3347	2638	0016679	0249	14747	614							
	085	0125	0590	33474	2638			14747								
	STD	0150	0617	3360	2644	0016136	0290	14764	597							
	085	0150	0617	33595	2644			14764	597	100			006	064	017	

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAP Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MAGNETIC SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF TEMP.	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1'	MO	DAY	HR	CRUISE NO.	STATION NUMBER						
318084	A4	44000	068300W	151	48	02	24	020	1969	691	055	0091	01		X2	0 3	0055
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS			
				COLOR CODE	TEMP. °C	DIR. °	SPEED OF WIND	DRY °C	WET °C	DRY °C	WET °C						
				DT	50	04	525	227	028			6	07				
MESSAGE TIME HR 1/10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	SPECIFIC VOLUME ANOMALY-STEP	Σ Δ D OTN, M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - μ/l	TOTAL-P μg - μ/l	NO ₃ -N μg - μ/l	NO ₂ -N μg - μ/l	SIO ₄ -Si μg - μ/l	CHL-A	1 μg/l
		STD	0000	0340	3252	2589	0021173	0000	14610	730							
	020	OBS	0000	0340	32517	2589			14610	730	075		000	048	010	043	
		STD	0010	0340	3252	2589	0021178	0021	14611	730							
		OBS	0010	0340	32517	2589			14611	730	075		000	038	014	037	
		STD	0020	0327	3256	2594	0020769	0042	14608	726							
	004	OBS	0020	0327	32557	2594			14608	726	077		000	059	010	034	
		STD	0030	0312	3258	2597	0020480	0063	14603	727							
		OBS	0030	0312	32579	2597			14603	727	083		000	048	010	027	
		OBS	0040	0292	32597	2600			14597	730	082		002	044	014	030	
		STD	0050	0290	3261	2601	0020042	0103	14598	728							
		OBS	0050	0290	32614	2601			14598	728	085		000	062	014	028	
		STD	0075	0289	3262	2602	0020021	0153	14601	728							
		OBS	0075	0289	32617	2602			14601	728	088		000	050	010	026	

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MAGNETIC SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF TEMP.	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1'	MO	DAY	HR	CRUISE NO.	STATION NUMBER						
318084	A4	43300	068300W	151	38	02	24	072	1969	691	056	0139	01			0 3	0056
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS			
				COLOR CODE	TEMP. °C	DIR. °	SPEED OF WIND	DRY °C	WET °C	DRY °C	WET °C						
				DT	50							11					
MESSAGE TIME HR 1/10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	SPECIFIC VOLUME ANOMALY-STEP	Σ Δ D OTN, M x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - μ/l	TOTAL-P μg - μ/l	NO ₃ -N μg - μ/l	NO ₂ -N μg - μ/l	SIO ₄ -Si μg - μ/l	CHL-A	1 μg/l
		STD	0000	0368	3279	2608	0019382	0000	14625	729							
	072	OBS	0000	0368	32787	2608			14625	729	077		006	036	010	059	
		STD	0010	0370	3281	2610	0019255	0019	14628	721							
		OBS	0010	0370	32807	2610			14628	721	076		000	056	009	044	
		STD	0020	0394	3291	2615	0018738	0038	14641	714							
	006	OBS	0020	0394	32906	2615			14641	714	077		002	044	007	041	
		STD	0030	0398	3292	2616	0018654	0057	14645	709							
		OBS	0030	0398	32923	2616			14645	709	078		006	041	011	033	
		OBS	0040	0409	32954	2617			14651	708	080		002	050	009	031	
		STD	0050	0419	3299	2620	0018337	0094	14658	659							
		OBS	0050	0419	32994	2620			14658	659	079		006	044	012	032	
		OBS	0064	0420	33010	2621			14661								
		STD	0075	0407	3302	2623	0018028	0139	14657	681							
		OBS	0075	0407	33022	2623			14657								
		STD	0100	0395	3303	2625	0017855	0184	14656	703							
		OBS	0100	0395	33032	2625			14656	703	079		008	062	011	031	
		OBS	0114	0369	33012	2626			14647								
		STD	0125	0366	3302	2627	0017709	0229	14648								
		OBS	0125	0366	33017	2627			14648								

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CIR CODE	SHIP CODE	LATITUDE 1° 10'	LONGITUDE 1° 10'	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER				
							CRUISE NO.	STATION NUMBER										
318084	A4	43000	069300W	151	39 02 24 107	1969	691	057	0174	02			0 3	0057				
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DTN, M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - μ /l	TOTAL-P pg - μ /l	NO ₃ -N pg - μ /l	NO ₃ -N pg - μ /l	SI O ₂ -S pg - μ /l	CHL-A	T °C	
			STO	0000	0387	3277	2605	0019699	0000	14633	712							
	107	085	0000	0387	32768	2605				14633	712	072		000	039	007		
		STO	0010	0387	3277	2605	0019706	0020		14635	713							
		085	0010	0387	32768	2605				14635	713	058		000	021	008		
	007	STO	0020	0387	3277	2605	0019667	0039		14636	714							
		085	0020	0387	32774	2605				14636	714	060		000	030	006		
		STO	0030	0393	3279	2606	0019579	0059		14641	708							
		085	0030	0393	32794	2606				14641	708	049		000	024	003		
		STO	0040	0410	32853	2609				14650	678	066		000	029	007		
		085	0046	0478	33086	2621				14683								
		STO	0050	0480	3310	2622	0018131	0097		14685	674							
		085	0050	0480	33104	2622				14685	674	075		000	050	007		
		STO	0072	0480	33179	2628				14669								
		085	0075	0465	3319	2630	0017388	0141		14684	665							
		STO	0075	0465	33185	2630				14684	665	074		000	039	007		
		085	0078	0485	33254	2633				14693								
		STO	0100	0503	3335	2639	0016568	0184		14706								
		085	0100	0503	33349	2639				14706	6660	088		002	040	011		
		STO	0104	0533	33393	2639				14719								
		085	0113	0531	33406	2640				14720								
		STO	0115	0515	33386	2640				14714								
		085	0125	0520	3340	2641	0016442	0225		14718								
		STO	0125	0520	33397	2641				14718								
		085	0150	0511	3340	2642	0016367	0266		14718								
		STO	0150	0511	33397	2642				14718								
		085	0162	0520	33434	2643				14724								

REFERENCE CIR CODE	SHIP CODE	LATITUDE 1° 18'	LONGITUDE 1° 18'	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER				
							CRUISE NO.	STATION NUMBER										
318084	A4	43000	070300W	152	30 02 24 156	1969	691	056	0091	01				0058				
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DTN, M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - μ /l	TOTAL-P pg - μ /l	NO ₃ -N pg - μ /l	NO ₃ -N pg - μ /l	SI O ₂ -S pg - μ /l	CHL-A	T °C	
			STO	0000	0381	3305	2628	0017540	0000	14634	715							
	136	085	0000	0381	33047	2628				14634	715	081		002	046	016	046	
		STO	0010	0376	3305	2628	0017534	0018		14635	720							
	136	085	0010	0376	33045	2628				14635	720	071		000	032	012	043	
		STO	0020	0362	3304	2627	0017585	0035		14638	718							
	136	085	0020	0362	33044	2627				14638	718	085		002	062	013	041	
		STO	0030	0361	3304	2627	0017598	0053		14639	720							
	136	085	0030	0361	33042	2627				14639	720	082		000	045	014	036	
		STO	0040	0379	33045	2628				14640	720	080		006	038	014	043	
	136	085	0050	0382	33062	2629	0017470	0068		14643	722							
		STO	0075	0375	3304	2628	0017595	0132		14643	6560	085		006	064	012	037	
	136	085	0075	0375	33039	2628				14644	733	075		000	029	010	042	

REFERENCE CIR CODE	SHIP CODE	LATITUDE 1° 18'	LONGITUDE 1° 18'	MARSDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER				
							CRUISE NO.	STATION NUMBER										
318084	A4	42300	070300W	152	20 02 24 196	1969	691	059	0071	00				0059				
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DTN, M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - μ /l	TOTAL-P pg - μ /l	NO ₃ -N pg - μ /l	NO ₃ -N pg - μ /l	SI O ₂ -S pg - μ /l	CHL-A	T °C	
			STO	0000	0182	3256	2605	0019642	0000	14541	765							
	196	085	0000	0182	32559	2605				14541	765	081		002	028	013	031	
		STO	0010	0188	3258	2606	0019562	0020		14546	772							
	196	085	0010	0188	32575	2606				14546	772	102		008	067	019	033	
		STO	0020	0187	3258	2607	0019511	0039		14547	765							
	196	085	0020	0187	32581	2607				14547	765	100		002	054	020	034	
		STO	0030	0187	3257	2606	0019566	0059		14549	762							
	196	085	0030	0187	32574	2606				14549	762	105		006	042	023	037	
	196	085	0040	0192	32584	2607				14553	765	083		000	026	011	030	
		STO	0050	0199	3262	2609	0019303	0098		14558	760							
	196	085	0050	0199	32620	2609				14558	760	092		000	036	016	033	

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January-27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE SHIP CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME IDMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL.	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																														
								CRUISE NO.	STATION NUMBER																																				
318084	A4	42000	070300W	152	20	02 25 004	1969	691	060	0037	00				0060																														
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">AIR TEMP. °C</td><td colspan="2">NO. OBS. DEPTHS</td><td colspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>WAVE HGT. (m)</td><td>DIR. OF FORCE</td><td>BARO-METER (mb)</td><td>DRY BULB</td><td>WET BULB</td><td>VIS. CODE</td><td>NO. OBS. DEPTHS</td><td colspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>04</td><td colspan="2"></td></tr></table>																WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		COLOR CODE	WAVE HGT. (m)	DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									04		
WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																																					
COLOR CODE	WAVE HGT. (m)	DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																					
							04																																						
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTH. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. - ml/l	TOTAL-P pg. - ml/l	NO ₂ -N pg. - ml/l	NO ₃ -N pg. - ml/l	SiO ₂ -S pg. - ml/l	CHL-A																													
		STD	0000	0205	3273	2618	0018494	0000	14554	762				011	063	016	045																												
004	085	0000	0205	32731	2618				14554	762	102																																		
	STD	0010	0211	3274	2618	0018493	0018		14558	760																																			
004	085	0010	0211	32737	2618				14558	760	104			008	050	020	048																												
	STD	0020	0223	3275	2618	0018484	0037		14565	759																																			
004	085	0020	0223	32750	2618				14565	759	107			011	052	019	054																												
	STD	0030	0208	3261	2624	0017915	0055		14561	755																																			
004	085	0030	0208	32811	2624				14561	755	109			011	064	021	047																												

REFERENCE SHIP CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME IDMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL.	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																																																																
318084	A4	39300	070300W	116	90	02 21 145	1969	691	070	2467	02	50	0	X2		0061																																																																															
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MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ_t	Σ Δ D DTH. M. 10³	SOUND VELOCITY	O₂ ml/l	PO₂-P pg. - ml/l	TOTAL-P pg. - ml/l	NO₂-N pg. - ml/l	NO₃-N pg. - ml/l	SiO₂-S pg. - ml/l	CHL-A																																																																															
		STD	0000	1122	3518	2690	0011659	0000	14950	605																																																																																					
145	085	0000	1122	35182	2690				14950	605	044			000	023	004	030																																																																														
	085	0009	1120	35176	2689				14951	602	055			000	040	006	026																																																																														
	STD	0010	1120	3518	2689	0011702	0011		14951	602																																																																																					
145	085	0017	1120						602	045				000	034	009	029																																																																														
	STD	0020	1121	3517	2689	0011798	0023		14953	604																																																																																					
145	085	0026	1122	35163	2688				14954	604	053			000	043	011	029																																																																														
	STD	0030	1121	3518	2690	0011714	0035		14955	601																																																																																					
145	085	0034	1121	35194	2691				14955	599	040			000	020	006	028																																																																														
145	085	0043		35185					599	040				000	024	006	033																																																																														
	STD	0050	1123	3518	2689	0011844	0058		14958	599																																																																																					
145	085	0065	1124	35168	2688				14961	600	054			000	037	010	029																																																																														
	STD	0075	1124	3518	2689	0011913	0088		14963	603																																																																																					
145	085	0087	1123	35182	2689				14964	605	043			000	036	006	027																																																																														
	STD	0100	1122	3518	2689	0011947	0118		14966	604																																																																																					
	STD	0125	1121	3517	2689	0012052	0148		14970	600																																																																																					
145	085	T0134	1120	35164	2689				14971	598	035			000	020	008																																																																															
	STD	0150	1126	3521	2691	0011924	0178		14976	597																																																																																					
145	085	T0159	1129	35228	2692				14979	590	059			000	039	009																																																																															
	STD	0200	1144	3533	2697	0011456	0236		14992	501																																																																																					
145	085	T0238	1157	35416	2701				15004	333	130			000	111	009																																																																															
REFERENCE SHIP CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME IDMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL.	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																																																																																
318084	A4	39450	070300W	116	90	02 21 100	1969	691	071	1829	02				0062																																																																																
												------------	---------------	---------------	-----------------	--------------	----------	-----------------	-----------------	----------------------	--		WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			COLOR CODE	WAVE HGT. (m)	DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										11																																											
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ_t	Σ Δ D DTH. M. 10³	SOUND VELOCITY	O₂ ml/l	PO₂-P pg. - ml/l	TOTAL-P pg. - ml/l	NO₂-N pg. - ml/l	NO₃-N pg. - ml/l	SiO₂-S pg. - ml/l	CHL-A																																																																															
		STD	0000	1066	3499	2684	0012148	0000	14928	714																																																																																					
100	085	0000	1066	34985	2684				14928	714	052			000	038	006																																																																															
100	085	0009	1063	34981	2685				14928	697	050			000	030	005																																																																															
	STD	0010	1063	3498	2684	0012162	0012		14928	697																																																																																					
100	085	0018	1066	34978	2684				14930	694	053			000	048	006																																																																															
	STD	0020	1066	3498	2684	0012235	0024		14931	694																																																																																					
100	085	0028	1067	34983	2684				14932	692	048			000	034	008																																																																															
	STD	0030	1067	3498	2684	0012249	0037		14933	692																																																																																					
100	085	0038	1067	34983	2684				14934	691	045			000	027	009																																																																															
100	085	0047		34990					683	044				000	036	004																																																																															
	STD	0050	1070	3499	2684	0012287	0061		14937	681																																																																																					
100	085	0071	1075	35001	2684				14943	674	050			000	032	004																																																																															
	STD	0075	1076	3501	2684	0012348	0092		14944	674																																																																																					
100	085	T0095	1082	35026	2685				14949	673	048			000	044	001																																																																															
	STD	0100	1107	3509	2685	0012314	0123		14960	670																																																																																					
	STD	0125	1206	3535	2687	0012247	0153		15002	654																																																																																					
100	085	T0140	1244	35462	2688				15019	644	054			000	041	001																																																																															
	STD	0150	1247	3550	2690	0011971	0184		15022	593																																																																																					
100	085	T0190	1257	35544	2692				15032	442	051			000	023	001																																																																															
	STD	0200	1236	3553	2695	0011683	0243		15026	418																																																																																					
100	085	T0240	1074	35335	2710				14974	374	122			000	101	008																																																																															

REFERENCE SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MASSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
				10"	1"	MO	DAY		HR	1/10							CRUISE NO.	STATION NUMBER
318084	A4	39300	070300W	116	90	02	21	145	1969	691	070	2467	02	50	0	X2		0061
				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. UNIT	DIR.	SPEED OF FORCE	BARO-METER (mmHg)	DRY BULB	WET BULB	VIS. CODE							
							04	530	207	067	6	11						
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D DTH. M 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. - ml/l	TOTAL-P pg. - ml/l	NO ₂ -N pg. - ml/l	NO ₃ -N pg. - ml/l	SiO ₂ -S pg. - ml/l	CHL-A	
		STD	0000	1122	3518	2690	0011659		0000	14950	605							
145	085	0000	1122	35182	2690					14950	605	044		000	023	004	030	
145	085	0009	1120	35176	2689					14951	602	055		000	040	006	026	
	STD	0010	1120	3518	2689	0011702	0011			14951	602							
145	085	0017	1120							602	045			000	034	009	029	
	STD	0020	1121	3517	2689	0011798	0023			14953	604							
145	085	0026	1122	35163	2688					14954	604	053		000	043	011	029	
	STD	0030	1121	3518	2690	0011714	0035			14955	601							
145	085	0034	1121	35194	2691					14955	599	040		000	020	006	028	
145	085	0043								599	040			000	024	006	033	
	STD	0050	1123	3518	2689	0011844	0058			14958	599							
145	085	0055	1124	35168	2688					14961	600	054		000	037	010	029	
	STD	0075	1124	3518	2689	0011913	0088			14963	603							
145	085	0087	1123	35182	2689					14964	605	043		000	036	006	027	
	STD	0100	1122	3518	2689	0011947	0118			14966	604							
	STD	0125	1121	3517	2689	0012052	0148			14970	600							
145	085	T0134	1120	35164	2689					14971	598	035		000	020	008		
	STD	0150	1126	3521	2691	0011924	0178			14976	597							
145	085	T0159	1129	35228	2692					14979	590	049		000	039	009		
	STD	0200	1144	3533	2697	0011456	0236			14992	501							
145	085	T0238	1157	35416	2701					15004	333	130		000	111	009		

REFERENCE SHIP CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1°/10	LONGITUDE ° 1°/10	MARSSEN SQUARE	STATION TIME IDMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																							
								CRUISE NO.	STATION NUMBER																													
318084	A4		39450	070300W	116	90 02 21 100	1969	691	071	1829	02				0062																							
<table><tr><td>WATER</td><td>WIND</td><td>AIR TEMP. °C</td><td>NO. OBS. DEPTHS</td><td>SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>WAVE HGT. (m)</td><td>DIR. OF FORCE</td><td>BARO-METER (mb)</td><td>DRY BULB</td><td>WET BULB</td><td>VIS. CODE</td><td colspan="2"></td></tr><tr><td colspan="7">11</td><td colspan="2"></td></tr></table>																WATER	WIND	AIR TEMP. °C	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	WAVE HGT. (m)	DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE			11								
WATER	WIND	AIR TEMP. °C	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																		
COLOR CODE	WAVE HGT. (m)	DIR. OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE																																
11																																						
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTH. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. - ml/l	TOTAL-P pg. - ml/l	NO ₂ -N pg. - ml/l	NO ₃ -N pg. - ml/l	SiO ₂ -S pg. - ml/l	CHL-A																						
		STD	0000	1066	3499	2684	0012148	0000	14928	714																												
100	085	0000	1066	34985	2684				14928	714	052		000	038	006																							
100	085	0009	1063	34981	2685				14928	697	050		000	030	005																							
	STD	0010	1063	3498	2684	0012162	0012		14928	697																												
100	085	0018	1066	34978	2684				14930	694	053		000	048	006																							
	STD	0020	1066	3498	2684	0012235	0024		14931	694																												
100	085	0028	1067	34983	2684				14932	692	048		000	034	008																							
	STD	0030	1067	3498	2684	0012249	0037		14933	692																												
100	085	0038	1067	34983	2684				14934	691	045		000	027	009																							
100	085	0047		34990					683	044			000	036	004																							
	STD	0050	1070	3499	2684	0012287	0061		14937	681																												
100	085	0071	1075	35001	2684				14943	674	050		000	032	004																							
	STD	0075	1076	3501	2684	0012348	0092		14944	674																												
100	085	T0095	1082	35026	2685				14949	673	048		000	044	001																							
	STD	0100	1107	3509	2685	0012314	0123		14960	670																												
	STD	0125	1206	3535	2687	0012247	0153		15002	654																												
100	085	T0140	1244	35462	2688				15019	644	054		000	041	001																							
	STD	0150	1247	3550	2690	0011971	0184		15022	593																												
100	085	T0190	1257	35544	2692				15032	442	051		000	023	001																							
	STD	0200	1236	3553	2695	0011683	0243		15026	418																												
100	085	T0240	1074	35335	2710				14974	374	122		000	101	008																							

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69–1; prepared from NODC Listing No. 31–8084.—Continued

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	WATERSIDE SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SWALLS	WAVE OBSERVATIONS			WEA- THIR CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1"	MO DAT HR 1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	40000	070300W	152	00	02	21 063	1969	691	072	0302	02	8			X2		0063
				WATER	WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS M	DIR	SPEED OF FORCE	WET RUL	DRY RUL	WET RUL								
							04	530	186	044	7	11						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma_t$ DYN. M $\times 10^3$	SOUND VELOCITY	D ₂ m/s	PO ₂ -P µg - g/l	TOTAL-P µg - g/l	NO ₂ -N µg - g/l	NO ₃ -N µg - g/l	SiO ₄ -S µg - g/l	OR-A	1 C	
		STD	0000	0687	3380	2651	0015206	0000	14770	694								
063	085	0000	0687	33799	2651				14770	694	082		000	040	004	029		
063	085	0007	0684	33803	2652				14770	694	067		000	035	003	030		
	STD	0010	0684	3378	2651	0015383	0015	14770	695									
063	085	0014	0684	33770	2649				14770	696	065		000	038	001	030		
	STD	0020	0684	3377	2650	0015488	0030	14771	698									
063	085	0021	0684	33773	2650				14772	698	067		000	033	002	022		
063	085	0028	0691	33785	2650				14776	694	065		000	044	001	027		
	STD	0030	0692	3380	2651	0015403	0046	14776	694									
063	085	0035	0696	33831	2653				14779	694	060		000	041	004	033		
	STD	0050	0727	3386	2650	0015445	0077	14794	689									
063	085	0054	0734	33876	2651				14798	687	062		000	036	004	025		
063	085	0073	0764	34029	2659				14815	677	059		000	028	001	037		
	STD	0075	0767	3403	2659	0014722	0114	14816	677									
	STD	0100	0794	3411	2659	0014689	0151	14834	671									
063	085	T0116	0821	34152	2660				14845	668	051		000	034	003			
	STD	0125	0826	3448	2669	0013889	0187	14890	611									
	STD	0150	1136	3515	2684	0012513	0220	14979	485									
063	085	T0163	1197	35267	2690				15005	439	077		000	054	004			
	STD	0200	1187	3536	2691	0012031	0281	15008	396									
063	085	T0212	1126	35456	2702				14988	382	108		000	068	006			

REFERENCE CIVIL CODE	SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	WATERSIDE SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SWALLS	WAVE OBSERVATIONS			WEA- THIR CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1"	MO DAT HR 1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	40300	070300W	152	00	02	21 010	1969	691	073	0068	00	6			X2		0064
				WATER	WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS M	DIR	SPEED OF FORCE	WET RUL	DRY RUL	WET RUL								
							04	533	193	033	6	06						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma_t$ DYN. M $\times 10^3$	SOUND VELOCITY	D ₂ m/s	PO ₂ -P µg - g/l	TOTAL-P µg - g/l	NO ₂ -N µg - g/l	NO ₃ -N µg - g/l	SiO ₄ -S µg - g/l	OR-A	1 C	
			STD 0000	0414	3311	2630	0017355	0000	14649	741								
	010	085	0000	0414	33113	2630			14649	741	070		000	036	004	019		
		STD 0010	0417	3311	2629	0017452	0017	14652	746									
	010	085	0010	0417	33105	2629			14652	746	078		000	040	009	017		
		STD 0020	0419	3311	2629	0017434	0035	14654	746									
	010	085	0020	0419	33111	2629			14654	746	092		000	038	006	030		
		STD 0030	0417	3311	2629	0017399	0052	14655	746									
	010	085	0030	0417	33114	2629			14655	746	093		004	053	009	025		
	010	085	0040	0415	33123	2630			14656	746	097		008	045	011	036		
		STD 0050	0419	3313	2631	0017299	0087	14660	746									
	010	085	0050	0419	33132	2631			14660	746	096		015	031	016	028		

REFERENCE	SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	WATERSIDE SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SWALLS	WAVE OBSERVATIONS			WEA- THIR CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1"	MO DAT HR 1/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER			
318084	A4	41000	070300W	152	10	02	20	1969	691	074	0046	00	4			X2		0065
				WATER	WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS M	DIR	SPEED OF FORCE	WET RUL	DRY RUL	WET RUL								
							04	520	169	028	6	05						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma_t$ DYN. M x 10 ³	SOUND VELOCITY	D ₂ m/s	PO ₂ -P µg - g/l	TOTAL-P µg - g/l	NO ₂ -N µg - g/l	NO ₃ -N µg - g/l	SiO ₄ -S µg - g/l	OR-A	1 C	
			STD 0000	0242	3303	2639	0016498	0000	14574	812								
	200	085	0000	0242	33030	2639			14574	812	056		006	007	015	6.64		
		STD 0010	0240	3303	2639	0016464	0016	14575	821									
	200	085	0010	0240	33033	2639			14575	8260	047		000	009	012	8.08		
		STD 0020	0242	3303	2639	0016505	0033	14577	828									
	200	085	0020	0242	33030	2639			14577	828	046		000	008	013	4.21		
		STD 0030	0240	3304	2640	0016417	0049	14578	834									
	200	085	0030	0240	33040	2640			14578	834	061		006	011	012	8.84		
	200	085	0040	0243	33027	2638			14581	838	049		000	008	011	6.84		

TABLE II.—Observed and interpolated oceanographic data taken by BCF R/V ALBATROSS IV, 28 January–27 February 1969, on ICNAF Cruise 69-1; prepared from NODC Listing No. 31-8084.—Continued

REFERENCE CTD CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	E W	MARCONI SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	HDDC STATION NUMBER	
					10'	1'	MO	DAY	HR/L/10		CRUISE NO.	STATION NUMBER			CM	PER	SEA				
318084	A4	39000N	070300W		116	90	02	21	206	1969	691	069	2898	1		7		X 2		0066	
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRAN- SMI	DIR.	SPEED OR FORCE	METER	DIR.	DRY BULB	WET BULB									
								04	530	217	089		7	11							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S °C	SIGMA-T	INTEGRAL VOLUME ANOMALY-310'	Σ Δ σ DTH. M. 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg. - ml/l	TOTAL-1 pg. - ml/l	NO ₃ -N pg. - ml/l	NO ₃ -N pg. - ml/l	SiO ₂ -S pg. - ml/l	OR-A	Σ C				
	206	0BS	0000	1187	35426	2696			14976	546	067		002	051	012	032					
		ST0	0000	1187	3543	2696	0011026	0000	14976	546											
		ST0	0010	1184	3543	2697	0010998	0011	14976	535											
	206	0BS	0011	1184	35427	2697			14976	535	065		000	041	010	035					
		ST0	0020	1187	3543	2696	0011068	0022	14979	540											
	206	0BS	0020	1187	35427	2696			14979	540	053		000	041	006	036					
		ST0	0030	1187	3542	2696	0011112	0033	14981	540											
	206	0BS	0031	1187	35424	2696			14981	540	061		000	037	009	036					
	206	0BS	0041	1189	35424	2696			14983	539	052		000	032	007	034					
		ST0	0050	1188	3542	2696	0011218	0055	14984	538											
	206	0BS	0051	1188	35420	2696			14984	538	072		004	056	010	031					
		ST0	0075	1187	3542	2696	0011263	0084	14988	540											
	206	0BS	0077	1187	35420	2696			14988	540	065		000	045	008	032					
		ST0	0100	1189	3542	2695	0011363	0112	14993	543											
	206	0BS	T0101	1189	35420	2695			14993	543	060		002	064	010	029					
		ST0	0125	1187	3543	2696	0011336	0140	14996	532											
		ST0	0150	1186	3544	2697	0011309	0169	15000	526											
	206	0BS	T0160	1185	35440	2698			15001	525	051		000	031	009						
		ST0	0200	1020	3528	2715	0009687	0221	14947	531											
	206	0BS	T0204	1007	35262	2716			14943	532	117		000	067	015						
		ST0	0250	0905	3515	2725	0008850	0267	14912	543											
	206	0BS	T0255	0899	35141	2725			14910	545	151		000	138	020