

DATA DOCUMENTATION FORM

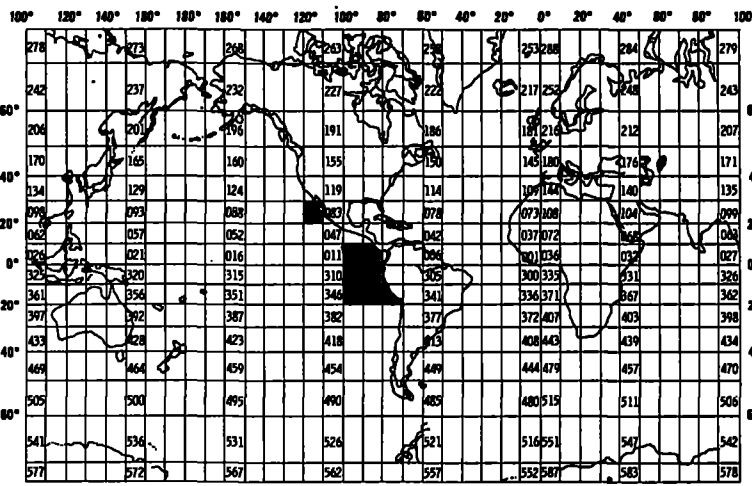
NOAA FORM 24-13
(4-72)U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852FORM APPROVED
O.M.B. No. 41-R2651

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

*Replacement
Rec'd 11/1/81*

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED GEOSECS OPERATIONS GROUP/NSF PHYSICAL AND CHEMICAL OCEANOGRAPHIC DATA FACILITY SCRIPPS INSTITUTION OF OCEANOGRAPHY, S-001 UNIVERSITY OF CALIFORNIA, SAN DIEGO LA JOLLA, CALIFORNIA 92093			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED EL NINO WATCH		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT 34	
4. PLATFORM NAME(S) R/V MOANA WAVE	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) Research Ship	6. PLATFORM AND OPERATOR NATIONALITY(IES) USA USA	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR 02/11/75 05/27/75
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA 	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Robert T. Williams (714) 452-4420			

B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

EXAMPLE (HYPOTHETICAL INFORMATION)

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Salinity	700	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	ϕ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING
TWO PAGES FOR THIS INFORMATION)

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Pressure	Decibars	Neil Brown CTD	N/A	N/A
Temperature	Degrees Celsius	Neil Brown CTD	N/A	Values averaged over 2.5-decibar blocks
Salinity	°/oo	Neil Brown CTD	N/A	Values averaged over 2.5-decibar blocks

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING

C. DATA FORMAT

This information is requested only for data transmitted on punched cards or magnetic tape. Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).
2. Describe briefly how your file is organized.
- 3-13. Self-explanatory.
14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity).
15. Enter starting position of the field.
16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.
17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").
18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

HEADER RECORD, identified by record type=1 in last field of record

DATA RECORD, identified by record type=3 in last field of record

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Logical record length is 80 bytes.

Physical record length is 40 logical records.

No tape label.

For each station: one header record, followed by a data record for each pressure level. EOF between each station, double EOF at end of tape.

3. ATTRIBUTES AS EXPRESSED IN

☐

PL-1

☐

ALGOL

☐

COBOL

☒

FORTRAN

☐

LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER

ADDRESS

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE

☐

BCD

☐

BINARY

☐

ASCII

☒

EBCDIC

☐

6. NUMBER OF TRACKS
(CHANNELS)

☐

SEVEN

☒

NINE

☐

7. PARITY

☒

ODD

☐

EVEN

8. DENSITY

☐

200 BPI

☐

1600 BPI

☐

556 BPI

☒

800 BPI

☐

9. LENGTH OF INTER-
RECORD GAP (IF KNOWN)

☐

3/4 INCH

☒

.6 inch

10. END OF FILE MARK

☐

OCTAL 17

☒

octal 23

11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE
ORIGINATOR NAME AND SOME LAY SPECIFICATIONS
OF DATA TYPE, VOLUME NUMBER)

GEOSECS Operations Group
CTD Data
EL NINO WATCH CRUISE
GOG Ref. 34

12. PHYSICAL BLOCK LENGTH IN BYTES

3200

13. LENGTH OF BYTES IN BITS

8

RECORD FORMAT DESCRIPTION

RECORD NAME HEADER RECORD

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <u>bytes</u> (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Cruise name	1	20	bytes	A20	
Ship name	21	20	bytes	A20	
GOG/PACODEF Reference	41	4	bytes	I4	Reference cruise number
Station Number	45	4	bytes	I4	
Cast Number	49	2	bytes	I2	
Up/Down Indicator	51	1	byte	I1	1=up, 2=down (indicates whether data collected on up or down part of trace)
Number of Data Records	52	4	bytes	I4	Total number of logical data records for this station file
Decimal Latitude	56	9	bytes	F9.3	North='+', South='-' (in degrees to thousandths)
Decimal Longitude	65	9	bytes	F9.3	East='+', West='-'
Month	74	2	bytes	I2	Date
Day	76	2	bytes	I2	the data
Year	78	2	bytes	I2	was
Record Type indicator	80	1	byte	I1	collected minus 1900
					Record type for header=1

RECORD FORMAT DESCRIPTION

RECORD NAME DATA RECORD

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Pressure	1	8	bytes	F8.1	in decibars
Temperature	9	8	bytes	F8.3	in degrees Celsius
Salinity	17	8	bytes	F8.3 (T80)	in ‰ (tab 80)
Record Type Indicator	80	1	bytes	I1	Record type for data=3

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <i>(e.g., bits, bytes)</i>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Neil Brown CTD		X		Instrument is calibrated by comparison with data from Niskin bottle samples taken on each cast.					

MITCHELL

ACCESSION
NUMBER

77-0524

RCVD 5 JULY 77 DATA DOCUMENTATION FORM

NOAA FORM 24-13
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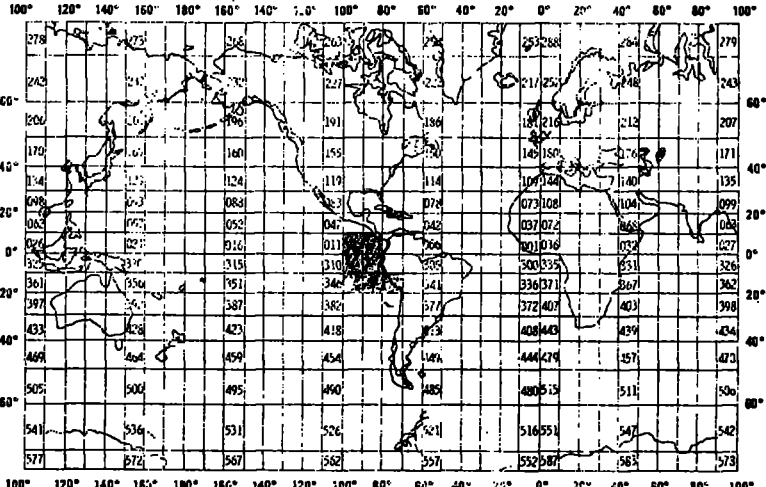
IDOE/NORPAX
189 OCEAN SERIAL STATIONS

NODC TAPE 3864

9 TRK 1600 NL

A. ORIGINATOR IDENTIFICATION LRELL = 120

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS BLKS 13E = 6000

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED GEOSECS Operations Group/NSF Scripps Institution of Oceanography University of California, San Diego S-001 La Jolla, CA 92093			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED El Nino Watch		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT 34	
4. PLATFORM NAME(S) R. Moana Wave	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) Ship	6. PLATFORM AND OPERATOR NATIONALITY(IES) U.S.A. U.S.A.	
		7. DATES FROM: MO/DAY/YR TO: MO/DAY/YR 02/11/75 05/27/75	
8. ARE DATA PROPRIETARY? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA 	
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10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) Arnold E. Bainbridge (714) 452-4420			

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample Number	N/A	N/A	N/A	N/A
Depth	Meters	N/A	N/A	Calculated from pressure by integration of hydrostatic equation
Temperature	Deg. C.	Deep Sea Reversing Thermometer	N/A	N/A
Salinity	‰	Niskin bottles	Duplicate measurements by Plessey Inductive Salinometer Model 6230	N/A
Dissolved Oxygen	μM/kg	Niskin bottles	Winkler titration as revised by J. H. Carpenter (1965)	N/A
Phosphate	μM/kg	Niskin bottles	Hydrazine reduction of phosphomolybdic acid. Technicon AutoAnalyzer ^R Bernhardt & Wilhelm (1967)	N/A
Nitrate	μM/kg	Niskin bottles	Reduced by copperized cadmium analyzed as Nitrite by method of Armstrong et al (1967). Technicon AutoAnalyzer ^R .	N/A
Nitrite	μM/kg	Niskin bottles	SEE NITRATE	N/A

B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

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Salinity	700	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	ϕ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING
TWO PAGES FOR THIS INFORMATION)

B. SCIENTIFIC CONTENT

[illegible]

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample number	N/A	N/A	N/A	N/A
Depth	Meters	N/A	N/A	Calculated from pressure by integration of hydrostatic equation
Temperature	Deg. C.	CDT Neil Brown	N/A	Selected from curve fit through 10 points before and after rosette tripping
		Deep Sea Reversing Thermometers	N/A	N/A
Salinity	‰	Niskin bottles	Duplicate measurements by University of Washington Conductive Bridge Salinometer	N/A
		CDT Neil Brown	N/A	See Temperature
Dissolved Oxygen	μM/kg	Niskin bottles	Winkler titration as revised by J.H. Carpenter (1965)	N/A
		GEOSECS Oxygen probe	N/A	See Temperature
Phosphate	μM/kg	Niskin bottles	Hydrazine reduction of phosphomolybdic acid. Technicon AutoAnalyzer ^R Bernhardt & Wilhelm (1967)	N/A
Nitrate	μM/kg	Niskin bottles	Reduced by copperized cadmium, analyzed as nitrite by method of Armstrong et al (1967). Technicon AutoAnalyzer ^R	N/A

B. SCIENTIFIC CONTENT

[illegible]

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Silicate	$\mu\text{M/kg}$	Niskin bottles	Stannous chloride reduction of silicomolybic acid. Armstrong et al (1967) Technicon AutoAnalyzer ^R	N/A
Pressure	decibars	Deep Sea Reversing Thermometers	N/A	N/A
Chlorophyll-A	milligrams/ cu. m.	Fluorometric	Lorenzen, C.J. (1967) Limnol. & Oceanog. 12: 343-346 also Strickland, J.D.H. & T.R. Parsons (1968) Bull. 167, Fish. Res. Bd. Can.	
Primary Productivity	milligrams/cu. m./ day	C - 14 uptake	Steeman Nielsen, E. (1952) J. Cons. Perm. Int. Explor. Mer 18: 117-140 as modified by Ryther, J.H. (1966) limnol. & Oceanog. 11: 371-380	

DATA DOCUMENTATION FORM

NOAA FORM 24-13
(5-72)U.S. DEPARTMENT OF COMMERCE
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O.M.B. No. 41-R2651

322961

C100

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NODC TAPE 3864

IDOE/NORPAX

A. ORIGINATOR IDENTIFICATION

LABEL = (,NL)

LRECL = 120

BLKSIZE = 6000

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

GEOSECS Operations Group/NSF
Scripps Institution of Oceanography
University of California, San Diego S-001
La Jolla, CA 92093

9 TRK 1600 b.p.l.

BLIFactor - 50

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

El Nino Watch

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

34

4. PLATFORM NAME(S)

R/V Moana Wave

5. PLATFORM TYPE(S)
(E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR
NATIONALITY(IES)

U.S.A.

U.S.A.

7. DATES

FROM: MO/DAY/YR

TO: MO/DAY/YR

02/11/75

05/27/75

8. ARE DATA PROPRIETARY?

☐ NO ☒ YESIF YES, WHEN CAN THEY BE RELEASED
FOR GENERAL USE? YEAR MONTH

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

☐ NO ☒ YES ☐ PART (SPECIFY BELOW)

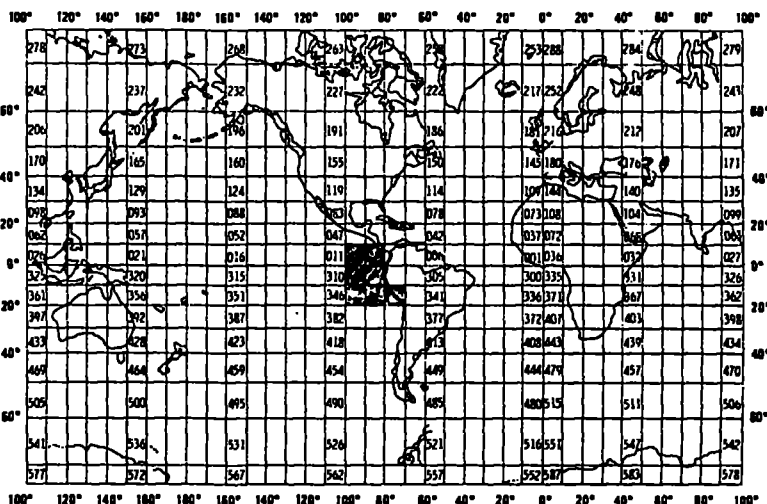
PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)

Arnold E. Bainbridge
(714) 432-420

A52-3668

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Sample number	N/A	N/A	N/A	N/A
Depth	Meters	N/A	N/A	Calculated from pressure by integration of hydrostatic equation
Temperature	Deg. C.	CDT Neil Brown	N/A	Selected from curve fit through 10 points before and after rosette tripping
		Deep Sea Reversing Thermometers	N/A	N/A
Salinity	‰	Niskin bottles	Duplicate measurements by University of Washington Conductive Bridge Salinometer	N/A
		CDT Neil Brown	N/A	See Temperature
Dissolved Oxygen	μM/kg	Niskin bottles	Winkler titration as revised by J.H. Carpenter (1965)	N/A
		GEOSECS Oxygen probe	N/A	See Temperature
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B. SCIENTIFIC CONTENT

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Silicate	$\mu\text{M/kg}$	Niskin bottles	Stannous chloride reduction of silicomolybdic acid. Armstrong et al (1967) Technicon AutoAnalyzer	N/A
Pressure	decibars	Deep Sea Reversing Thermometers	N/A	N/A
Chlorophyll-A	milligrams/ cu. m.	Fluorometric	Lorenzen, C.J. (1967) Limnol. & Oceanog. 12: 343-346 also Strickland, J.D.H. & T.R. Parsons (1968) Bull. 167, Fish. Res. Bd. Can.	
Primary Productivity	milligrams/cu. m./ day	C - 14 uptake	Steeman Nielsen, E. (1952) J. Cons. Perm. Int. Explor. Mer 18: 117-140 as modified by Ryther, J.H. (1966) limnol. & Oceanog. 11: 371-380	

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Sample Number	N/A	N/A	N/A	N/A
Depth	Meters	N/A	N/A	Calculated from pressure by integration of hydrostatic equation
Temperature	Deg. C.	Deep Sea Reversing Thermometer	N/A	N/A
Salinity	‰	Niskin bottles	Duplicate measurements by Plessey Inductive Salinometer Model 6230.	N/A
Dissolved Oxygen	μM/kg	Niskin bottles	Winkler titration as revised by J. H. Carpenter (1965)	N/A
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Nitrate	μM/kg	Niskin bottles	Reduced by copperized cadmium analyzed as Nitrite by method of Armstrong et al (1967). Technicon AutoAnalyzer ^R .	N/A
Nitrite	μM/kg	Niskin bottles	SEE NITRATE	N/A

B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
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Pressure	decibars	Deep Sea Reversing Thermometers	N/A	N/A
Chlorophyll-A	milligrams/ cu. m.	Fluorometric	Lorenzen, C.J. (1967) Limnol. & Oceanog. 12: 343-346 also Strickland, J.D.H. & T.R. Parsons (1968) Bull. 167, Fish. Res. Bd. Can.	
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RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		

RECORD FORMAT DESCRIPTION

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		NUMBER	UNITS		

C. DATA FORMAT

This information is requested only for data transmitted on punched cards or magnetic tape. Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).
2. Describe briefly how your file is organized.
- 3-13. Self-explanatory.
14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity).
15. Enter starting position of the field.
16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.
17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").
18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL
☐ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER _____

ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input type="checkbox"/> _____</p>	
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>	
<p>7. PARITY</p> <p><input type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>LRECL = 120</p>	
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>6000</p>
		<p>13. LENGTH OF BYTES IN BITS</p>

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	

EL NINO WATCH HYDRO DATA TAPE FORMAT

Because of the large number of non-standard parameters measured on GEOSECS expeditions, a different (from NODC's usual) format has been designed to cope with the situation. All tapes are transmitted in EBCDIC code, 1600 BPI, 9-track. Data is blocked into physical records of 6000 characters each. Each physical record contains 50 logical records of 120 characters with the record type identified by the characters 119 and 120 (coding is given in Appendix A). Incomplete blocks (at the end of files) contain blanks. Each cruise or expedition is contained in one file. The tapes do not contain tape labels.

Note that units used are in conservative units of, for example, micromoles/kilogram rather than conventional micromoles/liter. Pressure is the primary "depth" function. Depth given in these data has been calculated by integrating the hydrostatic equation as a function of pressure.

Footnotes are summarized in Appendix B. Accuracy indications (or more correct precision indicators) given for temperature and salinity reflect the number of digits to the right of the decimal point to which the data is considered significant. Missing data or samples not analyzed are recorded as blanks. Samples analyzed and less than the detectable units are recorded as zeros.

On format descriptions, T refers to TAB and is the location in the logical record of the first character of the field. Alphanumeric fields are given as 30A etc. These fields are machine dependent and can be interpreted as 15A2 or etc.

APPENDIX A — Record Codes

Record codes appropriate to this tape (Λ indicates blanks) located in character locations 119 and 120 of each logical record.

- ΛA Station and cast information (see Appendix C)
- ΛB Hydrographic data (see Appendix D)
- 1B Hydrographic data with chlorophyll and productivity

APPENDIX B — Footnotes

Alphabetic characters found in the data list indicate the following:

- A. Data taken from CTD down trace
- B. Temperature calculated from unprotected thermometer
- D. Data extracted from CTD records (normally taken by discrete measurements)
- E. Values originally reported in reverse order
- G. Data appearing to be in error, but which has been verified by other measurements
- H. Thermometric data (normally measured by CTD)
- P. Pretrip or posttrip
- U. Uncertain data.

APPENDIX C -- Format of Leading Record Logical Record Type "A"

<u>TAB</u>	<u>FIELD</u>	<u>DESCRIPTION</u>
T1	30A	HEADING (Includes name of expedition and type of data) e.g., 'GEOSECS ATLANTIC HYDRO DATA'
T31	I5	USER's STATION NUMBER
T36	I2	CAST NUMBER (Each station consists of a number of casts and an "A" logical record is given for each cast.
T38	1X	
T39	I2	DAY
T41	I2	MONTH
T43	I2	YEAR - 1900
T45	1X	
T46	4A	TIME (GMT)
T50	1X	
T51	I2	LATITUDE (degrees)
T53	F4.1	LATITUDE (minutes to tenths)
T57	1A	HEMISPHERE (N, S)
T58	I3	LONGITUDE (degrees)
T61	F4.1	LONGITUDE (minutes to tenths)
T65	1A	HEMISPHERE (E, W)
T66	I4	BOTTOM DEPTH (corrected meters)
T70	1X	
T71	30A	SHIP NAME
T119	2A	LOGICAL RECORD CODE ('A')

TAPE #933

✓NO APPENDIX D

APPENDIX E -- Hydrographic Data

<u>TAB</u>	<u>FIELD</u>	<u>DESCRIPTION</u>
T1	I5	SAMPLE NUMBER (= cast number * 100 + sampler number. If cast number computes greater than largest cast number defined on logical records of type "A", this record of data has been taken from continuous CTD records at pressures other than where discrete samples were collected. The appropriate cast number is the computed cast number divided by 10.)
T6	I5	DEPTH
T11	1A	DEPTH FOOTNOTE
T12	F6.3	TEMPERATURE
T18	1A	TEMPERATURE FOOTNOTE
T19	I1	TEMPERATURE PRECISION INDICATOR
T20	F6.3	SALINITY
T26	1A	SALINITY FOOTNOTE
T27	I1	SALINITY PRECISION INDICATOR
T28	I3	OXYGEN (micromole/kilogram) → <i>milli L / L</i>
T31	1A	OXYGEN FOOTNOTE
T32	F4.2	✓ PHOSPHATE (micromole/kilogram) → <i>micro gram atoms / L</i>
T36	1A	PHOSPHATE FOOTNOTE
T37	F4.1	✓ NITRATE (micromole/kilogram) → <i>micro gram atoms / L</i>
T41	1A	✓ NITRATE FOOTNOTE
T42	F5.2	✓ NITRITE (micromole/kilogram) → <i>micro gram atoms / L</i>
T47	1A	NITRITE FOOTNOTE
T48	F5.1	✓ SILICATE (micromole/kilogram) → <i>micro gram atoms / L</i>
T53	I5	PRESSURE (millibars)
T58	F5.1	CHLOROPHYLL
T64	F5.1	Productivity milligrams/cubic meter/day
T119	2A	LOGICAL RECORD CODE ('A' 'B')

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700524

- 1) File Type: C100(Nansen)
- 2) Project Ident.: 0078 (IDOE/NORPAC)
- 3) ^{Ref.}~~Track~~ Nos.: 322961

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700524

Ref.
TRACK NO(s): 322961

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	NINO	NL	120	6000	9-tr 1600 BPI EBCDIC	
Duplicate	W00394	SL	120	6000	9-tr 1600 BPI	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7700524/322961

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORD
ORIGINATOR TAPE	<u>9/18/80</u>	NINO	1	6000	120	
QUADI/SCAN TAPE	<u>9/18/80</u>	W00394	1	6000	120	
ASSIGNED FOR PROCESS.						
DDF EVALUATION						
QUALITY REVIEW						
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK						
FIRST USER TAPE						
WORK DISK FILE						
FINAL USER TAPE						
FINAL MULCHEK						
EDITED DISK FILE						
DATA SET "FINALIZED"						

ACCESSION NUMBER 7700524
DATE RECEIVED 071377

REFERENCE = 322961 CRUISE = 34 DATES 021175-052775 DUC = 1
COUNTRY = 31 UNITED STATES
01-CA SCRIPPS INST OF OCEANOGRAPHY (LA JOLLA)
FILE-ALIAS = C100 OCEAN STATION DATA (NANSEN)
PROJECT = 0078 IDDE/NORPAX MEDIUM = 09 MAG TAPE DIG NODC
PLATFORM = MW MOANA WAVE TYPE = SHIP
STATIONS-IN = 189 STATIONS-OUT = 0 RECORD COUNT = 0
STATUS: RES SU SP H-PRO PROCESS DIP MASTER RETCOR
071377 070177
RU- FILEID- LEASE-DOMES

1 TRACK RECORD SELECTED