

## DDE B: 3:13 DATA DOCUMENTATION FORM

TR1430

A 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

F004

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

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  Hopkins Marine Station of Stanford University Pacific Grove, California 93950			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED  California Cooperative Oceanic Fisheries Investigations (CALCOFI)		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
4. PLATFORM NAME(S)  TAGE	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)  Ship	6. PLATFORM AND OPERATOR NATIONALITY(IES)  U.S. U.S.	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR  01/04/68 12/04/68
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 checked="" type="checkbox"/> NO <input 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)			

# 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
Temperature	° Celcius	Reversing Thermometers		
Salinity	o/oo	Table for Sea Water Density 1952 H.O. Pub. 615		
Sigma-t				
Oxygen	ML/L	Winkler Method	Carpenter Modification	
Nitrite	microgram-at/l	Titration	Strickland & Parsons 1960	
Silicate	"	"	"	
Phosphate	"	"	"	

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

FILE HEADER RECORD - "1" in col. 10  
FIRST STATION HEADER RECORD - "2" in col. 10  
SECOND STATION HEADER RECORD - "3" in col. 10  
DATA RECORDS - "4" in col. 10

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

3. TRIBUTES 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>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input checked="" type="checkbox"/> 3/4 INCH</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>Data on tape is in card image</p> <p>dcb = (recfm+fb,lrecl+80,blksize=3200)</p> <p>DSN = AC <u>710603</u>, vol=ser= <u>012756</u></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>9 Track tape; Standard Label.</p>
	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>3200</p>
	<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

1/5

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes NUMBER	17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
<u>File Header Record</u>				
File Type	1	3	A3	"004" (constant)
Track Number	4	6	6A1	NODC (in-house) Identifier
Record Type	10	1	A1	"1" (File Header Record)
Vessel	11	11	11A1	(left aligned)
Cruise	22	6	6A1	Originator's Cruise Identifier
Cruise Dates	28	17	5(I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning Month, Day, Year; Ending Month, Day, Year
Senior Scientist	45	19	19A1	(left aligned)
Investigator	64	17	17A1	Responsible Institution (left aligned)

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

2 / 5

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes NUMBER	17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
<u>First Station Header Record</u>				
File Type	1	3	A3	"004" (constant)
Track Number	4	6	6A1	NODC (in-house) Identifier
Record Type	10	1	A1	"2" (First Station Header Record)
Sequence	11	3	I2	Sequence of this record type within station. (Leading zeros or leading blanks.)
Station	14	5	5A1	Station Identifier
Latitude	19	6	3I2	Degrees, Minutes, Seconds
Lathem	25	1	A1	Hemisphere "N" or "S"
Longitude	26	7	I3, 2I2	Degrees, Minutes, Seconds
nhem	33	1	A1	Hemisphere "W" or "E"
Time	34	3	I3	GMT in hour to tenths
Date	37	8	2(I2,A1), I2	XX/XX/XX Station Date; Month, Day, Year
Bottom	45	5	I5	Water Depth, meters to tenths
Navigation	50	2	I2	(See attached codes)
Method	52	1	I1	(See attached codes)
Blank	53	28	28X	Blank

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

3 / 5

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN  (e.g., bits, bytes)	16. LENGTH in bytes		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER			
<u>Second Station Header Record</u>					
File Type	1	3	A3		"004" (constant)
Track Number	4	6	6A1		NODC (in-house) Identifier
Record Type	10	1	A1		"3" (Second Station Header Record)
Sequence	11	3	I3		Sequence of this record type within station, (Leading zeros or leading blanks.)
Station	14	5	5A1		Station Identifier
Barometer	19	3	I3		Pressure in millibars to tenths
Dry Bulb	22	4	I4		Air temperature; degrees Celsius to tenths
Wet Bulb	26	4	I4		Air temperature; degrees Celsius to tenths
Wind Direction	30	2	I2		WMO code 0877; tens of degrees
Wind Speed	32	2	I2		Knots
Sea Direction	34	2	I2		WMO code 0885; tens of degrees
Sea Height	36	1	A1		WMO code 1555
Swell Direction	37	2	I2		WMO code 0885
Swell Height	39	1	A1		WMO code 1555
Weather	40	1	I1		WMO code 4501
Cloud Type	41	1	A1		WMO code 0500
Cloud Cover	42	1	I1		WMO code 2700
Visibility	43	1	I1		WMO code 4300
Transparency	44	4	I4		Secchi Disk Depth; meters to tenths
Turbidity Code	48	1	I1		(See attached codes)
Blank	49	37	37X		Blank

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

4 / 5

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes NUMBER	17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
<u>Data Record</u>				
File Type	1	3	A3	"004" (constant)
Track Number	4	6	6A1	NODC (in-house) Identifier
Record Type	10	1	A1	"4" (Data Record)
Sequence	11	3	I3	Sequence of this record type within station. (Leading zeros or leading blanks.)
Station	14	5	5A1	Station Identifier
Depth	19	4	I4	Sample Depth; to tenths
Temperature	23	5	I5	Water Temp.; degrees Celsius to thousandths
Salinity	28	5	I5	Salinity; parts per thousand to thousandths
Sigma-T	33	4	I4	Sigma-t to hundredths
Transmissivity	37	3	I3	Transmissivity; percent to tenths
pH	40	3	I3	pH to hundredths
eH	43	4	I4	eH to hundredths
Oxygen	47	4	I4	Dissolved; hundredths to ml./liter
Ammonia	51	3	I3	Tenths of microgram (ug)-atoms/liter
Nitrite	54	3	I3	Hundredths of ug-atoms/liter
Nitrate	57	4	I4	Hundredths of ug-atoms/liter
Silicate	61	4	I4	Hundredths of ug-atoms/liter
Phosphate	65	3	I3	Inorganic; hundredths of ug-atoms/liter
Solids	68	4	I4	Suspended solids in hundredths of mg./liter

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

.5 / 5

14. FIELD NAME	15. POSITION FROM +1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes NUMBER	17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
<u>Data Record (cont'd)</u>				
Turbidity	72	4	I4	Turbidity; in hundredths of mg./liter
Chlorophyll	76	5	I5	Chlorophyll; in hundredths of mg./meter <sup>3</sup>



Water Physics and Chemistry

NAVIGATION

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY CODE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 cm. path.
- 3 = Fluorometer; suspended solids calibration

METHOD CODE

- 1 = STD (Salinity, Temperature, and Depth recorder)
- 2 = XBT (Expendable Bathythermograph)
- 3 = Hansen Cast
- 4 = MBT (Mechanical Bathythermograph)

TR 1430

## CODING INSTRUCTIONS

NODC COUNTRY-CRUISE REFERENCE NO. 71-0603, WRITER LWA DATE \_\_\_\_\_

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_; APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

SOURCE MATERIAL (AUTHOR, TITLE, VOLUME, PART, PAGE, ETC.)

CalCOFI Hydrographic Data Annual Report of 1968 from Hopkins Marine Station of Stanford University. The entire data batch - 71-0603 - consists of one (1) sub-data set (1 cruise) containing 195 observations. The data is a series of observations taken at six (6) specific locations. The positions for these locations are recorded on a supplemental sheet. The vessel remains the same throughout the cruise as the TAGE. The stations are recorded in chronological order up until 25 April 1968 (pg. #6). From that point and to the end of the cruise, the following procedure should be employed for station #3 only. Information for the first and second Station Header Records should continue to be coded as given on pages 6 through 21. However, the Data Record information is to be coded from pages 22 through 25. Data Record information for station #3 on pages 6 through 21 should be ignored.

NODC PUB. M-2 \_\_\_\_\_ IS TO BE USED IN CONJUNCTION WITH THESE INSTRUCTIONS

(General instructions begin on Page 2)

INSTR. NO.	SPECIAL INSTRUCTIONS
#1	<i>If any entry is made in any field on the Data Record, and that entry does not fill the entire field, zeros (0) should be prefixed to fill that particular field. If no entry is made, leave field blank.</i>
#2	<i>Do not code decimal points. They are understood.</i>

4 January 1966

Hour  
0830 - 1219

Station No.		1	2	3	4	5	6	Mean
Observation	Depth (m)							
Weather and Surface Conditions								
Wind D		3	2	2	2	2	2	
Weather		2	2	2	2	2	2	
Barom		30.33	30.38	30.38	30.38	30.34	30.30	
Wind F		1	3	4	3	1	1	
Cloud T		0	0	1	0	0	0	
Cl Cover		0	0	0	0	0	0	
Visib		25	20	20	20	10	15	
Sea H		1	3	4	3	2	1	
Sw H		1	2	3	3	2	2	
Sw D		7	7	7	7	6	6	
Hydrographic Observations								
RT	0 } DEPTH	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	
	15	11.59	11.57	11.75	11.46	11.45	11.38	11.53
	15	11.58	11.60	11.77	11.45	11.43	11.02	11.48
	0	11.7	11.6	11.8	11.5	11.6	11.5	11.62
	15	11.7	11.6	11.8	11.5	11.6	11.4	11.60
	20	11.4	11.4	11.8	11.7	11.6	11.3	11.55
	30	11.4	11.6	11.7	11.4	--	11.2	11.46
	40	--	11.5	11.3	11.4	--	11.1	11.33
	50	--	11.2	11.2	11.2	--	11.0	11.40
Sal	0	33.30	33.28	33.16	33.53	33.55	33.58	33.36
	15	33.44	33.33	33.44	33.48	33.37	33.49	33.39
Sigma-t	0	25.37	25.36	25.31	25.57	25.43	25.62	25.41
	15	25.48	25.39	25.44	25.53	25.45	25.61	25.48

SAMPLE OBSERVATION

12 January 1966

0830 - 1205

Weather and Surface Conditions								
Wind D		0	2	2	2	2	2	
Weather		2	2	2	2	2	1	
Barom		30.20	30.20	30.20	30.20	30.20	30.18	
Wind F		0	3	3	2	1	3	
Cloud T		1	2	2	2	2	6	
Cl Cover		1	1		1	2	5	
Visib		25	15	25	25	25	25	
Sea H		1	3	5	2	1	1	
Sw H		1	2	2	2	1	1	
Sw D		7	7	7	7	6	6	
Hydrographic Observations								
ST	0	12.07	12.03	12.08	11.94	11.03	11.93	11.85
	15	12.71	12.06	12.07	11.93	11.1	11.69	11.76
	0	12.2	12.2	12.3	12.1	11.3	11.7	12.02
	15	12.2	12.2	12.3	12.1	11.3	11.7	11.91
	20	12.3	12.2	12.2	12.1	11.3	11.6	11.93
	30	12.1	12.2	12.2	12.0	--	11.3	11.96
	40	--	12.2	12.1	11.7	--	11.2	11.85
	50	--	12.2	12.0	11.9	--	11.2	11.83
Sal	0	33.40	33.39	33.40	33.44	33.39	33.44	33.41
	15	33.42	33.40	33.37	33.39	33.38	33.42	33.40
Sigma-t	0	25.36	25.36	25.36	25.4	25.34	25.41	25.41
	15	25.33	25.34	25.34	25.37	25.36	25.41	25.37

Supplemental Sheet for 71-0603

<u>Access. No.</u>	<u>Vessel</u>	<u>Org. Cruise No.</u>	<u>Dates</u>	<u># Obs.</u>	<u>Institution</u>
71-0603	TAGE	leave blank	01/04/68-12/04/68	195	Stanford Univ.

Positional Information for Observations

<u>Station No.</u>	<u>Latitude</u>	<u>Longitude</u>
1	36°37'36"N	121°53'36"W
2	36°41'42"N	121°57'12"W
3	36°46'18"N	122°01'00"W
4	36°51'42"N	122°00'00"W
5	36°56'48"N	121°59'12"W
6	36°52'12"N	121°55'12"W



## CODING INSTRUCTIONS FOR CRUISE NO. 71-0603

First - Station  
Header Record

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Constant entry of "004"
Acces. Number	4-9	-----	Enter "710603" on each Station Header Record
Record Type	10	-----	Constant entry of "2"
Record Seq.	11-13	-----	Constant entry of "001"
Org. Sta. No.	14-18	-----	Enter as given for each respective station (Right justified)
Lati- tude	19-24	-----	Enter as given for each respective station as supplied on supplemental sheet
Hemi- sphere	25	-----	Enter "N" throughout entire data set
Longi- tude	26-32	-----	Enter as given for each respective station as supplied on supplemental sheet
Hemi- sphere	33	-----	Enter "W" throughout entire data set
Time (GMT)	34-36	Tables #2&4	Two hours (beginning and ending) are given for each station. Encode the earliest hour. Hours are given in (PST) Pacific Standard Time <del>as</del> <sup>AND</sup> must be converted to (GMT) Greenwich Mean Time using table #4. In addition, table #2 should be used to convert minutes to tenths of minutes
Station Date	37-44	-----	Enter as given, except where conversion to GMT changes the day. Convert month to numeric code (e.g., Jan=01, Feb=02, etc.)
Water Depth	45-49	-----	Leave blank
Naviga- tion	50-51	-----	Enter "01"
Method	52	-----	Enter "3"
	53-80	-----	Leave blank

CODING INSTRUCTIONS FOR CRUISE NO. 71-0603

Second - Station  
Header Record

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Constant entry of "004"
Access. Number	4-9	-----	Enter "710603" on each Station Header Record
Record Type	10	-----	Constant entry of "3"
Record Seq.	11-18	-----	Constant entry of "001"
Org. Sta. No.	14-18	-----	Enter as given for each respective station (Right justified)
Bar. Pres.	19-21	Table #18	Use table #18 to convert Bar. Pressure from inches to millibars. Bar. Pressure values are recorded adjacent to "BAROM"
Air Temp.	22-29	-----	Leave blank
Wind Dir.	30-31	-----	Wind Direction is recorded adjacent to "Wind D" in a single numeric code. Use the following conversion:
			Wind D given as                      then code
			0                      =                      00
			1                      =                      36
			2                      =                      04
			3                      =                      09
			4                      =                      14
			5                      =                      18
			6                      =                      22
			7                      =                      27
			8                      =                      32
Wind Speed	32-33	-----	Wind Speed is recorded adjacent to "Wind F" in a single digit numeric code ranging from 0-5. Use the following conversion:
			Wind F given as                      then code
			0                      =                      00
			1                      =                      03
			2                      =                      06
			3                      =                      10
			4                      =                      16
			5                      =                      21
Sea Dir.	34-35	-----	Leave blank

## CODING INSTRUCTIONS FOR CRUISE NO. 71-0603

Second - Station  
Header Record (cont'd)

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
Sea Height	36	Table #6	Sea Height is recorded adjacent to "Sea HT" in feet. Use table #6 to convert feet to whole meters
Swell Dir.	37-38	-----	Swell Direction is recorded adjacent to "SW D" in a single digit numeric code. Use the same conversion table as given under "Wind Direction"
Swell Height	39	Table #6	Swell Height is recorded adjacent to "SW HT" in feet. Use table #6 to convert feet to whole meters
Weather	40	-----	Leave blank
Cloud Type	41	-----	Cloud is found adjacent to "Cloud T" and should be converted using the following code: if cloud type given as then code
			0 = 7
			1 = 0
			2 = 2
			3 = 1
			4 = 3
			5 = 4
			6 = 6
			8 = 8
			9 = 9
Cloud Amt.	42	Table #26	Cloud Amount is recorded adjacent to "CL Cover" and is recorded in tenths. Use table #26 to convert to eighths (EX. CL=3, then code 2)
Visibil-ity	43	Table #27	Visibility is recorded adjacent to "Visib." in miles. Use table #27 for necessary conversion codes
Trans-parency	44-47	-----	Transparency is recorded adjacent to "Secchi Disk" in meters and tenths of meters. Enter as given. Prefix necessary zeros to fill the field
Turbidi-ty Code	48	-----	Leave blank
	49-80	-----	Leave blank



## CODING INSTRUCTIONS FOR CRUISE NO. 71-0603

## Data Record

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Cons Constant entry of "004"
Access. Number	4-9	-----	Enter "710603" on each Data Record
Record Type	10	-----	Constant entry of "4"
Record Seq.	11-13	-----	Enter "001" on first Data Record and no. subsequent Data Record consecutively (e.g., 001; 002; 003; etc.)
Org. Sta. No.	14-18	-----	Enter as given (Right justified). Prefix necessary zeros to fill the field.
Depth	19-22	-----	Enter as given. Depth is recorded directly under "Depth(m)." Prefix zeros
Temperature	23-27	-----	Temperatures are recorded adjacent to "RT." Enter as given
Salinity	28-32	-----	Salinity is recorded adjacent to "SAL." Enter as given
Sigma-t	33-36	-----	Sigma-t is recorded adjacent to "Sigma-t." Enter as given
	37-46	-----	Leave blank
Oxygen	47-50	-----	Oxygen is recorded adjacent to "O2." Enter as given; prefix necessary zeros
	51-53	-----	Leave blank
Nitrite	54-56	-----	Nitrite is recorded adjacent to "Nitrite." Enter as given; prefix zeros
	57-60	-----	Leave blank
Silicate	61-64	-----	Enter as given; prefix zeros
Phosphate	65-67	-----	Phosphate is recorded adjacent to "PO4." Enter as given; prefix zeros
	68-80	-----	Leave blank