Tape # 75-7-14

ACCESSION NUMBER 75-0931 ALL

DDF A: 1:12

DATA DOCUMENTATION FORM

TR0033 F004

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM 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

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

Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794

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

grant No. 04-4-158-19
NOAA/MESA New York Bight Project

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

(MESA01), MESA02, MESA03, MESA04, MESA05

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V MICMAC	SHIP	USA	USA	11/5/73	11/8/73 ~~6/6/71~~

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF 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?)

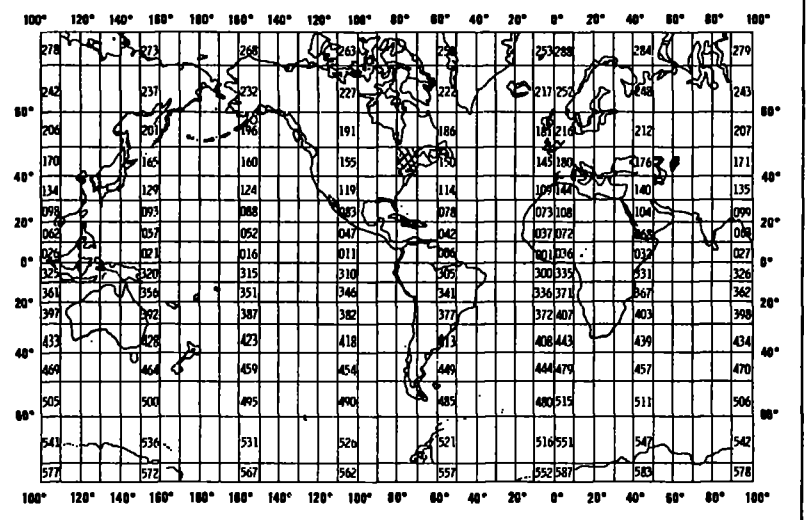
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

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

George E. Carroll
516-246-3368

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
Salinity	o/oo	Plessey Thermo-Salinograph 6600T	N/A	N/A
Temperature	°C	Bead Thermistor-Fenwal Model GB32MM172	N/A	Average of 5-6 data points taken at same depth pumping
pH		pH Corning Model 12	N/A	Average of 5-6 data points taken at same depth pumping
Dissolved Oxygen	ml/l	Yellow Springs #54	N/A	Average of 5-6 data points taken at same depth pumping
Ammonium	µMolar	Beckman ActaII-Spectrophometer	Indophenol method -Solorazano (1969)	N/A
Nitrate	µM	Technicon Auto Analyzer II	Cd/Cu reduction of NO_3 to NO_2	N/A
Nitrite	µM	Technicon Auto Analyzer II	Azo-dye formation is proportional to NO_2 concentration.	N/A
Phosphate	µM	Technicon Auto Analyzer II	Formation of silicomolybate complex	N/A
Silicate	µM	Technicon Auto Analyzer II	Formation of phosphomolybate complex	N/A
Turbidity	mg/l of S.S.	Turner fluorometer #111	(use S.S. data for calibration)	Average of 5-6 data points
Suspended Solids	mg/l	Mettler Balance	Filtering known volumne and weighing	N/A
Chlorophyll-a (fluorescence)	mg/m^3	Turner Fluorometer #111	(use extracted data for calibration)	Average of 5-6 data points

B. SCIENTIFIC CONTENT (continued)

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
Chlorophyll-a (extracted)	mg/m^3	Beckman Acta II Spectrophotometer	extracted from filtered samples w/acetone and determined spectrophotometrically	N/A

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

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

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
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☒ Standard IBM

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

George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

C. DATA FORMAT

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

T RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
IVE METHOD OF IDENTIFYING EACH RECORD TYPE

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

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
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☒ Standard IBM

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

George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape
5290

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

C. DATA FORMAT

15-0931

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

NODC User Tape TK0033

"1" = File Header
"2" = Station Header 1
"3" = Station Header 2
"4" = Data Record

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Sequential

3. ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] 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 [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[ ] ODD
[X] EVEN

8. DENSITY
[ ] 200 BPI [X] 1600 BPI
[ ] 556 BPI
[ ] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) [ ] 3/4 INCH [X] .56

10. END OF FILE MARK
[ ] OCTAL 17
[X] EBCDIC

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

OMCS # = 11681

USER

12. PHYSICAL BLOCK LENGTH IN BYTES
BLKSIZE=4000,LRECL=80

13. LENGTH OF BYTES IN BITS
8

RECORD FORMAT DESCRIPTION

RECORD NAME File Header

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Bytes	I3	
Date of File Generation	4	6	Bytes	3I2	Year, Month, Day
Record Type	10	1	Bytes	I1	1
Vessel	11	11	Bytes	2A4,A3	
Cruise Number	22	6	Bytes	A4,A2	
Cruise Dates	28	17	Bytes	2(I2,'1'),I2, '-',I2,2('1', I2)	Month, Day, Year (first) Month, Day, Year (last)
Senior Scientist	45	19	Bytes	4A4,A3	
Institution	64	17	Bytes	4A4,A1	

RECORD FORMAT DESCRIPTION

RECORD NAME Station Header No. 1

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	I3	
Date of File Generation	4	6	Bytes	3I2	Year, Month, Day
Record Type	10	1	Bytes	I1	2
Sequence # of Record Type	11	3	Bytes	I3	
Station No.	14	5	Bytes	A4,A1	
Latitude	19	7	Bytes	3I2,A1	Degrees, Minutes, Seconds, N or S
Longitude	26	8	Bytes	I3,2I2,A1	Degrees, Minutes, Seconds, E or W
Station Time	34	3	Bytes	F3.1	GMT
Sample Date	37	8	Bytes	2(I2,'1'),I2	Month, Day, Year
Water Depth	45	5	Bytes	F5.1	
Navigation Code	50	2	Bytes	I2	
Blank	52	29	Bytes	7A4,A1	Not used

RECORD FORMAT DESCRIPTION

RECORD NAME Station Header No. 2

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	I3	
Date of File Generation	4	6	Bytes	3I2	Year, Month, Day
Record Type	10	1	Bytes	I1	3
Sequence # of Record Type	11	3	Bytes	I3	
Station Number	14	5	Bytes	A4,A1	
Barometric Pressure	19	3	Bytes	F3.1	Actually only accurate to nearest millibar
Dry Bulb Air Temp	22	4	Bytes	F4.1	°C
Wet Bulb Air Temp	26	4	Bytes	F4.1	°C
Wind Direction Code	30	2	Bytes	I2	WMO Code 23
Wind Speed	32	2	Bytes	I2	Nearest Knot
Sea Direction Code	34	2	Bytes	I2	WMO Code 23
Sea Height Code	36	1	Bytes	I1	WMO Code 1555
Swell Direction Code	37	2	Bytes	I2	WMO Code 23
Swell Height Code	39	1	Bytes	I1	WMO Code 1555
Weather Code	40	1	Bytes	I1	WMO Code 4501
Cloud Type Code	41	1	Bytes	I1	WMO Code 0500
Cloud Cover Code	42	1	Bytes	I1	WMO Code 2700
Visibility Code	43	1	Bytes	I1	WMO Code 4300
SECCHI Disk Depth	44	4	Bytes	F4.1	Meters
Turbidity Measurement Technique	48	1	Bytes	I1	
Blank	49	32	Bytes	8A4	Not used

RECORD FORMAT DESCRIPTION

RECORD NAME Data Record

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
File Type	1	3	Bytes	I3	
Date of File Generation	4	6	Bytes	3I2	Year, Month, Day
Record Type	10	1	Bytes	I1	4
Sequence # of Record Type	11	3	Bytes	I3	
Station Number	14	5	Bytes	A4,A1	
Sample Depth	19	4	Bytes	F4.1	Meters
Temperature	23	5	Bytes	F5.3	°C, only accurate to nearest hundredth
Salinity	28	5	Bytes	F5.3	°C, only accurate to nearest hundredth
Sigma-t	33	4	Bytes	F4.2	
Transmissivity	37	3	Bytes	F3.1	%
pH	40	3	Bytes	F3.2	
Eh	43	4	Bytes	F4.2	
Dissolved Oxygen	47	4	Bytes	F4.2	ml/l
Ammonia	51	3	Bytes	F3.1	µgr-at/l
Nitrite	54	3	Bytes	F3.2	µgr-at/l
Nitrate	57	4	Bytes	F4.2	µgr-at/l, only accurate to nearest tenth
Silicate	61	4	Bytes	F4.2	µgr-at/l
Phosphate-Inorganic	65	3	Bytes	F3.2	µgr-at/l
Suspended Solids	68	4	Bytes	F4.2	mg/l
Turbidity	72	4	Bytes	F4.2	mg/l of suspended solids
Chlorophyll	76	4	Bytes	F4.1	mg/m^3

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Dissolved Oxygen YSI #54	4-6-75	X				X			
In-Vivo Chlorophyll a G.K. Turner Model III	4-6-75	X				X			
Nepthelometer G.K. Turner Model III	4-6-75	X				X			
pH Corning Model 12	4-6-75	X				X			
temperature-modified wheatstone bridge using a Fenwal Model	4-6-75	X			X				
GB 32 MM 172 Thermistor									
Plessey Thermosalinograph 6600T	8-1-74	*	Plessey Environmental Systems	X 6 to 12 months					
* Accuracy of thermosalinograph is checked in-house using a bench salinometer (Plessey Model 6230) every 1 to 2 months									

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Technicon Auto Analyzer II	6-6-74		Southampton College			X			
Beckman Acta II Spectrophotometer	1-20-75	X				X			
Mettler Balance	7-01-75		Mettler Inc.	X (6 months)					

USCOMM-DC 44289-P72

75-0931 NODC CR. TR0033

CRUISE DATES / SHIP	STATIONS	TEMP	SALINITY	SIGMA T	TRANSMISSIVITY	PH	EH	OXYGEN	AMMONIA	NITRITE	NITRATE	SILICATE	INORG PO4	SOLIDS	TURBIDITY	CHLOROPHYLL
		0180	0181					0001	0041	0020	0021	0030	0010	0114	0060	5000
MESA01 731105																
731108	58	58	58	58	0	0	0	58	58	58	58	1	58	0	58	57
R/V MICMAC																
N40+ W 70+																
MESA02 740122																
740124	60	60	60	60	0	0	0	60	60	60	60	60	60	0	60	60
R/V MICMAC																
N40+ W 70+																
MESA03 740311																
740315	62	62	62	62	0	0	0	62	62	62	62	62	62	13	62	62
R/V MICMAC																
N40+ W 70+																
MESA04 740420																
740429	89	89	89	81	0	0	0	89	89	89	89	40	89	20	89	89
R/V MICMAC																
N+0+ W 70+																
MESA05 740605																
740606	112	112	112	109	0	0	0	48	110	110	110	110	110	0	47	87
R/V MICMAC																
N40+ W 70+																

381 TOTAL STATIONS
5 CRUISES
112 MAX STATIONS/CRUISE
58 MIN STATIONS/CRUISE
76 AVG STATIONS/CRUISE

2-20-76

December 18, 1975

Special Codes

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 = Flourometer; suspended solids calibration

METHOD CODE

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

2-20-76

TABLE 21

Present Weather

WMO Code 4501 for recording present weather

Code figure	
0	Clear (no cloud at any level)
1	Partly cloudy (scattered or broken)
2	Continuous layer(s) of cloud(s)
3	Sandstorm, duststorm, or blowing snow
4	Fog, thick dust or haze
5	Drizzle
6	Rain
7	Snow, or rain and snow mixed
8	Shower(s)
9	Thunderstorm(s)

3-31-76

TABLE 27

Visibility

WMO Code 4300 for recording visibility at surface

Code		
0	Less than 50 metres	(less than 55 yards)
1	50–200 metres	(approx. 55–220 yards)
2	200–500 metres	(approx. 220–550 yards)
3	500–1,000 metres	(approx. 550 yards–5/8 n.m.)
4	1– 2 km	(approx. 5/8–1 n.m.)
5	2– 4 km	(approx. 1– 2 n.m.)
6	4–10 km	(approx. 2– 6 n.m.)
7	10–20 km	(approx. 6–12 n.m.)
8	20–50 km	(approx. 12–30 n.m.)
9	50 km or more	(30 n.m. or more)

TABLE 25

Cloud Type (Genus)

WMO Code 0500 for recording cloud type (genus)

Code		
0	Cirrus	Ci
1	Cirrocumulus	Cc
2	Cirrostratus	Cs
3	Altocumulus	Ac
4	Altostratus	As
5	Nimbostratus	Ns
6	Stratocumulus	Sc
7	Stratus	St
8	Cumulus.	Cu
9	Cumulonimbus.	Cb
x	Cloud not visible owing to darkness, fog, duststorm, sandstorm, or other analogous phenomena	

TABLE 26

Cloud Amount

WMO Code 2700 for recording cloud amount

Code		
0	0	0
1	1 okta or less, but not zero	$^{1}/_{10}$ or less, but not zero
2	2 oktas	$^{2}/_{10} - ^{3}/_{10}$
3	3 oktas	$^{4}/_{10}$
4	4 oktas	$^{5}/_{10}$
5	5 oktas	$^{6}/_{10}$
6	6 oktas	$^{7}/_{10} - ^{8}/_{10}$
7	7 oktas or more, but not 8 oktas	$^{9}/_{10}$ or more, but not $^{10}/_{10}$
8	8 oktas	$^{10}/_{10}$
9	Sky obscured, or cloud amount cannot be estimated	

2-20-76

TABLE 10

Height

WMO Code 1555 for recording height of the dominant waves

Code		Code	If 50 is added to direction
0	Less than 1/4 m (1 ft)	0	5 m (16 ft)
1	½ m (1 ½ ft)	1	5 ½ m (17 ½ ft)
2	1 m (3 ft)	2	6 m (19 ft)
3	1 ½ m (5 ft)	3	6 ½ m (21 ft)
4	2 m (6 ½ ft)	4	7 m (22 ½ ft)
5	2 ½ m (8 ft)	5	7 ½ m (24 ft)
6	3 m (9 ½ ft)	6	8 m (25 ½ ft)
7	3 ½ m (11 ft)	7	8 ½ m (27 ft)
8	4 m (13 ft)	8	9 m (29 ft)
9	4 ½ m (14 ft)	9	9 ½ m (30 ½ ft)
x	Height not determined		

Notes:

(1) Each code figure provides for reporting a range of heights. For example: 1 = ¼ m (1 ft) to ¾ m (2½ ft); 5 = 2¼ m (7 ft) to 2¾ m (9 ft); 9 = 4¼ m (13½ ft) to 4¾ m (15 ft), etc.

(2) If a wave height comes exactly midway between the heights corresponding to two code figures, the lower code figure is reported; e.g. a height of 2¾ m is reported by code figure 5.

(3) In aeronautical forecast codes, only the left-hand table is to be used and code figure 9 has the meaning: 4 ½ m (14 ft) or more.

(4) The average value of the wave height (vertical distance between trough and crest) is reported, as obtained from the larger well formed waves of the wave system being observed.

TABLE 8

Direction

In tens of degrees from which waves and/or winds are coming

Code		Code	
00	Calm (no waves - no motion)	22	215° - 224°
01	5° - 14°	23	225° - 234°
02	15° - 24°	24	235° - 244°
03	25° - 34°	25	245° - 254°
04	35° - 44°	26	255° - 264°
05	45° - 54°	27	265° - 274°
06	55° - 64°	28	275° - 284°
07	65° - 74°	29	285° - 294°
08	75° - 84°	30	295° - 304°
09	85° - 94°	31	305° - 314°
10	95° - 104°	32	315° - 324°
11	105° - 114°	33	325° - 334°
12	115° - 124°	34	335° - 344°
13	125° - 134°	35	345° - 354°
14	135° - 144°	36	355° - 4°
15	145° - 154°		
16	155° - 164°	49	Waves confused, direction indeterminate (waves equal to or less than 4¾ metres)
17	165° - 174°		
18	175° - 184°		
19	185° - 194°		Waves confused, direction indeterminate (waves greater than 4¾ metres)
20	195° - 204°		
21	205° - 214°	99	Winds variable, or all directions or unknown

Table 8 is a combination of WMO Codes 0885 and 0877.

ACCESSION NUMBER	75-0931

DATA DOCUMENTATION FORM

TR-1290

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM 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.

ORIGINATOR TAPE
OMCS Lib. # 5290

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

Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794

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

grant No. 04-4-158-19
NOAA/MESA New York Bight Project

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

MESA01, MESA02, MESA03, MESA04, MESA05,

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V MICMAC	SHIP	USA	USA	11/5/73	6/6/74

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF 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?)

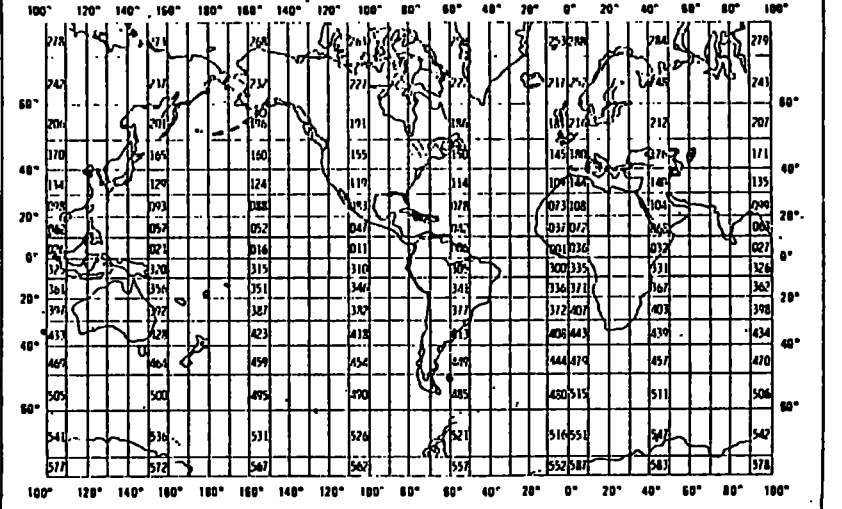
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

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

George E. Carroll
516-246-3368

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

GENERAL AREA



USCOMM-DC 44282-P72

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	‰	Nansen bottles	Inductive salinometer (Hytech model S-510)	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
Salinity	o/oo	Plessey Thermo-Salinograph 6600T	N/A	N/A
Temperature	°C	Bead Thermistor-Fenwal Model GB32MM172	N/A	Average of 5-6 data points taken at same depth pumping
pH		pH Corning Model 12	N/A	Average of 5-6 data points taken at same depth pumping
Dissolved Oxygen	ml/l	Yellow Springs #54	N/A	Average of 5-6 data points taken at same depth pumping
Ammonium	μMolar	Beckman ActaII-Spectrophometer	Indophenol method -Solorazano (1969)	N/A
Nitrate	μM	Technicon Auto Analyzer II	Cd/Cu reduction of NO_3 to NO_2	N/A
Nitrite	μM	Technicon Auto Analyzer II	Azo-dye formation is proportional to NO_2 concentration.	N/A
Phosphate	μM	Technicon Auto Analyzer II	Formation of silicomolybate complex	N/A
Silicate	μM	Technicon Auto Analyzer II	Formation of phosphomolybate complex	N/A
Turbidity	mg/l of S.S.	Turner fluorometer #111	(use S.S. data for calibration)	Average of 5-6 data points
Suspended Solids	mg/l	Mettler Balance	Filtering known volumne and weighing	N/A
Chlorophyll-a (fluorescence)	mg/m^3	Turner Fluorometer #111	(use extracted data for calibration)	Average of 5-6 data points

B. SCIENTIFIC CONTENT (continued)

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
Chlorophyll-a (extracted)	mg/m^3	Beckman Acta II Spectrophotometer	extracted from filtered samples w/acetone and determined spectrophotometrically	N/A

C. DATA FORMAT

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

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

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

4. ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] FORTRAN [ ] _____ LANGUAGE

5. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

6. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

5. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[X] ODD
[ ] EVEN

8. DENSITY
[ ] 200 BPI [ ] 1600 BPI
[ ] 556 BPI
[X] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) [X] 3/4 INCH
[ ] _____

10. END OF FILE MARK
[ ] OCTAL 17
[X] Standard IBM

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

George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape
Originator 5290

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

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

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

NODC User Tape TK0033

"1" = File Header
"2" = Station Header 1
"3" = Station Header 2
"4" = Data Record

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Sequential

4. ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL
[X] FORTRAN [ ] _____ LANGUAGE

5. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER _____
ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[ ] ODD
[X] EVEN

8. DENSITY
[ ] 200 BPI [X] 1600 BPI
[ ] 556 BPI
[ ] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
[ ] 3/4 INCH
[X] .56

10. END OF FILE MARK
[ ] OCTAL 17
[X] EBCDIC

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

OMCS # = 11681

12. PHYSICAL BLOCK LENGTH IN BYTES
BLKSIZE=4000,LRECL=80

13. LENGTH OF BYTES IN BITS
8

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
File Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
RECORD TYPE	10	1	A1	"1" (File Header Record)
VESSEL	11	11	11A1	(left aligned)
CRUISE	22	6	6A1	Originator's cruise identifiers
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)
First Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
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 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
LONHEM	33	1	A1	Hemisphere "W" or "E"
TIME	34	3	F3.1*	GMT in hours
DATE	37	8	2(I2,A1),I2	XX/XX/XX Station date; Month, Day, Year
BOTTOM	45	5	F5.1*	Water Depth, meters
NAVIGATION	50	2	I2	(See attached codes)
METHOD	52	1	I1	"1" = STD; "2" = XBT
blank	53	28	28X	blank

*Decimal place is IMPLIED; "period" is not present.

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
Record Type "2" Terminator				Optional; for those who must re-read their file using FORTRAN.
DENT	1	10	A3,3I2, A1	
EQUENCE	11	3	A3	"998" (constant)
lank	14	67	67X	blank
econd Station Header Record				
'ILE TYPE	1	3	A3	"004" (constant)
'ILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F3.1*	Pressure in millibars
DRY BULB	22	4	4.1*	Air temperature; degrees Celsius
WET BULB	26	4	4.1*	Air temperature; degrees Celsius
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	F4.1*	SECCHI Disk Depth; meters
TURBIDITY CODE	48	1	I1	(see attached codes)
blank	49	37	37X	blank

* Decimal place is IMPLIED; "period" is not present.

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
Record Type "3" Terminator				Optional for those who must re-read their files in FORTRAN.
IDENT	1	10	A3,3I2, A1	Same as "Second Station Header Record"
SEQUENCE	11	3	A3	"998" (constant)
blank	14	67	67X	blank
Data Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F4.1*	Sample depth, meters
TEMPERATURE	23	5	F5.3*	Water temp.; degrees Celsius
SALINITY	28	5	F5.3*	Salinity; parts per thousand
SIGMA-T	33	4	F4.2*	Sigma-T
TRANSMISSIVITY	37	3	F3.1*	Transmissivity; percent
PH	40	3	F3.2*	pH
EH	43	4	F4.2*	Eh
OXYGEN	47	4	F4.2*	Dissolved; ml./liter
AMMONIA	51	3	F3.1*	Microgram-atoms/liter
NITRITE	54	3	F3.2*	Microgram-atoms/liter
NITRATE	57	4	F4.2*	Microgram-atoms/liter
SILICATE	61	4	F4.2*	Microgram-atoms/liter
PHOSPHATE	65	3	F3.2*	Inorganic; μg-atoms/liter
SOLIDS	68	4	F4.2*	Suspended solids mg./liter
TURBIDITY	72	4	F4.2*	Turbidity; mg/liter
CHLOROPHYLL	76	5	F5.2*	Chlorophyll; mg/meter^3
Record Type "4" Terminator				Optional; For those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2,A1	Same as "Data Record"
SEQUENCE	11	3	A3	"998" = end station. "999" = end file
blank	14	67	67X	blank

*Decimal place is IMPLIED; "period" is not present.

Special Codes

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 = Flourometer; suspended solids calibration

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Dissolved Oxygen YSI #54	4-6-75	X				X			
In-Vivo Chlorophyll a G.K. Turner Model III	4-6-75	X				X			
Nepthelometer G.K. Turner Model III	4-6-75	X				X			
pH Corning Model 12	4-6-75	X				X			
temperature-modified wheatstone bridge using a Fenwal Model	4-6-75	X			X				
GB 32 MM 172 Thermistor									
Plessey Thermosalinograph 6600T	8-1-74	*	Plessey Environmental Systems	X 6 to 12 months					
* Accuracy of thermosalinograph is checked in-house using a bench salinometer (Plessey Model 6230) every 1 to 2 months									

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INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Technicon Auto Analyzer II	6-6-74		Southempton College			X			
Beckman Acta II Spectrophotometer	1-20-75	X				X			
Mettler Balance	7-01-75		Mettler Inc.	X (6 months)					

NOAA FORM 24-13

USCOMM-DC 44283-P72

CRUISE DATES / SHIP	STATIONS		TEMP / SALINITY	SIGMA T / TRANSMISSIVITY		PH / EH	OXYGEN / AMMONIA	NITRITE / NITRATE	SILICATE / INORG PO4	SOLIDS / TURBIDITY		CHLOROPHYLL	
CSA01 731105													
731108	58	58	58	58	0	0	0	58	58	58	58	1	58	0	58	57
R/V MICMAC																
N40+ W 70+																
CSA02 740122																
740124	60	60	60	60	0	0	0	60	60	60	60	60	60	0	60	60
R/V MICMAC																
N40+ W 70+																
CSA03 740311																
740315	62	62	62	62	0	0	0	62	62	62	62	62	62	13	62	62
R/V MICMAC																
N40+ W 70+																
CSA04 740420																
740429	89	89	89	81	0	0	0	89	89	89	89	40	89	20	89	89
R/V MICMAC																
N40+ W 70+																
CSA05 740605																
740606	112	112	112	109	0	0	0	48	110	110	110	110	110	0	47	87
R/V MICMAC																
N40+ W 70+																

381 TOTAL STATIONS
5 CRUISES
112 MAX STATIONS/CRUISE
58 MIN STATIONS/CRUISE
76 AVG STATIONS/CRUISE

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA02	R/V MICMAC	N40+ W070+				
			740122	740124	60	CHLOROPHYLL
			740122	740124	60	STATIONS
			740122	740124	60	TEMPERATURE
			740122	740124	60	SALINITY
			740122	740124	60	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740122	740124	60	OXYGEN
			740122	740124	60	AMMONIA
			740122	740124	60	NITRITE
			740122	740124	60	NITRATE
			740122	740124	60	SILICATE
			740122	740124	60	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740122	740124	60	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA03	R/V MICMAC	N40+ W070+			
			740311 740315	62	CHLOROPHYLL
			740311 740315	62	STATIONS
			740311 740315	62	TEMPERATURE
			740311 740315	62	SALINITY
			740311 740315	62	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			740311 740315	62	OXYGEN
			740311 740315	62	AMMONIA
			740311 740315	62	NITRITE
			740311 740315	62	NITRATE
			740311 740315	62	SILICATE
			740311 740315	62	INORGANIC PHOSPHATE
			740315 740315	13	SUSPENDED SOLIDS
			740311 740315	62	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA04	R/V MICMAC	N40+ W070+				
			740420	740429	89	CHLOROPHYLL
			740420	740429	89	STATIONS
			740420	740429	89	TEMPERATURE
			740420	740429	89	SALINITY
			740420	740429	81	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740420	740429	89	OXYGEN
			740420	740429	89	AMMONIA
			740420	740429	89	NITRITE
			740420	740429	89	NITRATE
			740420	740420	40	SILICATE
			740420	740429	89	INORGANIC PHOSPHATE
			740420	740424	20	SUSPENDED SOLIDS
			740420	740429	89	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA05	R/V MICMAC	N40+ W070+				
			740605	740606	87	CHLOROPHYLL
			740605	740606	112	STATIONS
			740605	740606	112	TEMPERATURE
			740605	740606	112	SALINITY
			740605	740606	109	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740605	740606	48	OXYGEN
			740605	740606	110	AMMONIA
			740605	740606	110	NITRITE
			740605	740606	110	NITRATE
			740605	740606	110	SILICATE
			740605	740606	110	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740605	740606	47	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA01	R/V MICMAC	N40+ W070+				
			731105	731108	57	CHLOROPHYLL
			731105	731108	58	STATIONS
			731105	731108	58	TEMPERATURE
			731105	731108	58	SALINITY
			731105	731105	58	SIGNA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			731105	731108	58	OXYGEN
			731105	731108	58	AMMONIA
			731105	731108	58	NITRITE
			731105	731108	58	NITRATE
			731105	731105	1	SILICATE
			731105	731108	58	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			731105	731108	58	TURBIDITY

ACCESSION NUMBER	75-0931

DATA DOCUMENTATION FORM

~~Program 2.7~~ TR-1291

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM 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.

ORIGINATOR TAPE
OMCS Lib. # 5290

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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

Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794

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

grant No. 04-4-158-19
NOAA/MESA New York Bight Project

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

MESA01, MESA02, MESA03, MESA04, ~~MESA05~~

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V MICMAC	SHIP	USA	USA	3/11/74 11/5/73	3/15/74 6/6/74

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF 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?)

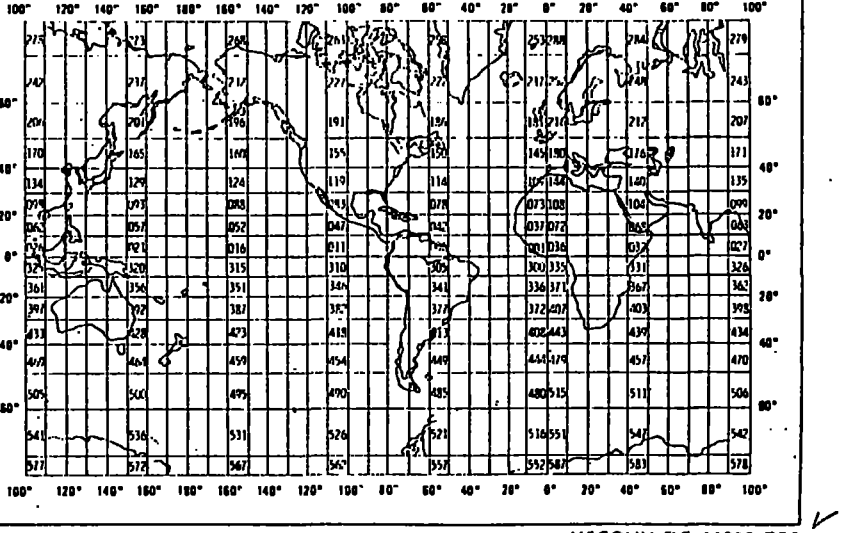
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

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

George E. Carroll
516-246-3368

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

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44283-P72

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	7oo	Nansen bottles	Inductive salinometer (Hytech model 5'510)	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
Salinity	o/oo	Plessey Thermo-Salinograph 6600T	N/A	N/A
Temperature	°C	Bead Thermistor-Fenwal Model GB32MM172	N/A	Average of 5-6 data points taken at same depth pumping
pH		pH Corning Model 12	N/A	Average of 5-6 data points taken at same depth pumping
Dissolved Oxygen	ml/l	Yellow Springs #54	N/A	Average of 5-6 data points taken at same depth pumping
Ammonium	µMolar	Beckman ActaII-Spectrophometer	Indophenol method -Solorazano (1969)	N/A
Nitrate	µM	Technicon Auto Analyzer II	Cd/Cu reduction of NO_3 to NO_2	N/A
Nitrite	µM	Technicon Auto Analyzer II	Azo-dye formation is proportional to NO_2 concentration.	N/A
Phosphate	µM	Technicon Auto Analyzer II	Formation of silicomolybate complex	N/A
Silicate	µM	Technicon Auto Analyzer II	Formation of phosphomolybate complex	N/A
Turbidity	mg/l of S.S.	Turner fluorometer #111	(use S.S. data for calibration)	Average of 5-6 data points
Suspended Solids	mg/l	Mettler Balance	Filtering known volumne and weighing	N/A
Chlorophyll-a (fluorescence)	mg/m^3	Turner Fluorometer #111	(use extracted data for calibration)	Average of 5-6 data points

B. SCIENTIFIC CONTENT (continued)

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
Chlorophyll-a (extracted)	mg/m^3	Beckman Acta II Spectrophotometer	extracted from filtered samples w/acetone and determined spectrophotometrically	N/A

C. DATA FORMAT

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

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

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

. ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] FORTRAN [ ] _____ LANGUAGE

. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[X] ODD
[ ] EVEN

8. DENSITY
[ ] 200 BPI [ ] 1600 BPI
[ ] 556 BPI
[X] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) [X] 3/4 INCH
[ ] _____

10. END OF FILE MARK
[ ] OCTAL 17
[X] Standard IBM

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*
George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape
Originator 5290

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

C. DATA FORM 1

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

LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE — NODC User Tape TR00333

"1" = File Header
"2" = Station Header 1
"3" = Station Header 2
"4" = Data Record

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Sequential

ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] FORTRAN [ ] _____ LANGUAGE

RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER _____
ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[ ] ODD
[X] EVEN

8. DENSITY
[ ] 200 BPI [X] 1600 BPI
[ ] 556 BPI
[ ] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) [ ] 3/4 INCH [X] .56

10. END OF FILE MARK
[ ] OCTAL 17
[X] EBCDIC

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

DMCS # = 11681

12. PHYSICAL BLOCK LENGTH IN BYTES
BLKSIZE=4000,LRECL=80

13. LENGTH OF BYTES IN BITS
8

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
File Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
RECORD TYPE	10	1	A1	"1" (File Header Record)
VESSEL	11	11	11A1	(left aligned)
CRUISE	22	6	6A1	Originator's cruise identifiers
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)
First Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
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 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
LONHEM	33	1	A1	Hemisphere "W" or "E"
TIME	34	3	F3.1*	GMT in hours
DATE	37	8	2(I2,A1),I2	XX/XX/XX Station date; Month, Day, Year
BOTTOM	45	5	F5.1*	Water Depth, meters
NAVIGATION	50	2	I2	(See attached codes)
METHOD	52	1	I1	"1" = STD; "2" = XBT
blank	53	28	28X	blank

*Decimal place is IMPLIED; "period" is not present.

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
Record Type "2" Terminator				Optional; for those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2, A1	
SEQUENCE	11	3	A3	"998" (constant)
Blank	14	67	67X	blank
Second Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F3.1*	Pressure in millibars
DRY BULB	22	4	4.1*	Air temperature; degrees Celsius
WET BULB	26	4	4.1*	Air temperature; degrees Celsius
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	F4.1*	SECCHI Disk Depth; meters
TURBIDITY CODE	48	1	I1	(see attached codes)
blank	49	37	37X	blank

* Decimal place is IMPLIED; "period" is not present.

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
Record Type "3" Terminator				Optional for those who must re-read their files in FORTRAN.
IDENT	1	10	A3,3I2, A1	Same as "Second Station Header Record"
SEQUENCE	11	3	A3	"998" (constant)
blank	14	67	67X	blank
Data Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F4.1*	Sample depth, meters
TEMPERATURE	23	5	F5.3*	Water temp.; degrees Celsius
SALINITY	28	5	F5.3*	Salinity; parts per thousand
SIGMA-T	33	4	F4.2*	Sigma-T
TRANSMISSIVITY	37	3	F3.1*	Transmissivity; percent
PH	40	3	F3.2*	pH
EH	43	4	F4.2*	Eh
OXYGEN	47	4	F4.2*	Dissolved; ml./liter
AMMONIA	51	3	F3.1*	Microgram-atoms/liter
NITRITE	54	3	F3.2*	Microgram-atoms/liter
NITRATE	57	4	F4.2*	Microgram-atoms/liter
SILICATE	61	4	F4.2*	Microgram-atoms/liter
PHOSPHATE	65	3	F3.2*	Inorganic; μg-atoms/liter
SOLIDS	68	4	F4.2*	Suspended solids mg./liter
TURBIDITY	72	4	F4.2*	Turbidity; mg/liter
CHLOROPHYLL	76	5	F5.2*	Chlorophyll; mg/meter^3
Record Type "4" Terminator				Optional; for those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2,A1	Same as "Data Record"
SEQUENCE	11	3	A3	"998" = end station. "999" = end file
blank	14	67	67X	blank

*Decimal place is IMPLIED; "period" is not present.

Special Codes

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 = Flourometer; suspended solids calibration

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Dissolved Oxygen YSI #54	4-6-75	X				X			
In-Vivo Chlorophyll a G.K. Turner Model III	4-6-75	X				X			
Nepthelometer G.K. Turner Model III	4-6-75	X				X			
pH Corning Model 12	4-6-75	X				X			
temperature-modified wheatstone bridge using a Fenwal Model	4-6-75	X			X				
GB 32 MM 172 Thermistor									
Plessey Thermosalinograph 6600T	8-1-74	*	Plessey Environmental Systems	X 6 to 12 months					
* Accuracy of thermosalinograph is checked in-house using a bench salinometer (Plessey Model 6230) every 1 to 2 months									

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Technicon Auto Analyzer II	6-6-74		Southampton College			X			
Beckman Acta II Spectrophotometer	1-20-75	X				X			
Mettler Balance	7-01-75		Mettler Inc.	X (6 months)					

USCOMM-DC 44283-P72

JISE DATES SHIP	STATIONS	TEMP SALINITY	SIGMA T TRANSMISSIVITY	PH EH	OXYGEN AMMONIA	NITRITE NITRATE	SILICATE INORG PO4	SOLIDS TURBIDITY	CHLOROPHYLL
SA01 731105 731108 R/V MICMAC N40+ W 70+	58	58	58	58	0	0	0	58	57
SA02 740122 740124 R/V MICMAC N40+ W 70+	60	60	60	60	0	0	0	60	60
SA03 740311 740315 R/V MICMAC N40+ W 70+	62	62	62	62	0	0	0	62	62
SA04 740420 740429 R/V MICMAC N40+ W 70+	89	89	89	81	0	0	0	89	89
SA05 740605 740606 R/V MICMAC N40+ W 70+	112	112	112	109	0	0	0	48	87

381 TOTAL STATIONS
5 CRUISES
112 MAX STATIONS/CRUISE
58 MIN STATIONS/CRUISE
76 AVG STATIONS/CRUISE

CRUISE	VESSEL	LOCATION	BEGIN–END DATES		COUNT	PARAMETER
MESA02	R/V MICMAC	N40+ W070+				
			740122	740124	60	CHLOROPHYLL
			740122	740124	60	STATIONS
			740122	740124	60	TEMPERATURE
			740122	740124	60	SALINITY
			740122	740124	60	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740122	740124	60	OXYGEN
			740122	740124	60	AMMONIA
			740122	740124	60	NITRITE
			740122	740124	60	NITRATE
			740122	740124	60	SILICATE
			740122	740124	60	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740122	740124	60	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA03	R/V MICMAC	N40+ W070+				
			740311	740315	62	CHLOROPHYLL
			740311	740315	62	STATIONS
			740311	740315	62	TEMPERATURE
			740311	740315	62	SALINITY
			740311	740315	62	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740311	740315	62	OXYGEN
			740311	740315	62	AMMONIA
			740311	740315	62	NITRITE
			740311	740315	62	NITRATE
			740311	740315	62	SILICATE
			740311	740315	62	INORGANIC PHOSPHATE
			740315	740315	13	SUSPENDED SOLIDS
			740311	740315	62	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA04	R/V MICMAC	N40+ W070+			
			740420 740429	89	CHLOROPHYLL
			740420 740429	89	STATIONS
			740420 740429	89	TEMPERATURE
			740420 740429	89	SALINITY
			740420 740429	81	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			740420 740429	89	OXYGEN
			740420 740429	89	AMMONIA
			740420 740429	89	NITRITE
			740420 740429	89	NITRATE
			740420 740420	40	SILICATE
			740420 740429	89	INORGANIC PHOSPHATE
			740420 740424	20	SUSPENDED SOLIDS
			740420 740429	89	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA05	R/V MICMAC	N40+ W070+			
			740605 740606	87	CHLOROPHYLL
			740605 740606	112	STATIONS
			740605 740606	112	TEMPERATURE
			740605 740606	112	SALINITY
			740605 740606	109	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			740605 740606	48	OXYGEN
			740605 740606	110	AMMONIA
			740605 740606	110	NITRITE
			740605 740606	110	NITRATE
			740605 740606	110	SILICATE
			740605 740606	110	INORGANIC PHOSPHATE
				0	SUSPENDED SOLIDS
			740605 740606	47	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA01	R/V MICMAC	N40+ W070+			
			731105 731108	57	CHLOROPHYLL
			731105 731108	58	STATIONS
			731105 731108	58	TEMPERATURE
			731105 731108	58	SALINITY
			731105 731108	58	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			731105 731108	58	OXYGEN
			731105 731108	58	AMMONIA
			731105 731108	58	NITRITE
			731105 731108	58	NITRATE
			731105 731105	1	SILICATE
			731105 731108	58	INORGANIC PHOSPHATE
				0	SUSPENDED SOLIDS
			731105 731108	58	TURBIDITY

75-0931   1KOUSS

```
 ISV40 JOB ORIGIN FROM GROUP=LOCAL    , DSP=CR , DEVICE=RDR2     , 00A
//DINV#004 JOB 'DM52007121470,BIN_G07',PHILLAUT,REGION=080K,TIME=10
//IRSDICT  PROC IRSDA=SYSDA,TBL=3500                                     DDF     00
//NEWDICT  EXEC PGM=IRSTAE,PARM='&TBL'                                   DDF     01
//STEPLIB  DD DSN=ADM.USERLIB,DISP=SHR                                   DDF     02
//SYSIN  DD DDNAME=CARDIN                                                DDF     03
//SYSOUT DD SYSOUT=A                                                     DDF     04
//SYSPCH DD SYSOUT=B                                                     DDF     05
//SYSLIN DD  DSN=&&DECK,UNIT=&IRSDA,DISP=(MOD,PASS),                     DDF     06
//            SPACE=(80,(20,20),RLSE),DCB=BLKSIZE=80                     DDF     07
//LNKDICT  EXEC PGM=IEWL,REGION=96K,PARM=(XREF,LET,LIST)                 DDF     08
//*          THIS STEP APPEARS IN "IRSLINK" PROC FOR OBJECT DICTIONARY.  DDF     09
//SYSLMOD  DD  DSNAME=&&LODICT,DISP=(NEW,PASS),UNIT=SYSDA,               DDF     10
//              SPACE=(1024,(20,10,1),RLSE)                              DDF     11
//SYSPRINT DD  SYSOUT=A,DCB=BLKSIZE=605                                  DDF     12
//SYSUT1   DD  UNIT=SYSDA,SPACE=(1024,(100,10),RLSE),DCB=BLKSIZE=1024,   DDF     13
//              DSNAME=SYSUT1                                            DDF     14
//SYSLIN DD DSN=&&DECK,DISP=(OLD,DELETE)                                 DDF     15
//   PEND                                                                DDF     16
//   EXEC IRSDICT                                                        DDF     17
//NEWDICT.CARDIN DD *                                                    DDF     18
// EXEC IRS01CP,SC=21K,SCYL=20,SP=4K,ST=8K,UCYL=60,SR=256,SS=256,SH=100
//IRS01.CARDIN DD *
//IRS02.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//IRS02.IRSPSN DD UNIT=TAPE9,LABEL=(01,NL),DISP=(OLD,PASS),
//   DCB=(BLKSIZE=4000,LRECL=80,RECFM=FB),DSN=MESAPCU,VOL=SER=11681
//IRS02.IRSPSC DD *                                                      MESA
//IRS03.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//

 LOCATE' 0992ADM.USERLIB                          '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                          '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                          '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                          '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                          '
 AL09920E001/DATA350003

 [illegible] MASTER
```

ACCESSION NUMBER 75-0931

DATA DOCUMENTATION FORM

~~Lit-049-3-3~~
TR-1292
F004

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM 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.

ORIGINATOR TAPE
OMCS Lib. # 5290

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

Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794

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

grant No. 04-4-158-19
NOAA/MESA New York Bight Project

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

~~MESA01, MESA02, MESA03~~, (MESA04), ~~MESA05~~

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V MICMAC	SHIP	USA	USA	11/20/73 11/5/73	4/29/74 6/6/74

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF 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?)

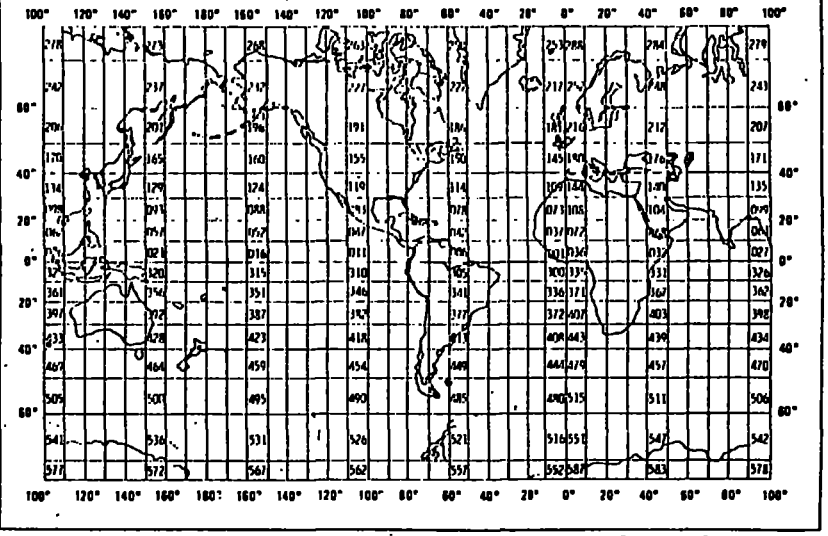
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

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

George E. Carroll
516-246-3368

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

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

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	‰	Nansen bottles	Inductive salinometer (Hytech model S 510)	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
Salinity	o/oo	Plessey Thermo-Salinograph 6600T	N/A	N/A
Temperature	°C	Bead Thermistor-Fenwal Model GB32MM172	N/A	Average of 5-6 data points taken at same depth pumping
pH		pH Corning Model 12	N/A	Average of 5-6 data points taken at same depth pumping
Dissolved Oxygen	ml/l	Yellow Springs #54	N/A	Average of 5-6 data points taken at same depth pumping
Ammonium	µMolar	Beckman ActaII-Spectrophometer	Indophenol method -Solorazano (1969).	N/A
Nitrate	µM	Technicon Auto Analyzer II	Cd/Cu reduction of NO_3 to NO_2	N/A
Nitrite	µM	Technicon Auto Analyzer II	Azo-dye formation is proportional to NO_2 concentration.	N/A
Phosphate	µM	Technicon Auto Analyzer II	Formation of silicomolybate complex	N/A
Silicate	µM	Technicon Auto Analyzer II	Formation of phosphomolybate complex	N/A
Turbidity	mg/l of S.S.	Turner fluorometer #111	(use S.S. data for calibration)	Average of 5-6 data points
Suspended Solids	mg/l	Mettler Balance	Filtering known volumne and weighing	N/A
Chlorophyll-a (fluorescence)	mg/m^3	Turner Fluorometer #111	(use extracted data for calibration)	Average of 5-6 data points

B. SCIENTIFIC CONTENT (continued)

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
Chlorophyll-a (extracted)	mg/m^3	Beckman Acta II Spectrophotometer	extracted from filtered samples w/acetone and determined spectrophotometrically	N/A

C. DATA FORMAT

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

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

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] FORTRAN [ ] _____ LANGUAGE

RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[X] ODD
[ ] EVEN

8. DENSITY
[ ] 200 BPI [ ] 1600 BPI
[ ] 556 BPI
[X] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
[X] 3/4 INCH
[ ] _____

10. END OF FILE MARK
[ ] OCTAL 17
[X] Standard IBM

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

George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape
Originator 5290

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

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

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

NODC User Tape TR00033

"1" = File Header
"2" = Station Header 1
"3" = Station Header 2
"4" = Data Record

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Sequential

ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL
[X] FORTRAN [ ] _____ LANGUAGE

RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER _____
ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[ ] ODD
[X] EVEN

8. DENSITY
[ ] 200 BPI [X] 1600 BPI
[ ] 556 BPI
[ ] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
[ ] 3/4 INCH
[X] .56

10. END OF FILE MARK
[ ] OCTAL 17
[X] EBCDIC

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

DMCS # = 11681

12. PHYSICAL BLOCK LENGTH IN BYTES
BLKSIZE=4000,LRECL=80

13. LENGTH OF BYTES IN BITS
8

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
File Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
RECORD TYPE	10	1	A1	"1" (File Header Record)
VESSEL	11	11	11A1	(left aligned)
CRUISE	22	6	6A1	Originator's cruise identifiers
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)
First Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
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 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
LONHEM	33	1	A1	Hemisphere "W" or "E"
TIME	34	3	F3.1*	GMT in hours
DATE	37	8	2(I2,A1),I2	XX/XX/XX Station date; Month, Day, Year.
BOTTOM	45	5	F5.1*	Water Depth, meters
NAVIGATION	50	2	I2	(See attached codes)
METHOD	52	1	I1	"1" = STD; "2" = XBT
blank	53	28	28X	blank

*Decimal place is IMPLIED; "period" is not present.

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
Record Type "2" Terminator				Optional; for those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2, A1	
SEQUENCE	11	3	A3	"998" (constant)
blank	14	67	67X	blank
Second Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F3.1*	Pressure in millibars
DRY BULB	22	4	4.1*	Air temperature; degrees Celsius
WET BULB	26	4	4.1*	Air temperature; degrees Celsius
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	F4.1*	SECCHI Disk Depth; meters
TURBIDITY CODE	48	1	I1	(see attached codes)
blank	49	37	37X	blank

* Decimal place is IMPLIED; "period" is not present.

File Name — RECORD FORMAT DESCRIPTION — page/total

Water Physics and Chemistry (File Type "004") — 3 3

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
Record Type "3" Terminator				Optional for those who must re-read their files in FORTRAN.
IDENT	1	10	A3,3I2, A1	Same as "Second Station Header Record"
SEQUENCE	11	3	A3	"998" (constant)
blank	14	67	67X	blank
Data Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F4.1*	Sample depth, meters
TEMPERATURE	23	5	F5.3*	Water temp.; degrees Celsius
SALINITY	28	5	F5.3*	Salinity; parts per thousand
SIGMA-T	33	4	F4.2*	Sigma-T
TRANSMISSIVITY	37	3	F3.1*	Transmissivity; percent
PH	40	3	F3.2*	pH
EH	43	4	F4.2*	Eh
OXYGEN	47	4	F4.2*	Dissolved; ml./liter
AMMONIA	51	3	F3.1*	Microgram-atoms/liter
NITRITE	54	3	F3.2*	Microgram-atoms/liter
NITRATE	57	4	F4.2*	Microgram-atoms/liter
SILICATE	61	4	F4.2*	Microgram-atoms/liter
PHOSPHATE	65	3	F3.2*	Inorganic; μg-atoms/liter
SOLIDS	68	4	F4.2*	Suspended solids mg./liter
TURBIDITY	72	4	F4.2*	Turbidity; mg/liter
CHLOROPHYLL	76	5	F5.2*	Chlorophyll; mg/meter^3
Record Type "4" Terminator				Optional; for those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2,A1	Same as "Data Record"
SEQUENCE	11	3	A3	"998" = end station. "999" = end file
blank	14	67	67X	blank

*Decimal place is IMPLIED; "period" is not present.

Special Codes

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 = Flourometer; suspended solids calibration

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Dissolved Oxygen YSI #54	4-6-75	X				X			
In-Vivo Chlorophyll a G.K. Turner Model III	4-6-75	X				X			
Nepthelometer G.K. Turner Model III	4-6-75	X				X			
pH Corning Model 12	4-6-75	X				X			
temperature-modified wheatstone bridge using a Fenwal Model	4-6-75	X			X				
GB 32 MM 172 Thermistor									
Plessey Thermosalinograph 6600T	8-1-74	*	Plessey Environmental Systems	X 6 to 12 months					

* Accuracy of thermosalinograph is checked in-house using a bench salinometer (Plessey Model 6230) every 1 to 2 months

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Technicon Auto Analyzer II	6-6-74		Southampton College			X			
Beckman Acta II Spectrophotometer	1-20-75	X				X			
Mettler Balance	7-01-75		Mettler Inc.	X (6 months)					

USCOMM-DC 44282-P72

CRUISE	DATES	STATIONS	TEMP	SALINITY	SIGMA T	TRANSMISSIVITY	PH	EH	OXYGEN	AMMONIA	NITRITE	NITRATE	SILICATE	INORG PO4	SOLIDS	TURBIDITY	CHLOROPHYLL
ESA01	731105																
	731108	58	58	58	58	0	0	0	58	58	58	58	1	58	0	58	57
R/V MICMAC																	
N40+ W 70+																	
ESA02	740122																
	740124	60	60	60	60	0	0	0	60	60	60	60	60	60	0	60	60
R/V MICMAC																	
N40+ W 70+																	
ESA03	740311																
	740315	62	62	62	62	0	0	0	62	62	62	62	62	62	13	62	62
R/V MICMAC																	
N40+ W 70+																	
ESA04	740420																
	740429	89	89	89	81	0	0	0	89	89	89	89	40	89	20	89	89
R/V MICMAC																	
N40+ W 70+																	
ESA05	740605																
	740606	112	112	112	109	0	0	0	48	110	110	110	110	110	0	47	87
R/V MICMAC																	
N40+ W 70+																	

381 TOTAL STATIONS
5 CRUISES
112 MAX STATIONS/CRUISE
58 MIN STATIONS/CRUISE
76 AVG STATIONS/CRUISE

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA02	R/V MICMAC	N40+ W070+				
			740122	740124	60	CHLOROPHYLL
			740122	740124	60	STATIONS
			740122	740124	60	TEMPERATURE
			740122	740124	60	SALINITY
			740122	740124	60	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740122	740124	60	OXYGEN
			740122	740124	60	AMMONIA
			740122	740124	60	NITRITE
			740122	740124	60	NITRATE
			740122	740124	60	SILICATE
			740122	740124	60	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740122	740124	60	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA03	R/V MICMAC	N40+ W070+				
			740311	740315	62	CHLOROPHYLL
			740311	740315	62	STATIONS
			740311	740315	62	TEMPERATURE
			740311	740315	62	SALINITY
			740311	740315	62	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740311	740315	62	OXYGEN
			740311	740315	62	AMMONIA
			740311	740315	62	NITRITE
			740311	740315	62	NITRATE
			740311	740315	62	SILICATE
			740311	740315	62	INORGANIC PHOSPHATE
			740315	740315	13	SUSPENDED SOLIDS
			740311	740315	62	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA04	R/V MICMAC	N40+ W070+			
			740420 740429	89	CHLOROPHYLL
			740420 740429	89	STATIONS
			740420 740429	89	TEMPERATURE
			740420 740429	89	SALINITY
			740420 740429	81	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			740420 740429	89	OXYGEN
			740420 740429	89	AMMONIA
			740420 740429	89	NITRITE
			740420 740429	89	NITRATE
			740420 740420	40	SILICATE
			740420 740429	89	INORGANIC PHOSPHATE
			740420 740424	20	SUSPENDED SOLIDS
			740420 740429	89	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA05	R/V MICMAC	N40+ W070+				
			740605	740606	87	CHLOROPHYLL
			740605	740606	112	STATIONS
			740605	740606	112	TEMPERATURE
			740605	740606	112	SALINITY
			740605	740606	109	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740605	740606	48	OXYGEN
			740605	740606	110	AMMONIA
			740605	740606	110	NITRITE
			740605	740606	110	NITRATE
			740605	740606	110	SILICATE
			740605	740606	110	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740605	740606	47	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA01	R/V MICMAC	N40+ W070+			
			731105 731108	57	CHLOROPHYLL
			731105 731108	58	STATIONS
			731105 731108	58	TEMPERATURE
			731105 731108	58	SALINITY
			731105 731108	58	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			731105 731108	58	OXYGEN
			731105 731108	58	AMMONIA
			731105 731108	58	NITRITE
			731105 731108	58	NITRATE
			731105 731105	1	SILICATE
			731105 731103	58	INORGANIC PHOSPHATE
				0	SUSPENDED SOLIDS
			731105 731108	58	TURBIDITY

75-0931 IR0055

```
 ISV40 JOB ORIGIN FROM GROUP=LOCAL    , DSP=CR , DEVICE=RDR2     , 00A
//DINV#004 JOB 'DM520087121470,BIN_G07',PHILLAUT,REGION=080K,TIME=10
//IRSDICT  PROC IRSDA=SYSDA,TBL=3500                                    DDF   00
//NEWDICT  EXEC PGM=IRSTAB,PARM='&TBL'                                  DDF   01
//STEPLIB  DD DSN=ADM.USERLIB,DISP=SHR                                  DDF   02
//SYSIN    DD DDNAME=CARDIN                                             DDF   03
//SYSOUT DD SYSOUT=A                                                    DDF   04
//SYSPCH DD SYSOUT=B                                                    DDF   05
//SYSLIN DD  DSN=&&DECK,UNIT=&IRSDA,DISP=(MOD,PASS),                    DDF   06
//           SPACE=(80,(20,20),RLSE),DCB=BLKSIZE=80                     DDF   07
//LNKDICT  EXEC PGM=IEWL,REGION=96K,PARM=(XREF,LET,LIST)                DDF   08
//*         THIS STEP APPEARS IN "IRSLINK" PROC FOR OBJECT DICTIONARY.  DDF   09
//SYSLMOD  DD  DSNAME=&&LODICT,DISP=(NEW,PASS),UNIT=SYSDA,              DDF   10
//             SPACE=(1024,(20,10,1),RLSE)                              DDF   11
//SYSPRINT DD  SYSOUT=A,DCB=BLKSIZE=605                                 DDF   12
//SYSUT1   DD  UNIT=SYSDA,SPACE=(1024,(100,10),RLSE),DCB=BLKSIZE=1024,  DDF   13
//             DSNAME=SYSUT1                                            DDF   14
//SYSLIN DD DSN=&&DECK,DISP=(OLD,DELETE)                                DDF   15
//   PEND                                                               DDF   16
//   EXEC IRSDICT                                                       DDF   17
//NEWDICT.CARDIN DD *                                                   DDF   18
// EXEC IRS01CP,SC=21K,SCYL=20,SP=4K,ST=8K,DCYL=60,SR=256,SS=256,SH=100
//IRS01.CARDIN DD *
//IRS02.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//IRS02.IRSPSN DD UNIT=TAPE9,LABEL=(01,NL),DISP=(OLD,PASS),
//   DCB=(BLKSIZE=4000,LRECL=80,RECFM=FB),DSN=MESAPCU,VOL=SER=11681
//IRS02.IRSPSC DD *                                                     MESA
//IRS03.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//
```

```
LOCATE' 0992ADM.USERLIB
AL09920E001/DATA350003
LOCATE' 0992ADM.USERLIB
AL09920E001/DATA350003
LOCATE' 0992ADM.USERLIB
AL09920E001/DATA350003
LOCATE' 0992ADM.USERLIB
AL09920E001/DATA350003
LOCATE' 0992ADM.USERLIB
AL09920E001/DATA350003
```

ACCESSION NUMBER	75-0931

DATA DOCUMENTATION FORM

~~TR-0033~~
TR-1293

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM 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.

ORIGINATOR TAPE
OMCS Lib. # 5290

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

Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794

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

grant No. 04-4-158-19
NOAA/MESA New York Bight Project

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

~~MESA01, MESA02, MESA03, MESA04~~, MESA05

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V MICMAC	SHIP	USA	USA	6/5/74 ~~11/5/73~~	6/6/74 ~~6/6/74~~

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF 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?)

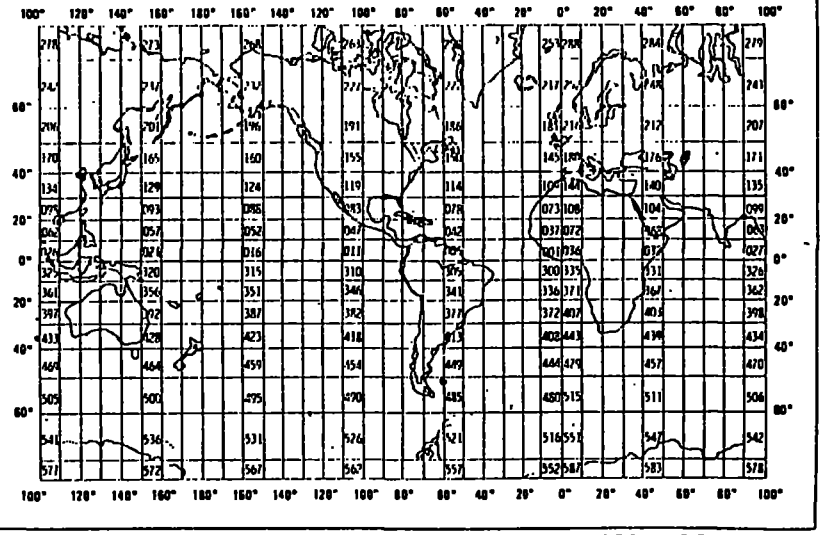
[X] NO [ ] YES [ ] PART *(SPECIFY BELOW)*

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

George E. Carroll
516-246-3368

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

GENERAL AREA



USCOMM-DC 44289-P72

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	‰	Nansen bottles	Inductive salinometer (Hytech model S-510)	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
Salinity	o/oo	Plessey Thermo-Salinograph 6600T	N/A	N/A
Temperature	°C	Bead Thermistor-Fenwal Model GB32MM172	N/A	Average of 5-6 data points taken at same depth pumping
pH		pH Corning Model 12	N/A	Average of 5-6 data points taken at same depth pumping
Dissolved Oxygen	ml/l	Yellow Springs #54	N/A	Average of 5-6 data points taken at same depth pumping
Ammonium	µMolar	Beckman ActaII-Spectrophometer	Indophenol method -Solorazano (1969)	N/A
Nitrate	µM	Technicon Auto Analyzer II	Cd/Cu reduction of NO_3 to NO_2	N/A
Nitrite	µM	Technicon Auto Analyzer II	Azo-dye formation is proportional to NO_2 concentration.	N/A
Phosphate	µM	Technicon Auto Analyzer II	Formation of silicomolybate complex	N/A
Silicate	µM	Technicon Auto Analyzer II	Formation of phosphomolybate complex	N/A
Turbidity	mg/l of S.S.	Turner fluorometer #111	(use S.S. data for calibration)	Average of 5-6 data points
Suspended Solids	mg/l	Mettler Balance	Filtering known volumne and weighing	N/A
Chlorophyll-a (fluorescence)	mg/m^3	Turner Fluorometer #111	(use extracted data for calibration)	Average of 5-6 data points

B. SCIENTIFIC CONTENT (continued)

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
Chlorophyll-a (extracted)	mg/m^3	Beckman Acta II Spectrophotometer	extracted from filtered samples w/acetone and determined spectrophotometrically	N/A

C. DATA FORMAT

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

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

File Header Record (Character position 10 contains a one.)

Station Header Record (Character position 10 contains a two.)

Data Record (Character position 10 contains a three.)

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File is structured for sequential access with fixed length records. The information is subdivided first by cruise (denoted by the file header record), then by station (denoted by the station header records), and finally by depth at a given station (denoted by the data records).

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

1. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER George E. Carroll, 516-246-3368
ADDRESS Marine Sciences Research Center, S.U.N.Y. at Stony Brook, Stony Brook, New York 11794

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
☐ _____

10. END OF FILE MARK
☐ OCTAL 17
☒ Standard IBM

11. PASTE-ON-PAPER LABEL DESCRIPTION (*INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER*)
George E. Carroll
Marine Sciences Research Center
S.U.N.Y. at Stony Brook
Stony Brook, New York 11794
MESA Data Tape
Originator 5290

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS
8

C. DATA FORM 1

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

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

HODC User Tape TR0033

"1" = File Header
"2" = Station Header 1
"3" = Station Header 2
"4" = Data Record

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

Sequential

ATTRIBUTES AS EXPRESSED IN [ ] PL-1 [ ] ALGOL [ ] COBOL [X] FORTRAN [ ] _____ LANGUAGE

RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER _____
ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
[ ] BCD [ ] BINARY
[ ] ASCII [X] EBCDIC
[ ] _____

6. NUMBER OF TRACKS (CHANNELS)
[ ] SEVEN
[X] NINE
[ ] _____

7. PARITY
[ ] ODD
[X] EVEN

8. DENSITY
[ ] 200 BPI [X] 1600 BPI
[ ] 556 BPI
[ ] 800 BPI
[ ] _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN) [ ] 3/4 INCH [X] .56

10. END OF FILE MARK
[ ] OCTAL 17
[X] EBCDIC

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

OMCS # = 11681

12. PHYSICAL BLOCK LENGTH IN BYTES
BLKSIZE=4000,LRECL=80

13. LENGTH OF BYTES IN BITS
8

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
File Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
RECORD TYPE	10	1	A1	"1" (File Header Record)
VESSEL	11	11	11A1	(left aligned)
CRUISE	22	6	6A1	Originator's cruise identifiers
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)
First Station Header Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy. of file generation
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 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
LONHEM	33	1	A1	Hemisphere "W" or "E"
TIME	34	3	F3.1*	GMT in hours
DATE	37	8	2(I2,A1),I2	XX/XX/XX Station date; Month, Day, Year
BOTTOM	45	5	F5.1*	Water Depth, meters
NAVIGATION	50	2	I2	(See attached codes)
METHOD	52	1	I1	"1" = STD; "2" = XBT
blank	53	28	28X	blank

*Decimal place is IMPLIED; "period" is not present.

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
Record Type "2" Terminator				Optional; for those who must re-read their file using FORTRAN.
DENT	1	10	A3,3I2, A1	
EQUENCE	11	3	A3	"998" (constant)
lank	14	67	67X	blank
econd Station Header Record				
'ILE TYPE	1	3	A3	"004" (constant)
'ILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
ECORD TYPE	10	1	A1	"3" (Second Station Header Record)
EQUENCE	11	3	I3	Sequence of this record type within Station (leading zeros or leading blanks)
TATION	14	5	5A1	Station identifier
BAROMETER	19	3	F3.1*	Pressure in millibars
RY BULB	22	4	4.1*	Air temperature; degrees Celsius
ET BULB	26	4	4.1*	Air temperature; degrees Celsius
IND DIRECTION	30	2	I2	WMO code 0877; tens of degrees
IND SPEED	32	2	I2	Knots
EA DIRECTION	34	2	I2	WMO code 0885; tens of degrees
EA HEIGHT	36	1	A1	WMO code 1555
WELL DIRECTION	37	2	I2	WMO code 0885
WELL HEIGHT	39	1	A1	WMO code 1555
EATHER	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	F4.1*	SECCHI Disk Depth; meters
TURBIDITY CODE	48	1	I1	(see attached codes)
blank	49	37	37X	blank

* Decimal place is IMPLIED; "period" is not present.

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
Record Type "3" Terminator				Optional for those who must re-read their files in FORTRAN.
IDENT	1	10	A3,3I2, A1	Same as "Second Station Header Record"
SEQUENCE	11	3	A3	"998" (constant)
blank	14	67	67X	blank
Data Record				
FILE TYPE	1	3	A3	"004" (constant)
FILE DATE	4	6	3I2	Yr., Mo., Dy., of file generation
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	F4.1*	Sample depth, meters
TEMPERATURE	23	5	F5.3*	Water temp.; degrees Celsius
SALINITY	28	5	F5.3*	Salinity; parts per thousand
SIGMA-T	33	4	F4.2*	Sigma-T
TRANSMISSIVITY	37	3	F3.1*	Transmissivity; percent
PH	40	3	F3.2*	pH
EH	43	4	F4.2*	Eh
OXYGEN	47	4	F4.2*	Dissolved; ml./liter
AMMONIA	51	3	F3.1*	Microgram-atoms/liter
NITRITE	54	3	F3.2*	Microgram-atoms/liter
NITRATE	57	4	F4.2*	Microgram-atoms/liter
SILICATE	61	4	F4.2*	Microgram-atoms/liter
PHOSPHATE	65	3	F3.2*	Inorganic; μg-atoms/liter
SOLIDS	68	4	F4.2*	Suspended solids mg./liter
TURBIDITY	72	4	F4.2*	Turbidity; mg/liter
CHLOROPHYLL	76	5	F5.2*	Chlorophyll; mg/meter^3
Record Type "4" Terminator				Optional; for those who must re-read their file using FORTRAN.
IDENT	1	10	A3,3I2,A1	Same as "Data Record"
SEQUENCE	11	3	A3	"998" = end station. "999" = end file
blank	14	67	67X	blank

*Decimal place is IMPLIED; "period" is not present.

Special Codes

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 = Flourometer; suspended solids calibration

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Dissolved Oxygen YSI #54	4-6-75	X				X			
In-Vivo Chlorophyll a G.K. Turner Model III	4-6-75	X				X			
Nepthelometer G.K. Turner Model III	4-6-75	X				X			
pH Corning Model 12	4-6-75	X				X			
temperature-modified wheatstone bridge using a Fenwal Model	4-6-75	X			X				
GB 32 MM 172 Thermistor									
Plessey Thermosalinograph 6600T	8-1-74	*	Plessey Environmental Systems	X 6 to 12 months					
* Accuracy of thermosalinograph is checked in-house using a bench salinometer (Plessey Model 6230) every 1 to 2 months									

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 CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Technicon Auto Analyzer II	6-6-74		Southampton College			X			
Beckman Acta II Spectrophotometer	1-20-75	X				X			
Mettler Balance	7-01-75		Mettler Inc.	X (6 months)					

USCOMM-DC 44283-P73

CRUISE DATES / SHIP	STATIONS	TEMP	SALINITY	SIGMA T	TRANSMISSIVITY	PH	EH	OXYGEN	AMMONIA	NITRITE	NITRATE	SILICATE	INORG PO4	SOLIDS	TURBIDITY	CHLOROPHYLL
SA01 731105 731108 R/V MICMAC N43+ W 70+	58	58	58	58	0	0	0	58	58	58	58	1	58	0	58	57
SA02 740122 740124 R/V MICMAC N43+ W 70+	60	60	60	60	0	0	0	60	60	60	60	60	60	0	60	60
SA03 740311 740315 R/V MICMAC N43+ W 70+	62	62	62	62	0	0	0	62	62	62	62	62	62	13	62	62
SA04 740420 740429 R/V MICMAC N43+ W 70+	89	89	89	81	0	0	0	89	89	89	89	40	89	20	89	89
SA05 740605 740606 R/V MICMAC N43+ W 70+	112	112	112	109	0	0	0	48	110	110	110	110	110	0	47	87

381 TOTAL STATIONS
5 CRUISES
112 MAX STATIONS/CRUISE
58 MIN STATIONS/CRUISE
76 AVG STATIONS/CRUISE

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA02	R/V MICMAC	N40+ W070+			
			740122 740124	60	CHLOROPHYLL
			740122 740124	60	STATIONS
			740122 740124	60	TEMPERATURE
			740122 740124	60	SALINITY
			740122 740124	60	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			740122 740124	60	OXYGEN
			740122 740124	60	AMMONIA
			740122 740124	60	NITRITE
			740122 740124	60	NITRATE
			740122 740124	60	SILICATE
			740122 740124	60	INORGANIC PHOSPHATE
				0	SUSPENDED SOLIDS
			740122 740124	60	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA03	R/V MICMAC	N40+ W070+				
			740311	740315	62	CHLOROPHYLL
			740311	740315	62	STATIONS
			740311	740315	62	TEMPERATURE
			740311	740315	62	SALINITY
			740311	740315	62	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740311	740315	62	OXYGEN
			740311	740315	62	AMMONIA
			740311	740315	62	NITRITE
			740311	740315	62	NITRATE
			740311	740315	62	SILICATE
			740311	740315	62	INORGANIC PHOSPHATE
			740315	740315	13	SUSPENDED SOLIDS
			740311	740315	62	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA04	R/V MICMAC	N40+ W070+				
			740420	740429	89	CHLOROPHYLL
			740420	740429	89	STATIONS
			740420	740429	89	TEMPERATURE
			740420	740429	89	SALINITY
			740420	740429	81	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740420	740429	89	OXYGEN
			740420	740429	89	AMMONIA
			740420	740429	89	NITRITE
			740420	740429	89	NITRATE
			740420	740420	40	SILICATE
			740420	740429	89	INORGANIC PHOSPHATE
			740420	740424	20	SUSPENDED SOLIDS
			740420	740429	89	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES		COUNT	PARAMETER
MESA05	R/V MICMAC	N40+ W070+				
			740605	740606	87	CHLOROPHYLL
			740605	740606	112	STATIONS
			740605	740606	112	TEMPERATURE
			740605	740606	112	SALINITY
			740605	740606	109	SIGMA T
					0	TRANSMISSIVITY
					0	PH
					0	EH
			740605	740606	48	OXYGEN
			740605	740606	110	AMMONIA
			740605	740606	110	NITRITE
			740605	740606	110	NITRATE
			740605	740606	110	SILICATE
			740605	740606	110	INORGANIC PHOSPHATE
					0	SUSPENDED SOLIDS
			740605	740606	47	TURBIDITY

CRUISE	VESSEL	LOCATION	BEGIN-END DATES	COUNT	PARAMETER
MESA01	R/V MICMAC	N40+ W070+			
			731105 731108	57	CHLOROPHYLL
			731105 731108	58	STATIONS
			731105 731108	58	TEMPERATURE
			731105 731108	58	SALINITY
			731105 731105	58	SIGMA T
				0	TRANSMISSIVITY
				0	PH
				0	EH
			731105 731108	58	OXYGEN
			731105 731108	58	AMMONIA
			731105 731108	58	NITRITE
			731105 731108	58	NITRATE
			731105 731105	1	SILICATE
			731105 731108	58	INORGANIC PHOSPHATE
				0	SUSPENDED SOLIDS
			731105 731108	58	TURBIDITY

15-0931 IR0053

```
 ISV40 JOB ORIGIN FROM GROUP=LOCAL    , DSP=CR , DEVICE=RDR2     , 00A
//DINV#004 JOB 'DM520087121470,BIN_G07',PHILLAUT,REGION=080K,TIME=10
//IRSDICT  PROC IRSDA=SYSDA,TBL=3500                                    DDF   00
//NEWDICT  EXEC PGM=IRSTAB,PARM='&TBL'                                  DDF   01
//STEPLIB  DD DSN=ADM.USERLIB,DISP=SHR                                  DDF   02
//SYSIN  DD DDNAME=CARDIN                                               DDF   03
//SYSOUT DD SYSOUT=A                                                    DDF   04
//SYSPCH DD SYSOUT=B                                                    DDF   05
//SYSLIN DD  DSN=&&DECK,UNIT=&IRSDA,DISP=(MOD,PASS),                    DDF   06
//           SPACE=(80,(20,20),RLSE),DCB=BLKSIZE=80                    DDF   07
//LNKDICT  EXEC PGM=IEWL,REGION=96K,PARM=(XREF,LET,LIST)                DDF   08
//*          THIS STEP APPEARS IN "IRSLINK" PROC FOR OBJECT DICTIONARY. DDF   09
//SYSLMOD  DD  DSNAME=&&LODICT,DISP=(NEW,PASS),UNIT=SYSDA,              DDF   10
//             SPACE=(1024,(20,10,1),PLSE)                              DDF   11
//SYSPRINT DD  SYSOUT=A,DCB=BLKSIZE=605                                 DDF   12
//SYSUT1   DD  UNIT=SYSDA,SPACE=(1024,(100,10),RLSE),DCB=BLKSIZE=1024,  DDF   13
//             DSNAME=SYSUT1                                            DDF   14
//SYSLIN DD DSN=&&DECK,DISP=(OLD,DELETE)                                DDF   15
//   PEND                                                               DDF   16
//   EXEC IRSDICT                                                       DDF   17
//NEWDICT.CARDIN DD *                                                   DDF   18
// EXEC IRS01CP,SC=21K,SCYL=20,SP=4K,ST=8K,OCYL=60,SR=256,SS=256,SH=100
//IRS01.CARDIN DD *
//IRS02.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//IRS02.IRSPSN DD UNIT=TAPE9,LABEL=(01,NL),DISP=(OLD,PASS),
//   DCB=(BLKSIZE=4000,LRECL=80,RECFM=FB),DSN=MESAPCU,VOL=SER=11681
//IRS02.IRSPSC DD *                                                    MESA
//IRS03.IRSLIB DD DSNAME=&&LODICT,DISP=(OLD,PASS)
//


 LOCATE' 0992ADM.USERLIB                                    '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                                    '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                                    '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                                    '
 AL09920E001/DATA350003
 LOCATE' 0992ADM.USERLIB                                    '
 AL09920E001/DATA350003
```

```
Password:
 accNo   fleA refNo  proj inst ship    startDate  cruise   catId
 ------- ---- ------ ---- ---- ------- ---------- -------- ----------
 7500931 F004 TR0033 0065 31P8 317J    1973/11/05 MESA-01      294048
 7500931 F004 TR1290 0065 31P8 317J    1974/01/22 MESA-02      294049
 7500931 F004 TR1291 0065 31P8 317J    1974/03/11 MESA-03      294050
 7500931 F004 TR1292 0065 31P8 317J    1974/04/20 MESA-04      294051
 7500931 F004 TR1293 0065 31P8 317J    1974/06/05 MESA-05      294052

(5 rows affected)
```

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Password:
 accNo    fleA refNo   ship staCnt      recCnt      startDate   endDate
 -------- ---- ------- ---- ---------- ---------- ----------- -----------
 7500931  F004 TR0033  317J         58         347 Nov  5 1973 Nov  8 1973
 7500931  F004 TR1290  317J         60         337 Jan 22 1974 Jan 24 1974
 7500931  F004 TR1291  317J         62         351 Mar 11 1974 Mar 15 1974
 7500931  F004 TR1292  317J         89         438 Apr 20 1974 Apr 29 1974
 7500931  F004 TR1293  317J        112         538 Jun  5 1974 Jun  6 1974

(5 rows affected)
```