

84NOJSC181

NUMBER

84000210

DATA DOCUMENTATION FORM

TT1907

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

FILE #1 CTD/FLUOR DATA

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. CV = AS,

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
 UNIVERSITY OF ALASKA
 INSTITUTE OF MARINE SCIENCE
 DATA MANAGEMENT
 O'NEAL BUILDING, ROOM 111
 FAIRBANKS, ALASKA 99701

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

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT
 TT131 LEG 1

4. PLATFORM NAME(S)
 THOMPSON

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

6. PLATFORM AND OPERATOR NATIONALITY(IES)
 PLATFORM OPERATOR FROM: MO/DAY/YR TO: MO/DAY/YR
 USA USA 4/11/78 4/29/78

8. ARE DATA PROPRIETARY?
 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?)
 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)
 DATA MANAGER
 (907) 474-7836 (907) 474-7092
not in catalog

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i> <i>TT131 LEG 1 4/11/78 - 4/29/78</i> <i>COACHMAN (PTL-24)</i> <i>STATIONS: 1002-1013, 1015-1157.</i> <i>1 FILE 1352 BLOCKS</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 536 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

ct

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1
ct

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whittledge *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

FILE #2

NUMBER

84NODC181

DATA DOCUMENTATION FORM

8400210
TT1908

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701				
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT131 LEG 2		
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES
		PLATFORM	OPERATOR	FROM: MO/PAY/YR TO: MO/DAY/YR
		USA	USA	5/7/78 5/21/78
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA		
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)				
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092				

NOAA FORM 24-13

USCOMM-DC 44209-P72

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i> <i>CRUISE: TT131 LEG 2 (PTL-6)</i> <i>STATIONS: 2001-2004, 2010-2022,</i> <i>2024-2052, 2057-2072.</i> <i>NO. OF FILES = 1 464 RECORDS</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

cl

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181
FILE #3

DATA DOCUMENTATION FORM

NUMBER
8400210
TT1909

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT131 LEG3	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM	OPERATOR
		USA	USA
		7. DATES	
		FROM: MO, DAY, YR	TO: MO, DAY, YR
		5/25/78	6/12/78
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i></p> <p><i>CRUISE: TT131 LEG3 (PTL-9)</i></p> <p><i>5/25/78 - 6/12/78 DR. IVERSON</i></p> <p><i>STATIONS: 3001-3018, 3020-3124</i></p> <p><i>NO. OF FILES = 1 828 RECORDS</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<p>See attached "CTD Record Format Description"</p>					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

21

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used} (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1
ab

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitledge *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC 181

FILE #4

DATA DOCUMENTATION FORM

ACCESSION NUMBER
8400210
TT1910

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT131 LEG 4	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		USA	USA 6/17/78 6/21/78
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

NOAA FORM 24-13

USCOMM-DC 44269-P72

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i> <i>CRUISE: 77131 LEG 4 (PTL-10)</i> <i>6/17/78 - 6/21/78 DR. McROY</i> <i>STATIONS: 4001, 4003-4008, 4010-4013,</i> <i>4015-4018, 4020-4058. NO. OF FILES = 1</i> <i>343 RECORDS.</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

21

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC 181

ACCESSION NUMBER

8400210

FILE # 5

DATA DOCUMENTATION FORM

TT1911

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT131 LEG5	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR	FROM: MO/DAY/YR TO: MO/DAY/YR
		USA USA	7/3/78 7/6/78
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i> <i>CRUISE: TT131 LEG 5 PI=ENGLISH</i> <i>7/3/78 - 7/6/78</i> <i>STATIONS: 5001, 4052, 5003, 5004, 5006, 5008, 5011, 5012.</i> <i>1 FILE 49 BLOCKS NO ERROR</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

OK

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84 NODC 181

ACCESSION NUMBER

8400210

TT1912

FILE #6

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEANOGRAPHIC DATA CENTER RECORDS SECTION ROCKVILLE, MARYLAND 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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT138 LEG I	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		USA	USA 4/14/79 4/26/79
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i></p> <p><i>CRUISE: TT138 LEG 1 PI = COONEY</i></p> <p><i>4/14 - 4/26/79</i></p> <p><i>STATIONS: 1001 - 1115</i></p> <p><i>1 FILE 1066 BLOCKS NO ERROR</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

cl

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

at

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used] (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1
at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC/81

NUMBER

8400210

DATA DOCUMENTATION FORM

FILE # 7

TT1913

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 Q.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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT138 LEG 2	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES) USA USA	7. DATES FROM: MO/DAY/YR TO: MO/DAY/YR 5/3/79 5/17/79
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i> <i>CRUISE: TT138 LEG 2 (PTL-19)</i> <i>5/03/79 - 5/17/79 DR. GOERING</i> <i>STATIONS: 2001-2043, 2044-2090.</i> <i>NO. OF FILES = 1</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<p>See attached "CTD Record Format Description"</p>					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

cl

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

07

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used] (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC 181

ACCESSION NUMBER

8400210

FILE # 8

TT1914

DATA DOCUMENTATION FORM

NOAA FORM 24-13 (4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT138 LEG 3	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR FROM: MO/PAY/YR TO: MO/DAY/YR	
		USA	USA 5/25/79 6/15/79
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

D. 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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD/FLUOROMETER DATA</i></p> <p><i>CRUISE: TT138 LEG 3 (PTL-20)</i></p> <p><i>5/25/79 - 6/15/79 DR. COACHMAN</i></p> <p><i>STATIONS: 3001-3177. 1155 RECORDS</i></p> <p><i>NO. OF FILES = 1.</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

27

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

ch

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

ch

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitledge *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181

NUMBER

8400210

TT1915

FILE # 9

DATA DOCUMENTATION FORM

NOAA FORM 24-13
(4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT 149 LEG 1	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM	OPERATOR
		FROM: MO, DAY, YR	TO: MO, DAY, YR
		USA	USA
		3/24/80	4/3/80
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD DATA</i> <i>(PTL-27) TT149 LEG 1</i> <i>3/24/80 - 4/3/80 DR. COACHMAN</i> <i>STATIONS: 1001-1053</i> <i>1 FILE: 499 /RECORDS</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	
	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p>
	<p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundredths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181

NUMBER

8400210

DATA DOCUMENTATION FORM

FILE #10

TT1916

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
Q.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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT149 LEG 2	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM	OPERATOR
		FROM: MO/DAY/YR	TO: MO/DAY/YR
		USA	USA
		4/7/80	4/23/80
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092

ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD DATA</i></p> <p><i>TT149 LEG 2 (PTL-32 IRIS:T10STD)</i></p> <p><i>4/7-4/15, 4/18-4/23/80 PI=CODISPOTI</i></p> <p><i>STATIONS: 2001-2100</i></p> <p><i>1 FILE 676 RECORDS</i></p> <p><i>DATA WRITEN: 7/31/80</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN _____ <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<p>See attached "CTD Record Format Description"</p>					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

al

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

cr

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data (See attached))
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

ch

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181

NUMBER

8400210

DATA DOCUMENTATION FORM

TT1917

FILE # 11
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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT149 LEG3	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM	OPERATOR
		USA	USA
		7. DATES	
		FROM: MO/DAY/YR	TO: MO/DAY/YR
		4/27/80	5/18/80
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD DATA</i> <i>TT149 LEG 3 (PTL-33 IRIS: T11STD)</i> <i>PI = DR. GOERING 4/27 - 5/18/80</i> <i>STATIONS: 3001-3050, 3052-3145</i> <i>1 FILE - 1092 RECORDS. DATE WRITTEN 7/31/80</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 536 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

22

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

21

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

1

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessy 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitledge *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

DATA DOCUMENTATION FORM

FILE #12

TT 1918

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT 149 LEG 4	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES) USA USA	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR 5/22/80 6/8/80
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

C. DATA FORMAT

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

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD DATA</i></p> <p><i>TT149 LEG 4 PTL-34 IRIS: T12STD</i></p> <p><i>PI=DR. W. REEBURGH 5/22-6/8/80</i></p> <p><i>1 FILE 926 RECORDS.</i></p> <p><i>STATIONS: 4001-4051, 4051-4099,</i></p> <p><i>40990-4134.</i></p> <p><i>DATE WRITTEN: 7/3/80</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

ed

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

ck

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used] (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitledge *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181

ACCESSION NUMBER 8400210

DATA DOCUMENTATION FORM

FILE # 13

TT1919

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT159 LEG 1	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM	OPERATOR
		7. DATES	
		FROM: MO/PAY/YR	TO: MO/DAY/YR
		USA	USA
		4/11/80	4/26/80
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) <i>PROBES CTD DATA TT159 LEG 1 04/11/81 - 04/26/81 S. SMITH - PI 3 FILES: 344 BLOCKS - FILE 1 401 BLOCKS - FILE 2 194 BLOCKS - FILE 3</i></p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input checked="" type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 5-150 bytes/block</p>
	<p>13. LENGTH OF BYTES IN BITS 8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, byte)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<p>See attached "CTD Record Format Description"</p>					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

at

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

CL

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used] (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

at

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC 18)
FILE # 14

ACCESSION
NUMBER

8400210

DATA DOCUMENTATION FORM

JT1920

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

<p>1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED</p> <p>UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT ROOM 111 O'NEAL BUILDING FAIRBANKS, ALASKA 99701</p>											
<p>2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED</p> <p>PROBES</p>		<p>3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT</p> <p>TT159 LEG 2</p>									
<p>4. PLATFORM NAME(S)</p> <p>THOMPSON R/V ALPHA HELIX</p>	<p>5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)</p> <p>SHIP</p>	<p>6. PLATFORM AND OPERATOR NATIONALITY(IES)</p> <table border="1"> <tr> <th>PLATFORM</th> <th>OPERATOR</th> </tr> <tr> <td>USA</td> <td>USA</td> </tr> </table>	PLATFORM	OPERATOR	USA	USA	<p>7. DATES</p> <table border="1"> <tr> <th>FROM: MO/PAY/YR</th> <th>TO: MO/DAY/YR</th> </tr> <tr> <td>04/30/81</td> <td>05/27/81</td> </tr> </table>	FROM: MO/PAY/YR	TO: MO/DAY/YR	04/30/81	05/27/81
PLATFORM	OPERATOR										
USA	USA										
FROM: MO/PAY/YR	TO: MO/DAY/YR										
04/30/81	05/27/81										
<p>8. ARE DATA PROPRIETARY?</p> <p><input checked="" type="checkbox"/> NO <input type="checkbox"/> YES</p> <p>IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____</p>		<p>11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.</p> <p>GENERAL AREA</p>									
<p>9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)</p> <p><input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)</p>		<p>10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)</p> <p>DATA MANAGER (907) 474-7836 (907) 474-7092</p>									

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	0.001 ‰	NANSEN BOTTLES & ? NEIL BROWN MARK IIIB CTD/O	DESCRIPTION OF BASIC PROCESSING ATTACHED.	N/A
TEMPERATURE	°C	DSR THERMOMETERS & ? NEIL BROWN MARK IIIB CTD/O	"	N/A
DEPTH	0.1M (1M = 1db)	THERMOMETRIC DEPTH & ? NEIL BROWN MARK IIIB CTD/O	"	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**

THREE RECORD TYPES WITHIN FILE TYPE 22

Designated by byte 10:

"1" for Text Record
"2" for Master Record
"3" for Detail Record

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File 22, STD/CTD: 0 to 99,999 Text records, followed by
1 Master record, followed by
0 to 99,999 Detail records
Repeats

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836
 ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, Alaska 99701.

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> <u>.5 - .6 inch</u></p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> <u>Octal 23</u></p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><u>022 TT159121MS</u> <u>R/V THOMPSON CRUISE 159 LEG 2</u> <u>04/30/81 - 05/27/81</u> <u>DR. IVERSON BERING SEA</u> <u>STATIONS: 2002-2002, 2004-2006,</u> <u>2009-2120.</u> <u>9 TRK, 1600 BPI, NLAB, EBCDIC, ODD.</u></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p><u>5-120 bytes/block</u></p>
<p>13. LENGTH OF BYTES IN BITS</p> <p><u>8 bits/byte</u></p>	<p>13. LENGTH OF BYTES IN BITS</p> <p><u>8 bits/byte</u></p>

RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<p>FILE TYPE "22" AS DESIGNATED BY OCSEP AND NODC. THERE ARE NO INTENDED DEVIATIONS FROM THIS TYPE, EXCEPT:</p> <p style="margin-left: 40px;">1. Col. 50-53 Salinity in ‰ (I4 to 1/100ths)</p>					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
NEIL BROWN MARK TINE CTD/O Microprofiler	Sept. 1982		NEIL BROWN						
		?							
NOTE: ALL STD OR CTD UNITS ARE FIELD CORRECTED BY COMPARISON WITH DISCRETE SAMPLES TO INCREASE ACCURACY OVER STANDARD LABORATORY CALIBRATION.									

84NODC181

NUMBER 8400210

DATA DOCUMENTATION FORM

FILE # 15

TT1921

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 Q.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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT O'NEAL BUILDING, ROOM 111 FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT 159 LEG 3	
4. PLATFORM NAME(S) THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		USA	USA 5/3/81 5/27/81
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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
	SEE ATTACHMENTS			

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

See attached "CTD Record format Description"

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

See attached "CTD Record Format Description"

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836 (907) 474-7092
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, AK. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p><i>PROBES CTD DATA TT159 LEG 3</i> <i>05/03/81 - 05/27/81 CODISPOT1 = PI</i> <i>STATIONS: 3001-3028, 3032-3154.</i> <i>9 TRACK, 800 BPI, ASCII, NO LABEL,</i> <i>ODD PARITY IRIS NAME = TT159</i></p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input checked="" type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-150 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME _____

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
See attached "CTD Record Format Description"					

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
PLESSEY STD MODEL 9040	2/78		NRCC	1 year					



University of Alaska, Fairbanks

Fairbanks, Alaska 99701

PROBES

CTD RECORD FORMAT DESCRIPTION

COMMENT RECORD(S) (REQUIRED): (Analogous to NODC TEXT record)

These records should contain all pertinent information concerning data quality as determined during processing. Cruise dates and responsible Principal Investigator(s) should be logged here as well as calibration information.

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier of cruise
RECORD TYPE	I/1	Always '1'
STATION NUMBER	I/5	
TEXT	A/130	Comments/pertinent information
SEQUENCE (RECORD) NUMBER	I/5	Ascending numeric, 1st comment record=1, 2nd comment record=2, etc.

HEADER RECORD: (Analogous to NODC's Master Record)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
FILE TYPE	A/3	Always '022'
FILE IDENTIFICATION	A/6	Unique identifier for this cruise
Record Type	I/1	Always '2'
Station Number	I/5	
Latitude:		
Degrees	I/2	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'N' or 'S'
Longitude:		
Degrees	I/3	
Minutes	I/2	
Hundreths of Minutes	I/2	
Hemisphere	A/1	'E' or 'W'

at

CTD RECORD FORMAT DESCRIPTION (CONT'D):

HEADER RECORD (CON'T):

FIELD	DATA/NO. TYPE/ BYTES	USE AND MEANING
Cruise identification	A/10	
Number of Scans	I/5	Number of 'scans' of station data. (Five scans per Data Record - same as number of depths.)
Year	I/2	Last two digits of year (GMT)
Month	I/2	1-12 (GMT)
DAY	I/2	1-31 (GMT)
Hour	I/2	0-23 (GMT)
Minutes	I/2	0-59 (GMT)
Depth Interval Indicator	I/1	Always '1' for equally spaced depths
Depth interval	I/3	Depth interval to tenths (should always be 010)
Barometric Pressure	I/5	To tenths
Wet bulb temperature	I/4	To tenths
Dry bulb temperature	I/4	To tenths
Wind Direction	I/2	Tens of degrees (eg. 145°=15)
Wind speed	I/2	Whole knots
Weather Code	I/1	WMO Code 4501
Sea State Code	I/1	WMO Code 3700
Visibility Code	I/1	WMO Code 4300
Cloud Type Code	I/1	WMO Code 0500
Cloud Amount Code	I/1	WMO Code 2700
Instrument Information	A/20	Type and Serial Number
Station Name	A/6	
Depth to Bottom	I/5	To whole meters
Maximum Depth of Cast	I/4	To whole meters
Wave Direction	I/2	Tens of degrees (eg. 355° 4' = 36)
Wave Height	I/3	To tenths

27

CTD RECORD FORMATION DESCRIPTION (CONT'D):

HEADER RECORD (CONT'D):

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
Wave Period	I/2	To nearest second
Blank	X/27	

DATA RECORD: (analogous to NODC Detail Record)

Usually there will be Comment Records followed by one Header Record followed by N number of Data Records where N= number of depths per cast divided by 5. (5= number of 'scans' of data per Data Record.)

FIELD	DATA / NO. TYPE / BYTES	USE AND MEANING
File Type	A/3	Always '022'
File Identification	A/6	
Record Type	I/1	Always '3'
Station Number	I/5	
Depth	I/5	To tenths (but not used) (Scan Data)
Temperature	I/5	To thousandths (Scan Data)
Salinity	I/5	To thousandths (Scan Data)
Sigma-t	I/4	To hundredths (Scan Data)
4th Channel	I/6	To thousandths (Scan Data)
Scan Condition Code	I/1	Code describing how data arrived at. (Scan Data) (See attached)
Scan Data	4*26	Repetition of above
Sequence Number	I/5	Ascending numeric, 1st Data Record =1, 2nd Data Record = 2, etc.

ch

METHODS

Temperature and Salinity

The salinities and temperatures for the bottle data were taken from Plessey 9040 Series salinity, temperature vs. depth (STD) instruments. The STD data are averaged over 1 meter intervals. Precision of the complete operation does not justify finer resolution than this. Depth corrections are not computed because it is felt that STD (CTD) depths are much better than thermometric depths. However, thermometric checks are made on each field calibration cast as an operational check. Smoothing is not done on temperature or salinity values because an adequate method has not been found to evaluate thermal response problems. Spikes are chopped at the limits of the STD (CTD) scales. Meter intervals for which no data was recorded (rare at the sample rate of 0.2 sec) are linearly interpolated to provide a value at all depths. A field calibration consisting of one sample bottle per cast on casts over 200 m is taken.

Dissolved Oxygen

Oxygen concentrations were determined using the Chesapeake Bay Institute technique (Carpenter, 1965).

Inorganic Nutrients

Nutrient analyses were performed with a 5-channel Technician Auto Analyzer using methods described by Whitley *et al.* (1981).

Note

Some stations (e.g. Station 2057) are mixtures of hydrographic and productivity nutrient observations and are not duplicates.

84NODC181

ACCESSION NUMBER

8400210

DATA DOCUMENTATION FORM

FILE # 16

TT1922

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 UNIVERSITY OF ALASKA INSTITUTE OF MARINE SCIENCE DATA MANAGEMENT ROOM 111 O'NEAL BUILDING FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED PROBES		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT TT159 LEG 4	
4. PLATFORM NAME(S) R/V ALPHA HELIX THOMPSON	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) SHIP	6. PLATFORM AND OPERATOR NATIONALITY(IES) USA USA	7. DATES FROM: MO/DAY/YR TO: MO/DAY/YR 06/27/81 07/21/81
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED. GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGER (907) 474-7836 (907) 474-7092			

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	0.001 ‰	<p align="center">?</p> <p>NANSEN BOTTLES & NEIL BROWN MARK III B CTD/O</p>	<p>DESCRIPTION OF BASIC PROCESSING ATTACHED.</p>	N/A
TEMPERATURE	°C	<p>DSR THERMOMETERS & NEIL BROWN MARK III B CTD/O</p>	<p align="center">" ?</p>	N/A
DEPTH	0.1M (1M = 1db)	<p>THERMOMETRIC DEPTH & NEIL BROWN MARK III B CTD/O</p>	<p align="center">"</p>	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**

THREE RECORD TYPES WITHIN FILE TYPE 22

Designated by byte 10:

- "1" for Text Record
- "2" for Master Record
- "3" for Detail Record

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File 22, STD/CTD: 0 to 99,999 Text records, followed by
1 Master record, followed by
0 to 99,999 Detail records
Repeats

- 3. ATTRIBUTES AS EXPRESSED IN**
- | | | | |
|---|--------------------------------|--------------------------------|----------|
| <input type="checkbox"/> PL-1 | <input type="checkbox"/> ALGOL | <input type="checkbox"/> COBOL | |
| <input checked="" type="checkbox"/> FORTRAN | <input type="checkbox"/> _____ | <input type="checkbox"/> _____ | LANGUAGE |

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Data Manager (907) 474-7836
ADDRESS University of Alaska, Institute of Marine Science, Fairbanks, Alaska 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH</p> <p><input checked="" type="checkbox"/> .5 - .6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input checked="" type="checkbox"/> Octal 23</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>022 TT199LAIMS R/V THOMPSON CRUISE 159 LEG 4 06/27/81 - 07/21/81 DR. REEBURGH BERING SEA STATIONS: 4001-4055, 4058-405 9 TRK, 1600BPI, NLAB, EBCDIC, ODD.</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>5-120 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits/byte</p>

RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
FILE TYPE "22" AS DESIGNATED BY OCSEP AND NODC. THERE ARE NO INTENDED DEVIATIONS FROM THIS TYPE, EXCEPT:					1. Col. 50-53 Salinity in ‰ (I4 to 1/100ths)

84000210

NaNSEN REF. #

319407

MULDARS TRACK #

TT3104

MONITOR: CONTACT

J. Frank

LOCATION OF FO22 SOURCE

Archives (TT3104)

RECORD ALL ERRORS FOUND

CONSEC(S)

143

Done by someone else

343

Done

ERRORS FOUND

Change Lat. from 55° to 56°

Change Long. from 165° to 166°

*Done
5/14/85
on MP075*

Quality Indicators were applied to three stations

NANSEN REF. #

319416

MULDARS TRACK #

TT3107

MONITOR: CONTACT

J. Frank

LOCATION OF F022 SOURCE

Archives (TT3107)

RECORD ALL ERRORS FOUND

CONSEC(S)

4

ERRORS FOUND

Delete station

Done
CPT
5/15/85
On MPD 75.

Quality indicators were applied to 10 stations

NANSEN REF. #

319417

MULDARS TRACK #

TT3092

MONITOR: CONTACT

J. Frank

LOCATION OF F022 SOURCE

Archives (TT3092)

RECORD ALL ERRORS FOUND

CONSEC(S)

36

ERRORS FOUND

Change latitude
from 58° to 56°

Muldars

corrections made 3/29/85
M.F.

Quality indicators were added to eight stations

NAHSEN REF. #

319415

MULDARS TRACK #

TT3091

MONITOR: CONTACT

J. Frank

LOCATION OF F022 SOURCE

Archives (TT3091)

RECORD ALL ERRORS FOUND

CONSEC(S)

ERRORS FOUND

8	Change Deg. of Lat. from 55 to <u>56</u>
38	Change Deg. of Long. from 163 to <u>164</u>
69	Change Deg. of Lat. from 57 to <u>55</u>
87	Delete Station
117	Delete Time

*Jen
Cpt
9/6/85*

Parameter Quality Indicators were applied to 4 stations

Password:

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
8400210	F022	TT3103	0104	31I7	31TT	1978/04/10	NULL	150297
8400210	C022	319402	0104	31I7	31TT	1978/04/10	TT3103	150298
8400210	F022	TT3104	0104	31I7	31TT	1979/04/14	NULL	150299
8400210	C022	319407	0104	31I7	31TT	1979/04/14	TT3104	150300
8400210	F022	TT3105	0104	31I7	31TT	1980/03/24	NULL	150301
8400210	C022	319410	0104	31I7	31TT	1980/03/24	TT3105	150302
8400210	F022	TT3106	0104	31I7	31TT	1981/04/11	NULL	150303
8400210	C022	319414	0104	31I7	31TT	1981/04/11	TT3106	150304
8400210	F022	TT3091	0104	31I7	31TT	1981/04/30	NULL	150305
8400210	C022	319415	0104	31I7	31TT	1981/04/30	TT3091	150306
8400210	F022	TT3107	0104	31I7	31TT	1981/05/31	NULL	150307
8400210	C022	319416	0104	31I7	31TT	1981/05/31	TT3107	150308
8400210	F022	TT3092	0104	31I7	31TT	1981/06/27	NULL	150309
8400210	C022	319417	0104	31I7	31TT	1981/06/27	TT3092	150310

(14 rows affected)

Password:

accNo	fleA	refNo	ship	staCnt	recCnt	startDate	endDate
8400210	F022	TT3103	31TT	406	12741	78/04/10	78/07/06
8400210	C022	319402	31TT	406	430	78/04/10	78/07/06
8400210	F022	TT3104	31TT	382	11741	79/04/14	79/06/15
8400210	C022	319407	31TT	381	401	79/04/14	79/06/15
8400210	F022	TT3105	31TT	433	12913	80/03/24	80/06/08
8400210	C022	319410	31TT	427	446	80/03/24	80/06/08
8400210	F022	TT3106	31TT	119	4077	81/04/11	81/04/26
8400210	C022	319414	31TT	119	127	81/04/11	81/04/26
8400210	F022	TT3091	31TT	117	2684	81/04/30	81/05/27
8400210	C022	319415	31TT	116	118	81/04/30	81/05/27
8400210	F022	TT3107	31TT	150	4321	81/05/31	81/06/23
8400210	C022	319416	31TT	149	154	81/05/31	81/06/23
8400210	F022	TT3092	31TT	131	4663	81/06/27	81/07/21
8400210	C022	319417	31TT	131	139	81/06/27	81/07/21

(14 rows affected)