DDF B.3.10 | 83NODC0053-02 | ACCESSION NUMBER | 83000030

TR9138-TR9188
F005

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

NOAA/NOS N/OMS 131
Estuarine and Ocean Physics Branch
Circulation Section
6001 Executive Blvd., Rockville, MD 20852

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

OPR-N805-BR-81
Circulatory Survey
Columbia River Estuary, Oregon

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

4. PLATFORM NAME(S)

NOAA Ship
McARTHUR

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

Current = Std. NOS moorings
met. = fixed platform
CTD = vertical casts

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
4/29/81	12/4/81

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?)

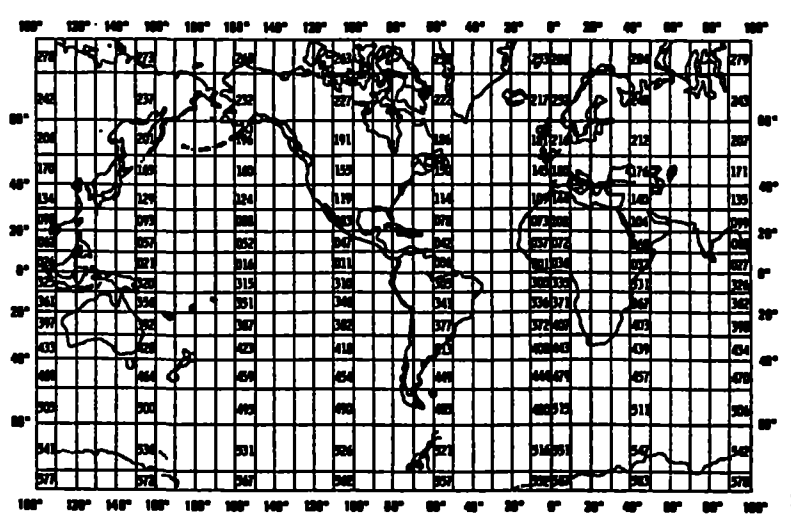
☒ NO ☐ YES ☐ PART *(SPECIFY BELOW)*

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

N/OMS 131
Chief, Circulation Section
301-443-8501

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

GENERAL AREA



NOAA FORM 24-13

USCOMM-DC 44289-P72

B. SCIENTIFIC CONTENT

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
Current Data				Temp, Cond, press, speed, and direction were converted from internal machine units to engineering units using std. formulas. Data are all sampled at 10-minute intervals.
Velocity	cm/sec	Aandraa RCM 4 Current Meters		
Direction	Degrees True			
Temperature	Degrees Cent.			
Conductivity	mmho/cm			
Pressure	kg/cm^2			
Meteorological Data				
Velocity	meters/sec	Aandraa Meteorological Package and Data Logger		
Direction	Degrees true			
Temperature	Degrees Cent.			
Pressure	mbars			
Wind Stress	kg/m^2			
CTD Data				
Depth	meters	Plessey 9041		
Temp	Degrees Centi			
Salinity	‰			
Sigma-T				

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

Current Data
NODC File Type 005

Meteorological Data
NODC File Type 091

CTD
NODC File Type 022

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER _____

ADDRESS _____

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☒ ASCII ☐ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☒ NINE ☐ _____

7. PARITY ☐ ODD ☒ EVEN

8. DENSITY ☐ 200 BPI ☒ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

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

10. END OF FILE MARK ☒ OCTAL 17 ☐ _____

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

12. PHYSICAL BLOCK LENGTH IN BYTES
4500 characters = 2250 bytes

13. LENGTH OF BYTES IN BITS
18 bits / byte

D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Aanderaa Current Meter	April 1982		NRCC	✓					
Aanderaa Meteo. Package	April 1981		NRCC	✓					
Plessey 9041	Sept 1981		NRCC	✓					

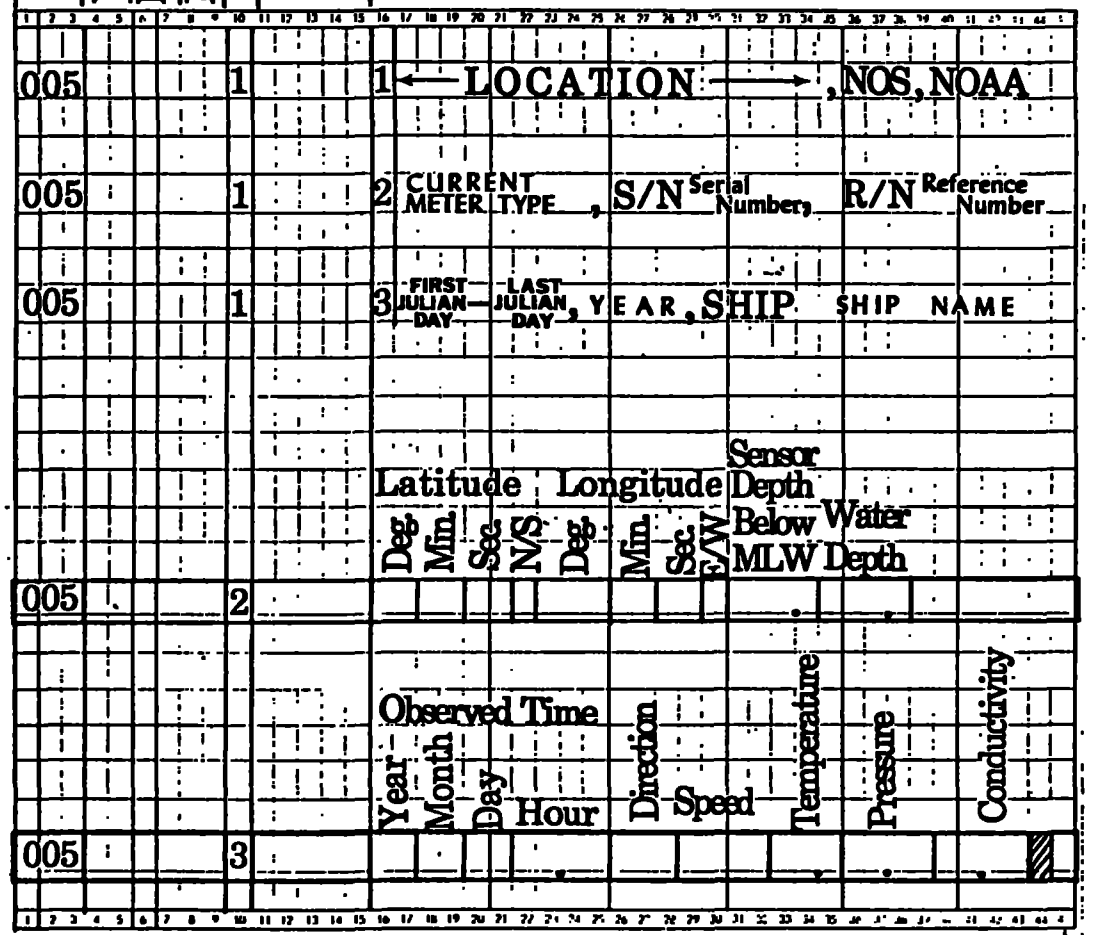
USCOMM-DC 44289-P72

83NODC053

NODC FORMAT FOR CURRENT DATA

FILE TYPE | Creation Date of Original Tape: Year / Month / Day | RECORD TYPE | STATION NUMBER

Data is written in blocks of 4500 characters (except last block, which is ≤4500 characters).



Depth in meters.
Direction in degrees true.
Speed in cm/sec.
Temperature in degrees Celsius.
Pressure in kg/cm^2.
Conductivity in mmho/cm.

1 Indicates that data point was edited

NOAA FORM 61-29 (12-71)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

83NODC0[redacted]-01

LETTER TRANSMITTING DATA

REFERENCE NO.

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check):

☒ ORDINARY MAIL ☐ AIR MAIL
☐ REGISTERED MAIL ☐ EXPRESS
☐ GBL (Give number) _____

TO:

Director
NODC
D7
Page Building 1

DATE FORWARDED

February 7, 1983

NUMBER OF PACKAGES

1

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

The data listed below were obtained from the 1981 Columbia River Estuary Circulation Survey, processed and formatted into NODC format, and transmitted to NODC on the date noted above.

Two Current meter tapes

Supporting documentation

Now #CRCURB

The two tapes enclosed, CRCUR1 and CRCUR2, are being sent to replace the original current meter tapes which you returned to us.

FROM: (Signature) Charles R. Muirhead

Charles R. Muirhead, Chief, Circulation Section

Return receipted copy to:

Circulation Section, N/OMS131
Office of Oceanography & Marine Services
WSC-1, Rm. 419
6001 Executive Blvd.
Rockville, MD 20852

RECEIVED THE ABOVE
(Name, Division, Date)

Trish E. Green
Data Acquisition & Management Branch
February 14, 1983

NOAA FORM 61-29 SUPERSEDES FORM C&GS 412 WHICH MAY BE USED.

★ U.S GOVERNMENT PRINTING OFFICE: 1978—665-010/1142

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 8300030

1) File Type: F005

2) Project Ident.: [NOS Columbia River Est. Circ. Survey]

3) Track Nos.: TR9139-89

I. Error Corrections as reported to Principal Investigator:

Error	Correction Completed (Check)

II. Additional error corrections:

Error	Correction Completed (Check)

III. Processor Name: _____

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8300030 TRACK NO(s).: TR9139-89

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	CRCURB	NL	45	4500	9-tr 1600 BPI ASCII	
Duplicate	08879	SL	45	4500	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 8300030/TR9139-81

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/28/83	[illegible]	CRCURB	51	4500	45	
QUADI/SCAN TAPE	3/28/83	[illegible]	08879	51	4500	45	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13 DDF B3:D4

SUBJECT: Error Correction in Processing of Data Set - Accession # 8300030

1) File Type: F005

2) Project Ident.: [NOS Columbia River Estuary Circ. Survey]

3) Track Nos.: TR9086-9137

I. Error Corrections as reported to Principal Investigator:

Error	Correction Completed (Check)

II. Additional error corrections:

Error	Correction Completed (Check)

See attached

III. Processor Name: Mary Lewis

8000030
TR 9086 - 9137
F005

ERRors

1. negative conductivity values
2. Conductivity values below 1.00 - deleted.
3. Pressure and conductivity values of zero (0) were deleted.
4. Blank records deleted.
5. Pressure values less than 1.00 were deleted.

ACCESSION/TRACK # 8300030/TR9088-9137

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
SINATOR TAPE	3/28/83	[illegible]	CRCUR A	52	4500	45	
DI/SCAN TAPE	3/28/83	[illegible]	08878	52	4500	45	
IGNED FOR PROCESS.							
F EVALUATION	4/4/83						
LITY REVIEW	4/4/83						
ELIMINARY DATA SORT							
ELIMINARY MULCHEK	4/4/83	DNODC*~~F005~~ T 9086.					62
ST USER TAPE							
RK DISK FILE	4/1/83	DNODC*MARY.T9086/F005					128,500
NAL USER TAPE							
NAL MULCHEK	4/5/83	DNODC*F005 T 9086.					62
DITED DISK FILE							
ATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8300030 TRACK NO(s).: TR9086-9138

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	CRCURA	NL	45	4500	9-tr 1600 BPI ASCII	
Duplicate	08878	SL	45	4500	9-tr 1600 BPI ASCII	128,500
Reformatted						
~~First User~~ DISK	DUDC*MARY.T9086				/FOCS	125,679
Final User						

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 8300030

1) File Type: F005

2) Project Ident.: [NOS Columbia River Estuary Circ. Survey]

3) Track Nos.: TR 9088-9137

I. Error Corrections as reported to Principal Investigator:

Error	Correction Completed (Check)

II. Additional error corrections:

Error	Correction Completed (Check)

See attached

III. Processor Name: Mary Ellers

87000 30
TR 9086 - 9137
F005

ERRors

1. negative conductivity values
2. Conductivity values below 1.000 - deleted.
3. Pressure and conductivity values of zero (0) were deleted.
4. Blank records deleted.
5. Pressure values less than 1.00 were deleted.

ACCESSION/TRACK # 830003o/TR9086-9137

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
GINATOR TAPE	3/25/83		CRCUR A	52	4500	45	
ADI/SCAN TAPE	3/25/83		08878	52	4500	45	
SIGNED FOR PROCESS.							
F EVALUATION	4/4/83						
ALITY REVIEW	4/4/83						
ELIMINARY DATA SORT							
RELIMINARY MULCHEK	4/4/83	DNODC*	F005 T 9086.				12
RST USER TAPE							
ORK DISK FILE	4/1/83	DNODC*MARY.T9086/F005					128,500
INAL USER TAPE							
NAL MULCHEK	4/5/83	DNODC*F005 T 9086.					12
EDITED DISK FILE							
ATA SET "FINALIZED"							

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8300030 TRACK NO(s).: TR9086-9138

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	CRCURA	NL	45	4500	9-tr 1600 BPI ASCII	
Duplicate	08878	SL	45	4500	9-tr 1600 BPI ASCII	128,500
Reformatted						
~~First User~~ DISK	DUA0:[CRC*]MARY.T	9086			/F005	125,679
Final User						

	83NODC 053-01	ACCESSION NUMBER	8300030

DATA DOCUMENTATION FORM

TR9086-9139

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

NOAA/NOS N/OMS 131
Estuarine and Ocean Physics Branch
Circulation Section
6001 Executive Blvd., Rockville, MD 20852

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

OPR-N805-AR-81
Circulatory Survey
Columbia River Estuary, Oregon

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

4. PLATFORM NAME(S)

NOAA Ship
McARTHUR

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

Current = Std. NOS meanings
met. = fixed platform
CTD = vertical casts

6. PLATFORM AND OPERATOR NATIONALITY(IES)

PLATFORM	OPERATOR
USA	USA

7. DATES

FROM: MO/DAY/YR	TO: MO/DAY/YR
4/29/81	12/4/81

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?)

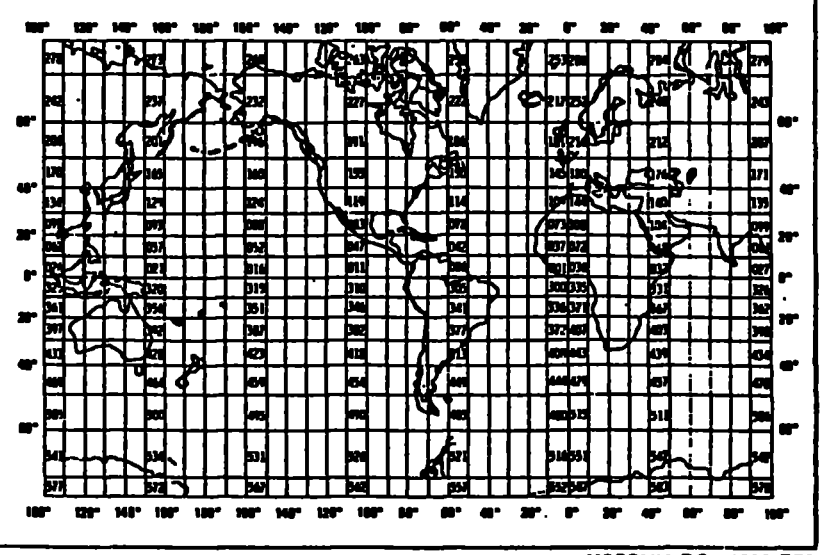
☒ NO ☐ YES ☐ PART *(SPECIFY BELOW)*

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

N/OMS 131
Chief, Circulation Section
301-443-8501

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
Current Data				Temp, Cond, press, speed, and direction were converted from internal machine units to engineering units using std formulas. Data are all sampled at 10-minute intervals.
Velocity	cm/sec	Aanderaa RCM 4 Current Meters		
Direction	Degrees True			
Temperature	Degrees Cent.			
Conductivity	mmho/cm			
Pressure	Hg/cm²			
Meteorological Data				
Velocity	meters/sec	Aanderaa Meteorological Package and Data Logger		
Direction	Degrees true			
Temperature	Degrees Cent.			
Pressure	mbars			
Wind Stress	Hg/m²			
CTD Data				
Depth	meters	Plessey 9041		
Temp	Degrees Centi			
Salinity	‰			
Sigma-T				

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

Current Data
NODC File Type 005

Meteorological Data
NODC File Type 091

CTD
NODC File Type 022

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

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

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

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE ☐ BCD ☐ BINARY ☒ ASCII ☐ EBCDIC ☐ _____

6. NUMBER OF TRACKS (CHANNELS) ☐ SEVEN ☒ NINE ☐ _____

7. PARITY ☐ ODD ☒ EVEN

8. DENSITY ☐ 200 BPI ☒ 1600 BPI ☐ 556 BPI ☐ 800 BPI ☐ _____

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

10. END OF FILE MARK ☒ OCTAL 17 ☐ _____

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

12. PHYSICAL BLOCK LENGTH IN BYTES
4500 characters = 2250 bytes

13. LENGTH OF BYTES IN BITS
18 bits / byte

D. INSTRUMENT CALIBRATION

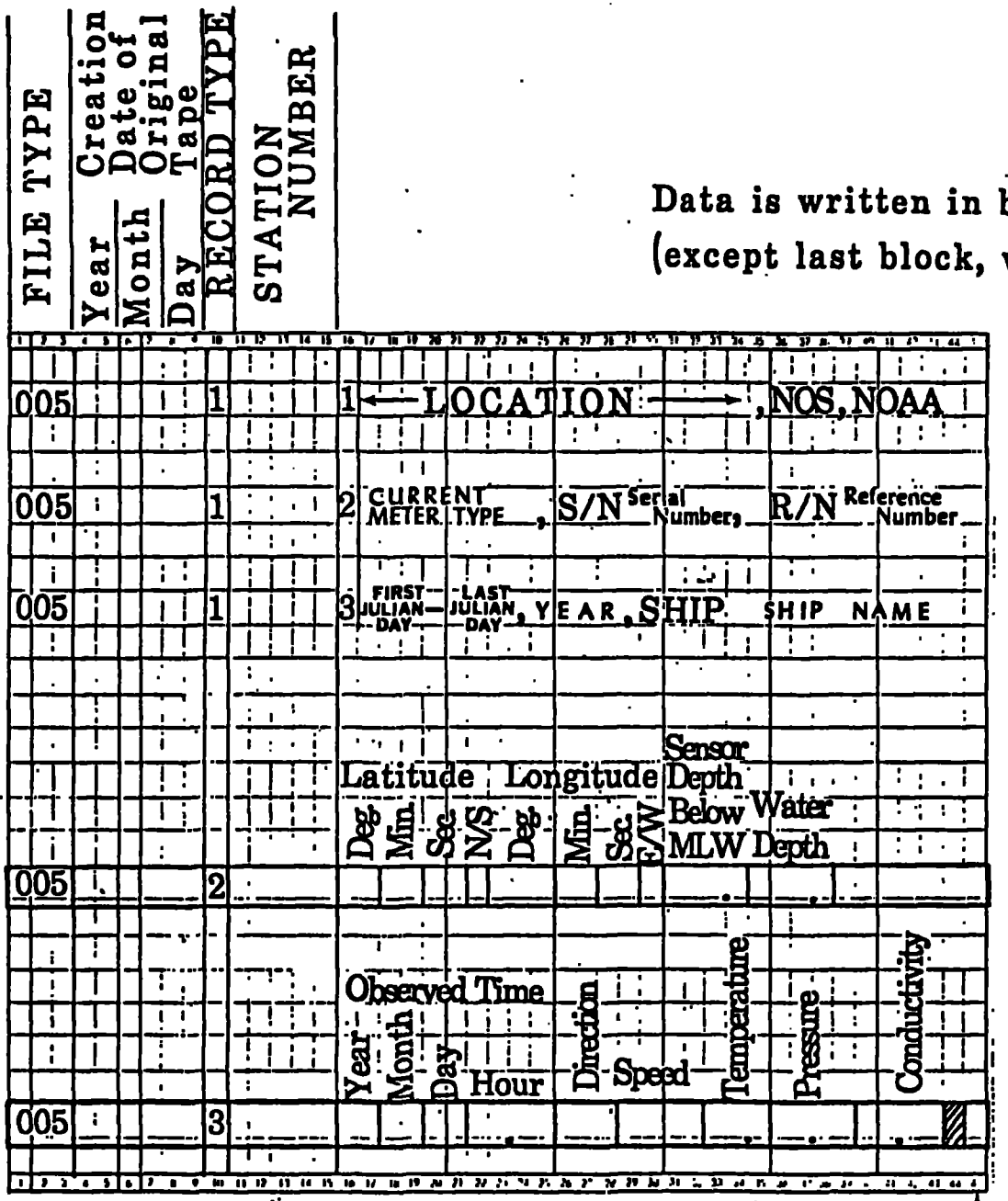
This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
Aanderaa Current Meter	April 1982		NRCC	✓					
Aanderaa Metro. Package	April 1981		NRCC	✓					
Plessey 9041	Sept 1981		NRCC	✓					

USCOMM-DC 44289-P7

83NODC 053

NODC FORMAT FOR CURRENT DATA



Data is written in blocks of 4500 characters (except last block, which is ≤4500 characters).

Depth in meters.
Direction in degrees true.
Speed in cm/sec.
Temperature in degrees Celsius.
Pressure in kg/cm^2.
Conductivity in mmho/cm.

1 Indicates that data point was edited

NOAA FORM 61-29 (12-71)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REFERENCE NO.

LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check):

☒ ORDINARY MAIL ☐ AIR MAIL

☐ REGISTERED MAIL ☐ EXPRESS

☐ GBL (Give number) _____

TO:

Director
NODC
D7
Page Building 1

DATE FORWARDED

February 7, 1983

NUMBER OF PACKAGES

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

The data listed below were obtained from the 1981 Columbia River Estuary Circulation Survey, processed and formatted into NODC format, and transmitted to NODC on the date noted above.

Two Current meter tapes

Supporting documentation

New # CRCURA

The two tapes enclosed, CRCUR1 and CRCUR2, are being sent to replace the original current meter tapes which you returned to us.

FROM: (Signature) Charles R. Muirhead

Charles R. Muirhead, Chief, Circulation Section

RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

Circulation Section, N/OMS131
Office of Oceanography & Marine Services
WSC-1, Rm. 419
6001 Executive Blvd.
Rockville, MD 20852

Password:

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
8300030	F005	TR9086	9999	31J4	317F	1981/04/30	N805-AR-	320053
8300030	F005	TR9087	9999	31J4	317F	1981/08/13	N805-AR-	320054
8300030	F005	TR9088	9999	31J4	317F	1981/05/21	N805-AR-	320055
8300030	F005	TR9089	9999	31J4	317F	1981/07/15	N805-AR-	320056
8300030	F005	TR9090	9999	31J4	317F	1981/07/15	N805-AR-	320057
8300030	F005	TR9091	9999	31J4	317F	1981/07/15	N805-AR-	320058
8300030	F005	TR9092	9999	31J4	317F	1981/07/15	N805-AR-	320059
8300030	F005	TR9093	9999	31J4	317F	1981/07/15	N805-AR-	320060
8300030	F005	TR9094	9999	31J4	317F	1981/07/15	N805-AR-	320061
8300030	F005	TR9095	9999	31J4	317F	1981/07/16	N805-AR-	320062
8300030	F005	TR9096	9999	31J4	317F	1981/07/16	N805-AR-	320063
8300030	F005	TR9097	9999	31J4	317F	1981/07/16	N805-AR-	320064
8300030	F005	TR9098	9999	31J4	317F	1981/07/16	N805-AR-	320065
8300030	F005	TR9099	9999	31J4	317F	1981/07/11	N805-AR-	320066
8300030	F005	TR9100	9999	31J4	317F	1981/07/16	N805-AR-	320067
8300030	F005	TR9101	9999	31J4	317F	1981/07/16	N805-AR-	320068
8300030	F005	TR9102	9999	31J4	317F	1981/07/27	N805-AR-	320069
8300030	F005	TR9103	9999	31J4	317F	1981/07/27	N805-AR-	320070
8300030	F005	TR9104	9999	31J4	317F	1981/07/29	N805-AR-	320071
8300030	F005	TR9105	9999	31J4	317F	1981/07/30	N805-AR-	320072
8300030	F005	TR9106	9999	31J4	317F	1981/07/30	N805-AR-	320073
8300030	F005	TR9107	9999	31J4	317F	1981/07/30	N805-AR-	320074
8300030	F005	TR9108	9999	31J4	317F	1981/07/30	N805-AR-	320075
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8300030	F005	TR9110	9999	31J4	317F	1981/07/30	N805-AR-	320077
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