

DDF B: 3:01

ACCESSION  
NUMBER

8200146

## DATA DOCUMENTATION FORM

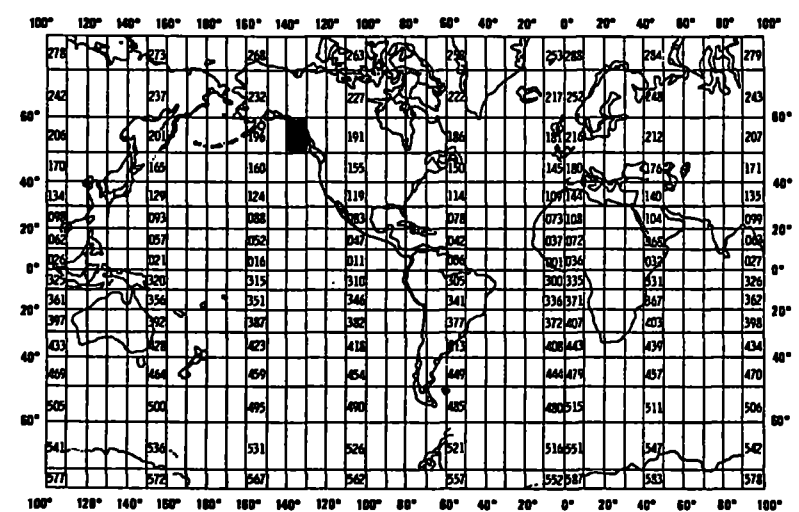
TR8265

NOAA FORM 24-13  
(1-72)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852FORM APPROVED  
O.M.B. No. 41-R2651

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

## A. ORIGINATOR IDENTIFICATION

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 O'NEILL BUILDING 905 KOYUKUK AVENUE NORTH FAIRBANKS ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED  BORAX		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT  BOCA DE QUADRA 4/3	
4. PLATFORM NAME(S)  N/A	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)  CURRENT METER MOORING	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
		PLATFORM OPERATOR FROM: MO/DAY/YR TO: MO/DAY/YR	
		USA	USA 08/23/79 02/26/80
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.  <i>Current meter mooring</i>  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 MANAGEMENT C/O  907-474-7833 907-474-7836			



# 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 SPEED	CM/SEC	RCM-4	N/A	Conductivity to salinity conversion equations attached to DDF
DIRECTION	degrees T (includes declination of degrees)	Aanderaa Current Meters		-----  Data are wild point edited only. No attempt has been made to correct S,T or D to STD casts.
TEMPERATURE	Degrees C			-----  Expect good precision. Accuracy not checked in field.
SALINITY	0/00			
DEPTH	Meters			



```

1 SUBROUTINE CONDSAL(C,T,D,S)
2
3 C CONSAI WRITTEN JAN 7,1976 BY J DRYDEN AND R SEITZ CONSAI(R,B,T,D,S)
4
5 C CONDSAL ADAPTED FROM CONSAI, JUNE 1960. CALLING LIST INCLUDES C AND
6 ELIMINATES R AND B.
7
8 C PURPOSE OF THIS ROUTINE IS TO PROVIDE CONVERSION CAPABILITY FOR IN
9 SITU CONDUCTIVITY TO SALINITY
10
11 C ALGORITHM AND EQUATIONS TAKEN FROM 'CONVERSION OF IN SITU MEASUREMENTS
12 OF CONDUCTIVITY TO SALINITY' BY A.S. BENNETT (PREPUBLICATION COPY
13 RECEIVED JAN 75 BY PRIVATE COMMUNICATION BETWEEN AUTHOR AND D NEBERT)
14
15 C USAGE CALL CONDSAL(C,T,D,S)
16 C C IS CONDUCTIVITY IN MMHOS
17 C T IS IN SITU TEMPERATURE IN DEG C
18 C *** NOTE THAT BOTH B AND T ARE BOTH 1968 IPTS MEASUREMENTS ***
19 C D IS IN SITU DEPTH IN METERS (PRESUMED EQUIVALENT TO
20 PRESSURE IN DECIBARS)
21 C S IS CALCULATED SALINITY WHICH IS RETURNED TO CALLER IN PPT
22
23 C
24 C B IS BATH TEMPERATURE OR REFERENCE TEMPERATURE IN DEG C
25 C CSW IS CONDUCTIVITY OF STANDARD WATER (S=35,T=B,P=0)
26 C FOR NEIL BROWN, CSW=42.909
27
28 C DATA E /15.0/
29 C DATA CSW /42.909/
30
31 C -----
32 C ENTER HERE
33 C -----
34
35 C P=D
36 C R=C/CSW
37
38 C CONVERT IN SITU RATIO TO 15 DEG C REFERENCE
39 C R2=B*B
40 C RB= 0.676518 + 2.00402E-2*B + 1.227E-4*B2 - 2.18091E-6*B*B2
41 C & + 6.63405E-8*B2*B2 - 9.5646E-10*R2*B2*B
42 C R0= RB*R
43
44 C CALCULATE AND APPLY GROSS PRESSURE CORRECTION
45 C T2=T*T
46 C F= 1.0 + 3.0786E-2*T + 3.169E-4*T2
47 C F= (1.60836E-5*P - 5.4845E-10*P*P + 6.166E-15*P*P*P)/F
48 C R0= R0/(1.0 + F)
49
50 C CALCULATE AND APPLY GROSS TEMPERATURE CORRECTION
51 C RT= 0.676518 + 2.00402E-2*T + 1.227E-4*T2 - 2.18091E-6*T*T2
52 C & + 6.63405E-8*T2*T2 - 9.5646E-10*T2*T2*T
53 C R0= R0/RT
54
55 C CALCULATE SALINITY APPLY SECONDARY PRESS/TEMP CORRECTIONS
56 C R2 = R0*R0
57 C S = -0.08996 + 28.8567*R0 + 12.18892*R2 - 10.61869*R0*R2
58
59 C & + 5.98624*R2*R2 - 1.32311*R2*R2*R0
60 C S = S + R0*(P0-1.0) * ( 0.0442*T - 4.6E-4*T2 - 0.004*R0*T
61 C & + ( 1.25E-4 - 2.9E-6*T)*P )
62
63 C RETURN TO CALLER
64 C RETURN
65 C END

```



### 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-15

Designated by byte 10:

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

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

015CM0092 (7941 records) Meter 1799-4  
015CM0093 (8832 records) Meter 3501-2

16773

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

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER DATA MANAGEMENT (907) 474-7836/474-7833

ADDRESS Institute of Marine Science, Univ. of Alaska, Fairbanks, Ak. 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<b>5. RECORDING MODE</b> <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	<b>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</b> <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 inch
<b>6. NUMBER OF TRACKS (CHANNELS)</b> <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	<b>10. END OF FILE MARK</b> <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> octal 23
<b>7. PARITY</b> <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	<b>11. DATA SUMMARY</b> 015CM0092 TAPE 1 of 2 NS BOCA DE QUADRA 4/3 DR. BURRELL 08/23/79 - 02/26/80 File 1: Meter 1799-4 9TRK, 800BPI, EBCDIC, NO LABEL, ODD PARITY
<b>8. DENSITY</b> <input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input checked="" type="checkbox"/> 800 BPI <input type="checkbox"/> _____	<b>12. PHYSICAL BLOCK LENGTH IN BYTES</b> 60 bytes/block <b>13. LENGTH OF BYTES IN BITS</b> 8 bits/byte

See  
back



015CM0093 TAPE 2 of 2  
BOCA DE QUADRA 4/3 DR. BURRELL  
08/23/79 - 02/26/80  
File 1: Meter 3501-2  
9TRK,800BPI,EBCDIC,NO LABEL, ODD  
PARITY



# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
FILE TYPE	"15" AS DESIGNATED BY OSCEAP AND NODC. THERE ARE NO DEVIATIONS FROM THIS TYPE, EXCEPT:				
	1. col 45-49 depth in meters (I5 to 1/10ths)				
	2. col 50-53 salinity in 0/00 (I4 to 1/100ths)				



# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

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



## D. INSTRUMENT CALIBRATION

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

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALI- BRATED  (✓)
		YOUR ORGANIZATION (✓)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (✓)	BEFORE OR AFTER USE (✓)	BEFORE AND AFTER USE (✓)	ONLY AFTER REPAIR (✓)	ONLY WHEN NEW (✓)	
Aanderaa RCM 4 1799	FEB 1976		NRCC						
Aanderaa RCM 4 3501	MAY 1980		NRCC						



1. ACCESSION NUMBER		NOAA FORM 44-9 (10-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		FORM APPROVED O.M.B. NO. 41-R2689 EXPIRES - AUGUST 1977	
C M O O 9 2		FILE NAME: IMCURFIL		<b>NODC INDEX FORM</b> <b>FOR INSTRUMENT-MEASURED SUBSURFACE CURRENT OBSERVATIONS (NIMSCO)</b>			
<b>PART I</b>							
2. NAME OF INSTITUTION HOLDING DATA INSTITUTE OF MARINE SCIENCE, UNIV. OF AK			CODE	3. ARCHIVE REF. NO.		4. PLATFORM NAME OR DESIGNATOR	
6. COUNTRY OF INSTITUTION HOLDING DATA USA			CODE	*7. PLATFORM TYPE (Check one)		OTHER (Specify)	
8. NAME OF PERSON TO CONTACT FOR FULL DATA PROCESSING INFO. DATA MANAGEMENT, INST. OF MARINE SCIENCE				SHIP BUOY AIRCRAFT			
8A. ADDRESS - STREET OR POST OFFICE BOX NUMBER UNIVERSITY OF ALASKA				<input type="checkbox"/> DRIFTING <input checked="" type="checkbox"/> MOORED <input type="checkbox"/> WINGED <input type="checkbox"/> ANCHORED <input type="checkbox"/> DRIFTING <input type="checkbox"/> HELICOPTER <input type="checkbox"/> UNDERWAY <input type="checkbox"/> ICE ISLAND <input type="checkbox"/> FIXED STRUCTURES		5A. BE-GINNING 1979 08 23  5B. ENDING 1980 02 26	
CITY FAIRBANKS		STATE ALASKA	ZIP CODE/COUNTRY 99701/USA	9. PROJECT OR EXPEDITION DESIGNATOR			
8B. TELEPHONE		AREA CODE 907	NUMBER 474-7836/474-7833	When applicable, record the international cooperative project or expedition designator of which survey was a part. Examples: IGOSS, CICAR, CIM, CINECA, etc. If survey was primarily a national or local cooperative endeavor, enter project or expedition designator assigned.			
<b>PART II</b>							
10. INSTRUMENT USED TO COLLECT DATA AANDERAA METERS		10A. MODEL NO RCM 4	CODE	*12. OBSERVATION TYPE (Check one)		14. USABLE RECORDS	
*11. INSTRUMENT TYPE (Check one)		OTHER (Specify)		<input type="checkbox"/> ONE INSTANTANEOUS RECORD <input type="checkbox"/> AVERAGE OF SEVERAL INSTANTANEOUS RECORDS <input type="checkbox"/> ANALOG RECORD		14A. BEGINNING DATE 1979 08 26  14B. ENDING DATE 1980 02 07	
<input checked="" type="checkbox"/> CURRENT METER <input type="checkbox"/> NEUT. BUOY. FLOAT <input type="checkbox"/> DROGUE <input type="checkbox"/> FREE-FALL DEVICE				13. ARE DATA PROCESSED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		13A. IF NO, WHEN PLANNED? MONTH YEAR	
15. TEN-DEGREE SQUARE, SUBSQUARES				16. ARE DATA EDITED? (Check one)		17. LOCATION OF CURRENT MET. OBSERV.	
15A. 10°	15B. 5°	15C. 1°		<input type="checkbox"/> YES <input type="checkbox"/> NO		DEGREES MIN. SEC. HEM. (Circle approp.) 17A. BE-GINNING LATITUDE 55 16 15 <u>NORTHERN</u> 17B. BE-GINNING LONGITUDE 130 27 5 <u>EASTERN</u>	
18. OBSERVATION DEPTH (Meters) - Record depth at which observations were taken in "From" space. If the observation series represents a depth range (such as obtained with free-fall devices or neutral buoyancy floats) enter shallower depth in "From" space and deeper depth in "To" space.		19. DATA STORAGE MEDIUM (Check one)		OTHER (Specify)			
18A. FROM		18B. AT 20 Meters		<input type="checkbox"/> PUNCHED CARDS <input checked="" type="checkbox"/> MAG. TAPE <input type="checkbox"/> ANALOG RECORD <input type="checkbox"/> PAP. TAPE			
20. ANALYSIS PRODUCTS GENERATED (e.g., speed vs direction, speed vs time, progressive vector plots, etc.)				21. ANALYSIS PRODUCTS PLANNED			
<b>PART III (Fill out this section only if no other documentation is forwarded with form)</b>							
22. PERTINENT PUBLICATIONS (List publications containing any documentation on instrumentation data reduction and processing, data editing, and analysis relative to the data inventoried.)							
23. INSTRUMENTATION REMARKS (Specify any major modifications to manufacturer's original product, major routine manufacturing features, operation failures during data collection, or other comments helpful in data interpretation.)				24. DATA REDUCTION AND PROCESSING REMARKS (Describe briefly the time interval of individual observations of processed data, storage codes of processed data (BCD, EBCDIC, binary, etc.) and other pertinent processing factors)			
NO MODIFICATIONS							
25. DATA EDIT CRITERIA REMARKS (List criteria applied in editing data to the point of their use for analysis; e.g. constant errors (time or other) applied, depth corrections, interpolations, purging of undesirable frequencies, etc.)				26. GENERAL REMARKS (Enter any other comments useful in interpretation and use of data reported)			



1. ACCESSION NUMBER <div style="border: 1px solid black; padding: 2px;">C M 0 0 9 3</div>		NOAA FORM 44-9 (10-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION <b>NODC INDEX FORM</b> <b>FOR INSTRUMENT-MEASURED SUBSURFACE CURRENT OBSERVATIONS (NIMSCO)</b>		FORM APPROVED O.M.B. NO. 41-R2689 EXPIRES - AUGUST 1977	
2. NAME OF INSTITUTION HOLDING DATA INSTITUTE OF MARINE SCIENCE, UNIV. OF AK		CODE	3. ARCHIVE REF. NO.		4. PLATFORM NAME OR DESIGNATOR		CODE
6. COUNTRY OF INSTITUTION HOLDING DATA USA		CODE	*7. PLATFORM TYPE (Check one) SHIP BUOY AIRCRAFT <input type="checkbox"/> DRIFTING <input checked="" type="checkbox"/> MOORED <input type="checkbox"/> WINGED <input type="checkbox"/> ANCHORED <input type="checkbox"/> DRIFTING <input type="checkbox"/> HELICOPTER <input type="checkbox"/> UNDERWAY <input type="checkbox"/> ICE ISLAND <input type="checkbox"/> FIXED STRUCTURES		OTHER (Specify)  CODE		5. <del>CRUISE</del> SURVEY PERIOD YEAR MO. DAY 5A. BEGINNING 1979 08 23 5B. ENDING 1980 02 26
8. NAME OF PERSON TO CONTACT FOR FULL DATA PROCESSING INFO. DATA MANAGEMENT, INST. OF MARINE SCIENCE		9. PROJECT OR EXPEDITION DESIGNATOR When applicable, record the international cooperative project or expedition designator of which survey was a part. Examples: IGOSS, CICAR, CIM, CINECA, etc. If survey was primarily a national or local cooperative endeavor, enter project or expedition designator assigned.		BORAX			
8A. ADDRESS - STREET OR POST OFFICE BOX NUMBER UNIVERSITY OF ALASKA		CITY FAIRBANKS		STATE ALASKA		ZIP CODE/COUNTRY 99701/USA	
8B. TELEPHONE		AREA CODE 907		NUMBER 474-7836/474-7833			
PART II							
10. INSTRUMENT USED TO COLLECT DATA AANDERAA METERS		10A. MODEL NO. RCM 4	CODE	*12. OBSERVATION TYPE (Check one) <input type="checkbox"/> ONE INSTANTANEOUS RECORD <input type="checkbox"/> AVERAGE OF SEVERAL INSTANTANEOUS RECORDS <input type="checkbox"/> ANALOG RECORD		14. USABLE RECORDS YEAR MONTH DAY 14A. BEGINNING DATE 19 79 08 26 14B. ENDING DATE 19 80 02 25	
*11. INSTRUMENT TYPE (Check one) <input checked="" type="checkbox"/> CURRENT METER <input type="checkbox"/> NEUT. BUOY. FLOAT <input type="checkbox"/> DROGUE <input type="checkbox"/> FREE-FALL DEVICE		OTHER (Specify)		13. ARE DATA PROCESSED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		13A. IF NO, WHEN PLANNED? MONTH YEAR	
15. TEN-DEGREE SQUARE, SUBSQUARES 15A. 10° 15B. 5° 15C. 1'		16. ARE DATA EDITED? (Check one) <input type="checkbox"/> YES <input type="checkbox"/> NO		17. LOCATION OF CURRENT MET. OBSERV. DEGREES MIN. SEC. REM. (Circle approp.) 17A. BEGINNING LATITUDE 55 16 15 NORTHERN SOUTHERN 17B. BEGINNING LONGITUDE 130 27 5 EASTERN WESTERN			
18. OBSERVATION DEPTH (Meters) - Record depth at which observations were taken in "From" space. If the observation series represents a depth range (such as obtained with free-fall devices or neutral buoyancy floats) enter shallower depth in "From" space and deeper depth in "To" space.		19. DATA STORAGE MEDIUM (Check one) <input type="checkbox"/> PUNCHED CARDS <input checked="" type="checkbox"/> MAG. TAPE <input type="checkbox"/> ANALOG RECORD <input type="checkbox"/> PAP. TAPE					
18A. FROM		18B. AT 105 Meters					
20. ANALYSIS PRODUCTS GENERATED (e.g., speed vs direction, speed vs time, progressive vector plots, etc.)				21. ANALYSIS PRODUCTS PLANNED			
PART III (Fill out this section only if no other documentation is forwarded with form)							
22. PERTINENT PUBLICATIONS (List publications containing any documentation on instrumentation data reduction and processing, data editing, and analysis relative to the data inventoried.)							
23. INSTRUMENTATION REMARKS (Specify any major modifications to manufacturer's original product, major routine manufacturing features, operation failures during data collection, or other comments helpful in data interpretation.)  NO MODIFICATIONS				24. DATA REDUCTION AND PROCESSING REMARKS (Describe briefly the time interval of individual observations of processed data, storage codes of processed data (BCD, EBCDIC, binary, etc.) and other pertinent processing factors)			
25. DATA EDIT CRITERIA REMARKS (List criteria applied in editing data to the point of their use for analysis; e.g. constant errors (time or other) applied, depth corrections, interpolations, purging of undesirable frequencies, etc.)				26. GENERAL REMARKS (Enter any other comments useful in interpretation and use of data reported)			



FUNCTION REQUESTED: COPY IN TO OT 1 FILE.  
FILE IN REWOUND

FILE CODE IN FILE 1 1 CONTAINED 8832 RECORDS

FILE OT REWOUND

FUNCTION COMPLETED: COPIED IN TO OT 1 FILE.

FUNCTION REQUESTED: DUAP OT 50 RECORDS.

FILE CODE	OT	FILE NUMBER	1
CI	1	R	1
		CC	21
		CC	41
		R	2
		CC	21
		CC	41
		R	3
		CC	21
		CC	41
		R	4
		CC	21
		CC	41
		R	5
		CC	21
		CC	41
		R	6
		CC	21
		CC	41
		R	7
		CC	21
		CC	41
		R	8
		CC	21
		CC	41

9907T	2	05/29/81	UTL2	REPORT	771101	PAGE	2
				R	9		
				CC	21		
				CC	41		
				R	10		
				CC	21		
				CC	41		
				R	11		
				CC	21		
				CC	41		
				R	12		
				CC	21		
				CC	41		
				R	13		
				CC	21		
				CC	41		
				R	14		
				CC	21		
				CC	41		
				R	15		
				CC	21		
				CC	41		
				R	16		
				CC	21		
				CC	41		



800/3

FUNCTION REQUESTED: COPY IN TO OT 1 FILE.  
FILE IN REWOUND

FILE CODE IN FILE 1 1 CONTAINED 8832 RECORDS

FILE OT REWOUND

FUNCTION COMPLETED: COPIED IN TO OT 1 FILE.

FUNCTION REQUESTED: DUMP OT  
FILE CODE OT FILE NUMBER 1 50 RECORDS.

CI	1	R	1	360361365303	324360360371	363361100363	365360361324	305343305331	015CM00931 3501METER
		CC	21	160363365360	361100100100	100100100100	100100100100	100100100100	3501
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100361	1
		R	2	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100362	2
		R	3	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100363	3
		R	4	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100364	4
		R	5	360361365303	324360360371	363361100363	365360361361	113100100306	015CM00931 35011. F
		CC	21	301311331100	330344301323	311343350140	140326325305	100326306100	AIR QUALITY--ONE OF
		CC	41	343310305100	302301304100	302301343343	305100100100	100100100365	THE BAD BATTE 5
		R	6	360361365303	324360360371	363361100363	365360361331	350103324326	015CM00931 3501RY MO
		CC	21	326331311325	307342113100	100100100100	100100100100	100100100100	OFINGS.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100366	6
		R	7	360361365303	324360360371	363361100363	365360361362	113100100331	015CM00931 35012. R
		CC	21	305306305331	305325303305	100325344324	302305331100	311342100344	REFERENCE NUMBER IS U
		CC	41	325342343301	302323305100	343310331326	344100100100	100100100367	NSTABLE THROU 7
		R	8	360361365303	324360360371	363361100363	365360361307	310100326344	015CM00931 3501GH DU
		CC	21	343100324326	342343160326	306100331305	303326331304	153100100100	T MOST OF RECORD.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100370	8

9907T	2	05/29/31	UTL?	REPORT	771101	PAGE	2		
		R	9	360361365303	324360360371	363361100363	365360361100	100100100302	015CM00931 3501
		CC	21	344343100325	343310305331	100303310301	325325305323	342100301327	OT OTHER CHANNELS AP
		CC	41	327305301331	160301303303	305327343301	302100100100	100100100371	PEAR ACCEPTAN 9
		R	10	360361365303	324360360371	363361100363	365360361323	305113100100	015CM00931 3501LF.
		CC	21	343311305346	100304301343	301100346311	343110100100	100100100100	VIEW DATA WITH
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361360	10
		R	11	360361365303	324360360371	363361100363	365360361100	100100100303	015CM00931 3501
		CC	21	301344343311	326325113190	100100100100	100100100100	100100100100	AUTION.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361361	11
		R	12	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361362	12
		R	13	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361363	13
		R	14	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361364	14
		R	15	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	342344302331	326344343311	325305100303	326325345115	311362153331	SUBROUTINE COPY (P. 2
		CC	41	363153331364	153331365153	331366153304	305100100100	100100361365	3.4.4.4.5.6.7.8.9
		R	16	360361365303	324360360371	363361100363	365360361303	323153342324	015CM00931 3501CL.54
		CC	21	327153322306	301303343135	100100100100	100100100100	100100100100	DATA
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100100	



[illegible]

9895T	2	05/29/81	UTL2	REPORT	771101	PAGE	2	
CC	21	360361365303	324360360371	362361100361	367371371362	113100100342	015CM00921 17992.	5
CC	41	327305305304	342100301331	305100323326	346100301325	346100304311	PEEDS ARE LOW AND DI	9
CC	41	311305303343	311326325301	323100345301	331100100100	100100100371	RECTIGNAL VAR	1
R	10	360361365303	324260360371	362361100361	367371371311	301302311323	015CM00921 17991ABIL	
CC	21	3113433350100	301331305100	110311307310	100346310311	303310100311	ITY ARE HIGH WHICH I	1
CC	41	342100100100	100100100100	100100100100	100100100100	100100361360	S	1
R	11	360361365303	324360360371	362361100361	367371371100	100100100303	015CM00921 1799	C
CC	21	326325342311	342343301325	343100346311	343310100301	325343311305	ONSISTANT WITH ANTIC	11
CC	41	311327361343	305304100303	311331303344	323100100100	100100361361	IPATED CIRCUL	11
R	12	360361365303	324360360371	362361100361	367371371301	343311326325	015CM00921 1799ATION	
CC	21	113100100100	100100100100	100100100100	100100100100	100100100100	.	12
CC	41	100100100100	100100100100	100100100100	100100100100	100100361362		12
R	13	360361365303	324360360371	362361100361	367371371363	113100100343	015CM00921 17993.	T
CC	21	30532327305	331301343344	331305100301	325304100303	326325304344	EMPERATURE AND CONDU	13
CC	41	303343311345	311343350100	302305303326	324100100100	100100361363	CTIVITY BECOM	13
R	14	360361365303	324360360371	362361100361	367371371305	100304311306	015CM00921 1799E DIF	
CC	21	306311303344	323343100343	326100305304	311343100301	302326344343	FICULT TO EDIT ABOU	14
CC	41	100100100100	100100100100	100100100100	100100100100	100100361364		14
R	15	360361365303	324360360371	362361100361	367371371100	100100100370	015CM00921 1799	8
CC	21	100304305303	305324302305	531100361371	370260113100	100343310305	DECEMBER 1980. THE	15
CC	41	100331305342	343100326306	100343310305	100100100100	100100361365	FEST OF THE	15
R	15	360361365303	324360360371	362361100361	367371371303	310301325325	015CM00921 1799CHANN	
CC	21	305323342100	302305303326	24305100100	100100100100	100100100100	ELS BECCME	16
CC	41	100100100100	100100100100	100100100100	100100100100	100100361366		16
R	17	360361365303	324360360371	362361100361	367371371100	100100100311	015CM00921 1799	I
CC	21	326343305331	324311343343	501325343323	350100202301	304100301325	INTERMITTANTLY BAD AN	17
CC	41	300100301331	305100343305	331324311325	301100100100	100100361367	D ARE TERMINA	17
R	18	360361365303	324360360371	362361100361	367371371343	305304100326	015CM00921 1799TED O	
CC	21	325100367100	306305302331	344301331350	100261271370	360113100100	N 7 FEBRUARY 1980.	18
CC	41	100100100100	100100100100	100100100100	100100100100	100100361370		18
R	19	36036						



015CM00931 3501C EQN  
'S ARE IN ORDER OF T  
END-COND-DEPT 21



FILE TYPE 015 - CURRENT METER (EULERIAN) - 3/30/79 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD TIME SERIES MEASUREMENTS FOR ARCHIVED OR FIXED CURRENT METER ARRAYS FOR ANY WATER DEPTH. THESE MEASUREMENTS SUPPORT STUDIES TO DETERMINE CIRCULATION AND TRANSPORT PATTERNS IN OFFSHORE AND NEARSHORE OCEAN REGIMES.

THE FORMAT CONSISTS OF FOUR DATA RECORDS FOR REPORTING CURRENT COMPONENTS, TEMPERATURE, PRESSURE AND SALINITY OR CONDUCTIVITY AS WELL AS METER POSITION AND METER DEPTH, DATES OF OPERATION, WATER DEPTH, METER NUMBER, INSTITUTION AND OTHER SUPPLEMENTARY INFORMATION INCLUDING A RECORD FOR TEXT.

DATA CAN BE REPORTED OVER ANY ACTUAL OR FILTERED TIME INTERVAL AND IS EXPRESSED IN HOURS AND MINUTES. DIRECTION AND SPEED ARE EXPRESSED IN TERMS OF U AND V COMPONENTS IN CM/SEC WITH POSITIVE DIRECTIONS EAST AND NORTH AND NEGATIVE DIRECTIONS WEST AND SOUTH. CURRENTS ARE INDICATED AS DIRECTION 'TOWARD'.

ALL RECORDS IN THIS FORMAT ARE 60 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (METER NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 015 - 3/30/79 - SALINITY FIELD (SC 50) EXTENDED TO\*\*\*\*\*  
\*\*\*\*\*5 BYTES\*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
METER NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2 AND 3	11
TEXT	THIRTY-EIGHT CHARACTER FIELD FOR COMMENTS OR PERTINENT INFORMATION	16
BLANK		54
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING TEXT INFORMATION	55
MASTER RECORD	ALWAYS '2'	10
METER NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
DEPTH OF BOTTOM	XXXXX (WHOLE METERS)	31
DEPTH OF CURRENT	XXXXX (METERS TO TENTHS)	36
METER		
METER USAGE SEQUENCE	XXX - USED FOR INDICATING NUMBER OF TIMES METER HAS BEEN USED	41
NUMBER		
INSTITUTION	TWO-CHARACTER NODC INSTITUTION CODE - USE CODE 0218	44
AXIS ROTATION	XXX - DEGREES CLOCKWISE FROM TRUE NORTH OF V AXIS - VALUES SHOULD BE 0 WHEN FINAL PROCESSED TO PROVIDE TRUE DIRECTION INFORMATION	46
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY ORIGINATOR	49
NUMBER OF DETAIL	XXXXXX - USED TO INDICATE NUMBER OF DETAIL RECORDS (3) TO FOLLOW THE MASTER RECORD (2)	55
RECORDS		
DETAIL RECORD 1	ALWAYS '3'	10
METER NUMBER	SEE RECORD '1'	11
DATE (GMT)	YYMMDD	16
TIME (GMT)	XXXXXX (HOURS, MINUTES TO HUNDREDTHS)	22
EAST-WEST CURRENT	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	28
COMPONENT (U)		



NORTH-SOUTH CURRENT COMPONENT (V)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	34
TEMPERATURE	XXXXX WITH NEGATIVE TEMPERATURES PRECEDED BY MINUS SIGN (DEG C TO THOUSANDTHS)	40
PRESSURE	XXXXX (DECIBARS TO TENTHS)	45
CONDUCTIVITY	XXXX - MMHOS/CM TO HUNDREDTHS	50
BLANK		54
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS ORIGINATOR	55
DETAIL RECORD 2	ALWAYS '4'	10
METER NUMBER	SEE RECORD '1'	11
DATE (GMT)	YYMMDD	16
TIME (GMT)	XXXXXX (HOURS, MINUTES TO HUNDREDTHS)	22
EAST-WEST CURRENT COMPONENT (U)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	28
NORTH-SOUTH CURRENT COMPONENT (V)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN	34
TEMPERATURE	XXXXX WITH NEGATIVE TEMPERATURES PRECEDED BY MINUS SIGN (DEG C TO THOUSANDTHS)	40
PRESSURE	XXXXX (DECIBARS TO TENTHS)	45
SALINITY	XXXXX PARTS PER THOUSAND TO THOUSANDTHS	50
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS	55



# N O D C F I L E T Y P E C O D E S

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 015

## 0218 DATA SOURCE

-----

09 -- UNIVERSITY OF WASHINGTON(SEATTLE)  
 3F -- PMEL-UNIVERSITY OF WASHINGTON(SEATTLE)  
 CI -- UNIV. OF ALASKA  
 I7 -- UNIVERSITY OF ALASKA-IMS (FAIRBANKS)  
 TB -- NATIONAL OCEAN SURVEY, PMC (SEATTLE)

## 0500 LAT HEMISPHERE

-----

N -- NORTH  
 S -- SOUTH

## 0501 LON HEMISPHERE

-----

E -- EAST  
 W -- WEST



TAPE OR DISK ASSIGNMENT SHEET  
(MRL) 11/6/78  
(Rev. 11/80)

ACCESSION/TRACK NO.: 8200146/TR 8265

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
ORIGINATOR	W2208 W2209	NL	60	3000	EBCDIC		
DUPLICATE	W12592 W12593	SL	60	4200	ASCII		
REFORMATTED							
FIRST USER							
FINAL USER							
DISK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE							
EDITED DISK FILE							



ACCESSION/TRACK # 8200146/IR82

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE #	7/14/82	818K	W2208 W2209	<del>W2208</del> <del>W2209</del>	3000	60	
QUADI/SCAN TAPE #	7/26/82	"	W12592 W12593	1	4200	60	
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: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F015
- 2) Project Ident.: \_\_\_\_\_
- 3) Track Nos.: TR 8265

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



DATE: 8/2/82

TO: ~~D77~~ OC12

FROM: ~~D77~~ OC13

B: 3:01

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F015
- 2) Project Ident.: Borax
- 3) Track Nos.: TR 8265

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

See corrections sheet

III. Processor Name:

Cliff Hartley



## Corrections FQ15 TR8265

- ① File ID changed to TR8265
- ② all record type 3's were changed to record type 4's.
- ③ Record type 4, Field Date Min. 01, cols 24-27  
If a blank occurred in any of the columns,  
the blank was zero filled.
- ④ Record # 55, record type '2'  
Originator data had C1 entered  
in cols 44-45, Field 0218 Data Source Code,  
C1 corrected to code CI.



# TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8200146

TRACK NO(s).: *TR8265*.

[illegible]



ACCESSION/TRACK # 8200146/TR8265

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	5/10/83 <del>8200</del>	W2208	1	3000	60	7941
QUAD/SCAN TAPE	5/10/83 <del>8200</del>	20946	1	4800	60	7941
ASSIGNED FOR PROCESS.						
<del>Tape to disk</del> <del>OF EVALUATION</del>	07/20/83 CMH			4800	60	
QUALITY REVIEW						
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK	07/21/83 CMH					7941
FIRST USER TAPE						
WORK DISK FILE	07/21/83 CMH					7941
FINAL USER TAPE						
FINAL MULCHEK	07/22/83 CMH					7941
EDITED DISK FILE	07/22/83 CMH			ascii	60	7941
DATA SET "FINALIZED"						

DNODC \* MPPD75. T8265 / F015



DDF B: 3.01

NUMBER

8200146

## DATA DOCUMENTATION FORM

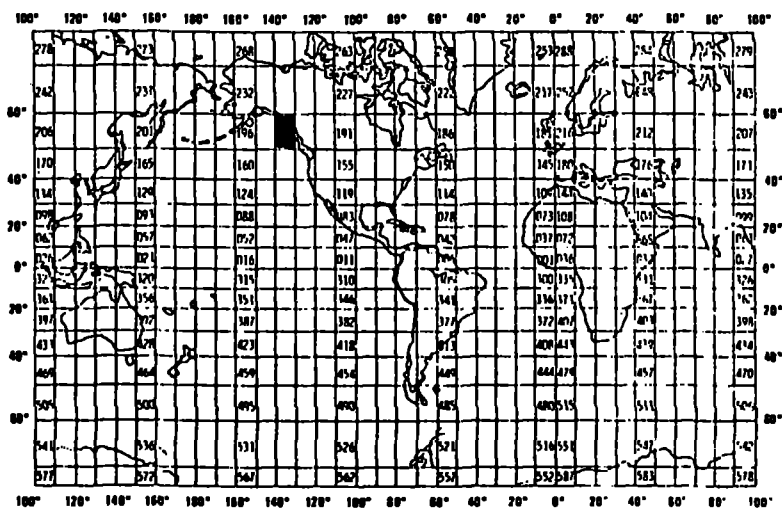
TR9950

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

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

## A. ORIGINATOR IDENTIFICATION

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 O'NEILL BUILDING 905 KOYUKUK AVENUE NORTH FAIRBANKS ALASKA 99701					
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED  BORAX		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT  BOCA DE QUADRA 4/3			
4. PLATFORM NAME(S)  N/A	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)  CURRENT METER MOORING	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO, DAY, YR	TO: MO, DAY, YR
		USA	USA	08/23/79	02/26/80
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 MANAGEMENT C/O  907-474-7833 907-474-7836					



# 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 SPEED	CM/SEC	RCM-4	N/A	Conductivity to salinity conversion equations attached to DDF
DIRECTION	degrees T (includes declination of degrees)	Aanderaa Current Meters		-----
TEMPERATURE	Degrees C			Data are wild point edited only. No attempt has been made to correct S,T or D to STD casts.
SALINITY	0/00			-----
DEPTH	Meters			Expect good precision. Accuracy not checked in field.



## SUBROUTINE CONDSAL(C,T,D,S)

CONSAL WRITTEN JAN 7, 1976 BY J DRYDEN AND R SEITZ      CONSAL(R,B,T,D,S)

CONDSAL ADAPTED FROM CONSAL, JUNE 1980. CALLING LIST INCLUDES C AND  
ELIMINATES R AND B.

PURPOSE OF THIS ROUTINE IS TO PROVIDE CONVERSION CAPABILITY FOR IN  
SITU CONDUCTIVITY TO SALINITY

ALGORITHM AND EQUATIONS TAKEN FROM 'CONVERSION OF IN SITU MEASUREMENTS  
OF CONDUCTIVITY TO SALINITY' BY A.S. BENNETT (PREPUBLICATION COPY  
RECEIVED JAN 75 BY PRIVATE COMMUNICATION BETWEEN AUTHOR AND D NEBERT)

USAGE      CALL CONDSAL(C,T,D,S)

        C    IS CONDUCTIVITY IN MMHOS

        T    IS IN SITU TEMPERATURE IN DEG C

        \*\*\* NOTE THAT BOTH B AND T ARE BOTH 1968 IPTS MEASUREMENTS \*\*\*

        D    IS IN SITU DEPTH IN METERS (PRESUMED EQUIVALENT TO  
                PRESSURE IN DECIBARS)

        S    IS CALCULATED SALINITY WHICH IS RETURNED TO CALLER IN PPT

        B    IS BATH TEMPERATURE OR REFERENCE TEMPERATURE IN DEG C  
CSW    IS CONDUCTIVITY OF STANDARD WATER (S=35,T=8,P=0)  
        FOR NEIL BROWN, CSW=42.909

DATA E /15.0/

DATA CSW /42.909/

-----  
ENTER HERE  
-----

P=D

R=C/CSW

CONVERT IN SITU RATIO TO 15 DEG C REFERENCE

R2=B\*B

RB= 0.676518 + 2.00402E-2\*B + 1.227E-4\*B<sup>2</sup> - 2.18091E-6\*B\*B<sup>2</sup>  
+ 6.63405E-8\*B<sup>2</sup>\*B<sup>2</sup> - 9.5646E-10\*B<sup>2</sup>\*B<sup>2</sup>\*B

R0= RB/R

CALCULATE AND APPLY GROSS PRESSURE CORRECTION

T2=T\*T

F= 1.0 + 3.0786E-2\*T + 3.169E-4\*T<sup>2</sup>

F= (1.60836E-5\*P - 5.4845E-10\*P\*P + 6.166E-15\*P\*P\*P)/F

R0= R0/(1.0 + F)

CALCULATE AND APPLY GROSS TEMPERATURE CORRECTION

RT= 0.676518 + 2.00402E-2\*T + 1.227E-4\*T<sup>2</sup> - 2.18091E-6\*T\*T<sup>2</sup>

+ 6.63405E-8\*T<sup>2</sup>\*T<sup>2</sup> - 9.5646E-10\*T<sup>2</sup>\*T<sup>2</sup>\*T

R0= R0/RT

CALCULATE SALINITY APPLY SECONDARY PRESS/TEMP CORRECTIONS

P2 = R0\*R0

S = -0.08996 + 28.8567\*R0 + 12.18832\*R2 - 10.61869\*R0\*R2

+ 5.98624\*R2\*R2 - 1.32311\*R2\*R2\*R0

S = S + R0\*(P0-1.0) \* ( 0.0442\*T - 4.6E-4\*T<sup>2</sup> - 0.004\*R0\*T

+ ( 1.25E-4 - 2.9E-6\*T)\*P )

RETURN TO CALLER

RETURN

END



## 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-15

Designated by byte 10:

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

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

015CM0092 (7941 records) Meter 1799-4

015CM0093 (8832 records) Meter 3501-2

*this data set*

*16,773*

3. ATTRIBUTES AS EXPRESSED IN

☐ PL-1

☐ ALGOL

☐ COBOL

☒ FORTRAN

☐ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER DATA MANAGEMENT (907) 474-7836/474-7833

ADDRESS Institute of Marine Science, Univ. of Alaska, 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 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 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. DATA FILE</p> <p>015CM0092    <u>TAPE 1 of 2</u>    <u>NS</u></p> <p>BOCA DE QUADRA 4/3    DR. BURRELL</p> <p>08/23/79 - 02/26/80</p> <p>File 1: Meter 1799-4</p> <p>9TRK, 800BPI, EBCDIC, NO LABEL, ODD PARITY</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>60 bytes/block</p>
	<p>13. LENGTH OF BYTES IN BITS</p> <p>8 bits/byte</p>



015CM0093

TAPE 2 of 2

*Tape # W2209 .*

BOCA DE QUADRA 4/3 DR. BURRELL

08/23/79 - 02/26/80

File 1: Meter 3501-2

9TRK, 800BPI, EBCDIC, NO LABEL, ODD  
PARITY

*↑ this data out*



# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
FILE TYPE	"15" AS DESIGNATED BY OSCEAP AND NODC. THERE ARE NO DEVIATIONS FROM THIS TYPE, EXCEPT:				
	1. col 45-49 depth in meters (I5 to 1/10ths)				
	2. col 50-53 salinity in 0/00 (I4 to 1/100ths)				



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 (✓)	
Aanderaa RCM 4 1799	FEB 1976		NRCC						
Aanderaa RCM 4 3501	MAY 1980		NRCC						



1. ACCESSION NO. CM 0093	FILE NAME: IMCURFIL	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION <b>NODE INDEX FORM</b> <b>FOR INSTRUMENT-MEASURED SUBSURFACE CURRENT OBSERVATIONS (NIMSCO)</b>	APPROVED O.M. NO. 41-R2689 EXPIRES - AUGUST 1977
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**PART I**

2. NAME OF INSTITUTION HOLDING DATA INSTITUTE OF MARINE SCIENCE, UNIV. OF AK	CODE	3. ARCHIVE REF. NO.	4. PLATFORM NAME OR DESIGNATOR	CODE	5. <del>CRUISE</del> SURVEY PERIOD		
6. COUNTRY OF INSTITUTION HOLDING DATA USA	CODE	7. PLATFORM TYPE (Check one) <div style="display: flex; justify-content: space-around;"> <span>SHIP</span> <span>BUOY</span> <span>AIRCRAFT</span> </div> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> DRIFTING    <input checked="" type="checkbox"/> MOORED    <input type="checkbox"/> WINGED  <input type="checkbox"/> ANCHORED    <input type="checkbox"/> DRIFTING    <input type="checkbox"/> HELICOPTER  <input type="checkbox"/> UNDERWAY  <input type="checkbox"/> ICE ISLAND    <input type="checkbox"/> FIXED STRUCTURES         </div> <div style="border-left: 1px dashed black; padding-left: 5px;">           OTHER (Specify)             CODE         </div> </div>			YEAR 1979	MO. 08	DAY 23
8. NAME OF PERSON TO CONTACT FOR FULL DATA PROCESSING INFO. DATA MANAGEMENT, INST. OF MARINE SCIENCE		9. PROJECT OR EXPEDITION DESIGNATOR When applicable, record the international cooperative project or expedition designator of which survey was a part. Examples: IGOSS, CICAR, CIM, CINECA, etc. If survey was primarily a national or local cooperative endeavor, enter project or expedition designator assigned.			5A. BEGINNING 1980	5B. ENDING 02	26
8A. ADDRESS - STREET OR POST OFFICE BOX NUMBER UNIVERSITY OF ALASKA		BORAX					
CITY FAIRBANKS	STATE ALASKA				ZIP CODE/COUNTRY 99701/USA		
8B. TELEPHONE 907	AREA CODE 474-7836/474-7833						

**PART II**

10. INSTRUMENT USED TO COLLECT DATA AANDERAA METERS	10A. MODEL NO. RCM 4	CODE	12. OBSERVATION TYPE (Check one) <input type="checkbox"/> ONE INSTANTANEOUS RECORD <input type="checkbox"/> AVERAGE OF SEVERAL INSTANTANEOUS RECORDS <input type="checkbox"/> ANALOG RECORD	OTHER (Specify)  CODE	14. USABLE RECORDS			
11. INSTRUMENT TYPE (Check one) <input checked="" type="checkbox"/> CURRENT METER <input type="checkbox"/> NEUT. BUOY. FLOAT <input type="checkbox"/> DROGUE <input type="checkbox"/> FREE-FALL DEVICE			13. ARE DATA PROCESSED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		13A. IF NO, WHEN PLANNED? MONTH    YEAR		14A. BEGINNING DATE 19 79    08    26	
15. TEN-DEGREE SQUARE, SUBSQUARES 15A. 10°    15B. 5°    15C. 1'			16. ARE DATA EDITED? (Check one) <input type="checkbox"/> YES <input type="checkbox"/> NO		14B. ENDING DATE 19 80    02    25			
18. OBSERVATION DEPTH (Meters) - Record depth at which observations were taken in "From" space. If the observation series represents a depth range (such as obtained with free-fall devices or neutral buoyancy floats) enter shallower depth in "From" space and deeper depth in "To" space.			19. DATA STORAGE MEDIUM (Check one) <input type="checkbox"/> PUNCHED CARDS <input checked="" type="checkbox"/> MAG. TAPE <input type="checkbox"/> ANALOG RECORD <input type="checkbox"/> PAP. TAPE		17. LOCATION OF CURRENT MET. OBSERV. DEGREES    MIN.    SEC.    HEM. (Circle approp.)			
18A. FROM 18B. AT 105 Meters			CODE		17A. BEGINNING LATITUDE 55    16    15    (NORTHERN)			
					17B. BEGINNING LONGITUDE 130    27    5    (EASTERN)			
20. ANALYSIS PRODUCTS GENERATED (e.g., speed vs direction, speed vs time, progressive vector plots, etc.)				21. ANALYSIS PRODUCTS PLANNED				

**PART III (Fill out this section only if no other documentation is forwarded with form)**

22. PERTINENT PUBLICATIONS (List publications containing any documentation on instrumentation data reduction and processing, data editing, and analysis relative to the data inventoried.)	
23. INSTRUMENTATION REMARKS (Specify any major modifications to manufacturer's original product, major routine manufacturing features, operation failures during data collection, or other comments helpful in data interpretation.)  NO MODIFICATIONS	24. DATA REDUCTION AND PROCESSING REMARKS (Describe briefly the time interval of individual observations of processed data, storage codes of processed data (BCD, EBCDIC, binary, etc.) and other pertinent processing factors)
25. DATA EDIT CRITERIA REMARKS (List criteria applied in editing data to the point of their use for analysis: e.g. constant errors (time or other) applied, depth corrections, interpolations, purging of undesirable frequencies, etc.)	26. GENERAL REMARKS (Enter any other comments useful in interpretation and use of data reported)



FUNCTION REQUESTED: COPY IN TO OT 1 FILE.  
FILE IN REMOUNT

FILE CODE IN FILE 1 CONTAINED 8832 RECORDS

FILE OT REMOUNT

FUNCTION COMPLETED: COPIED IN TO OT 1 FILE.

FUNCTION REQUESTED: DUAP OT 50 RECORDS.  
FILE CODE OT FILE NUMBER 1

CI	1	R	1	360361365303	324360360371	363361100363	365360361324	305343305331	015CM00931 3501METER
		CC	21	100363365360	361100100100	100100100100	100100100100	100100100100	3501
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100361	1
		R	2	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100362	2
		R	3	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100363	3
		R	4	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100364	4
		R	5	360361365303	324360360371	363361100363	365360361361	113100100306	015CM00931 35011. F
		CC	21	301311331100	330344301323	311343350140	140326325305	100326306100	AIR QUALITY--ONE OF
		CC	41	343310305100	302301304100	302301343343	305100100100	100100100365	THE BAD BATTE
		R	6	360361365303	324360360371	363361100363	365360361331	350100324326	015CM00931 3501RY MO
		CC	21	320331311325	307342113100	100100100100	100100100100	100100100100	ORINGS.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100366	
		R	7	360361365303	324360360371	363361100363	365360361362	113100100331	015CM00931 35012. R
		CC	21	305306305331	305325303305	100325344324	302305331100	311342100344	REFERENCE NUMBER IS U
		CC	41	325342343301	302323305100	343310331326	344100100100	100100100367	NSTABLE THROU
		R	8	360361365303	324360360371	363361100363	365360361307	310100326344	015CM00931 3501GH DU
		CC	21	343100324326	342343100326	306100331305	303326331304	153100100100	T MOST OF RECORD,
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100370	

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		R	9	360361365303	324360360371	363361100363	365360361100	100100100302	015CM00931 3501
		CC	21	344343100326	343310305331	100303310301	325325305323	342100301327	UT OTHER CHANNELS AP
		CC	41	327305301331	100301303303	305327343301	302100100100	100100100371	PEAR ACCEPTAB
		R	10	360361365303	324360360371	363361100363	365360361323	305113100100	015CM00931 3501LE.
		CC	21	345311305346	100304301343	301100346311	343310100100	100100100100	VIEW DATA WITH
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361360	
		R	11	360361365303	324360360371	363361100363	365360361100	100100100303	015CM00931 3501
		CC	21	301344343311	326325113100	100100100100	100100100100	100100100100	AUTION.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361361	
		R	12	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361362	
		R	13	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361363	
		R	14	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361364	
		R	15	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	342344302331	326344343311	325305100303	326325345115	231362153331	SUBROUTINE CONV(R2,R
		CC	41	363153331364	153331365153	331366153304	305100100100	100100361365	3,R4,R5,R6,DE
		R	16	360361365303	324360360371	363361100363	365360361303	323153342324	015CM00931 3501CL,SM
		CC	21	327153322306	301303343135	100100100100	100100100100	100100100100	D,KFACT
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100100	



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FUNCTION REQUESTED: COPY IN TO OT 1 FILE.  
FILE IN REMOVAL

FILE CODE IN FILE # 1 CONTAINED 8832 RECORDS

FILE OF REMOVAL

FUNCTION COMPLETED: COPIED IN TO OT 1 FILE.

FUNCTION REQUESTED: DUMP OT 50 RECORDS.  
FILE CODE OF FILE NUMBER 1

CI	1	R	1	360361365303	324360360371	363361100363	365360361324	305343305331	015CM00931 3501METER
		CC	21	100363365360	361100100100	100100100100	100100100100	100100100100	3501
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100361	1
		R	2	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100362	2
		R	3	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100363	3
		R	4	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100364	4
		R	5	360361365303	324360360371	363361100363	365360361361	113100100306	015CM00931 35011. F
		CC	21	301311331100	330344301323	311343350140	140326325305	100326306100	AIR QUALITY--ONE OF
		CC	41	343310305100	302301304100	302301343343	305100100100	100100100365	THE BAD BATTE 5
		R	6	360361365303	324360360371	363361100363	365360361331	350100324326	015CM00931 3501RY MO
		CC	21	326331311325	307342113100	100100100100	100100100100	100100100100	OFINGS.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100366	6
		R	7	360361365303	324360360371	363361100363	365360361362	113100100331	015CM00931 35012. R
		CC	21	305306305331	305325303305	100325344324	302305331100	311342100344	REFERENCE NUMBER IS U
		CC	41	325342343301	302323305100	343310331326	344100100100	100100100367	NSTALE THROU 7
		R	8	360361365303	324360360371	363361100363	365360361307	310100326344	015CM00931 3501GH OU
		CC	21	343100324326	342343100326	306100231305	303326331304	153100100100	T MOST OF RECORD, 8
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100370	

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		R	9	360361365303	324360360371	363361100363	365360361100	100100100302	015CM00931 3501
		CC	21	344343100326	343310305331	100303310301	325325305323	342100301327	01 OTHER CHANNELS AP
		CC	41	327305301331	100301303303	305327343301	302100100100	100100100371	PEAR ACCEPTAR 9
		R	10	360361365303	324360360371	363361100363	365360361323	305113100100	015CM00931 3501LE.
		CC	21	343311305346	100304301343	301100346311	343310100100	100100100100	VIEW DATA WITH
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361360	10
		R	11	360361365303	324360360371	363361100363	365360361100	100100100303	015CM00931 3501
		CC	21	301344343311	326325113100	100100100100	100100100100	100100100100	AUTICL.
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361361	11
		R	12	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361362	12
		R	13	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361363	13
		R	14	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	100100100100	100100100100	100100100100	100100100100	100100100100	
		CC	41	100100100100	100100100100	100100100100	100100100100	100100361364	14
		R	15	360361365303	324360360371	363361100363	365360361100	100100100100	015CM00931 3501
		CC	21	342344302331	326344343311	325305100303	326325345115	231362153331	SUBROUTINE COPY (P, R
		CC	41	363153331364	153331365153	331366153304	305100100100	100100361365	3, R4, R5, R6, R7 15
		R	16	360361365303	324360360371	363361100363	365360361303	323153442324	015CM00931 3501CL, SM
		CC	21	327153322306	301303343135	100100100100	100100100100	100100100100	0, R4, R5, R6, R7
		CC	41	100100100100	100100100100	100100100100	100100100100	100100100100	



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21	360361365303	324350360371	363361100363	365360361100	100100100302	015CM00931 3501
21	360361365325	324350360371	363361100363	365360361100	100100100302	UT OFFICE CHANNELS
41	360361365303	324350360371	363361100363	365360361100	100100100302	PEARL ACCRATA
10	360361365303	324350360371	363361100363	365360361100	100100100302	015CM00931 3501LE
21	360361365325	324350360371	363361100363	365360361100	100100100302	VIEW DATA WITH
41	360361365303	324350360371	363361100363	365360361100	100100100302	
11	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	AUTIC
41	360361365303	324350360371	363361100363	365360361100	100100100303	
12	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	
41	360361365303	324350360371	363361100363	365360361100	100100100303	
13	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	
41	360361365303	324350360371	363361100363	365360361100	100100100303	
14	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	
41	360361365303	324350360371	363361100363	365360361100	100100100303	
15	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	SUBSTITUTE COMB
41	360361365303	324350360371	363361100363	365360361100	100100100303	3.04.1.1.1.1.1.1
16	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	2.0.0.0.0.0.0.0
41	360361365303	324350360371	363361100363	365360361100	100100100303	
17	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	S. SHIMMONTINE
41	360361365303	324350360371	363361100363	365360361100	100100100303	S. CM. TRANSFER
18	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	FILED FOR WATER
41	360361365303	324350360371	363361100363	365360361100	100100100303	
19	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361100	100100100303	1.0.0.0.0.0.0.0
41	360361365303	324350360371	363361100363	365360361100	100100100303	
20	360361365303	324350360371	363361100363	365360361100	100100100303	015CM00931 3501
21	360361365311	324350360371	363361100363	365360361		



FILE TYPE 015 - CURRENT METER (EULERIAN) - 3/30/79 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD TIME SERIES MEASUREMENTS FOR ARCHIVED OR FIXED CURRENT METER ARRAYS FOR ANY WATER DEPTH. THESE MEASUREMENTS SUPPORT STUDIES TO DETERMINE CIRCULATION AND TRANSPORT PATTERNS IN OFFSHORE AND NEARSHORE OCEAN REGIMES.

THE FORMAT CONSISTS OF FOUR DATA RECORDS FOR REPORTING CURRENT COMPONENTS, TEMPERATURE, PRESSURE AND SALINITY OR CONDUCTIVITY AS WELL AS METER POSITION AND METER DEPTH, DATES OF OPERATION, WATER DEPTH, METER NUMBER, INSTITUTION AND OTHER SUPPLEMENTARY INFORMATION INCLUDING A RECORD FOR TEXT.

DATA CAN BE REPORTED OVER ANY ACTUAL OR FILTERED TIME INTERVAL AND IS EXPRESSED IN HOURS AND MINUTES. DIRECTION AND SPEED ARE EXPRESSED IN TERMS OF U AND V COMPONENTS IN CM/SEC WITH POSITIVE DIRECTIONS EAST AND NORTH AND NEGATIVE DIRECTIONS WEST AND SOUTH. CURRENTS ARE INDICATED AS DIRECTION 'TOWARD'.

ALL RECORDS IN THIS FORMAT ARE 60 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (METER NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 015 - 3/30/79 - SALINITY FIELD (SC 50) EXTENDED TO\*\*\*\*\*  
\*\*\*\*\* 5 BYTES \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
METER NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2 AND 3	11
TEXT	THIRTY-EIGHT CHARACTER FIELD FOR COMMENTS OR PERTINENT INFORMATION	16
BLANK		54
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING TEXT INFORMATION	55
MASTER RECORD	ALWAYS '2'	10
METER NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
DEPTH OF BOTTOM	XXXXX (WHOLE METERS)	31
DEPTH OF CURRENT	XXXXX (METERS TO TENTHS)	36
METER		
METER USAGE SEQUENCE NUMBER	XXX - USED FOR INDICATING NUMBER OF TIMES METER HAS BEEN USED	41
INSTITUTION	TWO-CHARACTER NODC INSTITUTION CODE - USE CODE 0218	44
AXIS ROTATION	XXX - DEGREES CLOCKWISE FROM TRUE NORTH OF V AXIS - VALUES SHOULD BE 0 WHEN FINAL PROCESSED TO PROVIDE TRUE DIRECTION INFORMATION	46
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY ORIGINATOR	49
NUMBER OF DETAIL RECORDS	XXXXXX - USED TO INDICATE NUMBER OF DETAIL RECORDS (3) TO FOLLOW THE MASTER RECORD (2)	55
DETAIL RECORD 1	ALWAYS '3'	10
METER NUMBER	SEE RECORD '1'	11
DATE (GMT)	YYMMDD	16
TIME (GMT)	XXXXXX (HOURS, MINUTES TO HUNDREDTHS)	22
EAST-WEST CURRENT COMPONENT (U)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	28



NORTH-SOUTH CURRENT COMPONENT (V)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	34
TEMPERATURE	XXXXX WITH NEGATIVE TEMPERATURES PRECEDED BY MINUS SIGN (DEG C TO THOUSANDTHS)	40
PRESSURE	XXXXX (DECIBARS TO TENTHS)	45
CONDUCTIVITY	XXXX - MMHOS/CM TO HUNDREDTHS	50
BLANK		54
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS ORIGINATOR	55
DETAIL RECORD 2	ALWAYS '4'	10
METER NUMBER	SEE RECORD '1'	11
DATE (GMT)	YYMMDD	16
TIME (GMT)	XXXXXX (HOURS, MINUTES TO HUNDREDTHS)	22
EAST-WEST CURRENT COMPONENT (U)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN - DIRECTION TOWARD	28
NORTH-SOUTH CURRENT COMPONENT (V)	XXXXXX - CM/SEC TO HUNDREDTHS WITH POSITIVE DIRECTIONS (EAST AND NORTH) INDICATED WITHOUT PLUS SIGN - NEGATIVE DIRECTIONS (WEST AND SOUTH) PRECEDED BY MINUS SIGN	34
TEMPERATURE	XXXXX WITH NEGATIVE TEMPERATURES PRECEDED BY MINUS SIGN (DEG C TO THOUSANDTHS)	40
PRESSURE	XXXXX (DECIBARS TO TENTHS)	45
SALINITY	XXXXX PARTS PER THOUSAND TO THOUSANDTHS	50
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS	55



N O D C F I L E T Y P E C O D E S

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 015

0218 DATA SOURCE

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09 -- UNIVERSITY OF WASHINGTON(SEATTLE)  
3F -- PMEL-UNIVERSITY OF WASHINGTON(SEATTLE)  
CI -- UNIV. OF ALASKA  
I7 -- UNIVERSITY OF ALASKA-IMS (FAIRBANKS)  
TB -- NATIONAL OCEAN SURVEY, PMC (SEATTLE)

0500 LAT HEMISPHERE

-----

N -- NORTH  
S -- SOUTH

0501 LON HEMISPHERE

-----

E -- EAST  
W -- WEST



ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession 18200146

- 1) File Type: F015
- 2) Project Ident.: Borax
- 3) Track Nos.: TR9950

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



## DATA SET ROUTE SHEET

ACCESSION/TRACK # 8200146/TR9950

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE	5/10/83	<del>8200</del>	W2209	1	3000	60	8832
QUADI/SCAN TAPE	5/10/83	<del>8200</del>	021062	1	4800	60	8832
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"							



## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8200146

TRACK NO(s): TR 9950

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	W2209	NL	60	3000	9-tr 800 BPI EBCDIC	
Duplicate	21062	SL	60	4800	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						



DDF-B:3:01

## DATA DOCUMENTATION FORM

Ref# 319302

 NOAA FORM 24-13  
 (4-72)

 U.S. DEPARTMENT OF COMMERCE  
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL OCEANOGRAPHIC DATA CENTER  
 RECORDS SECTION  
 ROCKVILLE, MARYLAND 20882

 FORM APPRO:  
 O.M.B. No. 41-

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 to all data. 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			
DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		HX26	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
R/V Alpha Helix	SHIP	USA USA	FROM: 05/20/82 TO: 06/08/82
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. STD 7000 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 MANAGEMENT, IMS (907) 474-7836 (907) 474-7074			



## 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 ‰	NAUSEN 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



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDCP

Raw 9-track magnetic tapes from the Neil Brown Mark IIIB microprofiler are input. The conductivity is converted to salinity by a relation based on the work of A. S. Bennett (DSR, Vol. 23, No. 2, February 1976).

Output of this program is on 9-track tape and includes entered header data and all STD values from the raw 9-track tape. Output from this program is input for STDAV.

### STDCP PRINT OUT

- 1) Print out the type of "FISH" used.
- 2) Input from 9-track and output to 9-track is documented. (This includes all headers, end of files, and record number indicators).

### CALVAL

Data values from the instrument display, taken at the time discrete samples were taken are input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean.

Subjective judgments as to the quality of the field correction data is made at this time.

Output from this program provides input for STDAV.



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDAV

Data from STDCP and CALVAL are input with header information which includes individual station position, time and weather. }

STDAV checks each parameter to insure it falls within sensor limits. Parameters are grouped into one meter intervals (1 m = 1 db) and averaged. Field corrections are added to the one meter averages. (NOTE: depths, and their related data values, are accepted for inclusion in averaging, if and only if, depth N is greater than or equal to depth N + 1).

### STDAV PRINT OUT

STDAV print out will include the following in addition to header and data:

- 1) All header information and corrected data in one meter intervals.
- 2) Field corrections used, to include mean and standard deviation for each parameter.
- 3) Flags indicating interpolated (\*) and/or extrapolated (E) data are printed with associated data values.
- 4) Pertinent comments are solicited from the responsible principle investigator and attached to the final print out.

### STDAV OUTPUT TAPE

A tape with one meter averages for Depth, Temperature, Salinity, Sigma-T, and Delta-D/per station is generated for data storage and further analysis.

### NODC-F

This program is used to convert the output tape from STDAV (IMS STD final format) to an NODC formatted tape for submission to NODC to fulfill contractual obligations.



# 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/CID: 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 (907)474-7836

ADDRESS Institute of Marine Science, Univ. of Alaska, Fairbanks, Alaska 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<b>5. RECORDING MODE</b> <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	<b>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</b> <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 inch - 0.6 inch
<b>6. NUMBER OF TRACKS (CHANNELS)</b> <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	<b>10. END OF FILE MARK</b> <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> OCTAL 23
<b>7. PARITY</b> <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	<b>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</b> 022 026IMS ALPHA HELIX CRUISE HX26 Dr. R.Lasker 05/20/82 - 06/08/ 82 Stations: 1-3,5,7,9,11,12,15-17,19-22. 9trk,800BPI,EBCDIC,NO LABEL,ODD PARITY
<b>8. DENSITY</b> <input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input checked="" type="checkbox"/> 800 BPI <input type="checkbox"/> _____	<b>12. PHYSICAL BLOCK LENGTH IN BYTES</b> 5-120 bytes/block <b>13. LENGTH OF BYTES IN BITS</b> 8 bits/byte



# RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN  (e.g., bits, bytes)	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.45-49 Depth in meters (I5 to 1/10ths)					
2. Col.50-53 Salinity in 0/00 (I4 to 1/100ths)					



ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: C022
- 2) Project Ident.: Borax
- 3) <sup>Ref</sup>~~Track~~ Nos.: 319302

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.: 8200146

Ref  
TRACK NO(s): 319302

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	W2536	NL	120	600	9-t 800 BPI EBCDIC	
Duplicate	21065	SL	120	4800	9-t 800 BPI ASCII	
Reformatted						
First User						
Final User						



## DATA SET ROUTE SHEET

Ref  
ACCESSION/TRACK # 8200196/319302

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	5/11/83	<del>8200196</del>	W2536	1	600	120	522
QUADI/SCAN TAPE	5/11/83	<del>8200196</del>	21065	1	4800	120	522
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"							



FILE TYPE 022 - SALINITY/TEMPERATURE/DENSITY MEASUREMENTS (STD/CTD)  
12/31/80 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD MICROSTRUCTURE MEASUREMENTS OF SALINITY OR CONDUCTIVITY, TEMPERATURE AND SIGMA-T VALUES VS DEPTH TO SUPPORT STUDIES OF TRANSPORT AND ALTERATION OF CONTAMINANTS BY THE ENVIRONMENT.

THIS FORMAT CONSISTS OF SEVEN RECORDS WHICH INCLUDE, IN ADDITION TO FIVE ENTRIES OF TEMPERATURE, SALINITY, SIGMA-T PER RECORD, EXTENSIVE SEA SURFACE AND CLIMATOLOGY FIELDS, POSITION, DATE, TIME AND DEPTH INFORMATION AND A TEXT RECORD.

DATA CAN BE RECORDED AT DIFFERENT DEPTH INTERVALS WHICH ARE IDENTIFIED IN THE SCAN FIELD. A RECENT ADDITION TO THE FORMAT IS A RECORD WITH DISSOLVED OXYGEN AND TRANSMISSIVITY FIELDS FORMATTED SIMILAR TO THE TEMPERATURE/SALINITY DATA RECORD.

ALL RECORDS IN THIS FORMAT ARE 120 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (CAST NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 022 - 3/30/79 - ADDED NEW DETAIL RECORD 3 -RECORD \*\*\*\*\*  
\*\*\*\*\*TYPE '5' \*\*\*\*\*  
\*\*\*\*\* 12/21/81 - ADD NEW RECORD TYPES '6' AND '7' \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
CAST NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2,3 AND 4	11
TEXT	100-CHARACTER FIELD - USED FOR COMMENTS OR PERTINENT INFORMATION	16
SEQUENCE NUMBER	XXXXX - USED FOR SORTING TEXT RECORDS	116
MASTER RECORD	ALWAYS '2'	10
CAST NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
CRUISE IDENTIFICATION	TEN-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR	31
NUMBER OF SCANS	XXXXX - USED TO INDICATE NUMBER OF SCANS PER STATION (FIVE/RECORD)	41
DATE (GMT)	YYMMDD	46
TIME (GMT)	XXXX (HOURS AND MINUTES)	52
SAMPLE INTERVAL INDICATOR	ONE-DIGIT CODE - USE CODE 0216	56
SAMPLE INTERVAL	XXX - WHEN INDICATOR CODE=1 (EQUAL SPACED DEPTHS) - (METERS TO TENTHS)	57
BAROMETRIC PRESSURE	XXXXX (MILLIBARS TO TENTHS)	60
WET BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	65
DRY BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	69
WIND DIRECTION	XX - TWO-DIGIT CODE - WMO 885/887 - DIRECTION FROM - USE CODE 0110	73
WIND SPEED	XX (WHOLE KNOTS)	75
WEATHER	ONE-DIGIT CODE - WMO 4501 - USE CODE 0108	77
SEA STATE	ONE-DIGIT CODE - WMO 3700 - USE CODE 0109	78
VISIBILITY	ONE-DIGIT CODE - WMO 4300 - USE CODE 0157	79
CLOUD TYPE	ONE-DIGIT CODE - WMO 0500 - USE CODE 0053	80
CLOUD AMOUNT	ONE-DIGIT CODE - WMO 2700 - USE CODE 0105	81
INSTRUMENT INFORMATION	TWENTY-CHARACTER FIELD FOR TYPE OF INSTRUMENT, SERIAL NUMBER, ETC	82
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY THE ORIGINATOR	102
DEPTH TO BOTTOM	XXXXX (WHOLE METERS)	108
MAXIMUM DEPTH OF CAST	XXXX (WHOLE METERS)	113
BLANK		117



DETAIL RECORD 1	ALWAYS '3'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
DEPTH	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 2	ALWAYS '4'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	21
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	41
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	61
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	81
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	101
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116

DETAIL RECORD 3	ALWAYS '5'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	21
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	41
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56



TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 4	ALWAYS 'G'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
PRESSURE	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
PRESSURE	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 5	ALWAYS '7'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56



THE FOLLOWING CODES ARE USED IN FILE TYPE 022

0053 CLOUD TYPE (WM0500)

-----

- 0 -- CIRRUS
- 1 -- CIRROCUMULUS
- 2 -- CIRROSTRATUS
- 3 -- ALTOCUMULUS
- 4 -- ALTOSTRATUS
- 5 -- NIMBOSTRATUS
- 6 -- STRATOCUMULUS
- 7 -- STRATUS
- 8 -- CUMULUS
- 9 -- CUMULONIMBUS
- X -- CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOMENA

0080 STD-SCAN CONDITION

-----

- 0 -- DATA PROCESSED PRIOR TO IMPLEMENTATION OF CODE. ALL VALUES FOR ALL PARAMETERS WILL BE LABELED THE SAME.
- 1 -- VALUE OBTAINED FROM RAW DATA AT THAT DEPTH INTERVAL. PROCESSING TO OBTAIN THIS VALUE MUST BE SPECIFIED IN A DDF. EXAMPLE: THE VALUE FOR SALINITY MAY BE THE RESULT OF AVERAGING OVER ONE METER INTERVAL AND APPLYING A FIELD CORRECTION BASED UPON DISCRETE SAMPLES. (OTHER TYPES OF PROCESSING MAY BE USED, BUT MUST BE SPECIFIED IN DDF.)
- 2 -- VALUES ARE LINEARLY INTERPOLATED FROM ADJACENT DEPTH INTERVALS. EXAMPLE: IF THE TEMPERATURE VALUES FROM 49 AND 50 METERS ARE MISSING, THESE VALUES WILL BE OBTAINED BY LINEAR INTERPOLATION BETWEEN THE VALUES AT 48 AND 51 METERS.
- 3 -- VALUES ARE OBTAINED BY "VERTICAL EXTRAPOLATION" FROM THE FIRST DEPTHS FOR WHICH A VALUE IS FOUND THAT FALLS WITHIN SENSOR LIMITS. EXAMPLE: IF SALINITY FALLS BELOW SENSOR LIMITS BECAUSE OF FRESH SURFACE WATER, THOSE DEPTHS AFFECTED WILL BE ASSIGNED THE SALINITY OF THE FIRST REAL VALUE OBTAINED (SALINITY SENSORS WILL BE AFFECTED TO A MUCH GREATER EXTENT THAN CONDUCTIVITY SENSORS.)
- 4 -- AVERAGED
- 9 -- TEMPERATURE, SALINITY, AND SIGMA-T NOT GIVEN

0105 CLOUD AMT (WM02700)

-----

- 0 -- 0 (ZERO)
- 1 -- 1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
- 2 -- 2 OKTAS 2/10-3/10
- 3 -- 3 OKTAS 4/10
- 4 -- 4 OKTAS 5/10
- 5 -- 5 OKTAS 6/10
- 6 -- 6 OKTAS 7/10-8/10
- 7 -- 7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
- 8 -- 8 OKTAS 10/10



9 -- SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED

0108 WEATHER (WM04501)

-----

- 0 -- CLEAR (NO CLOUD AT ANY LEVEL)
- 1 -- PARTLY CLOUDY (SCATTERED OR BROKED)
- 2 -- CONTINUOUS LAYER(S) OF CLOUD(S)
- 3 -- SANDSTORM, DUSTSTORM, OR BLOWING SNOW
- 4 -- FOG, THICK DUST OR HAZE
- 5 -- DRIZZLE
- 6 -- RAIN
- 7 -- SNOW, OR RAIN AND SNOW MIXED
- 8 -- SHOWER(S)
- 9 -- THUNDERSTORM(S)

0109 SEA STATE (WM03700)

-----

- 0 -- CALM-GLASSY 0 FT (0 METERS)
- 1 -- CALM-RIPPLED 0-1/3 FT (0-.1 METERS)
- 2 -- SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
- 3 -- SLIGHT 1 2/3 - 4 FT (.5-1.25 METERS)
- 4 -- MODERATE 4-8 FT (1.25-2.50 METERS)
- 5 -- ROUGH 8-13 FT (2.50-4.0 METERS)
- 6 -- VERY ROUGH 13-20 FT (4-6 METERS)
- 7 -- HIGH 20-30 FT (6-9 METERS)
- 8 -- VERY HIGH 30-45 FT (9-14 METERS)
- 9 -- PHENOMENAL >45 FT (>14 METERS)

0110 WIND-WAVE DIRECTION

-----

- 00 -- CALM (NO WAVES-NO MOTION)
- 01 -- 5 DEGREES - 14 DEGREES
- 02 -- 15 DEGREES - 24 DEGREES
- 03 -- 25 DEGREES - 34 DEGREES
- 04 -- 35 DEGREES - 44 DEGREES
- 05 -- 45 DEGREES - 54 DEGREES
- 06 -- 55 DEGREES - 64 DEGREES
- 07 -- 65 DEGREES - 74 DEGREES
- 08 -- 75 DEGREES - 84 DEGREES
- 09 -- 85 DEGREES - 94 DEGREES
- 10 -- 95 DEGREES - 104 DEGREES
- 11 -- 105 DEGREES - 114 DEGREES
- 12 -- 115 DEGREES - 124 DEGREES
- 13 -- 125 DEGREES - 134 DEGREES
- 14 -- 135 DEGREES - 144 DEGREES
- 15 -- 145 DEGREES - 154 DEGREES
- 16 -- 155 DEGREES - 164 DEGREES
- 17 -- 165 DEGREES - 174 DEGREES



18 -- 175 DEGREES - 184 DEGREES  
19 -- 185 DEGREES - 194 DEGREES  
20 -- 195 DEGREES - 204 DEGREES  
21 -- 205 DEGREES - 214 DEGREES  
22 -- 215 DEGREES - 224 DEGREES  
23 -- 225 DEGREES - 234 DEGREES  
24 -- 235 DEGREES - 244 DEGREES  
25 -- 245 DEGREES - 254 DEGREES  
26 -- 255 DEGREES - 264 DEGREES  
27 -- 265 DEGREES - 274 DEGREES  
28 -- 275 DEGREES - 284 DEGREES  
29 -- 285 DEGREES - 294 DEGREES  
30 -- 295 DEGREES - 304 DEGREES  
31 -- 305 DEGREES - 314 DEGREES  
32 -- 315 DEGREES - 324 DEGREES  
33 -- 325 DEGREES - 334 DEGREES  
34 -- 335 DEGREES - 344 DEGREES  
35 -- 345 DEGREES - 354 DEGREES  
36 -- 355 DEGREES - 4 DEGREES  
49 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES EQUAL TO OR LESS THAN 4 3/4 METERS)  
99 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,OR  
ALL DIRECTIONS OR UNKNOWN

## 0157 VISIBILITY (WM04300)

-----

0 -- LESS THAN 50 M (LESS THAN 55 YARDS)  
1 -- 50-200 M (APPROX. 55-220 YARDS)  
2 -- 200-500 M (APPROX. 220-550 YARDS)  
3 -- 500-1000 M (APPROX. 550 YARDS-5/8 N.M.)  
4 -- 1-2 KM (APPROX. 5/8-1 N.M.)  
5 -- 2-4 KM (APPROX. 1-2 N.M.)  
6 -- 4-10 KM (APPROX. 2-6 N.M.)  
7 -- 10-20 KM (APPROX. 6-12 N.M.)  
8 -- 20-50 KM (APPROX. 12-30 N.M.)  
9 -- 50 KM OR MORE (30 N.M. OR MORE)

## 0216 SAMPLE INTERVAL

-----

0 -- UNEQUALLY SPACED DEPTHS  
1 -- EQUALLY SPACED DEPTHS TO TENTHS OF METERS REPORTED.  
2 -- UNEQUALLY SPACED PRESSURES  
3 -- EQUALLY SPACED PRESSURES TO TENTHS OF DECIBARS REPORTED

## 0500 LAT HEMISPHERE

-----

N -- NORTH  
S -- SOUTH



N O D C FILE TYPE C O D E S

81/12/16

0501 LON HEMISPHERE

-----

E -- EAST

W -- WEST



DDF B.3.21

ACCESSION  
NUMBER

8200146  
8200146

# DATA DOCUMENTATION FORM

Ref\*319303

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-R7

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			
DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA, O'NEILL RES.BLDG. FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		RT25	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
R/V REDOUBT	SHIP	USA	USA
		FROM: MO, DAY, YR	TO: MO, DAY, YR
		04/04/82	04/15/82
8. ARE DATA PROPRIETARY?		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.	
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		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)			
Marcia Boyette (907) 474-7092 (907) 474-7836			



# 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 & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
TEMPERATURE	°C	DSR THERMOMETERS & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
DEPTH	0.1m (1m = 1db)	THERMOMETRIC DEPTH & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	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 AS: "1" For Text Record (in 10th Byte position)

"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 Mater 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 Institute of Marine Science, University of Alaska, 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 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"/> .5 - .6 inch</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) 022 025IMS REDOUBT CRUISE RT25 04/04/82 - 04/15/82 Dr. Burrell Boca de Quadra Area Sta: 1-4, 6-8, 10-11, 13, 15-18, 20-21, 23, 25-27, 29-30, 32-33, 40, 44-46. 9 trk, 1600BPI, EBCDIC, NO LABEL, ODD PARITY</p>
<p>8. DENSITY <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 5-120 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS 8 bit bytes</p>



## 2





INS STD/CTD DATA REDUCTION  
(Interocean)  
October 1979

Transcription

Interocean cassettes are transcribed to a 9-track magnetic tape.

Program - RDCASS

Data from the 9-track tape are un-blocked and logical records are written to a computer disc file.

Program - CALVAL

Data values from the instrument display, taken at the time discrete samples were taken, are input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean.

Subjective judgements as to the quality of the field correction data are made at this time.

Output from this program provides input for IOCAVE.

Program - IOCAVE

NODC calibrations are applied to the raw data. Data are checked to insure that they are within limits. Salinity and sigma-t are calculated. One-meter average values are calculated and written to a computer disc file.



Extrapolated and interpolated data are so marked (E and \* respectively). An error report is produced noting any records that could not be interpreted. This information is summarized to give an overall indication of data quality.

#### Program - IOCOUT

One-meter averaged data and header information are combined to produce a finished printout:

- 1) All header information and corrected data in one meter intervals.
- 2) Flags indicating interpolated (\*) and/or extrapolated (E) data are printed with associated data values.
- 3) Pertinent comments are solicited from the responsible principal investigator and attached to the final printout.

A tape with one-meter averages for depth, temperature, salinity, sigma-t, and Delta-D/per station is generated for data storage and further analysis.

#### Program - NODCF

This program is used to convert the output tape from IOCOUT (IMS STD final format) to an NODC formatted tape for submission for NODC to fulfill contractual obligations.



ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 820014

- 1) File Type: C022
- 2) Project Ident.: Borax
- 3) <sup>Ref.</sup>~~Track~~ Nos.: 319303

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



## DATA SET ROUTE SHEET

Ref  
ACCESSION/TRACK # 8200146 / 319303

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	5/11/83	<del>8/22</del>	W2136	1	600	120	1632
QUADI/SCAN TAPE	5/11/83	<del>8/22</del>	21064	1	4800	120	1632
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"							



## TAPE ASSIGNMENT SHEET

ACCESSION NO.: 8200196

Ref  
TRACK NO(s): 319303

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	W1236	NL	120	600	8-tr 1600BPI EBCDIC	
Duplicate	21064	SL	120	4800	8-tr 1600BPI ASCII	
Reformatted						
First User						
Final User						



FILE TYPE 022 - SALINITY/TEMPERATURE/DENSITY MEASUREMENTS (STD/CTD)  
12/31/80 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD MICROSTRUCTURE MEASUREMENTS OF SALINITY OR CONDUCTIVITY, TEMPERATURE AND SIGMA-T VALUES VS DEPTH TO SUPPORT STUDIES OF TRANSPORT AND ALTERATION OF CONTAMINANTS BY THE ENVIRONMENT.

THIS FORMAT CONSISTS OF SEVEN RECORDS WHICH INCLUDE, IN ADDITION TO FIVE ENTRIES OF TEMPERATURE, SALINITY, SIGMA-T PER RECORD, EXTENSIVE SEA SURFACE AND CLIMATOLOGY FIELDS, POSITION, DATE, TIME AND DEPTH INFORMATION AND A TEXT RECORD.

DATA CAN BE RECORDED AT DIFFERENT DEPTH INTERVALS WHICH ARE IDENTIFIED IN THE SCAN FIELD. A RECENT ADDITION TO THE FORMAT IS A RECORD WITH DISSOLVED OXYGEN AND TRANSMISSIVITY FIELDS FORMATTED SIMILAR TO THE TEMPERATURE/SALINITY DATA RECORD.

ALL RECORDS IN THIS FORMAT ARE 120 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (CAST NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 022 - 3/30/79 - ADDED NEW DETAIL RECORD 3 -RECORD \*\*\*\*\*  
\*\*\*\*\*TYPE '5' \*\*\*\*\*  
\*\*\*\*\* 12/21/81 - ADD NEW RECORD TYPES '6' AND '7' \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
CAST NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2,3 AND 4	11
TEXT	100-CHARACTER FIELD - USED FOR COMMENTS OR PERTINENT INFORMATION	16
SEQUENCE NUMBER	XXXXX - USED FOR SORTING TEXT RECORDS	116
MASTER RECORD	ALWAYS '2'	10
CAST NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
CRUISE IDENTIFICATION	TEN-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR	31
NUMBER OF SCANS	XXXXX - USED TO INDICATE NUMBER OF SCANS PER STATION (FIVE/RECORD)	41
DATE (GMT)	YYMMDD	46
TIME (GMT)	XXXX (HOURS AND MINUTES)	52
SAMPLE INTERVAL INDICATOR	ONE-DIGIT CODE - USE CODE 0216	56
SAMPLE INTERVAL	XXX - WHEN INDICATOR CODE=1 (EQUAL SPACED DEPTHS) - (METERS TO TENTHS)	57
BAROMETRIC PRESSURE	XXXXX (MILLIBARS TO TENTHS)	60
WET BULB TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	65
DRY BULB TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	69
WIND DIRECTION	XX - TWO-DIGIT CODE - WMO 885/887 - DIRECTION FROM - USE CODE 0110	73
WIND SPEED	XX (WHOLE KNOTS)	75
WEATHER	ONE-DIGIT CODE - WMO 4501 - USE CODE 0108	77
SEA STATE	ONE-DIGIT CODE - WMO 3700 - USE CODE 0109	78
VISIBILITY	ONE-DIGIT CODE - WMO 4300 - USE CODE 0157	79
CLOUD TYPE	ONE-DIGIT CODE - WMO 0500 - USE CODE 0053	80
CLOUD AMOUNT	ONE-DIGIT CODE - WMO 2700 - USE CODE 0105	81
INSTRUMENT INFORMATION	TWENTY-CHARACTER FIELD FOR TYPE OF INSTRUMENT, SERIAL NUMBER, ETC	82
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY THE ORIGINATOR	102
DEPTH TO BOTTOM	XXXXX (WHOLE METERS)	108
MAXIMUM DEPTH OF CAST	XXXXX (WHOLE METERS)	113
BLANKS		117



DETAIL RECORD 1	ALWAYS '3'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
DEPTH	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 2	ALWAYS '4'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	21
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	41
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	61
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	81
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	101
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116

DETAIL RECORD 3	ALWAYS '5'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56



TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	61
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	81
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	101
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 4	ALWAYS '6'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	55
PRESSURE	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	75
PRESSURE	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	95
PRESSURE	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 5	ALWAYS '7'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56



# NODC FILE TYPE CODES

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 022

## 0053 CLOUD TYPE (WMO500)

- 0 -- CIRRUS
- 1 -- CIRROCUMULUS
- 2 -- CIRROSTRATUS
- 3 -- ALTOCUMULUS
- 4 -- ALTOSTRATUS
- 5 -- NIMBOSTRATUS
- 6 -- STRATOCUMULUS
- 7 -- STRATUS
- 8 -- CUMULUS
- 9 -- CUMULONIMBUS
- X -- CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOMENA

## 0080 STD-SCAN CONDITION

- 0 -- DATA PROCESSED PRIOR TO IMPLEMENTATION OF CODE. ALL VALUES FOR ALL PARAMETERS WILL BE LABELED THE SAME.
- 1 -- VALUE OBTAINED FROM RAW DATA AT THAT DEPTH INTERVAL. PROCESSING TO OBTAIN THIS VALUE MUST BE SPECIFIED IN A DDF. EXAMPLE: THE VALUE FOR SALINITY MAY BE THE RESULT OF AVERAGING OVER ONE METER INTERVAL AND APPLYING A FIELD CORRECTION BASED UPON DISCRETE SAMPLES. (OTHER TYPES OF PROCESSING MAY BE USED, BUT MUST BE SPECIFIED IN DDF.)
- 2 -- VALUES ARE LINEARLY INTERPOLATED FROM ADJACENT DEPTH INTERVALS. EXAMPLE: IF THE TEMPERATURE VALUES FROM 49 AND 50 METERS ARE MISSING, THESE VALUES WILL BE OBTAINED BY LINEAR INTERPOLATION BETWEEN THE VALUES AT 48 AND 51 METERS.
- 3 -- VALUES ARE OBTAINED BY "VERTICAL EXTRAPOLATION" FROM THE FIRST DEPTHS FOR WHICH A VALUE IS FOUND THAT FALLS WITHIN SENSOR LIMITS. EXAMPLE: IF SALINITY FALLS BELOW SENSOR LIMITS BECAUSE OF FRESH SURFACE WATER, THOSE DEPTHS AFFECTED WILL BE ASSIGNED THE SALINITY OF THE FIRST REAL VALUE OBTAINED (SALINITY SENSORS WILL BE AFFECTED TO A MUCH GREATER EXTENT THAN CONDUCTIVITY SENSORS.)
- 4 -- AVERAGED
- 9 -- TEMPERATURE, SALINITY, AND SIGMA-T NOT GIVEN

## 0105 CLOUD AMT (WMO2700)

- 0 -- 0 (ZERO)
- 1 -- 1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
- 2 -- 2 OKTAS 2/10-3/10
- 3 -- 3 OKTAS 4/10
- 4 -- 4 OKTAS 5/10
- 5 -- 5 OKTAS 6/10
- 6 -- 6 OKTAS 7/10-8/10
- 7 -- 7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
- 8 -- 8 OKTAS 10/10



N O D C F I L E T Y P E C O D E S

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9 -- SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED

0108 WEATHER (WMO4501)

- 0 -- CLEAR (NO CLOUD AT ANY LEVEL)
- 1 -- PARTLY CLOUDY (SCATTERED OR BROKED)
- 2 -- CONTINUOUS LAYER(S) OF CLOUD(S)
- 3 -- SANDSTORM, DUSTSTORM, OR BLOWING SNOW
- 4 -- FOG, THICK DUST OR HAZE
- 5 -- DRIZZLE
- 6 -- RAIN
- 7 -- SNOW, OR RAIN AND SNOW MIXED
- 8 -- SHOWER(S)
- 9 -- THUNDERSTORM(S)

0109 SEA STATE (WMO3700)

- 0 -- CALM-GLASSY 0 FT (0 METERS)
- 1 -- CALM-RIPPLED 0-1/3 FT (0-.1 METERS)
- 2 -- SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
- 3 -- SLIGHT 1 2/3 - 4 FT (.5-1.25 METERS)
- 4 -- MODERATE 4-8 FT (1.25-2.50 METERS)
- 5 -- ROUGH 8-13 FT (2.50-4.0 METERS)
- 6 -- VERY ROUGH 13-20 FT (4-6 METERS)
- 7 -- HIGH 20-30 FT (6-9 METERS)
- 8 -- VERY HIGH 30-45 FT (9-14 METERS)
- 9 -- PHENOMENAL >45 FT (>14 METERS)

0110 WIND-WAVE DIRECTION

- 00 -- CALM (NO WAVES-NO MOTION)
- 01 -- 5 DEGREES - 14 DEGREES
- 02 -- 15 DEGREES - 24 DEGREES
- 03 -- 25 DEGREES - 34 DEGREES
- 04 -- 35 DEGREES - 44 DEGREES
- 05 -- 45 DEGREES - 54 DEGREES
- 06 -- 55 DEGREES - 64 DEGREES
- 07 -- 65 DEGREES - 74 DEGREES
- 08 -- 75 DEGREES - 84 DEGREES
- 09 -- 85 DEGREES - 94 DEGREES
- 10 -- 95 DEGREES - 104 DEGREES
- 11 -- 105 DEGREES - 114 DEGREES
- 12 -- 115 DEGREES - 124 DEGREES
- 13 -- 125 DEGREES - 134 DEGREES
- 14 -- 135 DEGREES - 144 DEGREES
- 15 -- 145 DEGREES - 154 DEGREES
- 16 -- 155 DEGREES - 164 DEGREES
- 17 -- 165 DEGREES - 174 DEGREES



# N O D C F I L E T Y P E C O D E S

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18 -- 175 DEGREES - 184 DEGREES  
 19 -- 185 DEGREES - 194 DEGREES  
 20 -- 195 DEGREES - 204 DEGREES  
 21 -- 205 DEGREES - 214 DEGREES  
 22 -- 215 DEGREES - 224 DEGREES  
 23 -- 225 DEGREES - 234 DEGREES  
 24 -- 235 DEGREES - 244 DEGREES  
 25 -- 245 DEGREES - 254 DEGREES  
 26 -- 255 DEGREES - 264 DEGREES  
 27 -- 265 DEGREES - 274 DEGREES  
 28 -- 275 DEGREES - 284 DEGREES  
 29 -- 285 DEGREES - 294 DEGREES  
 30 -- 295 DEGREES - 304 DEGREES  
 31 -- 305 DEGREES - 314 DEGREES  
 32 -- 315 DEGREES - 324 DEGREES  
 33 -- 325 DEGREES - 334 DEGREES  
 34 -- 335 DEGREES - 344 DEGREES  
 35 -- 345 DEGREES - 354 DEGREES  
 36 -- 355 DEGREES - 4 DEGREES  
 49 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES EQUAL TO OR LESS THAN 4 3/4 METERS)  
 99 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,OR  
 ALL DIRECTIONS OR UNKNOWN

## 0157 VISIBILITY (WMO4300)

0 -- LESS THAN 50 M (LESS THAN 55 YARDS)  
 1 -- 50-200 M (APPROX. 55-220 YARDS)  
 2 -- 200-500 M (APPROX. 220-550 YARDS)  
 3 -- 500-1000 M (APPROX. 550 YARDS-5/8 N.M.)  
 4 -- 1-2 KM (APPROX. 5/8-1 N.M.)  
 5 -- 2-4 KM (APPROX. 1-2 N.M.)  
 6 -- 4-10 KM (APPROX. 2-6 N.M.)  
 7 -- 10-20 KM (APPROX. 6-12 N.M.)  
 8 -- 20-50 KM (APPROX. 12-30 N.M.)  
 9 -- 50 KM OR MORE (30 N.M. OR MORE)

## 0216 SAMPLE INTERVAL

0 -- UNEQUALLY SPACED DEPTHS  
 1 -- EQUALLY SPACED DEPTHS TO TENTHS OF METERS REPORTED.  
 2 -- UNEQUALLY SPACED PRESSURES  
 3 -- EQUALLY SPACED PRESSURES TO TENTHS OF DECIBARS REPORTED

## 0500 LAT HEMISPHERE

N -- NORTH  
 S -- SOUTH



N O D C ' F I L E T Y P E C O D E S

81/12/16

0501    LON HEMISPHERE  
-----  
E -- EAST  
W -- WEST



ACCESSION/TRACK # 8200146/PR8266

<u>Step</u>	<u>Completion Date/Init.</u>		<u>Tape # or DSN</u>	<u># of Files</u>	<u>BLKSIZE</u>	<u>LRECL</u>	<u># RECORDS</u>
ORIGINATOR TAPE #	7/14/82	<del>7/14/82</del>	W2041	1	600	60	
QUAD/SCAN TAPE #	7/26/82		W12594	1	4800	60	
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: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F015
- 2) Project Ident.: \_\_\_\_\_
- 3) Track Nos.: TR8266

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



# TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

ACCESSION/TRACK NO.: 8200146 / TR 8266

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
ORIGINATOR	W2041	NL	60	600	EBCDIC		
DUPLICATE	W12594	SL	60	4800	ASCII		
REFORMATTED							
FIRST USER							
FINAL USER							
DISK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE							
EDITED DISK FILE							



DDF B: 3:01

DATE: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: FO22  
FO45
- 2) Project Ident.: \_\_\_\_\_
- 3) Track Nos.: TR 8267

I. Error Corrections as reported to Principal Investigator:

<u>Error</u>	<u>Correction Completed (Check)</u>
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Dup

II. Additional error corrections:

<u>Error</u>	<u>Correction Completed (Check)</u>
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1. Deleted excess record type ones.

III. Processor Name: M Lewis



## TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

SESSION/TRACK NO.: 8200146/TR8267

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
GENERATOR	W2536	NL	120 <del>60</del>	600	EBCDIC		522
DUPLICATE	* W12596	SL	120 <del>60</del>	<del>600</del> <del>1800</del> 4800	ASCII		522
FORMATTED							
FIRST USER							
FINAL USER							
WORK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE	D11MRL*	F0.22	TR8267				340
UNITED DISK FILE							

\* DSN = DNDPC \* 82NDPC 009-05.



DDF B1 3:01

DATE: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: 022  
F015
- 2) Project Ident.: \_\_\_\_\_
- 3) Track Nos.: TR 8267

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

1. Deleted excess record type ones.

III. Processor Name: M Lewis



## TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

SESSION/TRACK NO.: 8200146/TR 8267

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
GENERATOR	W2536	NL	120 <del>60</del>	600	EBCDIC		522
DUPLICATE	* W12596	SL	120 <del>60</del>	<del>600</del> <del>1800</del> 4800	ASCII		522
FORMATTED							
FIRST USER							
FINAL USER							
WORK FILE	DSN					REMARKS	# RECORDS
WORK FILE	D11MRL*	F022	TR 8267				340
ADDITIONAL DISK FILE							

\* DSN = DNO DC \* 82 NQDC 009-05.



ACCESSION/TRACK # 8200146/TR826

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE #	7/14/82	<del>9100</del>	W2536	1	600	60	505
QUADI/SCAN TAPE #	7/26/82	"	W12596	1	4800	60	505
ASSIGNED FOR PROCESS.							
DDF EVALUATION	12/2/82	<del>MSK</del>					
QUALITY REVIEW	12/2/82	<del>MSK</del>					
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK	12/2/82	<del>MSK</del>	<b>D/I MRL + F022. TR8267</b>				
FIRST USER TAPE #	<del>#</del>						
WORK DISK FILE	12/2/82	<del>MSK</del>					
FINAL USER TAPE #							
FINAL MULCHEK	12/2/82	<del>MSK</del>					
EDITED DISK FILE							
DATA SET "FINALIZED"							



## DATA DOCUMENTATION FORM

TR 8267

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

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 on 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			
DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		HX26	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
R/V Alpha Helix	SHIP	PLATFORM	OPERATOR
		USA	USA
		FROM: MO/DAY/YR	TO: MO/DAY/YR
		05/20/82	06/08/82
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. STD 3	
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)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) DATA MANAGEMENT, IMS (907) 474-7836 (907) 474-7074			



# 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	0.091 ‰	NAUSEN BOTTLES & NEIL BROWN MARK IIIIB CTD/O	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
TEMPERATURE	°C	DSR THERMOMETERS & NEIL BROWN MARK IIIIB CTD/O	"	N/A
DEPTH	0.1m (1m = 1db)	THERMOMETRIC DEPTH & NEIL BROWN MARK IIIIB CTD/O	"	N/A



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDCP

Raw 9-track magnetic tapes from the Neil Brown Mark IIIB microprofiler are input. The conductivity is converted to salinity by a relation based on the work of A. S. Bennett (DSR, Vol. 23, No. 2, February 1976).

Output of this program is on 9-track tape and includes entered header data and all STD values from the raw 9-track tape. Output from this program is input for STDAV.

### STDCP PRINT OUT

- 1) Print out the type of "FISH" used.
- 2) Input from 9-track and output to 9-track is documented. (This includes all headers, end of files, and record number indicators).

### CALVAL

Data values from the instrument display, taken at the time discrete samples were taken are input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean.

Subjective judgments as to the quality of the field correction data is made at this time.

Output from this program provides input for STDAV.



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDAV

Data from STDCP and CALVAL are input with header information which includes individual station position, time and weather.

STDAV checks each parameter to insure it falls within sensor limits. Parameters are grouped into one meter intervals (1 m = 1 db) and averaged. Field corrections are added to the one meter averages. (NOTE: depths, and their related data values, are accepted for inclusion in averaging, if and only if, depth N is greater than or equal to depth N + 1).

### STDAV PRINT OUT

STDAV print out will include the following in addition to header and data:

- 1) All header information and corrected data in one meter intervals.
- 2) Field corrections used, to include mean and standard deviation for each parameter.
- 3) Flags indicating interpolated (\*) and/or extrapolated (E) data are printed with associated data values.
- 4) Pertinent comments are solicited from the responsible principle investigator and attached to the final print out.

### STDAV OUTPUT TAPE

A tape with one meter averages for Depth, Temperature, Salinity, Sigma-T, and Delta-D/per station is generated for data storage and further analysis.

### NODC-F

This program is used to convert the output tape from STDAV (IMS STD final format) to an NODC formatted tape for submission to NODC to fulfill contractual obligations.



### 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 (907)474-7836

ADDRESS Institute of Marine Science, Univ. of Alaska, Fairbanks, Alaska 9970

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<b>5. RECORDING MODE</b> <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	<b>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</b> <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 inch - 0.6 inch
<b>6. NUMBER OF TRACKS (CHANNELS)</b> <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	<b>10. END OF FILE MARK</b> <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> OCTAL 23
<b>7. PARITY</b> <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	<b>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</b> 022 026IMS ALPHA HELIX CRUISE HX26 Dr. R.Lasker 05/20/82 - 06/08/ 82 Stations: 1-3,5,7,9,11,12,15-17,19-22. 9trk,800BPI,EBCDIC,NO LABEL,ODD PARITY
<b>8. DENSITY</b> <input type="checkbox"/> 200 BPI <input type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input checked="" type="checkbox"/> 800 BPI <input type="checkbox"/> _____	<b>12. PHYSICAL BLOCK LENGTH IN BYTES</b> 5-120 bytes/block
	<b>13. LENGTH OF BYTES IN BITS</b> 8 bits/byte



RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

NOAA FORM 24-13



FILE IN: GFC, ASCII.  
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1877R, 1878S, 1879T, 1880U, 1881V, 1882W, 1883X, 1884Y, 1885Z, 1886A, 1887B, 1888C, 1889D, 1890E, 1891F, 1892G, 1893H, 1894I, 1895J, 1896K, 1897L, 1898M, 1899N, 1900O, 1901P, 1902Q, 1903R, 1904S, 1905T, 1906U, 1907V, 1908W, 1909X, 1910Y, 1911Z, 1912A, 1913B, 1914C, 1915D, 1916



# 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 PDE (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 IIIB CTD/O Microprofiler	May 1981		NEIL BROWN						
<b>NOTE:</b> ALL STD OR CTD UNITS ARE FIELD CORRECTED BY COMPARISON WITH DISCRETE SAMPLES TO INCREASE ACCURACY OVER STANDARD LABORATORY CALIBRATION.									



FILE TYPE 022 - SALINITY/TEMPERATURE/DENSITY MEASUREMENTS (STD/CTD)  
12/31/80 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD MICROSTRUCTURE MEASUREMENTS OF SALINITY OR CONDUCTIVITY, TEMPERATURE AND SIGMA-T VALUES VS DEPTH TO SUPPORT STUDIES OF TRANSPORT AND ALTERATION OF CONTAMINANTS BY THE ENVIRONMENT.

THIS FORMAT CONSISTS OF SEVEN RECORDS WHICH INCLUDE, IN ADDITION TO FIVE ENTRIES OF TEMPERATURE, SALINITY, SIGMA-T PER RECORD, EXTENSIVE SEA SURFACE AND CLIMATOLOGY FIELDS, POSITION, DATE, TIME AND DEPTH INFORMATION AND A TEXT RECORD.

DATA CAN BE RECORDED AT DIFFERENT DEPTH INTERVALS WHICH ARE IDENTIFIED IN THE SCAN FIELD. A RECENT ADDITION TO THE FORMAT IS A RECORD WITH DISSOLVED OXYGEN AND TRANSMISSIVITY FIELDS FORMATTED SIMILAR TO THE TEMPERATURE/SALINITY DATA RECORD.

ALL RECORDS IN THIS FORMAT ARE 120 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (CAST NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 022 - 3/30/79 - ADDED NEW DETAIL RECORD 3 -RECORD \*\*\*\*\*  
\*\*\*\*\*TYPE '5' \*\*\*\*\*  
\*\*\*\*\* 12/21/81 - ADD NEW RECORD TYPES '6' AND '7' \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
CAST NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2,3 AND 4	11
TEXT	100-CHARACTER FIELD - USED FOR COMMENTS OR PERTINENT INFORMATION	16
SEQUENCE NUMBER	XXXXX - USED FOR SORTING TEXT RECORDS	116
MASTER RECORD	ALWAYS '2'	10
CAST NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
CRUISE IDENTIFICATION	TEN-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR	31
NUMBER OF SCANS	XXXXX - USED TO INDICATE NUMBER OF SCANS PER STATION (FIVE/RECORD)	41
DATE (GMT)	YYMMDD	46
TIME (GMT)	XXXX (HOURS AND MINUTES)	52
SAMPLE INTERVAL INDICATOR	ONE-DIGIT CODE - USE CODE 0216	56
SAMPLE INTERVAL	XXX - WHEN INDICATOR CODE=1 (EQUAL SPACED DEPTHS) - (METERS TO TENTHS)	57
BAROMETRIC PRESSURE	XXXXX (MILLIBARS TO TENTHS)	60
WET BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	65
DRY BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	69
WIND DIRECTION	XX - TWO-DIGIT CODE - WMO 885/887 - DIRECTION FROM - USE CODE 0110	73
WIND SPEED	XX (WHOLE KNOTS)	75
WEATHER	ONE-DIGIT CODE - WMO 4501 - USE CODE 0108	77
SEA STATE	ONE-DIGIT CODE - WMO 3700 - USE CODE 0109	78
VISIBILITY	ONE-DIGIT CODE - WMO 4300 - USE CODE 0157	79
CLOUD TYPE	ONE-DIGIT CODE - WMO 0500 - USE CODE 0053	80
CLOUD AMOUNT	ONE-DIGIT CODE - WMO 2700 - USE CODE 0105	81
INSTRUMENT INFORMATION	TWENTY-CHARACTER FIELD FOR TYPE OF INSTRUMENT, SERIAL NUMBER, ETC	82
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY THE ORIGINATOR	102
DEPTH TO BOTTOM	XXXXX (WHOLE METERS)	108
MAXIMUM DEPTH OF CAST	XXXX (WHOLE METERS)	113
BLANK		117



DETAIL RECORD 1	ALWAYS '3'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
DEPTH	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



O22/PG 3

DETAIL RECORD 2

CAST NUMBER  
DEPTH  
DISSOLVED OXYGEN  
TRANSMISSIVITY  
BLANKS  
SCAN CONDITION

DEPTH  
DISSOLVED OXYGEN  
TRANSMISSIVITY  
BLANKS  
SCAN CONDITION

DEPTH  
DISSOLVED OXYGEN  
TRANSMISSIVITY  
BLANKS  
SCAN CONDITION

DEPTH  
DISSOLVED OXYGEN  
TRANSMISSIVITY  
BLANKS  
SCAN CONDITION

DEPTH  
DISSOLVED OXYGEN  
TRANSMISSIVITY  
BLANKS  
SCAN CONDITION

SEQUENCE NUMBER

ALWAYS '4'

SEE RECORD '1'

XXXXX (METERS TO TENTHS)

XXXXX - ML/L TO THOUSANDTHS

XXXXX (PERCENT TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)

XXXXX - ML/L TO THOUSANDTHS

XXXXX (PERCENT TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)

XXXXX - ML/L TO THOUSANDTHS

XXXXX (PERCENT TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)

XXXXX - ML/L TO THOUSANDTHS

XXXXX (PERCENT TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)

XXXXX - ML/L TO THOUSANDTHS

XXXXX (PERCENT TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX - USED FOR SORTING DATA RECORDS

DETAIL RECORD 3

CAST NUMBER  
DEPTH  
TEMPERATURE

CONDUCTIVITY  
BLANKS  
SCAN CONDITION

DEPTH  
TEMPERATURE

CONDUCTIVITY  
BLANKS  
SCAN CONDITION

DEPTH

ALWAYS '5'

SEE RECORD '1'

XXXXX (METERS TO TENTHS)

XXXXX NEGATIVE TEMPERATURES ARE  
PRECEDED BY A MINUS SIGN ADJACENT TO  
TEMPERATURE VALUE - DEG C TO THOUSANDTHS

XXXXX (MMHO/CM TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)

XXXXX NEGATIVE TEMPERATURES ARE  
PRECEDED BY A MINUS SIGN ADJACENT TO  
TEMPERATURE VALUE - DEG C TO THOUSANDTHS

XXXXX (MMHO/CM TO THOUSANDTHS)

ONE-CHARACTER CODE INDICATING METHOD OF

SCANNING DATA - USE CODE 0080

XXXXX (METERS TO TENTHS)



O22/PG 4

TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	61
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	81
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	101
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 4	ALWAYS 'G'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
PRESSURE	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
PRESSURE	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 5	ALWAYS '7'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56



# NODC FILE TYPE CODES

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 022

## 0053 CLOUD TYPE (WMO500)

```

-----
0 -- CIRRUS
1 -- CIRROCUMULUS
2 -- CIRROSTRATUS
3 -- ALTOCUMULUS
4 -- ALTOSTRATUS
5 -- NIMBOSTRATUS
6 -- STRATOCUMULUS
7 -- STRATUS
8 -- CUMULUS
9 -- CUMULONIMBUS
X -- CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOMENA
  
```

## 0080 STD-SCAN CONDITION

```

-----
0 -- DATA PROCESSED PRIOR TO IMPLEMENTATION OF CODE. ALL VALUES FOR ALL PARAMETERS WILL BE LABELED THE SAME.
1 -- VALUE OBTAINED FROM RAW DATA AT THAT DEPTH INTERVAL. PROCESSING TO OBTAIN THIS VALUE MUST BE SPECIFIED IN A DDF. EXAMPLE: THE VALUE FOR SALINITY MAY BE THE RESULT OF AVERAGING OVER ONE METER INTERVAL AND APPLYING A FIELD CORRECTION BASED UPON DISCRETE SAMPLES. (OTHER TYPES OF PROCESSING MAY BE USED, BUT MUST BE SPECIFIED IN DDF.)
2 -- VALUES ARE LINEARLY INTERPOLATED FROM ADJACENT DEPTH INTERVALS. EXAMPLE: IF THE TEMPERATURE VALUES FROM 49 AND 50 METERS ARE MISSING, THESE VALUES WILL BE OBTAINED BY LINEAR INTERPOLATION BETWEEN THE VALUES AT 48 AND 51 METERS.
3 -- VALUES ARE OBTAINED BY "VERTICAL EXTRAPOLATION" FROM THE FIRST DEPTHS FOR WHICH A VALUE IS FOUND THAT FALLS WITHIN SENSOR LIMITS. EXAMPLE: IF SALINITY FALLS BELOW SENSOR LIMITS BECAUSE OF FRESH SURFACE WATER, THOSE DEPTHS AFFECTED WILL BE ASSIGNED THE SALINITY OF THE FIRST REAL VALUE OBTAINED (SALINITY SENSORS WILL BE AFFECTED TO A MUCH GREATER EXTENT THAN CONDUCTIVITY SENSORS.)
4 -- AVERAGED
9 -- TEMPERATURE, SALINITY, AND SIGMA-T NOT GIVEN
  
```

## 0105 CLOUD AMT (WMO2700)

```

-----
0 -- 0 (ZERO)
1 -- 1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
2 -- 2 OKTAS 2/10-3/10
3 -- 3 OKTAS 4/10
4 -- 4 OKTAS 5/10
5 -- 5 OKTAS 6/10
6 -- 6 OKTAS 7/10-8/10
7 -- 7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
8 -- 8 OKTAS 10/10
  
```



N O D C F I L E T Y P E C O D E S

81/12/16

9 -- SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED

0108 WEATHER (WMO4501)

-----

- 0 -- CLEAR (NO CLOUD AT ANY LEVEL)
- 1 -- PARTLY CLOUDY (SCATTERED OR BROKED)
- 2 -- CONTINUOUS LAYER(S) OF CLOUD(S)
- 3 -- SANDSTORM, DUSTSTORM, OR BLOWING SNOW
- 4 -- FDG, THICK DUST OR HAZE
- 5 -- DRIZZLE
- 6 -- RAIN
- 7 -- SNOW, OR RAIN AND SNOW MIXED
- 8 -- SHOWER(S)
- 9 -- THUNDERSTORM(S)

0109 SEA STATE (WMO3700)

-----

- 0 -- CALM-GLASSY 0 FT (0 METERS)
- 1 -- CALM-RIPPLED 0-1/3 FT (0-.1 METERS)
- 2 -- SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
- 3 -- SLIGHT 1 2/3 - 4 FT (.5-1.25 METERS)
- 4 -- MODERATE 4-8 FT (1.25-2.50 METERS)
- 5 -- ROUGH 8-13 FT (2.50-4.0 METERS)
- 6 -- VERY ROUGH 13-20 FT (4-6 METERS)
- 7 -- HIGH 20-30 FT (6-9 METERS)
- 8 -- VERY HIGH 30-45 FT (9-14 METERS)
- 9 -- PHENOMENAL >45 FT (>14 METERS)

0110 WIND-WAVE DIRECTION

-----

- 00 -- CALM (NO WAVES-NO MOTION)
- 01 -- 5 DEGREES - 14 DEGREES
- 02 -- 15 DEGREES - 24 DEGREES
- 03 -- 25 DEGREES - 34 DEGREES
- 04 -- 35 DEGREES - 44 DEGREES
- 05 -- 45 DEGREES - 54 DEGREES
- 06 -- 55 DEGREES - 64 DEGREES
- 07 -- 65 DEGREES - 74 DEGREES
- 08 -- 75 DEGREES - 84 DEGREES
- 09 -- 85 DEGREES - 94 DEGREES
- 10 -- 95 DEGREES - 104 DEGREES
- 11 -- 105 DEGREES - 114 DEGREES
- 12 -- 115 DEGREES - 124 DEGREES
- 13 -- 125 DEGREES - 134 DEGREES
- 14 -- 135 DEGREES - 144 DEGREES
- 15 -- 145 DEGREES - 154 DEGREES
- 16 -- 155 DEGREES - 164 DEGREES
- 17 -- 165 DEGREES - 174 DEGREES



N O D C F I L E T Y P E C O D E S

81/12/16

18 -- 175 DEGREES - 184 DEGREES  
 19 -- 185 DEGREES - 194 DEGREES  
 20 -- 195 DEGREES - 204 DEGREES  
 21 -- 205 DEGREES - 214 DEGREES  
 22 -- 215 DEGREES - 224 DEGREES  
 23 -- 225 DEGREES - 234 DEGREES  
 24 -- 235 DEGREES - 244 DEGREES  
 25 -- 245 DEGREES - 254 DEGREES  
 26 -- 255 DEGREES - 264 DEGREES  
 27 -- 265 DEGREES - 274 DEGREES  
 28 -- 275 DEGREES - 284 DEGREES  
 29 -- 285 DEGREES - 294 DEGREES  
 30 -- 295 DEGREES - 304 DEGREES  
 31 -- 305 DEGREES - 314 DEGREES  
 32 -- 315 DEGREES - 324 DEGREES  
 33 -- 325 DEGREES - 334 DEGREES  
 34 -- 335 DEGREES - 344 DEGREES  
 35 -- 345 DEGREES - 354 DEGREES  
 36 -- 355 DEGREES - 4 DEGREES  
 49 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES EQUAL TO OR LESS THAN 4 3/4 METERS)  
 99 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,OR  
 ALL DIRECTIONS OR UNKNOWN

0157 VISIBILITY (WM04300)

0 -- LESS THAN 50 M (LESS THAN 55 YARDS)  
 1 -- 50-200 M (APPROX. 55-220 YARDS)  
 2 -- 200-500 M (APPROX. 220-550 YARDS)  
 3 -- 500-1000 M (APPROX. 550 YARDS-5/8 N.M.)  
 4 -- 1-2 KM (APPROX. 5/8-1 N.M.)  
 5 -- 2-4 KM (APPROX. 1-2 N.M.)  
 6 -- 4-10 KM (APPROX. 2-6 N.M.)  
 7 -- 10-20 KM (APPROX. 6-12 N.M.)  
 8 -- 20-50 KM (APPROX. 12-30 N.M.)  
 9 -- 50 KM OR MORE (30 N.M. OR MORE)

0216 SAMPLE INTERVAL

0 -- UNEQUALLY SPACED DEPTHS  
 1 -- EQUALLY SPACED DEPTHS TO TENTHS OF METERS REPORTED.  
 2 -- UNEQUALLY SPACED PRESSURES  
 3 -- EQUALLY SPACED PRESSURES TO TENTHS OF DECIBARS REPORTED

0500 LAT HEMISPHERE

N -- NORTH  
 S -- SOUTH



N O D C FILE TYPE C O D E S

81/12/16

0501 LON HEMISPHERE  
-----  
E -- EAST  
W -- WEST



DDF B:3:01

DATE: 8/2/82

TO: D711

FROM: J. Ridlon, D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: FOI2
- 2) Project Ident.: N.P.A.
- 3) Track Nos.: TR 8268

## I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

Dup

## II. Additional error corrections:

ErrorCorrection Completed (Check)

None

III. Processor Name:

Mary Lewis



# TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

SESSION/TRACK NO.: 8200146/TR8268

OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
ORIGINATOR	W2136	NL	120	600	EBCDIC		
DUPLICATE	W12595 *	SL	120	4800	ASCII		
REFORMATTED							
FIRST USER							
FINAL USER							
SK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE	D11MRL * F022. TR8268						960
EDITED DISK FILE	DMNDE * MTD 75. TR8268 / F022						960

\* DSN = DNODC \* 82NODC009-4.

ASCII code



ACCESSION/TRACK # 82001A6/TR8268

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE #	7/14/82 <del>MSK</del>	W2136	1	600	120	
<del>QUALITY</del> SCAN TAPE #	7/26/82 <del>MSK</del>	W12595	1	4800	120	
ASSIGNED FOR PROCESS.						
DDF EVALUATION	<del>MSK</del> 11/22/82 <del>MSK</del>					
QUALITY REVIEW	11/23/82 <del>MSK</del>					
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK	11/22/82 <del>MSK</del>	DITMRL* F022 TR8268				960
FIRST USER TAPE #						
WORK DISK FILE	11/22/82 <del>MSK</del>					960
FINAL USER TAPE #						
FINAL MULCHEK	11/22/82 <del>MSK</del>					960
EDITED DISK FILE		DITMRL* F022 TR8268				960
DATA SET "FINALIZED"						



DATE: 8/2/82

TO: D711

FROM: J. Ridlon, D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F022
- 2) Project Ident.: N.P.A1
- 3) Track Nos.: TR8268

## I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

## II. Additional error corrections:

ErrorCorrection Completed (Check)NoneIII. Processor Name: Mary Lewis



## DATA DOCUMENTATION FORM

TR8268  
E022NOAA FORM 24-13  
(4-72)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
ROCKVILLE, MARYLAND 20852FORM APP.  
O.M.B. No

319381

C022

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 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			
DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA FAIRBANKS, ALASKA 99701			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
		HX25	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES
R/V Alpha Helix	SHIP	PLATFORM OPERATOR	FROM: MO, DAY, YR TO: MO, DAY, YR
		USA USA	04/25/82 05/15/82
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.	
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)		GENERAL AREA	
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) - DATA MANAGEMENT, IMS (907) 474-7836 (907) 474-7074			



ACCESSION/TRACK # 82001A6/TR8268

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE #	7/14/82 <del>MSK</del>	W2136	1	600	120	
<del>QUALITY</del> SCAN TAPE #	7/26/82 <del>MSK</del>	W12595	1	4800	120	
ASSIGNED FOR PROCESS.						
DDF EVALUATION	<del>MSK</del> 11/22/82 <del>MSK</del>					
QUALITY REVIEW	11/22/82 <del>MSK</del>					
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK	11/22/82 <del>MSK</del>	D111MRL* F022 TR8268				960
FIRST USER TAPE #						
WORK DISK FILE	11/22/82 <del>MSK</del>					960
FINAL USER TAPE #						
FINAL MULCHEK	11/22/82 <del>MSK</del>					960
EDITED DISK FILE		D111MRL* F022 TR8268/F022				960
DATA SET "FINALIZED"						



## TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

SESSION/TRACK NO.: 8200146/TR8268

OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
ORIGINATOR	W2136	NL	120	600	EBCDIC		
DUPLICATE	W12595 *	SL	120	4800	ASCII		
REFORMATTED							
FIRST USER							
FINAL USER							
SK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE	D11MRL * F022. TR8268						960
EDITED DISK FILE	DMNDC * MTD 75. TR8268 / F022						960

\* DSN = DNODC \* 82NODC009-4.

ASCII code



# 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



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDCP

Raw 9-track magnetic tapes from the Neil Brown Mark IIIB mirror profiler are input. The conductivity is converted to salinity by a relation based on the work of A. S. Bennett (DSR, Vol. 23, No. 2, February 1976).

Output of this program is on 9-track tape and includes entered header data and all STD values from the raw 9-track tape. Output from this program is input for STDAV.

### STDCP PRINT OUT

- 1) Print out the type of "FISH" used.
- 2) Input from 9-track and output to 9-track is documented. (This includes all headers, end of files, and record number indicators).

### CALVAL

Data values from the instrument display, taken at the time discrete samples were taken are input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean. }

Subjective judgments as to the quality of the field correction data is made at this time.

Output from this program provides input for STDAV.



## IMS STD/CTD DATA REDUCTION

JUNE 1980

### STDAV

Data from STDCP and CALVAL are input with header information which includes individual station position, time and weather.

STDAV checks each parameter to insure it falls within sensor limits. Parameters are grouped into one meter intervals (1 m = 1 db) and averaged. Field corrections are added to the one meter averages. (NOTE: depths, and their related data values, are accepted for inclusion in averaging, if and only if, depth N is greater than or equal to depth N + 1).

### STDAV PRINT OUT

STDAV print out will include the following in addition to header and data:

- 1) All header information and corrected data in one meter intervals.
- 2) Field corrections used, to include mean and standard deviation for each parameter.
- 3) Flags indicating interpolated (\*) and/or extrapolated (E) data are printed with associated data values.
- 4) Pertinent comments are solicited from the responsible principle investigator and attached to the final print out.

### STDAV OUTPUT TAPE

A tape with one meter averages for Depth, Temperature, Salinity, Sigma-T, and Delta-D/per station is generated for data storage and further analysis.

### NODC-F

This program is used to convert the output tape from STDAV (IMS STD final format) to an NODC formatted tape for submission to NODC to fulfill contractual obligations.



## 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"/> _____ | LANGUAGE                       |

4. RESPONSIBLE COMPUTER SPECIALIST:

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

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> BCD</td> <td><input type="checkbox"/> BINARY</td> </tr> <tr> <td><input type="checkbox"/> ASCII</td> <td><input checked="" type="checkbox"/> EBCDIC</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> _____</td> </tr> </table> <p>6. NUMBER OF TRACKS (CHANNELS)</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> SEVEN</td> </tr> <tr> <td><input checked="" type="checkbox"/> NINE</td> </tr> <tr> <td><input type="checkbox"/> _____</td> </tr> </table> <p>7. PARITY</p> <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> ODD</td> </tr> <tr> <td><input type="checkbox"/> EVEN</td> </tr> </table> <p>8. DENSITY</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> 200 BPI</td> <td><input checked="" type="checkbox"/> 1600 BPI</td> </tr> <tr> <td><input type="checkbox"/> 556 BPI</td> <td></td> </tr> <tr> <td><input type="checkbox"/> 800 BPI</td> <td></td> </tr> <tr> <td colspan="2"><input type="checkbox"/> _____</td> </tr> </table>	<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY	<input type="checkbox"/> ASCII	<input checked="" type="checkbox"/> EBCDIC	<input type="checkbox"/> _____		<input type="checkbox"/> SEVEN	<input checked="" type="checkbox"/> NINE	<input type="checkbox"/> _____	<input checked="" type="checkbox"/> ODD	<input type="checkbox"/> EVEN	<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>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> 3/4 INCH</td> </tr> <tr> <td><input checked="" type="checkbox"/> .5 inch - 0.6 inch</td> </tr> </table> <p>10. END OF FILE MARK</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> OCTAL 17</td> </tr> <tr> <td><input checked="" type="checkbox"/> octal 23</td> </tr> </table> <p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>022 025IMS ALPHA HELIX CRUISE HX25 04/25/82 - 05/15/82 Stations: 1-45,48-84. No STD data for Sta. 27-53. 9trk,1600BPI,EBCDIC,NO LABEL,ODD PARITY</p> <p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p style="text-align: center;">5-120 bytes/block</p> <p>13. LENGTH OF BYTES IN BITS</p> <p style="text-align: center;">8 bits/byte</p>	<input type="checkbox"/> 3/4 INCH	<input checked="" type="checkbox"/> .5 inch - 0.6 inch	<input type="checkbox"/> OCTAL 17	<input checked="" type="checkbox"/> octal 23
<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY																							
<input type="checkbox"/> ASCII	<input checked="" type="checkbox"/> EBCDIC																							
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<input type="checkbox"/> OCTAL 17																								
<input checked="" type="checkbox"/> octal 23																								



RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22.NOAA FORM 24-18



46701 1 07/07/82 UTL2 REPORT 771101

PAGE 1

FILED OT, IPH, ILAB, WSER, EBC, IC, F120, C1600.  
PRCC DUMP OT 15R.

\*\*\*\*\* 3K ADDITIONAL CORE NEEDED \*\*\*\*\*

FUNCTION REQUESTED: DUMP OT 15 RECORDS.  
FILE CODE OT FILE NUMBER 1

CI	1	R	1	360362362360	362365311324	342361100100	100100361343	310305100344
		CC	21	325311345305	331342311343	350100326306	100301323301	342322301100
		CC	41	311342100331	305342327326	325342311302	323305100306	326331100343
		CC	61	310311342100	304301343301	100346310311	303310100346	301342100303
		CC	81	32632323305	303343305304	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100361
		R	2	360362362360	362365311324	342361100100	100100361301	302326301331
		CC	21	304100343310	305100331141	345100301323	327310301100	310305323311
		CC	41	347100303331	344311342305	100310347362	365100302305	343346305305
		CC	61	325100360364	141362365141	370362100140	100360365141	361365141370
		CC	81	362100100100	100100100100	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100362
		R	3	360362362360	362365311324	342361100100	100100361302	350100304331
		CC	21	113325311305	302301344305	331100326306	100343310305	100311325342
		CC	41	343311343344	343305100326	306100324301	331311325305	100342303311
		CC	61	305325303305	113100100100	100100100100	100100100100	100100100100
		CC	81	100100100100	100100100100	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100363
		R	4	360362362360	362365311324	342361100100	100100361343	310305331305
		CC	21	100346305331	305100301100	343326343301	323100326306	100370362100
		CC	41	342343301343	311326325342	100311325100	343310305100	302305331311
		CC	61	325307100342	305301100301	331305301113	100100100100	100100100100
		CC	81	100100100100	100100100100	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100364
		R	5	360362362360	362365311324	342361100100	100100361343	310305100342
		CC	21	343301343311	326325100325	344324302305	331342100301	331305100100
		CC	41	361140364365	153364370140	370364113100	325326100342	343304100304
		CC	61	301343301100	306326331100	342343301113	362367140365	363113100100
		CC	81	100100100100	100100100100	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100365
CI	2	R	6	360362362360	362365311324	342361100100	100100361306	311305323304
		CC	21	100303326331	331305303343	311326325100	306326331100	343310311342
		CC	41	100303331344	311342305100	346301342100	343301322305	325100306331
		CC	61	326324100301	323327310301	100310305323	311347100303	331344311342
		CC	81	305100310347	362365113100	100100100100	100100100100	100100100100
		CC	101	100100100100	100100100100	100100100100	100100100100	100100100366

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NIVERSITY OF ALASKA  
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3

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4

022025IMS1 1THE S  
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1-45, 48-84. NO STD D  
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5

022025IMS1 1FIELD  
CORRECTION FOR THIS  
CRUISE WAS TAKEN FR  
OM ALPHA HELIX CRUIS  
E HX25.  
6



## 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 IIIB CTD/O Microprofiler	May 1981		NEIL BROWN						
<b>NOTE:</b> ALL STD OR CTD UNITS ARE FIELD CORRECTED BY COMPARISON WITH DISCRETE SAMPLES TO INCREASE ACCURACY OVER STANDARD LABORATORY CALIBRATION.									



FILE TYPE 022 - SALINITY/TEMPERATURE/DENSITY MEASUREMENTS (STD/CTD)  
12/31/80 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD MICROSTRUCTURE MEASUREMENTS OF SALINITY OR CONDUCTIVITY, TEMPERATURE AND SIGMA-T VALUES VS DEPTH TO SUPPORT STUDIES OF TRANSPORT AND ALTERATION OF CONTAMINANTS BY THE ENVIRONMENT.

THIS FORMAT CONSISTS OF SEVEN RECORDS WHICH INCLUDE, IN ADDITION TO FIVE ENTRIES OF TEMPERATURE, SALINITY, SIGMA-T PER RECORD, EXTENSIVE SEA SURFACE AND CLIMATOLOGY FIELDS, POSITION, DATE, TIME AND DEPTH INFORMATION AND A TEXT RECORD.

DATA CAN BE RECORDED AT DIFFERENT DEPTH INTERVALS WHICH ARE IDENTIFIED IN THE SCAN FIELD. A RECENT ADDITION TO THE FORMAT IS A RECORD WITH DISSOLVED OXYGEN AND TRANSMISSIVITY FIELDS FORMATTED SIMILAR TO THE TEMPERATURE/SALINITY DATA RECORD.

ALL RECORDS IN THIS FORMAT ARE 120 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (CAST NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 022 - 3/30/79 - ADDED NEW DETAIL RECORD 3 -RECORD \*\*\*\*\*  
\*\*\*\*\*TYPE '5' \*\*\*\*\*  
\*\*\*\*\* 12/21/81 - ADD NEW RECORD TYPES '6' AND '7' \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
CAST NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2,3 AND 4	11
TEXT	100-CHARACTER FIELD - USED FOR COMMENTS OR PERTINENT INFORMATION	16
SEQUENCE NUMBER	XXXXX - USED FOR SORTING TEXT RECORDS	116
MASTER RECORD	ALWAYS '2'	10
CAST NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
CRUISE IDENTIFICATION	TEN-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR	31
NUMBER OF SCANS	XXXXX - USED TO INDICATE NUMBER OF SCANS PER STATION (FIVE/RECORD)	41
DATE (GMT)	YYMMDD	46
TIME (GMT)	XXXX (HOURS AND MINUTES)	52
SAMPLE INTERVAL INDICATOR	ONE-DIGIT CODE - USE CODE 0216	56
SAMPLE INTERVAL	XXX - WHEN INDICATOR CODE=1 (EQUAL SPACED DEPTHS) - (METERS TO TENTHS)	57
BAROMETRIC PRESSURE	XXXXX (MILLIBARS TO TENTHS)	60
WET BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	65
DRY BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	69
WIND DIRECTION	XX - TWO-DIGIT CODE - WMO 885/887 - DIRECTION FROM - USE CODE 0110	73
WIND SPEED	XX (WHOLE KNOTS)	75
WEATHER	ONE-DIGIT CODE - WMO 4501 - USE CODE 0108	77
SEA STATE	ONE-DIGIT CODE - WMO 3700 - USE CODE 0109	78
VISIBILITY	ONE-DIGIT CODE - WMO 4300 - USE CODE 0157	79
CLOUD TYPE	ONE-DIGIT CODE - WMO 0500 - USE CODE 0053	80
CLOUD AMOUNT	ONE-DIGIT CODE - WMO 2700 - USE CODE 0105	81
INSTRUMENT INFORMATION	TWENTY-CHARACTER FIELD FOR TYPE OF INSTRUMENT, SERIAL NUMBER, ETC	82
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY THE ORIGINATOR	102
DEPTH TO BOTTOM	XXXXX (WHOLE METERS)	108
MAXIMUM DEPTH OF CAST	XXXX (WHOLE METERS)	113
BLANKS		117



DETAIL RECORD 1	ALWAYS '3'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
DEPTH	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 2	ALWAYS '4'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	21
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	41
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	61
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	81
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	101
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116

DETAIL RECORD 3	ALWAYS '5'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	21
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	41
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56



TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	61
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	81
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	101
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 4	ALWAYS 'G'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
PRESSURE	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
PRESSURE	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 5	ALWAYS '7'	10
CAST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE OOB0	55
PRESSURE	XXXXX (METERS TO TENTHS)	56



# N O D C F I L E T Y P E C O D E S

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 022

## 0053 CLOUD TYPE (WM0500)

```

-----
0 -- CIRRUS
1 -- CIRROCUMULUS
2 -- CIRROSTRATUS
3 -- ALTOCUMULUS
4 -- ALTOSTRATUS
5 -- NIMBOSTRATUS
6 -- STRATOCUMULUS
7 -- STRATUS
8 -- CUMULUS
9 -- CUMULONIMBUS
X -- CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOMENA

```

## 0080 STD-SCAN CONDITION

```

-----
0 -- DATA PROCESSED PRIOR TO IMPLEMENTATION OF CODE. ALL VALUES FOR ALL PARAMETERS WILL BE LABELED THE SAME.
1 -- VALUE OBTAINED FROM RAW DATA AT THAT DEPTH INTERVAL. PROCESSING TO OBTAIN THIS VALUE MUST BE SPECIFIED IN A DDF. EXAMPLE: THE VALUE FOR SALINITY MAY BE THE RESULT OF AVERAGING OVER ONE METER INTERVAL AND APPLYING A FIELD CORRECTION BASED UPON DISCRETE SAMPLES. (OTHER TYPES OF PROCESSING MAY BE USED, BUT MUST BE SPECIFIED IN DDF.)
2 -- VALUES ARE LINEARLY INTERPOLATED FROM ADJACENT DEPTH INTERVALS. EXAMPLE: IF THE TEMPERATURE VALUES FROM 49 AND 50 METERS ARE MISSING, THESE VALUES WILL BE OBTAINED BY LINEAR INTERPOLATION BETWEEN THE VALUES AT 48 AND 51 METERS.
3 -- VALUES ARE OBTAINED BY "VERTICAL EXTRAPOLATION" FROM THE FIRST DEPTHS FOR WHICH A VALUE IS FOUND THAT FALLS WITHIN SENSOR LIMITS. EXAMPLE: IF SALINITY FALLS BELOW SENSOR LIMITS BECAUSE OF FRESH SURFACE WATER, THOSE DEPTHS AFFECTED WILL BE ASSIGNED THE SALINITY OF THE FIRST REAL VALUE OBTAINED (SALINITY SENSORS WILL BE AFFECTED TO A MUCH GREATER EXTENT THAN CONDUCTIVITY SENSORS.)
4 -- AVERAGED
9 -- TEMPERATURE, SALINITY, AND SIGMA-T NOT GIVEN

```

## 0105 CLOUD AMT (WM02700)

```

-----
0 -- 0 (ZERO)
1 -- 1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
2 -- 2 OKTAS 2/10-3/10
3 -- 3 OKTAS 4/10
4 -- 4 OKTAS 5/10
5 -- 5 OKTAS 6/10
6 -- 6 OKTAS 7/10-8/10
7 -- 7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
8 -- 8 OKTAS 10/10

```



N O D C F I L E T Y P E C O D E S

81/12/16

9 -- SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED

0108 WEATHER (WMO4501)

-----

- 0 -- CLEAR (NO CLOUD AT ANY LEVEL)
- 1 -- PARTLY CLOUDY (SCATTERED OR BROKED)
- 2 -- CONTINUOUS LAYER(S) OF CLOUD(S)
- 3 -- SANDSTORM, DUSTSTORM, OR BLOWING SNOW
- 4 -- FOG, THICK DUST OR HAZE
- 5 -- DRIZZLE
- 6 -- RAIN
- 7 -- SNOW, OR RAIN AND SNOW MIXED
- 8 -- SHOWER(S)
- 9 -- THUNDERSTORM(S)

0109 SEA STATE (WMO3700)

-----

- 0 -- CALM-GLASSY 0 FT (0 METERS)
- 1 -- CALM-RIPPLED 0-1/3 FT (0-.1 METERS)
- 2 -- SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
- 3 -- SLIGHT 1 2/3 - 4 FT (.5-1.25 METERS)
- 4 -- MODERATE 4-8 FT (1.25-2.50 METERS)
- 5 -- ROUGH 8-13 FT (2.50-4.0 METERS)
- 6 -- VERY ROUGH 13-20 FT (4-6 METERS)
- 7 -- HIGH 20-30 FT (6-9 METERS)
- 8 -- VERY HIGH 30-45 FT (9-14 METERS)
- 9 -- PHENOMENAL >45 FT (>14 METERS)

0110 WIND-WAVE DIRECTION

-----

- 00 -- CALM (NO WAVES-NO MOTION)
- 01 -- 5 DEGREES - 14 DEGREES
- 02 -- 15 DEGREES - 24 DEGREES
- 03 -- 25 DEGREES - 34 DEGREES
- 04 -- 35 DEGREES - 44 DEGREES
- 05 -- 45 DEGREES - 54 DEGREES
- 06 -- 55 DEGREES - 64 DEGREES
- 07 -- 65 DEGREES - 74 DEGREES
- 08 -- 75 DEGREES - 84 DEGREES
- 09 -- 85 DEGREES - 94 DEGREES
- 10 -- 95 DEGREES - 104 DEGREES
- 11 -- 105 DEGREES - 114 DEGREES
- 12 -- 115 DEGREES - 124 DEGREES
- 13 -- 125 DEGREES - 134 DEGREES
- 14 -- 135 DEGREES - 144 DEGREES
- 15 -- 145 DEGREES - 154 DEGREES
- 16 -- 155 DEGREES - 164 DEGREES
- 17 -- 165 DEGREES - 174 DEGREES



# N O D C F I L E T Y P E C O D E S

81/12/16

18 -- 175 DEGREES - 184 DEGREES  
 19 -- 185 DEGREES - 194 DEGREES  
 20 -- 195 DEGREES - 204 DEGREES  
 21 -- 205 DEGREES - 214 DEGREES  
 22 -- 215 DEGREES - 224 DEGREES  
 23 -- 225 DEGREES - 234 DEGREES  
 24 -- 235 DEGREES - 244 DEGREES  
 25 -- 245 DEGREES - 254 DEGREES  
 26 -- 255 DEGREES - 264 DEGREES  
 27 -- 265 DEGREES - 274 DEGREES  
 28 -- 275 DEGREES - 284 DEGREES  
 29 -- 285 DEGREES - 294 DEGREES  
 30 -- 295 DEGREES - 304 DEGREES  
 31 -- 305 DEGREES - 314 DEGREES  
 32 -- 315 DEGREES - 324 DEGREES  
 33 -- 325 DEGREES - 334 DEGREES  
 34 -- 335 DEGREES - 344 DEGREES  
 35 -- 345 DEGREES - 354 DEGREES  
 36 -- 355 DEGREES - 4 DEGREES  
 49 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES EQUAL TO OR LESS THAN 4 3/4 METERS)  
 99 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,OR  
 ALL DIRECTIONS OR UNKNOWN

## 0157 VISIBILITY (WMO4300)

-----  
 0 -- LESS THAN 50 M (LESS THAN 55 YARDS)  
 1 -- 50-200 M (APPROX. 55-220 YARDS)  
 2 -- 200-500 M (APPROX. 220-550 YARDS)  
 3 -- 500-1000 M (APPROX. 550 YARDS-5/8 N.M.)  
 4 -- 1-2 KM (APPROX. 5/8-1 N.M.)  
 5 -- 2-4 KM (APPROX. 1-2 N.M.)  
 6 -- 4-10 KM (APPROX. 2-6 N.M.)  
 7 -- 10-20 KM (APPROX. 6-12 N.M.)  
 8 -- 20-50 KM (APPROX. 12-30 N.M.)  
 9 -- 50 KM OR MORE (30 N.M. OR MORE)

## 0216 SAMPLE INTERVAL

-----  
 0 -- UNEQUALLY SPACED DEPTHS  
 1 -- EQUALLY SPACED DEPTHS TO TENTHS OF METERS REPORTED.  
 2 -- UNEQUALLY SPACED PRESSURES  
 3 -- EQUALLY SPACED PRESSURES TO TENTHS OF DECIBARS REPORTED

## 0500 LAT HEMISPHERE

-----  
 N -- NORTH  
 S -- SOUTH



N O D C FILE TYPE C O D E S

81/12/16

0501 LON HEMISPHERE  
-----  
E -- EAST  
W -- WEST



DDF B: 3: 01

DATE: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F 015<sup>022</sup>  
2) Project Ident.: \_\_\_\_\_  
3) Track Nos.: TR 8266  
319092 C022

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

Dup

II. Additional error corrections:

Error

Correction Completed (Check)

Deleted excess record ones.

III. Processor Name:

Mary Lewis



TAPE OR DISK ASSIGNMENT SHEET  
(MRL) 11/6/78  
(Rev. 11/80)

ION/TRACK NO.: 8200146 / TR 8266

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
GENERATOR	W2041	NL	120 60	600	EBCDIC		
DUPLICATE	W12594*	SL	120 60	600 <del>4800</del>	ASCII		522
FORMATTED							
FIRST USER							
FINAL USER							
WORK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE	DI11/31/RL*	F022	TR 8266				522
UNITED DISK FILE							

\*DSN = DNODC \* 82NODC 009-03.



DATE: 8/2/82

TO: D711

FROM: D713

SUBJECT: Error Correction in Processing of Data Set - Accession # 8200146

- 1) File Type: F 027  
015
- 2) Project Ident.: \_\_\_\_\_
- 3) Track Nos.: TR 8266

## I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

## II. Additional error corrections:

ErrorCorrection Completed (Check)

*Deleted excess record ones.*

III. Processor Name:

*Mary Lewis*



## TAPE OR DISK ASSIGNMENT SHEET

(MRL) 11/6/78

(Rev. 11/80)

SECTION/TRACK NO.: 8200146 / TR 8266

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS	# RECORDS
ORIGINATOR	W2041	NL	<del>120</del> 60	600	EBCDIC		
DUPLICATE	W12594*	SL	<del>120</del> 60	<del>600</del> 480	ASCII		522
FORMATTED							
FIRST USER							
FINAL USER							
WORK FILE	DSN					REMARKS	# RECORDS
WORK DISK FILE	DI/DA RL*	F022	TR 8266				522
UNITED DISK FILE							

\*DSN = DNODC \* 82NODC009-03.



ACCESSION/TRACK # 8200146/PR8266

Step	Completion Date/Init.	Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE #	7/19/82 <del>W2041</del>	W2041	1	600	<del>120</del> <del>60</del>	
QUALITY/SCAN TAPE #	7/26/82	W12594*	1	<del>600</del> <del>1800</del>	<del>120</del> <del>60</del>	
ASSIGNED FOR PROCESS.						
DDF EVALUATION	12/2/82 <del>W2041</del>					
QUALITY REVIEW	12/2/82 <del>W2041</del>					
PRELIMINARY DATA SORT						
PRELIMINARY MULCHEK	12/2/82 <del>W2041</del>	DIP MRL * F022. PR8266				1131
FIRST USER TAPE #						
WORK DISK FILE	12/2/82					
FINAL USER TAPE #						
FINAL MULCHEK	12/2/82					
EDITED DISK FILE						
DATA SET "FINALIZED"						



ACCESSION  
NUMBER

8200141

# DATA DOCUMENTATION FORM

TR8266

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-R7

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				
DATA MANAGEMENT INSTITUTE OF MARINE SCIENCE UNIVERSITY OF ALASKA, O'NEILL RES.BLDG. FAIRBANKS, ALASKA 99701				
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED			3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT	
			RT25	
4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)	7. DATES	
		PLATFORM OPERATOR	FROM: MO, DAY, YR	TO: MO, DAY, YR
R/V REDOUBT	SHIP	USA USA	04/04/82	04/15/82
8. ARE DATA PROPRIETARY?		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.		
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH		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)				
Marcia Boyette (907) 474-7092 (907) 474-7836				



# 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 & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
TEMPERATURE	°C	DSR THERMOMETERS & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
DEPTH	0.1m (1m = 1db)	THERMOMETRIC DEPTH & INTEROCEAN CASSETTE CTD	DESCRIPTION OF BASIC PROCESSING ATTACHED	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 AS: "1" For Text Record (in 10th Byte position)

"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 Mater 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 Institute of Marine Science, University of Alaska, Fairbanks, AK 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> .5 - .6 inch
6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input checked="" type="checkbox"/> OCTAL 23
7. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) 022 025IMS REDOUBT CRUISE RT25 04/04/82 - 04/15/82 Dr. Burrell Boca de Quadra Area Sta: 1-4, 6-8, 10-11, 13, 15-18, 20-21, 23, 25-27, 29-30, 32-33, 40, 44-46. 9 trk, 1600BPI, EBCDIC, NO LABEL, ODD PARITY
8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____	12. PHYSICAL BLOCK LENGTH IN BYTES 5-120 bytes/block
	13. LENGTH OF BYTES IN BITS 8 bit bytes



# RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN  (e.g., bits, bytes)	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. 45-49 Depth in meters (I5 to 1/10ths)
					2. Col. 50-53 Salinity in 0/00 (I4 to 1/100ths)



IMS STD/CTD DATA REDUCTION  
(Interocean)  
October 1979

Transcription

Interocean cassettes are transcribed to a 9-track magnetic tape.

Program - RDCASS

Data from the 9-track tape are un-blocked and logical records are written to a computer disc file.

Program - CALVAL

Data values from the instrument display, taken at the time discrete samples were taken, are input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean.

Subjective judgements as to the quality of the field correction data are made at this time.

Output from this program provides input for IOCAVE.

Program - IOCAVE

NODC calibrations are applied to the raw data. Data are checked to insure that they are within limits. Salinity and sigma-t are calculated. One-meter average values are calculated and written to a computer disc file.



Extrapolated and interpolated data are so marked (E and \* respectively). An error report is produced noting any records that could not be interpreted. This information is summarized to give an overall indication of data quality.

#### Program - IOCOUT

One-meter averaged data and header information are combined to produce a finished printout:

- 1) All header information and corrected data in one meter intervals.
- 2) Flags indicating interpolated (\*) and/or extrapolated (E) data are printed with associated data values.
- 3) Pertinent comments are solicited from the responsible principal investigator and attached to the final printout.

A tape with one-meter averages for depth, temperature, salinity, sigma-t, and Delta-D/per station is generated for data storage and further analysis.

#### Program - NODCF

This program is used to convert the output tape from IOCOUT (IMS STD final format) to an NODC formatted tape for submission for NODC to fulfill contractual obligations.



ADDITIONAL COPE NEEDED \*\*\*\*\*

STED: COPY IN TO OT 1 FILE.  
JUN 13

FILE # 1 CONTAINED 1514 RECORDS

STED: COPIED IN TO OT 1 FILE.

STED: DUMP OT 15 RECORDS.  
OT FILE NUMBER 1

1	360362362360	362365311324	342361100100	100100361343	310305100344
21	325311545305	331342311343	350100376306	100301323301	342322301100
41	311342103331	305342327326	325342311302	323305100306	326331100343
61	310311542100	304331343301	100346310311	303310100346	301342100303
81	326323323305	303343305304	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100100	100100100361
2	360362362360	362365311324	342361100100	100100361301	302326301331
21	304100343310	305100331141	345100331305	304326344302	343100303331
41	344311342305	100331343362	365100302305	343346305305	325100360364
61	141360364141	370382100140	100360364141	361365141370	362100100100
81	100100100100	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100100	100100100362
3	360362362360	362365311324	342361100100	100100361302	350100304331
21	113100502344	331331305323	323100326306	100343310305	100311325342
41	343311343344	343305100326	306100324301	331311325305	100342303311
61	305325303305	113100100100	100100100100	100100100100	100100100100
81	100100100100	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100100	100100100363
4	360362362360	362365311324	342361100100	100100361343	310305331305
21	100346305331	305100301100	343326343301	323100326306	100363364100
41	342343301343	311326325342	100311325100	343310305100	302326303301
61	100304305100	330344301304	331301100301	331305301113	100100100100
81	100100100100	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100100	100100100364
5	360362362360	362365311324	342361100100	100100361343	310305100342
21	343301343311	326325100325	344324302305	331342100301	331305100100
41	361140370153	361360140361	370153362360	140362361153	362363140362

022025IMS1 1THE U  
NIVERSITY OF ALASKA  
IS RESPONSIBLE FOR T  
HIS DATA WHICH WAS C  
OLLECTED

1

022025IMS1 1ABOAR  
D THE R/V REDOUBT CR  
UISE RT25 BETWEEN 04  
/04/82 - 04/15/82

2

022025IMS1 1BY DR  
BURRELL OF THE INS  
TITUTE OF MARINE SCI  
ENCE.

3

022025IMS1 1THERE  
WERE A TOTAL OF 34  
STATIONS IN THE SOCA  
CE CUADRA AREA.

4

022025IMS1 1THE S  
TATION NUMBERS ARE  
1-8,10-18,20-21,23-2

UTL2	REPORT	771101	PAGE	2
61	367153362371	140363360153	363362140363	363153363365
81	364361153364	364140364366	113100100100	100100100100
101	100100100100	100100100100	100100100100	100100100365
6	360362362360	362365311324	342361100100	100100361325
21	304100304301	343301100306	326331100342	343301343311
41	365153361362	153361364153	362364153363	365153100120
61	100100100100	100100100100	100100100100	100100100100
81	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100366
7	360362362360	362365311324	342361100100	100100361342
21	100342354304	1003030301342	343342100306	326331100342
41	326325342100	363153361360	153361363153	362361153100
61	113100100100	100100100100	100100100100	100100100100
81	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100367
8	360362362360	362365311324	342361100100	100100361306
21	100303326331	331305303343	311326325100	306326331100
41	100303331344	311342305100	346301342100	343301322305
61	326324100331	305334326344	302343100303	331344311342
81	362365113100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100100370
9	360362362360	362365311324	342361100100	100100361306
21	100303326331	331305303343	311326325100	306326331100
41	342343301400	304301343301	100346301342	100304305331
61	100302350100	303326324327	301331311325	307100342311
81	100302352643	343323305100	342301324327	323305342100
101	100100100100	100100100100	100100100100	100100100371
10	360362362360	362365311324	342361100100	100100361343
21	303326331304	305304100345	3013223344305	342100306331
41	310305100342	343304100342	305325342326	331342113100
61	100306311305	323304100303	326331311325	303343311326
81	100302301342	305304100326	325100361361	100100100100
101	100100100100	100100100100	100100100100	100100361360
11	360362362360	362365311324	342361100100	100100361342
21	305342100306	331326324100	301100343326	343301323100
41	364100342343	301343311326	325342113100	343310305100
61	304100303326	331331305303	343311326325	100311342100
81	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100361361
12	360362362360	362365311324	342361100100	100100361100
21	100100100100	100100100100	100100100100	100100100100
101	100100100100	100100100100	100100100100	100100361362
13	360362362360	362365311324	342361100100	100100361100
21	100100100100	100100100100	100100100100	100100100100
41	305324327305	331331343344	331305100324	305301325113
61	305325140342	343304135100	100311342100	100140360113
81	363100100100	100100100100	100100100100	100100100100

7,29-30,32-33,35,40-  
41,44-46.

5

022025IMS1 1NO ST  
D DATA FOR STATIONS  
5,12,14,24,35, & 41.

6

022025IMS1 1SHORT  
STD CASTS FOR STATI  
ONS 3,10,13,21, & 30

7

022025IMS1 1FIELD  
CORRECTION FOR THIS  
CRUISE WAS TAKEN FR  
OM REDOUBT CRUISE RT  
25.

8

022025IMS1 1FIELD  
CORRECTION FOR THE  
STD DATA WAS DERIVED  
BY COMPARING SINGLE  
BOTTLE SAMPLES

9

022025IMS1 1TO RE  
CORDED VALUES FROM T  
HE STD SENSORS. THE  
FIELD CORRECTION IS  
BASED ON 11

10

022025IMS1 1SAMPL  
ES FROM A TOTAL OF 3  
4 STATIONS. THE FIEL  
D CORRECTION IS

11

022025IMS1 1

12

022025IMS1 1  
TEMPERATURE MEAN (NANS  
EN-STD) IS -0.0309



## 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 (✓)	
INTEROCEAN CASSETTE CTD	SEPT. 80		IOC						
NOTE: ALL STD OR CTD UNITS ARE FIELD CORRECTED BY COMPARISON WITH DISCRETE SAMPLES TO INCREASE ACCURACY OVER STANDARD LABORATORY CALIBRATION.									



FILE TYPE 022 - SALINITY/TEMPERATURE/DENSITY MEASUREMENTS (STD/CTD)  
12/31/80 VERSION

NOTES AND CORRECTIONS

THIS FORMAT IS DESIGNED TO RECORD MICROSTRUCTURE MEASUREMENTS OF SALINITY OR CONDUCTIVITY, TEMPERATURE AND SIGMA-T VALUES VS DEPTH TO SUPPORT STUDIES OF TRANSPORT AND ALTERATION OF CONTAMINANTS BY THE ENVIRONMENT.

THIS FORMAT CONSISTS OF SEVEN RECORDS WHICH INCLUDE, IN ADDITION TO FIVE ENTRIES OF TEMPERATURE, SALINITY, SIGMA-T PER RECORD, EXTENSIVE SEA SURFACE AND CLIMATOLOGY FIELDS, POSITION, DATE, TIME AND DEPTH INFORMATION AND A TEXT RECORD.

DATA CAN BE RECORDED AT DIFFERENT DEPTH INTERVALS WHICH ARE IDENTIFIED IN THE SCAN FIELD. A RECENT ADDITION TO THE FORMAT IS A RECORD WITH DISSOLVED OXYGEN AND TRANSMISSIVITY FIELDS FORMATTED SIMILAR TO THE TEMPERATURE/SALINITY DATA RECORD.

ALL RECORDS IN THIS FORMAT ARE 120 COLUMNS IN LENGTH. THIS FILE IS SORTED BY STATION NUMBER (CAST NUMBER), RECORD TYPE AND SEQUENCE NUMBER TO OBTAIN THE PROPER SEQUENCE OF RECORDS.

\*\*\*\*\*FILETYPE 022 - 3/30/79 - ADDED NEW DETAIL RECORD 3 -RECORD \*\*\*\*\*

\*\*\*\*\*TYPE '5' \*\*\*\*\*

\*\*\*\*\* 12/21/81 - ADD NEW RECORD TYPES '6' AND '7' \*\*\*\*\*



PARAMETER	DESCRIPTION	SC
TEXT RECORD	ALWAYS '1'	10
CAST NUMBER	FIVE-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR - ALSO INCLUDED ON RECORD TYPES 2,3 AND 4	11
TEXT	100-CHARACTER FIELD - USED FOR COMMENTS OR PERTINENT INFORMATION	16
SEQUENCE NUMBER	XXXXX - USED FOR SORTING TEXT RECORDS	116
MASTER RECORD	ALWAYS '2'	10
CAST NUMBER	SEE RECORD '1'	11
LATITUDE	DDMMXX PLUS HEMISPHERE 'N' OR 'S' - MINUTES TO HUNDREDTHS	16
LONGITUDE	DDMMXX PLUS HEMISPHERE 'E' OR 'W' - MINUTES TO HUNDREDTHS	23
CRUISE IDENTIFICATION	TEN-CHARACTER FIELD ASSIGNED BY THE ORIGINATOR	31
NUMBER OF SCANS	XXXXX - USED TO INDICATE NUMBER OF SCANS PER STATION (FIVE/RECORD)	41
DATE (GMT)	YYMMDD	46
TIME (GMT)	XXXX (HOURS AND MINUTES)	52
SAMPLE INTERVAL INDICATOR	ONE-DIGIT CODE - USE CODE 0216	56
SAMPLE INTERVAL	XXX - WHEN INDICATOR CODE=1 (EQUAL SPACED DEPTHS) - (METERS TO TENTHS)	57
BAROMETRIC PRESSURE	XXXXX (MILLIBARS TO TENTHS)	60
WET BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	65
DRY BULB TEMPERATURE	XXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO TENTHS	69
WIND DIRECTION	XX - TWO-DIGIT CODE - WMO 885/887 - DIRECTION FROM - USE CODE 0110	73
WIND SPEED	XX (WHOLE KNOTS)	75
WEATHER	ONE-DIGIT CODE - WMO 4501 - USE CODE 0108	77
SEA STATE	ONE-DIGIT CODE - WMO 3700 - USE CODE 0109	78
VISIBILITY	ONE-DIGIT CODE - WMO 4300 - USE CODE 0157	79
CLOUD TYPE	ONE-DIGIT CODE - WMO 0500 - USE CODE 0053	80
CLOUD AMOUNT	ONE-DIGIT CODE - WMO 2700 - USE CODE 0105	81
INSTRUMENT INFORMATION	TWENTY-CHARACTER FIELD FOR TYPE OF INSTRUMENT, SERIAL NUMBER, ETC	82
LOCATION NAME	SIX-CHARACTER NAME DETERMINED BY THE ORIGINATOR	102
DEPTH TO BOTTOM	XXXXX (WHOLE METERS)	108
MAXIMUM DEPTH OF CAST	XXXXX (WHOLE METERS)	113
BLANKS		117



DETAIL RECORD 1	ALWAYS '3'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
DEPTH	XXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 2	ALWAYS '4'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	21
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	41
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	61
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	75
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	76
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	81
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	95
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	96
DISSOLVED OXYGEN	XXXXX - ML/L TO THOUSANDTHS	101
TRANSMISSIVITY	XXXXX (PERCENT TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	115
	SCANNING DATA - USE CODE 0080	
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116

DETAIL RECORD 3	ALWAYS '5'	10
CAST NUMBER	SEE RECORD '1'	11
DEPTH	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	21
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	35
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE	41
	PRECEDED BY A MINUS SIGN ADJACENT TO	
	TEMPERATURE VALUE - DEG C TO THOUSANDTHS	
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF	55
	SCANNING DATA - USE CODE 0080	
DEPTH	XXXXX (METERS TO TENTHS)	56



TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	66
BLANKS		71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
DEPTH	XXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	86
BLANKS		91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
DEPTH	XXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	106
BLANKS		111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 4	ALWAYS '6'	10
CASST NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
SALINITY	XXXXXX - PARTS PER THOUSAND TO THOUSANDTHS	26
SIGMA-T	XXXX - TO HUNDREDTHS	31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
SALINITY	XXXXXX - PARTS PER THOUSAND TO THOUSANDTHS	46
SIGMA-T	XXXX - TO HUNDREDTHS	51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXXX (METERS TO TENTHS)	56
TEMPERATURE	XXXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	61
SALINITY	XXXXXX - PARTS PER THOUSAND TO THOUSANDTHS	66
SIGMA-T	XXXX - TO HUNDREDTHS	71
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	75
PRESSURE	XXXXXX (METERS TO TENTHS)	76
TEMPERATURE	XXXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	81
SALINITY	XXXXXX - PARTS PER THOUSAND TO THOUSANDTHS	86
SIGMA-T	XXXX - TO HUNDREDTHS	91
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	95
PRESSURE	XXXXXX (METERS TO TENTHS)	96
TEMPERATURE	XXXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	101
SALINITY	XXXXXX - PARTS PER THOUSAND TO THOUSANDTHS	106
SIGMA-T	XXXX - TO HUNDREDTHS	111
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	115
SEQUENCE NUMBER	XXXXXX - USED FOR SORTING DATA RECORDS	116



DETAIL RECORD 5	ALWAYS '7'	10
CASE NUMBER	SEE RECORD '1'	11
PRESSURE	XXXXX (METERS TO TENTHS)	16
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	21
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	26
BLANKS		31
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	35
PRESSURE	XXXXX (METERS TO TENTHS)	36
TEMPERATURE	XXXXX NEGATIVE TEMPERATURES ARE PRECEDED BY A MINUS SIGN ADJACENT TO TEMPERATURE VALUE - DEG C TO THOUSANDTHS	41
CONDUCTIVITY	XXXXX (MMHO/CM TO THOUSANDTHS)	46
BLANKS		51
SCAN CONDITION	ONE-CHARACTER CODE INDICATING METHOD OF SCANNING DATA - USE CODE 0080	55
PRESSURE	XXXXX (METERS TO TENTHS)	56



# N O D C F I L E T Y P E C O D E S

81/12/16

THE FOLLOWING CODES ARE USED IN FILE TYPE 022

## 0053 CLOUD TYPE (WM0500)

-----

- 0 -- CIRRUS
- 1 -- CIRROCUMULUS
- 2 -- CIRROSTRATUS
- 3 -- ALTOCUMULUS
- 4 -- ALTOSTRATUS
- 5 -- NIMBOSTRATUS
- 6 -- STRATOCUMULUS
- 7 -- STRATUS
- 8 -- CUMULUS
- 9 -- CUMULONIMBUS
- X -- CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOMENA

## 0080 STD-SCAN CONDITION

-----

- 0 -- DATA PROCESSED PRIOR TO IMPLEMENTATION OF CODE. ALL VALUES FOR ALL PARAMETERS WILL BE LABELED THE SAME.
- 1 -- VALUE OBTAINED FROM RAW DATA AT THAT DEPTH INTERVAL. PROCESSING TO OBTAIN THIS VALUE MUST BE SPECIFIED IN A DDF. EXAMPLE: THE VALUE FOR SALINITY MAY BE THE RESULT OF AVERAGING OVER ONE METER INTERVAL AND APPLYING A FIELD CORRECTION BASED UPON DISCRETE SAMPLES. (OTHER TYPES OF PROCESSING MAY BE USED, BUT MUST BE SPECIFIED IN DDF.)
- 2 -- VALUES ARE LINEARLY INTERPOLATED FROM ADJACENT DEPTH INTERVALS. EXAMPLE: IF THE TEMPERATURE VALUES FROM 49 AND 50 METERS ARE MISSING, THESE VALUES WILL BE OBTAINED BY LINEAR INTERPOLATION BETWEEN THE VALUES AT 48 AND 51 METERS.
- 3 -- VALUES ARE OBTAINED BY "VERTICAL EXTRAPOLATION" FROM THE FIRST DEPTHS FOR WHICH A VALUE IS FOUND THAT FALLS WITHIN SENSOR LIMITS. EXAMPLE: IF SALINITY FALLS BELOW SENSOR LIMITS BECAUSE OF FRESH SURFACE WATER, THOSE DEPTHS AFFECTED WILL BE ASSIGNED THE SALINITY OF THE FIRST REAL VALUE OBTAINED (SALINITY SENSORS WILL BE AFFECTED TO A MUCH GREATER EXTENT THAN CONDUCTIVITY SENSORS.)
- 4 -- AVERAGED
- 9 -- TEMPERATURE, SALINITY, AND SIGMA-T NOT GIVEN

## 0105 CLOUD AMT (WM02700)

-----

- 0 -- 0 (ZERO)
- 1 -- 1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
- 2 -- 2 OKTAS 2/10-3/10
- 3 -- 3 OKTAS 4/10
- 4 -- 4 OKTAS 5/10
- 5 -- 5 OKTAS 6/10
- 6 -- 6 OKTAS 7/10-8/10
- 7 -- 7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
- 8 -- 8 OKTAS 10/10



N O D C F I L E T Y P E C O D E S

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9 -- SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED

0108 WEATHER (WMD4501)

- 0 -- CLEAR (NO CLOUD AT ANY LEVEL)
- 1 -- PARTLY CLOUDY (SCATTERED OR BROKED)
- 2 -- CONTINUOUS LAYER(S) OF CLOUD(S)
- 3 -- SANDSTORM, DUSTSTORM, OR BLOWING SNOW
- 4 -- FOG, THICK DUST OR HAZE
- 5 -- DRIZZLE
- 6 -- RAIN
- 7 -- SNOW, OR RAIN AND SNOW MIXED
- 8 -- SHOWER(S)
- 9 -- THUNDERSTORM(S)

0109 SEA STATE (WM03700)

- 0 -- CALM-GLASSY 0 FT (0 METERS)
- 1 -- CALM-RIPPLED 0-1/3 FT (0-.1 METERS)
- 2 -- SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
- 3 -- SLIGHT 1 2/3 - 4 FT (.5-1.25 METERS)
- 4 -- MODERATE 4-8 FT (1.25-2.50 METERS)
- 5 -- ROUGH 8-13 FT (2.50-4.0 METERS)
- 6 -- VERY ROUGH 13-20 FT (4-6 METERS)
- 7 -- HIGH 20-30 FT (6-9 METERS)
- 8 -- VERY HIGH 30-45 FT (9-14 METERS)
- 9 -- PHENOMENAL >45 FT (>14 METERS)

0110 WIND-WAVE DIRECTION

- 00 -- CALM (NO WAVES-NO MOTION)
- 01 -- 5 DEGREES - 14 DEGREES
- 02 -- 15 DEGREES - 24 DEGREES
- 03 -- 25 DEGREES - 34 DEGREES
- 04 -- 35 DEGREES - 44 DEGREES
- 05 -- 45 DEGREES - 54 DEGREES
- 06 -- 55 DEGREES - 64 DEGREES
- 07 -- 65 DEGREES - 74 DEGREES
- 08 -- 75 DEGREES - 84 DEGREES
- 09 -- 85 DEGREES - 94 DEGREES
- 10 -- 95 DEGREES - 104 DEGREES
- 11 -- 105 DEGREES - 114 DEGREES
- 12 -- 115 DEGREES - 124 DEGREES
- 13 -- 125 DEGREES - 134 DEGREES
- 14 -- 135 DEGREES - 144 DEGREES
- 15 -- 145 DEGREES - 154 DEGREES
- 16 -- 155 DEGREES - 164 DEGREES
- 17 -- 165 DEGREES - 174 DEGREES



N O D C F I L E T Y P E C O D E S

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18 -- 175 DEGREES - 184 DEGREES  
 19 -- 185 DEGREES - 194 DEGREES  
 20 -- 195 DEGREES - 204 DEGREES  
 21 -- 205 DEGREES - 214 DEGREES  
 22 -- 215 DEGREES - 224 DEGREES  
 23 -- 225 DEGREES - 234 DEGREES  
 24 -- 235 DEGREES - 244 DEGREES  
 25 -- 245 DEGREES - 254 DEGREES  
 26 -- 255 DEGREES - 264 DEGREES  
 27 -- 265 DEGREES - 274 DEGREES  
 28 -- 275 DEGREES - 284 DEGREES  
 29 -- 285 DEGREES - 294 DEGREES  
 30 -- 295 DEGREES - 304 DEGREES  
 31 -- 305 DEGREES - 314 DEGREES  
 32 -- 315 DEGREES - 324 DEGREES  
 33 -- 325 DEGREES - 334 DEGREES  
 34 -- 335 DEGREES - 344 DEGREES  
 35 -- 345 DEGREES - 354 DEGREES  
 36 -- 355 DEGREES - 4 DEGREES  
 49 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES EQUAL TO OR LESS THAN 4 3/4 METERS)  
 99 -- WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,OR  
 ALL DIRECTIONS OR UNKNOWN

0157 VISIBILITY (WMO4300)

-----  
 0 -- LESS THAN 50 M (LESS THAN 55 YARDS)  
 1 -- 50-200 M (APPROX. 55-220 YARDS)  
 2 -- 200-500 M (APPROX. 220-550 YARDS)  
 3 -- 500-1000 M (APPROX. 550 YARDS-5/8 N.M.)  
 4 -- 1-2 KM (APPROX. 5/8-1 N.M.)  
 5 -- 2-4 KM (APPROX. 1-2 N.M.)  
 6 -- 4-10 KM (APPROX. 2-6 N.M.)  
 7 -- 10-20 KM (APPROX. 6-12 N.M.)  
 8 -- 20-50 KM (APPROX. 12-30 N.M.)  
 9 -- 50 KM OR MORE (30 N.M. OR MORE)

0216 SAMPLE INTERVAL

-----  
 0 -- UNEQUALLY SPACED DEPTHS  
 1 -- EQUALLY SPACED DEPTHS TO TENTHS OF METERS REPORTED.  
 2 -- UNEQUALLY SPACED PRESSURES  
 3 -- EQUALLY SPACED PRESSURES TO TENTHS OF DECIBARS REPORTED

0500 LAT HEMISPHERE

-----  
 N -- NORTH  
 S -- SOUTH



N O D C<sup>i</sup> F I L E T Y P E C O D E S

81/12/16

0501    LON HEMISPHERE  
-----  
      E -- EAST  
      W -- WEST



Password:

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
8200146	F015	TR8265	0110	31I7	317F	1979/08/26	BOCA DE	317453
8200146	F015	TR9950	0110	31I7	317F	1979/08/26	BOCA DE	317460
8200146	F022	TR8267	0110	31I7	31HX	1982/05/20	HX 26	317456
8200146	C022	319302	9999	31I7	31HX	1982/05/20	TR8267	317457
8200146	F022	TR8268	9999	31I7	31HX	1982/04/27	HX 25	317458
8200146	C022	319301	9999	31I7	31HX	1982/04/27	TR8268	317459
8200146	F022	TR8266	9999	31I7	32YQ	1982/04/05	RT 25	317454
8200146	C022	329303	9999	31I7	32YQ	1982/04/05	TR8266	317455

(8 rows affected)



Password:

accNo	fleA	refNo	ship	staCnt	recCnt	startDate	endDate
8200146	F015	TR8265	317F	1	7941	79/08/26	80/02/01
8200146	F015	TR9950	317F	1	8832	79/08/26	80/02/01
8200146	F022	TR8267	31HX	15	340	82/05/20	82/06/07
8200146	C022	319302	31HX	15	15	82/05/20	82/06/07
8200146	F022	TR8268	31HX	82	960	82/04/27	82/05/15
8200146	C022	319301	31HX	82	57	82/04/27	82/05/15
8200146	F022	TR8266	32YQ	46	1136	82/04/05	82/04/13
8200146	C022	329303	32YQ	46	30	82/04/05	82/04/13

(8 rows affected)