

ACCESS NUMBER	REF NUMBER	FILE TYPE	PROJ CODE	INST	PLAT	CRUISE NO	CRUISE START	CRUISE END	NUM STA	NUM REC
9100141	BS0510	F291		313B	317F	32302	06/01/91	06/30/91	1	7,164
9100141	BS0511	F291		313B	317F	41001	06/01/91	06/30/91	1	7,894
9100141	BS0512	F291		313B	317F	41002	06/01/91	06/30/91	1	8,616
9100141	BS0513	F291		313B	317F	41008	06/01/91	06/30/91	1	43,743
9100141	BS0514	F291		313B	317F	41009	06/25/91	06/30/91	1	2,480
9100141	BS0515	F291		313B	317F	41010	06/01/91	06/21/91	1	9,530
9100141	BS0516	F291		313B	317F	42001	06/01/91	06/17/91	1	3,775
9100141	BS0517	F291		313B	317F	42002	06/01/91	06/30/91	1	5,644
9100141	BS0518	F291		313B	317F	42003	06/01/91	06/30/91	1	7,881
9100141	BS0519	F291		313B	317F	42007	06/01/91	06/30/91	1	2,049
9100141	BS0520	F291		313B	317F	42019	06/01/91	06/12/91	1	2,488
9100141	BS0521	F291		313B	317F	42020	06/01/91	06/30/91	1	5,610
9100141	BS0522	F291		313B	317F	44004	06/11/91	06/30/91	1	5,104
9100141	BS0523	F291		313B	317F	44005	06/01/91	06/30/91	1	7,899
9100141	BS0524	F291		313B	317F	44007	06/01/91	06/30/91	1	7,146
9100141	BS0525	F291		313B	317F	44008	06/01/91	06/30/91	1	7,892
9100141	BS0526	F291		313B	317F	44009	06/01/91	06/30/91	1	7,164
9100141	BS0527	F291		313B	317F	44011	06/01/91	06/28/91	1	7,207
9100141	BS0528	F291		313B	317F	44012	06/01/91	06/30/91	1	7,142
9100141	BS0529	F291		313B	317F	44013	06/01/91	06/30/91	1	7,154
9100141	BS0530	F291		313B	317F	44014	06/01/91	06/30/91	1	33,121
9100141	BS0531	F291		313B	317F	44025	06/01/91	06/30/91	1	42,460
9100141	BS0532	F291		313B	317F	45001	06/01/91	06/30/91	1	1,430
9100141	BS0533	F291		313B	317F	45002	06/01/91	06/30/91	1	8,628
9100141	BS0534	F291		313B	317F	45003	06/01/91	06/30/91	1	1,438
9100141	BS0535	F291		313B	317F	45004	06/01/91	06/30/91	1	8,606
9100141	BS0536	F291		313B	317F	45005	06/01/91	06/30/91	1	43,269
9100141	BS0537	F291		313B	317F	45006	06/01/91	06/30/91	1	8,586
9100141	BS0538	F291		313B	317F	45007	06/01/91	06/30/91	1	43,208
9100141	BS0539	F291		313B	317F	45008	06/01/91	06/30/91	1	8,606
9100141	BS0540	F291		313B	317F	46001	06/01/91	06/30/91	1	7,900
9100141	BS0541	F291		313B	317F	46002	06/01/91	06/30/91	1	7,884
9100141	BS0542	F291		313B	317F	46003	06/01/91	06/30/91	1	7,892
9100141	BS0543	F291		313B	317F	46005	06/01/91	06/30/91	1	7,894
9100141	BS0544	F291		313B	317F	46011	06/01/91	06/30/91	1	8,580
9100141	BS0545	F291		313B	317F	46013	06/01/91	06/30/91	1	8,620
9100141	BS0546	F291		313B	317F	46014	06/01/91	06/30/91	1	8,640
9100141	BS0547	F291		313B	317F	46022	06/01/91	06/30/91	1	7,166
9100141	BS0548	F291		313B	317F	46023	06/01/91	06/30/91	1	8,598
9100141	BS0549	F291		313B	317F	46025	06/01/91	06/30/91	1	43,802
9100141	BS0550	F291		313B	317F	46026	06/01/91	06/30/91	1	7,152
9100141	BS0551	F291		313B	317F	46027	06/01/91	06/30/91	1	7,184
9100141	BS0552	F291		313B	317F	46028	06/01/91	06/30/91	1	8,578
9100141	BS0553	F291		313B	317F	46030	06/01/91	06/30/91	1	7,060
9100141	BS0554	F291		313B	317F	46040	06/01/91	06/30/91	1	7,148
9100141	BS0555	F291		313B	317F	46041	06/01/91	06/30/91	1	7,166
9100141	BS0556	F291		313B	317F	46042	06/01/91	06/30/91	1	43,623
9100141	BS0557	F291		313B	317F	46045	06/01/91	06/30/91	1	43,564
9100141	BS0558	F291		313B	317F	51001	06/01/91	06/30/91	1	8,620
9100141	BS0559	F291		313B	317F	51002	06/01/91	06/30/91	1	8,388

9100141	BS0560	F291	313B	317F	51003	06/01/91	06/30/91	1	8,544
9100141	BS0561	F291	313B	317F	ALSN6	06/01/91	06/30/91	1	5,818
9100141	BS0562	F291	313B	317F	BURL1	06/01/91	06/30/91	1	2,160
9100141	BS0563	F291	313B	317F	BUZM3	06/01/91	06/30/91	1	1,434
9100141	BS0564	F291	313B	317F	CARO3	06/01/91	06/30/91	1	1,438
9100141	BS0565	F291	313B	317F	CHLV2	06/01/91	06/30/91	1	7,767
9100141	BS0566	F291	313B	317F	CLKN7	06/01/91	06/30/91	1	2,078
9100141	BS0567	F291	313B	317F	CSBF1	06/01/91	06/30/91	1	2,050
9100141	BS0568	F291	313B	317F	DBLN6	06/01/91	06/30/91	1	1,436
9100141	BS0569	F291	313B	317F	DESW1	06/01/91	06/30/91	1	1,440
9100141	BS0570	F291	313B	317F	DISW3	06/01/91	06/30/91	1	1,434
9100141	BS0571	F291	313B	317F	DPIA1	06/01/91	06/30/91	1	1,438
9100141	BS0572	F291	313B	317F	DSL7	06/01/91	06/30/91	1	7,567
9100141	BS0573	F291	313B	317F	FBIS1	06/01/91	06/30/91	1	1,438
9100141	BS0574	F291	313B	317F	FFIA2	06/01/91	06/30/91	1	1,440
9100141	BS0575	F291	313B	317F	FPSN7	06/01/91	06/30/91	1	2,156
9100141	BS0576	F291	313B	317F	FWYF1	06/15/91	06/24/91	1	430
9100141	BS0577	F291	313B	317F	GBCL1	06/01/91	06/30/91	1	7,639
9100141	BS0578	F291	313B	317F	GDIL1	06/01/91	06/30/91	1	2,158
9100141	BS0579	F291	313B	317F	GLLN6	06/01/91	06/30/91	1	1,436
9100141	BS0580	F291	313B	317F	IOSN3	06/01/91	06/30/91	1	1,436
9100141	BS0581	F291	313B	317F	LKWF1	06/01/91	06/30/91	1	2,145
9100141	BS0582	F291	313B	317F	LNEL1	06/05/91	06/30/91	1	1,156
9100141	BS0583	F291	313B	317F	MDRM1	06/01/91	06/30/91	1	1,438
9100141	BS0584	F291	313B	317F	MISM1	06/01/91	06/30/91	1	1,352
9100141	BS0585	F291	313B	317F	MLRF1	06/01/91	06/30/91	1	1,432
9100141	BS0586	F291	313B	317F	MPCL1	06/01/91	06/30/91	1	2,139
9100141	BS0587	F291	313B	317F	NWPO3	06/01/91	06/30/91	1	1,440
9100141	BS0588	F291	313B	317F	PILM4	06/01/91	06/30/91	1	1,438
9100141	BS0589	F291	313B	317F	PTAC1	06/01/91	06/30/91	1	1,438
9100141	BS0590	F291	313B	317F	PTAT2	06/01/91	06/19/91	1	1,342
9100141	BS0591	F291	313B	317F	PTGC1	06/01/91	06/30/91	1	1,440
9100141	BS0592	F291	313B	317F	ROAM4	06/01/91	06/30/91	1	1,440
9100141	BS0593	F291	313B	317F	SANF1	06/01/91	06/30/91	1	3,592
9100141	BS0594	F291	313B	317F	SBIO1	06/01/91	06/30/91	1	1,436
9100141	BS0595	F291	313B	317F	SGNW3	06/01/91	06/30/91	1	1,436
9100141	BS0596	F291	313B	317F	SISW1	06/01/91	06/30/91	1	1,438
9100141	BS0597	F291	313B	317F	SMKF1	06/01/91	06/09/91	1	400
9100141	BS0598	F291	313B	317F	SPGF1	06/01/91	06/30/91	1	2,146
9100141	BS0599	F291	313B	317F	SRST2	06/01/91	06/30/91	1	2,154
9100141	BS0600	F291	313B	317F	STDM4	06/01/91	06/30/91	1	1,438
9100141	BS0601	F291	313B	317F	TPLM2	06/01/91	06/30/91	1	2,142
9100141	BS0602	F291	313B	317F	TTIW1	06/01/91	06/30/91	1	1,440
9100141	BS0603	F291	313B	317F	VENF1	06/01/91	06/17/91	1	1,187
9100141	BS0604	F291	313B	317F	WPOW1	06/01/91	06/30/91	1	1,440
9100141	BS0605	F291	313B	317F	91222	06/01/91	06/30/91	1	1,424
9100141	BS0606	F291	313B	317F	91251	06/01/91	06/30/91	1	1,426
9100141	BS0607	F291	313B	317F	91377	06/01/91	06/30/91	1	1,422
9100141	BS0608	F291	313B	317F	91365	06/01/91	06/30/91	1	1,457

99  
735,285

FILETYPE

TRACK NO.

EDW 1991

9100141

BS510-608

DATE

INIT.

TAPE OR  
DISK DSN

NO. FILES RECD BLK SIZE RECD

	DATE	INIT.	TAPE OR DISK DSN	NO. FILES	RECD	BLK SIZE	RECD
TAPE	08/08/91	CMIT	AΦ1474	1	120	4080	935,28
CARTR.	9-24-92	FJM	B14049 *	1	120	4800	↓
TAPE							
DISK							
BLK							
RECD							
SIZE							
RECD							

~~REPORTED TO PRINCIPAL INVESTIGATOR:~~

Tape AΦ1474 29 TRK, NL, 6250 bpi, Ascii.  
\* = CARTRIDGE

ERRORS/CORRECTIONS (NOT REPORTED TO P.I.)

(TRACKS DELETED, FIELDS DELETED, ETC.)

606-4636

User Name	Phone #	Org/Task	Submit Date	Due Date
Cliff Hadley	673-5436	EG12008A3AH9	08/07/91	ASAP

PART A

Request/Problem Category

- General Info
- Software
- OLRD Specify:
- Communications
- Tape Library
- Equipment
- Computer Operations
- Supplies

Request/Problem Description

Please scan tape A01474

PART B

(For Operator Job Requests)

Operator Job Request Type

- Run ERBUOY procedure Name: \_\_\_\_\_  See attached list
- Run SELBUOY procedure Name: \_\_\_\_\_  See attached list
- Run BUOYSUM procedure Name: \_\_\_\_\_  See attached list
- Run OTHER procedure - see SPECIAL INSTRUCTIONS
- Tape Scan
- Tape to Tape Copy - Scan OUTPUT tape?  yes  no
- Disk to Tape Copy - Scan OUTPUT tape?  yes  no
- Tape to Disk Copy
- Print  80 column  132 column  HEX  OCTAL  Character
- All files/records?  yes  no, see-SPECIAL INSTRUCTIONS
- Restore VAX file Name: \_\_\_\_\_
- OTHER - see SPECIAL INSTRUCTIONS

Special Operator Instructions:

Please return tape A01474 to Bin 09

JOB INPUT

Id#/Filename: A01474

Medium:  Tape  Disk  Other Specify: \_\_\_\_\_

Code:  ASCII  EBCDIC  Binary  Other Specify: \_\_\_\_\_

Tape Specs:  800  1600  6250  NL  SL

MAX Record Length: \_\_\_\_\_ MAX Blocksize: \_\_\_\_\_

JOB OUTPUT

Id#/Filename: \_\_\_\_\_

Medium:  Tape  Disk  Disquette  Other Specify: \_\_\_\_\_

Code:  ASCII  EBCDIC  Binary  Other Specify: \_\_\_\_\_

Tape Specs:  800  1600  6250  NL  SL

MAX Record Length: \_\_\_\_\_ MAX Blocksize: \_\_\_\_\_

(OC3 Use Only)

JOB Number: 91080801 Q8

Completed By: [Signature]

Date/Time Start: 8-8-91/10:05

Date/Time Completed: 8-8-91/10:15



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Data Buoy Center  
Stennis Space Center, Mississippi 39529-6000

July 29, 1991

F1804-02  
DB3:91-0394  
SPN: idm

Mr. Anthony Picciolo  
Chief, Data Acquisition and Management Branch  
NODC/NESDIS/NOAA  
Universal South Room 416  
1825 Connecticut Ave., N.W.  
Washington, DC 20235

Dear Mr. Picciolo:

Enclosed are the June 1991, Nine Track, 6250 BPI, archive tapes, recorded in the archive File Type 291 tape format. The enclosure contains a list of stations and the inclusive dates that are on the tape.

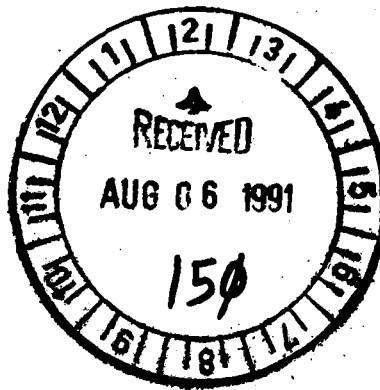
If you have any questions, please call B.G. Redmon at FTS 494-2834, or Commercial (601) 688-2834.

Sincerely,

*S. P. Nolan*

S. P. Nolan  
ADP Manager

# 9100141  
ADP 1474



32302 06/01/91/00 06/30/91/23  
41001 06/01/91/00 06/30/91/23  
41002 06/01/91/00 06/30/91/23  
41008 06/01/91/00 06/30/91/23  
41009 06/25/91/20 06/30/91/23  
41010 06/01/91/00 06/21/91/02  
42001 06/01/91/00 06/17/91/13  
42002 06/01/91/00 06/30/91/23  
42003 06/01/91/00 06/30/91/23  
42007 06/01/91/00 06/30/91/23  
42019 06/01/91/00 06/12/91/03  
42020 06/01/91/00 06/30/91/23  
44004 06/11/91/16 06/30/91/23  
44005 06/01/91/00 06/30/91/23  
44007 06/01/91/00 06/30/91/23  
44008 06/01/91/00 06/30/91/23  
44009 06/01/91/00 06/30/91/23  
44011 06/01/91/00 06/28/91/09  
44012 06/01/91/00 06/30/91/23  
44013 06/01/91/00 06/30/91/23  
44014 06/01/91/00 06/30/91/23  
44025 06/01/91/00 06/30/91/23  
45001 06/01/91/00 06/30/91/23  
45002 06/01/91/00 06/30/91/23  
45003 06/01/91/00 06/30/91/23  
45004 06/01/91/00 06/30/91/23  
45005 06/01/91/00 06/30/91/23  
45006 06/01/91/00 06/30/91/23  
45007 06/01/91/00 06/30/91/23  
45008 06/01/91/00 06/30/91/23  
46001 06/01/91/00 06/30/91/23  
46002 06/01/91/00 06/30/91/23  
46003 06/01/91/00 06/30/91/23  
46005 06/01/91/00 06/30/91/23  
46011 06/01/91/00 06/30/91/23  
46013 06/01/91/00 06/30/91/23  
46014 06/01/91/00 06/30/91/23  
46022 06/01/91/00 06/30/91/23  
46023 06/01/91/00 06/30/91/23  
46025 06/01/91/00 06/30/91/23  
46026 06/01/91/00 06/30/91/23  
46027 06/01/91/00 06/30/91/23  
46028 06/01/91/00 06/30/91/23  
46030 06/01/91/00 06/30/91/23  
46040 06/01/91/00 06/30/91/23  
46041 06/01/91/00 06/30/91/23  
46042 06/01/91/00 06/30/91/23  
46045 06/01/91/00 06/30/91/23  
51001 06/01/91/00 06/30/91/23  
51002 06/01/91/00 06/30/91/23  
51003 06/01/91/00 06/30/91/23  
ALSN6 06/01/91/00 06/30/91/23  
BURL1 06/01/91/00 06/30/91/23  
BUZM3 06/01/91/00 06/30/91/23  
CARO3 06/01/91/00 06/30/91/23  
CHLV2 06/01/91/00 06/30/91/23  
CLKN7 06/01/91/00 06/30/91/23  
CSBF1 06/01/91/00 06/30/91/23  
DBLN6 06/01/91/00 06/30/91/23  
DESW1 06/01/91/00 06/30/91/23  
DISW3 06/01/91/00 06/30/91/23  
DPIA1 06/01/91/00 06/30/91/23

DSL.N7	06/01/91/00	06/30/91/23
FBIS1	06/01/91/00	06/30/91/23
FFIA2	06/01/91/00	06/30/91/23
FPSN7	06/01/91/00	06/30/91/23
FWYF1	06/15/91/00	06/24/91/18
GBCL1	06/01/91/00	06/30/91/23
GDIL1	06/01/91/00	06/30/91/23
GLLN6	06/01/91/00	06/30/91/23
IOSN3	06/01/91/00	06/30/91/23
LKWF1	06/01/91/00	06/30/91/23
LNEL1	06/05/91/21	06/30/91/23
MDRM1	06/01/91/00	06/30/91/23
MISM1	06/01/91/00	06/30/91/23
MLRF1	06/01/91/00	06/30/91/23
MPCL1	06/01/91/00	06/30/91/23
NWPO3	06/01/91/00	06/30/91/23
PILM4	06/01/91/00	06/30/91/23
PTAC1	06/01/91/00	06/30/91/23
PTAT2	06/01/91/00	06/19/91/17
PTGC1	06/01/91/00	06/30/91/23
ROAM4	06/01/91/00	06/30/91/23
SANF1	06/01/91/00	06/30/91/23
SBIO1	06/01/91/00	06/30/91/23
SGNW3	06/01/91/00	06/30/91/23
SISW1	06/01/91/00	06/30/91/23
SMKF1	06/01/91/00	06/09/91/08
SPGF1	06/01/91/00	06/30/91/23
SRST2	06/01/91/00	06/30/91/23
STDMA	06/01/91/00	06/30/91/23
TPLM2	06/01/91/00	06/30/91/23
TTIW1	06/01/91/00	06/30/91/23
VENF1	06/01/91/00	06/17/91/13
WPCW1	06/01/91/00	06/30/91/23
91222	06/01/91/00	06/30/91/23
91251	06/01/91/00	06/30/91/23
91365	06/01/91/00	06/30/91/23
91377	06/01/91/00	06/30/91/23

### C. DATA FORMAT

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

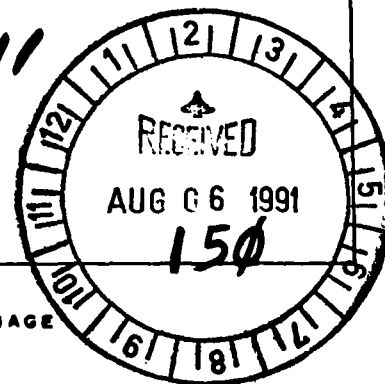
**1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE  
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE**

See attached - Meteorology Oceanography & Wave Spectra (File Type 291) description.

**2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION**

Each record is 120 characters in length, sorted by station and record type. Record type is omitted where data defined in that type are not measured.

9100141



**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 \_\_\_\_\_  
ADDRESS \_\_\_\_\_

**COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE**

<p><b>5. RECORDING MODE</b></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> BCD</td> <td><input type="checkbox"/> BINARY</td> </tr> <tr> <td><input checked="" type="checkbox"/> ASCII</td> <td><input type="checkbox"/> EBCDIC</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> _____</td> </tr> </table>	<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY	<input checked="" type="checkbox"/> ASCII	<input type="checkbox"/> EBCDIC	<input type="checkbox"/> _____		<p><b>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</b> <input type="checkbox"/> 3/4 INCH <input type="checkbox"/> _____</p>		
<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY								
<input checked="" type="checkbox"/> ASCII	<input type="checkbox"/> EBCDIC								
<input type="checkbox"/> _____									
<p><b>6. NUMBER OF TRACKS (CHANNELS)</b></p> <table style="width: 100%; border: none;"> <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>	<input type="checkbox"/> SEVEN	<input checked="" type="checkbox"/> NINE	<input type="checkbox"/> _____	<p><b>10. END OF FILE MARK</b></p> <table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> OCTAL 17</td> </tr> <tr> <td><input type="checkbox"/> _____</td> </tr> </table>	<input checked="" type="checkbox"/> OCTAL 17	<input type="checkbox"/> _____			
<input type="checkbox"/> SEVEN									
<input checked="" type="checkbox"/> NINE									
<input type="checkbox"/> _____									
<input checked="" type="checkbox"/> OCTAL 17									
<input type="checkbox"/> _____									
<p><b>7. PARITY</b></p> <table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> ODD</td> </tr> <tr> <td><input type="checkbox"/> EVEN</td> </tr> </table>	<input checked="" type="checkbox"/> ODD	<input type="checkbox"/> EVEN	<p><b>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</b></p>						
<input checked="" type="checkbox"/> ODD									
<input type="checkbox"/> EVEN									
<p><b>8. DENSITY</b></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> 200 BPI</td> <td><input 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><input checked="" type="checkbox"/> 6250 BPI</td> <td></td> </tr> </table>	<input type="checkbox"/> 200 BPI	<input type="checkbox"/> 1600 BPI	<input type="checkbox"/> 556 BPI		<input type="checkbox"/> 800 BPI		<input checked="" type="checkbox"/> 6250 BPI		<p><b>12. PHYSICAL BLOCK LENGTH IN BYTES</b> 4080</p>
<input type="checkbox"/> 200 BPI	<input type="checkbox"/> 1600 BPI								
<input type="checkbox"/> 556 BPI									
<input type="checkbox"/> 800 BPI									
<input checked="" type="checkbox"/> 6250 BPI									
	<p><b>13. LENGTH OF BYTES IN BITS</b> 8</p>								



## FILE TYPE 291 - METEOROLOGY OCEANOGRAPHY AND WAVE SPECTRA

THIS FORMAT IS USED TO REPORT METEOROLOGICAL, OCEANOGRAPHIC, AND WAVE SPECTRA DATA FROM NDBC MOORED BUOYS AND FIXED LAND STATIONS. THE FORMAT CONTAINS TEN DATA RECORD TYPES TO:

- 1) IDENTIFY THE BUOY POSITION AND OTHER DESCRIPTIVE INFORMATION;
- 2) REPORT THE METEOROLOGICAL MEASUREMENTS;
- 3) REPORT WAVE ENERGY SPECTRA AND WAVE DIRECTION;
- 4) REPORT SUBSURFACE PHYSICAL, BIOLOGICAL AND CHEMICAL OCEANOGRAPHIC MEASUREMENTS; AND
- 5) REPORT DETAILED INFORMATION ON CONTINUOUSLY MEASURED WIND SPEED AND DIRECTION.

EACH RECORD IS 120 CHARACTERS IN LENGTH, SORTED BY STATION AND RECORD TYPE. RECORD TYPE IS OMITTED WHERE DATA DEFINED IN THAT TYPE ARE NOT MEASURED.

### \*\*\*\*\*NOTE\*\*\*\*\*

THIS FORMAT REPLACES FILE TYPE 191 WHICH IN TURN REPLACED 091.

03/30/81 - ADDED WIND SPEED AND DIRECTION TO RECORD TYPE '2'  
12/28/81 - ADDED RECORD TYPES '6' AND '7'  
11/04/85 - ADDED RECORD TYPE '8'  
01/01/88 - ADDED RECORD TYPE '9'  
01/30/91 - DESIGNED F291 TO:

- 1) RELABEL RECORD TYPES - RECORD TYPES 1 THROUGH 5 BECOMING A THROUGH E; ADD NEW RECORD TYPE F; AND RELABEL 6 THROUGH 9 AS G THROUGH J;
- 2) ADD A PRESENCE OF A RECORD INDICATOR IN RECORD TYPE 'A';
- 3) REDEFINE RECORD TYPE B BY DELETING "HIGHEST CREST" AND "DEEPEST THROUGH" AND INSERTING "WATER LEVEL";
- 4) IDENTIFY RECORD TYPE C AS "NON-DIRECTIONAL WAVE SPECTRA DATA RECORD";
- 5) DELETE DEFINITION OF COLUMNS 27 THROUGH 33 IN RECORD C AND REPLACE WITH 7 BLANKS;
- 6) ADD A DURATION OF SAMPLING FIELD AT THE END OF RECORD D;
- 7) DEFINE RECORD TYPE E TO PROVIDE ONLY SUBSURFACE CURRENT INFORMATION; AND
- 8) DEFINE NEW RECORD TYPE F TO PROVIDE SUBSURFACE PHOTOSYNTHETIC ACTIVE RADIATION.

## RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>DESCRIPTIVE HEADER RECORD (RECORD A)</b>					
FILE TYPE	1	3			"291" (constant)
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'A'
STATION	11	6			Six-character unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
LATITUDE	27	7			DDMMSS plus hemisphere 'N' or 'S'
LONGITUDE	34	8			DDMMSS plus hemisphere 'E' or 'W'
BOTTOM DEPTH	42	5			XXXXX - Meters to tenths
MAGNETIC VARIATION	47	4			XXXX - Whole degrees from true North (signed value)
BUOY HEADING	51	3			XXX - Whole degrees from true North
SAMPLING RATE (WAVES)	54	4			XXXX - Original measurements per minute to tenths
SAMPLING DURATION (WAVES)	58	4			XXXX - Minutes to hundredths
TOTAL INTERVALS (WAVES)	62	3			XXX - Number of frequency intervals
CHIEF SCIENTIST	65	20			20-Character field for scientist name
INSTITUTION	85	20			20-Character field for data source
WIND SAMPLING DURATION	105	3			XXX - Minutes to tenths
PRESENCE OF RECORD 'B'	108	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'C'	109	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'D'	110	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'E'	111	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'F'	112	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'G'	113	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'H'	114	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'I'	115	1			X - Y=YES; N=NO
PRESENCE OF RECORD 'J'	16	1			X - Y=YES; N=NO
BLANKS	117	4			

**RECORD FORMAT DESCRIPTION**

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>ENVIRONMENTAL DATA RECORD (RECORD B)</b>					
FILE TYPE	1	3			"291" (constant)
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'B'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
ANEMOMETER HEIGHT	27	3			XXX - Height above water level or ground (meters to Tenths)
AIR TEMPERATURE	30	4			XXXX - Negative temperatures are preceded by a minus sign adjacent to temperature value Deg C to tenths
DEW POINT	34	4			XXXX - Degrees C to tenths
BAROMETER	38	5			XXXXX - Reduced to sea level (MB to tenths)
WIND SPEED (AVG)	43	4			XXXX - m/sec to hundredths
WIND DIRECTION (AVG)	47	4			XXXX - Degrees from true North to tenths
WEATHER	51	1			One-character weather code
VISIBILITY	52	3			XXX - Nautical miles to tenths-
PRECIPITATION	55	4			XXXX - Accumulation in millimeters
SOLAR RADIATION (ATMOSPHERIC)	59	3			XXX - Langleys/min to hundredths, wave length less than 3.6 microns
SOLAR RADIATION (ATMOSPHERIC)	62	3			XXX - Langleys/min to hundredths, wave length from 4.0 to 50 microns
SIGNIFICANT WAVE HEIGHT*	65	3			XXX - Corrected for low frequency noise, etc. (meters to tenths)
AVERAGE WAVE PERIOD*	68	3			XXX -Seconds to tenths
MEAN WAVE DIRECTION	71	3			XXX - Mean direction of dominant waves in whole degrees from true North
WATER LEVEL	74	4			XXXX - From MLLW reference level, minus sign indicates below MLLW (meters to tenths)
BLANKS	78	2			
TEMPERATURE (SEA SURFACE)	80	4			XXXX - Sea surface negative temperatures are preceded by a minus sign adjacent to temperature value - Deg C to hundredths
PRACTICAL SALINITY (SEA SURFACE)	84	5			XXXXX - To thousandths

### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>ENVIRONMENTAL DATA RECORD (RECORD B) (Continued)</b>					
CONDUCTIVITY (SEA SURFACE)	89	5			XXXXX - Millisiemens/cm to thousandths
DOMINANT WAVE PERIOD*	94	3			XXX - Seconds to tenths
MAXIMUM WAVE HEIGHT	97	3			XXX - Meters to tenths
MAXIMUM WAVE STEEPNESS	100	3			XXX
WIND GUST	103	4			XXXX - Meters/sec to hundredths
WIND GUST AVERAGING PERIOD	107	2			XX - Seconds
WIND GUST	109	4			XXXX - Meters/sec to hundredths
WIND GUST AVERAGING PERIOD	113	2			XX - Seconds
WIND SPEED (58 MIN AVG)	115	3			XXX - Meters/sec to tenths
WIND DIRECTION (58 MIN AVG)	118	3			XXX - Whole degrees
* Significant wave height, average wave period, and dominant wave period are set to zero when significant wave height is less than 0.15 meters.					
<b>NONDIRECTIONAL WAVE SPECTRA DATA RECORD (RECORD C)</b>					
FILE TYPE	1	3			"291" (constant)
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'C'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
BLANKS COUNT	27	7			
	34	1			X - Number of frequencies on this record
DATA					Up to 5 frequency, resolution, and density fields. Null fields are zero or blank
FREQUENCY	35	4			XXXX - Center frequency of interval in Hertz to thousandths
RESOLUTION	39	4			XXXX - Interval width in Hertz to ten-thousandths
DENSITY	43	6			XXXXXX - Spectral Density of interval in m <sup>2</sup> /Hz to thousandths
FREQUENCY RESOLUTION	49	4			XXXX - See above
	53	4			XXXX - See above

**RECORD FORMAT DESCRIPTION**

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>NONDIRECTIONAL WAVE SPECTRA DATA RECORD (RECORD C)</b>					<b>(Continued)</b>
DENSITY	57	6			XXXXXX - See above
FREQUENCY	63	4			XXXX - See above
RESOLUTION	67	4			XXXX - See above
DENSITY	71	6			XXXXXX - See above
FREQUENCY	77	4			XXXX - See above
RESOLUTION	81	4			XXXX - See above
DENSITY	85	6			XXXXXX - See above
FREQUENCY	91	4			XXXX - See above
RESOLUTION	95	4			XXXX - See above
DENSITY	99	6			XXXXXX - See above
BLANKS	105	16			
<b>SUBSURFACE TEMPERATURE/SALINITY DATA RECORD (RECORD D)</b>					
FILE TYPE	1	3			"291" (constant)
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'D'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
DEPTH	27	5			XXXXX - Meters from the surface to tenths
TEMPERATURE	32	4			XXXX - Negative temperatures are preceded by a minus sign adjacent to temperature value Deg C to hundredths
PRACTICAL SALINITY	36	5			XXXXX - Parts per thousands reported to thousands
CONDUCTIVITY	41	4			XXXX - Millisiemens/cm to hundredths
DEPTH	45,63, 81,99	5			Repeated in descending order
TEMPERATURE	50,68, 86,104	4			Repeated in descending order
PRACTICAL SALINITY	54,72, 90,108	5			Repeated in descending order
CONDUCTIVITY	59,77, 95,113	4			Repeated in descending order
BLANK	117	1			
DURATION OF SAMPLING PERIOD	118	3			XXX - Minutes to tenths
<b>SUBSURFACE CURRENT DATA RECORD (RECORD E)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'E'

**RECORD FORMAT DESCRIPTION**

RECORD NAME Meteorology Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>SUBSURFACE CURRENT DATA RECORD (RECORD E) (Continued)</b>					
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
DEPTH	27	4			XXXX - From the surface in meters
PRESSURE	31	5			XXXXX - Hydrostatic pressure (kg/cm <sup>2</sup> ) to hundredths
U COMPONENT	36	5			XXXXX - East component from true North (cm/sec) to tenths. Minus sign indicates westward component
V COMPONENT	41	5			XXXXX - True North component in cm/sec to tenths, minus sign indicates southward component
W COMPONENT	46	3			XXX - Vertical component in cm/sec to tenths. Minus sign indicates downward component
DEPTH	49,71,93	4			Repeated in descending order
PRESSURE	53,75,97	5			Repeated in descending order
U COMPONENT	58,80,102	5			Repeated in descending order
V COMPONENT	63,85,107	5			Repeated in descending order
W COMPONENT	68,90,112	3			Repeated in descending order
BIN WIDTH	115	2			XX - Width of each depth bin whole meters
SAMPLING INTERVAL	117	3			XXX - Minutes to tenths
BLANK	120	1			
<b>SUBSURFACE DATA PROFILE (RECORD F)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'F'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
DEPTH	27	4			XXXX - From the surface in meters. Negative value indicates height in meters <u>above</u> water surface

### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>SUBSURFACE DATA PROFILE (RECORD F) (Continued)</b>					
PHOTOSYNTHETIC ACTIVE RADIATION (PAR)	31	4			XXXX - Micromol/sec/m <sup>2</sup>
BLANKS	35	15			15 Blanks reserved for future parameters
DEPTH	50,73,96	4			Repeated in descending order
PAR	54,77,100	4			Repeated in descending order
BLANKS	58,81,104	15			Repeated in descending order
BLANKS	119	2			
<b>CO AND QUAD SPECTRA FOR DIRECTIONAL WAVES DATA RECORD (RECORD G)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'G'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
FREQUENCY	27	4			XXXX - Center frequency of interval in Hz to thousandths
RESOLUTION	31	5			XXXXX - Spectral resolution of this frequency band to Hz to ten-thousandths
CO-SPECTRA (C11)	36	6			XXXXXX - Uncorrected values of CO and QUAD spectra in m <sup>2</sup> /Hz. Decimal assumed to be left of first digit. Subscripts are: 1=Heave, 2=E-W slope, 3=N-S slope
EXPONENT*	42	2			XX - First space is the sign
CO-SPECTRA (C22)	44	6			XXXXXX - See above
EXPONENT*	50	2			XX
CO-SPECTRA (C33)	52	6			XXXXXX - See above
EXPONENT*	58	2			XX
CO-SPECTRA (C12)	60	6			XXXXXX - See above
EXPONENT*	66	2			XX
QUAD-SPECTRA (Q12)	68	6			XXXXXX - See above
EXPONENT*	74	2			XX
CO-SPECTRA (C13)	76	6			XXXXXX - See above
EXPONENT*	82	2			XX
QUAD-SPECTRA (Q13)	84	6			XXXXXX - See above
EXPONENT*	90	2			XX
CO-SPECTRA (C23)	92	6			XXXXXX - See above
EXPONENT*	98	2			XX

### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>CO AND QUAD SPECTRA FOR DIRECTIONAL WAVES DATA RECORD (RECORD G) (Continued)</b>					
QUAD-SPECTRA (Q23)	100	6			XXXXXX - See above
EXPONENT*	106	2			XX
SPECTRA (C22-C33)	108	6			XXXXXX - See above
EXPONENT*	114	2			XX
BLANKS	116	5			
* If this exponent is less than -9 the exponent and its associated spectra will be zero.					
<b>DIRECTIONAL WAVE FOURIER COEFFICIENT DATA RECORD (RECORD H)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'H'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
FREQUENCY	27	4			XXXX - Hz to thousandths
RESOLUTION	31	5			XXXXX - Hz to ten-thousandths
ANGULAR FOURIER COEFF (a <sub>0</sub> )	36	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	42	2			XX
ANGULAR FOURIER COEFF (a <sub>1</sub> )	44	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	50	2			XX
ANGULAR FOURIER COEFF (b <sub>1</sub> )	52	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	58	2			XX
ANGULAR FOURIER COEFF (a <sub>2</sub> )	60	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	66	2			XX
ANGULAR FOURIER COEFF (b <sub>2</sub> )	68	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	74	2			XX
ANGULAR FOURIER COEFF (a <sub>3</sub> )	76	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	82	2			XX
ANGULAR FOURIER COEFF (b <sub>3</sub> )	84	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	90	2			XX
ANGULAR FOURIER COEFF (a <sub>4</sub> )	92	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	98	2			XX
ANGULAR FOURIER COEFF (b <sub>4</sub> )	100	6			XXXXXX - m <sup>2</sup> /Hz
EXPONENT	106	2			XX



### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>DIRECTIONAL WAVE FOURIER COEFFICIENT DATA RECORD (RECORD H) (Continued)</b>					
MEAN WAVE DIRECTION	108	3			XXX - ARCTAN $b_1/a_1$ in whole degrees from true North
BLANKS	111	10			
<b>DIRECTIONAL WAVE PARAMETER DATA RECORD (RECORD I)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'I'
STATION	11	6			Six characters unique name of observation point
OBSERVED DATE	17	6			YYMMDD (UTC)
OBSERVED TIME	23	4			HHMM (UTC)
COUNT	27	1			X - Number of frequencies on this record (1 to 3)
FREQUENCY	28	4			XXXX - Center of frequency interval in Hz to the ten-thousandth
RESOLUTION	32	4			XXXX - Resolution of interval in Hz to the ten-thousandth
R1	36	4			XXXX - Nondimensional. Given to nearest hundredth.
R2	40	4			XXXX - Nondimensional. Given to nearest hundredth.
WAVE DIRECTION - ALPHA1	44	4			XXXX - Direction in degrees to the tenth.
WAVE DIRECTION - ALPHA2	48	4			XXXX - Direction in degrees to the tenth.
WAVE ESTIMATE C11	52	6			XXXXXX - Spectral value in $m^2/Hz$ to the thousandth
FREQUENCY	58	4			XXXX - Center of frequency interval in Hz to the ten-thousandth
RESOLUTION	62	4			XXXX - Resolution of interval in Hz to the ten-thousandth
R1	66	4			XXXX - Nondimensional. Given to nearest hundredth.
R2	70	4			XXXX - Nondimensional. Given to nearest hundredth.
WAVE DIRECTION - ALPHA1	74	4			XXXX - Direction in degrees to the tenth.
WAVE DIRECTION - ALPHA2	78	4			XXXX - Direction in degrees to the tenth.
WAVE C11 ESTIMATE	82	6			XXXXXX - Spectral value in $m^2/Hz$ to the thousandth
FREQUENCY	88	4			XXXX - Center of frequency interval in Hz to the ten-thousandth

### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>DIRECTIONAL WAVE PARAMETER DATA RECORDS (RECORD I) (Continued)</b>					
RESOLUTION	92	4			XXXX - Resolution of interval in Hz to the ten-thousandth
R1	96	4			XXXX - Nondimensional. Given to nearest hundredth.
R2	100	4			XXXX - Nondimensional. Given to nearest hundredth.
WAVE DIRECTION - ALPHA1	104	4			XXXX - Direction in degrees to the tenth.
WAVE DIRECTION - ALPHA2	108	4			XXXX - Direction in degrees to the tenth.
WAVE C11 ESTIMATE	112	6			XXXXXX - Spectral value in m <sup>2</sup> /Hz to the thousandth
BLANKS	118	3			
<p><b>NOTE: DIRECTIONAL WAVE SPECTRUM = C11(f)*D(f,A), f=frequency (Hz), A=Azimuth angle measured clockwise from North to the direction wave is from.</b>  <math>D(f,A)=(1/PI)*(0.5+R1*COS(A-ALPHA1)+R2*COS(2*(A-ALPHA2)))</math>, in which R1 and R2 are dimensionless and ALPHA1 and ALPHA2 are respectively mean and principal wave directions. In terms of Longuet-Higgins Fourier Coefficients  <math>R1=(SORT(a_1*a_1+b_1*b_1))/a_0</math>, <math>R2=(SORT(a_2*a_2+b_2*b_2))/a_0</math>, <math>ALPHA1=ARCTAN(b_1,a_1)</math>, <math>ALPHA2=0.5*ARCTAN(b_2,a_2)+0.</math> or 180., C11(f) is the nondirectional wave spectra data from RECORD C.</p>					
<b>CONTINUOUS WIND MEASUREMENT DATA RECORD (RECORD J)</b>					
FILE TYPE	1	3			Always "291"
FILE DATE	4	6			YYMMDD of file generation
RECORD TYPE	10	1			Always 'J'
STATION	11	6			Six characters unique name of observation point
REPORT DATE	17	6			YYMMDD (UTC)
REPORT TIME	23	4			HHMM (UTC)
SPEED AVERAGING METHOD	27	1			X - 1=VECTOR, 2=SCALER
STANDARD DEVIATION OF HOURLY SPEED	28	3			XXX - m/sec to tenths
STANDARD DEVIATION OF HOURLY DIRECTION	31	4			XXXX - Whole degrees
HOURLY PEAK WIND	35	3			XXX - m/sec to tenths (highest 5 sec wind)
DIRECTION OF HOURLY PEAK	38	3			XXX - Whole degrees
MINUTE OF HOURLY PEAK	41	2			XX - Minutes
END OF ACQUISITION TIME	43	4			XXXX - HHMM (UTC)
FIRST AVERAGE DIRECTION	47	3			XXX - Whole degrees

### RECORD FORMAT DESCRIPTION

RECORD NAME Meteorology Oceanography & Wave Spectra (File Type "291")

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>CONTINUOUS WIND MEASUREMENT</b>		<b>(RECORD J)</b>		<b>(Continued)</b>	
FIRST AVERAGE SPEED	50	3			XXX - m/sec to tenths
SECOND AVERAGE DIRECTION	53	3			XXX - Whole degrees
SECOND AVERAGE SPEED	56	3			XXX - m/sec to tenths
THIRD AVERAGE DIRECTION	59	3			XXX - Whole degrees
THIRD AVERAGE SPEED	62	3			XXX - m/sec to tenths
FOURTH AVERAGE DIRECTION	65	3			XXX - Whole degrees
FOURTH AVERAGE SPEED	68	3			XXX - m/sec to tenths
FIFTH AVERAGE DIRECTION	71	3			XXX - Whole degrees
FIFTH AVERAGE SPEED	74	3			XXX - m/sec to tenths
SIXTH AVERAGE DIRECTION	77	3			XXX - Whole degrees
SIXTH AVERAGE SPEED	80	3			XXX - m/sec to tenths
BLANKS	83	38			
<p>Ten minute average winds are measured for minutes 0-9, 10-19, 20-29, 30-39, 40-49, and 50-59. The first set is for the ten minute time period ending immediately before the end of acquisition time. The remaining sets go back in time. For example, if the end of acquisition time is 1025, then the first average is 1010 to 1019, the second, 1000 to 1009, etc. If the end of acquisition time is 1030, then the first period will be 1020 to 1029.</p>					

Password;

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
9100141	F291	BS0510	9999	313B	317F	1991/06/01	32302	201243
9100141	F291	BS0511	9999	313B	317F	1991/06/01	41001	201244
9100141	F291	BS0512	9999	313B	317F	1991/06/01	41002	201245
9100141	F291	BS0513	9999	313B	317F	1991/06/01	41008	201246
9100141	F291	BS0514	9999	313B	317F	1991/06/25	41009	201247
9100141	F291	BS0515	9999	313B	317F	1991/06/01	41010	201248
9100141	F291	BS0516	9999	313B	317F	1991/06/01	42001	201249
9100141	F291	BS0517	9999	313B	317F	1991/06/01	42002	201250
9100141	F291	BS0518	9999	313B	317F	1991/06/01	42003	201251
9100141	F291	BS0519	9999	313B	317F	1991/06/01	42007	201252
9100141	F291	BS0520	9999	313B	317F	1991/06/01	42019	201253
9100141	F291	BS0521	9999	313B	317F	1991/06/01	42020	201254
9100141	F291	BS0522	9999	313B	317F	1991/06/11	44004	201255
9100141	F291	BS0523	9999	313B	317F	1991/06/01	44005	201256
9100141	F291	BS0524	9999	313B	317F	1991/06/01	44007	201257
9100141	F291	BS0525	9999	313B	317F	1991/06/01	44008	201258
9100141	F291	BS0526	9999	313B	317F	1991/06/01	44009	201259
9100141	F291	BS0527	9999	313B	317F	1991/06/01	44011	201260
9100141	F291	BS0528	9999	313B	317F	1991/06/01	44012	201261
9100141	F291	BS0529	9999	313B	317F	1991/06/01	44013	201262
9100141	F291	BS0530	9999	313B	317F	1991/06/01	44014	201263
9100141	F291	BS0531	9999	313B	317F	1991/06/01	44025	201264
9100141	F291	BS0532	9999	313B	317F	1991/06/01	45001	201265
9100141	F291	BS0533	9999	313B	317F	1991/06/01	45002	201266
9100141	F291	BS0534	9999	313B	317F	1991/06/01	45003	201267
9100141	F291	BS0535	9999	313B	317F	1991/06/01	45004	201268
9100141	F291	BS0536	9999	313B	317F	1991/06/01	45005	201269
9100141	F291	BS0537	9999	313B	317F	1991/06/01	45006	201270
9100141	F291	BS0538	9999	313B	317F	1991/06/01	45007	201271
9100141	F291	BS0539	9999	313B	317F	1991/06/01	45008	201272
9100141	F291	BS0540	9999	313B	317F	1991/06/01	46001	201273
9100141	F291	BS0541	9999	313B	317F	1991/06/01	46002	201274
9100141	F291	BS0542	9999	313B	317F	1991/06/01	46003	201275
9100141	F291	BS0543	9999	313B	317F	1991/06/01	46005	201276
9100141	F291	BS0544	9999	313B	317F	1991/06/01	46011	201277
9100141	F291	BS0545	9999	313B	317F	1991/06/01	46013	201278
9100141	F291	BS0546	9999	313B	317F	1991/06/01	46014	201279
9100141	F291	BS0547	9999	313B	317F	1991/06/01	46022	201280
9100141	F291	BS0548	9999	313B	317F	1991/06/01	46023	201281
9100141	F291	BS0549	9999	313B	317F	1991/06/01	46025	201282
9100141	F291	BS0550	9999	313B	317F	1991/06/01	46026	201283
9100141	F291	BS0551	9999	313B	317F	1991/06/01	46027	201284
9100141	F291	BS0552	9999	313B	317F	1991/06/01	46028	201285
9100141	F291	BS0553	9999	313B	317F	1991/06/01	46030	201286
9100141	F291	BS0554	9999	313B	317F	1991/06/01	46040	201287
9100141	F291	BS0555	9999	313B	317F	1991/06/01	46041	201288
9100141	F291	BS0556	9999	313B	317F	1991/06/01	46042	201289
9100141	F291	BS0557	9999	313B	317F	1991/06/01	46045	201290
9100141	F291	BS0558	9999	313B	317F	1991/06/01	51001	201291
9100141	F291	BS0559	9999	313B	317F	1991/06/01	51002	201292
9100141	F291	BS0560	9999	313B	317F	1991/06/01	51003	201293
9100141	F291	BS0561	9999	313B	317F	1991/06/01	ALSN6	201294
9100141	F291	BS0562	9999	313B	317F	1991/06/01	BURL1	201295
9100141	F291	BS0563	9999	313B	317F	1991/06/01	BUZM3	201296
9100141	F291	BS0564	9999	313B	317F	1991/06/01	CAR03	201297
9100141	F291	BS0565	9999	313B	317F	1991/06/01	CHLV2	201298

9100141	F291	BS0566	9999	313B	317F	1991/06/01	CLKN7	201299
9100141	F291	BS0567	9999	313B	317F	1991/06/01	CSBF1	201300
9100141	F291	BS0568	9999	313B	317F	1991/06/01	DBLN6	201301
9100141	F291	BS0569	9999	313B	317F	1991/06/01	DESW1	201302
9100141	F291	BS0570	9999	313B	317F	1991/06/01	DISW3	201303
9100141	F291	BS0571	9999	313B	317F	1991/06/01	DP1A1	201304
9100141	F291	BS0572	9999	313B	317F	1991/06/01	DSL7	201305
9100141	F291	BS0573	9999	313B	317F	1991/06/01	FBIS1	201306
9100141	F291	BS0574	9999	313B	317F	1991/06/01	FFIA2	201307
9100141	F291	BS0575	9999	313B	317F	1991/06/01	FPSN7	201308
9100141	F291	BS0576	9999	313B	317F	1991/06/15	FWYF1	201309
9100141	F291	BS0577	9999	313B	317F	1991/06/01	GBCL1	201310
9100141	F291	BS0578	9999	313B	317F	1991/06/01	GDIL1	201311
9100141	F291	BS0579	9999	313B	317F	1991/06/01	GLLN6	201312
9100141	F291	BS0580	9999	313B	317F	1991/06/01	IOSN3	201313
9100141	F291	BS0581	9999	313B	317F	1991/06/01	LKWF1	201314
9100141	F291	BS0582	9999	313B	317F	1991/06/05	LNEL1	201315
9100141	F291	BS0583	9999	313B	317F	1991/06/01	MDRM1	201316
9100141	F291	BS0584	9999	313B	317F	1991/06/01	MISM1	201317
9100141	F291	BS0585	9999	313B	317F	1991/06/01	MLRF1	201318
9100141	F291	BS0586	9999	313B	317F	1991/06/01	MPCL1	201319
9100141	F291	BS0587	9999	313B	317F	1991/06/01	NWPO3	201320
9100141	F291	BS0588	9999	313B	317F	1991/06/01	PILM4	201321
9100141	F291	BS0589	9999	313B	317F	1991/06/01	PTAC1	201322
9100141	F291	BS0590	9999	313B	317F	1991/06/01	PTAT2	201323
9100141	F291	BS0591	9999	313B	317F	1991/06/01	PTGC1	201324
9100141	F291	BS0592	9999	313B	317F	1991/06/01	ROAM4	201325
9100141	F291	BS0593	9999	313B	317F	1991/06/01	SANF1	201326
9100141	F291	BS0594	9999	313B	317F	1991/06/01	SBIO1	201327
9100141	F291	BS0595	9999	313B	317F	1991/06/01	SGNW3	201328
9100141	F291	BS0596	9999	313B	317F	1991/06/01	SISW1	201329
9100141	F291	BS0597	9999	313B	317F	1991/06/01	SMKF1	201330
9100141	F291	BS0598	9999	313B	317F	1991/06/01	SPGF1	201331
9100141	F291	BS0599	9999	313B	317F	1991/06/01	SRST2	201332
9100141	F291	BS0600	9999	313B	317F	1991/06/01	STD4	201333
9100141	F291	BS0601	9999	313B	317F	1991/06/01	TPLM2	201334
9100141	F291	BS0602	9999	313B	317F	1991/06/01	TTIW1	201335
9100141	F291	BS0603	9999	313B	317F	1991/06/01	VENF1	201336
9100141	F291	BS0604	9999	313B	317F	1991/06/01	WPOW1	201337
9100141	F291	BS0605	9999	313B	317F	1991/06/01	91222	201338
9100141	F291	BS0606	9999	313B	317F	1991/06/01	91251	201339
9100141	F291	BS0607	9999	313B	317F	1991/06/01	91377	201340
9100141	F291	BS0608	9999	313B	317F	1991/06/01	91365	201341

(99 rows affected)

Password:

accNo	fleA	refNo	ship	staCnt	recCnt	startDate	endDate
9100141	F291	BS0510	317F	1	7163	91/06/01	91/06/30
9100141	F291	BS0511	317F	1	7894	91/06/01	91/06/30
9100141	F291	BS0512	317F	1	8616	91/06/01	91/06/30
9100141	F291	BS0513	317F	1	43743	91/06/01	91/06/30
9100141	F291	BS0514	317F	1	2480	91/06/25	91/06/30
9100141	F291	BS0515	317F	1	9530	91/06/01	91/06/21
9100141	F291	BS0516	317F	1	3775	91/06/01	91/06/17
9100141	F291	BS0517	317F	1	5644	91/06/01	91/06/30
9100141	F291	BS0518	317F	1	7881	91/06/01	91/06/30
9100141	F291	BS0519	317F	1	2049	91/06/01	91/06/30
9100141	F291	BS0520	317F	1	2488	91/06/01	91/06/12
9100141	F291	BS0521	317F	1	5610	91/06/01	91/06/30
9100141	F291	BS0522	317F	1	5104	91/06/11	91/06/30
9100141	F291	BS0523	317F	1	7899	91/06/01	91/06/30
9100141	F291	BS0524	317F	1	7146	91/06/01	91/06/30
9100141	F291	BS0525	317F	1	7892	91/06/01	91/06/30
9100141	F291	BS0526	317F	1	7164	91/06/01	91/06/30
9100141	F291	BS0527	317F	1	7207	91/06/01	91/06/28
9100141	F291	BS0528	317F	1	7142	91/06/01	91/06/30
9100141	F291	BS0529	317F	1	7154	91/06/01	91/06/30
9100141	F291	BS0530	317F	1	33121	91/06/01	91/06/30
9100141	F291	BS0531	317F	1	42460	91/06/01	91/06/30
9100141	F291	BS0532	317F	1	1430	91/06/01	91/06/30
9100141	F291	BS0533	317F	1	8628	91/06/01	91/06/30
9100141	F291	BS0534	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0535	317F	1	8606	91/06/01	91/06/30
9100141	F291	BS0536	317F	1	43269	91/06/01	91/06/30
9100141	F291	BS0537	317F	1	8586	91/06/01	91/06/30
9100141	F291	BS0538	317F	1	43208	91/06/01	91/06/30
9100141	F291	BS0539	317F	1	8606	91/06/01	91/06/30
9100141	F291	BS0540	317F	1	7900	91/06/01	91/06/30
9100141	F291	BS0541	317F	1	7884	91/06/01	91/06/30
9100141	F291	BS0542	317F	1	7892	91/06/01	91/06/30
9100141	F291	BS0543	317F	1	7894	91/06/01	91/06/30
9100141	F291	BS0544	317F	1	8580	91/06/01	91/06/30
9100141	F291	BS0545	317F	1	8620	91/06/01	91/06/30
9100141	F291	BS0546	317F	1	8640	91/06/01	91/06/30
9100141	F291	BS0547	317F	1	7166	91/06/01	91/06/30
9100141	F291	BS0548	317F	1	8598	91/06/01	91/06/30
9100141	F291	BS0549	317F	1	43802	91/06/01	91/06/30
9100141	F291	BS0550	317F	1	7152	91/06/01	91/06/30
9100141	F291	BS0551	317F	1	7184	91/06/01	91/06/30
9100141	F291	BS0552	317F	1	8578	91/06/01	91/06/30
9100141	F291	BS0553	317F	1	7060	91/06/01	91/06/30
9100141	F291	BS0554	317F	1	7148	91/06/01	91/06/30
9100141	F291	BS0555	317F	1	7166	91/06/01	91/06/30
9100141	F291	BS0556	317F	1	43623	91/06/01	91/06/30
9100141	F291	BS0557	317F	1	43564	91/06/01	91/06/30
9100141	F291	BS0558	317F	1	8620	91/06/01	91/06/30
9100141	F291	BS0559	317F	1	8388	91/06/01	91/06/30
9100141	F291	BS0560	317F	1	8544	91/06/01	91/06/30
9100141	F291	BS0561	317F	1	5818	91/06/01	91/06/30
9100141	F291	BS0562	317F	1	2160	91/06/01	91/06/30
9100141	F291	BS0563	317F	1	1434	91/06/01	91/06/30
9100141	F291	BS0564	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0565	317F	1	7767	91/06/01	91/06/30

9100141	F291	BS0566	317F	1	2078	91/06/01	91/06/30
9100141	F291	BS0567	317F	1	2050	91/06/01	91/06/30
9100141	F291	BS0568	317F	1	1436	91/06/01	91/06/30
9100141	F291	BS0569	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0570	317F	1	1434	91/06/01	91/06/30
9100141	F291	BS0571	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0572	317F	1	7567	91/06/01	91/06/30
9100141	F291	BS0573	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0574	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0575	317F	1	2156	91/06/01	91/06/30
9100141	F291	BS0576	317F	1	430	91/06/15	91/06/24
9100141	F291	BS0577	317F	1	7639	91/06/01	91/06/30
9100141	F291	BS0578	317F	1	2158	91/06/01	91/06/30
9100141	F291	BS0579	317F	1	1436	91/06/01	91/06/30
9100141	F291	BS0580	317F	1	1436	91/06/01	91/06/30
9100141	F291	BS0581	317F	1	2145	91/06/01	91/06/30
9100141	F291	BS0582	317F	1	1156	91/06/05	91/06/30
9100141	F291	BS0583	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0584	317F	1	1352	91/06/01	91/06/30
9100141	F291	BS0585	317F	1	1432	91/06/01	91/06/30
9100141	F291	BS0586	317F	1	2139	91/06/01	91/06/30
9100141	F291	BS0587	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0588	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0589	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0590	317F	1	1342	91/06/01	91/06/19
9100141	F291	BS0591	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0592	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0593	317F	1	3592	91/06/01	91/06/30
9100141	F291	BS0594	317F	1	1436	91/06/01	91/06/30
9100141	F291	BS0595	317F	1	1436	91/06/01	91/06/30
9100141	F291	BS0596	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0597	317F	1	400	91/06/01	91/06/09
9100141	F291	BS0598	317F	1	2146	91/06/01	91/06/30
9100141	F291	BS0599	317F	1	2154	91/06/01	91/06/30
9100141	F291	BS0600	317F	1	1438	91/06/01	91/06/30
9100141	F291	BS0601	317F	1	2142	91/06/01	91/06/30
9100141	F291	BS0602	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0603	317F	1	1187	91/06/01	91/06/17
9100141	F291	BS0604	317F	1	1440	91/06/01	91/06/30
9100141	F291	BS0605	317F	1	1424	91/06/01	91/06/30
9100141	F291	BS0606	317F	1	1426	91/06/01	91/06/30
9100141	F291	BS0607	317F	1	1422	91/06/01	91/06/30
9100141	F291	BS0608	317F	1	1457	91/06/01	91/06/30

(99 rows affected)