| ACCESS NUMBER | REF NUMBER | FILE TYPE | PROJ CODE | INST | PLAT | CRUISE NO | CRUISE START | CRUISE END | NUM STA | NUM REC |
|---|---|---|---|---|---|---|---|---|---|---|
| 8900298 | 319884 | C022 | 0106 | 313F | 3175 | TV4644 | 04/25/87 | 05/13/87 | 31 | 8,485 |
| 8900298 | 319885 | C022 | 0106 | 313F | 31OC | TV4645 | 10/08/87 | 11/03/87 | 61 | 17,616 |
| 8900298 | 319886 | C022 | 0106 | 313F | 31OC | TV4646 | 05/13/88 | 05/31/88 | 39 | 15,051 |
| 8900298 | 319887 | C022 | 0106 | 313F | 31OC | TV4647 | 06/21/88 | 07/06/88 | 37 | 12,803 |
| 8900298 | 319888 | C022 | 0106 | 313F | 31OC | TV4648 | 10/19/88 | 11/07/88 | 39 | 13,147 |
| 8900298 | 319889 | C022 | 0106 | 313F | 31OC | TV4649 | 11/18/88 | 12/03/88 | 49 | 13,474 |

ACCESSION NO. 8900298 FILETYPE F022 TRACK NO. _____ PROJECT IDENTIFICATION [illegible]

EPOCS CTD Data

| STEP | DATE | INIT. | TAPE OR DISK DSN | NO. FILES | LRECL | BLK SIZE | NO. RECORDS |
|---|---|---|---|---|---|---|---|
| ORIG. TAPE | 12-26-89 | MEC | A01016 | | [illegible] | [illegible] | [illegible] |
| DUPLICATE TAPE | 12-28-89 | MEC | W15510 | | [illegible] | [illegible] | |
| REFORMATTED TAPE | 2-12-90 | R.P.S. | W12364 ** | 1 | 120 | 12480 | [illegible] |
| REFORMATTED DISK | | | | | | | 53,955 |
| FIRST MULCHEK | | | | | | | |
| FINAL MULCHEK | | | | | | | |
| MPD75 OR F022 | | | | | | | |
| DATA SET FINALIZED | | | | | | | |

ERRORS REPORTED TO PRINCIPAL INVESTIGATOR:

** LABEL DNODC*EPOC10UT. [TV4644-47]

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

COMMENTS (TRACKS DELETED, FIELDS DELETED, ETC.)

ACCESSION NO. 8900298 FILETYPE F022 TRACK NO. _____ PROJECT IDENTIFICATION [illegible]

EPOCS CTD Data

| STEP | DATE | INIT. | TAPE OR DISK DSN | NO. FILES | LRECL | BLK SIZE | NO. RECORDS |
|---|---|---|---|---|---|---|---|
| ORIG. TAPE | 12-26-89 | MEC | A01017 | | ? | 24000 | 133 ? |
| DUPLICATE TAPE | 12-28-89 | MEC | W16113 | | " | 24000 | |
| REFORMATTED TAPE | 2-22-90 | R.P.S. | W04602 ** | 1 | 120 | 12000 | 26,621 |
| REFORMATTED DISK | | | | | | | |
| FIRST MULCHEK | | | | | | | |
| FINAL MULCHEK | | | | | | | |
| MPD75 OR F022 | | | | | | | |
| DATA SET FINALIZED | | | | | | | |

ERRORS REPORTED TO PRINCIPAL INVESTIGATOR:

**LABEL: D NODC*EPOCS.CTD.[IV4648-9]

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

COMMENTS (TRACKS DELETED, FIELDS DELETED, ETC.)

NAMELIST REF. #
319884

MILDARS TRACK #
TV4644

MONITOR: CONTACT
SELKIRK

LOCATION OF F022 SOURCE
ARCHIVES

RECORD ALL ERRORS FOUND

CONSEC(S)

2

19, 22

ERRORS FOUND

CHANGE DAY FROM 25 TO 26

BAD DEPTH TO BOTTOM

4/24/90

NANSEN REF. #

319885

MULDARS TRACK #

TV4645

MONITOR: CONTACT

J. Frank

LOCATION OF F022 SOURCE

Archives (TV4645)

RECORD ALL ERRORS FOUND

CONSEC(S)

3, 10, 15, 17, & 23

51

ERRORS FOUND

Delete Depth to Bottom

Delete Station Time (012)

mrl 4/20/90

HANSEN REF. #
319886

HOLDARS TRACK #
TV4646

MONITOR: CONTACT
SELKIRK

LOCATION OF FO22 SOURCE
ARCHIVES

RECORD ALL ERRORS FOUND

CONSEC(S)
3, 6, 12, 14, 20, 25, 36

ERRORS FOUND
BAD DEPTH TO BOTTOM

4/24/90
MRL

NANSEN REF. # 319887

HOLDERS TRACK # TV4647

MONITOR: CONTACT SEKIRK

LOCATION OF F022 SOURCE ARCHIVES

RECORD ALL ERRORS FOUND

CONSEC(S)

3, 13, 15,

17

ERRORS FOUND

BAD DEPTH TO BOTTOM

CHANGE DAY FROM 28 TO 29

4/24/96

319888 TV4648

MONITOR: CONTACT
SELKIRK

LOCATION OF FD22 SOURCE
ARCHIVES

RECORD ALL ERRORS FOUND

| CONSEC(S). | ERRORS FOUND |
| --- | --- |
| 4, 27, 28, 29, 33, 37 | BAD DEPTH TO BOTTOM (delete) |

5/22/90

RANSEN REF. #
319889

MILDARS TRACK #
TV4649

MONITOR: CONTACT
C. SEIKIRK

LOCATION OF F022 SOURCE

RECORD ALL ERRORS FOUND

| CONSEC(S) | ERRORS FOUND |
|---|---|
| 4 | Delete depth to bottom |
| 10 | |
| 16 | |
| 31 | |
| 36 | |
| 46, 47 | |

4/24/90

NOAA FORM 24-5
(8-73)

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

# TRANSMITTAL AND RECEIPT RECORD

*(Please sign and return carbon copy acknowledging receipt)*

| TO: | REFER TO |
|---|---|
| NOAA/NESDIS/NODC<br>1825 Connecticut Ave NW<br>Washington DC 20235 | ATTENTION<br>E/OC13, Dr.Anthony R. Picciolo |

THE ITEM(S) LISTED BELOW WERE FORWARDED TO YOU BY

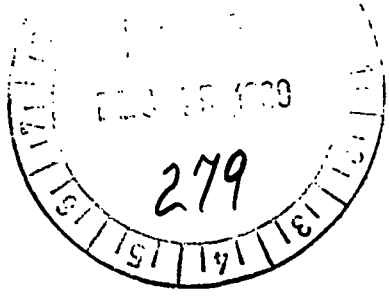
[X] ORDINARY MAIL [ ] REGISTERED MAIL [ ] AIR MAIL [ ] CERTIFIED MAIL [ ] GOVERNMENT TRUCK [ ] BY HAND [ ] OTHER

Enclosed, find documentation and two (2) magnetic data tapes as received from Ms. Linda Mangum (for Dr. Stan Hayes), NOAA/PMEL. These tapes contain a total of 256 casts of EPOCS CTD data from six (6) cruises 1987-88.

Tape 1 - 168 casts of data, cruises EP1-87-RS, EP2-87-OC, EP1-88-OC, EP2-88-OC A01016

Tape 2 - 88 casts of data, cruises EP4-88-OC and EP5-88-OC
A01017

Tape specs. - 9 track, EBCDIC, 1600 bpi, odd parity, single file, 2400 chars/block




cc: Ms. Linda Mangum, NOAA/PMEL

8900298
A01016
A01017

| FORWARDED BY (Signature) | TITLE | DATE FORWARDED |
|---|---|---|
| Sid Stillwaugh | NODC Liaison Officer, Seattle | 12/13/89 |
| **RECEIVED BY (Signature)** | **TITLE** | **DATE RECEIVED** |
| Marguerita Corbright | | 12-25-89 |

NOAA FORM 24-5 (8-73)

**U.S. DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
ENVIRONMENTAL RESEARCH LABORATORIES
Pacific Marine Environmental Laboratory
NOAA Building Number 3
7600 Sand Point Way N.E
Seattle, WA 98115

December 12, 1989 R/E/PM

MEMORANDUM FOR: Sid Stillwaugh
NOAA/NODC

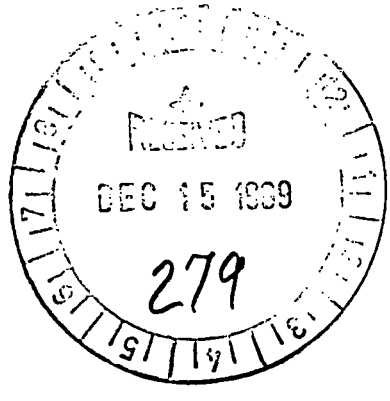
FROM: Stan Hayes SH /for
NOAA/PMEL

SUBJECT: CTD Data Submittal for EPOCS 1987 and 1988

Enclosed are two magnetic tapes, for submittal to NODC, which contain CTD data collected during 1987 and 1988 by PMEL as part of the Equatorial Pacific Ocean Climate Studies (EPOCS) program. Documentation describing the cruise tracks, tape, and data format is also included.

Please let us know if you have any questions regarding the data or tapes.

Attachments



| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conbright | 373-5643 | E/OC13 | 12-29-89 | | |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

Copy tape and assign a "W" number

| INPUT MEDIUM | OUTPUT MEDIUM |
|---|---|
| PAPER CARD DISK (TAPE) DISKETTE OTHER(SPECIFY) | CARD DISK PRINT (TAPE) PLOT DISKETTE OTHER(SPECIFY) |

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01016 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII (EBCDIC) BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| OUTPUT | W15510 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: (ASCII) EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

PLEASE ASSIGN "W" TAPE AND RETURN TAPE TO BIN 32

ESTIMATED EXECUTION TIME

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 89122803 | 12/28/89 | 11:50 | 13:10 | C | COMPLETED BY J.S. |

COMMENTS

8900298

| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conkright | 673-5643 | E/OC13 | 12-26-89 | | 32 |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

VAX SCAN

| INPUT MEDIUM | OUTPUT MEDIUM |
|---|---|
| PAPER CARD DISK (TAPE) DISKETTE OTHER(SPECIFY) | CARD DISK (PRINT) TAPE PLOT DISKETTE OTHER(SPECIFY) |

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01016 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII (EBCDIC) BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| OUTPUT | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

~~Please Return Tape to Bin #32~~

ESTIMATED EXECUTION TIME

---

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 8912261 | 12/27/89 | 10:35 | 12:45 | C | COMPLETED BY J.S. |

COMMENTS

8900298

ACCESSION NUMBER 8900298

A01016

# DATA DOCUMENTATION FORM

NOAA FORM 24-13
(2-85)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED
O.M.B. No. 0648-0024
*EXPIRES 2/29/87*

**(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)**

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

RECEIVED
DEC 15 1989
279

## A. ORIGINATOR IDENTIFICATION

**THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS**

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

NOAA, Pacific Marine Environmental Laboratory
7600 Sand Point Way NE
Seattle, Wa. 98115

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

Equatorial Pacicfic Ocean Climate Studies (EPOCS)

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

EP1-87-RS EP2-88-OC
EP2-87-RS
EP2-87-OC
EP1-88-OC

| 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 |
| Researcher<br>Oceanographer | ship | U.S. | U.S. | 4/20/87 | 7/9/88 |

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR____ MONTH____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

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

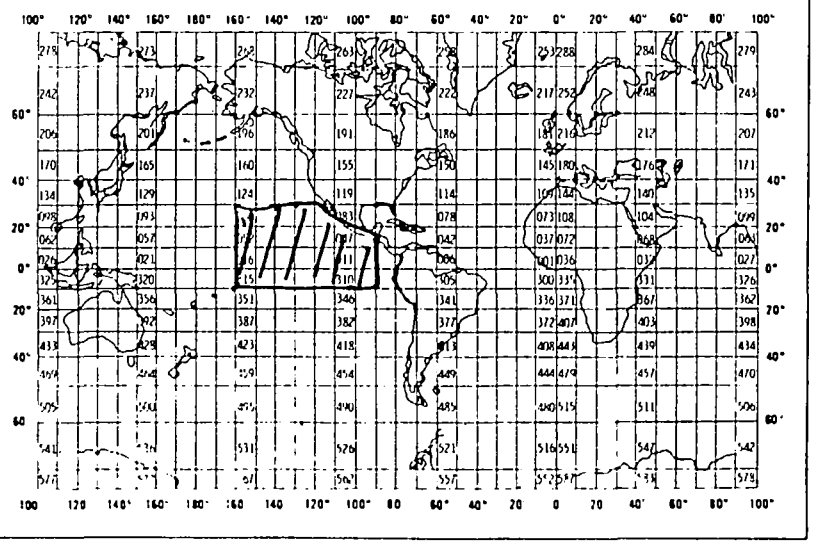
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Stanley Hayes

(206)526-6742

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

GENERAL AREA



## 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 sheets)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

(see attached sheets)

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Ms. Linda Mangum, (206)526-6740
ADDRESS NOAA/PMEL, 7600 Sand Point Way NE, Seattle, Wa. 98115

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

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

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

7. PARITY
☒ ODD
☐ EVEN

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

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

10. END OF FILE MARK
☒ OCTAL 17
☐ _____

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

EPOCS CTD datasets, 1987-88,
168 casts, 9 track, EBCDIC,
odd parity, 1600 bpi, single file
2400chars/block

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS

NOAA FORM 24-13

# 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 | | |
| | (see attached sheets) | | | | |

NOAA FORM 24-13

# NOAA / PMEL / OCRD CTD Data Format Description

Magnetic tapes containing CTD cast data have the following characteristics:

1) 9-track

2) EBCDIC

3) Odd Parity

4) 1600 BPI

5) Single file

6) End-of-file mark - Octal 17

7) Blocking: Tapes have 80-character records blocked 30 records/block, and therefore have 2400 characters/block. The last block on the tape may contain fewer than 2400 characters/block.

8) Data Format: The enclosed data listing shows the format of the data on the tape. The listing format differs from the tape only in that the listing is of subsampled data. On this listing, there is a data header consisting of 5 80-character lines. Line 5 of the header records contains the variable codes for the data that is included in the file. These variable codes are identified in attached listing. The data scans themselves follow sequentially (F8.1,9F8.3).

The number of variables in each data scan is in columns 79-80 of line 3 in the data header. The number of data scans in each cast is in columns 55-60 of line 3 in the data header (see listing).

9) The CTD cast data files are in the order shown on the attached listing.

Data Variables Contained on NOAA/PMEL/OCRD CTD Data Tape:

| | |
|---|---|
| 1 | PRESSURE (DB) |
| 20 | TEMPERATURE (C) |
| 41 | SALINITY (PSU) |
| 60 | OXYGEN (ML/L) |

Following casts were written to CTD Data Tape:

| Cruise # | NSCANS |
|---|---|
| EP1-87-RS -001 | 153 |
| EP1-87-RS -002 | 3448 |
| EP1-87-RS -003 | 1022 |
| EP1-87-RS -004 | 1060 |
| EP1-87-RS -005 | 998 |
| EP1-87-RS -006 | 1012 |
| EP1-87-RS -007 | 3794 |
| EP1-87-RS -008 | 150 |
| EP1-87-RS -009 | 1011 |
| EP1-87-RS -010 | 3718 |
| EP1-87-RS -011 | 159 |
| EP1-87-RS -012 | 1003 |
| EP1-87-RS -013 | 1011 |
| EP1-87-RS -014 | 1020 |
| EP1-87-RS -015 | 1009 |
| EP1-87-RS -016 | 1008 |
| EP1-87-RS -017 | 1009 |
| EP1-87-RS -018 | 1008 |
| EP1-87-RS -019 | 3110 |
| EP1-87-RS -020 | 157 |
| EP1-87-RS -021 | 3790 |
| EP1-87-RS -022 | 1007 |
| EP1-87-RS -023 | 1008 |
| EP1-87-RS -024 | 1008 |
| EP1-87-RS -025 | 997 |
| EP1-87-RS -026 | 1004 |
| EP1-87-RS -027 | 200 |
| EP1-87-RS -028 | 1011 |
| EP1-87-RS -029 | 1009 |
| EP1-87-RS -030 | 196 |
| EP1-87-RS -031 | 4123 |
| EP2-87-OC -000 | 510 |
| EP2-87-OC -001 | 252 |
| EP2-87-OC -002 | 4398 |
| EP2-87-OC -003 | 1012 |
| EP2-87-OC -004 | 1009 |
| EP2-87-OC -005 | 1037 |
| EP2-87-OC -006 | 206 |
| EP2-87-OC -007 | 207 |
| EP2-87-OC -008 | 256 |
| EP2-87-OC -009 | 4337 |
| EP2-87-OC -010 | 307 |
| EP2-87-OC -011 | 1012 |

| | |
|---|---|
| EP2-87-OC -012 | 1012 |
| EP2-87-OC -013 | 1013 |
| EP2-87-OC -014 | 4351 |
| EP2-87-OC -015 | 250 |
| EP2-87-OC -016 | 4388 |
| EP2-87-OC -017 | 206 |
| [redacted]87-OC -018 | 4501 |
| [redacted]87-OC -019 | 206 |
| EP2-87-OC -020 | 4621 |
| EP2-87-OC -021 | 206 |
| EP2-87-OC -022 | 4211 |
| EP2-87-OC -023 | 207 |
| EP2-87-OC -024 | 204 |
| EP2-87-OC -025 | 4051 |
| EP2-87-OC -026 | 1009 |
| EP2-87-OC -027 | 1010 |
| EP2-87-OC -028 | 1010 |
| EP2-87-OC -029 | 205 |
| EP2-87-OC -030 | 3482 |
| EP2-87-OC -031 | 1009 |
| EP2-87-OC -032 | 1012 |
| EP2-87-OC -033 | 253 |
| EP2-87-OC -034 | 3942 |
| EP2-87-OC -035 | 1008 |
| EP2-87-OC -036 | 1011 |
| EP2-87-OC -037 | 1008 |
| EP2-87-OC -038 | 3782 |
| EP2-87-OC -039 | 256 |
| EP2-87-OC -040 | 1010 |
| EP2-87-OC -041 | 1008 |
| [redacted]87-OC -042 | 1010 |
| [redacted]87-OC -043 | 1010 |
| [redacted]87-OC -044 | 511 |
| EP2-87-OC -045 | 1009 |
| EP2-87-OC -046 | 1009 |
| EP2-87-OC -047 | 3801 |
| EP2-87-OC -048 | 200 |
| EP2-87-OC -049 | 1013 |
| EP2-87-OC -050 | 1011 |
| EP2-87-OC -051 | 1008 |
| EP2-87-OC -052 | 1010 |
| EP2-87-OC -053 | 643 |
| EP2-87-OC -054 | 811 |
| EP2-87-OC -055 | 1011 |
| EP2-87-OC -056 | 1011 |
| EP2-87-OC -057 | 1011 |
| EP2-87-OC -058 | 1011 |
| EP2-87-OC -059 | 205 |
| EP2-87 OC -060 | 3348 |
| EP1-88-OC -000 | 208 |
| EP1-88-OC 001 | 302 |
| EP1 88 OC 002 | 5473 |
| EP1-88-OC 003 | 302 |
| EP1-88-OC 004 | 5837 |
| EP1-88-OC -005 | 5149 |
| [redacted]-88-OC -006 | 306 |
| [redacted]88-OC 007 | 4851 |
| [redacted]88-OC -008 | 302 |
| EP1-88-OC -009 | 4499 |
| EP1-88-OC -010 | 304 |
| EP1-88-OC -011 | 4295 |
| EP1-88 OC -012 | 304 |
| EP1-88 OC 013 | 4288 |

| | |
|---|---|
| EP1-88-OC -014 | 302 |
| EP1-88-OC -015 | 1004 |
| EP1-88-OC -016 | 1003 |
| EP1-88-OC -017 | 1006 |
| EP1-88-OC -018 | 255 |
| EP1-88-OC -019 | 4266 |
| EP1-88-OC -020 | 301 |
| EP1-88-OC -021 | 1009 |
| EP1-88-OC -022 | 1011 |
| EP1-88-OC -023 | 1005 |
| EP1-88-OC -024 | 4444 |
| EP1-88-OC -025 | 302 |
| EP1-88-OC -026 | 1018 |
| EP1-88-OC -027 | 1014 |
| EP1-88-OC -028 | 302 |
| EP1-88-OC -029 | 4498 |
| EP1-88-OC -030 | 1002 |
| EP1-88-OC -031 | 301 |
| EP1-88-OC -032 | 5044 |
| EP1-88-OC -033 | 1003 |
| EP1-88-OC -034 | 303 |
| EP1-88-OC -035 | 5142 |
| EP1-88-OC -036 | 1009 |
| EP1-88-OC -037 | 1002 |
| EP1-88-OC -038 | 1006 |
| EP2-88-OC -001 | 1006 |
| EP2-88-OC -002 | 1006 |
| EP2-88-OC -003 | 4404 |
| EP2-88-OC -004 | 302 |
| EP2-88-OC -005 | 4389 |
| EP2-88-OC -006 | 303 |
| EP2-88-OC -007 | 4510 |
| EP2-88-OC -008 | 301 |
| EP2-88-OC -009 | 1945 |
| EP2-88-OC -010 | 4665 |
| EP2-88-OC -011 | 305 |
| EP2-88-OC -012 | 206 |
| EP2-88-OC -013 | 4249 |
| EP2-88-OC -014 | 304 |
| EP2-88-OC -015 | 4073 |
| EP2-88-OC -016 | 302 |
| EP2-88-OC -017 | 3549 |
| EP2-88-OC -018 | 308 |
| EP2-88-OC -019 | 1004 |
| EP2-88-OC -020 | 1003 |
| EP2-88-OC -021 | 307 |
| EP2-88-OC -022 | 3991 |
| EP2-88-OC -023 | 1001 |
| EP2-88-OC -024 | 1002 |
| EP2-88-OC -025 | 1007 |
| EP2-88-OC -026 | 3799 |
| EP2-88-OC -027 | 503 |
| EP2-88-OC -028 | 1004 |
| EP2-88-OC -029 | 1006 |
| EP2-88-OC -030 | 1009 |
| EP2-88-OC -031 | 306 |
| EP2-88-OC -032 | 3821 |
| EP2-88-OC -033 | 1003 |
| EP2-88-OC -034 | 1001 |
| EP2-88-OC -035 | 3942 |
| EP2-88-OC -036 | 303 |
| EP2-88-OC -037 | 606 |

Total number of CTD casts written out = 168

SCRATCH:[STRAT.EP]EP187C001.EDT;1
SCRATCH:[STRAT.EP]EP187C002.EDT;1
SCRATCH:[STRAT.EP]EP187C003.EDT;1
SCRATCH:[STRAT.EP]EP187C004.EDT;1
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SCRATCH:[STRAT.EP]EP287C009.EDT;1
SCRATCH:[STRAT.EP]EP287C010.EDT;1
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SCRATCH:[STRAT.EP]EP287C020.EDT;1
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SCRATCH:[STRAT.EP]EP188C007.EDT;1
SCRATCH:[STRAT.EP]EP188C008.EDT;1
SCRATCH:[STRAT.EP]EP188C009.EDT;1
SCRATCH:[STRAT.EP]EP188C010.EDT;1
SCRATCH:[STRAT.EP]EP188C011.EDT;1
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SCRATCH:[STRAT.EP]EP188C013.EDT;1
SCRATCH:[STRAT.EP]EP188C014.EDT;1
SCRATCH:[STRAT.EP]EP188C015.EDT;1
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SCRATCH:[STRAT.EP]EP188C021.EDT;1
SCRATCH:[STRAT.EP]EP188C022.EDT;1
SCRATCH:[STRAT.EP]EP188C023.EDT;1
SCRATCH:[STRAT.EP]EP188C024.EDT;1
SCRATCH:[STRAT.EP]EP188C025.EDT;1
SCRATCH:[STRAT.EP]EP188C026.EDT;1
SCRATCH:[STRAT.EP]EP188C027.EDT;1
SCRATCH:[STRAT.EP]EP188C028.EDT;1
SCRATCH:[STRAT.EP]EP188C029.EDT;1
SCRATCH:[STRAT.EP]EP188C030.EDT;1
SCRATCH:[STRAT.EP]EP188C031.EDT;1
SCRATCH:[STRAT.EP]EP188C032.EDT;1
SCRATCH:[STRAT.EP]EP188C033.EDT;1

SCRATCH:[STRAT.EP]EP188C034.EDT;1
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SCRATCH:[STRAT.EP]EP288C011.EDT;1
SCRATCH:[STRAT.EP]EP288C012.EDT;1
SCRATCH:[STRAT.EP]EP288C013.EDT;1
SCRATCH:[STRAT.EP]EP288C014.EDT;1
SCRATCH:[STRAT.EP]EP288C015.EDT;1
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SCRATCH:[STRAT.EP]EP288C025.EDT;1
SCRATCH:[STRAT.EP]EP288C026.EDT;1
SCRATCH:[STRAT.EP]EP288C027.EDT;1
SCRATCH:[STRAT.EP]EP288C028.EDT;1
SCRATCH:[STRAT.EP]EP288C029.EDT;1
SCRATCH:[STRAT.EP]EP288C030.EDT;1
SCRATCH:[STRAT.EP]EP288C031.EDT;1
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SCRATCH:[STRAT.EP]EP288C034.EDT;1
SCRATCH:[STRAT.EP]EP288C035.EDT;1
SCRATCH:[STRAT.EP]EP288C036.EDT;1
SCRATCH:[STRAT.EP]EP288C037.EDT;1

CAST EP1-87-RS -001  DATE 25 APR 87  TIME 2033 GMT  ACML NBIS CTD #1
LAT 00 54.5N  LONG 105 34.5W  WEATHER 2  SEA STATE 2  15:21  8-DEC-89  C
BAROMETER 10  WIND DIR 267 T SPD 08 KT  VISIBILITY 7  153  0.0 152.0  1.0  4
CLOUD 4  AMOUNT 8  DRY 26.0  WET 24.0  DEPTH 3521 M  NOAA/PMEL/OCRD/HAYES
1 20 41 60
0.0 29.205 32.887 4.935
00.0 15.849 34.899 2.146

| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conkright | 673-5243 | E10C13 | 12-28-89 | | |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

Copy tape and assign "W" number

| INPUT MEDIUM | OUTPUT MEDIUM |
|---|---|
| PAPER CARD DISK (TAPE) DISKETTE OTHER(SPECIFY) | CARD DISK PRINT (TAPE) PLOT DISKETTE OTHER(SPECIFY) |

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01017 | | 9 | 1600 | O | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| OUTPUT | W16113 | W16113 | 9 | 1600 | O | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: (ASCII) EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

Please assign "W" tape and return tape to Bin #32

ESTIMATED EXECUTION TIME

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 9172804 | 12/28/89 | 1115 | 1300 | C | COMPLETED BY J.S. |

COMMENTS

8900298

| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conkright | 673-5643 | E/OC13 | 12-26-89 | | 32 |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

VAX SCAN

INPUT MEDIUM
PAPER CARD DISK (TAPE)
DISKETTE OTHER(SPECIFY)

OUTPUT MEDIUM
CARD DISK (PRINT) TAPE PLOT
DISKETTE OTHER(SPECIFY)

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01017 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII (EBCDIC) BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| OUTPUT | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

~~Please Return Tape to Bin #32~~

ESTIMATED EXECUTION TIME

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 49127697 | 12/27/89 | 10:50 | 11:00 | C | COMPLETED BY J.S. |

COMMENTS

900298

ACCESSION NUMBER 8900298

# DATA DOCUMENTATION FORM

A01017

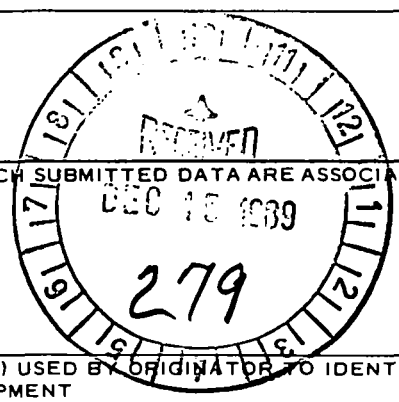
NOAA FORM 24-13
(2-85)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED
O.M.B. No. 0648-0024
*EXPIRES 2/29/87*

**(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)**

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




## A. ORIGINATOR IDENTIFICATION

**THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS**

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

NOAA, Pacific Marine Environmental Laboratory
7600 Sand Point Way NE
Seattle, Wa. 98115

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

Equatorial Pacific Ocean Climate Studies (EPOCS)

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

EP4-88-0C
EP5-88-0C

| 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 |
| Oceanographer | ship | U.S. | U.S. | 10/13/88 | 12/11/88 |

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

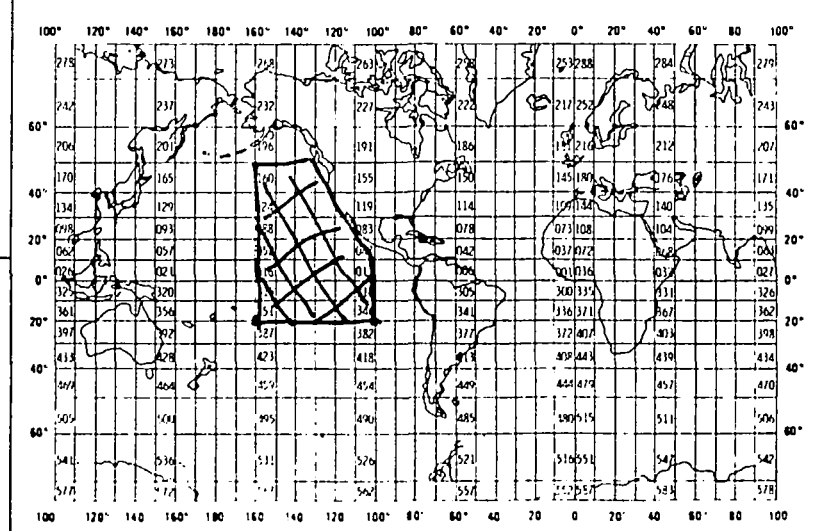
[ ] NO [X] YES [ ] PART *(SPECIFY BELOW)*

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

Dr. Stanley Hayes
(206)526-6742

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

GENERAL AREA



## 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 sheets)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

(see attached sheets)

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Linda Mangum, (206)526-6740
ADDRESS NOAA/PMEL, 7600 Sand Point Way NE, Seattle, Wa. 98115

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

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

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

7. PARITY
☒ ODD
☐ EVEN

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

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

10. END OF FILE MARK
☒ OCTAL 17
☐ _____

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

EPOCS CTD datasets, 1988
88 casts, 9 track, EBCDIC
odd parity, 1600 bpi, single file
2400 chars/block

12. PHYSICAL BLOCK LENGTH IN BYTES
2400 chars/block

13. LENGTH OF BYTES IN BITS

NOAA FORM 24-13

# 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 | | |
| (see attached sheets) | | | | | |

NOAA FORM 24-13

# NOAA / PMEL / OCRD CTD Data Format Description

Magnetic tapes containing CTD cast data have the following characteristics:

1) 9-track

2) EBCDIC

3) Odd Parity

4) 1600 BPI

5) Single file

6) End-of-file mark - Octal 17

7) Blocking: Tapes have 80-character records blocked 30 records/block, and therefore have 2400 characters/block. The last block on the tape may contain fewer than 2400 characters/block.

8) Data Format: The enclosed data listing shows the format of the data on the tape. The listing format differs from the tape only in that the listing is of subsampled data. On this listing, there is a data header consisting of 5 80-character lines. Line 5 of the header records contains the variable codes for the data that is included in the file. These variable codes are identified in attached listing. The data scans themselves follow sequentially (F8.1,9F8.3).

The number of variables in each data scan is in columns 79-80 of line 3 in the data header. The number of data scans in each cast is in columns 55-60 of line 3 in the data header (see listing).

9) The CTD cast data files are in the order shown on the attached listing.

Data Variables Contained on NOAA/PMEL/OCRD CTD Data Tape:

| | |
|---|---|
| 1 | PRESSURE (DB) |
| 20 | TEMPERATURE (C) |
| 41 | SALINITY (PSU) |

Following casts were written to CTD Data Tape:

| Cruise # | NSCANS |
|---|---|
| EP4-88-OC -000 | 503 |
| EP4-88-OC -001 | 1001 |
| EP4-88-OC -002 | 1002 |
| EP4-88-OC -003 | 1002 |
| EP4-88-OC -004 | 1001 |
| EP4-88-OC -005 | 3800 |
| EP4-88-OC -006 | 301 |
| EP4-88-OC -007 | 1002 |
| EP4-88-OC -008 | 1005 |
| EP4-88-OC -009 | 3799 |
| EP4-88-OC -010 | 300 |
| EP4-88-OC -011 | 1008 |
| EP4-88-OC -012 | 1002 |
| EP4-88-OC -013 | 1002 |
| EP4-88-OC -014 | 1005 |
| EP4-88-OC -015 | 3700 |
| EP4-88-OC -016 | 303 |
| EP4-88-OC -017 | 1002 |
| EP4-88-OC -018 | 1003 |
| EP4-88-OC -019 | 301 |
| EP4-88-OC -020 | 3248 |
| EP4-88-OC -021 | 1002 |
| EP4-88-OC -022 | 1005 |
| EP4-88-OC -023 | 3800 |
| EP4-88-OC -024 | 303 |
| EP4-88-OC -025 | 3785 |
| EP4-88-OC -026 | 3914 |
| EP4-88-OC -027 | 300 |
| EP4-88-OC -028 | 4049 |
| EP4-88-OC -029 | 302 |
| EP4-88-OC -030 | 4397 |
| EP4-88-OC -031 | 168 |
| EP4-88-OC -032 | 3998 |
| EP4-88-OC -033 | 300 |
| EP4-88-OC -034 | 4200 |
| EP4-88-OC -035 | 302 |
| EP4-88-OC -036 | 4048 |
| EP4-88-OC -037 | 301 |
| EP4-88-OC -038 | 1003 |
| EP5-88-OC -001 | 1008 |
| EP5-88-OC -002 | 1004 |
| EP5-88-OC -003 | 1010 |
| EP5-88-OC -004 | 4107 |
| EP5-88-OC -005 | 301 |
| EP5-88-OC -006 | 1003 |

| | |
|---|---|
| EP5-88-OC -007 | 1001 |
| EP5-88-OC -008 | 1007 |
| EP5-88-OC -009 | 502 |
| EP5-88-OC -010 | 4198 |
| EP5-88-OC -011 | 302 |
| EP5-88-OC -012 | 504 |
| EP5-88-OC -013 | 1001 |
| EP5-88-OC -014 | 1002 |
| EP5-88-OC -015 | 1016 |
| EP5-88-OC -016 | 4248 |
| EP5-88-OC -017 | 301 |
| EP5-88-OC -018 | 500 |
| EP5-88-OC -019 | 1000 |
| EP5-88-OC -020 | 1003 |
| EP5-88-OC -021 | 302 |
| EP5-88-OC -022 | 4100 |
| EP5-88-OC -023 | 1001 |
| EP5-88-OC -024 | 1002 |
| EP5-88-OC -025 | 1010 |
| EP5-88-OC -026 | 4698 |
| EP5-88-OC -027 | 305 |
| EP5-88-OC -028 | 1020 |
| EP5-88-OC -029 | 1008 |
| EP5-88-OC -030 | 2 |
| EP5-88-OC -031 | 1008 |
| EP5-88-OC -032 | 4496 |
| EP5-88-OC -033 | 503 |
| EP5-88-OC -034 | 501 |
| EP5-88-OC -035 | 4696 |
| EP5-88-OC -036 | 1016 |
| EP5-88-OC -037 | 1001 |
| EP5-88-OC -038 | 502 |
| EP5-88-OC -039 | 503 |
| EP5-88-OC -040 | 500 |
| EP5-88-OC -041 | 1002 |
| EP5-88-OC -042 | 1000 |
| EP5-88-OC -043 | 501 |
| EP5-88-OC -044 | 4300 |
| EP5-88-OC -045 | 1001 |
| EP5-88-OC -046 | 1001 |
| EP5-88-OC -047 | 1002 |
| EP5-88-OC -048 | 1010 |
| EP5-88-OC -049 | 1002 |

Total number of CTD casts written out = 88

DISK$HAYES:[DATA.EP488.CTD]EP488C000.CTD;6
DISK$HAYES:[DATA.EP488.CTD]EP488C001.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C002.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C003.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C004.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C005.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C006.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C007.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C008.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C009.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C010.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C011.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C012.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C013.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C014.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C015.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C016.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C017.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C018.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C019.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C020.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C021.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C022.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C023.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C024.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C025.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C026.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C027.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C028.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C029.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C030.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C031.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C032.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C033.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C034.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C035.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C036.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C037.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C038.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C001.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C002.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C003.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C004.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C005.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C006.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C007.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C008.CTD;4
DISK$HAYES:[DATA.EP588.CTD]EP588C009.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C010.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C011.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C012.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C013.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C014.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C015.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C016.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C017.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C018.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C019.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C020.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C021.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C022.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C023.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C024.CTD;1

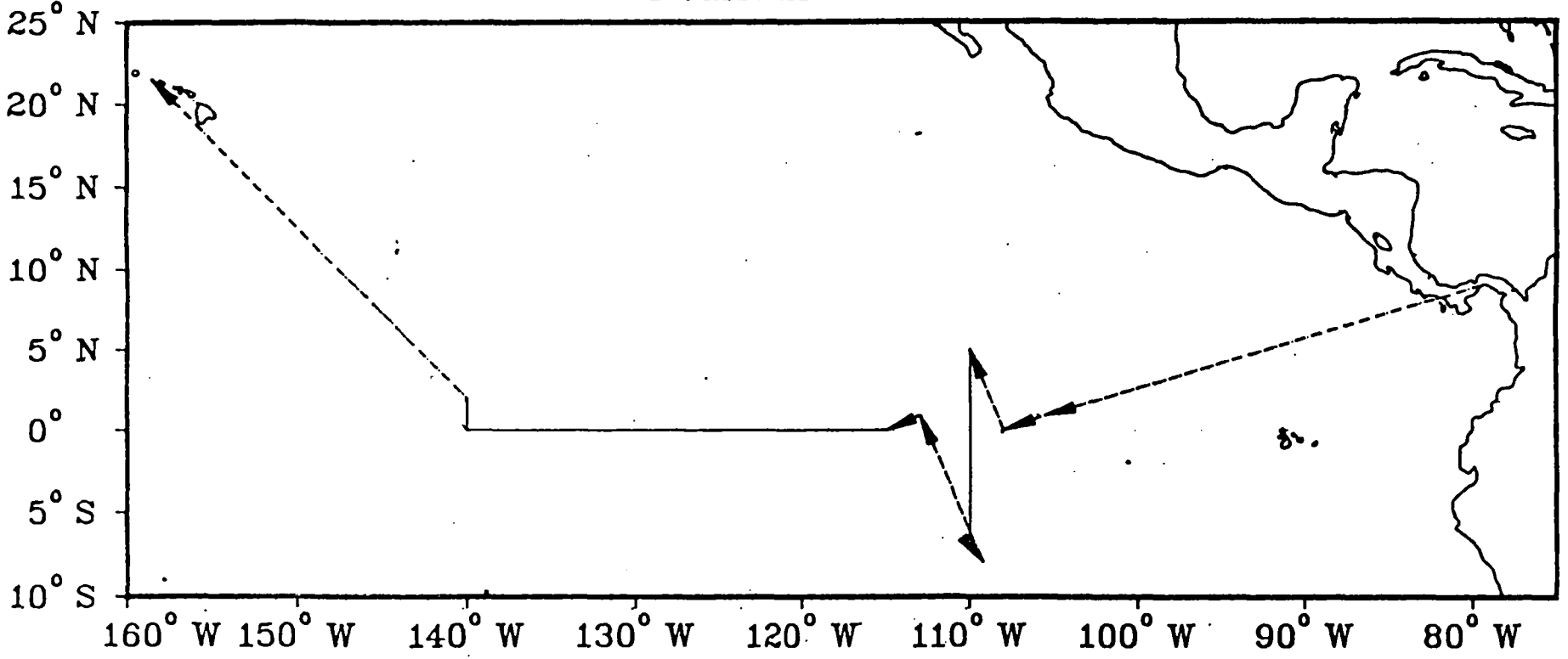
DISK$HAYES:[DATA.EP588.CTD]EP588C025.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C026.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C027.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C028.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C029.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C030.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C031.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C032.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C033.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C034.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C035.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C036.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C037.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C038.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C039.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C040.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C041.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C042.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C043.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C044.CTD;3
DISK$HAYES:[DATA.EP588.CTD]EP588C045.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C046.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C047.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C048.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C049.CTD;1

CAST. EP4-88-OC -000  DATE 19 OCT 88  TIME 2018 GMT  PMEL NBIS CTD #2044
LAT 25 24.5N  LONG 115 11.6W  WEATHER 1  SEA STATE 2  08:50 12-JAN-89  C
BAROMETER 15  WIND DIR 250 T SPD 04 KT  VISIBILITY 8  503  0.  502.  1.  3
CLOUD 3  AMOUNT 3  DRY 21.0  WET 19.0  DEPTH 3764 M  NOAA/PMEL/OCRD/MANGUM

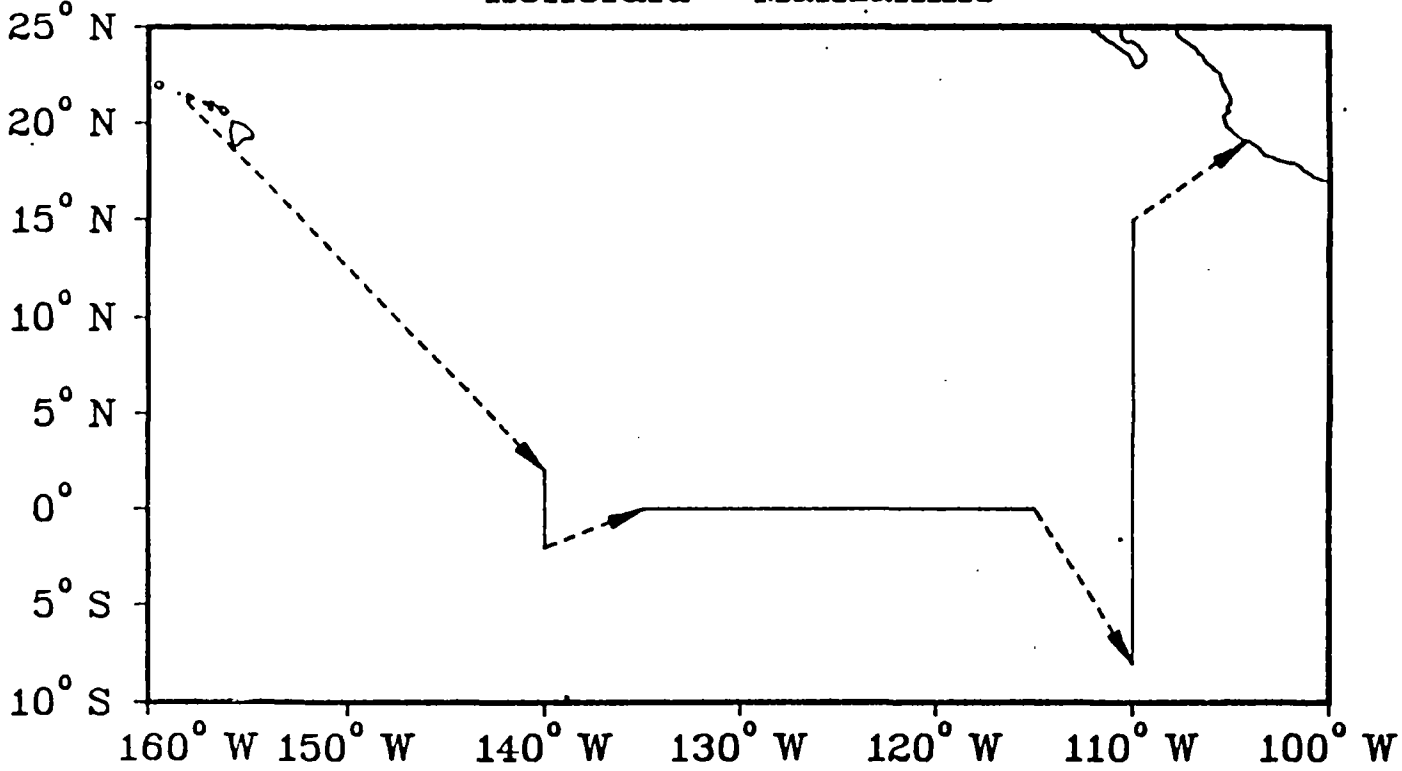
1. 20 41

| | | |
|---|---|---|
| 0.0 | 21.135 | 33.687 |
| 0.0 | 14.097 | 33.679 |
| 00.0 | 10.059 | 34.221 |
| 300.0 | 8.918 | 34.377 |
| 400.0 | 7.546 | 34.345 |
| 500.0 | 6.600 | 34.360 |

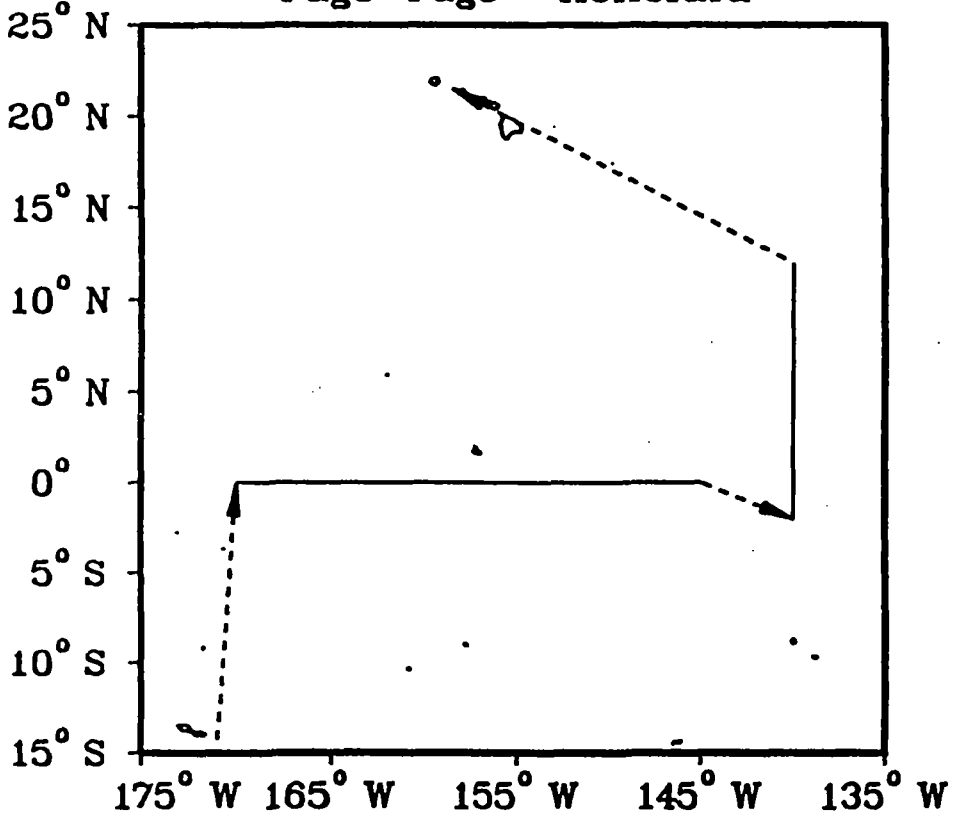
EP1–87–RS NOAA Ship RESEARCHER
20 April – 17 May 1987 (7)
Rodman – Honolulu



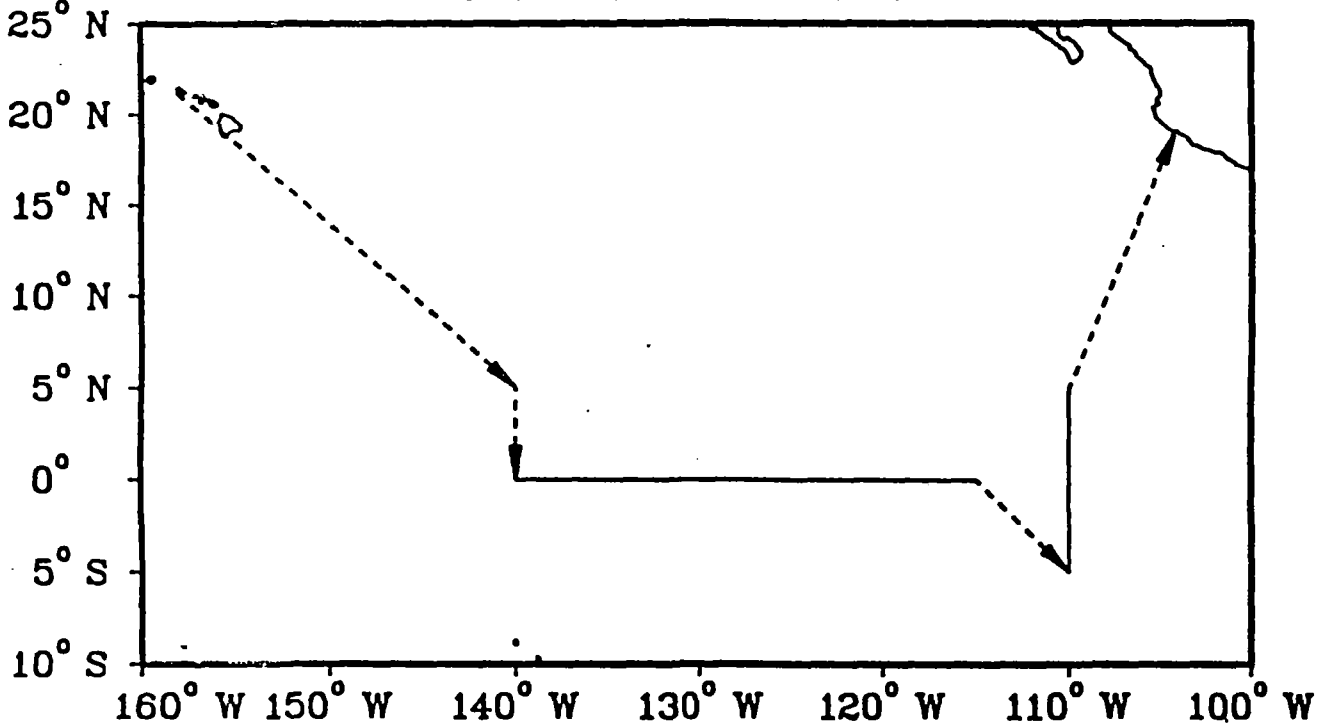
EP2–87–OC NOAA Ship OCEANOGRAPHER
6 OCT – 4 NOV 87
Honolulu – Manzanillo



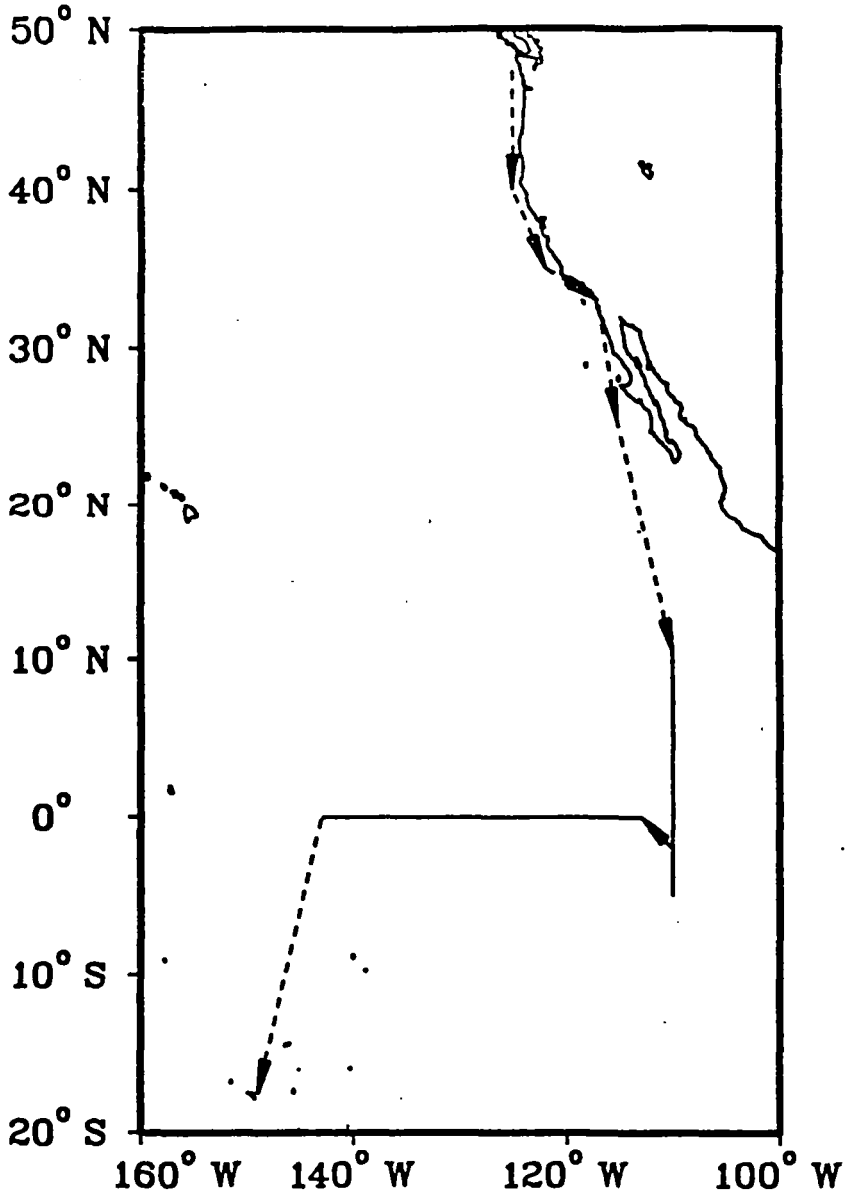
EP1–88–OC NOAA Ship OCEANOGRAPHER
9 May – 4 June 1988
Pago–Pago – Honolulu



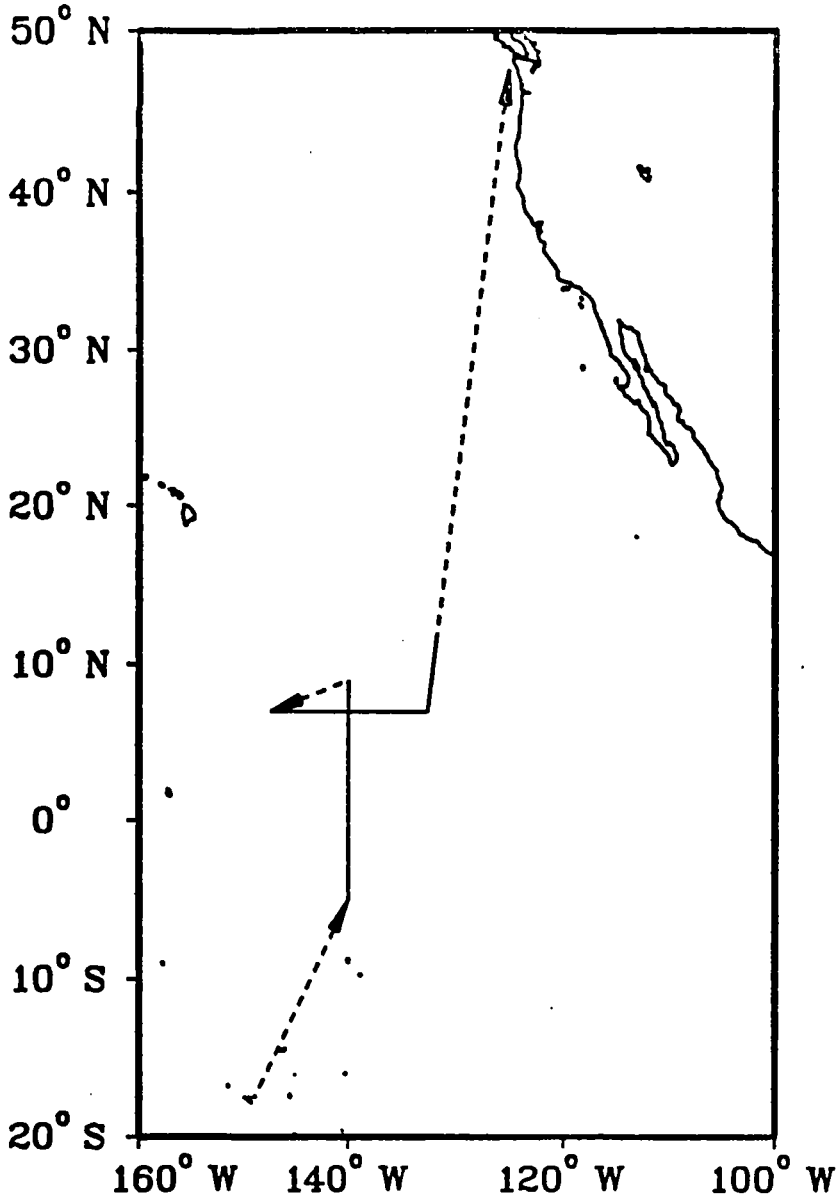
EP2–88–OC NOAA Ship OCEANOGRAPHER
17 June – 9 July 1988
Honolulu – Manzanillo



EP4–88–OC NOAA Ship OCEANOGRAPHER
13 Oct – 10 Nov 1988
Seattle – Papeete



EP5-88-OC NOAA Ship OCEANOGRAPHER
14 Nov – 11 Dec 1988
Papeete – Seattle



03/01/90

TO: E/OC12 - Branch Chief

E/OC11 - P. Hadsell

FROM: E/OC13 - A. Picciolo

SUBJECT: Data Transfer

The following listed data sets have been transferred as indicated:

---

Low Resolution STD (C022)

Acc: 8900298 Ref: 319884 - 319887 sta. rec.

Low Resolution STD (C022)

Acc: 8900298 Ref: 319888 - 319889 sta. rec.

C/STD (F022)

Acc: 8900298 Ref: TV4644 - TV4647 168 sta. 53,955 rec. ✓

NOAA-PMEL

(EPOCS)

C/STD (F022)

Acc: 8900298 Ref: TV4648 - TV4649 88 sta. 26,621 rec. ✓

80,576

NOAA-PMEL

(EPOCS)

DIV. DIR

| ACCESS NUMBER | REF NUMBER | FILE TYPE | PROJ CODE | INST | PLAT | CRUISE NO | CRUISE START | CRUISE END | NUM STA | NUM REC |
|---|---|---|---|---|---|---|---|---|---|---|
| 8900298 | TV4644 | F022 | 0106 | 313F | 3175 | EP1-87 | 04/25/87 | 05/13/87 | 31 | 8,485 |
| 8900298 | TV4645 | F022 | 0106 | 313F | 31OC | EP2-87 | 10/08/87 | 11/03/87 | 61 | 17,616 |
| 8900298 | TV4646 | F022 | 0106 | 313F | 31OC | EP1-88 | 05/13/88 | 05/31/88 | 39 | 15,051 |
| 8900298 | TV4647 | F022 | 0106 | 313F | 31OC | EP2-88 | 06/21/88 | 07/06/88 | 37 | 12,803 |
| 8900298 | TV4648 | F022 | 0106 | 313F | 31OC | EP4-88 | 10/19/88 | 11/07/88 | 39 | 13,147 |
| 8900298 | TV4649 | F022 | 0106 | 313F | 31OC | EP5-88 | 11/18/88 | 12/03/88 | 49 | 13,474 |

ACCESSION NO. 8900298 FILETYPE F022 TRACK NO. _____ PROJECT IDENTIFICATION 0106

EPOCS CTD Data

| STEP | DATE | INIT. | TAPE OR DISK DSN | NO. FILES | LRECL | BLK SIZE | NO. RECORDS |
|---|---|---|---|---|---|---|---|
| ORIG. TAPE | 12-26-89 | MEC | A01016 | 1 | 80 | 2400 | 269,398 |
| DUPLICATE TAPE | 12-28-89 | MEC | W15510 | 1 | 80 | 2400 | |
| REFORMATTED TAPE | 2-12-90 | R.P.S. | W12364 ** | 1 | 120 | 1200 | [illegible] |
| REFORMATTED DISK | | | | | | | 53,985 |
| FIRST MULCHEK | | | | | | | |
| FINAL MULCHEK | | | | | | | |
| MPD75 OR F022 | | | | | | | |
| DATA SET FINALIZED | | | | | | | |

ERRORS REPORTED TO PRINCIPAL INVESTIGATOR:

** LABEL DNODC*EPOC10UT. [TV4644-47]

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

COMMENTS (TRACKS DELETED, FIELDS DELETED, ETC.)

ACCESSION NO. 8900298 FILETYPE F022 TRACK NO. _____ PROJECT IDENTIFICATION 0106

EPOCS CTD Data

| STEP | DATE | INIT. | TAPE OR DISK DSN | NO. FILES | LRECL | BLK SIZE | NO. RECORDS |
|---|---|---|---|---|---|---|---|
| ORIG. TAPE | 12-26-89 | MEC | A01017 | 1 | 80 | 2400 | 132,918 |
| DUPLICATE TAPE | 12-28-89 | MEC | W16113 | 1 | 80 | 2400 | |
| REFORMATTED TAPE | 2-22-90 | R.P.S. | W04602 ** | 1 | 120 | 12000 | 26,621 |
| REFORMATTED DISK | | | | | | | |
| FIRST MULCHEK | | | | | | | |
| FINAL MULCHEK | | | | | | | |
| MPD75 OR F022 | | | | | | | |
| DATA SET FINALIZED | | | | | | | |

ERRORS REPORTED TO PRINCIPAL INVESTIGATOR:

**LABEL: D NODC*EPOC20UT. [IV4648-9]

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

COMMENTS (TRACKS DELETED, FIELDS DELETED, ETC.)

NOAA FORM 24-5
(8-73)

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

# TRANSMITTAL AND RECEIPT RECORD

*(Please sign and return carbon copy acknowledging receipt)*

| TO: | REFER TO |
|---|---|
| NOAA/NESDIS/NODC<br>1825 Connecticut Ave NW<br>Washington DC 20235 | ATTENTION<br>E/OC13, Dr.Anthony R. Picciolo |

THE ITEM(S) LISTED BELOW WERE FORWARDED TO YOU BY

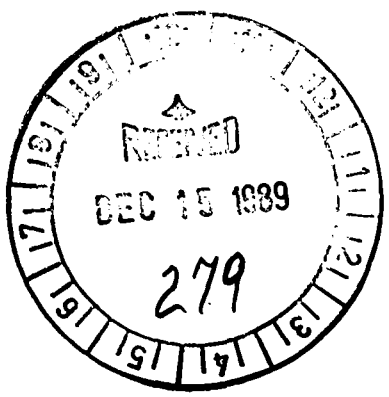
☒ ORDINARY MAIL ☐ REGISTERED MAIL ☐ AIR MAIL ☐ CERTIFIED MAIL ☐ GOVERNMENT TRUCK ☐ BY HAND ☐ OTHER _____

Enclosed, find documentation and two (2) magnetic data tapes as received from Ms. Linda Mangum (for Dr. Stan Hayes), NOAA/PMEL. These tapes contain a total of 256 casts of EPOCS CTD data from six (6) cruises 1987-88.

Tape 1 - 168 casts of data, cruises EP1-87-RS, EP2-87-OC, EP1-88-OC, EP2-88-OC A01016

Tape 2 - 88 casts of data, cruises EP4-88-OC and EP5-88-OC
A01017

Tape specs. - 9 track, EBCDIC, 1600 bpi, odd parity, single file, 2400 chars/block




cc: Ms. Linda Mangum, NOAA/PMEL

8900298
A01016
A01017

| FORWARDED BY (Signature) | TITLE | DATE FORWARDED |
|---|---|---|
| Sid Stillwaugh | NODC Liaison Officer, Seattle | 12/13/89 |
| **RECEIVED BY (Signature)** | **TITLE** | **DATE RECEIVED** |
| Margueta Cartwright | | 12-25-89 |

NOAA FORM 24-5 (8-73)

**U.S. DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
ENVIRONMENTAL RESEARCH LABORATORIES
Pacific Marine Environmental Laboratory
NOAA Building Number 3
7600 Sand Point Way N.E.
Seattle, WA 98115

December 12, 1989 R/E/PM

MEMORANDUM FOR: Sid Stillwaugh
NOAA/NODC

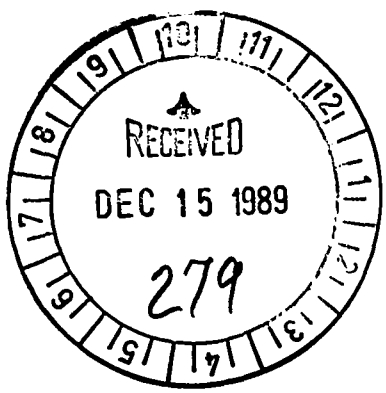
FROM: Stan Hayes SJH /for
NOAA/PMEL

SUBJECT: CTD Data Submittal for EPOCS 1987 and 1988

Enclosed are two magnetic tapes, for submittal to NODC, which contain CTD data collected during 1987 and 1988 by PMEL as part of the Equatorial Pacific Ocean Climate Studies (EPOCS) program. Documentation describing the cruise tracks, tape, and data format is also included.

Please let us know if you have any questions regarding the data or tapes.

Attachments



ADP FACILITIES REQUEST FORM

| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conkright | 573-5643 | E/OC13 | 12-28-89 | | |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

Copy tape and assign a "W" number

INPUT MEDIUM
PAPER CARD DISK (TAPE)
DISKETTE OTHER(SPECIFY)

OUTPUT MEDIUM
CARD DISK PRINT (TAPE) PLOT
DISKETTE OTHER(SPECIFY)

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01016 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII (EBCDIC) BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| OUTPUT | W15510 | | 9 | 1600 | 0 | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: (ASCII) EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

PLEASE ASSIGN "W" TAPE AND RETURN TAPE TO BIN 32

ESTIMATED EXECUTION TIME

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 89122803 | 12/28/89 | 11:00 | 15:10 | C | COMPLETED BY J.S. |

COMMENTS

8900298

ADP FACILITIES REQUEST FORM

| USER NAME | PHONE # | ORG/TASK # | DATE SUBMITTED | DATE DUE | BIN # |
|---|---|---|---|---|---|
| Conkright | 673-5643 | E/OC13 | 12-26-89 | | 32 |

EQUIPMENT TO BE USED AND FUNCTION TO BE PREFORMED

VAX SCAN

| INPUT MEDIUM | OUTPUT MEDIUM |
|---|---|
| PAPER CARD DISK (TAPE) DISKETTE OTHER(SPECIFY) | CARD DISK (PRINT) TAPE PLOT DISKETTE OTHER(SPECIFY) |

TAPE/DISKETTE INFORMATION

| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
|---|---|---|---|---|---|---|---|---|---|---|
| INPUT | A01016 | | 9 | 1600 | O | NL | FB | 80 | 2400 | 1 |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII (EBCDIC) BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |
| | TAPE #/ DISKETTE | SLOT # | TRK | DENSITY | PARITY TYPE | LABEL TYPE | RECORD TYPE | RECORD LENGTH | MAX. BLOCK SIZE | # OF FILES |
| | | | | | | | | | | |
| OUTPUT | SECTOR SIZE | EXCHANGE TYPE | CODE: ASCII EBCDIC BCD SDF OTHER(SPECIFY) | | | | DATA SET NAME | | | PURGE DATE |

SPECIAL INSTRUCTIONS

~~Please Return Tape to Bin #32~~

ESTIMATED EXECUTION TIME

D731 USE ONLY

| JOB # | DATE JOB COMPLETED | START TIME | END TIME | PRIORITY | DEVICES USED, NUMBER OF TAPE MOUNTS, LINES PRINTED DISKETTES USED, CARDS PUNCHED, CARDS KEYVERIFIED |
|---|---|---|---|---|---|
| 8912261 | 12/27/89 | 10:35 | 10:45 | C | COMPLETED BY J.S. |

COMMENTS

8900298

| | ACCESSION NUMBER | 8900298 |
|---|---|---|

A01016

[redacted]

# DATA DOCUMENTATION FORM

NOAA FORM 24-13
(2-85)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED
O.M.B. No. 0648-0024
*EXPIRES 2/29/87*

**(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)**

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

RECEIVED
DEC 15 1989
279

## A. ORIGINATOR IDENTIFICATION

**THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS**

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

NOAA, Pacific Marine Environmental Laboratory
7600 Sand Point Way NE
Seattle, Wa. 98115

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

Equatorial Pacicfic Ocean Climate Studies (EPOCS)

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

EP1-87-RS EP2-88-OC
EP2-87-RS
EP2-87-OC
EP1-88-OC

| 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 |
| Researcher<br>Oceanographer | ship | U.S. | U.S. | 4/20/87 | 7/9/88 |

8. ARE DATA PROPRIETARY?

[x] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

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

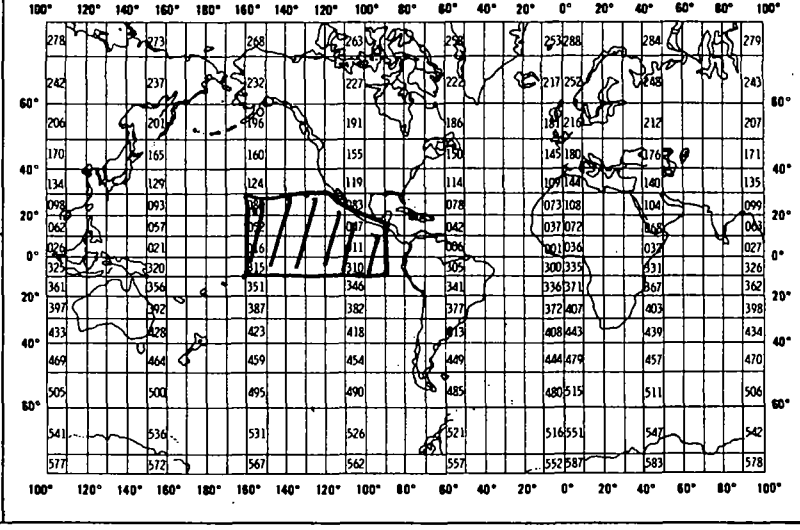
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

Dr. Stanley Hayes

(206)526-6742

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

GENERAL AREA



## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

**EXAMPLE (HYPOTHETICAL INFORMATION)**

| NAME OF DATA FIELD | REPORTING UNITS OR CODE | METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL) | ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES | DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING |
|---|---|---|---|---|
| Salinity | ‰ | Nansen bottles | Inductive salinometer (Hytech model 5510) | N/A (Not applicable) |
| | | STD Bissett-Berman Model 9006 | N/A | Values averaged over 5-meter intervals |
| Water color | Forel scale | Visual comparison with Forel bottles | N/A | N/A |
| Sediment size | $\phi$ units and percent by weight | Ewing corer | Standard sieves. Carbonate fraction removed by acid treatment | Same as "Sedimentary Rock Manual," Folk '65 |

**(SPACE IS PROVIDED ON THE FOLLOWING TWO PAGES FOR THIS INFORMATION)**

# 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 | | |
| | (see attached sheets) | | | | |

NOAA FORM 24-13

# 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 | | |
| | | | | | |

NOAA FORM 24-13

## C. DATA FORMAT

**This information is requested only for data transmitted on punched cards or magnetic tape.** Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).

2. Describe briefly how your file is organized.

3-13. Self-explanatory.

14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity.

15. Enter starting position of the field.

16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.

17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").

18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

## 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 sheets)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

(see attached sheets)

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Ms. Linda Mangum, (206)526-6740
ADDRESS NOAA/PMEL, 7600 Sand Point Way NE, Seattle, Wa. 98115

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

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

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

7. PARITY
☒ ODD
☐ EVEN

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

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

10. END OF FILE MARK
☒ OCTAL 17
☐ _____

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

EPOCS CTD datasets, 1987-88,
168 casts, 9 track, EBCDIC,
odd parity, 1600 bpi, single file
2400chars/block

12. PHYSICAL BLOCK LENGTH IN BYTES
2400

13. LENGTH OF BYTES IN BITS

## D. INSTRUMENT CALIBRATION

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

| INSTRUMENT TYPE (MFR., MODEL NO.) | DATE OF LAST CALIBRATION | INSTRUMENT WAS CALIBRATED BY | | CHECK ONE: INSTRUMENT IS CALIBRATED | | | | | INSTRUMENT IS NOT CALIBRATED |
|---|---|---|---|---|---|---|---|---|---|
| | | YOUR ORGANIZATION (√) | OTHER ORGANIZATION (GIVE NAME) | AT FIXED INTERVALS (√) | BEFORE OR AFTER USE (√) | BEFORE AND AFTER USE (√) | ONLY AFTER REPAIR (√) | ONLY WHEN NEW (√) | (√) |
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NOAA FORM 24-13

# NOAA / PMEL / OCRD CTD Data Format Description

Magnetic tapes containing CTD cast data have the following characteristics:

1) 9-track

2) EBCDIC

3) Odd Parity

4) 1600 BPI

5) Single file

6) End-of-file mark - Octal 17

7) Blocking: Tapes have 80-character records blocked 30 records/block, and therefore have 2400 characters/block. The last block on the tape may contain fewer than 2400 characters/block.

8) Data Format: The enclosed data listing shows the format of the data on the tape. The listing format differs from the tape only in that the listing is of subsampled data. On this listing, there is a data header consisting of 5 80-character lines. Line 5 of the header records contains the variable codes for the data that is included in the file. These variable codes are identified in attached listing. The data scans themselves follow sequentially (F8.1,9F8.3).

The number of variables in each data scan is in columns 79-80 of line 3 in the data header. The number of data scans in each cast is in columns 55-60 of line 3 in the data header (see listing).

9) The CTD cast data files are in the order shown on the attached listing.

Data Variables Contained on NOAA/PMEL/OCRD CTD Data Tape:

| | |
|---|---|
| 1 | PRESSURE (DB) |
| 20 | TEMPERATURE (C) |
| 41 | SALINITY (PSU) |
| 60 | OXYGEN (ML/L) |

Following casts were written to CTD Data Tape:

| Cruise # | NSCANS |
|---|---|
| EP1-87-RS -001 | 153 |
| EP1-87-RS -002 | 3448 |
| EP1-87-RS -003 | 1022 |
| EP1-87-RS -004 | 1060 |
| EP1-87-RS -005 | 998 |
| EP1-87-RS -006 | 1012 |
| EP1-87-RS -007 | 3794 |
| EP1-87-RS -008 | 150 |
| EP1-87-RS -009 | 1011 |
| EP1-87-RS -010 | 3718 |
| EP1-87-RS -011 | 159 |
| EP1-87-RS -012 | 1003 |
| EP1-87-RS -013 | 1011 |
| EP1-87-RS -014 | 1020 |
| EP1-87-RS -015 | 1009 |
| EP1-87-RS -016 | 1008 |
| EP1-87-RS -017 | 1009 |
| EP1-87-RS -018 | 1008 |
| EP1-87-RS -019 | 3110 |
| EP1-87-RS -020 | 157 |
| EP1-87-RS -021 | 3790 |
| EP1-87-RS -022 | 1007 |
| EP1-87-RS -023 | 1008 |
| EP1-87-RS -024 | 1008 |
| EP1-87-RS -025 | 997 |
| EP1-87-RS -026 | 1004 |
| EP1-87-RS -027 | 200 |
| EP1-87-RS -028 | 1011 |
| EP1-87-RS -029 | 1009 |
| EP1-87-RS -030 | 196 |
| EP1-87-RS -031 | 4123 |
| EP2-87-OC -000 | 510 |
| EP2-87-OC -001 | 252 |
| EP2-87-OC -002 | 4398 |
| EP2-87-OC -003 | 1012 |
| EP2-87-OC -004 | 1009 |
| EP2-87-OC -005 | 1037 |
| EP2-87-OC -006 | 206 |
| EP2-87-OC -007 | 207 |
| EP2-87-OC -008 | 256 |
| EP2-87-OC -009 | 4337 |
| EP2-87-OC -010 | 307 |
| EP2-87-OC -011 | 1012 |

| | |
|---|---|
| EP2-87-OC -012 | 1012 |
| EP2-87-OC -013 | 1013 |
| EP2-87-OC -014 | 4351 |
| EP2-87-OC -015 | 250 |
| EP2-87-OC -016 | 4388 |
| EP2-87-OC -017 | 206 |
| EP2-87-OC -018 | 4501 |
| EP2-87-OC -019 | 206 |
| EP2-87-OC -020 | 4621 |
| EP2-87-OC -021 | 206 |
| EP2-87-OC -022 | 4211 |
| EP2-87-OC -023 | 207 |
| EP2-87-OC -024 | 204 |
| EP2-87-OC -025 | 4051 |
| EP2-87-OC -026 | 1009 |
| EP2-87-OC -027 | 1010 |
| EP2-87-OC -028 | 1010 |
| EP2-87-OC -029 | 205 |
| EP2-87-OC -030 | 3482 |
| EP2-87-OC -031 | 1009 |
| EP2-87-OC -032 | 1012 |
| EP2-87-OC -033 | 253 |
| EP2-87-OC -034 | 3942 |
| EP2-87-OC -035 | 1008 |
| EP2-87-OC -036 | 1011 |
| EP2-87-OC -037 | 1008 |
| EP2-87-OC -038 | 3782 |
| EP2-87-OC -039 | 256 |
| EP2-87-OC -040 | 1010 |
| EP2-87-OC -041 | 1008 |
| EP2-87-OC -042 | 1010 |
| EP2-87-OC -043 | 1010 |
| EP2-87-OC -044 | 511 |
| EP2-87-OC -045 | 1009 |
| EP2-87-OC -046 | 1009 |
| EP2-87-OC -047 | 3801 |
| EP2-87-OC -048 | 200 |
| EP2-87-OC -049 | 1013 |
| EP2-87-OC -050 | 1011 |
| EP2-87-OC -051 | 1008 |
| EP2-87-OC -052 | 1010 |
| EP2-87-OC -053 | 643 |
| EP2-87-OC -054 | 811 |
| EP2-87-OC -055 | 1011 |
| EP2-87-OC -056 | 1011 |
| EP2-87-OC -057 | 1011 |
| EP2-87-OC -058 | 1011 |
| EP2-87-OC -059 | 205 |
| EP2-87-OC -060 | 3348 |
| EP1-88-OC -000 | 208 |
| EP1-88-OC 001 | 302 |
| EP1-88-OC 002 | 5473 |
| EP1-88-OC 003 | 302 |
| EP1-88-OC 004 | 5837 |
| EP1-88-OC -005 | 5149 |
| EP1-88-OC -006 | 306 |
| EP1-88-OC 007 | 4851 |
| EP1-88-OC -008 | 302 |
| EP1-88-OC 009 | 4499 |
| EP1-88-OC 010 | 304 |
| EP1-88-OC -011 | 4295 |
| EP1-88-OC 012 | 304 |
| EP1-88-OC 013 | 4288 |

| | |
|---|---|
| EP1-88-OC -014 | 302 |
| EP1-88-OC -015 | 1004 |
| EP1-88-OC -016 | 1003 |
| EP1-88-OC -017 | 1006 |
| EP1-88-OC -018 | 255 |
| EP1-88-OC -019 | 4266 |
| EP1-88-OC -020 | 301 |
| EP1-88-OC -021 | 1009 |
| EP1-88-OC -022 | 1011 |
| EP1-88-OC -023 | 1005 |
| EP1-88-OC -024 | 4444 |
| EP1-88-OC -025 | 302 |
| EP1-88-OC -026 | 1018 |
| EP1-88-OC -027 | 1014 |
| EP1-88-OC -028 | 302 |
| EP1-88-OC -029 | 4498 |
| EP1-88-OC -030 | 1002 |
| EP1-88-OC -031 | 301 |
| EP1-88-OC -032 | 5044 |
| EP1-88-OC -033 | 1003 |
| EP1-88-OC -034 | 303 |
| EP1-88-OC -035 | 5142 |
| EP1-88-OC -036 | 1009 |
| EP1-88-OC -037 | 1002 |
| EP1-88-OC -038 | 1006 |
| EP2-88-OC -001 | 1006 |
| EP2-88-OC -002 | 1006 |
| EP2-88-OC -003 | 4404 |
| EP2-88-OC -004 | 302 |
| EP2-88-OC -005 | 4389 |
| EP2-88-OC -006 | 303 |
| EP2-88-OC -007 | 4510 |
| EP2-88-OC -008 | 301 |
| EP2-88-OC -009 | 1945 |
| EP2-88-OC -010 | 4665 |
| EP2-88-OC -011 | 305 |
| EP2-88-OC -012 | 206 |
| EP2-88-OC -013 | 4249 |
| EP2-88-OC -014 | 304 |
| EP2-88-OC -015 | 4073 |
| EP2-88-OC -016 | 302 |
| EP2-88-OC -017 | 3549 |
| EP2-88-OC -018 | 308 |
| EP2-88-OC -019 | 1004 |
| EP2-88-OC -020 | 1003 |
| EP2-88-OC -021 | 307 |
| EP2-88-OC -022 | 3991 |
| EP2-88-OC -023 | 1001 |
| EP2-88-OC -024 | 1002 |
| EP2-88-OC -025 | 1007 |
| EP2-88-OC -026 | 3799 |
| EP2-88-OC -027 | 503 |
| EP2-88-OC -028 | 1004 |
| EP2-88-OC -029 | 1006 |
| EP2-88-OC -030 | 1009 |
| EP2-88-OC -031 | 306 |
| EP2-88-OC -032 | 3821 |
| EP2-88-OC -033 | 1003 |
| EP2-88-OC -034 | 1001 |
| EP2-88-OC -035 | 3942 |
| EP2-88-OC -036 | 303 |
| EP2-88-OC -037 | 606 |

Total number of CTD casts written out = 168

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SCRATCH:[STRAT.EP]EP288C007.EDT;1
SCRATCH:[STRAT.EP]EP288C008.EDT;1
SCRATCH:[STRAT.EP]EP288C009.EDT;1
SCRATCH:[STRAT.EP]EP288C010.EDT;1
SCRATCH:[STRAT.EP]EP288C011.EDT;1
SCRATCH:[STRAT.EP]EP288C012.EDT;1
SCRATCH:[STRAT.EP]EP288C013.EDT;1
SCRATCH:[STRAT.EP]EP288C014.EDT;1
SCRATCH:[STRAT.EP]EP288C015.EDT;1
SCRATCH:[STRAT.EP]EP288C016.EDT;1
SCRATCH:[STRAT.EP]EP288C017.EDT;1
SCRATCH:[STRAT.EP]EP288C018.EDT;1
SCRATCH:[STRAT.EP]EP288C019.EDT;1
SCRATCH:[STRAT.EP]EP288C020.EDT;1
SCRATCH:[STRAT.EP]EP288C021.EDT;1
SCRATCH:[STRAT.EP]EP288C022.EDT;1
SCRATCH:[STRAT.EP]EP288C023.EDT;1
SCRATCH:[STRAT.EP]EP288C024.EDT;1
SCRATCH:[STRAT.EP]EP288C025.EDT;1
SCRATCH:[STRAT.EP]EP288C026.EDT;1
SCRATCH:[STRAT.EP]EP288C027.EDT;1
SCRATCH:[STRAT.EP]EP288C028.EDT;1
SCRATCH:[STRAT.EP]EP288C029.EDT;1
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SCRATCH:[STRAT.EP]EP288C031.EDT;1
SCRATCH:[STRAT.EP]EP288C032.EDT;1
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SCRATCH:[STRAT.EP]EP288C034.EDT;1
SCRATCH:[STRAT.EP]EP288C035.EDT;1
SCRATCH:[STRAT.EP]EP288C036.EDT;1
SCRATCH:[STRAT.EP]EP288C037.EDT;1

```
CAST EP1-87-RS -001   DATE 25 APR 87   TIME 2033 GMT  AOML NBIS CTD #1
LAT 00 54.5N  LONG 105 34.5W  WEATHER 2  SEA STATE 2  15:21  8-DEC-89        C
BAROMETER 10  WIND DIR 267 T SPD 08 KT  VISIBILITY 7     153   0.0 152.0  1.0  4
CLOUD 4  AMOUNT 8  DRY 26.0  WET 24.0   DEPTH 3521 M  NOAA/PMEL/OCRD/HAYES
   1  20  41  60
     0.0  29.205  32.887   4.935
   100.0  15.849  34.899   2.146
```

ACCESSION NUMBER 8900298

# DATA DOCUMENTATION FORM

A01017

NOAA FORM 24-13
(2-85)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
WASHINGTON, DC 20235

FORM APPROVED
O.M.B. No. 0648-0024
*EXPIRES 2/29/87*

**(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)**

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

RECEIVED
DEC 15 1989
279

## A. ORIGINATOR IDENTIFICATION

**THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS**

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

NOAA, Pacific Marine Environmental Laboratory
7600 Sand Point Way NE
Seattle, Wa. 98115

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

Equatorial Pacific Ocean Climate Studies (EPOCS)

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

EP4-88-OC
EP5-88-OC

| 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 |
| Oceanographer | ship | U.S. | U.S. | 10/13/88 | 12/11/88 |

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

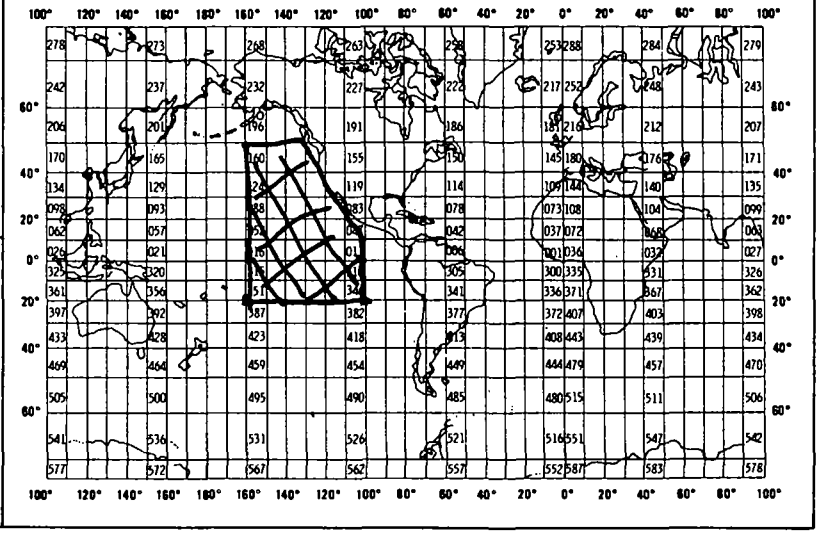
[ ] NO [X] YES [ ] PART *(SPECIFY BELOW)*

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

Dr. Stanley Hayes
(206)526-6742

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

GENERAL AREA



NOAA FORM 24-13

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

**EXAMPLE (HYPOTHETICAL INFORMATION)**

| NAME OF DATA FIELD | REPORTING UNITS OR CODE | METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL) | ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES | DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING |
|---|---|---|---|---|
| Salinity | ‰ | Nansen bottles | Inductive salinometer (Hytech model 5510) | N/A (Not applicable) |
| | | STD Bissett-Berman Model 9006 | N/A | Values averaged over 5-meter intervals |
| Water color | Forel scale | Visual comparison with Forel bottles | N/A | N/A |
| Sediment size | $\phi$ units and percent by weight | Ewing corer | Standard sieves. Carbonate fraction removed by acid treatment | Same as "Sedimentary Rock Manual," Folk '65 |

**(SPACE IS PROVIDED ON THE FOLLOWING TWO PAGES FOR THIS INFORMATION)**

## C. DATA FORMAT

**This information is requested only for data transmitted on punched cards or magnetic tape.** Have one of your data processing specialists furnish answers either on the form or by attaching equivalent readily available documentation. Identify the nature and meaning of all entries and explain any codes used.

1. List the record types contained in your file transmittal (e.g., tape label record, master, detail, standard depth, etc.).

2. Describe briefly how your file is organized.

3-13. Self-explanatory.

14. Enter the field name as appropriate (e.g., header information, temperature, depth, salinity.

15. Enter starting position of the field.

16. Enter field length in number columns and unit of measurement (e.g., bit, byte, character, word) in unit column.

17. Enter attributes as expressed in the programming language specified in item 3 (e.g., "F 4.1," "BINARY FIXED (5.1)").

18. Describe field. If sort field, enter "SORT 1" for first, "SORT 2" for second, etc. If field is repeated, state number of times it is repeated.

## 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 sheets)

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

(see attached sheets)

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

4. RESPONSIBLE COMPUTER SPECIALIST:
NAME AND PHONE NUMBER Linda Mangum, (206)526-6740
ADDRESS NOAA/PMEL, 7600 Sand Point Way NE, Seattle, Wa. 98115

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

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

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

7. PARITY
☒ ODD
☐ EVEN

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

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

10. END OF FILE MARK
☒ OCTAL 17
☐ _____

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

EPOCS CTD datasets, 1988
88 casts, 9 track, EBCDIC
odd parity, 1600 bpi, single file
2400 chars/block

12. PHYSICAL BLOCK LENGTH IN BYTES
2400 chars/block

13. LENGTH OF BYTES IN BITS

# 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 | | |
| (see attached sheets) | | | | | |

NOAA FORM 24-13

# 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 | | |
| | | | | | |

NOAA FORM 24-13

## D. INSTRUMENT CALIBRATION

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

| INSTRUMENT TYPE (MFR., MODEL NO.) | DATE OF LAST CALIBRATION | INSTRUMENT WAS CALIBRATED BY | | CHECK ONE: INSTRUMENT IS CALIBRATED | | | | | INSTRUMENT IS NOT CALIBRATED |
|---|---|---|---|---|---|---|---|---|---|
| | | YOUR ORGANIZATION (√) | OTHER ORGANIZATION (GIVE NAME) | AT FIXED INTERVALS (√) | BEFORE OR AFTER USE (√) | BEFORE AND AFTER USE (√) | ONLY AFTER REPAIR (√) | ONLY WHEN NEW (√) | (√) |
| | | | | | | | | | |
| | | | | | | | | | |
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NOAA FORM 24-13

# NOAA / PMEL / OCRD CTD Data Format Description

Magnetic tapes containing CTD cast data have the following characteristics:

1) 9-track

2) EBCDIC

3) Odd Parity

4) 1600 BPI

5) Single file

6) End-of-file mark - Octal 17

7) Blocking: Tapes have 80-character records blocked 30 records/block, and therefore have 2400 characters/block. The last block on the tape may contain fewer than 2400 characters/block.

8) Data Format: The enclosed data listing shows the format of the data on the tape. The listing format differs from the tape only in that the listing is of subsampled data. On this listing, there is a data header consisting of 5 80-character lines. Line 5 of the header records contains the variable codes for the data that is included in the file. These variable codes are identified in attached listing. The data scans themselves follow sequentially (F8.1,9F8.3).

The number of variables in each data scan is in columns 79-80 of line 3 in the data header. The number of data scans in each cast is in columns 55-60 of line 3 in the data header (see listing).

9) The CTD cast data files are in the order shown on the attached listing.

Data Variables Contained on NOAA/PMEL/OCRD CTD Data Tape:

| | |
|---|---|
| 1 | PRESSURE (DB) |
| 20 | TEMPERATURE (C) |
| 41 | SALINITY (PSU) |

Following casts were written to CTD Data Tape:

| Cruise # | NSCANS |
|---|---|
| EP4-88-OC -000 | 503 |
| EP4-88-OC -001 | 1001 |
| EP4-88-OC -002 | 1002 |
| EP4-88-OC -003 | 1002 |
| EP4-88-OC -004 | 1001 |
| EP4-88-OC -005 | 3800 |
| EP4-88-OC -006 | 301 |
| EP4-88-OC -007 | 1002 |
| EP4-88-OC -008 | 1005 |
| EP4-88-OC -009 | 3799 |
| EP4-88-OC -010 | 300 |
| EP4-88-OC -011 | 1008 |
| EP4-88-OC -012 | 1002 |
| EP4-88-OC -013 | 1002 |
| EP4-88-OC -014 | 1005 |
| EP4-88-OC -015 | 3700 |
| EP4-88-OC -016 | 303 |
| EP4-88-OC -017 | 1002 |
| EP4-88-OC -018 | 1003 |
| EP4-88-OC -019 | 301 |
| EP4-88-OC -020 | 3248 |
| EP4-88-OC -021 | 1002 |
| EP4-88-OC -022 | 1005 |
| EP4-88-OC -023 | 3800 |
| EP4-88-OC -024 | 303 |
| EP4-88-OC -025 | 3785 |
| EP4-88-OC -026 | 3914 |
| EP4-88-OC -027 | 300 |
| EP4-88-OC -028 | 4049 |
| EP4-88-OC -029 | 302 |
| EP4-88-OC -030 | 4397 |
| EP4-88-OC -031 | 168 |
| EP4-88-OC -032 | 3998 |
| EP4-88-OC -033 | 300 |
| EP4-88-OC -034 | 4200 |
| EP4-88-OC -035 | 302 |
| EP4-88-OC -036 | 4048 |
| EP4-88-OC -037 | 301 |
| EP4-88-OC -038 | 1003 |
| EP5-88-OC -001 | 1008 |
| EP5-88-OC -002 | 1004 |
| EP5-88-OC -003 | 1010 |
| EP5-88-OC -004 | 4107 |
| EP5-88-OC -005 | 301 |
| EP5-88-OC -006 | 1003 |

| | |
|---|---|
| EP5-88-OC -007 | 1001 |
| EP5-88-OC -008 | 1007 |
| EP5-88-OC -009 | 502 |
| EP5-88-OC -010 | 4198 |
| EP5-88-OC -011 | 302 |
| EP5-88-OC -012 | 504 |
| EP5-88-OC -013 | 1001 |
| EP5-88-OC -014 | 1002 |
| EP5-88-OC -015 | 1016 |
| EP5-88-OC -016 | 4248 |
| EP5-88-OC -017 | 301 |
| EP5-88-OC -018 | 500 |
| EP5-88-OC -019 | 1000 |
| EP5-88-OC -020 | 1003 |
| EP5-88-OC -021 | 302 |
| EP5-88-OC -022 | 4100 |
| EP5-88-OC -023 | 1001 |
| EP5-88-OC -024 | 1002 |
| EP5-88-OC -025 | 1010 |
| EP5-88-OC -026 | 4698 |
| EP5-88-OC -027 | 305 |
| EP5-88-OC -028 | 1020 |
| EP5-88-OC -029 | 1008 |
| EP5-88-OC -030 | 2 |
| EP5-88-OC -031 | 1008 |
| EP5-88-OC -032 | 4496 |
| EP5-88-OC -033 | 503 |
| EP5-88-OC -034 | 501 |
| EP5-88-OC -035 | 4696 |
| EP5-88-OC -036 | 1016 |
| EP5-88-OC -037 | 1001 |
| EP5-88-OC -038 | 502 |
| EP5-88-OC -039 | 503 |
| EP5-88-OC -040 | 500 |
| EP5-88-OC -041 | 1002 |
| EP5-88-OC -042 | 1000 |
| EP5-88-OC -043 | 501 |
| EP5-88-OC -044 | 4300 |
| EP5-88-OC -045 | 1001 |
| EP5-88-OC -046 | 1001 |
| EP5-88-OC -047 | 1002 |
| EP5-88-OC -048 | 1010 |
| EP5-88-OC -049 | 1002 |

Total number of CTD casts written out = 88

DISK$HAYES:[DATA.EP488.CTD]EP488C000.CTD;6
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DISK$HAYES:[DATA.EP488.CTD]EP488C003.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C004.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C005.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C006.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C007.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C008.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C009.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C010.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C011.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C012.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C013.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C014.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C015.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C016.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C017.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C018.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C019.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C020.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C021.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C022.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C023.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C024.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C025.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C026.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C027.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C028.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C029.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C030.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C031.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C032.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C033.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C034.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C035.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C036.CTD;2
DISK$HAYES:[DATA.EP488.CTD]EP488C037.CTD;1
DISK$HAYES:[DATA.EP488.CTD]EP488C038.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C001.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C002.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C003.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C004.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C005.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C006.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C007.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C008.CTD;4
DISK$HAYES:[DATA.EP588.CTD]EP588C009.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C010.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C011.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C012.CTD;1
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DISK$HAYES:[DATA.EP588.CTD]EP588C015.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C016.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C017.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C018.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C019.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C020.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C021.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C022.CTD;2
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DISK$HAYES:[DATA.EP588.CTD]EP588C024.CTD;1

DISK$HAYES:[DATA.EP588.CTD]EP588C025.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C026.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C027.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C028.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C029.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C030.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C031.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C032.CTD;2
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DISK$HAYES:[DATA.EP588.CTD]EP588C034.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C035.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C036.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C037.CTD;2
DISK$HAYES:[DATA.EP588.CTD]EP588C038.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C039.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C040.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C041.CTD;1
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DISK$HAYES:[DATA.EP588.CTD]EP588C043.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C044.CTD;3
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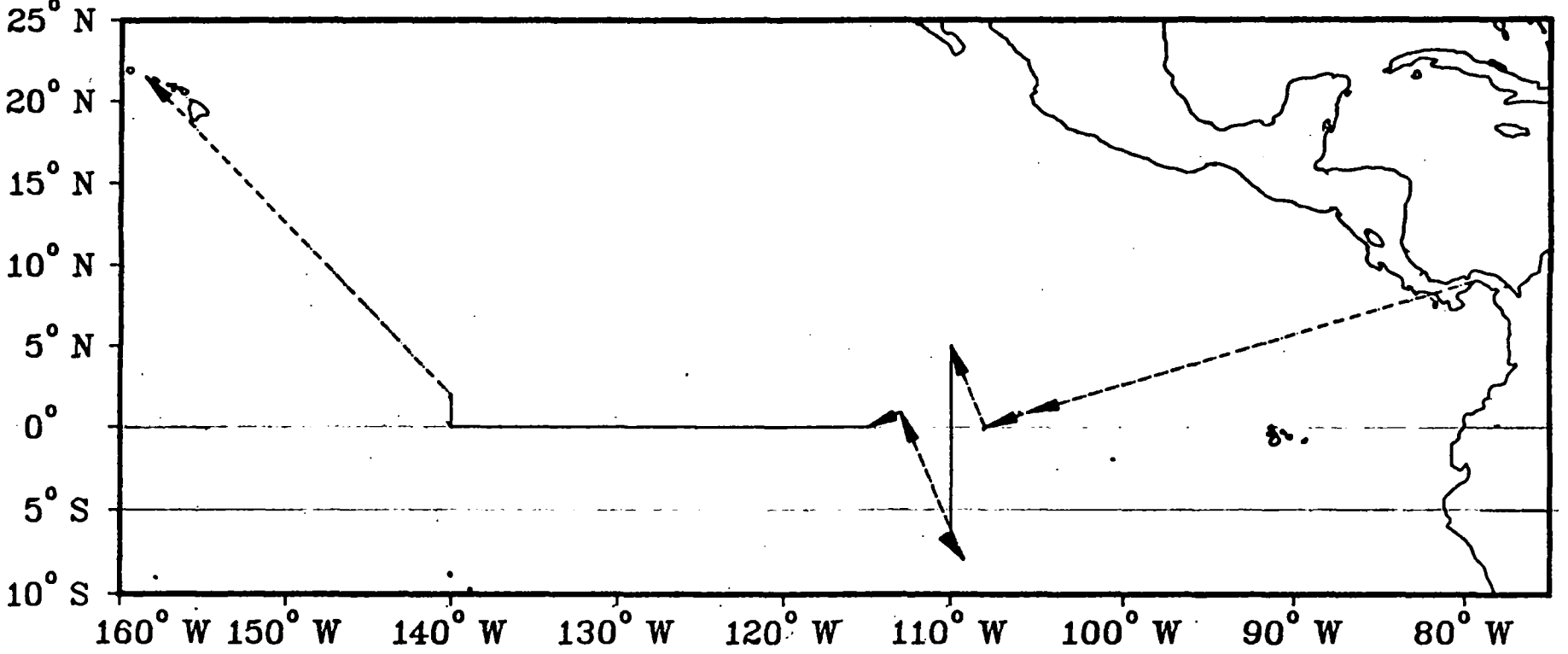
DISK$HAYES:[DATA.EP588.CTD]EP588C048.CTD;1
DISK$HAYES:[DATA.EP588.CTD]EP588C049.CTD;1

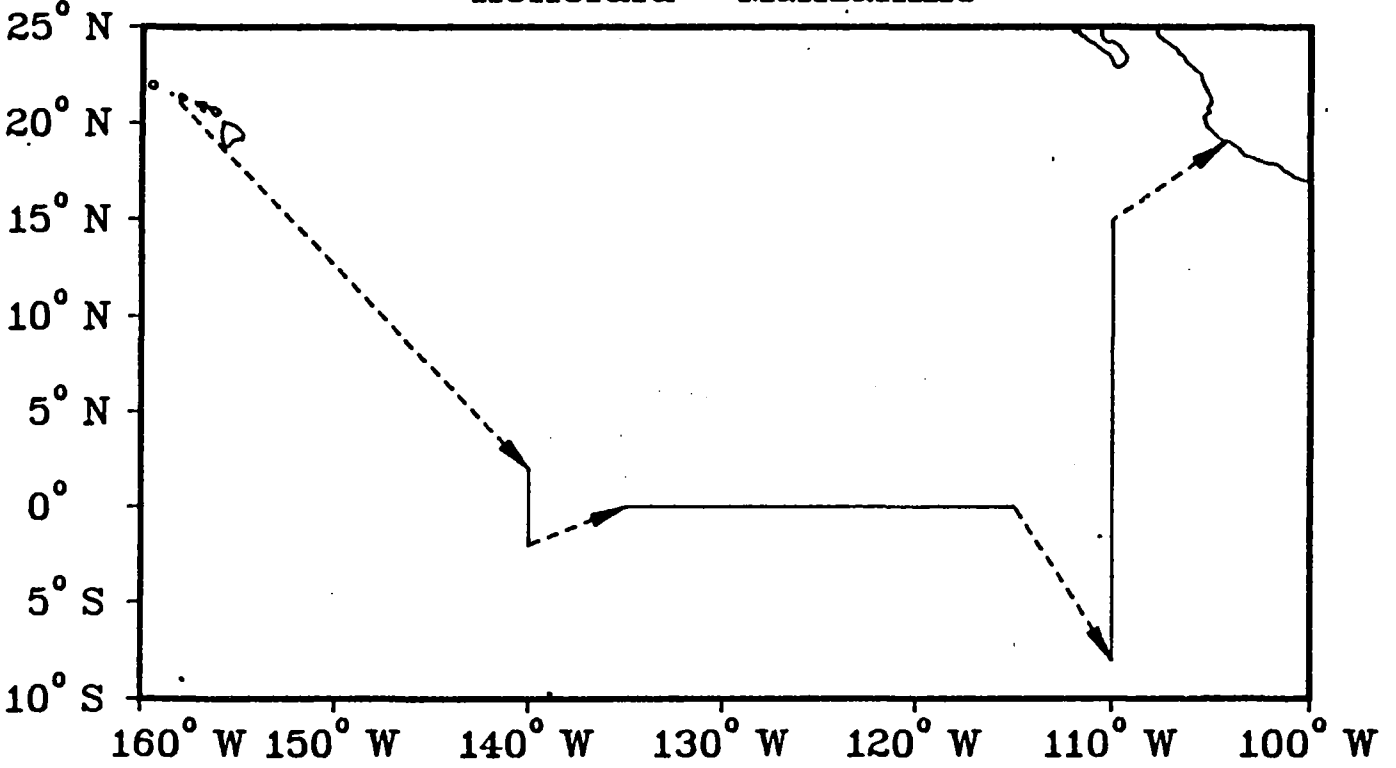
CAST, EP4-88-OC -000  DATE 19 OCT 88  TIME 2018 GMT  PMEL NBIS CTD #2044
LAT 25 24.5N  LONG 115 11.6W  WEATHER 1  SEA STATE 2  08:50 12-JAN-89  C
BAROMETER 15  WIND DIR 250 T SPD 04 KT  VISIBILITY 8  503  0.  502.  1.  3
CLOUD 3  AMOUNT 3  DRY 21.0  WET 19.0  DEPTH 3764 M  NOAA/PMEL/OCRD/MANGUM

| | | |
|---|---|---|
| 1 | 20 | 41 |
| 0.0 | 21.135 | 33.687 |
| 100.0 | 14.097 | 33.679 |
| 200.0 | 10.059 | 34.221 |
| 300.0 | 8.918 | 34.377 |
| 400.0 | 7.546 | 34.345 |
| 500.0 | 6.600 | 34.360 |

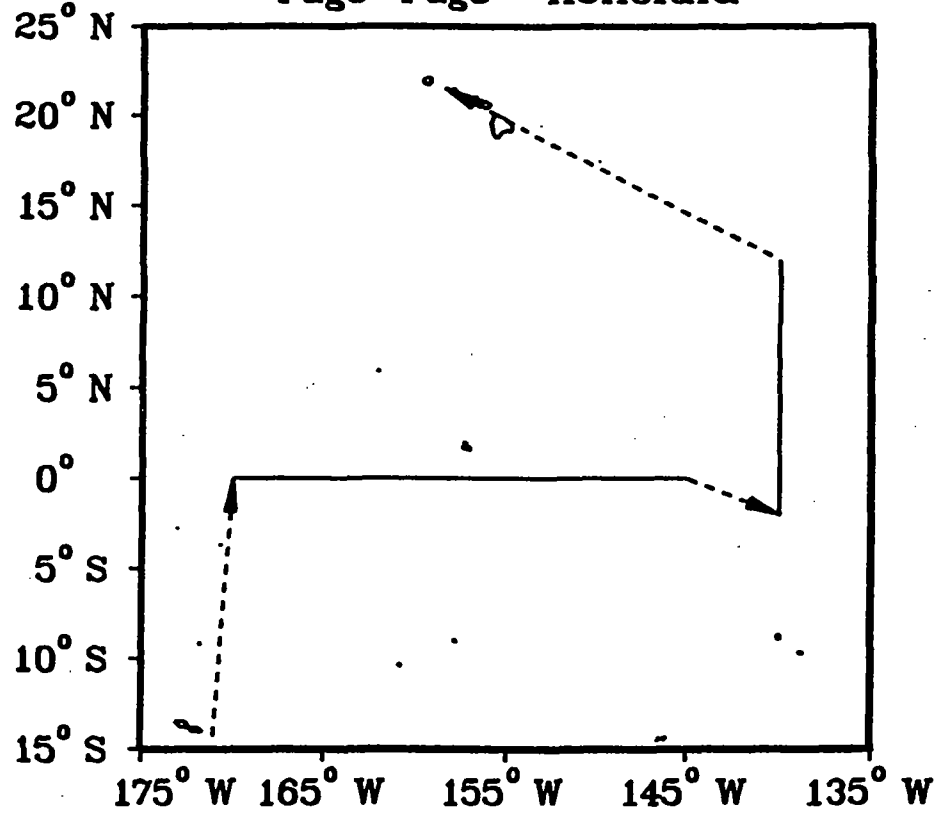
EP1–87–RS NOAA Ship RESEARCHER
20 April – 17 May 1987 (7)
Rodman – Honolulu



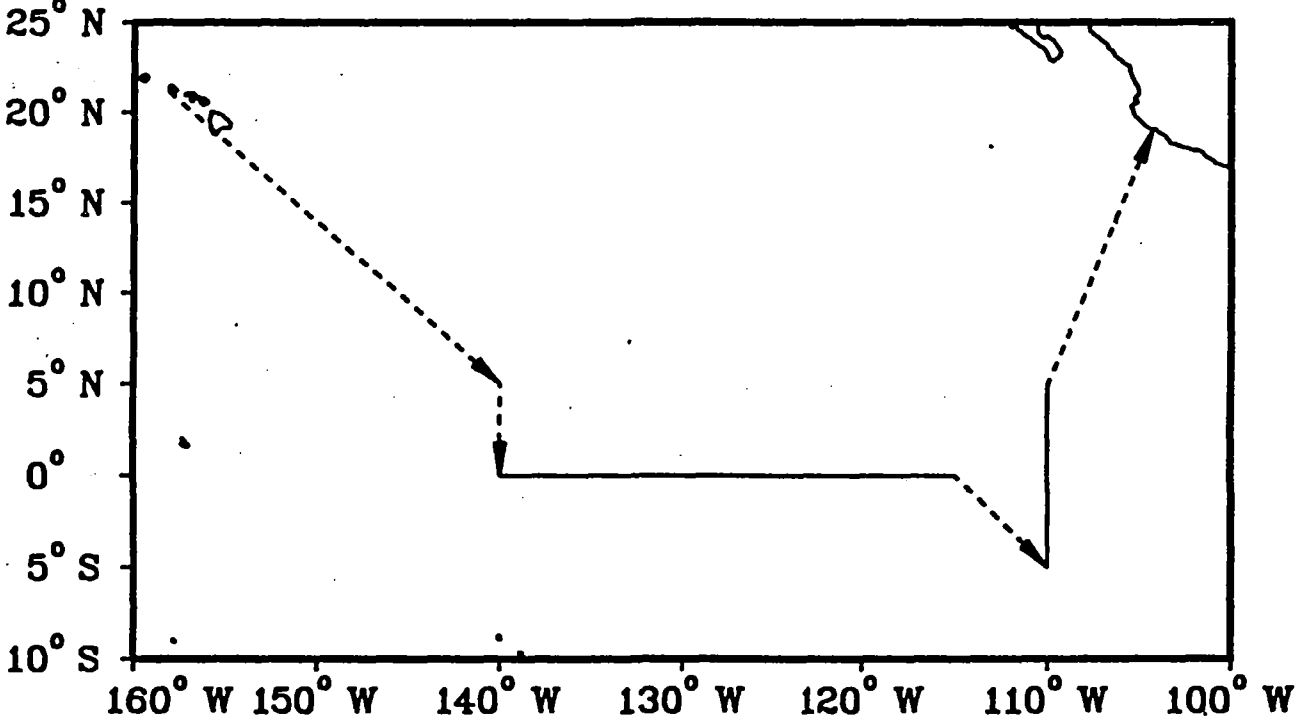
EP2–87–OC NOAA Ship OCEANOGRAPHER
6 OCT – 4 NOV 87
Honolulu – Manzanillo



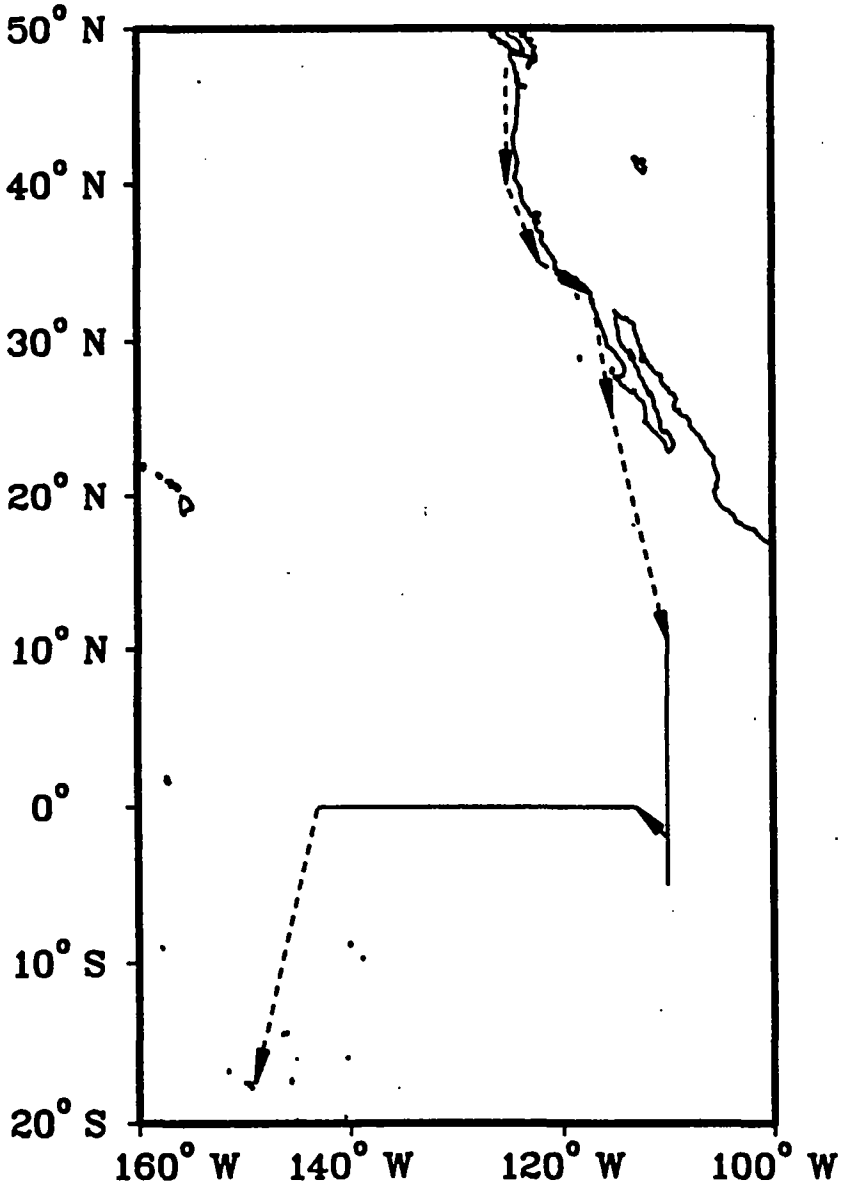
EP1–88–OC NOAA Ship OCEANOGRAPHER
9 May – 4 June 1988
Pago–Pago – Honolulu



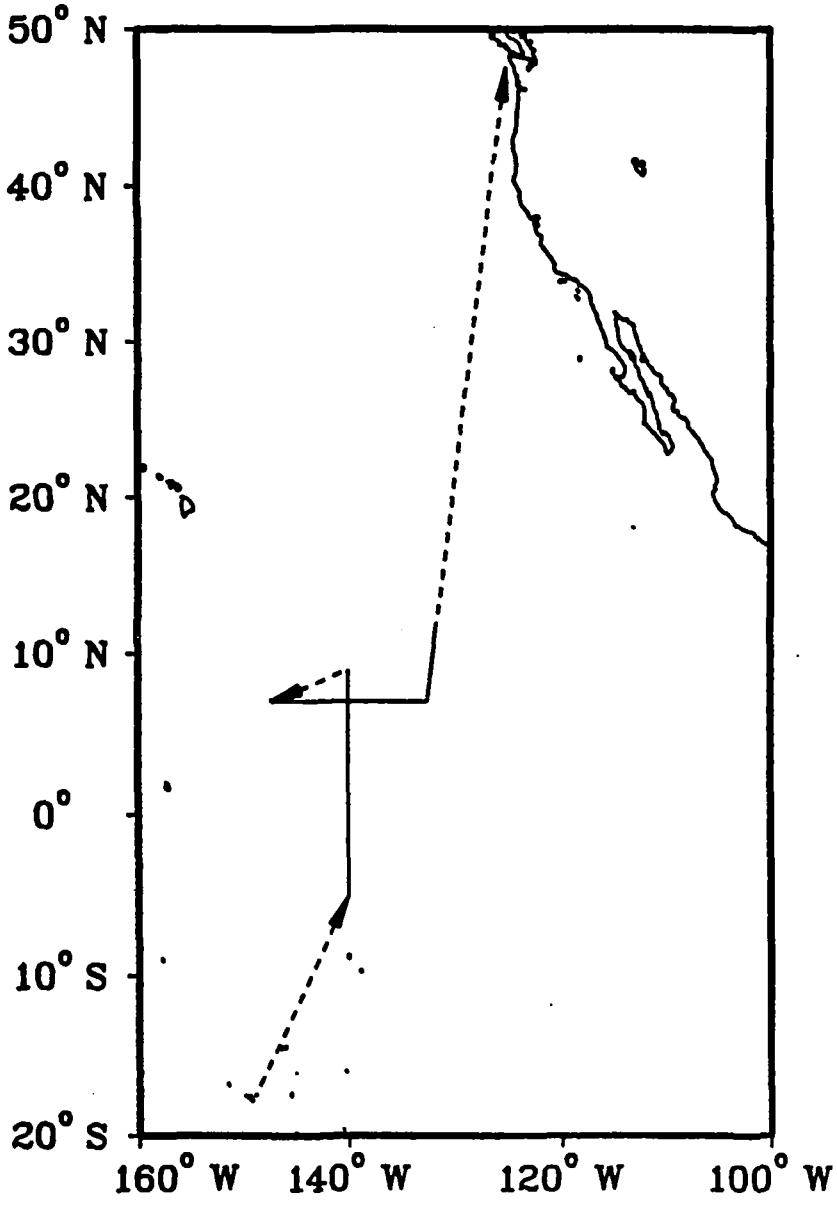
EP2-88-OC NOAA Ship OCEANOGRAPHER
17 June – 9 July 1988
Honolulu – Manzanillo

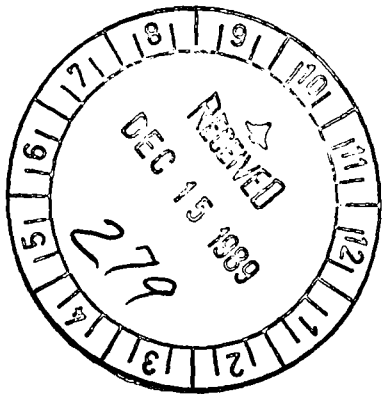


EP4–88–OC NOAA Ship OCEANOGRAPHER
13 Oct – 10 Nov 1988
Seattle – Papeete



EP5-88-OC NOAA Ship OCEANOGRAPHER
14 Nov – 11 Dec 1988
Papeete – Seattle




RECEIVED
DEC 15 1989
279

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 8900298 C022 319885 0106 313F 310C    1987/10/08 TV4645       189811
 8900298 C022 319886 0106 313F 310C    1988/05/12 TV4646       189812
 8900298 C022 319887 0106 313F 310C    1988/06/21 TV4647       189813
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 8900298 F022 TV4646 0106 313F 310C    1988/05/12 EP1-88       189818
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 8900298 C022 319885 31OC 61     113    87/10/08   87/11/03
 8900298 C022 319886 31OC 39     76     88/05/12   88/05/31
 8900298 C022 319887 31OC 37     68     88/06/21   88/07/06
 8900298 C022 319888 31OC 39     68     88/10/19   88/11/07
 8900298 C022 319889 31OC 49     96     88/11/18   88/12/03
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 8900298 F022 TV4649 31OC 49     13472  88/11/18   88/12/03

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