DEPLOYMENT RECORD

Project Name: Covariability Start Date: September 2004 End Date: May 2005
Mooring Name: JF2E-F Station Name: JF2E

Geog. Desc.: Juan de Fuca South side Tide: + 2.8m
Latitude: 48°15.209' Longitude: 124° 09.768
Water Depth: 150m datum Ice Thickness: —
Magnetic decl: — Time Zone: PDT Anchor Type: 4 wheels 2900 lbs
Date: Sep. 17, 2004 Time Anchor Dropped: 1942 PDT Date:
Remarks:

RECOVERY RECORD

Date: Apr. 28, 2005 Time Anchor Released: 1214 PDT
Remarks:

INSTRUMENTS (Start at TOP)

| Type | Serial # | Depth | Time in | Time Out | Notes |
|---|---|---|---|---|---|
| RDI 300kHz | 2275 | 125m | 1837 PST | | |
| | | | | | |
| | | | | | |
| RCM4 | 7993 | 140m | 1840 PST | | |
| | | | | | |
| | | | | | |
| 6 x Vemco's | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Argos 4014

| Release | Serial | R Code | Arm Code | Freq | On/Off | B0 | B1 | Aux Codes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1090 | 251 | ACEH | CDFG | 8kHz | — | | | | | | |
| | | | | | | | | | | | |

| Pinger 1 | Type | Serial | Pinger 2 | Type | Serial | Battery Volt | |
|---|---|---|---|---|---|---|---|
| Helle | 1/4 x 27 | 6945 | DML | 1/4 x 27 | 657 | 19.1 | 18.6 |

FLOTATION

| Type | Serial # | Size | Colour |
|---|---|---|---|
| SS37 | 2458 | 37" | yellow |
| ADCP | collar | | yellow |
| SS34 | 5904 | 34" | yellow |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Type | Serial # | Size | Colour |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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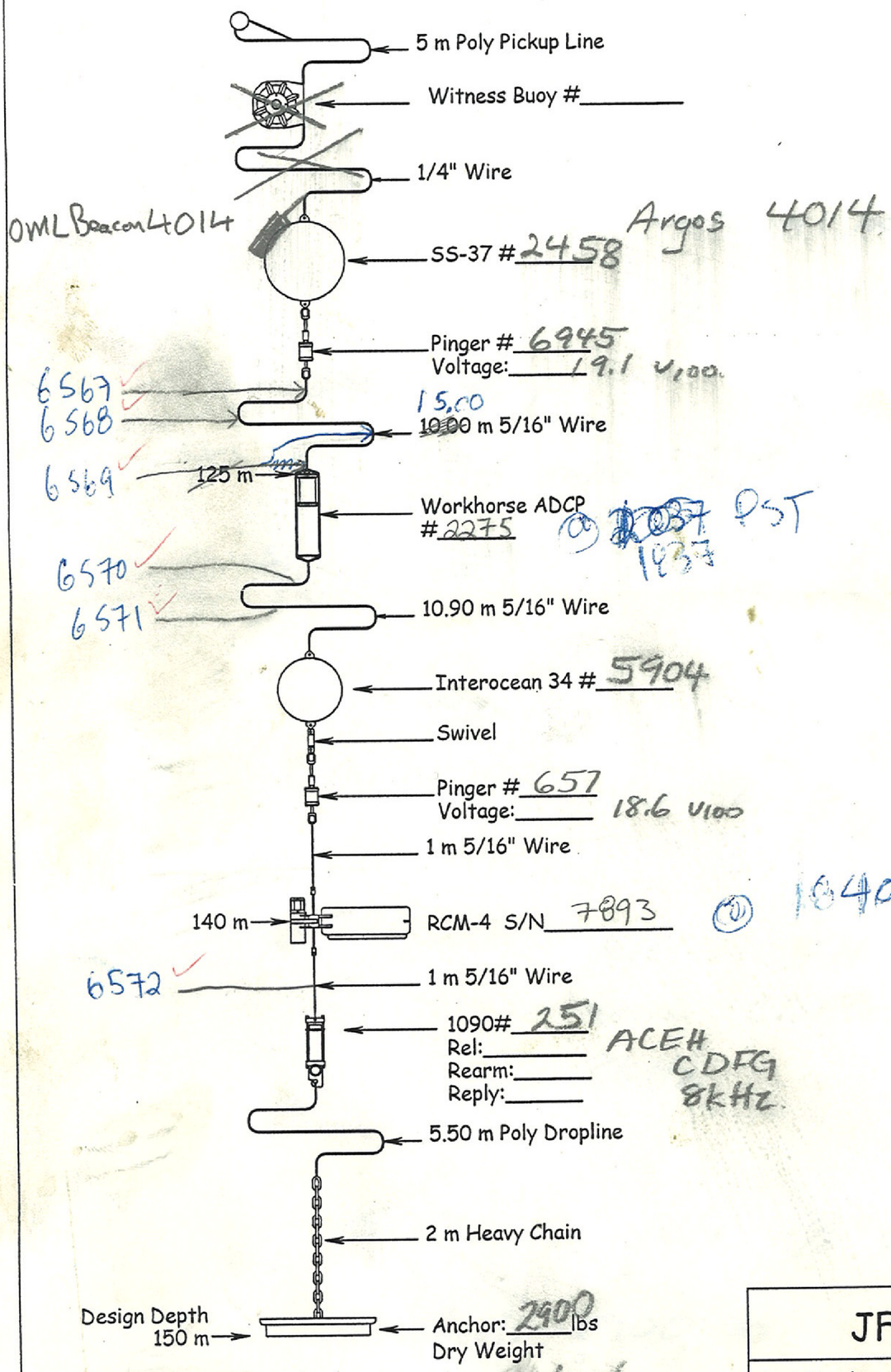
| | | | |

Data Entry by:




+ 2.8m tide @ Sekiu
152.8 - 2.8m = 150 m datum

| JF2E-~~CV~~- F | |
|---|---|
| Latitude: 48°15.209' | |
| Longitude 124° 9.768 | |
| Time: 1942 PDT | Date: Sept 17, 20 |
| Depth: 152.8 m = 150 m datum | |

JF2E-F Sep. 18 17

5m poly + float pick up line ½"Ø
5537 2458 ½"Ø ½"Ø swivel ½"Ø

Pinger 6945 19.4 4100 ½"Ø

15m 5/16" wire

ADCP #2275 2 float collar
12" + 8"
external battery

10m 5/16" wire ½"Ø

5534 5904

½"Ø ½"Ø swivel ½"Ø

Pinger 657 18.6 4100 ½"Ø

1m. 5/16" wire

RCM4 7893 vane 458
1m 5/16" wire

1090 251 Rel: ACEH
Rearm: CDFG
8kHz

1"Ø
5.28m 1" poly ⅞"Ø

4 wheels 2900 lbs

in water 2C {CDEH ABDH} 2B / JF2E-F = ACEH
{ABGH

| Date | Time (PDT) | |
|---|---|---|
| Sep. 17 | 1818 | - on station JF2E for recovery |
| | | - drifting over ranges from 160 — 154 m |
| | | - ranges rising 157, 160, 164, 165 — 207 m |
| | 1823 | - sent BCDF - rec'd positive response |
| | | - recovered without incident |
| | | - clean up + set up |
| | 1942 | - deployed JF2E-F at 48° 15.209' 124° 09.768' in 152.8 m water with +2.8 m tide datum = 150m |
| | | - head for CTD lines |

IOS OCEAN PHYSICS

AANDERA CURRENT METER DEPLOYMENT AND RECOVERY RECORD

INSTRUMENT: RCM4 SERIAL #: 7893 (PST) UTC, OTHER: _____
TAPE SIZE: 3 1/4" PROJECT: _____ I(mA) 16mA

| Channel # | Reading 1 | Reading 2 | Last Cal |
|---|---|---|---|
| 1. Reference | 383 | | |
| 2. Temperature | 1007 | | |
| 3. Conductivity | 268 | | |
| 4. Extemp/pressure | 47 | | |
| 5. Direction | 27 | | |
| 6. Speed | 8 | | |
| Date: Sept 15/04 Time | 1800 PST | | |

Rotor Counter Information:
Rev/Count: 4
F.S.= 95 Cm/S
Rotor Switch: 4
Rotor Type: 5

Sampling Interval: 30 MIN
Pressure Sensore Range: 500 PSI
Depth Max: 368 MAX
Conductivity Range: 24-44 MMHO
HI Res Temperature Range: _____

Depth: ~~737.2m~~ 140m.
Serial #: 51890-6
Compass Serial #: 001629 1
Cell Serial #: 7792

TAPE ID: 7893/13

| Channel # | Reading 1 | Reading 2 |
|---|---|---|
| 1. Reference | | |
| 2. Temperature | | |
| 3. Conductivity | | |
| 4. Extemp/pressure | | |
| 5. Direction | | |
| 6. Speed | | |
| Date: Time | | |

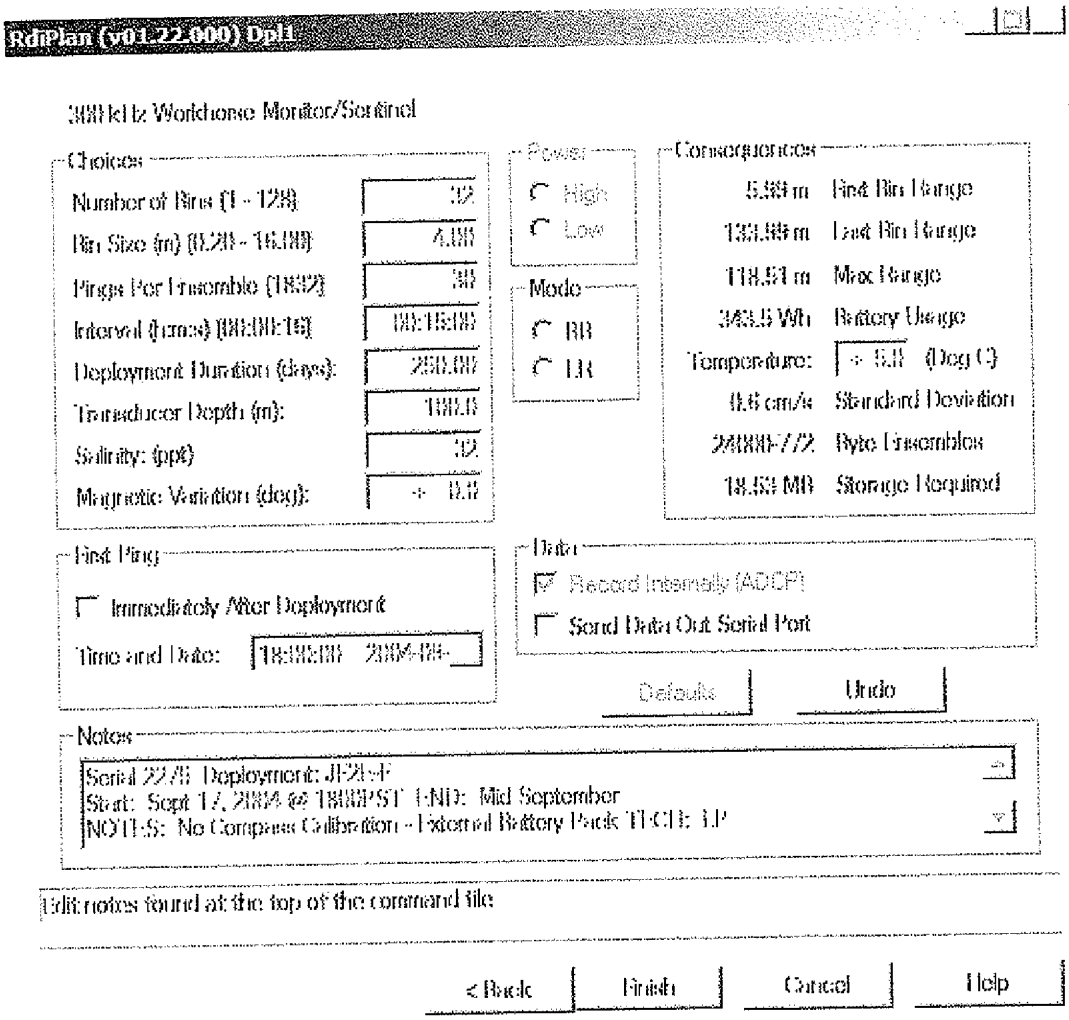
TIME IN WATER: 1840 PST. DATE: Sep. 17, 2004
BAT VOLTAGE: 9.96 ON DEPLOYMENT
CRUISE ID: 2004-29 DEPLOYED
TECHNICIAN: p

TIME OUT WATER: 1214PDT DATE: Apr. 28, 2005
BAT VOLTAGE: 8.56 ON RECOVERY
CRUISE ID: 2005-08 RECOVERED
TECHNICIAN: LP

NOTES: _____

JF2E-F – SERIAL-2275
External Battery pack measured: 44.65v
No Compass Calibration.

Start: Sept17, 2004 @1800PST
End: Mid May




```
>>>>>> Function starting 09/17/04 15:38:34 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>TS040917153836
>CZ

Powering Down
```

```
>>>>>> Function starting 09/17/04 15:38:44 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>DEPLOY?
Deployment Commands:
RE ------------------------ Recorder ErAsE
RN ------------------------ Set Deployment Name

WD = 111 100 000 --------- Data Out (Vel,Cor,Amp; PG,St,P0; P1,P2,P3)
WF = 0176 ---------------- Blank After Transmit (cm)
WN = 027 ----------------- Number of depth cells (1-128)
WP = 00068 --------------- Pings per Ensemble (0-16384)
WS = 0400 ---------------- Depth Cell Size (cm)
WV = 170 ----------------- Mode 1 Ambiguity Vel (cm/s radial)

TE = 00:15:00.00 --------- Time per Ensemble (hrs:min:sec.sec/100)
TF = **/**/**,**:**:** --- Time of First Ping (yr/mon/day,hour:min:sec)
TP = 00:13.23 ------------ Time per Ping (min:sec.sec/100)
TS = 04/09/17,15:38:45 --- Time Set (yr/mon/day,hour:min:sec)

EA = +00000 -------------- Heading Alignment (1/100 deg)
EB = +00000 -------------- Heading Bias (1/100 deg)
ED = 01100 --------------- Transducer Depth (0 - 65535 dm)
ES = 32 ------------------ Salinity (0-40 pp thousand)
EX = 11111 --------------- Coord Transform (Xform: Type,Tilts,3 Bm,Map)
EZ = 1111111 ------------- Sensor Source (C,D,H,P,R,S,T)

Press any key to continue                        CF = 11101 -------------
-- Flow Ctrl (EnsCyc;PngCyc;Binry;Ser;Rec)
CK ------------------------ Keep Parameters as USER Defaults
CR # ---------------------- Retrieve Parameters (0 = USER, 1 = FACTORY)
CS ------------------------ Start Deployment

>SYSTEM?
System Control, Data Recovery and Testing Commands:
AC ------------------------ Output Active Fluxgate & Tilt Calibration
data
AF ------------------------ Field calibrate to remove hard/soft iron
error
AR ------------------------ Restore factory fluxgate calibration data
AX ------------------------ Examine compass performance
AZ ------------------------ Zero pressure reading

CB = 811 ----------------- Serial Port Control (Baud; Par; Stop)
CP # ---------------------- Polled Mode (0 = NORMAL, 1 = POLLED)
CZ  ----------------------- Power Down Instrument

FC ------------------------ Clear Fault Log
FD ------------------------ Display Fault Log

OL ------------------------ Display Features List

PA ------------------------ Pre-Deployment Tests
PC1 ----------------------- Beam Continuity
```

```
PC2 ---------------------- Sensor Data
PS0 ---------------------- System Configuration
PS3 ---------------------- Transformation Matrices

RR ----------------------- Recorder Directory
Press any key to continue                          RF --------------------
-- Recorder Space used/free (bytes)
RY ----------------------- Upload Recorder Files to Host

>TS?
TS = 04/09/17,15:39:26 --- Time Set (yr/mon/day,hour:min:sec)
>PS0
  Instrument S/N:  2275
       Frequency:  307200 HZ
   Configuration:  4 BEAM, JANUS
     Match Layer:  10
      Beam Angle:  20 DEGREES
    Beam Pattern:  CONVEX
     Orientation:  UP
       Sensor(s):  HEADING  TILT 1  TILT 2  DEPTH  TEMPERATURE  PRESSURE
Pressure Sens Coefficients: (c3,c2,c1,offset) -0.00,0.00,0.16,-24.13

Temp Sens Offset:  -0.41 degrees C

    CPU Firmware:  16.20 [0]
   Boot Code Ver:  Required:  1.13   Actual:  1.13
    DEMOD #1 Ver:  ad48, Type:  1f
    DEMOD #2 Ver:  ad48, Type:  1f
    PWRTIMG  Ver:  85d3, Type:   4

Board Serial Number Data:
   59  00 00 02 C9 30 61  09 DSP727-2001-04F
   9D  00 00 03 01 98 83  09 REC727-1000-04A
   BB  00 00 03 01 6C 43  09 CPU727-2000-00H
   27  00 00 03 01 9A FB  09 PIO727-3000-04C
>PA

PRE-DEPLOYMENT TESTS

CPU TESTS:
  RTC.....................................PASS
  RAM.....................................PASS
  ROM.....................................PASS
RECORDER TESTS:
  PC Card #0..............................DETECTED
    Card Detect...........................PASS
    Communication.........................PASS
    DOS Structure.........................PASS
    Sector Test (short)...................PASS
  PC Card #1..............................DETECTED
    Card Detect...........................PASS
    Communication.........................PASS
    DOS Structure.........................PASS
    Sector Test (short)...................PASS
DSP TESTS:
  Timing RAM..............................PASS
  Demod  RAM..............................PASS
```

```
  Demod  REG.............................PASS
  FIFOs..................................PASS
SYSTEM TESTS:
  XILINX Interrupts... IRQ3  IRQ3  IRQ3 ...PASS
  Receive Loop-Back......................PASS
  Wide Bandwidth.........................PASS
  Narrow Bandwidth.......................PASS
  RSSI Filter............................PASS
  Transmit...............................PASS
SENSOR TESTS:
  H/W Operation..........................PASS
>PC2

Press any key to quit sensor display ...

Heading   Pitch    Roll   Up/Down    Attitude Temp   Ambient Temp
PRESSURE
341.78ø  -0.48ø  -1.30ø     Up          22.00øC        20.84øC
0.8 kPa343.42ø  -0.34ø  -0.99ø     Up          22.02øC        20.84øC
1.4 kPa343.05ø  -0.43ø   0.06ø     Up          22.00øC        20.84øC
-0.8 kPa340.95ø  -0.63ø   0.92ø     Up          22.02øC        20.83øC
0.9 kPa338.82ø  -0.89ø   1.13ø     Up          22.01øC        20.85øC
-2.5 kPa338.66ø  -0.82ø   0.69ø     Up          22.01øC        20.84øC
4.6 kPa339.33ø  -0.35ø  -0.38ø     Up          22.01øC        20.84øC
4.1 kPa339.89ø  -0.01ø  -1.27ø     Up          22.00øC        20.85øC
4.6 kPa340.91ø  -0.13ø  -0.86ø     Up          22.01øC        20.84øC
2.5 kPa
>RS
RS = 000,107 ------------- REC SPACE USED (MB), FREE (MB)

>PC1


BEAM CONTINUITY TEST

When prompted to do so, vigorously rub the selected
beam's face.

If a beam does not PASS the test, send any character to
the ADCP to automatically select the next beam.

Collecting Statistical Data...
  39  43  41  44  39  42  41  44  39  42  41  44  39  42  40  44  39  42
41  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42  41  43
39  42  41  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42
41  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42  41  43
39  42  40  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42
40  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42  41  43
39  42  41  43  39  42  41  43  39  42  41  43  39  42  41  43  39  42
41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43
39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43
41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43
39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43
41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43
39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43
41  43  39  43  41  43  39  43  41  43  39  43  41  43  39  43  41  43
39  43  41  43  39  43  41  43
```

```
Rub Beam 1 = PASS
Rub Beam 2 = PASS
Rub Beam 3 = PASS
Rub Beam 4 = PASS

>CZ

Powering Down

>>>>>> Function starting 09/17/04 15:41:45 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>CR1
[Parameters set to FACTORY defaults]
>CF11101
>EA00000
>EB00000
>ED01000
>ES32
>EX11111
>EZ1111111
>TE00:15:00.00
>TF04/09/17,18:00:00
>TP00:30.00
>WB0
>WD111100000
>WF0176
>WN032
>WP00030
>WS0400
>WV170
>CK
[Parameters saved as USER defaults]
>The command CS is not allowed in this command file.  It has been
ignored.
>The following commands are generated by this program:
>CF?
CF = 11101 --------------- Flow Ctrl (EnsCyc;PngCyc;Binry;Ser;Rec)
>CF11101
>RN JF2EF
>cs
```

Study initialization log file
InitDateTime,DelayedStart,SamplePeriod,Minilog info,StudyName
yyyy/mm/dd hh:mm:ss,yyyy/mm/dd hh:mm:ss,hh:mm:ss,type memory SN (range), ascii text
2004/09/17 16:01:41,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6572,JF2E-F-PST
2004/09/17 16:03:40,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6571,JF2E-F-PST
2004/09/17 16:05:07,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6570,JF2E-F-PST
2004/09/17 16:07:01,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6570,JF2E-F-PST
2004/09/17 16:08:25,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6569,JF2E-F-PST
2004/09/17 16:09:49,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6568,JF2E-F-PST
2004/09/17 16:11:21,2004/09/17 18:00:00,00:30:00,12 bit Minilog-T 16K SN:6567,JF2E-F-PST

| Date | Time PDT | |
|---|---|---|
| Apr. 28 | 0932 | - on station JF2C-F for recovery. |
| | | - range 194, 181, 179. |
| | | - moving off to release position |
| | 0938 | - ranges 267, 269. |
| | 0940 | - sent ADGH received positive response |
| | 0941 | - sighted on surface - recovered without incident |
| | | - head for JF2E after lunch recovery. |
| | 1210 | - on station JF2E-F for recovery. app. 1½ cable off. |
| | | - drifting closer 218, 211, 209 |
| | 1214 | - sent ACEH received positive response. |
| | 1215 | - sighted on surface |
| | 1258 | - head for CTD's on JFE Line |