Series

DEPLOYMENT RECORD

Project Name: Covariability Start Date: May 2005 End Date: Oct. 2005
Mooring Name: JF2C-1G Station Name: JF2C.

Geog. Desc.: Juan de Fuca Central Tide: + 0.4m Renfrew.
Latitude: 48° 21.576' Longitude: 124° 12.791'
Water Depth: 184.25m datum Ice Thickness: —
Magnetic decl: — Time Zone: PDT Anchor Type: 2 wheels 1360 lbs
Date: Apr. 29, 2005 Time Anchor Dropped: 0917 PDT Date:
Remarks:

RECOVERY RECORD

Date: Oct. 1 2005 Time Anchor Released: 1051 PDT
Remarks: - multiple release commands were required (stuck in mud again).

INSTRUMENTS (Start at TOP)

Type	Serial #	Depth	Time in	Time Out	Notes
ADCP150	1588	179m	0917	PDT	
Argos	4014				
VHF	Chan.	70.			
XF	2.F1/4sec.				

Release	Serial	R Code	Arm Code	Freq	On/Off	B0	B1	Aux Codes			
1090	206	ADEF	CDFG	8kHz	—						
1090	207	ABCH	CDFG	8kHz	—						

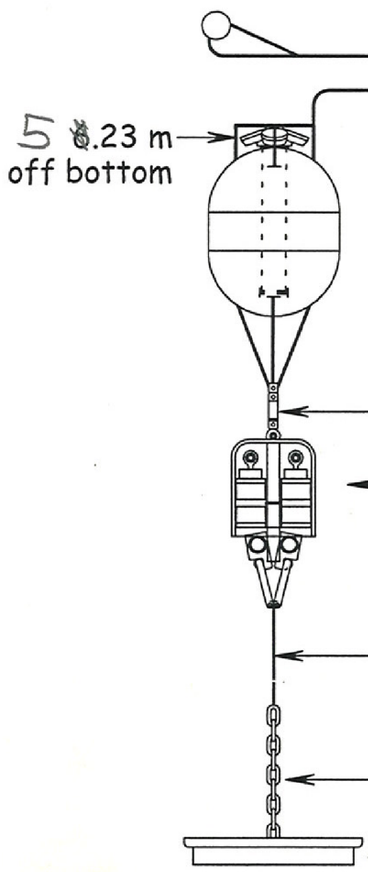
Pinger 1	Type	Serial	Pinger 2	Type	Serial	Battery Volt	
RJE	1/2 x 27	—	—	—	—	6.65	—

FLOTATION

Type	Serial #	Size	Colour
ADCP	1000m	Floats.	yellow

Type	Serial #	Size	Colour

Data Entry by:



5 m Poly Pickup Line

5 ~~6~~.23 m off bottom

RDI S/N: 150 kHz
VHF S/N 104044 Ch: 70 156.525 ON
Strobe S/N: 2F1 / 4 sec. ON
ARGOS: 4014
Pinger S/N: RIE 6.65 ON
Voltage: 6.65
Other: _____

Swivel

Double Acoustic Release
1090 # 206 Rel: ADEF Rearm CDFG Reply: 8 kHz
1090 # 207 Rel: ABCH Rearm CDFG Reply: 8 kHz

1 m 1" Poly

1m Heavy Chain ✓ 1m used

Anchor: 1360 lbs Dry Weight 2 wheels

JF2C-G	
Latitude: 48° 21.516'	
Longitude 124° 12.791'	
Time: 0917 PDT	Date: Apr. 29, 2005
Depth: 184.65 at sounder	

0.4 m Tide at Pt. Renfrew

DACADD Files\Drawings\Moorings\Coverlability\JF2C-ADCP.vcd 4/22/2005

184 m datum

184.65 − .4 = 184.25 m

JF2C – G Apr. 29 2005

ADCP float 1000 m. Floatec. + frame.

150 kHz ADCP

VHF Chan. 70

XF 2Fl/4sec.

RJE Pinger. 6.65 volts

Argos 4014

5/8" Ø 5/8" sling 1/2" Ø swivel 1/2" Ø

1" Ø

Coastal double frame

1090 206 Rel ADEF CDFG 8kHz

207 Rel ABCH CDFG 8kHz

1 1/8" x 6" ring

1 m 1" poly

7/8" Ø

2 wheels 1360 lbs.

(using only 1m length of chain).

Date	Time PDT	
Apr. 29	0730	- on station JF2C-G for deployment
		- setting up on deck.
	0917	- launched JF2C-G in 184.65 - less .04 tide = 184.25 m datum
		at position 48° 21.516'
		124° 12.791'
		- head to Port Renfrew to swing ADCP compasses.
	1015	- launched small boat with Lucius and Rob to complete compass calibrations.
		- the purpose is to calibrate the ADCP's without internal batteries
		- the internal batteries have been in place for 2-3 years and may leak.
		- head for LA Line CTD's.

P.

```
[ ================================================================ ]
[ BB ADCP Test                                                     ]
[ *************                                                    ]
[                                                                  ]
[ The following tests are basic tests which will confirm that your system ]
[ is ready for use.  Some tests will need to be run with the system in    ]
[ water.  You will be prompted when this is necessary.             ]
[                                                                  ]
[ Connect the BB ADCP to power and the PC as described in the manual.     ]
[ Turn on power to the BB ADCP.                                    ]
[                                                                  ]
[ The results of all tests will be printed to the screen and saved to the ]
[ log file BB_TESTS.TXT.   A file called 1588-JF2C-CV-E.txt with the results of
]
[ this test will be created in the same directory as the BBTALK program ]
[ is running from.                                                 ]
[                                                                  ]
[              The following tests will be performed:              ]
[                                                                  ]
[               PA    Basic Internal System Tests                  ]
[               PC2   Sensor Verification Test                     ]
[               PC1   Beam Continuity Test                         ]
[                                                                  ]
[ Program is delaying 20 seconds before continuing.                ]
[ Press <Enter> to continue.                                       ]

>
[ ================================================================ ]
[                                                                  ]
[ PT -- Basic Internal System Tests                                ]
[ The following tests will verify that the internal electronics are ]
[ performing correctly.  These tests are best run when the transducer ]
[ face is submerged in water.  A bucket of water deep enough to cover ]
[ the transducer beams is all that is needed.  If done in air some tests ]
[ may fail.                                                        ]
[                                                                  ]
[ Program is delaying 10 seconds before continuing.                ]
[ Press <Enter> to continue.                                       ]

>
[ ================================================================]
[                                                                  ]
[ Sending a break to Wake Up the System                            ]

Broadband ADCP Version 5.59
RD Instruments (c) 1991-2000
All rights reserved.
>
[ ================================================================ ]
[                                                                  ]
[ Restoring factory defaults into temporary memory for TEST.       ]
[                                                                  ]
CR1
[Parameters set to FACTORY defaults]
>
[ ================================================================ ]
```

```
[                                                                  ]
[ Collecting system specific data.                                 ]
TS?
TS = 05/04/19,13:31:11 --- Time Set (yr/mon/day,hour:min:sec)
>PS0
    Frequency:  153600 HZ
Configuration:  4 BEAM, JANUS
  Match Layer:  10
   Beam Angle:  20 DEGREES
 Beam Pattern:  CONVEX
  Orientation:  DOWN
 Xducer Ser #:  02664
    Sensor(s):  HEADING  TILT 1  TILT 2  TEMPERATURE
 XDC Firmware:   2.05
 CPU Firmware:   5.59
 DEMOD #1 Ver:  ad46, Type:   3
 DEMOD #2 Ver:  ad46, Type:   3
 PWRTIMG  Ver:  c5d3, Type:   4
 REC Firmware:   4.05
>PS3
Beam Width:   2.8 degrees

Beam      Elevation      Azimuth
  1         -70.00        -90.00
  2         -70.00         90.00
  3         -70.00       -180.00
  4         -70.00          0.00

Beam Directional Matrix (Downlooking):
     0.3420     0.0000     0.9397     0.0000
    -0.3420     0.0000     0.9397     0.0000
     0.0000    -0.3420     0.9397     0.0000
     0.0000     0.3420     0.9397     0.0000

Instrument Transformation Matrix:
     1.4619    -1.4619     0.0000     0.0000
     0.0000     0.0000    -1.4619     1.4619
     0.2661     0.2661     0.2661     0.2661
     1.0337     1.0337    -1.0337    -1.0337
>
[ ================================================================ ]
[                                                                  ]
[ Starting the Automated Tests.                                    ]
PT1

DAC/ADC Test Results  = $0 ... PASS
>PT2

AMBTEMP =      23.2 Degrees C
VMVDD3  =      16.1 Volts
VMVDD1  =       5.0 Volts
VMVDC   =      58.3 Volts
>PT3

Correlation Magnitude:

                Lag  Bm1  Bm2  Bm3  Bm4
```

- Troubles downloading data - multiple attempts required
- Instrument stopped app. 3 days short or we can not get last 3 days off memory card.

P-1

SoundSpeed (m/s)	Depth (m)	Heading (deg)	Pitch (deg)	Roll (deg)	Salinity (ppt)	Temperature (deg)	Facing
1521	0.0	59.3	-26.6	-29.1	35	19.9	DOWNWARD

```
[                                                                    ]
[ The Sensor test is complete.  The heading, pitch, roll sensors should  ]
[ have changed as you turned and tilted the system.  The Up/Down setting ]
[ should have agreed with the direction of your ADCP transducer. The     ]
[ ambient temperature and pressure (if installed) should have been       ]
[ reasonable values.                                                     ]
[                                                                        ]
[ All of the above tests should have passed. Review the file 1588-JF2C-CV-E.txt
]
[ to verify your tests results.  Consult your Technical Manual for trouble]
[ shooting tips if this test did not pass.                               ]
[                                                                        ]
[ Program is delaying 10 seconds before continuing.                      ]
[ Press <Enter> to continue.                                             ]

[                                                                        ]
[ ====================================================================== ]
[                                                                        ]
[ PC1 -- Beam Continuity Test                                            ]
[ The following test will confirm that each of the beams on your         ]
[ transducer is capable of receiving signals.  This test must be run in  ]
[ air and free of external interference to pass.                         ]
[                                                                        ]
[ This test will require you to rub each of the beams on the transducer. ]
[ This is done with quick rubbing movements across each of the urethane  ]
[ faces.                                                                 ]
[                                                                        ]
[ Program is delaying 10 seconds before continuing.                      ]
[ Press <Enter> to continue.                                             ]

[ ====================================================================== ]
[                                                                        ]
[ Sending a break to Wake Up the System                                  ]

Broadband ADCP Version 5.59
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>
[ ====================================================================== ]
[                                                                        ]
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...
```

```
  40  36  41  38  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  37  38  35  41  37
38  35  41  37  38  35  41  37  38  35  41  37  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36
38  35  41  37  38  35  41  37  38  35  41  37  38  35  41  37  38  35  41  37
38  35  41  37  38  35  41  37  38  35  41  36  38  35  41  37  38  35  41  37
38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36  38  35  41  36

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

>
[                                                                        ]
[ The Beam Continuity test is complete.  Each of the beams should have   ]
[ passed.  Review the file 1588-JF2C-CV-E.txt to verify your tests results.
]
[ Consult your Technical Manual for trouble-shooting tips if this test   ]
[ did not pass.                                                          ]
[                                                                        ]
[ ====================================================================== ]
[ All tests have been run and if passed your system is ready for         ]
[ deployment.                                                            ]
```

```
[ File Name - 1588-JF2C-CV-F.txt]

>[ ================================================================ ]
[ I)   ADCP CONFIGURATION AND SETUP]
[ ]
[      System Frequency:              150 kHz]
[      Beam Angle:             20 deg]
[      System Power                   High]
[ ]
[      Temperature:                   6.00 deg C]
[      Salinity:               34 ppt]
[      Depth of Trans:                180.0 m]
[ ]
[      WT pings/ensemble       50]
[      Depth Cell Size                4.00 m]
[      Number of Cells                50]
[      Blank After Tx                 4.00 m]
[      WT profiling mode       1]
[      WT ambiguity velocity          200cm/s ]
[ ]
[      BT pings/ensemble       0]
[      Time btwn ping groups          0.00 s]
[      Time/ensemble                  00:15:00]
[      Deployment Length       150 Days]
[      Velocity Collected             YES]
[      Coordinate System       Earth]
[      Correlation system             YES]
[      Correlation collected          YES]
[      Intesity collected             YES]
[      % good collected        YES]
[      Status collected        YES]
[      Enable Recorder                YES]
[      Enable Serial Port             YES]
[      Baud Rate               38400 ]
[ ]
[ II)  PREDICTIONS]
[ ]
[      First depth cell        8.92 m]
[      Last depth cell                204.92 m]
[       WT max predicted range        314.90 m]
[      WT min ping time        0.81 s]
[      wt vel std dev                 0.88cm/s]
[      ]
[      Bytes/ensemble                 1312]
[      Min time/ensemble       41.40s]
[      Total Space needed             18.89 MB]
[      Energy Required                2421.84 Wh                    ]
[ ]
[ III) WARNINGS]
[      None]
[ ]
[ IV) COMMANDS]
[      WP00050]
WP00050
>
>
[      WD111110000]
WD111110000
>
>
[      WN050]
WN050
>
>
[      WS0400]
WS0400
>
>
[      WF0400]
WF0400
>
>
[      WM1]
WM1
>
>
[      TP00:00.00]
TP00:00.00
>
>
[      WV200]
WV200
>
>
[      BP000]
BP000
>
>
[      TE00:15:00.00]
TE00:15:00.00
>
>
[      ET0600]
ET0600
>
>
[      ES34]
ES34
>
>
[      ED1800]
ED1800
>
>
[      EZ1111111]
EZ1111111
>
>
[      EX11111]
EX11111
>
>
[      CF11101]
```

Date	Time PDT	
Oct. 1	1045	- on station JF2C-G for recovery
		- ranges 146, 147 m wrong speed of sound setting
		- ranges 332 - 340 m drifting away
	1051	- sent ADEF - received positive response
		- did not rise
		- ranges 334 - 348 as we standby
		- ranges 325 - 324 as started drifting closer
		302 - 304 - not rising
		- sent ADEF several times - with same result
		- sent CDFG then ADEF - " " "
		ranges 320 327 309 312 not rising
		- sent ADEF - same
		- multiple repeats of arm + release 297 300 ranges
	1107	- " " sighted on surface
		- recovered without incident.
		- steam to AS04 for deployment.
	1330	- launched rubber boat with Dave + Rob to perform RDI WH300 compass calibration and check