

DEPLOYMENT RECORD

Project Name: Aquaculture Start Date: Apr. 2007 End Date: Sep 2007
 Mooring Name: PEN02 Station Name: Penn Pass

Geog. Desc.: Pennphraser Passage Tide: +1.3 m Alert
 Latitude: 50° 50.208' Longitude: 126° 34.753'
 Water Depth: 156.7 m Ice Thickness: —
 Magnetic decl: — Time Zone: PDT Anchor Type: 3 wheels 2300 lbs
 Date: Mar. 29, 2007 Time Anchor Dropped: 1834 PDT Date: —
 Remarks:

RECOVERY RECORD

Date: Sep. 13, 2007 Time Anchor Released: 1555
 Remarks: - multiple releases with successful reply but mooring was slow to rise by app. 6-7 minutes

INSTRUMENTS (Start at TOP) - release was fine for post recovery benchtest
- perhaps some obstruction on the bottom caused delay *

Type	Serial #	Depth	Time in	Time Out	Notes
<u>RDS 600</u>	<u>1820</u>	<u>42m.</u>	<u>1819 PDT</u>		<u>600 KHz RDI external pack</u>
<u>RCM4</u>	<u>5471</u>	<u>52m.</u>	<u>1820 PDT</u>		<u>4 Viny</u>
<u>RCM4</u>	<u>5091</u>	<u>102m</u>	<u>1821 PDT</u>		
<u>RCM4</u>	<u>8819</u>	<u>152m.</u>	<u>1823 PDT</u>		

Release	Serial	R Code	Arm Code	Freq	On/Off	B0	B1	Aux Codes
<u>AR191</u>	<u>14U</u>	<u>B530</u>	<u>B529</u>					
Pinger 1	Type	Serial	Pinger 2	Type	Serial	Battery Volt		
<u>Helle</u>	<u>1/4x27</u>	<u>6573</u>	<u>Helle</u>	<u>1/4x27</u>	<u>7498</u>	<u>17.7</u>	<u>17.8</u>	

FLOTATION

Type	Serial #	Size	Colour
<u>WB</u>	<u>7362</u>	<u>17"</u>	<u>yellow</u>
<u>SS30</u>	<u>3008</u>	<u>30"</u>	<u>"</u>
<u>SS28</u>	<u>M500</u>	<u>28"</u>	<u>"</u>
<u>SS28</u>	<u>2471</u>	<u>28"</u>	<u>"</u>
<u>SS28</u>	<u>2570</u>	<u>28"</u>	<u>"</u>

Type	Serial #	Size	Colour

Data Entry by:

IOS OCEAN PHYSICS

AANDERA CURRENT METER DEPLOYMENT AND RECOVERY RECORD

INSTRUMENT: RCM4 SERIAL #: 5471 PST, UTC, OTHER: _____
 TAPE SIZE: 3/4" PROJECT: Aquaculture I(mA) _____

Channel #	Reading 1	Reading 2	Last Cal
1. Reference	<u>705</u>		
2. Temperature	<u>774</u>		
3. Conductivity	<u>264</u>		
4. Extemp/pressure	<u>45</u>		
5. Direction	<u>901</u>		
6. Speed	<u>4</u>		
Date: <u>March 29/07</u> Time: <u>1400</u>			

OK PMS

Rotor Counter Information:

Rev/Count: 4
 F.S.= _____ Cm/S
 Rotor Switch: 4
 Rotor Type: S

Sampling Interval: 30 MIN Depth: 52 m TAPE ID: 5471/21
 Pressure Sensor Range: 200 PSI Serial #: 50967-2
 Depth Max: 168 MAX Compass Serial #: 8370
 Conductivity Range: 24-44 MMHO Cell Serial #: 8370
 HI Res Temperature Range: _____

↑ This # is written on the cell

Channel #	Reading 1	Reading 2
1. Reference	<u>705</u>	
2. Temperature	<u>7</u>	
3. Conductivity	<u>273</u>	
4. Extemp/pressure	<u>45</u>	
5. Direction	<u>645</u>	
6. Speed	<u>8</u>	
Date: <u>Sept 14/07</u> Time: <u>0030 UTC</u>		

OKP

TIME IN WATER: 1820 PDT DATE: Mar. 29 2007
 BAT VOLTAGE: 9.72 ON DEPLOYMENT
 CRUISE ID: 2007-11 DEPLOYED
 TECHNICIAN: LP

TIME OUT WATER: 1555 PDT DATE: Sept 13/07
 BAT VOLTAGE: 8.75 ON RECOVERY
 CRUISE ID: 2007-62 RECOVERED
 TECHNICIAN: LP

NOTES: _____

IOS OCEAN PHYSICS

AANDERA CURRENT METER DEPLOYMENT AND RECOVERY RECORD

INSTRUMENT: RCM4 SERIAL #: 3819 PST, UTC, OTHER: _____
 TAPE SIZE: 3/4" PROJECT: Aquaculture I(mA) _____

Channel #	Reading1	Reading 2	Last Cal
1. Reference	<u>497</u>		
2. Temperature	<u>779</u>		
3. Conductivity	<u>266</u>		
4. Extemp/pressure	<u>54</u>		
5. Direction	<u>72</u>		
6. Speed	<u>11</u>		
Date: <u>Mar 29/07</u> Time: <u>1400 PST</u>			

OK

Rotor Counter Information:

Rev/Count: 4
 F.S.= _____ Cm/S
 Rotor Switch: 4
 Rotor Type: 5

Sampling Interval: 30 MIN Depth: 102 m TAPE ID: 3819/11
 Pressure Sensore Range: 1000 PSI Serial #: 52260-9
 Depth Max: _____ MAX Compass Serial #: 15670
 Conductivity Range: 24-44 MMHO Cell Serial #: 1643
 HI Res Temperature Range: _____

Channel #	Reading1	Reading 2
1. Reference	<u>497</u>	
2. Temperature	<u>868</u>	
3. Conductivity	<u>279</u>	
4. Extemp/pressure	<u>54</u>	
5. Direction	<u>654</u>	
6. Speed	<u>11</u>	
Date: <u>Sept 14/07</u> Time: <u>0030 UTC</u>		

OK

TIME IN WATER: 1821 PDT DATE: Mar 29, 2007
 BAT VOLTAGE: 9.72 ON DEPLOYMENT
 CRUISE ID: 2007-11 DEPLOYED
 TECHNICIAN: LP

TIME OUT WATER: 1555 PDT DATE: Sept 13/07
 BAT VOLTAGE: 8.84 ON RECOVERY
 CRUISE ID: 2007-62 RECOVERED
 TECHNICIAN: LP

NOTES: _____

IOS OCEAN PHYSICS

AANDERA CURRENT METER DEPLOYMENT AND RECOVERY RECORD

INSTRUMENT: Rcm4 SERIAL #: 5091 PST UTC, OTHER: _____
 TAPE SIZE: 3 1/4" PROJECT: Aquaculture I(mA) _____

Channel #	Reading1	Reading 2	Last Cal
1. Reference	<u>896</u>		
2. Temperature	<u>772</u>		
3. Conductivity	<u>252</u>		
4. Extemp/pressure	<u>54</u>		
5. Direction	<u>35</u>		
6. Speed	<u>11</u>		
Date: <u>March 29/07</u> Time: <u>1400 PST</u>			

OKPIMS

Rotor Counter Information:

Rev/Count: 4
 F.S.= 90 Cm/S
 Rotor Switch: 4
 Rotor Type: 5

Sampling Interval: <u>30</u> MIN	Depth: <u>152</u>	TAPE ID: <u>5091/10</u>
Pressure Sensore Range: <u>500</u> PSI	Serial #: <u>52781-3</u>	
Depth Max: <u>368</u> MAX	Compass Serial #: <u>5769</u>	
Conductivity Range: <u>24-44</u> MMHO	Cell Serial #: <u>4284</u>	
HI Res Temperature Range: _____		

Channel #	Reading1	Reading 2
1. Reference	<u>896</u>	
2. Temperature	<u>?</u>	
3. Conductivity	<u>229</u>	
4. Extemp/pressure	<u>54</u>	
5. Direction	<u>987</u>	
6. Speed	<u>74</u>	
Date: <u>Sept 13/07</u> Time: <u>232359 UTC</u>		

OKP

TIME IN WATER: 823 PDT
 DATE: Mar. 29, 2007
 BAT VOLTAGE: 9.72 ON DEPLOYMENT
 CRUISE ID: 2007-11 DEPLOYED
 TECHNICIAN: LP

TIME OUT WATER: 1555 PDT
 DATE: Sept 13/07
 BAT VOLTAGE: 8.86 ON RECOVERY
 CRUISE ID: 2007-62 RECOVERED
 TECHNICIAN: LP

NOTES: _____

PlanADCP (Basic) : [PEN02]

BackToSC Settings View Help

ADVANCED settings changed

Cell Size: 0.5m

First Cell: 1.5m

Max Range: 55.31m

Last Cell: 53.58m

Proposed Setup:		Deployment Consequences	
Deployment Duration:	174 days	First Cell Range:	1.58 m
Ensemble Interval:	00:10:00	Last Cell Range:	53.58 m
Salinity:	30 ppt	Max Range:	55.31 m
Temperature:	8 °C	Standard Deviation:	2.59 cm/s
Water Pings:	110	Ensemble Size:	2248 bytes
Number of Depth Cells:	105	Storage Required:	53.72 MB
Depth Cell Size:	0.5 m	Power Usage:	879.96 Wh
		Battery Pack Usage:	2.0

Notes

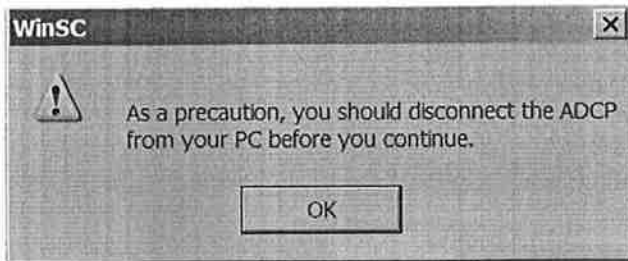
PEN02: 600kHz S/N: 1820

VECTOR cruise 2007-11

Workhorse Sentinel: 600 kHz/ Long Range/ 2 Battery Packs/ Memory: 144 MB

NUM

CR1
 CF11101
 EA0
 EB0
 ED0
 ES30
 EX11111
 EZ1111111
 WA50
 WB1
 WD111100000
 WF88
 WN105
 WP110
 WS50
 WV175
 TE00:10:00.00
 TP00:05.45
 CK
 CS



>>>>> Function starting 03/29/07 12:00:55 >>>>>

[BREAK Wakeup A]

WorkHorse Broadband ADCP Version 16.28

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>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 = 0088 ----- Blank After Transmit (cm)

WN = 107 ----- Number of depth cells (1-128)

WP = 00085 ----- Pings per Ensemble (0-16384)

WS = 0050 ----- Depth Cell Size (cm)

WV = 175 ----- Mode 1 Ambiguity Vel (cm/s radial)

TE = 00:05:00.00 ----- Time per Ensemble (hrs:min:sec.sec/100)

TF = **/**/**, **: **: ** --- Time of First Ping (yr/mon/day, hour:min:sec)

TP = 00:03.52 ----- Time per Ping (min:sec.sec/100)

TS = 07/03/29,20:00:22 --- Time Set (yr/mon/day, hour:min:sec)

EA = +00000 ----- Heading Alignment (1/100 deg)

EB = +00000 ----- Heading Bias (1/100 deg)

ED = 00400 ----- Transducer Depth (0 - 65535 dm)

ES = 31 ----- 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 = 07/03/29,20:00:25 --- Time Set (yr/mon/day,hour:min:sec)

>PS0

Instrument S/N: 1820
Frequency: 614400 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 = +4.545794E-15
c2 = +4.917100E-08
c1 = +6.820154E-02
Offset = -7.316886E+00

Temp Sens Offset: -0.09 degrees C

CPU Firmware: 16.28 [0]
Boot Code Ver: Required: 1.13 Actual: 1.13
DEM0D #1 Ver: ad48, Type: 1f
DEM0D #2 Ver: ad48, Type: 1f
PWRTIMG Ver: 85d3, Type: 4

Board Serial Number Data:

A0 00 00 02 00 2C 18 09 CPU727-2000-00H
11 00 00 00 86 BB A2 09 DSP727-2001-03G
67 00 00 02 48 79 91 09 REC727-1000-03A
A2 00 00 02 00 26 F1 09 PIO727-3000-03C

>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
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 ...

All Sensors are Internal Only.

Heading	Pitch	Roll	Up/Down	Attitude Temp	Ambient Temp
PRESSURE					
330.270	-1.970	-1.330	Up	17.710C	16.860C
1.4 kPa					
329.630	-1.780	-1.350	Up	17.690C	16.840C
0.3 kPa					
330.450	-2.010	-1.410	Up	17.720C	16.850C
0.1 kPa					
330.080	-2.160	-1.290	Up	17.710C	16.830C
2.2 kPa					
330.410	-1.940	-1.400	Up	17.700C	16.820C
0.3 kPa					
330.310	-2.040	-1.310	Up	17.720C	16.830C
0.1 kPa					
330.310	-2.610	-0.900	Up	17.700C	16.830C
1.3 kPa					
343.070	6.010	-7.720	Up	17.740C	16.810C
0.3 kPa					
335.940	-0.160	-13.250	Up	17.700C	16.840C
0.5 kPa					
337.850	-6.830	-3.510	Up	17.710C	16.830C
0.3 kPa					
338.410	-1.030	-0.540	Up	17.700C	16.820C
0.6 kPa					
335.480	-1.330	-2.150	Up	17.710C	16.810C

0.9 kPa					
339.51ø	-0.94ø	-1.83ø	Up	17.72øC	16.84øC
2.2 kPa					
337.17ø	-4.99ø	-4.65ø	Up	17.71øC	16.80øC
0.4 kPa					
330.80ø	-11.94ø	-4.04ø	Up	17.77øC	16.80øC
0.5 kPa					
332.82ø	-7.46ø	6.61ø	Up	17.75øC	16.82øC
1.2 kPa					
345.20ø	-2.27ø	5.74ø	Up	17.71øC	16.80øC
1.1 kPa					
338.32ø	-1.00ø	-1.60ø	Up	17.72øC	16.83øC
0.6 kPa					
11.37ø	-1.22ø	-1.43ø	Up	17.71øC	16.80øC
0.2 kPa					
22.85ø	-0.11ø	-2.47ø	Up	17.70øC	16.79øC
0.6 kPa					
21.77ø	-1.23ø	-3.42ø	Up	17.71øC	16.81øC
0.4 kPa					
47.85ø	-0.45ø	-1.37ø	Up	17.71øC	16.79øC
0.2 kPa					
61.08ø	1.00ø	-1.99ø	Up	17.72øC	16.80øC
0.4 kPa					
63.27ø	1.20ø	-1.70ø	Up	17.71øC	16.82øC
2.0 kPa					
63.74ø	1.26ø	-1.55ø	Up	17.70øC	16.80øC
1.0 kPa					
62.90ø	1.37ø	-1.62ø	Up	17.72øC	16.81øC
1.4 kPa					
63.52ø	1.30ø	-1.63ø	Up	17.71øC	16.80øC
0.1 kPa					
63.66ø	1.24ø	-1.55ø	Up	17.71øC	16.82øC
2.5 kPa					
63.99ø	1.24ø	-1.67ø	Up	17.71øC	16.80øC
1.4 kPa					
63.68ø	1.18ø	-1.89ø	Up	17.73øC	16.81øC
0.5 kPa					
64.54ø	1.07ø	-1.76ø	Up	17.71øC	16.80øC
0.5 kPa					
63.76ø	1.12ø	-1.69ø	Up	17.70øC	16.79øC
0.8 kPa					
64.48ø	1.21ø	-1.95ø	Up	17.71øC	16.77øC
0.6 kPa					
63.96ø	1.12ø	-1.59ø	Up	17.71øC	16.80øC
0.6 kPa					
65.15ø	1.18ø	-1.72ø	Up	17.73øC	16.79øC
0.6 kPa					
63.85ø	1.08ø	-1.73ø	Up	17.73øC	16.78øC
0.3 kPa					
65.57ø	1.08ø	-1.73ø	Up	17.71øC	16.78øC
0.2 kPa					
64.18ø	1.11ø	-1.63ø	Up	17.71øC	16.79øC
0.8 kPa					
65.49ø	1.15ø	-1.79ø	Up	17.71øC	16.80øC
1.1 kPa					
64.68ø	1.00ø	-1.64ø	Up	17.71øC	16.80øC
0.3 kPa					

65.580	1.090	-1.550	Up	17.720C	16.780C	
0.3 kPa						
65.130	1.120	-1.770	Up	17.720C	16.800C	
0.7 kPa						
65.740	1.030	-1.650	Up	17.730C	16.780C	
0.0 kPa						
65.130	1.070	-1.610	Up	17.720C	16.800C	
0.8 kPa						
65.540	1.210	-1.610	Up	17.730C	16.790C	
0.2 kPa						
65.930	1.000	-1.760	Up	17.720C	16.810C	-
0.3 kPa						
65.540	0.940	-1.630	Up	17.730C	16.800C	-
0.9 kPa						
65.860	1.180	-1.650	Up	17.730C	16.780C	
0.1 kPa						
65.480	1.010	-1.710	Up	17.720C	16.780C	-
0.8 kPa						
66.070	1.090	-1.610	Up	17.740C	16.790C	-
0.1 kPa						
65.440	1.080	-1.750	Up	17.730C	16.790C	-
1.7 kPa						
66.250	1.060	-1.740	Up	17.730C	16.790C	
1.2 kPa						
66.130	0.980	-1.590	Up	17.720C	16.770C	-
1.2 kPa						
66.170	1.110	-1.710	Up	17.730C	16.790C	-
1.2 kPa						
65.620	1.100	-1.870	Up	17.730C	16.780C	
0.6 kPa						
66.480	1.000	-1.640	Up	17.730C	16.770C	
0.2 kPa						
65.820	1.050	-1.760	Up	17.720C	16.770C	
1.5 kPa						
66.360	1.120	-1.610	Up	17.730C	16.770C	-
0.8 kPa						
65.910	1.180	-1.680	Up	17.730C	16.780C	
0.2 kPa						
66.240	1.140	-1.690	Up	17.730C	16.770C	
1.9 kPa						
66.660	0.870	-1.480	Up	17.720C	16.780C	
0.3 kPa						
67.190	0.660	-1.660	Up	17.720C	16.790C	
0.6 kPa						
66.620	0.750	-1.810	Up	17.730C	16.790C	-
0.9 kPa						
67.290	0.790	-1.620	Up	17.730C	16.770C	-
0.5 kPa						
66.490	0.810	-1.660	Up	17.730C	16.780C	
1.5 kPa						
66.860	1.050	-1.700	Up	17.730C	16.770C	
1.0 kPa						
66.060	1.120	-1.710	Up	17.740C	16.750C	-
0.2 kPa						
69.770	1.150	-2.450	Up	17.730C	16.760C	-
1.3 kPa						
101.850	1.940	-0.180	Up	17.720C	16.770C	

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.28
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>TS070329200336
>CZ

Powering Down

>>>>> Function starting 03/29/07 20:03:58 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.28
RD Instruments (c) 1996-2005
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>RE ErAsE erasing...
Recorder erased.

>CZ

Powering Down

>>>>> Function starting 03/29/07 20:04:06 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.28
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>AZ
Pressure Offset Updated in NVRAM.

>CZ

Powering Down

>>>>> Function starting 03/29/07 20:04:18 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.28
RD Instruments (c) 1996-2005
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>RR
Recorder Directory:
Volume serial number for device #0 is 1633-17f2

No files found.

Bytes used on device #0 = 0
Volume serial number for device #1 is 1356-16e0

No files found.

Bytes used on device #1 = 0
Total capacity = 144041984 bytes
Total bytes used = 0 bytes in 0 files
Total bytes free = 144041984 bytes

>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.28
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>CR1

[Parameters set to FACTORY defaults]

>CF11101

>EA0

>EB0

>ED0

>ES30

>EX111111

>EZ11111111

>WA50

>WB1

>WD111100000

>WF88

>WN105

>WP110

>WS50

>WV175

>TE00:10:00.00

>TP00:05.45

>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 PEN02

>CS