

Mooring Deployment Record

Project Name: <u>Effingham Inlet</u>	
Project Area: <u>Effingham Inlet</u>	
Mooring Name: <u>EFO4-G</u>	Station Name: <u>EFO4</u>
Latitude: <u>49° 3.859' N</u>	Longitude: <u>125° 9.106</u>
Depth: <u>106 m 105m datum</u>	Tide: <u>+1m Effingham Bay</u>
Mag. Declination:	Time Zone: <u>UTC</u>
Date: <u>May 3, 2010</u>	Time: <u>2021 1321 PDT</u>
Remarks:	

Recovery

Date: <u>May 20, 2011</u>	Time: <u>1908 PDT</u>
Remarks: <u>— see note on black sulphide coating on bare metal components esp. stainless steel. — bottom must be quite anoxic.</u>	

Instruments

Type	Serial #	Depth	Time In:	Time Out	Notes
SBE37	5306	35 30m	1953		
SBE37	1537	75 70m	1955		
Aquadoop	2642	75 70m			
WH300	2722	7.1 mab 98m			
SBE37	1614	5 mab	100m.		
Aquadoop	0958	5 mab			

Releases

Release	Serial #	Range:	Release	Freq	Other <u>Dis</u>
<u>AR861</u>	<u>734</u>	<u>16 B4</u>	<u>1655</u>	<u>12 kHz</u>	<u>1649</u>

5.1-3.7

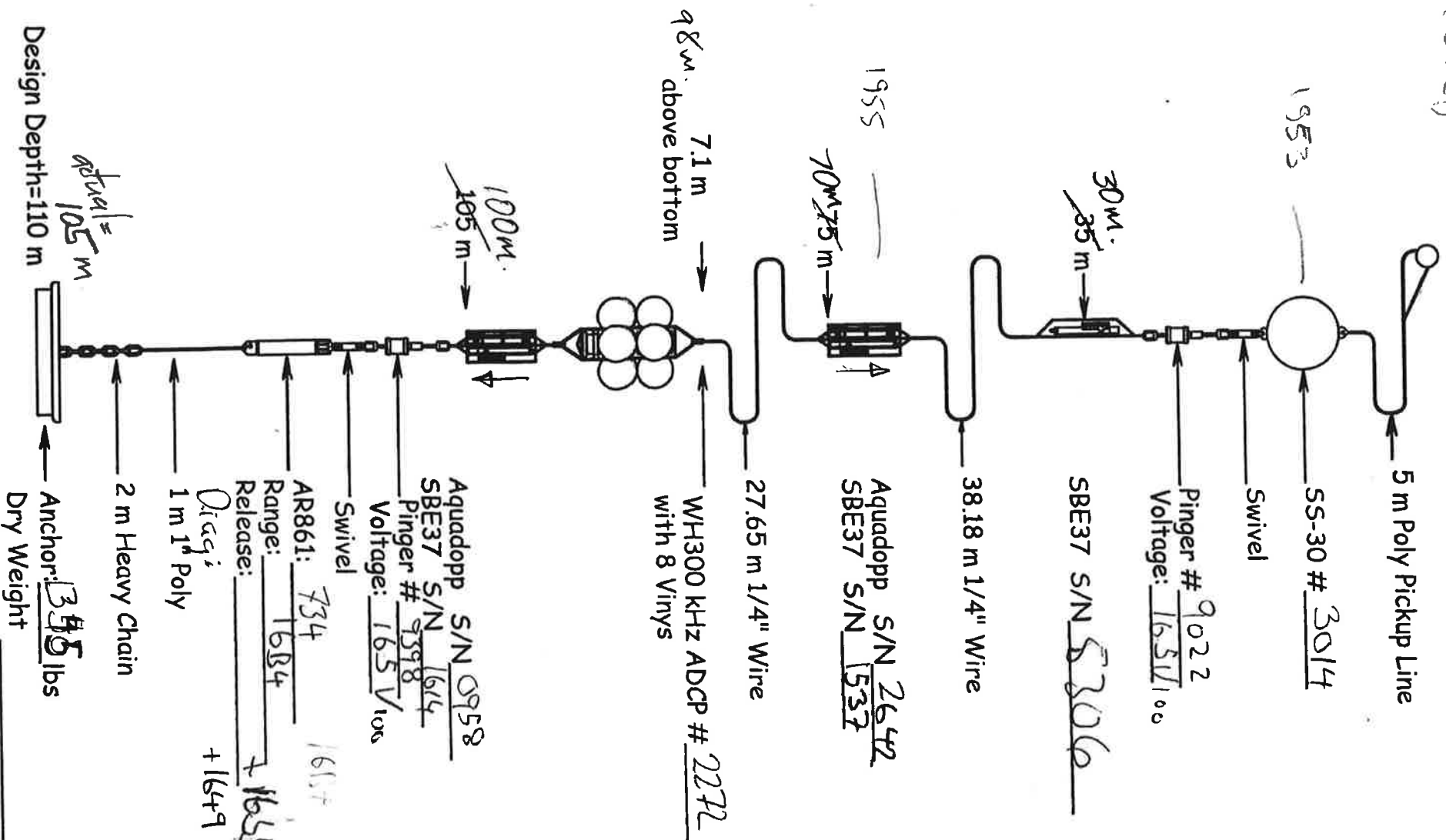
Pingers

Pinger	Serial #	Voltage	Freq
<u>Helle</u>	<u>9022</u>	<u>16.5 V_{DC}</u>	<u>27</u>
	<u>9398</u>	<u>16.5 V_{DC}</u>	<u>27</u>

Flotation

Type	Serial #	Size	Colour	Type	Serial #	Size	Colour
<u>SB30</u>	<u>3014</u>	<u>30"</u>	<u>Yellow</u>				
<u>Viny</u>	<u>x 8</u>	<u>13"</u>	<u>Orange</u>				

May 3
(UTC)



Tide Effingham Bay = +1m
106-1 = 105 m datum

EF04- 16	
Latitude: 49° 3.859' N	
Longitude 125° 9.106' W	
Time: 2021 mtd	Date: May 3, 2010
Depth: 106 m	

Date Time (PDT)

This page is for any notes or observations

- May 20 1905 EF04-G recovery multiple.
- passing over mooring ranges 277m → 153m → 320m.
good contact as we passed.
- 1908
- as we stopped to turn range 390 m
sent release code got read + executed but a nonsense range
- almost immediately it was sighted on the surface 7813m
astern of ship.
- 1930
- all on board - washing down
- mooring components - especially stainless steel was completely
coated with a black sulphide deposit. It appeared very like a
commercial plating finish with small crusty deposits scattered
about the smooth plating. The coating comes off with vigorous
- abrasion such as using a brillo pad. I suspect a fresh water
bath with light acid may also remove the layer.
- 1950
- wash-down completed.
- Captain suspends unilaterally the start of CTD stations until 2100 hrs
in order to align ship to good satellite reception for a Canucks hockey
game. I discussed this with the Captain and received his assurance
that the ship will go to the head of the inlet in the dark and
that the CTD stations will be done overnight.
In my opinion this is unprofessional behaviour but the 1 hour lost is not
worth generating bad feelings for the rest of the cruise.

EF04 - G Deck Check May 3, 2010

5 m poly line w 8" Float $\frac{1}{2}\phi$ $\frac{1}{2}\phi$ Swivel $\frac{1}{2}\phi$

Pinger 9022 16.5 V₁₀₀ $\frac{1}{2}\phi$

μ Cat 5306 $\frac{1}{2}\phi$

38.18 m $\frac{1}{4}$ " wire $\frac{1}{2}\phi$

μ Cat 1537 d

Aquadopp 2642 $\uparrow$ $\frac{1}{2}\phi$

27.65 m $\frac{1}{4}$ " wire $\frac{1}{2}\phi$

AOCp 2272 $\uparrow$ w 8 Vines $\frac{1}{2}\phi$ Sling hnt $\frac{1}{2}\phi$

$\frac{1}{2}\mu$ Cat 1614

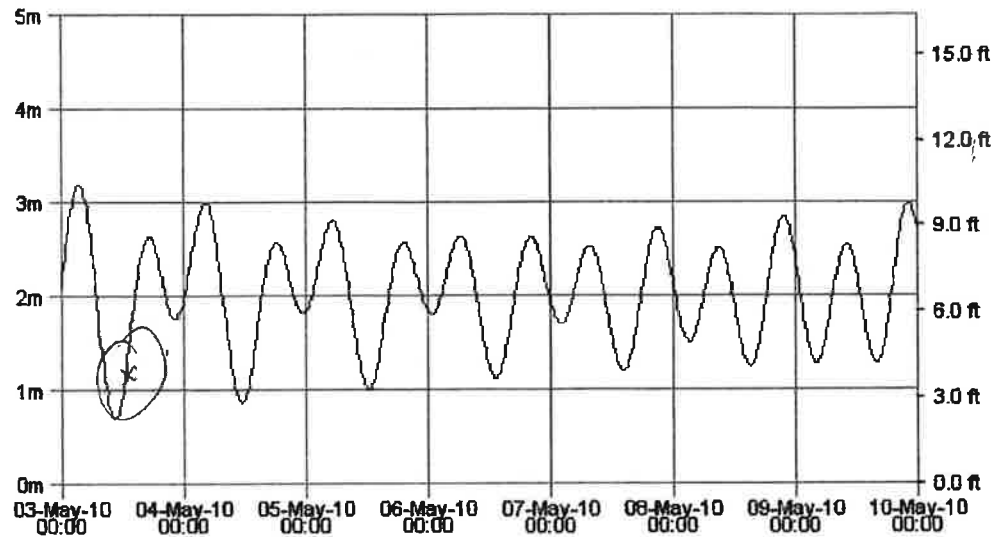
Aquadopp 0968 $\downarrow$ $\frac{1}{2}\phi$

AR 801 #734 Ann/6B4 Release 1655

1 m poly drop line $1"$

1343 lb Andor w 2 m chain

Effingham Bay (Station #8585)
7 days Tidal Prediction
Time Zone : PDT - Reference : Chart Datum



N.B. The whole 7 days data are available in table and text formats.

Source: <http://www.tides.gc.ca/>

[Print](#)

Deployment Planning

Standard | Advanced

Setup

Measurement interval (s): 3600 ☐ 4 Hz

Average interval (s): 120

Measurement load (%): 4 ☒ Auto

Blanking dist. (m): 0.37

Compass upd. rate (s): 1

Power level

High

Low

☐ File wrapping

Deployment planning

Assumed duration (days): 365

Battery utilization (% of 50 Wh): 120

Memory required (MB): 0.7

Vertical vel. prec. (cm/s): 1.7

Horizont. vel. prec. (cm/s): 1

Speed of sound

☒ Measured

Salinity (ppt): 32

☐ Fixed (m/s): 1525

Diagnostics

☒ Enable

Interval (min): 1440

Number of samples: 20

Coordinate system

☒ ENU ☐ XYZ ☐ Beam

External inputs

Input 1: NONE

Input 2: NONE

☐ Output power

Update from Standard

Start Update OK Cancel Apply Help

Deployment : EF04_G
 Current time : 2010-05-03 05:16:10
 Start at : 2010-05-03 16:00:00
 Comment:
 0958-EF04-G
 Start May 3, 2010 @ 1600UTC
 End: One year

Measurement interval (s) : 3600
 Average interval (s) : 120
 Blanking distance (m) : 0.37
 Measurement load (%) : 4
 Power level : HIGH
 Diagnostics interval(min) : 1440
 Diagnostics samples : 20
 Compass upd. rate (s) : 1
 Coordinate System : ENU
 Speed of sound (m/s) : MEASURED
 Salinity (ppt) : 32
 Analog input 1 : NONE
 Analog input 2 : NONE
 Analog input power out : DISABLED
 File wrapping : OFF
 Serial output/TellTale : OFF

Assumed duration (days) : 365.0
 Battery utilization (%) : 120.0

Battery level (V) : 11.3
Recorder size (MB) : 25
Recorder free space (MB) : 24.973
Memory required (MB) : 0.7
Vertical vel. prec (cm/s) : 1.7
Horizon. vel. prec (cm/s) : 1.0

Instrument ID : AQD 0958
Head ID : AQD 0624
Firmware version : 1.13

Aquadopp Version 1.30
Copyright (C) Nortek AS
=====

Deployment Planning [X]

Standard

Setup

Measurement interval (s):

Average interval (s):

Measurement load (%): ☒ Auto

Blanking dist (m):

Compass upd. rate (s): ☐ File wrapping

Speed of sound

☒ Measured

Salinity (ppt):

☐ Fixed (m/s):

Coordinate system

☒ ENU ☐ XYZ ☐ Beam

Diagnostics

☒ Enable

Interval (min):

Number of samples:

Deployment planning

Assumed duration (days):

Battery utilization (% of 50 Wh):

Memory required (MB):

Vertical vel. prec. (cm/s):

Horizont. vel. prec. (cm/s):

External inputs

Input 1:

Input 2:

☐ Output power

Start Update OK Cancel Apply Help

=====

Deployment : EF04-G
 Current time : 2010-05-03 04:50:41
 Start at : 2010-05-03 16:00:00
 Comment:
 2646-Lithium Pack
 EF04-G
 Start May 3, 2010 @ 1600UTC

=====

Measurement interval (s) : 3600
 Average interval (s) : 120
 Blanking distance (m) : 0.37
 Measurement load (%) : 4
 Power level : HIGH
 Diagnostics interval(min) : 1440
 Diagnostics samples : 20
 Compass upd. rate (s) : 1
 Coordinate System : ENU
 Speed of sound (m/s) : MEASURED
 Salinity (ppt) : 32
 Analog input 1 : NONE
 Analog input 2 : NONE
 Analog input power out : DISABLED
 File wrapping : OFF
 Serial output/TellTale : OFF

=====

Assumed duration (days) : 365.0

Battery utilization (%) : 113.0
Battery level (V) : 11.4
Recorder size (MB) : 9
Recorder free space (MB) : 8.973
Memory required (MB) : 0.7
Vertical vel. prec (cm/s) : 1.0
Horizon. vel. prec (cm/s) : 0.7

Instrument ID : AQD 2646
Head ID : 2KL 2296
Firmware version : 1.21

Aquadopp Version 1.30
Copyright (C) Nortek AS



PlanADCP (Advanced) : [2272_]

BackToSC Settings View Help

Basic Advanced Expert

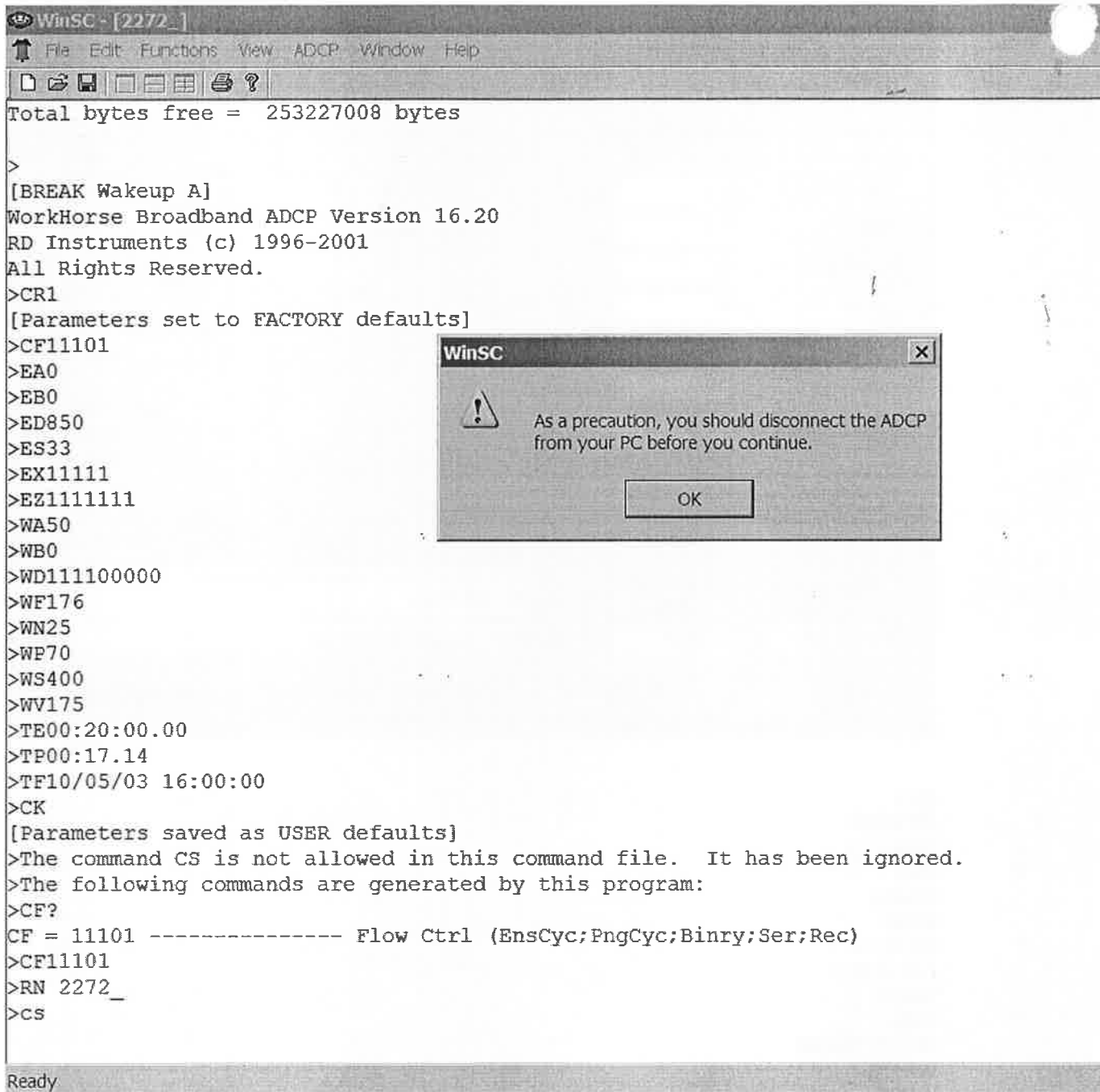
Environmental Setup: Transducer Depth: 85 m Salinity: 33 ppt Magnetic Variation: 0 Temperature: 5 °C	Profiling Setup: Pings Per Ensemble: 70 Number of Depth Cells: 25 Depth Cell Size: 4 m Mode: 1	Deployment Consequences First Cell Range: 6.17 m Last Cell Range: 102.17 m Max Range: 105.74 m Standard Deviation: 0.42 cm/s Ensemble Size: 654 bytes Storage Required: 16.39 MB Power Usage: 858.32 Wh Battery Pack Usage: 1.9
---	---	--

Deployment Timing Setup: Duration: 365 days Ensemble Interval: 00:20:00.00 Ping Int(☒ Auto): 00:00:17.14 Min TP ☐ Ping Immediately After Deployment First Ping Date and Time: 03-May-2010 16:00:00	Notes 2272-EF04-G (Alum case with external pack) E01-XXEF04-G Start May 3, 2010 @ 1600UTC End : One year deployment
---	--

Workhorse Sentinel: 300 kHz/ High Res./ 2 Battery Packs/ Memory: 256 MB

NUM

CR1
 CF11101
 EA0
 EB0
 ED850
 ES33
 EX11111
 EZ1111111
 WA50
 WB0
 WD111100000
 WF176
 WN25
 WP70
 WS400
 WV175
 TE00:20:00.00
 TP00:17.14
 TF10/05/03 16:00:00
 CK
 CS



>>>>> Function starting 05/02/10 17:44:04 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>TS100502174406
>CZ

Powering Down

>>>>> Function starting 05/02/10 17:44:12 >>>>>

[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 = 025 ----- Number of depth cells (1-128)
WP = 00069 ----- Pings per Ensemble (0-16384)
WS = 0400 ----- Depth Cell Size (cm)
WV = 175 ----- 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 = 00:13.04 ----- Time per Ping (min:sec.sec/100)
TS = 10/05/02,17:44:13 --- Time Set (yr/mon/day, hour:min:sec)

EA = +00000 ----- Heading Alignment (1/100 deg)
EB = +00000 ----- Heading Bias (1/100 deg)
ED = 00850 ----- Transducer Depth (0 - 65535 dm)
ES = 33 ----- 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 = 10/05/02,17:44:16 --- 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,-27.31

Temp Sens Offset: -0.41 degrees C

CPU Firmware: 16.20 [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:

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

39 43 41 44 39 43 41 44 39 43 41 44 39 43 41 44 39 43 41 44
39 43 41 44 39 43 41 44 39 43 41 44 39 43 41 44 39 43 41 44

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

>CZ

Powering Down

>>>>> Function starting 05/02/10 17:45:16 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
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>AZ
Pressure Offset Updated in NVRAM.

>CZ

Powering Down

>>>>> Function starting 05/02/10 17:45:24 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
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>RE ErAsE erasing...
Recorder erased.

>CZ

Powering Down

>>>>> Function starting 05/02/10 17:45:58 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
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>RR
Recorder Directory:
Volume serial number for device #0 is 4072-e249

No files found.

Bytes used on device #0 = 0
Volume serial number for device #1 is 0000-010e

No files found.

Bytes used on device #1 = 0
Total capacity = 274089984 bytes

Total bytes used = 0 bytes in 0 files
Total bytes free = 274089984 bytes

>
[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>CR1
[Parameters set to FACTORY defaults]
>CF111101
>EA0
>EB0
>ED850
>ES33
>EX11111
>EZ1111111
>WA50
>WB0
>WD111100000
>WF176
>WN25
>WP70
>WS400
>WV175
>TE00:20:00.00
>TP00:17.14
>TF10/05/02 20:00:00
>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 2275_
>CS

>>>>> Function starting 05/03/10 05:26:32 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>TS100503052634
>CZ

Powering Down

>>>>> Function starting 05/03/10 05:26:39 >>>>>

[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 = 030 ----- Number of depth cells (1-128)
WP = 00001 ----- Pings per Ensemble (0-16384)
WS = 0400 ----- Depth Cell Size (cm)
WV = 175 ----- Mode 1 Ambiguity Vel (cm/s radial)

TE = 00:00:01.00 ----- Time per Ensemble (hrs:min:sec.sec/100)
TF = **/**/**,**:**:** --- Time of First Ping (yr/mon/day,hour:min:sec)
TP = 00:01.00 ----- Time per Ping (min:sec.sec/100)
TS = 10/05/03,05:26:40 --- Time Set (yr/mon/day,hour:min:sec)

EA = +00000 ----- Heading Alignment (1/100 deg)
EB = +00000 ----- Heading Bias (1/100 deg)
ED = 01000 ----- 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 = 411 ----- 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 = 10/05/03,05:26:45 --- Time Set (yr/mon/day,hour:min:sec)

>PS0

Instrument S/N: 2272

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) 0.00,0.00,0.14,16.00

Temp Sens Offset: -0.30 degrees C

CPU Firmware: 16.20 [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: 5

Board Serial Number Data:

00 00 00 03 01 90 98 09 CPU727-2000-00H

25 00 00 02 C9 02 58 09 DSP727-2001-04F

67 00 00 03 01 8B 39 09 REC727-1000-04A

EC 00 00 03 01 60 95 09 PIO727-3000-04C

>PA

PRE-DEPLOYMENT TESTS

CPU TESTS:

RTC.....PASS

RAM.....PASS

ROM.....PASS

RECORDER TESTS:

PC Card #0.....NOT DETECTED

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.....***FAIL***

>PC2

Press any key to quit sensor display ...

Heading	Pitch	Roll	Up/Down	Attitude Temp	Ambient Temp	PRESSURE
31.560	30.090	1.670	Up	21.120C	20.950C	-0.0 kPa
34.960	30.100	3.020	Up	21.090C	20.940C	-0.0 kPa
39.530	30.110	4.680	Up	21.090C	20.950C	-0.8 kPa
46.250	30.130	6.800	Up	21.110C	20.960C	-1.5 kPa
51.220	30.140	8.510	Up	21.100C	20.940C	1.0 kPa
53.700	30.160	9.460	Up	21.100C	20.950C	0.9 kPa

>RS

RS = 000,242 ----- 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	42	43	42	39	42	43	42	39	42	43	42	39	42	43	42	39	42	43	42
39	42	43	42	39	42	43	42	39	42	43	42	39	42	43	42	39	41	43	42
39	41	43	42	39	42	43	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	43	42	39	41	43	42
39	41	43	42	39	41	42	42	39	41	43	42	39	41	42	42	39	41	42	42
39	41	42	42	39	42	42	42	39	42	42	42	39	42	42	42	39	42	42	42
39	42	42	42	39	42	42	42	39	42	42	42	39	42	42	42	39	42	42	42
39	42	42	42	39	42	42	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42
39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42	39	41	42	42

Rub Beam 1 = PASS

Rub Beam 2 = PASS

Rub Beam 3 = PASS

Rub Beam 4 = PASS

>CZ

Powering Down

>>>>> Function starting 05/03/10 05:27:58 >>>>>

[BREAK Wakeup A]

WorkHorse Broadband ADCP Version 16.20

RD Instruments (c) 1996-2001

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>AZ

Pressure Offset Updated in NVRAM.

>CZ

Powering Down

>>>>> Function starting 05/03/10 05:28:07 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
All Rights Reserved.
>RE ErASE erasing...
Recorder erased.

>CZ

Powering Down

>>>>> Function starting 05/03/10 05:28:16 >>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.20
RD Instruments (c) 1996-2001
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>RR
Recorder Directory:
Volume serial number for device #1 is 7072-64e6

No files found.

Bytes used on device #1 = 0
Total capacity = 253227008 bytes
Total bytes used = 0 bytes in 0 files
Total bytes free = 253227008 bytes

>

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

>CR1
[Parameters set to FACTORY defaults]
>CF11101
>EA0
>EB0
>ED850
>ES33
>EX11111
>EZ1111111
>WA50
>WB0
>WD1111100000
>WF176
>WN25
>WP70
>WS400
>WV175
>TE00:20:00.00
>TP00:17.14
>TF10/05/03 16:00:00

>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 2272_

>CS

Mooring: E01-WW
UCats X 3
Serial
5306 - Pumped
1537 (attached to Nortek 2646) No pump
1614 (attached to Nortek 0958) No Pump

Battery Calculations:

Note: 10 min sampling with a pump lasts about 220 days.

Sampling Time:

$$3.33s + (2.27 * (NAVG - 1))$$

$$3.33s + (2.27 * (4 - 1)) = 10.14s$$

Example 1: A standard MicroCAT (no external power option) with pressure sensor is set up to sample autonomously every 10 minutes (6 samples/hour), taking 4 measurement per sample (**NAVG=4**). How long can it be deployed?

Sampling time = 3.33 seconds + 2.27 seconds * (**NAVG** - 1) = 10.14 seconds

Sampling current consumption = 0.020 amps * 10.14 seconds = 0.2 amp-seconds/sample

In 1 hour, sampling current consumption = 6 * 0.2 amp-seconds/sample = 1.2 amp-seconds/hour

Pump current consumption = 0.13 amp-seconds/pulse

In 1 hour, pump current consumption = 6 * 0.13 amp-seconds/pulse = 0.78 amp-seconds/hour

Quiescent current 10 microamps = 0.01 mA

In 1 hour, quiescent current consumption = 0.01 mA * 3600 seconds/hour = 0.036 amp-seconds/hour

Total current consumption / hour = 1.2 + 0.78 + 0.036 = 2.02 amp-seconds/hour

Capacity = (5 amp-hours * 3600 seconds/hr) / (2.02 amp-seconds/hour) = 8910

hours = 371 days = 1.02 years

Number of samples = 8910 hours * 6 samples/hour = 53460 samples

Command Summary:

DDMMYY=020510

HHMMSS=200000 //(UTC)

OUTPUTSAL=Y

OUTPUTSV=Y

FORMAT=1

NAVG=4

PUMPINSTALLED=N

SAMPLENUM=0

INTERVAL=1200 (NOTE: 10 min sampling with a pump lasts about 220 days so use 15 mins)

REFPRESS= 60 (x = pressure at which the instrument is at...only used if there is no pressure sensor installed)

STORETIME=Y

TXREALTIME=N

STARTDDMMYY=020910

STARTHHMMSS=200000

STARTLATER
