Mooring Deployment Record

Project Name:	Sog - Amp		
Project Area:	Straight of Georgia		
Mooring Name:	SOAN - K	Station Name	SOAN
Latitude:	49 50.186	Longitude:	124 50.245
Depth:	332 datum = 329	Tide:	Powell River +3m
Mag. Declination:	7	Time Zone:	UTC
Date:	August 30, 2011 B	Time:	0120 UTC
Remarks:			

Recovery

Date:	Nov 26, 2011	Time:	0830 (Time ? must the local)
Remarks:			

Instruments

Type	Serial #	Depth	Time In:	Time Out	Notes
Baker	718405	44			
SBE 19+	6027	46.6			UTC
RCM 11	39	47.2			
SBE 16+	4196	144			Cut Data cable extended LOCAL TIME
WH600	~~4096~~ 3694	279			
RBR	17085	319			
SBE 37	1537	325			

UTC
PST ~~UTC~~
I checked time and it was Local 4

Releases

Release	Serial #	Range:	Release	Freq	Other Diag.
AR861	887	169C	1655	12 kHz	1649

Pingers

Pinger	Serial #	Voltage	Freq
Helle	6393	19.9	27 kHz
Helle	7081	19.9	27 kHz

Flotation

Type	Serial #	Size	Colour	Type	Serial #	Size	Colour
SB 30	3007	30"	yellow				
"	3005	"	"				
SS 28	M232	28"	"				
SS 28	208	28"	"				

```
SBE 19plus
S>*ds
SCP16, 6027, 2.0c, 5820, 3, 19, N
S>
S>ds
SBE 19plus V 2.0c  SERIAL NO. 6027    06 Aug 2011 14:40:42
vbatt = 13.7, vlith =  8.7, ioper =  61.2 ma, ipump =  41.2 ma,
iext01 =  35.0 ma
status = not logging
sample interval = 1800 seconds, number of measurements per sample = 4
samples = 5820, free = 3457240
mode = moored, run pump during sample, delay before sampling = 5.0 seconds
transmit real-time = no
battery type = alkaline, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 508.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes
Ext Volt 2 = no, Ext Volt 3 = no
Ext Volt 4 = no, Ext Volt 5 = no
echo characters = yes
output format = raw HEX
S>note: I'm putting this in UTC
<ERROR type='INVALID COMMAND' msg='RCVD:note: i'm putting this in utc'/>
S>date=080611
<ERROR type='INVALID COMMAND' msg='RCVD:date=080611'/>
S>datetime=06□8062011224025
S>ds
SBE 19plus V 2.0c  SERIAL NO. 6027    06 Aug 2011 22:40:26
vbatt = 13.8, vlith =  8.7, ioper =  61.3 ma, ipump =  39.0 ma,
iext01 =  35.9 ma
status = not logging
sample interval = 1800 seconds, number of measurements per sample = 4
samples = 5820, free = 3457240
mode = moored, run pump during sample, delay before sampling = 5.0 seconds
transmit real-time = no
battery type = alkaline, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 508.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes
Ext Volt 2 = no, Ext Volt 3 = no
Ext Volt 4 = no, Ext Volt 5 = no
echo characters = yes
output format = raw HEX
S>ts
04F4270B33760828DC554E032A05D015D07FB5
S>outputfomr□t□□rmat=3
S>ts
 22.7827,  0.01268,    0.047, 0.0593, 0.1126, 06 Aug 2011 22:42:21
S>ts
 22.9855,  0.01232,    0.049, 4.9371, 4.2025, 06 Aug 2011 22:42:50
S>ts
 23.1220,  0.01194,    0.054, 0.0612, 0.1134, 06 Aug 2011 22:43:16
S>ts
 23.1934,  0.01149,    0.050, 4.9371, 4.9432, 06 Aug 2011 22:43:33
S>outputformat=1
S>ds
SBE 19plus V 2.0c  SERIAL NO. 6027    06 Aug 2011 22:44:00
```

```
vbatt = 13.7, vlith =  8.7, ioper =  61.4 ma, ipump =  44.5 ma,
iext01 =  36.1 ma
status = not logging
sample interval = 1800 seconds, number of measurements per sample = 4
samples = 5820, free = 3457240
mode = moored, run pump during sample, delay before sampling = 5.0 seconds
transmit real-time = no
battery type = alkaline, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 508.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes
Ext Volt 2 = no, Ext Volt 3 = no
Ext Volt 4 = no, Ext Volt 5 = no
echo characters = yes
output format = converted HEX
S>initlogging=y
<ERROR type='INVALID COMMAND' msg='RCVD:initlogging=y'/>
S>initlogging
this command will change the scan length and/or initialize logging
repeat the command to verify
initlogging
S>ds
SBE 19plus V 2.0c  SERIAL NO. 6027    06 Aug 2011 22:45:07
vbatt = 13.7, vlith =  8.7, ioper =  61.3 ma, ipump =  44.8 ma,
iext01 =  34.4 ma
status = not logging
sample interval = 1800 seconds, number of measurements per sample = 4
samples = 0, free = 3463060
mode = moored, run pump during sample, delay before sampling = 5.0 seconds
transmit real-time = no
battery type = alkaline, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 508.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes
Ext Volt 2 = no, Ext Volt 3 = no
Ext Volt 4 = no, Ext Volt 5 = no
echo characters = yes
output format = converted HEX
S>startlater□□□□□datetime=08072011010000
S>start□□□□□ds
SBE 19plus V 2.0c  SERIAL NO. 6027    06 Aug 2011 22:46:07
vbatt = 13.7, vlith =  8.7, ioper =  61.2 ma, ipump =  45.7 ma,
iext01 =  35.0 ma
status = not logging
sample interval = 1800 seconds, number of measurements per sample = 4
samples = 0, free = 3463060
mode = moored, run pump during sample, delay before sampling = 5.0 seconds
transmit real-time = no
battery type = alkaline, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 508.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes
Ext Volt 2 = no, Ext Volt 3 = no
Ext Volt 4 = no, Ext Volt 5 = no
echo characters = yes
output format = converted HEX
S>startlater
```

start logging at = 07 Aug 2011 01:00:00, sample interval = 1800 seconds

32392

RCM 11 Deployment Sheet

Instrument Serial #: 39 # of Channels: 6 Recording Interval: ~~8~~ 30 mins
Project: SOAN-K DSU ID: 15059

Pressure Sensor:
Type: 3815C
Range: ~~7000 kPa~~ 60 MPA
Serial #: 730

Conductivity Cell:
Type: 3819
Range: 24-38 mS
Serial #: 24

Temperature Sensor:
Type: 3621
Range: ~~Arctic~~ Low
Serial #: ~~Low~~

Doppler Current Sensor:
Type: SR10
Serial #: 32

MAX DEPTH: 736m (7000kPa pressure sensor)

Channel #	Reading1	Reading 2	Last Cal
1. Reference	652		
2. ~~Temperature~~	0		
3. ~~Conductivity~~	0		
4. ~~Extemp/pressure~~	1023		
5. ~~Direction~~	309		
6. ~~Speed~~	31		
Date: Aug 7, 2011 Time:	2100 UTC		

Channel #	Reading1	Reading 2	Last Cal
1. Reference	652		
2. Temperature	324		
3. Conductivity	457		
4. Extemp/pressure	798		
5. Direction	904		
6. Speed	31		
Date: NOV 26, 2011 Time:	1831		

TIME IN WATER: ____ DATE: August 8, 2011
BAT VOLTAGE: 9.68 ON DEPLOYMENT
CRUISE ID: 2011-60 DEPLOYED
TECHNICIAN: LP

TIME OUT WATER: 0830 DATE: NOV 26, 2011
BAT VOLTAGE: 7.4 ON RECOVERY
CRUISE ID: 2011-76 RECOVERED
TECHNICIAN: LP

NOTES:

Had to swap out cages because this was too long for cage LP. Obtained records - 5370
Expected - 5322

```
pump installed□□□□□□□□□□□□□□□ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:16:14
vbatt = 13.8, vlith =  8.7, ioper =  62.0 ma, ipump =  75.4 ma,
iext01 =   9.6 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 2329, free = 439176
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = no, Ext Volt 3 = no
echo commands = yes
output format = raw HEX
S>NOTE:  THis time is in local time and not UTC by Cindys say
?cmd S>ddmmy□□□□□tc
 0.00910
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
 0.00911
  0.00911
 0.00911
 0.00912
 0.00912
stop 0.00912
sto 0.00912
pstop 0.00912
stop 0.00912
stop 0.00912
 0.00912
 0.00913
 0.00913
 0.00913
 0.00913
 0.00913
□^ 0.00913
S>
S>□^□^□^□^□^□^□^□^□^stop
S>ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:18:00
vbatt = 13.8, vlith =  8.7, ioper =  61.9 ma, ipump =  56.4 ma,
iext01 =  11.5 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 2329, free = 439176
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
```

```
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = no, Ext Volt 3 = no
echo commands = yes
output format = raw HEX
S>tv
  0.0105  0.0000  0.0001  0.0000
  4.3234  0.0001  0.0002  0.0000
  4.6686  0.0001  0.0000  0.0000
  4.1097  0.0000  0.0002  0.0000
  4.7164  0.0000  0.0001  0.0000
  4.7154  0.0000  0.0001  0.0001
  3.7089  0.0000  0.0002  0.0001
  0.0014  0.0000  0.0000  0.0000
  0.0014  0.0000  0.0001  0.0000
  0.0015  0.0000  0.0000  0.0000
  0.0016  0.0000  0.0001  0.0000
  0.0014  0.0000  0.0000  0.0000
  0.0014  0.0000  0.0000  0.0000
  0.0018  0.0000  0.0000  0.0000
  0.0018  0.0000  0.0000  0.0000
  0.0019  0.0003  0.0000  0.0000
  0.0018  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0001
  0.0022  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0002  0.0000
  0.0023  0.0000  0.0001  0.0000
  0.0023  0.0001  0.0001  0.0001
  0.0023  0.0001  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0001
  0.0024  0.0000  0.0001  0.0001
  0.0025  0.0001  0.0000  0.0001
  0.0025  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0025  0.0000  0.0000  0.0002
  0.0023  0.0000  0.0000  0.0001
  0.0022  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0001  0.0001  0.0001
  0.0021  0.0000  0.0000  0.0000
  0.0025  0.0000  0.0000  0.0000
  0.0025  0.0002  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0000
  0.0024  0.0002  0.0000  0.0001
  0.0021  0.0000  0.0002  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0001
  0.0021  0.0001  0.0003  0.0000
  0.0023  0.0000  0.0000  0.0001
  0.0021  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0024  0.0000  0.0000  0.0000
```

```
  0.0022  0.0000  0.0000  0.0000
  0.0021  0.0001  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0002  0.0003  0.0003
  0.0022  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0022  0.0002  0.0000  0.0000
  0.0024  0.0001  0.0001  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0002  0.0000
  0.0024  0.0000  0.0001  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0001  0.0000
  0.0023  0.0000  0.0000  0.0001
  0.0024  0.0001  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0022  0.0000  0.0001  0.0000
  0.0023  0.0002  0.0003  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0002  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0002  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0001  0.0003
  0.0022  0.0000  0.0001  0.0001
  0.0021  0.0002  0.0001  0.0000
  0.0024  0.0000  0.0000  0.0000
  0.0025  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0001  0.0002
  0.0022  0.0000  0.0000  0.0000
  0.0027  0.0000  0.0003  0.0000
  0.0023  0.0000  0.0003  0.0000
  0.0023  0.0000  0.0001  0.0001
  0.0025  0.0000  0.0000  0.0001
  0.0022  0.0000  0.0000  0.0000
  0.0024  0.0000  0.0001  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0002  0.0001  0.0000
  0.0021  0.0000  0.0000  0.0001
  0.0021  0.0000  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0001
  0.0022  0.0001  0.0000  0.0000
  0.0024  0.0000  0.0001  0.0000
  0.0025  0.0000  0.0000  0.0000
  0.0023  0.0002  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0001
S>tv
  0.0109  0.0000  0.0000  0.0000
  0.0075  0.0000  0.0000  0.0000
  0.4477  0.0000  0.0000  0.0000
  4.0866  0.0000  0.0001  0.0000
  4.7161  0.0000  0.0002  0.0000
```

4.7156	0.0000	0.0000	0.0001
3.8500	0.0000	0.0000	0.0000
0.0018	0.0000	0.0000	0.0000
0.0014	0.0001	0.0000	0.0005
0.0017	0.0000	0.0001	0.0001
0.0016	0.0000	0.0000	0.0000
0.0016	0.0000	0.0000	0.0000
0.0016	0.0000	0.0000	0.0000
0.0016	0.0000	0.0000	0.0000
0.0021	0.0000	0.0000	0.0000
0.0021	0.0000	0.0000	0.0001
0.0022	0.0000	0.0001	0.0000
0.0024	0.0000	0.0001	0.0000
0.0020	0.0002	0.0001	0.0000
0.0022	0.0000	0.0000	0.0001
0.0025	0.0000	0.0000	0.0002
0.0022	0.0000	0.0002	0.0000
0.0025	0.0000	0.0001	0.0001
0.0019	0.0000	0.0001	0.0001
0.0022	0.0000	0.0000	0.0000
0.0025	0.0000	0.0000	0.0000
0.0024	0.0001	0.0001	0.0000
0.0023	0.0000	0.0001	0.0000
0.0019	0.0000	0.0000	0.0000
0.0023	0.0000	0.0001	0.0000
0.0021	0.0000	0.0001	0.0000
0.0020	0.0000	0.0000	0.0000
0.0022	0.0001	0.0000	0.0000
0.0024	0.0000	0.0000	0.0000
0.0020	0.0000	0.0000	0.0000
0.0022	0.0000	0.0000	0.0000
0.0022	0.0000	0.0000	0.0000
0.0022	0.0000	0.0000	0.0001
0.0022	0.0000	0.0001	0.0000
0.0019	0.0000	0.0000	0.0000
0.0023	0.0000	0.0000	0.0002
0.0025	0.0000	0.0000	0.0000
0.0024	0.0000	0.0000	0.0000
0.0023	0.0000	0.0001	0.0000
0.0023	0.0001	0.0000	0.0000
0.0024	0.0000	0.0000	0.0002
0.0026	0.0000	0.0000	0.0000
0.0025	0.0000	0.0000	0.0000
0.0022	0.0000	0.0000	0.0000
0.0023	0.0001	0.0002	0.0000
0.0020	0.0002	0.0000	0.0000
0.0025	0.0000	0.0000	0.0000
0.0021	0.0000	0.0001	0.0000
0.0023	0.0000	0.0000	0.0001
0.0026	0.0001	0.0001	0.0000
0.0023	0.0000	0.0000	0.0000
0.0021	0.0000	0.0000	0.0000
0.0021	0.0000	0.0000	0.0000
0.0023	0.0000	0.0000	0.0000
0.0025	0.0000	0.0000	0.0000
0.0023	0.0000	0.0000	0.0000
0.0023	0.0001	0.0000	0.0000

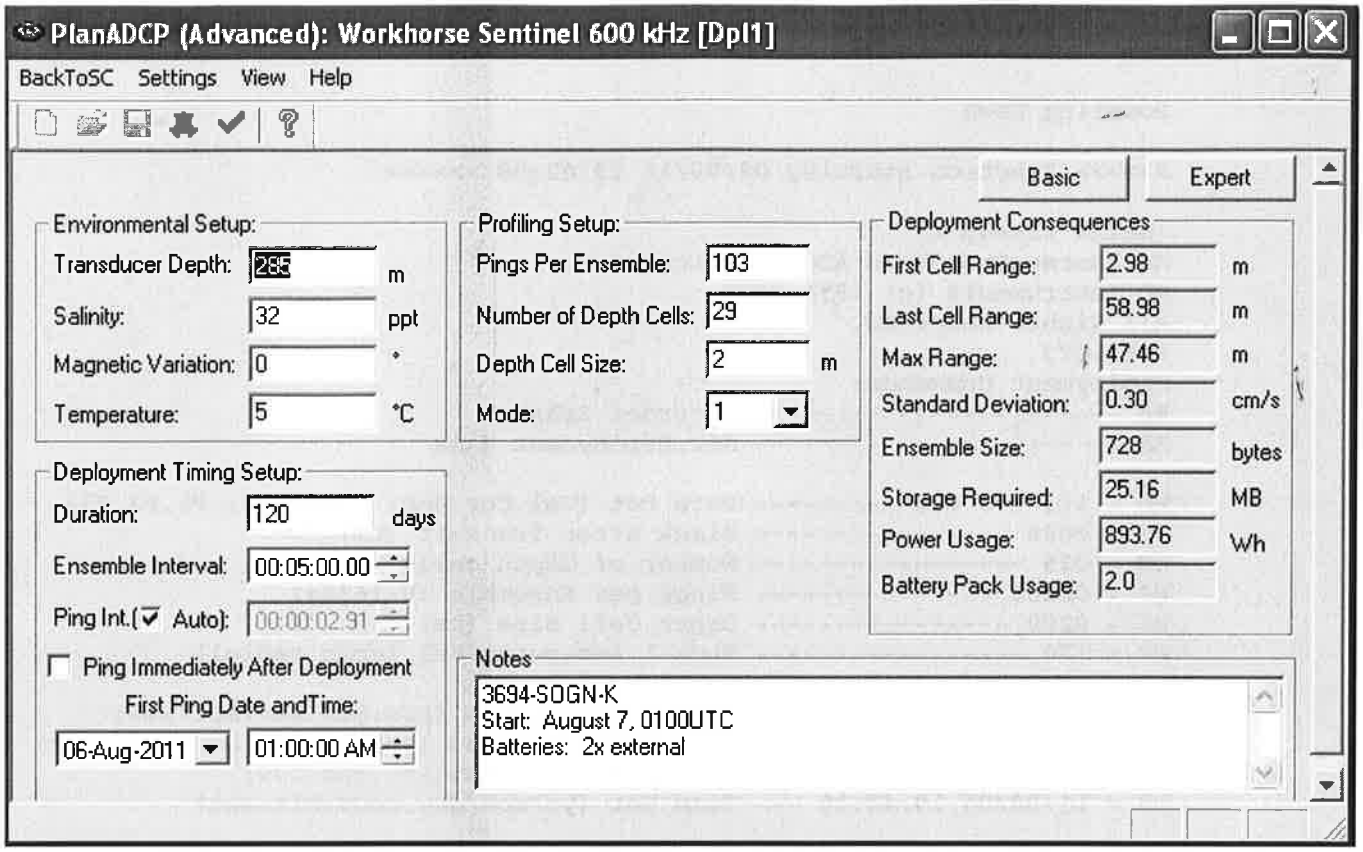
```
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0024  0.0002  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0001
  0.0023  0.0000  0.0000  0.0001
  0.0022  0.0000  0.0000  0.0001
  0.0025  0.0000  0.0000  0.0000
  0.0025  0.0000  0.0000  0.0000
  0.0023  0.0001  0.0000  0.0000
  0.0022  0.0000  0.0001  0.0000
  0.0022  0.0000  0.0003  0.0000
  0.0021  0.0000  0.0000  0.0001
  0.0024  0.0000  0.0001  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0022  0.0000  0.0002  0.0000
  0.0025  0.0000  0.0001  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0024  0.0000  0.0000  0.0000
  0.0021  0.0000  0.0000  0.0000
  0.0024  0.0000  0.0000  0.0000
  0.0020  0.0000  0.0003  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0023  0.0001  0.0000  0.0000
  0.0024  0.0000  0.0001  0.0000
  0.0023  0.0000  0.0002  0.0000
  0.0020  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0000  0.0000
  0.0024  0.0000  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0000
  0.0024  0.0001  0.0000  0.0000
  0.0022  0.0000  0.0000  0.0000
  0.0023  0.0000  0.0001  0.0000
  0.0022  0.0000  0.0000  0.0000
  0.0021  0.0001  0.0000  0.0000
  0.0025  0.0000  0.0000  0.0000
  0.0021  0.0001  0.0001  0.0000
  0.0022  0.0000  0.0002  0.0000
  0.0023  0.0000  0.0002  0.0000
S>ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:19:03
vbatt = 13.8, vlith =  8.7, ioper =  61.9 ma, ipump =  62.4 ma,
iext01 =  10.3 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 2329, free = 439176
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = no, Ext Volt 3 = no
echo commands = yes
output format = raw HEX
S>data□etime=08062011151945
?cmd S>datetime=08062011152010
?cmd S>ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:20:46
```

```
vbatt = 13.8, vlith =  8.7, ioper =  61.9 ma, ipump =  55.7 ma,
iext01 =  11.1 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 2329, free = 439176
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = no, Ext Volt 3 = no
echo commands = yes
output format = raw HEX
S>ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:21:02
vbatt = 13.8, vlith =  8.7, ioper =  61.9 ma, ipump =  60.6 ma,
iext01 =  10.6 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 2329, free = 439176
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = no, Ext Volt 3 = no
echo commands = yes
output format = raw HEX
S>volt2=y
this command will change the scan length and initialize logging
proceed Y/N ? y
scan length has changed, initializing logging
S>volt3=y
this command will change the scan length and initialize logging
proceed Y/N ? y
scan length has changed, initializing logging
S>ds
SeacatPlus V 1.3a  SERIAL NO. 4196    06 Aug 2011  15:21:32
vbatt = 13.8, vlith =  8.7, ioper =  61.9 ma, ipump =  59.8 ma,
iext01 =  10.8 ma, iext23 =   0.4 ma,
status = not logging
sample interval = 4500 seconds, number of measurements per sample = 4
samples = 0, free = 364722
mode = moored, run pump during sample, delay before sampling = 35.0 seconds
transmit real-time = no
battery type = ALKALINE, battery cutoff =  7.5 volts
pressure sensor = strain gauge, range = 1450.0
SBE 38 = no, Gas Tension Device = no
Ext Volt 0 = yes, Ext Volt 1 = yes, Ext Volt 2 = yes, Ext Volt 3 = yes
echo commands = yes
output format = raw HEX
S>startdatetime=08062011230000
?cmd S>startdatetime 08062001□□11230000
?cmd S>startdata□e=08062011
?cmd S>startdate-080611
?cmd S>startdate=080611
?cmd S>ds
```

RDI 75/150/300/600 kHz Long Ranger/Workhorse

Project: SOCN-K
Serial Number: 3694
Cruise ID: 2011-60
Platform: Vector
Station:
Deployment Date: August 7, 2011
Recovery Date:
Position:
Depth:

Parameters:
Ensemble Interval: 5 mins
Bin Size: 2 m
Number of Pings: 103
Number of Bins: 29
Ambiguity Velocity: 0.30 cm/s
Water profiling Mode: WBO
Time: UTC
Start Time: August 7, 0100 UTC
Power: 900 Wh
Battery Type: 2 x
Card size : 256 mbyte



CR1
CF11101
EA0
EB0
ED2850
ES32
EX11111
EZ1111111
WB0
WD111100000
WF88
WN29
WP103
WS200
WV170
TE00:05:00.00
TP00:02.91
TF11/08/07 01:00:00
CK
CS

```
>>>>>> Function starting 08/06/11 19:42:02 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.21
RD Instruments (c) 1996-2002
All Rights Reserved.
```

```
>TS110806194204
>CZ

Powering Down

>>>>>> Function starting 08/06/11 19:42:08 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.21
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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 = 025 ----------------- Number of depth cells (1-128)
WP = 00200 --------------- Pings per Ensemble (0-16384)
WS = 0200 ---------------- 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 = 00:04.50 ------------ Time per Ping (min:sec.sec/100)
TS = 11/08/06,19:42:10 --- Time Set (yr/mon/day,hour:min:sec)

EA = +00000 -------------- Heading Alignment (1/100 deg)
EB = +00000 -------------- Heading Bias (1/100 deg)
ED = 02850 --------------- 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 = 11/08/06,19:42:18 --- Time Set (yr/mon/day,hour:min:sec)
>PS0
  Instrument S/N:  3694
       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  TEMPERATURE
Temp Sens Offset:  -0.28 degrees C

    CPU Firmware:  16.21 [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:   5

Board Serial Number Data:
   C0  00 00 02 FB B2 24  09 CPU727-2000-00H
   77  00 00 02 FB 7B 6A  09 DSP727-2001-03G
   A4  00 00 02 FB 8C 65  09 PIO727-3000-03C
   F4  00 00 02 FB 8E 9D  09 REC727-1000-03E
>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
167.22ø  27.32ø   5.95ø     Up         19.20øC        20.79øC         0.0
kPa167.40ø  27.33ø   5.76ø     Up         19.20øC        20.79øC      0.0
kPa167.76ø  27.32ø   5.60ø     Up         19.19øC        20.79øC      0.0
kPa167.82ø  27.33ø   5.48ø     Up         19.20øC        20.79øC      0.0
kPa168.12ø  27.32ø   5.35ø     Up         19.15øC        20.79øC      0.0
kPa167.99ø  27.33ø   5.45ø     Up         19.19øC        20.80øC      0.0
kPa167.80ø  27.33ø   5.51ø     Up         19.20øC        20.80øC      0.0
kPa
>RS
RS = 008,234 ------------- 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...
  48  48  47  41  48  47  47  41  47  47  47  41  47  47  47  40  47  47
47  40  47  47  47  40  47  47  46  40  47  47  46  40  47  47  46  40  47
47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40
47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46
40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47
46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47
47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40
47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46
40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47
46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47
47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40
47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46
40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47
46  40  47  47  46  40  47  47  46  40  47  47  46  40

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

>CZ
```

```
Powering Down

>>>>>> Function starting 08/06/11 19:45:23 >>>>>>

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 16.21
RD Instruments (c) 1996-2002
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 = 0088 ---------------- Blank After Transmit (cm)
WN = 025 ----------------- Number of depth cells (1-128)
WP = 00200 --------------- Pings per Ensemble (0-16384)
WS = 0200 ---------------- 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 = 00:04.50 ------------ Time per Ping (min:sec.sec/100)
TS = 11/08/06,19:45:25 --- Time Set (yr/mon/day,hour:min:sec)

EA = +00000 -------------- Heading Alignment (1/100 deg)
EB = +00000 -------------- Heading Bias (1/100 deg)
ED = 02850 --------------- 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 = 11/08/06,19:45:34 --- Time Set (yr/mon/day,hour:min:sec)
>PS0
  Instrument S/N:  3694
       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  TEMPERATURE
Temp Sens Offset:  -0.28 degrees C

    CPU Firmware:  16.21 [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:   5

Board Serial Number Data:
   C0  00 00 02 FB B2 24  09 CPU727-2000-00H
   77  00 00 02 FB 7B 6A  09 DSP727-2001-03G
   A4  00 00 02 FB 8C 65  09 PIO727-3000-03C
   F4  00 00 02 FB 8E 9D  09 REC727-1000-03E
>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..............................PASS
>PC2

Press any key to quit sensor display ...

Heading   Pitch    Roll   Up/Down    Attitude Temp   Ambient Temp   PRESSURE
332.93ø  -1.28ø  -2.52ø     Up          19.45øC         21.02øC         0.0
kPa332.20ø  -0.47ø  -2.32ø     Up          19.43øC         21.03øC         0.0
kPa331.85ø  -0.62ø  -2.28ø     Up          19.44øC         21.02øC         0.0
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...
  48  48  47  41  48  47  47  41  48  47  47  41  48  47  46  41  48  47
46  41  48  47  46  41  48  47  46  41  48  47  46  41  48  47  46  41  47
47  46  41  47  47  46  41  47  47  46  41  47  47  46  41  47  47  46  41
47  47  46  41  47  47  46  41  47  47  46  41  47  47  46  41  47  47  46
41  47  47  46  41  47  47  46  41  47  47  46  41  47  47  46  41  47  47
46  41  47  47  46  41  47  47  46  41  47  47  46  41  47  47  46  41  47
47  46  41  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40
47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46
40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47
46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47
47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40
47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46
40  47  47  46  40  47  47  46  40  47  47  46  40  47  47  46  40  47  47
46  40  47  47  46  40  47  47  46  40  47  47  46  40

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

>CZ

Powering Down

>>>>>> Function starting 08/06/11 19:47:52 >>>>>>

[BREAK Wakeup A]
```

```
WorkHorse Broadband ADCP Version 16.21
RD Instruments (c) 1996-2002
All Rights Reserved.
>CR1
[Parameters set to FACTORY defaults]
>CF11101
>EA0
>EB0
>ED2850
>ES32
>EX11111
>EZ1111111
>WB0
>WD111100000
>WF88
>WN29
>WP103
>WS200
>WV170
>TE00:05:00.00
>TP00:02.91
>TF11/08/07 01:00:00
>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 3694_
>cs
```

MicroCat SBE 37 Deployment Sheet

INSTRUMENT

Serial Number: 1537

Sensors (C,T,P): no pressure

Firmware Version: 2.6b

Depth Rating: lots

PARAMETERS

SampleNum: 0

Storetime: Y

Interval: 10 min

Syncmode: N

Navg/Ncycles: 4

Txrealtime: N

Reference pressure*: 325

OutputSV: N

Time Zone: UTC

OutputSal: Y

Start: August 7, 0100 UTC

*only needed if there is no pressure sensor for the salinity calculation

DEPLOYMENT

Station: Sogn-k

Cruise Number: 2011-60

Latitude:

Water Depth:

Longitude:

Instrument Depth: 325 m

Time and Date in Water:

Comments: Fresh cal from factory.

Completed by:

Date:

~~uCat-dep.xls SFM~~

Mooring: SOGN-K
UCats X 1
Serial 1537 - new cal, no pressure

Battery Calculations:

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=060811
HHMMSS=160000 //(UTC)
OUTPUTSAL=Y
OUTPUTSV=Y
FORMAT=1
NAVG=4
PUMPINSTALLED=N
SAMPLENUM=0
INTERVAL=600
REFPRESS= 325 (x = pressure at which the instrument is at...only used if there is no pressure sensor installed)

STORETIME=Y
TXREALTIME=N
STARTDDMMYY=070811
STARTHHMMSS=010000
STARTLATER
