

Mooring Deployment Record

Project Name:	SOG-AMP		
Project Area:	Straight of Georgia		
Mooring Name:	SOGS-M	Station Name	SOGS
Latitude:	49° 01.438'	Longitude:	123° 25.855'
Depth:	316 - 3 = 313 datum	Tide:	Sand Heads +3
Mag. Declination:		Time Zone:	UTC
Date:	April 4, 2012	Time:	1942 UTC
Remarks:			

Recovery

Date:	Saturday July 14, 2012	Time:	7100 UTC
Remarks:	Very easy recovery, nice weather		

Instruments

Type	Serial #	Depth	Time In:	Time Out	Notes
Baker	86090B	53m			
SBE1+	6027	54.6 m			
WorkK	09582	56.2 m			RS232/Lithium / right angle
MCnt	4196350				
SBE10+	4196	150m			Buy a com cable extender
RCM11	39	303m			Make a new BLU Box
					July 14, 2012 case is getting corroded, suggest new one.

Releases

Release	Serial #	Range:	Release	Freq	Other
AR 861.	740	16BA	16BA + 1655	16BA + 1649	

Pingers

Pinger	Serial #	Voltage	Freq
Helle	7495	19.3	27 kHz 1/4 watt
"	7081	19.9	"

Flotation

Type	Serial #	Size	Colour	Type	Serial #	Size	Colour
SS30	3016	30"	yellow.				
"	3013	"	"				
"	3002	"	"				

SBE 19+ - 6027

mooring - SOGS-m

FW - 2.0c

Sample interval - 1800

N avg - 4

mode - run pump during sample, delay before samples - 5secs

Pressure sensor - Strain Gauge range 50g

ext voltages

0 - yes

1 - yes

2 - no

3 - no

4 - no

5 - no

Start @ April 4, 2200 UTC

0958-SOGS-M
2012-19 (April cruise)

Deployment Planning

Standard | **Advanced** | Inductive Modem

Setup

Measurement interval (s): 600
Average interval (s): 120
Measurement load (%): 4 ☒ Auto
Blanking dist. (m): 0.35
Compass upd. rate (s): 2

Power level

High
Low

☐ File wrapping

Deployment planning

Assumed duration (days): 120
Battery utilization (% of 50 Wh): 166
Memory required (MB): 0.8
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 : 0958_m
Current time : 4/4/2012 16:12:47
Start at : 4/4/2012 20:00:00
Comment:
0958-SOGS-m Lithium Pack
Start: April 4, 2012 @ 2000 UTC
RS232

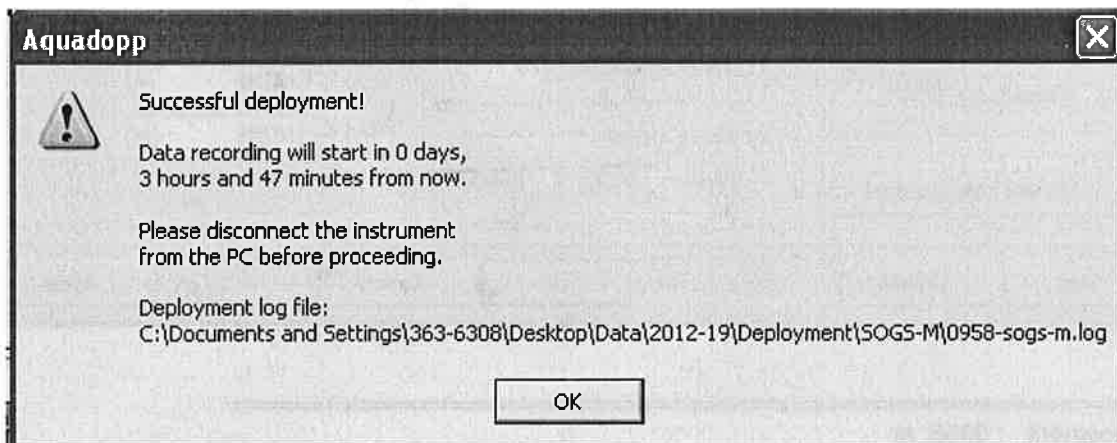
Measurement interval (s) : 600
Average interval (s) : 120
Blanking distance (m) : 0.35
Measurement load (%) : 4
Power level : HIGH
Diagnostics interval(min) : 1440
Diagnostics samples : 20
Compass upd. rate (s) : 2
Coordinate System : ENU
Speed of sound (m/s) : MEASURED
Salinity (ppt) : 32
Analog input 1 : NONE
Analog input 2 : NONE
Analog input power out : DISABLED

File wrapping : OFF
Serial output/TellTale : OFF

Assumed duration (days) : 120.0
Battery utilization (%) : 166.0
Battery level (V) : 11.3
Recorder size (MB) : 25
Recorder free space (MB) : 24.973
Memory required (MB) : 0.8
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

Aquadop Version 1.31
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Nortek - 095B

Comms - RS232

Connector - Right angle flat

Battery - Lithium (single)

Case - shallow

FW - 1.13

Measurement Interval - 600 s

Average Interval - 120 s

Power level - High

Duration - 120 days

Battery usage - 166% of Alkaline

Mem required - 0.8 MB of 25 MB

Vert vel - 1.7

Horizatal vel - 1

Clock set - UTC

MicroCat SBE 37 Deployment Sheet

INSTRUMENT

Serial Number: 3501

Sensors (C,T,P): C,T,P,

Firmware Version: 2.6b

Depth Rating: 1450 PSI

PARAMETERS

SampleNum: 0

Storetime: Y Y

Interval: 600

Syncmode: N N

Navg/Ncycles: 4

Txrealtime: N N

Reference pressure*: _____

OutputSV: X N

Time Zone: UTC

OutputSal: Y Y

Start: April 2, 2012 @ 2000 UTC

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

DEPLOYMENT

Station: SO6N-L

Cruise Number: 2012-19

Latitude: _____

Water Depth: _____

Longitude: _____

Instrument Depth: _____

Time and Date in Water: _____

Comments:

²⁰⁴⁵⁸
attached to Mark / RBR

Completed by: _____

Date: _____

uCat dep.xls SFM

Mooring: SOGS-L
UCats X 1
Serial 3501 - new cal, no pump

Battery Calculations:

Sampling Time:
 $3.33s + (2.27 * (NAV G - 1))$
 $3.33s + (2.27 * (4 - 1)) = 10.14s$

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 (**NAV G=4**). How long can it be deployed?

Sampling time = 3.33 seconds + 2.27 seconds * (**NAV G** - 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=300312

HHMMSS=20000 //(UTC)

OUTPUTSAL=Y

OUTPUTSV=Y

FORMAT=1

NAV G=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)

RCM 11 Deployment Sheet

Instrument Serial #: 39 # of Channels: 6 Recording Interval: 30

Project: SOGS-M DSU ID: 15059
File ID: 39-SOGS-M LP

Pressure Sensor:

Type: 3815C
Range: ~~7000 kPa~~ 60 mPA
Serial #: 730

Note: This sensor is virtually useless in shallow water. Change it. LP

Conductivity Cell:

Type: 3819
Range: ~~24-38 ms~~ 0-74 ms
Serial #: 24

Note: 24-38 ms was maxed out @ 1023 so use 0-74 ms on SOG-M-L?

Temperature Sensor:

Type: 3621
Range: ~~Active~~ Low
Serial #:

Doppler Current Sensor:

Type: SR10
Serial #: 32

MAX DEPTH: 736m (7000kPa pressure sensor)

Current {
temp →
Cond →
Pressure →

Channel #	Reading1	Reading 2	Last Cal
1. Reference	652		
2. Temperature	0		
3. Conductivity	0		
4. Extemp/pressure	989		
5. Direction	548		
6. Speed	31		
Date: April 4, 2012	Time: 1500 UTC		

Current {
temp
Cond
Pressure

Channel #	Reading1	Reading 2	Last Cal
1. Reference	652		
2. Temperature	23		
3. Conductivity	51		
4. Extemp/pressure	1023		
5. Direction	413		
6. Speed	31		
Date: July 14, 2012	Time: 2200 UTC		

TIME IN WATER: DATE: April 4, 2012
BAT VOLTAGE: 9.69 ON DEPLOYMENT
CRUISE ID: 2012-19 DEPLOYED
TECHNICIAN: LP

TIME OUT WATER: 2100 UTC DATE: July 14, 2012
BAT VOLTAGE: 8.02 ON RECOVERY
CRUISE ID: 2012-57 RECOVERED
TECHNICIAN: LP

NOTES:

- make a new blu box from MSP430 microcontroller.
- I only have one blu box left. LP
- July 14, 2012 29790 samples # last sample @ 29796