**CRUISE LOG**

**EX1502L3**

**09 APR 2015 – 30 APR 2015**

**INSTRUCTIONS:**

PLEASE INCLUDE FOLLOWING DURING EACH OF YOUR WATCHES:

Mapping log (All information written down in rough log [Green book])

Log what time you assume the watch – **All times UTC**

WX every three hours

Settings changes

Data quality trends

BIST times/filenames, reason for running

XBT/CTD casts

**Key**

PM – Ping Mode

ACM – Angular Coverage Mode

SB – Single Beam

MB – Multibeam

VD – Very Deep

AD – Along Direction

WX – Weather

STBD - Starboard

ED – Extra Deep

WCD – Water Column Data

BBS – Bottom Back Scatter

**09 APR 2015**

1845 Getting sonar acquisition software set up: PS Derek Sowers and SST Scott Allen. First EM302 BIST had some failures

1922 Running second BIST-All Passed. Started pinging, not logging. Using soft start

1935 XBT Cast # 061

1943 Turned off soft start

1956 Applied thinned XBT cast 061 to line 0000

2000 Start recording EK60

2002 Start recording Knudson, power 1, pulse 1, range 200

2014 Changed Knudson range to 500, pulse 2

2056 Start line 0001, transfer 0000

2153 Stop line 0001 for turn, start line 0002

2156 Start line 0003, slowing speed to 8 knots

2217 Knudson had been turned to power 2, seemed to cause interference in MB. Turned back to Power 1. Problem resolved.

2231 Increased Knudsn Tx Pulse to 8, TX Power 2, range 1000

2257 Start line 0004, transfer 0003

2258 Changed Knudson range to 500

2310 Stop line 0004, making MB adjustments, start line 0005

**10APR2015**

0029 Stop MB line

0032 Start turn line 0007

0051 Skipping line to avoid traffic

0109 Applied XBT cast 063

0112 Begin line 0008

0120 Bridge can make 7 knots on current power. This works for survey- should improve poor data quality on MB

0153 Changed SBP power from 1 to 2

0322 Applied XBT cast 064

0350 Begin turn line 0011

0415 Begin line 0012

0630 Begin turn line 0015

0748 Breaking line, running to dive site to run extra line

0836 Begin line 0019 over dive site

\*Notes to Derek: Looked at creating new Hypack project in Zone 19. The Geotif background files would need to be reprojected. I suggest doing that or just export daily surfaces to zone 20 to add to the current project. –Erin

0854 End Logging, stopped logging & pinging ME70, EK60, Knudson,

Secured Knudsen Power(switched off)

Last line processed in caris 0014.

Need to create digital logs next watch

**11APR 2015**

0028 ROV Ops concluded; Starting transit to Dive 2 site (“PR\_1”)

0047 XBT 0064

0055 XBT applied to SIS, stated logging line 20; started EK60 & SBP

0101 MB has tracking problem, changed ping mode to Very Deep, much better

0134 Broke linefor traffic, End line 0020, Start line 0021, transfer 0020; Estimted time off line 17 ,imutes

0150 Returning to transit line. End line 0021. Start line 0022

0154 Ship done turning. Start line 0023

0237 Discovered loose POS/MV network cable after seeing error message on computer. Reconnected, working

0254 Start line 0024

0425 XBT cast 066 applied to line 0025

0435 Notice interference in EM302and EK60

0439 Changed EK60 ping control to Ingoing

0455 Start line 0026

0554 Start line 0027

0615 XBT 067

0618 New line 0028; Changed Max overage to Port 1000, STBD 2500 to avoid coverage over EEZ for dive site

0628 Begin line 0030 over Dive site

0704 Begin line 031

0706 Changed Max Coverage to 2500 on Port side

0713 Begin line 0032 over Dive site; Change Max Coverage to 5000 port, 4000 stbd

0743 Begin line 0033

0802 Begin line 0034

0932 XBT cast 068

0935 Begin turn line to head north to Dive site

0956 Changed MB Max coverage to 5000 port, 5000 stbd

1136 Changed SBP to power 2, pulse 4ms, range 500 m

1140 Stop logging stop pinging. End mapping Ops for day. Line 0039. Secured sonars

2330 XBT cast 069

2336 Start logging line 0039; Applied thinned XBT cast 069; Pinging/logging EK60 & SBP

**12APR 2015**

0036 Start line 0040

0146 Stopped EK60 to correct file name convention, restarted logging

0136 Start line 0041

0151 Changed SBP range to 500

0236 Start line 0042

0300 XBT 070

0308 Applied thinned xbt cast 070 to line 0044 over Dive site

0341 Start line 0045

0347 Start line 0046 over Dive site

0351 Changed SBP range to 200

0421 Broke line for turn. Start line 0047

0427 Start line 0048 over Dive site

0504 Begin turn line 0049

0512 Start line 0050 over Dive site

0554 Start line 0051

0602 Start line 0052 over Dive site

0642 XBT 071 thinned applied

0649 Start line 0053

0658 Start line 0054 over Dive site

0736 Start line 0055

0741 Start line 0056, turning

0747 Start line 0057

0829 Break line, going to Dive site, start line 0058

0837 Start line 0059

0859 Stop logging/pingin, Secured soars

2325 XBT cast 0072

2326 Soft start SIS, Start line 0060

2357 Turn, Begin straight line 0068 over potential Dive site PR8

**13April2015**

0030 Start line 0063

0034 Start line 0064, Begin holiday line plan

0104 Drop outs caused by rough seas and rolls

0135 Start line 0065

0200 Start line 0066, turning

0211 Start line 0067

0322 XBT cast 073, thinned applied to line 0068

0339 Start line 0069

0353 Start line 0070; Avoiding traffic in area

0407 Poor data quality in this direction

0453 Start line 0071

0529 Start line 0072

0554 Start line 0075

0638 XBT cast 0074

0641 Bridge called – Will need to break lie early to get to dive site

0645 Break line

0659 Start line 0077

0649 Start line 0078, transmitting to Dive site

0848 Change SBP range to 1000

0849 Start line 0079

0855 Arrived to Dive site, Stop logging/pinging M302, EK60, SBP

2325 XBT cast 075

2335 Applied thinned XBT cast 075 to line 0081

2336 Pinging and logging em302,

2359 Logging ek60 and SBP

**14April2015**

0025 Changed SBP range to 500

0043 Start line 0082, commence holiday line plan

0046 Start line 0083

0121 changed sbp rang =200, pulse=4ms, phase=auto

0154 Start line 0086

0242 Start line 0088

0319 Start line 0090

0354 Attempted XBT cst. Encountered issue with MK21 software not connecting with probe. Unable to do a cast. Note: heavy seas and winds at time of cast

0401 Start line 0091

0535 Changed SBP range to 1000, power=2, pulse=8

0554 Start line 0094

0719 Start line 0096

0724 Start lie 0097, Mona East line plan

0804 Break line, Heading to Dive site

0859 Stop logging/pinging em302,ek60, Knudsen, Arrived at Dive site

**15April2015**

0012 XBT cast 076 (delayed start due to rov holding dp)

0105 Begin transit line 0102

0306 Start line 0104

0330 XBT 077 applied to line 104

0341 Changed Knudsen range to 200

0351 changed Knudsen range to 500

0409 changed Knudsen range to 200

0459 start line 0109 of dive site plan

0527 begin turn line 0110

0530 slowing for traffic

0534 begin line 0111 – shifting stbd for coverage, less over lap

0650 Start line 0115

0836 start line 0120, transiting to dive sit

2110 start pinging em302, ek60, kudsen

2129 xbt 079 – begin logging

2256 xbt 080

2259 start line 0123

2347 changed Knudsen power to 2, pulse 8, range 500

**16April2015**

0004 changed Knudsen range to 1000

0009 start line 0125

0107 start line 0126

0207 start line 0127

0235 xbt cast 81 thinned applied to line 0127

0321 start line 0129

0437 start line 0132

0532 applied xbt cast 82 thin to line 0132

0549 commencing dive site line plan. Start line 0135

0609 start line 0136

0621 stat line 0137

0741 changed sbp range to 1000

0904 Stop logging/pinging sonars. Secured

2313 Applied xbt cast 83 thinned

2331 Started logging line 148

2357 Start line 149, transiting to dive site

**17April2015**

0010 turned of marine mammal protection

0112 start line 151

0227 XBt cast 84 applied to line 152

0313 start line 153

0512 start line 156

0533 xbt cast 85 applied to line 156

0537 changed sbp range to 1000, pwr 1, pulse 8

0658 start line 159

0700 Main AC is out on ship, ET was contacted, monitoring server room

0737 start dive site line plan, line 160

0900 securing survey ops

Ship AC broken, dive cancelled, extending MB survey of st croix ridge to the south

1436 xt 87 (86 skipped accidently), start em302

1516 Got em302 up and running, AC on ship still broken, using soft start

1517 Start logging MB data, line 166, holiday filling

1535 end line 166. Start line 167 to continue back to survey line plan at St Croix Ridge dive plan site.

1559 End line 167. Start line 168. Back on survey line

1627 End line 169. Turn line 169

1646 End lne 169. Stat line 170

1649 Start line 172 Survey line st croix

1727 Start line 174 last line in dive site area, Ship is returning to San Juan for AC repair

1811 Started logging ek60 data. SBP still off

1826 Stopped ek60, sonar closet at 93 degrees, May have to turn off em302 soon

1842 Stopped logging/pingingMB. Secure due to heat. Sonar closet at 95 degrees

**25April2015**

2227 Engineering dive almost done. Run all BISTS. All BISTs pass

2304 Pinging MB, soft start on

2325 XBT 88 applied to line 177

2335 Logging EK60 and Knudsen

2350 Start line 179

**26April2015**

0010 SBP changed range to 200, power=2, tracking gate was on 2m, changed to 50m

0022 EK60 changed range min/max to 10/3000m

0035 Some blowouts on 302. Changed ping to very deep from auto. Transit over existing dataso going 11knots

0051 Start line 180, Changed ping to Deep from Very Deep

0101 Start line 181, Mapping tansit line to Dive site

0121 Changed pin mode to Auto

0202 Start line 182

0252 Changed SBP range to 200

0347 Start line 185

0436 XBT 89 applied to line 185

0447 Start line 186, Changed MB ping mode to Very Deep

0547 Start line 187, Changed SBP range to 1000

0606 Start line 189 of Dive site line plan

0648 Begin turn line 0190

0824 Batch copied EK60 & Knudsen

0843 Transiting to Dive site, Start line 195

0858 Receiving warning from EK60 since 0710 “Time out waiting 10 seconds for transceiver” Possibly too deep for sonar

0903 Stopped logging EK60

0914 Stopped logging and pinging MB and SBP

1755 6000m ROV dive terminated early. All BISTs pass

1840 Complete XBT cast 90

1851 Started logging line 196, XBT 90 applied in SIS

1900 Started logging SBP, Changed pulse length to 8m

1910 Started recording EK60 data (had to restart software), Changed SBP pulse to 4m

1925 EK60 getting timeout warnings, Stopping recording. File depth was set at 8500m, Changed it to 4500m

1930 Recording EK60 data

2104 Changed SBP power to 1

2112 Changed SBP power back to 2. Pulse to 2ms

2153 Start line 199

2218 Changed EK60 file range to 1000 (change deeper later tonight). Changed SBP power to 1

2241 Secured SBE for shallow water

2257 Secured MBES in shallow

**27April2015**

0116 Started EK60 again. Launched XBT 91

0125 Started logging SBP. Applied XB cast 91 to SIS

0209 Changed SBP range to 1000

0215 Changed SBP pulse to 16ms

0229 Changed SBP range to 200

0315 Blowouts in MB. Changed ping mode to Auto

0331 Changed SBP range to 1000

0423 Start line 0205

0534 XBT 92 applied to line 208

0725 Changed SBP range to 1000, Pulse 8

0810 Crossed pinnacle 3, Only edge of pinnacle found in EK60, seen in SBP & MB

0847 XBT 93 applied to line 214

0908 Crossed pinnacle 2

0942 Pinnacle 1

1002 EK60 & SBP data backup

1024 Arrive at Dive site, Securing systems

2115 All EM302 BISTs pass

2123 Started pinging MB, Logging SBP, getting SBP line over mound

2136 Started SBP line E to West over Pinnacle 1 feature

2150 Started EK60 logging

2153 XBT 94

2202 Applied XBT cast 94 thinned to SIS

2205 Start logging EM302

2221 Changed SBP range to 200

2244 Lost BP, changed settings. Called bridge to speed up over area surveyed on Leg 1 (11 knots)

2329 Increased SBP power to 2. Discovered error in SBP backup pathway, Brendan fixed

**28April2015**

0102 XBT 95

0235 Start line 227

0340 Turn begin straight line 0230

0341 Start line 230

0419 Changed SBP range to 500

0436 XBT cast 96 applied to line 231, Changed SBP range to 1000

0510 Start line 232, Changed SBP range to 200

0531 Increased ship speed to 12 knots to be at Dive site on time, also dodging traffic, maneuvering off survey line

0812 Satr line 236

0925 At Dive site, Stopped logging/pinging MB SB SBP

2030 Run BISTs All Pass

2104 Started sonars, soft start 302

2118 Attempted XBT 97, Bad cast, had short

2120 XBT 98

2132 Applied XBT 98 to line 238 Started logging 302, ek60, and SBP

2255 Start line 239

2316 Changed SBP power to 2, pulse 8

**29April2015**

0109 Changed SBP range to 200

0113 Changed MB mode to Very Deep

0123 Changed MB mode to Auto

0205 XBT 99

0212 Applied thinned XBT 99 to line 243

0300 EK60 and SBP Back up

0537 XBT 100 applied to line 247

0538 Surveying Dive Site

0624 Changed SBP range to 1000

0902 Data Back Up, Systems Secured

2039 Run BISTs, All Pass, XBT 101

2131 XBT 101 appied to line 262

 Started logging/pinging EK60, SBP, changed SBP pulse to 4

2138 Start line 263, fill in line

2239 Requested Bridge increase speed to recover Glider

2252 Changed SBP power to 2

2305 Start turn line 269

2353 XBT 102 applied to line 269

**30April2015**

0101 Changed Pitch stabilization Along Direction to 2 degrees

0130 Changed SBP power to 1

0202 Stopped logging/pinging 302 and SBP, Entering Virgin Island Passage

0207 Changed EK60 power to 400, pulse to 102

0407 Changed EK60 power to 2000

0409 Sart pinging/logging MB line 274

0414 Pingng/logging SBP

0433 XBT 103 applied to line 274

0520 Changed SBP range to 1000

0526 Stop logging MB, SBP, Maneuvering for Glider

0607 Glider on Deck

0616 Begin logging

0625 XBT 104 applied to line 276

0631 Changed SBP range to 500

0725 EK60 and SBP data backup

0916 Start line 279

1000 Derek on watch, Erin relieved

1115 started turn line 281

1123 avoiding traffic at entrance to San Juan

1138 turn line 282

1147 start line 283, approach to San Juan

1215 ship turning on fathometer

1227 Secured all sonars. Entering San Juan Harbor

1228 Running final BIST for 302. All BISTs passed. Closed SIS. Turned off sonar breakers.