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|------------------|---|---------------------------------|----------------------|--------------------|---------------------|------------------------|--------------------|---|
| FAN | 2015_331_FA | | | | | | | |
| Calendar Date | 09/15/15 | | | | | | | |
| Location | Northern Chandeleur Islands – Borrow Pit | | | | | | | |
| Vessel | RV Sallenger | | | | | | | |
| Personnel | | | Instruments | | | | | |
| Logger | Jake Fredericks/Nancy DeWitt | | Type | Frequency | | | | |
| Captain | Kyle Kelso | | | | | | | |
| Investigator | Jennifer Miselis | | | | | | | |
| Crew | Kyle Kelso, Nancy DeWitt, Jake Fredericks | | | | | | | |
| | | | | | | | | |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.segy) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 258_2015 | 11:54:00 AM | - | - | - | - | - | - | departed dock – first day of survey |
| 258_2015 | | - | - | - | - | - | - | using HYPACK planned line file BIER2015_PlanA_Priority1.lnw |
| 258_2015 | | - | - | - | - | - | - | heading to site for roll cal |
| 258_2015 | 1320 | - | - | - | - | - | - | arrive backside start F190 calibration |
| 258_2015 | | | | | | | | waves coming out 3-4 and on backside ~1-3 |
| 258_2015 | 1337 | | | | | | | Marinestar converged |
| 258_2015 | 1337 | | | | | | | Marinestar operating normally |
| 258_2015 | 1341 | | | | | | | calibration saved to head |
| 258_2015 | 1341 | | | | | | | calibration saved to text file named jd258.txt |
| 258_2015 | | | | | | | | 2015_331_FA_ROLLCAL.lnw; backside of tip of land |
| 258_2015 | | | | | | | | 2015-331-fa.SXS; 100% power; Ping Range 98; Receiver Length = 8192; Ping Rate Limit 50; Simultaneous; Amplitude from staves in Tdr = B only enhanced sidescan??; see screen shots to the side |
| 258_2015 | | | | | | | | -all instruments using sensor clock |
| 258_2015 | 1400 | | | | | | 2015_331_FA_SVP_01 | cast is not in the sxs flie |
| 258_2015 | | | | | | | | 314809.6 E |
| 258_2015 | | | | | - | - | | 3324391.6N |
| 258_2015 | | | | | - | - | | 135745 |
| 258_2015 | 1404 | 141412 | 001_1404 | roll1 | - | - | 2015_331_FA_SVP_01 | |
| 258_2015 | 1413 | 1423 | 002_1413 | roll2 | - | - | | HYPACK lines offset by one: HYPACK 2and3 replicated accidentally |
| 258_2015 | 1423 | | 004_???? | roll3 | - | - | | |
| 258_2015 | 1435 | | 005_1433 | roll4 | - | - | | waves still 1-3 |
| 258_2015 | 1442 | 1453 | 006_1441 | roll5 | - | - | | |
| 258_2015 | 1453 | | 007_1452 | roll6 | - | - | | |

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|------------------|---------------------------------|---------------------------------|----------------------|--------------------|--------------------|------------------------|--------------------|---|
| 258_2015 | 150101 | 1511 | 008_0001 | roll7 | - | - | | end roll call – heading to site |
| 258_2015 | 1513 | | | | | | | pulled pole up for quick transit; F190 calibrated slightly w/out warnings or problems post transit |
| 258_2015 | 1529 | - | - | - | - | - | 2015_331_FA_SVP_02 | 2015_331_FA_SVP_02 |
| 258_2015 | 1529 | - | - | - | - | - | 2015_331_FA_SVP_02 | 318997.1 E |
| 258_2015 | 1529 | - | - | - | - | - | 2015_331_FA_SVP_02 | 3328158.5 N |
| 258_2015 | 1529 | - | - | - | - | - | 2015_331_FA_SVP_02 | 152951 |
| 258_2015 | 1531 | - | - | - | - | - | | deployed chirp |
| 258_2015 | 1544 | | 009_1544 | jd258_L9f1 | jd258_L9f1 | - | | sea state 3-2 heading south |
| 258_2015 | 1543 | - | - | - | - | - | | added older roll cal values to *.sxs |
| 258_2015 | | - | - | - | - | - | - | Chirp: 424 4-20kHz:-5ms:4Hz:100% power: yellow topside |
| 258_2015 | 1604 | - | - | - | - | - | - | taking waves broadside 3-4 still; streaks in swath and motion in chirp but still tracking ok; |
| 258_2015 | 1624 | 1638 | | | | | | shallower water waves increasing to 4 |
| 258_2015 | 1638 | | | jd258_L21f1 | | | | waves are causing data dropouts; heading over to line 21: only recording swath on way to line |
| 258_2015 | 1645 | | 021_1645 | - | jd258_L21f1 | - | - | turn onto line heading north |
| 258_2015 | 1647 | - | - | - | - | - | | idle speed for cast |
| 258_2015 | 1652 | - | - | - | - | - | SVP_03 | Svp03: 322649.3E 3323419.7N |
| 258_2015 | 1653 | - | - | - | - | - | - | heading north on lines 21 and stripes in all data (swath and chirp) at 3 knots, waves increasing to 4-6; stopped survey and called the rest of the day. |
| 258_2015 | 1844 | - | - | - | - | - | - | back in Biloxi fueling. |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.seg) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 259_2015 | 1240 | - | - | - | - | - | - | Met for breakfast at 630 and assess the forecast/waves. Heading out now to see if wave height is workable for collecting ok data. Yesterdays data including the roll call was not good. |
| 259_2015 | | | | | | | | made it out past ship island and waves 3-4 already and worse than yesterday -called the survey and turned around. |
| 259_2015 | | | | | | | | Going to do another calibration just offshore of Beau Rivage east of the channel markers |
| 259_2015 | 1410 | | | | | | | started F190 calibration |
| 259_2015 | 1429 | | | | | | | Calibration complete; saved to file |
| 259_2015 | | | | | | | | roll cal line file = nearshore |
| 259_2015 | 1436 | | | | | | SVP_04 | svp04:: 317871.6E 3359236.8N |

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|------------------|---------------------------------|---------------------------------|----------------------|--------------------|---------------------|------------------------|------------------|---|
| 259_2015 | 1506 | | 001_1506 | JD259_Roll1 | | | | near-shore roll calibration: 15m line spacing. Using Sonar Clock. Still seeing small motion artifacts. Seas 1-2' |
| 259_2015 | 1514 | | 002_1514 | JD259_Roll2 | | | | |
| 259_2015 | 1525 | | 003_1525 | JD259_Roll3 | | | | |
| 259_2015 | 1536 | | 004_1536 | JD259_Roll4 | | | | |
| 259_2015 | 1545 | | 005_1545 | JD259_Roll5 | | | | |
| 259_2015 | 1554 | | 006_1554 | JD259_Roll6 | | | | |
| 259_2015 | 1604 | | 007_1604 | JD259_Roll7 | | | | |
| 259_2015 | | - | - | - | - | - | - | attempted to record *.raw file using the option of the processed (mcom_processed) file versus just the raw mcom string. Not work, it stopped the waterfall. Also tried to disconnect and reconnect the network for the attitude and the processed mcom still did not work |
| 259_2015 | | - | - | - | - | - | - | Adjusted various sonar settings to see if the lower or higher receive length would improve motion artifact and this was unsuccessful. |
| 259_2015 | 1637 | - | - | - | - | - | - | running sxp's to perform roll calibration at sea to view and/or identify any other problems? |
| 259_2015 | 1637 | - | - | - | - | - | - | stopped recording the F190 Mcom with the option to record additional 7mins for the longterm iheave component |
| 259_2015 | 1724 | | | | | | | Changed f190 omnistar to Central sat. Re-calibrate and test. |
| 259_2015 | 1739 | | | | | | | Calibration complete |
| 259_2015 | 1749 | | | | | | | EOD: pulling head. |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.segy) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 260_2015 | | | | | | | | Weather day – waves and winds |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.segy) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 261_2015 | 1135 | - | - | - | - | - | - | Depart dock; calm here |
| | 1250 | - | - | - | - | - | - | On sight waves 2-3 |
| | | | | | | | | no changes to SXS file – still sensor clock |

| 261_2015 | 1254 | - | - | - | - | - | - | Calibration begin; settings A=1.730; B=2.928;C=2.808; Accuracy for a, B, C = 0.20; antenna separation = 2.000; these were from tampa bay and similar to JS 258 and 259 |
|-----------|----------------------|----------------------|---------------|-------------|--------------|-----------------|-----------|--|
| 261_2015 | 1306 | - | - | - | - | - | - | calibration end |
| 261_2015 | 1328 | - | - | - | - | - | SVP_005 | svp005 320174.2E 3327976.2N |
| 261_2015 | 1334 | 1411 | 023_1334 | L23F1 | L23F1 | - | | Chirp: 424 4-20kH:-5ms:4Hz:100% power: yellow topside; heading south |
| 261_2015 | 1356 | - | - | - | - | - | - | occasional larger waves cause dropout in chirp |
| 261_2015 | 1415 | | 025_1414 | L25F1 | L25F1 | - | SVP_006 | svp006: 323185.1E 3322937.2N; heading north |
| 261_2015 | 1456 | 1527 | 027_1456 | L27F1 | L27f1 | - | | heading south |
| 261_2015 | 1528 | | 029_1526 | L29F1 | L29F1 | - | | SEAS 2-4 BROADSIDE ; heading north |
| 261_2015 | 1558 | 1623 | 031_1558 | L31F1 | L31F1 | - | SVP_007 | SVP007 321354.4E 3326720.3N; 15:55:43; line heading south |
| 261_2015 | 1625 | | 021_1624 | L21F1 | L21F1 | - | | surveying from l31 to line 21 and survey north along 21 |
| 261_2015 | 1635 | ~1715 | - | - | - | - | | turning onto line 21heading north |
| 261_2015 | ~1715 | - | - | - | - | - | | detoured to borrow pit for cast |
| 261_2015 | 1720 | - | - | - | - | - | SVP_008 | SVP_008 in borrow pit just off edge where it leveled off around 7m; Here and now =320457.4E; 3326910.9N; 172207 |
| 261_2015 | 1729 | 1812 | 019_1729 | L19F1 | L19F1 | - | | Line 19 heading south |
| 261_2015 | 1813 | 1855 | 017_1813 | L17F1 | L17F1 | - | | Line 17 heading north |
| 261_2015 | 1820 | - | - | - | - | - | | possible current/crabbing causing streaks in both datasets |
| 261_2015 | 1856 | 1946 | 015_1856 | L15F1 | L15F1 | - | | Line 15 heading south |
| 261_2015 | 1946 | 2030 | 013_1946 | L13F1 | L13F1 | | | sea state calming ; heading north |
| 261_2015 | 2035 | - | - | - | - | - | Svp_09 | SVP_009 319311.3E; 3328103.7N end of survey day |
| | | | | | | | | Fuel up: |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.segy) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 262_2015 | 11:35:00 AM | - | - | - | - | - | | Leaving Marina |
| 262_2015 | 1237 | - | - | - | - | - | | arrive top of grid; seas 1-2 occasional 3ft rollers. Clear sky |
| 262_2015 | 1238 | - | - | - | - | - | | F190 Calibration starting |
| 262_2015 | 1254 | - | - | - | - | - | | calibration complete: |
| 262_2015 | 1301 | - | - | - | - | - | Svp_10 | svp010: 319242.6E 3328161.3N |
| 262_2015 | | - | - | - | - | - | | no changes to SXS file – still sensor clock |
| 262_2015 | 1304 | | 003_1304 | L3F1 | L3F1 | | | 3 heading south |

| 262_2015 | 1356 | | | | | | Svp_11 | svp011: 322533.3E 3321925.1N |
|-----------|-------------------------|-------------------------|---------------|-------------|-------------|-----------------|-----------|---|
| 262_2015 | 1359 | 1508 | 002_1359 | L2F1 | L2F1 | | | 2 HEADING NORTH |
| 262_2015 | 1509 | 1558 | 005_1509 | L5F1 | L5F1 | | Svp012 | 5 heading south Chirp washed out due to speed first few min. SVP012: mid line in borrow pit: @1524 320172E 3326283.1N |
| 262_2015 | 1559 | | 004_1559 | L4F1 | L4F1 | | | 4 heading north |
| 262_2015 | 1651 | | 007_1651 | L7F1 | L7F1 | | | 7 south |
| 262_2015 | 1740 | 1829 | 006_1740 | l6f1 | L6F1 | | SVP_13 | 6 N SVP12: @1755 321581.4E 3323928.1N |
| 262_2015 | 1831 | | | l9F2 | L9F2 | | | Redo line 9 from first day :Hypack not logging so looped back around. |
| 262_2015 | 1835 | | 009_1835 | l9F3 | L9F2 | | | Line 9 heading south; sea state is under 2ft and decreasing |
| 262_2015 | 1927 | 2016 | 008_1927 | l8f1 | l8f1 | | | heading north on line 8 |
| 262_2015 | 1934 | - | - | - | - | - | | autopilot hiccup |
| 262_2015 | 2018 | 2110 | 011_2018 | l11f1 | l11f1 | | | Line 11 heading south |
| 262_2015 | 2112 | | 010_2111 | l10f1 | l10f1 | | | Line 10 heading north |
| 262_2015 | 2114 | - | - | - | - | - | Svp_14 | Svp14 @2114: 322610.1e 3322499.7N |
| 262_2015 | 2146 | - | - | - | - | - | SVP_15 | VP15 here and now = 320439.5 E 3326285.4N |
| 262_2015 | 2203 | - | - | - | - | - | | EOD: pulling head. |
| 262_2015 | | - | - | - | - | - | | f190 stopped recording mcom at 1800... |
| 262_2015 | 2212 | - | - | - | - | - | | pulled gear |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.seg) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 263_2015 | 1124 | - | - | - | - | - | | leave marina |
| 263_2015 | 1227 | - | - | - | - | - | | ARRIVE ONSITE; DEPLOYED HEAD; START f190 CALIBRATION |
| 263_2015 | 1229 | 1252 | | | | | | calibration in progress: Small rollers 1-2' |
| 263_2015 | 1254 | - | - | - | - | - | Svp_16 | SVP_16 Here and Now = 320246.6 E 3328271.8N T= 125318 |
| 263_2015 | | - | - | - | - | - | | no changes to SXS file – still sensor clock |
| 263_2015 | 1307 | 1351 | 012_1307 | L12F1 | L12F1 | - | | Seas 2 feet or less; line 12 heading south |
| 263_2015 | | | | | | - | | chirp setting remained the same |
| 263_2015 | 1352 | 1442 | 014_1352 | L14F1 | L14F1 | - | | Line 14 heading north |
| 263_2015 | 1444 | | 016_1444 | L16F1 | L16F1 | - | | Line 16 south |
| 263_2015 | 1455 | | | | | - | Svp_17 | SVP_17 Here and Now = 320548.5E 3326633N @1455 |
| 263_2015 | 1528 | | 018_1528 | L18F1 | L18F1 | - | | Line 18 north |
| 263_2015 | 1615 | 1653 | 020_1615 | L20F1 | L20F1 | - | | Line 20 south |

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|------------------|---------------------------------|---------------------------------|----------------------|--------------------|---------------------|------------------------|------------------|--|
| 263_2015 | 1653 | | | | | - | SVP_18 | 323053.8 E 3322619.4N @ 1653 |
| 263_2015 | 1657 | | 022_1657 | L22f1 | L22f1 | - | | Line 22 north 1720 strange pattern in ss and swath. |
| 263_2015 | 1737 | 1809 | 024_1737 | L24F1 | L24F1 | - | | Line 24 south |
| 263_2015 | 1811 | 1848 | 026_1811 | L26F1 | L26F1 | - | | Line 26 north; calm seas |
| 263_2015 | 1847 | 1912 | 028_1347 | L28F1 | L28F1 | | | Line 28 heading south |
| 263_2015 | 1844 | - | - | - | - | - | SVP_19 | SVP_19 Here and now = 321025.58E 3327197.72N 184410 |
| 263_2015 | 1913 | 1936 | 030_1913 | L30F1 | L30F1 | | | Line 30 heading north |
| 263_2015 | 1938 | | 033_1938 | L33f1 | L33f1 | | | Line 33 crossing offshore toward inshore |
| 263_2015 | 2010 | - | - | - | - | - | SVP_20 | Svp_20 322425.6E 3321967n @2010 |
| 263_2015 | 2011 | | 001_2011 | L1f1 | L1f1 | | | Line 1 north |
| 263_2015 | 2101 | | | | | | Svp_21 | SVP_021 322416.7E 3322021.8N @2101 |
| 263_2015 | 2110 | | | | | | | pull gear |
| | | | | | | | | |
| Day (DOY) | Time SOL(UTC) HHMMSS | Time EOL(UTC) HHMMSS | Hypack (.raw) | Swath(.sxr) | Chirp(.segy) | Sidescan (.xtf) | SVP(.txt) | Comments/Targets |
| 264_2015 | 1245 | - | - | - | - | - | - | leave marina |
| 264_2015 | 1415 | - | - | - | - | - | - | arrive on site; waves 3-4 feet winds 15knts; waves out of east |
| 264_2015 | 1418 | - | - | - | - | - | - | F190 calibration started |
| 264_2015 | 1430 | - | - | - | - | - | - | Calibration complete |
| 264_2015 | 144432 | - | - | - | - | - | Svp_22 | SVP_21 here and now = 321508.6E 3326944.9N 144432 |
| 264_2015 | 1451 | | 034_1450 | L34F1 | L34F1 | | | crossing line 34 heading inshore; swath and chirp data look ok this direction |
| 264_2015 | 1506 | | 035_1506 | L34F1 | L34F1 | | | crossing line 35 heading offshore – wavers 3ft easy; swath have lines this direction:**possible that line 35 and 34 are one large file |
| 264_2015 | 1522 | 1533 | 036_1522 | L36F1 | L36f1 | | | Line 36 heading inshore |
| 264_2015 | 1524 | 1613 | | L32f1 | - | | | recording swath transit to line 32; |
| 264_2015 | 1538 | 1613 | 023_1538 | - | L32f1 | | | started chirp line |
| 264_2015 | 1616 | - | - | - | - | - | Svp_23 | Here and now = 323130E 3323472.7N @161651 |
| 264_2015 | 1628 | - | - | - | - | - | | pulled chirp and pulled head to run north to line 6 and survey north to south with waves |
| 264_2015 | 1643 | - | - | - | - | - | Svp_24 | svp taken in borrow pit; here and now = 320349E 3326366.6N @1643 |

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|----------|------|------|----------|------|------|---|--|---|
| | | | | | | | | RE-RUN FROM PREVIOUS DAY. This line was only run a portion from north to south through the borrow pit and the edges |
| 264_2015 | 1652 | 1702 | 006_1650 | L6f2 | L6f2 | | | |
| 264_2015 | 1728 | - | - | - | - | - | | pulling gear; waves rough and no improvement after front passed over |
| 264_2015 | 1915 | - | - | - | - | - | | docked |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |
| 264_2015 | | | | | | | | |

Configure Sonar

Interface
 Type: **USB**
 Number of Channels Needed: **2**
 V2 TEM: **1**
 IP Address: **127.0.0.1**
 Mask: **255.255.255.0**
☐ Use DHCP

Transducer
 Type: **468 kHz V1**

1PPS
☒ 1PPS Enable
 Edge: ☐ Rising ☒ Falling
 Source: **RS485 1**
 PPS window: **3000** μ s

External Transmit Trigger
☐ Use External Trigger Edge: ☒ Rising ☐ Falling
 Trigger source: **RS485 1**
☐ Trigger Out Edge: ☒ Rising ☐ Falling
 Output on: **RS485 1**

Data Timing
☒ Sonar Clock ☐ PC Clock

Sonar Frequency
 Chan 0: **468** kHz
 Chan 1: **468** kHz
 Chan 2: **468** kHz

Receive
 Filter BW: **100 kHz**
 Decimation: **1**

Inject Calibration Signal
☒ Off
☐ Transducer
☐ TEM
 Frequency: **468** kHz

Preamp Power
☐ Preamp power on

Test
☐ Store IQ Data

Ping Control
 Timeout: **1000** ms

Cancel **OK**