

**Swath Acquisition Overview**

<b>USGS SPCMSC FAN#</b>	2014-314-FA	<b>Offset Summary for Acquisition</b>				
<b>Date (s)</b>	8-13-2014 through 8-17-2014	<b>Transducer 01 - Port</b>			<b>Transducer 02-STBD</b>	
<b>Day of Year (s)</b>	225,226,227,228,229	Height Offset (m)	0.116		Height Offset (m)	0.116
<b>Survey Vessel or Platform</b>	<i>RV Tommy Munro</i>	Forward Offset (m)	0.069		Forward Offset (m)	0.069
<b>Swath System</b>	System Engineering and Assessment, LTD SWATHplus -H	Starboard Offset (m)	-0.062		Starboard Offset (m)	0.062
<b>SWATHplus version for acquisition</b>	SEA Swath Processor Version 3.07.17.00	Azimuth Offset (degrees)	-90		Azimuth Offset (degrees)	90
<b>SXS file used for acquisition</b>	refer to operations log	Elevation Offset (degrees)	-29.896		Elevation Offset (degrees)	-30.033
<b>Navigation for acquisition</b> (i.e. OmniSTAR, WAAS, CORS Station, RTK)	OmniSTAR / Marine Star	Skew Offset (degrees)	0		Skew Offset (degrees)	0
<b>Boat Motion for acquisition</b> (i.e. F180, F190, F190 wet pod, TSS)	F190R Wet Pod	Pitch Offset (degrees)	0		Pitch Offset (degrees)	0
<b>Collecting External GPS for Navigation</b> (i.e. Ashtech Receivers)	No	Water Depth for SOS calculaton (m)	2.97		Water Depth for SOS calculaton (m)	2.97
<b>Center of Reference Point (CRP) for acquisition</b>	F190R					
<b>SVP at head</b>	Yes					
<b>SVP Profiles (detailed log attached)</b>	yes svp's taken raw file names V*.txt refer to operations log					
<b>Technician(s)</b>	Dana Wiese, Jake Frederichs					

Swath Processing Overview

USGS SPCMSC FAN#	2014-314-FA	Offset Summary for Processing			
Day of Year	225,226,227,228,229	Transducer 01 - Port			Transducer 02-STBD
<b>Vessel or Survey Platform</b>	<i>RV Tommy Munro</i>	Height Offset (m)	0.116		Height Offset (m) 0.116
<b>SWATHplus version for processing</b>	SEA Swath Processor Version 3.07.17.00	Forward Offset (m)	0.069		Forward Offset (m) 0.069
<b>SXS file used for processing</b>	refer to operations log	Starboard Offset (m)	-0.062		Starboard Offset (m) 0.062
<b>Navigation for processing</b> <small>(i.e. OmniSTAR, WAAS, CORS Station, RTK, External Post Processed GPS File)</small>	OmniSTAR / Marine Star	Azimuth Offset (degrees)	-90		Azimuth Offset (degrees) 90
<b>Boat Motion for processing</b> <small>(i.e. F190 MCOM, TSS)</small>	F190R	Elevation Offset (degrees)	-29.896		Elevation Offset (degrees) -30.033
<b>External GPS for Navigation</b> (i.e. Ashtech Receivers)	Not applicable	Skew Offset (degrees)	0		Skew Offset (degrees) 0
<b>Center of Reference Point (CRP) for processing</b>	F190R	Pitch Offset (degrees)	0		Pitch Offset (degrees) 0
<b>SVP Profiles</b>	SVPs entered and applied accordingly in the respective SXS files	Water Depth for SOS calculaton (m)	2.97		Water Depth for SOS calculaton (m) 2.97
<b>Miscellaneous Comments</b>					

SWATH Roll Calibration Log		Line Acceptance Options	
FAN #	2014_317_FA 14BIM05		
DOY_YY	206_04	Max. deviation from parallel (deg)	20
Grid Processor Ver.	3.07.17	Minimum length of overlap (m)	10
SXS file used	14BIM05_ID226	Minimum line separation (m)	5
DGPS source	MarineStar	Maximum line separation (m)	100

PreShift Calibration							
Lines	Calibration Lines	1 and 2	2 and 3	3 and 4	4 and 5	5 and 6	6 and 7
14bim05_Rollcal_001	Overlap direction prt/prt or stb/stb	stb/stb	prt/prt	stb/stb	prt/prt	stb/stb	
14bim05_Rollcal_002	Std. Dev roll angle	1.280	0.494	0.840	0.487	0.624	
14bim05_Rollcal_003	Mean roll angle	-1.480	0.168	-0.651	0.240	-0.529	
14bim05_Rollcal_004	Value Accepted	y	y	y	y	y	
14bim05_Rollcal_005	Calibration Run Summary						
14bim05_Rollcal_006	roll port # passes = 2	mean roll angle =		0.204	shifts = degree		0.204
	roll stb # passes =3	mean roll angle =		-0.887	shifts = degree		-0.887
	Log file name						
	Grid file name	14bim05_226_GridProc_6lines_preshift					

Shift 1 Calibration							
Lines	Calibration Lines	1 and 2	2 and 3	3 and 4	4 and 5	5 and 6	6 and 7
14bim05_Rollcal_001	Overlap direction prt/prt or stb/stb	stb/stb	prt/prt	stb/stb	prt/prt	stb/stb	
14bim05_Rollcal_002	Std. Dev roll angle	1.298	0.451	0.836	0.458	0.634	
14bim05_Rollcal_003	Mean roll angle	-0.609	0.093	0.184	0.099	0.322	
14bim05_Rollcal_004	Value Accepted	y	y	y	y	y	
14bim05_Rollcal_005	Calibration Run Summary						
14bim05_Rollcal_006	roll port # passes = 2	mean roll angle =		0.096	shifts = degree		0.096
	roll stb # passes =3	mean roll angle =		-0.034	shifts = degree		-0.034
	Log file name						
	Grid file name	14bim05_226_GridProc_6lines_shift01					

Shift 2 Calibration							
Lines	Calibration Lines	1 and 2	2 and 3	3 and 4	4 and 5	5 and 6	6 and 7
14bim05_Rollcal_001	Overlap direction prt/prt or stb/stb	stb/stb	prt/prt	stb/stb	prt/prt	stb/stb	
14bim05_Rollcal_002	Std. Dev roll angle	1.110	0.448	0.848	0.458	0.643	
14bim05_Rollcal_003	Mean roll angle	-0.538	0.009	0.212	0.008	0.350	
14bim05_Rollcal_004	Value Accepted	y	y	y	y	y	
14bim05_Rollcal_005	Calibration Run Summary						
14bim05_Rollcal_006	roll port # passes =	mean roll angle =		0.008	shifts = degree		0.008
	roll stb # passes =	mean roll angle =		0.008	shifts = degree		0.008
	Log file name						
	Grid file name	14bim05_226_GridProc_6lines_shift02					

Shift 3 Calibration							
Lines	Calibration Lines	1 and 2	2 and 3	3 and 4	4 and 5	5 and 6	6 and 7
14bim05_Rollcal_001	Overlap direction prt/prt or stb/stb	stb/stb	prt/prt	stb/stb	prt/prt	stb/stb	
14bim05_Rollcal_002	Std. Dev roll angle	1.107	0.448	0.849	0.458	0.737	
14bim05_Rollcal_003	Mean roll angle	-0.545	0.000	0.204	0.000	0.320	
14bim05_Rollcal_004	Value Accepted	y	y	y	y	y	
14bim05_Rollcal_005	Calibration Run Summary						
14bim05_Rollcal_006	roll port # passes =	mean roll angle =		0.000	shifts = degree		0.000
	roll stb # passes =	mean roll angle =		-0.007	shifts = degree		-0.007
	Log file name						
	Grid file name	14bim05_226_GridProc_6lines_shift03					

Summary					
Port Shift 1 Value Used		0.096	Starboard Shift 1	-0.034	
Port Shift 2 Value Used		0.008	Starboard Shift 2	0.008	
Port Shift 3 Value Used		0.000	Starboard Shift 3	-0.007	
Sum		0.104	Sum	-0.033	
So Port angle if using =	-30.00	+	0.104	=	-29.896
So Starboard angle if using =	-30.00	+	-0.033	=	-30.033

FAN	14BIM05							
Calendar Date	08/13/14							
Location	Biloxi, MS/Breton Island, LA							
Vessel	R/V Tommy Munroe							
<b>Personnel</b>		<b>Instruments</b>						
ET/Logger		Type	Settings & other info					
Captain		Sea Ltd Swath-H	nted on stb midships on USM & welded plate -Ver 30717					
Investigator		F190 R IMU/Positioning	atwalk stb side, pri to stb.-Marinestar HP corrections -Ver 410					
Crew		Chirp 512	oats – Discover Ver 4.0, stb tow 20m from stern					
		SS	900, 400kHz – Ver 12.1, on port tow 5m from stern					
		Mag						
<b>Day (DOY)</b>	<b>Time (UTC) HHMM</b>	<b>Hypack (.raw)</b>	<b>Swath(.syr)</b>	<b>CHIRP</b>	<b>SS</b>	<b>SVP(.txt)</b>	<b>Comments/Targets</b>	
<b>JD225-Wednesday 13 August 2014</b>								
							Personnel: Jim Flocks, Jake Fredericks, Dana Wiese	
225	1930						Getting everything up and running prior to doing our patch test. Deploy Swath mount. Calm	
225	1934					v000152.txt01	svp001 e:285911.8 N:3256731.9	
225	2000						Starting f190 calibration.	
225	2240						Saving MCOM	
225	2245						Wrong Vertical in F190	
225	2307	14BIM01_001_2307	14BIM05_Rollcal_1				SOL _ deleted	
225	2310						EOL	
225	2318						F190 restarted with proper height measurement	
225	2325	14BIM01_002_2325	14BIM05_Rollcal_2				SOL_deleted	
225	2329						EOL	
225	2338	14BIM05_001_2338	14BIM05_Rollcal_001				SOL	
225	2346						EOL	
225	2350	14BIM05_002_2350	14BIM05_Rollcal_002				SOL	
225	2400						EOL	
<b>JD226-thursday 14 August 2014</b>								
226							Personnel: Jim Flocks, Jake Fredericks, Dana Wiese	
226	00:00	14BIM05_003_0004	14BIM05_Rollcal_003				SOL	
226	0010						EOL	
226	0017	14BIM05_004_0017	14BIM05_Rollcal_004				SOL	
226	0025						EOL	
226	0032	14BIM05_005_0032	14BIM05_Rollcal_005				SOL	
226	0039						EOL	
226	0047	14BIM05_005_0047	14BIM05_Rollcal_006				SOL	
226	0054						EOL	
226	0113					v000002.txt	svp002 e:285753.7 N3255666.4	
226	0146	14BIM05_001_0146	14BIM05_001	14BIM05_14i_01	14BIM05140813204600		SOL	
226	0150						Let out more winch cable on chirp – going sideways	
226							Chirp: 1-10kHz, 5ms FM, 100% pwr, 4 Hz, 30M acq.	
226	0246		14BIM05_001b	14BIM05_14i_01b			SOL	
226	0252						Swath rollcal applied, -29.623 port(1), -30.583 stb(2)	

226	0305						Good chirp features		
226	0308						EOL		
226	0309	14BIM05_002_0309	14BIM05_002	14BIM05_14i_02			SOL		
226	0312				14BIM05140813221200		SOL		
226	0338						shallow: SS was dragging on bottom killed signal. Took in 1m of cable. Shallow depth causing dropout in swath data.		
226	0355						EOL		
226	0400					V000004.TXT	SVP003 E299458.8 N3261464.2		
226	0406	14BIM05_003_0406	14BIM05_003	14BIM05_14i_03	14BIM05140813230600		SOL		
226	0453						EOL		
226						V000006.TXT	SVP004 E293509.8 N3261029.9		
226	0454	14BIM05_004_0457	14BIM05_004	14bim05_14i_04	14BIM05140813235700		SOL		
226	0457						SHIFT CHANGE:		
226	0607						EOL		
226	0609	14BIM05_005_0608	14BIM05_005	14BIM05_14i_05	14bim05140814011000		SOL 5		
226	0631						SHIP COURSE CHANGE (C/C) TO AVOID RIG		
226	0639						BACK ON LINE		
226	0701						PASS CLOSE TO RIG BOTTOM SCOUR AND DREDGE STRUCTURE		
226	0732						EOL 5		
226	0733						SVP CAST AND RETIE 512		
226	0738	14BIM05_006_0806	14BIM05_006	14BIM05_14i_06	14BIM05_140814023800		SOL 6		
226	0738					V000009.txt	SVP005 E293538.7 N3260771.9		
	0806						Sol 6 FOR RAW FILE. MISSED sol, FIRST HALF OF LINE 6 IN LOGGED IN LINE 5 FILE.		
226	0810						SHALLOW WATER SHORTEN SS 1M		
226	0824						EOL 6		
226	0831	14BIM05_007_0824	14BIM05_007	14BIM05_14i_07	14BIM05_140814032500		SOL 7		
226	0849						DEEPER WATER LOWER SS 1 M		
226	0918						EOL 7		
226	0919	14BIM05_008_0919	14BIM05_008	14BIM05_14i_08	14BIM05_140814041900		SOL 8		
226	0955		14BIM05_008B				f190 Recalibrated		
226	0956								
226	1031						EOL 8		
226	1035					V000012.TXT	SVP006 E285138.0 N3255347.0		
226	1039	14BIM05_009_1039	14BIM05_009	14BIM05_14i_09	14BIM05_140814053900		SOL 9, RETIE BOOMER TO OUTSIDE OF POST		
	1050			14BIM05_14i_09.001					
226	1055						SHIP SWAPPED GENERATORS, 512i DROPPED OUT, LOST START OF LINE – 009		
	1057			14BIM05_14i_009			JSF FORMAT ONLY		
	1058			14BIM05_14i_009B			JSF FORMAT ONLY		
226	1059			14BIM05_14i_09C			RESTART 512i, RECORDED FILE TO WRONG DRIVE AND WILL BE MOVED AT EOL	FILES MOVED..	
226	1156						EOL 9		
226	1156	14BIM05_010_1156	14BIM05_010	14BIM05_14i_010	14BIM05_140814065600		SOL10		
226	1249						EOL 10		
226	1251					V000015.TXT	SVP007 E299995.5 N3260245.2		
226	1252				14BIM05_140814075200		SOL.11		
226	1254	14BIM05_011_1250	14BIM05_011	14BIIIM05_14i_011.001			SOL 11, getting an error warning on mag stating "magnetometer level below preset limit".		
226	1348						EOL 11		

226	1349	14BIM05_012_1349	14BIM05_012	14BIM05_14i_012	14BIM05_140814084900	SOL 12, Power on Mag switched off unexpectedly at 14:09 utc, Got off line a bit (~150 ft) due to platforms, pumping stations and buoy's from approx. 13:45 – 14:10.		
226	1458					EOL 12		
226	1458	14BIM05_013_1458	14BIM05_013	14BIM05_14i_013	14BIM05_140814095800	SOL 13		
226	1548	14BIM05_013_1548	14BIM05_013a	14BIM05_14i_013a	14BIM05_140814104800	Continuation of Line 13		
226	1627					EOL 14		
226	1630				V000017.TXT	SVP008 E 294340.49 N 3260116.63		
226	1648	14BIM05_014_1648	14BIM05_014	14BIM05_14i_014	14BIM05_140814112800	SOL14		
						SHIFT CHANGE: Flocks, Fredericks, Wiese		
226	1740					SS – turned off TVG Auto Lock		
226	1745					EOL		
226	1748	015_1748	_015	14i_015	_140814124800	SOL – SS Auto Lock TVG off		
226	1815					SS – Auto Lock on		
226	1911					EOL		
226	1911				_140814141100	SS: sol		
226	1914	016_1914	_016	14i_016		SOL		
226	1949					deviation around rig		
226	1951					platform		
226	2026					EOL		
226	2036	017_2036	_017	14i_017	_140814153600	SOL		
226	2149					EOL		
226	2150				V000020.TXT	SVP009, E 296665,35 N 3260088.17		
226	2155	018_2155	_018	14_i_018	_140814165200	SOL		
226	2230					rig deviation		
226	2250					EOL		
226	2305				V000022.TXT	SVP010 E289049.4 N3255089.8		
226	2313	019_2313	_019	14i_019	_140814181300	SOL		
226	2319					SS – Auto Lock on		
226	2325					SVP Battery change		
	2359					HYPACK AUTO RESTART AT END OF DAY		
<b>JD227-Friday 15 August 2014</b>								
227	0	14BIM05_019_0000				NEW HYPACK LINE DUE TO NEW JD		
227	30					EOL		
227	38	020_0038	14BIM05_020	14BIM05_14i_020	14BIM05_140814193800	SOL		
227	131					Changed mag log from JD226 to JD227		
227	139					buoy caught on boat:mag,ss,chirp stop		
227	158					EOL All systems stopped. Lost f190 feed.		
227						Reacquired F190 calibrating– still caught on buoy – Suspect laptop running SonarWiz Map in acq mode (default) caused this and previous hangup		
227	205	021_0205	_021	14i_021	1.40814E+12	SOL		
227	210					EOL: Chirp sideways – clearing stopped data recording to pull in chirp.		
227	210					stopped recording segy files – saving only JSF		
227	235				V000024.TXT	SVP011: E293108.7 N3256510.6		
227	237	021_0237	_021	_021a	1.40814E+11	SOL – ss lock tvg off		
227	334					EOL		
227	338					Changed mag log from JD226 to JD227		
227	339	022_0339	_022	_022	1.40814E+11	900	Mag log changed to JD227b	

227	400						chirp ravinement surface to start mapping horizon	mapping note
227	456						crash of F9 Eol 22	
227	504	14BIM05_023_0504	14BIM05_023	14BIM05_14i_023	14BIM05_140815000300		SOL 23	
227	545						Mag files uploaded to Terastation (Daily Dump)	
227	608		_023B	_023B		V000027.TXT	SVP012 E296580.42 N3257941.99	
227	637	14bim05_024_0637	_24	14BIM05_14i_024	14BIM05_140815013600		SOL 24, lowered Klein about 1.0 m before line 24	
227	753						EOL 24	
227	753	14BIM05_025_0753	14BIM05_025	14BIM05_14i_025	14BIM05_140815025200		SOL 25	
227	756					V000030.TXT	SVP-13 E290665.8 N3253983.4	
227	917						EOL 25, GOING SLOW TO ADJUST SS	
227	920	14BIM05_026_0920	14BIM05_026	14BIM05_14i_026	14BIM05_140815041800		SOL 26, DROP SS BACK ON NOREIGN BOUYS	
227	1042						EOL 26	
227	1043	14BIM05_027_1043	14BIM05_027	14BIM05_14i_027	14BIM05_140815054100		SOL 27	
227	1157						EOL 27, Swapping Generators, powering off 512, saving settings beforehand	
227	1207						ALL SYSTEMS OFF – WAITING FOR GENERATOR START. GOING IN CIRCLES	
227	1215	14BIM05_028_1215	14BIM05_028	14BIM05_14i_028	14BIM05_140815071400		SOL 28	
227	1256					V000033.TXT	SVP014 E295653.0 N 3255788.9	
227	1309	14BIM05_028_1215	14BIM05_028b	14BIM05_14i_028b	14BIM05_140815075500		Continuation of Line 28 after SVP Cast14	
227	1342						EOL 28	
227	1342	14BIM05_029_1342	14BIM05_029	14BIM05_14i_029	14BIM05_140815084100		SOL 29	
227	1357						STOP ALL SYSTEMS, BUOY CAUGHT ON SONAR HEAD.	
227	1359						SHUT DOWN TO PULL SWATH ON DECK TO REMOVE BOUY	
227	1420						BOUY REMOVED BY KYLE SWIMMING, BACK TO LINE	
227	1422		14BIM05_029B				START SWATH	
227	1424			14BIM05_14i_029B			START CHIRP	
227	1427				14BIM05_140815092600		START SS	
227	1430	14BIM05_029_1430	14BIM05_029C	14BIM05_14i_029C	14BIM05_140815093000		SOL 29C CIRCLING TO LINE	
227	1439						ON-LINE	
227	1512						EOL 29C	
227	1512	14BIM05_030_1512	14BIM05_030	14BIM05_14i_030	14BIM05_140815101100		SOL 30	
227	1551						EOL 30 SHORT OF PLANNED LINE DUE TO GEO BOUYS	
227	1552	14BIM05_031_1551	14BIM05_031	14BIM05_14i_031	14BIM05_140815105000		SOL 31 NEW START POINT	
227	1554					V000035.TXT	SVP015 E292551.24 N3253092.89	
227	1627						EOL 31	
227	1628	14BIM05_032_1638	14BIM05_032	14BIM05_14i_032	14BIM05_14081512700		SOL 32	
227	1701						EOL 32 SHORT OF PLANNED LINE DUE TO GEO BOUYS	
227	1702	14BIM05_033_1702	14BIM05_033	14BIM05_14i_033	14BIM05_14081512000		SOL 33 MISS HYPACK – START LINE 34 BACK TO 33 ON HYPACK	
227	1730						EOL	
227	1732	_034_1732	_034	_14i_034	_1408151227000		SOL – Chirp recording SEG Y and JSF	
227	1759						EOL	
227	1807	_035_1807	_035	_14i_035	_140815130600		SOL	
227	1811						F190 Cal - Saved to F190R – No MCOM	
227	1911						EOL	
227	1912					V000038.TXT	svp016 E289096.1 N3258578.1	
227	1913	_036_1913	_036	_14i_036			SOL	
227	1921						EOL	
227	1921	_037_1921	_037	_14i_037	_140815141500		SOL	
227	1937						EOL	

227	1937	_038_1937	_038	_14i_038	_140815143600		SOL		
227	1949						EOL		
227	1950	_039_1950	_039	_14i_039	_140815144800		SOL – MCOM on		
227	2011						EOL		
227	2012	_040_2012	_040	_14i_040	_140815151100		SOL		
227	2028						EOL		
227	2030	_041_2030	_041	_14i_041	_140815152500		SOL		
227	2150						EOL		
227	2153	_042_2153	_042	_14i_042	_1408151165200		SOL		
227	2307						EOL		
227	2314	_043_2314	_043	_14i_043	_140815180600		SOL		
<b>JD228-Saturday 16 August 2014</b>									
228	0	_043_0000					NEW HYPACK LINE DUE TO NEW JD		
228	19				_14081519020		SOL		
228	28				_140815191600		SOL		
228	29						EOL		
228	30	_044_0030	_044	_14i_044	_1408151992900		SOL		
228	49						EOL		
228	50					V000040.TXT	SVP017, E291743.81 N3258630,61		
228	50	_044_0050	_044b	_14i_044b	_140815194900		SOL		
228	112						rig deviation		
228	140						EOL		
228	145	_045_0145	_045	_14i_045	_140815204400		SOL		
228	258						EOL		
228	302	_046_0302	_046	_14i_046	_140815220200		SOL		
228	410						EOL		
228	417	_047_0417	_047	_14i_047	_140815231600		SOL -F190 logging switched to CAPP-C JD228a temporarily		
228	447						F190 logging back on laptop – JD228		
228	450						rig deviation		
228	525						EOL 47		
228	525	_048_0525	_048	_14li_048	_140816002400		SOL 048		
228	555					V000042.TXT	SVP018 E293465 N3258370		
228	629						EOL 048		
228	629	_049_0629	_049	14i_049	_140816012800		SOL 049		
228	635						Ship moving around rigs during turn		
228	639						heading to start of line 49		
228	732						EOL 49		
228	732	_050_0732	_050	14li_050	_140816023100		SOL 50		
228	844						EOL 50		
228	844	_051_0844	_051	14i_051	_140816034300		SOL 51		
228	845					V000045.TXT	SVP019 E289875.5 N3255446		
228	849						buoy mine field		
228	909						snagged buoy on ss fish, slowed to remove		
							klein off – cable pulled out., Klein cable cut and connector		
228	912				offline		lost at towfish. ripped off by bouy snag. Klein is offline		
228	956						now.		
228	957	_052_0957	_052	14i_052			EOL 51		
228	1058				offline		SOL 52		
228	1058	_053_1058	_053	14i_053			EOL 52		
228	1058				offline		SOL 53		
228	~1150						EOL53, Swapped Generators, had to power off Chirp		



228	1159					V000047.TXT	SVP020 E299727 N3260358		
228	1201	_054_1201	_054	14i_054	offline		SOL 54		
228	1307						EOL 54		
228	1307	_055_1307	_055	14i_055			SOL 55		
228	1320				_140816081900		Klein sidescan fixed and deployed again. New pig-tail connector on fish.		
228	1340					V000050.TXT	SVP021 E296316.7 N3257576.9		
228	1352						lost a couple minutes of swath, trying to restart a file got swath going, needed to use 55bb name to deal with issues – don't ask. (started new swath .sxs_0228b)		
228	1355		_55bb				EOL 55		
228	1408						SOL 56, swath crashed briefly		
228	1410	_056_1410	_56	14i_056	_140816090800		restarted Swath		
228	1425		_56b				EOL 56		
228	1519						SOL 57		
228	1519	_057_1519	_57	14i_057	_140816102100		EOL 57		
228	1625						SOL 58		
228	1625	_058_1625	_58	14i_058			SVP022 E299733.2 N3258986.3		
228	1625					V000056.TXT	SHIFT CHANGE:		
228	1700						EOL		
228	1747						SOL		
228	1748	_059_1748	_59	14i_059	_140816112400		EOL		
228	1825						SOL		
228	1831	_060_1831	_60	14i_060	_140816133000		EOL		
228	1904						SOL – swath line: 61 was started and then 62 was started by accident. Started 61b. NOTE: 61B did not record properly		
228	1906	_061_1906	_61 & _61b & 62	14i_061	_140816140500		EOL		
228	1935						SOL		
228	1939	_062_1939	_62b	14i_062	_140816143800		EOL		
228	2014						SOL		
228	2015	_063_2015	_63	14i_063	_140816151400		EOL		
228	2045					v000059.TXT	SVP023 E295812.4 N3254236.9		
228	2050	_064_2050	_64	14i_064	_140816154900		SOL		
228	2116						EOL		
228	2120	_065_2120	_65	14i_065	_140816161900		SOL		
228	2137						EOL		
228	2141	_066_2141	_66	14i_066	_1408161614000		SOL		
228	2240						EOL		
228	2240	_067_2240	_67	14i_067	_140816173900		SOL		
228	2256						EOL		
228	2256					V000062.TXT	SVP024, E292579.5 N3260833.6		
228	2302	_068_2302	_68	14i_068	_140816180200		SOL		
228	2350						EOL		
<b>JD229-Sunday 17 August 2014</b>									
229	0	_069_0000	_69	14i_069	_140816185900		SOL		
229	100						EOL		
229	110	_070_0110	_70	14i_070	_140816200900		SOL		
229	125						EOL		
229	126					V000064.TXT	SVP025, E296352.4 N3262641.3		
229	132	_071_0132	_71	14i_071	_140816203100		SOL		

229	220						EOL		
229	224	_072_0224	_72	14i_072	_140816212300		SOL		
229	236						EOL		
229	242	_073_0242	_73	14i_073	_140816214100		SOL		
229	320						EOL		
229	332	_074_0332	_74	14i_074	_140816223000		SOL		
229	409						EOL		
229	415	_075_0415	_75	14i_075	_140816231400		SOL		
229	454						EOL		
229	457					V000066.TXT	SVP026, E299332 N3262092		
229	503	_076_0503	_76	14i_076	_140817000200		SOL		
229	541						EOL		
229	545						SVP027: E293989.3 N3261744.3		
229	549						end of survey		