FILL OUT THE DIAGRAM TO SHOW ACQUISITION GEOMETRY. INCLUDE GPS-TO-SHOT DISTANCE, FATHOMETER DEPTH, TRANSDUCER DEPTH, SLED-TO-SHOT DISTANCE AND STREAMER-TO-SHOT DISTANCE.

GPS-TO-SHOT DISTANCE ———

SLED-TO-SHOT DISTANCE ———

STREAMER-TO-SHOT DISTANCE ———

DEPTH OF CHIRP TRANSDUCER ———

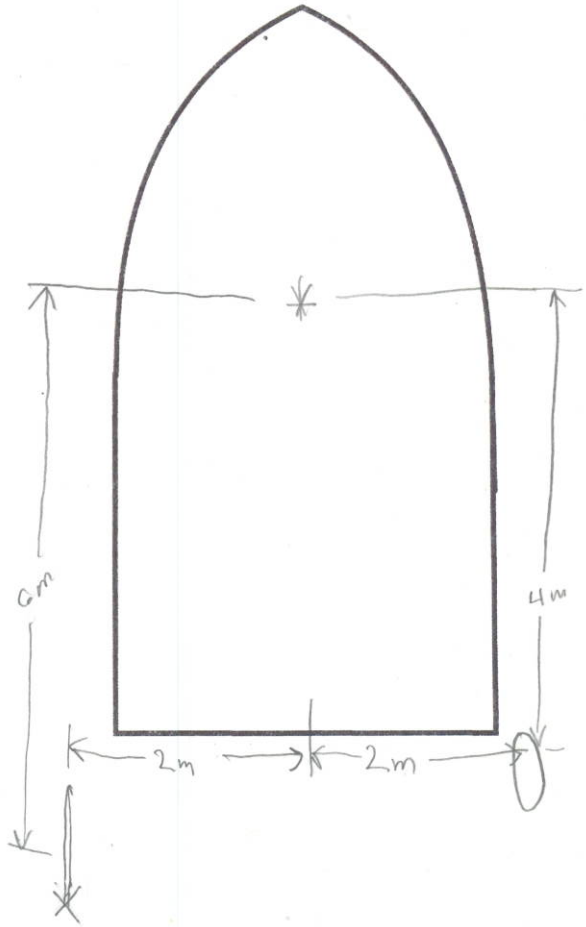
DEPTH OF FATHOMETER HEAD ———

Boomer □ Sparker *

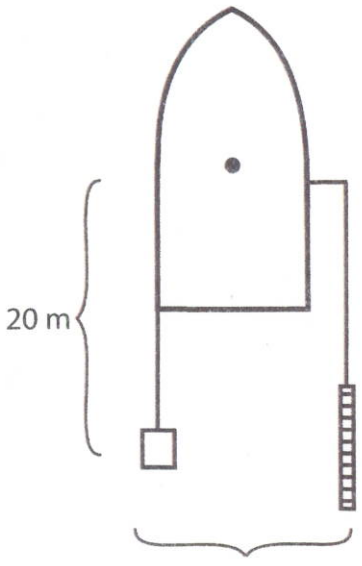
Chirp ○ Streamer ▮

GPS Antenna • Swath △

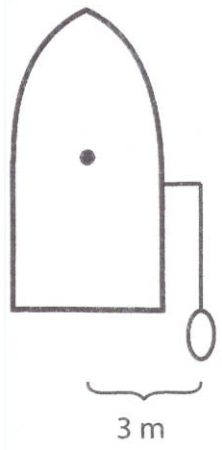
Sidescan |X



BOOMER EXAMPLE



CHIRP EXAMPLE



USGS SPCMSC Logsheet - Sound Velocity

USGS SPCMSC FAN# 12BIM03 **UTM Zone =** 16 N **Time Zone =** ~~EST~~ UTC

SVP File Name	Date Taken	DOY YY	Time	Latitude or Easting	Longitude or Northing	Depth (m)	Hypack Target Taken	SWATHplus "Here and Now"
~~12BIM03_206_SVP1~~	~~7/24~~	~~2006~~	~~5:4:34~~	~~323000.7~~	~~3323130.7~~	~~4m~~	~~YES SVP1 test~~	~~YES~~ NO DATX
12BIM03_206_SVP1	7/24	206	20:12:18	321016.7	3314718.4	3.3	YES SVP1	YES
12BIM03_207_SVP2	7/25	207	17:50:12	325139.74	3314860.45	5m	YES	NO
V000026-31.TXT ARE FOR SVP3 (6:09 PM) [8:57 PM FILES ARE FOR SVP1]								
12BIM03_207_SVP3	7/25	207	20:00	324769.7	3316901.7	4m	YES	YES
12BIM03_207_SVP4	7/25	207	22:41	3246050.8	3318654	4m	Yes	Yes (files 40-45.TXT)
12BIM03_208_SVP5	7/26	208	13:52			~3m	YES	NO V000104.TXT
12BIM03_208_SVP6	7/26	208	17:01	322824.6	3320164.2	~3m	YES	YES V000109.TXT
12BIM03_208_SVP7	7/26	208	19:41	319639	3320162		?	V000115.TXT
12BIM03_208_SVP8	7/26	208	19:01	320351.3	3324898.7		?	V?
12BIM03_208_SVP9	7/26	208	19:12	320774.5	3326121.8		?	V000121.TXT
12BIM03_208_SVP10	7/26	208	21:16	3230156	3322340.3		?	V000123.TXT
12BIM03_208_SVP11	7/26	208	22:04	324685.8	3318502.6		?	V000128.TXT
12BIM03_209_SVP12	7/27	209	12:59:09	325539.66	3315058.38		YES	NO V000132-136.TXT

206
207

Beginning JD 209_12, SVP casts were logged with the swath operations log, not on a separate svp logsheet.

ACTIVITY ID: 12BIM03 USGS CMG FACS OPERATION LOG Page 1 of

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
DAY 205_2012										
-trouble w/ F190 cannot produce proper heading										
DAY 206_2012										
-trouble shoot problems F190/SWATH (see additional NOTES)										
18:10:00 Going to begin collecting swath SXS File = 12BIM03_v3712b.sxs										
18:18:00 SVP1 = 12BIM03_206_SVP1 roll calibration commencement										
H	12BIM03_roll1	206	?	?	12BIM03_v3717a.sxs	206				
H	12BIM03_roll2	206	?	?		206			psychedelic ending (swirl)	
H	12BIM03_roll3	206	21	07		206	21	10	"	
H	12BIM03_roll4	206	21	13		206	21	16	psychedelic middle	
H	12BIM03_roll05	206	21	18		206	21	23	"	
H	12BIM03_roll6	206	21	24		206	21	28	"	
H	12BIM03_roll7	206	21	29		206	21	33	-changed cat cable-F190	
H	12BIM03_roll8	206	21	41	New cable: router to DC	206	21	47		
H	12BIM03_roll09	206	21	48	different router port	206	21	51		
H	12BIM03_roll10	206	21	53		206	21	57		

44 77 955 234/15
PAUL BYNUM

ACTIVITY ID: 12BIMO3 USGS CMG FACS OPERATION LOG psycho log Page 2 of

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12BIMO3-roll11	206	21	58		206	22	03		
H	12BIMO3-roll12	206	22	04		206	22	07	NOTE: 2208 - psychedelic	
H	12BIMO3-roll13	206	22	09	- Not a roll file - transit file	206	22	14		
206 ↑ / 207 ↓										
SVP CAST #2		12BIMO3_207_SVP#2							DID NOT DO TARGET IN SWATH B/C SYS WAS NOT SET-UP	
H	12BIMO3 Roll14	207	18	17		207	18	21	Sensor Param Time - reject 2.5 sec	
HY	001_1812	207	18	12		207	18	15		
H	12BIMO3 Roll 15	207	18	22	Bad	207	18	23		
HY	002_1817	207	18	17		207	18	18		
H	12BIMO3-Roll15a	207	18	26		207	18	29		
HY	002_1821	207	18	21		207	18	25		
H	12BIMO3-Roll16	207	18	32		207	18	35		
HY	003_1827	207	18	27		207	18	30		
H	12BIMO3-Roll17	207	18	37		207	18	40		
HY	004_1832	207	18	32		207	18	35		
H	12BIMO3-Roll18	207	18	41		207	18	45		
HY	005_1836	207	18	36		207	18	40		
H	12BIMO3-Roll19	207	18	45		207	18	48		
HY	006_1841	207	18	41		207	18	44		

ACTIVITY ID: 12BIM03 **USGS CMG FACS OPERATION LOG** Page 3 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12BIM03_roll20	207	18	50		207	18	53		
HY	002_1845	207	18	45		207	18	49		
H	12H001	207	19	25		207	19	49		
HY	001_1919	207	19	19		207	19	44		
SS	125001...	207	21	18	Klein 900 KH2 SS 20μs Pulse, 50m	207	19	49 (21:49)	125001...SDF } Filenames (3m out) 12TST04_mon...XTF } (NOT TIMES/INCS)	
H	12H002	207	19	51		207	20	14	SS has own filename convention!!	
HY	002_1946	207	19	46		207	20	10	SS - can prefix filename: 12BIM date time)	
SS	125002	207	21	44		207	22	08	XTF, SDF (12120...XTF)	
H	12H003	207	20	15		207	20	40		
HY	003_2041	207	20	11		207	20	35		
SS	125003	207	22	09		207	22	33	(22:12 cable out +3m, towed fish more layback - 6m out)	
H	12H004	207	21	04		207	21	50		
HY	004_2059	207	20	59		207	21	00		
SS	12bim03...	207	21	05		207	21	50	+SS time sync'd to PC - Filename prefix = 12bim03... time/date etc)	
20:52:09 - SUP		12BIM03_SUP3			324769.7 / 3316901.7					
H	12H005	207	21	21			21	40	?? times	
HY	005_2116	207	21	21			21	40		
SS	12BIM03-	207	21	47			21	40		
H	12H006	20	21	50			21	40		

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12H007	207	21	47		207	22	12		
HY	006-2143	207	21	43		207	22	08		
SS	12BIM03...	207	21	47		207	22	12		
H	12H008	207	22	15		207	22	33		
HY	007-2209	207	22	09		207	22	34		
SS	12BIM03	207	22	15		207	22	38		
		SVP4		22:41:55	3246508/3318654					
H	12H009	207	22	49		207	23	12		
HY	008-2244	207	22	44		207	23	08		
SS	12BIM03	207	22	49		207	23	12		
EODAY										
SVP CAST # 5		208			13:52:08					
H	12H010	208	14	49		208	15	10		
C	12C001	208	14	49	H - 20KHz, 5ms Tm 4Hz, Rate 43.4KHz	208	15	10		
HY	001-1441	208	14	41		208	15	03		
H	12H011	208	15	12		208	15	44		
C	12C002	208	15	12	"	208	15	44	- good chirp -	
HY	002-1507	208	15	07		208	15	39		
H	12H012	208	15	46		208	16	11		
C	12C003	208	15	45	"	208	16	11		
HY	003-1549	208	15	40		208	16	05		

ACTIVITY ID: 12B1M03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12h013	208	16	12		208	16	43	3m depth 25m on aside	
C	12c004	208	16	12		208	16	43		
Hy	004_1607	208	16	07		208	16	37		
H	12h014	208	16	44		208	16	58		
C	12c005	208	16	44		208	16	55		
Hy	005_1639	208	16	39		208	16	51		
SVP Cast 6:	V0000M9.TXT; 17:01, 3227231.6/3320164.2						~3m			
H	12h014a	208	17	11		208	17	21		
C	12c005a	208	17	11		208	17	21		
Hy	005_1706	208	17	06		208	17	18		
H	12h015	208	17	26		208	17	54	17:49 ppt	
C	12c006	208	17	26		208	17	54	Pre abs data loss ~ 17:40	
Hy	006_1720	208	17	20		208	17	50		
H	12h016	208	17	50		208	18	45	18:12 sound waves?	
C	12c007	208	17	50		208	18	45		
Hy	015_1751	208	17	51		208	18	39		
	SVP Cast 7, 18:41, 3196339/3328162 - V0000115.TXT									
C	12c008	209	19	49		208	19	60		
H	12h017	208	18	49		208	19	60		
Hy	014_1845	208	18	45		208	19	56		

ACTIVITY ID: 12BIM04 **USGS CMG FACS OPERATION LOG** Page 6 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
SVP cast 8		320	35	13 / 3326898.7	19:01	-V??	TXT			
C	12c008a	208	19	06		208	19	10		
H	12h017a	208	19	06		208	19	10		
HY	014-1900	208	19	10		208	19	10		
SVP cast 9		320	7749 / 3326121.8 , 19:12			VDDO	121.TXT			
C	12c009	208	19	21		208	19	38		
H	12H018	208	19	21		208	19	38		
HY	014-1916	208	19	16		208	19	43		
C	12c010	208	19	50		208	20	28		
H	12H019	208	19	50		208	20	28		
HY	017-1944	208	19	44		208	20	23		
C	12c011	208	20	30		208	21	09	20.33 seas from west - taking waves on starboard	
H	12h020	208	20	30		208	21	09		
HY	016-2025	208	20	25		208	21	14		
C	12c012	208	21	23		208	21	50		
H	12h021	208	21	12		208	21	21		
HY	007-2118	208	21	18		208	21	50		
SVP Cast 10		323	015.6 / 3322340.3 , 21:16			✓	000123.TXT			
H	12h022a	208	21	23		208	21	50		
C	12c013	208	21	51		208	21	57		

ACTIVITY ID: 12 BIM 03 USGS CMG FACS OPERATION LOG Page 7 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12H022	208	21	51		208	21	57		
HY	006_2146	208	21	46		208	21	54		
	SV Cast 11		22:04	, 3246	85.8 | 3318502.6	V 000128.TXT				
H	12h023	208	22	11		208	22	35		
C	12C014	208	22	11		208	22	31		
HY	008_2206	208	22	06		208	22	33		
H	12h024	208	22	38		208	22	44	Heavy Seas	
C	12C015	208	22	38		208	22	41		
HY	009_2234	208	22	34		208	22	14		
SVP CAST 12		209	TIME = 12:59:09			209				
H	12h025	209	13	21	NO EXTERNAL NAV @ 50L STARTED @ 13 25	209	13	45		
SS	12BIM03 ...	209	13	24	50m, 900 KHz	209	13	45		
HY	12BIM03 009_1316	209	13	16		209	13	40		
H	12H026	209	13	49		209	14	13		
SS	12BIM03 ...	209	13	49		209	14	13		
HY	12BIM03 010_1343	209	13	43		209	14	06		
	SV Cast 13	3235378	/ 3321831.9	14:13	V 000137.TXT					
H	12H027	209	14	16		209	14	39	Real time end is 14:21	
SS	12BIM03 ...	209	14	16		209	14	21		
HY	010_1411	209	14	11		209	14	06		

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12H028	209	14	41		209	14	48	Turn at beginning of line	
C	12C016	209	14	41		209	14	48	-Swath PC locked up rebooted	
HY	012_1437	209	14	37		209	14	48		
H	12H028a	209	14	53		209	15	10		
C	12C016a	209	14	53		209	15	10	206a	
HY	012_1448	209	14	48		209	14	58		
HY	012_1459	209	14	59		209	15	10	reboot swath -	
H	12H028b	209	15	20		209	15	45		
C	12C016b	209	15	20		209	15	45		
HY	012_1515	209	15	15		209	15	40		
H	12H029	209	15	49		209	16	33	} turning data until 15:54	
C	12C017	209	15	49		209	16	33		
HY	010_1545	209	15	45		209	15	49		
HY	010_1549	209	15	49		209	16	33		
H	12H030	209	16	35		209	17	03		
C	12C018	209	16	35		209	17	03		
HY	012_1630	209	16	30		209	17	03		
Cast SVP14		209		321014	332556.7 17:02	209	V000	142.TXT		
H	12H031	209	17	06		209	17	17	swath PC froze @ 17:17	
C	12C019	209	17	06		209			circles @ 17:17	

ACTIVITY ID: _____ USGS CMG FACS OPERATION LOG Page 9 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
HY	012_1716	209	17	22		209	17	27		
H	12h516	209	17	23		209	17	21		
H	12h032	209	17	23			18	19		
C	12C020	209	17	23			18	19	18:11 chirp in Im	
HY	006_1730	209	17	30			18	13		
H	12h033	209	17	21	18 35 - GOING OVER STAND WAVES; RIPPLES IN IMAGES		19	08	- Noisy, dropouts due to noise	
C	12C021	209	18	21			19	08		
HY	008_1816	209	18	16			19	03		
H	12h034	209	19	09	19:53 lots of ROLL					
C	12C022	209	19	09	Features (Mount) 30°02.3130 / 88°50.704 N W		20	00	Did not stop (1 min during SVP cast) 19:13	
HY	020_1909	209	19	09			20	00		
	Cast SVP 15		32	0120/33	27849.2 19:13	V00	0146.TXT			
H	12h035	209	19	50			20	20		
C	12C023	209	19	50			20	20		
HY	009_1953	209	19	53			20	18	NOTE: No SWath line 12H036	
H	12h036	209	20	26			20	30		
C	12C024	209	20	26			20	30	2957.4121 N 88°48.4710 W GAS? MUD VOLCANO?	
HY	010_2021	209	20	21			20	46	No Pol Cam	
H	12h038	209	20	51	Features		21	15		
C	12C025	209	20	51	- Good Chirping		21	15		

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
HY	011_2046	209	20	46			21	16		
H	12H039	209	21	18			21	28		
C	12C026	209	21	18			21	28		
HY	012_2113	209	21	13			21	50		
H	12H040	209	21	33			21	53		
C	12C027	209	21	33			21	53		
	SVP Cast #16		3246357		3319802.4	21:30	V000	149.TXT		
H	12H041	209	21	53			22	21		
C	12C028	209	21	53			22	21		
HY	011_2139	209	21	39			22	15		
H	12H042	209	22	29			22	50		
C	12C029	209	22	24			22	50		
HY	012_2219	209	22	19			22	50		
SVP CAST 17		210	12:58:18		Hyerock Target		V000151 & 152.TXT		(NO TARGET IN SWATH)	
H	12H043		- New SXS file each day - Com problems						No Data	
C	12C30		13	54			14	34	- circles 14:06 - 14:26 - loose Druck cable	
HY	013.1341		13	41			14	04		
H	12H043a	210	13	45			14	06	- No NAV2 - ashtech Attitude Quiet	+ Attitude lost
H	12H044		14	26	Attitude down		14	34	+ 210_new.sxs	

ACTIVITY ID: 12BIM03 USGS CMG FACS OPERATION LOG Page 11 of

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
HY	013_1423	210	14	22		210	14	34		
H	12h044	210	14	35		210	14	44	- SWATH AC deed -	
C	12c31	210	14	35		210	14	44		
HY	014_1430	210	14	30		210	14	44		
H	12h045	210	14	53		210	15	18	- NOISY SEAS	
C	12c32	210	14	53		210	15	18		
HY	014_1447	210	14	47		210	15	14		
H	12h046	210	15	20		210	15	43		
C	12c33	210	15	20		210	15	43		
HY	013_1514	213	15	14		210	15	44	lightning, thunderstorms,	
H	12h047	210	15	46		210	16	04		
C	12c034	210	15	46		210	16	04		
HY	016_1541	210	15	41		210	16	25		
		15:53		SVP18	V000153.TXT				325163.4/3319221.3 (no target in swath)	
H	12h049	210	16	04		210	16	25	noisy data, rough sea	
C	12c035	210	16	01		210	16	25		
H	12h049	210	16	29		210	17	20	noisy data, rough sea	
C	12c036	210	16	29		210	17	20		
HY	022_1629	210	16	29		210	17	20	noisy data	
H	12h050	210	17	29		210	17	29	No data	

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
C	12C037	210	17	38		210	18	11		
H	12H051	210	17	38		210	18	11		
Hy	024-1732	210	17	32		210	18	11		
		SVP Cast #	19		V 000 158.7 FT	18:10	322134.0 E/	3324788.3 N		
C	12C038	210	18	"		210	18	26		
H	12H052	210	18	09		210	18	10		
H	12H053	210	18	11		210	18	26		
H	12H054	210	18	28		210	19	12		
C	12C039	210	18	28		210	19	12		
Hy	026.1823	210	18	23		210	19	03		
H	12H055	210	19	13		210	19	22		
C	12C040	210	19	13		210	19	22		
Hy	011.1908	210	19	08		210	19	15		
H	12H056	210	19	23		210	19	58		
C	12C041	210	19	25		210	19	58		
Hy	009.1917	210	19	17		210	19	58		
		SVP 20	V 000 161.7 FT		19:23	319669.9 E/	3330316.5 N			
H	12H57	210	20	00		210	20	34	20:22 - South inbound by shrimper trawl / wake	
C	12C042	210	20	06		210	20	36		
Hy	010-1958	210	19	51		210	20	31		

ACTIVITY ID: 12B1M03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12H058	210	20	36		210	21	08		
C	12C043	210	20	36		210	21	08		
HY	011-2031	210	20	31		210	21	13		
H	12H059	210	21	13		210	21	43		
C	12C044	210	21	13	INCREASED PING RANGE REC LENGTH XMIT PULSE @~21:30	210	21	47		
HY	008_2113	210	21	13		210	21	47		
		SVP 21	21.	15	315676.1/3327664.4	V000165.7				
H	12H060	210	21	43	PING RANGE = 101 XMIT LENGTH = 205 HZ REC LENGTH = 4096 100% pwr					
H	12H061	210	21	47	" "	210	22	27		
C	12C045	210	21	47		210	22	27		
HY	007_2145	210	21	45		210	22	49		
H	12H062	210	22	27		210	22	28		
C	12C046	210	22	27		210	22	28		
HY	006_2221	210	22	21		210	22	16		
H	12H063	210	22	31		210	23	00		
C	12C047	210	22	31	SHRIMP TOWERS (23 00 30.05.077N, 8852.1746)	210	23	00		
HY	006_2224	210	22	24		210	23	00		
H	12H064	210	23	04	SVP cast 22 23 21	210	23	38	init stop acquisition during cast	
C	12C048	210	23	04			23	38		
		SVP Cast	22	23:21	318193.2/3328277.9	V000167.1				
HY	005_2300	210	23	00		210	23	38		

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

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211

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
SVP 23		211	12:49	34	V000170 & 171. TXT					
				LAT:	30°01'06.9090" N					
				LON:	88°49'46.1605 W					
H	12h065	211	13	24	using 206a.SXS	211	13	51	1006pm Xmit=26, rang=60, rec length=2048 Aux 2 = RS422 GPS	
C	12c049	211	13	26		211	13	51		
HY	015.1319	211	13	19		211	13	51		
H	12h066	211	13	55		211	14	20		
C	12c050	211	13	55		211	14	20		
HY	014_1350	211	13	50		211	14	14		
H	12h067	211	14	21	80m swath, Xmit pulse=23 Rec length=4096	211	14	45		
C	12c051	211	14	21		211	14	45		
HY	015_1415	211	14	21		211	14	4		
H	12h068	211	14	48		211	14	48		
C	12c052	211	14	48		211	14	48		
HY	018_1443	211	14	43		211	14	39		
H	12h069	211	15	21	Xmit Pulse=26, Swath=60m Rec length=2048	211	15	30		
C	12c053	211	15	21		211	15	30		
HY	028_1517	211	15	17		211	15	25		
H	12h070	211	15	34	15:38 - Rec length=4096	211	15	58	15:58 - swath hung (on reboot) shortcuts } of panic stop	
C	12c054	211	15	34	Chirp in 1m	211	16	12	16:00 SVP 23 # 24	

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	004.1521	211	15	29		211	16	05		
						211				
C	12C055	211	16	14		211				
H	12H071	211	16	14		211	16	29	206a.sxs - computer hung up -	To unlock/reboot - pulled out pci express serial card
SVP	SVP Cast	24	16:00		E: 320291.34 N: 3326073.61	V00	0073.TXT			
HY	004.1609	211	16	05		211				
SVP	SVP Cast	25	16:34		E319517.57	N3327806.11			W 176-178	
C	12C056	211	16	35		211	16	47	206a.sxs	
H	12H072	211	16	35		211	16	47	Sasath circle (crossing)	
HY	004.1640	211	16	40	- circle to get online		16	47		
H	12H073	211	16	49		211	17	35		
C	12C057	211	16	49	17:20 - chirp in 1 (1m cable out)	211	17	35		
HY	002.1644	211	16	44		211	17	30		
H	12H074	211	17	35	17:37 - shallow fixes (dropout, set higher)	211	18	20		
C	12C058	211	17	35		211	18	20		
HY	003.1730	211	17	30		211	18	34		
H	12H075	211	18	20	18:27 100m range	211	18	34		
C	12C059	211	18	20		211	18	34		
HY	627.1819	211	18	19		211	18	34		
H	12H076	211	18	36	Pwd: 100%, xmit pulse = 20% Range = 10, Rec length = 1096				SVP: 12:49	

ACTIVITY ID: 12BIM03 USGS CMG FACS OPERATION LOG Page 16 of

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
C	12C060	211	18	36	Chirp out 3m	211	19	20	SVP 18:49	
Hy	028_1831	211	18	31		211	19	20		
		SVP 26			321296.2/3326.8	22.5	18:49		V000180.TXT	
H	12h077	211	19	22	SVP 27 19:30	211	20	06		
C	12C061	211	19	22	SVP 27 19:30	211	20	06		
Hy	030_1917	211	19	17		211	20	06		
		SVP 27		323157.1	/3327653	19:30	V000183.TXT			
H	12h078	211	20	14	20:46 -> SVP 28	211	20	55		
C	12C062	211	20	14	20:46 - SVP 28	211	20	55		
Hy	033_2039	211	20	09		211	20	50		
		SVP 28		31579.7	/3326660.3	20:46	V000186.TXT			
		SVP 29		315710.0	/3326380.3	20:55	V000190.TXT			
H	12h079	211	20	55	SVP 29	211	21	27		
C	12C063	211	20	55	SVP 29	211	21	27		
Hy	004_2051	211	20	51		211	21	27		
H	12h080	211	21	34	SVP 30 21:43	211	22	16		
C	12C064	211	21	34	SVP 30 21:43	211	22	16		
Hy	001_2127	211	21	29		211	22	16		
			SVP 30	320423.8/3328444.5		V000193.TXT	21:43			
C	12C065	211	22	17		211	22	47		

ACTIVITY ID: 12BIM03 **USGS CMG FACS OPERATION LOG** Page 17 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12H081	211	22	17		211	22	47		
HX	002_2211	211	22	11		211	22	47		
SVP CAST 31		212	Typed	K = 12:52:57	E = 3265	12.12	N = 3315	296.73	10000796.TXT	
H	12h082	212	13	31	Used 206a.sxs from day 208 (206a from day 212 NEG)	212	13	42	switched to: 13:31 100m, 4096, 205 cyc.	
C	12c066	212	13	31		212			13:42 circle / swath line	
HY	017_1325	212	13	25		212	13	42		
H	12h082a	212	14	04	New SXS file Untitled3.sxs	212	14	17		
C	12c066a	212	14	04		212	14	17		
HY	017_1359	212	13	59		212	14	17		
H	12h083	212	14	20		212	14	52		
C	12c067	212	14	20		212	14	52		
HY	020_1416	212	14	16		212	14	52		
H	12h084	212	14	55		212	15	22		
C	12c068	212	14	55		212	15	22		
HY	017_1449	212	14	49		212	15	17		
H	12h085	212	15	21		212	15	49		
C	12c069	212	15	24	No Data	212	15	49		
HY	016_1520	212	15	20		212	15	49		
H	12h086	212	15	42	Cast 16:16 sveg2	212	16	26		
C	12c070	212	15	42	Cast 16:16 sveg2	212	16	26		

ACTIVITY ID: 2BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
Hy	019.1547	212	15	47		212	16	23	15:55 DWN DRIVERS	
	SVP	32 –	16:16	325632.5/3318346		V000700.TXT			COURSE	
H	12h087	212	16	22		212	17	00		
C	12c071	212	16	22		212	17	00		
Hy	022.1623	212	16	23		212	17	00		
H	12h088	212	17	04	SVP 33 17:13	212	17	51		
C	12c072	212	17	04	SVP 33 17:13	212	17	51		
Hy	034.1659	212	16	59		212	17	51		
		SVP 33	17:13	325632.5/3318346		212 V000020H.TXT				
H	12h089	17	52			212	18	31		
C	12c073	17	52			212	18	31		
Hy	032.1747	17	49			212	18	31		
H	12h090	212	18	44	[illegible]	212	19	07		
C	12c074	212	18	42	[illegible]	18	43		SENSOR PREMATURE SHORT DO NOT USE	
Hy	040.1840	212	18	40	[illegible]	212	19	07		
C	12c075	212	18	44		212	19	07		
		SVP34	18	44:03		V000 209 211			E. pt 1 flag	
		SVP 35	18	50:34		V000213.TXT				
H	12h091	212	19	07	1003psi, 2048 Rec length, Xmit pulse = 24, 60m	212	19	40	19:22 - 1003, 4096 rec, Xmit pulse = 205 100m	
C	12c076	212	19	07		212	19	40		

ACTIVITY ID: 12BIM03

USGS CMG FACS OPERATION LOG

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
HY	091_1902	212	19	02		212	19	40		
H	12h092	212	19	41	Froze, 0 data	212	19	51	Swath froze NO data reboot by pulling PCIe xpress card	
C	12c077	212	19	41		212	19	51		
HY	092_1935	212	19	35		212	19	51		
H	12h092a	212	20	03	100m swath, 4096 205 xmit pulse	212	20	19		
C	12c078	212	20	03		212	20	19		
HY	092_1958	212	19	58		212	20	14		
H	12h093	212	20	20	Locked up	20	25			
C	12c079	212	20	20		20	25			
HY	093_2016	212	20	16		20	25			
H	12h093a	212	20	33	20m swath, 2048, 26 xmit pulse NO AUX GPS	20	52		Samp rate, swath, pulse NO AUX 2 in - To troubleshoot	
C	12c080	212	20	33		20	52			
HY	093_2029	212	20	29		20	52			
H	12h094	212	20	55	SVP 34 20:59	21	38			
C	12c081	212	20	55	SVP 34 20:59	21	38			
HY	036_2055	212	20	50		21	32			
				SVP 36	321206, / 3327375.3	20:59		V0002.15.IXT		
				21:26	CHANGED PING RANGE TO 80.0m + TPL TO 205					
H	12h095	212	21	42		212	22	03		
C	12c082	212	21	42		212	22	03		

ACTIVITY ID: 12BM03 **USGS CMG FACS OPERATION LOG** Page 20 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
Hy	012_2137	212	21	37		212	22	03		
			21	50	CHANGED SETTINGS: PR→60; TPL→26 CYCLES	212	22	03	Froze - restarted	
H	12h095a	212	22	08	Restarted 60m, 2048 xmit = 26	212	22	19		
C	12c083	212	22	08		212	22	19		
Hy	019_2203	212	22	03		212	22	19		
H	12h096	212	22	20	SVP 37 22:37	212	22	44		
C	12c084	212	22	20	SVP 37 22:37	212	22	44		
Hy	018_2216	212	22	16		212	22	44		
212		SVP 37		326208/3315944		22:37	V000219.TXT			
213		213							210_new.sxs (saved as 213_new.sxs)	
C	12c085	213	13	24	Edgetech JSF format by mistake	213	13	51		
H	12h097	213	13	24	4096, 150ms, 205 xmit pulse shallow preset	213	13	51	collecting AUX GPS pounding	
Hy	021_1319	213	13	19		213	13	51		
SVP 38		13:37	326195.3/3317272.5			V000223.TXT				
H	12h098	213	13	53		213	14	25	shallow filter = less noise from pounding?	
C	12c086	213	13	53	SEGY	213	14	25	rough	
Hy	024_1347	213	13	47		213	14	25		
H	12h098	213	14	27		213	14	56		
C	12c087	213	14	27		213	14	56		
Y	021_1422	213	14	22		213	14	50		

ACTIVITY ID: 12BIM03 USGS CMG FACS OPERATION LOG Page 21 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12h100	213	14	58		213	15	31	rough	
C	12c088	213	14	58		213	15	31		
HY	026_1453	213	14	53		213	15	31		
H	12h101	213	15	34		213	16	05		
C	12c089	213	15	34		213	16	05		
HY	023_1529	213	15	29		213	16	05		
H	12h102	213	16	06		213	16	30		
C	12c090	213	16	06		213	16	30		
HY	020_1600	213	16	00		213	16	30		
H	12h103	213	16	43		213	16	56		
C	12c091	213	16	43		213	16	56		
HY	025_1636	213	16	36		213	16	51		
H	12h104	213	16	56	16:58 turn	213	17	25		
C	12c092	213	16	56	16:58 turn	213	17	25		
HY	026_1651	213	16	51		213	17	19		
H	12h105	213	17	25		213	17	27		
C	12c093	213	17	25		213	17	27		
HY	027_1719	213	17	19		213	17	38	-	
			Sweast #39	17:28	324541.62	331804.96			V000227.TXT	
H	12h105a	213	17	39		213	17	48		

ACTIVITY ID: 12BIM03 USGS CMG FACS OPERATION LOG Page 22 of _____

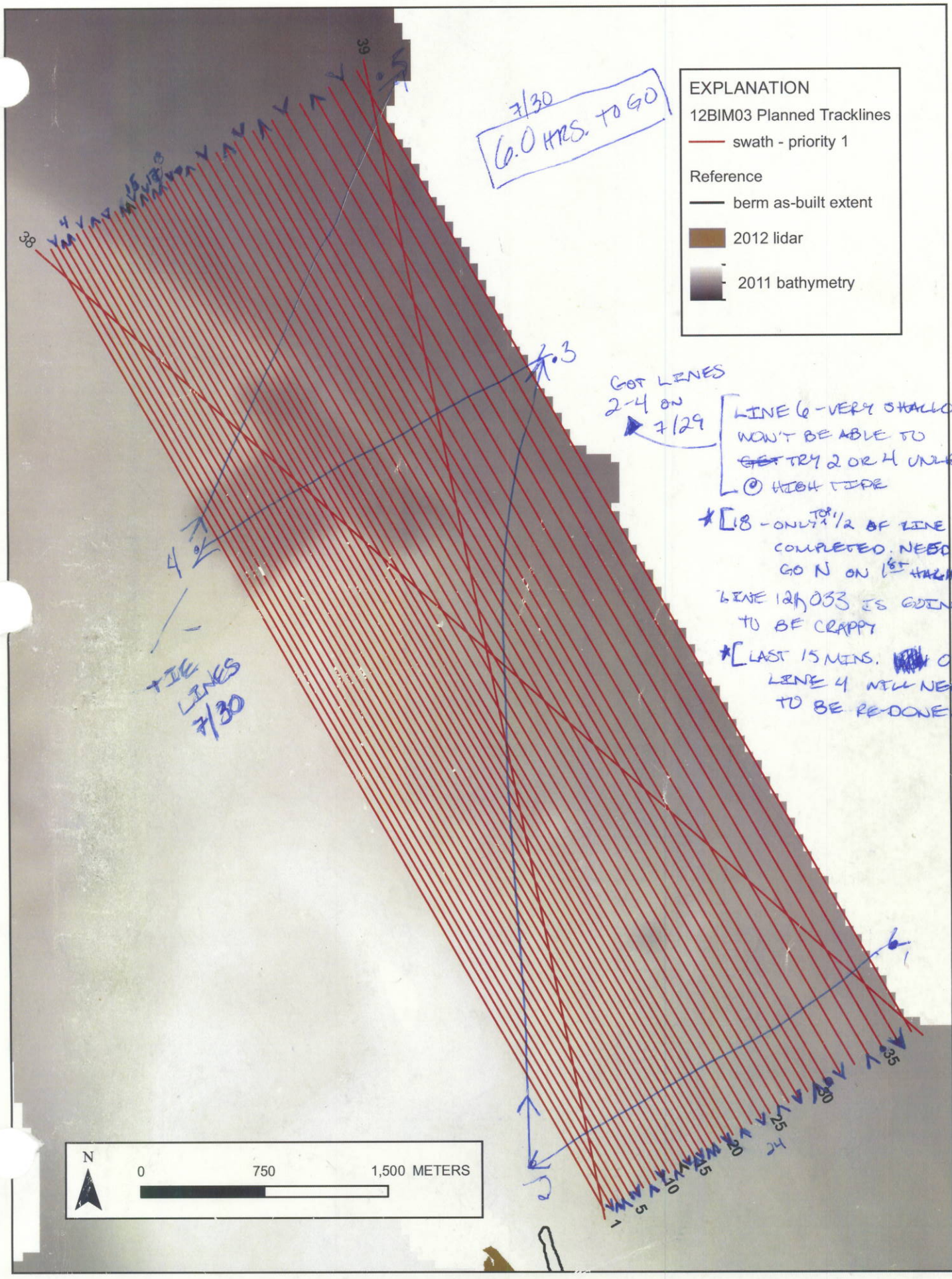
EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
C	12c093a	213	17	42		213	17	48		
HY	027_1736	213	17	38		213	17	48		
H	12h106	213	17	51		213	18	06		
C	12c094	213	17	51		213	18	06		
HY	021_1746	213	17	46		213	19	06		
H	12h107	213	18	13		213	18	42	10m	DANA DRIVING
C	12c095	213	18	13		213	18	42		
HY	032_1808	213	18	13		213	18	42	18:26 – TURNING TO GET BACK ON COURSE, BUMPINESS	
H	12h108	213	18	43	SVP 40 18:43	213	19	05		
C	12c096	213	18	43	SVP 40 18:43	213	19	05		
HY	033_1846	213	18	46		213	19	05		
			SVP 40 3323140.5 3320965.8				V000231.TXT		18.43	
H	12h109	213	19	18		213	19	28		
C	12c097	213	19	18		213	19	28		
HY	029_1913	213	19	13		213	19	28		
H	12h110	213	19	38			20	01		
C	12c098	213	19	38			20	01		
HY	025_1933	213	19	33			20	01		
H	12h111	213	20	18			20	48		
C	12c099	213	20	18			20	48		

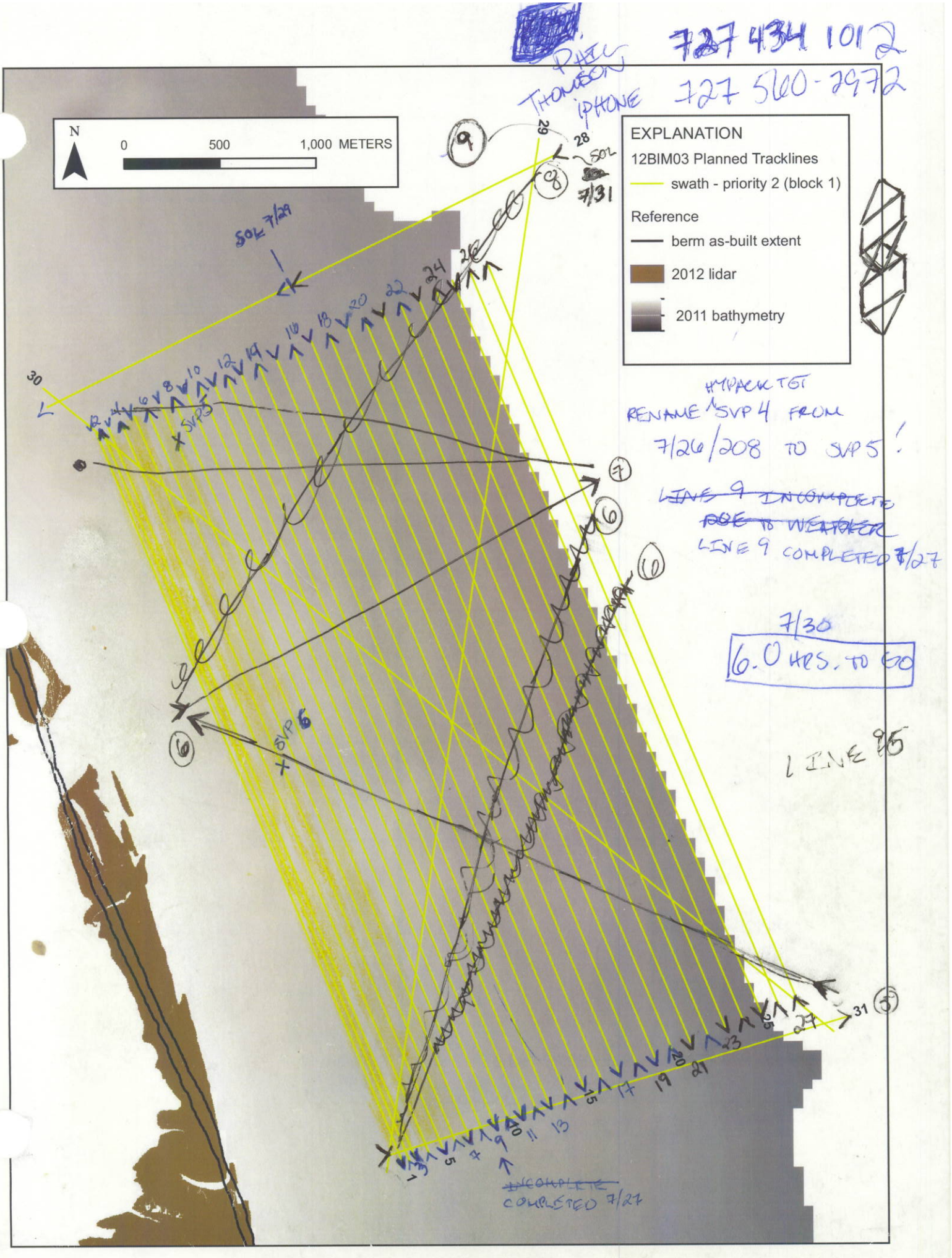
ACTIVITY ID: 12B1M03 USGS CMG FACS OPERATION LOG Page 23 of _____

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
HY	027_2013	213	20	13		213	20	48		
		SVP 41		20:52	324748.4 / 3323	103.3		V000234.TXT		
H	12h112	213	21	09	SVP 42 21:39	21	52			
C	21c100	213	21	09	SVP 42 21:39	21	52			
HY	013_2104	213	21	04		21	52			
			SVP 42	21:39	320396 / 332	6691.8		V000240.TXT		
H	12h113	213	22	20	target (lighthouse?)		22	23		
H	12h114	213	22	24	"		22	28		
H	12h115	213	22	31	"		22	33		
H	12h116	213	22	33	light		22	37		
SS	12B1M03	213	22	55			22	57	Test - target sidescan / swath	
SS	12B1M03	213	22	57			23	00		
SS	12B1M03	213	23	09	target	23	11		SS - 900 KHZ	
SS	12B1M03	213	23	16						
H	12h117				mound					
H	12h118									
H	12h119									
H	12h120									
H	12h121									

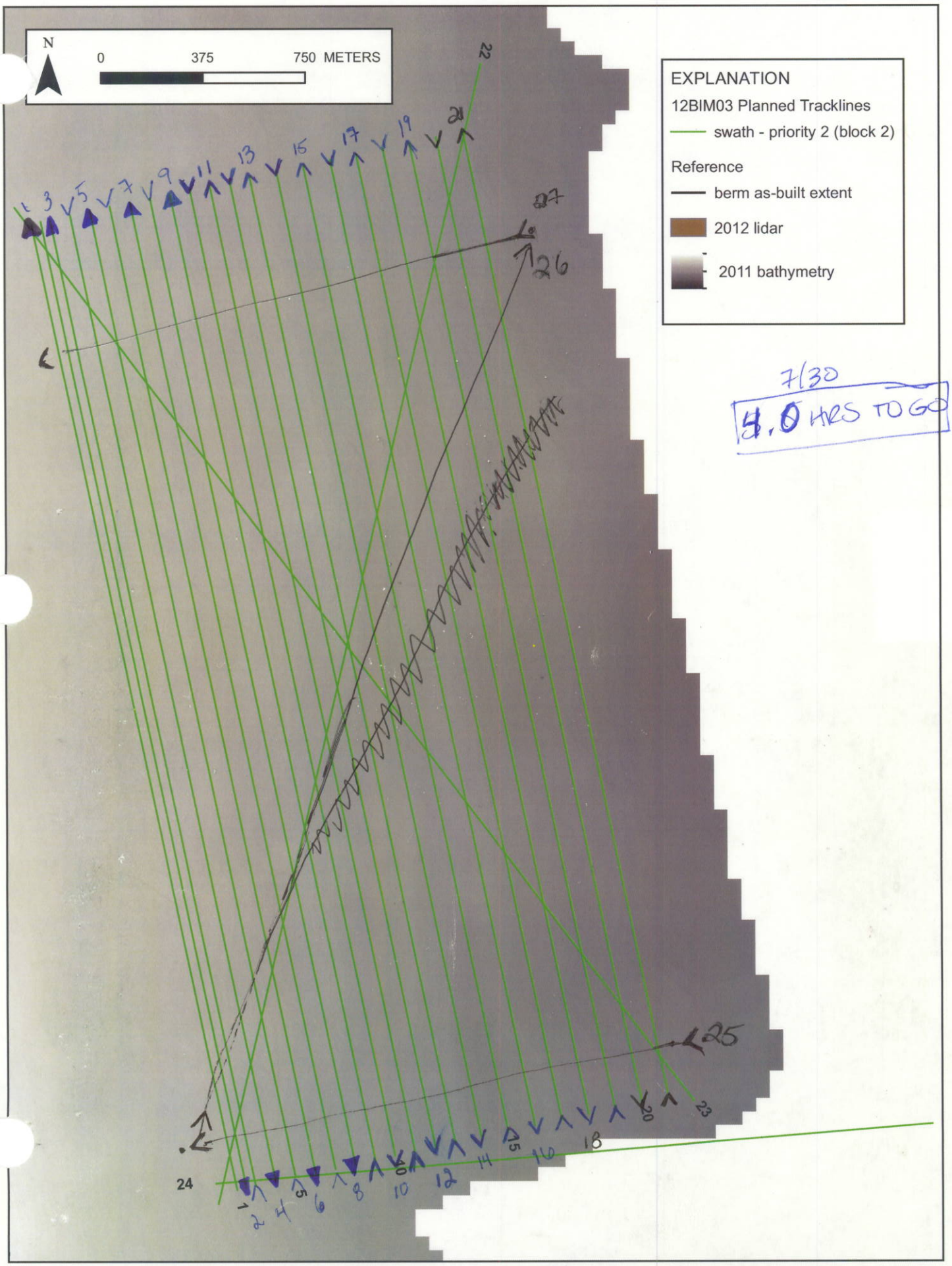
ACTIVITY ID:_____ **USGS CMG FACS OPERATION LOG** Page_____ of _____

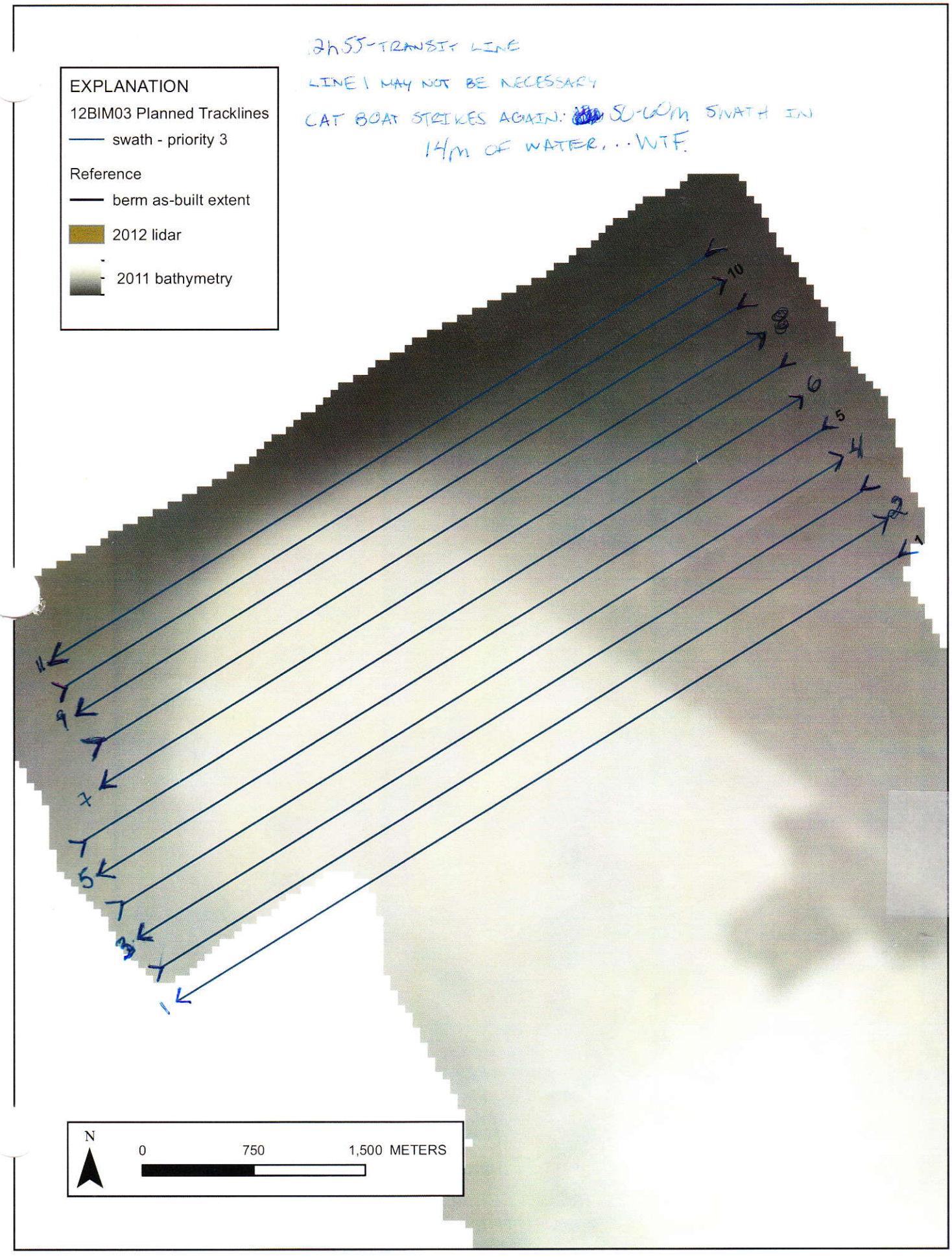
EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
H	12h122	213	23	40			23	48 hours		
H	12h123	213	23	52						


EXPLANATION
12BIM03 Planned Tracklines
swath - priority 1
Reference
berm as-built extent
2012 lidar
2011 bathymetry
7/30
6.0 HRS. TO GO
GOT LINES 2-4 ON 7/29
LINE 6 - VERY SHALLOW WON'T BE ABLE TO ~~GET~~ TRY 2 OR 4 UNLESS @ HIGH TIDE
[18 - ONLY TOP 1/2 OF LINE COMPLETED. NEED TO GO N ON 1ST HALF]
LINE 12/033 IS GOING TO BE CRAPPY
*[LAST 15 MINS. OF LINE 4 WILL NEED TO BE RE-DONE.]
TIE LINES 7/30
N
0
750
1,500 METERS



PHIL THOMSON IPHONE 727 434 1012
727 560-2972


N
0
375
750 METERS
EXPLANATION
12BIM03 Planned Tracklines
swath - priority 2 (block 2)
Reference
berm as-built extent
2012 lidar
2011 bathymetry
7/30
4.0 HRS TO GO


2h55-TRANSIT LINE
LINE 1 MAY NOT BE NECESSARY
CAT BOAT STRIKES AGAIN: [redacted] 50-60m SWATH IN 14m OF WATER. . . WTF
EXPLANATION
12BIM03 Planned Tracklines
swath - priority 3
Reference
berm as-built extent
2012 lidar
2011 bathymetry
1
2
3
4
5
6
7
8
9
10
11
N
0
750
1,500 METERS

FILL OUT THE DIAGRAM TO SHOW ACQUISITION GEOMETRY. INCLUDE GPS-TO-SHOT DISTANCE, FATHOMETER DEPTH, TRANSDUCER DEPTH, SLED-TO-SHOT DISTANCE AND STREAMER-TO-SHOT DISTANCE.

GPS-TO-SHOT DISTANCE ———

SLED-TO-SHOT DISTANCE ———

STREAMER-TO-SHOT DISTANCE ———

DEPTH OF CHIRP TRANSDUCER ———

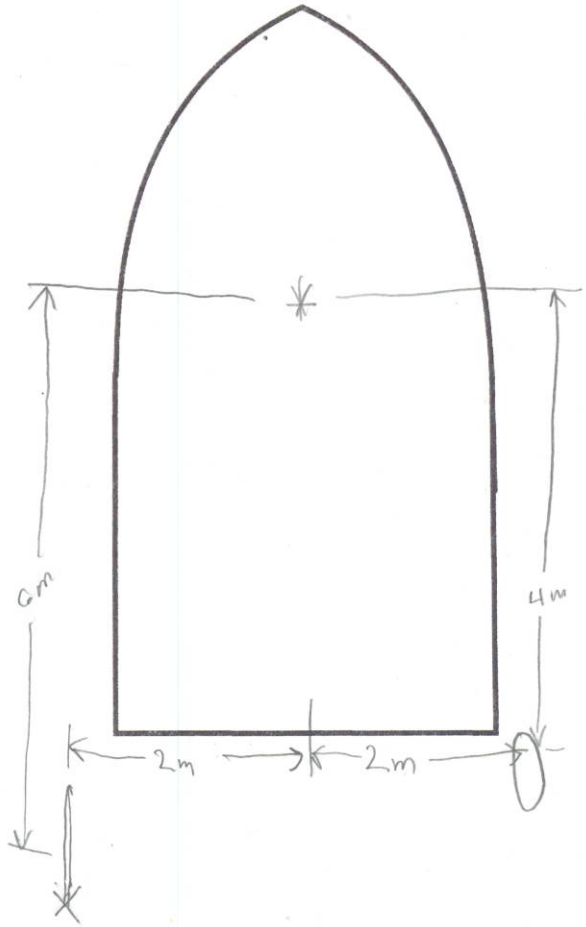
DEPTH OF FATHOMETER HEAD ———

Boomer □ Sparker *

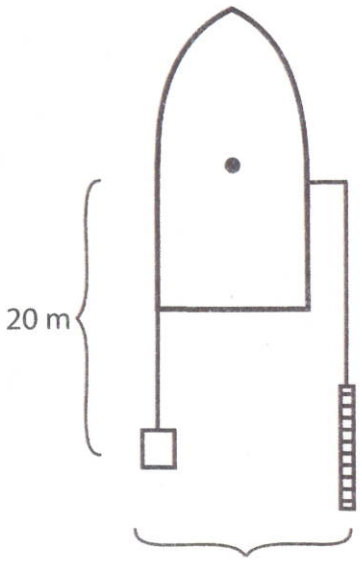
Chirp ○ Streamer ▮

GPS Antenna • Swath △

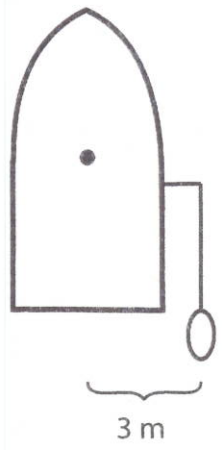
Sidescan |X



BOOMER EXAMPLE



CHIRP EXAMPLE



USGS SPCMSC FACS Overview Log - Swath Acquisition

USGS SPCMSC FAN#	12BIM03
Location	BERM / Channel Islands
Date (s)	7/23/2012 start
DOY_YY	205
Survey Vessel or Platform	R/V Survey Cat
Swath System/Frequency	SEA SWATHplus-H / 200KHz
SWATH*plus* version for acquisition	SWATHplus 3.7.10v
SXS file used for acquisition (if changes note the name and day)	
Navigation for acquisition system (i.e OmniSTAR, WAAS, CORS Station, RTK)	OmniSTAR but also collecting Base Station Data
Boat Motion for acquisition (i.e. F180, F190, F190R= wet pod, TSS)	F190R
Collecting External GPS for Navigation? (i.e. Ashtech Receivers)	No (Yes) If yes fill in information below
Base Information	Receiver Model: Ashtech Z-Xtreme; Ant. Height (m): ; Ant. P/N#:
Boat Information	Receiver Model: Ashtech Z-Xtreme; Ant. Height (m): ; Ant. P/N#:
Center of Reference Point (CRP) for acquisition (i.e. F190, swath tranducers,	F190R
SOS Sensor at head?	Working / Yes
SVP Profiles (detailed log attached)	
Technician(s)	Dana Wiese, Newey T. DeWitt

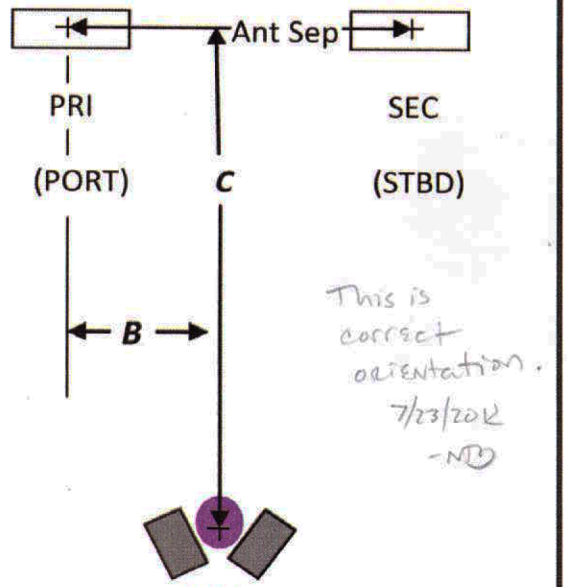
USGS SPCMSC FACS Overview Log - Swath Acquisition

USGS SPCMSC FAN#	12BIM03	**Survey Vessel**	R/V Survey Cat
F190 Program Version	4.05v	**File Name**	

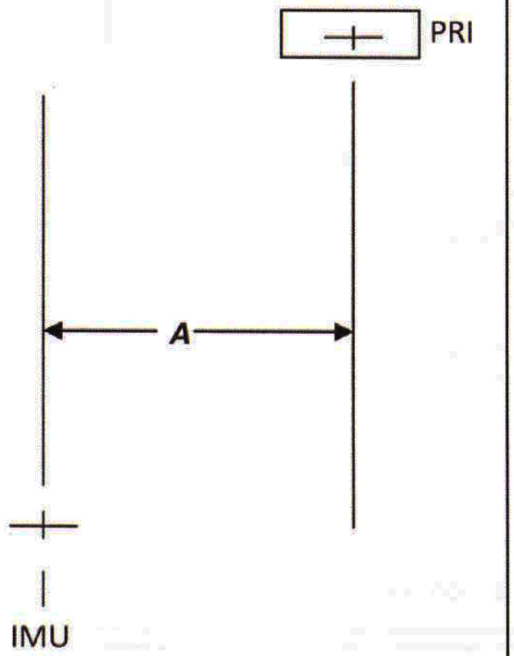
Are F190R antenna offsets entered into the F190 program? (if entered into F190 program then the 'Position Antenna' tab in SWATHplus will be zeros. **YES or NO**

All measurements relative to F190 PRIMARY antenna.

A = PRIMARY	Is how many meters **FORWARD** of the IMU?	0.281m
B = PRIMARY	Is how many meters **PORT** of the IMU?	0.781m
C = PRIMARY	Is how many meters **ABOVE** of the IMU?	+2.731m
Antenna Separation	How many meters between the Primary and Secondary Antennas	1.442m



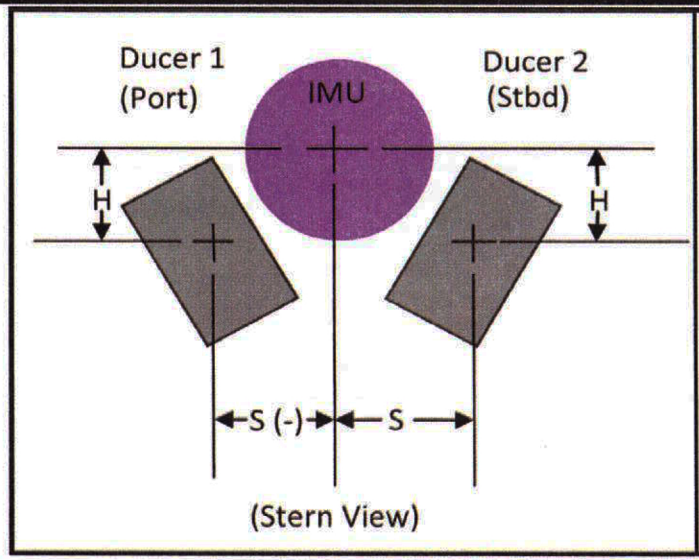
This is correct orientation. 7/23/2012 -NJ



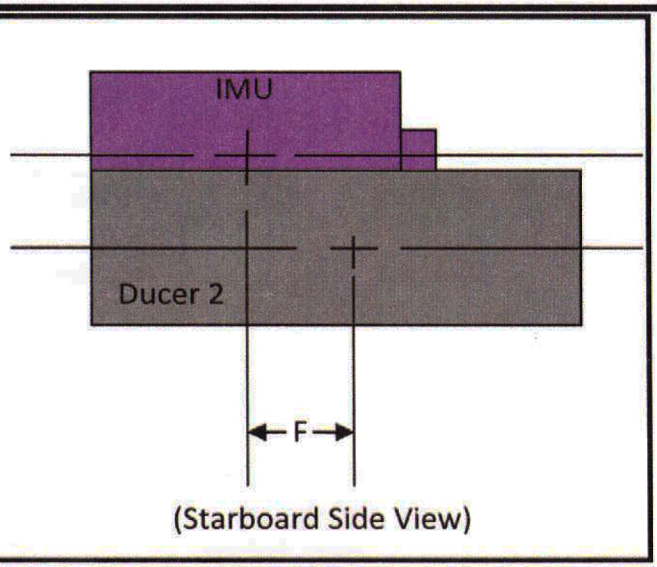
Note: On vessels of opportunity, the antennas may be oriented with the primary antenna toward the bow and the secondary toward the stern (in a parallel orientation to the hull, lengthwise). If so indicate in space the space below.

USGS SPCMSC FACS Overview Log - Swath Acquisition

USGS SPCMSC FAN#	12BIM03		
SXS File(s)	12BIM03_205-1625.SXS		
Transducer 01 - Port		**Transducer 02-Starboard**	
(H) Height Offset (m) DOWN is +	0.132 m	**(H) Height Offset (m) DOWN is +**	0.132 m
(F) Forward Offset (m) FORWARD is +	0.12710 m	**(F) Forward Offset (m) FORWARD is +**	0.12710 m
(S) Starboard Offset (m) Port is -	-0.0881 m	**(S) Starboard Offset (m) STBD is +**	0.0881 m
Azimuth Offset (deg) Port is -90	-90.00	**Azimuth Offset (deg) STBD is +90**	+90.0
Elevation Offset (deg) Port is -30	-30.00	**Elevation Offset (deg) STBD is -30**	-30.00
Skew Offset (deg)	0.00	**Skew Offset (deg)**	0.00
Pitch Offset (deg)	0.00	**Pitch Offset (deg)**	0.00
Water Depth for SOS calculaton (m)	0.50m	**Water Depth for SOS calculaton (m)**	0.50
Is there a heave offset value entered in the attitude sensor tab?	NO VALUE ENTERED		



(Stern View)



(Starboard Side View)