

Activity ID: 09oct04				USGS CMG FACS Operation Log						
Equipment Code	ID	Start Day	Start Hour	Start Min	Start Comment	End Day	End Hour	End Min	End Comment	Depth (meters)
ch	09i01	179	17	25	1-10KHz 5ms/4Hz/75m swath TSE/SGY/30m Float, ASC II)	179	18	30	512-1m down	
sw	09h01	179	17	25	30m swath	"	18	20		
hy	001-1720	"	17	20		"	18	30		
knw	09oct04-1	179	17	30		"	18	20		
ch	09i02	"	17	32		"	19	35		
sw	09h02	"	17	32		"	19	35		
hy	001-1732	"	17	32		"	19	35		
ch	09i03	"	19	39		"	20	52		
sw	09h03	"	19	39		"	20	52		
hy	005-1739	"	19	39		"	20	32		
ch	09i04	"	20	52		"	22	02		
sw	09h04	"	20	52		"	21	54	Swath died	
hy	007-2052	"	20	52		"	22	02		
sw	09h05	"	22	02		"	22	02		
ch	09i05	"	22	02		"	22	08		
sw	09h05	"	22	02		"	22	08		
hy	001B2202	"	22	02		"	22	08		
knw	09oct04-2	"	22	02		"	22	08		
ch	09i06	"	22	08		"	22	16		
sw	09h06	"	22	08		"	22	16		
hy	001-2211	"	22	"		"	21	16		
knw	09i07	180	16	18	1-10KHz, 5ms/4Hz/75m acc SGY/ASC II)	"	16	24	512-1m down/TSE, SGY/30m Float, ASC II)	
sw	09h07	"	16	18	30m swath	"	16	24		
hy	001-1618	"	16	18	-acc, knw depth	"				
knw	09oct04-180-1	"	16	18	keb + segy format	"			File name: 09oct04_180-1 master seg	
ch	09i08	"	16	24		"	16	38		
sw	09h08	"	16	24		"	16	38		
ch	09i09	"	16	38		"	16	48		
sw	09h09	"	16	38		"	16	48		
ch	09i10	"	16	48		"	16	59		

USGS CMG FACILITATION LOG
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EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
sw	09h10	12	0	16	45	17	0	16	59	
ch	09i11	"		16	59	"		17	11	
sw	09h11	"		16	59	"		17	11	
ch	09i12	"		17	12	"		17	26	
sw	09h12	"		17	12	"		17	26	
ch	09i13	"		17	24	"		17	30	
sw	09h13	"		17	24	"		17	30	
ch	09i14	"		17	30	"		17	45	
sw	09h14	"		17	30	"		17	45	
ch	09i15	"		17	49	"		18	09	
sw	09h15	"		17	49	"		18	09	
ch	09i16	"		18	09	"		18	24	
sw	09h16	"		18	09	"		18	24	
ch	09i17	"		18	18	"		19	45	
sw	09h17	"		18	18	"		19	45	
ch	09i18	"		~18	45	"		18	54	
sw	09h18	"		~18	45	"		18	54	
ch	09i19	"		19	54	"		19	06	
sw	09h19	"		19	54	"		19	06	
ch	09i20	"		19	06	"		19	24	
sw	09h20	"		19	06	"		19	24	
ch	09i21	"		19	24	"		19	40	

USGS CMG FACILITY OPERATION LOG
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EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
sw	09h21	180	19	24		180	19	40		
ch	09i22	180	19	40		"	19	49		
sw	09h22	"	19	40		"	19	57		
ch	09i23	"	19	57		"	20	15		
sw	09h23	"	19	57		"	20	15		
hy	001_2001	"	20	01		"	20	23		
ch	09i24	"	20	57		"	20	57		
sw	09h24	"	20	17		"	20	52		
hy	007A2023	"	20	23		"	21	00		
ch	09i25	"	20	57		"	22	07		
sw	09i25	"	20	52		"	22	07		
hy	007_2100	"	21	00		"	22	07		
ch	09i26	181	14	36	.7-12 KHz, 20ms / 4Hz, 75m 500 pps	181	14	43		
sw	09h26	"	14	36	30m swath	"	14	43		
hy	005_1436	"	14	36		"	14	43		
lenu	09h26	"	14	36		"	14	43		
ch	09i26a	"	14	43	1-10 KHz, 30ms / 4Hz 75m	"	14	44		
ch	09i26b	"	14	44	.7-12 KHz, 20ms / 4Hz 75m	"	15	28		
ch	09i27	"	15	28		"	15	58		
sw	09h27	"	15	28		"	15	58		
hy	005-1528	"	15	28		"	15	58		
ch	09i28	"	15	58		"	16	30		

USGS CMG FACILITY OPERATION LOG
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EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
sw	09h29	18	15	30		18	16	30		
hy	003-1589	"	15	58		"	16	30		
sw	09i29	"	16	30		"	18	04		
ch	09h29	"	16	30		"	18	04		
hy	003-1630	"	16	30			18	04		
ch	09i30	"	18	04			18	52		
sw	09h30	"	18	04			18	52		
hy	005-004	"	18	04			18	52		
ch	09i31	"	18	52			19	32		
sw	09h31	"	18	52			19	32		
hy	002-1352	"	18	52			19	32		
ch	09i32	"	19	32			20	20		
sw	09h32	"	19	32	changed range to 50m		20	20		
hy	008-1933	"	19	32			20	20		
ch	09i33		20	22			21	00		
sw	09h33		20	22	along shipping channel		21	00		
hy	09i34		21	42			22	04		
sw	09h34		21	42	50m swath		22	04		
hy	002-2142		21	42			22	04		
sw	09i35		22	04			22	10		
sw	09h35		22	04			22	10		
hy	002-2204		22	04			22	10		

USGS CMG FACILITATION LOG
ACTIVITY 15.

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
ch	09i34	181	22	19		181	22	26		
sw	09h34	"	22	19		"	22	26		
hy	00L2219	"	22	19		"	22	26		
ch	09i37	"	22	26		"	22	47		
sw	09h37	"	22	26		"	22	47		
hy	00L2226	"	22	26		"	22	47		
ch	09i38	182	14	28	.7-12 kHz, 20ms/4Hz 75m 50b pwr	182	15	10		
sw	09h38	"	14	28	50m swath pwr=1, pulse=217.9ms	"	15	10		
hy	00L1428	"	14	28		"	15	10		
KNW	09oct09182	"	14	28		"	15	10		
ch	09i39	"	15	10			15	43		
sw	09h39	"	15	10			15	43		
hy	00L1510	"	15	10			15	43		
ch	09i40	"	15	43		"	16	14		
sw	09h40	"	15	43		"	16	14		
hy	00L1543	"	15	43		"	16	16		
ch	09i41	"	16	14		"	16	40		
sw	09h41	"	16	14		"	16	40		
hy	00L1621	"	16	21		"	17	46		
ch	09i41a		16	45			17	46		
sw	09h41a		16	45			17	46		
ch	09i42		17	46			18	44		

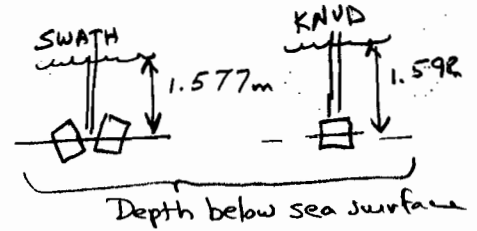
USGS CMG FACILITATION LOG
ACTIVITY

EQUIPMENT CODE	ID	START DAY	START HOUR	START MINUTE	START COMMENT	END DAY	END HOUR	END MINUTE	END COMMENT	DEPTH (METERS)
sw	09h42	182	17	46		182	18	44		
hy	00L1746	"	17	46		"	18	44		
ch	09h43	"	18	44		"	19	57		
sw	09h43	"	18	44		"	19	57		
hy	001B1844	"	18	44		"	19	57		
ch	09h44	"	19	57		"	~20	31		
sw	09h44	"	19	57		"	~20	31		
hy	001B2001	"	20	01		"	20	30		
ch	09i45	"	20	01		"	20	31		
sch	09i46	"	20	32		"	21	02		
sw	09h46	"	20	32		"	21	02		
hy	0012030	"	20	30		"	21	02		
ch	09i47	"	21	02		"	22	30		
sw	09h47	"	21	02		"	22	30		
hy	009-2107	"	21	07		"	22	30		
ch	09i48	183	14	44	-7-12 KHz, 20ms/75m, 4H SSF	183	14	46		
sw	09h48	"	14	44	50m SW	"	15	02		
KM	09cc+04-183	"	14	44		"				
hy	001-1447	"	14	47		"	15	02		
ch	09i48a		14	46	SSF		14	47		
ch	09i48b		14	48	SSF/SG1		15	02		
ch	09i49		15	03		~	15	15		

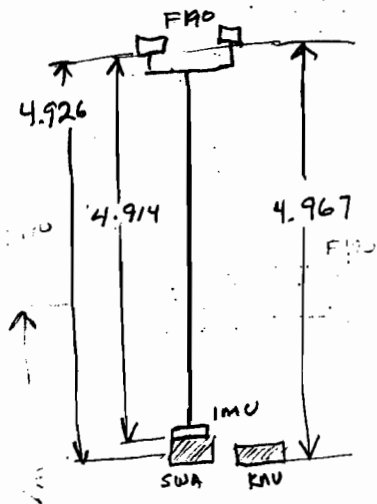
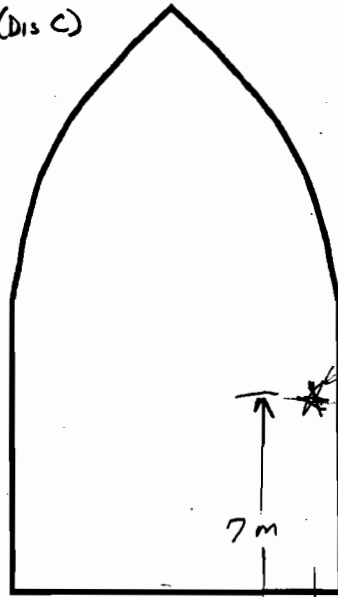
FILL OUT THE DIAGRAM TO SHOW ACQUISITION GEOMETRY. INCLUDE GPS-TO-SHOT DISTANCE, SLED-TO-SHOT DISTANCE, AND STREAMER-TO-SHOT DISTANCE.

F190 Offsets

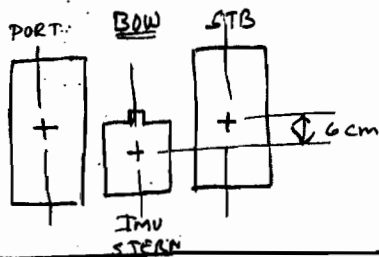
Ant Sep = 1m
 Pri fore of IMU = .5m (Dis A)
 Pri port of IMU = .01m (Dis B)
 Pri above of IMU = 4.914 (Dis C)



- GPS antenna
- boomer
- streamer
- chirp
- sidescan
- shot



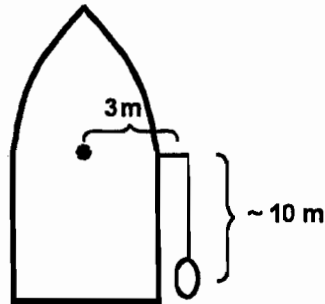
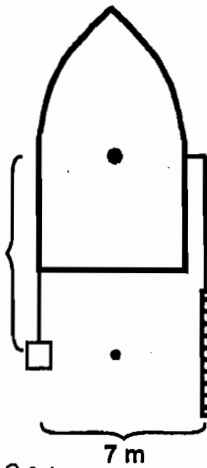
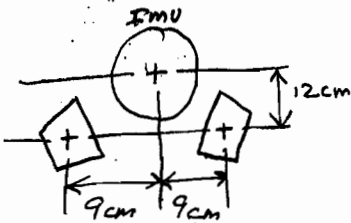
Height {
 F190 to KNU = 4.967
 F190 to SW = 4.926
 F190 to IMU = 4.914



chirp 1.5m below surface

BOOMER EXAMPLE

CHIRP EXAMPLE



IMU to Swath Dura 20 m
 X = 9cm
 Y = 6cm
 Z = 12cm

F190 Ant → IMU = 4.914m
 F190 Ant → Swath Dura = 4.926m