

SANDYDUCK 97 Instrument Locations

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS
		Easting X (cross)	Northing Y (along)	NGVD (m)	north dd,mm,ss.	west dd,mm,ss.	1997	
Tom Lippman	Video Tower	141.00	52.57	7.72	36,10,44.247	75,44,58.640	09-Apr	located south of pier
SIO Elgar,Guza, Herbers,O'Reilly	SPUVT 36							
	S pipe	309.96	828.57	-0.68	36,11,08.046	75,44,57.419	02-Jul	elev on pipes at top of frame
	N pipe	310.13	830.67	-0.68	36,11,08.113	75,44,57.439	02-Jul	"
	SPUVT35							
	S pipe	285.58	827.53	-1.03	36,11,07.768	75,44,58.334	02-Jul	elev on pipes at top of frame
	N pipe	285.54	829.56	-1.06	36,11,07.830	75,44,58.360	02-Jul	"
	SPUVT54							
	S pipe	259.89	815.78	-1.26	36,11,07.146	75,44,59.164	03-Jul	elev on pipes at top of frame
	N pipe	259.92	817.90	-1.22	36,11,07.212	75,44,59.190	03-Jul	"
	SPUVT84							
	S pipe	309.89	854.68	-0.67	36,11,08.851	75,44,57.747	03-Jul	elev on pipes at top of frame
	N pipe	309.68	856.85	-0.81	36,11,08.915	75,44,57.782	03-Jul	"
	SPUVT52							
	S pipe	261.20	827.91	-1.05	36,11,07.533	75,44,59.266	07-Jul	elev on pipes at top of frame
	N pipe	261.28	829.85	-1.04	36,11,07.594	75,44,59.287	07-Jul	"
	P53	260.69	823.67	-3.30	36,11,07.397	75,44,59.232	04-Jul	Pressure Gauge
	P55	265.06	827.60	-3.34	36,11,07.563	75,44,59.115	04-Jul	Pressure Gauge
	Q35	250.39	828.14	-3.29	36,11,07.431	75,44,59.680	07-Jul	Paros gauge
	SPUVT34							
	S pipe	240.73	827.50	-0.93	36,11,07.314	75,45,00.039	07-Jul	elev on pipes at top of frame
N pipe	240.70	829.50	-0.91	36,11,07.375	75,45,00.065	07-Jul	"	
Q34	225.65	827.57	-3.19			07-Jul	Paros gauge	
SPUVT46								
S pipe	222.04	827.51	-0.48	36,11,07.125	75,45,00.750	08-Jul	elev on pipes at top of frame	
N pipe	221.88	829.44	-0.47	36,11,07.183	75,45,00.780	08-Jul	"	

SANDYDUCK 97 Instrument Locations

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS	
		Easting	Northing	NGVD	north	west	1997		
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.			
SIO(continued) Elgar,Guza, Herbers,O'Reilly	SPUVT83	S pipe	260.52	854.39	-0.91	36,11,08.343	75,44,59.621	08-Jul	elev on pipes at top of frame
		N pipe	260.38	856.49	-0.91	36,11,08.401	75,44,59.651	08-Jul	"
	SPUVT82	S pipe	210.27	854.48	-0.13	36,11,07.838	75,45,01.534	08-Jul	elev on pipes at top of frame
		N pipe	210.14	856.32	-0.08	36,11,07.893	75,45,01.562	08-Jul	"
	SPUVT42	S pipe	209.89	827.00	-0.05	36,11,06.987	75,45,01.206	08-Jul	elev on pipes at top of frame
		N pipe	209.89	829.05	-0.07	36,11,07.050	75,45,01.231	08-Jul	"
	P56		272.80	826.60	-3.44	36,11,07.610	75,44,58.808	08-Jul	pressure gauge
	SPUVT44	S pipe	210.43	814.61	-0.18	36,11,06.610	75,45,01.031	09-Jul	elev on pipes at top of frame
		N pipe	210.40	816.70	-0.14	36,11,06.674	75,45,01.058	09-Jul	"
	Q33		197.79	828.00	-2.00	36,11,06.896	75,45,01.678	09-Jul	Paros gauge
	P45		213.66	827.30	-2.56	36,11,07.034	75,45,01.066	09-Jul	pressure gauge
	SPUVT33	S pipe	184.85	827.87	0.68	36,11,06.761	75,45,02.169	09-Jul	elev on pipes at top of frame
		N pipe	184.75	829.85	0.69	36,11,06.821	75,45,02.197	09-Jul	"
	Q32		171.91	827.31	-1.49	36,11,06.613	75,45,02.654	09-Jul	Paros gauge
	SPUVT31	S pipe	159.84	827.95	1.27	36,11,06.511	75,45,03.121	10-Jul	elev on pipes at top of frame
		N pipe	159.78	829.98	1.28	36,11,06.573	75,45,03.149	10-Jul	"
	Q31		153.77	828.14	-0.85	36,11,06.455	75,45,03.354	10-Jul	Paros gauge
	SPUVT72	S pipe	500.24	827.76	-2.33	36,11,09.944	75,44,50.172	10-Jul	elev on pipes at top of frame
		N pipe	500.11	829.81	-2.32	36,11,10.005	75,44,50.203	10-Jul	"
	Q39		441.70	828.16	-4.03	36,11,09.364	75,44,52.404	10-Jul	Paros gauge
	SPUVT62	S pipe	384.80	827.03	-1.01	36,11,08.755	75,44,54.554	11-Jul	elev on pipes at top of frame
		N pipe	384.73	828.99	-0.99	36,11,08.815	75,44,54.581	11-Jul	"

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		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
SIO(continued) Elgar,Guza, Herbers,O'Reilly	Q38	346.09	830.09	-3.02	36,11,08.458	75,44,56.064	18-Aug	(Replacement) Paros gauge
	Q37	297.58	826.63	-3.33	36,11,07.861	75,44,57.866	11-Jul	Paros gauge
	SPUVT94							
	S pipe	310.00	905.28	-0.72	36,11,10.412	75,44,58.374	11-Jul	elev on pipes at top of frame
	N pipe	309.95	907.17	-0.74	36,11,10.470	75,44,58.399	11-Jul	"
	SPUVT25							
	S pipe	385.00	777.34	-1.16	36,11,07.225	75,44,53.927	12-Jul	elev on pipes at top of frame
	N pipe	385.09	779.37	-1.12	36,11,07.288	75,44,53.948	12-Jul	"
	SPUVT24							
	S pipe	310.10	777.44	-0.81	36,11,06.471	75,44,56.777	12-Jul	elev on pipes at top of frame
	N pipe	310.09	779.42	-0.80	36,11,06.532	75,44,56.802	12-Jul	"
	SPUVT15							
	S pipe	384.96	702.75	-1.17	36,11,04.925	75,44,52.999	12-Jul	elev on pipes at top of frame
	N pipe	384.94	704.46	-1.14	36,11,04.977	75,44,53.021	12-Jul	"
	SPUVT14							
	S pipe	310.01	702.81	-0.84	36,11,04.169	75,44,55.850	14-Jul	elev on pipes at top of frame
	N pipe	309.92	704.85	-0.87	36,11,04.231	75,44,55.879	14-Jul	"
	SPUVT30							
	S pipe	144.76	827.60	1.76	36,11,06.347	75,45,03.690	14-Jul	elev on pipes at top of frame
	N pipe	144.80	829.67	1.77	36,11,06.412	75,45,03.715	14-Jul	"
	PUVT63							
	S pipe	384.85	814.00	-1.10	36,11,08.354	75,44,54.389	14-Jul	elev on pipes at top of frame
	N pipe	385.23	815.74	-1.11	36,11,08.411	75,44,54.397	14-Jul	"
PUVT37								
S pipe	310.25	815.79	-0.83	36,11,07.655	75,44,57.249	15-Jul	elev on pipes at top of frame	
N pipe	310.27	817.52	-0.86	36,11,07.709	75,44,57.270	15-Jul	"	
SPUVT23								
S pipe	259.74	777.53	-0.88	36,11,05.965	75,44,58.693	15-Jul	elev on pipes at top of frame	
N pipe	259.81	779.51	-0.88	36,11,06.027	75,44,58.715	15-Jul	"	
P51								
		261.76	832.50	-3.43	36,11,07.680	75,44,59.301	08-Jul	

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		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
SIO(continued) Elgar,Guza, Herbers,O'Reilly	SPUVT22							
	S pipe	209.59	777.52	-0.09	36,11,05.458	75,45,00.601	15-Jul	elev on pipes at top of frame
	N pipe	209.46	779.53	-0.11	36,11,05.519	75,45,00.631	15-Jul	"
	PUVT32							
	S pipe	159.94	815.75	1.33	36,11,06.135	75,45,02.965	15-Jul	elev on pipes at top of frame
	N pipe	160.00	817.47	1.26	36,11,06.189	75,45,02.985	15-Jul	"
	SPUVT13							
	S pipe	260.15	702.81	-1.11	36,11,03.666	75,44,57.746	16-Jul	elev on pipes at top of frame
	N pipe	260.08	704.87	-1.12	36,11,03.728	75,44,57.775	16-Jul	"
	SPUVT21							
	S pipe	159.79	777.63	1.15	36,11,04.959	75,45,02.496	16-Jul	elev on pipes at top of frame
	N pipe	159.82	779.56	1.14	36,11,05.018	75,45,02.519	16-Jul	"
	Q30							
	SPUVT81							
	S pipe	159.98	854.42	1.50	36,11,07.328	75,45,03.446	16-Jul	elev on pipes at top of frame
	N pipe	160.04	856.42	1.50	36,11,07.390	75,45,03.468	16-Jul	"
	SPUVT93							
	S pipe	260.23	905.08	-0.93	36,11,09.903	75,45,00.264	16-Jul	elev on pipes at top of frame
	N pipe	260.24	907.10	-1.05	36,11,09.965	75,45,00.289	16-Jul	"
	SPUVT92							
	S pipe	210.04	905.02	-0.11	36,11,09.394	75,45,02.172	17-Jul	elev on pipes at top of frame
N pipe	209.92	907.06	-0.16	36,11,09.456	75,45,02.202	17-Jul	"	
SPUVT12								
S pipe	209.92	702.84	-0.32	36,11,03.159	75,44,59.657	17-Jul	elev on pipes at top of frame	
N pipe	209.89	704.83	-0.34	36,11,03.220	75,44,59.683	17-Jul	"	
SPUVT11								
S pipe	160.06	702.70	1.55	36,11,02.651	75,45,01.552	17-Jul	elev on pipes at top of frame	
N pipe	159.98	704.71	1.58	36,11,02.712	75,45,01.580	17-Jul	"	
P41								
P43								

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		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
SIO(continued) Elgar,Guza, Herbers,O'Reilly	SPUVT91							
	S pipe	159.60	905.13	1.42	36,11,08.888	75,45,04.092	17-Jul	elev on pipes at top of frame
	N pipe	159.57	907.07	1.41	36,11,08.947	75,45,04.117	17-Jul	"
	SPUVT85							
	S pipe	384.79	854.60	-1.04	36,11,09.605	75,44,54.898	17-Jul	elev on pipes at top of frame
	N pipe	384.94	856.56	-1.02	36,11,09.667	75,44,54.916	17-Jul	"
	Q29	118.06	827.24	0.12	36,11,06.067	75,45,04.701	18-Jul	rejetted 18-Jul , Paros gauge
	SPUVT95							
	S pipe	384.77	905.14	-1.08	36,11,11.163	75,44,55.529	18-Jul	elev on pipes at top of frame
	N pipe	384.77	907.06	-1.10	36,11,11.222	75,44,55.552	18-Jul	"
	P96	499.05	904.77	-4.75	36,11,12.306	75,44,51.177		
	SR-96	498.99	905.01	-4.68	36,11,12.313	75,44,51.182	18-Jul	strain relief pipe for Q96
	P86	498.79	854.46	-4.80	36,11,10.752	75,44,50.560		
	SR-86	498.85	854.32	-4.68	36,11,10.748	75,44,50.556	18-Jul	strain relief pipe for Q86
	P26	498.61	777.76	-4.75	36,11,08.385	75,44,49.611		
	SR-26	498.43	777.94	-4.68	36,11,08.389	75,44,49.620	18-Jul	strain relief pipe for Q26
	P16	499.41	702.13	-4.80	36,11,06.062	75,44,48.638		
	SR-16	499.34	702.39	-4.59	36,11,06.069	75,44,48.644	18-Jul	strain relief pipe for Q16
	P61	384.04	833.19	-3.22	36,11,08.937	75,44,54.659		
	P66	402.70	829.92	-3.54	36,11,09.025	75,44,53.909		
	P65	390.95	827.95	-3.34	36,11,08.845	75,44,54.331		
	P64	378.71	825.91	-3.12	36,11,08.659	75,44,54.771		
	P71	498.56	833.52	-4.90	36,11,10.104	75,44,50.308		
	P74	494.11	826.21	-4.86	36,11,09.834	75,44,50.386		
	P75	506.04	828.98	-4.95	36,11,10.040	75,44,49.967		
	P76	517.50	831.45	-5.04	36,11,10.232	75,44,49.562		
	Q36	273.71	826.70	-3.38	36,11,07.622	75,44,58.775		
	P73	500.82	815.61	-4.86	36,11,09.575	75,44,49.999		
P3b	109.51	827.53	0.97	36,11,05.992	75,45,05.019	22-Jul		
P3a	80.07	827.70	2.47	36,11,05.692	75,45,06.153	05-Aug	2nd installation	

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		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
DAL Hay,Bowen Zedel,Doering	FRAME A							
	pipe (N off)	185.16	995.70	-0.63	36,11,11.938	75,45,04.249	04-Aug	N off coordinates shot on 6-Aug
	pipe (S off)	184.78	994.34	-0.54	36,11,11.893	75,45,04.246	04-Aug	
	pipe (N on)	184.47	996.14	-0.54	36,11,11.945	75,45,04.281	04-Aug	
	pipe (S on)	183.21	995.47	-0.55	36,11,11.912	75,45,04.320	04-Aug	
	pipe (SR)	183.46	993.56	-1.83	36,11,11.855	75,45,04.287	04-Aug	strain relief
	Instr. mast N							
	Instr. mast S							
	FRAME D							
	pipe (N off)	310.11	995.11	-0.93	36,11,13.182	75,44,59.489	05-Aug	
	pipe (S off)	309.81	993.86	-0.93	36,11,13.141	75,44,59.485	05-Aug	
	pipe (N on)	309.32	995.71	-0.94	36,11,13.193	75,44,59.527	05-Aug	
	pipe (S on)	308.16	994.60	-0.93	36,11,13.147	75,44,59.557	05-Aug	
	pipe (SR)	308.33	992.32	-2.52	36,11,13.079	75,44,59.522	05-Aug	strain relief
	Instr. mast N	310.61	997.01	-1.97	36,11,13.246	75,44,59.493	11-Aug	surveyed 13-Aug
	Instr. mast S	308.83	994.09	-1.99	36,11,13.138	75,44,59.525	11-Aug	surveyed 13-Aug
	FRAME C							
	pipe (N off)	269.66	994.45	-1.10	36,11,12.754	75,45,01.019	05-Aug	
	pipe (S off)	269.31	993.17	-1.10	36,11,12.710	75,45,01.017	05-Aug	
	pipe (N on)	268.86	994.92	-1.10	36,11,12.760	75,45,01.055	05-Aug	
	pipe (S on)	267.79	994.01	-1.14	36,11,12.721	75,45,01.085	05-Aug	
	pipe (SR)	267.61	991.99	-2.07	36,11,12.657	75,45,01.067	05-Aug	strain relief
	Instr. mast N	270.15	995.79	-2.07	36,11,12.716	75,45,01.048	09-Aug	surveyed 13-Aug
Instr. mast S	268.62	993.57	-2.09	36,11,12.800	75,45,01.017	09-Aug	surveyed 13-Aug	

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		Easting X (cross)	Northing Y (along)	NGVD (m)	north dd,mm,ss.	west dd,mm,ss.		
DAL (continued)	FRAME B							
	pipe (N off)	234.77	994.56	-1.10	36,11,12.404	75,45,02.348	06-Aug	
	pipe (S off)	234.45	992.91	-1.13	36,11,12.350	75,45,02.339	06-Aug	
	pipe (N on)	233.96	995.10	-1.13	36,11,12.413	75,45,02.385	06-Aug	
	pipe (S on)	232.88	993.89	-1.14	36,11,12.364	75,45,02.411	06-Aug	
	pipe (SR)	233.36	992.07	-2.40	36,11,12.313	75,45,02.370	06-Aug	to rough on 6th,surveyed13th
	Instr. mast N							
	Instr. mast S							
	Cable pipes							
	A	182.70	987.10	-1.02	36,11,11.648	75,45,04.235	06-Aug	
	B	232.70	986.92	-1.97	36,11,12.148	75,45,02.331	06-Aug	
	C	267.17	986.65	-2.12	36,11,12.488	75,45,01.017	06-Aug	
	D	306.86	986.85	-2.06	36,11,12.895	75,44,59.510	06-Aug	
	E	167.83	948.86	-1.15	36,11,10.319	75,45,04.324	07-Sep	
F								
SIO Lippmann	GCP #655	149.94	655.44	3.00	36,11,01.092	75,45,01.348	11-Aug	to center of target
	GCP #725	204.73	725.05	2.77	36,11,03.791	75,45,00.132	12-Aug	to center of target,elev. adjusted
	GCP #755	205.11	754.67	2.41	36,11,04.709	75,45,00.486	12-Aug	to center of target
	GCP #670	150.10	670.13	3.32	36,11,01.546	75,45,01.525	12-Aug	to center of target
	GCP#950a	189.27	949.79	3.36	36,11,10.564	75,45,03.520	12-Aug	to center of target
	GCP#995a	127.68	993.01	2.03	36,11,11.275	75,45,06.401	17-Aug	to center of target
	GCP#995b	138.14	992.67	1.92	36,11,11.370	75,45,05.999	17-Aug	to center of target
Univ of Florida Hanes	Instrument frame							
	SW pipe	383.23	998.09	-1.77	36,11,14.013	75,44,56.745	13-Aug	top of pipe
	SE pipe	386.65	998.34	-1.80	36,11,14.055	75,44,56.618	13-Aug	top of pipe
	NW pipe	383.00	1001.74	-1.81	36,11,14.123	75,44,56.799	13-Aug	top of pipe
	NE pipe	386.97	1001.82	-1.82	36,11,14.166	75,44,56.649	13-Aug	top of pipe
	Frame	385.57	999.50	-2.39	36,11,14.080	75,44,56.674	09-Sep	shot on 11Sep

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		Easting X (cross)	Northing Y (along)	NGVD (m)	north dd,mm,ss.	west dd,mm,ss.		
USGS	Insrtrument Cluster							
Haines,Wilson	pipe (S offshore #1)	344.32	994.21	-2.28	36,11,13.500	75,44,58.177	18-Aug	
Gelfenbaum	pipe (S offshore #2)	345.41	993.67	-3.21	36,11,13.495	75,44,58.128	18-Aug	
	pipe (N #1)	340.25	999.03	-2.45	36,11,13.608	75,44,58.392	18-Aug	
	pipe (N#2)	339.46	1000.42	-3.17	36,11,13.643	75,44,58.439	18-Aug	
	pipe (S onshore #1)	338.45	992.83	-2.33	36,11,13.398	75,44,58.383	18-Aug	
	pipe (S onshore #2)						22-Aug	
	Instrument Pipe	340.67	994.97	-3.36	36,11,13.487	75,44,58.325	18-Aug	
NRL Stennis	VF#3	193.71	611.21	-1.61	36,11,00.170	75,44,59.132	15-Sep	replaced buried pipe at 180
Su,Teague	original VF#3	180.84	612.60	1.96	36,11,00.072	75,44,59.634	29-Aug	elev @ top of pipe
	VF#2	239.52	612.24	1.27	36,11,00.665	75,44,59.634	29-Aug	elev @ top of pipe
	VF#1	300.18	611.95	0.69	36,11,01.269	75,44,55.092	29-Aug	elev @ top of pipe
	Frame	287.55	604.71	na	36,11,00.918	75,44,55.482	30-Aug	GPS position off CRAB
DAL (continued)	FRAME E							
	pipe (N off)	172.61	954.78	0.28	36,11,10.509	75,45,04.228	03-Sep	
	pipe (S off)	171.93	953.66	0.35	36,11,10.550	75,45,04.216	03-Sep	
	pipe (N on)	171.95	955.55	0.34	36,11,10.567	75,45,04.251	03-Sep	
	pipe (S on)	170.69	955.00	0.38	36,11,10.537	75,45,04.292	03-Sep	
	pipe (SR)	170.09	953.35	-0.31	36,11,10.480	75,45,04.294	03-Sep	Instr masts never surveyed
	FRAME F							
	pipe (N off)	184.47	883.93	-0.38	36,11,08.485	75,45,02.882	03-Sep	
	pipe (S off)	183.62	884.55	-0.39	36,11,08.496	75,45,02.922	03-Sep	
	pipe (N on)	182.54	883.38	-0.39	36,11,08.449	75,45,02.948	03-Sep	
	pipe (S on)	184.17	882.52	-0.39	36,11,08.439	75,45,02.876	03-Sep	
	pipe (SR)	182.29	881.51	-0.73	36,11,08.388	75,45,02.935	07-Sep	Instr masts never surveyed

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS
		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
VIMS	Pod	1281.58	1107.45	-10.00	36,11.441	75,44.399	?	from Dan Hepworth pod a little N
	Pod	1290.22	1042.34	-11.00	36,11,24.540	75,44,22.800	13-Oct	redployed 10m pod
	Pod	2834.03	1040.53	-16.00	36,11,40.080	75,43,24.060	14-Oct	from Carl Friedrichs
NRL DC Heitmeyer	SurfZone pipe#1	167.15	730.00	na	36,11,03.564	75,45,01.623	08-Sep	shot from CRAB wench cable
	SurfZone pipe#2	218.82	729.79	na	36,11,04.080	75,44,59.655	08-Sep	shot from CRAB wench cable
	SurfZone pipe#3	274.33	730.21	na	36,11,04.654	75,44,57.549	08-Sep	shot from CRAB wench cable
	SurfZone pipe#4	309.72	729.77	na	36,11,04.998	75,44,56.197	08-Sep	shot from CRAB wench cable
	SurfZone pipe#5	435.65	729.72	na	36,11,06.268	75,44,51.407	08-Sep	shot from CRAB wench cable
	Source pipe #1	593.70	729.84	na	36,11,07.869	75,44,45.397	08-Sep	shot from CRAB wench cable
	Source pipe #2	595.53	729.99	na	36,11,07.892	75,44,45.329	08-Sep	shot from CRAB wench cable
NRL STENNIS Newcomb	Anchor #1	597.42	729.80	na	36,11,07.905	75,44,45.255	08-Sep	shot from CRAB wench cable
	Anchor #2	650.74	729.83	na	36,11,08.445	75,44,43.227	08-Sep	shot from CRAB wench cable
NPS Thornton	Manometer array #1	224.69	874.89	na	36,11,08.613	75,45,01.240	04-Sep	Crab @ drop/CRAB towing bridle 8.5m
	Manometer array #2	449.54	914.90	na	36,11,12.118	75,44,53.186	08-Sep	Crab @ drop/CRAB towing bridle 8.5m
	Manometer array #3	232.36	835.40	na	36,11,07.473	75,45,00.456	08-Sep	Crab @ drop/CRAB towing bridle 8.5m
	Manometer array #4	233.67	757.13	na	36,11,05.073	75,44,59.431	09-Sep	Crab @ drop/CRAB towing bridle 8.5m
	Manometer array #5	231.00	788.00	na	36,11,05.998	75,44,59.917	11-Sep	no shot, Crab moved off before shot
	Beach stake #1	77.20	915.11	5.01	36,11,08.363	75,45,07.351	09-Sep	
	Beach stake #2	79.96	913.02	3.97	36,11,08.326	75,45,07.220	09-Sep	
	Beach stake #3	84.96	912.82	3.87	36,11,08.371	75,45,07.027	09-Sep	
	Manometer Box (ref board)	77.50	910.29	4.87	36,11,08.217	75,45,07.279	?	

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS
		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
SIO Smith	Lander #1 pos pipe	590.33	779.99	-5.98	36,11,09.810	75,44,46.150	20-Aug	position pipe for chopper
	Lander #2 pos pipe	590.27	1114.20	-6.12	36,11,19.684	75,44,50.317	20-Aug	position pipe for chopper
	Lander #1	588.34	794.40	na	36,11,09.805	75,44,46.406	03-Sep	Shot on Zodiac
	Lander #2	589.39	1110.40	na	36,11,19.558	75,44,50.304	03-Sep	Shot on Zodiac
OSU Beach	Instr pipe A	135.27	955.15	-0.49	36,11,10.184	75,45,05.641	14-Sep	
	Instr pipe B	160.17	954.62	1.27	36,11,10.419	75,45,04.687	14-Sep	
	Instr pipe C	184.20	955.09	-0.86	36,11,10.677	75,45,03.779	14-Sep	
	Instr pipe D	210.06	954.58	-2.08	36,11,10.922	75,45,02.789	14-Sep	
	Instr pipe E	233.94	954.73	-2.68	36,11,11.168	75,45,01.883	15-Sep	
	Instr pipe J	209.68	885.03	-2.51	36,11,08.784	75,45,01.951	01-Oct	
	Instr pipe G	209.67	1014.65	-2.14	36,11,12.772	75,45,03.556	16-Sep	
	Instr pipe H	210.31	994.69	-2.44	36,11,12.173	75,45,03.294	01-Oct	
	Instr pipe I	209.33	965.54	-1.96	36,11,11.253	75,45,02.954	14-Sep	
	Strain Relief pipes							
	S885_86	86.11	884.95	1.18	36,11,07.523	75,45,06.636	11-Sep	screw anchor
	S885_100	99.34	884.93	0.06	36,11,07.656	75,45,06.132	11-Sep	screw anchor
	S885_132	131.35	884.74	-0.44	36,11,07.974	75,45,04.913	11-Sep	removed 9-Sep
	S885_165	164.00	885.23	-0.59	36,11,08.319	75,45,03.677	11-Sep	removed 9-Sep
	S885_198	198.41	885.03	-2.17	36,11,08.660	75,45,02.366	11-Sep	removed 9-Sep
	S949_87	87.09	948.94	1.60	36,11,09.506	75,45,07.396	11-Sep	screw anchor
	S949_100	99.51	948.97	0.54	36,11,09.632	75,45,06.924	11-Sep	screw anchor
	S949_133	133.15	948.69	-0.24	36,11,09.964	75,45,05.641	11-Sep	
	S949_165	na	na	na	na	na		use Hay cable pipe E instead
	S949_220	220.53	948.82	na	36,11,10.85	75,45,02.319	11-Sep	
	S949_250	250.49	949.25	na	36,11,11.166	75,45,01.185	11-Sep	
	S1007_100	99.11	1007.48	0.20	36,11,11.432	75,45,07.668	11-Sep	screw anchor
	S1007_132	132.67	1007.02	0.25	36,11,11.757	75,45,06.386	11-Sep	

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed 1997	COMMENTS
		Easting	Northing	NGVD	north	west		
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
OSU Beach (continued)	S1007_165	165.74	1007.45	na	36,11,12.104	75,45,05.134	11-Sep	
	S1007_198	198.14	1007.50	na	36,11,12.433	75,45,03.902	11-Sep	
	S880_201	201.01	879.62	na	36,11,08.521	75,45,02.200	19-Sep	
	S880_180	180.63	877.74	na	36,11,08.255	75,45,02.966	19-Sep	
	S880_165	164.35	878.51	na	36,11,08.115	75,45,03.580	19-Sep	
	S880_130	129.85	880.09	na	36,11,07.815	75,45,04.912	19-Sep	
UDEL Svendson	Gauge pipe #3	310.15	1106.88	-2.16	36,11,00.113	75,44,20.649	18-Sep	rod in pipe
	Buoy pipe #3	302.44	1106.96		36,11,06.961	75,45,01.175	18-Sep	CRAB @ instalation
	Gauge pipe #2N	234.54	1112.09	-2.55	36,11,16.026	75,45,03.821	18-Sep	rod in pipe
	Buoy pipe #2	231.05	1106.89	0.14	36,11,15.830	75,45,03.889	18-Sep	rod in pipe
	Gauge pipe #2	234.94	1107.06	-2.59	36,11,15.875	75,45,03.743	18-Sep	rod in pipe
	Gauge pipe #1	184.72	1106.90	-1.19	36,11,15.362	75,45,05.651	18-Sep	rod in pipe
	Buoy pipe #1	180.19	1106.83		36,11,15.314	75,45,05.823	18-Sep	CRAB @ instalation
FSU Howd/Gelfenbaum	ADP D55N	593.00	993.00	na	36,11,15.975	75,44,48.703	18-Sep	shot on Zodiac on 18-Sep
	ADP D73	745.95	993.74	na	36,11,17.543	75,44,42.895		shot on Zodiac on 18-Sep
	ADP D48	459.29	999.97	na	36,11,14.839	75,44,53.876	18-Sep	shot on Zodiac on 20-Sep
	ADP D55S	587.17	879.90	na	36,11,12.429	75,44,47.515		computed from diver measurements
	ADP D81	920.00	937.00	na	36,11,17.552	75,44,35.568		5m east of FRF 5.5m bipod
	ADPD105	1292.35	945.00	na	36,11,21.560	75,44,21.506		shot on Zodiac on 20-Sep
SIO Elgar,Guza, Herbers,O'Reilly	Instr. nodes							
	N9	313.19	909.16	na	36,11,10.564	75,44,58.301		shot on SeeDoo on 20-Sep
	N1	312.85	708.25	na	36,11,04.366	75,44,55.810		shot on SeeDoo on 20-Sep
	N2	313.07	781.24	na	36,11,06.618	75,44,56.711		shot on SeeDoo on 20-Sep
	N8	313.17	858.99	na	36,11,09.017	75,44,57.676		shot on SeeDoo on 20-Sep
	N5	288.42	832.18	na	36,11,07.940	75,44,58.283		shot on SeeDoo on 20-Sep
	N3	186.85	832.67	na	36,11,06.929	75,45,02.153		shot on SeeDoo on 20-Sep
	N4							on SIO line
N6							on SIO line	
N7							on SIO line	

SANDYDUCK 97 Instrument Locations

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS
		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
WHOI Trowbridge	SE corner	426.07	830.38	na	36,11,09.275	75,44,53.026	?	shot from SeeDoo on 20-Sep estimated from frame dimensions estimated from frame dimensions estimated from frame dimensions
	NE corner	426.00	836.00	na	36,11,09.448	75,44,53.098		
	SW corner	414.00	836.00	na	36,11,09.326	75,44,53.555		
	NW corner	414.00	830.00	na	36,11,09.141	75,44,53.480		
NPS Thornton sled deployment	#1	283.83	935.21	na	36,11,11.070	75,44,59.742	22-Sep	CRAB position
	#2	272.36	934.88	na	36,11,10.944	75,45,00.174	23-Sep	CRAB position
	#3	310.78	935.13	na	36,11,11.340	75,44,58.716	24-Sep	CRAB position
	#4	270.45	935.31	na	36,11,10.938	75,45,00.252	25-Sep	CRAB position
	#5	275.10	935.53	na	36,11,10.992	75,45,00.078	25-Sep	CRAB position
	#6	309.97	931.70	na	36,11,11.226	75,44,58.704	27-Sep	CRAB position
	#7	289.70	934.84	na	36,11,11.118	75,44,59.514	28-Sep	CRAB position
	#8	290.44	932.26	na	36,11,11.046	75,44,59.454	29-Sep	CRAB position
	#9	289.99	935.72	na	36,11,11.148	75,44,59.514	30-Sep	CRAB position
	#10	289.76	935.99	na	36,11,11.154	75,44,59.526	01-Oct	CRAB position
	#11	142.07	932.03	na	36,11,09.540	75,45,05.094	02-Oct	CRAB position
	#12	247.47	935.44	na	36,11,10.710	75,45,01.128	02-Oct	CRAB position
	#13	163.24	935.02	na	36,11,09.846	75,45,04.326	03-Oct	CRAB position
	#14	229.94	929.12	na	36,11,10.338	75,45,01.716	03-Oct	CRAB position
	#15	168.52	935.23	na	36,11,09.906	75,45,04.128	04-Oct	CRAB position
	#16	289.50	934.71	na	36,11,11.112	75,44,59.520	04-Oct	CRAB position
	#17	269.94	935.67	na	36,11,10.944	75,45,00.276	05-Oct	CRAB position
	#18	166.89	932.65	na	36,11,09.810	75,45,04.158	06-Oct	CRAB position
	#19	290.62	934.73	na	36,11,11.124	75,44,59.478	07-Oct	CRAB position
	#20	288.08	935.18	na	36,11,11.112	75,44,59.580	08-Oct	CRAB position
	#21	288.65	934.99	na	36,11,11.112	75,44,59.556	09-Oct	CRAB position

Owner	Instrument Description	FRF Coordinates, m		Elevation	Latitude	Longitude	Date Installed	COMMENTS
		Easting	Northing	NGVD	north	west	1997	
		X (cross)	Y (along)	(m)	dd,mm,ss.	dd,mm,ss.		
NPS Thornton sled deployment	#22	289.68	928.03	na	36,11,10.908	75,44,59.430	10-Oct	CRAB position
	#23	289.44	934.13	na	36,11,11.094	75,44,59.514	11-Oct	CRAB position
	#24	289.96	935.14	na	36,11,11.130	75,44,59.508	12-Oct	CRAB position
	#25	289.87	932.45	na	36,11,11.046	75,44,59.478	13-Oct	CRAB position
	#26	290.48	935.05	na	36,11,11.130	75,44,59.496	14-Oct	CRAB position
	#27	290.48	935.75	na	36,11,11.154	75,44,59.496	14-Oct	CRAB position
	#28	184.27	936.11	na	36,11,10.092	75,45,03.540	15-Oct	CRAB position
	#29	316.94	934.67	na	36,11,11.388	75,44,58.476	15-Oct	CRAB position
	#30	198.18	935.24	na	36,11,10.206	75,45,03.000	16-Oct	CRAB position
	#31	291.39	935.65	na	36,11,11.160	75,44,59.460	16-Oct	CRAB position
	#32	209.65	934.60	na	36,11,10.302	75,45,02.556	17-Oct	CRAB position
	#33	302.11	934.66	na	36,11,11.238	75,44,59.040	17-Oct	CRAB position
	#34	212.78	933.58	na	36,11,10.302	75,45,02.424	18-Oct	CRAB position
	#35	263.15	935.17	na	36,11,10.860	75,45,00.528	18-Oct	CRAB position
	#36	174.77	934.55	na	36,11,09.948	75,45,03.882	21-Oct	CRAB position
	#37	312.21	935.64	na	36,11,11.370	75,44,58.668	21-Oct	CRAB position
	#38	333.15	928.78	na	36,11,11.370	75,44,57.786	22-Oct	CRAB position
	#39	198.64	934.71	na	36,11,10.194	75,45,02.976	22-Oct	CRAB position
	#40	238.56	932.33	na	36,11,10.524	75,45,01.428	23-Oct	CRAB position
	#41	231.71	922.51	na	36,11,10.152	75,45,01.566	23-Oct	CRAB position
	#42	251.98	936.69	na	36,11,10.794	75,45,00.972	24-Oct	CRAB position
	#43	256.00	935.96	na	36,11,10.812	75,45,00.810	24-Oct	CRAB position
	#44	291.41	932.33	na	36,11,11.058	75,45,59.418	25-Oct	CRAB position
	#45	184.29	934.74	na	36,11,10.050	75,45,03.522	26-Oct	CRAB position
	#46	280.52	934.73	na	36,11,11.022	75,44,59.862	26-Oct	CRAB position
	#47	210.49	930.43	na	36,11,10.182	75,45,02.472	27-Oct	CRAB position
	#48	260.55	931.55	na	36,11,10.722	75,45,00.582	27-Oct	CRAB position
	#49	241.07	923.14	na	36,11,10.266	75,45,01.218	28-Oct	CRAB position
	#50	290.02	935.32	na	36,11,11.136	75,44,59.508	29-Oct	CRAB position
	#51	291.55	932.29	na	36,11,11.058	75,44,59.412	30-Oct	CRAB position
	#52	272.90	933.14	na	36,11,10.896	75,45,00.132	30-Oct	CRAB position