

## Appendix 2: Cruise Planning Spreadsheet

PIs can establish and optimize cruise plan that can be a foundation for the PIs UNOLS Ship Time Request.

Site Name	WHOI OB I.D.	Site Latitude (deg)	Site Latitude (min)	Site Latitude (heml)	Site Longitude (deg)	Site Longitude (min)	Site Longitude (heml)	Station Depth (m)	Site Latitude (decimal degrees)	Site Longitude (decimal degrees)	Site Co-Latitude (radians)	Site Longitude (radians)
Seward		60	7.1340	N	149	25.6760	W		60.11890	-149.42793	0.52152358	-2.50800943
WP-01		59	58.2730	N	149	21.1150	W		59.97122	-149.35192	0.52410114	-2.40668269
WP-02		59	49.6120	N	149	28.6640	W		59.82687	-149.47773	0.52662052	-2.60887861
WP-03		59	45.1690	N	149	22.7560	W		59.75282	-149.37927	0.52791294	-2.60716004
WD46		55	31.2	N	149	42	W	4393	55.52000	-149.70000	0.60178953	-2.61275789
WD47		54	57	N	150	27	W	3952	54.95000	-150.45000	0.61173790	-2.6284786
WD49		54	24	N	151	54	W	4090	54.40000	-151.90000	0.62133721	-2.65115513
WD53		53	46.8	N	153	25.2348	W	4656	53.78000	-153.42058	0.63215826	-2.67769426
WD58		53	54.3708	N	155	2.2536	W	4505	53.90618	-155.03756	0.62995600	-2.70591589
WD59		53	22.8156	N	155	48.441	W	4482	53.38026	-155.80735	0.63913503	-2.7193126
WNS0		67	28.544	N	155	28.244	W	1888	67.47444	-155.46888	0.66888888	-2.82888888
Distance to Following Site (nm)	Ship Speed (knots)	Time to Following Site (decimal hrs)	On_site Prep. Time (hours)	OBS Fall Time (hours)	OBS Survey Time (hours)	Time On Site (hours)	Site Departure Date and Time (local)	Arrival Time Next Site (local)	Cumulative Time to Next Station (hrs)	Cumulative Time (days)		
9	5	1.8	0.0	0.0	0.0	0	7/11/18 10:00	7/11/18 11:48	1.8	0		
10	6	1.7	0.0	0.0	0.0	0	7/11/18 11:48	7/11/18 13:30	3.5	0		
5	6	0.8	0.0	0.0	0.0	0	7/11/18 13:30	7/11/18 14:18	4.3	0		
254	10.5	24.2	0.0	0.0	0.0	0	7/11/18 14:18	7/12/18 14:30	28.5	1.2		
43	10.5	4.1	1.0	2.4	1.5	4.9	7/12/18 19:24	7/12/18 23:30	37.5	1.6		
60	10.5	5.7	1.0	2.2	1.5	4.7	7/13/18 4:12	7/13/18 9:54	47.9	2.0		
65	10.5	6.2	1.0	2.3	1.5	4.8	7/13/18 14:42	7/13/18 20:54	58.9	2.5		
58	10.5	5.5	1.0	2.6	1.5	5.1	7/14/18 2:00	7/14/18 7:30	69.5	2.9		
42	10.5	4.0	1.0	2.5	1.5	5.0	7/14/18 12:30	7/14/18 16:30	78.5	3.3		
52	10.5	5.0	1.0	2.5	1.5	5.0	7/14/18 21:30	7/15/18 2:30	88.5	3.7		
51	10.5	4.9	1.0	2.5	1.5	5.0	7/15/18 7:30	7/15/18 12:24	98.4	4.1		
54	10.5	5.1	1.0	2.6	1.5	5.1	7/15/18 17:30	7/15/18 22:36	108.6	4.5		
42	10.5	4.0	1.0	2.6	1.5	5.1	7/16/18 3:42	7/16/18 7:42	117.7	4.9		
55	10.5	5.2	1.0	2.6	1.5	5.1	7/16/18 12:48	7/16/18 18:00	128.0	5.3		
60	10.5	5.7	1.0	2.6	1.5	5.1	7/16/18 23:06	7/17/18 4:48	138.8	5.8		
45	10.5	4.3	1.0	2.6	1.5	5.1	7/17/18 9:54	7/17/18 14:12	148.2	6.2		
30	10.5	2.9	1.0	2.6	1.5	5.1	7/17/18 19:18	7/17/18 22:12	156.2	6.5		
38	10.5	3.6	1.0	2.8	1.5	5.3	7/18/18 3:30	7/18/18 7:06	165.1	6.9		
24	10.5	2.3	1.0	2.2	1.5	4.7	7/18/18 11:48	7/18/18 14:06	172.1	7.2		
32	10.5	3.0	1.0	0.7	1.5	3.2	7/18/18 17:18	7/18/18 20:18	178.3	7.4		
19	10.5	1.8	1.0	1.4	1.5	3.9	7/19/18 0:12	7/19/18 2:00	184.0	7.7		
29	10.5	2.8	1.0	0.7	1.5	3.2	7/19/18 5:12	7/19/18 8:00	190.0	7.9		
59	10.5	5.6	1.0	1.1	1.5	3.6	7/19/18 11:36	7/19/18 17:12	199.2	8.3		
85	10.5	8.1	1.0	1.2	1.5	3.7	7/19/18 20:54	7/20/18 5:00	211.0	8.8		