# WGOA Survey Station-At Sea Outlook

### Jesse F Lamb

### 2023-05-14

Outlook: The purpose of this markdown is to determine an estimate of sampling time in order to adjust our plan to do the most sampling possible with the DAS we have left. Variables that can be adjusted: Gear.Sampled per station and time taken to sample gear (lines 82-85), Ship Speed (line 92). Lastly, station order matters in terms of distance (line 56).

\*Note: Be sure to properly enter the vector values of both "CompleteScenL" and "StaTDL", as they are needed to determine proper station number.

## Overview:

Below are a Station Table and Map of the rest of the Survey

#### **Next Stations**

Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
1	gf105	54.28790	-164.2684	BONGO	2023-05-15 21:19:48
2	gh105	54.17310	-164.0241	BONGO	2023-05-15 22:39:45
3	gj105	54.05830	-163.7806	BONGO	2023-05-15 23:59:40
4	gj107	54.17930	-163.5848	BONGO	2023-05-16 01:14:12
5	gh107	54.29410	-163.8277	BONGO	2023-05-16 02:33:56
6	gf107	54.40890	-164.0715	BONGO	2023-05-16 03:53:42
7	gn123	54.91740	-161.5226	BONGO	2023-05-16 12:45:47
8	gp123	54.80260	-161.2865	BONGO	2023-05-16 14:03:59
9	gr123	54.68780	-161.0513	BONGO	2023-05-16 15:22:09
10	hf135	54.60220	-158.2681	BONGO	2023-05-17 00:31:51
11	hd135	54.72160	-158.4858	BONGO	2023-05-17 01:48:36
12	hb135	54.83960	-158.7012	BONGO	2023-05-17 03:04:39
13	gz135	54.95440	-158.9293	BONGO	2023-05-17 04:21:40
14	gx135	55.06920	-159.1581	BONGO	2023-05-17 05:38:42

Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
15	gv143	55.66780	-158.5786	BONGO,CTD	2023-05-17 10:12:38
16	gx143	55.55300	-158.3513	BONGO	2023-05-17 11:28:58
17	gz143	55.43820	-158.1249	BONGO,CTD	2023-05-17 13:15:17
18	hb143	55.32340	-157.8991	BONGO	2023-05-17 14:31:36
19	hd143	55.20870	-157.6740	BONGO,CTD	2023-05-17 16:17:53
20	hf143	55.09390	-157.4497	BONGO,CTD	2023-05-17 18:04:10
21	hh143	54.97910	-157.2260	BONGO,CTD	2023-05-17 19:50:27
22	hj149	55.22720	-156.4020	BONGO	2023-05-17 23:05:13
23	hh149	55.34200	-156.6232	BONGO	2023-05-18 00:20:58
24	hf149	55.45670	-156.8452	BONGO	2023-05-18 01:36:43
25	hd149	55.57150	-157.0678	BONGO	2023-05-18 02:52:29
26	hb149	55.68630	-157.2911	BONGO	2023-05-18 04:08:16
27	gz149	55.80110	-157.5150	BONGO	2023-05-18 05:24:02
28	gx149	55.91590	-157.7397	BONGO	2023-05-18 06:39:49
29	gv149	56.03070	-157.9651	BONGO	2023-05-18 07:55:36
30	gv151	56.15160	-157.7594	BONGO	2023-05-18 09:10:07
31	gx151	56.03680	-157.5346	BONGO	2023-05-18 10:25:44
32	gz151	55.92210	-157.3105	BONGO	2023-05-18 11:41:20
33	hb151	55.80730	-157.0871	BONGO	2023-05-18 12:56:56
34	hd151	55.69250	-156.8644	BONGO	2023-05-18 14:12:32
35	hf151	55.57770	-156.6424	BONGO	2023-05-18 15:28:07
36	hh151	55.46290	-156.4211	BONGO	2023-05-18 16:43:43
37	hj151	55.34810	-156.2004	BONGO	2023-05-18 17:59:18
38	hj153	55.46910	-155.9982	BONGO	2023-05-18 19:13:51
39	hh153	55.58390	-156.2183	BONGO	2023-05-18 20:29:15

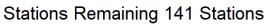
Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
40	hf153	55.69870	-156.4390	BONGO	2023-05-18 21:44:40
41	hd153	55.81340	-156.6605	BONGO	2023-05-18 23:00:04
42	hb153	55.92820	-156.8826	BONGO	2023-05-19 00:15:30
43	gz153	56.04300	-157.1053	BONGO	2023-05-19 01:30:55
44	gx153	56.15780	-157.3288	BONGO	2023-05-19 02:46:21
45	gv153	56.27260	-157.5530	BONGO	2023-05-19 04:01:47
46	gv155	56.39350	-157.3459	BONGO	2023-05-19 05:16:19
47	gx155	56.27870	-157.1224	BONGO	2023-05-19 06:31:34
48	gz155	56.16400	-156.8995	BONGO	2023-05-19 07:46:49
49	hd155	55.93440	-156.4559	BONGO	2023-05-19 09:57:30
50	hf155	55.81960	-156.2350	BONGO	2023-05-19 11:12:46
51	hh155	55.70480	-156.0149	BONGO	2023-05-19 12:28:00
52	hj155	55.59000	-155.7954	BONGO	2023-05-19 13:43:14
53	hh157	55.82580	-155.8109	BONGO	2023-05-19 15:20:25
54	hf157	55.94060	-156.0304	BONGO	2023-05-19 16:35:28
55	hd157	56.05540	-156.2506	BONGO	2023-05-19 17:50:32
56	hb157	56.17010	-156.4715	BONGO	2023-05-19 19:05:36
57	gz157	56.28490	-156.6930	BONGO	2023-05-19 20:20:40
58	gx157	56.39970	-156.9153	BONGO	2023-05-19 21:35:45
59	gv159	56.63540	-156.9298	BONGO,CALVET	2023-05-19 23:32:42
60	gx159	56.52070	-156.7075	BONGO,CALVET	2023-05-20 00:47:35
61	gz159	56.40590	-156.4859	BONGO,CALVET	2023-05-20 02:22:17
62	hb159	56.29110	-156.2650	BONGO,CALVET	2023-05-20 03:37:10
63	hd159	56.17630	-156.0447	BONGO,CALVET	2023-05-20 05:11:53
64	hf159	56.06150	-155.8251	BONGO	2023-05-20 06:26:46

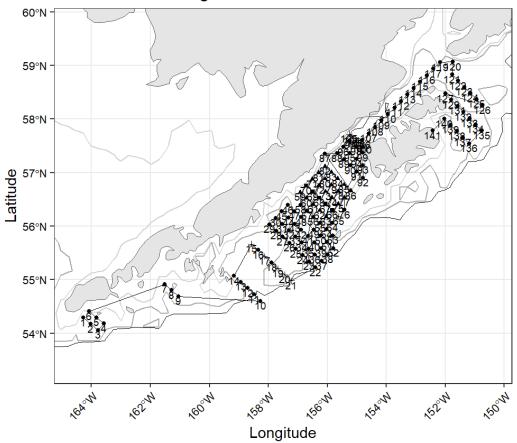
Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
65	hf161	56.18250	-155.6192	BONGO,CTD	2023-05-20 08:11:19
66	hd161	56.29730	-155.8382	BONGO,CALVET,CTD	2023-05-20 09:56:03
67	hb161	56.41200	-156.0578	BONGO,CALVET,CTD	2023-05-20 11:10:44
68	gz161	56.52680	-156.2781	BONGO,CALVET,CTD	2023-05-20 12:55:28
69	gx161	56.64160	-156.4991	BONGO,CALVET,CTD	2023-05-20 14:10:12
70	gv161	56.75640	-156.7208	BONGO,CALVET,CTD	2023-05-20 15:54:56
71	gv163	56.87740	-156.5111	BONGO,CALVET	2023-05-20 17:29:17
72	gx163	56.76260	-156.2900	BONGO,CALVET	2023-05-20 18:43:50
73	gz163	56.64780	-156.0697	BONGO,CALVET	2023-05-20 20:18:11
74	hb163	56.53300	-155.8500	BONGO,CALVET	2023-05-20 21:32:44
75	hd163	56.41820	-155.6310	BONGO,CALVET	2023-05-20 23:07:05
76	hf163	56.30340	-155.4126	BONGO	2023-05-21 00:21:38
77	hd165	56.53920	-155.4231	BONGO,CALVET	2023-05-21 01:58:48
78	hb165	56.65400	-155.6415	BONGO,CALVET	2023-05-21 03:13:10
79	gz165	56.76870	-155.8606	BONGO,CALVET	2023-05-21 04:27:32
80	gx165	56.88350	-156.0803	BONGO,CALVET	2023-05-21 05:41:54
81	gv165	56.99830	-156.3007	BONGO,CALVET	2023-05-21 06:56:17
82	gv167	57.11930	-156.0896	BONGO,CALVET	2023-05-21 08:30:38
83	gx167	57.00450	-155.8698	BONGO,CALVET	2023-05-21 09:44:51
84	gz167	56.88970	-155.6508	BONGO,CALVET	2023-05-21 11:18:50
85	hb167	56.77490	-155.4324	BONGO,CALVET	2023-05-21 12:33:02
86	hd167	56.66010	-155.2146	BONGO,CALVET	2023-05-21 14:07:03
87	gt169	57.35500	-156.0833	BONGO	2023-05-21 19:02:44
88	gv171	57.36120	-155.6653	BONGO	2023-05-21 20:36:39
89	gx171	57.24640	-155.4469	BONGO	2023-05-21 21:50:30

Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
90	gz171	57.13160	-155.2291	BONGO	2023-05-21 23:04:21
91	hb171	57.01680	-155.0120	BONGO	2023-05-22 00:18:12
92	hd171	56.90200	-154.7956	BONGO	2023-05-22 01:32:03
93	hb173	57.13780	-154.8008	BONGO	2023-05-22 03:09:12
94	gz173	57.25260	-155.0173	BONGO	2023-05-22 04:22:53
95	gx173	57.36740	-155.2344	BONGO	2023-05-22 05:36:34
96	gv173	57.48210	-155.4521	BONGO	2023-05-22 06:50:12
97	gv175	57.60310	-155.2383	BONGO	2023-05-22 08:04:45
98	gx175	57.48830	-155.0212	BONGO	2023-05-22 09:18:15
99	gz175	57.37350	-154.8047	BONGO	2023-05-22 10:31:46
100	FOX56	57.52000	-154.7800	BONGO,CTD	2023-05-22 12:09:49
101	FOX57	57.55000	-154.8800	BONGO,CTD	2023-05-22 13:19:49
102	FOX58	57.61000	-155.0100	BONGO,CTD	2023-05-22 14:39:49
103	FOX59	57.64000	-155.0700	BONGO,CTD	2023-05-22 15:44:03
104	FOX60	57.68000	-155.1700	BONGO,CTD	2023-05-22 16:55:47
105	FOX61	57.72000	-155.2600	BONGO,CTD	2023-05-22 18:06:07
106	gx177	57.60930	-154.8073	BONGO	2023-05-22 19:53:24
107	gx179	57.73020	-154.5927	BONGO	2023-05-22 21:07:55
108	gx181	57.85120	-154.3773	BONGO	2023-05-22 22:22:29
109	gx183	57.97210	-154.1612	BONGO	2023-05-22 23:37:02
110	gx185	58.09310	-153.9444	BONGO	2023-05-23 00:51:35
111	gx187	58.21410	-153.7269	BONGO	2023-05-23 02:06:08
112	gx189	58.33500	-153.5086	BONGO	2023-05-23 03:20:41
113	gx191	58.45600	-153.2895	BONGO	2023-05-23 04:35:15
114	gx193	58.57690	-153.0697	BONGO	2023-05-23 05:49:47

Station	Grid Station	LAT	LON	Gear.Sampled	Est.Station Time
115	gx195	58.69790	-152.8492	BONGO	2023-05-23 07:04:21
116	gx197	58.81880	-152.6279	BONGO	2023-05-23 08:18:53
117	gx199	58.93980	-152.4058	BONGO	2023-05-23 09:33:27
119	gx201	59.06070	-152.1829	BONGO	2023-05-23 10:48:00
120	gz203	59.06690	-151.7527	BONGO	2023-05-23 12:20:31
121	hb201	58.83120	-151.7689	BONGO	2023-05-23 13:57:41
122	hd201	58.71640	-151.5629	BONGO	2023-05-23 15:08:58
123	hf201	58.60160	-151.3573	BONGO	2023-05-23 16:20:17
124	hh201	58.48680	-151.1523	BONGO	2023-05-23 17:31:36
125	hj201	58.37200	-150.9479	BONGO	2023-05-23 18:42:56
126	hl201	58.25730	-150.7439	BONGO	2023-05-23 19:54:16
127	hd197	58.47450	-152.0034	BONGO	2023-05-24 00:02:34
129	hf197	58.35970	-151.7964	BONGO	2023-05-24 01:14:13
131	hh197	58.24490	-151.5900	BONGO	2023-05-24 02:25:52
132	hj197	58.13010	-151.3841	BONGO	2023-05-24 03:37:32
133	hl197	58.01530	-151.1788	BONGO	2023-05-24 04:49:13
134	hn197	57.90060	-150.9741	BONGO	2023-05-24 06:00:53
135	hp197	57.78540	-150.7600	BONGO	2023-05-24 07:13:53
136	hp193	57.54550	-151.1857	BONGO	2023-05-24 09:22:16
137	hn193	57.65860	-151.4047	BONGO	2023-05-24 10:35:35
138	hl193	57.77340	-151.6108	BONGO	2023-05-24 11:47:36
139	hj193	57.88820	-151.8175	BONGO	2023-05-24 12:59:37
140	hh193	58.00300	-152.0247	BONGO	2023-05-24 14:11:37
141	Kodiak	57.78385	-152.4267	BONGO	2023-05-24 16:11:54

## Ship Track: Station Order





## Gear.Sampled

- BONGO
- BONGO, CALVET
- BONGO,CALVET,CTD
- + BONGO,CTD