

CRUISE REPORT

Cruise Number: MF-06-06
FOCI Number: FOCI 3MF06
Ship: Miller Freeman

Area of Operations: Southeast Bering Sea

Itinerary:

Departed Dutch Harbor, Alaska, at 1500 hours on Monday, May 8, 2006.
Arrived Dutch Harbor, Alaska, at 0800 hours on Friday, May 19, 2006.

Participating Organizations:

NOAA – Alaska Fisheries Science Center (AFSC)
7600 Sand Point Way N.E.
Seattle, Washington 98115-0070

Chief Scientist:

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Other Participating Scientists:

Name	Gender	Affiliation	E-mail Address
Jennifer Lanksbury	Female	AFSC	Jennifer.Lanksbury@noaa.gov
Michael Canino	Male	AFSC	Mike.Canino@noaa.gov
Miriam Doyle	Female	AFSC	Miriam.Doyle@noaa.gov
Susan J. Picquelle	Female	AFSC	Susan.Picquelle@noaa.gov

Objectives of Cruise:

Eco-FOCI conducted an ichthyoplankton survey in the Bering Sea in the vicinity of Unimak Island, Alaska. Data on physical characteristics of the water column were also collected by Seacat profiler and CTD (at selected stations). Five satellite tracked drifters were released in the Unimak Island vicinity to study depth-discrete current trajectories and to groundtruth an oceanographic model of water movements for use in studies of larval transport. We also employed a Multiple Opening/Closing Net and Environmental Sensing System (MOCNESS) at selected locations over the slope and shelf. We also used the SIMRAD EK 60 Scientific Echosounder Monitoring system to collect ancillary data on adult fish aggregations during the entire cruise.

Summary of Operations:

Gears Used	Tows
20cm bongo (20Bon)	93
60cm bongo (60Bon)	93
Seabird SeaCAT CTD (CAT)	93
CTD without bottle samples (CTD)	1
CTD with bottle samples (CTDB)	13
1m ² MOCNESS (MOC1)	12
Neuston (Neu)	105

Summary of Cruise:

Grid survey:

Departure from Dutch Harbor, AK occurred at 1500 hrs on May 08, 2006. At most stations, a neuston tow (505:m mesh) was conducted first, followed by a bongo tow. For the bongo tow, the 60BON was fitted with 505:m mesh on both sides. The sample from 60BON Net 2 was sorted for Greenland turbot, myctophidae, and rock sole larvae. Species of interest were preserved in 70% EtOH and the remainder of the sample was discarded. The 20BON array was fitted with 153:m mesh on both sides. The Seacat profiler was attached in line during all bongo tows. CTD casts were conducted at selected stations, and in Unimak Pass.

NEPROMS groundtruthing:

Five satellite tracked drifters were deployed to groundtruth an oceanographic model (NEPROMS model) of current trajectories in the vicinity of Unimak Island. Drifters were released at:

Sta. AR4, drifter 57863 drogued at 15m

Sta. AU7, drifters 53314 drogued at 40m, 57866 drogued at 15m

Sta. AX4, drifters 57867 drogued at 15m, 53313 drogued at 40m

Greenland turbot distribution study:

Twelve (12) MOCNESS tows were conducted at selected stations in Bering Canyon and on the outer shelf to determine depth-discrete distributions of Greenland halibut larvae. Prior to each MOCNESS tow, CTD casts were conducted and microzooplankton samples were collected. MOCNESS tows were to a maximum depth of 300m.

Additional Neuston Samples:

Twelve (12) additional neuston tows were conducted at selected stations over the continental shelf and slope to collect samples for a special project (M. Doyle). Samples were preserved in formalin.

Time lost: none

Acknowledgments: The FOCI program extends thanks to the officers and crew of the R/V Miller Freeman. All crew members performed their duties professionally and the success of the cruise was dependent on their efforts.

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
09-May-06	7:30	1	1	NRS1	NEU001	259	53 22.18 N	168 43.54 W	Neu	QTowF	
09-May-06	8:32	1	2	NRS1	BON001	262	53 22.34 N	168 43.79 W	20Bon	QTowF	
09-May-06	8:32	1	2	NRS1	BON001	262	53 22.34 N	168 43.79 W	60Bon	MCNRS, QTowF	
09-May-06	8:32	1	2	NRS1	BON001	262	53 22.34 N	168 43.79 W	CAT	CAT	
09-May-06	10:13	2	1	NRS2	NEU002	59	53 23.12 N	168 26.06 W	Neu	Discard	Number of revs too low. Repeated haul at this station.
09-May-06	10:40	2	2	NRS2	NEU002	43	53 23.10 N	168 25.87 W	Neu	QTowF	
09-May-06	11:03	2	3	NRS2	BON002	68	53 23.45 N	168 26.81 W	20Bon	QTowF	
09-May-06	11:03	2	3	NRS2	BON002	68	53 23.45 N	168 26.81 W	60Bon	MCNRS, QTowF	
09-May-06	11:03	2	3	NRS2	BON002	68	53 23.45 N	168 26.81 W	CAT	CAT	
09-May-06	14:25	3	1	BV1	NEU003	1199	53 39.34 N	167 43.46 W	Neu	QTowF	
09-May-06	14:37	3	2	BV1	BON003	1044	53 39.75 N	167 43.54 W	60Bon	Discard	Discarded this haul because should have sampled to 300m. Got wrong bottom depth reading. Repeated this haul.
09-May-06	15:27	3	3	BV1	BON003	1106	53 39.00 N	167 43.99 W	20Bon	QTowF	
09-May-06	15:27	3	3	BV1	BON003	1106	53 39.00 N	167 43.99 W	60Bon	MCNRS, QTowF	
09-May-06	15:27	3	3	BV1	BON003	1106	53 39.00 N	167 43.99 W	CAT	CAT	
09-May-06	17:07	4	1	BV4	NEU004	1417	53 52.32 N	167 55.31 W	Neu	QTowF	
09-May-06	17:35	4	2	BV4	BON004	1418	53 52.65 N	167 55.76 W	20Bon	QTowF	Net 2 subsampled 480 ml out of 1020 ml. Tow time estimated.
09-May-06	17:35	4	2	BV4	BON004	1418	53 52.65 N	167 55.76 W	60Bon	MCNRS, QTowF	Net 2 subsampled 480 ml out of 1020 ml. Tow time estimated.
09-May-06	17:35	4	2	BV4	BON004	1418	53 52.65 N	167 55.76 W	CAT	CAT	Net 2 subsampled 480 ml out of 1020 ml. Tow time estimated.
09-May-06	19:09	5	1	BV7	NEU005	1500	54 05.26 N	168 06.94 W	Neu	QTowF	
09-May-06	20:25	5	2	BV7	BON005	1500	54 05.51 N	168 07.77 W	20Bon	Discard	seacat not working
09-May-06	20:25	5	2	BV7	BON005	1500	54 05.51 N	168 07.77 W	60Bon	Discard	seacat not working
09-May-06	20:25	5	2	BV7	BON005	1500	54 05.51 N	168 07.77 W	CAT	CAT	seacat not working
09-May-06	20:25	5	3	BV7	BON006	1014	54 05.15 N	168 07.77 W	20Bon	QTowF	
09-May-06	20:25	5	3	BV7	BON006	1014	54 05.15 N	168 07.77 W	60Bon	MCNRS, QTowF	
09-May-06	20:25	5	3	BV7	BON006	1014	54 05.15 N	168 07.77 W	CAT	CAT	
09-May-06	21:49	5	4	BV7	CTDB001	1400	54 05.69 N	168 06.95 W	CTDB		Note: Bottles at 300 and 100 m depths were 5L. All others 10L.
09-May-06	23:40	5	5	BV7	MOC001	1146	54 06.27 N	168 09.22 W	MOC1	QTowF	
10-May-06	1:37	6	1	BV10	NEU006	1495	54 18.55 N	168 19.65 W	Neu	QTowF	
10-May-06	2:07	6	2	BV10	BON007	1495	54 19.09 N	168 21.16 W	20Bon	QTowF	
10-May-06	2:07	6	2	BV10	BON007	1495	54 19.09 N	168 21.16 W	60Bon	MCNRS, QTowF	
10-May-06	2:07	6	2	BV10	BON007	1495	54 19.09 N	168 21.16 W	CAT	CAT	
10-May-06	1:57	7	1	BV13	NEU007	1449	54 18.55 N	168 19.65 W	Neu	QTowF	
10-May-06	4:15	7	2	BV13	BON008	1449	54 32.18 N	168 32.93 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
10-May-06	4:15	7	2	BV13	BON008	1449	54 32.18 N	168 32.93 W	60Bon	QTowF	400 ml of 800 ml sample picked from 60BON net
10-May-06	4:15	7	2	BV13	BON008	1449	54 32.18 N	168 32.93 W	60Bon	QTowF	2 Picked 400ml of 800ml sample from 60BON net 2
10-May-06	4:15	7	2	BV13	BON008	1449	54 32.18 N	168 32.93 W	CAT	CAT	
10-May-06	6:13	8	1	BS13	NEU008	1016	54 38.81 N	168 09.61 W	Neu	QTowF	
10-May-06	6:45	8	2	BS13	BON009	1331	54 39.21 N	168 10.92 W	20Bon	QTowF	
10-May-06	6:45	8	2	BS13	BON009	1331	54 39.21 N	168 10.92 W	60Bon	MCNRS, QTowF	60 Bon net 2: picked 700 mls of 1700 mls total sample
10-May-06	6:45	8	2	BS13	BON009	1331	54 39.21 N	168 10.92 W	60Bon	MCNRS, QTowF	60Bon net 2: picked 700 mls of 1700 ml total sample
10-May-06	6:45	8	2	BS13	BON009	1331	54 39.21 N	168 10.92 W	CAT	CAT	60 Bon net 2: picked 700 mls of 1700 ml total sample
10-May-06	7:46	8	3	BS13	CTDB002	1017	54 39.11 N	168 10.05 W	CTDB	CTD, MZ, PAR	
10-May-06	9:15	8	4	BS13	MOC002	1331	54 39.33 N	168 12.32 W	MOC1	QTowF	Net 6 cod end blew out
10-May-06	11:38	9	1	BS10	NEU009	1089	54 25.71 N	167 56.82 W	Neu	QTowF	
10-May-06	11:54	9	2	BS10	NEU10	1110	54 26.02 N	167 57.58 W	Neu	MDNEU	
10-May-06	12:33	9	3	BS10	BON010	1110	54 25.76 N	167 57.43 W	20Bon	QTowF	
10-May-06	12:33	9	3	BS10	BON010	1110	54 25.76 N	167 57.43 W	60Bon	MCNRS, QTowF	
10-May-06	12:33	9	3	BS10	BON010	1110	54 25.76 N	167 57.43 W	CAT	CAT	
10-May-06	14:36	10	1	BS7	NEU011	1018	54 12.52 N	167 44.50 W	Neu	QTowF	
10-May-06	15:08	10	2	BS7	BON011	1330	54 13.19 N	167 45.52 W	20Bon	QTowF	lamprey removed from net 1 60bon cod end
10-May-06	15:08	10	2	BS7	BON011	1330	54 13.19 N	167 45.52 W	60Bon	MCNRS, QTowF	lamprey removed from net 1 60bon cod end
10-May-06	15:08	10	2	BS7	BON011	1330	54 13.19 N	167 45.52 W	CAT	CAT	lamprey removed from net 1 60bon cod end
10-May-06	16:57	11	1	BS4	NEU012	1018	53 59.34 N	167 32.11 W	Neu	QTowF	
10-May-06	17:25	11	2	BS4	BON012	1800	53 59.54 N	167 32.51 W	20Bon	QTowF	
10-May-06	17:25	11	2	BS4	BON012	1800	53 59.54 N	167 32.51 W	60Bon	QTowF	
10-May-06	17:25	11	2	BS4	BON012	1800	53 59.54 N	167 32.51 W	CAT	CAT	2550 OF 5100 mls subsampled for 60bon net 2 picking
10-May-06	19:13	12	1	BS1	NEU013	161	53 46.09 N	167 20.07 W	Neu	QTowF	
10-May-06	19:31	12	2	BS1	NEU014	495	53 46.45 N	167 21.07 W	Neu	MDNEU	
10-May-06	20:04	12	3	BS1	BON013	444	53 46.31 N	167 20.87 W	20Bon	QTowF	310 of 970 ml sample from 60Bon net 2 picked.
10-May-06	20:04	12	3	BS1	BON013	444	53 46.31 N	167 20.87 W	60Bon	MCNRS, QTowF	310 of 970 ml sample from 60Bon net 2 picked.
10-May-06	20:04	12	3	BS1	BON013	444	53 46.31 N	167 20.87 W	CAT	CAT	310 of 970 ml sample from 60Bon net 2 picked.
10-May-06	21:17	13	1	NRS3	NEU015	77	53 37.48 N	167 18.24 W	Neu	QTowF	
10-May-06	21:43	13	2	NRS3	BON014	91	53 37.91 N	167 19.24 W	20Bon	QTowF	
10-May-06	21:43	13	2	NRS3	BON014	91	53 37.91 N	167 19.24 W	60Bon	MCNRS, QTowF	
10-May-06	21:43	13	2	NRS3	BON014	91	53 37.91 N	167 19.24 W	CAT	CAT	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
11-May-06	0:34	14	1	BP4	NEU016	1485	54 06.47 N	167 09.98 W	Neu	QTowF	
11-May-06	1:08	14	2	BP4	BON015	1473	54 07.04 N	167 10.79 W	20Bon	QTowF	
11-May-06	1:08	14	2	BP4	BON015	1473	54 07.04 N	167 10.79 W	60Bon	MCNRS, QTowF	
11-May-06	1:08	14	2	BP4	BON015	1473	54 07.04 N	167 10.79 W	CAT	CAT	
11-May-06	2:51	15	1	BP7	NEU017	801	54 19.61 N	167 22.54 W	Neu	QTowF	
11-May-06	3:22	15	2	BP7	BON016	793	54 20.20 N	167 23.29 W	20Bon	QTowF	Too busy processing CTD and preparing for MOCNESS to sort net 2 60Bon.
11-May-06	3:22	15	2	BP7	BON016	793	54 20.20 N	167 23.29 W	60Bon	QTowF	Too busy processing CTD and preparing for MOCNESS to sort net 2 60Bon.
11-May-06	3:22	15	2	BP7	BON016	793	54 20.20 N	167 23.29 W	CAT	CAT	Too busy processing CTD and preparing for MOCNESS to sort net 2 60Bon.
11-May-06	5:32	15	4	BP7	MOC003	817	54 20.60 N	167 23.00 W	MOC1	QTowF	Net 4 = lamprey. Net 6 = jellyfish
11-May-06	5:32	15	4	BP7	MOC003	817	54 20.60 N	167 23.00 W	MOC1	QTowF	Net4 = lamprey, Net6= jellyfish
11-May-06	7:20	16	1	BP10	NEU018	714	54 32.50 N	167 34.45 W	Neu	QTowF	
11-May-06	7:20	16	2	BP10	BON017	714	54 33.09 N	167 35.56 W	20Bon	QTowF	
11-May-06	7:20	16	2	BP10	BON017	714	54 33.09 N	167 35.56 W	60Bon	MCNRS, QTowF	
11-May-06	7:20	16	2	BP10	BON017	714	54 33.09 N	167 35.56 W	CAT	CAT	
11-May-06	4:11	16	3	BP7	CTDB003	714	54 19.99 N	167 22.57 W	CTDB	CTD, MZ, PAR	
11-May-06	12:09	17	1	BP13	NEU019	1249	54 45.99 N	167 47.08 W	Neu	QTowF	
11-May-06	10:18	17	2	BP13	BON018	1284	54 47.30 N	167 47.91 W	20Bon	QTowF	
11-May-06	10:18	17	2	BP13	BON018	1284	54 47.30 N	167 47.91 W	60Bon	MCNRS, QTowF	
11-May-06	10:18	17	2	BP13	BON018	1284	54 47.30 N	167 47.91 W	CAT	CAT	
11-May-06	12:40	18	1	BM13	NEU020	422	54 53.31 N	167 24.40 W	Neu	Discard	Sample spilled on deck. Redone on next tow.
11-May-06	12:42	18	2	BM13	NEU021	423	54 53.22 N	167 24.30 W	Neu	QTowF	Gear diving more than usual.
11-May-06	13:01	18	3	BM13	NEU022	415	54 53.92 N	167 25.15 W	Neu	MDNEU	Neuston tow for Miriam Doyle
11-May-06	2:39	18	4	BM13	BON019	424	54 53.41 N	167 24.85 W	20Bon	QTowF	
11-May-06	2:39	18	4	BM13	BON019	424	54 53.41 N	167 24.85 W	60Bon	MCNRS, QTowF	
11-May-06	2:39	18	4	BM13	BON019	424	54 53.41 N	167 24.85 W	CAT	CAT	
11-May-06	16:34	19	1	BM10	NEU023	454	54 39.93 N	167 11.99 W	Neu	QTowF	
11-May-06	17:00	19	2	BM10	BON020	456	54 40.66 N	167 12.96 W	20Bon	QTowF	
11-May-06	17:00	19	2	BM10	BON020	456	54 40.66 N	167 12.96 W	60Bon	MCNRS, QTowF	
11-May-06	17:00	19	2	BM10	BON020	456	54 40.66 N	167 12.96 W	60Bon	MCNRS, QTowF	1400 mls of 2600 mls subsampled and picked from 60 bon net 2
11-May-06	17:00	19	2	BM10	BON020	456	54 40.66 N	167 12.96 W	CAT	CAT	
11-May-06	17:56	19	3	BM10	CTDB004	414	54 40.37 N	167 12.03 W	CTDB	CTD, MZ, PAR	
11-May-06	18:38	19	4	BM10	MOC004	452	54 39.70 N	167 12.09 W	MOC1	QTowF	
11-May-06	21:40	20	1	BM07	NEU024	499	54 26.82 N	166 59.41 W	Neu	QTowF	
11-May-06	22:09	20	2	BM07	BON021	496	54 27.44 N	167 00.36 W	20Bon	QTowF	
11-May-06	22:09	20	2	BM07	BON021	496	54 27.44 N	167 00.36 W	60Bon	MCNRS, QTowF	
11-May-06	22:09	20	2	BM07	BON021	496	54 27.44 N	167 00.36 W	CAT	CAT	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
12-May-06	0:14	21	1	BM04	NEU025	1265	54 13.88 N	166 47.92 W	Neu	QTowF	
12-May-06	0:31	21	2	BM04	BON022	1264	54 14.20 N	166 48.73 W	20Bon	QTowF	
12-May-06	0:31	21	2	BM04	BON022	1264	54 14.20 N	166 48.73 W	60Bon	MCNRS, QTowF	
12-May-06	0:31	21	2	BM04	BON022	1264	54 14.20 N	166 48.73 W	CAT	CAT	
12-May-06	2:30	22	1	BM01	NEU026	73	54 00.35 N	166 36.07 W	Neu	QTowF	
12-May-06	2:53	22	2	BM01	BON023	73	54 00.78 N	166 36.07 W	20Bon	QTowF	
12-May-06	2:53	22	2	BM01	BON023	73	54 00.78 N	166 36.07 W	60Bon	MCNRS, QTowF	
12-May-06	2:53	22	2	BM01	BON023	73	54 00.78 N	166 36.07 W	CAT	CAT	
12-May-06	4:26	23	1	BJ01	NEU027	86	54 07.39 N	166 11.52 W	Neu	QTowF	
12-May-06	4:50	23	2	BJ01	BON024	88	54 07.57 N	166 12.42 W	20Bon	QTowF	
12-May-06	4:50	23	2	BJ01	BON024	88	54 07.57 N	166 12.42 W	60Bon	MCNRS, QTowS	
12-May-06	4:50	23	2	BJ01	BON024	88	54 07.57 N	166 12.42 W	CAT	CAT	
12-May-06	6:22	24	1	BJ04	NEU028	675	54 20.52 N	163 23.99 W	Neu	QTowF	
12-May-06	6:52	24	2	BJ04	BON025	677	54 21.06 N	166 25.09 W	20Bon	QTowF	MOCNESS station so no time to pick net 2.
12-May-06	6:52	24	2	BJ04	BON025	677	54 21.06 N	166 25.09 W	60Bon	QTowF	
12-May-06	6:52	24	2	BJ04	BON025	677	54 21.06 N	166 25.09 W	60Bon	QTowF	MOCNESS station so no time to pick net 2.
12-May-06	6:52	24	2	BJ04	BON025	677	54 21.06 N	166 25.09 W	CAT	CAT	MOCNESS station so no time to pick net 2.
12-May-06	7:45	24	3	BJ4	CTDB005	676	54 20.94 N	166 24.47 W	CTDB	CTD, MZ, PAR	100m and 300 m MZ samples from 5L bottles, others 10L
all											
12-May-06	9:01	24	4	BJ4	MOC005	634	54 22.05 N	166 24.95 W	MOC1	QTowF	
12-May-06	9:01	24	4	BJ4	MOC005	634	54 22.05 N	166 24.95 W	MOC1	QTowF	One 0.62 kg jellyfish removed from Net 7
12-May-06	10:53	25	1	BJ7	NEU029	424	54 33.86 N	166 36.89 W	Neu	QTowF	
12-May-06	11:21	25	2	BJ7	BON026	419	54 34.30 N	166 37.89 W	20Bon	QTowF	
12-May-06	11:21	25	2	BJ7	BON026	419	54 34.30 N	166 37.89 W	60Bon	MCNRS, QTowF	
12-May-06	11:21	25	2	BJ7	BON026	419	54 34.30 N	166 37.89 W	60Bon	MCNRS, QTowF	Subsample 1000ml of 4160 ml total volume for fish larvae
12-May-06	11:21	25	2	BJ7	BON026	419	54 34.30 N	166 37.89 W	CAT	CAT	
12-May-06	13:09	26	1	BJ10	NEU30	287	54 47.39 N	166 49.39 W	Neu	QTowF	
12-May-06	13:24	26	2	BJ10	NEU031	282	54 47.94 N	166 49.70 W	Neu	MDNEU	Sample for Miriam Doyle
12-May-06	14:07	26	3	BJ10	BON027	290	54 47.31 N	166 49.87 W	20Bon	QTowF	
12-May-06	14:07	26	3	BJ10	BON027	290	54 47.31 N	166 49.87 W	60Bon	MCNRS, QTowF	
12-May-06	14:07	26	3	BJ10	BON027	290	54 47.31 N	166 49.87 W	CAT	CAT	
12-May-06	15:48	27	1	BJ13	NEU032	159	55 24.59 N	167 01.16 W	Neu	QTowF	
12-May-06	16:10	27	2	BJ13	BON028	159	55 59.56 N	167 02.38 W	20Bon	QTowF	
12-May-06	16:10	27	2	BJ13	BON028	159	55 59.56 N	167 02.38 W	60Bon	MCNRS, QTowF	
12-May-06	16:10	27	2	BJ13	BON028	159	55 59.56 N	167 02.38 W	CAT	CAT	
12-May-06	16:48	27	3	BJ13	CTDB006	159	55 00.46 N	167 01.73 W	CTDB	Discard	Bottles popped at wrong depths - samples discarded
12-May-06	17:12	27	4	BJ13	CTDB007	158	55 00.58 N	167 01.51 W	CTDB	CTD, MZ, PAR	148m and 100m samples in 5L bottles. All others in 10L bottles

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
12-May-06	18:01	27	5	BJ13	MOC006	159	55 00.74 N	167 02.25 W	MOC1	QTowF	
12-May-06	19:46	28	1	BG13	NEU033	141	55 07.55 N	166 39.89 W	Neu	QTowF	
12-May-06	20:10	28	2	BG13	BON029	142	55 08.19 N	166 39.02 W	20Bon	QTowF	
12-May-06	20:10	28	2	BG13	BON029	142	55 08.19 N	166 39.02 W	60Bon	MCNRS, QTowF	
12-May-06	20:10	28	2	BG13	BON029	142	55 08.19 N	166 39.02 W	CAT	CAT	
12-May-06	21:42	29	1	BG10	NEU034	152	54 54.93 N	166 26.99 W	Neu	QTowF	
12-May-06	22:02	29	2	BG10	NEU035	139	54 54.41 N	166 26.29 W	Neu	MDNEU	
12-May-06	22:26	29	3	BG10	BON030	152	54 54.66 N	166 27.02 W	20Bon	QTowF	
12-May-06	22:26	29	3	BG10	BON030	152	54 54.66 N	166 27.02 W	60Bon	MCNRS, QTowF	
12-May-06	22:26	29	3	BG10	BON030	152	54 54.66 N	166 27.02 W	CAT	CAT	
13-May-06	0:01	30	1	BG07	NEU036	292	54 41.41 N	166 14.64 W	Neu	QTowF	
13-May-06	0:28	30	2	BG07	BON031	294	54 40.89 N	166 14.10 W	20Bon	QTowF	MOCNESS station so no time to pick net 2 60Bon.
13-May-06	0:28	30	2	BG07	BON031	294	54 40.89 N	166 14.10 W	60Bon	QTowF	MOCNESS station so no time to pick net 2 60Bon.
13-May-06	0:28	30	2	BG07	BON031	294	54 40.89 N	166 14.10 W	CAT	CAT	MOCNESS station so no time to pick net 2 60Bon.
13-May-06	1:25	30	3	BG07	CTDB008	284	54 41.69 N	166 14.49 W	CTDB	CTD, MZ, PAR	
13-May-06	2:31	30	4	BG7	MOC007	281	54 41.75 N	166 15.06 W	MOC1	QTowF	
13-May-06	4:44	31	1	BG04	NEU037	532	54 28.50 N	166 01.00 W	Neu	QTowF	
13-May-06	5:13	31	2	BG04	BON032	537	54 28.27 N	166 02.53 W	20Bon	QTowF	
13-May-06	5:13	31	2	BG04	BON032	537	54 28.27 N	166 02.53 W	60Bon	MCNRS, QTowF	
13-May-06	5:13	31	2	BG04	BON032	537	54 28.27 N	166 02.53 W	CAT	CAT	
13-May-06	7:00	32	1	BG1	NEU038	70	54 15.15 N	165 48.89 W	Neu	QTowF	
13-May-06	7:22	32	2	BG1	BON033	79	54 15.04 N	165 50.11 W	20Bon	QTowF	
13-May-06	7:22	32	2	BG1	BON033	79	54 15.04 N	165 50.11 W	60Bon	MCNRS, QTowF	
13-May-06	7:22	32	2	BG1	BON033	79	54 15.04 N	165 50.11 W	CAT	CAT	
13-May-06	9:27	33	1	UPC	NEU039	202	54 22.17 N	165 17.42 W	Neu	QTowF	
13-May-06	9:52	33	2	UPC	BON034	165	54 22.61 N	165 16.29 W	20Bon	QTowF	
13-May-06	9:52	33	2	UPC	BON034	165	54 22.61 N	165 16.29 W	60Bon	MCNRS, QTowF	
13-May-06	9:52	33	2	UPC	BON034	165	54 22.61 N	165 16.29 W	CAT	CAT	
13-May-06	10:32	33	3	UPC	CTD009	172	54 22.20 N	165 16.72 W	CTD	CTD, PAR	No MZs taken at this station because it was in Unimak Pass and off the cruise sample grid.
13-May-06	12:18	34	1	BD4	NEU040	338	54 35.13 N	165 39.14 W	Neu	QTowF	
13-May-06	12:47	34	2	BD4	BON035	352	54 35.64 N	165 40.36 W	20Bon	QTowF	
13-May-06	12:47	34	2	BD4	BON035	352	54 35.64 N	165 40.36 W	60Bon	QTowF	
13-May-06	12:47	34	2	BD4	BON035	352	54 35.64 N	165 40.36 W	60Bon	QTowF	Did not pick fish from 60bon net 2 due to lack of time.
13-May-06	12:47	34	2	BD4	BON035	352	54 35.64 N	165 40.36 W	CAT	CAT	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
13-May-06	13:37	34	3	BD4	CTDB010	349	54 35.38 N	165 39.93 W	CTDB	CTD, MZ, PAR	
13-May-06	14:36	34	4	BD4	MOC008	344	54 34.26 N	165 39.75 W	MOC1	QTowF	
13-May-06	17:01	35	1	BD7	NEU041	170	54 48.13 N	165 50.68 W	Neu	QTowF	
13-May-06	17:15	35	2	BD7	NEU042	167	54 48.39 N	165 51.61 W	Neu	MDNEU	
13-May-06	17:37	35	3	BD7	BON036	165	54 48.61 N	165 51.90 W	20Bon	QTowF	
13-May-06	17:37	35	3	BD7	BON036	165	54 48.61 N	165 51.90 W	60Bon	MCNRS, QTowF	
13-May-06	17:37	35	3	BD7	BON036	165	54 48.61 N	165 51.90 W	CAT	CAT	
13-May-06	19:11	36	1	BD10	NEU043	134	55 01.42 N	166 03.04 W	Neu	QTowF	
13-May-06	19:32	36	2	BD10	BON037	135	55 01.74 N	166 04.30 W	20Bon	QTowF	MOCNESS station so no time to pick 60Bon net 2.
13-May-06	19:32	36	2	BD10	BON037	135	55 01.74 N	166 04.30 W	60Bon	QTowF	MOCNESS station so no time to pick 60Bon net 2.
13-May-06	19:32	36	2	BD10	BON037	135	55 01.74 N	166 04.30 W	CAT	CAT	MOCNESS station so no time to pick 60Bon net 2.
13-May-06	20:05	36	3	BD10	CTDB011	135	55 01.68 N	166 04.21 W	CTDB	CTD, MZ, PAR	
13-May-06	20:50	36	4	BD10	MOC009	135	55 01.88 N	166 05.55 W	MOC1	QTowF	
13-May-06	22:30	37	1	BD13	NEU044	132	55 14.58 N	166 16.55 W	Neu	QTowF	
13-May-06	22:53	37	2	BD13	BON038	133	55 14.74 N	166 17.05 W	20Bon	QTowF	
13-May-06	22:53	37	2	BD13	BON038	133	55 14.74 N	166 17.05 W	60Bon	MCNRS, QTowF	
13-May-06	22:53	37	2	BD13	BON038	133	55 14.74 N	166 17.05 W	CAT	CAT	
14-May-06	0:30	38	1	BA13	NEU045	120	55 22.38 N	165 53.19 W	Neu	QTowF	
14-May-06	0:53	38	2	BA13	BON039	122	55 22.13 N	165 53.40 W	20Bon	QTowF	
14-May-06	0:53	38	2	BA13	BON039	122	55 22.13 N	165 53.40 W	60Bon	MCNRS, QTowF	
14-May-06	0:53	38	2	BA13	BON039	122	55 22.13 N	165 53.40 W	CAT	CAT	
14-May-06	2:31	39	1	BA10	NEU046	122	55 08.90 N	165 41.52 W	Neu	QTowF	
14-May-06	2:55	39	2	BA10	BON040	123	55 09.08 N	165 41.91 W	20Bon	QTowF	
14-May-06	2:55	39	2	BA10	BON040	123	55 09.08 N	165 41.91 W	60Bon	MCNRS, QTowF	
14-May-06	2:55	39	2	BA10	BON040	123	55 09.08 N	165 41.91 W	CAT	CAT	
14-May-06	4:36	40	1	BA07	NEU047	123	54 55.92 N	165 28.04 W	Neu	CAT, QTowF	
14-May-06	4:59	40	2	BA07	BON041	126	54 56.01 N	165 28.41 W	20Bon	QTowF	MOCNESS station so didn't pick 60Bon net 2.
14-May-06	4:59	40	2	BA07	BON041	126	54 56.01 N	165 28.41 W	60Bon	QTowF	MOCNESS station so didn't pick 60Bon net 2.
14-May-06	4:59	40	2	BA07	BON041	126	54 56.01 N	165 28.41 W	CAT	CAT	MOCNESS station so didn't pick 60Bon net 2.
14-May-06	5:36	40	3	BA07	CTDB012	126	54 56.19 N	165 27.86 W	CTDB	CTD, MZ, PAR	
14-May-06	6:20	40	4	BA07	MOC010	126	54 55.62 N	165 28.80 W	MOC1	QTowF	Had to increment net 2. Volume filtered for net 8 was estimated.
14-May-06	8:26	41	1	BA4	NEU048	135	54 42.60 N	165 15.86 W	Neu	QTowF	
14-May-06	9:09	41	2	BA4	BON042	137	54 43.23 N	165 15.30 W	20Bon	QTowF	
14-May-06	9:09	41	2	BA4	BON042	137	54 43.23 N	165 15.30 W	60Bon	MCNRS, QTowF	
14-May-06	9:09	41	2	BA4	BON042	137	54 43.23 N	165 15.30 W	CAT	CAT	
14-May-06	10:29	42	1	AX4	NEU049	76	54 49.43 N	164 53.99 W	Neu	QTowF	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
14-May-06	10:44	42	2	AX4	NEU050	73	54 49.24 N	164 53.03 W	Neu	MDNEU	
14-May-06	11:37	42	3	AX4	BON043	74	54 50.10 N	164 53.32 W	20Bon	QTowF	
14-May-06	11:37	42	3	AX4	BON043	74	54 50.10 N	164 53.32 W	60Bon	MCNRS, QTowF	
14-May-06	11:37	42	3	AX4	BON043	74	54 50.10 N	164 53.32 W	CAT	CAT	
14-May-06	11:32	42	4	AX4	DRIFT01	75	54 49.85 N	164 53.10 W	SatBuoy	Deploy	40m drogue = #53313
14-May-06	11:33	42	5	AX4	DRIFT02	75	54 49.85 N	164 53.10 W	SatBuoy	Deploy	Deploy 15m drogue #57867
14-May-06	13:09	43	1	AX7	NEU051	112	55 02.85 N	165 05.51 W	Neu	QTowF	
14-May-06	13:34	43	2	AX7	BON044	111	55 03.28 N	165 05.24 W	20Bon	QTowF	
14-May-06	13:34	43	2	AX7	BON044	111	55 03.28 N	165 05.24 W	60Bon	MCNRS, QTowF	
14-May-06	13:34	43	2	AX7	BON044	111	55 03.28 N	165 05.24 W	CAT	CAT	
14-May-06	15:07	44	1	AX10	NEU052	115	55 16.03 N	165 18.35 W	Neu	QTowF	
14-May-06	15:27	44	2	AX10	BON045	113	55 16.21 N	165 19.32 W	20Bon	QTowF	
14-May-06	15:27	44	2	AX10	BON045	113	55 16.21 N	165 19.32 W	60Bon	QTowF	
14-May-06	15:27	44	2	AX10	BON045	113	55 16.21 N	165 19.32 W	60Bon	QTowF	60Bon net2 not picked in order to set up for CTDB and MOC1
14-May-06	15:27	44	2	AX10	BON045	113	55 16.21 N	165 19.32 W	CAT	CAT	
14-May-06	15:58	44	3	AX10	CTDB013	113	55 16.13 N	165 18.05 W	CTDB	CTD, MZ, PAR	
14-May-06	16:34	44	4	AX10	MOC011	114	55 15.93 N	165 17.76 W	MOC1	QTowF	
14-May-06	18:17	45	1	AX13	NEU053	114	55 29.13 N	165 29.85 W	Neu	QTowF	
14-May-06	18:37	45	2	AX13	BON046	115	55 29.05 N	165 31.22 W	20Bon	QTowF	
14-May-06	18:37	45	2	AX13	BON046	115	55 29.05 N	165 31.22 W	60Bon	MCNRS, QTowF	
14-May-06	18:37	45	2	AX13	BON046	115	55 29.05 N	165 31.22 W	60Bon	MCNRS, QTowF	Cat file for BON046 was accidentally overwritten
14-May-06	18:37	45	2	AX13	BON046	115	55 29.05 N	165 31.22 W	CAT	CAT	and was recreated from ASCII SCS file.
14-May-06	18:37	45	2	AX13	BON046	115	55 29.05 N	165 31.22 W	CAT	CAT	Cat file from BON046 was accidentally overwritten and was replaced with ASCII SCS file.
14-May-06	20:14	46	1	AU13	NEU054	108	55 36.05 N	165 07.48 W	Neu	QTowF	
14-May-06	20:35	46	2	AU13	BON047	108	55 36.12 N	165 08.82 W	20Bon	QTowF	
14-May-06	20:35	46	2	AU13	BON047	108	55 36.12 N	165 08.82 W	60Bon	MCNRS, QTowF	
14-May-06	20:35	46	2	AU13	BON047	108	55 36.12 N	165 08.82 W	CAT	CAT	
14-May-06	22:10	47	1	AU10	NEU055	106	55 23.20 N	164 54.75 W	Neu	QTowF	
14-May-06	22:31	47	2	AU10	BON048	106	55 23.15 N	164 56.16 W	20Bon	QTowF	
14-May-06	22:31	47	2	AU10	BON048	106	55 23.15 N	164 56.16 W	60Bon	MCNRS, QTowF	
14-May-06	22:31	47	2	AU10	BON048	106	55 23.15 N	164 56.16 W	CAT	CAT	
15-May-06	0:04	48	1	AU07	NEU056	100	55 10.06 N	164 42.09 W	Neu	QTowF	
15-May-06	0:28	48	2	AU07	BON049	101	55 10.16 N	164 43.57 W	20Bon	QTowF	
15-May-06	0:28	48	2	AU07	BON049	101	55 10.16 N	164 43.57 W	60Bon	MCNRS, QTowF	
15-May-06	0:28	48	2	AU07	BON049	101	55 10.16 N	164 43.57 W	CAT	CAT	
15-May-06	0:47	48	3	AU07	DRIFT3	107	55 09.55 N	164 43.11 W	SatBuoy	Deploy	40 m drogue # 53314.

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
15-May-06	0:50	48	4	AU07	DRIFT4	107	55 09.51 N	164 42.97 W	SatBuoy	Deploy	15 m drogue #57866.
15-May-06	2:15	49	1	AU04	NEU057	43	54 56.93 N	164 29.39 W	Neu	QTowF	
15-May-06	2:34	49	2	AU04	BON050	46	54 57.05 N	164 30.47 W	20Bon	QTowF	
15-May-06	2:34	49	2	AU04	BON050	46	54 57.05 N	164 30.47 W	60Bon	MCNRS, QTowF	
15-May-06	2:34	49	2	AU04	BON050	46	54 57.05 N	164 30.47 W	CAT	CAT	
15-May-06	4:02	50	1	AR04	NEU058	35	55 04.10 N	164 06.20 W	Neu	QTowF	
15-May-06	4:21	50	2	AR04	BON051	35	55 04.40 N	164 06.67 W	20Bon	QTowF	
15-May-06	4:21	50	2	AR04	BON051	35	55 04.40 N	164 06.67 W	60Bon	QTowF	
15-May-06	4:21	50	2	AR04	BON051	35	55 04.40 N	164 06.67 W	CAT	CAT	
15-May-06	4:36	50	3	AR04	DRIFT5	35	55 04.36 N	164 07.03 W	SatBuoy	Deploy	Drifter # 57863. 15 m.
15-May-06	5:55	51	1	AR7	NEU059	98	55 17.12 N	164 18.64 W	Neu	QTowF	
15-May-06	6:16	51	2	AR7	BON052	97	55 17.27 N	164 19.63 W	20Bon	QTowF	CAT upcast not good. Downcast OK.
15-May-06	6:16	51	2	AR7	BON052	97	55 17.27 N	164 19.63 W	60Bon	QTowF	CAT upcast not good. Downcast OK.
15-May-06	6:16	51	2	AR7	BON052	97	55 17.27 N	164 19.63 W	CAT	CAT	CAT upcast not good. Downcast OK.
15-May-06	6:55	51	3	AR7	CTDB014	98	55 17.73 N	164 19.13 W	CTDB	CTD, MZ, PAR	
15-May-06	7:29	51	4	AR7	MOC012	96	55 17.17 N	164 19.33 W	MOC1	QTowF	
15-May-06	9:00	52	1	AR10	NEU060	102	55 30.34 N	164 31.59 W	Neu	QTowF	
15-May-06	9:44	52	2	AR10	BON053	100	55 30.45 N	164 32.50 W	20Bon	QTowF	Missed SeaCAT upcast data from 0-35 m because data acquisition was not turned on yet. 20Bon nets twisted on retrieval.
15-May-06	9:44	52	2	AR10	BON053	100	55 30.45 N	164 32.50 W	60Bon	MCNRS, QTowF	Missed SeaCAT upcast data from 0-35 m because data acquisition was not turned on yet. 20Bon nets twisted on retrieval.
15-May-06	9:44	52	2	AR10	BON053	100	55 30.45 N	164 32.50 W	CAT	CAT	Missed SeaCAT upcast data from 0-35 m because data acquisition was not turned on yet. 20Bon nets twisted on retrieval.
15-May-06	11:08	53	1	AR13	NEU061	219	55 43.41 N	164 44.47 W	Neu	QTowF	
15-May-06	11:24	53	2	AR13	NEU062	97	55 43.69 N	164 45.06 W	Neu	MDNEU	
15-May-06	11:54	53	3	AR13	BON054	97	55 43.65 N	164 44.90 W	20Bon	QTowF	Seem to be out of the high phytoplankton zone. Nets clean with very little green material.
15-May-06	11:54	53	3	AR13	BON054	97	55 43.65 N	164 44.90 W	60Bon	MCNRS, QTowF	Seem to be out of the high phytoplankton zone. Nets clean with very little green material.
15-May-06	11:54	53	3	AR13	BON054	97	55 43.65 N	164 44.90 W	60Bon	MCNRS, QTowF	Seem to be out of the high phytoplankton zone. Nets clean with very little green material.
15-May-06	11:54	53	3	AR13	BON054	97	55 43.65 N	164 44.90 W	CAT	CAT	Seem to be out of the high phytoplankton zone. Nets clean with very little green material.
15-May-06	13:25	54	1	AO13	NEU063	95	55 50.84 N	164 21.95 W	Neu	QTowF	
15-May-06	13:46	54	2	AO13	BON055	95	55 50.82 N	164 23.19 W	20Bon	QTowF	60Bon net 2 had large jellyfish in codend. Very little phytoplankton again.

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
15-May-06	13:46	54	2	AO13	BON055	95	55 50.82 N	164 23.19 W	60Bon	MCNRS, QTowF	60Bon net 2 had large jellyfish in codend. Very little phytoplankton again.
15-May-06	13:46	54	2	AO13	BON055	95	55 50.82 N	164 23.19 W	CAT	CAT	60Bon net 2 had large jellyfish in codend. Very little phytoplankton again.
15-May-06	15:25	55	1	AO10	NEU064	95	55 37.55 N	164 08.71 W	Neu	QTowF	
15-May-06	15:48	55	2	AO10	BON056	95	55 37.42 N	164 10.01 W	20Bon	QTowF	
15-May-06	15:48	55	2	AO10	BON056	95	55 37.42 N	164 10.01 W	60Bon	MCNRS, QTowF	
15-May-06	15:48	55	2	AO10	BON056	95	55 37.42 N	164 10.01 W	CAT	CAT	
15-May-06	17:21	56	1	AO7	NEU065	88	55 24.25 N	163 55.49 W	Neu	QTowF	
15-May-06	17:44	56	2	AO7	BON057	89	55 24.48 N	163 55.97 W	20Bon	Discard	Hit bottom.
15-May-06	17:44	56	2	AO7	BON057	89	55 24.48 N	163 55.97 W	60Bon	Discard	Hit bottom.
15-May-06	17:44	56	2	AO7	BON057	89	55 24.48 N	163 55.97 W	CAT	CAT	Hit bottom.
15-May-06	18:06	56	3	A07	BON058	88	55 24.66 N	163 54.97 W	20Bon	QTowF	
15-May-06	18:06	56	3	A07	BON058	88	55 24.66 N	163 54.97 W	60Bon	MCNRS, QTowF	
15-May-06	18:06	56	3	A07	BON058	88	55 24.66 N	163 54.97 W	CAT	CAT	
15-May-06	19:31	57	1	AO4	NEU66	46	55 11.60 N	163 44.28 W	Neu	QTowF	
15-May-06	19:52	57	2	AO4	BON059	46	55 11.35 N	163 43.55 W	20Bon	QTowF	
15-May-06	19:52	57	2	AO4	BON059	46	55 11.35 N	163 43.55 W	60Bon	QTowF	
15-May-06	19:52	57	2	AO4	BON059	46	55 11.35 N	163 43.55 W	CAT	CAT	
15-May-06	19:31	58	1	AL04	NEU67	47	55 11.62 N	163 44.35 W	Neu	QTowF	
15-May-06	19:52	58	2	AL04	BON060	46	55 11.35 N	163 43.55 W	20Bon	QTowF	
15-May-06	19:52	58	2	AL04	BON060	46	55 11.35 N	163 43.55 W	60Bon	MCNRS, QTowF	
15-May-06	19:52	58	2	AL04	BON060	46	55 11.35 N	163 43.55 W	CAT	CAT	
15-May-06	23:10	59	1	AL07	NEU068	75	55 31.94 N	163 33.70 W	Neu	QTowF	
15-May-06	23:29	59	2	AL07	BON061	72	55 31.50 N	163 33.15 W	20Bon	QTowF	
15-May-06	23:29	59	2	AL07	BON061	72	55 31.50 N	163 33.15 W	60Bon	QTowF	
15-May-06	23:29	59	2	AL07	BON061	72	55 31.50 N	163 33.15 W	CAT	CAT	
16-May-06	1:10	60	1	AL10	NEU069	93	55 44.92 N	163 45.97 W	Neu	QTowF	
16-May-06	1:29	60	2	AL10	BON062	93	55 44.39 N	163 45.58 W	20Bon	QTowF	
16-May-06	1:29	60	2	AL10	BON062	93	55 44.39 N	163 45.58 W	60Bon	MCNRS, QTowF	
16-May-06	1:29	60	2	AL10	BON062	93	55 44.39 N	163 45.58 W	CAT	CAT	
16-May-06	3:04	61	1	AL13	NEU070	91	55 58.23 N	163 58.80 W	Neu	QTowF	Seaweed in cod end. Rinsed well and discarded.
16-May-06	3:24	61	2	AL13	BON063	92	55 58.10 N	163 57.62 W	20Bon	QTowF	
16-May-06	3:24	61	2	AL13	BON063	92	55 58.10 N	163 57.62 W	60Bon	MCNRS, QTowF	
16-May-06	3:24	61	2	AL13	BON063	92	55 58.10 N	163 57.62 W	CAT	CAT	
16-May-06	4:52	62	1	AI13	NEU071	91	56 05.53 N	163 35.75 W	Neu	QTowF	
16-May-06	5:13	62	2	AI13	BON064	89	56 05.34 N	163 34.59 W	20Bon	QTowF	
16-May-06	5:13	62	2	AI13	BON064	89	56 05.34 N	163 34.59 W	60Bon	QTowF	Big jellyfish in 60BON net 2 - sample discarded

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
16-May-06	5:13	62	2	AI13	BON064	89	56 05.34 N	163 34.59 W	CAT	CAT	
16-May-06	6:56	63	1	AI10	NEU072	171	55 52.35 N	163 22.72 W	Neu	QTowF	
16-May-06	7:17	63	2	AI10	BON065	91	55 51.91 N	163 21.59 W	20Bon	QTowF	
16-May-06	7:17	63	2	AI10	BON065	91	55 51.91 N	163 21.59 W	60Bon	QTowF	
16-May-06	7:17	63	2	AI10	BON065	91	55 51.91 N	163 21.59 W	CAT	CAT	
16-May-06	9:00	64	1	AI07	NEU073	69	55 38.88 N	163 10.29 W	Neu	QTowF	
16-May-06	9:21	64	2	AI07	BON066	67	55 38.50 N	163 09.31 W	20Bon	QTowF	
16-May-06	9:21	64	2	AI07	BON066	67	55 38.50 N	163 09.31 W	60Bon	MCNRS, QTowF	
16-May-06	9:21	64	2	AI07	BON066	67	55 38.50 N	163 09.31 W	CAT	CAT	
16-May-06	11:00	65	1	AI04	NEU074	39	55 25.71 N	162 57.63 W	Neu	QTowF	
16-May-06	11:17	65	2	AI04	NEU075	37	55 25.42 N	162 56.83 W	Neu	MDNEU	removed large piece of seaweed from sample
16-May-06	11:45	65	3	AI04	BON067	35	55 25.75 N	162 57.48 W	20Bon	QTowF	
16-May-06	11:45	65	3	AI04	BON067	35	55 25.75 N	162 57.48 W	60Bon	MCNRS, QTowF	
16-May-06	11:45	65	3	AI04	BON067	35	55 25.75 N	162 57.48 W	CAT	CAT	
16-May-06	13:34	66	1	AF4	NEU076	28	55 32.74 N	162 34.09 W	Neu	QTowF	
16-May-06	13:59	66	2	AF4	BON068	28	55 32.17 N	162 34.02 W	20Bon	QTowF	
16-May-06	13:59	66	2	AF4	BON068	28	55 32.17 N	162 34.02 W	60Bon	MCNRS, QTowF	
16-May-06	13:59	66	2	AF4	BON068	28	55 32.17 N	162 34.02 W	CAT	CAT	
16-May-06	15:29	67	1	AF7	NEU077	58	55 46.27 N	162 46.32 W	Neu	QTowF	
16-May-06	15:45	67	2	AF7	NEU078	58	55 45.66 N	162 46.22 W	Neu	MDNEU	
16-May-06	16:03	67	3	AF7	BON069	58	55 45.15 N	162 46.11 W	20Bon	QTowF	
16-May-06	16:03	67	3	AF7	BON069	58	55 45.15 N	162 46.11 W	60Bon	MCNRS, QTowF	Large jellyfish in 60Bon Net 1 codend.
16-May-06	16:03	67	3	AF7	BON069	58	55 45.15 N	162 46.11 W	CAT	CAT	
16-May-06	17:35	68	1	AF10	NEU079	85	55 59.59 N	162 59.20 W	Neu	QTowF	
16-May-06	17:51	68	2	AF10	BON070	84	55 59.06 N	162 58.86 W	20Bon	QTowF	
16-May-06	17:51	68	2	AF10	BON070	84	55 59.06 N	162 58.86 W	60Bon	MCNRS, QTowF	
16-May-06	17:51	68	2	AF10	BON070	84	55 59.06 N	162 58.86 W	CAT	CAT	
16-May-06	19:25	69	1	AF13	NEU080	86	56 12.82 N	163 12.24 W	Neu	QTowF	
16-May-06	19:45	69	2	AF13	BON071	86	56 12.16 N	163 11.73 W	20Bon	QTowF	
16-May-06	19:45	69	2	AF13	BON071	86	56 12.16 N	163 11.73 W	60Bon	QTowF	
16-May-06	19:45	69	2	AF13	BON071	86	56 12.16 N	163 11.73 W	60Bon	QTowF	Lions mane jellyfish in Net 1 60Bon.
16-May-06	19:45	69	2	AF13	BON071	86	56 12.16 N	163 11.73 W	CAT	CAT	
16-May-06	21:23	70	1	AC13	NEU081	89	56 19.62 N	162 48.52 W	Neu	QTowF	
16-May-06	21:43	70	2	AC13	BON072	80	56 19.03 N	162 48.40 W	20Bon	QTowF	Jellyfish crud wrapped around flowmeter in 60Bon net 1 so saved net 2 for quantitative sample.
16-May-06	21:43	70	2	AC13	BON072	80	56 19.03 N	162 48.40 W	60Bon	MCNRS, QTowF	Jellyfish crud wrapped around flowmeter in 60Bon net 1 so saved net 2 for quantitative sample.

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

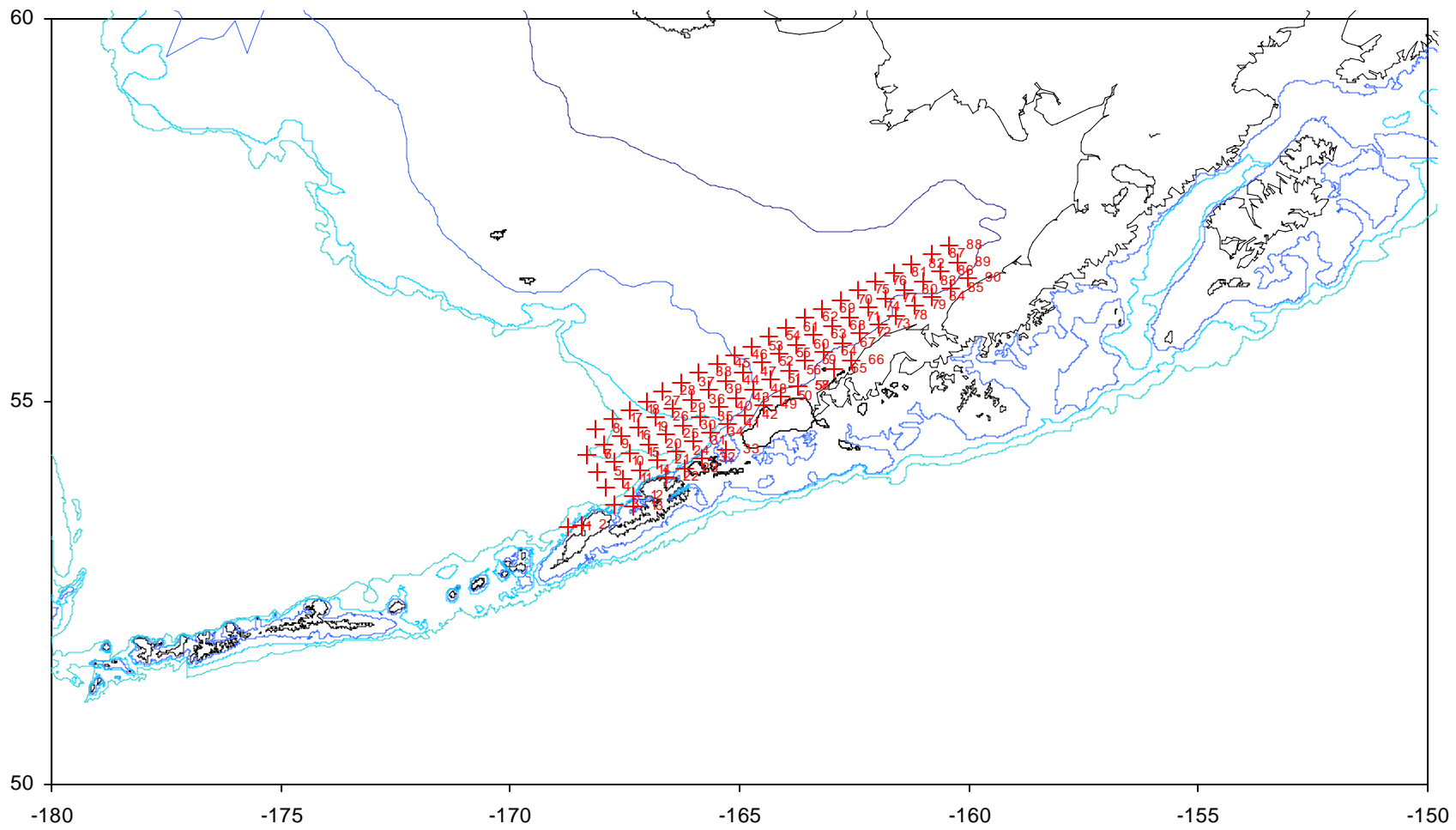
Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
16-May-06	21:43	70	2	AC13	BON072	80	56 19.03 N	162 48.40 W	CAT	CAT	Jellyfish crud wrapped around flowmeter in 60Bon net 1 so saved net 2 for quantitative sample.
16-May-06	23:10	71	1	AC10	NEU082	78	56 06.52 N	162 35.90 W	Neu	QTowF	
16-May-06	23:30	71	2	AC10	BON073	79	56 05.80 N	162 36.00 W	20Bon	QTowF	
16-May-06	23:30	71	2	AC10	BON073	79	56 05.80 N	162 36.00 W	60Bon	MCNRS, QTowF	
16-May-06	23:30	71	2	AC10	BON073	79	56 05.80 N	162 36.00 W	CAT	CAT	
17-May-06	1:15	72	1	AC07	NEU083	61	55 53.16 N	162 22.51 W	Neu	QTowF	
17-May-06	1:30	72	2	AC07	BON074	57	55 52.34 N	162 22.97 W	20Bon	QTowF	
17-May-06	1:30	72	2	AC07	BON074	57	55 52.34 N	162 22.97 W	60Bon	QTowF	Large jellyfish in 60BON net 2. No larvae observed or preserved.
17-May-06	1:30	72	2	AC07	BON074	57	55 52.34 N	162 22.97 W	CAT	CAT	
17-May-06	3:10	73	1	Z07	NEU084	55	56 00.48 N	161 59.30 W	Neu	QTowF	
17-May-06	3:31	73	2	Z07	BON075	47	55 59.80 N	161 58.68 W	20Bon	QTowF	
17-May-06	3:31	73	2	Z07	BON075	47	55 59.80 N	161 58.68 W	60Bon	MCNRS, QTowF	
17-May-06	3:31	73	2	Z07	BON075	47	55 59.80 N	161 58.68 W	CAT	CAT	
17-May-06	5:07	74	1	Z10	NEU085	77	56 13.83 N	162 12.48 W	Neu	QTowF	
17-May-06	5:25	74	2	Z10	BON076	76	56 13.10 N	162 11.64 W	20Bon	QTowF	Huge jellyfish in 60Bon nets 1 & 2. Probably clogged the nets but revs seem OK.
17-May-06	5:25	74	2	Z10	BON076	76	56 13.10 N	162 11.64 W	60Bon	QTowF	Huge jellyfish in 60Bon nets 1 & 2. Probably clogged the nets but revs seem OK.
17-May-06	5:25	74	2	Z10	BON076	76	56 13.10 N	162 11.64 W	CAT	CAT	Huge jellyfish in 60Bon nets 1 & 2. Probably clogged the nets but revs seem OK.
17-May-06	6:58	75	1	Z13	NEU086	74	56 26.99 N	162 25.07 W	Neu	QTowF	
17-May-06	7:18	75	2	Z13	BON077	74	56 26.48 N	162 24.64 W	20Bon	QTowF	
17-May-06	7:18	75	2	Z13	BON077	74	56 26.48 N	162 24.64 W	60Bon	MCNRS, QTowF	
17-May-06	7:18	75	2	Z13	BON077	74	56 26.48 N	162 24.64 W	CAT	CAT	
17-May-06	8:44	76	1	W13	NEU087	73	56 34.00 N	162 01.59 W	Neu	QTowF	
17-May-06	9:11	76	2	W13	BON078	72	56 33.70 N	162 01.09 W	20Bon	QTowF	Lots of small gadids in 60BON. High density of "brown" phytoplankton in 20BON
17-May-06	9:11	76	2	W13	BON078	72	56 33.70 N	162 01.09 W	60Bon	MCNRS, QTowF	Lots of small gadids in 60BON. High density of "brown" phytoplankton in 20BON
17-May-06	9:11	76	2	W13	BON078	72	56 33.70 N	162 01.09 W	CAT	CAT	Lots of small gadids in 60BON. High density of "brown" phytoplankton in 20BON
17-May-06	10:37	77	1	W10	NEU088	84	56 20.72 N	161 49.06 W	Neu	QTowF	
17-May-06	11:55	77	2	W10	BON079	83	56 20.36 N	161 47.61 W	20Bon	QTowF	Extra 30 seconds at the surface
17-May-06	11:55	77	2	W10	BON079	83	56 20.36 N	161 47.61 W	60Bon	MCNRS, QTowF	Extra 30 seconds at the surface
17-May-06	11:55	77	2	W10	BON079	83	56 20.36 N	161 47.61 W	CAT	CAT	Extra 30 seconds at the surface
17-May-06	13:46	78	1	W07	NEU089	54	56 07.37 N	161 35.65 W	Neu	QTowF	Oil spilled on back deck. Cannot deploy neuston from correct side any longer. New neuston towing configuration implemented.

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
17-May-06	14:04	78	2	W07	NEU090	54	56 07.09 N	161 36.47 W	Neu	MDNEU	Oil spilled on back deck. Cannot deploy neuston from correct side any longer. New neuston towing configuration implemented.
17-May-06	14:41	78	3	W07	BON080	53	56 07.26 N	161 35.18 W	20Bon	QTowF	
17-May-06	14:41	78	3	W07	BON080	53	56 07.26 N	161 35.18 W	60Bon	MCNRS, QTowF	
17-May-06	14:41	78	3	W07	BON080	53	56 07.26 N	161 35.18 W	CAT	CAT	
17-May-06	15:58	79	1	T07	NEU091	49	56 14.75 N	161 10.96 W	Neu	QTowF	Oil spilled on back deck. Cannot deploy neuston from correct side any longer. New neuston towing configuration implemented.
17-May-06	16:16	79	2	T07	BON081	48	56 14.32 N	161 12.40 W	20Bon	QTowF	Brown algae again. Fish larvae: gadids and sandlance. No fish saved in ethanol.
17-May-06	16:16	79	2	T07	BON081	48	56 14.32 N	161 12.40 W	60Bon	QTowF	Brown algae again. Fish larvae: gadids and sandlance. No fish saved in ethanol.
17-May-06	16:16	79	2	T07	BON081	48	56 14.32 N	161 12.40 W	CAT	CAT	Brown algae again. Fish larvae: gadids and sandlance. No fish saved in ethanol.
17-May-06	17:42	80	1	T10	NEU092	70	56 27.62 N	161 23.85 W	Neu	QTowF	Oil spilled on back deck. Cannot deploy neuston from correct side any longer. New neuston towing configuration implemented.
17-May-06	17:59	80	2	T10	NEU093	69	56 27.44 N	161 25.46 W	Neu	MDNEU	New tow configuration.
17-May-06	18:16	80	3	T10	BON082	68	56 27.50 N	161 26.16 W	20Bon	QTowF	
17-May-06	18:16	80	3	T10	BON082	68	56 27.50 N	161 26.16 W	60Bon	QTowF	
17-May-06	18:16	80	3	T10	BON082	68	56 27.50 N	161 26.16 W	CAT	CAT	
17-May-06	19:58	81	1	T13	NEU094	84	56 40.72 N	161 37.95 W	Neu	QTowF	New tow configuration.
17-May-06	20:18	81	2	T13	BON083	84	56 40.81 N	161 38.06 W	20Bon	QTowF	
17-May-06	20:18	81	2	T13	BON083	84	56 40.81 N	161 38.06 W	60Bon	MCNRS, QTowF	
17-May-06	20:18	81	2	T13	BON083	84	56 40.81 N	161 38.06 W	CAT	CAT	
17-May-06	21:40	82	1	Q13	NEU095	65	56 47.74 N	161 15.05 W	Neu	QTowF	Looks like chunks of plastic in codend so decided to do second Neuston after bongo for Miriam. New tow configuration.
17-May-06	22:06	82	2	Q13	BON084	66	56 48.11 N	161 13.64 W	20Bon	QTowF	
17-May-06	22:06	82	2	Q13	BON084	66	56 48.11 N	161 13.64 W	60Bon	MCNRS, QTowF	
17-May-06	22:06	82	2	Q13	BON084	66	56 48.11 N	161 13.64 W	CAT	CAT	
17-May-06	22:18	82	3	Q13	NEU096	66	56 48.24 N	161 13.47 W	Neu	Discard	2nd neuston tow at this station. For Miriam.
New											tow configuration.
17-May-06	23:49	83	1	Q10	NEU097	71	56 34.78 N	161 00.96 W	Neu	QTowF	New tow configuration.
18-May-06	0:08	83	2	Q10	BON085	71	56 34.93 N	161 00.43 W	20Bon	QTowF	Jellyfish in 60Bon net1 so used net2 for QtowF.
18-May-06	0:08	83	2	Q10	BON085	71	56 34.93 N	161 00.43 W	60Bon	MCNRS, QTowF	Jellyfish in 60Bon net1 so used net2 for QtowF.
18-May-06	0:08	83	2	Q10	BON085	71	56 34.93 N	161 00.43 W	CAT	CAT	Jellyfish in 60Bon net1 so used net2 for QtowF.
18-May-06	1:46	84	1	Q7	NEU098	47	56 21.59 N	160 48.15 W	Neu	QTowF	New tow configuration.
18-May-06	1:53	84	2	Q7	BON086	47	56 21.50 N	160 47.88 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 3MF06 (MF-06-06)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
18-May-06	1:53	84	2	Q7	BON086	47	56 21.50 N	160 47.88 W	60Bon	QTowF	
18-May-06	1:53	84	2	Q7	BON086	47	56 21.50 N	160 47.88 W	60Bon	QTowF	Jellyfish in 60Bon Net 1.
18-May-06	1:53	84	2	Q7	BON086	47	56 21.50 N	160 47.88 W	CAT	CAT	
18-May-06	3:30	85	1	N07	NEU099	36	56 28.79 N	160 24.20 W	Neu	QTowF	Fishing neuston net off port quarterdeck. Hand launch and retrieval.
18-May-06	3:47	85	2	N07	BON087	38	56 28.48 N	160 25.62 W	20Bon	QTowF	
18-May-06	3:47	85	2	N07	BON087	38	56 28.48 N	160 25.62 W	60Bon	MCNRS, QTowF	
18-May-06	3:47	85	2	N07	BON087	38	56 28.48 N	160 25.62 W	CAT	CAT	
18-May-06	5:21	86	1	N10	NEU100	66	56 41.85 N	160 36.60 W	Neu	QTowF	New tow configuration.
18-May-06	5:41	86	2	N10	BON088	67	56 41.55 N	160 39.04 W	20Bon	QTowF	
18-May-06	5:41	86	2	N10	BON088	67	56 41.55 N	160 39.04 W	60Bon	QTowF	
18-May-06	5:41	86	2	N10	BON088	67	56 41.55 N	160 39.04 W	CAT	CAT	
18-May-06	7:07	87	1	N13	NEU101	67	56 55.08 N	160 49.48 W	Neu	QTowF	Net towed off port side in wake.
18-May-06	7:27	87	2	N13	BON089	69	56 55.10 N	160 49.97 W	20Bon	QTowF	
18-May-06	7:27	87	2	N13	BON089	69	56 55.10 N	160 49.97 W	60Bon	QTowF	
18-May-06	7:27	87	2	N13	BON089	69	56 55.10 N	160 49.97 W	CAT	CAT	
18-May-06	8:43	88	1	K13	NEU102	66	57 02.09 N	160 27.24 W	Neu	QTowF	Net towed off port side in wake.
18-May-06	9:02	88	2	K13	BON090	66	57 02.34 N	160 26.11 W	20Bon	QTowF	
18-May-06	9:02	88	2	K13	BON090	66	57 02.34 N	160 26.11 W	60Bon	MCNRS, QTowF	
18-May-06	9:02	88	2	K13	BON090	66	57 02.34 N	160 26.11 W	CAT	CAT	
18-May-06	10:30	89	1	K10	NEU103	60	56 49.03 N	160 14.05 W	Neu	QTowF	Net towed on port side in wake.
18-May-06	10:55	89	2	K10	BON091	62	56 49.21 N	160 12.84 W	20Bon	QTowF	
18-May-06	10:55	89	2	K10	BON091	62	56 49.21 N	160 12.84 W	60Bon	QTowF	
18-May-06	10:55	89	2	K10	BON091	62	56 49.21 N	160 12.84 W	CAT	CAT	
18-May-06	12:25	90	1	K7	NEU104	47	56 36.31 N	160 00.51 W	Neu	QTowF	Net towed on port side in wake.
18-May-06	12:47	90	2	K7	BON092	46	56 36.29 N	159 59.71 W	20Bon	QTowF	Strong current kept nets at max depth for a while.
18-May-06	12:47	90	2	K7	BON092	46	56 36.29 N	159 59.71 W	60Bon	QTowF	Over sampled max depth and wire angle were questionable. Strong current kept nets at max depth for a while.
18-May-06	12:47	90	2	K7	BON092	46	56 36.29 N	159 59.71 W	60Bon	QTowF	60Bon Net 2 hit bottom and came up HALF FULL of sand. Strong current kept nets at max depth for a while.
18-May-06	12:47	90	2	K7	BON092	46	56 36.29 N	159 59.71 W	CAT	CAT	Over sampled max depth and wire angles were questionable. Strong current kept nets at max depth for a while.
18-May-06	12:47	90	2	K7	BON092	46	56 36.29 N	159 59.71 W	CAT	CAT	Over sampled max depth and wire angle were questionable.



3MF06 Stations