

## CRUISE REPORT

Cruise Number: MF-06-10 Leg 1

FOCI Number: FOCI 6MF06

Ship: Miller Freeman

### Area of Operations: Southeast Bering Sea

#### Itinerary:

Departed Kodiak, Alaska, at 1500 hours on Friday September 8, 2006.

Arrived Dutch Harbor, Alaska, at 0800 hours on Saturday, September 23, 2006.

#### Participating Organizations:

NOAA – Alaska Fisheries Science Center (AFSC)

7600 Sand Point Way N.E.

Seattle, Washington 98115-0070

#### Chief Scientist:

Janet Duffy-Anderson

NOAA/AFSC/FOCI

206-526-6465

[Janet.Duffy-Anderson@noaa.gov](mailto:Janet.Duffy-Anderson@noaa.gov)

#### Other Participating Scientists:

Name	Gender	Affiliation	E-mail Address
Dongwha Sohn	Female	OSU	<a href="mailto:dongwhasohn@gmail.com">dongwhasohn@gmail.com</a>
Christina Jump	Female	AFSC	<a href="mailto:Christina.Jump@noaa.gov">Christina.Jump@noaa.gov</a>
Jennifer Lanksbury	Female	AFSC	<a href="mailto:Jennifer.Lanksbury@noaa.gov">Jennifer.Lanksbury@noaa.gov</a>
Colleen Harpold	Female	AFSC	<a href="mailto:Colleen.Harpold@noaa.gov">Colleen.Harpold@noaa.gov</a>
Ingrid Spies	Female	AFSC	<a href="mailto:Ingrid.Spies@noaa.gov">Ingrid.Spies@noaa.gov</a>
William Floering	Male	PMEL	<a href="mailto:William.Floering@noaa.gov">William.Floering@noaa.gov</a>

#### Objectives of Cruise:

Eco-FOCI conducted an ichthyoplankton and juvenile flatfish survey in the Bering Sea from Bristol Bay to Unimak Island, Alaska. We used a 3m plumb staff beam trawl to conduct bottom sampling for 0-group flatfishes in presumed nursery areas. We used bongo and neuston nets to collect ichthyoplankton and zooplankton at all stations. We also employed a Multiple Opening/Closing Net and Environmental Sensing System (MOCNESS) at selected locations over the continental shelf to examine depth-discrete patterns in pre-settling late-stage flatfish. Data on the physical characteristics of the water column were collected by a Seacat profiler collected in line with the bongo nets, and with a CTD (at selected stations). 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)	89

60cm bongo (60Bon)	90
3m plumb staff beam trawl (Beam)	24
Seabird SeaCAT CTD (CAT)	88
CTD without bottle samples (CTD)	13
CTD with bottle samples (CTDB)	10
1m <sup>2</sup> MOCNESS (MOC1)	10
Neuston (Neu)	96

## **Summary of Cruise:**

### Grid survey:

Departure from Dutch Harbor, AK occurred at 1500 hrs on September 08, 2006. At most stations, a neuston tow (505 $\mu$ m mesh) was conducted first, followed by a bongo tow. For the bongo tow, the 60BON was fitted with 505 $\mu$ m mesh on both sides. The 20BON array was fitted with 153 $\mu$ m mesh on both sides. The Seacat profiler was attached in line during all bongo tows. CTD casts were conducted at selected stations.

### Juvenile flatfish distribution study:

Ten (10) MOCNESS tows were conducted at selected stations on the continental shelf to determine depth-discrete distributions of late stage larval and early stage juvenile flatfishes. Prior to each MOCNESS tow, CTD casts were conducted and microzooplankton samples were collected. MOCNESS tows were to a maximum depth of 300m. Twenty-four (24) beam trawls were conducted to examine distribution and abundance of newly settled flatfishes along the Alaska Peninsula.

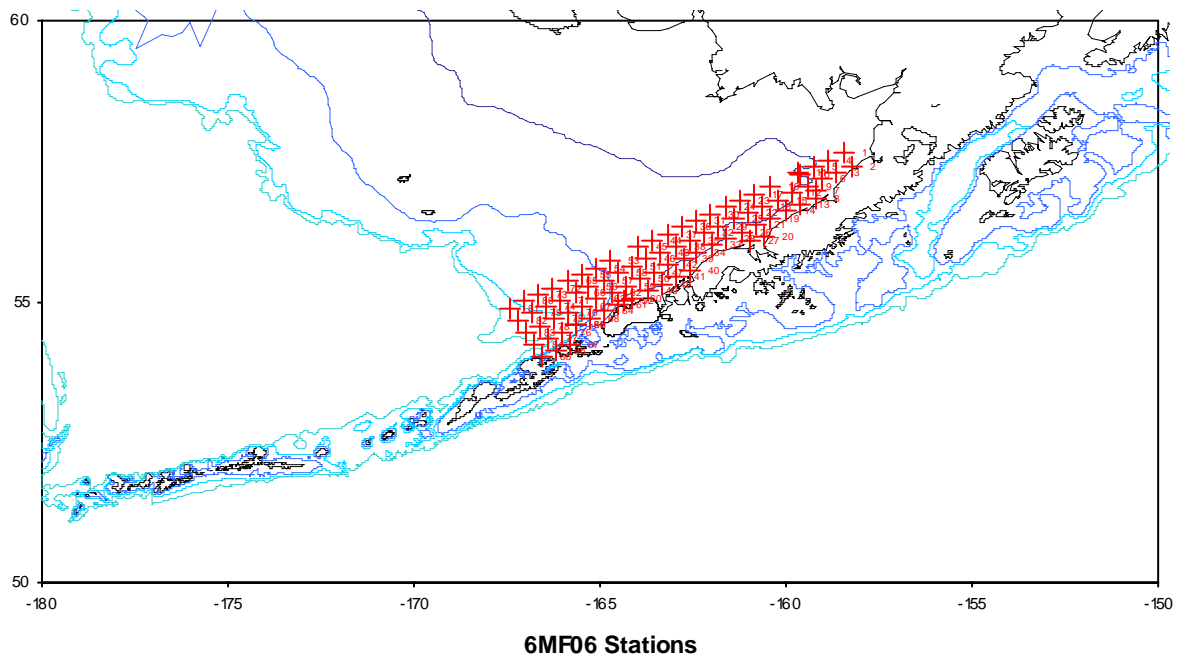
### Additional Neuston Samples:

Ten (10) additional neuston tows were conducted at selected stations over the continental shelf to collect samples for a special project (M. Doyle). Samples were preserved in formalin.

Time lost: 24 hours due to inclement weather

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.

Station Map:



## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
11-Sep-06	23:25	1	1	a13	NEU001	41	57 38.46 N	158 26.64 W	Neu	QTowF	
11-Sep-06	23:53	1	2	a13	BON001	45	57 38.05 N	158 27.27 W	20Bon	QTowF	lots of brown algae clogging cod ends. 60Bon Net1 had a large jellyfish in it.
11-Sep-06	23:53	1	2	a13	BON001	45	57 38.05 N	158 27.27 W	60Bon	QTowF	lots of brown algae clogging cod ends. 60Bon Net1 had a large jellyfish in it.
11-Sep-06	23:53	1	2	a13	BON001	45	57 38.05 N	158 27.27 W	CAT	CAT	lots of brown algae clogging cod ends. 60Bon Net1 had a large jellyfish in it.
12-Sep-06	0:16	1	3	a13	CTD001	46	57 38.12 N	158 27.08 W	CTD	CTD	
12-Sep-06	0:49	1	4	a13	BEAM001	46	57 38.15 N	158 27.07 W	Beam	Shrink	Tow time = 10 minutes
12-Sep-06	2:28	2	1	a10	NEU002	27	57 25.10 N	158 13.66 W	Neu	QTowF	
12-Sep-06	2:45	2	2	a10	BON002	29	57 24.75 N	158 14.52 W	20Bon	QTowF	
12-Sep-06	2:45	2	2	a10	BON002	29	57 24.75 N	158 14.52 W	60Bon	QTowF	wire out estimated
12-Sep-06	2:45	2	2	a10	BON002	29	57 24.75 N	158 14.52 W	CAT	CAT	
12-Sep-06	4:03	3	1	A10	NEU003	36	57 17.72 N	158 38.08 W	Neu	QTowF	
12-Sep-06 estimated	4:22	3	2	A10	BON003	38	57 17.57 N	158 38.57 W	20Bon	Discard	tow angle was very low. Max wire out
12-Sep-06 estimated	4:22	3	2	A10	BON003	38	57 17.57 N	158 38.57 W	60Bon	Discard	tow angle was very low. Max wire out
12-Sep-06 estimated	4:22	3	2	A10	BON003	38	57 17.57 N	158 38.57 W	CAT	Discard	tow angle was very low. Max wire out
12-Sep-06	4:45	3	3	A10	BON004	38	57 17.58 N	158 38.13 W	20Bon	QTowF	Redo for last failed bon tow. Used surface latitude and longitude
12-Sep-06	4:45	3	3	A10	BON004	38	57 17.58 N	158 38.13 W	60Bon	QTowF	Redo for last failed bon tow. Used surface latitude and longitude
12-Sep-06	4:45	3	3	A10	BON004	38	57 17.58 N	158 38.13 W	CAT	CAT	Redo for last failed bon tow. Used surface latitude and longitude
12-Sep-06	6:17	4	1	A13	NEU004	43	57 30.53 N	158 51.05 W	Neu	QTowF	
12-Sep-06	6:40	4	2	A13	BON005	44	57 30.83 N	158 51.36 W	20Bon	QTowF	
12-Sep-06	6:40	4	2	A13	BON005	44	57 30.83 N	158 51.36 W	60Bon	QTowF	
12-Sep-06	8:01	5	1	B13	NEU005	49	57 23.91 N	159 14.47 W	Neu	QTowF	
12-Sep-06	8:22	5	2	B13	BON006	48	57 23.34 N	159 15.00 W	20Bon	QTowF	
12-Sep-06	8:22	5	2	B13	BON006	48	57 23.34 N	159 15.00 W	60Bon	QTowF	
12-Sep-06	8:22	5	2	B13	BON006	48	57 23.34 N	159 15.00 W	CAT	CAT	
12-Sep-06	9:44	6	1	B10	NEU006	45	57 11.06 N	159 02.04 W	Neu	QTowF	
12-Sep-06	10:03	6	2	B10	BON007	43	57 10.48 N	159 01.90 W	20Bon	QTowF	
12-Sep-06	10:03	6	2	B10	BON007	43	57 10.48 N	159 01.90 W	60Bon	QTowF	
12-Sep-06	10:03	6	2	B10	BON007	43	57 10.48 N	159 01.90 W	CAT	CAT	
12-Sep-06	11:28	7	1	B7	NEU007	35	56 57.70 N	159 10.98 W	Neu	QTowF	
12-Sep-06	11:48	7	2	B7	BON008	32	56 57.09 N	159 10.65 W	20Bon	QTowF	
12-Sep-06	11:48	7	2	B7	BON008	32	56 57.09 N	159 10.65 W	60Bon	QTowF	
12-Sep-06	11:48	7	2	B7	BON008	32	56 57.09 N	159 10.65 W	CAT	CAT	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
12-Sep-06	12:33	8	1	E7	NEU008	26	56 50.39 N	159 11.99 W	Neu	QTowF	
12-Sep-06	12:49	8	2	E7	BON009	26	56 50.03 N	159 12.76 W	20Bon	QTowF	
12-Sep-06	12:49	8	2	E7	BON009	26	56 50.03 N	159 12.76 W	60Bon	QTowF	
12-Sep-06	12:49	8	2	E7	BON009	26	56 50.03 N	159 12.76 W	CAT	CAT	
12-Sep-06	14:18	9	1	E10	NEU009	49	57 03.51 N	159 25.15 W	Neu	QTowF	
12-Sep-06	14:38	9	2	E10	BON010	52	57 03.09 N	159 26.41 W	20Bon	QTowF	
12-Sep-06	14:38	9	2	E10	BON010	52	57 03.09 N	159 26.41 W	60Bon	QTowF	
12-Sep-06	14:38	9	2	E10	BON010	52	57 03.09 N	159 26.41 W	CAT	CAT	
12-Sep-06	15:05	9	3	E10	CTD002	51	57 03.48 N	159 25.12 W	CTDB	MZ	
12-Sep-06	15:52	9	4	E10	MOC001	51	57 03.29 N	159 26.15 W	MOC1	QTowF	
12-Sep-06	16:48	9	5	E10	BEAM002	54	57 03.33 N	159 25.65 W	Beam	Shrink	
12-Sep-06	18:27	10	1	E13	NEU010	54	57 16.44 N	159 38.18 W	Neu	QTowF	
12-Sep-06	10:45	10	2	E13	NEU011	54	57 16.67 N	159 39.71 W	Neu	MDNEU	Neuston tow for Plastics Council
12-Sep-06	19:09	10	3	E13	BON011	54	57 16.80 N	159 39.61 W	20Bon	QTowF	
12-Sep-06	19:09	10	3	E13	BON011	54	57 16.80 N	159 39.61 W	60Bon	QTowF	Large Lions Mane jelly in 60bon net 1.
12-Sep-06	19:09	10	3	E13	BON011	54	57 16.80 N	159 39.61 W	60Bon	QTowF	
12-Sep-06	19:09	10	3	E13	BON011	54	57 16.80 N	159 39.61 W	CAT	CAT	
12-Sep-06	18:45	11	1	H13	NEU012	54	57 16.68 N	159 39.71 W	Neu	QTowF	
12-Sep-06	20:50	11	2	H13	BON012	58	57 09.26 N	160 02.73 W	20Bon	QTowF	
12-Sep-06	20:50	11	2	H13	BON012	58	57 09.26 N	160 02.73 W	60Bon	QTowF	
12-Sep-06	20:50	11	2	H13	BON012	58	57 09.26 N	160 02.73 W	CAT	CAT	
12-Sep-06	22:17	12	1	H10	NEU013	58	56 56.84 N	159 49.31 W	Neu	QTowF	
12-Sep-06	22:41	12	2	H10	BON013	58	56 56.40 N	159 49.22 W	20Bon	QTowF	
12-Sep-06	22:41	12	2	H10	BON013	58	56 56.40 N	159 49.22 W	60Bon	QTowF	
12-Sep-06	22:41	12	2	H10	BON013	58	56 56.40 N	159 49.22 W	CAT	CAT	
12-Sep-06	23:02	12	3	H10	CTD003	58	56 56.61 N	159 48.57 W	CTD	CTD, Fluor, PAR	
12-Sep-06	23:30	12	4	H10	BEAM003	57	56 56.47 N	159 49.19 W	Beam	Shrink	Beam broke on trawl at haulback. Trawl itself OK
13-Sep-06	1:05	13	1	H7	NEU014	34	56 43.28 N	159 36.07 W	Neu	QTowF	
13-Sep-06	1:28	13	2	H7	BON014	34	56 42.68 N	159 36.81 W	20Bon	QTowF	net 2 strange flowmeter reading (initial = 38366, final = 30114)
13-Sep-06	1:28	13	2	H7	BON014	34	56 42.68 N	159 36.81 W	60Bon	QTowF	net 2 strange flowmeter reading (initial = 38366, final = 30114)
13-Sep-06	1:28	13	2	H7	BON014	34	56 42.68 N	159 36.81 W	CAT	CAT	net 2 strange flowmeter reading (initial = 38366, final = 30114)
13-Sep-06	2:56	14	1	K7	NEU015	39	56 36.13 N	159 59.68 W	Neu	QTowF	Tossed about 14 clear jellyfish.
13-Sep-06	3:13	14	2	K7	BON015	39	56 35.84 N	160 00.59 W	20Bon	QTowF	
13-Sep-06	3:13	14	2	K7	BON015	39	56 35.84 N	160 00.59 W	60Bon	QTowF	60Bon Net 2 flowmeter revs very high.
13-Sep-06	3:13	14	2	K7	BON015	39	56 35.84 N	160 00.59 W	CAT	CAT	
13-Sep-06	3:29	14	3	K7	CTD004	37	56 35.75 N	160 00.66 W	CTD	CTD, Fluor, PAR	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
13-Sep-06	3:50	14	4	K7	BEAM004	38	56 36.25 N	160 00.05 W	Beam	Shrink	Note: beam bent upon retrieval. Trawl itself OK Removed 6 small clear jelly fish. Full of crab megalopae.
13-Sep-06	5:28	15	1	K10	NEU016	58	56 48.72 N	160 13.67 W	Neu	QTowF	
13-Sep-06	5:47	15	2	K10	BON016	59	56 48.83 N	160 13.24 W	20Bon	QTowF	Removed 1 clear jellyfish from 60bon net 1; full of crab megalopae.
13-Sep-06	5:47	15	2	K10	BON016	59	56 48.83 N	160 13.24 W	60Bon	QTowF	
13-Sep-06	5:47	15	2	K10	BON016	59	56 48.83 N	160 13.24 W	60Bon	QTowF	
13-Sep-06	5:47	15	2	K10	BON016	59	56 48.83 N	160 13.24 W	CAT	CAT	Ship speed too slow. Neuston sank
13-Sep-06	7:18	16	1	K13	NEU017	65	57 02.10 N	160 27.08 W	Neu	QTowF	
13-Sep-06	7:36	16	2	K13	BON017	65	57 02.31 N	160 26.37 W	20Bon	QTowF	
13-Sep-06	7:36	16	2	K13	BON017	65	57 02.31 N	160 26.37 W	60Bon	QTowF	
13-Sep-06	7:36	16	2	K13	BON017	65	57 02.31 N	160 26.37 W	CAT	CAT	
13-Sep-06	9:04	17	1	N13	NEU018	71	56 54.99 N	160 50.86 W	Neu	QTowF	
13-Sep-06	9:24	17	2	N13	BON018	72	56 55.63 N	160 50.22 W	20Bon	QTowF	
13-Sep-06	9:24	17	2	N13	BON018	72	56 55.63 N	160 50.22 W	60Bon	QTowF	
13-Sep-06	9:24	17	2	N13	BON018	72	56 55.63 N	160 50.22 W	CAT	CAT	
13-Sep-06	11:05	18	1	N10	NEU19	68	56 41.93 N	160 37.68 W	Neu	Discard	
13-Sep-06	11:15	18	2	N10	NEU020	68	56 42.19 N	160 36.90 W	Neu	QTowF	
13-Sep-06	11:33	18	3	N10	BON019	69	56 42.43 N	160 36.44 W	20Bon	QTowF	Net 1 spilled out. Used net 2
13-Sep-06	11:33	18	3	N10	BON019	69	56 42.43 N	160 36.44 W	60Bon	QTowF	
13-Sep-06	11:33	18	3	N10	BON019	69	56 42.43 N	160 36.44 W	CAT	CAT	
13-Sep-06	13:08	19	1	N7	NEU021	38	56 28.81 N	160 25.30 W	Neu	QTowF	tow wasn't on bottom Very shallow location. Unable to rely on  (Furuno not functional...too shallow). Suggest launchin Munson and tow with a 1 m beam trawl to get sample in future cruises.
13-Sep-06	13:25	19	2	N7	BON020	37	56 29.00 N	160 24.49 W	20Bon	QTowF	
13-Sep-06	13:25	19	2	N7	BON020	37	56 29.00 N	160 24.49 W	60Bon	QTowF	
13-Sep-06	13:25	19	2	N7	BON020	37	56 29.00 N	160 24.49 W	CAT	CAT	
13-Sep-06	15:31	20	1	Q4	NEU022	19	56 08.36 N	160 36.01 W	Neu	QTowF	
13-Sep-06	15:50	20	2	Q4	BON021	20	56 08.81 N	160 34.96 W	20Bon	QTowF	
13-Sep-06	15:50	20	2	Q4	BON021	20	56 08.81 N	160 34.96 W	60Bon	QTowF	
13-Sep-06	15:50	20	2	Q4	BON021	20	56 08.81 N	160 34.96 W	CAT	CAT	
13-Sep-06	16:13	20	3	Q4	CTD005	19	56 08.44 N	160 35.45 W	CTD	CTD, Fluor, PAR	
13-Sep-06	16:40	20	4	Q4	BEAM005	20	56 08.66 N	160 35.41 W	Beam	Discard	
13-Sep-06	17:20	20	5	Q4	BEAM006	24	56 08.46 N	160 35.37 W	Beam	Discard	
Furuno											
13-Sep-06	18:54	21	1	Q7	NEU023	43	56 21.50 N	160 48.55 W	Neu	QTowF	
13-Sep-06	19:13	21	2	Q7	BON022	45	56 21.97 N	160 47.98 W	20Bon	QTowF	
13-Sep-06	19:13	21	2	Q7	BON022	45	56 21.97 N	160 47.98 W	60Bon	QTowF	
13-Sep-06	19:13	21	2	Q7	BON022	45	56 21.97 N	160 47.98 W	CAT	CAT	
13-Sep-06	20:07	21	3	Q7	CTD006	46	56 21.63 N	160 48.39 W	CTD	CTD, Fluor, PAR	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
13-Sep-06	19:58	21	4	Q7	BEAM007	45	56 21.63 N	160 48.37 W	Beam	Shrink	
13-Sep-06	21:48	22	1	Q10	NEU24	70	56 34.71 N	161 01.77 W	Neu	QTowF	
13-Sep-06	22:07	22	2	Q10	BON023	68	56 35.25 N	161 00.70 W	20Bon	QTowF	
13-Sep-06	22:07	22	2	Q10	BON023	68	56 35.25 N	161 00.70 W	60Bon	QTowF	
13-Sep-06	22:07	22	2	Q10	BON023	68	56 35.25 N	161 00.70 W	CAT	CAT	
13-Sep-06	23:36	23	1	Q13	NEU025	63	56 47.70 N	161 14.81 W	Neu	QTowF	
13-Sep-06	23:55	23	2	Q13	BON024	67	56 48.23 N	161 13.33 W	20Bon	QTowF	
13-Sep-06	23:55	23	2	Q13	BON024	67	56 48.23 N	161 13.33 W	60Bon	QTowF	
13-Sep-06	23:55	23	2	Q13	BON024	67	56 48.23 N	161 13.33 W	CAT	CAT	
14-Sep-06	1:33	24	1	T13	NEU26	82	56 40.69 N	161 38.32 W	Neu	QTowF	
14-Sep-06	1:54	24	2	T13	BON025	84	56 41.35 N	161 36.73 W	20Bon	QTowF	flowmeters were spinning in the wind.
14-Sep-06	1:54	24	2	T13	BON025	84	56 41.35 N	161 36.73 W	60Bon	QTowF	flowmeters were spinning in the wind.
14-Sep-06	1:54	24	2	T13	BON025	84	56 41.35 N	161 36.73 W	CAT	CAT	flowmeters were spinning in the wind.
14-Sep-06	3:32	25	1	T10	NEU027	68	56 27.62 N	161 25.38 W	Neu	QTowF	
14-Sep-06	3:49	25	2	T10	BON026	69	56 27.71 N	161 24.29 W	20Bon	QTowF	
14-Sep-06	3:49	25	2	T10	BON026	69	56 27.71 N	161 24.29 W	60Bon	QTowF	
14-Sep-06	3:49	25	2	T10	BON026	69	56 27.71 N	161 24.29 W	CAT	CAT	
14-Sep-06	5:32	26	1	T7	NEU0028	46	56 14.39 N	161 12.43 W	Neu	QTowF	
14-Sep-06	5:39	26	2	T7	BON027	47	56 14.29 N	161 12.14 W	20Bon	QTowF	
14-Sep-06	5:39	26	2	T7	BON027	47	56 14.29 N	161 12.14 W	60Bon	QTowF	
14-Sep-06	5:39	26	2	T7	BON027	47	56 14.29 N	161 12.14 W	CAT	CAT	
14-Sep-06	6:52	27	1	T4	NEU029	25	56 05.26 N	160 59.57 W	Neu	QTowF	Lots of eelgrass and jellies removed from codend.
14-Sep-06	7:15	27	2	T4	BON028	25	56 05.43 N	160 58.90 W	20Bon	QTowF	
14-Sep-06	7:15	27	2	T4	BON028	25	56 05.43 N	160 58.90 W	60Bon	QTowF	
14-Sep-06	7:15	27	2	T4	BON028	25	56 05.43 N	160 58.90 W	CAT	CAT	
14-Sep-06	9:13	28	1	W7	NEU030	54	56 07.64 N	161 36.11 W	Neu	QTowF	
14-Sep-06	9:32	28	2	W7	BON029	51	56 07.36 N	161 34.71 W	20Bon	QTowF	
14-Sep-06	9:32	28	2	W7	BON029	51	56 07.36 N	161 34.71 W	60Bon	QTowF	
14-Sep-06	9:32	28	2	W7	BON029	51	56 07.36 N	161 34.71 W	60Bon	QTowF	Large jelly removed from 60Bon Net 1.
14-Sep-06	9:32	28	2	W7	BON029	51	56 07.36 N	161 34.71 W	CAT	CAT	
14-Sep-06	10:05	28	3	W7	CTD007	51	56 07.28 N	161 35.38 W	CTD	CTD, Fluor, PAR	
14-Sep-06	10:35	28	4	W7	BEAM008	54	56 07.12 N	161 35.39 W	Beam	Shrink	
14-Sep-06	12:25	29	1	W10	NEU31	81	56 20.70 N	161 48.98 W	Neu	QTowF	
14-Sep-06	12:49	29	2	W10	NEU032	82	56 20.67 N	161 48.06 W	Neu	MDNEU	
14-Sep-06	13:09	29	3	W10	BON030	81	56 20.30 N	161 47.29 W	20Bon	QTowF	
14-Sep-06	13:09	29	3	W10	BON030	81	56 20.30 N	161 47.29 W	60Bon	QTowF	
14-Sep-06	13:09	29	3	W10	BON030	81	56 20.30 N	161 47.29 W	60Bon	QTowF	One large crysaura jelly removed from 60 bon net

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
14-Sep-06	13:09	29	3	W10	BON030	81	56 20.30 N	161 47.29 W	CAT	CAT	
14-Sep-06	14:46	30	1	W13	NEU033	71	56 33.73 N	162 02.26 W	Neu	QTowF	
14-Sep-06	15:07	30	2	W13	BON031	70	56 33.26 N	162 01.13 W	20Bon	QTowF	
14-Sep-06	15:07	30	2	W13	BON031	70	56 33.26 N	162 01.13 W	60Bon	QTowF	
14-Sep-06	15:07	30	2	W13	BON031	70	56 33.26 N	162 01.13 W	CAT	CAT	
14-Sep-06	15:37	30	3	W13	CTD008	69	56 33.90 N	162 01.33 W	CTDB	CTD, Fluor, MZ, PAR	
14-Sep-06	16:15	30	4	W13	MOC002	69	56 33.70 N	162 01.33 W	MOC1	QTowF	
14-Sep-06	17:19	30	5	W13	BEAM009	69	56 33.29 N	162 01.82 W	Beam	Shrink	
14-Sep-06	18:57	31	1	Z13	NEU034	72	56 26.61 N	162 24.90 W	Neu	QTowF	
14-Sep-06	19:20	31	2	Z13	BON032	72	56 26.41 N	162 23.95 W	20Bon	QTowF	2 small chrysaora in net 1 60 bon
14-Sep-06	19:20	31	2	Z13	BON032	72	56 26.41 N	162 23.95 W	60Bon	QTowF	2 small chrysaora in net 1 60 bon
14-Sep-06	19:20	31	2	Z13	BON032	72	56 26.41 N	162 23.95 W	CAT	CAT	2 small chrysaora in net 1 60 bon
14-Sep-06	20:56	32	1	Z10	NEU035	76	56 13.39 N	162 12.08 W	Neu	QTowF	
14-Sep-06	6:22	32	2	Z10	BON033	74	56 13.33 N	162 11.38 W	20Bon	QTowF	
14-Sep-06	6:22	32	2	Z10	BON033	74	56 13.33 N	162 11.38 W	60Bon	QTowF	
14-Sep-06	6:22	32	2	Z10	BON033	74	56 13.33 N	162 11.38 W	CAT	CAT	
14-Sep-06	22:31	33	1	Z7	NEU036	58	56 00.54 N	162 00.34 W	Neu	QTowF	
14-Sep-06	22:46	33	2	Z7	NEU037	55	56 00.04 N	161 59.40 W	Neu	MDNeu	Sample for Miriam. Removed 1 large jellyfish from codend.
14-Sep-06	23:05	33	3	Z7	BON034	49	55 59.80 N	161 57.77 W	20Bon	QTowF	
14-Sep-06	23:05	33	3	Z7	BON034	49	55 59.80 N	161 57.77 W	60Bon	QTowF	
14-Sep-06	23:05	33	3	Z7	BON034	49	55 59.80 N	161 57.77 W	CAT	CAT	
15-Sep-06	1:03	34	1	AC7	NEU038	63	55 52.74 N	162 23.57 W	Neu	QTowF	
15-Sep-06	1:11	34	2	AC7	BON035	63	55 53.00 N	162 23.23 W	20Bon	QTowF	
15-Sep-06	1:11	34	2	AC7	BON035	63	55 53.00 N	162 23.23 W	60Bon	QTowF	
15-Sep-06	1:11	34	2	AC7	BON035	63	55 53.00 N	162 23.23 W	CAT	CAT	
15-Sep-06	2:53	35	1	AC10	NEU039	78	56 06.10 N	162 35.68 W	Neu	QTowF	
15-Sep-06	3:01	35	2	AC10	BON036	78	56 05.79 N	162 35.82 W	20Bon	QTowF	
15-Sep-06	3:01	35	2	AC10	BON036	78	56 05.79 N	162 35.82 W	60Bon	QTowF	
15-Sep-06	3:01	35	2	AC10	BON036	78	56 05.79 N	162 35.82 W	60Bon	QTowF	3 jellyfish removed
15-Sep-06	3:01	35	2	AC10	BON036	78	56 05.79 N	162 35.82 W	CAT	CAT	
15-Sep-06	3:23	35	3	AC10	CTD009	78	56 06.64 N	162 35.27 W	CTDB	CTD, Fluor, MZ, PAR	
15-Sep-06	4:47	35	4	AC10	MOC003	78	56 06.17 N	162 35.57 W	MOC1	QTowF	Net 4 sampled 2 depth intervals (20-40) because
15-Sep-06	4:00	35	5	AC10	MOC004	78	56 06.42 N	162 34.63 W	MOC1	QTowF	net did not trip. Resampled on next tow MOC004. Redo from MOC003. Net 9 failed because
15-Sep-06	5:30	35	6	AC10	BEAM010	79	56 06.22 N	162 35.12 W	Beam	Discard	that we needed it open all the way up to avoid spinning of MOCNESS. Net 8 had jellyfish in codend that was discarded.



## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
15-Sep-06	7:30	36	1	AC13	NEU040	79	56 19.14 N	162 48.85 W	Neu	QTowF	~1 Jellyfish.
15-Sep-06	7:39	36	2	AC13	BON037	79	56 18.90 N	162 49.18 W	20Bon	QTowF	
15-Sep-06	7:39	36	2	AC13	BON037	79	56 18.90 N	162 49.18 W	60Bon	QTowF	One jelly in 60bon net 1.
15-Sep-06	7:39	36	2	AC13	BON037	79	56 18.90 N	162 49.18 W	60Bon	QTowF	
15-Sep-06	7:39	36	2	AC13	BON037	79	56 18.90 N	162 49.18 W	CAT	CAT	
15-Sep-06	8:58	37	1	AF13	NEU041	85	56 12.44 N	163 10.98 W	Neu	QTowF	
15-Sep-06	9:18	37	2	AF13	BON038	84	56 12.03 N	163 11.79 W	20Bon	QTowF	
15-Sep-06	9:18	37	2	AF13	BON038	84	56 12.03 N	163 11.79 W	60Bon	QTowF	
15-Sep-06	9:18	37	2	AF13	BON038	84	56 12.03 N	163 11.79 W	CAT	CAT	
15-Sep-06	9:42	37	3	AF13	CTD010	85	56 12.34 N	163 12.01 W	CTDB	CTD, Fluor, MZ, PAR	
15-Sep-06	10:20	37	4	AF13	MOC005	84	56 12.38 N	163 11.69 W	MOC1	QTowF	
15-Sep-06	11:21	37	5	AF13	BEAM011	90	56 11.94 N	163 12.41 W	Beam	Discard	
15-Sep-06	13:13	38	1	AF10	NEU042	84	55 59.25 N	162 58.42 W	Neu	QTowF	
15-Sep-06	13:33	38	2	AF10	BON39	84	55 58.68 N	162 59.30 W	20Bon	QTowF	
15-Sep-06	13:33	38	2	AF10	BON39	84	55 58.68 N	162 59.30 W	60Bon	QTowF	
15-Sep-06	13:33	38	2	AF10	BON39	84	55 58.68 N	162 59.30 W	CAT	CAT	
15-Sep-06	14:59	39	1	AF7	NEU043	58	55 46.10 N	162 45.84 W	Neu	QTowF	
15-Sep-06	15:31	39	2	AF7	BON040	59	55 45.15 N	162 47.04 W	20Bon	QTowF	
15-Sep-06	15:31	39	2	AF7	BON040	59	55 45.15 N	162 47.04 W	60Bon	QTowF	
15-Sep-06	15:31	39	2	AF7	BON040	59	55 45.15 N	162 47.04 W	CAT	CAT	
15-Sep-06	16:54	40	1	AF4	NEU044	27	55 32.79 N	162 33.64 W	Neu	QTowF	
15-Sep-06	17:12	40	2	AF4	BON041	27	55 31.93 N	162 34.43 W	20Bon	QTowF	Preserved net 2 of 20bon because I put net 1 sample through the wrong sieve.
15-Sep-06	17:12	40	2	AF4	BON041	27	55 31.93 N	162 34.43 W	60Bon	QTowF	
15-Sep-06	17:12	40	2	AF4	BON041	27	55 31.93 N	162 34.43 W	CAT	CAT	
15-Sep-06	17:38	40	3	AF4	CTD011	26	55 32.37 N	162 33.52 W	CTD	CTD, Fluor, PAR	
15-Sep-06	18:03	40	4	AF4	BEAM012	25	55 32.48 N	162 33.19 W	Beam	Discard	
15-Sep-06	19:40	41	1	AI4	NEU045	31	55 25.72 N	162 56.26 W	Neu	QTowF	Discarded eelgrass from codend. Sample for Miriam. Removed eelgrass from codend.
15-Sep-06	19:55	41	2	AI4	NEU046	31	55 25.15 N	162 56.37 W	Neu	MDNeu	
15-Sep-06	20:18	41	3	AI4	BON042	33	55 25.54 N	162 56.93 W	20Bon	QTowF	
15-Sep-06	20:18	41	3	AI4	BON042	33	55 25.54 N	162 56.93 W	60Bon	QTowF	
15-Sep-06	20:18	41	3	AI4	BON042	33	55 25.54 N	162 56.93 W	CAT	CAT	
15-Sep-06	21:46	42	1	AI7	NEU047	69	55 39.21 N	163 09.81 W	Neu	QTowF	
15-Sep-06	22:04	42	2	AI7	BON043	67	55 38.53 N	163 09.67 W	20Bon	QTowF	
15-Sep-06	22:04	42	2	AI7	BON043	67	55 38.53 N	163 09.67 W	60Bon	QTowF	
15-Sep-06	22:04	42	2	AI7	BON043	67	55 38.53 N	163 09.67 W	CAT	CAT	
15-Sep-06	22:22	42	3	AI7	CTD012	67	55 38.45 N	163 09.40 W	CTD	CTD, Fluor, PAR	
15-Sep-06	22:48	42	4	AI7	BEAM013	68	55 38.79 N	163 09.73 W	Beam	Shrink	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
16-Sep-06	0:33	43	1	AI10	NEU048	90	55 52.22 N	163 21.95 W	Neu	QTowF	
16-Sep-06	0:52	43	2	AI10	BON044	90	55 51.57 N	163 21.89 W	20Bon	QTowF	
16-Sep-06	0:52	43	2	AI10	BON044	90	55 51.57 N	163 21.89 W	60Bon	QTowF	
16-Sep-06	0:52	43	2	AI10	BON044	90	55 51.57 N	163 21.89 W	CAT	CAT	
16-Sep-06	2:32	44	1	AI13	NEU049	89	56 05.38 N	163 35.01 W	Neu	QTowF	
16-Sep-06	2:51	44	2	AI13	BON045	90	56 04.72 N	163 35.05 W	20Bon	QTowF	Some seaweed and a jellyfish removed. Large jelly in 60Bon Net 1 so preserved Net 2 instead.
16-Sep-06	2:51	44	2	AI13	BON045	90	56 04.72 N	163 35.05 W	60Bon	QTowF	Large jelly in 60Bon Net 1 so preserved Net 2 instead.
16-Sep-06	2:51	44	2	AI13	BON045	90	56 04.72 N	163 35.05 W	CAT	CAT	Large jelly in 60Bon Net 1 so preserved Net 2 instead.
16-Sep-06	4:32	45	1	AL13	NEU050	91	55 57.94 N	163 58.60 W	Neu	QTowF	
16-Sep-06	4:37	45	2	AL13	BON046	91	55 57.94 N	163 59.13 W	20Bon	QTowF	
16-Sep-06	4:37	45	2	AL13	BON046	91	55 57.94 N	163 59.13 W	60Bon	QTowF	
16-Sep-06	4:37	45	2	AL13	BON046	91	55 57.94 N	163 59.13 W	CAT	CAT	
16-Sep-06	6:24	46	1	AL10	NEU051	92	55 44.84 N	163 46.34 W	Neu	QTowF	3 jellyfish removed
16-Sep-06	6:32	46	2	AL10	BON047	92	55 44.87 N	163 46.90 W	20Bon	QTowF	
16-Sep-06	6:32	46	2	AL10	BON047	92	55 44.87 N	163 46.90 W	60Bon	QTowF	
16-Sep-06	6:32	46	2	AL10	BON047	92	55 44.87 N	163 46.90 W	CAT	CAT	
16-Sep-06	7:01	46	3	AL10	CTDB013	92	55 44.64 N	163 45.56 W	CTDB	CTD, Fluor, MZ, PAR	
16-Sep-06	7:50	46	4	AL10	MOC006	92	55 44.62 N	163 45.65 W	MOC1	QTowF	
16-Sep-06	7:50	46	4	AL10	MOC006	92	55 44.62 N	163 45.65 W	MOC1	QTowF	1 lions mane jelly removed from net 5.
16-Sep-06	7:50	46	4	AL10	MOC006	92	55 44.62 N	163 45.65 W	MOC1	QTowF	1 lions mane jelly removed from net 7.
16-Sep-06	7:50	46	4	AL10	MOC006	92	55 44.62 N	163 45.65 W	MOC1	QTowF	2 lions mane jelly removed from net 6.
16-Sep-06	9:07	46	5	AL10	BEAM014	95	55 44.74 N	163 45.71 W	Beam	Shrink	
16-Sep-06	11:40	47	1	AL7	NEU052	71	55 31.49 N	163 32.25 W	Neu	QTowF	
16-Sep-06	11:40	47	2	AL7	BON048	75	55 31.71 N	163 33.70 W	20Bon	QTowF	
16-Sep-06	11:40	47	2	AL7	BON048	75	55 31.71 N	163 33.70 W	60Bon	QTowF	
16-Sep-06	11:40	47	2	AL7	BON048	75	55 31.71 N	163 33.70 W	CAT	CAT	
16-Sep-06	13:16	48	1	AL4	NEU053	48	55 18.13 N	163 19.82 W	Neu	QTowF	
16-Sep-06	13:37	48	2	AL4	BON049	48	55 18.36 N	163 21.24 W	20Bon	QTowF	
16-Sep-06	13:37	48	2	AL4	BON049	48	55 18.36 N	163 21.24 W	60Bon	QTowF	
16-Sep-06	13:37	48	2	AL4	BON049	48	55 18.36 N	163 21.24 W	CAT	CAT	
16-Sep-06	15:01	49	1	AO4	NEU054	44	55 11.07 N	163 42.68 W	Neu	QTowF	
16-Sep-06	15:21	49	2	AO4	BON050	45	55 11.13 N	163 44.35 W	20Bon	QTowF	
16-Sep-06	15:21	49	2	AO4	BON050	45	55 11.13 N	163 44.35 W	60Bon	QTowF	
16-Sep-06	15:21	49	2	AO4	BON050	45	55 11.13 N	163 44.35 W	CAT	CAT	
16-Sep-06	15:46	49	3	AO4	CTD014	45	55 11.06 N	163 43.90 W	CTD	CTD, Fluor, PAR	
16-Sep-06	16:19	49	4	AO4	BEAM015	45	55 11.20 N	163 43.68 W	Beam	Shrink	
16-Sep-06	18:00	50	1	AO7	NEU055	85	55 24.08 N	163 55.73 W	Neu	QTowF	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
16-Sep-06	18:15	50	2	AO7	NEU056	85	55 24.34 N	163 56.81 W	Neu	MDNeu	
16-Sep-06	18:48	50	3	AO7	BON051	88	55 24.43 N	163 56.98 W	20Bon	QTowF	
16-Sep-06	18:48	50	3	AO7	BON051	88	55 24.43 N	163 56.98 W	60Bon	QTowF	
16-Sep-06	18:48	50	3	AO7	BON051	88	55 24.43 N	163 56.98 W	CAT	CAT	
16-Sep-06	20:32	51	1	AO10	NEU057	92	55 37.26 N	164 09.89 W	Neu	QTowF	weather rough and dived a lot.
16-Sep-06	20:41	51	2	AO10	BON052	91	55 37.45 N	164 09.22 W	20Bon	QTowF	
16-Sep-06	20:41	51	2	AO10	BON052	91	55 37.45 N	164 09.22 W	60Bon	QTowF	
16-Sep-06	20:41	51	2	AO10	BON052	91	55 37.45 N	164 09.22 W	CAT	CAT	
16-Sep-06	22:17	52	1	AO13	NEU058	91	55 00.22 N	164 20.95 W	Neu	QTowF	
16-Sep-06	22:36	52	2	AO13	BON053	93	55 50.70 N	164 21.61 W	20Bon	QTowF	
16-Sep-06	22:36	52	2	AO13	BON053	93	55 50.70 N	164 21.61 W	60Bon	QTowF	
16-Sep-06	22:36	52	2	AO13	BON053	93	55 50.70 N	164 21.61 W	CAT	CAT	
17-Sep-06	0:28	53	1	AR13	NEU059	98	55 43.01 N	164 44.49 W	Neu	QTowF	
17-Sep-06	0:48	53	2	AR13	BON054	95	55 43.72 N	164 45.05 W	20Bon	QTowF	
17-Sep-06	0:48	53	2	AR13	BON054	95	55 43.72 N	164 45.05 W	60Bon	QTowF	
17-Sep-06	0:48	53	2	AR13	BON054	95	55 43.72 N	164 45.05 W	CAT	CAT	
17-Sep-06	2:36	54	1	AU13	NEU060	109	55 36.07 N	165 07.11 W	Neu	QTowF	
17-Sep-06	2:56	54	2	AU13	BON055	108	55 36.54 N	165 08.33 W	20Bon	QTowF	
17-Sep-06	2:56	54	2	AU13	BON055	108	55 36.54 N	165 08.33 W	60Bon	QTowF	
17-Sep-06	2:56	54	2	AU13	BON055	108	55 36.54 N	165 08.33 W	CAT	CAT	
17-Sep-06	4:41	55	1	AX13	NEU061	121	55 29.18 N	165 30.36 W	Neu	QTowF	
17-Sep-06	4:51	55	2	AX13	BON056	112	55 29.56 N	165 31.75 W	20Bon	QTowF	
17-Sep-06	4:51	55	2	AX13	BON056	112	55 29.56 N	165 31.75 W	60Bon	QTowF	
17-Sep-06	4:51	55	2	AX13	BON056	112	55 29.56 N	165 31.75 W	CAT	CAT	
17-Sep-06	6:38	56	1	AX10	NEU062	112	55 15.97 N	165 17.80 W	Neu	QTowF	
17-Sep-06	6:56	56	2	AX10	BON057	112	55 16.31 N	165 19.11 W	20Bon	QTowF	
17-Sep-06	6:56	56	2	AX10	BON057	112	55 16.31 N	165 19.11 W	60Bon	QTowF	
17-Sep-06	6:56	56	2	AX10	BON057	112	55 16.31 N	165 19.11 W	CAT	CAT	
17-Sep-06	7:33	56	3	AX10	CTD015	112	55 16.18 N	165 18.36 W	CTD	CTD, Fluor, PAR	
17-Sep-06	8:11	56	4	AX10	BEAM016	112	55 16.15 N	165 18.56 W	Beam	Shrink	
17-Sep-06	10:02	57	1	AU10	NEU063	105	55 22.91 N	164 54.28 W	Neu	QTowF	Removed 2 clear jellies from codend.
17-Sep-06	10:23	57	2	AU10	BON058	104	55 23.43 N	164 55.53 W	20Bon	QTowF	
17-Sep-06	10:23	57	2	AU10	BON058	104	55 23.43 N	164 55.53 W	60Bon	QTowF	
17-Sep-06	10:23	57	2	AU10	BON058	104	55 23.43 N	164 55.53 W	CAT	CAT	
17-Sep-06	12:03	58	1	AR10	NEU64	102	55 30.15 N	164 31.62 W	Neu	QTowF	
17-Sep-06	12:22	58	2	AR10	BON059	100	55 30.57 N	164 32.99 W	20Bon	QTowF	
17-Sep-06	12:22	58	2	AR10	BON059	100	55 30.57 N	164 32.99 W	60Bon	QTowF	
17-Sep-06	12:22	58	2	AR10	BON059	100	55 30.57 N	164 32.99 W	CAT	CAT	
17-Sep-06	14:03	59	1	AR7	NEU065	94	55 16.57 N	164 19.02 W	Neu	QTowF	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
17-Sep-06	14:19	59	2	AR7	NEU066	94	55 17.16 N	164 19.91 W	Neu	MDNeu	For Miriam plastics project.
17-Sep-06	14:39	59	3	AR7	BON060	94	55 17.69 N	164 21.02 W	20Bon	QTowF	
17-Sep-06	14:39	59	3	AR7	BON060	94	55 17.69 N	164 21.02 W	60Bon	QTowF	
17-Sep-06	14:39	59	3	AR7	BON060	94	55 17.69 N	164 21.02 W	CAT	CAT	
17-Sep-06	16:22	60	1	AR4	NEU067	36	55 03.73 N	164 06.99 W	Neu	QTowF	
17-Sep-06	16:40	60	2	AR4	BON061	35	55 04.10 N	164 08.37 W	20Bon	QTowF	
17-Sep-06	16:40	60	2	AR4	BON061	35	55 04.10 N	164 08.37 W	60Bon	QTowF	
17-Sep-06	16:40	60	2	AR4	BON061	35	55 04.10 N	164 08.37 W	CAT	CAT	
17-Sep-06	17:58	61	1	AU4	NEU068	41	54 56.91 N	164 29.70 W	Neu	QTowF	
17-Sep-06	18:15	61	2	AU4	BON062	47	54 56.98 N	164 31.27 W	20Bon	QTowF	
17-Sep-06	18:15	61	2	AU4	BON062	47	54 56.98 N	164 31.27 W	60Bon	QTowF	
17-Sep-06	18:15	61	2	AU4	BON062	47	54 56.98 N	164 31.27 W	CAT	CAT	
17-Sep-06	18:42	61	3	AU4	CTD016	45	54 56.80 N	164 30.38 W	CTD	CTD, Fluor, PAR	
17-Sep-06	19:15	61	4	AU4	BEAM017	47	54 56.91 N	164 30.18 W	Beam	Shrink	
17-Sep-06	20:55	62	1	AU7	NEU069	100	55 09.66 N	164 42.06 W	Neu	QTowF	
17-Sep-06	21:15	62	2	AU7	BON063	102	55 10.55 N	164 42.34 W	20Bon	QTowF	
17-Sep-06	21:15	62	2	AU7	BON063	102	55 10.55 N	164 42.34 W	60Bon	QTowF	
17-Sep-06	21:15	62	2	AU7	BON063	102	55 10.55 N	164 42.34 W	CAT	CAT	
17-Sep-06	22:58	63	1	AX7	NEU070	110	55 02.95 N	165 05.36 W	Neu	QTowF	
17-Sep-06	23:21	63	2	AX7	BON064	110	55 03.49 N	165 05.68 W	20Bon	QTowF	
17-Sep-06	23:21	63	2	AX7	BON064	110	55 03.49 N	165 05.68 W	60Bon	QTowF	
17-Sep-06	23:21	63	2	AX7	BON064	110	55 03.49 N	165 05.68 W	CAT	CAT	
17-Sep-06	23:59	63	3	AX7	CTD017	110	55 02.81 N	165 05.24 W	CTDB	CTD, Fluor, MZ, PAR	All 10L bottles for MZs.
18-Sep-06	0:40	63	4	AX7	MOC007	110	55 02.78 N	165 05.21 W	MOC1	QTowF	
18-Sep-06	0:40	63	4	AX7	MOC007	110	55 02.78 N	165 05.21 W	MOC1	QTowF	Removed 1 jelly from Net 8 codend.
18-Sep-06	1:31	63	5	AX7	BEAM018	112	55 02.80 N	165 05.84 W	Beam	Discard	
18-Sep-06	3:21	64	1	AX4	CTD018	72	54 49.59 N	164 53.09 W	CTD	CTD, Fluor, PAR	
18-Sep-06	3:47	64	2	AX4	BEAM019	74	54 49.58 N	164 52.92 W	Beam	Shrink	
20-Sep-06	8:17	65	1	BA13	NEU071	118	55 21.85 N	165 53.00 W	Neu	QTowF	
20-Sep-06	8:41	65	2	BA13	BON065	120	55 21.82 N	165 54.65 W	20Bon	QTowF	
20-Sep-06	8:41	65	2	BA13	BON065	120	55 21.82 N	165 54.65 W	60Bon	QTowF	
20-Sep-06	8:41	65	2	BA13	BON065	120	55 21.82 N	165 54.65 W	CAT	CAT	
20-Sep-06	10:30	66	1	BA10	NEU072	121	55 08.98 N	165 40.20 W	Neu	QTowF	
20-Sep-06	10:50	66	2	BA10	BON066	122	55 09.02 N	165 41.44 W	20Bon	QTowF	
20-Sep-06	10:50	66	2	BA10	BON066	122	55 09.02 N	165 41.44 W	60Bon	QTowF	
20-Sep-06	10:50	66	2	BA10	BON066	122	55 09.02 N	165 41.44 W	CAT	CAT	
20-Sep-06	2:26	67	1	BA7	NEU073	124	54 55.01 N	165 27.93 W	Neu	QTowF	
20-Sep-06	2:40	67	2	BA7	NEU074	123	54 55.86 N	165 28.76 W	Neu	MDNeu	For Miriam plastics project.
20-Sep-06	2:59	67	3	BA7	BON067	124	54 55.87 N	165 29.82 W	20Bon	QTowF	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
20-Sep-06	2:59	67	3	BA7	BON067	124	54 55.87 N	165 29.82 W	60Bon	QTowF	
20-Sep-06	2:59	67	3	BA7	BON067	124	54 55.87 N	165 29.82 W	CAT	CAT	
20-Sep-06	14:40	68	1	BA4	NEU075	127	54 42.60 N	165 15.42 W	Neu	QTowF	
20-Sep-06	15:02	68	2	BA4	BON068	142	54 42.80 N	165 16.76 W	20Bon	QTowF	
20-Sep-06	15:02	68	2	BA4	BON068	142	54 42.80 N	165 16.76 W	60Bon	QTowF	
20-Sep-06	15:02	68	2	BA4	BON068	142	54 42.80 N	165 16.76 W	CAT	CAT	
20-Sep-06	16:45	69	1	BD4	NEU076	326	54 35.28 N	165 38.52 W	Neu	QTowF	
20-Sep-06	17:11	69	2	BD4	BON069	343	54 35.60 N	165 39.62 W	20Bon	QTowF	
20-Sep-06	17:11	69	2	BD4	BON069	343	54 35.60 N	165 39.62 W	60Bon	QTowF	
20-Sep-06	17:11	69	2	BD4	BON069	343	54 35.60 N	165 39.62 W	CAT	CAT	
20-Sep-06	17:59	69	3	BD4	CTDB019	334	54 35.05 N	165 38.93 W	CTDB	CTD, Fluor, MZ, PAR	
20-Sep-06	18:54	69	4	BD4	CTDB020	325	54 35.05 N	165 38.33 W	CTDB	CTD, Fluor, MZ, PAR	
20-Sep-06	19:48	69	5	BD4	MOC008	347	54 35.75 N	165 40.23 W	MOC1	QTowF	
20-Sep-06	21:43	70	1	BD7	NEU077	170	54 48.00 N	165 51.18 W	Neu	QTowF	
20-Sep-06	22:07	70	2	BD07	BON070	162	54 48.75 N	165 51.91 W	20Bon	QTowF	
20-Sep-06	22:07	70	2	BD07	BON070	162	54 48.75 N	165 51.91 W	60Bon	QTowF	
20-Sep-06	22:07	70	2	BD07	BON070	162	54 48.75 N	165 51.91 W	CAT	CAT	
20-Sep-06	23:31	71	1	BD10	NEU078	135	55 01.01 N	166 03.61 W	Neu	QTowF	Removed large jellyfish from codend.
20-Sep-06	23:52	71	2	BD10	BON071	135	55 01.75 N	166 04.34 W	20Bon	QTowF	
20-Sep-06	23:52	71	2	BD10	BON071	135	55 01.75 N	166 04.34 W	60Bon	QTowF	Preserved 60Bon Net 2 due to large jellyfish in Net 1.
20-Sep-06	23:52	71	2	BD10	BON071	135	55 01.75 N	166 04.34 W	CAT	CAT	
21-Sep-06	0:21	71	3	BD10	CTD021	135	55 02.10 N	166 04.81 W	CTDB	CTD, Fluor, MZ, PAR	
21-Sep-06	1:04	71	4	BD10	MOC009	138	55 01.73 N	166 04.36 W	MOC1	QTowF	
21-Sep-06	1:04	71	4	BD10	MOC009	138	55 01.73 N	166 04.36 W	MOC1	QTowF	Removed big jellyfish from Net 2 codend.
21-Sep-06	2:03	71	5	BD10	BEAM020	138	55 02.15 N	166 04.70 W	Beam	Discard	
21-Sep-06	3:46	72	1	BD13	NEU079	132	55 14.58 N	166 15.95 W	Neu	QTowF	
21-Sep-06	4:05	72	2	BD13	BON072	133	55 15.13 N	166 16.76 W	20Bon	Discard	20Bon frame came up at an odd angle and both flow counts were bad. Redoing tow as BON073
21-Sep-06	4:05	72	2	BD13	BON072	133	55 15.13 N	166 16.76 W	60Bon	Discard	20Bon frame came up at an odd angle and both flow counts were bad. Redoing tow as BON073
21-Sep-06	4:05	72	2	BD13	BON072	133	55 15.13 N	166 16.76 W	CAT	CAT	20Bon frame came up at an odd angle and both flow counts were bad. Redoing tow as BON073
21-Sep-06	4:31	72	3	BD13	BON073	132	55 14.99 N	166 16.78 W	20Bon	QTowF	
21-Sep-06	4:31	72	3	BD13	BON073	132	55 14.99 N	166 16.78 W	60Bon	QTowF	
21-Sep-06	4:31	72	3	BD13	BON073	132	55 14.99 N	166 16.78 W	CAT	CAT	
21-Sep-06	6:00	73	1	BG13	NEU080	142	55 07.72 N	166 38.71 W	Neu	QTowF	3 jellyfish removed.
21-Sep-06	6:19	73	2	BG13	BON074	142	55 07.98 N	166 40.15 W	20Bon	QTowF	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
21-Sep-06	6:19	73	2	BG13	BON074	142	55 07.98 N	166 40.15 W	60Bon	QTowF	
21-Sep-06	6:19	73	2	BG13	BON074	142	55 07.98 N	166 40.15 W	CAT	CAT	
21-Sep-06	8:15	74	1	BG10	NEU081	153	54 54.04 N	166 26.02 W	Neu	QTowF	
21-Sep-06	8:28	74	2	BG10	BON075	152	54 54.62 N	166 27.03 W	20Bon	QTowF	
21-Sep-06	8:28	74	2	BG10	BON075	152	54 54.62 N	166 27.03 W	60Bon	QTowF	
21-Sep-06	8:28	74	2	BG10	BON075	152	54 54.62 N	166 27.03 W	CAT	CAT	
21-Sep-06	10:05	75	1	BG7	NEU082	295	54 40.84 N	166 13.55 W	Neu	QTowF	
21-Sep-06	10:29	75	2	BG7	BON076	286	54 41.40 N	166 14.70 W	20Bon	QTowF	
21-Sep-06	10:29	75	2	BG7	BON076	286	54 41.40 N	166 14.70 W	60Bon	QTowF	
21-Sep-06	10:29	75	2	BG7	BON076	286	54 41.40 N	166 14.70 W	CAT	CAT	
21-Sep-06	11:14	75	3	BG7	CTD022	287	54 41.26 N	166 14.42 W	CTDB	CTD, Fluor, MZ, PAR	
21-Sep-06	12:35	75	4	BG7	MOC010	280	54 41.86 N	166 15.52 W	MOC1	QTowF	
21-Sep-06	12:35	75	4	BG7	MOC010	280	54 41.86 N	166 15.52 W	MOC1	QTowF	incremented net 2
21-Sep-06	12:35	75	4	BG7	MOC010	280	54 41.86 N	166 15.52 W	MOC1	QTowF	incremented net 3
21-Sep-06	15:20	76	1	BG4	NEU083	540	54 27.81 N	166 01.71 W	Neu	QTowF	
21-Sep-06	15:35	76	2	BG4	NEU084	531	54 28.30 N	166 02.18 W	Neu	MDNeu	For Miriam plastics project.
21-Sep-06	16:10	76	3	BG4	BON077	535	54 28.05 N	166 02.59 W	20Bon	QTowF	
21-Sep-06	16:10	76	3	BG4	BON077	535	54 28.05 N	166 02.59 W	60Bon	QTowF	
21-Sep-06	16:10	76	3	BG4	BON077	535	54 28.05 N	166 02.59 W	CAT	CAT	
21-Sep-06	17:51	77	1	BJ4	NEU085	661	54 21.17 N	166 24.29 W	Neu	QTowF	
21-Sep-06	18:06	77	2	BJ4	NEU086	649	54 21.39 N	166 25.31 W	Neu	MDNeu	Plastics council for Miriam.
21-Sep-06	10:41	77	3	BJ4	BON078	659	54 21.21 N	166 25.49 W	20Bon	QTowF	
21-Sep-06	10:41	77	3	BJ4	BON078	659	54 21.21 N	166 25.49 W	60Bon	QTowF	
21-Sep-06	10:41	77	3	BJ4	BON078	659	54 21.21 N	166 25.49 W	CAT	CAT	
21-Sep-06	20:13	78	1	BJ7	NEU087	416	54 34.08 N	166 36.18 W	Neu	QTowF	
21-Sep-06	20:41	78	2	BJ7	BON079	415	54 34.23 N	166 37.99 W	20Bon	Discard	20 bongos were twisted so we redid the bongo at this station.
21-Sep-06	20:41	78	2	BJ7	BON079	415	54 34.23 N	166 37.99 W	60Bon	Discard	20 bongos were twisted and did not fish well so we redid this bongo.
21-Sep-06	20:41	78	2	BJ7	BON079	415	54 34.23 N	166 37.99 W	CAT	CAT	20 bongos were twisted so we redid the bongo at this station.
21-Sep-06	21:41	78	3	BJ7	BON080	415	54 34.23 N	166 36.97 W	20Bon	QTowF	
21-Sep-06	21:41	78	3	BJ7	BON080	415	54 34.23 N	166 36.97 W	60Bon	QTowF	
21-Sep-06	21:41	78	3	BJ7	BON080	415	54 34.23 N	166 36.97 W	CAT	CAT	
21-Sep-06	23:24	79	1	BJ10	NEU088	283	54 47.31 N	166 48.46 W	Neu	QTowF	
21-Sep-06	23:42	79	2	BJ10	NEU089	285	54 47.37 N	166 49.75 W	Neu	MDNeu	Neuston for Miriam Doyle.
22-Sep-06	0:05	79	3	BJ10	BON081	292	54 47.36 N	166 51.15 W	20Bon	QTowF	
22-Sep-06	0:05	79	3	BJ10	BON081	292	54 47.36 N	166 51.15 W	60Bon	QTowF	
22-Sep-06	0:05	79	3	BJ10	BON081	292	54 47.36 N	166 51.15 W	CAT	CAT	

## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
22-Sep-06	1:39	80	1	BJ13	NEU090	156	55 00.65 N	167 01.42 W	60Bon	QTowF	jellyfish removed
22-Sep-06	2:00	80	2	BJ13	BON082	158	55 00.53 N	167 02.60 W	20Bon	QTowF	60bon net 1 contained jelly fish so net 2 used instead
22-Sep-06	2:00	80	2	BJ13	BON082	158	55 00.53 N	167 02.60 W	60Bon	QTowF	60bon net 1 contained jelly fish so net 2 used instead
22-Sep-06	2:00	80	2	BJ13	BON082	158	55 00.53 N	167 02.60 W	CAT	CAT	60bon net 1 contained jelly fish so net 2 used instead
22-Sep-06	2:34	80	3	BJ13	CTD023	157	55 00.57 N	167 01.91 W	CTD	CTD, Fluor, PAR	
22-Sep-06	3:12	80	4	BJ13	BEAM021	157	55 00.49 N	167 02.38 W	Beam	Discard	
22-Sep-06	4:02	80	5	BJ13	BEAM022	158	55 00.53 N	167 02.69 W	Beam	Discard	Midwater beam trawl test for Ingrid Atka
Mackral.											
22-Sep-06	6:00	81	1	BM13	NEU091	415	54 53.28 N	167 24.22 W	Neu	QTowF	Removed jellyfish from codend.
22-Sep-06	6:14	81	2	BM13	BON083	426	54 52.99 N	167 24.52 W	20Bon	QTowF	
22-Sep-06	6:14	81	2	BM13	BON083	426	54 52.99 N	167 24.52 W	60Bon	QTowF	
22-Sep-06	6:14	81	2	BM13	BON083	426	54 52.99 N	167 24.52 W	CAT	CAT	
22-Sep-06	8:00	82	1	BM10	NEU092	445	54 40.23 N	167 11.15 W	Neu	QTowF	
22-Sep-06	8:27	82	2	BM10	BON084	453	54 39.97 N	167 12.62 W	20Bon	QTowF	
22-Sep-06	8:27	82	2	BM10	BON084	453	54 39.97 N	167 12.62 W	60Bon	QTowF	
22-Sep-06	8:27	82	2	BM10	BON084	453	54 39.97 N	167 12.62 W	CAT	CAT	
22-Sep-06	10:15	83	1	BM7	NEU093	495	54 27.25 N	166 58.87 W	Neu	QTowF	
22-Sep-06	10:40	83	2	BM7	BON085	500	54 26.96 N	166 59.72 W	20Bon	QTowF	
22-Sep-06	10:40	83	2	BM7	BON085	500	54 26.96 N	166 59.72 W	60Bon	QTowF	
22-Sep-06	10:40	83	2	BM7	BON085	500	54 26.96 N	166 59.72 W	CAT	CAT	
22-Sep-06	12:24	84	1	BM4	NEU094	1400	54 13.88 N	166 46.89 W	Neu	QTowF	
22-Sep-06	13:18	84	2	BM4	BON086	1400	54 13.68 N	166 47.42 W	20Bon	QTowF	
22-Sep-06	13:18	84	2	BM4	BON086	1400	54 13.68 N	166 47.42 W	60Bon	QTowF	
22-Sep-06	13:18	84	2	BM4	BON086	1400	54 13.68 N	166 47.42 W	CAT	CAT	
22-Sep-06	14:56	85	1	BM1	NEU095	103	54 00.75 N	166 34.85 W	Neu	QTowF	
22-Sep-06	15:22	85	2	BM1	BON087	109	54 00.79 N	166 35.13 W	20Bon	QTowF	
22-Sep-06	15:22	85	2	BM1	BON087	109	54 00.79 N	166 35.13 W	60Bon	QTowF	
22-Sep-06	15:22	85	2	BM1	BON087	109	54 00.79 N	166 35.13 W	CAT	CAT	
22-Sep-06	16:04	85	3	BM1	BEAM023	123	54 00.58 N	166 35.10 W	Beam	Discard	
22-Sep-06	17:53	86	1	BJ1	NEU096	88	54 07.87 N	166 11.94 W	Neu	QTowF	
22-Sep-06	10:13	86	2	BJ1	BON088	89	54 07.63 N	166 13.12 W	20Bon	QTowF	
22-Sep-06	10:13	86	2	BJ1	BON088	89	54 07.63 N	166 13.12 W	60Bon	QTowF	
22-Sep-06	10:13	86	2	BJ1	BON088	89	54 07.63 N	166 13.12 W	CAT	CAT	
22-Sep-06	19:53	87	1	BG1	NEU097	78	54 15.10 N	165 48.64 W	Neu	QTowF	
22-Sep-06	20:12	87	2	BG1	BON089	79	54 14.99 N	165 48.96 W	20Bon	QTowF	
22-Sep-06	20:12	87	2	BG1	BON089	79	54 14.99 N	165 48.96 W	60Bon	QTowF	
22-Sep-06	20:12	87	2	BG1	BON089	79	54 14.99 N	165 48.96 W	CAT	CAT	



## Cruise Summary For FOCI Cruise 6MF06 (MF06-10)

Date (GMT)	Time (GMT)	Station	Hau	FOCI Grid	Alternate Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
22-Sep-06	23:14	88	1		BEAM024	334	54 34.89 N	165 39.20 W	Beam	Discard	