

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
1	30/10/1988 to 03/11/1988	R/V Moana-Wave	HOT	HOT 1	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
2	01/12/1988 to 04/12/1988	R/V Moana-Wave	HOT	HOT 2	United States	E. Firing	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
3	07/01/1989 to 10/01/1989	R/V Moana-Wave	HOT	HOT 3	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
4	26/02/1989 to 01/03/1989	SSP Kaimalino	HOT	HOT 4	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
5	26/03/1989 to 30/03/1989	R/V Moana-Wave	HOT	HOT 5	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
6	16/05/1989 to 20/05/1989	SSP Kaimalino	HOT	HOT 6	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
7	22/06/1989 to 26/06/1989	SSP Kaimalino	HOT	HOT 7	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
8	27/07/1989 to 01/08/1989	SSP Kaimalino	HOT	HOT 8	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
9	22/08/1989 to 27/08/1989	SSP Kaimalino	HOT	HOT 9	United States	R. Lukas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
10	19/09/1989 to 25/09/1989	SSP Kaimalino	HOT	HOT 10	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
11	17/10/1989 to 20/10/1989	R/V Moana-Wave	HOT	HOT 11	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
12	27/11/1989 to 29/11/1989	R/V Moana-Wave	HOT	HOT 12	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
13	03/01/1990 to 07/01/1990	R/V Moana-Wave	HOT	HOT 13	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
14	20/01/1990 to 27/02/1990	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9001	Japan	J. Nishizawa	Philippine Sea, North Pacific Ocean	25/09/1994
15	26/01/1990 to 26/02/1990	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9001	Japan	H. Miyagi	East China Sea, Philippine Sea	25/09/1994
16	05/02/1990 to 09/03/1990	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9002	Japan	S. Ebara	Sea of Japan	25/09/1994
17	05/02/1990 to 20/02/1990	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON	9002	Japan		Philippine Sea	25/09/1994
18	07/02/1990 to 13/03/1990	Takuyo	WESTPAC	9002	Japan	Y. Iwanaga	East China Sea, Philippine Sea, N. Pacific Ocean	25/09/1994
19	09/02/1990 to 07/03/1990	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9002	Japan	Inagawa	North Pacific Ocean	25/09/1994
20	13/02/1990 to 17/02/1990	SSP Kaimalino	HOT	HOT 14	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
21	17/03/1990 to 21/03/1990	SSP Kaimalino	HOT	HOT 15	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
22	11/04/1990 to 15/04/1990	R/V Wecoma	HOT	HOT 16	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
23	12/04/1990 to 24/04/1990	Tansei Maru	OMLET	KT90-05	Japan	T. Shiga	Philippine Sea	18/06/1998
24	12/04/1990 to 01/05/1990	Shoyo	JRK/KER	9004	Japan	Y. Iwanaga	East China Sea, Philippine Sea, North Pacific Oc	25/09/1994
25	17/04/1990 to 21/05/1990	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9004	Japan	A. Aoyama	East China Sea, Yellow Sea	25/09/1994
26	19/04/1990 to 18/05/1990	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9004	Japan	Kubo	North Pacific Ocean	25/09/1994
27	20/04/1990 to 19/05/1990	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9004	Japan	S. Wakaki	Philippine Sea, North Pacific Ocean	25/09/1994
28	25/04/1990 to 22/05/1990	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9004	Japan	N. Sato	Inland Sea, Philippine Sea	25/09/1994
29	07/05/1990 to 11/05/1990	SSP Kaimalino	HOT	HOT 17	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
30	07/05/1990 to 11/06/1990	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9005	Japan	S. Ebara	Sea of Japan	25/09/1994
31	09/05/1990 to 21/05/1990	Yoko Maru		KER	Japan	E. Kozasa	Sea of Japan	23/08/1998
32	12/05/1990 to 01/06/1990	Soyo Maru		Productivity	Japan	Sasaki	North Pacific	23/08/1998
33	29/05/1990 to 11/06/1990	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9005	Japan	Nishimura	North Pacific Ocean	25/09/1994
34	11/06/1990 to 15/06/1990	R/V Wecoma	HOT	HOT 18	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
35	13/06/1990 to 11/08/1990	Hakurei-Mar	NOPACCS	NH90-1	Japan	M. Yuasa, M. Arita	Pacific 0-34N along 135E and 138E	25/09/1994
36	14/06/1990 to 03/08/1990	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9006	Japan		Philippine Sea, North Pacific Ocean	25/09/1994
37	23/06/1990 to 31/07/1990	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9006	Japan		North Pacific Ocean	25/09/1994
38	02/07/1990 to 10/08/1990	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9007	Japan	T. Miyao	Sea of Japan	25/09/1994
39	06/07/1990 to 14/07/1990	Shoyo	KER, Marine Pollution, Radioactivity	9007	Japan	K. Iwamoto	Philippine Sea, North Pacific Ocean	23/08/1998
40	06/07/1990 to 07/08/1990	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9007	Japan	K. Ishikawa	Inland Sea, Philippine Sea	25/09/1994
41	18/07/1990 to 04/08/1990	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9007	Japan	N. Ishikawa	East China Sea	25/09/1994
42	23/07/1990 to 27/07/1990	SSP Kaimalino	HOT	HOT 19	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
43	31/07/1990 to 21/08/1990	Shoyo	Japan - U.S.	9007	Japan	H. Ishii	Sea of Japan, Sea of Okhotsk, North Pacific Ocean	25/09/1994
44	01/08/1990 to 06/08/1990	R/V Ocean Research 1	KEEP-I	CR248	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
45	22/08/1990 to 15/10/1990	Hakurei-Mar	NOPACCS	NH90-3	Japan	K. Ishikawa	Pacific 45N - 8S along 175E	25/09/1994
46	03/09/1990 to 25/10/1990	Hakuho Maru	EqPac	KH-90-2	Japan	M. Terazaki	Eastern Eq. Pacific 20N - 20S sections along 180, 160 & 150W	02/06/1994
47	03/09/1990 to 22/09/1990	Shoyo	IGOSS, WESTPAC, MARPOLMON, KER	9009	Japan	S. Ikeda	North Pacific Ocean	25/09/1994
48	13/09/1990 to 17/09/1990	R/V Mona Wave	HOT	HOT 20	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
49	18/09/1990 to 23/09/1990	R/V Ocean Research 1	KEEP-I	CR254	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
50	25/09/1990 to 31/10/1990	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9009	Japan	I. Terashita	Sea of Japan	25/09/1994
51	26/09/1990 to 26/10/1990	Syumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9009	Japan	R. Okada	Inland Sea, Philippine Sea	25/09/1994
52	02/10/1990 to 17/10/1990	O.R.V. Franklin	OZGOFS	FR08/90	Australia	D. Mackey	Western Eq. Pacific 15S - 5N along 155E-5N to 1.5S along 147E	01/11/1994
53	03/10/1990 to 13/11/1990	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9010	Japan	Kubo	North Pacific Ocean	25/09/1994
54	11/10/1990 to 20/10/1990	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9010	Japan	J. Ohyama	Philippine Sea, North Pacific Ocean	25/09/1994
55	20/10/1990 to 25/10/1990	R/V Ocean Research 1	KEEP-I	CR258	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
56	26/10/1990 to 29/11/1990	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9010	Japan		East China Sea, Philippine Sea	25/09/1994
57	28/10/1990 to 14/12/1990	Hakuho Maru	Circulation and hydrothermal activity	KH90-3	Japan	H.Sakai, Y. Nozaki	Bismarck Sea/Western Equatorial Pacific	23/08/1998
58	02/11/1990 to 19/12/1990	Ryofu Maru	IGOSS, WOCE	9011	Japan	S. Wakaki	Philippine Sea, North Pacific Ocean	25/09/1994
59	03/11/1990 to 07/11/1990	R/V Ocean Research 1	KEEP-I	CR260	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
60	05/11/1990 to 16/11/1990	Yoko Maru		Primary productivity, pollution	Japan	S. Uno	East China Sea	23/03/1998
61	17/11/1990 to 19/11/1990	NAINA	HOT	HOT 21	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
62	17/11/1990 to 16/12/1990	Shoyo	JRK/KER	9011	Japan	S. Matsuda	East China Sea, Philippine Sea	25/09/1994
63	28/11/1990 to 06/12/1990	R/V Discoverer	WOCE	31DSEP390/2	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
64	03/12/1990 to 07/12/1990	R/V Ocean Research 1	KEEP-I	CR264	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
65	16/12/1990 to 20/12/1990	R/V Mona Wave	HOT	HOT 22	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1993
66	02/01/1991 to 03/02/1991	Le Noroit	WOCE-JGOFS	ALIZE 2 Leg 1	France	G. Reverdin	Pacific 10N to 30S 160E to 80W	29/12/1993
67	14/01/1991 to 12/01/1991	Sogen Maru	WOCE PR01, PR24		Japan	Kadoya	Philippine Sea	23/03/1998
68	11/01/1991 to 15/01/1991	R/V Ocean Research 1	KEEP-I	CR268	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
69	12/01/1991 to 25/01/1991	Shoyo	KER	9101	Japan	K. Iwamoto	North Pacific, Philippine Sea	23/03/1998
70	18/01/1991 to 23/02/1991	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9101	Japan	H. Miyagi	East China Sea, Philippine Sea, Sea of Japan	25/09/1994
71	18/01/1991 to 03/03/1991	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9101	Japan	J. Ohyama	Philippine Sea, North Pacific Ocean, East China	25/09/1994
72	31/01/1991 to 06/02/1991	Tansei Maru	KT-91-2		Japan	H. Nakata	Tokyo Bay	25/09/1994
73	01/02/1991 to 06/02/1991	R/V Moana-Wave	HOT	HOT 23	United States	S. Chiswell	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
74	02/02/1991 to 07/03/1991	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9102	Japan	M. Inagawa	Sea of Japan	25/09/1994
75	07/02/1991 to 05/03/1991	Noroit	ALIZE 2 Leg 2		France	A. Morliere	Pacific 10N to 30S 160E to 80W	29/12/1993
76	07/02/1991 to 11/03/1991	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9102	Japan	N. Sato	Inland Sea, Philippine Sea	25/09/1994
77	07/02/1991 to 08/03/1991	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9102	Japan		North Pacific Ocean	25/09/1994
78	08/02/1991 to 13/03/1991	Takuyo	WESTPAC	9102	Japan	S. Matsuda	Philippine Sea, N. Pacific, East China Sea, South Pacific	25/09/1994
79	20/02/1991 to 11/03/1991	CSS Tully	CJGOFS	91-03	Canada	H.J. Freeland	Station Papa (50 N 145 W)	21/06/1997
80	25/02/1991 to 15/03/1991	Yoko Maru	KER		Japan	Y. Nakamura	East China Sea	23/03/1998
81	04/03/1991 to 09/03/1991	R/V Ocean Research 1	KEEP-I	CR271	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
82	05/03/1991 to 09/03/1991	R/V Alpha Helix	HOT	HOT 24	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
83	01/04/1991 to 06/04/1991	R/V Ocean Research 1	KEEP-I	CR275	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
84	08/04/1991 to 11/04/1991	R/V Alpha Helix	HOT	HOT 25	United States	R. Lukas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
85	09/04/1991 to 26/04/1991	Shoyo	Marine pollution survey	9104	Japan	H. Hotta	North Pacific Ocean	25/09/1994
86	12/04/1991 to 21/05/1991	Hakurei-Mar	NOPACCS	NH91-1	Japan	A. Nishimura	Pacific 163W - 150E along 20N, Western Caroline	25/09/1994
87	23/04/1991 to 24/05/1991	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9104	Japan	Kubo	North Pacific Ocean	25/09/1994
88	23/04/1991 to 20/05/1991	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9104	Japan	A. Kikuchi	Philippine Sea, North Pacific Ocean	25/09/1994
89	23/04/1991 to 22/05/1991	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9104	Japan	R. Okada	Inland Sea, Philippine Sea	25/09/1994
90	27/04/1991 to 29/05/1991	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9104	Japan	M. Aoyama	East China Sea, Philippine Sea, Yellow Sea	25/09/1994
91	29/04/1991 to 09/05/1991	CSS Parizeau	LINE P	91-08	Canada	H. J. Freeland	Station Papa (50N 145W)	21/06/1997
92	02/05/1991 to 07/05/1991	R/V Ocean Research 1	KEEP-I	CR280	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
93	06/05/1991 to 10/05/1991	R/V Alpha Helix	HOT	HOT 26	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
94	08/05/1991 to 17/05/1991	Yoko Maru	KER		Japan	K. Izeki	East China Sea	23/03/1998
95	08/05/1991 to 21/05/1991	Shoyo		9105	Japan	T. Hashima	Sea of Okhotsk	25/09/1994
96	09/05/1991 to 08/06/1991	Hakuho Maru	Ocean Fluxes (Mass circulation)	KH91-3	Japan	I. Koike	NW Pacific Ocean	23/03/1998
97	10/05/1991 to 30/05/1991	Soyo Maru	WOCE		Japan	K. Okuda	North Pacific Ocean	23/03/1998
98	10/05/1991 to 10/06/1991	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9105	Japan	T. Miyao	Sea of Japan	25/09/1994
99	22/05/1991 to 04/06/1991	Wakataka Maru	BIOSMOS, KER	WK9104	Japan	D. Inagake	Kuroshio Extension and Kuroshio-Oyashio Interfrontal zone	25/09/1994
100	31/05/1991 to 11/07/1991	R/V Thomas Washington	WOCE (P17C)	31WTTUNES-1	United States	M. Tsuchiya	Central Pacific 35N to 6S along 135W	13/09/1993
101	03/06/1991 to 06/06/1991	R/V Alpha Helix	HOT	HOT 27	United States	R. Lukas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
102	03/06/1991 to 01/07/1991	Shoyo	KER	9106	Japan	T. Bando	Philippine Sea, North Pacific Ocean, East China Sea	25/09/1994
103	06/06/1991 to 26/07/1991	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9106	Japan	M. Imai	Philippine Sea, North Pacific Ocean	25/09/1994
104	07/06/1991 to 12/06/1991	R/V Ocean Research 1	KEEP-I	CR285	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
105	07/06/1991 to 24/06/1991	Tankai Maru	WOCE	TK9103	Japan	Y. Matsumoto, D.Inagake	Kuroshio-Oyashio Interfrontal zone and Oyashio Area	25/09/1994
106	07/06/1991 to 01/07/1991	Soyo Maru			Japan	Sasaki	North Pacific Ocean	23/03/1998
107	21/06/1991 to 04/07/1991	Yoko Maru			Japan	Y. Watana	East China Sea	23/03/1998
108	23/06/1991 to ??/06/1991	Tansei Maru	KT-91-8		Japan	A. Kawamura	Philippine Sea, North Pacific Ocean	25/09/1994
109	26/06/1991 to 03/07/1991	Tansei Maru	KT-91-9		Japan	H. Nakata	Osaka Bay, Kii Channel	25/09/1994
110	06/07/1991 to 09/08/1991	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9107	Japan	S. Ebara	Sea of Japan	25/09/1994

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
111	08/07/1991 to 12/07/1991	R/V Alpha Helix	HOT	HOT 28	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
112	09/07/1991 to 05/08/1991	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9107	Japan	K. Ishihara	Inland Sea, Philippine Sea	25/09/1994
113	12/07/1991 to 08/08/1991	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9107	Japan	Iwao	North Pacific Ocean	25/09/1994
114	15/07/1991 to 18/07/1991	R/V Ocean Research 1	KEEP-I	CR288	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
115	16/07/1991 to 25/08/1991	R/V Thomas Washington	WOCE (P16S)	31WTTUNES-2	United States	J. Swift	S. Pacific 37.5S - 18S along 152W & 6S - 35S along 135W	13/09/1993
116	20/07/1991 to 27/08/1991	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9107	Japan	T. Hinata	East China Sea, Yellow Sea	25/09/1994
117	07/08/1991 to 12/08/1991	R/V Alpha Helix	HOT	HOT 29	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
118	09/08/1991 to 07/10/1991	Hakurei-Mar	NOPACCS	NH91-2	Japan	K. Ishikawa	Pacific 48N -15S along 175E	25/09/1994
119	13/08/1991 to 02/10/1991	Hakuho Maru	WOCE (P13C)	KH915/leg1&2	Japan	K. Taira	North Pacific Ocean, Coral Sea	25/09/1994
120	28/08/1991 to 04/09/1991	R/V Ocean Research 1	ECS	CR293	Taiwan/RoC	C.S. Chern	East China Sea 24-27 N, 120-124 E	29/12/1993
121	31/08/1991 to 01/10/1991	R/V Thomas Washington	WOCE (P16C)	31WTTUNES_3	United States	L. Talley	Central Pacific 18S to 20N along 150W	13/09/1993
122	07/09/1991 to 23/09/1991	Shoyo	Radioactivity survey	9109	Japan	H. Hotta	North Pacific Ocean	25/09/1994
123	16/09/1991 to 20/09/1991	R/V Moana-Wave	HOT	HOT 30	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
124	25/09/1991 to 25/10/1991	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9109	Japan	M. Inagawa	Sea of Japan	25/09/1994
125	27/09/1991 to 22/10/1991	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9110	Japan	J. Ohyama	North Pacific Ocean	25/09/1994
126	29/09/1991 to 25/10/1991	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9109	Japan	N. Sato	Inland Sea, Philippine Sea	25/09/1994
127	05/10/1991 to 07/10/1991	R/V Ocean Research 1	KEEP-I	CR297	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
128	08/10/1991 to 22/10/1991	Hokko Maru	WOCE	HK9107	Japan	D. Inagake	North-Western Pacific	
129	14/10/1991 to 21/10/1991	Kaiyo	Marine pollution survey and Radioactivity survey	9110	Japan	O. Tajima	North Pacific Ocean	
130	04/10/1991 to 09/11/1991	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9110	Japan	T. Tohmine	North Pacific Ocean	25/09/1994
131	16/10/1991 to 19/11/1991	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9110	Japan	E. Moriyama	East China Sea, Philippine Sea	25/09/1994
132	17/10/1991 to 01/11/1991	Endeavour	WOCE/LINE P/PR 6		Canada	Bellegay	Station Papa (50N 145W)	21/04/1999
133	19/10/1991 to 24/10/1991	R/V Wecoma	HOT	HOT 31	United States	E. Firing	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
134	24/10/1991 to 03/12/1991	Shoyo	WOCE Pre-P2		Japan	H. Yoritaka	North Pacific Ocean, Philippine Sea	23/03/1998
135	01/11/1991 to 25/11/1991	Hakuho Maru	Japan Trench, Northwestern Pacific	KH-91-6	Japan	S. Ohta	North Pacific Ocean	23/03/1998
136	01/11/1991 to 19/03/1992	Kaiyo Maru	FY91-1		Japan	S. Matsumura, K. Mizuno	North Pacific Ocean, South Pacific Ocean	25/09/1994
137	12/11/1991 to 27/11/1991	Kaiyo	Marine pollution survey	9111	Japan	O. Tajima	North Pacific Ocean	25/09/1994
138	15/11/1991 to 10/12/1991	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9111	Japan	A. Kikuchi	North Pacific Ocean, Philippine Sea	25/09/1994
139	02/12/1991 to 06/12/1991	R/V Ocean Research 1	ECS	CR303	Taiwan/RoC	C.S. Chern	East China Sea 24-27 N, 120-124 E	29/12/1993
140	04/12/1991 to 09/12/1991	R/V Wecoma	HOT	HOT 32	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/09/1993
141	03/01/1992 to 08/01/1992	R/V Wecoma	HOT	HOT 33	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	04/10/1993
142	05/01/1992 to 08/01/1992	R/V Ocean Research 1	KEEP-I	CR307	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
143	09/01/1992 to 01/02/1992	Shoyo	KER	9201	Japan	T. Bando	East China Sea, North Pacific Ocean, Philippine	25/09/1994
144	12/01/1992 to 08/02/1992	R/V Wecoma	EqPac	W9201B	United States	J. Dymond	Eq. Pacific 9N 5N 2N 0N 2S 5S at 140W and 12S at 135W	13/09/1993
145	18/01/1992 to 11/03/1992	Ryofu Maru	WESTPAC, MARPOLMON, IGOSS, KER, WOCE	9201	Japan	M. Hirota, M. Imai	Philippine Sea, East China Sea, North Pacific Oc	25/09/1994
146	21/01/1992 to 26/02/1992	Chofu Maru	JRK, WESTPAC, IGOSS, MARPOLMON	9201	Japan	K. Akashi, M. Aoyama	East China Sea, Yellow Sea	25/09/1994
147	03/02/1992 to 09/03/1992	R/V Thomas Thompson	EqPac	TT-007	United States	J. Murray	Equatorial Pacific 12N to 12S along 140W	13/09/1993
148	04/02/1992 to 12/02/1992	CSS J. P. Tully	WOCE/LINE P/PR6	92-01	Canada	F. Whitney	Station Papa (50N 145W)	21/06/1997
149	04/02/1992 to 12/03/1992	Shumpu Maru	IGOSS, WESTPAC, KER, MARPOLMON	9202	Japan	N. Sato	Inland Sea, Philippine Sea	25/09/1994
150	05/02/1992 to 09/03/1992	Seifu Maru	WESTPAC, MARPOLMON, IGOSS, KER/JRK	9202	Japan	K. Hayashi	Japan Sea	25/09/1994
151	06/02/1992 to 07/03/1992	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9202	Japan	Y. Shinohara	North Pacific Ocean	25/09/1994
152	12/02/1992 to 17/02/1992	R/V Wecoma	HOT	HOT 34	United States	F. Bingham	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
153	12/02/1992 to 16/03/1992	Takuyo	WESTPAC	WESTPAC	Japan	T. Bando	North Pacific Ocean, Philippine Sea, East China	25/09/1994
154	29/02/1992 to 20/03/1992	R/V Malcolm Baldrige	EPOCS	MB-92-02 leg 1	United States	L. Mangum	Eq. Pacific 10N to 10S along 110W and 5S to 10N along 125W	13/09/1993
155	03/03/1992 to 08/03/1992	R/V Wecoma	HOT	HOT 35	United States	S. Chiswell	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
156	09/03/1992 to 22/03/1992	Wakataka Maru	Application Remote Sensing to Fisheries	WK91/2	Japan	Y. Matsuo	North Western Pacific Ocean	25/09/1994
157	13/03/1992 to 24/03/1992	Tansei Maru	Flux of sedimentary particles in the sea trench	KT92-4	Japan	Y. Nozaki	North Pacific Ocean	23/03/1998
158	17/03/1992 to 19/04/1992	R/V Thomas Thompson	EqPac	TT-008	United States	M. Roman	Equatorial Pacific 8N to 9S along 140W	13/09/1993
159	27/03/1997 to 12/04/1992	Endeavour	WOCE/LINEP/PR6	92-06	Canada	R. Perkin	Station Papa (50N 145W)	21/06/1997
160	31/03/1992 to 13/04/1992	R/V Malcolm Baldrige	EPOCS	MB-92-02 leg 2	United States	D. Atwood	Equatorial Pacific 10N to 10S along 170W	13/09/1993
161	08/04/1992 to 09/05/1992	Wakatori Maru	BIOSMOS	WR9204	Japan	Y. Matsumoto	North Western Pacific Ocean	25/09/1994
162	12/04/1992 to 13/06/1992	Hakurei-Mar	NOPACCS	NH92-1	Japan	A. Nishimura	Pacific 15S - 15N along 175E, W. Caroline Basin, Ontong Java	25/09/1994
163	14/04/1992 to 08/05/1992	Shoyo	Marine pollution survey	9204	Japan	H. Hotta	North Pacific Ocean	25/09/1994
164	15/04/1992 to 20/04/1992	R/V Wecoma	HOT	HOT 36	United States	C. Winn	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
165	16/04/1992 to 22/04/1992	R/V Ocean Research 1	KEEP-I	CR314	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
166	18/04/1992 to 18/05/1992	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9204	Japan	T. Tohminer	North Pacific Ocean	25/09/1994
167	21/04/1992 to 19/05/1992	Ryofu Maru	IGOSS, WESTPAC, KER, MARPOLMON	9204	Japan	A. Kikuchi	North Pacific Ocean	25/09/1994
168	24/04/1992 to 06/05/1992	R/V Malcolm Baldrige	EPOCS	MB-92-02 leg3	United States	R. Feely	Equatorial Pacific 10S to 10N along 140W	13/09/1993
169	24/04/1992 to 22/05/1992	Shumpu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9204	Japan	N. Sato	Philippine Sea, Inland Sea	25/09/1994
170	25/04/1992 to 22/05/1992	Chofu Maru	KER, WOCE, WESTPAC, IGOSS, MARPOLMON	9204	Japan	T. Hinata	East China Sea	25/09/1994
171	02/05/1992 to 26/05/1992	R/V Knorr	WOCE (P06E)	138 leg 3	United States	H. Bryden	S. Pacific 72W to 102W along 32S	13/09/1993
172	06/05/1992 to 11/05/1992	R/V Moana-Wave	HOT	HOT 37	United States	D. Karl	N. Pacific at 22.8 N 158 W and at 21.3N 158.3W	04/10/1993
173	07/05/1992 to 06/06/1992	Seifu Maru	WESTPAC, MARPOLMON, IGOSS, KER/JRK	9205	Japan	T. Miyao	Japan Sea	25/09/1994
174	07/05/1992 to 19/05/1992	Yoko Maru	MASFLEX	YK-92-2	Japan	K. Iseki	East China Sea	25/09/1994
175	09/05/1992 to 05/06/1992	Soyo Maru	WOCE, KER		Japan	K. Okuda	North Pacific Ocean	23/03/1998
176	20/05/1992 to 03/06/1992	Wakataka Maru	KER	WK9204	Japan	I. Yasuda	North Western Pacific Ocean	25/09/1994
177	22/05/1992 to 05/06/1992	Shoyo	KER	9205	Japan	K. Oka	East China Sea, North Pacific Ocean, Philippine	25/09/1994
178	30/05/1992 to 07/07/1992	R/V Knorr	WOCE (P06C)	138 leg 4	United States	M. McCartney	S. Pacific 110W to 180W along 32S	13/09/1993
179	07/06/1992 to 22/06/1992	Shoyo	Radioactivity survey	9206	Japan	Y. Iwanaga	North Pacific Ocean	25/09/1994
180	09/06/1992 to 29/07/1992	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9206	Japan	J. Ohyama	Philippine Sea, North Pacific Ocean	25/09/1994
181	15/06/1992 to 13/07/1992	O.R.V. Franklin	OZGOFS	FR05/92	Australia	D. Mackey	W. Eq. Pacific 15S-10N along 10N & 155E-6N to 1.5S along 147E	01/11/1994
182	19/06/1992 to 14/07/1992	Yoko Maru	KER	YK92-4	Japan	K. Miyaki	East China Sea, Philippine Sea	23/03/1998
183	22/06/1992 to 15/07/1992	Shunyo Maru	Global Environment Research		Japan	A. Shiimoto	North Western Pacific Ocean	25/09/1994
184	03/07/1992 to 07/07/1992	R/V Moana-Wave	HOT	HOT 38	United States	E. Firing	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
185	04/07/1992 to 22/08/1992	Hokuto Maru	Japan. Study Behaviour Greenhouse gases & aerosols		Japan	H. Tsujimoto, K. Nishimura	North Pacific Ocean and South Pacific Ocean	25/09/1994
186	06/07/1992 to 19/08/1992	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9207	Japan	N. Kubo	North Pacific Ocean	25/09/1994
187	09/07/1992 to 12/08/1992	Shumpu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9207	Japan	K. Hayashi	Philippine Sea, Inland Sea	25/09/1994
188	10/07/1992 to 15/07/1992	R/V Ocean Research 1	KEEP-I	CR323	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
189	10/07/1992 to 05/08/1992	Academic Alexander Vinogradov	KEEP_MASS	V23_KM92	Taiwan/RoC	M.P. Chen	West Philippine Sea, East China Sea, Japan Sea	29/12/1993
190	13/07/1992 to 30/07/1992	R/V Knorr	WOCE (P06W)	138 leg 5	United States	J. Toole	S. Pacific 175E to 154E along 32S	13/09/1993
191	16/07/1992 to 13/08/1992	Seifu Maru	WESTPAC, MARPOLMON, IGOSS, KER/JRK	9207	Japan	S. Ebara	Japan Sea	25/09/1994
192	21/07/1992 to 12/08/1992	Soyo	Maru		Japan	Sasaki	Japan Sea	23/03/1998
193	24/07/1992 to 15/08/1992	Chofu Maru	KER/JRK, WOCE, WESTPAC, IGOSS, MARPO	9207	Japan	E. Moriyama	East China Sea	25/09/1994
194	03/08/1992 to 08/08/1992	R/V Moana-Wave	HOT	HOT 39	United States	C. Winn	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
195	03/08/1992 to 01/09/1992	R/V Vickers	WOCE (P13,legs 0&1)	3220CGC91_1/2	United States	J. Bullister	E. Pacific	13/09/1993
196	04/08/1992 to 17/09/1992	Shoyo	WOCE Pre-P2(3rd)	9208	Japan	T. Bando	North Pacific Ocean, Philippine Sea	25/09/1994
197	05/08/1992 to 18/09/1992	R/V Thomas Thompson	EqPac	TT-011	United States	R. Barber	Equatorial Pacific 12N to 12S along 140W	13/09/1993
198	17/08/1992 to 05/10/1992	Hakurei-Mar	NOPACCS	NH92-2	Japan	K. Ishikawa	Pacific 48N -15S along 175E	25/09/1994
199	01/09/1992 to 15/09/1992	R/V Knorr	WOCE (P14C)	138 leg 7	United States	D. Roemmich	S. Pacific 20S to 37S along 175W	13/09/1993
200	06/09/1992 to 10/10/1992	R/V Discoverer	EPOCS	DI-92-03 leg3	United States	R. Feely	Eq. Pacific 1N - 10N along 140W & 16N - 10S along 125W	24/09/1993
201	08/09/1992 to 22/09/1992	Yoko Maru	KER	YK92-6	Japan	Y. Watana	East China Sea	23/03/1998
202	08/09/1992 to 29/09/1992	CSS J.P. Tully	WOCE/JGOFS/LINE P	92-15	Canada	F. Whitney		13/06/1997
203	13/09/1992 to 18/09/1992	R/V Ocean Research 1	KEEP-I	CR330B	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
204	16/09/1992 to 27/10/1992	Hakuho Maru	Ocean Fluxes	KH92-4	Japan	Y. Nozaki	Western Pacific Ocean, Tasman Sea, Solomon Sea, Coral Sea	23/03/1998
205	20/09/1992 to 25/09/1992	R/V Moana-Wave	HOT	HOT 40	United States	D. Hebel	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
206	22/09/1992 to 20/10/1992	Shumpu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9209	Japan	I. Terashima	Philippine Sea, Inland Sea	25/09/1994
207	24/09/1992 to 25/10/1992	R/V Thomas Thompson	EqPac	TT-012	United States	M. Bacon	Equatorial Pacific .1N to 12S along 140W	13/09/1993
208	26/09/1992 to 21/10/1992	R/V Vickers	WOCE (P13,leg2)	3220CGC92-2	United States	B. Taft	E. Pacific 30N to 15S along 180	13/09/1993
209	28/09/1992 to 02/10/1992	R/V Ocean Research 1	KEEP-I	CR331A	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
210	01/10/1992 to 21/10/1992	Hokko Maru	WOCE	HK9207	Japan	D. Inagake, Y. Matsumoto, Y. Shimizue	North Western Pacific Ocean	25/09/1994
211	04/10/1992 to 09/10/1992	R/V Ocean Research 1	KEEP-I	CR331B	Taiwan/RoC	W.S. Chuang	East China Sea 24-27 N, 120-124 E	29/12/1993
212	05/10/1992 to 19/12/1992	Chofu Maru	KER/JRK, WOCE, WESTPAC, IGOSS, MARPO	9210	Japan	Y. Tomiyama	East China Sea, Yellow Sea	25/09/1994
213	06/10/1992 to 29/10/1992	Kaiyo	WOCE (PR24)		Japan	Muneyam	Philippine Sea	23/03/1998
214	06/10/1992 to 25/11/1992	R/V Knorr	WOCE (P16A,P17A)	138 leg 9	United States	J. Reid	S. Pacific 35S to 65S along 150E and 53S to 33S along 135E	13/09/1993
215	06/10/1992 to 17/11/1992	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, MMS, WOCE	9210	Japan	I. Iwao	North Pacific Ocean, Japan Sea	25/09/1994
216	09/10/1992 to 16/11/1992	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER/JRK,	9210	Japan	S. Kawae	Philippine Sea, North Pacific Ocean	25/09/1994
217	12/10/1992 to 18/11/1992	R/V Discoverer	EPOCS	DI-92-03 leg4	United States	R. Wanninkhof	Equatorial Pacific 10S to 8N along 110W	22/09/1993
218	13/10/1992 to 12/11/1992	Shoyo	KER	9210	Japan	K. Oka	Eastern China Sea, Philippine Sea	25/09/1994
219	14/10/1992 to 21/10/1992	Kaiyo	Radioactivity survey	9210	Japan	O. Tajima	North Pacific Ocean	25/09/1994
220	17/10/1992 to 22/10/1992	R/V Moana-Wave	HOT	HOT 41	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	04/10/1993

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
221	07/10/1992 to 19/10/1992	R/V Ocean Research 1	ECS	CR332B	Taiwan/RoC	C.S. Chern	East China Sea 24-27 N, 120-124 E	29/12/1993
222	24/10/1992 to 03/12/1992	Shoyo	WOCE	WOCE Pre-P2	Japan	H. Yoritaka	North Pacific Ocean, Philippine Sea	25/09/1994
223	30/10/1992 to 13/12/1992	R/V Thomas Thompson	EqPac	TT-013	United States	M. Leinen	Equatorial Pacific 9N to 12S along 140W	13/09/1993
224	03/11/1992 to 12/12/1992	R/V Alis	JGOFS/TOGA COARE	Equalis	France	M.H.Radenac	Eq. Pacific at 2 stations: 156.15E, 1.30S & 156.10E, 1.45S	07/01/1998
225	13/11/1992 to 27/11/1992	Kaiyo	Marine pollution survey	9211	Japan	O. Tajima	North Pacific Ocean	25/09/1994
226	16/11/1992 to 24/11/1992	Tansei Maru	KT92-16		Japan	Y. Endo	North Pacific Ocean	23/03/1998
227	19/11/1992 to 08/12/1992	R/V Discoverer	EPOCS	DI-92-03 leg5	United States	P. Murphy	Equatorial Pacific	22/09/1993
228	23/11/1992 to 25/11/1992	R/V Kila	HOT	HOT 42	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3N 158.3W	04/10/1993
229	25/11/1992 to 24/03/1993	Kaiyo Maru	1992/2		Japan	K. Mito	North Pacific Ocean, Bering Sea	25/09/1994
230	04/12/1992 to 22/01/1993	R/V Knorr	WOCE(P17E/P19S)	138 leg 10	United States	J. Swift	S. Pacific 135-88W at 50S, 52-65S at 126W & 54-65S at 88W	13/09/1993
231	15/12/1992 to 17/12/1992	R/V Kila	HOT	HOT 43	United States	D. Keibel	N. Pacific at 22.8 N 158 W and at 21.3N 158.3W	04/10/1993
232	05/01/1993 to 02/02/1993	Shoyo	KER		Japan	T. Bando	North Pacific Ocean, East China Sea	23/03/1998
233	18/01/1993 to 23/01/1993	R/V Townsed Cromwell	HOT	HOT 44	United States	C. Winn	N. Pacific at 22.8 N 158 W and at 21.3N 158.3W	04/10/1993
234	19/01/1993 to 20/02/1993	Chofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9301	Japan	K. Kimura	East China Sea	25/09/1994
235	19/01/1993 to 10/03/1993	Ryoufu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9301	Japan	M. Imai, M. Hirota	Philippine Sea	25/09/1994
236	20/01/1993 to 26/01/1993	B/I Abate Molina	JGOFS/EBC-Study	V	Chile		Off Chilean coast at about 30S	30/03/1998
237	22/01/1993 to 04/03/1993	Hakuho Maru	WESTPAC	KH-93-1	Japan	K. Numachi, K. Kawaguchi	North Pacific Ocean	25/09/1994
238	25/01/1993 to 08/03/1993	Taisei Maru	Japanese Study on the Behavior of Greengases and aerosols		Japan	R. Tate	North Pacific Ocean, South Pacific Ocean	25/09/1994
239	27/01/1993 to 14/02/1993	R/V Thomas Thompson	EqPac	TT-015	United States	R. Collier	Equatorial Pacific 9N 5N 2N 0N 2S 5S at 140W and	13/09/1993
240	02/02/1993 to 05/03/1993	Shumpu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9302	Japan	N. Sato	Philippine Sea, Inland Sea	25/09/1994
241	09/02/1993 to 10/03/1993	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9302	Japan	Y. Shinohara	North Pacific Ocean	25/09/1994
242	10/02/1993 to 15/03/1993	Takuyo	WESTPAC	Westpac	Japan	K. Oka	North Pacific Ocean, East China Sea	23/03/1998
243	15/02/1993 to 10/03/1993	Kaiyo	MASFLEX	K92-09	Japan	M. Kusakabe	East China Sea	23/03/1998
244	15/02/1993 to 20/02/1993	R/V Thomas Thompson	HOT	HOT 45	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	04/10/1993
245	15/02/1993 to ??/02/1993	CSS Tully	Ocean acoustics	93-01	Canada	D.M. Farmer	NE Pacific 49N 127W	02/04/1997
246	16/02/1993 to 11/03/1993	Seifu Maru	WESTPAC, MARPOLMON, IGOSS, KER/JRK	9302	Japan	M. Inagawa	Japan Sea	25/09/1994
247	21/02/1993 to 18/03/1993	R/V Malcolm Baldrige	WOCE	3175EP193/1	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
248	22/02/1993 to 13/04/1993	R/V Knorr	WOCE (P19C)	138 leg 12	United States	L. Talley	S.Pacific 54S to 13N along 88W	13/09/1993
249	01/03/1993 to 17/03/1993	Yoko Maru	YK-92-10		Japan	Y. Konishi	East China Sea	25/09/1994
250	04/03/1993 to 16/03/1993	Wakataka Maru	BIOCOSMOS, Application of Remote Sensing	9208	Japan	Y. Matsuo, K. Yokouchi	North Western Pacific	25/09/1994
251	05/03/1993 to 18/03/1993	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	93-03	Canada	D. Farmer	NE Pacific (48N 127W)	02/04/1997
252	05/03/1993 to 24/03/1993	Soyo Maru	BIOCSSMOSS		Japan	Y. Matsukawa	North Pacific Ocean	23/03/1998
253	12/04/1993 to 17/04/1993	R/V Wecoma	HOT	HOT 46	United States	D. Hebel	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
254	13/04/1993 to 11/06/1993	Hakurei-Mar	NOPACCS	NH93-1	Japan	M. Arita	Pacific 0 - 48N along 175E, Hess Rise	25/09/1994
255	14/04/1993 to 19/04/1993	R/V Ocean Research 1	KEEP-I	CR352A	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
256	20/04/1993 to 21/05/1993	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9304	Japan	N. Kubo	North Pacific Ocean	25/09/1994
257	20/04/1993 to 26/04/1993	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON	9304	Japan	S. Takatani	Philippine Sea	25/09/1994
258	20/04/1993 to 02/05/1993	Soyo Maru	BIOCSSMOSS		Japan	Y. Matsukawa	North Pacific Ocean	23/03/1998
259	21/04/1993 to 29/04/1993	R/V Ocean Research 1	KEEP-I	CR352B	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
260	23/04/1993 to 21/05/1993	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9304	Japan	S. Kawae	North Pacific Ocean, Philippine Sea	25/09/1994
261	26/04/1993 to 20/05/1993	Chofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9304	Japan	T. Hinata	Philippine Sea, East China Sea	25/09/1994
262	01/05/1993 to 05/05/1993	R/V Ocean Research 1	KEEP-I	CR352C	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
263	07/05/1993 to 15/05/1993	R/V Ocean Research 1	KEEP-I	CR352D	Taiwan/RoC	W.S. Chuang	East China Sea 24-27N, 120-124E	29/12/1993
264	07/05/1993 to 07/06/1993	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9305	Japan	T. Miyao	Japan Sea	25/09/1994
265	10/05/1993 to 21/05/1993	Yoko Maru	MASFLEX	YK92-2	Japan	K. Izeki	East China Sea	23/03/1998
266	12/05/1993 to 20/07/1993	Soyo Maru	KER		Japan	Y. Nishikawa	North Pacific Ocean, Philippine Sea, East China Sea	23/03/1998
267	13/05/1993 to 18/06/1993	Hakuho Maru	WOCE(P13J), WESTPAC	KH-932-2	Japan	K. Taira	North Pacific Ocean	25/09/1994
268	14/05/1993 to 31/05/1993	CSS Tully	WOCE/station P	93-09	Canada	F. Whitney	Station Papa (50N 145W)	03/04/1997
269	15/05/1993 to 26/06/1993	R/V Thomas Thompson	WOCE (P17N)	325021-1	United States	D. Musgrave	N.Pacific 40N 130W to 50N 175W	13/09/1993
270	18/05/1993 to 23/05/1993	R/V New Horizon	HOT	HOT 47	United States	L. Tupas	N. Pacific at 22.8N 158W and at 21.3N 158.3W	04/10/1993
271	26/05/1993 to 16/06/1993	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON	9305	Japan	S. Takatani	Philippine Sea	25/09/1994
272	28/05/1993 to 07/06/1993	Soyo Maru			Japan	K. Okuda	North Pacific Ocean	23/03/1998
273	09/06/1993 to 31/07/1993	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, KER	9306	Japan	M. Hirota	N. Pacific, Philippine Sea, S. Pacific, Bismarck Sea	25/09/1994
274	10/06/1993 to 09/07/1993	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9306	Japan	M. Inagawa	North Pacific Ocean	25/09/1994
275	14/06/1993 to 18/06/1993	R/V Ocean Research 1	ECS	CR356A	Taiwan/RoC	C.S. Chern	East China Sea 24-27 N, 120-124 E	29/12/1993

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276	18/06/1993 to 27/06/1993	CSS J.P. Tully	JGOFS	93-17a,b	Canada	D. Mackas, F. Thompson	NE Pacific (49N 127W)	13/06/1997
277	05/07/1993 to 11/08/1993	R/V Thomas Thompson	WOCE (P14N)	325023/1 leg1	United States	G. Roden	Central North Pacific 50N to 0N along 180	13/09/1993
278	05/07/1993 to 03/08/1993	Shoyo	KER	9307	Japan	K. Oka	East China Sea, Philippine Sea	25/09/1994
279	13/07/1993 to 14/08/1993	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9307	Japan	R. Okada	North Pacific Ocean, Philippine Sea, Inland Sea	25/09/1994
280	14/07/1993 to 20/07/1993	Seisui Maru		9310	Japan	K. Taguchi	Philippine Sea	25/09/1994
281	20/07/1993 to 24/07/1993	Janequeo	JGOFS/EBC-Study	VI	Chile		Off Chilean coast at about 30S	30/03/1998
282	20/07/1993 to 02/08/1993	Yoko Maru			Japan	Y. Watanabe	East China Sea	23/03/1998
283	21/07/1993 to 12/08/1993	Chofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9307	Japan	E. Moriyama	East China Sea, Philippine Sea	25/09/1994
284	21/07/1993 to 10/08/1993	R.V. Lady Basten	GASP		Australia	M. Furnas	N. Great Barrier Reef Timor Sea NE Indian 19S 147E - 20S 117E	01/11/1994
285	23/07/1993 to 17/08/1993	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9307	Japan	S. Ebara	Japan Sea	25/09/1994
286	26/07/1993 to 28/07/1993	R/V Na'Ina	HOT	HOT 48	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	04/10/1993
287	31/07/1993 to 12/08/1993	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, MMS	9307	Japan	J. Nakagawa	North Pacific Ocean	25/09/1994
288	01/08/1993 to 07/08/1993	R/V Ocean Research I	KEEP-I	361	Taiwan/RoC	T.-Y. Tang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
289	05/08/1993 to 05/10/1993	Hakurei-Marui	NOPACCS	NH93-2	Japan	K. Harada	Pacific 48N - 15S along 175E	25/09/1994
290	14/08/1993 to 02/09/1993	R/V Thomas Thompson	WOCE (P14N)	325024/1 leg2	United States	G. Roden	Central South Pacific 0N to 15S along 180	13/09/1993
291	22/08/1993 to 27/08/1993	Vidal Gormaz	JGOFS/EBC-Study	VII	Chile		Off Chilean coast at about 30S	30/03/1998
292	23/08/1993 to 18/09/1993	R/V Malcolm Baldrige	WOCE	3175EP393/1	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
293	29/08/1993 to 07/08/1993	R/V Ocean Research I	KEEP-I	365	Taiwan/RoC	C.C.Hung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
294	04/09/1993 to 11/09/1993	R/V Ocean Research I	KEEP-I	366	Taiwan/RoC	S. Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
295	12/09/1993 to 17/09/1993	R/V Moana-Wave	HOT	HOT 49	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	04/10/1993
296	14/09/1993 to 14/10/1993	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9309	Japan	N. Yoshioka	South of Honshu	25/09/1994
297	18/09/1993 to 01/10/1993	R/V Discoverer	WOCE	31DSSTG493/4	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
298	26/09/1993 to 25/10/1993	Kaiyo	MASFLEX	K93-05	Japan	M. Kusakabe	East China Sea	23/03/1998
299	04/10/1993 to 20/10/1993	Soyo Maru			Japan	Sasaki	North Pacific Ocean	23/03/1998
300	05/10/1993 to 10/11/1993	R/V Thomas Thompson	WOCE (P10)	3250TN026_1	United States	M. Hall	E. Pacific 30N to 0N along 145E	13/09/1993
301	06/10/1993 to 14/11/1993	Kofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, NMS, WOCE	9310	Japan	T. Iwao	North Pacific Ocean	23/03/1998
302	07/10/1993 to 05/11/1993	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9310	Japan	K. Ogawa	Japan Sea	23/03/1998
303	05/11/1993 to 01/12/1993	O.R.V. Franklin	OZGOFS	FR08/93	Australia	D. Mackey	Western Equatorial Pacific: 15 S to 10 N along 155E	01/11/1994
304	11/10/1993 to 23/10/1993	CSS Tully	CJGOFS	93-35	Canada	K. Denman	N. Pacific 48-50 N 127-129 W	01/06/1994
305	13/10/1993 to 17/11/1993	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9310	Japan	M. Imai, M. Hirota	North Pacific Ocean, Philippine Sea	25/09/1994
306	14/10/1993 to 03/12/1993	Hakuho Maru	KH-93-4		Japan	I. Koike	North Pacific Ocean	12/06/1998
307	14/10/1993 to 20/12/1993	Shoyo	WOCE		Japan	T. Bando	North Pacific Ocean, Philippine Sea	12/06/1998
308	15/10/1993 to 28/10/1993	R/V Venus	Margin flux in the East China Sea	F9310	China/PRC	B. Zhan	East China Sea	19/07/1999
309	15/10/1993 to 26/11/1993	Kaiyo Maru			Japan		North Pacific Ocean	12/06/1998
310	15/10/1993 to 23/10/1993	CSS J. P. Tully	LaPerouse	93-35	Canada	R. E. Thomson	NE Pacific (49N 127W)	21/06/1997
311	18/10/1993 to 20/11/1993	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9310	Japan	Y. Tomiyama	East China Sea, Philippine Sea	12/06/1998
312	27/10/1993 to 01/11/1993	R/V Moana-Wave	HOT	HOT 50	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
313	03/11/1993 to 09/11/1993	R/V Ocean Research I	KEEP-I	372	Taiwan/RoC	H.S. Yu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
314	05/11/1993 to 01/12/1993	O.R.V Franklin	OZGOFS	FR0893	Australia		Western equatorial Pacific: 15S-10N along 155E	21/06/1999
315	12/11/1993 to 18/11/1993	R/V Ocean Research I	KEEP-I	373	Taiwan/RoC	H.S. Yu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
316	29/11/1993 to 19/12/1993	CSS Tully	Ocean Acoustics	93-44	Canada	M. Trevorrow	NW Pacific (48N 127W)	03/04/1997
317	26/12/1993 to 31/12/1993	R/V Ocean Research I	KEEP-I	373	Taiwan/RoC	C.C. Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
318	14/01/1994 to 24/01/1994	Shoyo			Japan	T. Bando	Philippine Sea	12/06/1998
319	15/01/1998 to 04/02/1998	Bosei	WOCE P2		Japan	M. Fukawa	North Pacific Ocean	12/06/1998
320	18/01/1994 to 23/01/1994	R/V Moana-Wave	HOT	HOT 51	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
321	18/01/1994 to 04/03/1994	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9401	Japan	K. Kimura	East China Sea, Philippine Sea	12/06/1998
322	18/01/1994 to 08/03/1994	Ryofu Maru		9401	Japan	K. Fushimi, M. Imai	North Pacific Ocean, Philippine Sea	12/06/1998
323	19/01/1994 to 29/01/1994	Soyo Maru			Japan	Sasaki	North Pacific Ocean	12/06/1998
324	22/01/1994 to 02/02/1994	Vidal Gormaz	JGOFS/EBC-Study	VIII	Chile		Off Chilean coast at about 30S	30/03/1998
325	03/02/1994 to 04/03/1994	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9402	Japan	K. Hayashi	Philippine Sea	12/06/1998
326	07/02/1994 to 18/02/1994	CSS Tully	WOCE/JGOFS/LINE P/PR	94-01	Canada	R. Perkin	Station Papa (50N 145W)	03/04/1997
327	08/02/1994 to 11/03/1994	Takuyo	WESTPAC	WESTPAC	Japan	Y. Iwanaga	North Pacific Ocean, Philippine Sea, Philippine Sea	12/06/1998
328	10/02/1994 to 11/03/1994	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, KER, MMS	9402	Japan	Y. Miura	North Pacific Ocean	12/06/1998
329	12/02/1994 to 03/02/1994	Kaiyo	WOCE PR01, PR23, PR24	9402	Japan	Muneyam	Philippine Sea	12/06/1998
330	15/02/1994 to 18/03/1994	Kaiyo Maru			Japan	A. Yazu	North Pacific Ocean	12/06/1998

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
331	15/02/1994 to 20/02/1994	R/V Moana-Wave	HOT	HOT 52	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
332	16/02/1994 to 16/02/1994	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9402	Japan	Y. Shinohara, R. Okabe	Japan Sea	12/06/1998
333	22/02/1994 to 02/03/1994	R/V Discoverer	WOCE	31DSCGC94_2	Unites States	G. Johnson	WOCE line P18N (23N-0 along 110W)	23/04/1999
334	22/02/1994 to 02/03/1994	R/V Discoverer	WOCE	31DSCGC94_3	Unites States	B. Taft	WOCE line P18S (0-67S along 110W)	23/04/1999
335	24/02/1994 to 22/03/1994	Hakuho Maru	KH94-1		Japan	I. Aoki	North Pacific Ocean, Philippine Sea	12/06/1998
336	07/03/1994 to 12/03/1994	R/V Moana-Wave	HOT	HOT 53	United States	R. Lukas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
337	13/03/1994 to 19/03/1994	R/V Ocean Researh I	KEEP-I	380	Taiwan/RoC	T.Y. Yang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
338	29/03/1994 to 08/04/1994	CSS J.P. Tully	LaPerouse/JGOFS/CRD	94-07	Canada	R.E. Thompson	NE Pacific (49N 127W)	13/06/1997
339	08/04/1994 to 30/04/1994	R/V Science I	Margin flux in the East China Sea	F9404	China/PRC	B. Zhan	East China Sea	19/07/1999
340	13/04/1994 to 11/06/1994	Hakurei-Mar	NOPACCS	NH94-1	Japan	K. Harada	N. Pacific 48N - 15S along 175E	25/09/1994
341	22/04/1994 to 19/04/1994	R/V Malcolm Baldrige	WOCE	3175EP194/1	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
342	26/04/1994 to 14/04/1994	Chofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9404	Japan	M. Suzuki	East China Sea, Philippine Sea	12/06/1998
343	28/04/1994 to 17/05/1994	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, MMS	9404	Japan	Y. Miura	North Pacific Ocean	12/06/1998
344	28/04/1994 to 18/05/1994	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9404	Japan	K. Ogawa	Japan Sea	12/06/1998
345	28/04/1994 to 17/05/1994	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9404	Japan	N. Yoshioka	Philippine Sea	12/06/1998
346	??/05/1994	Hokko Maru	WOCE, TOPEX/POSEIDON		Japan			12/06/1998
347	??/05/1994	Tankai Maru	WOCE, TOPEX/POSEIDON		Japan			12/06/1998
348	??/05/1994 to ??/06/1994	Kaiyo	KER		Japan	M. Ishida	Philippine Sea	12/06/1998
349	02/05/1994 to 20/05/1994	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9405	Japan	S. Kawae	North Pacific Ocean, Philippine Sea	12/06/1998
350	04/05/1994 to 10/05/1994	R/V Ocean Researh I	KEEP-I	386	Taiwan/RoC	C.L. Wei	Southern East China Sea (120-123E, 25-27N)	01/06/1999
351	06/05/1994 to 18/05/1994	Shoyo			Japan	Y. Michida	North Pacific Ocean, Philippine Sea	12/06/1998
352	10/05/1994 to 25/05/1994	CSS J. P. Tully	WOCE/JGOFS/LINE P/PR	94-02	Canada	H.J. Freeland	Station Papa (50N 145W)	03/04/1997
353	31/05/1994 to 06/06/1994	R/V Ocean Researh I	KEEP-I	389	Taiwan/RoC	S.Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
354	??/06/1994	Hokko Maru	WOCE/GLOBEC		Japan			12/06/1998
355	02/06/1994 to 16/06/1994	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9406	Japan	Y. Shinohara	Japan Sea	12/06/1998
356	02/06/1994 to 26/06/1994	Yoko Maru	KER		Japan	Nakagawa	Philippine Sea, East China Sea	12/06/1998
357	03/06/1994 to 21/06/1994	Tansei Maru	KT94-8		Japan	T. Tsunogai	East China Sea	12/06/1998
358	06/06/1994 to 04/07/1994	Soyo Maru	KER		Japan	K. Okuda	East China Sea, Philippine Sea	12/06/1998
359	17/06/1994 to 22/06/1994	R/V Moana-Wave	HOT	HOT 54	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
360	07/07/1994 to 07/09/1994	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE P9	9407	Japan	I. Kanko	North Pacific Ocean, Philippine Sea	12/06/1998
361	07/07/1994 to 05/08/1994	Shoyo	KER		Japan	Y. Iwanaga	East China Sea, Philippine Sea	12/06/1998
362	15/07/1994 to 12/08/1994	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9407	Japan	N. Yoshioka	Philippine Sea	12/06/1998
363	20/07/1994 to 13/08/1994	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9407	Japan	R. Okada	East China Sea, Philippine Sea	12/06/1998
364	20/07/1994 to 30/08/1994	Kaiyo	MASFLEX	K94-4	Japan	M. Kusaka	East China Sea	12/06/1998
365	22/07/1994 to 13/08/1994	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, MMS	9407	Japan	N. Kubo	North Pacific Ocean	12/06/1998
366	23/07/1994 to 28/07/1994	R/V Moana-Wave	HOT	HOT 55	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
367	28/07/1994 to 16/08/1994	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9407	Japan	Y. Shinohara	Japan Sea	12/06/1998
368	??/08/1994	Hokko Maru	GLOBEC		Japan			12/06/1998
369	??/08/1994 to ??/08/1994	R/V Yanping Nr.2			China/PRC	H.Hong	Taiwan Strait, 22-27N, 117-122E	26/05/1999
370	03/08/1994 to 11/08/1994	CSS J.P. Tully	LaPerouse/JGOFS	94-31	Canada	D. L. Mackas	NE Pacific (49N 127W)	03/04/1997
371	03/08/1994 to 29/08/1994	R/V Malcolm Baldrige	WOCE	3175EP394/1	United States	Moore	WOCE line PR16 (10S to 8N along 110W)	22/04/1999
372	05/08/1994 to 10/08/1994	Tansei Maru	KT94-13		Japan	K. Fhjiwara	North Pacific Ocean	12/06/1998
373	06/08/1994 to 18/08/1994	R/V Ocean Researh I	KEEP-I	397	Taiwan/RoC	T.Y. Tang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
374	08/08/1994 to 06/10/1994	Hakurei-Mar	NOPACCS	NH94-2	Japan	A. Nishimura, H. Kawabata	Pacific 3S - 48N along 175E, Ontong Java Plateau, Hess Rise	25/09/1994
375	22/08/1994 to 19/09/1994	Shoyo			Japan	I. Uehara	Japan Sea, North Pacific Ocean, Philippine Sea	12/06/1998
376	28/08/1994 to 02/09/1994	R/V Mona Wave	HOT	HOT 56	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
377	02/09/1994 to 23/09/1994	Hakuho Maru	WOCE	KH94-3 Leg1	Japan	K. Taira	North Pacific Ocean	12/06/1998
378	06/09/1994 to 10/10/1994	CSS J.P. Tully	WOCE/LINE P/PR 6		Canada	Garret	Station Papa (50N 145W)	21/04/1999
379	16/09/1994 to 24/10/1994	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9409	Japan	T. Utsunomiya	Philippine Sea	12/06/1998
380	21/09/1994 to 26/09/1994	R/V Moana-Wave	HOT	HOT 57	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
381	22/09/1993 to 28/09/1993	B/I Abate Molina	JGOFS/EBC-Study	IX	Chile		Off Chilean coast at about 30S	30/03/1998
382	23/09/1994 to 29/10/1994	L'Atalante	FLUPAC		France	R. Le Borgne	West and central Pacific	07/05/1997
383	26/09/1994 to 12/10/1994	Bosei Maru	MASFLEX	BO-94-20	Japan		East China Sea	12/06/1998
384	??/10/1994	GLOBEC			Japan			12/06/1998
385	04/10/1994 to 12/11/1994	Chofu Maru	IGOSS, WESTPAC, MARPOLMON, KER, WOCE	9410	Japan	K. Kimura	East China Sea, Philippine Sea	12/06/1998



	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
386	07/10/1994 to 12/11/1994	Seifu maru	IGOSS, WESTPAC, MARPOLMON	9410	Japan	S. Ebara	Japan Sea	12/06/1998
387	08/10/1994 to 09/10/1994	Kofu Maru		9410	Japan	T. Iwao	North Pacific Ocean	12/06/1998
388	13/10/1994 to 18/10/1994	R/V Moana-Wave	HOT	HOT 58	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
389	18/10/1994 to 13/10/1994	R/V Dongfanghong	Margin flux in the East China Sea	F9410	China/PRC	Y. Wang	East China Sea	19/07/1999
390	01/11/1994 to 14/11/1994	Shoyo	WOCE		Japan	Y. Iwanaga	North Pacific Ocean, Philippine Sea	
391	03/11/1994 to 01/12/1994	L'Atalante	OLIPAC		France	B. Coste	Pacific south-west 150W, 16S-1N	07/05/1997
392	07/11/1994 to 14/12/1994	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9411	Japan	J. Ooyama	North Pacific Ocean	12/06/1998
393	14/11/1994 to 09/12/1994	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE, MMS	9411	Japan	T. Iwao	North Pacific Ocean	12/06/1998
394	14/11/1994 to 13/04/1995	Shirase	Antartic Survey	JARE96	Japan	H. Yoritaka	Indian Oc., Philippine Sea, S. China Sea	03/04/1998
395	16/11/1994 to 14/12/1994	R/V Ocean Researh I	KEEP-I	405 A,B,C	Taiwan/RoC	C.C.Hung, J.Chang, S.Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
396	17/11/1994 to 21/11/1994	R/V Moana-Wave	HOT	HOT 59	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
397	22/11/1994 to 02/12/1994	Shoyo			Japan	K. Oka	North Pacific Ocean	12/06/1998
398	22/11/1994 to 14/02/1995	Hakuho Maru	Southern Ocean Expedition	KH94-4	Japan	K. Kawaguchi	Indian Ocean, South Pacific Ocean	03/04/1998
399	10/01/1995 to 02/02/1995	Shoyo	KER		Japan	Y. Michida	Philippine Sea	15/06/1998
400	14/01/1995 to 24/01/1995	Kaiyo	WOCE PR 24		Japan	Aoyama	Philippine Sea	15/06/1998
401	17/01/1995 to 01/03/1995	Chofu Maru	IGOSS, WESTPAC, KER, MARPOLMON, WOCE	9501	Japan	T. Hinata	East China Sea, Philippine Sea	15/06/1998
402	18/01/1995 to 09/03/1995	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9501	Japan	M. Imai	North Pacific Ocean, Philippine Sea	15/06/1998
403	24/01/1995 to 31/01/1995	B/I Abate Molina	JGOFS/EBC-Study	X	Chile		Off Chilean coast at about 30S	30/03/1998
404	04/02/1995 to 09/02/1995	R/V Moana-Wave	HOT	HOT 60	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
405	07/02/1995 to 14/02/1995	Tansei Maru	LOICE	KT95-2	Japan	T. Saino	North Pacific Ocean	15/06/1998
406	08/02/1995 to 18/02/1995	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	95-01	Canada	F. Whitney	Station Papa (50N 145W)	13/06/1997
407	10/02/1995 to 11/03/1995	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, MMS	9502	Japan	M. Inagawa	North Pacific Ocean	15/06/1998
408	14/02/1995 to 14/03/1995	Takuyo	WESTPAC	WESTPAC	Japan	K. Oka	North Pacific Ocean, Philippine Sea	15/06/1998
409	17/02/1995 to 13/03/1995	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9502	Japan	N. Sato	Japan Sea	15/06/1998
410	??/03/1995	Tankai Maru	WOCE, GLOBEC		Japan			15/06/1998
411	??/03/1995 to ??/03/1995	R/V Yanping Nr.2			China/PRC	H.Hong	Taiwan Strait, 22-27N,117-122E	26/05/1999
412	02/03/1995 to 07/03/1995	R/V Moana-Wave	HOT	HOT 61	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
413	05/03/1995 to 18/03/1995	R/V Ocean Researh I	KEEP-II	413	Taiwan/RoC	T.Y. Tang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
414	09/03/1995 to 13/03/1995	Tansei Maru	KT95-3		Japan	T. Gamo	North Pacific Ocean	15/06/1998
415	21/03/1995 to 28/03/1995	R/V Ocean Researh I	KEEP-II	414	Taiwan/RoC	C.-L.We	Southern East China Sea (120-123E, 25-27N)	01/06/1999
416	04/04/1995 to 09/04/1995	R/V Moana-Wave	HOT	HOT 62	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
417	14/04/1995 to 12/06/1995	Hakurei Maru	NOPACCS	NH95-1	Japan	A.Nishimura, H.Kawahata	North Pacific Ocean	15/06/1998
418	15/04/1995 to 22/04/1995	R/V Ocean Researh I	KEEP-II	416	Taiwan/RoC	J. Chang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
419	17/04/1995 to 01/05/1995	Shoyo			Japan	Y. Iwanaga	Philippine Sea	15/06/1998
420	24/04/1995 to 01/05/1995	R/V Ocean Researh I	KEEP-II	417	Taiwan/RoC	S. Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
421	24/04/1995 to 05/05/1995	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	95-07	Canada	F. Whitney	Station Papa (50N 145W)	21/06/1997
422	24/04/1995 to 25/05/1995	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9504	Japan	K. Kadono, H. Honda	Philippine Sea, Inland Sea	15/06/1998
423	25/04/1995 to 24/05/1995	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9504	Japan	M. Suzuki	East China Sea, Philippine Sea	15/06/1998
424	28/04/1995 to 29/05/1995	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, Topex/Poseidon	9504	Japan	N. Kubo	North Pacific Ocean	15/06/1998
425	28/04/1995 to 29/05/1995	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9504	Japan	K. Ogawa	Japan Sea	15/06/1998
426	05/05/1995 to 10/05/1995	R/V Moana-Wave	HOT	HOT 63	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
427	05/05/1995 to 23/05/1995	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	95-05	Canada	F. Whitney	Station Papa (50N 145W)	13/06/1997
428	12/05/1995 to 12/06/1995	Hakuho Maru	KH95-1		Japan	M. Kawabe	Western North Pacific Ocean	15/06/1998
429	??/05/1995	Hokuho Maru	GLOBEC		Japan			15/06/1998
430	13/06/1995 to 14/07/1995	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, Topex/Poseidon	9506	Japan	Y. Miura	Japan Sea, Sea of Okhtosk, North Pacific Ocean	15/06/1998
431	16/06/1995 to 28/07/1995	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9506	Japan	T.Hinata, H.Honda, S.Imamura	Philippine Sea, Inland Sea	15/06/1998
432	23/06/1995 to 10/07/1995	Yoko Maru	KER		Japan	Nakagawa	East China Sea, Philippine Sea	15/06/1998
433	26/06/1995 to 11/08/1995	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9506	Japan	T. Okabe	Japan Sea	15/06/1998
434	27/06/1995 to 10/08/1995	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9506	Japan	K. Kimura	East China Sea, Philippine Sea, Japan Sea	15/06/1998
435	06/07/1995 to 10/07/1995	B/I Abate Molina	JGOFS/EBC-Study	XI	Chile		Off Chilean coast at about 30S	30/03/1998
436	07/07/1995 to 27/09/1995	Hakuho Maru	KH95-2		Japan	K. Owada	Philippine Sea, North Pacific Ocean	15/06/1998
437	13/07/1995 to 11/08/1995	Shoyo	KER	95044	Japan	Y. Shinohara	East China Sea, Philippine Sea	15/06/1998
438	13/07/1995 to 16/08/1995	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9507	Japan	I. Kaneko	Philippine Sea, Japan Sea, North Pacific Ocean	15/06/1998
439	17/07/1995 to 28/07/1995	Tansei Maru	KT95-10		Japan	N. Miyazaki	North Pacific Ocean	15/06/1998
440	27/07/1995 to 07/08/1995	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9507	Japan	C. Nagai	North Pacific Ocean	15/06/1998



	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
441	28/07/1995 to 02/08/1995	R/V M. Ewing	HOT	HOT 64	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
442	??/08/1995	Hokko Maru	GLOBEC		Japan			15/06/1998
443	07/08/1995 to 05/10/1995	Hakurei Maru	NOPACCS	NH95-2	Japan	K. Harada	North Pacific Ocean	15/06/1998
444	08/08/1995 to 15/08/1995	R/V Ocean Researh I	KEEP-II	428	Taiwan/RoC	S. Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
445	18/08/1995 to 02/10/1995	Kaifu Maru		9508	Japan	T. Maehira	Philippine Sea, North Pacific Ocean	15/06/1998
446	21/08/1995 to 19/09/1995	Shumpu Maru	IGOSS, WESTPAC, WOCE	9508	Japan	K. Hayashi	Philippine Sea	15/06/1998
447	22/08/1995 to 12/09/1995	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	95-12	Canada	P. Boyd	Station Papa (50N 145W)	13/06/1997
448	27/08/1995 to 01/09/1995	R/V Moana-Wave	HOT	HOT 65	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
449	30/08/1995 to 21/09/1995	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9508	Japan	S. Takatani	Philippine Sea	15/06/1998
450	24/09/1995 to 29/09/1995	R/V Moana-Wave	HOT	HOT 66	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
451	27/09/1995 to 03/10/1995	R/V Ocean Researh I	KEEP-II	431	Taiwan/RoC	J. Chang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
452	28/09/1995 to 05/10/1995	CSS J.P. Tully	LaPerouse/JGOFS	95-30	Canada	D. Mackas		13/06/1997
453	29/09/1995 to 25/10/1995	Kaiyo Maru	KER		Japan	M. Ishida	Philippine Sea, East China Sea	15/06/1998
454	02/10/1995 to 92/11/1995	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9510	Japan	T. Segawa	Japan Sea	15/06/1998
455	03/10/1995 to 01/11/1995	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9510	Japan	J. Nakagawa	North Pacific Ocean	15/06/1998
456	09/10/1995 to 30/10/1995	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9510	Japan	T. Shiga	Philippine Sea	15/06/1998
457	17/10/1995 to 24/11/1995	Keifu Maru		9510	Japan	T. Maehira	Philippine Sea, North Pacific Ocean	15/06/1998
458	19/10/1995 to 24/11/1995	Hakuho Maru	WESTPAC	KH95-3	Japan	I. Koike	North Pacific Ocean	15/06/1998
459	20/10/1995 to 31/10/1995	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9510	Japan	R. Okada	East China Sea, Philippine Sea	15/06/1998
460	21/10/1995 to 26/11/1995	Kaiyo	MASFLEX		Japan			15/06/1998
461	25/10/1995 to 30/10/1995	R/V Moana-Wave	HOT	HOT 67	United States	F.S. Mandujano	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
462	??/11/1995	Tansei Maru	WESTPAC		Japan			15/06/1998
463	06/11/1995 to 13/11/1995	R/V Ocean Researh I	KEEP-II	435	Taiwan/RoC	T.Y. Tang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
464	08/11/1995 to 12/12/1995	Ryofu Maru	IGOSS, WESTPAC, WOCE P24, KER		Japan	M. Fuhiwara	Philippine Sea	15/06/1998
465	09/11/1995 to 23/11/1995	Shoyo		950032	Japan	A. Masuya	Philippine Sea, North Pacific Ocean	15/06/1998
466	15/11/1995 to 19/11/1995	R/V Moana-Wave	HOT	HOT 68	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
467	21/11/1995 to 20/12/1995	Kofu Maru	IGOSS, WESTPAC, TOPEX/POSEIDON	9511	Japan	T. Iwao	North Pacific Ocean	15/06/1998
468	24/11/1995 to 21/12/1995	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9511	Japan	N. Sato	Japan Sea	15/06/1998
469	20/12/1995 to 23/12/1995	R/V Ocean Research I	KEEP-II	439	Taiwan/RoC	Y.C. Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
470	??/01/1996	Hokuho Maru	GLOBEC		Japan			16/06/1998
471	??/01/1996	Tansei Maru	WESTPAC		Japan			16/06/1998
472	05/01/1996 to 29/01/1996	Kaiyo			Japan	Y. Ishida	North Pacific	16/06/1998
473	05/01/1996 to 10/03/1996	R/V Discoverer	WOCE	31DSCG96_1	United States	J.L. Bullister	WOCE line P14S/P15	22/04/1999
474	10/01/1996 to 08/02/1996	Shoyo	KER	960003	Japan	S. Ikeda	East China Sea, Philippine Sea	16/06/1998
475	15/01/1996 to 19/01/1996	R/V Moana-Wave	HOT	HOT 69	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
476	17/01/1996 to 02/03/1996	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9601	Japan	S. Wakaki	East Chian Sea, Philippine Sea	16/06/1998
477	17/01/1996 to 14/03/1996	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9601	Japan	M. Imai	North Pacific Ocean	16/06/1998
478	19/01/1996 to 01/03/1996	Kofu Maru	IGOSS, WESTPAC, MARPOLMON, TOPEX/POSEIDON	9601	Japan	M. Inagawa	North Pacific Ocean	16/06/1998
479	19/01/1996 to 01/03/1996	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9601	Japan	Y. Konishi	Japan Sea	16/06/1998
480	19/01/1996 to 23/02/1996	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, TOPEX/POSEIDON	9601	Japan	T. Utsunomiya	Inland Sea, Philippine Sea	16/06/1998
481	25/01/1996 to 31/01/1996	B/I Abate Molina	JGOFS/EBC-Study	XII	Chile		Off Chilean coast at about 30S	30/03/1998
482	16/02/1996 to 15/03/1996	Takuyo Maru	WESTPAC	WESTPAC	Japan	K. Oka	East Chian Sea, Philippine Sea	16/06/1998
483	19/02/1996 to 08/03/1996	CSS J.P. Tully	WOCE/LINE P/PR 6		Canada	Whitney	Station Papa (50N 145W)	21/04/1999
484	20/02/1996 to 07/03/1996	CSS J.P. Tully	PAPA	96-01	Canada	F. Whitney	Station Papa (50N 145W)	21/06/1997
485	03/02/1996 to 07/02/1996	R/V Ocean Researh I	KEEP-II	442	Taiwan/RoC	Y.C. Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
486	14/03/1996 to 29/03/1996	Kaiyo	KER		Japan	N. Yoshioka	North Pacific Ocean, Philippine Sea	16/06/1998
487	25/03/1996 to 29/03/1996	R/V Moana-Wave	HOT	HOT 70	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
488	09/04/1996 to 26/04/1996	CSS J.P. tully	LaPerouse/JGOFS	96-08	Canada	F. Whitney	Station Papa (50N 145W)	21/06/1997
489	11/04/1996 to 23/04/1996	Seisui Maru	MASFLEX	SE96-01	Japan		East China Sea	16/06/1998
490	15/04/1996 to 14/05/1996	R/V Thomas Thompson	US-JGOFS & ORSTOM/FLUPAC	TTN 060	Unites States	J. Murray	Equatorial Pacific 165E-150W	15/02/1999
491	18/04/1996 to 07/05/1996	Shoyo	KER	960010	Japan	Y. Shimohira	North Pacific Ocean, Philippine Sea	16/06/1998
492	22/04/1996 to 26/04/1996	R/V Moana-Wave	HOT	HOT 71	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
493	22/04/1996 to 23/05/1996	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9604	Japan	N. Nagai	Japan Sea	16/06/1998
494	23/04/1996 to 30/04/1996	R/V Ocean Research I	KEEP-II	448	Taiwan/RoC	T.S.Chiu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
495	23/04/1996 to 21/05/1996	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9604	Japan	S. Wakaki	East China Sea, Philippine Sea	16/06/1998

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496	23/04/1996 to 03/06/1996	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9604	Japan	K. Nemoto	North Pacific Ocean	16/06/1998
497	23/04/1996 to 21/05/1996	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9604	Japan	K. Kadono	Inland Sea, Philippine Sea	16/06/1998
498	26/04/1996 to 29/05/1996	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9604	Japan	M. Inagawa	North Pacific Ocean	16/06/1998
499	02/05/1996 to 15/05/1996	R/V Ocean Research I	KEEP-II	449	Taiwan/RoC	G.C.Gong	East China Sea (120-128E, 25-32N)	01/06/1999
500	07/05/1996 to 10/06/1996	Kaiyo Maru	KER		Japan	Y. Hirota	Philippine Sea, East China Sea	16/06/1998
501	08/05/1996 to 29/05/1996	CSS J.P. Tully	WOCE/JGOFS/LINE P/PR	96-09	Canada	F. Whitney	Station Papa (50N 145W)	13/06/1997
502	20/05/1996 to 24/05/1996	R/V Moana-Wave	HOT	HOT 72	United States	F.S. Mandujano	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
503	21/05/1996 to 10/07/1996	Keifu Maru	96-05		Japan	M. Imai	North Pacific Ocean, Philippine Sea	16/06/1998
504	??/06/1996	Hokko Maru	GLOBEC		Japan			16/06/1998
505	13/06/1996 to 13/07/1996	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9606	Japan	T. Aizawa	North Pacific Ocean, Sea of Okhotsk	16/06/1998
506	17/06/1996 to 02/07/1996	Kaiyo	WOCE P8		Japan	N. Yoshioka	North Pacific Ocean, Philippine Sea	16/06/1998
507	17/06/1996 to 25/07/1996	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9606	Japan	H.Honda, T.Imamura	Inland Sea, Philippine Sea	16/06/1998
508	21/06/1996 to 06/08/1996	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9606	Japan	K. Fuji	East China Sea, Philippine Sea	16/06/1998
509	23/06/1996 to 04/07/1996	Kaiyo Maru	WOCE WHP-P8		Japan			16/06/1998
510	24/06/1996 to 09/07/1996	Yoko Maru	KER		Japan	Nakagawa	Philippine Sea, East China Sea	16/06/1998
511	24/06/1996 to 28/06/1996	R/V Moana-Wave	HOT	HOT 73	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
512	27/06/1996 to 12/08/1996	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9606	Japan	A.Kamikawa, S.Kawae	Japan Sea	16/06/1998
513	02/07/1996 to 12/07/1996	CSS J.P. Tully	CJGOFS	Tully96	Canada	T.F. Pedersen	NW Pacific (off Vancouver Isl)	25/03/1998
514	06/07/1996 to 12/07/1996	R/V Ocean Research I	KEEP-II	456	Taiwan/RoC	S. Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
515	12/07/1996 to 10/08/1996	Shoyo	KER, WOCE P8	960021	Japan	S. Ikeda	North Pacific Ocean, Philippine Sea	16/06/1998
516	15/07/1996 to 21/07/1996	R/V Ocean Research I	KEEP-II	457	Taiwan/RoC	K.K.Liu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
517	18/07/1996 to 19/08/1996	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9607	Japan	Y. Takatsuki	North Pacific Ocean, Philippine Sea	16/06/1998
518	18/07/1996 to 25/07/1996	B/I Abate Molina	JGOFS/EBC-Study	XIII	Chile		Off Chilean coast at about 30S	30/03/1998
519	19/07/1996 to 22/08/1996	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9607	Japan	J. Nakagawa	North Pacific Ocean	16/06/1998
520	25/07/1996 to 29/07/1996	R/V Moana-Wave	HOT	HOT 74	United States	F.S. Mandujano	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
521	25/07/1996 to 05/08/1996	R/V Ocean Research I	KEEP-II	458	Taiwan/RoC	G.C.Gong	Southern East China Sea (120-123E, 25-27N)	01/06/1999
522	27/07/1996 to 22/08/1996	Shoyo	KER		Japan		Philippine Sea	16/06/1998
523	??/08/1996	Hokko Maru	GLOBEC		Japan			15/06/1998
524	10/08/1996 to 16/10/1996	R/V Ocean Research I	KEEP-II	459	Taiwan/RoC	J.Chang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
525	14/08/1996 to 03/09/1996	CSS J.P. Tully	PAPA	96-18	Canada	F. Whitney	Station Papa (50N 145W)	21/06/1997
526	17/08/1996 to 12/09/1996	Shumpu Maru	IGOSS, WESTPAC, KER	9608	Japan	K. Hayashi	Philippine Sea	16/06/1998
527	19/08/1996 to 23/08/1996	R/V Moana-Wave	HOT	HOT 75	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
528	25/07/1996 to 05/08/1996	R/V Ocean Research I	KEEP-II	460	Taiwan/RoC	S. Lin	Southern East China Sea (120-123E, 25-27N)	01/06/1999
529	22/08/1996 to 30/09/1996	Kaiyo	MASFLEX	K96-08	Japan	M. Kusaka	East China Sea	16/06/1998
530	23/08/1996 to 30/08/1996	Tansei Maru	KT96-15		Japan	A. Taniguchi	Northeast of Honsyu, Japan	16/06/1998
531	28/08/1996 to 31/08/1996	R/V Ocean Research I	KEEP-II	461	Taiwan/RoC	Y.C.Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
532	02/09/1996 to 11/09/1996	Tansei Maru	KT96-16		Japan	S. Ohta	North Western Pacific Ocean	16/06/1998
533	18/09/1996 to 25/09/1996	Kahaora	Cross-shelf transfer	KAH 9614	New Zealand	J. Zeldis	Northeast shelf, Hauraki Gulf	08/10/1998
534	30/09/1996 to 04/10/1996	R/V Moana-Wave	HOT	HOT 76	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	16/10/1996
535	??/10/1996	Kaiyo Maru No.3	GLOBEC		Japan			16/06/1998
536	02/10/1996 to 09/10/1996	R/V Ocean Research I	KEEP-II	465	Taiwan/RoC	T.S.Chiu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
537	02/10/1996 to 10/10/1996	CSS J.P. Tully	LaPerouse/JGOFS	96-38	Canada	R. Thomson	NE Pacific (49N 127W)	13/06/1997
538	02/10/1996 to 30/10/1996	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9610	Japan	S.Wakaki	East China Sea, Philippine Sea	16/06/1998
539	04/10/1996 to 03/11/1996	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9610	Japan	K. Sakurai	Japan Sea	16/06/1998
540	04/10/1996 to 07/11/1996	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9610	Japan	T. Shiga	Philippine Sea	16/06/1998
541	09/10/1996 to 18/11/1996	Keifu Maru	IGOSS, KER	9610	Japan	T. Maehira	East China Sea, North Pacific Ocean, Philippine Sea	16/06/1998
542	09/10/1996 to 30/10/1996	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9610	Japan	S. Takatani	North Pacific Ocean, South Pacific Ocean	16/06/1998
543	17/10/1996 to 27/11/1996	Hakuho Maru	WESTPAC	KH96-4	Japan	M. Kawabe	East China Sea, North Pacific Ocean, Philippine Sea	16/06/1998
544	18/10/1996 to 29/10/1996	Tangaroa	Cross-shelf transfer	TAN 9612	New Zealand	J. Zeldis	Northeast shelf, Hauraki Gulf	08/10/1998
545	21/10/1996 to 20/11/1996	L'Atalante	FLUPAC	Ebene	France	R. Le Borgne	Eq. Pacific along 180E between 8S and 8N	18/03/1998
546	28/10/1996 to 01/11/1996	R/V Moana-Wave	HOT	HOT 77	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
547	29/10/1996 to 12/11/1996	Shoyo	WOCE	960035	Japan	Y. Ikeda	North Pacific Ocean, Philippine Sea (WOCE line P8)	16/06/1998
548	??/11/1996	Shirase	JARE		Japan			16/06/1998
549	15/11/1996 to 17/12/1996	Kofu Maru	IGOSS, WESTPAC	9611	Japan	T. Iwao	North Pacific Ocean	16/06/1998
550	19/11/1996 to 17/12/1996	Chofu Maru	IGOSS, KER, WESTPAC	9611	Japan	M. Iwamoto	East China Sea, Japan Sea, Philippine Sea	16/06/1998

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551	22/11/1996 to 20/12/1996	Seifu Maru	IGOSS, WESTPAC	9611	Japan	T. Segawa	Japan Sea	16/06/1998
552	26/11/1996 to 07/12/1996	Kahaora	Cross-shelf transfer	KAH 9617	New Zealand	J. Zeldis	Northeast shelf, Hauraki Gulf	08/10/1998
553	09/12/1996 to 13/12/1996	R/V Moana-Wave	HOT	HOT 78	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
554	26/12/1996 to 13/03/1997	Shoyo Maru			Japan	K.Mizuno	N. Pacific Oc., Indian Oc., S. China Sea, E. China Sea	16/04/1998
555	??/01/1997	Kaiyo Maru Nr. 3	GLOBEC		Japan			17/06/1998
556	??/01/1997	Tankai Maru	GLOBEC		Japan			17/06/1998
557	06/01/1997 to 10/01/1997	R/V Moana-Wave	HOT	HOT 79	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
558	08/01/1997 to 07/02/1997	Shoyo	KER, WESTPAC		Japan	Y. Michida	North Pacific Ocean, East China Sea	17/06/1998
559	10/01/1997 to 03/02/1997	B/I Abate Molina	Sectorial/FONDECYT	I	Chile		Off Chilean Coast at about 22S	30/03/1998
560	14/01/1997 to 27/02/1997	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9701	Japan	N. Sato	Japan Sea	17/06/1998
561	21/01/1997 to 25/02/1997	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9701	Japan	N. Ishikawa	Philippine Sea	17/06/1998
562	22/01/1997 to 08/03/1997	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9701	Japan	K. Kimura	East China Sea, Philippine Sea	17/06/1998
563	22/01/1997 to 25/02/1997	Keifu Maru	IGOSS, MARPOLMON	9701	Japan	T. Maehira	North Pacific Ocean, Philippine Sea	17/06/1998
564	22/01/1997 to 28/02/1997	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9701	Japan	T. Hinata	Philippine Sea	17/06/1998
565	25/01/1997 to 08/02/1997	Tangaroa	Cross-shelf transfer	TAN 9702	New Zealand	J. Zeldis	Northeast shelf, Hauraki Gulf	08/10/1998
566	27/01/1997 to 04/03/1997	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9701	Japan	Y. Miura	North Pacific Ocean	17/06/1998
567	??/02/1997	Takuyo	WESTPAC		Japan			17/06/1998
568	05/02/1997 to 12/02/1997	B/I Abate Molina	JGOFS/EBC-Study	XIV	Chile		Off Chilean coast at about 30S	30/03/1998
569	11/02/1997 to 17/02/1997	R/V Ocean Research I	KEEP-II	477	Taiwan/RoC	C.A.Huh	East China Sea (120-128E, 25-32N)	01/06/1999
570	12/02/1997 to 09/03/1997	R/V Science I	Ocean Flux in the East China Sea	F9702	China/PRC	B. Zhan	East China Sea	19/07/1999
571	16/02/1997 to 20/02/1997	R/V Moana-Wave	HOT	HOT 80	United States	F.S. Mandujano	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
572	03/03/1997 to 13/03/1997	R/V Ocean Research I	KEEP-II	478	Taiwan/RoC	K.K.Liu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
573	10/03/1997 to 14/03/1997	R/V Moana-Wave	HOT	HOT 81	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
574	16/03/1997 to 24/03/1997	R/V Ocean Research I	KEEP-II	479	Taiwan/RoC	C.L.We	Southern East China Sea (120-123E, 25-27N)	01/06/1999
575	27/03/1997 to 02/04/1997	R/V Ocean Research I	KEEP-II	480	Taiwan/RoC	T.S.Chiu	Southern East China Sea (120-123E, 25-27N)	01/06/1999
576	06/04/1997 to 10/04/1997	R/V Ocean Research I	KEEP-II	481	Taiwan/RoC	Y.C.Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
577	07/04/1997 to 11/04/1997	R/V Moana-Wave	HOT	HOT 82	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
578	23/04/1997 to 30/04/1997	Keifu Maru	IGOSS, MARPOLMON	9704	Japan	T. Maehira	North Pacific Ocean, Philippine Sea	17/06/1998
579	23/04/1997 to 06/05/1997	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9704	Japan	K. Nemoto	North Pacific Ocean	17/06/1998
580	24/04/1997 to 23/05/1997	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9704	Japan	T. Nakamura	Philippine Sea, Inland Sea	17/06/1998
581	25/04/1997 to 26/05/1997	Seifu Maru	IGOSS, WESTPAC, MARPOLMON	9704	Japan	N. Nagai	Japan Sea	17/06/1998
582	28/04/1997 to 30/05/1997	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9704	Japan	M. Inagawa	North Pacific Ocean	17/06/1998
583	05/05/1997 to 09/05/1997	R/V Moana-Wave	HOT	HOT 83	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
584	16/05/1997 to 18/06/1997	Hakuho Maru	GLOBEC	KH97-2	Japan	T. Sugimori	North Pacific Ocean	17/06/1998
585	30/05/1997 to 22/07/1997	Ryofu Maru	IGOSS, WESTPAC, MARPOLMON	9705	Japan	N. Kubo	North Pacific Ocean	17/06/1998
586	02/06/1997 to 06/06/1997	R/V Moana-Wave	HOT	HOT 84	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
587	03/06/1997 to 02/08/1997	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9706	Japan	K. Fuji	East China Sea, Philippine Sea	17/06/1998
588	04/06/1997 to 03/07/1997	Shoyo	KER	970019	Japan	S. Ikeda	North Pacific Ocean, Philippine Sea	17/06/1998
589	08/06/1997 to 21/06/1997	Kakuyo maru	CREAMS	124	Japan	J-H. Yoon	Southwestern region of Japan	17/06/1998
590	12/06/1997 to 04/07/1997	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9706	Japan	T. Aizawa	North Pacific Ocean	17/06/1998
591	25/06/1997 to 13/08/1997	Seifu Maru	IGOSS, WESTPAC, MARPOLMON, Topex/Poseidon	9706	Japan	K. Sakurai	Japan Sea	17/06/1998
592	26/06/1997 to 03/08/1997	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9706	Japan	S. Naitoo	Philippine Sea, North Pacific Ocean	17/06/1998
593	01/07/1997 to 24/07/1997	B/I Abate Molina	Sectorial/FONDECYT	II	Chile		Off Chilean Coast at about 22S	30/03/1998
594	07/07/1997 to 11/07/1997	R/V Moana-Wave	HOT	HOT 85	United States	F.S. Mandujano	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/08/1997
595	08/07/1997 to 14/07/1997	R/V Ocean Research I	KEEP-II	493	Taiwan/RoC	C.A.Huh	East China Sea (120-128E, 25-32N)	01/06/1999
596	09/07/1997 to 08/09/1997	Hakuho Maru	KH97-2		Japan	K. Kawaguchi	North Pacific Ocean	17/06/1998
597	14/07/1997 to 07/08/1997	Kofu Maru	IGOSS, WESTPAC, MARPOLMON	9707	Japan	H. Kamiya	North Pacific Ocean	17/06/1998
598	31/07/1997 to 04/08/1997	R/V Moana-Wave	HOT	HOT 86	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/10/1997
599	??/08/1997 to ??/08/1997	R/V Yanping Nr.2			China/PRC	H.Hong	Taiwan Strait, 21-27N,116-121E	26/05/1999
600	04/08/1997 to 22/08/1997	O.R.V Franklin	OZGOFS	FR0797	Australia		Western equatorial Pacific: 146E-152E along the equator	21/06/1999
601	06/08/1997 to 25/08/1997	Shoyo	SAGE	970027	Japan	H. Nakamura	North Pacific Ocean	17/06/1998
602	21/08/1997 to 09/09/1997	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON, WOCE	9708	Japan	T. Hinata	North Pacific Ocean, Philippine Sea	17/06/1998
603	23/08/1997 to 28/08/1997	R/V Ocean Research I	KEEP-II	499	Taiwan/RoC	S.Lin	East China Sea (120-128E, 25-32N)	01/06/1999
604	01/09/1997 to 30/09/1997	Shoyo		970029	Japan	K. Oda	North Pacific Ocean	17/06/1998
605	12/09/1997 to 07/11/1997	Ryofu Maru		9709	Japan	A. Nakadate	North Pacific Ocean	17/06/1998

	Start & End Dates	Ship	Project	Cruise id.	Country	Chief Scientist	Area	Rec. created
606	24/09/1997 to 26/09/1997	R/V Roger-Revelle	HOT	HOT 87	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	08/10/1997
607	03/10/1997 to 31/10/1997	Chofu Maru	IGOSS, KER, WESTPAC, MARPOLMON	9710	Japan	T. Nakano	East China Sea, Philippine Sea	17/06/1998
608	06/10/1997 to 13/11/1997	Shumpu Maru	IGOSS, WESTPAC, MARPOLMON	9710	Japan	K. Kadono	Philippine Sea	17/06/1998
609	08/10/1997 to 05/11/1997	Seifu Maru		9710	Japan	N. Sato	Japan Sea	17/06/1998
610	08/10/1997 to 07/11/1997	Kofu Maru	IGOSS, WESTPAC	9710	Japan	Y. Miura	North Pacific Ocean	17/06/1998
611	01/11/1997 to 07/11/1997	B/I Abate Molina	JGOFS/EBC-Study	XV	Chile		Off Chilean coast at about 30S	30/03/1998
612	07/11/1997 to 11/12/1997	Seifu Maru		9711	Japan	J. Jifuku	Japan Sea	17/06/1998
613	11/11/1997 to 16/12/1997	Chofu Maru	IGOSS, KER, WESTPAC	9711	Japan	R. Okada	East China Sea, Philippine Sea	17/06/1998
614	21/11/1997 to 11/12/1997	Kofu Maru	IGOSS, WESTPAC	9711	Japan	J. Nakagawa	North Pacific Ocean	17/06/1998
615	25/11/1997 to 10/12/1997	Shoyo	KER	970032	Japan	Y. Shimohira	North Pacific Ocean, Philippine Sea	17/06/1998
616	28/11/1997 to 04/12/1997	Ryofu Maru		9711	Japan	T. Asoh	Philippine Sea	17/06/1998
617	03/12/1997 to 07/12/1997	R/V Moana-Wave	HOT	HOT 88	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	29/01/1998
618	19/12/1997 to 30/12/1997	R/V Ocean Research I	KEEP-II	511	Taiwan/RoC	G.C.Gong	East China Sea (120-128E, 25-32N)	01/06/1999
619	06/01/1998 to 08/01/1998	R/V Ocean Research I	KEEP-II	512	Taiwan/RoC	Y.C. Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
620	09/01/1998 to 12/01/1998	R/V Moana-Wave	HOT	HOT 89	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	29/01/1998
621	??/02/1998 to ??/02/1998	R/V Yanping Nr.2			China/PRC	H.Hong	Taiwan Strait, 21-27N,116-121E	26/05/1999
622	12/07/1998 to 21/07/1998	R/V Science I	Ocean Flux in the East China Sea	F9807	China/PRC	F. Wang	East China Sea	19/07/1999
623	17/02/1998 to 21/02/1998	R/V Moana-Wave	HOT	HOT 90	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	19/02/1998
624	16/03/1998 to 27/03/1998	R/V Ocean Research I	KEEP-II	515	Taiwan/RoC	F.K.Shiah	East China Sea (120-128E, 25-32N)	01/06/1999
625	16/03/1998 to 20/03/1998	R/V Moana-Wave	HOT	HOT 91	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	19/02/1998
626	13/04/1998 to 17/04/1998	R/V Moana-Wave	HOT	HOT 92	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/06/1998
627	11/05/1998 to 15/05/1998	R/V Moana-Wave	HOT	HOT 93	United States	D. Hebel	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	18/06/1998
628	15/06/1998 to 19/06/1998	R/V Moana-Wave	HOT	HOT 94	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1998
629	28/06/1998 to 07/07/1998	R/V Ocean Research I	KEEP-II	521	Taiwan/RoC	J.Chang	East China Sea (120-128E, 25-32N)	01/06/1999
630	13/07/1998 to 17/07/1998	R/V Moana-Wave	HOT	HOT 95	United States	C. Nosse	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1998
631	20/07/1998 to 25/07/1998	R/V Ocean Research I	KEEP-II	523	Taiwan/RoC	C.L.Wei	Southern East China Sea (120-123E, 25-27N)	01/06/1999
632	08/08/1998 to 12/08/1998	R/V Moana-Wave	HOT	HOT 96	United States	L. Tupas	N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	07/09/1998
633	17/08/1998 to 24/08/1998	R/V Ocean Research I	KEEP-II	525	Taiwan/RoC	C.A.Huh	East China Sea (120-128E, 25-32N)	01/06/1999
634	26/08/1998 to 04/09/1998	R/V Ocean Research I	KEEP-II	526	Taiwan/RoC	T.Y.Tang	Southern East China Sea (120-123E, 25-27N)	01/06/1999
635	27/09/1998 to 29/09/1998	R/V Moana-Wave	HOT	HOT 97	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
636	14/10/1998 to 28/10/1998	B/I Abate Molina			Chile	G. Daneri	Continental platform off Chile, 36-38 S	27/05/1999
637	18/10/1998 to 21/10/1998	R/V Moana-Wave	HOT	HOT 98	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
638	18/10/1998 to 06/11/1998	R/V Ocean Research I	KEEP-II	532	Taiwan/RoC	K.P.Chiang	East China Sea (120-128E, 25-32N)	01/06/1999
639	09/11/1998 to 12/11/1998	R/V Moana-Wave	HOT	HOT 99	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
640	10/11/1998 to 12/11/1998	R/V Ocean Research I	KEEP-II	533	Taiwan/RoC	Y.C.Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
641	07/12/1998 to 16/12/1998	R/V Moana-Wave	HOT	HOT 100	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
642	11/01/1999 to 15/01/1999	R/V Moana-Wave	HOT	HOT 101	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
643	04/02/1999 to 07/02/1999	R/V Ocean Research I	KEEP-II	541	Taiwan/RoC	Y.C.Chung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
644	16/02/1999 to 20/02/1999	R/V Moana-Wave	HOT	HOT 102	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
645	16/03/1999 to 19/03/1999	R/V Moana-Wave	HOT	HOT 103	United States		N. Pacific at 22.8 N 158 W and at 21.3 N 158.3 W	21/06/1999
646	29/05/1999 to 05/06/1999	R/V Ocean Research I	KEEP-II	551	Taiwan/RoC	C.A.Huh	East China Sea (120-128E, 25-32N)	01/06/1999
647	08/06/1999 to 14/06/1999	R/V Ocean Research I	KEEP-II	552	Taiwan/RoC	C.C.Hung	Southern East China Sea (120-123E, 25-27N)	01/06/1999
648	03/07/1999 to 10/07/1999	R/V Ocean Research I	KEEP-II	554	Taiwan/RoC	J.Chang	East China Sea (120-128E, 25-32N)	01/06/1999