KH-04-5 (EEL South Pacific II)

2004	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
29-Nov (Mon.)	Tokyo Harumi														14:00 leave port Harumi(Tokyo) GMT+9		16:28 Sunset							
30-Nov (Tue.)							06:15 Sunrise										16:30 Sunset							
01-Dec (Wed.)																	16:29 Sunset							
02-Dec (Thu.)						05:32 Sunrise								SURFACE WATER			16:30 Sunset					→→→ Put clocks →→→ 1hour →→→ GMT+10		
03-Dec (Fri.)							06:13 Sunrise									SX01 13-00.20N 150-58.05E	No2 Winch free fall********* 17:28 Sunset			LV**	CTD***			
04-Dec (Sat.)			IK001 IKMT******				06:00 Sunrise											17:27 Sunset						
05-Dec (Sun.)						05:40 Sunrise												17:26 Sunset						
06-Dec (Mon.)			IK002 IKMT******			05:21 Sunrise			Passed the equator	SX02 00-39.38S 157-31.23E Piston corer****** 3.5kHz**********				CTD********** NORPAC*3		LV**	LV**********	Multi. Corer****				LV*******	
07-Dec (Tue.)	LV*					05:18 Sunrise												17:39 Sunset						
08-Dec (Wed.)						05:21 Sunrise												17:53 Sunset						
09-Dec (Thu.)						05:09 Sunrise													18:04 Sunset					
10-Dec (Fri.)					04:59 Sunrise														18:15 Sunset					
11-Dec (Sat.)		→→→ Put clocks →→→ 1hour →→→ GMT+11					05:45 Sunrise													19:31 Sunset					
12-Dec (Sun.)						05:34 Sunrise														19:54 Sunset				
13-Dec (Mon.)						05:29 Sunrise															20:26 Sunset			
2004	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

2004	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
14-Dec (Tue.)	IK003 IKMT					05:22 Sunrise											16:00 a call Hobart (Australia)							
18-Dec (Sat.)	Hobart (Australia)														14:00 leave port Hobart (Australia)						20:46 Sunset			IK004 IKMT**
19-Dec (Sun.)	*	IK005 IKMT****		SX03 44-59.85S 150-00.00E	CTD**********	05:09 Sunrise				Multi. Corer**********		CTD*****		CTD**								20:53 Sunset			
20-Dec (Mon.)	IK006 IKMT***				04:57 Sunrise									SX04 50-20.87S 150-00.18E		CTD********** NORPAC*3			LV*	LV*	LV** 21:10 Sunset	LV*****		CTD
21-Dec (Tue.)	********	IK007 IKMT***	CTD**		LV********** 04:45 Sunrise		LV**********			ARGO												21:29 Sunset			
22-Dec (Wed.)	IK008 IKMT***		SX05 54-59.95S 150-00.77E	CTD**********	NORPAC 04:17 Sunrise				ORI*****		CTD*	Multi. Corer**********		ARGO IKMT*********								21:51 Sunset			
23-Dec (Thu.)				03:55 Sunrise								SX06 60-00.15S 149-59.31E NORPAC*3	CTD**********			LV**********			LV* LV** LV*** IKMT**********		Sunset 22:27			
24-Dec (Fri.)	CTD******** NORPAC*4		LV******		LV********** 03:36 Sunrise			CTD		Multi. Corer*******	ARGO	ORI***											Sunset 22:37		
25-Dec (Sat.)			02:50 Sunrise							CTD********** SX07 61-40.11S 160-00.16E NORPAC		ORI***	CTD*	IKMT*********								21:59 Sunset			
26-Dec (Sun.)		01:57 Sunrise									SX08 63-21.31S 170-08.39E	CTD******* NORPAC*2	ORI*****		LV******	LV* LV**	CTD*		LV***** LV**********			Sunset 22:03		CTD** NORP AC*4
27-Dec (Mon.)	** ***** ORI***** IKMT**********	01:31 Sunrise																					22:20 Sunset		
28-Dec (Tue.)														CTD*** SX09 65-08.73S 174-08.93E ORI********			CTD********** NORPAC*2				IKMT********** Sunset 22:34			Multi.
29-Dec (Wed.)	Corer********	00:19 Sunrise	Multi. Corer********							Piston corer**********													Sunset 22:24		
30-Dec (Thu.)																						SX10 67-12.71S 172-40.48W LV*12 **********			
31-Dec (Fri.)	**********																CTD********** NORPAC*5					ORI***** ORI****			CTD**
2004	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

2005	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
01-Jan (Sat.)	*** CTD** Multi. Corer********** LV LV LV** LV*** IKMT********** LV********** LV**********
02-Jan (Sun.)	CTD********** **SX11 64-30.15S 169-59.59W** NORPAC ORI***** CTD* IKMT******** 21:05 Sunset
03-Jan (Mon.)	→→→ →→→ →→→ Put clocks 1hour GMT+12 **SX12 59-22.00S 169-59.70W** IKMT********** ORI**** 00:21 Sunrise 3.5kHz**********?? 21:00 Sunset
04-Jan (Tue.)	IKMT********** 02:06 Sunrise CTD********** NORPAC***4 LV********** LV********** CTD****** LV LV* LV*** 20:35 Sunset
05-Jan (Wed.)	LV*** LV********* 02:17 Sunrise CTD*** 3.5kHz******* Multi. Corer********** Multi. Corer********** ARGO 20:29 Sunset
06-Jan (Thu.)	CTD********** **SX13 54-59.94S 169-59.92W** NORPAC 02:50 Sunrise ORI**** CTD******* IKMT********** CTD** ARGO 20:00 Sunset
07-Jan (Fri.)	**IK009** IKMT*** 03:04 Sunrise **SX14 50-00.19S 169-59.99W** CTD********** NORPAC*2 LV LV*** LV********* 19:31 Sunset
08-Jan (Sat.)	LV* LV* **IK010** IKMT*** CTD******* 03:23 Sunrise LV********** LV********** LV** Multi. Corer********** Multi. Corer********** ARGO 19:31 Sunset
09-Jan (Sun.)	**IK011** IKMT*** **SX15 45-00.11S 170-00.06W** CTD********** NORPAC*3 Multi. Corer********** 19:07 Sunset CTD
10-Jan (Mon.)	** ARGO **IK012** IKMT*** **SX16 43-10.89S 171-10.06W** Multi. Corer*** Piston corer***** CTD*** NORPAC*2 19:03 Sunset Multi. Corer***** **IK013** IKMT***
11-Jan (Tue.)	CTD********** **SX17 39-59.95S 169-59.94W** NORPAC*3 04:01 Sunrise LV LV* LV*** LV***** LV****** 18:53 Sunset CTD****** **IK014** IKMT***
12-Jan (Wed.)	CTD Multi. Corer********** LV********** LV********** No2 Winch free fall****** Multi. Corer********** 18:51 Sunset **IK015** IKMT**
13-Jan (Thu.)	**IK016** IKMT**** 04:15 Sunrise 19:13 Sunset **IK017** IKMT*** IKMT***
14-Jan (Fri.)	**IK018** IKMT*** IKMT*** 04:48 Sunrise Sunset 19:34 →→→ →→→ →→→ Put clocks 1hour GMT+13
15-Jan (Sat.)	10:00 a call Auckland (New Zeeland) 06:18 Sunrise
2005	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
20-Jan (Thu.)	Auckland (New Zeeland)														14:00 leave port Auckland (New Zeeland)					Sunset 20:31	←←← ←←←	Put clocks back 1hour GMT+12		
21-Jan (Fri.)						05:03 Sunrise														Sunset 19:07		IK019 IKMT**		
22-Jan (Sat.)			IK020 IKMT***			04:30 Sunrise							SX18 39-59.89S 169-59.95W			CTD**********			Sunset 18:45	IK021 IKMT******			Multi. Corer**********	
23-Jan (Sun.)	*Multi. Corer IK022 IKMT***		CTD			04:17 Sunrise													Sunset 18:34	IK023	IKMT**		SX19 35-00.26S 170-00.21W	CTD* NORPAC
24-Jan (Mon.)	**********CTD		IK024 IKMT***			04:30 Sunrise	Multi. Corer**********			CTD**		Multi. Corer**********							Sunset 18:30		IK025 IKMT**			
25-Jan (Tue.)			IK026 IKMT**			04:37 Sunrise						SX20 30-00.19S 170-00.08W		LV	LV**	LV**********			Sunset 18:22	LV***	LV*** IK027 IKMT***			Multi. Corer
26-Jan (Wed.)	**********Multi. Corer			IK028 IKMT**		04:41 Sunrise			LV**********			LV**********				CTD**********			Sunset 18:22	Multi. Corer**********				IK029 IKMT**
27-Jan (Thu.)		CTD***	IK030 IKMT**	Multi. Corer**********		04:42 Sunrise													Sunset 18:18					
28-Jan (Fri.)						04:40 Sunrise													Sunset 18:11					
29-Jan (Sat.)						04:42 Sunrise													SX21 25-00.02S 169-59.87W Sunset 18:12	CTD********** NORPAC				IK031 IKMT**
30-Jan (Sun.)	IK032 IKMT***		Multi. Corer**********			04:54 Sunrise	CTD**	ARGO			Multi. Corer**********								Sunset 18:09	IK033	IKMT**			
31-Jan (Mon.)			IK034 IKMT**			05:00 Sunrise					SX22 19-59.86S 169-59.86W	LV*	LV**	LV********		LV*	LV**			CTD**********		IK035 IKMT**	IK036 IKMT**	
01-Feb (Tue.)	CTD*******		Multi. Corer**********			05:03 Sunrise	CTD*	LV**********				LV**********		ARGO					Sunset 18:03	Multi. Corer**********		IK037 IK038 IKMT** IKMT**		
02-Feb (Wed.)						05:06 Sunrise		Multi. Corer**********											Sunset 18:14					
03-Feb (Thu.)						05:23 Sunrise													Sunset 18:40		IK039O IKMT**	IK039S IKMT**		
2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
04-Feb (Fri.)			IK040S1 IKMT**	IK040S2 IKMT**	IK040O IKMT**		05:47 Sunrise				IK041 IKMT******								Sunset 18:58					A1 IKMT**
05-Feb (Sat.)	IKMT**	IKMT**	IKMT******				06:06Sunrise		A2 IKMT*****					A3 IKMT****					Sunset 18:58	A4 IKMT***	IKMT***IKMT******			
06-Feb (Sun.)			A5 IKMT***** IKMT***				06:10 Sunrise		A6 IKMT*******						A7 IKMT******				Sunset 18:53	A8 IKMT***	IKMT*****IKMT			
07-Feb (Mon.)			A9 IKMT****** IKMT***				06:17Sunrise		A10 IKMT******					A11 IKMT****	A12 IKMT**********				Sunset 18:49	A13 IKMT***	IKMT*****			
08-Feb (Tue.)			A14 IKMT**** IKMT***				06:17 Sunrise		A15 IKMT****					A16 IKMT****					Sunset 18:53	A17 IKMT***	IKMT*****			
09-Feb (Wed.)		A18 IKMT*****IKMT***					06:13 Sunrise	A19 IKMT*****					A20 IKMT*******						Sunset 18:58	A21 IKMT***IKMT***IKMT******				
10-Feb (Thu.)		A22 IKMT***** IKMT***** IKMT*** IKMT* 06:10 Sunrise									A23 IKMT******								Sunset 18:51		IK042 IKMT**			IK043 IKMT**
11-Feb (Fri.)						05:58 Sunrise					10:00 a call Suva (Fiji)													
16-Feb (Fri.)	Suva (Fiji)														14:30 leave port Suva (Fiji)				Sunset 18:40		IK044 IKMT**			
17-Feb (Sat.)			IK045 IKMT***			05:52 Sunrise													Sunset 18:28		IK046 IKMT**	IK047 IKMT***		
18-Feb (Sun.)			SX23 22-30.71S 176-42.26W	MTD******************		05:34 Sunrise							Multi. Corer****			NORPAC			CTD******** Sunset 18:28		NORPAC**********			IK048 IKMT**
19-Feb (Mon.)	IK049 IKMT**		NORPAC*		NORPAC**	05:37 Sunrise													Sunset 18:16		IK050 IKMT**			
20-Feb (Tue.)			IK051 IKMT*****			05:34 Sunrise				Multi. Corer									Sunset 17:59		IK052 IKMT**			
21-Feb (Wed.)			IK053 IKMT*****			SX24 14-59.91S 170-00.03W 05:18 Sunrise			NORPAC			ORI**********	CTD**********		NORPAC				Sunset 17:49	CTD*** ARGO	IK054 IKMT**			
22-Feb (Thu.)			IK055 IKMT*****			05:19 Sunrise											SX25 9-59.96S 169-59.96W Sunset 17:46			LV*******		LV***	LV**	LV*
2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

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2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
23-Feb (Fri.)	LV* IKMT******* IKMT**		IK056 IK057			05:21 Sunrise		Multi. Corer**********				CTD**********				LV**********		Sunset 17:54	LV**********				CTD*****	ORI*
24-Feb (Sat.)	*******		IK058 IKMT*****	CTD********** NORPAC		ARGO 05:23 Sunrise												Sunset 17:42			IK059 IKMT***			
25-Feb (Sun.)			SX26 4-54.84S 170-00.03W IK060 IKMT**		ORI**********	05:26 Sunrise		CTD********** NORPAC					Multi. Corer**********				CTD***	ARGO Sunset 17:40			IK061 IKMT***			
26-Feb (Mon.)			IK062 IKMT**			05:29 Sunrise							SX27 0-04.86N 170-00.23W Passed the Equator			CTD**********	NORPAC	17:37 Sun Set		IK063 IKMT***		LV*	LV******	LV*
27-Feb (Tue.)	**********		LV*	LV****	LV**********	05:32 Sunrise		CTD******		Multi. Corer**********			LV* LV*				LV*	LV*** Sunset 17:36	LV********		IK064 IKMT**		CTD**********	
28-Feb (Wed.)	IK065 IKMT***** ORI**********				LV**********	05:32 Sunrise		LV**********						Multi. Corer**********				Sunset 17:36			IK066 IKMT***			
01-Mar (Thu.)			IK067 IKMT*******			05:31 Sunrise							SX28 5-05.39N 169-59.99W	CTD**********				Sunset 17:33		NORPAC ORI**********			IK068 IKMT*****	
02-Mar (Fri.)		CTD******	IK069 IKMT***			05:32 Sunrise												Sunset 17:32			IK070 IKMT*****			
03-Mar (Fri.)			SX29 9-59.94N 170-00.17W IK071 IKMT**		ORI*********	05:37 Sunrise		IKMT**********										Sunset 17:31		CTD**********				CTD
04-Mar (Sat.)	***	ARGO				05:37 Sunrise								ARGO				Sunset 17:48			IK072 IKMT**			
05-Mar (Sun.)			IK073 IKMT*****			ARGO	06:17 Sunrise		SX30 7-00.00N 177-00.06W		CTD********** NORPAC			IKMT********** ORI***				Sunset 18:00	CTD***	IKMT**********			IK074 IKMT**	**
06-Mar (Mon.)	IKMT******* IKMT********** IKMT	ORI		ORI		05:59 Sunrise	LV	LV	LV**	Multi. Corer******				Beam Trawl**********				Sunset 18:04			IK075 IKMT**			
07-Mar (Tue.)			IK076 IKMT**			ARGO	06:07 Sunrise											Sunset 18:27			IK077 IKMT*****			
08-Mar (Wed.)			IK078 IKMT*******		IK079 IKMT*******	←←←	Put clocks back 1hour GMT+11 06:32 Sunrise											Sunset 17:40						
09-Mar (Thu.)							06:50 Sunrise											Sunset 18:05					Passed EEZ IK080 IKMT**	
2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

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2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
10-Mar (Fri.)	IK081 IKMT						06:15 Sunrise				SX31 6-16.25N 162-09.00E			ORI**********		NORPAC			Sunset 18:37					
11-Mar (Sat.)							06:37 Sunrise				10:00 a call Pohnpei (Micronesia)													
15-Mar (Fri.)	Pohnpei (Micronesia)														14:00 leave port Pohnpei (Micronesia)				Sunset 18:39					
16-Mar (Fri.)							06:43 Sunrise												Sunset 18:56					
17-Mar (Sat.)	←←← Put clocks Back ←←← 1hour ←←← GMT+10						06:01 Sunrise												Sunset 18:13					
18-Mar (Sun.)							06:15 Sunrise												Sunset 18:26		←←← Put clocks Back ←←← 1hour ←←← GMT+9			
19-Mar (Mon.)						05:31 Sunrise				No2 Winch free fall********														
20-Mar (Tue.)																								
21-Mar (Wed.)																								
22-Mar (Thu.)											10:00 a call Tokyo (Japan)					Tokyo Harumi								
2005	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

3. List of participants

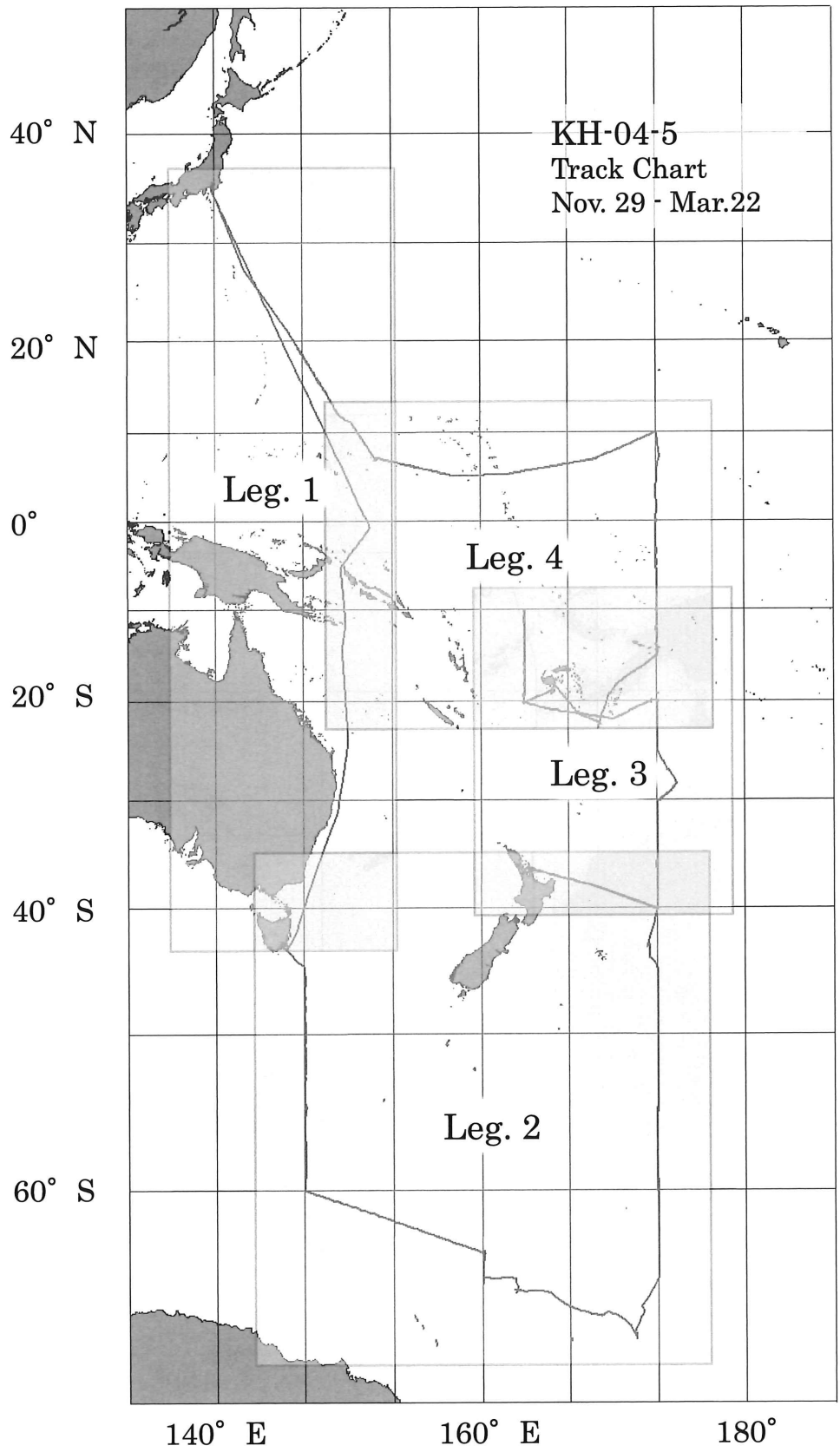
Name	Affiliation	Occupation	1	2	3	4	5
AMAKAWA, Hiroshi	ORI, University of Tokyo	Associate Professor			○		
AOYAMA, Jun	ORI, University of Tokyo	Research Associate	○	○	○		
BAI, Lili	Toyama University	Graduate Student	○	○			
DOI, Takashi	ORI, University of Tokyo	Graduate Student	○	○	○		
FURUYA, Ken	University of Tokyo	Professor	○				
GAMO, Toshitaka	ORI, University of Tokyo	Professor	○*	○*			
HAMANAKA, Junko	Marine Work Japan, Ltd.	Engineer			○		
HAMASAKI, Koji	Hiroshima University	Lecturer		○			
HARA, Yasuko	ORI, University of Tokyo	Graduate Student	○	○			
HASHIHAMA, Fuminori	University of Tokyo	Graduate Student	○	○	○	○	○
HASUMOTO, Hiroshi	ORI, University of Tokyo	Research Associate				○	
HORII, Yuichi	Adv. Ind. Sci. Tech.	Technical Staff	○	○			
HORIKAWA, Keiji	Hokkaido University	Graduate Student	○	○			
INOUE, Yumiko	ORI, University of Tokyo	Graduate Student				○	
ISHIGAKI, Hideo	ORI, University of Tokyo	Technical Staff	○	○			
KATO, Yoshihisa	Tokai University	Professor		○			
KAWAKAMI, Tatsuya	ORI, University of Tokyo	Graduate Student			○		
KILISIMASI, Lutui	Tonga Ministry of Land Survey and Natural Resources	Government Officer				○	
KINOSHITA, Norikazu	Kanazawa University	Graduate Student		○			
KITAHATA, Kenichi	Kinki University	Graduate Student	○	○			
KODAMA, Yasumi	ORI, University of Tokyo	Graduate Student				○	○
KOGURE, Kazuhiro	ORI, University of Tokyo	Professor				○*	○*
KONDO, Yoshiko	University of Tokyo	Graduate Student			○	○	○
KUNIOKA, Daisuke	ORI, University of Tokyo	Graduate Student		○			
KUROKI, Mari	ORI, University of Tokyo	Graduate Student	○	○	○	○	○
MA, Tao	ORI, University of Tokyo	Graduate Student			○		
MACHIDA, Ryuji	ORI, University of Tokyo	Postdoctoral Fellow				○	○
MARUO, Masahiro	Univ. Shiga Prefecture	Research Associate		○			
MATSUNARI, Takahiro	Kyoto University	Graduate Student	○	○	○	○	○
MIKI, Meguru	University of Tokyo	Graduate Student	○	○	○	○	○
MILLER, Michael J.	ORI, University of Tokyo	Researcher			○		
MINAGAWA, Gen	ORI, University of Tokyo	Graduate Student			○		
MINAGAWA, Masao	Hokkaido University	Professor	○				
MINAMI, Hideki	Hokkaido Tokai University	Associate Professor			○		
MITSUHASHI, Yasunobu	Kinki University	Graduate Student	○	○	○		
MIURA, Toshiaki	ORI, University of Tokyo	Technical Staff	○	○			
MOTEGI, Chiaki	Kyoto University	Graduate Student			○		
MURAYAMA, Masafumi	Kochi University	Associate Professor	○	○			
NAGAI, Hisao	Nihon University	Professor		○			

NAGATA, Toshi	Kyoto University	Professor				○	○
NAKAMURA, Tomomi	Tokai University	Graduate Student	○	○	○	○	○
NISHIDA, Shuhei	ORI, University of Tokyo	Professor				○	
NISHIDA, Tamihito	Nagoya University	Research Associate		○	○		
NISHIKAWA, Jun	ORI, University of Tokyo	Research Associate		○			
NISHIZAWA, Manabu	ORI, University of Tokyo	Graduate Student				○	
OBATA, Hajime	ORI, University of Tokyo	Lecturer	○	○		○	○
OGUMA, Kenji	ORI, University of Tokyo	Technical Staff			○	○	○
SAITO, Chiharu	Nihon University	Graduate Student	○				
SAITO, Takashi	Nihon University	Research Associate			○	○	○
SANO, Yuji	ORI, University of Tokyo	Professor			○*		
SATO, Kenichiro	Marine Work Japan, Ltd.	Engineer				○	
SHINODA, Akira	ORI, University of Tokyo	Postdoctoral Fellow			○		
SHIRAI, Kotaro	ORI, University of Tokyo	Graduate Student		○	○		
SOEJIMA, Hiromichi	Tokai University	Graduate Student	○				
SOHRIN, Yoshiki	Kyoto University	Professor	○				
TADA, Yuya	Hiroshima University	Graduate Student	○		○	○	○
TANIGUCHI, Akito	Hiroshima University	Graduate Student		○			
TANOUE, Eiichiro	Nagoya University	Professor	○				
TAO, Jinglun	ORI, University of Tokyo	Graduate Student				○	○
TAZOE, Hirofumi	ORI, University of Tokyo	Graduate Student	○	○	○	○	○
TONEGI, Tomoyuki	Ehime University	Graduate Student				○	○
TSUKAMOTO, Katsumi	ORI, University of Tokyo	Professor				○	○
TSUKAMOTO, Kumiko	ORI, University of Tokyo	Technical Staff			○	○	
TSUKASAKI, Ayumi	Nagoya University	Graduate Student	○	○	○	○	○
WADA, Kotaro	ORI, University of Tokyo	Graduate Student			○		
WADA, Minoru	ORI, University of Tokyo	Research Associate			○		
WATANABE, Hiromi	ORI, University of Tokyo	Graduate Student				○	
WATANABE, Masaharu	ORI, University of Tokyo	Technical Staff			○		
WATANABE, Syun	ORI, University of Tokyo	Postdoctoral Fellow	○	○	○	○	○
YAMADA, Masatoshi	Natl. Inst. Radiolog. Sci.	Team Leader	○				
YAMADA, Namiha	Nagoya University	Postdoctoral Fellow			○	○	○
YAMADA, Yuichiro	ORI, University of Tokyo	Postdoctoral Fellow		○		○	○
YAMAGATA, Takeyasu	Nihon University	Graduate Student	○	○	○		
YAMASHITA, Yohei	Nagoya University	Graduate Student				○	○
YOKOKAWA, Taichi	Kyoto University	Graduate Student	○	○	○	○	○
ZHENG, Jian	Natl. Inst. Radiolog. Sci.	Researcher	○	○	○		

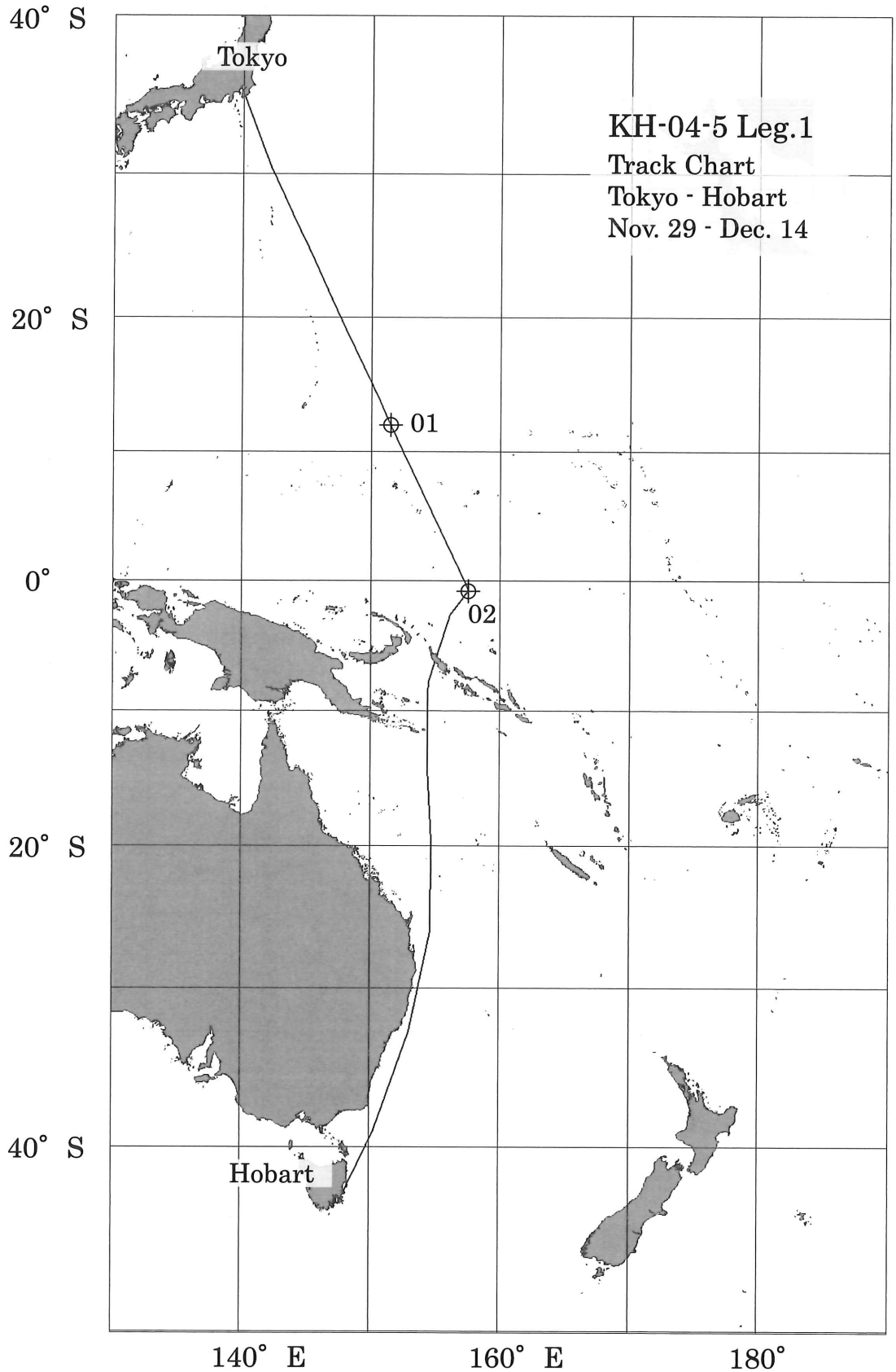
*Chief Scientist

4. Track and drift charts

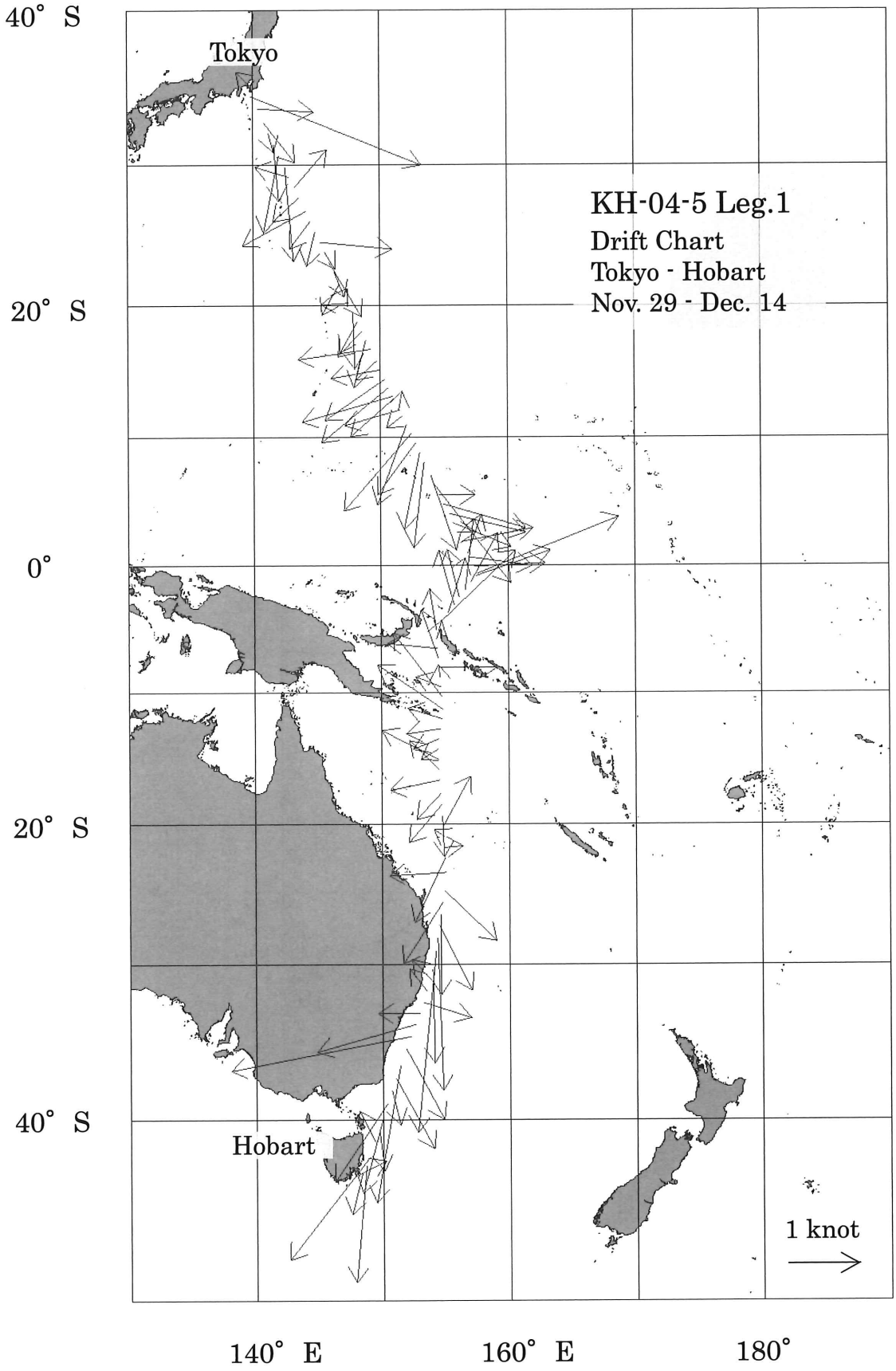
4-1. KH-04-5 Track chart



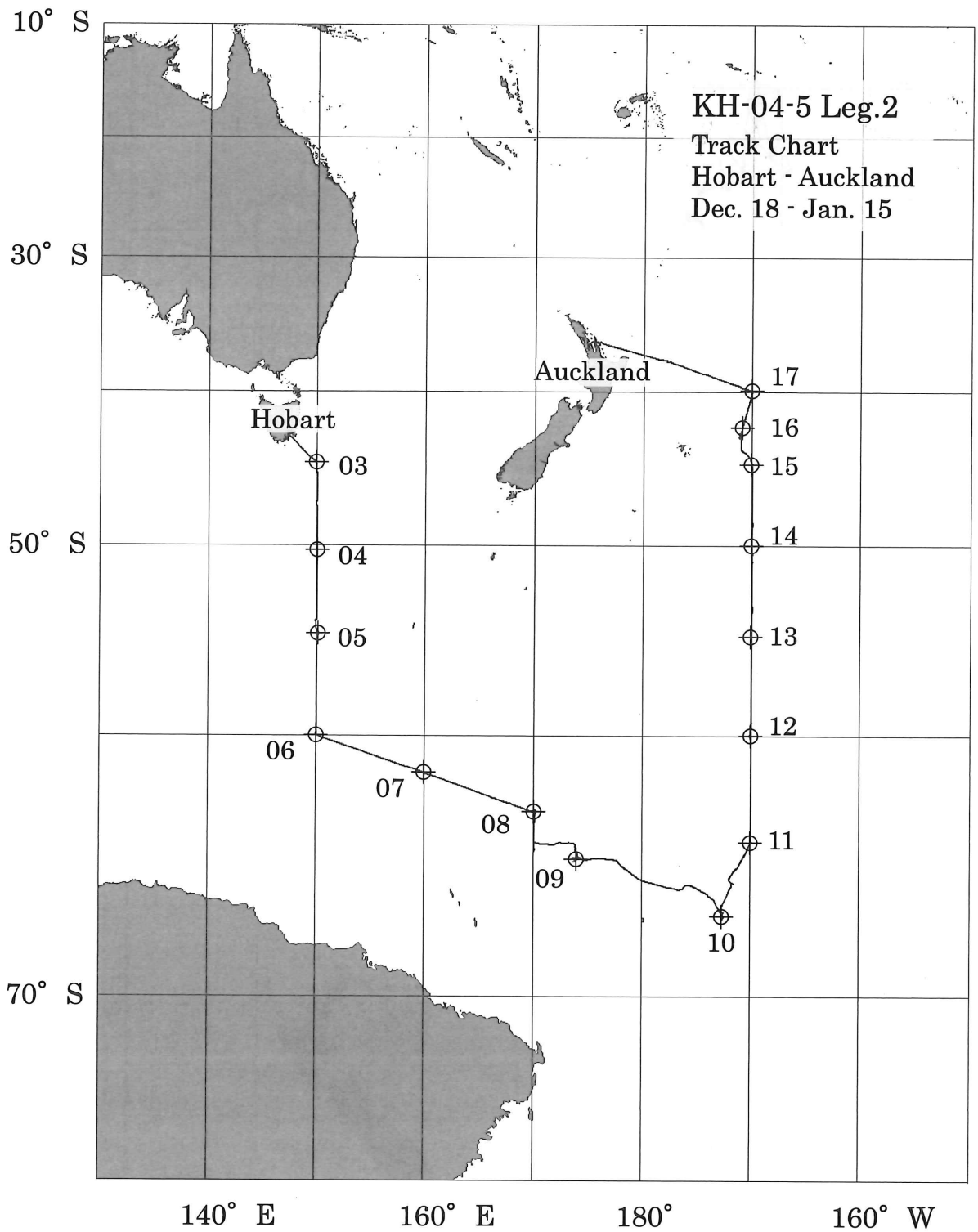
4-2. KH-04-5 Leg-1 Track, drift and bathymetric charts: Tokyo - Hobart



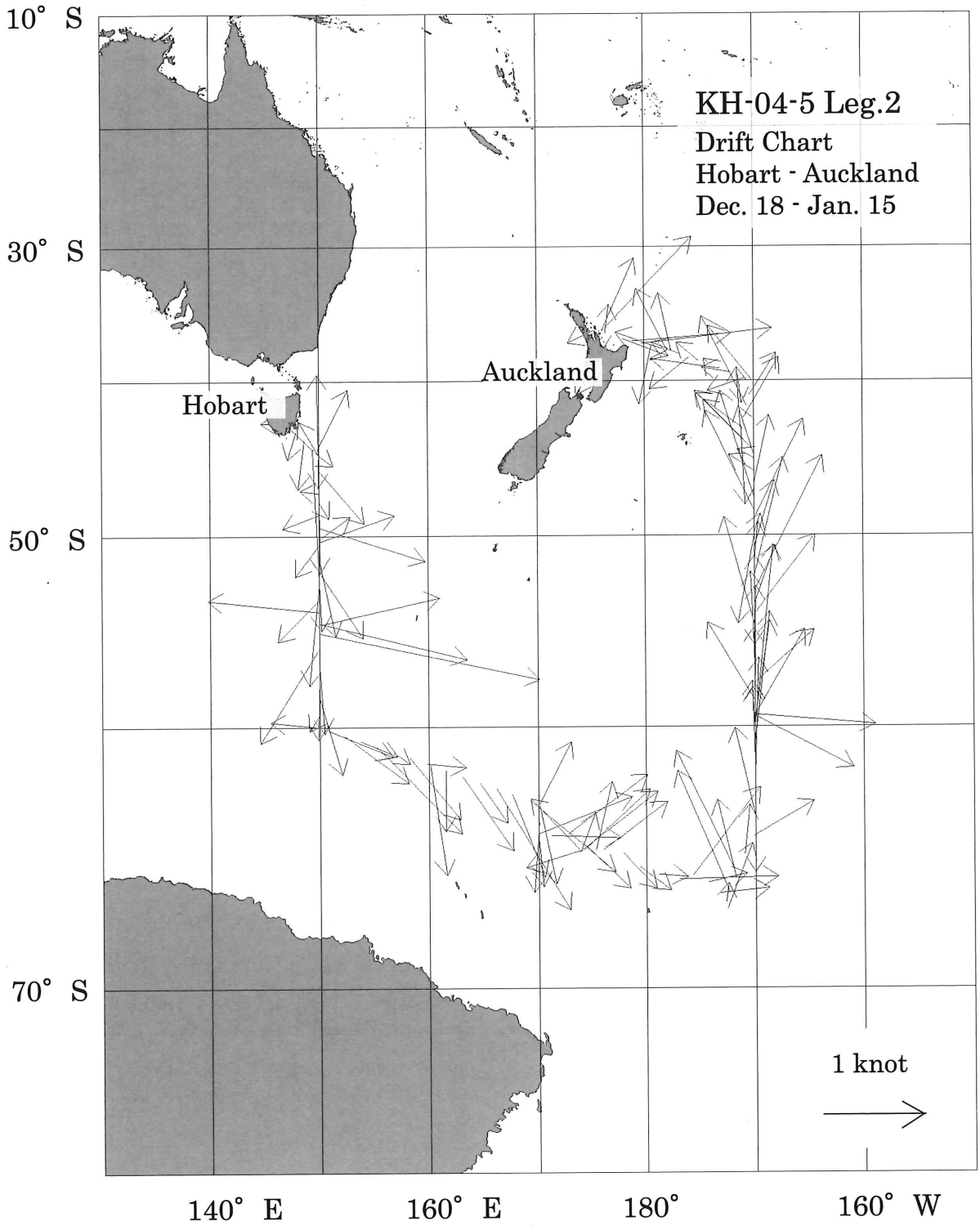
4-2. KH-04-5 Leg-1 Track, drift and bathymetric charts: Tokyo - Hobart



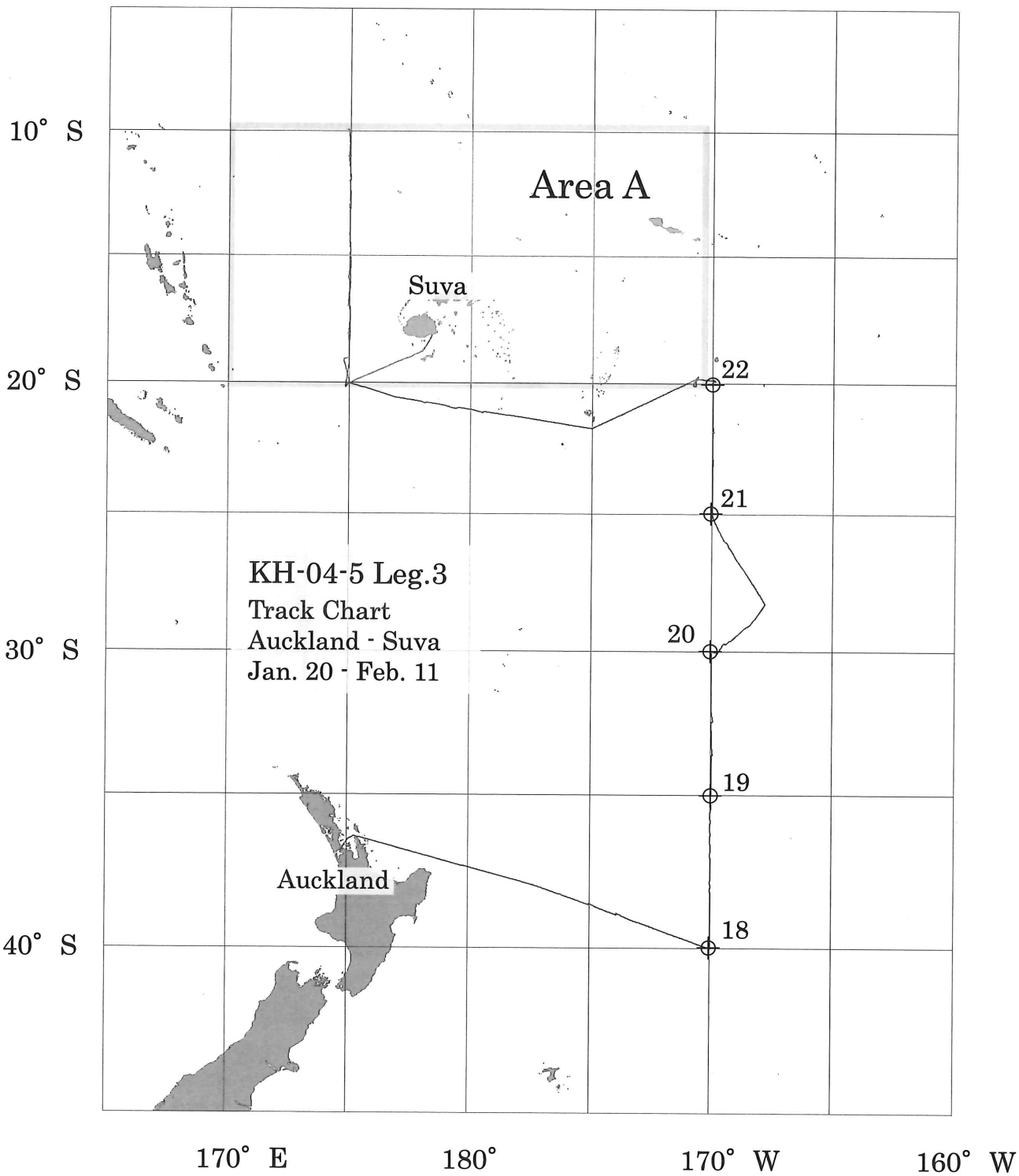
4-3. KH-04-5 Leg-2 Track, drift and bathymetric charts: Hobart-Auckland



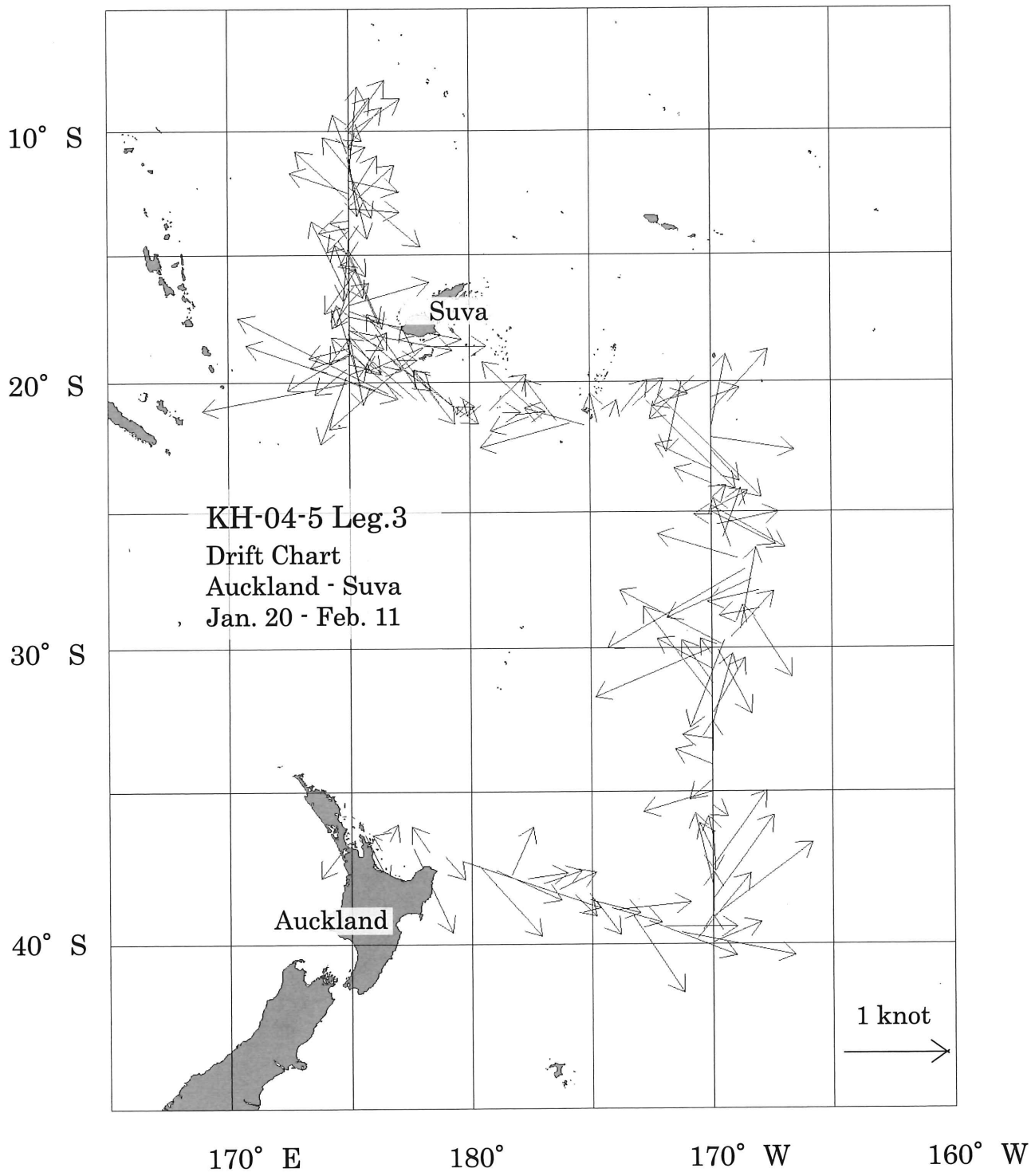
4-3. KH-04-5 Leg-2 Track, drift and bathymetric charts: Hobart-Auckland



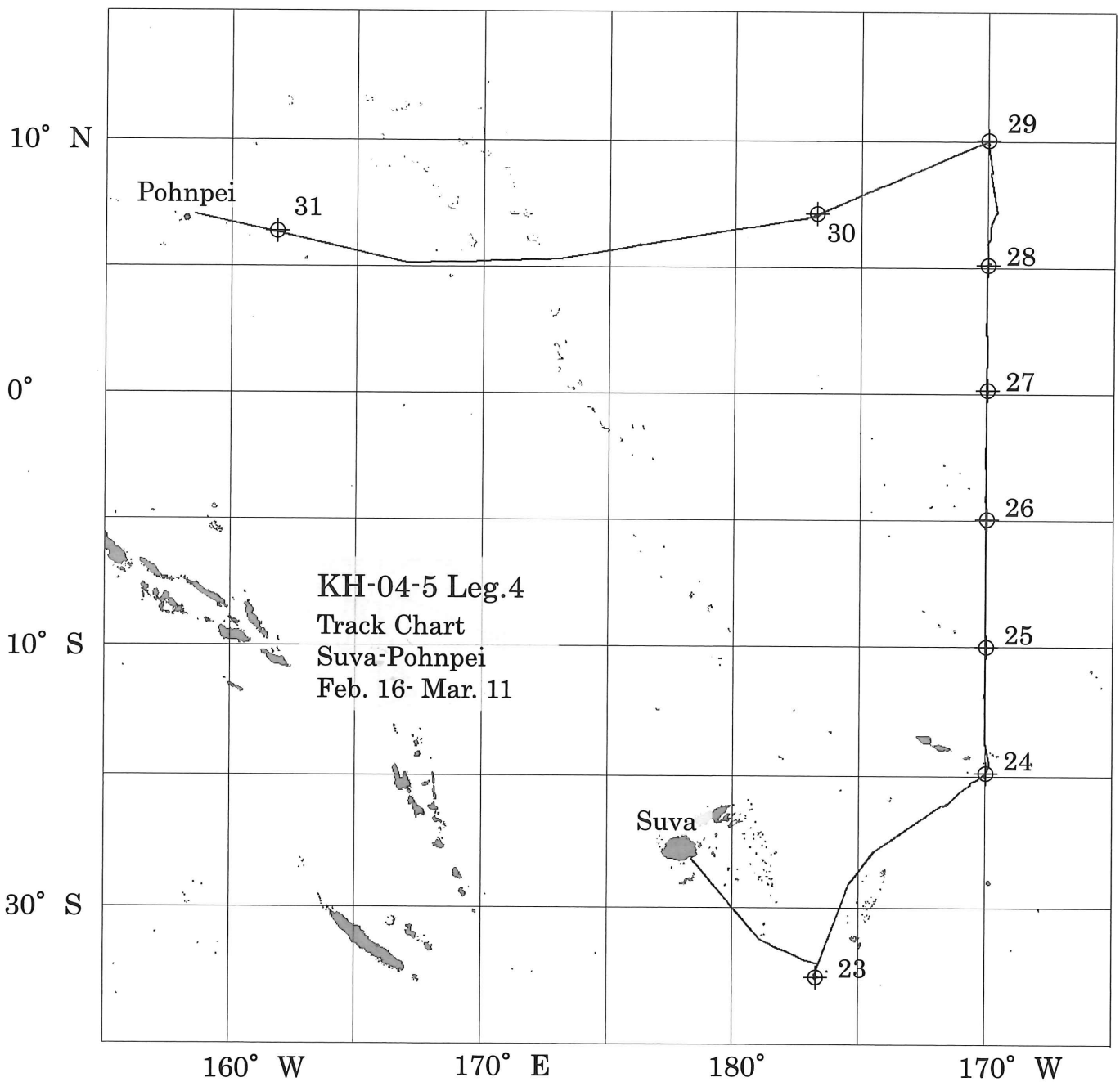
4-4. KH-04-5 Leg-3 Track and drift charts: Auckland-Suva



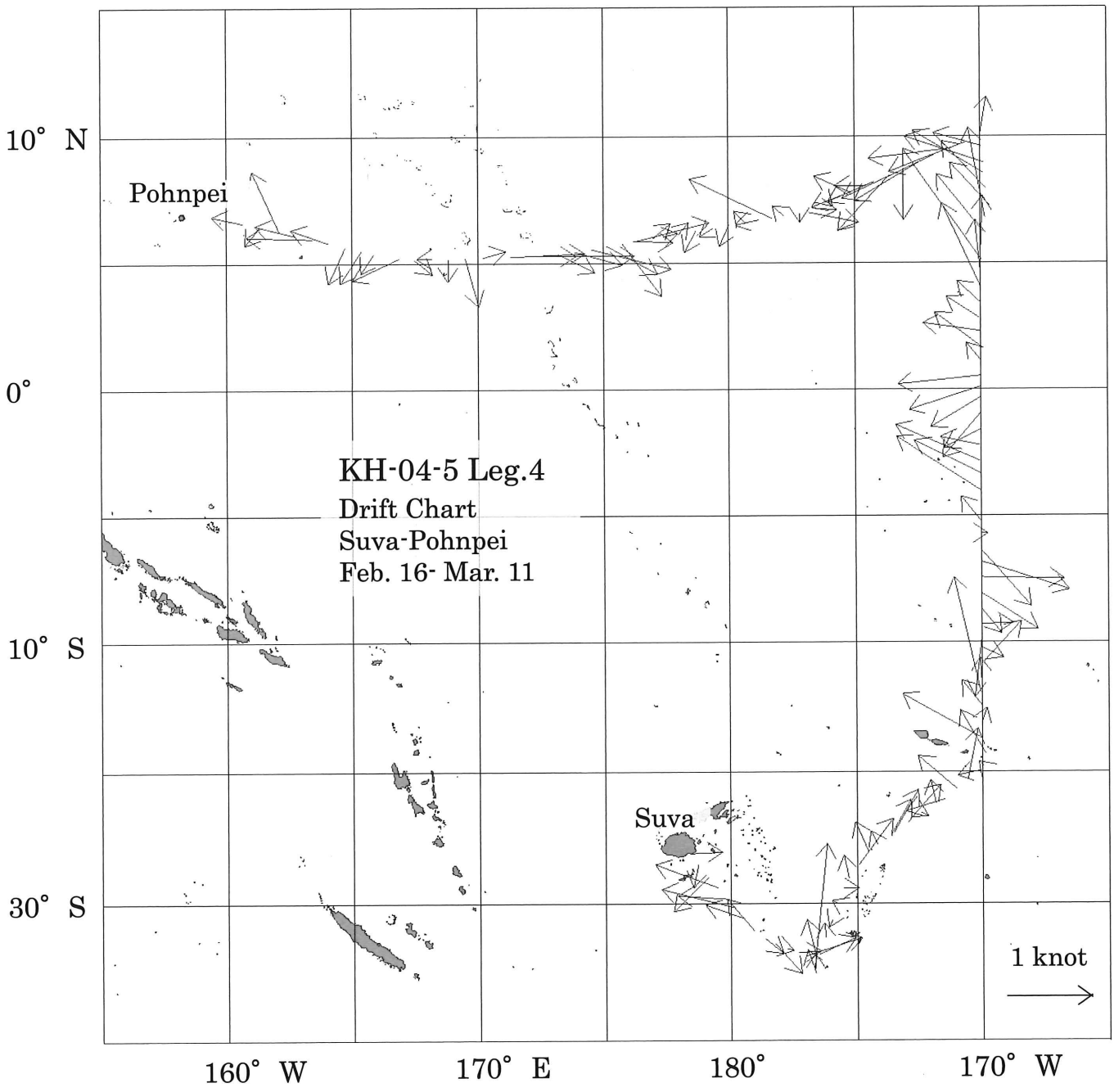
4-4. KH-04-5 Leg-3 Track and drift charts: Auckland-Suva



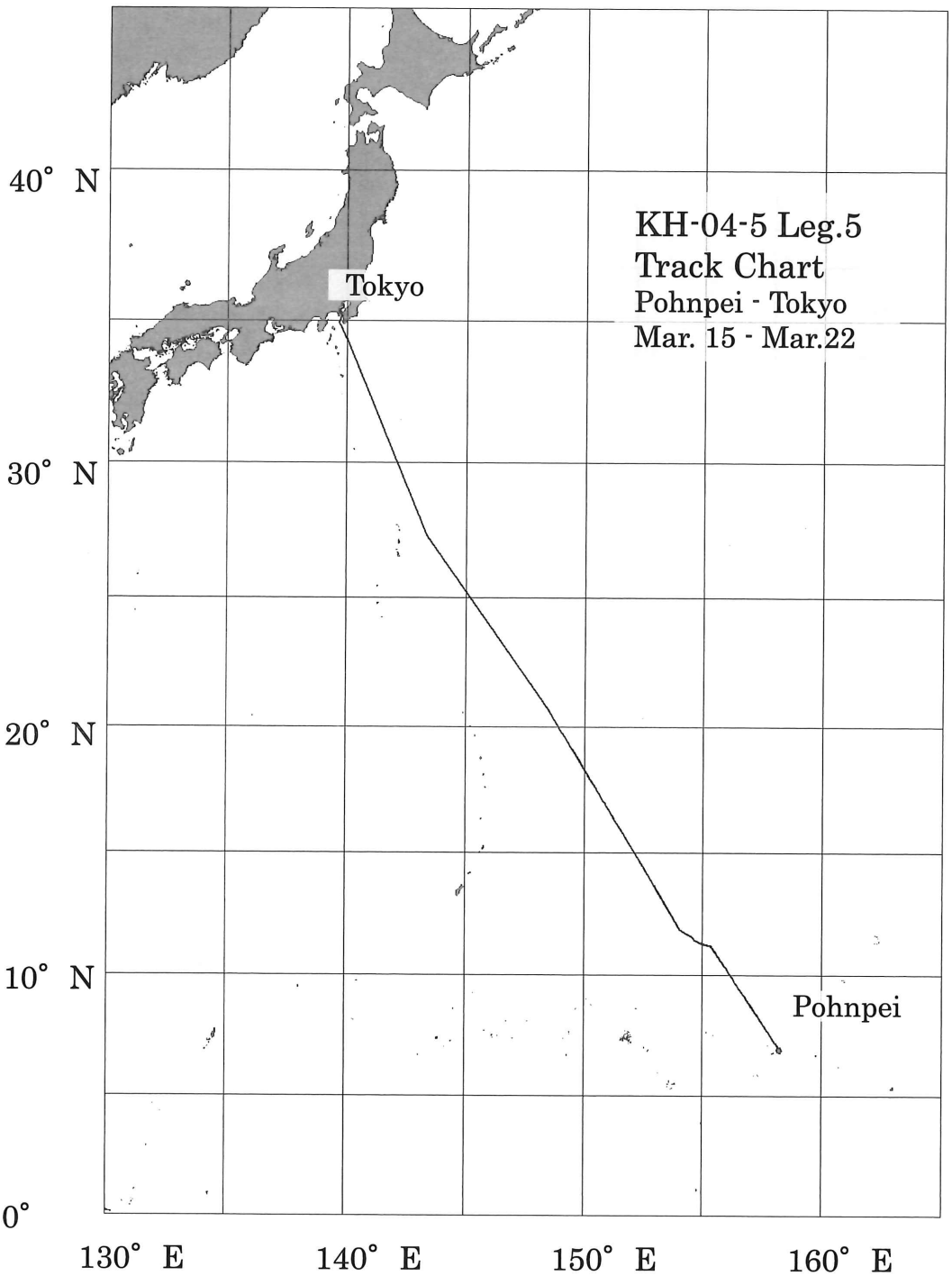
4-5. KH-04-5 Leg-4 Track and drift charts: Suva-Pohnpei



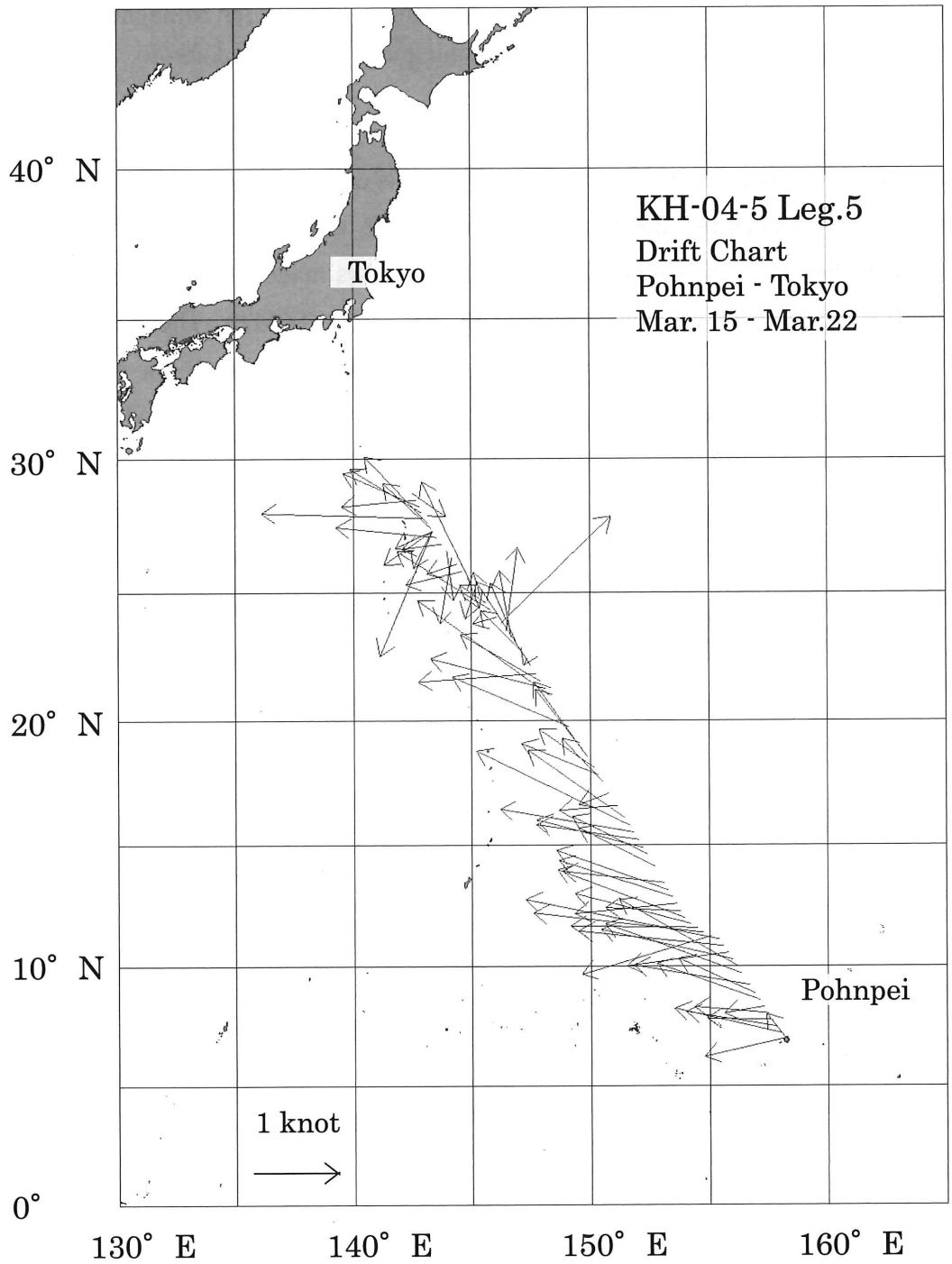
4-5. KH-04-5 Leg-4 Track and drift charts: Suva-Pohnpei



4-6. KH-04-5 Leg-5 Track and drift charts: Pohnpei-Tokyo



4-6. KH-04-5 Leg-5 Track and drift charts: Pohnpei-Tokyo



Leptocephali Collected During the KH-04-5 Cruise in the Western Pacific Ocean

Mari Kuroki, Shun Watanabe, Jun Aoyama, Michael J. Miller, Gen Minagawa, Tao Ma, Akira Shinoda, Tatsuya Kawakami and Katsumi Tsukamoto

A total of 892 leptocephali of at least 15 families eels and their close relatives were collected between 4 December 2004 and 10 March 2005 during the KH-04-5 cruise (Table 1). These leptocephali were collected in the 110 tows made at 86 stations in the western Pacific (Fig. 1) using the Isaacs Kidd Midwater Trawl (IKMT). The IKMT had an 8.7 m^2 mouth opening and 0.5 or 5.0 mm mesh and was fished in oblique and step tows during both daytime and nighttime. During Leg 1 and 2 only standard oblique tows with 1000 m of wire out were carried out, which fished to depths of about 0-350 m. During Leg 3 and 4, the same standard oblique tows were made at each station, but step tows primarily in the relatively shallow layers were made at most of the stations that were sampled at night. The step tows had from 1-4 steps or depth layers that were fished horizontally with the IKMT. A few leptocephali, juveniles and adults were also collected in the ORI net.

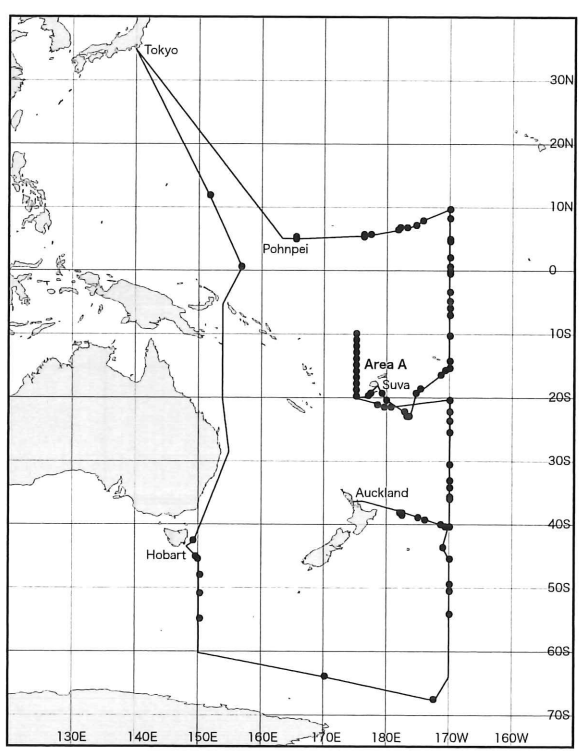


Figure 1. Map of the cruise track of the KH-04-5 cruise in the western Pacific Ocean, showing the location of sampling stations with the IKMT.

Leptocephali of the genus *Anguilla* were collected primarily in the region around Fiji (N = 12, Leg. 3) and Marshall Islands (N = 1, Leg. 4). In Area A, two size classes were collected (Fig. 2). These leptocephali had myomeres ranges of 103-112 and could have been the species *A. obscura* or *A. megastoma*. Because of the overlap in the meristic characters of most tropical anguillid leptocephali (Jespersen, 1942) genetic identification is needed to determine the exact species identity of each leptocephalus (Aoyama et al., 1999). The South Equatorial Current (SEC) may not be very strong during the Jan/Feb season (Reverdin et al., 1994; Bonjean and Lagerloef, 2002), and so the relatively distinct spawning season of temperate species such as *Anguilla australis* from Australia and New Zealand that may spawn in the SEC (Jellyman, 1987; Aoyama et al., 1999) probably does not occur during this season. Topical eels that may make relatively short spawning migrations may occur during a wider range of times of the year based on the distribution of their leptocephali and the age of their glass eels in tropical areas (Aria et al., 2001; Tsukamoto et al., 2002; Aoyama et al., 2003). To the west of the Marshall Islands one large anguillid leptocephalus was collected. This specimen had 107 myomeres and was a longfin type. These morphological and geographic factors suggest that it could have been the species *A. marmorata*.

Table 1. Number and total length (TL) of leptocephali and juveniles collected with the IKMT during the KH-04-5 cruise in the western Pacific Ocean.

Taxa	Number of leptocephali	TL range (mm)
Anguilliformes	867	7.6 - 694.0
Anguillidae	13	19.0 - 50.9
Chlopsidae	10	55.0 - 81.3
Congridae	52	9.0 - 327.0
Derichthyidae	29	17.0 - 96.0
Moringuidae	1	59.6
Muraenidae	102	16.0 - 105.2
Nemichthyidae	182	7.6 - 694.0
Nettastomatidae	2	48.6 - 89.8
Ophichthidae	13	21.0 - 80.0
Serrivomeridae	461	8.3 - 528.8
Synaphobranchidae	2	29.6 - 59.6
Saccopharyngiformes	6	11.6 - 167.2
Cyematidae	3	27.1 - 87.7
Notacanthiformes	4	57.2 - 276.0
Albuliformes, Elopiformes	2	23.0 - 58.0
Unidentified	10	9.0 - 239.0
Total catch	892	7.6 - 694.0

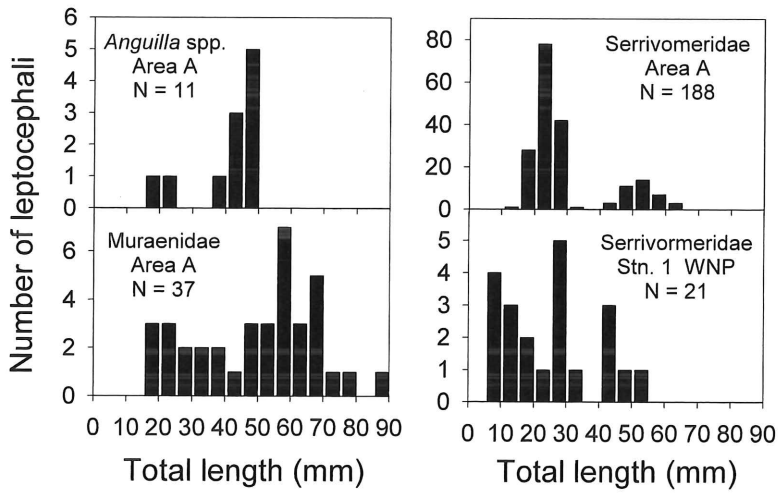


Figure 2. Length frequency plots of *Anguilla*, Muraenidae, and Serrivomeridae leptocephali collected in Area A to the west and northwest of Fiji, and of Serrivomeridae leptocephali collected at Stn. 1 in the western North Pacific (WNP).

The leptocephali of the mesopelagic eels of the Serrivomeridae (N = 461) were the most abundant family in Leg 1, 3 and 4, with big catches occurring at Stn. 1 in the western North Pacific (WNP) and in the northern region of Area A to the west and northwest of Fiji (Fig. 2, 3). Two or three different size classes were collected in both areas indicating spawning over a period of several months. Serrivomerid leptocephali were mostly collected in the northern half of Area A from 10-15 S, and were rare or absent to the south closer to Fiji (Fig. 3)

In contrast to the leptocephali of the Serrivomeridae, those of the mesopelagic eels of the family Nemichthyidae (N = 182) were the second most abundant family, with at least three species being collected. Both the *Nemichthys scolopaceus* and *N. curvirostris* types of leptocephali were collected (74 specimens combined), as well as 108 *Avocettina* leptocephali, most of which were probably *Avocettina infans*. Both species of *Nemichthys* were collected at sizes from about 14.9 mm to 336.0 mm TL, but the smaller sized species *A. infans* was only collected up to 250.2 mm TL. Other leptocephali of mesopelagic eels were 29 specimens of the family Derichthyidae, which included both *Derichthys serpentinus* and *Nessorhamphus ingolfianus*, some of which were as small as 21.0 mm TL. Some leptocephali of the meso- or bathy-pelagic eel *Cyema atrum* were also collected during the cruise (N = 3). The notacanthid leptocephali (N = 4) that were collected were all relatively large (67.0-276.0 mm TL).

The leptocephali of the shallow water genus *Ariosoma* are often relatively abundant in offshore collections, but they were not particularly abundant in the western South Pacific region during this cruise, with only 12 specimens being collected during Leg 1 – 3. At least three species, *Ariosoma* sp. 4, 5, and 7 were collected, with the smallest specimens being caught near Fiji. Eight specimens of the genus *Conger* were collected in the southern region of Area A and in the other stations to the south of Fiji.

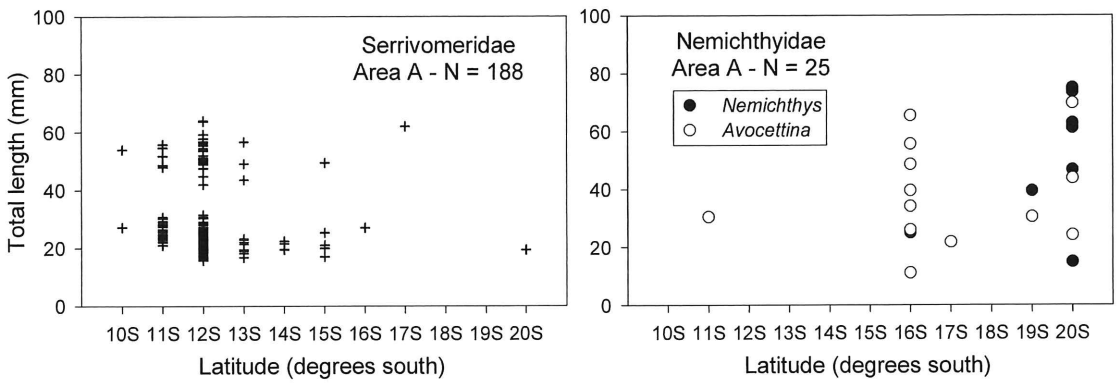


Figure 3. Plots of the total lengths of Serrivomeridae and Nemichthyidae leptocephali collected at each latitude in Area A to the west and northwest of Fiji, showing the different distributions of the two families.

The leptocephali of the other families collected during the cruise included the family the Muraenidae (N = 102) and the Chlopsidae (N = 10), but only a few specimens of the families Moringuidae and Ophichthidae were collected. The leptocephali of the families of eels that live primarily in slope habitats included those of the family Synaphobranchide (N = 2), as well as the family Nettastomatidae (N = 2) were also collected (Table 1).

Two specimens of rare leptocephali whose family identity is unknown were also collected. Both Type I and Type II leptocephali of Smith (1989) were caught in the western South Pacific (WSP). The Type I leptocephalus was in good condition and was photographed before being preserved in ethanol for genetic analysis. Based on its morphology and a genetic comparison to other known families of eels and their close relatives, this type of leptocephalus can for the first time be evaluated for its possible close relatives.

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Net Record for IKMT sampling

St.	Location Net in & out Latitude	Location Net in & out Longitude	Date	Time Net in	Time Net out	Net Type	Mesh size (mm)	Towing Method	Wire out (m)	Sampl. layer (m)	Reel. speed (m/s)	Ship speed (kt)	Filt. volume (㎥)	Flow-meter Revol.	Flow-meter No.	Sea Depth (m)
01	N 12 10 45	E 151 24 76	3.Dec.00	02:13	03:29	IKMT	0.5	Obl.	1200	0-382	1.0-0.5	2.5-2.0	8.7	58104	1307	5846 - 5848
	N 12 12 30	E 151 27 05														
02	N 00 56 11	E 156 44 34	5.Dec.00	02:04	03:11	IKMT	0.5	Obl.	1200	0-414	1.0-0.5	2.5-2.0	8.7	63968	1307	2206 - 2230
	N 00 56 14	E 156 42 04														
03	S 42 10 49	E 148 55 51	13.Dec.00	00:39	00:43	IKMT	0.5	Obl.	50	-	1.0-0.5	2.5-2.0	8.7	5553	1307	1942 - 1945
	S 42 10 72	E 148 55 56														
04	S 44 35 17	E 149 27 18	17.Dec.00	23:08	00:02	IKMT	0.5	Obl.	1000	0-143	1.0-0.5	2.5-2.0	8.7	57516	1307	3050 - 3117
	S 44 33 59	E 149 29 41														
05	S 44 47 44	E 149 45 66	18.Dec.00	01:32	02:32	IKMT	0.5	Obl.	800	0-232	1.0-0.5	2.5-2.0	8.7	49620	1307	3272 - 3344
	S 44 44 97	E 149 46 37														
06	S 47 23 43	E 149 59 60	19.Dec.00	00:33	01:29	IKMT	0.5	Obl.	1000	0-255	1.0-0.5	2.5-2.0	8.7	50922	1307	3120 - 3321
	S 47 24 52	E 149 56 96														
07	S 50 20 75	E 150 00 46	20.Dec.00	01:17	02:09	IKMT	0.5	Obl.	1000	0-266	1.0-0.5	2.5-2.0	8.7	47287	1307	3157 - 3179
	S 50 21 56	E 149 57 70														
08	S 54 14 70	E 149 58 90	21.Dec.00	00:33	01:28	IKMT	0.5	Obl.	1000	0-290	1.0-0.5	2.5-2.0	8.7	48801	1307	4014 - 4054
	S 54 15 70	E 149 54 52														
SX-08	S 63 19 41	E 170 13 14	26.Dec.00	01:00	01:57	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	30193	1307	1620 - 1849
	S 63 17 67	E 170 11 26														
SX-10	S 67 09 86	W 172 34 56	30.Dec.00	21:33	22:30	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	34272	1307	3735 - 3860
	S 67 10 75	W 172 38 87														
09	S 53 47 42	W 169 59 45	6.Jan.01	00:30	01:23	IKMT	0.5	Obl.	1000	0-324	1.0-0.5	2.5-2.0	8.7	42759	1307	5150 - 5180
	S 53 46 11	W 169 56 17														
10	S 50 00 30	W 169 59 83	7.Jan.01	01:15	02:05	IKMT	0.5	Obl.	1000	0-307	1.0-0.5	2.5-2.0	8.7	72285	1307	5355 - 5375
	S 50 02 48	W 170 01 24														
11	S 48 54 01	W 169 58 62	8.Jan.01	00:32	01:24	IKMT	0.5	Obl.	1000	0-299	1.0-0.5	2.5-2.0	8.7	45199	1307	4980 - 5223
	S 48 51 60	W 169 56 55														
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	S 44 57 48	W 170 01 04														
13	S 43 10 53	W 171 10 17	9.Jan.01	22:37	23:29	IKMT	0.5	Obl.	1000	0-315	1.0-0.5	2.5-2.0	8.7	37460	1307	2288 - 2295
	S 43 09 81	W 171 12 74														
14	S 40 00 09	W 169 59 78	10.Jan.01	22:29	23:25	IKMT	0.5	Obl.	1000	0-295	1.0-0.5	2.5-2.0	8.7	43401	1307	4629 - 4632
	S 40 01 42	W 170 01 81														
15	S 39 47 87	W 170 48 53	11.Jan.01	21:14	22:03	IKMT	0.5	Step	500	0-117	1.0-0.5	2.5-2.0	8.7	45418	1307	4597 - 4599
	S 39 49 27	W 170 50 23														
16	S 39 33 73	W 171 25 16	12.Jan.01	00:29	01:28	IKMT	0.5	Step	469	0-122	1.0-0.5	2.5-2.0	8.7	46080	1307	4640 - 4644
	S 54 15 70	W 149 54 52														
17-O	S 37 54 94	W 177 32 13	12.Jan.01	21:13	22:07	IKMT	0.5	Obl.	1000	0-312	1.0-0.5	2.5-2.0	8.7	55310	1307	3520 - 3586
	S 37 52 72	W 177 33 47														
17-S	S 37 52 36	W 177 33 73	12.Jan.01	22:18	08:09	IKMT	0.5	Step	496	0-149	1.0-0.5	2.5-2.0	8.7	39543	1307	3576 - 3629
	S 37 50 35	W 177 35 19														
18-O	S 37 50 90	W 177 54 69	13.Jan.01	00:29	01:21	IKMT	0.5	Obl.	1000	0-324	1.0-0.5	2.5-2.0	8.7	44945	1307	3548 - 3618
	S 37 48 68	W 177 56 15														
18-S	S 37 48 46	W 177 56 33	13.Jan.01	01:30	02:23	IKMT	0.5	Step	598	0-156	1.0-0.5	2.5-2.0	8.7	90517	1307	3628 - 3683
	S 37 46 15	W 177 57 96														
19	S 38 36 58	W 175 01 37	20.Jan.01	21:18	22:10	IKMT	0.5	Obl.	1000	0-324	1.0-0.5	2.5-2.0	8.7	73710	1307	5027 - 5039
	S 38 34 61	W 175 00 58														
20	S 38 55 51	W 173 52 61	21.Jan.01	02:10	03:01	IKMT	0.5	Step	1000	0-325	1.0-0.5	2.5-2.0	8.7	49560	1307	5086 - 5089
	S 38 53 69	W 173 51 90														
21	S 40 00 80	W 170 00 02	21.Jan.01	19:06	20:30	IKMT	0.5	Obl.	1660	0-508	1.0-0.5	2.5-2.0	8.7	65300	1307	4579 - 4583
	S 39 58 90	W 170 02 97														
22	S 39 58 77	W 169 59 68	22.Jan.01	00:30	01:22	IKMT	0.5	Obl.	1000	0-337	1.0-0.5	2.5-2.0	8.7	40173	1307	4579 - 4579
	S 39 57 25	W 170 01 04														
23	S 35 28 89	W 169 59 91	22.Jan.01	19:59	20:51	IKMT	0.5	Obl.	1000	0-293	1.0-0.5	2.5-2.0	8.7	53510	1307	4502 4654
	S 35 28 09	W 169 57 71														
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	S 35 00 02	W 169 57 55														
25	S 33 38 77	W 169 58 18	23.Jan.01	20:00	20:53	IKMT	0.5	Obl.	1000	0-308	1.0-0.5	2.5-2.0	8.7	42724	1307	4970 5430
	S 33 38 11	W 169 56 03														
26	S 32 28 39	W 169 58 14	24.Jan.01	02:05	02:53	IKMT	0.5	Obl.	1000	0-224	1.0-0.5	2.5-2.0	8.7	56205	1307	5210 5533
	S 32 28 20	W 169 55 28														
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	S 30 00 12	W 169 56 96														
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	S 30 00 73	W 169 57 01														
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Net Record for IKMT sampling

St.	Location Net in & out Latitude	Location Net in & out Longitude	Date	Time Net in	Time Net out	Net Type	Mesh size (mm)	Towing Method	Wire out (m)	Sampl. layer (m)	Reel. speed (m/s)	Ship speed (kt)	Filt. volume (m³)	Flow-meter Revol.	Flow-meter No.	Sea Depth (m)
	S 24 57 73	W 169 59 48														
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	S 24 55 66	W 169 58 96														
33	S 23 11 50	W 169 59 70	29.Jan.01	19:58	20:21	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	44045	1307 5572	5611
	S 23 10 47	W 169 58 08														
34	S 21 55 42	W 169 59 19	30.Jan.01	02:11	03:01	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	45778	1307 5564	5584
	S 21 54 55	W 169 56 63														
35	S 19 59 58	W 170 00 86	30.Jan.01	21:07	22:02	IKMT	0.5	Obl.	1000	0-363	1.0-0.5	2.5-2.0	8.7	43550	1307 5216	5286
	S 19 57 81	W 170 59 93														
36	S 19 57 50	W 169 59 79	31.Jan.01	22:10	23:02	IKMT	0.5	Step	364	0-114	1.0-0.5	2.5-2.0	8.7	37164	1307 5239	5418
	S 19 55 88	W 169 58 76														
37	S 19 54 49	W 169 55 04	31.Jan.01	21:27	22:25	IKMT	0.5	Step	431	0-108	1.0-0.5	2.5-2.0	8.7	46469	1307 5080	5356
	S 19 53 51	W 169 57 16														
38	S 19 53 39	W 169 57 44	31.Jan.01	22:32	23:18	IKMT	0.5	S-Obl.	423	0-123	1.0-0.2	2.5-2.0	8.7	37045	1307 5266	5297
	S 19 52 52	W 169 59 15														
39-O	S 21 06 29	W 179 25 83	2.Feb.01	19:59	20:53	IKMT	0.5	Obl.	1000	0-391	1.0-0.5	2.5-2.0	8.7	35331	1307 634	1335
	S 21 06 98	W 179 27 31														
39-S	S 21 07 04	W 179 27 51	2.Feb.01	21:07	21:06	IKMT	0.5	S-Step.	394	0-120	1.0-0.2	2.5-2.5	8.7	43473	1307 1285	1420
	S 21 08 25	W 179 29 05														
40-S1	S 20 57 45	E 179 30 89	3.Feb.01	02:03	02:58	IKMT	0.5	S-Step.	465	0-116	1.0-0.2	2.5-2.5	8.7	50040	1307 3506	3514
	S 21 57 95	E 179 28 71														
40-S2	S 20 57 97	E 179 28 61	3.Feb.01	03:04	04:03	IKMT	0.5	S-Step.	560	0-176	1.0-0.2	2.5-2.5	8.7	47235	1307 3516	3524
	S 20 59 03	E 179 26 59														
40-O	S 20 59 04	E 179 26 54	3.Feb.01	04:12	05:08	IKMT	0.5	Obl.	1000	0-326	1.0-0.5	2.5-2.0	8.7	38014	1307 3525	3538
	S 20 59 83	E 179 24 98														
41	S 20 45 43	E 178 22 142	3.Feb.01	10:10	11:28	IKMT	0.5	Obl.	1500	0-591	1.0-0.5	2.5-2.0	8.7	56955	1307 2500	3160
	S 20 46 94	E 178 09 03														
A1-S1	S 20 00 09	E 174 59 50	3.Feb.01	23:06	23:56	IKMT	0.5	S-Step.	340	0-93.9	1.0-0.2	2.5-2.5	8.7	44580	1307 2800	3396
	S 20 01 76	E 174 57 83														
A1-S2	S 20 01 95	E 174 57 64	4.Feb.01	00:02	00:55	IKMT	0.5	S-Step.	471	0-104	1.0-0.2	2.5-2.5	8.7	48747	1307 3162	3363
	S 20 04 05	E 174 55 87														
A1-O	S 20 04 17	E 174 55 71	4.Feb.01	01:01	01:55	IKMT	0.5	Obl.	1000	0-249	1.0-0.5	2.5-2.0	8.7	44097	1307 2812	3176
	S 20 06 15	E 174 54 03														
A1-S3	S 20 06 32	E 174 53 86	4.Feb.01	02:03	03:25	IKMT	0.5	S-Step.	453	0-125	1.0-0.2	2.5-2.5	8.7	70800	1307 2765	3152
	S 20 09 60	E 174 51 13														
A2-O	S 18 59 65	E 174 59 90	4.Feb.01	08:22	09:43	IKMT	0.5	Obl.	1450	0-532	1.0-0.5	2.5-2.0	8.7	53120	1307 3146	3239
	S 18 57 36	E 174 59 59														
A3-O	S 17 59 70	E 174 59 94	4.Feb.01	13:47	14:52	IKMT	0.5	Obl.	1340	0-485	1.0-0.5	2.5-2.0	8.7	46545	1307 2497	2674
	S 17 58 73	E 174 58 05														
A4-O	S 16 59 80	E 175 00 02	4.Feb.01	18:58	19:53	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	34158	1307 2028	2145
	S 16 58 75	E 174 58 90														
A4-S1	S 16 58 62	E 174 58 84	4.Feb.01	20:01	21:01	IKMT	0.5	S-Step.	393	0-131	1.0-0.2	2.5-2.5	8.7	42720	1307 2162	2654
	S 16 57 49	E 174 57 08														
A4-S2	S 16 57 47	E 174 56 93	4.Feb.01	21:08	22:27	IKMT	0.5	S-Step.	365	0-118	1.0-0.2	2.5-2.5	8.7	46700	1307 2349	2689
	S 16 59 86	E 174 55 95														
A5-S	S 15 59 80	E 174 59 93	5.Feb.01	02:39	04:03	IKMT	0.5	S-Step.	559	0-123	1.0-0.2	2.5-2.5	8.7	80767	1307 2396	2907
	S 15 56 30	E 174 57 93														
A5-O	S 15 56 10	E 174 57 81	5.Feb.01	04:12	05:09	IKMT	0.5	Obl.	1000	0-285	1.0-0.5	2.5-2.0	8.7	46418	1307 2918	2947
	S 15 54 14	E 174 56 63														
A6	S 14 59 73	E 175 00 13	5.Feb.01	08:59	10:18	IKMT	0.5	Obl.	1497	0-654	1.0-0.5	2.5-2.0	8.7	67500	1307 2680	3051
	S 14 57 55	E 174 59 97														
A7	S 14 59 98	E 174 59 90	5.Feb.01	14:19	15:37	IKMT	0.5	Obl.	1624	0-540	1.0-0.5	2.5-2.0	8.7	63198	1307 2934	3018
	S 14 57 11	E 174 59 56														
A8-O	S 12 59 82	E 175 00 06	5.Feb.01	19:30	20:35	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	62720	1307 2648	2934
	S 12 56 78	E 175 00 30														
A8-S1	S 12 56 47	E 175 00 35	5.Feb.01	20:46	21:52	IKMT	0.5	S-Step.	483	0-104	1.0-0.2	2.5-2.5	8.7	61480	1307 2811	2997
	S 12 52 96	E 175 00 45														
A8-S2	S 12 52 50	E 175 00 39	5.Feb.01	22:01	22:32	IKMT	0.5	S-Step.	206	0-47.4	1.0-0.2	2.5-2.5	8.7	30625	1307 2900	3000
	S 12 50 83	E 174 59 99														
A9-S	S 11 59 81	E 174 59 95	6.Feb.01	02:01	03:27	IKMT	0.5	S-Step.	552	0-107	1.0-0.2	2.5-2.5	8.7	#####	1307 3134	3225
	S 11 55 17	E 175 00 13														
A9-O	S 11 54 98	E 175 00 13	6.Feb.01	03:33	04:24	IKMT	0.5	Obl.	1014	0-256	1.0-0.5	2.5-2.0	8.7	40180	1307 3094	3381
	S 11 53 06	E 175 00 07														
A10	S 10 59 90	E 174 59 94	6.Feb.01	08:06	09:32	IKMT	0.5	Obl.	1585	0-479	1.0-0.5	2.5-2.0	8.7	72975	1307 3571	3687
	S 10 58 16	E 174 56 82														
A11	S 10 00 19	E 175 00 03	6.Feb.01	13:30	14:39	IKMT	0.5	Obl.	1392	0-507	1.0-0.5	2.5-2.0	8.7	46922	1307 4956	4962
	S 9 58 72	E 174 58 18														
A12	S 9 58 61	E 174 58 13	6.Feb.01	14:46	16:59	IKMT	5.0	Obl.	2500	-	1.0-1.0	4.0-2.5	8.7	#####	1307 4926	5091
	S 9 55 94	E 174 52 91														

Net Record for IKMT sampling

St.	Location Net in & out Latitude	Location Net in & out Longitude	Date	Time Net in	Time Net out	Net Type	Mesh size (mm)	Towing Method	Wire out (m)	Sampl. layer (m)	Reel. speed (m/s)	Ship speed (kt)	Filt. volume (m³)	Flow-meter Revol.	Flow-meter No.	Sea Depth (m)
A13-O	S 10 00 12	E 175 00 55	6.Feb.01	19:33	20:26	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	42800	1307 4954	4963
	S 9 58 85	E 174 59 01														
A13-S	S 9 58 72	E 174 58 64	6.Feb.01	20:35	21:52	IKMT	0.5	S-Step.	344	0-105	1.0-0.2	2.5-2.5	8.7	63222	1307 4940	4955
	S 9 58 34	E 174 55 65														
A14-S	S 10 59 83	E 174 59 70	7.Feb.01	02:14	03:25	IKMT	0.5	S-Step.	330	0-85.6	1.0-0.2	2.5-2.5	8.7	89740	1307 3524	3686
	S 10 59 25	E 174 56 87														
A14-O	S 10 59 26	E 174 56 75	7.Feb.01	03:31	04:22	IKMT	0.5	Obl.	1000	0-374	1.0-0.5	2.5-2.0	8.7	34070	1307 3567	3688
	S 10 58 72	E 174 55 28														
A15	S 12 00 05	E 174 59 84	7.Feb.01	08:36	09:40	IKMT	0.5	Obl.	1189	0-526	1.0-0.5	2.5-2.0	8.7	38857	1307 2923	3118
	S 11 59 18	E 174 58 39														
A16	S 12 59 53	E 174 59 86	7.Feb.01	13:50	15:07	IKMT	0.5	Obl.	1513	0-424	1.0-0.5	2.5-2.0	8.7	66180	1307 2648	2902
	S 12 57 03	E 174 57 80														
A17-O	S 14 00 17	E 174 59 92	7.Feb.01	19:21	20:13	IKMT	0.5	Obl.	1000	-	1.0-0.5	2.5-2.0	8.7	39100	1307 2878	2956
	S 14 02 16	E 174 59 39														
A17-S	S 14 02 65	E 174 59 26	7.Feb.01	20:14	21:46	IKMT	0.5	S-Step.	357	0-194	1.0-0.2	2.5-2.5	8.7	64030	1307 2848	3015
	S 14 05 84	E 174 58 40														
A18-S	S 15 00 14	E 175 00 11	8.Feb.01	01:27	02:48	IKMT	0.5	S-Step.	446	0-113	1.0-0.2	2.5-2.5	8.7	70022	1307 2450	2773
	S 15 03 81	E 175 01 58														
A18-O	S 15 03 97	E 175 01 66	8.Feb.01	02:54	03:44	IKMT	0.5	Obl.	1000	0-274	1.0-0.5	2.5-2.0	8.7	43734	1307 2924	3090
	S 15 06 01	E 175 02 47														
A19	S 16 00 09	E 175 00 09	8.Feb.01	07:26	08:46	IKMT	0.5	Obl.	1547	0-519	1.0-0.5	2.5-2.0	8.7	64335	1307 2751	2962
	S 16 02 68	E 175 01 60														
A20	S 16 59 96	E 175 00 00	8.Feb.01	12:32	14:05	IKMT	0.5	Obl.	1802	0-582	1.0-0.5	2.5-2.0	8.7	81175	1307 2080	2389
	S 17 03 68	E 174 59 89														
A21-O	S 18 00 18	E 175 00 32	8.Feb.01	18:08	19:03	IKMT	0.5	Obl.	1000	0-378	1.0-0.5	2.5-2.0	8.7	41590	1307 2565	2692
	S 18 02 17	E 175 01 08														
A21-S1	S 18 02 35	E 175 01 07	8.Feb.01	19:15	20:06	IKMT	0.5	S-Step.	353	0-124	1.0-0.2	2.5-2.5	8.7	34560	1307 2616	2822
	S 18 02 81	E 175 59 55														
A21-S2	S 18 02 85	E 175 59 37	8.Feb.01	20:14	21:28	IKMT	0.5	S-Step.	320	0-109	1.0-0.2	2.5-2.5	8.7	44642	1307 2680	2794
	S 18 03 45	E 175 57 14														
A22-S1	S 18 59 95	E 174 59 71	9.Feb.01	01:31	02:45	IKMT	0.5	S-Step.	377	0-105	1.0-0.2	2.5-2.5	8.7	60630	1307 2895	3196
	S 19 01 54	E 174 56 02														
A22-S2	S 19 01 63	E 174 55 79	9.Feb.01	02:52	04:05	IKMT	0.5	S-Step.	408	0-101	1.0-0.2	2.5-2.5	8.7	58081	1307 2896	3208
	S 19 02 92	E 174 52 05														
A22-O	S 19 03 11	E 174 51 56	9.Feb.01	04:17	05:10	IKMT	0.5	Obl.	1000	0-238	1.0-0.5	2.5-2.0	8.7	48660	1307 2979	3140
	S 19 04 09	E 174 48 96														
A22-S3	S 19 04 20	E 174 48 61	9.Feb.01	05:19	05:55	IKMT	0.5	S-Step.	242	0-50.6	1.0-0.2	2.5-2.5	8.7	32303	1307 2949	3040
	S 19 04 77	E 174 46 72														
A23	S 20 00 17	E 175 00 50	9.Feb.01	10:04	11:24	IKMT	0.5	Obl.	1500	0-401	1.0-0.5	2.5-2.0	8.7	32303	1307 2392	2655
	S 19 59 84	E 175 04 48														
42	S 19 10 79	E 177 00 00	9.Feb.01	20:04	20:55	IKMT	0.5	S-Step.	304	0-87.6	1.0-0.2	2.5-2.5	8.7	45425	1307 2864	3049
	S 19 10 32	E 177 02 26														
43	S 19 00 13	E 177 26 57	9.Feb.01	23:03	23:52	IKMT	0.5	S-Step.	255	0-65.3	1.0-0.2	2.5-2.5	8.7	46782	1307 2828	2934
	S 19 00 03	E 177 29 00														
44	S 19 03 60	E 179 09 54	15.Feb.01	20:04	20:57	IKMT	0.5	Obl.	1000	0-381	1.0-0.5	2.5-2.0	8.7	35206	1307 2327	2609
	S 19 05 12	E 179 10 36														
45	S 19 53 49	E 179 54 52	16.Feb.01	02:02	03:03	IKMT	0.5	S-Step.	407	0-100	1.0-0.2	2.5-2.5	8.7	41637	1307 2973	3047
	S 19 55 25	E 179 55 51														
46	S 21 52 33	W 177 16 05	16.Feb.01	19:58	20:52	IKMT	0.5	Obl.	1000	0-352	1.0-0.5	2.5-2.0	8.7	32676	1307 2654	2715
	S 21 53 58	W 177 14 55														
47	S 21 53 95	W 177 14 08	16.Feb.01	21:09	21:13	IKMT	0.5	S-Step.	324	0-112	1.0-0.2	2.5-2.5	8.7	54394	1307 2544	2635
	S 21 55 20	W 177 11 79														
48	S 22 31 43	W 176 42 11	17.Feb.01	23:00	23:57	IKMT	0.5	Obl.	1000	0-356	1.0-0.5	2.5-2.0	8.7	42245	1307 2094	2141
	S 22 32 96	W 176 40 79														
49	S 22 32 97	W 176 40 71	18.Feb.01	00:04	01:10	IKMT	0.5	S-Step.	308	0-95.3	1.0-0.2	2.5-2.5	8.7	48380	1307 2688	2681
	S 22 34 99	W 176 39 36														
50	S 19 02 09	W 175 19 75	18.Feb.01	20:03	20:58	IKMT	0.5	Obl.	1000	0-374	1.0-0.5	2.5-2.0	8.7	40362	1307 2158	2200
	S 19 03 91	W 175 19 78														
51	S 18 04 68	W 174 31 62	19.Feb.01	01:58	03:14	IKMT	0.5	S-Step.	362	0-124	1.0-0.2	2.5-2.5	8.7	50660	1307 1304	1304
	S 18 07 01	W 174 31 71														
52	S 16 04 51	W 171 31 68	19.Feb.01	19:58	20:53	IKMT	0.5	Obl.	1000	0-288	1.0-0.5	2.5-2.0	8.7	48335	1307 4901	4950s
	S 16 06 88	W 171 32 00														
53	S 15 19 73	W 170 34 25	20.Feb.01	01:59	03:15	IKMT	0.5	S-Step.	380	0-104	1.0-0.2	2.5-2.5	8.7	66563	1307 4881	4891
	S 15 16 82	W 170 33 10														
54	S 14 54 88	W 169 58 31	20.Feb.01	20:05	21:04	IKMT	0.5	Obl.	1000	0-352	1.0-0.5	2.5-2.0	8.7	41359	1307 4537	4638
	S 14 52 55	W 169 58 79														
55	S 13 48 90	W 169 59 25	21.Feb.01	01:59	03:16	IKMT	0.5	S-Step.	403	0-114	1.0-0.2	2.5-2.5	8.7	66680	1307 4292	4315
	S 13 45 70	W 170 00 88														
56	S 10 00 22	W 169 59 75	22.Feb.01	00:52	02:14	IKMT	0.5	S-Step.	448	0-112	1.0-0.2	2.5-2.5	8.7	69954	1307 4998	4315

Net Record for IKMT sampling

St.	Location Net in & out Latitude	Location Net in & out Longitude	Date	Time Net in	Time Net out	Net Type	Mesh size (mm)	Towing Method	Wire out (m)	Sampl. layer (m)	Reel. speed (m/s)	Ship speed (kt)	Filt. volume (㎥)	Flow-meter Revol.	Flow-meter No.	Sea Depth (m)
	S 09 56 95	W 169 59 75														
57	S 09 56 81	W 169 59 70	22.Feb.01	02:21	03:17	IKMT	0.5	Obl.	1000	0-260	1.0-0.5	2.5-2.0	8.7	46605	1307 4912	4923
	S 09 54 84	W 170 00 06														
58	S 09 56 43	W 169 59 77	23.Feb.01	01:10	02:21	IKMT	0.5	S-Step.	380	0-103	1.0-0.2	2.5-2.5	8.7	56588	1307 4928	4315
	S 09 53 98	W 169 59 99														
59	S 06 33 77	W 169 59 97	23.Feb.01	20:00	21:07	IKMT	0.5	S-Step.	303	0-140	1.0-0.2	2.5-2.5	8.7	45812	1307 4537	4602
	S 06 31 96	W 170 00 11														
60	S 05 22 34	W 170 00 15	24.Feb.01	02:06	03:04	IKMT	0.5	Obl.	1000	0-344	1.0-0.5	2.5-2.0	8.7	41550	1307 4892	4925
	S 05 20 43	W 170 01 47														
61	S 04 16 99	W 170 00 34	24.Feb.01	19:59	21:09	IKMT	0.5	S-Step.	345	0-105	1.0-0.2	2.5-2.5	8.7	46560	1307 5505	5728
	S 04 13 31	W 170 01 84														
62	S 03 01 25	W 170 00 24	25.Feb.01	01:59	02:54	IKMT	0.5	Obl.	1000	0-268	1.0-0.5	2.5-2.0	8.7	44690	1307 4958	5081
	S 02 59 42	W 170 01 54														
63	N 00 05 22	W 170 00 63	25.Feb.01	19:15	20:09	IKMT	0.5	Obl.	1000	0-268	1.0-0.5	2.5-2.0	8.7	39491	1307 5366	5420
	N 00 05 34	W 169 59 37														
64	N 00 04 99	W 169 59 73	26.Feb.01	20:02	21:02	IKMT	0.5	S-Step.	278	0-108	1.0-0.2	2.5-2.5	8.7	51440	1307 5359	5423
	N 00 05 28	W 169 58 03														
65	N 00 05 22	W 170 00 29	26.Feb.01	23:57	01:12	IKMT	0.5	S-Step.	573	0-219	1.0-0.2	2.5-2.5	8.7	25457	1307 5316	5419
	N 00 06 14	W 169 58 78														
66	N 01 05 56	W 169 59 92	27.Feb.01	20:02	21:02	IKMT	0.5	Obl.	1000	0-677	1.0-0.5	2.5-2.0	8.7	30901	1307 5392	5399
	N 01 06 33	W 169 58 66														
67	N 02 19 39	W 169 58 83	28.Feb.01	01:58	03:26	IKMT	0.5	S-Step.	514	0-134	1.0-0.2	2.5-2.5	8.7	80690	1307 5264	5304
	N 02 21 41	W 170 01 98														
68	N 05 09 44	W 169 56 70	28.Feb.01	22:41	00:02	IKMT	0.5	S-Step.	392	0-124	1.0-0.2	2.5-2.5	8.7	61074	1307 5433	5562
	N 05 11 91	W 169 53 41														
69	N 05 05 99	W 169 59 69	1.Mar.01	02:47	03:48	IKMT	0.5	Obl.	1000	0-219	1.0-0.5	2.5-2.0	8.7	44176	1307 5523	5559
	N 05 07 42	W 169 57 60														
70	N 08 45 33	W 169 51 42	1.Mar.01	19:55	21:13	IKMT	0.5	S-Step.	412	0-125	1.0-0.2	2.5-2.5	8.7	61148	1307 5219	5229
	N 08 46 80	W 169 48 53														
71	N 09 53 33	W 169 59 21	2.Mar.01	02:00	03:05	IKMT	0.5	Obl.	1000	0-272	1.0-0.5	2.5-2.0	8.7	44447	1307 4256	4293
	N 09 54 07	W 169 57 17														
SX29	N 10 00 07	W 169 59 99	2.Mar.01	06:43	10:05	IKMT	0.5	Obl.	4037	0-300	1.0-0.5	2.5-2.0	8.7	96271	1307 3946	4301
	N 10 02 68	W 169 54 68														
72	N 08 04 83	W 174 28 20	3.Mar.01	19:58	21:03	IKMT	0.5	Obl.	1000	0-467	1.0-0.5	2.5-2.0	8.7	40120	1307 5568	5880
	N 08 05 23	W 174 26 41														
73	N 07 38 77	W 175 30 45	4.Mar.01	02:00	03:19	IKMT	0.5	S-Step.	511	0-145	1.0-0.2	2.5-2.5	8.7	60165	1307 5233	5674
	N 07 40 40	W 175 27 38														
74	N 07 00 60	W 176 51 65	4.Mar.01	20:23	21:24	IKMT	0.5	S-Step.	367	0-107	1.0-0.2	2.5-2.5	8.7	46504	1307 3123	3180
	N 07 00 82	W 176 48 55														
75	N 06 58 34	W 177 51 65	5.Mar.01	19:58	21:05	IKMT	0.5	S-Step.	308	0-112	1.0-0.2	2.5-2.5	8.7	50580	1307 3278	3328
	N 06 57 67	W 177 10 01														
76	N 06 47 20	W 178 17 55	6.Mar.01	01:58	02:57	IKMT	0.5	Obl.	1000	0-431	1.0-0.5	2.5-2.0	8.7	33600	1307 5150	5324
	N 06 46 79	W 178 16 04														
77	N 06 04 04	E 177 22 65	6.Mar.01	19:58	21:13	IKMT	0.5	S-Step.	358	0-150	1.0-0.2	2.5-2.5	8.7	53849	1307 5189	5708
	N 06 04 32	E 177 20 47														
78	N 05 52 91	E 176 15 38	7.Mar.01	02:00	03:30	IKMT	0.5	S-Step.	541	0-131	1.0-0.2	2.5-2.5	8.7	77020	1307 6134	6215
	N 05 54 36	E 176 20 02														
79	N 05 51 85	E 176 09 77	7.Mar.01	04:44	06:01	IKMT	0.5	S-Step.	665	0-159	1.0-0.2	2.5-2.5	8.7	78727	1307 5134	5698
	N 05 54 64	E 176 12 95														
80	N 05 30 41	E 165 30 79	8.Mar.01	22:43	23:26	IKMT	0.5	S-Step.	300	-	1.0-0.2	2.5-2.5	8.7	36085	1307 4774	4797
	N 05 30 65	E 165 29 26														
81	N 05 30 68	E 165 28 99	8.Mar.01	23:36	00:08	IKMT	0.5	S-Step.	300	-	1.0-0.2	2.5-2.5	8.7	38620	1307 4778	4822

KH04-5 Working log

LEG.1

	----- 29 NOV.04 (GMT) -----				
	07:28	35 ° 13.333N	139 ° 46.257E	77m	SUNSET & PUT ON REGULATION LIGHTS
	21:15	31 ° 49.524N	141 ° 24.676E	3925m	SUNRISE & PUT OFF REGULATION LIGHTS
	----- 30 NOV.04 (GMT) -----				
	07:30	29 ° 17.110N	142 ° 47.402E	8994m	SUNSET & PUT ON REGULATION LIGHTS
	----- 01 DEC.04 (GMT) -----				
	07:29	23 ° 35.990N	145 ° 45.886E	5736m	SUNSET & PUT ON REGULATION LIGHTS
	20:32	20 ° 33.570N	147 ° 18.035E	5500m	SUNRISE & PUT OFF REGULATION LIGHTS
	----- 02 DEC.04 (GMT) -----				
	04:33	18 ° 43.023N	148 ° 12.886E	5856m	SAMPLED SURFACE WATER
	07:30	18 ° 01.708N	148 ° 33.321E	5854m	SUNSET & PUT ON REGULATION LIGHTS
	12:01	16 ° 58.907N	149 ° 04.113E	5358m	PUT CLOCKS 1HOUR FOR 150E
	20:13	15 ° 07.986N	149 ° 58.120E	5656m	SUNRISE & PUT OFF REGULATION LIGHTS
	----- 03 DEC.04 (GMT) -----				
SX01	06:01	12 ° 59.911N	150 ° 59.507E	5716m	NO2 WINCH FREE FALL STARTED
	07:28	13 ° 00.268N	150 ° 59.014E	5717m	SUNSET & PUT ON REGULATION LIGHTS
SX01	07:31	13 ° 00.285N	150 ° 59.014E	5716m	NO2 WINCH FREE FALL DEEPEST (W.O.5000m)
SX01	09:20	13 ° 00.535N	150 ° 58.823E	5770m	NO2 WINCH FREE FALL FINISHED
SX01	09:52	13 ° 00.346N	150 ° 58.569E	5894m	LARGE VOLUME SAMPLING SYSTEM STARTED
SX01	10:21	13 ° 00.312N	150 ° 58.390E	5834m	LARGE VOLUME SAMPLING SYSTEM FINISHED
SX01	10:43	13 ° 00.199N	150 ° 58.053E	5745m	CTD-CMS STARTED
SX01	11:00	13 ° 00.286N	150 ° 57.916E	6061m	CTD-CMS DEEPEST
SX01	11:24	13 ° 00.334N	150 ° 57.774E	5756m	CTD-CMS FINISHED
IK001	16:10	12 ° 10.379N	151 ° 24.674E	5846m	IKMT NET STARTED
IK001	16:46	12 ° 11.428N	151 ° 25.841E	5846m	IKMT NET DEEPEST (W.O.1200m)
IK001	17:32	12 ° 12.356N	151 ° 27.112E	5848m	IKMT NET FINISHED
	20:00	11 ° 41.112N	151 ° 38.055E	5812m	SUNRISE & PUT OFF REGULATION LIGHTS
	----- 04 DEC.04 (GMT) -----				
	07:27	08 ° 58.467N	152 ° 55.977E	4895m	SUNSET & PUT ON REGULATION LIGHTS
	19:40	05 ° 53.124N	154 ° 24.331E	3603m	SUNRISE & PUT OFF REGULATION LIGHTS
	----- 05 DEC.04 (GMT) -----				
	07:26	02 ° 58.136N	155 ° 47.160E	2685m	SUNSET & PUT ON REGULATION LIGHTS
IK002	16:01	00 ° 56.104N	156 ° 44.466E	2208m	IKMT NET STARTED
IK002	16:31	00 ° 56.134N	156 ° 43.253E	2206m	IKMT NET DEEPEST (W.O.1200m)
IK002	17:12	00 ° 56.146N	156 ° 42.032E	2231m	IKMT NET FINISHED
	19:21	00 ° 31.805N	156 ° 56.241E	2175m	SUNRISE & PUT OFF REGULATION LIGHTS
	21:34	00 ° 00.006S	157 ° 11.254E	2082m	PASSED THE EQUATOR
	----- 06 DEC.04 (GMT) -----				
	00:24	00 ° 39.195S	157 ° 29.693E	2063m	3.5kHz SURVEY STARTED
	00:55	00 ° 40.040S	157 ° 29.918E	0m	3.5kHz SURVEY FINISHED
SX02	01:09	00 ° 39.927S	157 ° 30.277E	0m	PISTON CORER STARTED
SX02	02:23	00 ° 39.479S	157 ° 30.776E	7014m	PISTON CORER HIT BOTTOM
SX02	02:24	00 ° 39.476S	157 ° 30.764E	7086m	PISTON CORER LEFT BOTTOM
SX02	03:19	00 ° 39.444S	157 ° 30.910E	0m	PISTON CORER FINISHED
SX02	03:32	00 ° 39.381S	157 ° 31.233E	0m	CTD-CMS STARTED
SX02	04:20	00 ° 39.524S	157 ° 31.447E	8925m	CTD-CMS DEEPEST
SX02	04:30	00 ° 39.564S	157 ° 31.467E	9028m	NORPAC NET STARTED 1
SX02	04:43	00 ° 39.629S	157 ° 31.616E	8567m	NORPAC NET FINISHED
SX02	04:51	00 ° 39.664S	157 ° 31.646E	8531m	NORPAC NET STARTED 2
SX02	05:05	00 ° 39.748S	157 ° 31.657E	8160m	NORPAC NET FINISHED
SX02	05:10	00 ° 39.771S	157 ° 31.669E	8046m	NORPAC NET STARTED 3
SX02	05:21	00 ° 39.821S	157 ° 31.730E	7862m	NORPAC NET FINISHED
SX02	05:40	00 ° 39.832S	157 ° 31.914E	7510m	CTD-CMS FINISHED
SX02	06:07	00 ° 39.767S	157 ° 32.525E	0m	LARGE VOLUME SAMPLING SYSTEM STARTED
SX02	06:23	00 ° 39.724S	157 ° 32.698E	0m	LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02	06:29	00 ° 39.720S	157 ° 32.628E	0m	LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02	06:37	00 ° 39.718S	157 ° 32.640E	0m	LARGE VOLUME SAMPLING SYSTEM FINISHED
SX02	07:15	00 ° 39.670S	157 ° 32.488E	0m	LARGE VOLUME SAMPLING SYSTEM STARTED
SX02	08:08	00 ° 39.615S	157 ° 32.497E	6035m	LARGE VOLUME SAMPLING SYSTEM DEEPEST

SX02 08:10 00° 39.611S 157° 32.500E 6036m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 08:23 00° 39.635S 157° 32.569E 5761m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 08:31 00° 39.612S 157° 32.596E 5640m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 08:38 00° 39.664S 157° 32.562E 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 09:08 00° 39.651S 157° 32.678E 5013m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX02 09:47 00° 39.462S 157° 30.843E 0m MULTIPLE CORER STARTED
SX02 10:51 00° 39.727S 157° 30.870E 4066m MULTIPLE CORER HIT BOTTOM
SX02 10:52 00° 39.726S 157° 30.867E 4070m MULTIPLE CORER LEFT BOTTOM
SX02 11:39 00° 39.616S 157° 30.849E 2069m MULTIPLE CORER FINISHED
SX02 12:13 00° 39.174S 157° 31.243E 2080m LARGE VOLUME SAMPLING SYSTEM STARTED
SX02 12:52 00° 38.775S 157° 31.519E 2064m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 13:00 00° 38.709S 157° 31.574E 2065m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 13:08 00° 38.655S 157° 31.640E 2064m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 13:14 00° 38.630S 157° 31.683E 2065m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX02 13:28 00° 38.551S 157° 31.798E 2065m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX02 13:59 00° 37.911S 157° 32.637E 2083m LARGE VOLUME SAMPLING SYSTEM STARTED
SX02 14:26 00° 37.501S 157° 33.128E 2080m LARGE VOLUME SAMPLING SYSTEM FINISHED
19:18 01° 15.716S 157° 03.464E 1769m SUNRISE & PUT OFF REGULATION LIGHTS
----- 07 DEC.04 (GMT) -----
07:39 03° 39.793S 155° 15.908E 2164m SUNSET & PUT ON REGULATION LIGHTS
19:21 06° 08.324S 154° 16.690E 3412m SUNRISE & PUT OFF REGULATION LIGHTS
----- 08 DEC.04 (GMT) -----
07:53 09° 14.543S 154° 33.257E 3700m SUNSET & PUT ON REGULATION LIGHTS
19:09 12° 03.341S 154° 39.300E 3947m SUNRISE & PUT OFF REGULATION LIGHTS
----- 09 DEC.04 (GMT) -----
08:04 15° 24.608S 154° 24.564E 4523m SUNSET & PUT ON REGULATION LIGHTS
18:59 18° 16.893S 154° 35.829E 1906m SUNRISE & PUT OFF REGULATION LIGHTS
----- 10 DEC.04 (GMT) -----
08:15 21° 45.195S 154° 50.602E 3211m SUNSET & PUT ON REGULATION LIGHTS
15:00 23° 32.636S 154° 57.991E 3696m PUT CLOCKS 1HOUR
18:45 24° 32.565S 154° 54.476E 4328m SUNRISE & PUT OFF REGULATION LIGHTS
----- 11 DEC.04 (GMT) -----
08:31 28° 18.415S 154° 14.903E 2098m SUNSET & PUT ON REGULATION LIGHTS
18:34 31° 11.843S 153° 40.728E 4445m SUNRISE & PUT OFF REGULATION LIGHTS
----- 12 DEC.04 (GMT) -----
08:54 34° 46.034S 152° 08.266E 4798m SUNSET & PUT ON REGULATION LIGHTS
18:29 37° 18.788S 151° 00.867E 4605m SUNRISE & PUT OFF REGULATION LIGHTS
----- 13 DEC.04 (GMT) -----
09:26 41° 10.989S 149° 22.750E 3972m SUNSET
IK003 13:36 42° 10.338S 148° 55.466E 1945m IKMT NET STARTED (W.O. 50m TEST)
IK003 13:45 42° 10.773S 148° 55.568E 1939m IKMT NET FINISHED
18:22 42° 52.876S 148° 27.236E 1499m SUNRISE & PUT OFF REGULATION LIGHTS

LEG.2

----- 18 DEC.04 (GMT) -----
09:46 44° 10.524S 148° 52.756E 3489m SUNSET & PUT ON REGULATION LIGHTS
IK004 12:06 44° 35.235S 149° 27.084E 3119m IKMT NET STARTED
IK004 12:30 44° 34.458S 149° 28.213E 3065m IKMT NET DEEPEST (W.O.1000m)
IK004 13:04 44° 33.568S 149° 29.489E 3046m IKMT NET FINISHED
IK005 14:28 44° 47.550S 149° 45.568E 3343m IKMT NET STARTED
IK005 15:06 44° 45.899S 149° 46.101E 3277m IKMT NET DEEPEST (W.O. 800m)
IK005 15:33 44° 44.948S 149° 46.368E 3270m IKMT NET FINISHED
SX03 17:56 44° 59.851S 149° 59.997E 3800m CTD-CMS STARTED
18:09 44° 59.783S 149° 59.879E 0m SUNRISE & PUT OFF REGULATION LIGHTS
SX03 19:19 44° 59.380S 149° 59.214E 8585m CTD-CMS DEEPEST
SX03 20:58 44° 59.081S 149° 58.669E 6567m CTD-CMS FINISHED
SX03 21:12 44° 58.985S 149° 58.620E 0m MULTIPLE CORER STARTED
SX03 22:34 44° 57.970S 149° 57.669E 9604m MULTIPLE CORER HIT BOTTOM
SX03 22:36 44° 57.957S 149° 57.662E 0m MULTIPLE CORER LEFT BOTTOM
SX03 23:46 44° 57.215S 149° 56.597E 3687m MULTIPLE CORER FINISHED
----- 19 DEC.04 (GMT) -----
SX03 00:09 44° 57.015S 149° 56.213E 3678m CTD-CMS STARTED

SX03 00:37 44° 56.778S 149° 55.758E 3676m CTD-CMS DEEPEST
SX03 01:20 44° 56.387S 149° 55.380E 3654m CTD-CMS FINISHED
SX03 02:21 44° 55.293S 149° 54.999E 3604m CTD-CMS STARTED
SX03 02:41 44° 54.982S 149° 54.884E 3589m CTD-CMS DEEPEST
SX03 03:02 44° 54.728S 149° 54.838E 3579m CTD-CMS FINISHED
09:53 46° 27.911S 149° 59.946E 4134m SUNSET & PUT ON REGULATION LIGHTS
IK006 13:31 47° 23.395S 149° 59.690E 3304m IKMT NET STARTED
IK006 13:57 47° 23.965S 149° 58.356E 3205m IKMT NET DEEPEST (W.O.1000m)
IK006 14:31 47° 24.539S 149° 56.922E 3120m IKMT NET FINISHED
17:57 48° 11.622S 150° 00.049E 2016m SUNRISE & PUT OFF REGULATION LIGHTS
----- 20 DEC.04 (GMT) -----
SX04 04:21 50° 20.871S 150° 00.177E 3178m CTD-CMS STARTED
SX04 04:52 50° 20.676S 150° 00.432E 0m NORPAC NET STARTED 1
SX04 05:09 50° 20.636S 150° 00.655E 0m NORPAC NET FINISHED
SX04 05:10 50° 20.633S 150° 00.661E 0m NORPAC NET STARTED 2
SX04 05:26 50° 20.648S 150° 00.843E 5495m NORPAC NET FINISHED
SX04 05:31 50° 20.655S 150° 00.898E 5643m NORPAC NET STARTED 3
SX04 05:54 50° 20.639S 150° 01.119E 9040m NORPAC NET FINISHED
SX04 05:56 50° 20.643S 150° 01.137E 9021m CTD-CMS DEEPEST
SX04 07:14 50° 20.622S 150° 01.358E 3185m CTD-CMS FINISHED
SX04 07:59 50° 20.916S 150° 00.051E 3177m LARGE VOLUME SAMPLING SYSTEM STARTED
SX04 08:07 50° 20.938S 150° 00.067E 3178m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 08:11 50° 20.933S 150° 00.086E 3178m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 08:14 50° 20.934S 150° 00.091E 3181m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 08:17 50° 20.917S 150° 00.111E 3178m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 08:21 50° 20.880S 150° 00.165E 3179m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 09:03 50° 21.017S 150° 00.020E 3178m LARGE VOLUME SAMPLING SYSTEM STARTED
SX04 09:13 50° 20.931S 150° 00.139E 3178m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 09:17 50° 20.904S 150° 00.177E 3178m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 09:19 50° 20.893S 150° 00.188E 3179m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 09:21 50° 20.868S 150° 00.215E 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 09:26 50° 20.805S 150° 00.291E 3179m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 09:58 50° 20.941S 150° 00.002E 3178m LARGE VOLUME SAMPLING SYSTEM STARTED
10:10 50° 20.846S 150° 00.125E 3178m SUNSET & PUT ON REGULATION LIGHTS
SX04 10:18 50° 20.778S 150° 00.204E 3175m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 10:23 50° 20.734S 150° 00.253E 3176m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 10:27 50° 20.697S 150° 00.313E 3179m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 10:31 50° 20.668S 150° 00.366E 3176m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 10:38 50° 20.596S 150° 00.464E 3175m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 11:21 50° 20.980S 150° 00.022E 0m LARGE VOLUME SAMPLING SYSTEM STARTED
SX04 11:47 50° 20.816S 150° 00.071E 3177m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 11:55 50° 20.773S 150° 00.135E 3175m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 12:01 50° 20.725S 150° 00.177E 3176m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 12:06 50° 20.676S 150° 00.209E 3174m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 12:16 50° 20.606S 150° 00.234E 3173m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 12:36 50° 21.001S 150° 00.014E 3177m CTD-CMS STARTED
SX04 13:15 50° 20.882S 150° 00.252E 3179m CTD-CMS DEEPEST
SX04 14:07 50° 20.754S 150° 00.577E 3179m CTD-CMS FINISHED
IK007 14:15 50° 20.736S 150° 00.548E 3180m IKMT NET STARTED
IK007 14:37 50° 21.110S 149° 59.242E 3169m IKMT NET DEEPEST (W.O.1000m)
IK007 15:10 50° 21.580S 149° 57.659E 3156m IKMT NET FINISHED
SX04 15:41 50° 20.946S 149° 59.986E 3178m CTD-CMS STARTED
SX04 15:58 50° 20.866S 150° 00.073E 3166m CTD-CMS DEEPEST
SX04 16:26 50° 20.743S 150° 00.123E 3176m CTD-CMS FINISHED
SX04 17:00 50° 20.628S 149° 59.944E 3171m LARGE VOLUME SAMPLING SYSTEM STARTED
17:45 50° 20.414S 149° 59.649E 3169m SUNRISE & PUT OFF REGULATION LIGHTS
SX04 17:56 50° 20.352S 149° 59.632E 3169m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 18:09 50° 20.295S 149° 59.601E 3170m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 18:17 50° 20.273S 149° 59.587E 3167m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 18:25 50° 20.257S 149° 59.570E 3172m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 18:47 50° 20.212S 149° 59.530E 3168m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 19:16 50° 20.995S 149° 59.952E 3176m LARGE VOLUME SAMPLING SYSTEM STARTED
SX04 20:34 50° 20.853S 149° 59.800E 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 20:38 50° 20.841S 149° 59.786E 3173m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 20:44 50° 20.831S 149° 59.764E 3172m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED

SX04 20:54 50° 20.834S 149° 59.676E 3172m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX04 21:45 50° 20.930S 149° 59.797E 3175m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX04 21:56 50° 20.976S 149° 59.970E 3179m LET GO ARGO FLOAT
----- 21 DEC.04 (GMT) -----
10:29 53° 29.710S 149° 59.927E 3752m SUNSET & PUT ON REGULATION LIGHTS
IK008 13:30 54° 14.658S 149° 59.160E 4044m IKMT NET STARTED
IK008 13:56 54° 15.153S 149° 56.802E 4053m IKMT NET DEEPEST (W.O.1000m)
IK008 14:30 54° 15.729S 149° 54.420E 4022m IKMT NET FINISHED
17:17 54° 55.995S 150° 00.339E 3916m SUNRISE & PUT OFF REGULATION LIGHTS
SX05 17:53 54° 59.953S 150° 00.772E 3703m CTD-CMS STARTED
SX05 18:03 54° 59.842S 150° 01.333E 3730m NORPAC NET STARTED
SX05 18:17 54° 59.703S 150° 02.154E 0m NORPAC NET FINISHED
SX05 19:19 54° 59.130S 150° 04.287E 0m CTD-CMS DEEPEST
SX05 21:08 54° 58.204S 150° 07.820E 3782m CTD-CMS FINISHED
SX05 21:17 54° 57.992S 150° 08.261E 3767m ORI NET STARTED
SX05 21:43 54° 56.814S 150° 09.590E 3763m ORI NET DEEPEST (W.O.1000m)
SX05 22:18 54° 55.486S 150° 11.374E 3822m ORI NET FINISHED
SX05 23:55 54° 59.820S 150° 00.447E 3683m CTD-CMS STARTED
----- 22 DEC.04 (GMT) -----
SX05 00:08 54° 59.640S 150° 01.061E 3709m CTD-CMS DEEPEST
SX05 00:25 54° 59.413S 150° 01.915E 3702m CTD-CMS FINISHED
SX05 00:38 54° 59.314S 150° 02.341E 3697m MULTIPLE CORER STARTED
SX05 02:06 54° 59.562S 150° 02.743E 3775m MULTIPLE CORER HIT BOTTOM
SX05 02:09 54° 59.564S 150° 02.745E 3774m MULTIPLE CORER LEFT BOTTOM
SX05 03:25 54° 59.471S 150° 03.416E 3766m MULTIPLE CORER FINISHED
SX05 03:33 54° 59.320S 150° 03.808E 3751m LET GO ARGO FLOAT
SX05 03:39 54° 59.050S 150° 04.270E 3707m IKMT NET STARTED
SX05 04:40 54° 55.511S 150° 08.669E 3840m IKMT NET DEEPEST (W.O.3037m)
SX05 05:28 54° 53.584S 150° 11.750E 3910m IKMT NET FINISHED
10:51 56° 08.131S 149° 59.911E 3638m SUNSET & PUT ON REGULATION LIGHTS
16:55 57° 46.367S 150° 00.105E 3366m SUNRISE & PUT OFF REGULATION LIGHTS
----- 23 DEC.04 (GMT) -----
SX06 01:36 60° 00.148S 149° 59.314E 3249m CTD-CMS STARTED
SX06 01:50 60° 00.192S 149° 59.138E 3259m NORPAC NET STARTED 1
SX06 02:06 60° 00.117S 149° 58.939E 3254m NORPAC NET FINISHED
SX06 02:14 60° 00.074S 149° 58.848E 3252m NORPAC NET STARTED 2
SX06 02:28 60° 00.106S 149° 58.742E 3280m NORPAC NET FINISHED
SX06 02:42 59° 59.966S 149° 58.610E 3299m NORPAC NET STARTED 3
SX06 02:47 59° 59.937S 149° 58.554E 3303m CTD-CMS DEEPEST
SX06 03:04 59° 59.896S 149° 58.451E 3283m NORPAC NET FINISHED
SX06 04:04 59° 59.710S 149° 58.126E 0m CTD-CMS FINISHED
SX06 04:31 59° 59.998S 149° 59.894E 3251m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 05:24 59° 59.448S 149° 59.718E 3220m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 05:40 59° 59.380S 149° 59.684E 3203m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 05:53 59° 59.360S 149° 59.643E 3191m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 06:01 59° 59.351S 149° 59.621E 3171m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 06:22 59° 59.294S 149° 59.224E 3181m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX06 07:01 60° 00.109S 149° 59.829E 3263m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 07:09 60° 00.074S 149° 59.681E 3258m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 07:12 60° 00.044S 149° 59.655E 3264m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 07:16 60° 00.018S 149° 59.606E 3259m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 07:19 59° 59.998S 149° 59.551E 3269m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 07:21 59° 59.995S 149° 59.475E 3257m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX06 07:49 60° 00.032S 149° 59.793E 3258m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 07:59 59° 59.999S 149° 59.581E 3271m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 08:03 59° 59.967S 149° 59.486E 3269m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 08:07 59° 59.932S 149° 59.398E 3276m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 08:10 59° 59.903S 149° 59.344E 3282m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 08:14 59° 59.874S 149° 59.235E 3287m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX06 08:44 59° 59.994S 149° 59.384E 3263m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 09:04 59° 59.865S 149° 58.841E 3283m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 09:09 59° 59.815S 149° 58.697E 3289m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 09:12 59° 59.776S 149° 58.588E 3279m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 09:15 59° 59.744S 149° 58.490E 3284m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 09:23 59° 59.649S 149° 58.234E 3276m LARGE VOLUME SAMPLING SYSTEM FINISHED

SX06 09:33 59° 59.288S 149° 57.990E 3288m IKMT NET STARTED
SX06 09:56 59° 58.081S 149° 57.807E 3257m IKMT NET DEEPEST (W.O.1000m)
11:27 59° 54.387S 149° 57.102E 3168m SUNSET & PUT ON REGULATION LIGHTS
SX06 11:50 59° 53.626S 149° 56.985E 3082m IKMT NET FINISHED
SX06 13:05 60° 00.031S 149° 59.914E 3266m CTD-CMS STARTED
SX06 13:26 59° 59.995S 149° 59.915E 3269m NORPAC NET STARTED 4
SX06 13:47 59° 59.905S 149° 59.767E 3274m NORPAC NET FINISHED
SX06 13:48 59° 59.899S 149° 59.752E 3266m NORPAC NET STARTED 5
SX06 13:55 59° 59.890S 149° 59.702E 3268m NORPAC NET FINISHED
SX06 13:56 59° 59.888S 149° 59.700E 3266m CTD-CMS DEEPEST
SX06 13:57 59° 59.882S 149° 59.701E 3264m NORPAC NET STARTED 6
SX06 14:13 59° 59.826S 149° 59.553E 3261m NORPAC NET FINISHED
SX06 14:15 59° 59.824S 149° 59.528E 3266m NORPAC NET STARTED 7
SX06 14:21 59° 59.824S 149° 59.475E 3273m NORPAC NET FINISHED
SX06 14:45 59° 59.814S 149° 59.176E 3277m CTD-CMS FINISHED
SX06 15:17 60° 00.070S 149° 59.339E 3243m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 15:51 59° 59.818S 149° 59.103E 3273m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 15:57 59° 59.760S 149° 59.122E 3274m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 16:04 59° 59.687S 149° 59.156E 3264m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 16:12 59° 59.620S 149° 59.159E 3257m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 16:23 59° 59.548S 149° 59.077E 3258m LARGE VOLUME SAMPLING SYSTEM FINISHED
16:36 59° 59.788S 149° 59.499E 3271m SUNRISE & PUT OFF REGULATION LIGHTS
SX06 17:00 60° 00.169S 149° 59.995E 3251m LARGE VOLUME SAMPLING SYSTEM STARTED
SX06 18:11 59° 59.416S 149° 59.721E 3216m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 18:15 59° 59.378S 149° 59.767E 3212m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 18:22 59° 59.316S 149° 59.806E 3207m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 18:35 59° 59.204S 149° 59.918E 3187m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX06 19:26 59° 58.679S 149° 59.758E 3161m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX06 20:27 60° 00.003S 149° 59.856E 3267m CTD-CMS STARTED
SX06 20:43 59° 59.939S 149° 59.622E 3268m CTD-CMS DEEPEST
SX06 20:57 59° 59.852S 149° 59.370E 3279m CTD-CMS FINISHED
SX06 21:19 59° 59.833S 149° 59.172E 3278m MULTIPLE CORER STARTED
SX06 22:33 59° 59.782S 149° 58.386E 3285m MULTIPLE CORER HIT BOTTOM
SX06 22:36 59° 59.766S 149° 58.391E 3278m MULTIPLE CORER LEFT BOTTOM
SX06 23:35 59° 59.427S 149° 58.157E 3259m MULTIPLE CORER FINISHED
SX06 23:45 59° 59.494S 149° 57.961E 3220m LET GO ARGO FLOAT
----- 24 DEC.04 (GMT) -----
SX06 00:01 59° 59.015S 149° 57.627E 3263m ORI NET STARTED
SX06 00:14 59° 58.384S 149° 57.424E 3162m ORI NET DEEPEST (W.O.1000m)
SX06 00:54 59° 57.329S 149° 56.684E 3302m ORI NET FINISHED
11:37 60° 51.397S 155° 04.033E 3177m SUNSET & PUT ON REGULATION LIGHTS
15:50 61° 12.810S 157° 13.433E 2714m SUNRISE & PUT OFF REGULATION LIGHTS
17:34 61° 21.101S 158° 03.884E 2606m SIGHTED DRIFTING ICE
SX07 21:35 61° 40.111S 160° 00.165E 2412m CTD-CMS STARTED
SX07 22:06 61° 40.371S 159° 59.899E 2475m NORPAC NET STARTED
SX07 22:25 61° 40.346S 159° 59.614E 2497m NORPAC NET FINISHED
SX07 22:46 61° 40.259S 159° 59.896E 2477m CTD-CMS DEEPEST
SX07 23:44 61° 40.196S 159° 59.959E 2450m CTD-CMS FINISHED
----- 25 DEC.04 (GMT) -----
SX07 00:01 61° 39.964S 160° 00.108E 2418m ORI NET STARTED
SX07 00:16 61° 39.455S 160° 00.436E 2390m ORI NET DEEPEST (W.O.1000m)
SX07 00:54 61° 38.438S 160° 01.347E 2213m ORI NET FINISHED
SX07 01:27 61° 40.072S 159° 59.916E 2432m CTD-CMS STARTED
SX07 01:43 61° 40.156S 159° 59.821E 2394m CTD-CMS DEEPEST
SX07 02:03 61° 40.339S 159° 59.754E 2497m CTD-CMS FINISHED
SX07 02:13 61° 40.461S 159° 59.917E 2421m IKMT NET STARTED
SX07 02:36 61° 41.033S 160° 02.120E 2350m IKMT NET DEEPEST (W.O.1000m)
SX07 04:04 61° 43.228S 160° 09.032E 2479m IKMT NET FINISHED
11:00 62° 16.692S 163° 35.967E 2936m SUNSET & PUT ON REGULATION LIGHTS
14:57 62° 37.590S 165° 40.950E 2679m SUNRISE & PUT OFF REGULATION LIGHTS
----- 26 DEC.04 (GMT) -----
SX08 00:04 63° 21.284S 170° 08.366E 0m CTD-CMS STARTED
SX08 00:17 63° 21.318S 170° 08.621E 1859m NORPAC NET STARTED 1
SX08 00:29 63° 21.312S 170° 08.796E 1821m NORPAC NET FINISHED
SX08 00:34 63° 21.331S 170° 08.847E 1816m NORPAC NET STARTED 2

SX08 00:47 63° 21.327S 170° 09.012E 1813m NORPAC NET FINISHED
SX08 00:47 63° 21.327S 170° 09.012E 1805m CTD-CMS DEEPEST
SX08 01:38 63° 21.195S 170° 09.620E 1826m CTD-CMS FINISHED
SX08 01:45 63° 21.180S 170° 09.721E 1827m ORI NET STARTED
SX08 02:12 63° 20.473S 170° 08.931E 1877m ORI NET DEEPEST (W.O.1000m)
SX08 02:46 63° 19.677S 170° 07.616E 1869m ORI NET FINISHED
SX08 03:36 63° 21.435S 170° 08.917E 1809m LARGE VOLUME SAMPLING SYSTEM STARTED
SX08 04:04 63° 21.171S 170° 09.127E 1820m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 04:12 63° 21.103S 170° 09.134E 1821m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 04:18 63° 21.043S 170° 09.136E 1821m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 04:26 63° 21.004S 170° 09.090E 1822m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 04:36 63° 20.942S 170° 09.071E 1830m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX08 05:06 63° 21.274S 170° 09.773E 1814m LARGE VOLUME SAMPLING SYSTEM STARTED
SX08 05:18 63° 21.143S 170° 10.033E 1821m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 05:18 63° 21.134S 170° 10.054E 1818m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 05:21 63° 21.106S 170° 10.123E 1829m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 05:23 63° 21.102S 170° 10.166E 1831m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX08 05:52 63° 21.388S 170° 10.884E 1768m LARGE VOLUME SAMPLING SYSTEM STARTED
SX08 06:02 63° 21.347S 170° 11.076E 1783m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 06:06 63° 21.329S 170° 11.163E 1774m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 06:08 63° 21.320S 170° 11.194E 1770m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 06:11 63° 21.303S 170° 11.258E 1784m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 06:15 63° 21.263S 170° 11.361E 1779m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX08 06:28 63° 21.313S 170° 11.626E 1744m CTD-CMS STARTED
SX08 06:57 63° 21.567S 170° 11.915E 1678m CTD-CMS FINISHED(DID NOT WORK)
SX08 06:58 63° 21.570S 170° 11.916E 1678m CTD-CMS STARTED
SX08 07:15 63° 21.618S 170° 11.850E 1653m CTD-CMS DEEPEST
SX08 07:30 63° 21.707S 170° 11.769E 1635m CTD-CMS FINISHED
SX08 07:40 63° 21.817S 170° 11.933E 1664m LARGE VOLUME SAMPLING SYSTEM STARTED
SX08 08:00 63° 21.772S 170° 12.001E 1657m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 08:06 63° 21.708S 170° 11.967E 1655m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 08:15 63° 21.688S 170° 11.963E 1655m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 08:24 63° 21.679S 170° 11.992E 1650m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX08 08:50 63° 22.141S 170° 12.750E 1629m LARGE VOLUME SAMPLING SYSTEM STARTED
SX08 09:35 63° 22.249S 170° 13.434E 1592m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 09:39 63° 22.232S 170° 13.400E 1597m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 09:43 63° 22.226S 170° 13.388E 1595m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 09:54 63° 22.224S 170° 13.395E 1594m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX08 10:19 63° 22.275S 170° 13.709E 1584m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX08 10:32 63° 22.419S 170° 13.849E 1555m CTD-CMS STARTED
11:04 63° 22.501S 170° 13.904E 1551m SUNSET & PUT ON REGULATION LIGHTS
SX08 11:21 63° 22.537S 170° 13.865E 0m CTD-CMS FINISHED(DID NOT WORK)
SX08 12:09 63° 19.458S 170° 12.699E 1799m CTD-CMS STARTED
SX08 12:19 63° 19.482S 170° 12.647E 1783m NORPAC NET STARTED 3
SX08 12:37 63° 19.459S 170° 12.649E 1793m NORPAC NET FINISHED
SX08 12:37 63° 19.459S 170° 12.648E 1786m CTD-CMS DEEPEST
SX08 12:41 63° 19.451S 170° 12.647E 1797m NORPAC NET STARTED 4
SX08 12:56 63° 19.396S 170° 12.598E 1739m NORPAC NET FINISHED
SX08 13:06 63° 19.412S 170° 12.614E 1793m NORPAC NET STARTED 5
SX08 13:12 63° 19.430S 170° 12.683E 1779m CTD-CMS FINISHED
SX08 13:22 63° 19.408S 170° 12.766E 1757m NORPAC NET FINISHED
SX08 13:24 63° 19.402S 170° 12.791E 1781m NORPAC NET STARTED 6
SX08 13:41 63° 19.420S 170° 12.973E 1763m NORPAC NET FINISHED
SX08 13:57 63° 19.406S 170° 13.182E 1778m ORI NET STARTED
SX08 14:25 63° 18.536S 170° 12.230E 1610m ORI NET DEEPEST (W.O.1000m)
14:31 63° 18.365S 170° 12.028E 0m SUNRISE & PUT OFF REGULATION LIGHTS
SX08 15:02 63° 17.652S 170° 11.248E 1874m ORI NET FINISHED
SX08 15:10 63° 17.610S 170° 11.223E 1m IKMT NET STARTED
SX08 15:34 63° 16.599S 170° 10.016E 1901m IKMT NET DEEPEST (W.O.1000m)
SX08 17:24 63° 12.833S 170° 06.981E 1822m IKMT NET FINISHED
----- 27 DEC.04 (GMT) -----
11:20 64° 33.226S 173° 25.526E 2774m SUNSET & PUT ON REGULATION LIGHTS
----- 28 DEC.04 (GMT) -----
SX09 02:53 65° 08.728S 174° 08.926E 0m CTD-CMS STARTED
SX09 03:25 65° 08.763S 174° 09.277E 3314m CTD-CMS DEEPEST

SX09 03:45 65° 08.796S 174° 09.320E 3313m CTD-CMS FINISHED
SX09 03:56 65° 08.776S 174° 09.245E 3314m ORI NET STARTED
SX09 04:20 65° 08.430S 174° 07.679E 3301m ORI NET DEEPEST (W.O.1000m)
SX09 05:17 65° 08.030S 174° 07.265E 3287m ORI NET FINISHED
SX09 05:48 65° 09.088S 174° 12.327E 0m CTD-CMS STARTED
SX09 06:02 65° 09.135S 174° 12.097E 0m CTD-CMS FINISHED (DID NOT WORK)
SX09 06:08 65° 09.169S 174° 12.061E 0m CTD-CMS STARTED
SX09 06:17 65° 09.191S 174° 11.921E 4593m NORPAC NET STARTED 1
SX09 06:31 65° 09.228S 174° 11.871E 4860m NORPAC NET FINISHED
SX09 06:35 65° 09.237S 174° 11.887E 4981m NORPAC NET STARTED 2
SX09 06:42 65° 09.242S 174° 11.895E 7386m NORPAC NET FINISHED
SX09 07:20 65° 09.331S 174° 11.661E 9758m CTD-CMS DEEPEST
SX09 08:45 65° 09.662S 174° 10.987E 3352m CTD-CMS FINISHED
SX09 09:19 65° 09.765S 174° 16.740E 0m IKMT NET STARTED
SX09 09:43 65° 09.763S 174° 14.062E 3178m IKMT NET DEEPEST (W.O.1000m)
11:34 65° 10.512S 174° 04.329E 3340m SUNSET & PUT ON REGULATION LIGHTS
SX09 11:49 65° 10.757S 174° 03.086E 3355m IKMT NET FINISHED
SX09 12:19 65° 10.679S 174° 05.401E 3345m MULTIPLE CORER STARTED
13:19 65° 10.845S 174° 04.457E 4738m SUNRISE & PUT OFF REGULATION LIGHTS
SX09 13:35 65° 10.894S 174° 04.447E 4446m MULTIPLE CORER HIT BOTTOM
SX09 13:36 65° 10.899S 174° 04.415E 4396m MULTIPLE CORER LEFT BOTTOM
SX09 14:40 65° 11.097S 174° 03.583E 3366m MULTIPLE CORER FINISHED
SX09 15:04 65° 10.725S 174° 05.644E 3343m MULTIPLE CORER STARTED
SX09 16:19 65° 10.755S 174° 05.055E 4022m MULTIPLE CORER HIT BOTTOM
SX09 16:21 65° 10.755S 174° 05.029E 3964m MULTIPLE CORER LEFT BOTTOM
SX09 17:29 65° 10.770S 174° 05.159E 3344m MULTIPLE CORER FINISHED
SX09 21:16 65° 10.737S 174° 05.311E 3344m PISTON CORER STARTED
SX09 22:41 65° 10.790S 174° 04.792E 4215m PISTON CORER HIT BOTTOM
SX09 22:43 65° 10.784S 174° 04.788E 4156m PISTON CORER LEFT BOTTOM
----- 29 DEC.04 (GMT) -----
SX09 00:05 65° 10.756S 174° 03.929E 3353m PISTON CORER FINISHED
SX09 03:46 65° 11.225S 175° 17.953E 3190m ICE
11:24 65° 43.364S 178° 59.053E 4188m SUNSET & PUT ON REGULATION LIGHTS
----- 30 DEC.04 (GMT) -----
SX10 08:28 67° 13.262S 172° 40.817W 3744m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 08:49 67° 13.485S 172° 41.033W 3760m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 09:02 67° 13.629S 172° 41.064W 3774m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 09:31 67° 13.628S 172° 41.022W 3774m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 09:50 67° 13.674S 172° 40.964W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 10:04 67° 13.675S 172° 41.010W 4060m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 10:26 67° 13.584S 172° 41.034W 3769m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 10:56 67° 13.778S 172° 40.802W 3806m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 11:14 67° 13.890S 172° 40.593W 3835m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 11:41 67° 13.621S 172° 41.051W 4082m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 12:27 67° 13.867S 172° 40.351W 3828m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 13:05 67° 14.129S 172° 39.808W 3853m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 13:30 67° 13.187S 172° 40.710W 3739m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 13:48 67° 13.311S 172° 40.489W 3744m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 13:57 67° 13.378S 172° 40.388W 3749m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 14:22 67° 13.127S 172° 40.242W 3725m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 14:43 67° 13.235S 172° 39.960W 3724m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 14:55 67° 13.318S 172° 39.801W 4031m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 15:18 67° 13.209S 172° 40.813W 3748m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 15:54 67° 13.301S 172° 40.425W 3743m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 16:16 67° 13.268S 172° 40.266W 3734m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 16:38 67° 12.554S 172° 38.332W 3710m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 17:28 67° 12.689S 172° 38.061W 3733m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 18:07 67° 12.789S 172° 37.893W 3757m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 18:42 67° 10.703S 172° 42.256W 3685m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 19:48 67° 10.749S 172° 41.519W 3684m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 20:42 67° 10.520S 172° 41.160W 3667m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 21:17 67° 08.840S 172° 45.198W 3447m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 22:31 67° 08.930S 172° 44.827W 4742m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 23:32 67° 09.294S 172° 45.523W 0m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 23:58 67° 08.836S 172° 45.212W 0m LARGE VOLUME SAMPLING SYSTEM STARTED

----- 31 DEC.04 (GMT) -----

SX10 01:04 67° 09.357S 172° 45.142W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 02:02 67° 09.563S 172° 45.346W 0m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 02:27 67° 08.837S 172° 45.066W 0m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 03:46 67° 09.270S 172° 44.575W 7460m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 04:53 67° 09.417S 172° 43.953W 0m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 05:46 67° 12.711S 172° 40.477W 3734m CTD-CMS STARTED
SX10 05:55 67° 12.748S 172° 40.300W 3879m NORPAC NET STARTED 1
SX10 06:08 67° 12.835S 172° 39.959W 3422m NORPAC NET FINISHED
SX10 06:13 67° 12.885S 172° 39.967W 3554m NORPAC NET STARTED 2
SX10 06:19 67° 12.935S 172° 39.914W 3802m NORPAC NET FINISHED
SX10 06:22 67° 12.954S 172° 39.871W 3792m NORPAC NET STARTED 3
SX10 06:28 67° 12.982S 172° 39.718W 3792m NORPAC NET FINISHED
SX10 06:30 67° 12.988S 172° 39.642W 3793m NORPAC NET STARTED 4
SX10 06:40 67° 13.018S 172° 39.383W 3802m NORPAC NET FINISHED
SX10 06:44 67° 13.033S 172° 39.308W 3884m NORPAC NET STARTED 5
SX10 06:55 67° 13.101S 172° 39.111W 3893m NORPAC NET FINISHED
SX10 07:05 67° 13.151S 172° 38.953W 3885m CTD-CMS DEEPEST
SX10 08:37 67° 13.555S 172° 37.842W 3840m CTD-CMS FINISHED
SX10 09:28 67° 09.210S 172° 30.107W 3626m ORI NET STARTED
SX10 09:54 67° 09.503S 172° 32.119W 3736m ORI NET DEEPEST (W.O.1000m)
SX10 10:28 67° 09.841S 172° 34.373W 3860m ORI NET FINISHED
SX10 10:32 67° 09.861S 172° 34.511W 3859m ORI NET STARTED
SX10 10:55 67° 10.216S 172° 36.526W 3792m ORI NET DEEPEST (W.O.1000m)
SX10 11:36 67° 10.843S 172° 39.171W 3712m ORI NET FINISHED
SX10 12:01 67° 12.465S 172° 40.024W 3751m CTD-CMS STARTED
SX10 12:38 67° 12.613S 172° 39.910W 3742m CTD-CMS DEEPEST
SX10 13:20 67° 12.771S 172° 39.478W 4056m CTD-CMS FINISHED
SX10 14:39 67° 12.446S 172° 40.002W 3749m CTD-CMS STARTED
SX10 15:00 67° 12.577S 172° 39.747W 3732m CTD-CMS DEEPEST
SX10 15:18 67° 12.681S 172° 39.635W 0m CTD-CMS FINISHED
SX10 15:49 67° 13.340S 172° 40.896W 3747m MULTIPLE CORER STARTED
SX10 19:14 67° 13.378S 172° 41.044W 5183m MULTIPLE CORER HIT BOTTOM
SX10 19:20 67° 13.376S 172° 41.076W 5074m MULTIPLE CORER LEFT BOTTOM
SX10 20:35 67° 12.350S 172° 41.181W 3764m MULTIPLE CORER FINISHED
SX10 21:38 67° 08.316S 172° 44.200W 3508m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 21:45 67° 08.289S 172° 44.121W 3482m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 21:48 67° 08.281S 172° 44.083W 3512m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 21:50 67° 08.275S 172° 44.052W 3516m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 21:52 67° 08.270S 172° 44.022W 3487m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 21:54 67° 08.266S 172° 43.992W 3491m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 22:23 67° 08.394S 172° 44.247W 3639m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 22:30 67° 08.417S 172° 44.189W 3533m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 22:36 67° 08.433S 172° 44.142W 3612m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 22:36 67° 08.433S 172° 44.142W 3612m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 22:38 67° 08.441S 172° 44.121W 3663m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 22:42 67° 08.452S 172° 44.092W 3661m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 23:10 67° 08.376S 172° 44.324W 3534m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 23:27 67° 08.428S 172° 44.456W 3630m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 23:32 67° 08.451S 172° 44.475W 3527m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 23:35 67° 08.475S 172° 44.491W 3511m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 23:39 67° 08.496S 172° 44.500W 3659m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 23:45 67° 08.535S 172° 44.539W 3682m LARGE VOLUME SAMPLING SYSTEM FINISHED

----- 01 JAN.05 (GMT) -----

SX10 00:10 67° 08.393S 172° 44.283W 3636m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 00:36 67° 08.560S 172° 44.644W 3487m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 00:37 67° 08.555S 172° 44.683W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 00:43 67° 08.533S 172° 44.864W 3667m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 00:58 67° 08.505S 172° 45.343W 3480m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 01:12 67° 08.625S 172° 45.653W 3517m IKMT NET STARTED
SX10 01:34 67° 07.965S 172° 47.439W 3197m IKMT NET DEEPEST (W.O.1000m)
SX10 03:26 67° 06.203S 172° 54.728W 2381m IKMT NET FINISHED
SX10 04:13 67° 08.551S 172° 44.110W 3424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 05:10 67° 08.719S 172° 42.472W 3626m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 05:22 67° 08.713S 172° 42.275W 3633m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED

SX10 05:36 67° 08.699S 172° 42.055W 3650m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 05:49 67° 08.676S 172° 41.865W 3652m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 06:12 67° 08.515S 172° 41.822W 3746m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX10 06:48 67° 08.512S 172° 44.239W 3533m LARGE VOLUME SAMPLING SYSTEM STARTED
SX10 08:08 67° 08.251S 172° 43.982W 6814m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 08:14 67° 08.260S 172° 43.981W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 08:22 67° 08.196S 172° 43.802W 6165m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 08:31 67° 08.127S 172° 43.558W 5032m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX10 09:29 67° 07.721S 172° 42.775W 3728m LARGE VOLUME SAMPLING SYSTEM FINISHED
----- 02 JAN.05 (GMT) -----
SX11 01:00 64° 30.153S 169° 59.594W 0m CTD-CMS STARTED
SX11 01:20 64° 30.122S 169° 59.524W 2363m NORPAC NET STARTED
SX11 01:36 64° 30.167S 169° 59.468W 2364m NORPAC NET FINISHED
SX11 02:01 64° 30.159S 169° 59.432W 2366m CTD-CMS DEEPEST
SX11 03:17 64° 30.096S 169° 59.459W 2370m CTD-CMS FINISHED
SX11 03:26 64° 30.002S 169° 59.388W 2355m ORI NET STARTED
SX11 03:54 64° 29.309S 170° 00.935W 2361m ORI NET DEEPEST (W.O.1000m)
SX11 04:28 64° 28.450S 170° 02.344W 2242m ORI NET FINISHED
SX11 05:08 64° 29.942S 169° 59.697W 0m CTD-CMS STARTED
SX11 05:23 64° 29.760S 169° 59.280W 2369m CTD-CMS DEEPEST
SX11 05:45 64° 29.665S 169° 58.740W 0m CTD-CMS FINISHED
SX11 06:01 64° 29.617S 169° 58.547W 2274m IKMT NET STARTED
SX11 06:36 64° 30.692S 169° 58.825W 2293m IKMT NET DEEPEST (W.O.1000m)
SX11 07:45 64° 32.428S 169° 59.257W 2260m IKMT NET FINISHED
10:05 64° 06.423S 170° 00.010W 2557m SUNSET & PUT ON REGULATION LIGHTS
13:21 63° 15.863S 169° 59.894W 2890m SUNRISE & PUT OFF REGULATION LIGHTS
18:12 61° 59.709S 169° 59.872W 3082m PUT CLOCKS 1HOUR FOR 180E
----- 03 JAN.05 (GMT) -----
SX12 02:06 59° 59.741S 170° 00.040W 0m IKMT NET STARTED
SX12 02:45 60° 00.985S 170° 01.589W 3882m IKMT NET DEEPEST (W.O.1000m)
SX12 04:36 60° 03.662S 170° 04.975W 4118m IKMT NET FINISHED
SX12 04:45 60° 03.749S 170° 05.066W 4018m ORI NET STARTED
SX12 05:17 60° 04.348S 170° 05.828W 3967m ORI NET DEEPEST (W.O.1000m)
SX12 05:50 60° 04.906S 170° 06.351W 4024m ORI NET FINISHED
SX12 06:55 59° 59.975S 170° 00.083W 3814m SBP(3.5KHZ) SURVEY STARTED
09:00 59° 27.266S 169° 59.890W 4176m SUNSET & PUT ON REGULATION LIGHTS
SX12 12:47 59° 59.919S 169° 59.963W 3823m IKMT NET STARTED
SX12 13:33 60° 00.710S 170° 02.537W 0m IKMT NET DEEPEST (W.O.1000m)
14:06 60° 01.201S 170° 04.019W 3789m SUNRISE & PUT OFF REGULATION LIGHTS
SX12 15:04 60° 02.043S 170° 06.581W 0m IKMT NET FINISHED
SX12 19:43 59° 22.004S 169° 59.697W 0m CTD-CMS STARTED
SX12 20:29 59° 22.271S 169° 59.225W 4948m NORPAC NET STARTED 1
SX12 20:51 59° 22.350S 169° 59.237W 4896m NORPAC NET FINISHED
SX12 20:54 59° 22.344S 169° 59.209W 4886m NORPAC NET STARTED 2
SX12 21:16 59° 22.289S 169° 58.986W 4900m NORPAC NET FINISHED
SX12 21:20 59° 22.270S 169° 58.877W 4905m NORPAC NET STARTED 3
SX12 21:41 59° 22.271S 169° 58.799W 0m CTD-CMS DEEPEST
SX12 21:45 59° 22.250S 169° 58.760W 4890m NORPAC NET FINISHED
SX12 21:48 59° 22.241S 169° 58.697W 4854m NORPAC NET STARTED 4
SX12 22:06 59° 22.263S 169° 58.448W 4892m NORPAC NET FINISHED
SX12 23:21 59° 22.285S 169° 57.780W 4889m CTD-CMS FINISHED
SX12 23:51 59° 22.013S 169° 57.337W 0m LARGE VOLUME SAMPLING SYSTEM STARTED
----- 04 JAN.05 (GMT) -----
SX12 01:59 59° 21.770S 169° 57.308W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 02:05 59° 21.810S 169° 57.333W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 02:16 59° 21.854S 169° 57.373W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 02:27 59° 21.935S 169° 57.390W 1m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 03:42 59° 21.948S 169° 57.788W 4934m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 04:10 59° 21.718S 169° 57.845W 4952m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 05:30 59° 22.177S 169° 58.930W 4934m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 05:45 59° 22.242S 169° 58.977W 4918m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 05:57 59° 22.344S 169° 59.067W 1m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 06:09 59° 22.409S 169° 59.151W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 06:49 59° 22.787S 169° 59.347W 4813m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 07:28 59° 21.963S 170° 00.210W 4939m CTD-CMS STARTED

SX12 08:10 59° 21.985S 169° 59.747W 4945m CTD-CMS DEEPEST
08:35 59° 21.976S 169° 59.781W 4948m SUNSET & PUT ON REGULATION LIGHTS
SX12 08:50 59° 21.972S 169° 59.641W 4943m CTD-CMS FINISHED
SX12 09:09 59° 22.083S 169° 59.600W 4949m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 09:15 59° 22.101S 169° 59.529W 1m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 09:18 59° 22.117S 169° 59.496W 4969m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 09:21 59° 22.127S 169° 59.470W 4951m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 09:23 59° 22.134S 169° 59.463W 4957m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 09:26 59° 22.121S 169° 59.417W 4965m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 09:50 59° 22.070S 169° 59.516W 4949m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 10:02 59° 22.036S 169° 59.307W 4947m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 10:05 59° 22.041S 169° 59.261W 4944m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 10:08 59° 22.052S 169° 59.236W 4957m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 10:09 59° 22.055S 169° 59.234W 4958m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 10:16 59° 22.086S 169° 59.168W 4959m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 10:41 59° 22.110S 169° 59.319W 0m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 11:09 59° 22.274S 169° 58.956W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 11:14 59° 22.306S 169° 58.909W 4876m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 11:19 59° 22.355S 169° 58.895W 4840m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 11:22 59° 22.382S 169° 58.898W 4857m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 11:29 59° 22.424S 169° 58.843W 4849m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 11:56 59° 22.077S 169° 59.370W 4947m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 12:23 59° 22.258S 169° 59.465W 4941m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 12:28 59° 22.294S 169° 59.503W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 12:33 59° 22.338S 169° 59.574W 4967m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 12:42 59° 22.411S 169° 59.653W 4949m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 12:48 59° 22.451S 169° 59.688W 4934m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 13:14 59° 22.397S 169° 59.577W 0m LARGE VOLUME SAMPLING SYSTEM STARTED
SX12 14:08 59° 22.935S 169° 59.684W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
14:17 59° 23.042S 169° 59.703W 0m SUNRISE & PUT OFF REGULATION LIGHTS
SX12 14:18 59° 23.052S 169° 59.709W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 14:25 59° 23.121S 169° 59.754W 4774m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 14:28 59° 23.177S 169° 59.762W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX12 14:47 59° 23.396S 169° 59.726W 4730m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX12 15:32 59° 21.965S 169° 59.793W 4949m CTD-CMS STARTED
SX12 15:54 59° 22.060S 169° 59.465W 1m CTD-CMS DEEPEST
SX12 16:18 59° 22.293S 169° 59.340W 0m CTD-CMS FINISHED
SX12 17:38 59° 22.226S 170° 00.137W 4958m SBP(3.5KHZ) SURVEY STARTED
SX12 19:09 59° 36.191S 169° 59.691W 0m SBP(3.5KHZ) SURVEY FINISHED
SX12 19:38 59° 36.287S 170° 02.014W 4310m MULTIPLE CORER STARTED
SX12 21:24 59° 36.508S 170° 02.565W 0m MULTIPLE CORER HIT BOTTOM
SX12 21:25 59° 36.513S 170° 02.574W 4316m MULTIPLE CORER LEFT BOTTOM
SX12 22:45 59° 36.329S 170° 02.073W 4317m MULTIPLE CORER FINISHED
SX12 23:02 59° 36.411S 170° 02.311W 4318m MULTIPLE CORER STARTED
----- 05 JAN.05 (GMT) -----
SX12 00:49 59° 36.520S 170° 02.519W 4319m MULTIPLE CORER HIT BOTTOM
SX12 00:51 59° 36.515S 170° 02.530W 4316m MULTIPLE CORER LEFT BOTTOM
SX12 02:10 59° 36.565S 170° 02.452W 4313m MULTIPLE CORER FINISHED
SX12 02:20 59° 36.597S 170° 02.458W 4309m LET GO ARGO FLOAT
08:29 58° 04.186S 170° 01.472W 4699m SUNSET & PUT ON REGULATION LIGHTS
14:50 56° 24.820S 170° 00.692W 4835m SUNRISE & PUT OFF REGULATION LIGHTS
SX13 20:28 54° 59.937S 169° 59.916W 4849m CTD-CMS STARTED
SX13 20:58 54° 59.843S 169° 59.896W 4847m NORPAC NET STARTED
SX13 21:13 54° 59.889S 169° 59.861W 4854m NORPAC NET FINISHED
SX13 22:41 54° 59.977S 170° 00.227W 4838m CTD-CMS DEEPEST
----- 06 JAN.05 (GMT) -----
SX13 00:24 54° 59.818S 170° 00.041W 4845m CTD-CMS FINISHED
SX13 00:31 54° 59.786S 170° 00.047W 4840m ORI NET STARTED
SX13 00:53 55° 00.359S 170° 00.832W 4850m ORI NET DEEPEST (W.O.1000m)
SX13 01:28 55° 01.043S 170° 02.008W 0m ORI NET FINISHED
SX13 02:00 54° 59.942S 169° 59.971W 4851m CTD-CMS STARTED
SX13 02:42 54° 59.926S 170° 00.095W 4847m CTD-CMS DEEPEST
SX13 03:32 54° 59.862S 170° 00.067W 4843m CTD-CMS FINISHED
SX13 03:36 54° 59.845S 170° 00.081W 4834m IKMT NET STARTED
SX13 04:04 55° 00.666S 170° 01.696W 4819m IKMT NET DEEPEST (W.O.1000m)

SX13 05:59 55° 03.322S 170° 07.128W 4837m IKMT NET FINISHED
SX13 06:49 54° 59.917S 170° 00.135W 4838m CTD-CMS STARTED
SX13 07:07 54° 59.957S 170° 00.083W 4845m CTD-CMS DEEPEST
SX13 07:29 55° 00.011S 169° 59.965W 4851m CTD-CMS FINISHED
SX13 07:41 55° 00.027S 170° 00.033W 4850m LET GO ARGO FLOAT
08:00 54° 57.624S 170° 00.225W 4933m SUNSET & PUT ON REGULATION LIGHTS
IK009 12:28 53° 47.485S 169° 59.605W 5162m IKMT NET STARTED
IK009 12:50 53° 46.877S 169° 58.041W 5185m IKMT NET DEEPEST (W.O.1000m)
IK009 13:25 53° 46.078S 169° 56.087W 5164m IKMT NET FINISHED
15:04 53° 23.886S 169° 59.190W 5270m SUNRISE & PUT OFF REGULATION LIGHTS
----- 07 JAN.05 (GMT) -----
SX14 04:00 50° 00.185S 169° 59.989W 0m CTD-CMS STARTED
SX14 04:09 50° 00.300S 169° 59.997W 5351m NORPAC NET STARTED 1
SX14 04:22 50° 00.455S 169° 59.985W 5358m NORPAC NET FINISHED
SX14 04:25 50° 00.468S 169° 59.958W 5357m NORPAC NET STARTED 2
SX14 04:38 50° 00.468S 169° 59.836W 5367m NORPAC NET FINISHED
SX14 05:49 50° 01.008S 169° 59.771W 5393m CTD-CMS DEEPEST
07:31 50° 01.590S 169° 59.432W 5386m SUNSET & PUT ON REGULATION LIGHTS
SX14 07:42 50° 01.734S 169° 59.362W 5391m CTD-CMS FINISHED
SX14 08:20 50° 00.066S 170° 00.011W 5338m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 08:26 50° 00.155S 170° 00.017W 5342m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 08:28 50° 00.201S 170° 00.030W 5334m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 08:31 50° 00.242S 170° 00.038W 5346m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 08:33 50° 00.278S 170° 00.044W 5345m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 08:35 50° 00.309S 170° 00.044W 5341m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 08:57 50° 00.247S 170° 00.038W 5349m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 09:15 50° 00.406S 169° 59.905W 5360m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 09:19 50° 00.467S 169° 59.909W 5363m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 09:23 50° 00.502S 169° 59.886W 5363m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 09:26 50° 00.518S 169° 59.846W 5361m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 09:35 50° 00.555S 169° 59.754W 5376m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 09:58 50° 00.415S 169° 59.794W 5364m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 10:44 50° 00.617S 169° 59.397W 5387m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 10:56 50° 00.635S 169° 59.248W 5384m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 11:07 50° 00.679S 169° 59.086W 5383m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 11:14 50° 00.693S 169° 59.014W 5386m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 11:31 50° 00.769S 169° 58.832W 5386m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 11:56 49° 59.936S 170° 00.070W 5335m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 12:05 49° 59.989S 169° 59.977W 5343m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:08 50° 00.044S 169° 59.958W 5335m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:13 50° 00.091S 169° 59.957W 5338m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:14 50° 00.099S 169° 59.955W 5344m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:18 50° 00.149S 169° 59.941W 5343m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 12:40 50° 00.004S 169° 59.960W 5335m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 12:50 50° 00.036S 169° 59.901W 5341m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:50 50° 00.036S 169° 59.901W 5341m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:54 50° 00.080S 169° 59.885W 5343m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 12:59 50° 00.139S 169° 59.872W 5344m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 13:05 50° 00.204S 169° 59.861W 5349m LARGE VOLUME SAMPLING SYSTEM FINISHED
IK010 13:13 50° 00.235S 169° 59.795W 5349m IKMT NET STARTED
IK010 13:32 50° 01.145S 170° 00.409W 5373m IKMT NET DEEPEST (W.O.1000m)
IK010 14:07 50° 02.551S 170° 01.279W 5377m IKMT NET FINISHED
SX14 14:43 50° 00.043S 169° 59.995W 5344m CTD-CMS STARTED
SX14 15:17 50° 00.218S 169° 59.710W 5355m CTD-CMS DEEPEST
15:23 50° 00.235S 169° 59.685W 5356m SUNRISE & PUT OFF REGULATION LIGHTS
SX14 16:05 50° 00.505S 169° 59.699W 5358m CTD-CMS FINISHED
SX14 16:24 49° 59.932S 169° 59.972W 5337m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 17:47 49° 59.938S 169° 59.592W 5369m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 17:58 49° 59.961S 169° 59.630W 5356m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 18:10 49° 59.943S 169° 59.637W 5353m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 18:22 49° 59.920S 169° 59.677W 5355m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 19:09 49° 59.828S 169° 59.677W 5356m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 19:35 49° 59.987S 169° 59.975W 5339m LARGE VOLUME SAMPLING SYSTEM STARTED
SX14 21:25 50° 00.130S 169° 59.746W 5356m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 21:28 50° 00.141S 169° 59.733W 5359m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED

SX14 21:36 50° 00.163S 169° 59.693W 5359m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 21:46 50° 00.209S 169° 59.627W 5356m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX14 23:05 50° 00.772S 169° 59.035W 5388m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX14 23:30 50° 00.028S 169° 59.967W 5340m CTD-CMS STARTED
SX14 23:42 50° 00.134S 169° 59.885W 5350m CTD-CMS DEEPEST
----- 08 JAN.05 (GMT) -----
SX14 00:04 50° 00.375S 169° 59.933W 5357m CTD-CMS FINISHED
SX14 00:28 50° 00.586S 169° 59.493W 5378m MULTIPLE CORER STARTED
SX14 02:19 50° 01.016S 169° 59.013W 5387m MULTIPLE CORER HIT BOTTOM
SX14 02:21 50° 01.013S 169° 59.011W 5389m MULTIPLE CORER LEFT BOTTOM
SX14 03:57 50° 00.762S 169° 58.715W 5383m MULTIPLE CORER FINISHED
SX14 04:18 50° 01.210S 169° 59.282W 5390m MULTIPLE CORER STARTED
SX14 06:09 50° 00.960S 169° 58.984W 5386m MULTIPLE CORER HIT BOTTOM
SX14 06:10 50° 00.961S 169° 58.979W 5386m MULTIPLE CORER LEFT BOTTOM
07:31 50° 00.686S 169° 58.959W 5387m SUNSET & PUT ON REGULATION LIGHTS
SX14 07:44 50° 00.592S 169° 58.919W 5385m MULTIPLE CORER FINISHED
SX14 07:57 50° 00.251S 169° 59.025W 5316m LET GO ARGO FLOAT
IK011 12:30 48° 54.122S 169° 58.726W 5074m IKMT NET STARTED
IK011 12:50 48° 53.113S 169° 57.822W 4986m IKMT NET DEEPEST (W.O.1000m)
IK011 13:25 48° 51.534S 169° 56.509W 5246m IKMT NET FINISHED
----- 09 JAN.05 (GMT) -----
SX15 04:16 45° 00.110S 170° 00.062W 5114m CTD-CMS STARTED
SX15 04:24 45° 00.151S 169° 59.980W 0m NORPAC NET STARTED 1
SX15 04:37 45° 00.177S 169° 59.987W 5165m NORPAC NET FINISHED
SX15 04:43 45° 00.194S 169° 59.912W 5163m NORPAC NET STARTED 2
SX15 04:57 45° 00.192S 169° 59.916W 5165m NORPAC NET FINISHED
SX15 05:03 45° 00.184S 169° 59.956W 5165m NORPAC NET STARTED 3
SX15 05:16 45° 00.173S 169° 59.978W 5161m NORPAC NET FINISHED
SX15 05:57 45° 00.119S 170° 00.051W 5167m CTD-CMS DEEPEST
07:07 45° 00.012S 169° 59.910W 5169m SUNSET & PUT ON REGULATION LIGHTS
SX15 07:56 44° 59.949S 169° 59.893W 5171m CTD-CMS FINISHED
SX15 08:08 44° 59.918S 169° 59.812W 5157m MULTIPLE CORER STARTED
SX15 09:51 44° 59.882S 169° 59.959W 5164m MULTIPLE CORER HIT BOTTOM
SX15 09:52 44° 59.878S 169° 59.967W 5159m MULTIPLE CORER LEFT BOTTOM
SX15 11:23 45° 00.011S 170° 00.075W 5164m MULTIPLE CORER FINISHED
SX15 11:36 44° 59.998S 169° 59.963W 5160m CTD-CMS STARTED
SX15 11:49 44° 59.902S 170° 00.002W 5163m CTD-CMS DEEPEST
SX15 12:10 44° 59.816S 170° 00.064W 5168m CTD-CMS FINISHED
SX15 12:18 44° 59.649S 170° 00.138W 5163m LET GO ARGO FLOAT
IK012 12:22 44° 59.475S 170° 00.220W 5167m IKMT NET STARTED
IK012 12:42 44° 58.625S 170° 00.566W 5150m IKMT NET DEEPEST (W.O.1000m)
IK012 13:17 44° 57.423S 170° 01.071W 5153m IKMT NET FINISHED
----- 10 JAN.05 (GMT) -----
SX16 01:22 43° 10.987S 171° 09.945W 2305m MULTIPLE CORER STARTED
SX16 02:21 43° 10.809S 171° 09.978W 2301m MULTIPLE CORER HIT BOTTOM
SX16 02:22 43° 10.807S 171° 09.974W 2301m MULTIPLE CORER LEFT BOTTOM
SX16 03:06 43° 10.749S 171° 10.046W 2298m MULTIPLE CORER FINISHED
SX16 03:34 43° 11.023S 171° 09.635W 2303m PISTON CORER STARTED
SX16 04:37 43° 10.785S 171° 10.022W 2302m PISTON CORER HIT BOTTOM
SX16 04:38 43° 10.786S 171° 10.020W 2298m PISTON CORER LEFT BOTTOM
SX16 05:42 43° 10.750S 171° 10.435W 2300m PISTON CORER FINISHED
SX16 06:18 43° 10.885S 171° 10.056W 2304m CTD-CMS STARTED
SX16 06:21 43° 10.903S 171° 10.058W 2305m NORPAC NET STARTED 1
SX16 06:36 43° 10.989S 171° 10.106W 2310m NORPAC NET FINISHED
SX16 06:44 43° 11.012S 171° 10.218W 2310m NORPAC NET STARTED 2
SX16 06:56 43° 11.075S 171° 10.326W 2312m NORPAC NET FINISHED
SX16 07:02 43° 11.123S 171° 10.319W 2315m CTD-CMS DEEPEST
07:03 43° 11.131S 171° 10.315W 2314m SUNSET & PUT ON REGULATION LIGHTS
SX16 08:11 43° 11.363S 171° 10.664W 2321m CTD-CMS FINISHED
SX16 08:29 43° 10.702S 171° 09.864W 2295m MULTIPLE CORER STARTED
SX16 09:25 43° 10.784S 171° 09.940W 2299m MULTIPLE CORER HIT BOTTOM
SX16 09:28 43° 10.785S 171° 09.942W 2299m MULTIPLE CORER LEFT BOTTOM
SX16 10:11 43° 10.803S 171° 10.025W 2301m MULTIPLE CORER FINISHED
IK013 10:38 43° 10.519S 171° 10.226W 2293m IKMT NET STARTED
IK013 10:57 43° 10.244S 171° 11.351W 2291m IKMT NET DEEPEST (W.O.1000m)

IK013 11:30 43 ° 09.796S 171 ° 12.820W 2287m IKMT NET FINISHED
16:01 42 ° 02.513S 170 ° 44.467W 3358m SUNRISE & PUT OFF REGULATION LIGHTS
SX17 23:57 39 ° 59.955S 169 ° 59.942W 4630m CTD-CMS STARTED
----- 11 JAN.05 (GMT) -----
SX17 00:11 39 ° 59.949S 169 ° 59.946W 4628m NORPAC NET STARTED 1
SX17 00:26 39 ° 59.948S 169 ° 59.902W 4637m NORPAC NET FINISHED
SX17 00:30 39 ° 59.949S 169 ° 59.891W 4629m NORPAC NET STARTED 2
SX17 00:43 39 ° 59.936S 169 ° 59.831W 4634m NORPAC NET FINISHED
SX17 00:49 39 ° 59.938S 169 ° 59.810W 4635m NORPAC NET STARTED 3
SX17 01:02 39 ° 59.928S 169 ° 59.785W 4634m NORPAC NET FINISHED
SX17 01:28 39 ° 59.885S 169 ° 59.724W 4633m CTD-CMS DEEPEST
SX17 03:07 39 ° 59.669S 169 ° 59.366W 4630m CTD-CMS FINISHED
SX17 03:31 40 ° 00.033S 170 ° 00.100W 4632m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 03:36 40 ° 00.057S 170 ° 00.129W 4628m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 03:40 40 ° 00.074S 170 ° 00.163W 4628m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 03:42 40 ° 00.063S 170 ° 00.181W 4631m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 03:44 40 ° 00.047S 170 ° 00.193W 4630m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 03:48 39 ° 59.998S 170 ° 00.211W 4628m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 04:14 39 ° 59.991S 169 ° 59.987W 4633m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 04:27 39 ° 59.949S 170 ° 00.076W 4629m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 04:30 39 ° 59.970S 170 ° 00.088W 4628m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 04:34 39 ° 59.998S 170 ° 00.092W 4632m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 04:36 40 ° 00.010S 170 ° 00.104W 4631m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 04:43 40 ° 00.042S 170 ° 00.140W 4631m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 05:06 39 ° 59.976S 169 ° 59.980W 4633m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 05:28 39 ° 59.892S 170 ° 00.071W 4633m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 05:35 39 ° 59.890S 170 ° 00.082W 4632m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 05:42 39 ° 59.945S 170 ° 00.095W 4625m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 05:47 40 ° 00.003S 170 ° 00.096W 4629m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 05:58 40 ° 00.096S 170 ° 00.050W 4635m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 06:19 40 ° 00.059S 170 ° 00.048W 4631m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 06:41 40 ° 00.161S 169 ° 59.996W 4632m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 06:47 40 ° 00.211S 169 ° 59.994W 4622m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
06:53 40 ° 00.263S 169 ° 59.977W 4633m SUNSET & PUT ON REGULATION LIGHTS
SX17 06:54 40 ° 00.269S 169 ° 59.975W 4630m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 06:59 40 ° 00.314S 169 ° 59.953W 4632m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 07:08 40 ° 00.356S 169 ° 59.896W 4631m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 07:33 39 ° 59.950S 169 ° 59.886W 4631m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 08:09 40 ° 00.056S 169 ° 59.652W 4635m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 08:21 40 ° 00.091S 169 ° 59.679W 4638m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 08:29 40 ° 00.120S 169 ° 59.657W 4636m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 08:49 40 ° 00.048S 169 ° 59.606W 4635m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 09:04 40 ° 00.045S 170 ° 00.029W 4631m CTD-CMS STARTED
SX17 09:46 40 ° 00.006S 169 ° 59.897W 4629m CTD-CMS DEEPEST
SX17 10:21 40 ° 00.004S 169 ° 59.673W 4632m CTD-CMS FINISHED
IK014 10:29 40 ° 00.073S 169 ° 59.761W 0m IKMT NET STARTED
IK014 10:55 40 ° 00.829S 170 ° 00.781W 4626m IKMT NET DEEPEST (W.O.1000m)
IK014 11:27 40 ° 01.441S 170 ° 01.875W 0m IKMT NET FINISHED
SX17 11:58 39 ° 59.855S 169 ° 59.893W 4637m CTD-CMS STARTED
SX17 12:14 39 ° 59.736S 169 ° 59.743W 4634m CTD-CMS DEEPEST
SX17 12:31 39 ° 59.740S 169 ° 59.688W 4633m CTD-CMS FINISHED
SX17 12:50 39 ° 59.821S 169 ° 59.855W 4621m MULTIPLE CORER STARTED
SX17 14:27 40 ° 00.015S 169 ° 59.992W 4631m MULTIPLE CORER HIT BOTTOM
SX17 14:30 40 ° 00.014S 169 ° 59.986W 4632m MULTIPLE CORER LEFT BOTTOM
SX17 15:53 39 ° 59.901S 170 ° 00.488W 4631m MULTIPLE CORER FINISHED
SX17 16:31 40 ° 00.034S 170 ° 00.062W 4629m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 18:16 40 ° 00.509S 170 ° 00.207W 4628m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 18:21 40 ° 00.531S 170 ° 00.215W 4627m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 18:31 40 ° 00.588S 170 ° 00.256W 4626m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 18:34 40 ° 00.605S 170 ° 00.247W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 19:50 40 ° 01.024S 170 ° 00.346W 4634m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 20:20 40 ° 00.025S 169 ° 59.769W 1m LARGE VOLUME SAMPLING SYSTEM STARTED
SX17 21:38 39 ° 59.830S 169 ° 59.223W 0m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 21:48 39 ° 59.859S 169 ° 59.139W 4627m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 21:59 39 ° 59.897S 169 ° 59.066W 4627m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED

SX17 22:09 39° 59.911S 169° 59.063W 4624m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX17 22:46 39° 59.886S 169° 58.920W 4627m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX17 23:03 39° 59.596S 169° 58.634W 4627m NO2 WINCH FREE FALL STARTED
----- 12 JAN.05 (GMT) -----
SX17 00:25 39° 59.449S 169° 58.338W 4622m NO2 WINCH FREE FALL DEEPEST (W.O.4500m)
SX17 02:00 39° 59.304S 169° 57.832W 4632m NO2 WINCH FREE FALL FINISHED
SX17 02:27 39° 59.739S 169° 59.783W 4627m MULTIPLE CORER STARTED
SX17 04:07 40° 00.033S 170° 00.004W 4630m MULTIPLE CORER HIT BOTTOM
SX17 04:10 40° 00.024S 169° 59.981W 4630m MULTIPLE CORER LEFT BOTTOM
SX17 05:34 40° 00.411S 169° 59.859W 4636m MULTIPLE CORER FINISHED
06:51 39° 57.588S 170° 08.721W 4555m SUNSET & PUT ON REGULATION LIGHTS
IK015 09:15 39° 47.886S 170° 48.542W 4597m IKMT NET STARTED
IK015 09:27 39° 48.291S 170° 49.044W 4596m IKMT NET DEEPEST (W.O. 500m STEP)
IK015 10:05 39° 49.327S 170° 50.283W 4599m IKMT NET FINISHED
IK016 12:27 39° 33.696S 171° 25.138W 4638m IKMT NET STARTED
IK016 12:53 39° 34.524S 171° 25.851W 4644m IKMT NET DEEPEST (W.O. 472m STEP)
IK016 13:30 39° 35.440S 171° 26.685W 4645m IKMT NET FINISHED
16:15 39° 23.406S 172° 13.271W 4710m SUNRISE & PUT OFF REGULATION LIGHTS
----- 13 JAN.05 (GMT) -----
07:13 38° 04.057S 176° 58.973W 3999m SUNSET & PUT ON REGULATION LIGHTS
IK017 09:12 37° 55.006S 177° 32.096W 3512m IKMT NET STARTED
IK017 09:35 37° 53.956S 177° 32.721W 3525m IKMT NET DEEPEST (W.O.1000m)
IK017 10:10 37° 52.618S 177° 33.550W 3591m IKMT NET FINISHED
IK017 10:16 37° 52.427S 177° 33.684W 3575m IKMT NET STARTED
IK017 10:33 37° 51.681S 177° 34.211W 3591m IKMT NET DEEPEST (W.O. 496m STEP)
IK017 11:10 37° 50.312S 177° 35.223W 3628m IKMT NET FINISHED
IK018 12:27 37° 50.944S 177° 54.663W 3547m IKMT NET STARTED
IK018 12:49 37° 49.943S 177° 55.297W 3573m IKMT NET DEEPEST (W.O.1000m)
IK018 13:24 37° 48.607S 177° 56.216W 3622m IKMT NET FINISHED
IK018 13:28 37° 48.521S 177° 56.287W 3625m IKMT NET STARTED
IK018 13:43 37° 47.756S 177° 56.820W 3650m IKMT NET DEEPEST (W.O. 598m STEP)
IK018 14:25 37° 46.097S 177° 58.007W 3684m IKMT NET FINISHED
16:48 37° 41.101S 178° 42.048W 3402m SUNRISE & PUT OFF REGULATION LIGHTS
----- 14 JAN.05 (GMT) -----
07:34 36° 42.849S 176° 46.853E 1647m SUNSET & PUT ON REGULATION LIGHTS
09:00 36° 36.911S 176° 19.295E 885m PUT CLOCKS AHEAD 1HOUR FOR NEW ZEALAND TIME
17:18 36° 25.185S 175° 15.163E 48m SUNRISE & PUT OFF REGULATION LIGHTS

LEG.3

----- 20 JAN.05 (GMT) -----
03:31 36° 27.909S 175° 08.352E 49m STOPPED ECDIS FOR MAINTENANCE
03:42 36° 26.380S 175° 11.642E 49m RESTARTED ECDIS
07:31 36° 37.803S 176° 25.451E 1290m SUNSET & PUT ON REGULATION LIGHTS
08:00 36° 39.783S 176° 34.891E 1671m PUT CLOCKS BACK 1 HOUR FOR S.A.T IN 180-00E
17:03 37° 19.333S 179° 36.781E 2057m SUNRISE & PUT OFF REGULATION LIGHTS
18:08 37° 24.365S 179° 59.966W 4420m P'D DATE LINE FROM EAST TO WEST
----- 21 JAN.05 (GMT) -----
07:07 38° 26.202S 175° 40.027W 4662m SUNSET & PUT ON REGULATION LIGHTS
IK19 09:17 38° 36.606S 175° 01.420W 5025m IKMT NET STARTED
IK19 09:38 38° 35.784S 175° 01.027W 5029m IKMT NET DEEPEST(W.O.1000m)
IK19 10:12 38° 34.561S 175° 00.552W 5039m IKMT NET FINISHED
IK20 14:08 38° 55.567S 173° 52.630W 5085m IKMT NET STARTED
IK20 14:29 38° 54.689S 173° 52.376W 5090m IKMT NET DEEPEST(W.O.1000m)
IK20 15:03 38° 53.658S 173° 51.868W 5088m IKMT NET FINISHED
16:30 39° 02.159S 173° 28.340W 5065m SUNRISE & PUT OFF REGULATION LIGHTS
----- 22 JAN.05 (GMT) -----
SX18 03:10 39° 59.889S 169° 59.945W 4582m CTD-RMS STARTED
SX18 05:04 40° 00.251S 169° 59.939W 4583m CTD-CMS DEEPEST
SX18 06:45 40° 00.642S 169° 59.878W 4571m SUNSET & PUT ON REGULATION LIGHTS
SX18 06:53 40° 00.735S 169° 59.921W 4584m CTD-CMS FINISHED
IK21 07:04 40° 00.801S 169° 59.995W 4584m IKMT NET STARTED
IK21 07:38 40° 00.220S 170° 01.681W 4582m IKMT NET DEEPEST(W.O.1660m)
IK21 08:32 39° 58.859S 170° 03.002W 4579m IKMT NET FINISHED

SX18 09:06 40° 00.043S 169° 59.992W 4581m MULTIPLE CORER STARTED
SX18 10:43 39° 59.545S 169° 59.852W 4581m MULTIPLE CORER HIT BOTTOM
SX18 10:45 39° 59.537S 169° 59.852W 4581m MULTIPLE CORER LEFT BOTTOM
SX18 12:11 39° 58.982S 169° 59.655W 4584m MULTIPLE CORER FINISHED
IK22 12:28 39° 58.802S 169° 59.671W 4580m IKMT NET STARTED
IK22 12:50 39° 58.105S 170° 00.311W 4578m IKMT NET DEEPEST(W.O.1000m)
IK22 13:25 39° 57.207S 170° 01.072W 4579m IKMT NET FINISHED
SX18 14:02 40° 00.124S 169° 59.959W 4582m CTD-CMS STARTED
SX18 14:13 40° 00.132S 169° 59.928W 4582m CTD-CMS DEEPEST
SX18 14:26 40° 00.166S 169° 59.874W 4584m CTD-CMS FINISHED
SX18 14:30 40° 00.179S 169° 59.854W 4584m CHANGED ENG'S TO T/M
16:17 39° 37.030S 169° 59.943W 4550m SUNRISE & PUT OFF REGULATION LIGHTS
----- 23 JAN.05 (GMT) -----
06:34 35° 48.153S 170° 00.007W 4082m SUNSET & PUT ON REGULATION LIGHTS
IK23 07:58 35° 28.909S 169° 59.954W 4498m IKMT NET STARTED
IK23 08:20 35° 28.516S 169° 58.898W 4574m IKMT NET DEEPEST(W.O.1000m)
IK23 08:53 35° 28.071S 169° 57.657W 4651m IKMT NET FINISHED
IK23 11:18 35° 00.263S 170° 00.214W 5158m CTD-CMS STARTED
IK23 11:42 35° 00.259S 170° 00.398W 0m NORPAC NET STARTED
SX19 11:55 35° 00.204S 170° 00.399W 5148m NORPAC NET FINISHED
SX19 12:58 35° 00.270S 170° 00.369W 5149m CTD-CMS DEEPEST
SX19 14:41 35° 00.161S 170° 00.503W 5140m CTD-CMS FINISHED
IK24 14:49 35° 00.149S 170° 00.448W 5145m IKMT NET STARTED
IK24 15:10 35° 00.083S 169° 59.228W 5187m IKMT NET DEEPEST(W.O.1000m)
IK24 15:47 35° 00.047S 169° 57.497W 5192m IKMT NET FINISHED
SX19 16:30 34° 58.106S 169° 59.822W 5178m SUNRISE & PUT OFF REGULATION LIGHTS
SX19 16:58 34° 57.993S 169° 58.739W 5201m MULTIPLE CORER STARTED
SX19 18:51 34° 58.083S 169° 58.615W 5201m MULTIPLE CORER HIT BOTTOM
SX19 18:54 34° 58.083S 169° 58.618W 5200m MULTIPLE CORER LEFT BOTTOM
SX19 20:32 34° 57.626S 169° 58.229W 5213m MULTIPLE CORER FINISHED
SX19 21:12 35° 00.133S 170° 00.096W 5169m CTD-CMS STARTED
SX19 21:37 35° 00.057S 170° 00.260W 5159m CTD-CMS DEEPEST
SX19 21:58 35° 00.016S 170° 00.257W 5160m CTD-CMS FINISHED
SX19 22:33 34° 59.978S 169° 57.532W 5192m MULTIPLE CORER STARTED
----- 24 JAN.05 (GMT) -----
SX19 00:17 34° 59.986S 169° 57.461W 5193m MULTIPLE CORER HIT BOTTOM
SX19 00:20 34° 59.991S 169° 57.444W 5193m MULTIPLE CORER LEFT BOTTOM
SX19 01:53 34° 59.979S 169° 57.094W 5197m MULTIPLE CORER FINISHED
06:30 33° 58.770S 169° 58.071W 5482m SUNSET & PUT ON REGULATION LIGHTS
IK25 07:58 33° 38.816S 169° 58.252W 5601m IKMT NET STARTED
IK25 08:23 33° 38.321S 169° 57.143W 5186m IKMT NET DEEPEST(W.O.1000m)
IK25 08:55 33° 38.052S 169° 55.919W 4954m IKMT NET FINISHED
IK26 14:03 32° 28.395S 169° 58.246W 5514m IKMT NET STARTED
IK26 14:24 32° 28.303S 169° 56.944W 5535m IKMT NET DEEPEST(W.O.1000m)
IK26 15:00 32° 28.205S 169° 55.219W 5208m IKMT NET FINISHED
16:37 32° 08.526S 169° 58.656W 5497m SUNRISE & PUT OFF REGULATION LIGHTS
----- 25 JAN.05 (GMT) -----
SX20 01:40 30° 00.189S 170° 00.083W 5336m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 01:58 30° 00.313S 169° 59.980W 5335m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX20 02:25 30° 00.163S 169° 59.978W 5337m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 03:09 30° 00.290S 169° 59.898W 5337m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX20 03:34 30° 00.175S 170° 00.059W 5338m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 04:19 30° 00.455S 170° 00.073W 5336m COVER CLOSED (2000M)
SX20 04:32 30° 00.533S 170° 00.065W 5337m COVER CLOSED (1500M)
SX20 04:39 30° 00.563S 170° 00.066W 5335m COVER CLOSED (1250M)
SX20 04:49 30° 00.602S 170° 00.031W 5336m COVER CLOSED (1000M)
SX20 05:19 30° 00.771S 170° 00.070W 5337m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX20 05:46 30° 00.001S 170° 00.101W 5336m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 06:08 30° 00.201S 170° 00.069W 5336m COVER CLOSED (200M)
SX20 06:11 30° 00.228S 170° 00.049W 5336m COVER CLOSED(150M)
SX20 06:15 30° 00.265S 170° 00.024W 5338m COVER CLOSED (100M)
SX20 06:19 30° 00.288S 169° 59.997W 5336m COVER CLOSED (80M)
SX20 06:22 30° 00.315S 169° 59.962W 5336m
SX20 06:22 30° 00.317S 169° 59.962W 5337m SUNSET & PUT ON REGULATION LIGHTS
SX20 06:29 30° 00.376S 170° 00.005W 5336m LARGE VOLUME SAMPLING SYSTEM FINISHED

SX20 07:06 29° 59.997S 170° 00.049W 5339m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 07:25 30° 00.113S 169° 59.873W 5340m COVER CLOSED (350M)
SX20 07:30 30° 00.115S 169° 59.833W 5339m COVER CLOSED (250M)
SX20 07:40 30° 00.145S 169° 59.732W 5338m COVER CLOSED (100M)
SX20 07:56 30° 00.254S 169° 59.704W 5338m
SX20 07:56 30° 00.254S 169° 59.704W 5338m LARGE VOLUME SAMPLING SYSTEM FINISHED
IK27 08:06 30° 00.274S 169° 59.709W 5339m IKMT NET STARTED
IK27 08:31 30° 00.226S 169° 58.357W 5343m IKMT NET DEEPEST(W.O.1000m)
IK27 09:06 30° 00.102S 169° 56.816W 5320m IKMT NET FINISHED
SX20 10:06 30° 00.140S 170° 00.150W 5337m CTD-CMS STARTED
SX20 10:21 30° 00.241S 170° 00.100W 5337m STOPPED CTD
SX20 11:03 30° 00.442S 169° 59.995W 5336m CTD-CMS FINISHED
SX20 11:27 30° 00.015S 170° 00.050W 5337m MULTIPLE CORER STARTED
SX20 13:21 30° 00.684S 169° 59.770W 5338m MULTIPLE CORER HIT BOTTOM
SX20 13:25 30° 00.689S 169° 59.752W 5338m MULTIPLE CORER LEFT BOTTOM
SX20 14:59 30° 01.232S 169° 59.213W 5339m MULTIPLE CORER FINISHED
IK28 15:20 30° 01.356S 169° 58.993W 5338m IKMT NET STARTED
IK28 15:42 30° 01.374S 169° 57.764W 5341m IKMT NET DEEPEST(W.O.1000m)
IK28 16:15 30° 01.398S 169° 56.292W 5343m IKMT NET FINISHED
16:41 30° 00.693S 169° 58.180W 5343m SUNRISE & PUT OFF REGULATION LIGHTS
SX20 17:12 30° 00.057S 169° 59.918W 5336m CTD-CMS STARTED
SX20 17:50 30° 00.089S 169° 59.788W 5337m CTD-CMS FINISHED
SX20 17:54 30° 00.129S 169° 59.718W 5337m CTD-CMS STARTED
SX20 19:30 30° 00.253S 169° 59.383W 5339m CTD-CMS FINISHED
SX20 20:03 30° 00.375S 169° 59.907W 5337m LARGE VOLUME SAMPLING SYSTEM STARTED
SX20 21:20 30° 00.356S 169° 59.823W 5337m COVER CLOSED (4000m)
SX20 21:31 30° 00.367S 169° 59.838W 5337m COVER CLOSED (3500m)
SX20 21:42 30° 00.353S 169° 59.788W 5338m COVER CLOSED (3000m)
SX20 21:52 30° 00.343S 169° 59.775W 5337m COVER CLOSED (2500m)
SX20 22:38 30° 00.167S 169° 59.649W 5337m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX20 23:09 29° 59.988S 169° 59.991W 5338m LARGE VOLUME SAMPLING SYSTEM STARTED
----- 26 JAN.05 (GMT) -----
SX20 00:57 30° 00.202S 169° 59.566W 5338m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX20 01:01 30° 00.200S 169° 59.557W 5338m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX20 01:08 30° 00.216S 169° 59.519W 5338m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX20 01:18 30° 00.242S 169° 59.499W 5338m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX20 02:35 30° 00.634S 169° 59.092W 5336m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX20 03:14 30° 00.092S 170° 00.002W 5335m CTD-CMS STARTED
SX20 04:54 30° 00.195S 169° 59.845W 5337m CTD-CMS DEEPEST
06:26 30° 00.180S 169° 59.906W 0m SUNSET & PUT ON REGULATION LIGHTS
SX20 06:57 30° 00.233S 169° 59.861W 5339m CTD-CMS FINISHED
SX20 07:10 30° 00.281S 169° 59.873W 5339m MULTIPLE CORER STARTED
SX20 09:11 30° 00.241S 169° 59.700W 5365m MULTIPLE CORER HIT BOTTOM
SX20 09:14 30° 00.230S 169° 59.688W 5337m MULTIPLE CORER LEFT BOTTOM
SX20 10:54 30° 00.187S 169° 58.262W 5343m MULTIPLE CORER FINISHED
IK29 11:12 29° 59.988S 169° 57.610W 5478m IKMT NET STARTED
IK29 11:29 29° 59.859S 169° 56.734W 5498m IKMT NET DEEPEST(W.O.567m)
IK29 12:10 30° 00.611S 169° 54.843W 5358m IKMT NET FINISHED
SX20 13:04 30° 00.001S 169° 59.940W 5338m CTD-CMS STARTED
SX20 13:37 30° 00.230S 169° 59.735W 5337m CTD-CMS DEEPEST
SX20 14:07 30° 00.370S 169° 59.575W 5336m CTD-CMS FINISHED
IK30 14:11 30° 00.406S 169° 59.499W 5336m IKMT NET STARTED
IK30 14:22 30° 00.532S 169° 58.885W 5336m IKMT NET DEEPEST(W.O.567m)
IK30 15:02 30° 00.742S 169° 56.998W 5330m IKMT NET FINISHED
SX20 15:15 30° 00.796S 169° 56.890W 5330m MULTIPLE CORER STARTED
16:41 30° 00.962S 169° 56.267W 5353m SUNRISE & PUT OFF REGULATION LIGHTS
SX20 17:06 30° 00.885S 169° 56.249W 5353m MULTIPLE CORER HIT BOTTOM
SX20 17:10 30° 00.880S 169° 56.255W 5356m MULTIPLE CORER LEFT BOTTOM
SX20 18:50 30° 00.792S 169° 55.629W 5361m MULTIPLE CORER FINISHED
----- 27 JAN.05 (GMT) -----
06:18 29° 44.284S 169° 26.512W 5479m SUNSET & PUT ON REGULATION LIGHTS
16:40 29° 18.413S 168° 47.377W 0m SUNRISE & PUT OFF REGULATION LIGHTS
----- 28 JAN.05 (GMT) -----
06:11 28° 48.267S 168° 10.321W 5349m SUNSET & PUT ON REGULATION LIGHTS
16:42 27° 46.405S 168° 08.276W 5547m SUNRISE & PUT OFF REGULATION LIGHTS

----- 29 JAN.05 (GMT) -----
06:12 25° 04.236S 169° 58.192W 5774m SUNSET & PUT ON REGULATION LIGHTS
SX21 07:26 25° 00.021S 169° 59.865W 5610m CTD-CMS STARTED
SX21 07:41 25° 00.010S 169° 59.810W 5607m NORPAC NET STARTED
SX21 08:02 25° 00.054S 169° 59.832W 0m NORPAC NET FINISHED
SX21 09:14 25° 00.148S 169° 59.844W 5585m CTD-CMS DEEPEST
SX21 11:06 25° 00.034S 169° 59.709W 5597m CTD-CMS FINISHED
IK31 11:14 25° 00.013S 169° 59.687W 5552m IKMT NET STARTED
IK31 11:37 24° 58.963S 169° 59.732W 5631m IKMT NET DEEPEST(W.O.1000m)
IK31 12:12 24° 57.669S 169° 59.470W 5688m IKMT NET FINISHED
IK32 12:14 24° 57.640S 169° 59.458W 5688m IKMT NET STARTED
IK32 12:22 24° 57.238S 169° 59.405W 5720m IKMT NET DEEPEST(W.O.350m)
IK32 13:08 24° 55.613S 169° 58.943W 5580m IKMT NET FINISHED
SX21 13:54 24° 55.208S 169° 58.967W 5573m MULTIPLE CORER STARTED
SX21 15:42 24° 55.061S 169° 58.869W 5573m MULTIPLE CORER HIT BOTTOM
SX21 15:46 24° 55.063S 169° 58.875W 5574m MULTIPLE CORER LEFT BOTTOM
16:54 24° 54.391S 169° 58.993W 5582m SUNRISE & PUT OFF REGULATION LIGHTS
SX21 17:27 24° 54.185S 169° 58.780W 5586m MULTIPLE CORER FINISHED
SX21 18:32 24° 59.979S 170° 00.034W 5615m CTD-CMS STARTED
SX21 18:48 24° 59.911S 170° 00.119W 5636m CTD-CMS DEEPEST (400M)
SX21 19:16 24° 59.955S 170° 00.257W 5627m CTD-CMS FINISHED
SX21 19:24 24° 59.820S 170° 00.259W 5554m LET GO ARGO FLOAT
19:43 24° 58.011S 170° 00.247W 5676m SBP(3.5KHZ) SURVEY STARTED
SX21 21:51 24° 47.495S 169° 58.969W 5611m MULTIPLE CORER STARTED
SX21 23:42 24° 47.324S 169° 58.901W 5614m MULTIPLE CORER HIT BOTTOM
SX21 23:46 24° 47.324S 169° 58.893W 5613m MULTIPLE CORER LEFT BOTTOM
----- 30 JAN.05 (GMT) -----
SX21 01:25 24° 46.826S 169° 58.650W 5658m MULTIPLE CORER FINISHED
06:09 23° 38.966S 169° 59.541W 5589m SUNSET & PUT ON REGULATION LIGHTS
IK33 07:56 23° 11.505S 169° 59.711W 5611m IKMT NET STARTED
IK33 08:21 23° 10.985S 169° 58.975W 5594m IKMT NET DEEPEST(W.O.1000m)
IK33 08:56 23° 10.449S 169° 58.051W 5572m IKMT NET FINISHED
IK34 14:09 21° 55.453S 169° 59.289W 5564m IKMT NET STARTED
IK34 14:29 21° 55.073S 169° 58.158W 5564m IKMT NET DEEPEST(W.O.1000m)
IK34 15:03 21° 54.529S 169° 56.572W 5584m IKMT NET FINISHED
SX22 21:12 20° 19.714S 169° 59.962W 5407m SBP(3.5KHZ) SURVEY STARTED
SX22 23:14 19° 59.946S 169° 59.942W 5253m FINISHED IT & STOPPED ENG'S
SX22 23:38 19° 59.863S 169° 59.863W 5257m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 23:43 19° 59.843S 169° 59.797W 5258m COVER CLOSED (60m)
SX22 23:47 19° 59.827S 169° 59.763W 5258m COVER CLOSED (40m)
SX22 23:49 19° 59.821S 169° 59.753W 5257m COVER CLOSED (20m)
SX22 23:50 19° 59.814S 169° 59.739W 5255m COVER CLOSED 10m
SX22 23:51 19° 59.810S 169° 59.727W 5256m COVER CLOSED 10m
SX22 23:55 19° 59.796S 169° 59.681W 5255m LARGE VOLUME SAMPLING SYSTEM FINISHED
----- 31 JAN.05 (GMT) -----
SX22 00:21 19° 59.986S 170° 00.111W 5249m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 00:40 19° 59.857S 170° 00.045W 5256m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 00:46 19° 59.829S 170° 00.025W 5258m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 00:50 19° 59.810S 170° 00.009W 5260m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 00:53 19° 59.796S 169° 59.985W 5260m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 01:04 19° 59.780S 169° 59.914W 5259m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 01:29 20° 00.024S 170° 00.034W 5249m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 02:08 19° 59.956S 169° 59.869W 5254m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 02:23 19° 59.960S 169° 59.909W 5254m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 02:25 19° 59.961S 169° 59.912W 5253m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 02:30 19° 59.967S 169° 59.927W 5253m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 02:51 20° 00.006S 169° 59.891W 5252m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 03:17 19° 59.976S 170° 00.050W 5250m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 03:24 19° 59.965S 170° 00.019W 5250m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 03:29 19° 59.950S 170° 00.017W 5252m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 03:30 19° 59.948S 170° 00.017W 5252m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 03:32 19° 59.943S 170° 00.007W 5252m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX22 03:37 19° 59.938S 169° 59.986W 5253m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 04:00 20° 00.019S 170° 00.039W 5249m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 04:15 19° 59.998S 169° 59.885W 5252m COVER CLOSED (350M)

SX22 04:20 19° 59.976S 169° 59.831W 5253m COVER CLOSED (250M)
SX22 04:28 19° 59.946S 169° 59.750W 5253m COVER CLOSED (100M)
SX22 04:38 19° 59.902S 169° 59.638W 5253m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 05:28 20° 00.005S 170° 00.016W 5249m CTD-CMS STARTED
06:03 19° 59.929S 170° 00.169W 5250m SUNSET & PUT ON REGULATION LIGHTS
SX22 07:09 19° 59.755S 170° 00.373W 5267m CTD-CMS DEEPEST
SX22 08:57 19° 59.630S 170° 00.863W 5283m CTD-CMS FINISHED
IK35 09:06 19° 59.593S 170° 00.866W 5285m IKMT NET STARTED
IK35 09:29 19° 58.771S 170° 00.415W 5216m IKMT NET DEEPEST(W.O.1000m)
IK35 10:05 19° 57.715S 169° 59.893W 5238m IKMT NET FINISHED
IK36 10:08 19° 57.579S 169° 59.833W 5234m IKMT NET STARTED
IK36 10:21 19° 57.108S 169° 59.574W 5302m IKMT NET DEEPEST(W.O.364m)
IK36 11:07 19° 55.782S 169° 58.745W 5389m IKMT NET FINISHED
SX22 11:57 20° 00.049S 169° 59.977W 5249m CTD-CMS STARTED
SX22 12:36 20° 00.057S 169° 59.959W 5250m CTD-CMS DEEPEST
SX22 13:25 20° 00.026S 169° 59.989W 5250m CTD-CMS FINISHED
SX22 14:14 20° 04.714S 170° 00.048W 5357m MULTIPLE CORER STARTED
SX22 16:02 20° 04.459S 169° 59.972W 5353m MULTIPLE CORER HIT BOTTOM
SX22 16:04 20° 04.464S 169° 59.981W 5352m MULTIPLE CORER LEFT BOTTOM
17:03 20° 04.082S 169° 59.924W 5341m SUNRISE & PUT OFF REGULATION LIGHTS
SX22 17:44 20° 03.769S 169° 59.864W 5354m MULTIPLE CORER FINISHED
SX22 18:28 19° 59.956S 169° 59.988W 5251m CTD-CMS STARTED
SX22 18:41 19° 59.923S 170° 00.046W 5252m CTD-CMS DEEPEST
SX22 19:04 19° 59.962S 170° 00.169W 5248m CTD-CMS FINISHED
SX22 19:29 20° 00.039S 169° 59.977W 5249m LARGE VOLUME SAMPLING SYSTEM STARTED
SX22 20:44 19° 59.919S 169° 59.933W 5255m COVER CLOSED (4000m)
SX22 20:56 19° 59.918S 169° 59.904W 5255m COVER CLOSED (3500m)
SX22 21:06 19° 59.903S 169° 59.880W 5256m COVER CLOSED (3000m)
SX22 21:16 19° 59.895S 169° 59.847W 5257m COVER CLOSED (2500M)
SX22 22:02 19° 59.835S 169° 59.864W 5258m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 22:30 19° 59.976S 169° 59.992W 5252m LARGE VOLUME SAMPLING SYSTEM STARTED
----- 01 FEB.05 (GMT) -----
SX22 00:06 19° 59.936S 169° 59.938W 5254m COVER CLOSED 5250M
SX22 00:12 19° 59.899S 169° 59.951W 5255m COVER CLOSED 5255M
SX22 00:16 19° 59.875S 169° 59.961W 5256m COVER CLOSED 5268M
SX22 00:23 19° 59.824S 169° 59.988W 5258m COVER CLOSED 5000M
SX22 00:38 19° 59.768S 169° 59.963W 5259m COVER CLOSED 4500M
SX22 02:00 19° 59.321S 169° 59.921W 5192m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX22 02:17 19° 59.161S 169° 59.731W 5181m LET GO ARGO FLOAT
SX22 02:21 19° 58.579S 169° 59.758W 5250m SBP(3.5KHZ) SURVEY STARTED
SX22 05:17 19° 54.873S 169° 54.110W 5371m SBP(3.5KHZ) SURVEY FINISHED
SX22 05:25 19° 54.855S 169° 54.087W 5372m MULTIPLE CORER STARTED
SX22 06:03 19° 54.930S 169° 54.114W 5372m SUNSET & PUT ON REGULATION LIGHTS
SX22 07:24 19° 54.928S 169° 54.062W 5372m MULTIPLE CORER HIT BOTTOM
SX22 07:28 19° 54.931S 169° 54.016W 5372m MULTIPLE CORER LEFT BOTTOM
SX22 09:07 19° 54.609S 169° 54.391W 5376m MULTIPLE CORER FINISHED
IK37 09:26 19° 54.509S 169° 55.022W 5363m IKMT NET STARTED
IK37 09:42 19° 54.196S 169° 55.707W 5346m IKMT NET DEEPEST(W.O.431m)
IK37 10:28 19° 53.458S 169° 57.292W 5267m IKMT NET FINISHED
IK38 10:31 19° 53.419S 169° 57.377W 5266m IKMT NET STARTED
IK38 10:46 19° 53.116S 169° 58.056W 5276m IKMT NET DEEPEST(W.O.423m)
IK38 11:22 19° 52.477S 169° 59.210W 5297m IKMT NET FINISHED
SX22 11:47 19° 52.050S 170° 01.073W 5311m SBP(3.5KHZ) SURVEY STARTED
SX22 17:06 19° 49.910S 170° 37.480W 5288m SUNRISE & PUT OFF REGULATION LIGHTS
SX22 18:36 19° 49.240S 170° 41.974W 5314m SBP(3.5KHZ) SURVEY FINISHED
SX22 18:58 19° 48.671S 170° 41.113W 5303m MULTIPLE CORER STARTED
SX22 20:49 19° 48.344S 170° 41.497W 5305m MULTIPLE CORER HIT BOTTOM
SX22 20:51 19° 48.349S 170° 41.499W 5304m MULTIPLE CORER LEFT BOTTOM
SX22 22:26 19° 48.339S 170° 41.713W 5305m MULTIPLE CORER FINISHED

----- 02 FEB.05 (GMT) -----
04:04 20° 24.500S 171° 57.978W 5508m ENTERED IN TONGA EEZ
06:14 20° 38.973S 172° 30.450W 5810m SUNSET & PUT ON REGULATION LIGHTS
17:23 21° 41.765S 175° 22.128W 392m SUNRISE & PUT OFF REGULATION LIGHTS
----- 03 FEB.05 (GMT) -----

00:09 21 ° 24.760S 177 ° 19.125W 2718m PASSED EEZ
06:40 21 ° 08.987S 179 ° 06.609W 1468m SUNSET & PUT ON REGULATION LIGHTS
IK39O 07:57 21 ° 06.303S 179 ° 25.814W 1355m IKMT NET STARTED
IK39O 08:21 21 ° 06.635S 179 ° 26.537W 818m IKMT NET DEEPEST(W.O.1000m)
IK39O 08:56 21 ° 07.019S 179 ° 27.412W 968m IKMT NET FINISHED
IK39S 08:58 21 ° 07.039S 179 ° 27.487W 1009m IKMT NET STARTED
IK39S 09:13 21 ° 07.224S 179 ° 27.942W 1312m IKMT NET DEEPEST(W.O.394m)
IK39S 19:00 21 ° 08.250S 179 ° 29.050W 1333m IKMT NET FINISHED
IK40S114:01 20 ° 57.448S 179 ° 30.997E 3506m IKMT NET STARTED
IK40S114:13 20 ° 57.542S 179 ° 30.495E 3510m IKMT NET DEEPEST(W.O.465m)
IK40S115:00 20 ° 57.960S 179 ° 28.676E 3514m IKMT NET FINISHED
IK40S215:03 20 ° 57.964S 179 ° 28.646E 3515m IKMT NET STARTED
IK40S215:18 20 ° 58.226S 179 ° 28.140E 3519m IKMT NET DEEPEST(W.O.560m)
IK40S216:04 20 ° 59.049S 179 ° 26.571E 3523m IKMT NET FINISHED
IK40O 16:09 20 ° 59.035S 179 ° 26.568E 3523m IKMT NET STARTED
IK40O 16:34 20 ° 59.432S 179 ° 25.789E 3540m IKMT NET DEEPEST(W.O.1000m)
IK40O 17:10 20 ° 59.863S 179 ° 24.931E 3536m IKMT NET FINISHED
17:47 20 ° 58.235S 179 ° 18.649E 3517m SUNRISE & PUT OFF REGULATION LIGHTS
IK41 22:08 20 ° 45.401S 178 ° 11.160E 3170m IKMT NET STARTED
IK41 22:49 20 ° 46.172S 178 ° 09.859E 2743m IKMT NET DEEPEST(W.O.1500m)
IK41 23:31 20 ° 47.016S 178 ° 08.992E 2542m IKMT NET FINISHED
----- 04 FEB.05 (GMT) -----
06:58 20 ° 19.212S 176 ° 04.304E 3226m SUNSET & PUT ON REGULATION LIGHTS
A1S1 11:04 20 ° 00.031S 174 ° 59.610E 2778m IKMT NET STARTED
A1S1 11:16 20 ° 00.392S 174 ° 59.123E 3065m IKMT NET DEEPEST(W.O.1000m)
A1S1 11:57 20 ° 01.856S 174 ° 57.773E 3369m IKMT NET FINISHED
A1S2 12:01 20 ° 01.911S 174 ° 57.689E 3370m IKMT NET STARTED
A1S2 12:12 20 ° 02.389S 174 ° 57.310E 3346m IKMT NET DEEPEST(W.O.471m)
A1S2 12:57 20 ° 04.093S 174 ° 55.832E 3161m IKMT NET FINISHED
A1O 13:00 20 ° 04.140S 174 ° 55.763E 3167m IKMT NET STARTED
A1O 13:21 20 ° 05.079S 174 ° 55.022E 3165m IKMT NET DEEPEST(W.O.1000m)
A1O 13:56 20 ° 06.193S 174 ° 53.990E 2806m IKMT NET FINISHED
A1S3 14:02 20 ° 06.228S 174 ° 53.903E 2800m IKMT NET STARTED
A1S3 14:13 20 ° 06.733S 174 ° 53.476E 2764m IKMT NET DEEPEST(W.O.453m)
A1S3 15:26 20 ° 09.647S 174 ° 51.090E 3147m IKMT NET FINISHED
18:09 19 ° 31.826S 174 ° 56.390E 3238m SUNRISE & PUT OFF REGULATION LIGHTS
A2O 20:20 18 ° 59.802S 174 ° 59.912E 3158m IKMT NET STARTED
A2O 20:53 18 ° 58.577S 174 ° 59.769E 3228m IKMT NET DEEPEST(W.O.1450m)
A2O 21:44 18 ° 57.274S 174 ° 59.572E 3136m IKMT NET FINISHED
----- 05 FEB.05 (GMT) -----
A3O 01:42 17 ° 59.727S 174 ° 59.991E 2500m IKMT NET STARTED
A3O 02:08 17 ° 59.395S 174 ° 59.046E 2673m IKMT NET DEEPEST(W.O.1340m)
A3O 02:53 17 ° 58.707S 174 ° 58.026E 2656m IKMT NET FINISHED
A4O 06:56 16 ° 59.844S 175 ° 00.039E 2039m IKMT NET STARTED
06:58 16 ° 59.815S 175 ° 00.026E 2030m SUNSET & PUT ON REGULATION LIGHTS
A4O 07:20 16 ° 59.333S 174 ° 59.457E 2066m IKMT NET DEEPEST(W.O.1000m)
A4O 07:55 16 ° 58.718S 174 ° 58.872E 2168m IKMT NET FINISHED
A4S1 08:00 16 ° 58.655S 174 ° 58.852E 2156m IKMT NET STARTED
A4S1 08:13 16 ° 58.402S 174 ° 58.513E 2269m IKMT NET DEEPEST(W.O.393m)
A4S1 09:03 16 ° 57.441S 174 ° 57.015E 2663m IKMT NET FINISHED
A4S2 09:06 16 ° 57.451S 174 ° 56.954E 2678m IKMT NET STARTED
A4S2 09:19 16 ° 57.822S 174 ° 56.819E 2681m IKMT NET DEEPEST(W.O.365m)
A4S2 10:29 16 ° 59.956S 174 ° 55.911E 2340m IKMT NET FINISHED
A5S 14:38 15 ° 59.851S 174 ° 59.957E 2940m IKMT NET STARTED
A5S 14:50 15 ° 59.349S 174 ° 59.689E 2908m IKMT NET DEEPEST(W.O.559m)
A5S 16:05 15 ° 56.249S 174 ° 57.905E 2919m IKMT NET FINISHED
A5O 16:10 15 ° 56.147S 174 ° 57.841E 2897m IKMT NET STARTED
A5O 16:35 15 ° 55.196S 174 ° 57.243E 2926m IKMT NET DEEPEST(W.O.1000m)
A5O 17:11 15 ° 54.077S 174 ° 56.601E 2946m IKMT NET FINISHED
18:10 15 ° 42.698S 174 ° 58.084E 3051m SUNRISE & PUT OFF REGULATION LIGHTS
A6 20:56 14 ° 59.759S 175 ° 00.124E 2675m IKMT NET STARTED
A6 21:30 14 ° 58.681S 175 ° 00.054E 3048m IKMT NET DEEPEST(W.O.1497m)
A6 22:20 14 ° 57.492S 174 ° 59.969E 3046m IKMT NET FINISHED
----- 06 FEB.05 (GMT) -----
A7 02:14 14 ° 00.002S 174 ° 59.912E 2928m IKMT NET STARTED

A7 02:44 13° 58.805S 174° 59.765E 3018m IKMT NET DEEPEST(W.O.1624m)
A7 03:39 13° 57.077S 174° 59.552E 2957m IKMT NET FINISHED
06:53 13° 06.433S 175° 00.054E 2501m SUNSET & PUT ON REGULATION LIGHTS
A8O 07:28 12° 59.867S 175° 00.052E 2649m IKMT NET STARTED
A8O 08:03 12° 58.190S 175° 00.206E 2919m IKMT NET DEEPEST(W.O.1000m)
A8O 08:38 12° 56.696S 175° 00.312E 2931m IKMT NET FINISHED
A8S1 08:44 12° 56.548S 175° 00.342E 2930m IKMT NET STARTED
A8S1 09:00 12° 55.688S 175° 00.387E 2870m IKMT NET DEEPEST(W.O.483m)
A8S1 09:55 12° 52.838S 175° 00.436E 2999m IKMT NET FINISHED
A8S2 09:58 12° 52.675S 175° 00.414E 3000m IKMT NET STARTED
A8S2 10:09 12° 52.054S 175° 00.319E 2957m IKMT NET DEEPEST(W.O.206m)
A8S2 10:34 12° 50.636S 174° 59.943E 2909m IKMT NET FINISHED
A9S 13:59 11° 59.921S 174° 59.953E 3126m IKMT NET STARTED
A9S 14:11 11° 59.207S 174° 59.973E 3145m IKMT NET DEEPEST(W.O.552m)
A9S 15:28 11° 55.125S 175° 00.135E 3183m IKMT NET FINISHED
A9O 15:32 11° 55.041S 175° 00.135E 3179m IKMT NET STARTED
A9O 15:51 11° 54.140S 175° 00.113E 3093m IKMT NET DEEPEST(W.O.1014m)
A9O 16:27 11° 52.970S 175° 00.061E 3382m IKMT NET FINISHED
18:17 11° 27.336S 174° 59.973E 2049m SUNRISE & PUT OFF REGULATION LIGHTS
A10 20:04 10° 59.932S 174° 59.982E 3568m IKMT NET STARTED
A10 20:40 10° 59.214S 174° 58.498E 3690m IKMT NET DEEPEST(W.O.1585m)
A10 21:34 10° 58.096S 174° 56.737E 3597m IKMT NET FINISHED
----- 07 FEB.05 (GMT) -----
A11 01:29 10° 00.215S 175° 00.067E 4962m IKMT NET STARTED
A11 01:54 09° 59.600S 174° 59.207E 4955m IKMT NET DEEPEST(W.O.1392m)
A11 02:41 09° 58.699S 174° 58.173E 4956m IKMT NET FINISHED
A12 02:45 09° 58.640S 174° 58.158E 4956m IKMT NET STARTED
A12 03:29 09° 57.484S 174° 55.841E 4926m IKMT NET DEEPEST(W.O.2500m)
A12 05:04 09° 55.881S 174° 52.801E 5077m IKMT NET FINISHED
06:49 09° 59.343S 174° 58.971E 4954m SUNSET & PUT ON REGULATION LIGHTS
A13O 07:31 10° 00.167S 175° 00.585E 4963m IKMT NET STARTED
A13O 07:53 09° 59.577S 174° 59.897E 4957m IKMT NET DEEPEST(W.O.1000m)
A13O 08:28 09° 58.782S 174° 58.911E 4955m IKMT NET FINISHED
A13S 08:33 09° 58.738S 174° 58.736E 4954m IKMT NET STARTED
A13S 08:46 09° 58.660S 174° 58.227E 4954m IKMT NET DEEPEST(W.O.344m)
A13S 09:55 09° 58.320S 174° 55.550E 4936m IKMT NET FINISHED
A14S 14:12 10° 59.854S 174° 59.775E 3556m IKMT NET STARTED
A14S 14:21 10° 59.744S 174° 59.408E 3568m IKMT NET DEEPEST(W.O.330m)
A14S 15:27 10° 59.256S 174° 56.847E 3564m IKMT NET FINISHED
A14O 15:29 10° 59.272S 174° 56.808E 3566m IKMT NET STARTED
A14O 15:50 10° 59.056S 174° 56.031E 3580m IKMT NET DEEPEST(W.O.1000m)
A14O 16:26 10° 58.693S 174° 55.223E 3679m IKMT NET FINISHED
18:17 11° 25.597S 174° 58.627E 2046m SUNRISE & PUT OFF REGULATION LIGHTS
A15 20:34 12° 00.070S 174° 59.850E 3120m IKMT NET STARTED
A15 21:02 11° 59.641S 174° 59.102E 2972m IKMT NET DEEPEST(W.O.1189m)
A15 21:43 11° 59.140S 174° 58.356E 2931m IKMT NET FINISHED
----- 08 FEB.05 (GMT) -----
A16 01:49 12° 59.576S 174° 59.900E 2662m IKMT NET STARTED
A16 02:17 12° 58.522S 174° 58.983E 2712m IKMT NET DEEPEST(W.O.1513m)
A16 03:07 12° 57.018S 174° 57.792E 2902m IKMT NET FINISHED
06:53 13° 54.585S 174° 59.941E 2947m SUNSET & PUT ON REGULATION LIGHTS
A17O 07:18 14° 00.075S 174° 59.934E 2992m IKMT NET STARTED
A17O 07:41 14° 01.099S 174° 59.672E 2882m IKMT NET DEEPEST(W.O.1000m)
A17O 08:16 14° 02.262S 174° 59.365E 2962m IKMT NET FINISHED
A17S 08:23 14° 02.561S 174° 59.289E 2933m IKMT NET STARTED
A17S 08:38 14° 03.180S 174° 59.124E 2985m IKMT NET DEEPEST(W.O.357m)
A17S 09:49 14° 05.924S 174° 58.383E 2846m IKMT NET FINISHED
A18S 13:26 15° 00.086S 175° 00.085E 2654m IKMT NET STARTED
A18S 13:55 15° 01.433S 175° 00.649E 2464m IKMT NET DEEPEST(W.O.446m)
A18S 14:50 15° 03.858S 175° 01.607E 2926m IKMT NET FINISHED
A18O 14:52 15° 03.926S 175° 01.637E 2922m IKMT NET STARTED
A18O 15:11 15° 04.781S 175° 01.976E 3034m IKMT NET DEEPEST(W.O.1000m)
A18O 15:46 15° 06.076S 175° 02.499E 3093m IKMT NET FINISHED
18:13 15° 42.067S 175° 00.592E 3150m SUNRISE & PUT OFF REGULATION LIGHTS
A19 19:23 16° 00.010S 175° 00.074E 2949m IKMT NET STARTED

A19 19:56 16° 01.197S 175° 00.741E 2753m IKMT NET DEEPEST(W.O.1547m)
A19 20:48 16° 02.760S 175° 01.649E 2868m IKMT NET FINISHED
----- 09 FEB.05 (GMT) -----
00:31 16° 59.914S 175° 00.002E 2058m IKMT NET STARTED
A20 01:05 17° 01.348S 174° 59.954E 2390m IKMT NET DEEPEST(W.O.1802m)
A20 02:07 17° 03.735S 174° 59.900E 2338m IKMT NET FINISHED
A21O 06:05 18° 00.107S 175° 00.218E 2584m IKMT NET STARTED
A21O 06:30 18° 01.039S 175° 00.778E 2546m IKMT NET DEEPEST(W.O.1000m)
06:58 18° 01.978S 175° 00.960E 2651m SUNSET & PUT ON REGULATION LIGHTS
A21O 07:06 18° 02.257S 175° 01.131E 2693m IKMT NET FINISHED
A21S1 07:11 18° 02.331S 175° 01.147E 2690m IKMT NET STARTED
A21S1 07:30 18° 02.497S 175° 00.618E 2689m IKMT NET DEEPEST(W.O.353m)
A21S1 08:09 18° 02.829S 174° 59.490E 2684m IKMT NET FINISHED
A21S2 08:11 18° 02.837S 174° 59.451E 2682m IKMT NET STARTED
A21S2 08:26 18° 02.953S 174° 58.981E 2702m IKMT NET DEEPEST(W.O.320m)
A21S2 09:31 18° 03.477S 174° 57.066E 2792m IKMT NET FINISHED
A22S1 13:29 18° 59.927S 174° 59.793E 3161m IKMT NET STARTED
A22S1 13:38 19° 00.112S 174° 59.323E 3188m IKMT NET DEEPEST(W.O.377m)
A22S1 14:47 19° 01.565S 174° 55.962E 2922m IKMT NET FINISHED
A22S2 14:50 19° 01.603S 174° 55.862E 2919m IKMT NET STARTED
A22S2 15:01 19° 01.816S 174° 55.369E 2886m IKMT NET DEEPEST(W.O.408m)
A22S2 16:11 19° 03.014S 174° 51.830E 3000m IKMT NET FINISHED
A22O 16:13 19° 03.056S 174° 51.727E 2988m IKMT NET STARTED
A22O 16:37 19° 03.557S 174° 50.485E 2988m IKMT NET DEEPEST(W.O.1000m)
A22O 17:14 19° 04.138S 174° 48.843E 3114m IKMT NET FINISHED
A22S3 17:16 19° 04.162S 174° 48.758E 3116m IKMT NET STARTED
A22S3 17:27 19° 04.335S 174° 48.185E 3020m IKMT NET DEEPEST(W.O.242m)
A22S3 17:59 19° 04.824S 174° 46.582E 3025m IKMT NET FINISHED
18:10 19° 04.922S 174° 46.363E 3038m SUNRISE & PUT OFF REGULATION LIGHTS
A23 21:59 20° 00.135S 175° 00.302E 2676m IKMT NET STARTED
A23 22:34 20° 00.149S 175° 02.195E 2386m IKMT NET DEEPEST(W.O.1500m)
A23 23:26 19° 59.835S 175° 04.608E 2670m IKMT NET FINISHED
----- 10 FEB.05 (GMT) -----
06:51 19° 15.547S 176° 48.947E 3227m SUNSET & PUT ON REGULATION LIGHTS
IK42 08:00 19° 10.856S 176° 59.869E 2870m IKMT NET STARTED
IK42 08:14 19° 10.573S 177° 00.443E 2872m IKMT NET DEEPEST(W.O.304m)
IK42 08:58 19° 10.323S 177° 02.393E 3060m IKMT NET FINISHED
IK43 10:59 19° 00.140S 177° 26.389E 2839m IKMT NET STARTED
IK43 11:13 19° 00.104S 177° 27.054E 2848m IKMT NET DEEPEST(W.O.255m)
IK43 11:54 19° 00.048S 177° 29.089E 2908m IKMT NET FINISHED
17:58 18° 41.144S 178° 03.527E 2156m SUNRISE & PUT OFF REGULATION LIGHTS

Leg. 4

----- 16 FEB.05 (GMT) -----
6:40 18° 51.146S 178° 58.779E 2693m SUNSET
IK044 8:04 19° 03.600S 179° 09.546E 2316m IKMT NET STARTED
IK044 8:24 19° 04.349S 179° 09.838E 2514m IKMT NET DEEPEST (W.O 1000m)
IK044 8:57 19° 05.200S 179° 10.429E 2605m IKMT NET FINISHED
IK045 14:02 19° 53.452S 179° 54.507E 2973m IKMT NET STARTED
IK045 14:16 19° 53.977S 179° 54.802E 2992m IKMT NET DEEPEST (W.O. 407m)
IK045 15:03 19° 55.270S 179° 55.505E 3046m IKMT NET FINISHED
15:53 19° 59.877S 180° 00.000E PASSED THE DATE LINE
17:52 20° 20.262S 179° 41.124W 2719m SUNRISE
----- 17 FEB.05 (GMT) -----
1:00 21° 22.653S 178° 28.228W 977m COM'CED BOAT STATION DRILL
1:08 21° 23.515S 178° 27.493W FINISHED BOAT STATION DRILL
6:17 21° 45.868S 177° 30.930W 2623m PASSED EEZ LINE FROM FIJI TO TONGA
6:28 21° 46.658S 177° 29.069W SUNSET
IK046 7:58 21° 52.282S 177° 16.108W 2688m IKMT NET STARTED
IK046 8:19 21° 52.912S 177° 15.394W IKMT NET DEEPEST (W.O. 1000m)
IK046 8:52 21° 53.651S 177° 14.464W 2649m IKMT NET FINISHED
IK047 9:09 21° 53.875S 177° 14.177W IKMT NET STARTED
IK047 9:18 21° 54.138S 177° 13.788W 2614m IKMT NET DEEPEST (W.O. 324m)

IK047 10:13 21° 55.294S 177° 11.643W 2382m IKMT NET FINISHED
SX23S 17:19 22° 36.352S 176° 43.263W 2151m COM'CED MTD NET
17:34 22° 36.310S 176° 43.307W 2074m SUNRISE
SX23S 18:18 22° 36.475S 176° 43.238W 2186m MTD DEEPEST
SX23S 19:19 22° 38.002S 176° 42.151W 1974m MTD MESSENGER SEND
SX23S 20:22 22° 38.176S 176° 42.038W 1924m MTD FINISHED
----- 18 FEB.05 (GMT) -----
SX23 0:05 22° 33.450S 176° 36.520W 2699m MULTIPLE CORER STARTED
SX23 1:11 22° 33.665S 176° 36.521W 2700m MULTIPLE CORER HIT BOTTOM
SX23 1:14 22° 33.669S 176° 36.507W 2699m MULTIPLE CORER LEFT BOTTOM
SX23 2:03 22° 33.269S 176° 36.180W 2704m MULTIPLE CORER FINISHED
SX23 3:28 22° 31.785S 176° 42.866W 1851m NORPAC NET STARTED
SX23 3:43 22° 31.667S 176° 42.798W 1866m NORPAC NET FINISHED
SX23 3:45 22° 31.634S 176° 42.788W 1874m NORPAC NET STARTED
SX23 4:00 22° 31.536S 176° 42.680W 1880m NORPAC NET FINISHED
SX23 4:07 22° 31.500S 176° 42.654W 1846m NORPAC NET STARTED
SX23 4:24 22° 31.338S 176° 42.545W 1892m NORPAC NET FINISHED
SX23 5:20 22° 30.705S 176° 42.257W 1924m CTD-CMS STARTED
SX23 6:05 22° 30.517S 176° 41.946W CTD-CMS DEEPEST
6:28 22° 30.405S 176° 41.824W SUNSET
SX23 6:57 22° 30.309S 176° 41.603W 2238m CTD-CMS FINISHED
SX23 7:53 22° 31.964S 176° 43.008W 1900m NORPAC NET STARTED
SX23 8:44 22° 31.707S 176° 42.757W 1865m NORPAC NET DEEPEST (W.O. 1700m)
SX23 9:17 22° 31.666S 176° 42.659W 1860m NORPAC NET FINISHED
SX23 9:38 22° 31.646S 176° 42.628W 1851m NORPAC NET STARTED
SX23 10:13 22° 31.366S 176° 42.456W 1894m NORPAC NET DEEPEST (W.O. 1700m)
SX23 10:43 22° 31.316S 176° 42.330W 1922m NORPAC NET FINISHED
IK048 11:00 22° 31.344S 176° 42.200W 2005m IKMT NET STARTED
IK048 11:24 22° 32.161S 176° 41.440W 2108m IKMT NET DEEPEST (W.O. 1000m)
IK048 11:57 22° 32.972S 176° 40.776W 2137m IKMT NET FINISHED
IK049 12:02 22° 32.949S 176° 40.749W 2146m IKMT NET STARTED
IK049 12:04 22° 33.350S 176° 40.446W 1934m IKMT NET DEEPEST (W.O. 308m)
IK049 13:00 22° 35.009S 176° 39.329W 2689m IKMT NET FINISHED
SX23S 14:05 22° 36.836S 176° 42.769W 2054m NORPAC NET STARTED
SX23S 14:49 22° 36.580S 176° 42.721W 2090m NORPAC NET DEEPEST (W.O. 1700m)
SX23S 15:18 22° 36.477S 176° 42.623W 2159m NORPAC NET FINISHED
SX23N 16:44 22° 26.883S 176° 43.086W 2208m NORPAC NET STARTED
17:37 22° 26.358S 176° 42.538W 2141m SUNRISE
SX23N 18:01 22° 26.363S 176° 42.390W 2094m NORPAC NET FINISHED
----- 19 FEB.05 (GMT) -----
6:16 19° 26.370S 175° 30.729W 2315m SUNSET
IK050 8:03 19° 02.037S 175° 19.759W 2202m IKMT NET STARTED
IK050 8:25 19° 02.926S 175° 19.744W 2184m IKMT NET DEEPEST (W.O. 1000m)
IK050 8:58 19° 03.961S 175° 19.792W 2157m IKMT NET FINISHED
IK051 13:58 18° 04.613S 174° 31.608W 1308m IKMT NET STARTED
IK051 14:11 18° 05.120S 174° 31.686W 1286m IKMT NET DEEPEST (W.O. 362m)
IK051 15:14 18° 07.067S 174° 31.710W 1215m IKMT NET FINISHED
17:34 17° 44.737S 174° 07.915W 1308m SUNRISE
SX23M 21:21 17° 21.798S 173° 33.310W 1316m MULTIPLE CORER STARTED
SX23M 22:06 17° 21.866S 173° 32.907W 1318m MULTIPLE CORER HIT BOTTOM
SX23M 22:08 17° 21.881S 173° 32.884W 1319m MULTIPLE CORER LEFT BOTTOM
SX23M 22:36 17° 21.978S 173° 32.628W 1322m MULTIPLE CORER FINISHED
----- 20 FEB.05 (GMT) -----
5:59 16° 16.890S 171° 55.259W 5918m SUNSET
IK052 7:58 16° 04.441S 171° 31.687W 4896m IKMT NET STARTED
IK052 8:21 16° 05.583S 171° 31.781W 4900m IKMT NET DEEPEST (W.O. 1000m)
IK052 8:53 16° 06.986S 171° 32.027W 4936m IKMT NET FINISHED
IK053 13:59 15° 19.792S 170° 34.273W 4882m IKMT NET STARTED
IK053 14:14 15° 19.142S 170° 34.091W 4880m IKMT NET DEEPEST (W.O. 380m)
IK053 15:15 15° 16.750S 170° 33.095W 4890m IKMT NET FINISHED
17:18 15° 02.848S 170° 09.807W 4736m SUNRISE
SX24 19:53 14° 59.903S 170° 00.291W NORPAC NET STARTED
SX24 20:11 14° 59.894S 170° 00.280W 4749m NORPAC NET FINISHED
SX24 20:16 14° 59.903S 170° 00.268W 4748m NORPAC NET STARTED
SX24 20:28 14° 59.893S 170° 00.232W 4749m NORPAC NET FINISHED

SX24 20:32 14° 59.893S 170° 00.220W 4753m NORPAC NET STARTED
SX24 20:44 14° 59.898S 170° 00.163W 4748m NORPAC NET FINISHED
SX24 20:47 14° 59.899S 170° 00.161W 4750m NORPAC NET STARTED
SX24 20:56 14° 59.878S 170° 00.083W 4750m NORPAC NET FINISHED
SX24 23:31 14° 59.691S 170° 00.099W 4749m ORI NET STARTED
----- 21 FEB.05 (GMT) -----
SX24 0:08 15° 01.070S 170° 00.413W 4770m ORI NET DEEPEST
SX24 1:12 15° 02.946S 170° 00.740W 4811m ORI NET FINISHED
SX24 1:45 14° 59.909S 170° 00.033W 4754m CTD-CMS STARTED
SX24 2:37 14° 59.787S 169° 59.983W 4751m NORPAC NET STARTED
SX24 2:47 14° 59.709S 169° 59.938W 4750m NORPAC NET FINISHED
SX24 2:51 14° 59.707S 169° 59.938W 4751m NORPAC NET STARTED
SX24 3:02 14° 59.642S 169° 59.902W 4747m NORPAC NET FINISHED
SX24 3:28 14° 59.704S 169° 59.844W 4750m CTD-CMS DEEPEST
SX24 5:12 14° 59.651S 169° 59.672W 4748m CTD-CMS FINISHED
5:49 15° 00.017S 170° 00.011W 4754m SUNSET
SX24 6:08 14° 59.954S 170° 00.034W 4752m CTD-CMS STARTED
SX24 6:49 14° 59.801S 169° 59.983W 4750m CTD-CMS DEEPEST
SX24 7:09 14° 59.663S 169° 59.923W 4747m CTD-CMS FINISHED
SX24 7:27 14° 59.395S 169° 59.795W 4744m LET GO ARGO FLOAT
IK054 8:05 14° 54.965S 169° 58.295W 4646m IKMT NET STARTED
IK054 8:31 14° 53.749S 169° 58.533W 4590m IKMT NET DEEPEST (W.O. 1000m)
IK054 9:04 14° 52.466S 169° 58.808W 4534m IKMT NET FINISHED
IK055 13:59 13° 48.975S 169° 59.235W 4292m IKMT NET STARTED
IK055 14:14 13° 48.263S 169° 59.472W 4306m IKMT NET DEEPEST (W.O. 403m)
IK055 15:16 13° 45.645S 170° 00.942W 4300m IKMT NET FINISHED
17:19 13° 17.119S 169° 59.991W 4869m SUNRISE
----- 22 FEB.05 (GMT) -----
5:46 10° 15.335S 169° 59.899W 5064m SUNSET
6:08 10° 09.874S 169° 59.905W 5077m PASSED EEZ
SX25 7:25 10° 00.004S 169° 59.983W 4924m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 8:09 09° 59.922S 169° 59.817W 4933m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:17 09° 59.877S 169° 59.811W 4931m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:25 09° 59.817S 169° 59.823W 4926m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:31 09° 59.784S 169° 59.825W 4924m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:53 09° 59.682S 169° 59.727W 4934m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX25 9:20 09° 59.901S 169° 59.749W 4939m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 9:42 09° 59.877S 169° 59.690W 4972m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 9:46 09° 59.871S 169° 59.699W 4947m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 9:51 09° 59.856S 169° 59.714W 4941m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 9:54 09° 59.841S 169° 59.723W 4938m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 10:06 09° 59.766S 169° 59.716W 4946m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX25 10:30 09° 59.899S 169° 59.793W 4934m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 10:44 09° 59.885S 169° 59.736W 4940m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 2 TIMES
SX25 10:49 09° 59.866S 169° 59.736W 4938m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 10:54 09° 59.850S 169° 59.733W 4936m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 11:02 09° 59.819S 169° 59.686W 4942m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX25 11:25 09° 59.889S 169° 59.792W 4933m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 11:36 09° 59.888S 169° 59.779W 4935m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 11:39 09° 59.865S 169° 59.797W 4931m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 11:42 09° 59.858S 169° 59.807W 4929m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 11:45 09° 59.864S 169° 59.811W 4930m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 11:52 09° 59.878S 169° 59.785W 4932m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX25 12:15 10° 00.015S 169° 59.957W 4933m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 12:21 10° 00.051S 169° 59.927W 4933m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 12:24 10° 00.050S 169° 59.925W 4933m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 12:26 10° 00.044S 169° 59.918W 4933m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 12:29 10° 00.039S 169° 59.909W 4932m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 12:32 10° 00.054S 169° 59.897W 4972m LARGE VOLUME SAMPLING SYSTEM FINISHED
IK056 12:52 10° 00.273S 169° 59.761W 4996m IKMT NET STARTED
IK056 13:07 09° 59.604S 169° 59.745W 4933m IKMT NET DEEPEST (W.O. 448m)
IK056 14:16 09° 56.921S 169° 59.744W 4909m IKMT NET FINISHED
IK057 14:21 09° 56.883S 169° 59.711W 4910m IKMT NET STARTED
IK057 14:44 09° 55.853S 169° 59.875W 4913m IKMT NET DEEPEST (W.O. 1000m)

IK057 15:17 09° 54.806S 170° 00.061W 4922m IKMT NET FINISHED
17:21 10° 00.046S 169° 59.977W 4929m SUNRISE
SX25 19:06 10° 06.147S 169° 59.862W 5090m MULTIPLE CORER STARTED
SX25 20:53 10° 05.975S 169° 59.985W 5088m MULTIPLE CORER HIT BOTTOM
SX25 20:57 10° 05.979S 169° 59.962W 5089m MULTIPLE CORER LEFT BOTTOM
SX25 22:30 10° 05.226S 170° 00.156W 5096m MULTIPLE CORER FINISHED
SX25 23:35 09° 59.955S 169° 59.958W 4929m CTD-CMS STARTED
----- 23 FEB.05 (GMT) -----
SX25 1:19 10° 00.036S 169° 59.845W 4940m CTD-CMS DEEPEST
SX25 3:05 10° 00.057S 170° 00.005W 4928m CTD-CMS FINISHED
SX25 3:24 09° 59.953S 169° 59.973W 4919m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 4:33 09° 59.976S 169° 59.748W 4948m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 4:43 09° 59.913S 169° 59.714W 4966m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 4:54 09° 59.873S 169° 59.725W 4958m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 5:05 09° 59.823S 169° 59.722W 4944m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 5:41 09° 59.844S 169° 59.587W 4969m LARGE VOLUME SAMPLING SYSTEM FINISHED
5:54 10° 00.070S 169° 59.638W 4991m SUNSET
SX25 6:10 10° 00.026S 169° 59.948W 4928m LARGE VOLUME SAMPLING SYSTEM STARTED
SX25 7:49 10° 00.098S 169° 59.723W 4986m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 7:56 10° 00.050S 169° 59.736W 4963m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:07 10° 00.072S 169° 59.763W 4954m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 8:18 09° 59.961S 169° 59.753W 4946m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX25 9:33 09° 59.570S 169° 59.955W 4918m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX25 9:53 09° 59.998S 169° 59.944W 4924m CTD-CMS STARTED
SX25 10:21 10° 00.076S 169° 59.849W 4978m CTD-CMS DEEPEST
SX25 11:04 10° 00.190S 169° 59.758W 4994m CTD-CMS FINISHED
SX25 11:14 10° 00.165S 169° 59.696W 4998m ORI NET STARTED
SX25 11:50 09° 58.865S 169° 59.693W 4934m ORI NET DEEPEST
SX25 13:03 09° 56.528S 169° 59.767W 4911m ORI NET FINISHED
IK058 13:10 09° 56.458S 169° 59.764W 4909m IKMT NET STARTED
IK058 13:21 09° 55.977S 169° 59.790W 4910m IKMT NET DEEPEST (W.O. 380m)
IK058 14:21 09° 53.966S 170° 00.002W 4930m IKMT NET FINISHED
SX25 15:24 10° 00.109S 169° 59.944W 4968m CTD-CMS STARTED
SX25 15:44 10° 00.359S 169° 59.994W 5000m NORPAC NET STARTED
SX25 16:03 10° 00.567S 170° 00.102W 5005m NORPAC NET FINISHED
SX25 16:17 10° 00.608S 170° 00.146W NORPAC NET STARTED
SX25 16:32 10° 00.554S 170° 00.164W 5004m CTD-CMS DEEPEST
SX25 16:35 10° 00.537S 170° 00.166W 5004m NORPAC NET FINISHED
SX25 16:41 10° 00.503S 170° 00.172W 5004m NORPAC NET STARTED
SX25 16:51 10° 00.450S 170° 00.210W 4999m NORPAC NET FINISHED
17:23 10° 00.505S 170° 00.335W 4979m SUNRISE
SX25 17:32 10° 00.542S 170° 00.373W 4982m CTD-CMS FINISHED
SX25 17:52 10° 00.706S 170° 00.152W 4990m LET GO ARGO FLOAT
----- 24 FEB.05 (GMT) -----
5:42 07° 05.859S 169° 59.833W 4684m SUNSET
6:50 06° 48.771S 169° 59.844W 4538m PASSED EEZ LINE FROM NZ TO USA
IK059 8:00 06° 33.840S 169° 59.953W 4578m IKMT NET STARTED
IK059 8:11 06° 33.477S 170° 00.085W 4578m IKMT NET DEEPEST (W.O. 303m)
IK059 9:07 06° 31.938S 170° 00.060W 4573m IKMT NET FINISHED
IK060 14:06 05° 22.657S 169° 59.952W 4930m IKMT NET STARTED
IK060 14:32 05° 21.390S 170° 00.765W 4925m IKMT NET DEEPEST (W.O. 1000m)
IK060 15:04 05° 20.377S 170° 01.525W 4893m IKMT NET FINISHED
SX26 16:51 05° 00.066S 170° 00.057W 5328m ORI NET STARTED
17:26 SUNRISE
SX26 17:45 04° 59.215S 170° 01.575W 5162m ORI NET DEEPEST
SX26 18:52 04° 58.239S 170° 02.917W 5176m ORI NET FINISHED
SX26 19:48 04° 54.840S 170° 00.030W 5330m CTD-CMS STARTED
SX26 20:11 04° 54.599S 170° 00.291W NORPAC NET STARTED
SX26 20:22 04° 54.599S 170° 00.426W 5332m NORPAC NET FINISHED
SX26 20:27 04° 54.606S 170° 00.467W 5331m NORPAC NET STARTED
SX26 20:40 04° 54.614S 170° 00.609W 5329m NORPAC NET FINISHED
SX26 20:44 04° 54.584S 170° 00.629W 5330m NORPAC NET STARTED
SX26 20:53 04° 54.457S 170° 00.661W 5330m NORPAC NET FINISHED
SX26 21:36 04° 54.695S 170° 00.604W 5328m CTD-CMS DEEPEST
SX26 23:32 04° 54.725S 170° 01.029W 5329m CTD-CMS FINISHED

----- 25 FEB.05 (GMT) -----
SX26 0:04 04° 54.976S 170° 00.006W 5326m MULTIPLE CORER STARTED
SX26 1:59 04° 54.383S 170° 00.128W 5330m MULTIPLE CORER HIT BOTTOM
SX26 2:03 04° 54.366S 170° 00.130W 5330m MULTIPLE CORER LEFT BOTTOM
SX26 3:40 04° 53.753S 170° 00.298W 5331m MULTIPLE CORER FINISHED
SX26 4:14 04° 54.825S 170° 00.002W 5331m CTD-CMS STARTED
SX26 4:40 04° 54.577S 170° 00.215W 5329m CTD-CMS DEEPEST
SX26 5:12 04° 54.469S 170° 00.534W 5331m CTD-CMS FINISHED
SX26 5:29 04° 54.216S 170° 00.608W 5333m LET GO ARGO FLOAT
5:40 04° 52.465S 170° 00.569W 5111m SUNSET
IK061 7:59 04° 17.124S 170° 00.274W 5721m IKMT NET STARTED
IK061 8:10 04° 16.386S 170° 00.661W 5652m IKMT NET DEEPEST (W.O. 345m)
IK061 9:09 04° 13.156S 170° 02.052W 5550m IKMT NET FINISHED
IK062 13:59 03° 01.307S 170° 00.216W 5084m IKMT NET STARTED
IK062 14:30 03° 00.061S 170° 01.050W 4971m IKMT NET DEEPEST (W.O. 1000m)
IK062 14:54 02° 59.343S 170° 01.618W 4964m IKMT NET FINISHED
17:29 02° 21.596S 170° 02.717W 5106m SUNRISE
----- 26 FEB.05 (GMT) -----
2:46 00° 00.001S 170° 00.648W 5427m PASSED THE EQUATOR
SX27 3:25 00° 04.864N 170° 00.227W 5425m CTD-CMS STARTED
SX27 3:53 00° 04.859N 170° 00.397W NORPAC NET STARTED
SX27 4:06 00° 04.918N 170° 00.421W NORPAC NET FINISHED
SX27 4:09 00° 04.929N 170° 00.425W NORPAC NET STARTED
SX27 4:20 00° 04.971N 170° 00.453W NORPAC NET FINISHED
SX27 4:24 00° 04.986N 170° 00.457W NORPAC NET STARTED
SX27 4:33 00° 05.033N 170° 00.466W NORPAC NET FINISHED
SX27 5:15 00° 05.197N 170° 00.566W CTD-CMS DEEPEST
5:37 00° 05.216N 170° 00.611W SUNSET
SX27 7:03 00° 05.277N 170° 00.693W 5408m CTD-CMS FINISHED
IK063 7:15 00° 05.213N 170° 00.675W 5408m IKMT NET STARTED
IK063 7:36 00° 05.123N 169° 59.970W 5421m IKMT NET DEEPEST (W.O. 1000m)
IK063 8:09 00° 05.354N 169° 59.358W 5365m IKMT NET FINISHED
SX27 8:38 00° 04.947N 170° 00.128W 5425m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 8:47 00° 04.958N 170° 00.117W 5424m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
SX27 9:02 00° 04.962N 170° 00.098W 5424m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 9:45 00° 04.933N 170° 00.079W 5424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 10:26 00° 04.920N 169° 59.801W 5425m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
SX27 10:57 00° 04.904N 169° 59.606W 5424m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 11:22 00° 04.962N 169° 59.979W 5423m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 12:43 00° 05.153N 169° 59.652W 5413m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
SX27 13:42 00° 05.516N 169° 59.463W 5355m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 14:10 00° 05.042N 170° 00.024W 5422m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 14:26 00° 05.141N 170° 00.049W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
SX27 14:32 00° 05.168N 170° 00.053W 5419m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 14:59 00° 05.032N 170° 00.020W 5423m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 15:32 00° 05.237N 170° 00.023W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
SX27 15:53 00° 05.354N 169° 59.959W 5420m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 16:21 00° 05.009N 170° 00.050W 5424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 17:29 00° 05.264N 169° 59.841W 5416m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 4 TIMES
17:31 00° 05.281N 169° 59.839W 5416m SUNRISE
SX27 18:22 00° 05.759N 169° 59.783W 5386m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 19:46 00° 04.999N 170° 00.290W 5424m CTD-CMS STARTED
SX27 20:25 00° 04.984N 170° 00.451W 5422m CTD-CMS DEEPEST
SX27 21:03 00° 05.188N 170° 00.586W 5411m CTD-CMS FINISHED
SX27 21:31 00° 05.039N 169° 59.955W 5420m MULTIPLE CORER STARTED
SX27 23:30 00° 05.838N 169° 59.433W MULTIPLE CORER HIT BOTTOM
SX27 23:34 00° 05.865N 169° 59.416W MULTIPLE CORER LEFT BOTTOM
----- 27 FEB.05 (GMT) -----
SX27 1:12 00° 06.847N 169° 59.014W 5326m MULTIPLE CORER FINISHED

SX27 1:54 00° 05.105N 170° 00.021W 5420m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 2:02 00° 05.229N 170° 00.015W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:05 00° 05.263N 170° 00.008W 5419m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:07 00° 05.302N 169° 59.999W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:10 00° 05.326N 170° 00.004W 5419m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:12 00° 05.340N 170° 00.015W 5420m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 2:39 00° 05.092N 170° 00.242W 5424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 2:50 00° 05.214N 170° 00.319W 5419m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:53 00° 05.238N 170° 00.318W 5419m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:56 00° 05.274N 170° 00.317W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 2:59 00° 05.308N 170° 00.319W 5418m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 3:02 00° 05.337N 170° 00.337W 5418m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 3:55 00° 05.113N 170° 00.001W 5422m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 4:10 00° 05.222N 169° 59.951W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 4:15 00° 05.241N 169° 59.946W 5326m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED 2 TIMES
SX27 4:20 00° 05.260N 169° 59.934W 5420m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 4:26 00° 05.287N 169° 59.927W 5420m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 4:58 00° 05.006N 170° 00.035W 5424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 5:21 00° 05.016N 170° 00.013W 5422m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 5:26 00° 05.019N 169° 59.993W 5423m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 5:29 00° 05.017N 169° 59.974W 5423m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 5:33 00° 05.014N 169° 59.965W 5424m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
5:36 00° 05.010N 169° 59.955W 5423m SUNSET
SX27 5:43 00° 05.019N 169° 59.903W 5424m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 6:14 00° 05.012N 169° 59.994W 5423m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 6:59 00° 04.950N 169° 59.841W 5425m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 7:09 00° 04.959N 169° 59.765W 5425m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 7:16 00° 04.959N 169° 59.742W 5426m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 7:21 00° 04.968N 169° 59.718W 5427m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 7:41 00° 04.986N 169° 59.607W 5425m LARGE VOLUME SAMPLING SYSTEM FINISHED
IK064 8:02 00° 04.987N 169° 59.745W 5426m IKMT NET STARTED
IK064 8:10 00° 05.030N 169° 59.484W 5421m IKMT NET DEEPEST (W.O. 278m)
IK064 9:02 00° 05.299N 169° 57.955W 5360m IKMT NET FINISHED
SX27 9:46 00° 05.013N 170° 00.215W 5424m CTD-CMS STARTED
SX27 10:45 00° 05.099N 170° 00.336W 5423m CTD-CMS DEEPEST
SX27 11:45 00° 05.160N 170° 00.366W 5422m CTD-CMS FINISHED
IK065 11:57 00° 05.179N 170° 00.371W 5422m IKMT NET STARTED
IK065 12:19 00° 05.591N 169° 59.656W 5374m IKMT NET DEEPEST (W.O. 573m)
IK065 13:12 00° 06.163N 169° 58.762W 5319m IKMT NET FINISHED
SX27 13:26 00° 06.168N 169° 58.850W 5312m ORI NET STARTED
SX27 14:07 00° 06.620N 169° 57.870W 5422m ORI NET DEEPEST
SX27 15:13 00° 07.128N 169° 56.912W 5404m ORI NET FINISHED
SX27 16:04 00° 05.012N 170° 00.010W 5423m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 17:25 00° 05.178N 170° 00.226W 5422m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
17:32 00° 05.202N 170° 00.242W 5422m SUNRISE
SX27 17:35 00° 05.204N 170° 00.253W 5423m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 17:45 00° 05.199N 170° 00.306W 5422m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 17:55 00° 05.236N 170° 00.331W 5421m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 18:39 00° 05.288N 170° 00.560W 5412m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 19:17 00° 05.008N 170° 00.071W 5424m LARGE VOLUME SAMPLING SYSTEM STARTED
SX27 21:13 00° 05.639N 170° 00.106W LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 21:18 00° 05.669N 170° 00.130W LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 21:28 00° 05.718N 170° 00.170W 5460m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 21:39 00° 05.773N 170° 00.206W LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX27 23:03 00° 06.352N 169° 59.903W 5454m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX27 23:48 00° 04.624N 170° 00.828W 5469m MULTIPLE CORER STARTED
----- 28 FEB.05 (GMT) -----
SX27 1:57 00° 05.383N 170° 00.218W 5471m MULTIPLE CORER HIT BOTTOM
SX27 2:00 00° 05.373N 170° 00.218W 5470m MULTIPLE CORER LEFT BOTTOM
SX27 3:36 00° 05.852N 170° 00.262W 5459m MULTIPLE CORER FINISHED
5:36 00° 30.791N 170° 00.169W 5367m SUNSET
IK066 7:59 01° 05.541N 169° 59.957W 5392m IKMT NET STARTED
IK066 8:29 01° 05.936N 169° 59.348W 5398m IKMT NET DEEPEST (W.O. 1000m)
IK066 9:05 01° 06.368N 169° 58.607W 5400m IKMT NET FINISHED

IK067 13:55 02 ° 19.298N 169 ° 58.812W 5303m IKMT NET STARTED
IK067 14:13 02 ° 19.941N 169 ° 59.061W 5304m IKMT NET DEEPEST (W.O. 514m)
IK067 15:28 02 ° 21.453N 170 ° 02.048W 5260m IKMT NET FINISHED
17:31 02 ° 50.593N 170 ° 01.351W 5353m SUNRISE
----- 01 MAR.05 (GMT) -----
SX28 2:30 05 ° 05.392N 169 ° 59.993W 5580m CTD-CMS STARTED
SX28 4:56 05 ° 06.227N 170 ° 00.010W 5611m CTD-CMS DEEPEST
5:33 05 ° 06.571N 170 ° 00.105W 5596m SUNSET
SX28 6:58 05 ° 07.325N 170 ° 00.281W 5544m CTD-CMS FINISHED
SX28 7:13 05 ° 07.456N 170 ° 00.275W 5546m NORPAC NET STARTED
SX28 7:37 05 ° 07.707N 170 ° 00.396W 5554m NORPAC NET FINISHED
SX28 7:41 05 ° 07.710N 170 ° 00.413W 5560m NORPAC NET STARTED
SX28 7:56 05 ° 07.859N 170 ° 00.440W NORPAC NET FINISHED
SX28 8:00 05 ° 07.884N 170 ° 00.435W 5574m NORPAC NET STARTED
SX28 8:17 05 ° 08.232N 170 ° 00.356W 5562m NORPAC NET FINISHED
SX28 8:44 05 ° 08.522N 170 ° 00.430W ORI NET STARTED
SX28 9:21 05 ° 08.604N 169 ° 58.748W ORI NET DEEPEST
SX28 10:29 05 ° 09.240N 169 ° 56.886W 5578m ORI NET FINISHED
IK068 10:41 05 ° 09.355N 169 ° 56.795W 1m IKMT NET STARTED
IK068 11:02 05 ° 10.155N 169 ° 55.854W 5517m IKMT NET DEEPEST (W.O. 392m)
IK068 12:02 05 ° 12.071N 169 ° 53.318W IKMT NET FINISHED
SX28 13:19 05 ° 05.215N 169 ° 59.936W 5650m CTD-CMS STARTED
SX28 13:56 05 ° 05.572N 169 ° 59.822W 5616m CTD-CMS DEEPEST
SX28 14:32 05 ° 05.838N 169 ° 59.808W CTD-CMS FINISHED
IK069 14:47 05 ° 05.970N 169 ° 59.726W IKMT NET STARTED
IK069 15:16 05 ° 06.808N 169 ° 58.509W 3m IKMT NET DEEPEST (W.O. 1000m)
IK069 15:48 05 ° 07.473N 169 ° 57.580W IKMT NET FINISHED
17:32 05 ° 30.319N 169 ° 58.300W SUNRISE
----- 02 MAR.05 (GMT) -----
5:32 08 ° 13.844N 169 ° 47.439W 5360m SUNSET
IK070 7:55 08 ° 45.305N 169 ° 51.482W 5227m IKMT NET STARTED
IK070 8:09 08 ° 45.622N 169 ° 50.837W 5226m IKMT NET DEEPEST (W.O. 412m)
IK070 9:13 08 ° 46.811N 169 ° 48.509W 5223m IKMT NET FINISHED
IK071 14:00 09 ° 53.310N 169 ° 59.320W 4393m IKMT NET STARTED
IK071 14:32 09 ° 53.776N 169 ° 57.995W 4292m IKMT NET DEEPEST (W.O. 1000m)
IK071 15:05 09 ° 54.085N 169 ° 57.154W 4258m IKMT NET FINISHED
SX29 16:08 09 ° 59.827N 169 ° 59.888W ORI NET STARTED
SX29 16:46 10 ° 00.215N 169 ° 58.695W 4242m ORI NET DEEPEST
17:37 10 ° 00.546N 169 ° 57.585W 4198m SUNRISE
SX29 17:53 10 ° 00.597N 169 ° 57.169W 4166m ORI NET FINISHED
SX29 18:43 10 ° 00.059N 170 ° 00.049W 4305m IKMT NET STARTED
SX29 19:52 10 ° 00.901N 169 ° 57.535W 4198m IKMT NET DEEPEST (W.O. 4037m)
SX29 22:05 10 ° 02.702N 169 ° 54.632W 3943m IKMT NET FINISHED
----- 03 MAR.05 (GMT) -----
5:31 10 ° 00.612N 170 ° 00.426W 4305m SUNSET
SX29 7:26 09 ° 59.936N 170 ° 00.174W 4308m CTD-CMS STARTED
SX29 8:53 10 ° 00.004N 170 ° 00.324W 4314m CTD-CMS DEEPEST
SX29 10:26 10 ° 00.137N 170 ° 00.569W 4324m CTD-CMS FINISHED
SX29 11:39 10 ° 00.060N 170 ° 00.525W 4325m CTD-CMS STARTED
SX29 12:06 10 ° 00.068N 170 ° 00.756W 4330m CTD-CMS DEEPEST
SX29 12:28 10 ° 00.124N 170 ° 00.917W 4331m CTD-CMS FINISHED
SX29 13:55 09 ° 59.870N 170 ° 01.531W 4372m LET GO ARGO FLOAT
17:37 09 ° 36.119N 170 ° 56.027W 4864m SUNRISE
----- 04 MAR.05 (GMT) -----
1:45 08 ° 42.984N 173 ° 00.050W 5775m LET GO ARGO FLOAT
5:48 08 ° 17.058N 173 ° 59.970W 5874m SUNSET
IK072 7:58 08 ° 04.836N 174 ° 28.272W 5873m IKMT NET STARTED
IK072 8:31 08 ° 05.073N 174 ° 27.194W 5824m IKMT NET DEEPEST (W.O. 1000m)
IK072 9:03 08 ° 05.248N 174 ° 26.341W 5881m IKMT NET FINISHED
IK073 14:00 07 ° 38.737N 175 ° 30.529W 5678m IKMT NET STARTED
IK073 14:19 07 ° 39.160N 175 ° 29.677W 5582m IKMT NET DEEPEST (W.O. 511m)
IK073 15:19 07 ° 40.435N 175 ° 27.372W 5476m IKMT NET FINISHED
17:59 07 ° 25.811N 176 ° 00.021W 3998m LET GO ARGO FLOAT
18:17 07 ° 24.232N 176 ° 03.619W 4011m SUNRISE
SX30 22:42 07 ° 00.004N 177 ° 00.057W 3178m CTD-CMS STARTED

SX30 22:55 07° 00.084N 177° 00.017W 3180m NORPAC NET STARTED (200M)
SX30 23:10 07° 00.098N 177° 00.012W 3179m NORPAC NET FINISHED
SX30 23:14 07° 00.113N 177° 00.001W 3180m NORPAC NET STARTED (200M)
SX30 23:28 07° 00.183N 176° 59.977W 3181m NORPAC NET FINISHED
SX30 23:31 07° 00.182N 176° 59.984W 3181m NORPAC NET STARTED (150M)
SX30 23:42 07° 00.212N 177° 00.028W 3177m NORPAC NET FINISHED
SX30 23:43 07° 00.221N 177° 00.027W 3177m CTD-CMS DEEPEST
----- 05 MAR.05 (GMT) -----
SX30 0:44 07° 00.489N 176° 59.980W 3172m CTD-CMS FINISHED
SX30 1:01 07° 00.526N 176° 59.892W 3178m IKMT NET STARTED
SX30 2:04 07° 02.315N 176° 56.413W 3161m IKMT NET DEEPEST (W.O. 3000m)
SX30 3:42 07° 04.406N 176° 52.726W 3094m IKMT NET FINISHED
SX30 3:56 07° 04.537N 176° 52.730W 3094m ORI NET STARTED
SX30 4:15 07° 04.748N 176° 51.791W 3094m ORI NET DEEPEST
SX30 4:49 07° 05.085N 176° 50.695W 3098m ORI NET FINISHED
6:00 06° 59.995N 176° 59.992W 3181m SUNSET
SX30 6:13 07° 00.000N 176° 59.948W CTD-CMS STARTED
SX30 6:43 07° 00.281N 176° 59.830W 3189m CTD-CMS DEEPEST
SX30 7:18 07° 00.484N 176° 59.659W 3182m CTD-CMS FINISHED
SX30 7:35 07° 00.526N 176° 59.483W 3183m IKMT NET STARTED
SX30 8:27 07° 00.829N 176° 56.161W 3120m IKMT NET DEEPEST (W.O. 3000)
SX30 10:10 07° 00.646N 176° 52.146W 3180m IKMT NET FINISHED
IK074 10:23 07° 00.613N 176° 51.745W 3164m IKMT NET STARTED
IK074 10:37 07° 00.625N 176° 50.942W 3201m IKMT NET DEEPEST (W.O. 367m)
IK074 11:24 07° 00.820N 176° 48.465W 3122m IKMT NET FINISHED
SX30 11:46 07° 00.700N 176° 48.321W 3123m IKMT NET STARTED
SX30 11:59 07° 00.556N 176° 48.913W 3144m IKMT NET DEEPEST (W.O. 600m)
SX30 12:23 07° 00.411N 176° 49.418W 3183m IKMT NET FINISHED
SX30 12:34 07° 00.499N 176° 49.330W 3186m IKMT NET STARTED
SX30 13:13 07° 01.614N 176° 47.375W 3139m IKMT NET DEEPEST (W.O. 1500m)
SX30 13:15 07° 01.674N 176° 47.300W 3112m ORI SIDE NET STARTED
SX30 13:35 07° 02.206N 176° 46.602W 3170m ORI SIDE NET FINISHED
SX30 14:03 07° 02.747N 176° 45.655W 3196m IKMT NET FINISHED
SX30 14:09 07° 02.754N 176° 45.648W 3196m IKMT NET STARTED
SX30 15:06 07° 04.299N 176° 42.583W 3293m IKMT NET DEEPEST (W.O. 1500m)
SX30 15:08 07° 04.349N 176° 42.482W 3297m ORI SIDE NET STARTED
SX30 15:28 07° 04.800N 176° 41.668W 3300m ORI SIDE NET FINISHED
SX30 16:44 07° 06.292N 176° 38.771W 3365m IKMT NET FINISHED
17:59 07° 03.825N 176° 52.125W 3089m SUNRISE
SX30 18:38 07° 03.714N 176° 52.656W 3088m LARGE VOLUME SAMPLING SYSTEM STARTED
SX30 18:43 07° 03.741N 176° 52.602W 3088m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 18:46 07° 03.764N 176° 52.537W 3088m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 18:48 07° 03.777N 176° 52.485W 3090m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 18:50 07° 03.782N 176° 52.437W 3089m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 18:53 07° 03.782N 176° 52.395W 3089m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX30 19:21 07° 03.669N 176° 52.568W 3089m LARGE VOLUME SAMPLING SYSTEM STARTED
SX30 19:30 07° 03.658N 176° 52.442W 3090m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 19:32 07° 03.664N 176° 52.414W 3092m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 19:34 07° 03.665N 176° 52.391W 3090m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 19:36 07° 03.671N 176° 52.360W 3092m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 19:41 07° 03.655N 176° 52.314W 3092m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX30 20:11 07° 03.714N 176° 52.305W 3092m LARGE VOLUME SAMPLING SYSTEM STARTED
SX30 20:29 07° 03.753N 176° 52.129W 3090m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 20:34 07° 03.772N 176° 52.098W 3091m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 20:39 07° 03.773N 176° 52.101W 3090m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 20:43 07° 03.793N 176° 52.043W 3091m LARGE VOLUME SAMPLING SYSTEM COVER CLOSED
SX30 20:53 07° 03.794N 176° 51.942W 3090m LARGE VOLUME SAMPLING SYSTEM FINISHED
SX30 21:46 07° 03.695N 176° 52.569W 3075m MULTIPLE CORER STARTED
SX30 23:01 07° 04.003N 176° 51.900W MULTIPLE CORER HIT BOTTOM
SX30 23:04 07° 04.025N 176° 51.886W 3088m MULTIPLE CORER LEFT BOTTOM
----- 06 MAR.05 (GMT) -----
SX30 0:03 07° 03.992N 176° 51.090W 3089m MULTIPLE CORER FINISHED
SX30 1:16 07° 02.903N 176° 47.168W 3150m BEAM TRAWL STARTED
SX30 3:35 07° 03.000N 176° 48.556W 3150m BEAM TRAWL HIT BOTTOM
SX30 3:56 07° 02.995N 176° 49.195W 3135m BEAM TRAWL LEFT BOTTOM

SX30 4:56 07° 02.974N 176° 50.597W 3101m BEAM TRAWL LEFT BOTTOM
SX30 6:03 07° 03.142N 176° 51.830W 3101m BEAM TRAWL FINISHED
6:04 07° 03.144N 176° 51.825W 3100m SUNSET
IK075 7:58 06° 58.361N 177° 13.104W 3308m IKMT NET STARTED
IK075 8:08 06° 58.259N 177° 12.547W IKMT NET DEEPEST (W.O. 308m)
IK075 9:05 06° 57.652N 177° 09.968W 3274m IKMT NET FINISHED
IK076 13:58 06° 47.216N 178° 17.613W 5167m IKMT NET STARTED
IK076 14:24 06° 46.982N 178° 16.745W 5154m IKMT NET DEEPEST (W.O. 1000m)
IK076 14:57 06° 46.786N 178° 16.038W 5325m IKMT NET FINISHED
18:04 06° 40.018N 178° 59.982W 5530m LET GO ARGO FLOAT
18:07 06° 39.932N 179° 00.279W 5490m SUNRISE
21:52 06° 30.012N 180° 00.000E 5791m PASSED THE DATE LINE FROM WEST TO EAST
----- 07 MAR.05 (GMT) -----
6:27 SUNSET
IK077 7:58 06° 04.023N 177° 22.514E 5210m IKMT NET STARTED
IK077 8:09 06° 04.088N 177° 22.141E 5272m IKMT NET DEEPEST (W.O. 358m)
IK077 9:13 06° 04.331N 177° 20.418E 5730m IKMT NET FINISHED
IK078 13:59 05° 52.885N 176° 15.292E 6131m IKMT NET STARTED
IK078 14:17 05° 53.209N 176° 16.275E 6170m IKMT NET DEEPEST (W.O. 541m)
IK078 15:32 05° 54.383N 176° 20.102E 6206m IKMT NET FINISHED
IK079 16:44 05° 51.776N 176° 09.643E 4836m IKMT NET STARTED
IK079 16:55 05° 52.212N 176° 10.322E 5128m IKMT NET DEEPEST (W.O. 665m)
17:00 05° 52.345N 176° 10.531E 5443m PUT CLOCKS ABACK 1H FOR SMT IN LONG 165E
IK079 18:01 05° 54.736N 176° 13.064E 5943m IKMT NET FINISHED
18:32 05° 53.904N 176° 10.170E 5238m SUNRISE
21:04 05° 45.325N 175° 32.034E 5973m ENTERED MARSHALL ISLANDS EEZ
----- 08 MAR.05 (GMT) -----
6:40 05° 20.939N 173° 05.662E 4822m SUNSET
18:50 05° 14.985N 169° 58.143E 4170m SUNRISE
----- 09 MAR.05 (GMT) -----
7:05 05° 14.045N 166° 42.097E 4832m SUNSET
11:24 05° 29.745N 165° 33.705E 4791m P'D EEZ FROM MARSHALL IS. TO MICRONESIA
IK080 11:43 05° 30.411N 165° 30.874E 4792m IKMT NET STARTED
IK080 11:50 05° 30.463N 165° 30.492E 4796m IKMT NET DEEPEST (W.O. 300m)
IK080 12:26 05° 30.657N 165° 29.213E 4775m IKMT NET FINISHED
IK081 12:36 05° 30.670N 165° 29.063E 4775m IKMT NET STARTED
IK081 12:44 05° 30.711N 165° 28.679E 4798m IKMT NET DEEPEST (W.O. 300m)
IK081 13:08 05° 30.746N 165° 27.816E 4822m IKMT NET FINISHED
19:15 05° 52.560N 163° 54.129E 4770m SUNRISE
----- 10 MAR.05 (GMT) -----
SX31 1:59 06° 16.253N 162° 09.000E 4718m ORI NET STARTED
SX31 2:44 06° 17.100N 162° 07.185E 4724m ORI NET DEEPEST
SX31 3:57 06° 17.812N 162° 05.059E 4727m ORI NET FINISHED
SX31 4:10 06° 17.844N 162° 04.880E 4769m NORPAC NET STARTED
SX31 4:48 06° 17.942N 162° 04.646E 4725m NORPAC NET DEEPEST (W.O. 1015m)
SX31 5:10 06° 18.019N 162° 04.542E 4727m NORPAC NET FINISHED
7:37 06° 24.458N 161° 29.772E 4723m SUNSET
19:36 07° 04.878N 158° 34.002E 3652m SUNRISE

LEG.5

----- 15 MAR.05 (GMT) -----
18:39 07° 49.450N 157° 37.195E 4768m SUNSET
----- 16 MAR.05 (GMT) -----
06:43 10° 35.084N 155° 44.775E 5582m SUNRISE
18:59 12° 50.837N 153° 25.446E 5888m SUNSET
----- 17 MAR.05 (GMT) -----
00:59 14° 15.646N 152° 34.682E m PUT ALL SHIP'S CLOCK BACK FOR 1H
06:01 15° 38.845N 151° 41.973E 5425m SUNRISE
18:13 18° 26.687N 149° 54.566E 5355m SUNSET
----- 18 MAR.05 (GMT) -----
06:15 21° 16.466N 148° 04.508E m SUNRISE
18:26 24° 00.735N 146° 03.722E m SUNSET
21:00 24° 34.713N 145° 36.068E m PUT CLOCK BACK 1HOUR

----- 19 MAR.05 (GMT) -----

05:31	26 ° 36.353N	143 ° 55.966E	m SUNRISE
09:15	27 ° 19.666N	143 ° 19.784E	m NO2 WINCH FREE FALL STARTED
10:56	27 ° 19.553N	143 ° 19.224E	m NO2 WINCH FREE FALL DEEPEST (W.O.6000m)
12:35	27 ° 19.377N	143 ° 18.760E	m NO2 WINCH FREE FALL FINISHED