

Appendix 1. Cruise Event Log for LMG03-02.																		
Version 1.0 U.S. SOUTHERN OCEAN GLOBEC MANUAL EVENT LOG																		
Over-side Instruments/Activities																		
Predator Experiments																		
Sample	MOC1	These are local times.						These are universal times.						Sample Latitude	Sample Longitude	Depth in meters		
NBP02502.001	XBT												66 34.191	69 42.669				
shddy.###	XCTD	1-12	1-31	hh=hour								ddmm.mmm	ddmm.mmm					
sh=ship	CTD			mm=minute								dd=degrees						
ddd=Day of year	BIOMAPER											mm.mmm=minutes and decimal fractional minutes						
yy=year	ROV																	
###=consecutive within day	Sonobuoys																	
Starts at 1 for each new day	SVP Drifters																	
eventno	Instr	cast#	Station#	Station #	Mth	Day	hhmm	s/e	Mth	Day	hhmm	Lat. Deg. Min.	Long. Deg. Min.	Water Depth	Cast Depth	Scientific Invest.	Comments	
LMG044.001	MMS				2	13	1551	s	2	13	1851	53 11.61	67 16.94			IWC		
LMG044.002	MMS				2	13	1825	e	2	13	2125	53 29.28	66 47.20			IWC		
LMG045.001	MMS				2	14	557	s	2	14	857	54 57.77	64 57.59			IWC		
LMG045.002	MMS				2	14	1508	e	2	14	1808	56 20.60	64 29.47			IWC		
LMG046.001	MMS				2	15	536	s	2	15	836	58 38.17	63 38.04			IWC		
LMG046.002	Drifter 1				2	15	740	s/e	2	15	1048	59 00.7	63 29.7			NOAA		
LMG046.003	SB-1				2	15	1017	s/e	2	15	1317	59 25.63	63 19.90	3937		SIO		
LMG046.004	Drifter 2				2	15	1343	s/e	2	15	1643	59 59.998	63 06.344			NOAA		
LMG046.005	MMS				2	15	1339	e	2	15	1639	59 59.32	63 06.56			IWC		
LMG047.001	LightBulb1				2	16	314	s/e	2	16	614	62 09.67	62 13.13			SIO		
LMG047.002	LightBulb2				2	16	317	s/e	2	16	617	62 10.05	62 12.86			SIO		
LMG047.003	LightBulb3				2	16	322	s/e	2	16	622	62 10.78	62 12.59			SIO		
LMG047.004	LightBulb4				2	16	327	s/e	2	16	627	62 11.60	62 12.25	2236		SIO		
LMG047.005	LightBulb5				2	16	340	s/e	2	16	640	62 13.53	62 11.31	2029		SIO		
LMG047.006	ARP-S1A				2	16	345	s/e	2	16	645	62 16.42	62 10.40	1658		SIO	Interrogated but Did Not recover	
LMG047.007	MMS				2	16	530	s	2	16	830	?	?			IWC		
LMG047.008	SB-2				2	16	1110	s/e	2	16	1410	63 24.14	61 33.75			SIO		
LMG047.009	MMS				2	16	2153	e	2	17	53	64 49.33	63 10.88			IWC		
LMG048.001	MMS				2	17	454	s	2	17	754	64 57.31	63 31.27			IWC		
LMG048.002	MMS				2	17	814	e	2	17	1114	64 46.48	64 03.32			IWC		
LMG048.003	MMS				2	17	1634	s	2	17	1934	64 47.80	64 04.52			IWC		
LMG048.004	MMS				2	17	1835	e	2	17	2135	64 51.82	64 39.00			IWC		
LMG048.005	SB-3				2	17	2147	s/e	2	17	47	64 48.76	63 10.29			SIO		
LMG048.006	SB-4				2	17	2237	s/e	2	17	137	64 53.75	63 16.77			SIO		
LMG049.001	LightBulb1				2	18	417	s/e	2	18	717	63 57.11	66 52.01			SIO		
LMG049.002	LightBulb2				2	18	428	s/e	2	18	728	63 56.08	66 54.49			SIO		
LMG049.003	LightBulb3				2	18	444	s/e	2	18	744	63 54.63	66 57.75			SIO		
LMG049.004	LightBulb4				2	18	500	s/e	2	18	800	63 53.14	67 00.97			SIO		
LMG049.005	LightBulb5				2	18	529	s/e	2	18	829	63 51.59	67 04.10			SIO		
LMG049.006	ARP-S2A				2	18	634	s/e	2	18	934	63 50.46	67 7.84			SIO	Too rough to recover	
LMG049.007	MMS				2	18	1007	s	2	18	1307	64 22.66	66 54.17			IWC		
LMG049.008	MMS				2	18	1457	e	2	18	1757	65 07.58	66 34.92			IWC		
LMG049.009	ARP-S7A				2	18	1657	s	2	18	1958	65 22.62	66 28.15			SIO	Start recovery	
LMG049.010	XBT-1				2	18	1716	s/e	2	18	2016	65 22.94	66 28.643			SIO		
LMG049.011	ARP-S7A				2	18	1832	e	2	18	2145	65 22.62	66 28.15			SIO	S7A on deck	
LMG049.012	MMS				2	18	1851	s	2	18	2151	65 21.55	66 28.51			IWC		
LMG049.013	MMS				2	18	2145	e	2	18	45	64 55.48	66 39.89			IWC		
LMG050.001	ARP-S2A				2	19	421	s	2	19	721	63 50.46	67 07.84			SIO	Start recovery	
LMG050.002	XBT-2				2	19	1037	s/e	2	19	1337	63 50.82	66 59.89			LMG		
LMG050.003	ARP-S2A				2	19	1045	e	2	19	1345	63 50.6	67 00.5			SIO	S2A on deck	
LMG050.004	MMS				2	19	1057	s	2	19	1357	63 51.06	66 59.86			IWC		
LMG050.005	SB-5				2	19	1100	s/e	2	19	1400	63 51.96	67 01.5			SIO	Sei whales	
LMG050.006	SB-6				2	19	1105	s/e	2	19	1405	63 52.0	67 01.6			SIO	Sei whales	
LMG050.007	MMS				2	19	1451	e	2	19	1751	64 06.28	67 36.10			IWC		
LMG051.001	ARP-S4A				2	20	643	s	2	20	943	65 58.73	71 03.64			SIO		
LMG051.002	ARP-S4A				2	20	915	e	2	20	1215	65 58.73	71 03.64			SIO		
LMG051.003	XBT-3				2	20	920	s/e	2	20	1220	65 58.75	71 04.01			LMG		
LMG051.005	SB-7				2	20	1237	s/e	2	20	1537	66 15.07	71 47.19			SIO		
LMG051.006	ARP-S5A				2	20	1620	s	2	20	1920	66 35.0	72 41.43			SIO	Start recovery	
LMG051.007	ARP-S5A				2	20	1950	e	2	20	2250	66 35.0	72 41.43			SIO	S5A on deck	
LMG051.008	XBT-5				2	20	1955	s/e	2	20	2255	66 35.05	72 41.89			LMG		
LMG051.009	MMS				2	20	2008	s	2	20	2308	66 35.49	72 43.29			IWC		
LMG051.010	MMS				2	20	2238	e	2	21	138	66 51.24	73 14.49			IWC		

eventno	Instr	cast#	Consec. Station#	Standard Station #	Local Time			Even s/e	Univ. Coord. Time (UCT)			Latitude (°S)		Longitude (°W)		Water Depth	Cast Depth	Scientific Invest.	Comments
					Mth	Day	hhmm		Mth	Day	hhmm	Deg.	Min.	Deg.	Min.				
LMG052.001	LightBulb1				2	21	308	s/e	2	21	608	67 10.63	73 54.40					SIO	
LMG052.002	SB-8				2	21	314	s/e	2	21	614	67 11.63	73 55.945					SIO	
LMG052.003	LightBulb2				2	21	317	s/e	2	21	617	67 11.79	73 56.79					SIO	
LMG052.004	LightBulb3				2	21	333	s/e	2	21	633	67 13.556	74 00.59					SIO	
LMG052.005	LightBulb4				2	21	347	s/e	2	21	647	67 15.18	74 03.94					SIO	
LMG052.006	LightBulb5				2	21	359	s/e	2	21	659	67 16.69	74 6.84					SIO	
LMG052.007	LightBulb6				2	21	411	s/e	2	21	711	67 17.95	74 9.58					SIO	
LMG052.008	ARP-6A				2	21	418	s	2	21	718	67 18.25	74 10.15					SIO	Start recovery
LMG052.009	MMS				2	21	629	s	2	21	929	67 18.30	74 09.17					IWC	
LMG052.010	ARP-6A				2	21	633	e	2	21	933	67 18.25	74 10.15					SIO	On deck
LMG052.011	XBT-6				2	21	642	s/e	2	21	942	67 18.249	74 08.955					LMG	
LMG052.012	SB-9				2	21	1253	s/e	2	21	1553	67 48.93	71 50.44					SIO	
LMG052.013	SB-10				2	21	1412	s/e	2	21	1712	67 55.87	71 19.44					SIO	
LMG052.014	SB-11				2	21	1504	s/e	2	21	1804	68 00.14	70 57.66					SIO	
LMG052.015	SB-12				2	21	1603	s/e	2	21	1903	68 05.36	70 34.34					SIO	
LMG052.016	MMS				2	21	1613	e	2	21	1913	68 06.04	70 31.39					IWC	
LMG052.017	CTD 1				2	21	1704	s	2	21	2004	68 6.149	70 31.242					LMG	
LMG052.018	CTD 1				2	21	1804	e	2	21	2104	68 6.142	70 31.270					LMG	
LMG052.019	C3				2	21	1844	s	2	21	2144	68 06.006	70 31.799					WHOI	Start recovery
LMG052.020	C3				2	21	2033	e	2	21	2333	68 05.42	70 32.57					WHOI	C3 on deck
LMG052.021	MMS				2	21	2045	s	2	21	2345	68 05.42	70 32.57					IWC	
LMG052.022	MMS				2	21	2155	e	2	22	55	68 07.85	70 22.85					IWC	
LMG053.001	C2				2	22	634	s	2	22	1034	68 13.331	70 01.730					WHOI	Start recovery
LMG053.002	C2				2	22	840	e	2	22	1140	68 13.10	70 01.02					WHOI	C2 on deck
LMG053.003	CTD 2				2	22	910	s	2	22	1210	68 13.028	70 01.017						
LMG053.004	CTD 2				2	22	959	e	2	22	1259	68 13.219	70 01.442					LMG	
LMG053.005	SF 193				2	22	1006	s/e	2	22	1306	68 13.21	70 01.62					WHOI	
LMG053.006	MMS				2	22	1007	s	2	22	1307	68 13.20	70 01.64					IWC	
LMG053.007	SB-13				2	22	1212	s/e	2	22	1512	68 5.31	69 30.13					SIO	
LMG053.008	MMS				2	22	1238	e	2	22	1538	68 03.20	69 21.55					IWC	
LMG053.009	CTD 3				2	22	1315	s	2	22	1615	68 03.231	69 21.606					LMG	
LMG053.010	CTD 3				2	22	1351	e	2	22	1651	68 03.313	69 20.736					LMG	
LMG053.011	C1				2	22	1430	s	2	22	1730	68 02.940	69 21.790					WHOI	Start sending release command
LMG053.012	C1				2	22	1534	e	2	22	1834	68 02.940	69 21.790					WHOI	Stop sending release command
LMG053.013	MMS				2	22	1550	s	2	22	1850	68 01.87	69 21.84					IWC	
LMG053.014	S9				2	22	1920	s	2	22	2220	67 54.499	68 23.003					SIO	Start S9 recovery
LMG053.015	S9				2	22	2025	e	2	22	2325	67 54.499	68 23.003					SIO	S9 on deck
LMG053.016	XBT-7				2	22	2027	s/e	2	22	2327	67 54.50	68 22.66					LMG	
LMG053.017	MMS				2	22	2205	e	2	23	105	68 06.28	68 31.10					IWC	
LMG054.001	C1				2	23	810	s	2	23	1110	68 02.940	69 21.790					WHOI	Start drag 1
LMG054.002	C1 floats				2	23	1014	s	2	23	1314	68 02.940	69 21.790					WHOI	Floats surface
LMG054.003	C1				2	23	1125	e	2	23	1425	68 02.940	69 21.790					WHOI	Finish drag 1
LMG054.004	C1				2	23	1302	e	2	23	1602	68 02.940	69 21.790					WHOI	C1 top on deck
LMG054.005	C1				2	23	1400	s	2	23	1700	68 02.940	69 21.790					WHOI	Start drag 2
LMG054.006	C1				2	23	1740	e	2	23	2040	68 02.940	69 21.790					WHOI	Finish drag 2
LMG054.007	MMS				2	23	1843	s	2	23	2143	68 00.82	69 21.96					IWC	
LMG054.008	MMS				2	23	2152	e	2	24	52	67 52.55	69 13.88					IWC	
LMG054.009	B1				2	23	2337	s	2	24	237	67 56.890	69 54.398					WHOI	Start sonar sweep
LMG054.010	B1				2	24	30	e	2	24	330	67 56.890	69 54.398					WHOI	Finish sonar sweep
LMG055.001	MMS				2	24	540	s	2	24	840	68 20.17	70 58.85					IWC	
LMG055.002	CTD 4				2	24	1852	s	2	24	2152	68 45.133	70 03.075					LMG	George VI Sound
LMG055.003	CTD 4				2	24	2004	e	2	24	2304	68 45.004	70 03.149					LMG	
LMG055.004	SF 183				2	24	2400	s/e	2	24	300	68 13.690	70 41.330					WHOI	
LMG054.005	MMS				2	24	2148	e	2	25	48	68 31.04	70 20.30					IWC	
LMG056.001	SF 182				2	25	248	s/e	2	25	548	67 49.88	70 46.810					WHOI	
LMG056.002	SF 181				2	25	423	s/e	2	25	723	67 49.790	70 11.450					WHOI	
LMG056.003	MMS				2	25	543	s	2	25	843	67 56.71	69 45.04					IWC	
LMG056.004	C1				2	25	800	s	2	25	1100	68 02.940	69 21.790					WHOI	Start drag 3
LMG056.005	MMS				2	25	648	e	2	25	948	68 02.00	69 25.22					IWC	
LMF056.006	C1				2	25	1230	e	2	25	1530	68 02.940	69 21.790					WHOI	Finish drag 3
LMG056.007	C1				2	25	1340	s	2	25	1640	68 02.940	69 21.790					WHOI	Start drag 4
LMG056.008	C1				2	25	1600	e	2	25	1900	68 02.940	69 21.790					WHOI	Finish drag 4
LMG057.001	MMS				2	26	545	s	2	26	845	67 39.14	68 03.30					IWC	
LMG057.002	MMS				2	26	1136	e	2	26	1436	67 13.49	67 46.53					IWC	
LMG057.003	MMS				2	26	1229	s	2	26	1529	67 13.96	67 47.84					IWC	
LMG057.004	MMS				2	26	2130	e	2	27	30	66 46.61	67 36.81					IWC	
LMG058.001	MMS				2	27	534	s	2	27	834	65 57.67	65 25.90					IWC	
LMG058.002	MMS				2	27	1437	e	2	27	1737	64 49.37	63 31.18					IWC	
LMG059.001	MMS				2	28	647	s	2	28	947	63 32.27	61 29.50						

eventno	Instr	cast#	Consec. Station#	Standard Station #	Local Time			Even s/e	Univ. Coord. Time (UCT)			Latitude (°S)		Longitude (°W)		Water Depth	Cast Depth	Scientific Invest.	Comments
					Mth	Day	hhmm		Mth	Day	hhmm	Deg. Min.	Deg. Min.						
LMG059.002	MMS				2	28	1429	e	2	28	1729	62 16.59	62 09.95						
LMG059.003	S1A				2	28	1430	s	2	28	1730	62 16.42	62 10.40				SIO	Start recovery	
LMG059.004	S1A				2	28	1549	e	2	28	1849	62 16.42	62 10.40				SIO	S1A on deck	
LMG059.005	XBT				2	28	1555	s/e	2	28	1855	62 16.42	62 10.40				LMG		
LMG059.006	S1B				2	28	1620	s	2	28	1920	62 16.42	62 10.40				SIO	Start deployment	
LMG059.007	S1B				2	28	1700	e	2	28	2000	62 16.42	62 10.40				SIO	S1B on bottom	
LMG059.008	MMS				2	28	1733	s	2	28	2033	62 20.89	62 05.94						
LMG059.009	MMS				2	28	2058	e	2	28	2358	62 53.80	61 42.09						
LMG060.001	MMS				3	1	600	s	3	1	900	63 00.34	60 29.86				IWC		
LMG060.002	MMS				3	1	700	e	3	1	1000	62 55.0	60 37.0						
LMG060.003	Deception Island				3	1	700	s	3	1	1000	62 55.0	60 37.0				IWC		
LMG060.004	Deception Island				3	1	1500	e	3	1	1800	62 55.0	60 37.0				IWC		
LMG060.005	MMS				3	1	1501	s	3	1	1801	63 00.34	60 29.86				IWC		
LMG060.006	MMS				3	1	2010	e	3	1	2310	63 47.63	61 24.83						
LMG061.001	MMS				3	2	630	s	3	2	930	64 49.434	64 01.352				IWC		
LMG061.002	MMS				3	2	700	e	3	2	1000	64 47.676	64 04.03				IWC		
LMG061.003	Palmer Station				3	2	800	s	3	2	1100								
LMG062.001	Palmer Station				3	3	1000	e	3	3	1300								
LMG062.002	MMS				3	3	1024	s	3	3	1324	64 47.21	64 04.68				IWC		
LMG062.003	MMS				3	3	1803	e	3	3	2103	64 05.64	62 45.99				IWC		
LMG063.001	MMS				3	4	1558	s	3	4	1858	60 41.50	63 36.67				IWC		
LMG063.002	MMS				3	4	2026	e	3	4	2326	59 54.13	63 48.76				IWC		
LMG064.001	MMS				3	5	715	s	3	4	1015	57 58.59	064 17.15				IWC		
LMG064.002	MMS				3	5	1740	e	3	4	2040	56 06.18	064 43.14				IWC		