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DISPERSION AND FORAGING RANGES OF HAWAIIAN MONK SEALS (Monachus schauinslandi) NEAR LISIANSKI AND MIDWAY ISLANDS: 2000-2001

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PREFACE

This report has been sponsored by the Pacific Islands Fisheries Science Center and provides the results of recent research efforts to ascertain the habitat use and foraging ecology of Hawaiian monk seals in the Northwestern Hawaiian Islands (NWHI). This work is a part of a research project involving a synthesis of all data available on the foraging behavior of Hawaiian monk seals in the NWHI. Subsequent publications of these results will involve a more thorough comparative analysis and interpretation of variation in individual and colony behaviors relative to variation in biotic and abiotic characteristics of marine habitats throughout the NWHI marine ecosystem.

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ABSTRACT

We studied the movements of 26 Hawaiian monk seals (8 weaned pups [4 male, 4 female], 9 juveniles [7 male, 2 female], 9 adults [4 male, 5 female]) near Lisianski Island and 16 seals (4 weaned pups [2 male, 2 female], 8 juveniles [5 male, 3 female], 4 adults [2 male, 2 female]) near the Midway Islands between October 2000 and September 2001 using satellitelinked radio telemetry, for between 2 and 261 days. Seals ranged over relatively great distances while foraging from autumn through summer. Weaned pups and juveniles from Lisianski Island ranged over much larger distances to forage (up to 400 km) than seals from the Midway Islands (generally < 100km). Adults from both colonies traveled from 100 to 300 km to forage, and those from the Midway Islands dispersed more and traveled greater distances than those from Lisianski. When moving away from each colony, seals generally traveled southwest to forage; exceptions were some adults and juveniles that also ranged northwest to Kure Atoll from the Midway Islands. No seals from the Midway Islands reached Lisianki Island and none from Lisianski moved towards the Midway Islands. In addition to habitats very near atolls and islands, key foraging areas were also at seamounts along the Northwestern Hawaiian Islands ridge. Seals appeared to move quickly along corridors between these submarine features and evidently did not spend much time foraging during transit.



1. Introduction

The Hawaiian monk seal (*Monachus schauinslandi*) is endemic to the Hawaiian Island Archipelago with six principal colonies in the Northwestern Hawaiian Islands (NWHI) and reefs of the archipelago (Fig. 1). The species was designated as *Endangered* in 1976 under the Endangered Species Act of 1973 (ESA) following declines of 50% from the late 1950s. Overall, numbers have declined about 11% annually since 1989, owing to low birth rates and poor survival of neonates and juveniles from a variety of known and unknown causes (e.g., Gilmartin and Eberhardt, 1995; Antonelis and Ragen, 1997; Craig and Ragen 1999).

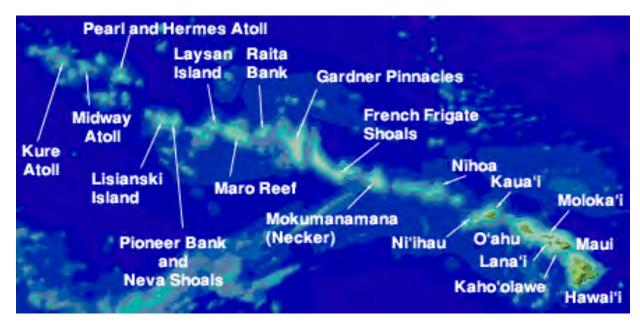


Figure 1. The Main (MHI) and Northwestern (NWHI) Hawaiian Islands.

At present the species numbers 1,300 to 1,400. Monk seals are known to interact directly with the U.S. pelagic longline fishery, the bottomfish fishery, and the lobster fishery in and near the Northwestern Hawaiian Islands (e.g., Nitta and Henderson, 1993; Kobayashi and Kawamoto, 1995; Lowe, 1998). Indirect interaction (e.g., competition for prey, disruption of community structure) may also impede recovery of Hawaiian monk seals. Management regulations have been implemented to minimize fishery interactions. In 1988, *Critical Habitat* for monk seals in the NWHI was designated as the emergent land, lagoon waters, and ocean waters out to the 20 fathom isobath. In 1991, a *Protected Species Zone* was established out to 50 nautical miles from the islands and the corridors between islands to protect seals from interactions with the pelagic longline fishery. The boundaries of these areas were established with limited information on the foraging habitats and ranges of monk seals. Additional studies have, however, now been conducted at all of the colonies in the NWHI to document the use of marine habitats by Hawaiian monk seals (Siniff and Abernathy, 1998; Stewart, 1998, 1999; Stewart and Yochem, 2002a,

2002b). Here we describe the dispersion and foraging habitats of monk seals near colonies at Lisianski Island and the Midway Islands in 2000 and 2001.

2. Methods

The field team at Lisianski Island was B. S. Stewart (P.I.), P. K. Yochem (veterinarian), J. Baker (Field Team Leader), L. Kashinsky (veterinary technician), and D. Dick (field assistant). The field team at Midway Islands was B. S. Stewart (P.I.), P. K. Yochem (veterinarian), B. Ryon (Field Team Leader), M. Urby, and B. Casler.

Capture and restraint

We captured, using a hoop-net (Fig. 2), 28 Hawaiian monk seals at Lisianski Island (26°02' N, 170°00'W; Fig. 3) between 13 and 23 October 2000, and 16 at the Midway Islands (28°15' N, 177°20'W; Fig. 4) between 31 December 2000 and 6 January 2001. We then chemically sedated each seal with an intravenous (via the inter-costal, extradural vein) injection of diazepam (Tables 1, 2, 3, 4).

Biomedical sampling

Within 2 to 4 minutes of intravenous injection of diazepam, we collected blood, tissue (blubber and skin), fecal and microbiological swab samples. We made measurements of standard length and axillary girth to within 0.5 cm.

Biomedical samples (hematologic, serum/plasma biochemical, microbiological, toxicological, parasitological) were processed within 2 to 5 hours of collection according to protocols established by Aguirre et al. (1999), Aguirre (2000), and the *2000 Field Manual for Research on the Hawaiian Monk Seal*.¹

Tracking instrument deployment

Once seals were sedated and samples collected, we glued a satellite linked data recorder/transmitter (SLDR) to the dorsal pelage of each of 26 seals (8 weaned pups [4 male, 4 female]; 9 juveniles [7 male, 2 female]; 9 adults [4 male, 5 female]) at Lisianski Island (Table 5) and 16 seals (4 weaned pups [2 male, 2 female]; 8 juveniles [5 male, 3 female]; 4 adults [2 male, 2 female]) at the Midway Islands (Table 6) using a quick setting epoxy.

¹Anonymous. 2000. 2000 Field manual for Research on the Hawaiian Monk Seal. Unpublished document, NOAA, SWFSC.



Figure 2. Hoop net used to capture Hawaiian monk seals (Photo by B. S. Stewart).



Figure 3. Satellite-linked radio transmitter glued to dorsal pelage of adult Hawaiian monk seal (Photo by B. S. Stewart).

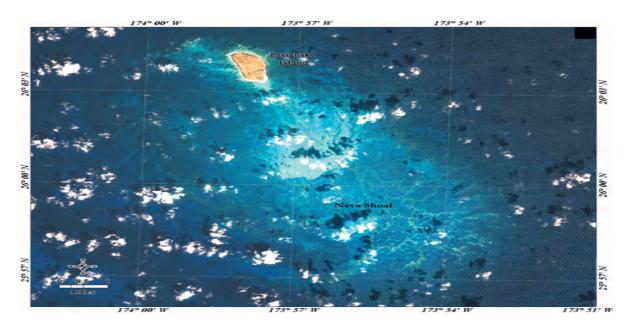


Figure 4. Lisianski Island and surrounding shoals.



Figure 5. Midway Islands and Midway Atoll.

Locations of the seals were determined several times each day by the Argos earth-orbiting satellite system and the Argos DCLS, described in detail elsewhere (e.g., Fancy et al., 1988; Harris et al., 1990; Stewart et al., 1989; Stewart, 1997).

To lengthen the tracking period by conserving battery power, we programmed the transmitters to be active only during periods of the day when good satellite coverage was expected (Appendix I). The SLDRs were also programmed to shift from a transmission rate of around 1/40 s to around 1/90 s once a seal was hauled out constantly for 6 to 10 minutes. Moreover, if the seal remained hauled out for about 70 minutes, transmissions then ceased until it reentered the sea for more than 1.5 minutes. Whenever at sea, transmissions were suppressed when the SLDR was below the sea surface owing to an electrical conductivity circuit that is closed by continuous saltwater contact between two or three electrodes mounted on the surface of the SLDR.

3. Results

Data on movements of seals were collected, through the Argos Data Collection and Location Service (DCLS), until the instruments failed, their batteries expired, or they were shed when seals molted in spring and summer 2001.

Overall, we tracked seals at Lisianski Island for 2 to 267 days (weaned pups: 2-158 days; juveniles: 16-168 days; adult males: 19-267 days; adult females: 36-240 days; Table 7) and at the Midway Islands for 27 to 242 days (weaned pups: 27-89 days; juveniles: 105-202 days; adults: 126-261 days; Table 8).

3.1. Geographical dispersion of foraging monk seals near Lisianski Island

3.1.a. Lisianski Island

Seals ranged from Lisianski southeast as far as Maro Reef (ca 400km; Fig.6) while foraging. They evidently focused foraging efforts at most areas where bathymetric features were near the sea surface (e.g., seamounts and Laysan Island). Weaned pups foraged relatively near Lisianski Island, though one travelled east to nearby Pioneer Bank (ca 50 km), and they evidently segregated from each other when foraging (Fig. 7). Juvenile monk seals also segregated from each other while foraging (Fig. 8). Two juvenile females (G5AM=24104, GD37=24107) migrated as far as Maro Reef (G5AM); both also foraged at the Southampton Seamounts and near Laysan Island, though in different locations (Fig. 8).

Most adults foraged near Lisianski Island, though at separate locations (Fig. 9). One adult female that was born at Laysan Island (TC74=5422) left Lisianski soon after she was outfitted with an SLDR and returned to Laysan island, stopping at Pioneer Bank and at the Southampton Seamounts to forage enroute.

3.1.b. Midway Islands

Seals instrumented at the Midway Islands traveled as far west as Kure Atoll (ca 100 km) and as far east as Pearl and Hermes Reef (ca 180 km) to forage. Pups generally foraged within 20 km of Sand Island, though they did occasionally travel up to 40 km away (Fig. 7). Juveniles mostly foraged within 50 km of the Midway Islands, though some foraged as far west as Kure Atoll and as far east as Pearl and Hermes Reef (Fig. 8). Adult seals ranged substantially farther to forage than pups and juveniles; they foraged extensively around Ladd Sea Mount (ca 80 km away), Nero Seamount, Kure Atoll and as far east as Pearl and Hermes Reef (Fig. 9).

4. Summary

Hawaiian monk seals from Lisianski and the Midway Islands ranged over relatively great distances while foraging from autumn through summer. Weaned pups and juveniles from Lisianski Island ranged over much larger distances to forage (up to 400 km) than seals from the Midway Islands (generally < 100km). Adults from both colonies traveled from 100 to 300 km to forage and those from the Midway Islands dispersed more and traveled greater distances than those from Lisianski. When moving away from each colony, seals generally traveled southwest to forage; exceptions were some adults and juveniles that also ranged northwest to Kure Atoll from the Midway Islands. No seals from the Midway Islands reached Lisianki Island and none from Lisianski moved towards the Midway Islands. In addition to habitats very near atolls and islands, key foraging areas were also at seamounts along the northwestern Hawaiian island ridge. Seals appeared to move quickly along corridors between these submarine features and evidently did not spend much time foraging while in transit.

5. Acknowledgments

These studies were collaborative efforts between the National Marine Fisheries Service, Honolulu Laboratory, and Hubbs-Sea World Research Institute. G. Antonelis and B. Ryon of NMFS/SWFSC were the Field Team Leaders for these collaborative efforts. We thank L. Kashinsky, M. Urby (SeaWorld Texas), B. Casler (USFWS), and D. Dick (NMFS/SWFSC) for preparatory and field assistance; B. Ryon, C. Yoshinaga, J. Henderson, and G. Antonelis for logistic and preparatory support; Midway Phoenix Corporation for assistance at Midway Island and for transport to and from Lisianski Island aboard the *SS Midway*; R. Anglin, D. Johnson, N. Hoffman, and other staff of the USFWS for their logistic support at Midway Island; and the command and crew of the NOAA Vessel *Townsend Cromwell* for additional logistic support. The contract to Hubbs-SeaWorld Research Institute was administered by Dr. G. Antonelis at the NMFS Honolulu Laboratory. The research was authorized under the Marine Mammal Protection Act (16 U.S.C. §1361 *et seq.*), Scientific Research Permit No. 848-1335.

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Table 1. Chemical immobilization and instrumentation of Hawaiian monk seals at Lisianski Island, October 2000.

Date	Tag No.	PTT No.	Sex	Age Class	Age	Length	Girth (cm)	Diazepam	Atropine	Lidocaine	Capture Time	Release Time	Into Water
					(years)	(cm)	` ′	(mg IV)	(mg IM)	Used?	(local)	(local)	(local)
13-Oct-00	GN17	None	М	Adult	11			31	3.24	No	1807	1830	Unk
14-Oct-00	GZ10	24099	М	Adult	9	178	109	32	3.24	Yes	1040	1122	1143
14-Oct-00	GL22	5411	М	Adult	14	202.5	114	32	3.24	Yes	1211	1252	1320
14-Oct-00	GQ38	24098	M	Juvenile	3	169	95	15	1.62	No	1733	1806	1816
15-Oct-00	TC74	5422	F	Adult	5	193	117	25	2.7	No	0752	0828	0845
15-Oct-00	GH00	24108	M	W. Pup	<1	115.5	67.5	8	1.08	No	0904	0934	0945
15-Oct-00	G208	5416	М	Adult	≥ 14	194	120.5	34	2.7	No	1008	1038	1106
15-Oct-00	GH26	24109	F	W. Pup	<1	142	89	8	1.08	No	1740	1807	1822
15-Oct-00	G3AO	24103	F	Adult	6	167.5	98.5	20	2.16	Yes	1844	1908	1926
16-Oct-00	G178	24101	F	Adult	≥ 16	210.5	124	25	2.7	Yes	0952	1025	1030
16-Oct-00	GH06	24110	F	W. Pup	<1	137	81	7	0.54	No	1119	1155	1156
16-Oct-00	GD42	22813	M	Juvenile	1	147	94	9	0.54	Yes	1201	1222	1228
16-Oct-00	GD26	24112	M	Juvenile	1	137	81.5	9	0.54	No	1802	1831	1843
17-Oct-00	G066	24105	F	Adult	17	197	125	20	3.24	Yes	0852	0924	0952
17-Oct-00	GL34	5412	M	Adult	14			34	3.24	No	1008	1036	1041
17-Oct-00	TY12	24115	M	Juvenile	2	164	89.5	12	2.16	No	1116	1139	1143
17-Oct-00	GD37	24107	F	Juvenile	1	137	75	9	1.08	No	1728	1747	1817
18-Oct-00	GY08	5421	M	Juvenile	2	148	87	12	1.08	No	0944	1014	1020
18-Oct-00	GD62	None	M	Juvenile	1	133.5	71	8	1.08	No	1638	1653	1655
18-Oct-00	GD32	24111	M	Juvenile	1	147	88.5	12	1.62	Yes	1727	1759	1806
19-Oct-00	GD24	24106	M	Juvenile	1	148.5	85	9	1.08	No	0840	0912	0917
19-Oct-00	G5AM	24104	F	Juvenile	2	159	94	15	1.62	Yes	1055	1128	1132
19-Oct-00	GH18	25780	F	W. Pup	<1	134	81.5	8	1.08	No	1701	1733	1746
20-Oct-00	GH30	25781	М	W. Pup	<1	125	75	8	1.08	No	1041	1111	1112
20-Oct-00	GH04	24113	М	W. Pup	<1	121.5	71	7	1.08	No	1143	1213	1214
20-Oct-00	GH11	24114	М	W. Pup	<1	127	73.5	8	1.08	No	1741	1819	1822
21-Oct-00	GH22	22812	F	W. Pup	<1	127	69	7	1.08	Yes	1753	1823	1836
22-Oct-00	GF02	5414	F	Adult	12	209	128	22	2.7	Yes	0859	0933	0935

Table 2. Characteristics of sedation of Hawaiian monk seals at Lisianski Island, October 2000.

Tag No.	Level of sedation
	Molt complete, but hair loose on dorsum (no xmtr attached), no sedation
GN17	Level 3 sedation excellent
GZ10	Level 2 sedation
GL22	Level 2 sedation
GQ38	Level 2 sedation
TC74	Level 3 > 4 sedation; reversed with 2.5 ml flumazenil (IV)
GH00	Level 2 sedation excellent
G208	Level 3 sedation
GH26	Level 2 sedation excellent
G3AO	Level 2 sedation fair; worn teeth
	Level 3 sedation excellent
GH06	Level 2 sedation fair
	Level 2 sedation excellent
	Level 2 sedation; worn teeth; excessive vulvovaginal folding (healthy-appearing mucosa, no prolapse)
	Level 1 sedation never really went down (no biopsy, no L/G)
GL34	Level 2 sedation excellent
	Level 3 sedation excellent; excessive loose skin at axillae
	Level 2 sedation excellent
	Greenish pelage; pre-molt; no xmtr; given 2.5 ml flumazenil IV and 8 mg dexameth asone NaP IM
GD62	Level 2 sedation
	Level 2 sedation excellent
GD24	Level 2 sedation excellent
G5AM	Level 3 sedation
GH18	Level 2 sedation excellent
	Level 2 sedation
	Level 3 sedation, still ataxic 30 min post-induction, reversed with 2.5 ml flumazenil IV
	Level 2 sed ation; sclera/conjunctiva mildly hyperemic
GH22	Level 2 sedation; fleshy protruberance btwn vulva and anus (healthy-appearing mucosa, not a prolapse)

Table 3. Chemical immobilization of Hawaiian monk seals at Midway Islands, December 2000 - January 2001.

Date	Tag No.	PTT No.	Sex	Age Class	Age	Length	Girth	Diazepam	Atropine	Lidocaine	Capture	Release	Into Water
					(years)	(cm)	(cm)	(mg IV)	(mg IM)	Used?	Time (local)	Time (local)	(local)
31-Dec-00	RY14	24196	М	Juve nile	2.7	159	93	13	1.62	Yes	(/	16:32	16:33
31-Dec-00	RD24	24195	F	Juve nile	1.5	168	96.5	14	2.16	No	16:50	17:23	17:24
31-Dec-00	RQ15	24102	F	Juve nile	3.4	191.5	107	22	2.7	No	17:50	18:25	18:27
1-Jan-01	RQ02	24100	М	Juve nile	3.5	186	106	22	2.16	No	9:02	9:41	9:47
1-Jan-01	BN44	5424	M	Adult	14	199	128	32	2.7	Yes	10:17	10:56	11:00
1-Jan-01	RY18	24197	М	Juve nile	2.75	174.5	100	14	1.62	Yes	11:30	11:55	?
1-Jan-01	RH10	24198	М	Weaned Pup	0.75	134	74	7	1.08	No	15:50	16:23	?
2-Jan-01	RY00	5423	F	Juve nile	2.75	166	100	13	1.62	No	13:50	14:20	?
2-Jan-01	RH26	13044	М	Weaned Pup		140	83	14	1.08	Yes	15:21	15:48	15:49
2-Jan-01	RD20	13045	М	Juve nile	1.75	158.5	95	13	1.62	Yes	16:45	17:15	17:19
3-Jan-01	BK27	13030	F	Adult	16	228	129	25	2.7	Yes	9:14	9:41	9:48
3-Jan-01	R101	13035	F	Adult	≥10	216	133	25	2.7	Yes	10:03	10:36	?
3-Jan-01	B443	13036	М	Adult	≥9	200.5	134	32	2.7	No	11:11	11:44	?
3-Jan-01	RH16	13047	F	Weaned Pup		127	72.5	8	1.08	Yes	15:55	16:24	16:37
4-Jan-01	RH04	13046	F	Weaned Pup	0.75	141	82	8	1.08	Yes	8:54	9:20	9:24
5-Jan-01	RY04	13032	М	Juve nile	3	173.5	99	14	2.7	Yes	7:51	8:21	8:23

Table 4. Chemical immobilization of Hawaiian monk seals at Midway Islands, December 2000 - January 2001.

Гад No.	Com men ts
RY14	Level 2 sedation
RD24	Level 2 sedation - exc.
RQ15	Level 3 sedation - exc.; diff. to restrain initially, blubber v. sticky, blood sl. dark, seal boks long and lean
RQ02	Level 3 sedation - exc; v. diff. to restrain initially, anorectal tears (healed)
BN44	Level 2 sed ation - exc.; fresh wo und L side of tail
RY18	Level 2 sedation; breath smelled "fishy" (per Brad Ryon)
RH10	Level 3 sedation; patches of greenish pelage present
RY00	Level 2 sed ation - exc.; v. diff. to restrain initially; 1 fresh puncture wound (bleeding) RFF; green pelage on muzzle
RH26	Level 2 sedation; healed bite wound RFF (#1 digit sl. swollen, joints OK, no fracture apparent)
RD20	Level 2 sedation
BK27	Level 2 sedation - exc.
R101	Level 2 sedation - exc.; green pelage on muzzle, very worn teeth
B443	Level 3 sed ation - exc.; healed round scars dorsal midline and base of tail, expiratory stridor (upper airway)
RH16	Level 3 sed ation; survival factor wounds he aled, firm nodule just left of dorsal midline a spirated (slide for cytology)
RH04	Level 2 sedation - exc.; green pelage on venter and rear flippers
RY04	Level 2 sedation; 2 large healed scars just behind right foreflipper

Table 5. Instrumentation of Hawaiian monk seals with satellite-linked data recorders (SLDRs) at Lisianski Island, October 2000.

PTT	SEAL	LTAG	RTAG	GMT DATE	GMT TIME	LOCAL DATE	LOCAL TIME	SECTOR	WC#	LENGTH	GIRTH	TRANS	AGE	SEX	BIRTH DATE
ID	ID	NO	NO	DEPLOYED	DEPLOYED	DEPLOYED	DEPLOYED			(CM)	(CM)	CAPACITY			
5411	GL22	L78	L77, L49	14 OCT 2000	2253	14 OCT 2000	1253	3	OOT0941	202.5	114	60k	14	М	1986
5412	GL34	L48	L47	17 OCT 2000	1959	17 OCT 2000	0959	16	OOT0942			60k	14	M	1986
5414	GF02	F72, F64	F73, F65	22 OCT 2000	1938	22 OCT 2000	0938	5	OOT0943	209	128	60k	12	F	1988
5416	G208	4AA	4AB	15 OCT 2000	2106	15 OCT 2000	1106	3	OOT0944	194	120.5	60k	>14	M	<1986
5421	GY08	Y08	Y09	18 0CT 2000	2008	18 OCT 2000	1008	8	OOT0945	148	87	60k	2	M	21 MARCH 1998
5422	TC74	C74	C75	15 OCT 2000	1829	15 OCT 2000	1129	2	OOT0946	193	117	60k	5	F	1995
22812	GH22	H22	H23	22 OCT 2000	0415	21 OCT 2000	1815	14	OOT0967	127	69	20k	.5	F	2 MAY 2000
22813	GD42	D42	D43	16 OCT 2000	2203	16 OCT 2000	1203	10	OOT0968	147	94	20k	1	M	1 MAY 2000
24098	GQ38	Q38	Q39	15 OCT 2000	0357	14 OCT 2000	1757	20	OOT0949	169	95	60k	3	M	19 MAY 1997
24099	GZ10	Z50, Z54	Z11	14 OCT 2000	2115	14 OCT 2000	1115	3	OOT0950	178	109	60k	9	M	1991
24101	G178	4AE	4AF	16 OCT 2000	1945	16 OCT 2000	1145	8	OOT0952	210.5	124	60k	>16	F	<1984
24103	G3AO	4AC	4AD	16 OCT 2000	0440	15 OCT 2000	1840	17	OOT0954	167.5	98.5	60k	6	F	1994
24104	G5AM	5AN	5AM	19 OCT 2000	2050	19 OCT 2000	1050	13	OOT0955	159	94	60k	2	F	1998
24105	G066	A96	A97	17 OCT 2000	1845	17 OCT 2000	0845	17	OOT0956	197	125	60k	17	F	1983
24106	GD24	D24	D25	19 OCT 2000	1830	19 OCT 2000	0830	7	OOT0957	148.5	85	20k	1	M	13 APRIL 1999
24107	GD37	D37	D36	18 OCT 2000	0322	17 OCT 2000	1722	16	OOT0958	137	75	20k	1	F	23 APRIL 1999
24108	GH00	H90	H01	15 OCT 2000	1937	15 OCT 2000	1137	3	OOT0959	115.5	67.5	20k	.5	M	25 MARCH 2000
24109	GH26	H26	H27	16 OCT 2000	0340	15 OCT 2000	1740	17	OOT0960	142	89	20k	.5	F	11 MAY 2000
24110	GH06	H06	H07	16 OCT 2000	2110	16 OCT 2000	1110	10	OOT0961	137	81	20k	.5	F	25 MARCH 2000
24111	GD32	D32	D53	19 OCT 2000	0351	18 OCT 2000	1751	12	OOT0962	147	80.5	20k	1	М	21 APRIL 1999
24112	GD26	D26	D27	17 OCT 2000	0420	16 OCT 2000	1820	20	OOT0963	137	81.5	20k	1	M	22 APRIL 1999
24113	GH04	H04	H37	20 OCT 2000	2134	20 OCT 2000	1134	13	OOT0964	121.5	71	20k	.5	М	25 MARCH 2000
24114	GH11	H11	H99	21 OCT 2000	0338	20 OCT 2000	1738	1	OOT0965	127	73.5	20k	.5	М	9 APRIL 2000
24115	TY12	Y12	Y13	17 OCT 2000	2107	17 OCT 2000	1107	16	OOT0966	164	89.5	20k	2	M	1998
25780	GH18	H18	H19	20 OCT 2000	0254	19 OCT 2000	1654	14	OOT0969	134	81.5	20k	.5	F	17 APRIL 2000
25781	GH30	H30	H31	20 OCT 2000	2036	20 OCT 2000	1036	11	OOT0970	125	75	20k	.5	М	27 MAY 2000

Table 6. Instrumentation of Hawaiian monk seals with satellite-linked data recorders (SLDRs) at Midway Islands, December 2000 - January 2001.

PTT ID	SEAL ID	LTAG NO	_	GMT DATE DEPLOYED	GMT TIME DEPLOYED	LOCAL DATE DEPLOYED	LOCAL TIME DEPLOYED		WC SLTDR #	TRANS CAPACITY	LENGT H (CM)	GIRTH (CM)	AGE YEARS	SEX	BIRTH DATE
5423	RY00	Y26	Y01	3 JAN 01	0123	2 JAN 01	1223	SAND 5	00T0947	60K	166	100	2.9	F	16 MAR 98
5424	BN44	N30, 3AK	3AL	2 JAN 01	2200	1 JAN 01	1100	SAND 2	00Т0948	60K	199	128	14	M	UNKNOWN
13030	BK27	3AS	2AJ K27	3 JAN 01	2046	3 JAN 01	0946	EAST 2	00Т0984	60K	228	129	16	F	UNKNOWN
13032	RY04	Y04	Y22	5 JAN 01	1915	5 JAN 01	0815	SAND 5	00T0986	60K	173.5	99	2.9	M	31 JAN 98
13035	R101	3AN	3A0	3 JAN 01	2140	3 JAN 01	1040	EAST 2	00T0989	60K	216	133	≥10	F	UNKNOWN1
13036	B443	2AK	2AL	3 JAN 01	2246	3 JAN 01	1146	EAST 3	00T1000	60K	200.5	134	≥9	M	UNKNOWN
13044	RH26	H26	H27	3 JAN 01	0250	2 JAN 01	1350	SAND 19	00T0998	20K	140	83	0.9	M	27 MAR 00
13045	RD20	D20	D21	3 JAN 01	0420	2 JAN 01	1520	SAND 19	00T0999	20K	158.5	95	1.7	M	14 APR 99
13046	RH04	H04	H05	4 JAN 01	2021	4 JAN 01	0921	SAND 5	00T0990	20K	141	82	0.75	F	28 FEB 00
13047	RH16	H16	H17	4 JAN 01	0320	3 JAN 01	1620	SAND 29	00T1001	20K	117	72.5	0.6	F	13 MAY 00
24100	RQ02	Q18	Q03	1 JAN 01	2045	1 JAN 01	0845	SAND 12	00T0951	60K	186	106	3.4	M	UNKNOWN
24102	RQ15	Q15	Q14	1 JAN 01	0527	31 DEC 00	0945	SAND 15	00T0953	60K	191.5	107	3.5	F	18 JUL 97
24195	RD24	D24	D25	1 JAN 01	0423	31 DEC 00	1723	SAND 12	00T1014	20K	168	96.5	1.5	F	UNKNOWN
24196	RY14	Y15	Y14	1 JAN 01	0245	31 DEC 00	1545	SAND 12	00T1015	20K	159	93	2.7	M	10 MAR 98
24197	RY18	Y18	Y19	1 JAN 01	2256	1 JAN 01	1156	SAND 9	00T1016	20K	174.5	100	2.6	M	20 MAY 98
24198	RH10	H10	H11	2 JAN 01	0317	1 JAN 01	1417	SAND 19	00T1017	20K	134	74	0.7	M	7 APR 00

Table 7. Duration of tracking of Hawaiian monk seals tagged in October 2000 at Lisianski Island.

PTT#	ID	Sex	Age (years)	Days Tracked
24099	G210	Male	9	170
5411	GL22	Male	14	267
5412	GL34	Male	14	19
5416	G208	Male	>14	200
5422	TC74	Female	5	151
24103	G3AO	Female	6	92
5414	GF02	Female	12	240
24101	G178	Female	>16	36
24105	G066	Female	17	138
24108	GH00	Male	Weaned pup	53
24113	GH04	Male	Weaned pup	46
24114	GH11	Male	Weaned pup	2
25781	GH30	Male	Weaned pup	106
22812	GH22	Female	Weaned pup	50
24109	GH26	Female	Weaned pup	73
24110	GH06	Female	Weaned pup	158
25780	GH18	Female	Weaned pup	126
22813	GD42	Male	1	73
24106	GD24	Male	1	16
24111	GD32	Male	1	115
24112	GD26	Male	1	70
24107	GD37	Female	1	156
5421	GY08	Male	2	168
24115	TY12	Male	2	160
24104	G5AM	Female	2	129
24098	GQ38	Male	3	18

Table 8. Duration of tracking of Hawaiian monk seals tagged in December 2000 and January 2001 at the Midway Islands.

PTT#	ID	Sex	Age (years)	Days Tracked
5423	RY00	FEMALE	2.9	202
5424	BN44	MALE	14	242
13030	BK27	FEMALE	16	181
13032	RY04	MALE	2.9	155
13035	R101	FEMALE	≥10	126
13036	B443	MALE	≥9	261
13044	RH26	MALE	0.9	27
13045	RD20	MALE	1.7	123
13046	RH04	FEMALE	0.75	89
13047	RH16	FEMALE	0.6	60
24100	RQ02	MALE	3.4	155
24102	RQ15	FEMALE	3.5	105
24195	RD24	FEMALE	1.5	111
24196	RY14	MALE	2.7	136
24197	RY18	MALE	2.6	114
24198	RH10	MALE	0.7	72

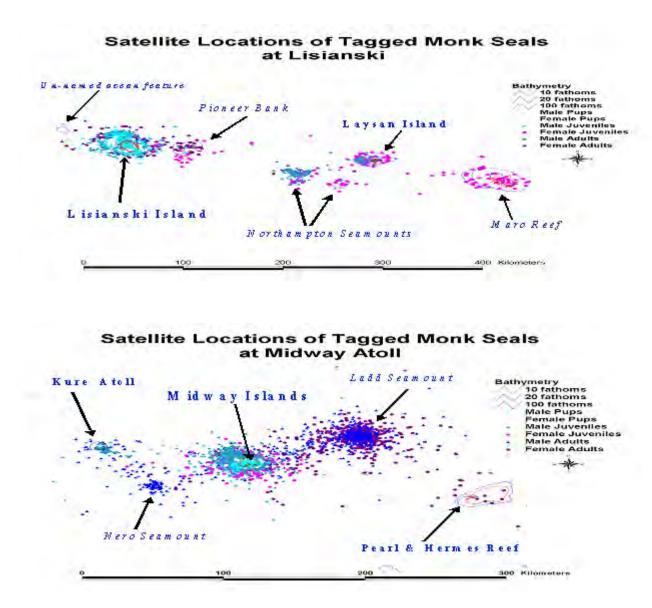


Figure 6. Foraging ranges of Hawaiian monk seals from Lisianski (upper) and Midway (lower) islands in 2000 and 2001.

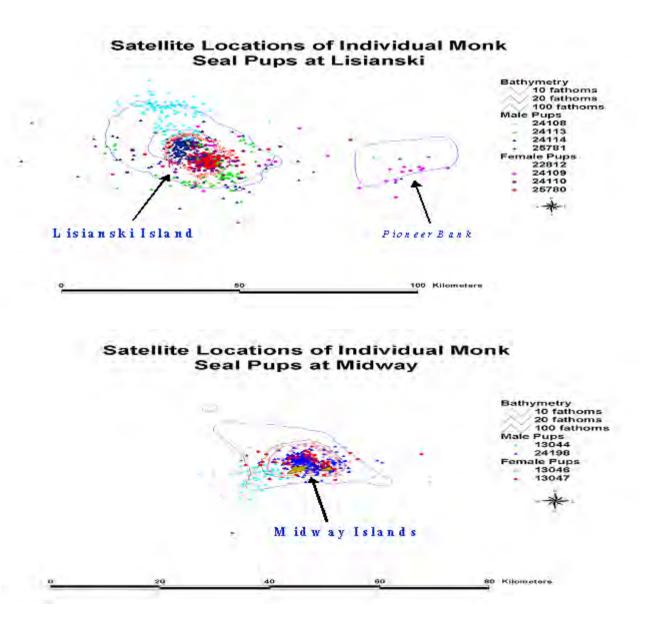


Figure 7. Foraging ranges of Hawaiian monk seal pups from Lisianski (upper) and Midway (lower) islands in 2000 and 2001.

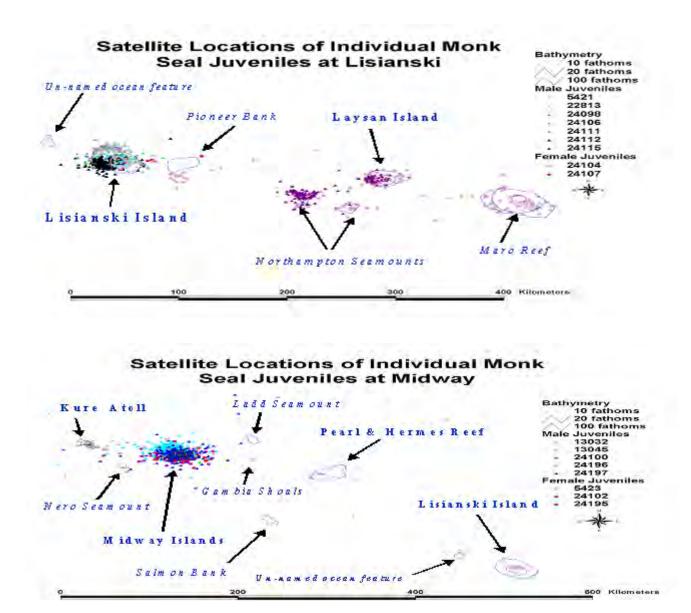


Figure 8. Foraging ranges of juvenile Hawaiian monk seal from Lisianski (upper) and Midway (lower) islands in 2000 and 2001.

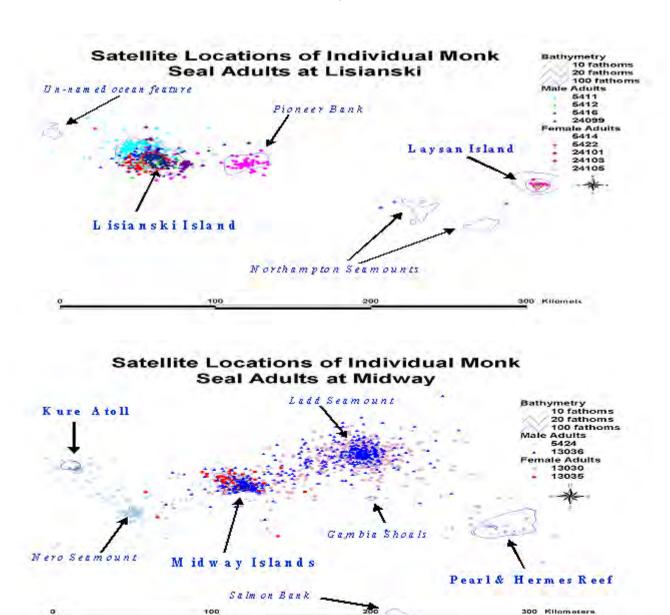


Figure 9. Foraging ranges of adult Hawaiian monk seals from Lisianski (upper) and Midway (lower) islands in 2000 and 2001.

7.1. Appendix I: Setup protocols for satellite-linked data recorders (SLDRs) deployed on Hawaiian monk seals at Lisianski Island, October 2000.

PTT ID = 5411; Seal ID GL22

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0941. ARGOS geolocation id = 5411

Unit identifier = ms20005411. Unit started at 21:44:14 on 02/09/00 Time (GMT) is 00:42:41.05. Date (GMT) is 14 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:45.00 / 01:30.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n] n

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n] n

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0941.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

52040C140104003C010023FD630A0100

00010101010101010000000000000000101

01010101000000000030010000450000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 00101405010001000100020000000000

00000 00000 00000 00000 00040 70200 A6

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

FFFFFFFFFFFFFFFFFF548EDFF

 $6D733230\,3030353\,43131FFFFFFFFFFF$

FFFFFFFFFFFFFFF30305430393431FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0941. ARGOS geolocation id = 5411

Unit identifier = ms20005411. Unit started at 21:44:14 on 02/09/00 Time (GMT) is 00:43:11.05. Date (GMT) is 14 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:45.00 / 01:30.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19
Upper limits of maximum-depth histogram b ins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters
Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes
Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters
**** Check these p arameters carefully ****. Ready to deploy? y
Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 5412; Seal ID GL34

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0942. ARGOS geolocation id = 5412

Unit identifier = ms20005412. Unit started at 21:42:15 on 02/09/00 Time (GMT) is 01:09:48.66. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4550 / 01:30.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bin s are:

Opper limits of time-at-depth histogram bin's are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 3 50, * meters SL-TDR> $\rm v$

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

-TDR>

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a $\,$

filename, a suggested name is 00T0942.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

32040C140104003C010023FD630A0100

0001010101010100000000000000000101

01010101000000005030010050450000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

00000000000000000000000407020003 0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F62000102035AFFFFFFFFFFFFF

FFFFFFFFFFFFFFFFF54907FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0942. ARGOS geolocation id = 5412

Unit identifier = ms20005412. Unit started at 21:42:15 on 02/09/00 Time (GMT) is 01:10:40.71. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:4550 / 01:30.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 5414; Seal ID GF02

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0943. ARGOS geolocation id = 5414

Unit identifier = ms20005414. Unit started at 21:46:36 on 02/09/00 Time (GMT) is 01:14:03.26. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 10 0, 120, 140, 160, 180, 200, 250, 35 0, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? $\left[n\right]$

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0943.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

54040C140104003C010023FD630A0100

000101010101010000000000000000101

01010101000000000031010000460000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

000000000000000000000004070200E9

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

 $000A141E28323C46505A647DAFFF000E \\ 30030F620001020375FFFFFFFFFFFFFF$

FFFFFFFFFFFFFF30305430393433FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0943. ARGOS geolocation id = 5414

Unit identifier = ms20005414. Unit started at 21:46:36 on 02/09/00 Time (GMT) is 01:14:22.03. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0943.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

54040C140104003C010023FD630A0100

00010101010101010000000000000000101

01010101000000000031010000460000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

00000000000000000000004070200E9

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E 30030F620001020375FFFFFFFFFFFFF

rrrrrrrrrrrrrrrrrrrrrrrrrrrrrr

FFFFFFFFFFFFFFFFFFF549A1FF

6D733230303035343134FFFFFFFFFFF

 $FFFFFFFFFFFFFF3030543039343\,3FF$

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0943. ARGOS geolocation id = 5414

Unit identifier = ms20005414. Unit started at 01:14:23 on 16/10/00 Time (GMT) is 01:15:13.67. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

 $20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, *\ meters$

Upper limits of dive-duration histogram bins are:

 $2,\,4,\,6,\,8,\,1\,0,\,12,\,14,\,\,16,\,18,\,20\,,\,25,\,30,\,4\,0,\,*\ minutes$

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 5416; G208

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0944. ARGOS geolocation id = 5416

Unit identifier = ms20005416. Unit started at 21:37:33 on 02/09/00 Time (GMT) is 04:13:22.50. Date (GMT) is 15 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.50 / 01:31.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> $\rm v$

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram birs: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2)[1]

Will the instrument be deployed in an area where fresh and salt water

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0944.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b 6C040C140104003C010023FD630A0100 000101010101010100000000000000001010101010100000000503101005046000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 001014050100010001000200000000000 $00000\,00000\,00000\,00000\,00040\,70200\,\mathrm{AC}$ 0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F620001020389FFFFFFFFFFFFF FFFFFFFFFFFFFFFFFFF54A26FF 6D733230303035343136FFFFFFFFFF FFFFFFFFFFFFFF30305430393434FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0944. ARGOS geolocation id = 5416

Unit identifier = ms20005416. Unit started at 21:37:33 on 02/09/00 Time (GMT) is 04:13:44.51. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.50 / 01:31.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? n SL-TDR> t

Time (GMT) is 04:13:57.37.

SL-TDR>d

Date (GMT) is 15 October 1900

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0944.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

6C040C140104003C010023FD630A0100

00010101010101010000000000000000101

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0944. ARGOS geolocation id = 5416

Unit identifier = ms20005416. Unit started at 04:13:45 on 15/10/00 Time (GMT) is 04:14:20.63. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.50 / 01:31.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 5421; Seal ID GY08

Press return to accept this limit of liability and to continue...

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0945. ARGOS geolocation id = 5421

Unit identifier = ms20005421. Unit started at 01:38:34 on 07/10/00 Time (GMT) is 02:05:11.21. Date (GMT) is 17 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 $\,$

meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:47.00 / 01:32.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> t 02:05:15.0

Time (GMT) is 02:05:15.00.

SL-TDR>t

Time (GMT) is 02:05:17.94.

SL-TDR> t

Time (GMT) is 02:05:30.07.

SL-TDR> d

Date (GMT) is 17 October 1900

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0945.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

4A040C140104003C010023FD630A0100

000101010101010000000000000000101

01010101000000000032010000470000

01FFFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

000000000000000000000000407020024

0A141E28323C46505A647DAFE1FF000E

020406080 A0 C0 E101214191 E28 FF 000 E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,6DFFFFFFFFFFFFF$

FFFFFFFFFFFFFFFFFF54B6AFF

 $6D733230\,3030353\,43231FFFFFFFFFFF$

FFFFFFFFFFFFFF3030543039343 5FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0945. ARGOS geolocation id = 5421

Unit identifier = ms20005421. Unit started at 01:38:34 on 07/10/00 Time (GMT) is 02:05:56.40. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 $_{\rm meters}$

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:47.00 / 01:32.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 5422; Seal ID TC74

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0946. ARGOS geolocation id = 5422

Unit identifier = ms20005422. Unit started at 22:50:55 on 06/10/00 Time (GMT) is 04:20:57.37. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4750 / 01:32.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06.14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0946.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

FC040C140104003C01002AFD520A0100

000101010101010000000000000000101

01010101000000005032010050470000

 $01FFFFFFFFFFFFFF000A0200000A0200\\000A0200007E21FE0000010000000100$

00101405010001000100020000000000

0000000000000000000000040702004B

0A141E28323C46505A647DAFE1FF000E

020406080 A0C0 E101214191 E28 FF 000 E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 79FFFFFFFFFFFF

FFFFFFFFFFFFFFFF30305430393436FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0946. ARGOS geolocation id = 5422

Unit identifier = ms20005422. Unit started at 22:50:55 on 06/10/00 Time (GMT) is 04:21:42.68. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:47.50 / 01:32.50 SLTDR will use on-land interval after 10 consecutive dry

transmissions SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bin s are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 22812; Seal ID GH22

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0967. ARGOS geolocation id = 22812

Unit identifier = ms200022812. Unit started at 01:42:15 on 02/09/00 Time (GMT) is 02:09:29.44. Date (GMT) is 15 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:39.50 / 01:24.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haulout" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0 S.W. Resistance = 255, Depth (m) = 0 S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>k

This command disables all data sampling and is used to maintain collected

data for subsequent listing. Are you sure? y

Disconnect communications cable, no further data samples will be taken

PTT ID = 22813; Seal ID GD42

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0968. ARGOS geolocation id = 22813

Unit identifier = ms200022813. Unit started at 01:44:07 on 02/09/00 Time (GMT) is 02:13:08.99. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:39.00 / 01:24.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 10 0, 120, 140, 160, 180, 200, 250, 35 0, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> v

Battery voltage under light load = 7.035 Volts.

```
SL-TDR> v
```

Battery voltage under light load = 7.035 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0968.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

C4040C1401040014010023FD620A0100

0001010101010101000000000000000101

01010101000000000024010000390000 01FFFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

0A141E28323C46505A647DAFE1FF000E

020406080 A 0 C 0 E 1 0 1 2 1 4 1 9 1 E 2 8 F F 0 0 0 E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,78FFFFFFFFFFFFF$

FFFFFFFFFFFFFFFFF664752FF

6D73323030303232383133FFFFFFFFF

FFFFFFFFFFFFFF30305430393638FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0968. ARGOS geolocation id = 22813

Unit identifier = ms200022813. Unit started at 01:44:07 on 02/09/00

Time (GMT) is 02:14:10.09. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:39.00 / 01:24.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24098; Seal ID GQ38

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: OOT0949. ARGOS geolocation id = 24098

Unit identifier = ms200024098. Unit started at 01:06:46 on 14/10/00 Time (GMT) is 01:01:09.18. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 maters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:49.00 / 01:34.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

 $20,\,40,\,60,\,80,\,10\,0,\,120,\,140,\,160,\,\,180,\,200,\,250,\,35\,0,\,450,\,*\ meters$

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> t

Time (GMT) is 01:01:14.80.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

 $SL\text{-}TDR \ge v$

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is OOT0949.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

92040C140104003C010023FD630A0100

0001010101010100000000000000000101

01010101000000000034010000490000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

00000000000000000000000407020022

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,75FFFFFFFFFFFF$

FFFFFFFFFFFFFFF4F4F5430393439FF

 $\label{thm:polynomial} Quarter-Watt,\,Microprocessor-controlled\,\,Satellite-linked\,\,Time-Depth\,\,Recorder.$

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: OOT0949. ARGOS geolocation id = 24098

Unit identifier = ms200024098. Unit started at 01:06:46 on 14/10/00 Time (GMT) is 01:02:28.63. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time[0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:49.00 / 01:34.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these p arameters carefully ****. Ready to deploy? y
Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24099; Seal ID GZ10

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version .1b. Uitnube: 0T95 AROSgeloatonid= 409 Unt detiie =ms02499 ni saredat163819on040900 Tme(GT)is01123435 at (MT i 1 Otoer19 Shllwet depth to be considered a "dive" = 8 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4950 / 01:34.50SLTDR will use on-land interval after 10 consecutive dry transmissions SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages. Hours when SLTDR transmits: 01-06,14-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR>b Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0950. ARGOS geolocation Unit identifier = ms200024099. Unit started at 16:38:19 on 04/09/00 Time (GMT) is 01:12:51.00. Date (GMT) is 14 October 1900 Shallowest depth to be considered a "dive" = 8 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4950 / 01:34.50SLTDR will use on-land interval after 10 consecutive dry transmissions SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages. Hours when SLTDR transmits: 01-06,14-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v Battery voltage under light load = 7.070 Volts. SL-TDR> v Battery voltage under light load = 7.070 Volts. SL-TDR> v Battery voltage under light load = 7.070 Volts. SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

```
SW. Resistance = 255, Depth (m) = 0
.W. Resistance = 255, Depth (m) = 0
.W. Resistance = 255, Depth (m) = 0
S.W. Resistance = 255, Depth (m) = -2
SL-TDR> e
It is strongly recommended that you log the following information to a
file so that you have a permanent copy of this setup. In PROCOMM
you do this
by pressing the ALT-F1 key combination. You will then be prompted
for a
filename, a suggested name is 00T0950.SET
After you have entered a filename, press return to continue.
SLTDR version: 3.15b
70040C140104003C010023FD630A0100
00010101010101010000000000000000101\\
01010101000000005034010050490000\\
01FFFFFFFFFFFFF000A0200000A0200
000A0200007E21FE0000010000000100
001014050100010001000200000000000\\
00000000000000000000000407020064\\
0A141E28323C46505A647DAFE1FF000E
020406080A0C0E101214191E28FF000E
000A141E28323C46505A647DAFFF000E
30030F62000102038BFFFFFFFFFFFF
FFFFFFFFFFFFFFFFFF788F0FF
6D733230\,3030323\,4303939\,FFFFFFFFF
FFFFFFFFFFFFFF30305430393530FF
Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth
Recorder.
Unit measures depth from 0 to 490 meters with a resolution of 2
```

meters

Software version 3.15b. Unit number: 00T0950. ARGOS geolocation id = 24099

Unit identifier = ms200024099. Unit started at 1638:19 on 04/09/00

Time (GMT) is 01:13:11.88. Date (GMT) is 14 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4950 / 01:34.50SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06.14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bin's are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24101; Seal ID G178

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted

filename, a suggested name is 00T0952.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

26040C140104003C010023FD630A0100

00010101010101010000000000000000101

01010101000000005035010050500000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

000000000000000000000000407020040

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,5BFFFFFFFFFFFF$

FFFFFFFFFFFFFFFFF78949FF

6D73323030303234313031FFFFFFFFF

 $FFFFFFFFFFFFFF3030543039353\,2FF$

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0952. ARGOS geolocation id = 24101

Unit identifier = ms200024101. Unit started at 21:13:59 on 04/09/00 Time (GMT) is 01:19:41.83. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:50.50 / 01:35.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? n

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0952.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

26040C140104003C010023FD630A0100

00010101010101010000000000000000101

01010101000000005035010050500000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 001014050100010001000200000000000

00000000000000000000000407020040

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 5BFFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFF078949FF

 $6D733230\,3030323\,4313031\,FFFFFFFFF$

FFFFFFFFFFFFFF30305430393532FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0952. ARGOS geolocation

Unit identifier = ms200024101. Unit started at 01:19:43 on 16/10/00Time (GMT) is 01:20:02.83. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:5050 / 01:35.50SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24103; Seal ID G3AO

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0954. ARGOS geolocation

Unit identifier = ms200024103. Unit started at 22:46:38 on 06/10/00Time (GMT) is 04:16:22.23. Date (GMT) is 15 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4450 / 01:29.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0954.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

7E040C140104003C010023FD610A0100

0001010101010101000000000000000010101010101000000005029010050440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

00000000000000000000000407020092

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 79FFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFFF0789EFFF

6D73323030303234313033FFFFFFFFF

FFFFFFFFFFFFFF30305430393534FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2

Software version 3.15b. Unit number: 00T0954. ARGOS geolocation id = 24103

Unit identifier = ms200024103. Unit started at 22:46:38 on 06/10/00Time (GMT) is 04:18:24.48. Date (GMT) is 15 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4450 / 01:29.50

SLTDR will use on-land interval after 10 consecutive dry

transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

S.W. Resistance = 255. Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR>

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0954.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

7E040C140104003C010023FD610A0100

0001010101010101000000000000000101

01010101000000005029010050440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0954. ARGOS geolocation id = 24103

Unit identifier = ms200024103. Unit started at 04:18:25 on 15/10/00 Time (GMT) is 01:58:49.71. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.50 / 01:29.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 3 50, * meters **** Check these p arameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24104; Seal ID G5AM

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0955. ARGOS geolocation id = 24104

Unit identifier = ms200024104. Unit started at 0141:49 on 07/10/00 Time (GMT) is 23:40:18.61. Date (GMT) is 17 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.00 / 01:29.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

 $20,\,40,\,60,\,80,\,10\,0,\,120,\,140,\,160,\,\,180,\,200,\,250,\,35\,0,\,450,\,*\ meters$

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

S.W. Resistance = 255, Depth (m) = -2

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0955.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

C4040C140104003C010023FD620A0100

00010101010101010000000000000000101

01010101000000000029010000440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 6CFFFFFFFFFFFFF

6D/3323030303234313034FFFFFFFF

FFFFFFFFFFFFFF50305430393535FF

 $\label{eq:Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.$

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0955. ARGOS geolocation id = 24104

Unit identifier = ms200024104. Unit started at 01:41:49 on 07/10/00

Time (GMT) is 23:40:33.49. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.00 / 01:29.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24105; Seal ID G066

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0956. ARGOS geolocation id = 24105

Unit identifier = ms200024105. Unit started at 22:55:50 on 06/10/00

Time (GMT) is 01:05:56.10. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.50 / 01:28.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

 $20,\,40,\,60,\,80,\,10\,0,\,120,\,140,\,160,\,\,180,\,200,\,250,\,35\,0,\,450,\,*\ meters$

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> $\rm v$

Battery voltage under light load = 7.035 Volts.

SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> v

Battery voltage under light load = 7.035 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a $\,$

filename, a suggested name is 00T0956.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

9E040C140104003C010023FD620A0100

00010101010101010000000000000000101

01010101000000005028010050430000

01FFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,80FFFFFFFFFFFFF$

6D73323030303234313035FFFFFFFFF

FFFFFFFFFFFFFF30305430393536FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0956. ARGOS geolocation id = 24105

Unit identifier = ms200024105. Unit started at 22:55:50 on 06/10/00 Time (GMT) is 01:06:44.87. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4350 / 01:28.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.
Blocks of Time-Lines will be transmitted every 48 messages.
Hours when SLTDR transmits: 01-06,14-19
Upper limits of maximum-depth histogram bins are:
20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters
Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it... e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0956.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

9E040C140104003C010023FD620A0100

0001010101010101000000000000000101

010101010100000005028010050430000

01FFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

0A141E28323C46505A647DAFE1FF000E

UA141E28323C465U5A64/DAFE1FFUUU.

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E 30030F620001020380FFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFFF78A68FF

Quarter-Watt, Microprœessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0956. ARGOS geolocation id = 24105

Unit identifier = ms200024105. Unit started at 01:06:46 on 16/10/00 Time (GMT) is 01:12:24.11. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.50 / 01:28.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it..

PTT ID = 24106; Seal ID GD24

Press return to accept this limit of liability and to continue... Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0957. ARGOS geolocation id = 24106

Unit identifie = ms200024106. Unit started at 0125:17 on 02/09/00 Time (GMT) is 23:31:37.86. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.50 / 01:29.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

 $20,\,40,\,60,\,80,\,10\,0,\,120,\,140,\,160,\,180,\,200,\,250,\,35\,0,\,450,\,*~meters$

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0957.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

70040C1401040014010023FD630A0100

0001010101010101000000000000000101

01010101000000005029010050440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

00101405010001000100020000000000

0000000000000000000000040702006F

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E 30030F620001020372FFFFFFFFFFFF

FFFFFFFFFFFFFFFFFFFF078A9DFF

 $6D733230\,3030323\,4313036\,FFFFFFFFF$

FFFFFFFFFFFFFFF30305430393537FF

 $\label{eq:Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.$

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0957. ARGOS geolocation id = 24106

Unit identifier = ms200024106. Unit started at 01:25:17 on 02/09/00

Time (GMT) is 23:32:16.41. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:4450 / 01:29.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24107; Seal ID GD37

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0958. ARGOS geolocation id = 24107

Unit identifier = ms200024107. Uit started at 0126:56 on 02/09/00 Time (GMT) is 23:33:58.63. Date (GMT) is 17 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.00 / 01:29.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> vv

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

SL-TDR>

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0958.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

9C040C1401040014010023FD630A0100

0001010101010101000000000000000101

01010101000000000029010000440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

Quarter-Watt, Microprœessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0958. ARGOS geolocation id = 24107

Unit identifier = ms200024107. Unit started at 0126:56 on 02/09/00 Time (GMT) is 23:34:23.93. Date (GMT) is 17 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.00 / 01:29.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? n SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0958.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

9C040C1401040014010023FD630A0100

00010101010101010000000000000000101

01010101000000000029010000440000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

0000000000000000000000000000000001

0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 7DFFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFF78ACEFF

6D73323030303234313037FFFFFFFFF

 $FFFFFFFFFFFFFF3030543039353\,8FF$

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0958. ARGOS geolocation id = 24107

Unit identifier = ms200024107. Unit started at 2334:25 on 17/10/00 Time (GMT) is 23:34:33.48. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:44.00 / 01:29.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24108; Seal ID GH00

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0959. ARGOS geolocation id = 24108

Unit identifier = ms200024108. Unit started at 2132:07 on 02/09/00 Time (GMT) is 01:21:44.06. Date (GMT) is 14 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

 $Local\ time [0-23\ hours]\ corresponding\ to\ 00h\ UT\ (GMT):\ 12$ $Transmission\ intervals\ (at-sea\ /\ on-land) = 00:43\ 50\ /\ 01:28.50$

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 2

.W. Resistance = 255, Depth (m) = 2

.W. Resistance = 255, Depth (m) = 2

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0959.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b B6040C140104001401002AFD520A0100 000101010101010100000000000000001010101010100000000502801005043000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 001014050100010001000200000000000 $0000000000000000000000004\,070200 DE$ 0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F620001020383FFFFFFFFFFFFF FFFFFFFFFFFFFFFFFFF078B24FF 6D73323030303234313038FFFFFFFFF FFFFFFFFFFFFFF30305430393539FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0959. ARGOS geolocation id = 24108

Unit identifier = ms200024108. Unit started at 2132:07 on 02/09/00 Time (GMT) is 01:22:09.93. Date (GMT) is 14 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4350 / 01:28.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24109; Seal ID GH26

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 0128:44 on 02/09/00 Time (GMT) is 00:58:14.53. Date (GMT) is 14 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> v

Battery voltage under light load = 7.070 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = -2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM

by pressing the ALT-F1 key combination . You will then be prompted for a $\,$

filename, a suggested name is 00T0960.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

AA040C1401040014010023FD630A0100

0001010101010101000000000000000101

010101010101010000000000000000101

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

0010140501000100010002000000000000000000000000000000000040702008A0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E $30030F620\,0010203\,80FFFFFFFFFFFF$ FFFFFFFFFFFFFFFFFF78B77FF 6D73323030303234313039FF646570FF FFFFFFFFFFFFFF30305430393630FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 01:28:44 on 02/09/00 Time (GMT) is 00:58:45.23. Date (GMT) is 14 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 350

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages. Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0960. ARGOS geolocation

Unit identifier = ms200024109. Unit started at 01:08:29 on 14/10/00Time (GMT) is 01:04:31.47. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out".

"Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR>t

Time (GMT) is 01:04:40.16.

SL-TDR> d

Date (GMT) is 15 October 1900

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = -2

.W. Resistance = 255, Depth (m) = 0.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = -2

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM

by pressing the ALT-F1 key combination. You will then be prompted

filename, a suggested name is 00T0960.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

6A040C1401040014010023FD630A0100

00010101010101010000000000000000101

01010101000000000028010000430000

01FFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100001014050100010001000200000000000

000000000000000000000004070200EF

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,80FFFFFFFFFFFF$

FFFFFFFFFFFFFFFFFF078B77FF

6D73323030303234313039FF646570FF

FFFFFFFFFFFFFF30305430393630FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2

Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 01:08:29 on 14/10/00 Time (GMT) is 01:05:18.71. Date (GMT) is 15 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 01:05:20 on 15/10/00 Time (GMT) is 02:04:32.85. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 1 00, 120, 140, 160, 180, 200, 250, 3 50, * meters SL-TDR>

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 01:05:20 on 15/10/00 Time (GMT) is 02:04:36.47. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0960.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

6A040C1401040014010023FD630A0100

00010101010101010000000000000000101

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

000000000000000000000004070200EF 0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

000A141E28323C40303A04/DAFFF00C

 $30030F620\,0010203\,80FFFFFFFFFFFFF$

FFFFFFFFFFFFFFFFFFF78B77FF

6D73323030303234313039FF646570FF

FFFFFFFFFFFFFFF30305430393630FF

 $\label{thm:controlled} \mbox{Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.}$

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0960. ARGOS geolocation id = 24109

Unit identifier = ms200024109. Unit started at 01:05:20 on 15/10/00 Time (GMT) is 02:04:52.87. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24110; Seal ID GH06

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software vero35 ninmbr.OOO91.AGO golcaio i=2410

Uitidntfir m202410 ni saredat013030on020900

Tme(GT)is01171288 at (MT i 1 Otoer190

hllowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4250 / 01:27.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 3 50, * meters SL-TDR>

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: OOTO961. ARGOS geolocation id = 24110

 $\label{eq:unit identifier} Unit identifier = ms 200024110. \ Unit started at 0130:30 \ on 02/09/00 \\ Time (GMT) is 01:17:17.12. \ Date (GMT) is 14 October 1900$

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:4250 / 01:27.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a $\,$

filename, a suggested name is OOTO961.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

AE040C1401040014010023FD630A0100

0001010101010101000000000000000101

01010101000000005027010050420000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 00101405010001000100020000000000 0000000000000000000000040702002A0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E $30030F620\,0010203\,82FFFFFFFFFFFF$ FFFFFFFFFFFFFFFFFFF78882FF $6D733230\,3030323\,4313130\,FFFFFFFFF$ FFFFFFFFFFFFFF4F4F544F393631FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: OOTO961. ARGOS geologation id = 24110

Unit identifier = ms200024110. Unit started at 01:30:30 on 02/09/00 Time (GMT) is 01:17:38.17. Date (GMT) is 14 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4250 / 01:27.50SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: OOTO961. ARGOS geolocation id = 24110

Unit identifier = ms200024110. Unit started at 01:17:39 on 14/10/00Time (GMT) is 02:08:07.90. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00.4250 / 01.27.50SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM

by pressing the ALT-F1 key combination. You will then be prompted

filename, a suggested name is OOTO961.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

AE040C1401040014010023FD630A0100

000101010101010000000000000000101

010101010100000005027010050420000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

001014050100010001000200000000000

0000000000000000000000040702002A

0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $\label{thm:controlled} \mbox{Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.}$

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: OOTO961. ARGOS geolocation id = 24110

Unit identifier = ms200024110. Unit started at 01:17:39 on 14/10/00 Time (GMT) is 02:08:39.51. Date (GMT) is 16 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:42.50 / 01:27.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24111; Seal ID GD32

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0962. ARGOS geolocation id = 24111

Unit identifier = ms200024111. Unit started at 0132:02 on 02/09/00 Time (GMT) is 23:36:24.52 Date (GMT) is 17 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.245 Volts.

SL-TDR> v

Battery voltage under light load = 7.245 Volts.

SL-TDR> v

Battery voltage under light load = 7.245 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 2

.W. Resistance = 255, Depth (m) = 2

.W. Resistance = 255, Depth (m) = 2

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0962.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

70040C1401040014010023FD630A0100

0001010101010101000000000000000101

01010101000000000027010000420000

01FFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 00101405010001000100020000000000

0A141E28323C46505A647DAFE1FF000E

020406080 A0C0 E101214191 E28 FF 000 E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,80FFFFFFFFFFFFF$

FFFFFFFFFFFFFFFFFFFF078BD1FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Recorder.
Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0962. ARGOS geolocation id = 24111

Unit identifier = ms200024111. Unit started at 0132:02 on 02/09/00 Time (GMT) is 23:36:39.68. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24112; Seal ID GD26

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0963. ARGOS geolocation id = 24112

Unit identifier = ms200024112. Unit started at 0133:59 on 02/09/00 Time (GMT) is 01:34:09.06. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4150 / 01:26.50 SLTDR will use on-land interval after 10 consecutive dry

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

transmissions

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 1 00, 120, 140, 160, 180, 200, 250, 3 50, * meters SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? $\left[n\right]$

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14] Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 2

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0963.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

8A040C1401040014010023FD620A0100

00010101010101010000000000000000101

01010101000000005026010050410000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 80FFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFFFF078C2AFF

 $6D733230\,3030323\,4313132\,FFFFFFFFF$

FFFFFFFFFFFFFF30305430393633FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0963. ARGOS geolocation id = 24112

Unit identifier = ms200024112. Unit started at 0133:59 on 02/09/00

Time (GMT) is 01:35:36.66. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

 $Local\ time [0-23\ hours]\ corresponding\ to\ 00h\ UT\ (GMT):\ 12$ $Transmission\ intervals\ (at-sea\ /\ on-land)=00:4150\ /\ 01:26.50$

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24113; Seal ID GH04

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0964. ARGOS geolocation id = 24113

Unit identifier = ms200024113. Unit started at 0135:36 on 02/09/00 Time (GMT) is 00:38:50.92. Date (GMT) is 19 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:41.00 / 01:26.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

2, 4, 0, 8, 10, 12, 14, 10, 18, 20, 23, 30, 40, IIIIII

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 3 50, * meters SL-TDR> $\rm v$

Battery voltage under light load = 7.210 Volts.

SL-TDR > v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

t is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0964.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

2E040C1401040014010023FD620A0100

00010101010101010000000000000000101

01010101000000000026010000410000

01FFFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

00101405010001000100020000000000

0000000000000000000000040702002E

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,80FFFFFFFFFFFF$

FFFFFFFFFFFFFF30305430393634FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0964. ARGOS geolocation id = 24113

Unit identifier = ms200024113. Unit started at 0135:36 on 02/09/00

Time (GMT) is 00:39:19.38. Date (GMT) is 19 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:41.00 / 01:26.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 24114; Seal ID GH11

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0965. ARGOS geolocation id = 24114

Unit identifier = ms200024114. Unit started at 0138:08 on 02/09/00 Time (GMT) is 02:16:42.05. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:40.50 / 01:25.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bin s are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt wat vextn iset les?[n]

SL-TDR> e

Iistng comee tatyo lg hefoloin ifomaio tadik fie o ha yu av apemaencpyofths etp. IPOCMMyo d tis by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0965.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

80040C1401040014010023FD630A0100

00010101010101010000000000000000101

01010101000000005025010050400000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 00101405010001000100020000000000

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F620 0010203 65FFFFFFFFFFFF

4D722220202022224212124EEEEEEEEE

6D73323030303234313134FFFFFFFFF

FFFFFFFFFFFFFF50305430393635FF

Quarter-Watt, Microprœessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters $\,$

Software version 3.15b. Unit number: 00T0965. ARGOS geolocation id = 24114

Unit identifier = ms200024114. Unit started at 01:38:08 on 02/09/00

Time (GMT) is 02:17:30.74. Date (GMT) is 16 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:40.50 / 01:25.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 1 0, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h Unit is ready for deployment, disconnect cable and go for it...

PTTID = 24115; Seal ID TY12

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0966. ARGOS geolocation id = 24115

Unit identifier = ms200024115. Unit started at 0139:56 on 02/09/00 Time (GMT) is 01:44:18.48. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:40.00 / 01:25.00SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> v

Battery voltage under light load = 7.210 Volts.

SL-TDR> va3 Battery voltage under light load = 7.210 Volts.

Battery voltage under light load = 7.210 Volts.

Battery voltage under light load = 7.210 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = -2

S.W. Resistance = 255, Depth (m) = -2

S.W. Resistance = 255, Depth (m) = -2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water

exist in discrete layers? [n]

SL-TDR>

SL-TDR> e

It is strongly recommended that you log the following information to a

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted

filename, a suggested name is 00T0966.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

9C040C1401040014010023FD640A0100

00010101010101010000000000000000101

0101010101000000000025010000400000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100 001014050100010001000200000000000

000000000000000000000004070200CF

0A141E28323C46505A647DAFE1FF000E

020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

 $30030F620\,0010203\,75FFFFFFFFFFFF$

FFFFFFFFFFFFFFFFFFF078CDFFF

6D73323030303234313135FFFFFFFFF

FFFFFFFFFFFFFF30305430393636FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2

Software version 3.15b. Unit number: 00T0966. ARGOS geolocation id = 24115

Unit identifier = ms200024115. Unit started at 01:39:56 on 02/09/00

Time (GMT) is 01:45:00.81. Date (GMT) is 17 October 1900

Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:40.00 / 01:25.00 SLTDR will use on-land interval after 10 consecutive dry

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

transmissions

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 25780; Seal ID GH18

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0969. ARGOS geolocation

Unit identifier = ms200025780. Unit started at 01:46:10 on 02/09/00Time (GMT) is 00:36:24.52. Date (GMT) is 19 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:4550 / 01:30.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters SL-TDR> $\rm v$

Battery voltage under light load = 7.396 Volts.

SL-TDR> v

Battery voltage under light load = 7.396 Volts.

SL-TDR> v

Battery voltage under light load = 7.396 Volts.

SL-TDR> a3

.W. Resistance = 255, Depth (m) = 0

.W. Resistance = 255, Depth (m) = 0

W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> e

It is srongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination . You will then be prompted for a

filename, a suggested name is 00T0969.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

48040C140104001401002BFD520A0100

0001010101010101000000000000000101

01010101000000005030010050450000

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T0969. ARGOS geolocation id = 25780

Unit identifier = ms200025780. Unit started at 01:46:10 on 02/09/00 Time (GMT) is 00:37:05.09. Date (GMT) is 19 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:45.50 / 01:30.50 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram b ins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h
Unit is ready for deployment, disconnect cable and go for it...

PTT ID = 25781; **Seal ID GH30**

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter. Software version 3.15b. Unit number: 00T0970. ARGOS geolocation id = 25781

Unit identifier = ms200025781. Unit started at 21:10:18 on 06/10/00 Time (GMT) is 00:40:33.84. Date (GMT) is 19 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Upper limits of dive-duration histogram bin s are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR > v

Battery voltage under light load = 7.070 Volts.

SL-TDR > v

Battery voltage under light load = 7.070 Volts.

SL-TDR> a2

.W Rsiace= 55 Dpt () 0

.W Rsitace= 55, Depth (m) =2

-DR a3

.W Rsitace= 55 Dpt () 0

.W Rsitance = 255, Depth (m) = 0

SL-TDR> e

t is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOMM you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0970.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

1A040C1401040014010023FD630A0100

0001010101010100000000000000000101

0101010100000000031010000460000

01FFFFFFFFFFFFF000A0200000A0200

Quarter-Watt, Micropr α essor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters Software version 3.15b. Unit number: 00T0970. ARGOS geolocation id = 25781

Unit identifier = ms200025781. Unit started at 21:10:18 on 06/10/00 Time (GMT) is 00:43:22.03. Date (GMT) is 19 October 1900 Shallowest depth to be considered a "dive" = 8 meters

Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 40 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12 Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00 SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 4 successive at-sea transmission intervals Transmissions will be duty cycled with 1 day on and 0 days off Daily allowance (1-message transmissions; unused xmits don't accumulate) = 250

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters **** Check these p arameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

7.2. Appendix II: Setup protocols for satellite-linked data recorders (SLDRs) deployed on Hawaiian monk seals at Midway Islands Island, December 2000 - January 2001.

PTT 5423: Seal ID RY00

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15 b. Unit number: 00T 0947. ARGOS geolocation id = 5423

Unit identifier = ms20015423. Unit started at 21:44:26 on 31/12/00

Time (GMT) is 23:06:59.35. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:48.00 / 01:33.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours

"hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea

transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR> v

Battery voltage under light load = 7.105 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR > p

User-definable identification = ms20015423

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when

shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when

shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT

(GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255]

consecutive

transmissions without sea-water induced delays. n = 10

Enter new value:

After n hours of "haul-out", unit will suspend further

transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission

intervals elapse which are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0

Enter new value:

Nominal battery capacity is 60000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

Enter new daily allowance [1-65535]:

STAT US will be transmitted every nth [0-255] message.

n = 20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |0000000000111111111112222|

(these hours (read vertically) are all in GMT)

|012345678901234567890123|

-----+-----

---+

Current setting (1=good, 0=bad) |011111111110011111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2,4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PRO COM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0947.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

Time-Depth Recorder.

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

00100A05010001000100020000000000

000000000000000000000000407020081

0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

30030F62000102037FFFFFFFFFFFFFF

FFFFFFFFFFFFFFFFFFF54BCCFF

6D733230303135343233FFFFFFFFFFF

FFFFFFFFFFFFFF30305430393437FF

Quarter-Watt, Microprocessor-controlled Satellite-linked

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0947.

ARGOS geolocation id = 5423

Unit identifier = ms20015423. Unit started at 21:44:26 on 31/12/00

Time (GMT) is 23:07:22.50. Date (GMT) is 31

December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:48.00 / 01:33.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-me ssage transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT 5424; Seal ID BN44

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0948.

ARGOS geolocation id = 5424

Unit identifier = ms20015424. Unit started at 21:47:35 on 31/12/00

Time (GMT) is 23:08:33.65. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:48.50 / 01:33.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350,

* meters

SL-TDR>

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR > v

Battery voltage under light load = 7.140 Volts.

SL-TDR> v

Battery voltage under light load = 7.140 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms20015424

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255]

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0 Enter new value:

Nominal battery capacity is 60000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n=20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |000000000111111111111222|

(these hours (read vertically) are all in GMT) |012345678901234567890123|

-----+-----

Current setting (1=good, 0=bad)

|01111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0948.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

84020C140102003C010023FD620A0100

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15 b. Unit number: 00T 0948.

ARGOS geolocation id = 5424

Unit identifier = ms20015424. Unit started at 21:47:35 on 31/12/00

Time (GMT) is 23:08:59.00. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:48.50 / 01:33.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID 13030; Seal ID BK27

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0984.

ARGOS geolocation id = 13030

Unit identifier = ms200113030. Unit started at 21:07:19 on 15/11/00

Time (GMT) is 20:03:55.19. Date (GMT) is 02 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:39.00 / 01:24.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends after SLTDR is "wet" for 2 successive at-sea

transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR>

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts. SL-TDR> va3

Battery voltage under light load = 7.224 Volts.

Battery voltage under light load = 7.224 Volts.

Battery voltage under light load = 7.224 Volts.

SL-TDR>

SL-TDR> a3 Enter new value: S.W. Resistance = 255, Depth (m) = 0"Haul-out" ends when n successive at-sea transmission S.W. Resistance = 255, Depth (m) = 0intervals elapse which are all "wet". n = 2S.W. Resistance = 255, Depth (m) = 0S.W. Resistance = 255, Depth (m) = 0Enter new value: Unit will duty cycle with n [1-15] days on. n = 1SL-TDR> o Do you wish to allow any unused portion of your daily Enter new value: Unit will duty cycle with n [0-15] days off. n = 0transmission allowance to be added to the next day's allowance? [n] Enter new value: Nominal battery capacity is 60000 transmissions. See User's manual for formula to determine actual battery Do you wish to be able to set the daily transmission capacity. allowance on a Daily allowance (1-message transmissions; unused xmits month-by-month basis? [n] don't accumulate) = 400 Enter new daily allowance [1-65535]: Enter number (0/6/10/14) of depth histogram bins: [14] STAT US will be transmitted every nth [0-255] message. Enter number (0/6/10/14) of duration histogram bins: n = 20Enter new value: [14] Blocks of Time-Lines will be transmitted every nth Enter number (0/6/10/14) of time-at-depth histogram [0-255] message. n = 48Enter new value: bins: [14] Transmission hours with good satellite coverage |0000000000111111111112222|How many histograms or timeline messages should be encoded into (these hours (read vertically) are all in GMT) |012345678901234567890123| each transmission (1/2) [1] Will the instrument be deployed in an area where fresh Current setting (1=good, 0=bad) and salt water may |0111111111001111111110000| exist in discrete layers? [n] Enter new settings. : SL-TDR> p (in listing the histogram bins, the symbol * indicates User-definable identification = ms200113030 Enter new identifier (up to 15 characters): that there is no upper limit for this bin.) Set the upper limits of the maximum-depth histogram Shallowest depth to be considered a "dive" = 4 Enter new value: Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, Deepest depth for accumulating surface-timelines (0=dry 200, 250, 350, 450, * meters only) = 2Enter new limits (in meters): Enter new value: Unit will try to detect surface every second when Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, shallower than 20 40, * minutes Enter new value: Enter new limits (in minutes): Unit will try to detect surface every 1/4-second when Set the upper limits of the time-at-depth histogram bins shallower than 10 (0 = haul-out): Enter new value: Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, Local time [0-23 hours] corresponding to 00h UT (GMT): 12 180, 200, 250, 350, * meters Enter new limits (in meters): Enter new value: Change to on-land transmission interval after n [1-255] SL-TDR> e It is strongly recommended that you log the following consecutive information to a disk transmissions without sea-water induced delays. n = 10file so that you have a permanent copy of this setup. In Enter new value: After n hours of "haul-out", unit will suspend further PROCOM M you do this

transmissions,

(n = 0 will disable this option). n = 1

by pressing the ALT-F1 key combination. You will then

be prompted for a

filename, a suggested name is 00T0984.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b 78020C140102003C01002AFD520A0100 00010101010101010101010000010101010101010100000000002401000039000001FFFFFFFFFFFFF000A0200000A0200000A0200007E21FE0000010000000100 00100A0501000100010002000000000000000000000000000000000004070200420A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F62000102035CFFFFFFFFFFFFF FFFFFFFFFFFFFFFFFFFFFFBB5FF 6D73323030313133303330FFFFFFFFF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

FFFFFFFFFFFFFF30305430393834FF

Software version 3.15 b. Unit number: 00T 0984.

ARGOS geolocation id = 13030

Unit identifier = ms200113030. Unit started at 21:07:19 on 15/11/00

Time (GMT) is 20:04:24.99. Date (GMT) is 02 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:39.00 / 01:24.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT ID 13032; Seal ID RY04

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0986.

ARGOS geolocation id = 13032

Unit identifier = ms200113032. Unit started at 21:17:46 on 15/11/00

Time (GMT) is 00:31:48.83. Date (GMT) is 04 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:40.00 / 01:25.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> t

Time (GMT) is 00:32:03.71.

SL-TDR> d

Date (GMT) is 04 January 1901

SL-TDR> v

Battery voltage under light load = 7.396 Volts.

SL-TDR> v

Battery voltage under light load = 7.396 Volts.

 $SL\text{-}TDR \ge v$

Battery voltage under light load = 7.396 Volts.

SL-TDR > a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 2

S.W. Resistance = 255, Depth (m) = 2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR > p

User-definable identification = ms200113032

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions.

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission

intervals elapse which are all "wet". n = 2Enter new value: Unit will duty cycle with n [1-15] days on. n = 1Enter new value: Unit will duty cycle with n [0-15] days off. n = 0Enter new value: Nominal battery capacity is 60000 transmissions. See User's manual for formula to determine actual battery capacity. Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400 Enter new daily allowance [1-65535]: STATUS will be transmitted every nth [0-255] message. n = 20Enter new value: Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48Enter new value: Transmission hours with good satellite coverage |000000000111111111112222|(these hours (read vertically) are all in GMT) |012345678901234567890123| -----+-----+ Current setting (1=good, 0=bad) |01111111111001111111110000|Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0986.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b 72020C140102003C01002BFD510A0100 000101010101010101010100000101010101010101010000000002501000040000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 00100A05010001000100020000000000 0000000000000000000000004070200B7 0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F62000102035DFFFFFFFFFFFFF FFFFFFFFFFFFFFFFFFFFOCBA32FF 6D73323030313133303332FFFFFFFFF FFFFFFFFFFFFF530305430393836FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0986.

ARGOS geolocation id = 13032

Unit identifier = ms200113032. Unit started at 21:17:46 on 15/11/00

Time (GMT) is 00:33:05.54. Date (GMT) is 04 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:40.00 / 01:25.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters
Upper limits of dive-duration histogram bins are:
2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes
Upper limits of time-at-dep th histogram bins are:
0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters
**** Check these parameters carefully ****. Ready to deploy? y
Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it..

PTT ID 13035; Seal ID R101

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0990.

ARGOS geolocation id = 13036

Unit identifier = ms200113036. Unit started at 16:02:05 on 16/11/00

Time (GMT) is 07:38:27.79. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmit SL-TDR> b

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0990.

ARGOS geolocation id = 13036

Unit identifier = ms200113036. Unit started at 16:02:05 on 16/11/00

Time (GMT) is 07:38:35.40. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 200, 250, 350, 450, 0, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms200113036 Enter new identifier (up to 15 characters): Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

40. * minutes Enter new value: Unit will try to detect surface every second when Enter new limits (in minutes): shallower than 20 Set the upper limits of the time-at-depth histogram bins (0 = haul-out): Enter new value: Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, Unit will try to detect surface every 1/4-second when 180, 200, 250, 350, * meters shallower than 10 Enter new value: Enter new limits (in meters): SL-TDR> p Local time [0-23 hours] corresponding to 00h UT (GMT): 12 User-definable identification = ms200113036 Enter new identifier (up to 15 characters): Enter new value: Shallowest depth to be considered a "dive" = 4 Change to on-land transmission interval after n [1-255] Enter new value: consecutive Deepest depth for accumulating surface-timelines (0=dry transmissions without sea-water induced delays. n = 10Enter new value: only) = 2After n hours of "haul-out", unit will suspend further Enter new value: Unit will try to detect surface every second when transmissions, shallower than 20 (n = 0 will disable this option). n = 1Enter new value: Enter new value: Unit will try to detect surface every 1/4-second when "Haul-out" ends when n successive at-sea transmission shallower than 10 intervals elapse which Enter new value: are all "wet". n = 2Local time [0-23 hours] corresponding to 00h UT Enter new value: (GMT): 12 Unit will duty cycle with n [1-15] days on. n = 1Enter new value: Enter new value: Unit will duty cycle with n [0-15] days off. n = 0Change to on-land transmission interval after n [1-255] consecutive Enter new value: transmissions without sea-water induced delays. n = 10Nominal battery capacity is 60000 transmissions. Enter new value: See User's manual for formula to determine actual battery After n hours of "haul-out", unit will suspend further capacity. transmissions, Daily allowance (1-message transmissions; unused xmits (n = 0 will disable this option). n = 1don't accumulate) = 400 Enter new daily allowance [1-65535]: Enter new value: "Haul-out" ends when n successive at-sea transmission STATUS will be transmitted every nth [0-255] message. n = 20intervals elapse which are all "wet". n = 2Enter new value: Enter new value: Blocks of Time-Lines will be transmitted every nth Unit will duty cycle with n [1-15] days on. n = 1[0-255] message. n = 48Enter new value: Enter new value: Unit will duty cycle with n [0-15] days off. n = 0Transmission hours with good satellite coverage |0000000000111111111112222|Enter new value: Nominal battery capacity is 60000 transmissions. (these hours (read vertically) are all in GMT) See User's manual for formula to determine actual battery |012345678901234567890123| Current setting (1=good, 0=bad) |01111111111001111111110000| capacity. Daily allowance (1-message transmissions; unused xmits Enter new settings. : don't accumulate) = 400 (in listing the histogram bins, the symbol * indicates Enter new daily allowance [1-65535]: that there is no upper limit for this bin.) Set the upper limits of the maximum-depth histogram STATUS will be transmitted every nth [0-255] message. n = 20Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 200, Enter new value:

250, 350, 450, 0, * meters Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins:

Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30,

Blocks of Time-Lines will be transmitted every nth

Transmission hours with good satellite coverage

[0-255] message. n = 48

Enter new value:

```
|000000000111111111112222|
(these hours (read vertically) are all in GMT)
|012345678901234567890123| Current setting (1=good,
0=bad) |01111111111001111111110000|
Enter new settings. . . . . . . . :
    (in listing the histogram bins, the symbol * indicates
    that there is no upper limit for this bin.)
Set the upper limits of the maximum-depth histogram
Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 200,
250, 350, 450, 0, * meters
Enter new limits (in meters):
20,40,60,80,100,120,140,160,180,200,250,350,450,
Set the upper limits of the dive-duration histogram bins:
Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30,
40, * minutes
Enter new limits (in minutes):
Set the upper limits of the time-at-depth histogram bins
(0 = haul-out):
Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160,
180, 200, 250, 350, * meters
Enter new limits (in meters):
SL-TDR> v
Battery voltage under light load = 7.353 Volts.
SL-TDR> v
Battery voltage under light load = 7.353 Volts.
SL-TDR> v
Battery voltage under light load = 7.353 Volts.
SL-TDR> a3
S.W. Resistance = 255, Depth (m) = 0
SL-TDR> e
It is strongly recommended that you log the following
information to a disk
file so that you have a permanent copy of this setup. In
PROCOM M you do this
by pressing the ALT-F1 key combination. You will then
be prompted for a
filename, a suggested name is 00T0990.SET
After you have entered a filename, press return to
continue.
SLTDR version: 3.15b
6C020C140102003C01002BFD510A0100
0001010101010101010101000001010101\\
010101010100000000027010000420000\\
01FFFFFFFFFFFFFF000A0200000A0200\\
000A0200007E21FE0000010000000100
00100A050100010001000200000000000\\
0000000000000000000000004070200B6
```

0A141E28323C46505A647DAFE1FF000E

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0990.

ARGOS geolocation id = 13036

Unit identifier = ms200113036. Unit started at 16:02:05 on 16/11/00

Time (GMT) is 07:40:33.49. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-me ssage transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID 13044; Seal ID RH26

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0998.

ARGOS geolocation id = 13044

Unit identifier = ms200113044. Unit started at 21:07:03 on 16/11/00

Time (GMT) is 07:10:53.93. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts. SL-TDR> va3

Battery voltage under light load = 7.224 Volts. Battery voltage under light load = 7.224 Volts.

Battery voltage under light load = 7.224 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>p

User-definable identification = ms200113044

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255]

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2Enter new value: Unit will duty cycle with n [1-15] days on. n = 1Enter new value: Unit will duty cycle with n [0-15] days off. n = 0Enter new value: Nominal battery capacity is 20000 transmissions. See User's manual for formula to determine actual battery capacity. Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300 Enter new daily allowance [1-65535]: STATUS will be transmitted every nth [0-255] message. n = 20Enter new value: Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48Enter new value: Transmission hours with good satellite coverage |0000000000111111111112222|(these hours (read vertically) are all in GMT) |012345678901234567890123|

Current setting (1=good, 0=bad)

|01111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0998.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b 6E020C140102001401002AFD530A0100 00010101010101010101010000010101010101010100000000003101000046000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 00100A0501000100010002000000000000000000000000000000000004070200070A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F620001020373FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF0CBD3CFF 6D73323030313133303434FFFFFFFFF FFFFFFFFFFFFF30305430393938FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0998.

ARGOS geolocation id = 13044

Unit identifier = ms200113044. Unit started at 21:07:03 on 16/11/00

Time (GMT) is 07:11:50.08. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.00 / 01:31.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters
Upper limits of dive-duration histogram bins are:
2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes
Upper limits of time-at-dep th histogram bins are:
0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it..

PTT ID 13045; Seal ID RD20

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0999.

ARGOS geolocation id = 13045

Unit identifier = ms200113045. Unit started at 21:08:54 on 16/11/00

Time (GMT) is 07:17:06.28. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.50 / 01:31.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350,

* meters SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> vv

Battery voltage under light load = 7.224 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 2

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>

SL-TDR> p

User-definable identification = ms200113045

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT

(GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10

Enter new value:

After n hours of "haul-out", unit will suspend further transmissions.

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0

Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n=20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |00000000001111111111112222|

(these hours (read vertically) are all in GMT) | 012345678901234567890123|

-----+-----

Current setting (1=good, 0=bad)

|0111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PRO COM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0999.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

1E020C140102001401002AFD520A0100

0001010101010101010101000001010101

01010101000000005031010050460000

01FFFFFFFFFFFFF000A0200000A0200

000A0200007E21FE0000010000000100

00100A050100010001000200000000000

0000000000000000000000040702002A

0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E

000A141E28323C46505A647DAFFF000E

J00A141E28323C403U3A04/DAFFFUUUE

30030F62000102037CFFFFFFFFFFFFF

FFFFFFFFFFFFF50305430393939FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0999.

ARGOS geolocation id = 13045

Unit identifier = ms200113045. Unit started at 21:08:54 on 16/11/00

Time (GMT) is 07:18:19.13. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:46.50 / 01:31.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-me ssage transmissions; unused xmits

don't accumulate) = 300 STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID 13046; Seal ID RH04

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 1000.

ARGOS geolocation id = 13046

Unit identifier = ms200113046. Unit started at 16:04:38 on 17/11/00

Time (GMT) is 07:21:58.03. Date (GMT) is 01 January

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:47.00 /

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350,

* meters SL-TDR> v

Battery voltage under light load = 7.353 Volts.

SL-TDR> v

Battery voltage under light load = 7.353 Volts.

SL-TDR> v Battery voltage under light load = 7.353 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 4

S.W. Resistance = 255, Depth (m) = 4SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 10

S.W. Resistance = 255, Depth (m) = 10

S.W. Resistance = 255, Depth (m) = 4

S.W. Resistance = 255, Depth (m) = 4

S.W. Resistance = 255, Depth (m) = 4

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins:

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encode d into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR > p

User-definable identification = ms200113046

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when

shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255]

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further

transmissions, (n = 0 will disable this option). n = 1Enter new value: "Haul-out" ends when n successive at-sea transmission intervals elapse which are all "wet". n = 2Enter new value: Unit will duty cycle with n [1-15] days on. n = 1Enter new value: Unit will duty cycle with n [0-15] days off. n = 0Enter new value: Nominal battery capacity is 20000 transmissions. See User's manual for formula to determine actual battery capacity. Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300 Enter new daily allowance [1-65535]: STATUS will be transmitted every nth [0-255] message. n = 20Enter new value: Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48Enter new value: Transmission hours with good satellite coverage |0000000000111111111112222|(these hours (read vertically) are all in GMT) |012345678901234567890123| -----+----+ Current setting (1=good, 0=bad) |0111111111001111111110000| Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1000.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b

7A020C140102001401002BFD510A0100 000101010101010101010100000101010101010101010000000003201000047000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 00100A050100010001000200000000000000000000000000000000004070200B7 0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F62000102037BFFFFFFFFFFFFF FFFFFFFFFFFFFFFFFFFOCBD9AFF 6D73323030313133303436FFFFFFFFF FFFFFFFFFFFFFF30305431303030FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1000.

ARGOS geolocation id = 13046

Unit identifier = ms200113046. Unit started at 16:04:38 on 17/11/00

Time (GMT) is 07:23:21.86. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:47.00 / 01:32.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea

transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT ID 13047; Seal ID RH16

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 1001.

ARGOS geolocation id = 13047

Unit identifier = ms200113047. Unit started at 16:06:05 on 17/11/00

Time (GMT) is 07:28:27.39. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:47.50 / 01:32.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.353 Volts.

SL-TDR > v

SL-TDR> a3

Battery voltage under light load = 7.353 Volts. SL-TDR> v

Battery voltage under light load = 7.353 Volts.

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms200113047

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n = 20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |0000000000111111111112222|

(these hours (read vertically) are all in GMT) |012345678901234567890123|

-----+----+

Current setting (1=good, 0=bad)

|011111111110011111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1001.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

86020C140102001401002BFD520A0100

00010101010101010101000001010101 01010101010000000503201005047000001FFFFFFFFFFFFF000A0200000A0200 000A0200007E21FE0000010000000100 00100A05010001000100020000000000 0000000000000000000000004070200E0 0A141E28323C46505A647DAFE1FF000E 020406080A0C0E101214191E28FF000E 000A141E28323C46505A647DAFFF000E 30030F620001020380FFFFFFFFFFFFF FFFFFFFFFFFFFFFFFF0CBDC9FF 6D73323030313133303437FFFFFFFFF FFFFFFFFFFFFFF30305431303031FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1001.

ARGOS geolocation id = 13047

Unit identifier = ms200113047. Unit started at 16:06:05 on 17/11/00

Time (GMT) is 07:28:56.64. Date (GMT) is 01 January 1901

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:47.50 / 01:32.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT 24100; Seal ID RQ02

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0951.

ARGOS geolocation id = 24100

Unit identifier = ms200124110. Unit started at 21:40:40 on 31/12/00

Time (GMT) is 23:01:48.58. Date (GMT) is 31

December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:50.00 / 01:35.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms200124110

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions.

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0

Enter new value:

Nominal battery capacity is 60000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message.

n = 20Enter new value: Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48Enter new value: Transmission hours with good satellite coverage |0000000000111111111112222|(these hours (read vertically) are all in GMT) |012345678901234567890123| Current setting (1=good, 0=bad) |0111111111001111111110000| Enter new settings. : (in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.) Set the upper limits of the maximum-depth histogram Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters Enter new limits (in meters): Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Enter new limits (in minutes): Set the upper limits of the time-at-depth histogram bins (0 = haul-out): Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters Enter new limits (in meters): SL-TDR> v Battery voltage under light load = 7.140 Volts. SL-TDR> v Battery voltage under light load = 7.105 Volts. SL-TDR> v Battery voltage under light load = 7.105 Volts. SL-TDR> a3 S.W. Resistance = 255, Depth (m) = 0S.W. Resistance = 255, Depth (m) = 0S.W. Resistance = 255, Depth (m) = 0SL-TDR> e It is strongly recommended that you log the following information to a disk file so that you have a permanent copy of this setup. In PROCOM M you do this by pressing the ALT-F1 key combination. You will then be prompted for a filename, a suggested name is 00T0951.SET After you have entered a filename, press return to

continue.

SLTDR version: 3.15b

04020C140102003C010023FD630A0100

0001010101010101010101000001010101

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0951.

ARGOS geolocation id = 24100

Unit identifier = ms200124110. Unit started at 21:40:40 on 31/12/00

Time (GMT) is 23:02:19.17. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:50.00 / 01:35.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours

"hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT 24102; Seal ID RQ15

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 0953.

ARGOS geolocation id = 24102

Unit identifier = ms200124102. Unit started at 21:35:10 on 31/12/00

Time (GMT) is 23:05:09.75. Date (GMT) is 31

December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:51.00 / 01:36.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR > v

Battery voltage under light load = 7.175 Volts.

SL-TDR> v

Battery voltage under light load = 7.175 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 2

S.W. Resistance = 255, Depth (m) = 2

S.W. Resistance = 255, Depth (m) = 2

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

 $User\text{-}definable\ identification = ms200124102$

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT

(GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0Enter new value:

Nominal battery capacity is 60000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n = 20

Enter new value:

Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |0000000001111111111112222|

(these hours (read vertically) are all in GMT) |012345678901234567890123|

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---+

Current setting (1=good, 0=bad)

|01111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2,4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T0953.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b

4A020C140102003C010023FD630A0100 00010101010101010101000001010101

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 0953.

ARGOS geolocation id = 24102

Unit identifier = ms200124102. Unit started at 21:35:10 on 31/12/00

Time (GMT) is 23:05:40.28. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:51.00 / 01:36.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 400

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT ID 24195; Seal ID RD24

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 1014.

ARGOS geolocation id = 24195

Unit identifier = ms200124195. Unit started at 22:00:15 on 31/12/00

Time (GMT) is 23:14:38.15. Date (GMT) is 31

December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:41.50 / 01:26.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.310 Volts.

SL-TDR > v

Battery voltage under light load = 7.310 Volts.

SL-TDR> v

Battery voltage under light load = 7.310 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms200124195

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT

(GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n = 20

Enter new value:

Blocks of Time-Lines will be transmitted every nth [0-255] message. n = 48

Enter new value:

 $Transmission\ hours\ with\ good\ satellite\ coverage\\ |0000000001111111111112222|$

(these hours (read vertically) are all in GMT) |012345678901234567890123|

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---+

Current setting (1=good, 0=bad)

|0111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1014.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b

8E020C140102001401002BFD520A0100 00010101010101010101000001010101

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1014.

ARGOS geolocation id = 24195

Unit identifier = ms200124195. Unit started at 22:00:15 on 31/12/00

Time (GMT) is 23:15:01.00. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:41.50 / 01:26.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it

PTT 24196; Seal ID RY14

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15b. Unit number: 00T 1015.

ARGOS geolocation id = 24196

Unit identifier = ms200124196. Unit started at 22:04:59 on 31/12/00

Time (GMT) is 23:12:21.23. Date (GMT) is 31

December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages.

Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19

Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram bins are:

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.353 Volts.

SL-TDR > v

Battery voltage under light load = 7.353 Volts.

SL-TDR> v

Battery voltage under light load = 7.353 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = -2

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR>

SL-TDR > p

User-definable identification = ms200124196

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255]

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n = 20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |000000000111111111111222|

(these hours (read vertically) are all in GMT) |012345678901234567890123|

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Current setting (1=good, 0=bad)

|01111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1015.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

34020C140102001401002BFD530A0100

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1015.

ARGOS geolocation id = 24196

Unit identifier = ms200124196. Unit started at 22:04:59 on 31/12/00

Time (GMT) is 23:13:02.24. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.00 / 01:27.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

messages. Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350,

Upper limits of dive-duration histogram bins are:

450, * meters

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram b ins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID 24197; Seal ID RY18

Satellite-linked Data Recorder with Telonics ST-16 Argos Transmitter.

Software version 3.15 b. Unit number: 00T 1016.

ARGOS geolocation id = 24197

Unit identifier = ms200124197. Unit started at 22:10:44 on 31/12/00

Time (GMT) is 23:10:00.56. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than 20 / 10 meters

Localtime [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.50 / 01:27.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are:

20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

SL-TDR> v

Battery voltage under light load = 7.353 Volts. SL-TDR> v

Battery voltage under light load = 7.353 Volts.

Battery voltage under light load = 7.353 Volts. SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

SL-TDR> o

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR> p

User-definable identification = ms200124197

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission intervals elapse which

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STATUS will be transmitted every nth [0-255] message. n=20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage |000000000111111111111222|

(these hours (read vertically) are all in GMT) |012345678901234567890123|

-----+-----

Current setting (1=good, 0=bad)

|01111111111001111111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins: Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1016.SET

After you have entered a filename, press return to continue.

SLTDR version: 3.15b

8C020C140102001401002BFD520A0100

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1016.

ARGOS geolocation id = 24197

Unit identifier = ms200124197. Unit started at 22:10:44 on 31/12/00

Time (GMT) is 23:10:25.41. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:42.50 / 01:27.50

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends

after SLTDR is "wet" for 2 successive at-sea transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-09,12-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350,

Upper limits of dive-duration histogram bins are:

450, * meters

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-depth histogram b ins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...

PTT ID 24198; Seal ID RH10

Do you wish to allow any unused portion of your daily transmission allowance

to be added to the next day's allowance? [n]

Do you wish to be able to set the daily transmission allowance on a

month-by-month basis? [n]

Enter number (0/6/10/14) of depth histogram bins: [14]

Enter number (0/6/10/14) of duration histogram bins: [14]

Enter number (0/6/10/14) of time-at-depth histogram bins: [14]

How many histograms or timeline messages should be encoded into

each transmission (1/2) [1]

Will the instrument be deployed in an area where fresh and salt water may

exist in discrete layers? [n]

SL-TDR > p

User-definable identification = ms200124198

Enter new identifier (up to 15 characters):

Shallowest depth to be considered a "dive" = 4

Enter new value:

Deepest depth for accumulating surface-timelines (0=dry only) = 2

Enter new value:

Unit will try to detect surface every second when

shallower than 20

Enter new value:

Unit will try to detect surface every 1/4-second when shallower than 10

Enter new value:

Local time [0-23 hours] corresponding to 00h UT

(GMT): 12

Enter new value:

Change to on-land transmission interval after n [1-255] consecutive

transmissions without sea-water induced delays. n = 10Enter new value:

After n hours of "haul-out", unit will suspend further transmissions,

(n = 0 will disable this option). n = 1

Enter new value:

"Haul-out" ends when n successive at-sea transmission

```
intervals elapse which
```

are all "wet". n = 2

Enter new value:

Unit will duty cycle with n [1-15] days on. n = 1

Enter new value:

Unit will duty cycle with n [0-15] days off. n = 0

Enter new value:

Nominal battery capacity is 20000 transmissions.

See User's manual for formula to determine actual battery capacity.

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

Enter new daily allowance [1-65535]:

STAT US will be transmitted every nth [0-255] message. n=20

Enter new value:

Blocks of Time-Lines will be transmitted every nth

[0-255] message. n = 48

Enter new value:

Transmission hours with good satellite coverage

|0000000000111111111112222|

(these hours (read vertically) are all in GMT)

|012345678901234567890123|

------+----+-----

---+

Current setting (1=good, 0=bad)

|0111111000000011111110000|

Enter new settings. :

(in listing the histogram bins, the symbol * indicates that there is no upper limit for this bin.)

Set the upper limits of the maximum-depth histogram bins:

Upper limits are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Enter new limits (in meters):

Set the upper limits of the dive-duration histogram bins:

Upper limits are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes

Enter new limits (in minutes):

Set the upper limits of the time-at-depth histogram bins (0 = haul-out):

Upper limits are: 0, 20, 40, 60, 80, 100, 120, 140, 160,

180, 200, 250, 350, * meters

Enter new limits (in meters):

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR> v

Battery voltage under light load = 7.224 Volts.

SL-TDR > vv

Battery voltage under light load = 7.224 Volts.

SL-TDR> a3

S.W. Resistance = 255, Depth (m) = 0

S.W. Resistance = 255, Depth (m) = 2

S.W. Resistance = 255, Depth (m) = 2 SL-TDR> e

It is strongly recommended that you log the following information to a disk

file so that you have a permanent copy of this setup. In PROCOM M you do this

by pressing the ALT-F1 key combination. You will then be prompted for a

filename, a suggested name is 00T1017.SET After you have entered a filename, press return to continue.

SLTDR version: 3.15b

0000000000000000000000004070200F2

0A141E28323C46505A647DAFE1FF000E

020406080 A 0 C 0 E 1 0 1 2 1 4 1 9 1 E 2 8 F F 0 0 0 E

000A141E28323C46505A647DAFFF000E

6D73323030313234313938FFFFFFFFF

FFFFFFFFFFFFFF30305431303137FF

Quarter-Watt, Microprocessor-controlled Satellite-linked Time-Depth Recorder.

Unit measures depth from 0 to 490 meters with a resolution of 2 meters

Software version 3.15b. Unit number: 00T 1017.

ARGOS geolocation id = 24198

Unit identifier = ms200124198. Unit started at 21:33:15 on 16/11/00

Time (GMT) is 21:54:52.55. Date (GMT) is 31 December 1900

Shallowest depth to be considered a "dive" = 4 meters Deepest depth for accumulating surface-timelines (0=dry only) = 2 meters

SLTDR uses 1-sec / 1/4-sec wakeups when shallower than $20\ /\ 10$ meters

Local time [0-23 hours] corresponding to 00h UT (GMT): 12

Transmission intervals (at-sea / on-land) = 00:43.00 / 01:28.00

SLTDR will use on-land interval after 10 consecutive dry transmissions

SLTDR will suspend transmissions after 1 hours "hauled-out". "Haul-out" ends after SLTDR is "wet" for 2 successive at-sea

transmission intervals

Transmissions will be duty cycled with 1 day on and 0 days off

Daily allowance (1-message transmissions; unused xmits don't accumulate) = 300

STATUS will be transmitted every 20 messages. Blocks of Time-Lines will be transmitted every 48 messages.

Hours when SLTDR transmits: 01-06,14-19 Upper limits of maximum-depth histogram bins are: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, 450, * meters

Upper limits of dive-duration histogram bins are: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 40, * minutes Upper limits of time-at-dep th histogram bins are: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 350, * meters

**** Check these parameters carefully ****. Ready to deploy? y

Type D to archive depth readings, H to archive histograms: h

Unit is ready for deployment, disconnect cable and go for it...