

SEAS 2000 Binary XBT Profile Format for Message Type 1

	Bit Position	# of Bits	Units	Scale	Offset	Min	Max	Example	
FXY1011 WMO_ID;	0 - 71	72	CCITT IA5					V7SX3	
FXY48211 Old_Mess_Type;	72 - 77	6	Numeric	0				All 1s	
FXY48216 New_Mess_Type;	78 - 87	10	Numeric	0				1	
FXY5001 Lat;	88 - 112	25	Degrees	5	-9000000	0	18000000	12862800	38.628
FXY6001 Lon;	113 - 138	26	Degrees	5	-18000000	0	36000000	10830400	-71.696
FXY4001 Year;	139 - 150	12	Numeric	0	0	0	4094	2010	
FXY4002 Month;	151 - 154	4	Numeric	0	0	1	12	12	
FXY4003 Day;	155 - 160	6	Numeric	0	0	1	31	4	
FXY4004 Hour;	161 - 165	5	Numeric	0	0	0	23	5	
FXY4005 Minute;	166 - 171	6	Numeric	0	0	0	59	1	
FXY1200 ShipName;	172 - 411	240	CCITT IA5					Oleander	
FXY1201 Lloyds;	412 - 435	24	Numeric	0	0	0	9999999	8901406	
FXY48302 UniqueTag;	436 - 467	32	Numeric	0	0	0	4294967295	BAC81165	
FXY48201 SEASVersion;	468 - 477	10	Numeric	0	0	0	999	6.1	
FXY48300 ProbeSerial;	478 - 497	20	Numeric	0	0	0	999999	123456	
FXY48303 ThisDatals;	498 - 500	3	Code Table	0	0	0	6	1	
FXY33003 DataQual;	501 - 503	3	Code Table	0	0	0	6	1	
FXY22067 InstType;	504 - 513	10	Code Table	0	0	0	1022	52	
FXY22068 RecorderType;	514 - 520	7	Code Table	0	0	0	126	6	
FXY2002 TypeWindInst;	521 - 524	4	Code Table	0	0	0	14	1	
FXY11001 WindDir;	525 - 533	9	Numeric	0	0	0	510	240	
FXY11002 WindSpeed;	534 - 545	12	Meters/Sec	1	0	0	4094	20.2	
FXY12004 DryBulbTemp;	546 - 557	12	Deg/Kelvin	1	0	0	4094	15.7	
FXY2030 CurrMeasMeth;	558 - 560	3	Code Table	0	0	0	6	4	
FXY22004 CurrentDir;	561 - 569	9	Degrees True	0	0	0	510	125	
FXY22031 CurrentSpeed;	570 - 582	13	Meters/Sec	2	0	0	8190	2.45	
FXY22063 TotalWaterDepth;	583 - 596	14	Meters	0	0	0	16382	754	
FXY100000 NoRepFields;	597 - 604	8	Numeric	0	0	0	254	1	
FXY31200 TimesReplicated;	605 - 620	16	Numeric	0	0	0	65534	1460	
FXY22042S SeaTemp	621 -	12	Degrees Celsius	2	-400	0	4094		
1459 Sea Temps		17508							
Total message size (bits) (Bytes)		18141	2267.625						

All numeric types must account for the endian order of the machine

SEAS 2000 Binary XBT Profile Format for Message Type 2

	Bit Positior	# of Bits	Units	Scale	Offset	Min	Max	Example	
FXY1011 WMO_ID;	0 - 71	72	CCITT IA5					V7SX3	
FXY48211 Old_Mess_Type;	72 - 77	6	Numeric	0				All 1s	
FXY48216 New_Mess_Type;	78 - 87	10	Numeric	0				2	
FXY5001 Lat;	88 - 112	25	Degrees	5	-9000000	0	18000000	12862800	38.628
FXY6001 Lon;	113 - 138	26	Degrees	5	-18000000	0	36000000	10830400	-71.696
FXY1080 SOOPLine	139 - 186	48	CCITT IA5	1	0	0		6 AX07	
FXY5036 TransectNo;	187 - 193	7	Numeric	0	0	0	126	10	
FXY48304 SeqNo;	194 - 209	16	Numeric	0	0	0	65534	325	
FXY4001 Year;	210 - 221	12	Numeric	0	0	0	4094	2010	
FXY4002 Month;	222 - 225	4	Numeric	0	0	1	12	12	
FXY4003 Day;	226 - 231	6	Numeric	0	0	1	31	4	
FXY4004 Hour;	232 - 236	5	Numeric	0	0	0	23	5	
FXY4005 Minute;	237 - 242	6	Numeric	0	0	0	59	1	
FXY1200 ShipName;	243 - 482	240	CCITT IA5					Oleander	
FXY1201 Lloyds;	483 - 506	24	Numeric	0	0	0	9999999	8901406	
FXY48302 UniqueTag;	507 - 538	32	Numeric	0	0	0	4294967295	BAC81165	
FXY48201 SEASVersion;	539 - 548	10	Numeric	0	0	0	999	6.1	
FXY48300 ProbeSerial;	549 - 568	24	Numeric	0	0	0	999999	123456	
FXY48303 ThisDatals;	568 - 571	3	Code Table	0	0	0	6	1	
FXY33003 DataQual;	572 - 574	3	Code Table	0	0	0	6	1	
FXY48305 LaunchHeight;	575 - 587	13	Meters	2	0	0	8190	12.59	
FXY1012 ShipDir;	588 - 596	9	Degrees True	0	0	0	510	275	
FXY1013 ShipSpeed;	597 - 609	13	Meters/Sec	2	0	0	8190	10.52	
FXY22067 InstType;	610 - 619	10	Code Table	0	0	0	1022	52	
FXY22068 RecorderType;	620 - 626	7	Code Table	0	0	0	126	6	
FXY2002 TypeWindInst;	627 - 630	4	Code Table	0	0	0	14	1	
FXY11001 WindDir;	631 - 639	9	Numeric	0	0	0	510	240	
FXY11002 WindSpeed;	640 - 651	12	Meters/Sec	1	0	0	4094	20.2	
FXY12004 DryBulbTemp;	652 - 663	12	Deg/Kelvin	1	0	0	4094	15.7	
FXY2030 CurrMeasMeth;	664 - 666	3	Code Table	0	0	0	6	4	
FXY22004 CurrentDir;	667 - 675	9	Degrees True	0	0	0	510	125	
FXY22031 CurrentSpeed;	676 - 688	13	Meters/Sec	2	0	0	8190	2.45	

FX Y22063 TotalWaterDepth;	689 - 702	14	Meters	0	0	0	16382	754
FX Y100000 NoRepFields;	703 - 710	8	Numeric	0	0	0	254	1
FX Y31200 TimesReplicated;	711 - 726	16	Numeric	0	0	0	65534	1460
FX Y22042S SeaTemp	727 -	12	Degrees Celsius	2	-400	0	4094	
1459 Sea Temps		17508						
Total message size (bits) (Bytes)		18251	2281.375					

All numeric types must account for the endian order of the machine

SEAS 2000 Binary XBT Profile Format for Message Type 3

	Bit Position	# of Bits	Units	Scale	Offset	Min	Max	Example	
FXY1011 WMO_ID;	0 - 71	72	CCITT IA5					V7SX3	
FXY48211 Old_Mess_Type;	72 - 77	6	Numeric	0				All 1s	
FXY48216 New_Mess_Type;	78 - 87	10	Numeric	0				2	
FXY5001 Lat;	88 - 112	25	Degrees	5	-9000000	0	18000000	12862800	38.628
FXY6001 Lon;	113 - 138	26	Degrees	5	-18000000	0	36000000	10830400	-71.696
FXY1080 SOOPLine	139 - 186	48	CCITT IA5	1	0	0		6 AX07	
FXY5036 TransectNo;	187 - 193	7	Numeric	0	0	0	126	10	
FXY48304 SeqNo;	194 - 209	16	Numeric	0	0	0	65534	325	
FXY4001 Year;	210 - 221	12	Numeric	0	0	0	4094	2010	
FXY4002 Month;	222 - 225	4	Numeric	0	0	1	12	12	
FXY4003 Day;	226 - 231	6	Numeric	0	0	1	31	4	
FXY4004 Hour;	232 - 236	5	Numeric	0	0	0	23	5	
FXY4005 Minute;	237 - 242	6	Numeric	0	0	0	59	1	
FXY1200 ShipName;	243 - 482	240	CCITT IA5					Oleander	
FXY1201 Lloyds;	483 - 506	24	Numeric	0	0	0	9999999	8901406	
FXY48302 UniqueTag;	507 - 538	32	Numeric	0	0	0	4294967295	BAC81165	
FXY48201 SEASVersion;	539 - 548	10	Numeric	0	0	0	999	6.1	
FXY48300 ProbeSerial;	549 - 568	24	Numeric	0	0	0	999999	123456	
FXY48303 ThisDatals;	568 - 571	3	Code Table	0	0	0	6	1	
FXY33003 DataQual;	572 - 574	3	Code Table	0	0	0	6	1	
FXY48305 LaunchHeight;	575 - 587	13	Meters	2	0	0	8190	12.59	
FXY1012 ShipDir;	588 - 596	9	Degrees True	0	0	0	510	275	
FXY1013 ShipSpeed;	597 - 609	13	Meters/Sec	2	0	0	8190	10.52	
FXY22067 InstType;	610 - 619	10	Code Table	0	0	0	1022	52	
FXY22068 RecorderType;	620 - 626	7	Code Table	0	0	0	126	6	
FXY2002 TypeWindInst;	627 - 630	4	Code Table	0	0	0	14	1	
FXY11001 WindDir;	631 - 639	9	Numeric	0	0	0	510	240	
FXY11002 WindSpeed;	640 - 651	12	Meters/Sec	1	0	0	4094	20.2	
FXY12004 DryBulbTemp;	652 - 663	12	Deg/Kelvin	1	0	0	4094	15.7	
FXY2030 CurrMeasMeth;	664 - 666	3	Code Table	0	0	0	6	4	
FXY22004 CurrentDir;	667 - 675	9	Degrees True	0	0	0	510	125	
FXY22031 CurrentSpeed;	676 - 688	13	Meters/Sec	2	0	0	8190	2.45	

FXY22063 TotalWaterDepth;	689 - 702	14	Meters	0	0	0	16382	754
FXY1036 AgencyOwner;	703 - 722	20	Code Table	0	0	0	1048576	840001
FXY22178 XBTLauncherType;	723 - 730	8	Code Table	0	0	0	255	30
FXY2171 XBTRecorderSerial;	731 - 794	64	CCITT IA5	0	0	0	8	A1234567
FXY4001 XBT_Rec_Manuf_Year;	795 - 806	12	Numeric	0	0	0	4094	2014
FXY4002 XBT_Rec_Manuf_Month;	807 - 810	4	Numeric	0	0	0	12	11
FXY4003 XBT_Rec_Manuf_Day;	811 - 816	6	Numeric	0	0	0	31	7
FXY4001 XBT_Probe_Manuf_Year;	817 - 828	12	CCITT IA5	0	0	0	4096	2013
FXY4002 XBT_Probe_Manuf_Month;	829 - 832	4	Numeric	0	0	0	12	4
FXY4003 XBT_Probe_Manuf_Day;	833 - 838	6	Numeric	0	0	0	31	15
FXY31001B No_RiderBlocks;	839 - 844	6	Numeric	0	0	0	62	5
FXY31001B No_RiderEmailBlocks;	845 - 850	6	Numeric	0	0	0	62	4
FXY31001B No_RiderPhoneBlocks;	851 - 856	6	Numeric	0	0	0	62	3
FXY31001B No_RiderInstBlocks;	857 - 862	6	Numeric	0	0	0	62	0
FXY100000 NoRepFields;	863 - 870	8	Numeric	0	0	0	254	1
FXY31200 TimesReplicated;	871 - 886	16	Numeric	0	0	0	65534	1460
FXY22042S SeaTemp	887 - 898	12	Degrees Celsius	2	-400	0	4094	
1459 Sea Temps	899 - 18406	17508						
FXY205030A Comment Blocks*	18407 -		CCITT IA5	0	0	0	5	lbis
Total message size (bits) (Bytes)		18411	2301.375					

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* Comment blocks repeat representing the number of five character blocks as indicated by FXY31001B for each item