

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 16-Nov-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88339712e-003
h = 6.81800919e-004
i = 2.80347336e-005
j = 2.30148429e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121294e-003
b = 6.00729119e-004
c = 1.50333020e-005
d = 2.30295851e-006
f0 = 6599.451

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6599.451	-1.5000	-0.00005
1.0000	6979.387	1.0001	0.00007
4.5000	7537.392	4.5000	0.00004
8.0000	8126.615	7.9999	-0.00008
11.5000	8747.920	11.5000	-0.00001
15.0000	9402.055	15.0000	0.00003
18.5000	10089.771	18.5000	-0.00001
22.0000	10811.824	22.0000	-0.00000
25.5000	11568.912	25.5000	0.00002
29.0000	12361.687	29.0000	-0.00001
32.5000	13190.815	32.5000	-0.00000

Temperature ITS-90 = $1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature ITS-68 = $1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

