

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88376744e-003
h = 6.82350253e-004
i = 2.82952914e-005
j = 2.34241029e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121284e-003
b = 6.00732963e-004
c = 1.50623414e-005
d = 2.34389233e-006
f0 = 6599.304

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6599.304	-1.5000	-0.00004
1.0000	6979.227	1.0001	0.00006
4.5000	7537.217	4.5000	0.00001
8.0000	8126.448	8.0000	-0.00000
11.5000	8747.720	11.4999	-0.00005
15.0000	9401.850	15.0000	0.00003
18.5000	10089.551	18.5000	-0.00002
22.0000	10811.591	22.0000	0.00002
25.5000	11568.636	25.5000	-0.00003
29.0000	12361.403	29.0001	0.00006
32.5000	13190.459	32.5000	-0.00003

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 IPTS-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

