

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 5161
 CALIBRATION DATE: 13-May-09

SBE3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40845565e-003
 h = 6.46018949e-004
 i = 2.32904380e-005
 j = 2.19503010e-006
 f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121335e-003
 b = 6.00691213e-004
 c = 1.56157070e-005
 d = 2.19653524e-006
 f0 = 3220.768

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3220.768	-1.5001	0.00002
0.9999	3406.204	0.9999	0.00002
4.5000	3678.604	4.4999	-0.00010
7.9999	3966.307	7.9999	-0.00001
11.4999	4269.723	11.4999	0.00003
14.9999	4589.246	15.0000	0.00009
18.4999	4925.247	18.4999	0.00003
22.0000	5278.112	21.9999	-0.00008
25.5000	5648.200	25.5000	-0.00002
29.0000	6035.837	29.0000	-0.00003
32.4999	6441.358	32.4999	0.00004

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

