

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83484580e-003
h = 6.75747383e-004
i = 2.58006647e-005
j = 2.00888321e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121276e-003
b = 6.02083320e-004
c = 1.48881722e-005
d = 2.01030929e-006
f0 = 6142.489

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6142.489	-1.5000	-0.00003
1.0000	6495.290	1.0001	0.00006
4.5000	7013.342	4.5000	-0.00002
8.0000	7560.296	8.0000	-0.00001
11.5000	8136.890	11.5000	-0.00003
15.0000	8743.880	15.0001	0.00006
18.5000	9381.924	18.5000	-0.00004
22.0000	10051.765	22.0000	0.00001
25.5000	10754.027	25.5000	0.00000
29.0000	11489.353	29.0000	0.00002
32.5000	12258.336	32.5000	-0.00001

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

