

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0854
CALIBRATION DATE: 23-Jan-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83419847e-003
h = 7.17238676e-004
i = 5.18944467e-005
j = 6.49567100e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121981e-003
b = 5.94145359e-004
c = 1.71004645e-005
d = 6.49785009e-006
f0 = 5970.790

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5970.790	-1.5006	-0.00045
0.9999	6318.632	1.0003	0.00041
4.4999	6829.949	4.5004	0.00051
7.9999	7370.377	7.9999	0.00004
11.4999	7940.657	11.4995	-0.00041
14.9999	8541.458	14.9994	-0.00050
18.4999	9173.368	18.4998	-0.00011
21.9999	9836.802	22.0001	0.00023
25.4999	10532.184	25.5003	0.00039
28.9999	11259.896	29.0002	0.00032
32.4999	12020.177	32.4995	-0.00043

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

