

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0573
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.76035765e-003
h = 6.83038022e-004
i = 3.70618534e-005
j = 4.27342866e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121237e-003
b = 5.94012316e-004
c = 1.52055008e-005
d = 4.27517455e-006
f0 = 5511.853

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5511.853	-1.5000	-0.00000
1.0000	5832.883	1.0001	0.00015
4.5000	6304.708	4.4999	-0.00009
8.0000	6803.343	7.9998	-0.00023
11.5000	7329.458	11.4998	-0.00019
15.0000	7883.698	15.0002	0.00017
18.5000	8466.584	18.5004	0.00044
22.0000	9078.614	22.0003	0.00034
25.5000	9720.246	25.4997	-0.00034
29.0000	10392.099	28.9992	-0.00080
32.5000	11094.937	32.5006	0.00055

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

