

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 27-Feb-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80157263e-003
h = 6.71419282e-004
i = 2.53442192e-005
j = 1.98098650e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121390e-003
b = 6.00446951e-004
c = 1.48486678e-005
d = 1.98240086e-006
f0 = 5874.447

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5874.447	-1.5001	-0.00002
0.9999	6212.789	0.9999	-0.00000
4.4999	6709.734	4.4999	0.00002
7.9999	7234.506	7.9999	0.00003
11.4999	7787.842	11.5000	0.00005
14.9999	8370.437	14.9999	-0.00003
18.4999	8982.987	18.4997	-0.00017
21.9999	9626.235	21.9999	0.00002
25.4999	10300.740	25.5000	0.00008
28.9999	11007.137	29.0000	0.00011
32.4999	11745.972	32.4998	-0.00010

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

