

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 01-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80148538e-003
h = 6.71299058e-004
i = 2.52922503e-005
j = 1.97367001e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121302e-003
b = 6.00441740e-004
c = 1.48355194e-005
d = 1.97508335e-006
f0 = 5874.488

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5874.488	-1.5001	-0.00005
1.0000	6212.848	1.0001	0.00006
4.5000	6709.791	4.5000	0.00002
8.0000	7234.567	8.0000	0.00002
11.5000	7787.897	11.5000	-0.00002
15.0000	8370.516	15.0000	0.00002
18.5000	8983.060	18.4998	-0.00018
22.0000	9626.316	22.0000	0.00005
25.5000	10300.819	25.5001	0.00009
29.0000	11007.206	29.0001	0.00006
32.5000	11746.057	32.4999	-0.00008

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 ITS-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

