

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1324
CALIBRATION DATE: 17-Feb-99

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.85864387e-003
h = 6.80087753e-004
i = 2.89349305e-005
j = 2.52164881e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68149285e-003
b = 5.98962291e-004
c = 1.49407968e-005
d = 2.52314105e-006
f0 = 6381.705

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5207	6381.705	-1.5207	-0.00005
1.0403	6759.440	1.0403	0.00003
4.6141	7313.147	4.6142	0.00007
8.1208	7887.304	8.1208	0.00002
11.6247	8492.318	11.6246	-0.00006
15.1852	9139.972	15.1851	-0.00008
18.6487	9802.549	18.6488	0.00002
22.1499	10505.589	22.1499	0.00001
25.6776	11248.512	25.6777	0.00004
29.1489	12014.026	29.1490	0.00005
32.6235	12815.083	32.6235	-0.00006

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

