

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2548
CALIBRATION DATE: 17-May-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.27143795e-003
h = 6.18801100e-004
i = 1.96731291e-005
j = 1.53948532e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121267e-003
b = 5.84754417e-004
c = 1.51631666e-005
d = 1.54083361e-006
f0 = 2670.160

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2670.160	-1.5000	-0.00003
1.0000	2828.216	1.0000	0.00003
4.5000	3060.841	4.5000	0.00002
8.0000	3307.085	8.0000	0.00001
11.5000	3567.355	11.5000	-0.00002
15.0000	3842.059	15.0000	-0.00001
18.5000	4131.585	18.5000	-0.00001
22.0001	4436.325	22.0001	-0.00005
25.5000	4756.644	25.5001	0.00006
29.0000	5092.910	29.0000	0.00005
32.5000	5445.471	32.5000	-0.00005

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

