

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 18-Nov-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35189420e-003
h = 6.42882910e-004
i = 2.33181908e-005
j = 2.26370339e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121284e-003
b = 6.00544146e-004
c = 1.60030536e-005
d = 2.26524604e-006
f0 = 2948.210

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2948.210	-1.5000	-0.00004
1.0000	3118.010	1.0001	0.00007
4.5000	3367.456	4.5000	0.00002
8.0000	3630.942	7.9999	-0.00009
11.5000	3908.865	11.5000	-0.00001
15.0000	4201.576	15.0000	0.00004
18.5000	4509.427	18.5000	0.00003
22.0000	4832.761	22.0000	-0.00002
25.5000	5171.920	25.5000	-0.00001
29.0000	5527.214	29.0000	-0.00000
32.5000	5898.947	32.5000	0.00000

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

