

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2490
CALIBRATION DATE: 21-Nov-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.32782059e-003
h = 6.32728783e-004
i = 2.10161275e-005
j = 1.67081322e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121289e-003
b = 5.94080653e-004
c = 1.57505305e-005
d = 1.67224257e-006
f0 = 2874.458

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2874.458	-1.5000	-0.00004
1.0000	3041.865	1.0001	0.00006
4.5000	3287.987	4.5000	0.00004
8.0000	3548.197	7.9999	-0.00008
11.5000	3822.917	11.4999	-0.00006
15.0000	4112.541	15.0001	0.00005
18.5000	4417.434	18.5000	0.00002
22.0000	4737.992	22.0001	0.00006
25.5000	5074.560	25.5000	-0.00005
29.0000	5427.518	29.0000	-0.00004
32.5000	5797.204	32.5000	0.00003

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

