

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 15-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83487812e-003
h = 6.75763592e-004
i = 2.57990357e-005
j = 2.00758516e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121276e-003
b = 6.02092352e-004
c = 1.48935608e-005
d = 2.00901123e-006
f0 = 6142.543

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6142.543	-1.5000	-0.00003
1.0000	6495.339	1.0000	0.00004
4.5000	7013.397	4.5000	0.00002
8.0000	7560.340	8.0000	-0.00002
11.5000	8136.933	11.5000	-0.00003
15.0000	8743.913	15.0000	0.00001
18.5000	9381.969	18.5000	-0.00001
22.0000	10051.799	22.0000	-0.00001
25.5000	10754.068	25.5000	0.00002
29.0000	11489.391	29.0000	0.00002
32.5000	12258.374	32.5000	-0.00002

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

