

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0854
CALIBRATION DATE: 16-Nov-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83112754e-003
h = 7.12891534e-004
i = 4.98393996e-005
j = 6.17383478e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68122399e-003
b = 5.94061476e-004
c = 1.67716094e-005
d = 6.17594049e-006
f0 = 5970.461

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5970.461	-1.5009	-0.00086
1.0000	6318.463	1.0010	0.00097
4.5000	6829.734	4.5007	0.00069
8.0000	7370.085	7.9998	-0.00015
11.5000	7940.317	11.4994	-0.00065
15.0000	8541.087	14.9994	-0.00060
18.5000	9172.952	18.4998	-0.00016
22.0000	9836.371	22.0003	0.00034
25.5000	10531.756	25.5006	0.00062
29.0000	11259.449	29.0004	0.00038
32.5000	12019.752	32.4994	-0.00059

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

