

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2533
CALIBRATION DATE: 12-Aug-04

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36976326e-003
h = 6.47305763e-004
i = 2.36107548e-005
j = 2.19948969e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121236e-003
b = 6.03375548e-004
c = 1.63565151e-005
d = 2.20105692e-006
f0 = 3014.946

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3014.946	-1.5000	-0.00000
1.0000	3187.751	1.0000	0.00004
4.5000	3441.548	4.5000	-0.00004
8.0000	3709.564	8.0000	-0.00005
11.5000	3992.178	11.5000	-0.00000
15.0000	4289.761	15.0001	0.00010
18.5000	4602.651	18.5000	0.00004
22.0000	4931.204	21.9999	-0.00008
25.5000	5275.775	25.5000	-0.00003
29.0000	5636.668	29.0000	0.00001
32.5000	6014.190	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

