

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2533
CALIBRATION DATE: 24-Feb-04

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36985783e-003
h = 6.47528223e-004
i = 2.37834907e-005
j = 2.24323969e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121341e-003
b = 6.03376621e-004
c = 1.63844159e-005
d = 2.24481575e-006
f0 = 3014.944

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3014.944	-1.5001	0.00002
1.0000	3187.752	1.0000	0.00001
4.5000	3441.554	4.5000	-0.00003
8.0000	3709.571	7.9999	-0.00006
11.5000	3992.188	11.5000	-0.00001
15.0000	4289.776	15.0001	0.00012
18.5000	4602.667	18.5001	0.00005
22.0000	4931.219	21.9999	-0.00007
25.5000	5275.783	25.5000	-0.00005
29.0000	5636.666	29.0000	-0.00003
32.5000	6014.181	32.5000	0.00005

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

