

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 10-Feb-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88344342e-003
h = 6.81957691e-004
i = 2.81677078e-005
j = 2.32999025e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121142e-003
b = 6.00686851e-004
c = 1.50044986e-005
d = 2.33146625e-006
f0 = 6599.824

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6599.824	-1.4999	-0.00003
1.0001	6979.801	1.0001	0.00004
4.5001	7537.878	4.5001	0.00003
8.0002	8127.203	8.0002	0.00000
11.5002	8748.554	11.5002	-0.00005
15.0001	9402.728	15.0001	-0.00004
18.5001	10090.514	18.5001	-0.00002
22.0001	10812.642	22.0002	0.00010
25.5001	11569.747	25.5001	0.00002
29.0002	12362.557	29.0001	-0.00008
32.5001	13191.692	32.5001	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 IPTS-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

