

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 04-Jul-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88430991e-003
h = 6.83130901e-004
i = 2.86775104e-005
j = 2.40356101e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121386e-003
b = 6.00723420e-004
c = 1.50981758e-005
d = 2.40505382e-006
f0 = 6599.507

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6599.507	-1.5001	-0.00001
0.9999	6979.439	0.9999	0.00001
4.4999	7537.468	4.4999	0.00001
7.9999	8126.734	7.9999	-0.00001
11.4999	8748.057	11.4999	0.00000
14.9999	9402.216	14.9999	0.00001
18.4999	10089.957	18.4999	-0.00002
22.0000	10812.041	22.0000	-0.00004
25.4999	11569.121	25.4999	0.00005
28.9999	12361.881	28.9999	0.00003
32.4999	13190.943	32.4999	-0.00003

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

