

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4663
CALIBRATION DATE: 14-Jun-05

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38641457e-003
h = 6.40862219e-004
i = 2.16029198e-005
j = 1.84228676e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121277e-003
b = 5.98937114e-004
c = 1.53297097e-005
d = 1.84371743e-006
f0 = 3126.609

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3126.609	-1.5000	-0.00003
1.0001	3307.176	1.0001	0.00004
4.5001	3572.450	4.5001	0.00004
8.0001	3852.675	8.0001	-0.00004
11.5001	4148.271	11.5000	-0.00005
15.0001	4459.637	15.0001	0.00002
18.5001	4787.143	18.5001	0.00000
22.0000	5131.168	22.0000	0.00005
25.5001	5492.086	25.5001	-0.00002
29.0001	5870.236	29.0001	-0.00001
32.5001	6265.957	32.5001	0.00001

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

