

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2958
CALIBRATION DATE: 02-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39472000e-003
h = 6.72621707e-004
i = 2.98104785e-005
j = 2.74064486e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121118e-003
b = 6.16730009e-004
c = 2.07154759e-005
d = 2.74265431e-006
f0 = 3033.792

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3033.792	-1.4999	0.00008
1.0000	3203.850	0.9999	-0.00008
4.5000	3453.479	4.4999	-0.00010
8.0000	3716.919	8.0000	-0.00000
11.5000	3994.533	11.5001	0.00007
15.0000	4286.685	15.0001	0.00013
18.5000	4593.709	18.5000	-0.00002
22.0000	4915.973	21.9999	-0.00007
25.5000	5253.805	25.4999	-0.00006
29.0000	5607.520	29.0000	-0.00001
32.5000	5977.419	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

