

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2958

CALIBRATION DATE: 21-Aug-04

SBE3 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39460482e-003

h = 6.72379558e-004

i = 2.96471616e-005

j = 2.70400698e-006

f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121204e-003

b = 6.16714870e-004

c = 2.06741112e-005

d = 2.70600781e-006

f0 = 3033.800

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3033.800	-1.5000	0.00002
1.0000	3203.873	1.0000	0.00002
4.5000	3453.504	4.4999	-0.00005
8.0000	3716.942	8.0000	-0.00003
11.5000	3994.550	11.4999	-0.00007
15.0000	4286.713	15.0001	0.00011
18.5001	4593.762	18.5002	0.00011
22.0001	4916.025	22.0001	0.00001
25.5000	5253.840	25.4999	-0.00009
29.0001	5607.560	29.0000	-0.00014
32.5000	5977.478	32.5001	0.00012

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

