

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 1701

CALIBRATION DATE: 21-Aug-03

SBE3 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.79010784e-003

h = 6.53284879e-004

i = 1.82571452e-005

j = 9.78758615e-007

f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68120747e-003

b = 5.97808240e-004

c = 1.30650471e-005

d = 9.79898425e-007

f0 = 5913.845

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4996	5913.845	-1.4996	-0.00004
1.0004	6255.954	1.0004	0.00002
4.5004	6758.403	4.5005	0.00010
8.0004	7288.930	8.0004	-0.00005
11.5004	7848.351	11.5004	-0.00003
15.0004	8437.403	15.0005	0.00009
18.5004	9056.722	18.5002	-0.00017
22.0004	9707.148	22.0003	-0.00006
25.5004	10389.311	25.5005	0.00012
29.0004	11103.830	29.0005	0.00013
32.5004	11851.319	32.5003	-0.00011

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

