

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: 17-Aug-06

SBE3 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.79029943e-003

h = 6.53573867e-004

i = 1.83764719e-005

j = 9.95885260e-007

f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121302e-003

b = 5.97837422e-004

c = 1.30932983e-005

d = 9.97029273e-007

f0 = 5913.382

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5913.382	-1.5001	-0.00005
1.0000	6255.452	1.0000	0.00003
4.5000	6757.840	4.5001	0.00011
8.0000	7288.303	8.0000	-0.00005
11.5000	7847.656	11.4999	-0.00005
15.0000	8436.643	15.0001	0.00008
18.5000	9055.899	18.4999	-0.00014
22.0000	9706.245	21.9999	-0.00005
25.5000	10388.327	25.5001	0.00011
29.0000	11102.762	29.0001	0.00012
32.5000	11850.166	32.4999	-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

