

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: 1652
CALIBRATION DATE: 05-Jan-06

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83691818e-003
h = 6.77395671e-004
i = 2.56288372e-005
j = 1.92879914e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121188e-003
b = 6.03614590e-004
c = 1.51622970e-005
d = 1.93024052e-006
f0 = 6132.258

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6132.258	-1.5000	0.00013
1.0000	6483.527	0.9999	-0.00010
4.5000	6999.316	4.4998	-0.00017
8.0000	7543.825	7.9999	-0.00007
11.5000	8117.799	11.5001	0.00012
15.0000	8721.966	15.0004	0.00038
18.5000	9356.895	18.4999	-0.00006
22.0000	10023.428	21.9997	-0.00027
25.5000	10722.277	25.5000	-0.00004
29.0000	11453.961	29.0000	0.00004
32.5000	12219.100	32.5001	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

