

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: 2533
CALIBRATION DATE: 13-Sep-01

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36969256e-003
h = 6.47166044e-004
i = 2.35295726e-005
j = 2.18421759e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.67980319e-003
b = 6.03282700e-004
c = 1.63105124e-005
d = 2.18577771e-006
f0 = 3022.022

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.3960	3022.022	-1.3960	-0.00003
1.1104	3195.580	1.1105	0.00006
4.6071	3449.582	4.6071	0.00001
8.2055	3725.794	8.2054	-0.00005
11.6391	4003.767	11.6391	-0.00003
15.1967	4306.982	15.1967	0.00003
18.7007	4621.127	18.7008	0.00004
22.2001	4950.543	22.2001	-0.00001
25.7597	5302.050	25.7596	-0.00003
29.1757	5655.291	29.1757	0.00000
32.7093	6037.373	32.7093	0.00001

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

