

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2533
CALIBRATION DATE: 16-Nov-99

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36960154e-003
h = 6.46986394e-004
i = 2.33988409e-005
j = 2.15322561e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.67995580e-003
b = 6.03287286e-004
c = 1.62843458e-005
d = 2.15477990e-006
f0 = 3021.206

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4072	3021.206	-1.4073	-0.00002
1.1037	3195.046	1.1037	0.00005
4.5947	3448.592	4.5947	-0.00002
8.1924	3724.697	8.1923	-0.00006
11.6270	4002.694	11.6270	-0.00001
15.1832	4305.726	15.1832	0.00006
18.6875	4619.825	18.6875	0.00004
22.1871	4949.192	22.1871	-0.00002
25.7464	5300.611	25.7464	-0.00004
29.1618	5653.712	29.1618	-0.00001
32.6945	6035.628	32.6945	0.00002

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature ITS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

