

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2533  
CALIBRATION DATE: 20-May-00

SBE3 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

g = 4.36958431e-003  
h = 6.46956070e-004  
i = 2.33813609e-005  
j = 2.15002283e-006  
f0 = 1000.0

## ITS-68 COEFFICIENTS

a = 3.68825444e-003  
b = 6.03732786e-004  
c = 1.63662598e-005  
d = 2.15158197e-006  
f0 = 2979.943

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-2.0185	2979.943	-2.0185	-0.00003
-1.4053	3021.339	-1.4053	0.00001
1.1032	3195.008	1.1032	0.00005
4.5971	3448.774	4.5971	-0.00000
8.1951	3724.910	8.1951	-0.00006
11.6291	4002.863	11.6291	-0.00001
15.1865	4306.013	15.1865	0.00006
18.6908	4620.125	18.6908	0.00002
22.1900	4949.469	22.1900	-0.00005
25.7497	5300.940	25.7497	-0.00000
29.1653	5654.080	29.1653	0.00001
32.6981	6036.015	32.6981	0.00000

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

Date, Offset(mdeg C)

