

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 5166
 CALIBRATION DATE: 30-May-09

SBE3 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.41483006e-003
 h = 6.44640327e-004
 i = 2.33123187e-005
 j = 2.22441599e-006
 f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121389e-003
 b = 5.98970170e-004
 c = 1.54455194e-005
 d = 2.22590753e-006
 f0 = 3263.902

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3263.902	-1.5001	-0.00002
0.9999	3452.379	0.9999	0.00003
4.4999	3729.287	4.4999	-0.00001
7.9999	4021.806	7.9999	-0.00003
11.4999	4330.359	11.4999	0.00002
15.0000	4655.354	15.0001	0.00005
18.5000	4997.150	18.4999	-0.00009
21.9999	5356.163	21.9999	-0.00000
25.4999	5732.753	25.4999	0.00004
28.9999	6127.256	28.9999	0.00002
32.4999	6540.013	32.4999	-0.00002

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 IPTS-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

