

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 3115
CALIBRATION DATE: 18-Aug-11

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.18131193e-003$
 $h = 6.00859270e-004$
 $i = 8.65542875e-006$
 $j = -1.00252353e-006$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763747e-003$
 $b = 5.82957282e-004$
 $c = 1.13905542e-005$
 $d = -1.00181080e-006$
 $f_0 = 2462.304$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2462.304	0.9998	-0.00019
4.5000	2664.795	4.5004	0.00035
15.0000	3343.605	14.9997	-0.00034
18.5000	3594.936	18.5000	-0.00001
24.0000	4016.479	24.0002	0.00020
29.0000	4428.912	29.0001	0.00012
32.5000	4734.726	32.4999	-0.00014

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

