# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 21-Jul-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35183855e-003
h = 6.42766446e-004
i = 2.32333095e-005
j = 2.24439028e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121358e-003
b = 6.00543780e-004
c = 1.59808709e-005
d = 2.24592846e-006
f0 = 2948.184

| BATH TEMP (ITS-90) | INSTRUMENT FREQ (Hz) | INST TEMP (ITS-90) | RESIDUAL (ITS-90) |
|---|---|---|---|
| -1.5001 | 2948.184 | -1.5001 | 0.00001 |
| 0.9999 | 3117.974 | 0.9999 | -0.00001 |
| 4.4999 | 3367.420 | 4.4999 | 0.00000 |
| 7.9999 | 3630.908 | 7.9999 | -0.00001 |
| 11.4999 | 3908.820 | 11.4999 | 0.00000 |
| 14.9999 | 4201.525 | 15.0000 | 0.00007 |
| 18.5000 | 4509.366 | 18.4999 | -0.00006 |
| 22.0000 | 4832.702 | 22.0000 | -0.00001 |
| 25.5000 | 5171.854 | 25.5000 | 0.00002 |
| 29.0000 | 5527.138 | 29.0000 | 0.00001 |
| 32.5000 | 5898.861 | 32.5000 | -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 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