SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

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SENSOR SERIAL NUMBER: 1714
CALIBRATION DATE: 25-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.79486569e-003
h = 6.58260474e-004
i = 2.03239098e-005
j = 1.34593667e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68120702e-003
b = 5.98900313e-004
c = 1.31715847e-005
d = 1.34714501e-006
f0 = 5917.622

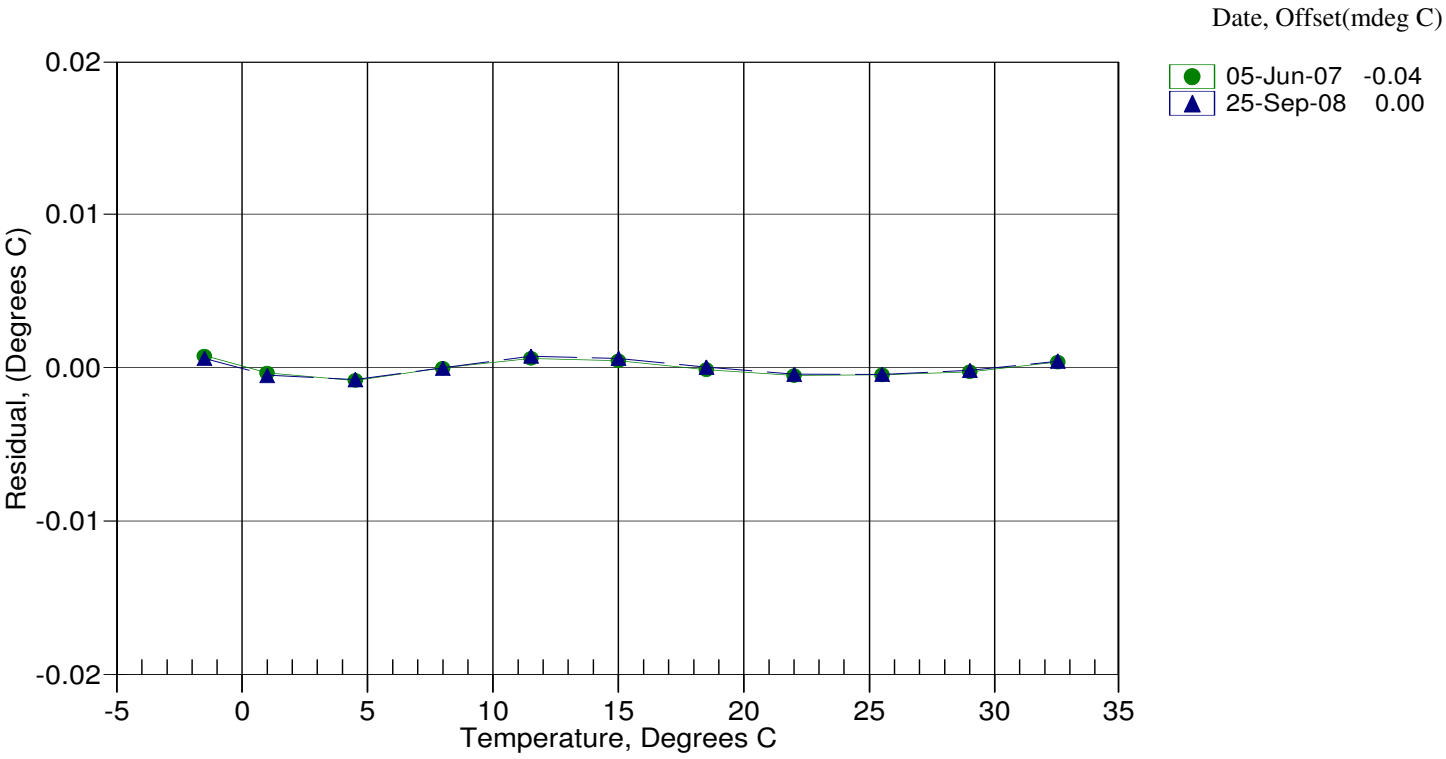
BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	5917.622	-1.4996	0.00059
0.9998	6259.148	0.9993	-0.00050
4.4998	6760.852	4.4990	-0.00078
7.9998	7290.703	7.9998	-0.00001
11.4998	7849.288	11.5005	0.00074
14.9998	8437.173	15.0004	0.00059
18.4998	9055.120	18.4998	0.00002
21.9999	9703.915	21.9995	-0.00043
25.4998	10384.218	25.4994	-0.00044
28.9998	11096.696	28.9996	-0.00019
32.4998	11841.958	32.5002	0.00041

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



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Temperature Calibration Report

Customer:	Woods Hole Oceangraphic Institution		
Job Number:	51761	**Date of Report:**	9/25/2008
Model Number	SBE 03-02/F	**Serial Number:**	031714

Temperature sensors are normally calibrated 'as received', without adjustments, allowing a determination sensor drift. If the calibration identifies a problem, then a second calibration is performed after work is completed. The 'as received' calibration is not performed if the sensor is damaged or non-functional, or by customer request.

An 'as received' calibration certificate is provided, listing coefficients to convert sensor frequency to temperature. Users must choose whether the 'as received' calibration or the previous calibration better represents the sensor condition during deployment. In SEASOFT enter the chosen coefficients using the program SEACON. The coefficient 'offset' allows a small correction for drift between calibrations (consult the SEASOFT manual). Calibration coefficients obtained after a repair apply only to subsequent data.

'AS RECEIVED CALIBRATION' ☑ Performed ☐ Not Performed

Date: 9/25/2008 Drift since last cal: +0.00003 Degrees Celsius/year

Comments:

'CALIBRATION AFTER REPAIR' ☐ Performed ☑ Not Performed

Date: Drift since Last cal: Degrees Celsius/year

Comments: