SEA-BIRD ELECTRONICS, INC.

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

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SENSOR SERIAL NUMBER: 4502
CALIBRATION DATE: 25-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.40293348e-003
h = 6.37618561e-004
i = 2.12895747e-005
j = 1.83736207e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121537e-003
b = 5.95395711e-004
c = 1.48494854e-005
d = 1.83874858e-006
f0 = 3232.346

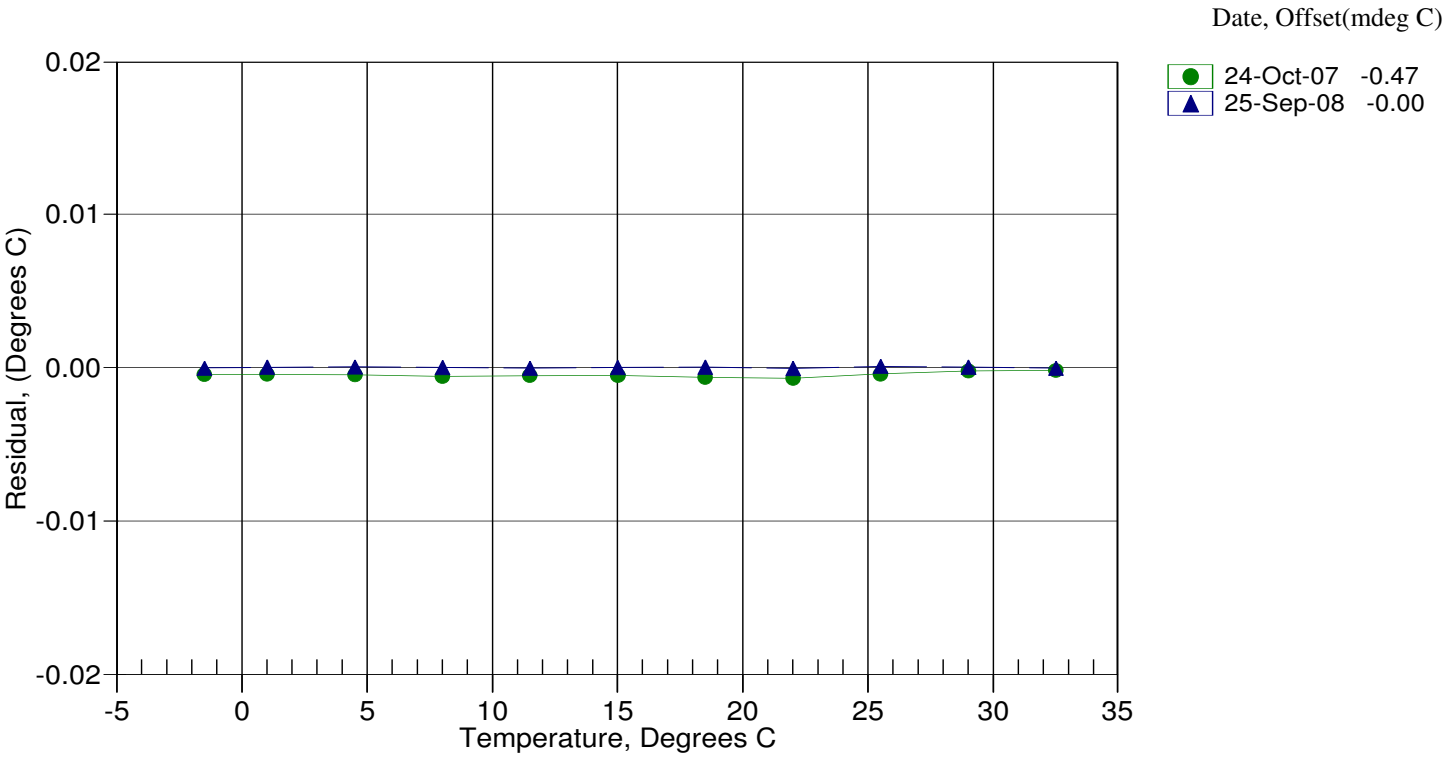
BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	3232.346	-1.5002	-0.00003
0.9998	3420.146	0.9998	0.00002
4.4998	3696.152	4.4998	0.00004
7.9998	3987.821	7.9998	0.00000
11.4998	4295.588	11.4998	-0.00004
14.9998	4619.881	14.9998	-0.00001
18.4998	4961.100	18.4998	0.00002
21.9999	5319.641	21.9998	-0.00006
25.4998	5695.886	25.4999	0.00006
28.9998	6090.198	28.9998	0.00003
32.4998	6502.935	32.4998	-0.00003

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 03Plus	**Serial Number:**	03P4502

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: +0.00051 Degrees Celsius/year

Comments:

'CALIBRATION AFTER REPAIR' ☐ Performed ☑ Not Performed

Date: Drift since Last cal: Degrees Celsius/year

Comments: