SEA-BIRD ELECTRONICS, INC.

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

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 4312
CALIBRATION DATE: 23-Sep-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38277854e-003
h = 6.51524980e-004
i = 2.33784325e-005
j = 1.90202508e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121541e-003
b = 6.06545434e-004
c = 1.70297536e-005
d = 1.90360988e-006
f0 = 3057.351

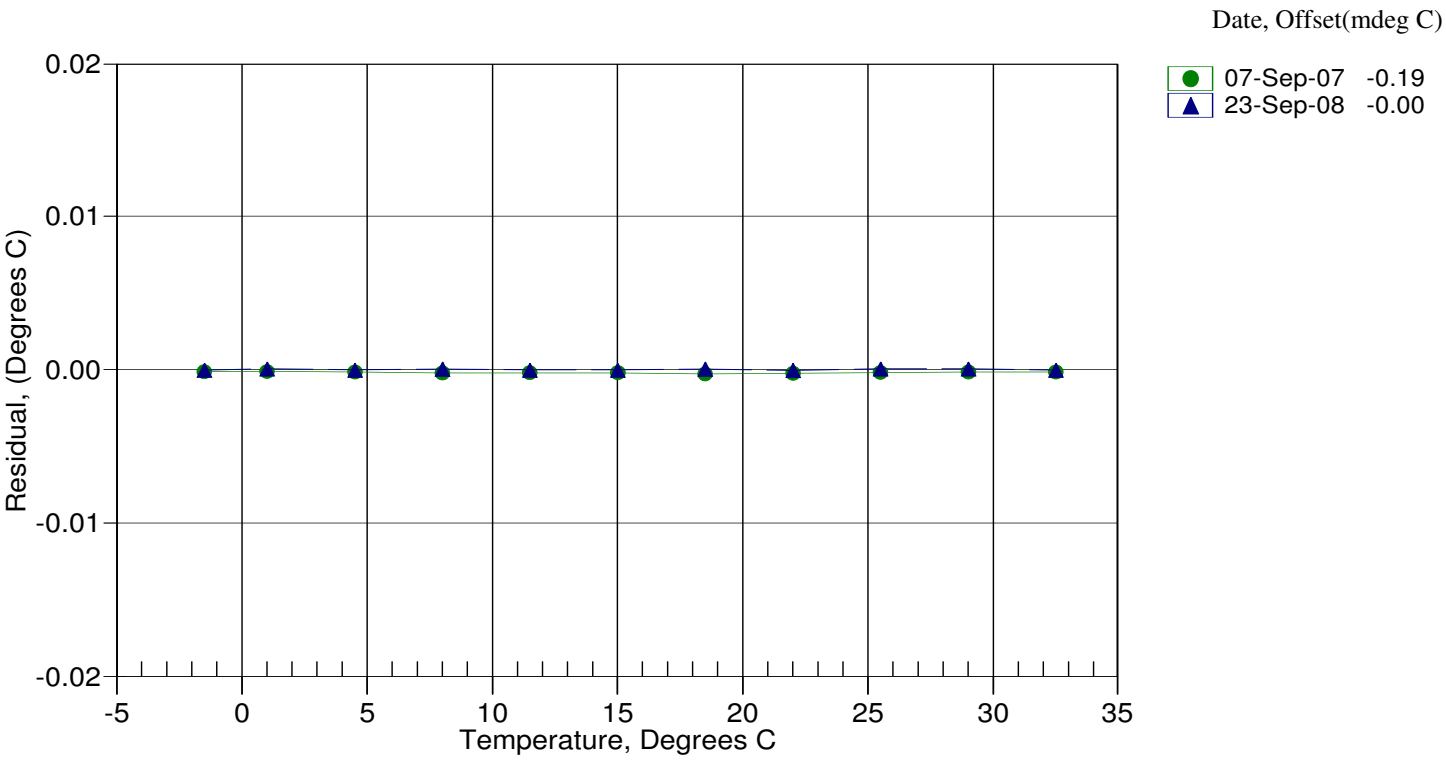
BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	3057.351	-1.5002	-0.00003
0.9998	3231.656	0.9998	0.00005
4.4999	3487.607	4.4999	-0.00002
7.9998	3757.826	7.9998	0.00003
11.4999	4042.716	11.4999	-0.00002
14.9998	4342.635	14.9998	-0.00001
18.4998	4657.974	18.4998	0.00002
21.9999	4989.079	21.9998	-0.00006
25.4998	5336.295	25.4998	0.00004
28.9998	5699.958	28.9998	0.00004
32.4998	6080.383	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:**	9/23/2008
Model Number	SBE 03	**Serial Number:**	03P4312

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: 9/23/2008 Drift since last cal: +0.00019 Degrees Celsius/year

Comments:

'CALIBRATION AFTER REPAIR' ☐ Performed ☑ Not Performed

Date: Drift since Last cal: Degrees Celsius/year

Comments: