

INSTALLED 1/19/10



SEA-BIRD ELECTRONICS, INC.

1808 - 136th Place Northeast, Bellevue, Washington 98005 USA

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

Service
Report

RMA Number

52490

Customer Information:

Company Pacific Marine Center / NOAA

Date 11/11/2008

Contact Kaye Kinoshita

PO Number EM-2066

Serial Number 3845414-0317

Model Number SBE 38

Services Requested:

1. Evaluate/Repair Instrumentation.
2. Perform Routine Calibration Service.

Problems Found:

Services Performed:

1. Performed initial diagnostic evaluation.
2. Performed "Post Cruise" calibration of the temperature sensor.
3. Performed complete system check and full diagnostic evaluation.

Special Notes:

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: 0317
 CALIBRATION DATE: 28-Oct-08

SBE 38 TEMPERATURE CALIBRATION DATA
 ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

a0 = -6.964455e-006
 a1 = 2.721999e-004
 a2 = -2.134568e-006
 a3 = 1.472541e-007

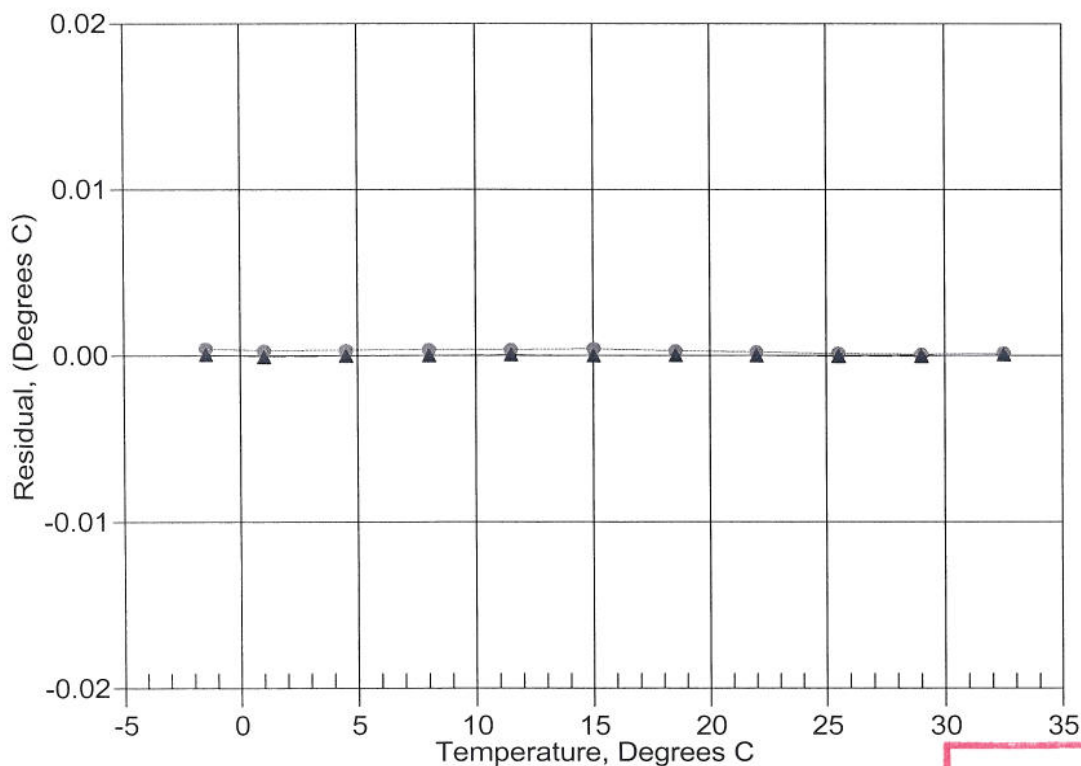
BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.50010	835669.6	-1.50004	0.00006
0.99990	745988.0	0.99983	-0.00007
4.49990	638202.4	4.49987	-0.00003
7.99990	547785.6	7.99990	-0.00000
11.49990	471678.3	11.49996	0.00006
14.99990	407405.8	14.99990	0.00000
18.49990	352949.4	18.49992	0.00002
21.99990	306666.7	21.99990	0.00000
25.49990	267210.6	25.49986	-0.00004
28.99990	233473.8	28.99985	-0.00005
32.49990	204543.5	32.49995	0.00005

Temperature ITS-90 = $1/\{a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]\} - 273.15$ (°C)

Residual = instrument temperature - bath temperature

Date, Delta T (mdeg C)

● 13-Feb-07 0.26
 ▲ 28-Oct-08 0.00



POST CRUISE
CALIBRATION



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Temperature Calibration Report

Customer:	Pacific Marine Center / NOAA		
Job Number:	52490	Date of Report:	10/28/2008
Model Number:	SBE 38	Serial Number:	3845414-0317

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: 10/28/2008

Drift since last cal: -0.00015 Degrees Celsius/year

Comments:

'CALIBRATION AFTER REPAIR'

☐ Performed ☒ Not Performed

Date:

Drift since Last cal: Degrees Celsius/year

Comments: