

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

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SENSOR SERIAL NUMBER: 0631

CALIBRATION DATE: 07-May-15

SBE 38 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPERATURE SCALE

## COEFFICIENTS:

a0 = 4.526188e-005

a1 = 2.712580e-004

a2 = -2.241647e-006

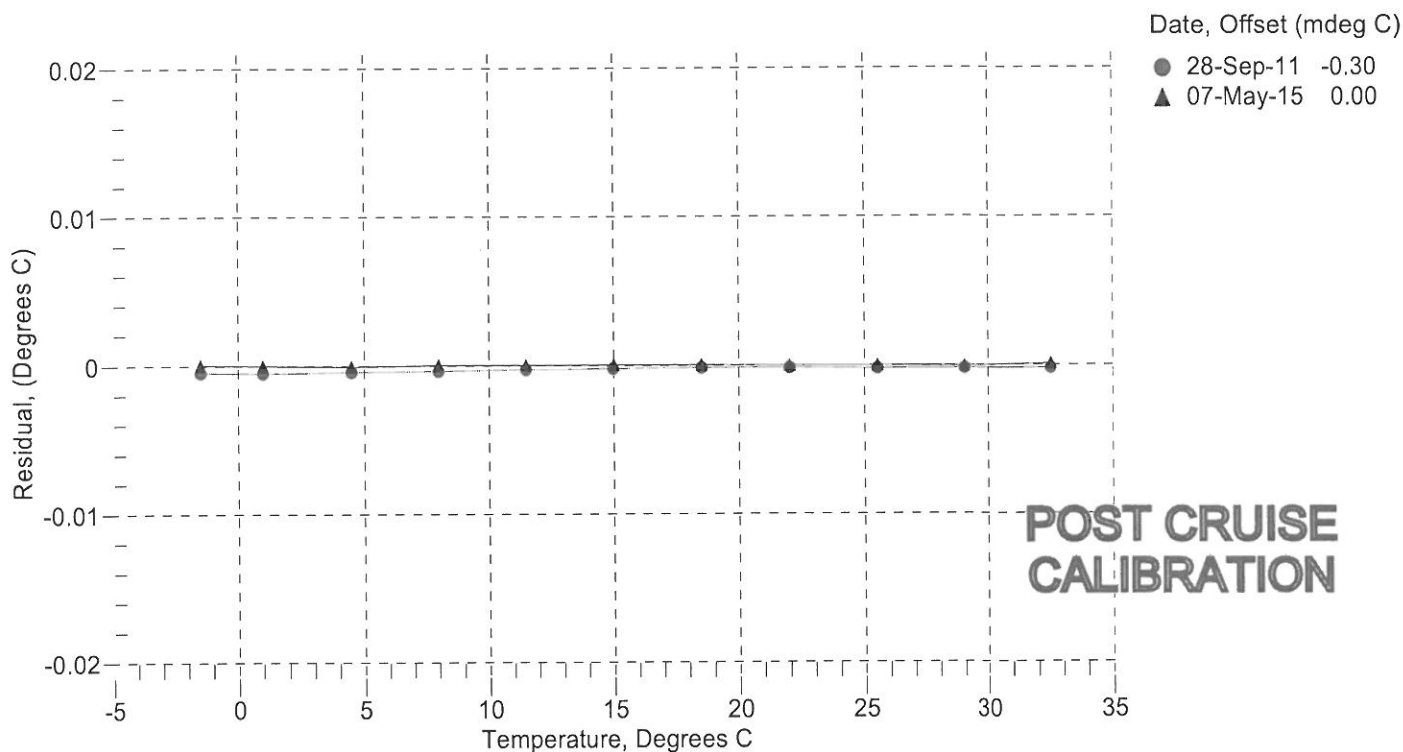
a3 = 1.458781e-007

BATH TEMP (ITS-90)	INSTRUMENT OUTPUT	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	791051.9	-1.5001	0.0000
0.9999	704771.7	0.9999	-0.0000
4.5000	601323.7	4.4999	-0.0001
7.9999	514780.2	7.9999	0.0000
11.5000	442126.9	11.5000	0.0000
15.0000	380929.8	15.0000	0.0000
18.5000	329211.1	18.5000	0.0000
22.0000	285364.7	22.0000	-0.0000
25.4999	248075.8	25.4999	-0.0000
29.0000	216266.6	28.9999	-0.0001
32.4999	189052.6	32.5000	0.0001

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

n = instrument output





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## Temperature Calibration Report

Customer:	The University of Alaska, Fairbanks		
Job Number:	83072	Date of Report:	5/7/2015
Model Number	SBE 38	Serial Number:	3865482-0631

*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. 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: 5/7/2015

Drift since last cal: +0.00008 Degrees Celsius/year

Comments:

### 'CALIBRATION AFTER REPAIR'

☐ Performed ☒ Not Performed

Date:

Drift since Last cal: Degrees Celsius/year

Comments: