

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0775
CALIBRATION DATE: 21-Sep-04

SBE19 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.21303406e-003
h = 6.04052570e-004
i = 3.81359702e-006
j = -2.07386905e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.64763706e-003
b = 5.91438887e-004
c = 9.71537912e-006
d = -2.07341762e-006
f0 = 2571.595

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2571.595	0.9998	-0.00016
4.5000	2779.861	4.5003	0.00030
15.0000	3475.805	14.9997	-0.00033
18.5000	3732.732	18.5000	0.00003
24.0000	4162.897	24.0002	0.00024
28.9999	4582.934	28.9999	-0.00003
32.5000	4893.983	32.4999	-0.00006

$$\text{Temperature ITS-90} = 1 / \{ g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

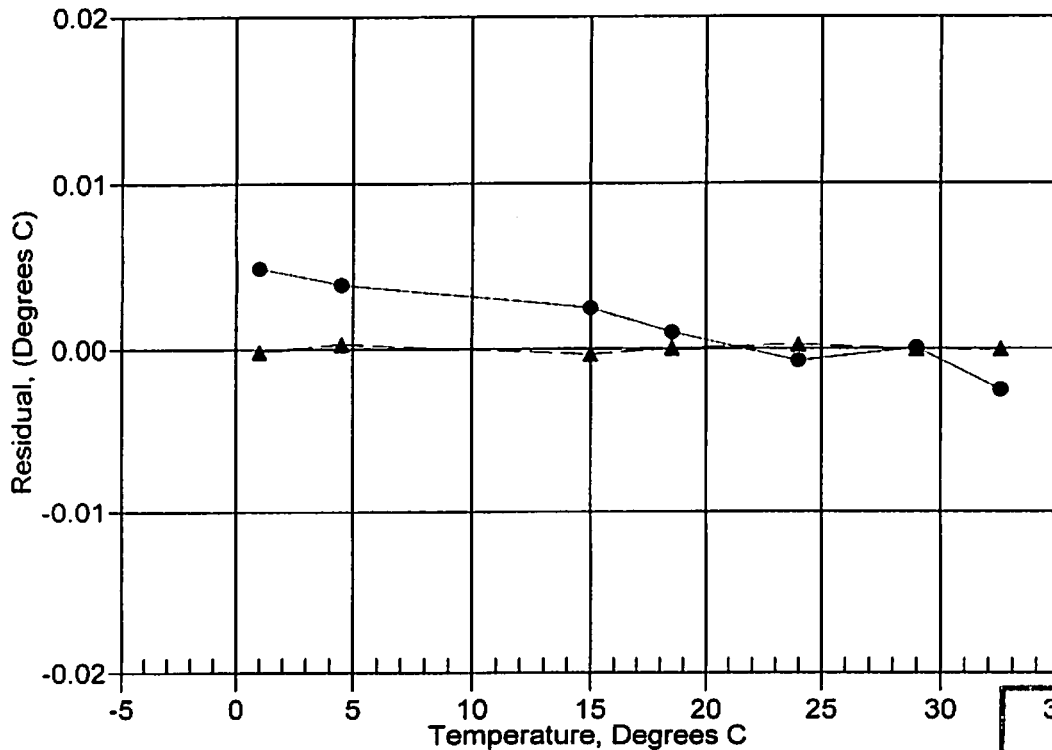
$$\text{Temperature ITS-68} = 1 / \{ a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)] \} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

Date, Offset(mdeg C)

● 16-Nov-02 1.30
▲ 21-Sep-04 -0.00



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POST CRUISE CALIBRATION