

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER = 1652  
CALIBRATION DATE: 30-Apr-02s

TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83629004e-03  
h = 6.76499622e-04  
i = 2.52213752e-05  
j = 1.86745238e-06  
f<sub>0</sub> = 1000.000

IPTS-68 COEFFICIENTS

a = 3.68120887e-03  
b = 6.03589860e-04  
c = 1.50883486e-05  
d = 1.86888016e-06  
f<sub>0</sub> = 6132.519

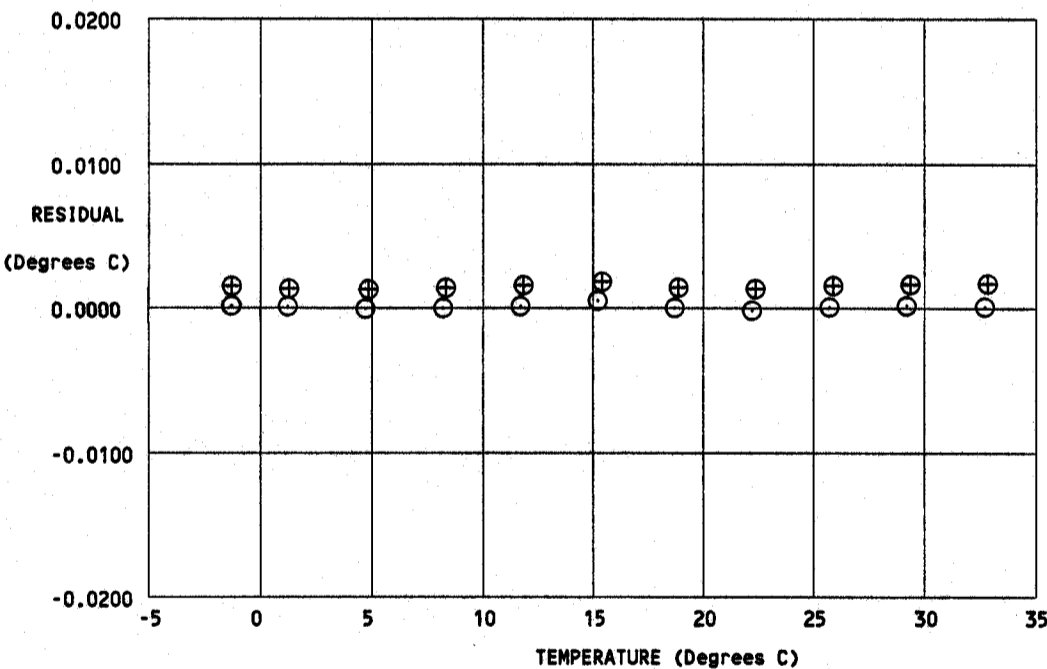
BATH TEMP (ITS-90 °C)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90 °C)	RESIDUAL (ITS-90 °C)
-1.4998	6132.519	-1.4997	0.00005
1.0002	6483.827	1.0002	0.00001
4.5002	6999.639	4.5001	-0.00013
8.0002	7544.167	8.0001	-0.00010
11.5003	8118.174	11.5003	0.00004
15.0002	8722.367	15.0006	0.00041
18.5003	9357.326	18.5002	-0.00008
22.0003	10023.890	22.0000	-0.00027
25.5002	10722.753	25.5002	-0.00001
29.0002	11454.470	29.0003	0.00007
32.5003	12219.657	32.5003	0.00001

Temperature ITS-90 = 1/{g + h[ln(f<sub>0</sub>/f)] + i[ln<sup>2</sup>(f<sub>0</sub>/f)] + j[ln<sup>3</sup>(f<sub>0</sub>/f)]} - 273.15 (°C)

Temperature IPTS-68 = 1/{a + b[ln(f<sub>0</sub>/f)] + c[ln<sup>2</sup>(f<sub>0</sub>/f)] + d[ln<sup>3</sup>(f<sub>0</sub>/f)]} - 273.15 (°C)

Following the recommendation of JPOTS: T<sub>68</sub> is assumed to be 1.00024 \* T<sub>90</sub> (-2 to 35 °C).

Residual = instrument temperature - bath temperature



calibration date	delta T [mdeg C]
⊕ 14-Nov-00s	1.42
⊙ 30-Apr-02s	0.00

POST CRUISE  
CALIBRATION