

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER = 1075  
CALIBRATION DATE: 19-Jun-01s

TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

$g = 4.81077385e-03$   
 $h = 6.68822271e-04$   
 $i = 2.51066059e-05$   
 $j = 1.98467480e-06$   
 $f_0 = 1000.000$

## IPTS-68 COEFFICIENTS

$a = 3.68121115e-03$   
 $b = 5.98093580e-04$   
 $c = 1.44614410e-05$   
 $d = 1.98605765e-06$   
 $f_0 = 6003.863$

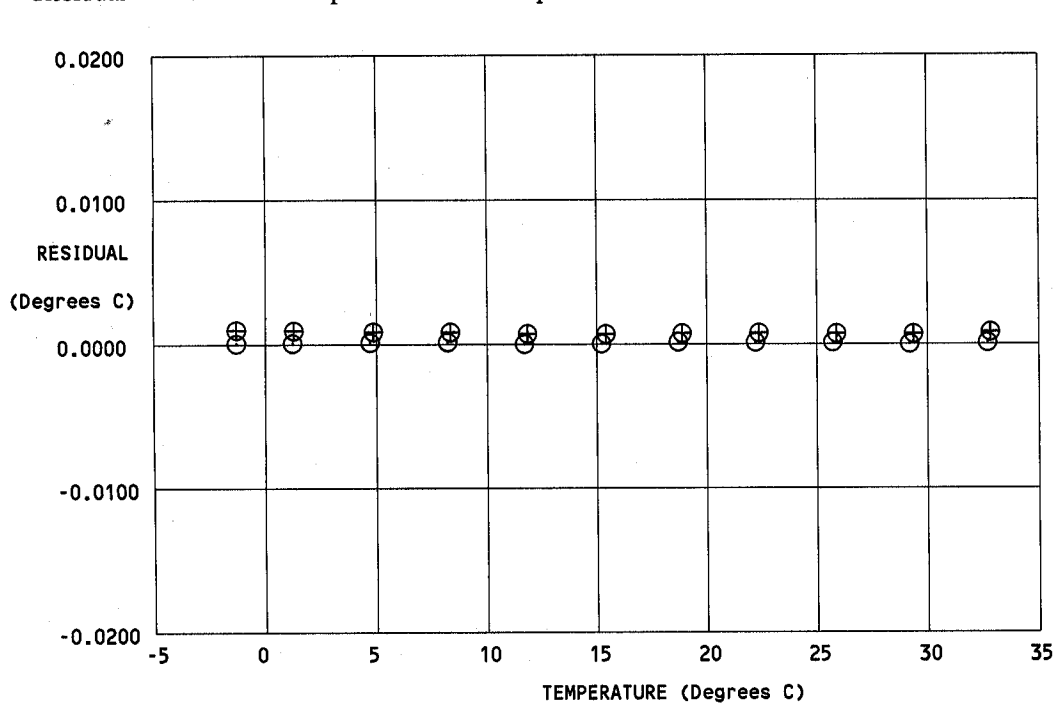
BATH TEMP (ITS-90 °C)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90 °C)	RESIDUAL (ITS-90 °C)
-1.4999	6003.863	-1.4999	-0.00001
1.0001	6351.048	1.0001	0.00000
4.5001	6861.084	4.5001	0.00003
8.0001	7399.794	8.0001	0.00004
11.5001	7967.919	11.5000	-0.00008
15.0001	8566.241	15.0000	-0.00006
18.5001	9195.472	18.5002	0.00005
22.0001	9856.260	22.0001	0.00004
25.5001	10549.294	25.5001	0.00003
29.0001	11275.190	29.0000	-0.00008
32.5001	12034.623	32.5001	0.00002

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



POST CRUISE  
CALIBRATION