

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: 2946  
CALIBRATION DATE: 02-Feb-07

SBE3 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34401539e-003  
h = 6.39150582e-004  
i = 2.14174643e-005  
j = 1.84514287e-006  
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121194e-003  
b = 5.99739358e-004  
c = 1.55109200e-005  
d = 1.84658961e-006  
f0 = 2921.111

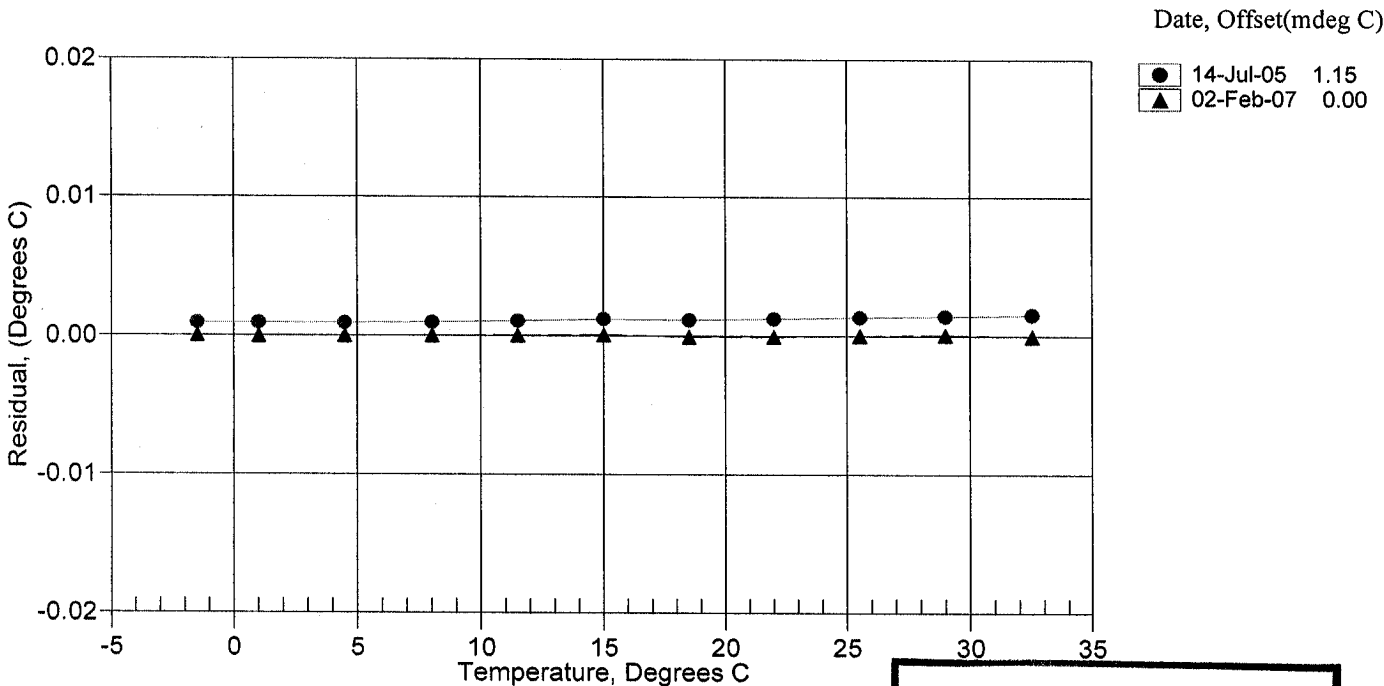
BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2921.111	-1.5000	0.00003
1.0000	3089.564	1.0000	-0.00003
4.5000	3337.051	4.5000	-0.00003
8.0000	3598.479	8.0000	0.00001
11.5000	3874.225	11.5000	0.00003
15.0000	4164.663	15.0001	0.00008
18.5000	4470.131	18.4999	-0.00008
22.0000	4791.011	21.9999	-0.00007
25.5000	5127.634	25.5000	0.00002
29.0000	5480.316	29.0001	0.00008
32.5000	5849.354	32.5000	-0.00004

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 ITS-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