

## **DECODING INFORMATION OF XBT DATA**

XBT Data files contain header information followed by Depth Vs. Temperature data. Following are the decoding information.

Columns 1-2	: Record ID. (XX) two character code always blank.
Column 3	: XBT probe type. (X) One character code. 2 for T7 XBT probe.
Column 4-8	: Ship Call Sign. (XXXX) Alpha numeric representation of Ship Call Sign. In present case a dot is followed by a radio code.
Column 10-19	: Alpha numeric representation of Ship name. (XXXXXXXXXXXX)
Column 20-26	: XBT Cruise number. (XXXXXXX) Alphanumeric representation of cruise number.
Columns 27-30	: XBT Station number. (XXXX) Alphanumeric representation of station number.
Columns 31-37	: Date (YYMMDD) Year, Month, Date
Columns 38-41	: Time. (HHMM) Hour, Minute
Columns 42-46	: Latitude. (DDMMX) Degrees, Minutes
Columns 47	: Latitude Hemisphere. (X) "N" or "S"
Columns 48-53	: Longitude. (DDDMMX) Degree, Minutes
Column 54	: Longitude Hemisphere. (X) "E" or "W"
Columns 60-63	: (XXXX) Number of depth temperature pairs for that particular XBT Station.
Columns 65-70	: (XXXXXX) Alphanumeric representation of the type of the data acquisition system used.

Columns 71-74 : (XXXX) Type of depth correction equation followed .  
In present case **SIP** stands for original Sippican equation followed.

### DATA Record

Columns 1-5 : Depth  
(XXXXX) Meters to Tenth decimal point

Columns 6-9 : Temperature  
(XXXX) Degree Centigrade to Hundreds decimal point.

An example of Header & Data lines

```
2.AUBZ  KAVARATHI    121   1 09 1 5165110 2 N 7530 E      95  DEVIL SIP
      02852    72852   132852   202852   272852   332852   402852   472852   542852
```

Header part

2 : XBT probe type (Sippican make T7 probe)  
.AUBZ : Ship Call Sign  
KAVARATHI : Ship Name  
121 : XBT Cruise number.  
1 : XBT Station number  
09 1 5 : Date (Year: 09, Month: 01, day: 05)  
1651 : Time (16 hours and 51 minutes)  
10 2 N : Latitude in Degree & Minutes  
7530 E : Longitude in Degree & Minutes  
95 : Number of depth Vs. temperature pairs  
DEVIL : Type of XBT data acquisition system used.  
SIP : Depth correction equation followed.

Data part

**02852** Depth : 0.0 mts Temperature : 28.52<sup>0</sup>C  
**402852** Depth : 4.0 mts Temperature : 28.52<sup>0</sup>C