

Iridium SVP-B transmission format

Version #001 (without GPS)

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January 18th, 2010

Parameter	Bits	Pos	Offset	Max	Formula
Format identifier	8	0	0	254	Forced to 1 in present version
Year	7	8	2000	2126	Year = n + 2000
Month	4	15	0	12	Month = n
Day	6	19	0	31	Day = n
Hour	5	25	0	23	Hour = n
Minute	6	30	0	59	Minute = n
Air pressure	11	36	850.0	1054.6	AP (hPa) = n*0.1 + 850
SST	12	47	-5.00	35.94	SST (°C) = n*0.01 - 5
Pressure tendency	9	59	-25.5	25.5	dP (hPa) = n*0.1 - 25.5
Submergence count	6	68	0	100	Subm. (%) = n * 1.6129
Battery voltage	6	74	5	17.4	Vbat (V) = n*0.2 + 5
Iridium transmission duration	8	80	0	254	SBDT (s) = n
2 nd Iridium Tech. parameter	8	88	0	254	See table 2

Table 1 - Dataformat

Remarks :

- Format Id. : #000 to #019 are devoted to SVP-B drifters.
The present version is format **version #001**;
- Buoys using format version #001 are supposed to be located by the Iridium system;
- Column "Bits" : length of the word in bits for the parameter;
- Column "Pos" : Start bit in the message for the parameter;
- For some parameters, "Max" is just an approximation;
- Values for missing sensor or computation should be "all bits fitted to 1";
- Total length of the basic version #001 message: 96 bits i.e. 12 bytes.

Important :

A buoy may automatically change its dataformat from version #000 to #001, during its operation life, if the most recent GPS fix is older than 4094 minutes. If the GPS fix is younger than 4094 minutes, version #000 must be used (see documentation on this latest).

	2 nd Iridium parameter
Marlin	Iridium transm. Retry
Metoccean	Unused
Pacific Gyre	Unused ?

Table 2 – Examples of manufacturer's choices
for the 2nd Iridium parameter