

Format Description for USAP RVDATA Hydro DAS

Data

Data is received from the RVDAS system via RS-232 serial connections. A time tag is added at the beginning of each line of data in the form,

yy+dd:hh:mm:ss.sss [data stream from instrument]

where

yy = two-digit year
dd = day of year
hh = 2 digit hour of the day
mm = 2 digit minute
ss.sss = seconds

All times are reported in UTC.

The delimiters that separate fields in the raw data files are often spaces and commas but can be other characters such as : = @. Occasionally no delimiter is present. Care should be taken when reprocessing the data that the field's separations are clearly understood.

In the sections below a sample data string is shown, followed by a table that lists the data contained in the string..

United States Antarctic Program

Underway Data /rvdas/uw

Sea Water Valve

Hydro DAS (hdas)

15+057:16:07:09.456 12.15038 12.39402 336.5517 4431.724 -1 20.5 64 33.5 43.5

Altimeter

This is rarely used, and only provides real data when connected. When not connected, provides a value approx = -10.

Transmissometer

This is rarely used, and only provides real data when connected. When not connected, provides a value range of approx = 0 to 10.

Field	Data	Format	Unit
1	RVDAS time tag	yy+ddd:hh:mm:ss.sss	UTC
2	Supply Voltage	xx.XXXXX	V
3	Case Temperature	xx.XXXXX	C
4	Fluorometer	XXX.XXXX	mV
5	Transmissometer	xxxx.xxx	mV
6	Sea Water Valve*	x	-1 or 0
7	Flow Meter 1 Frequency	xx.x	Hz
8	Flow Meter 2 Frequency	xx.x	Hz
9	Flow Meter 3 Frequency	xx.x	Hz
10	Flow Meter 4 Frequency	xx.x	Hz

Sea Water Valve

-1 = Stern Thruster Valve, 0 = Moon Pool Valve