

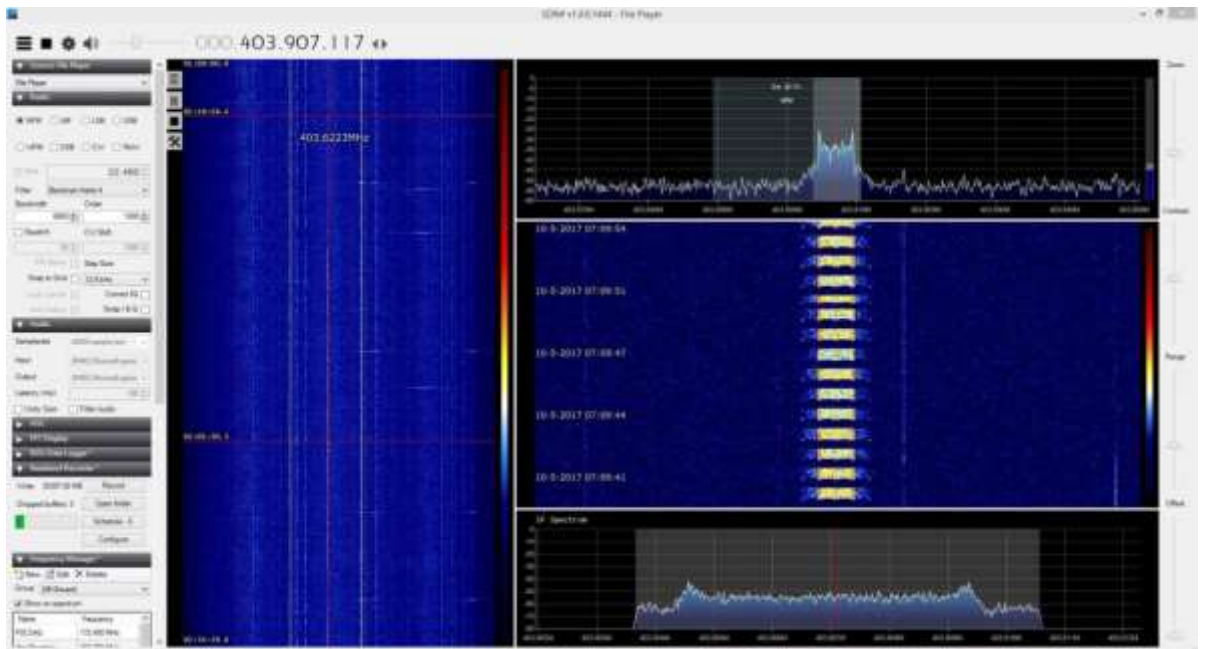
Radioronde decoding

Equipment:

RTL-SDR connected to a 17cm groundplane antenna.



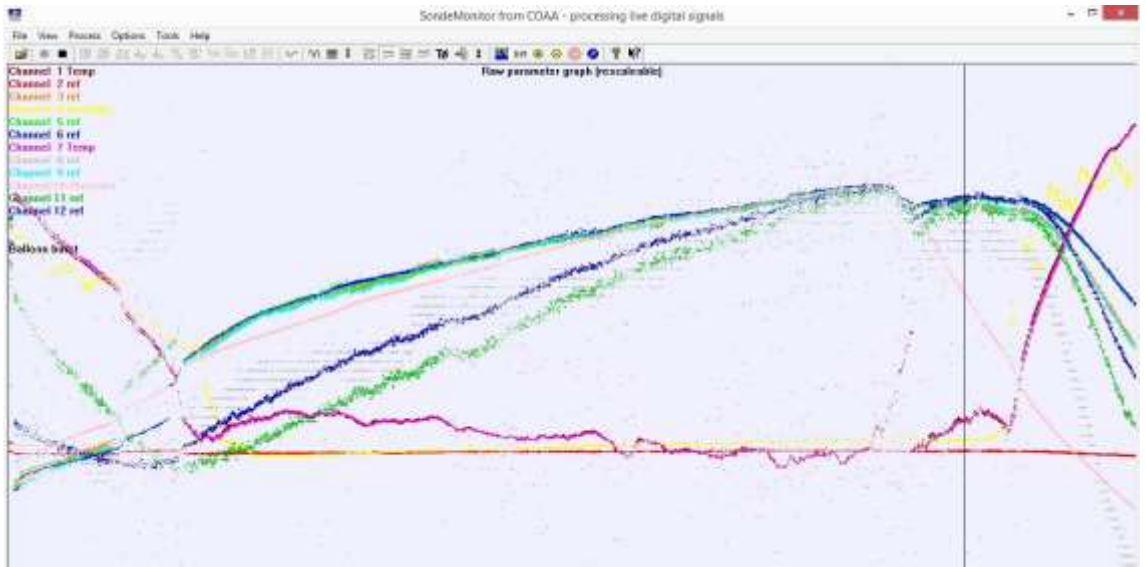
Radio control software: SDR#



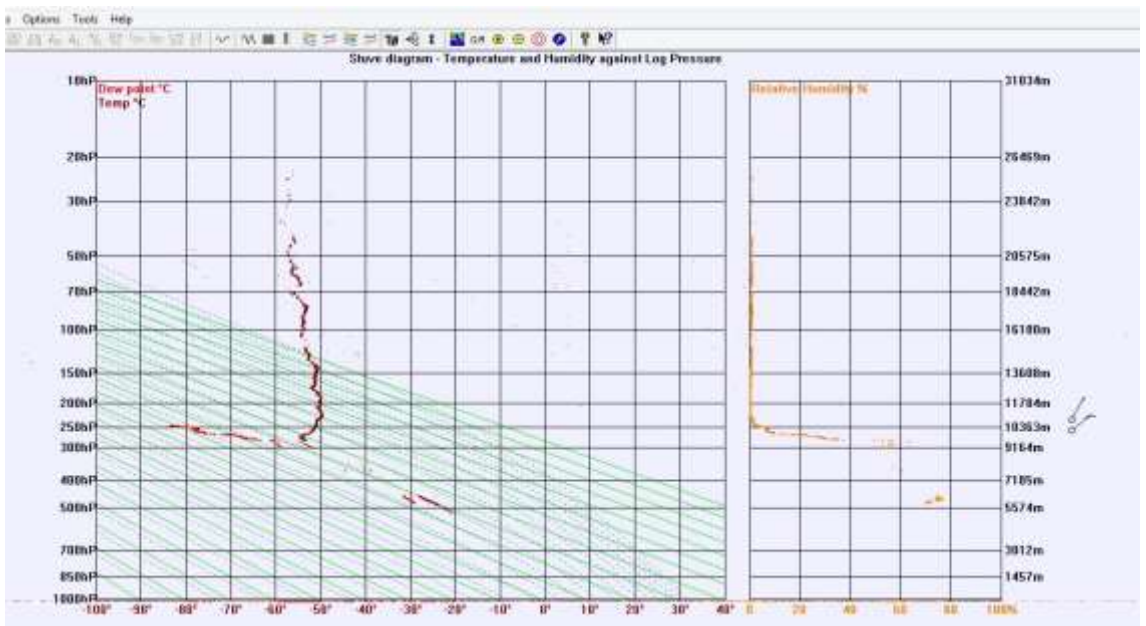
VB Cable connects SDR# with the Sondemontor decoder.



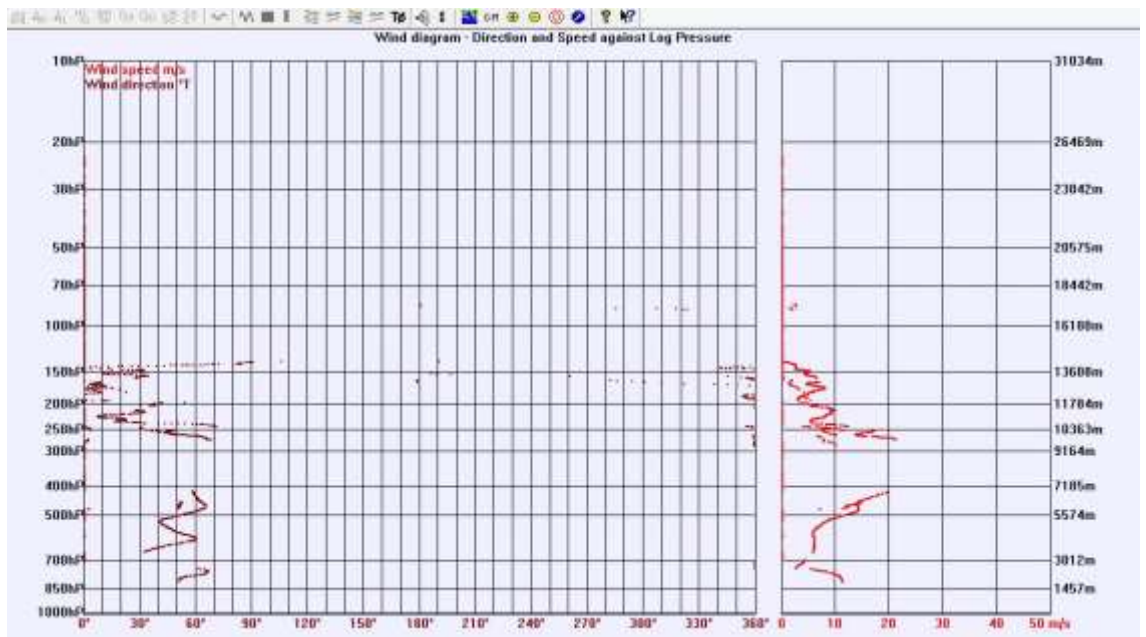
The Sondemonitor decoder decodes the signal of the sonde and plots the telemetry like wind direction, wind speed, temperature and humidity on your screen.



SondeMonitor decoder. Temperature and humidity.



SondeMonitor decoder. Wind diagram.



SondeMonitor
decoder.
GPS ground
track.



From Wikipedia:

A radiosonde is a battery-powered telemetry instrument package carried into the atmosphere usually by a weather balloon that measures various atmospheric parameters and transmits them by radio to a ground receiver. Modern radiosondes measure or calculate the following variables: altitude, pressure, temperature, relative humidity, wind (both wind speed and wind direction), cosmic ray readings at high altitude and geographical position (latitude/longitude). Radiosondes measuring ozone concentration are known as ozonesondes.

Radiosondes may operate at a radio frequency of 403 MHz or 1680 MHz. A radiosonde whose position is tracked as it ascends to give wind speed and direction information is called a rawinsonde ("radar wind -sonde"). Most radiosondes have radar reflectors and are technically rawinsondes. A radiosonde that is dropped from an airplane and falls, rather than being carried by a balloon is called a dropsonde. Radiosondes are an essential source of meteorological data, and hundreds are launched all over the world daily.

Below some stations in The Netherlands, Belgium, Germany and East England

Station	Frequency
Beauvechain, BEL	404.010 MHz
Ukkel, BEL	403.500 MHz
De Bilt, HOL	403.900 MHz
Herstmoncaux, G	404.800 MHz
Bergen, D	405.700 MHz
Essen, D	405.300 MHz
Idar-Oberstein, D	402.700 MHz
Meppen 1 & 3, D	404.500 MHz
Meppen 2 & 4, D	405.100 MHz
Nordeney, D	404.100 MHz



Vaisala Radiosonde