

The Software Defined Radio

& why it belongs in your shack.

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What we are covering

BLUF

Define it

Why use one.

Some RX examples

Some TX examples

Limitations

What is an SDR?

Broad Strokes

No dedicated hardware/circuitry.

There is a computer doing the heavy lifting.

Can be an FPGA or a SOC.

Very cost effective.

Why do you need one?

Or a dozen?

Toys are nice.

RF projects are fun.

ADSB

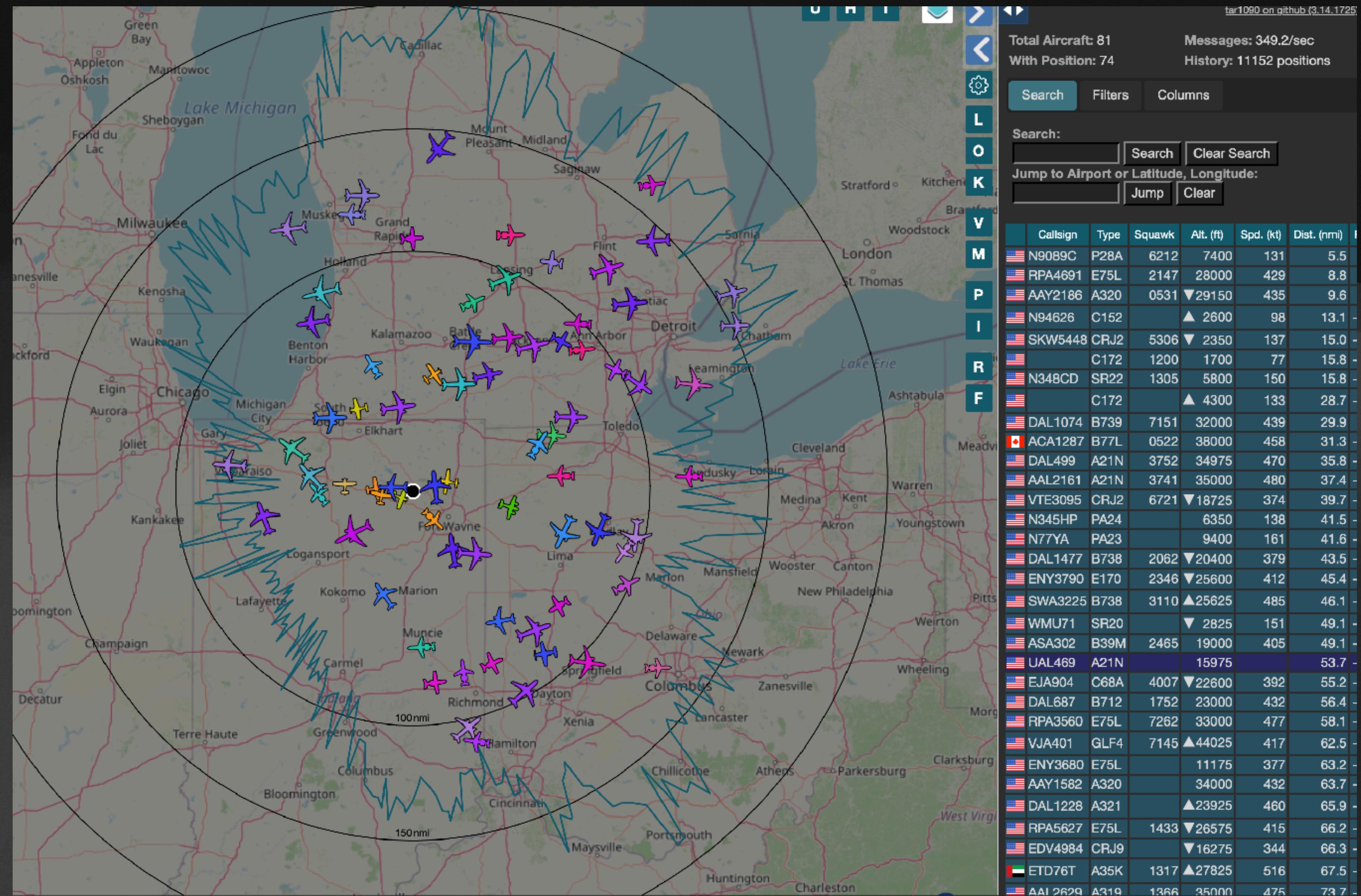
APRS

AMR

Because your radio doesn't have a "receive only antenna port".

Because you want a waterfall.

ADS-B

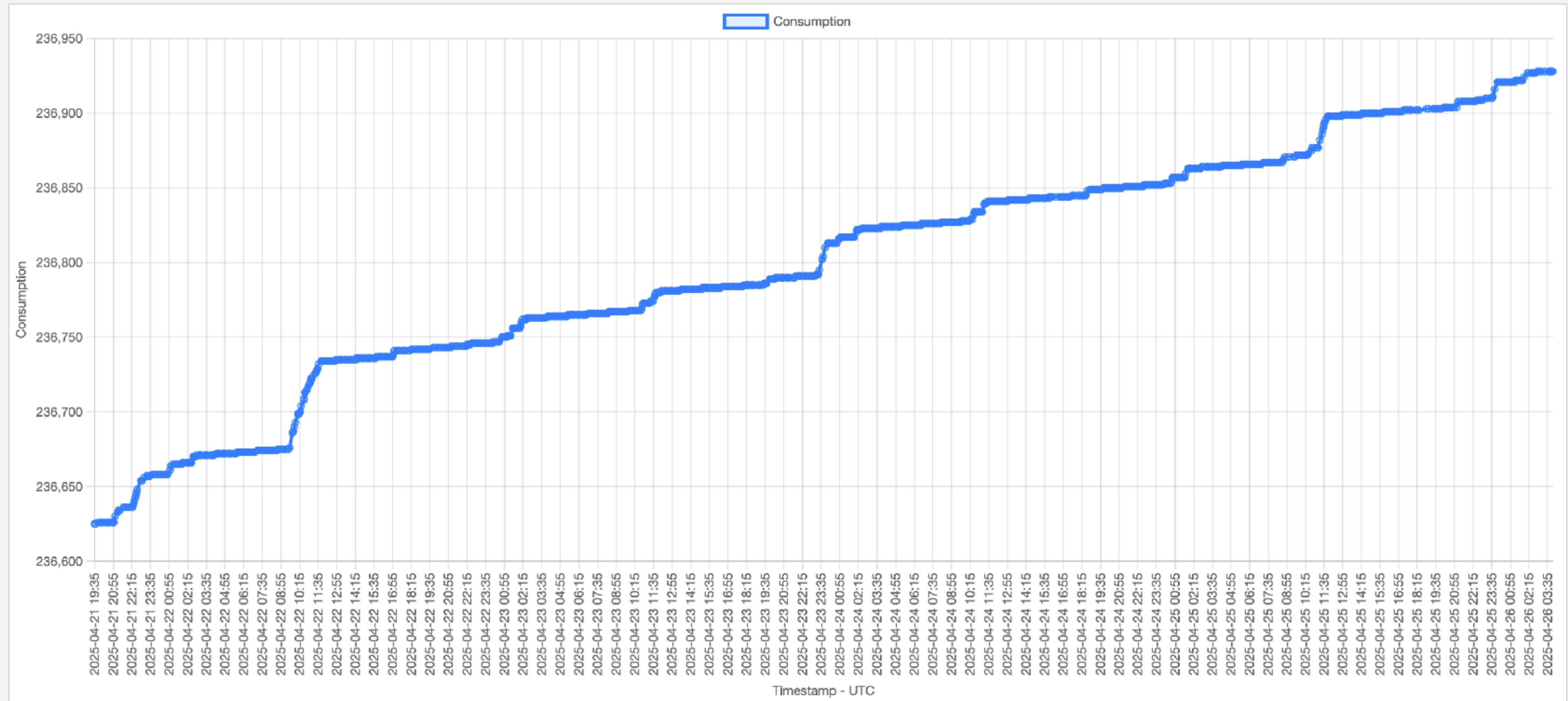


AMR - Automatic Meter Reader

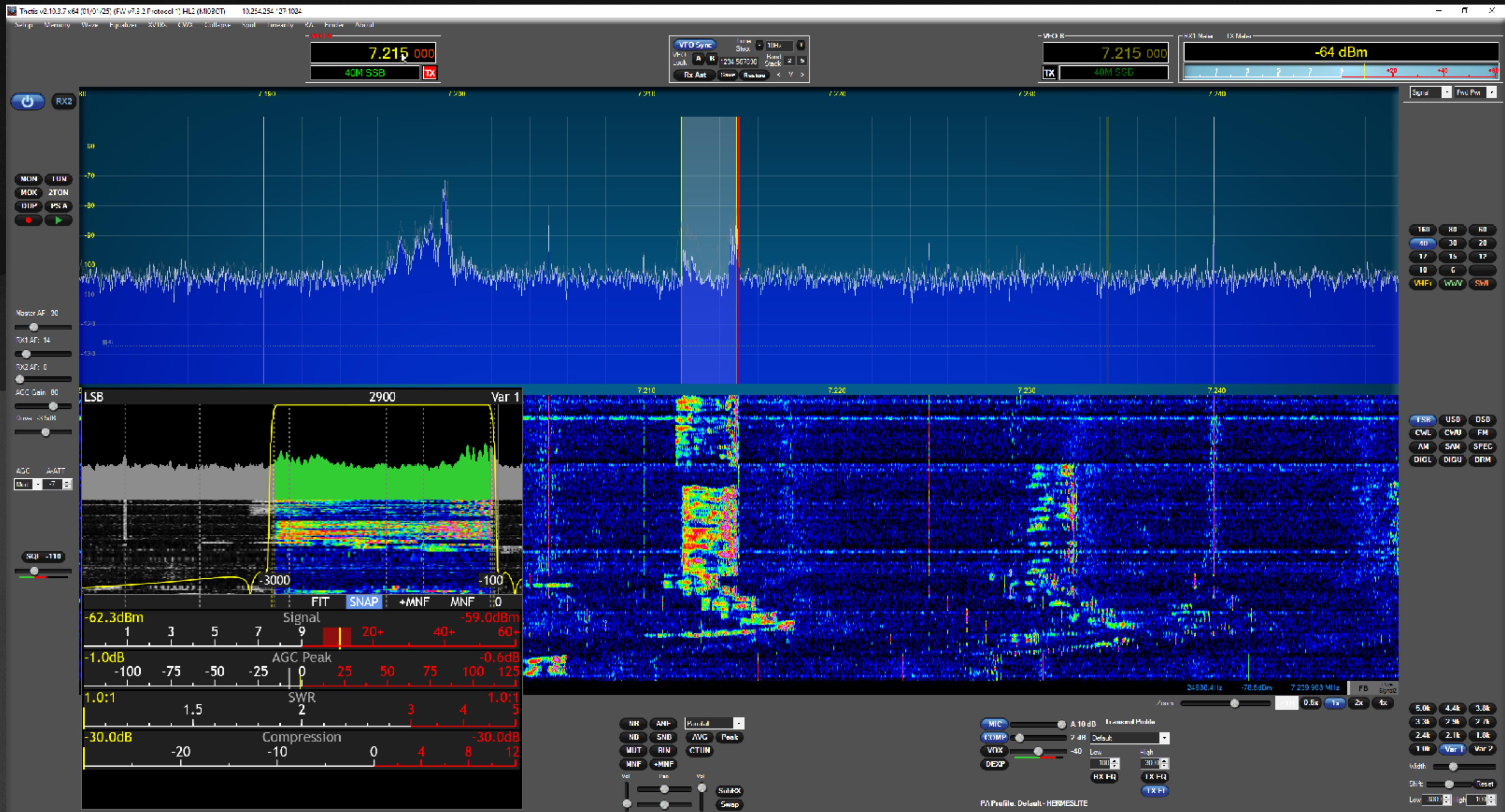
Meter Consumption Graph

Select Meter: 66236190

Select Range: Last 7 Days



Dedicated Waterfall/Receive only



Examples

Some of my receiving SDRs

NooElec NESDR

RTL-SDR

Flight Aware Stick

ADSB Exchange Stick

AirSpy R2



Examples Transmitting SDRs

Hermes-Lite

Flex Radio

Icom IC-7300

Apache Labs



There are limits

What did you expect?

Cheaper SDRs are limited in frequency covered.

Name	Model	Frequency
Hermes-Lite	Hermes-Lite	0 - 38 MHz
RTL Dongle USB - R820T	RTL Dongle USB - R820T	50 - 2000 MHz

DC to Daylight?

Look into SDRPlay