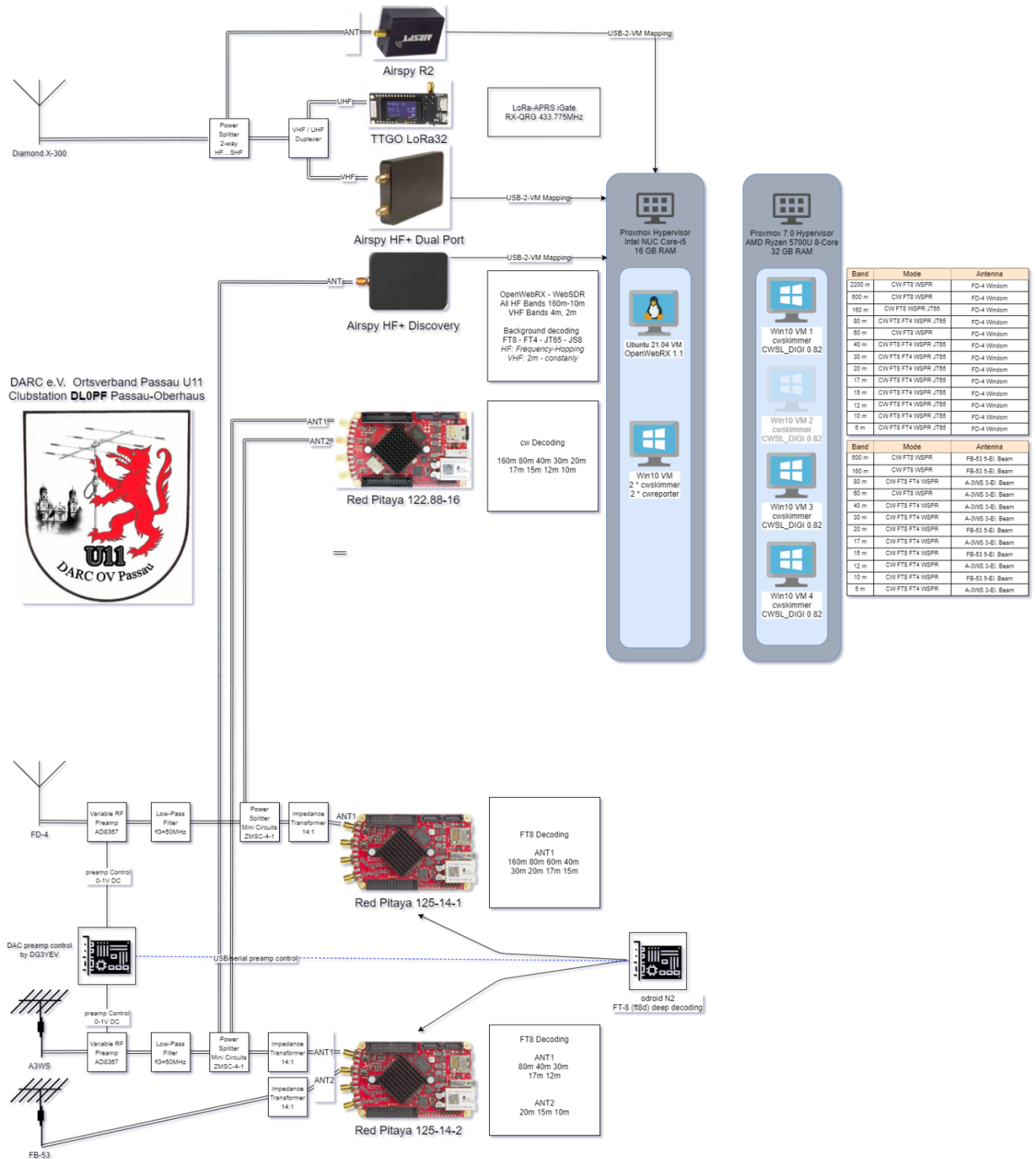
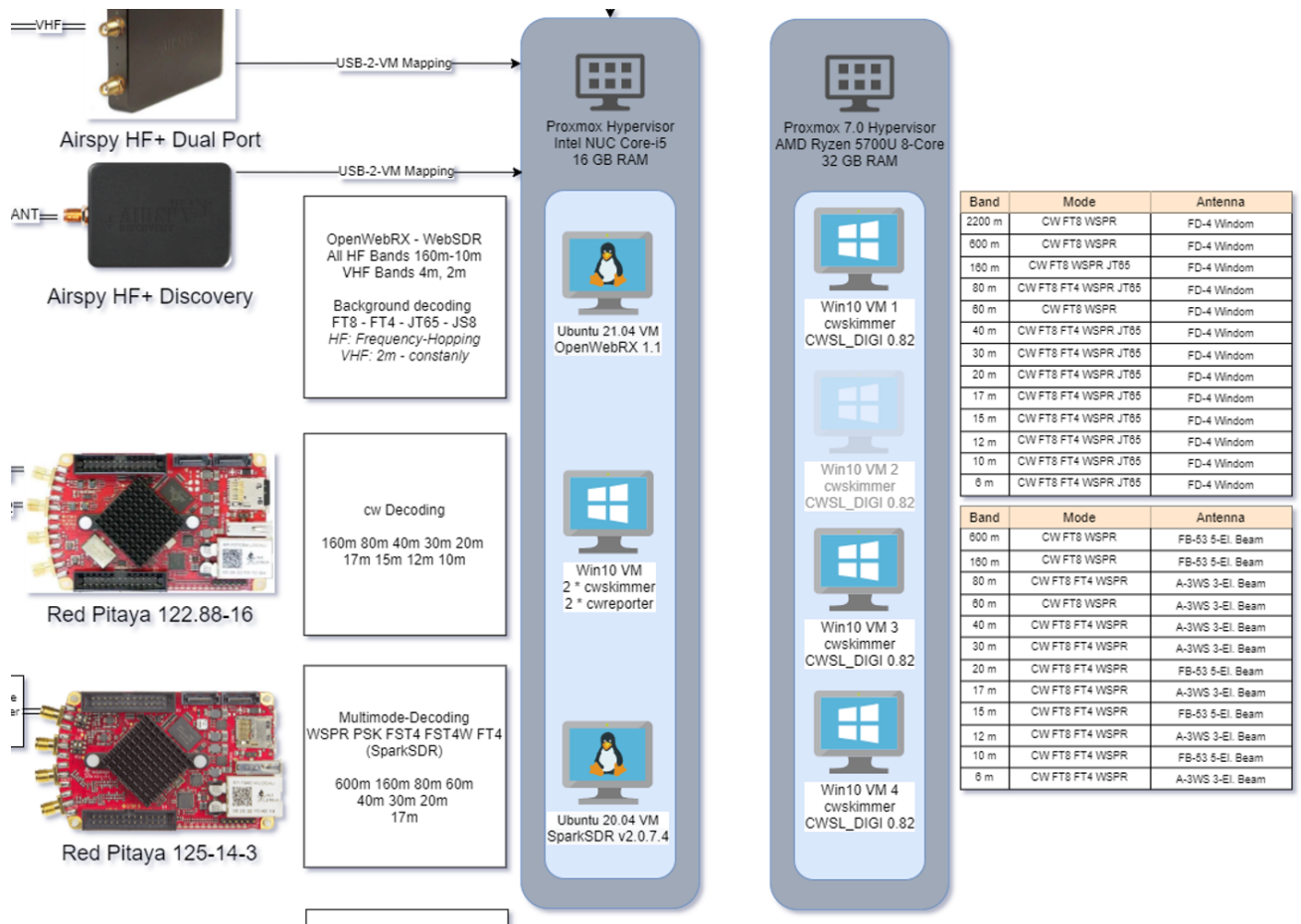


1.) The DL0PF ham radio skimmer @JN68RN Passau – Bavaria – Germany - Overview



2.) The DL0PF ham radio skimmer, virtual machines and decode slots

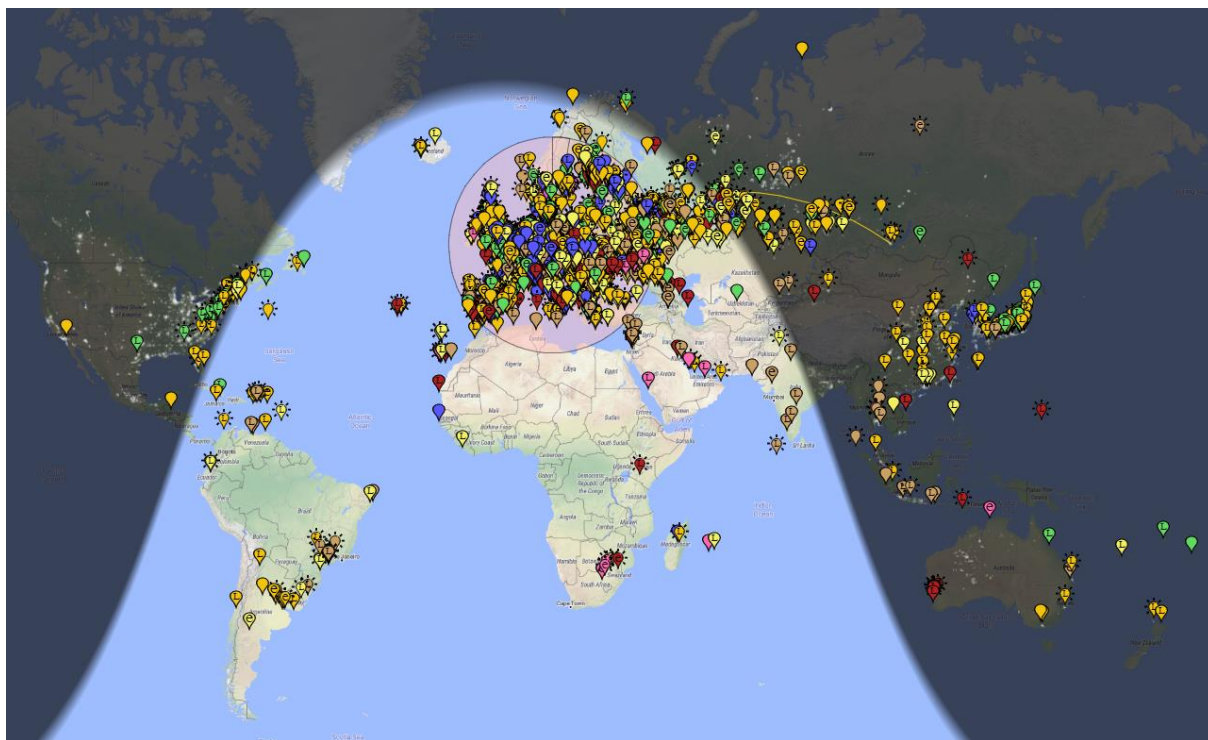


3.) The DL0PF ham radio skimmer, **used components**

- 3 antennae:
 - o FD-4 windom
 - o Fritzel FB-53 5-el. Beam
 - o Cushcraft A-3WS 3-el. beam
- Red Pitaya boards
 - o 2 pcs. 125-14 + 1:14 impedance transformers
 - o 1 pc.122.88-16
 - o stock ham radio image by Pavel Demin
- PC Hardware
 - o Intel Nuc mini-PC Core-i5 Quadcore
 - o ASUS PN51 mini-PC AMD Ryzen 5700U 8-Core
- Hypervisor
 - o Proxmox VE <https://www.proxmox.com/en/proxmox-ve>
- Virtual Machines
 - o 4 * Microsoft Windows 10 <https://www.microsoft.com/en-us/windows/get-windows-10>
- Decoding and spotting software
 - o CW Skimmer Server <http://www.dxatlas.com/skimserver/>
 - o CWSL_TEE IQ-Multiplexer <https://github.com/HrochL/CWSL>
 - o CWSL_DIGI digimode decoding software https://github.com/alexranaldi/CWSL_DIGI
 - o CW Reporter by pskreporter.info <http://pskreporter.info/CWReporter.msi>

4.) The DL0PF ham radio skimmer, **Monitoring**

- spot monitoring @pskreporter:
<https://pskreporter.info/pskmap?callsign=DL0PF&search=Find>
- pskreporter statistics: <https://pskreporter.info/cgi-bin/pskstats.pl>



Top Monitors by reports over last 24 hours

Monitor	Reports over 24 hours	Reports over 7 days
DL0PF	76855	413377
CWSL_DIGI 0.82 with antenna FD4 CWSL_DIGI 0.82 with antenna A3WS CWSL_DIGI 0.82 with antenna FB-53 Skimmer Server v.1.6.0.145+CW reporter 1.1/Rptr V1.9 with antenna A3WS Skimmer Server v.1.6.0.145+CW reporter 1.1/Rptr V1.9 with antenna FD4 Skimmer Server v.1.6.0.145+CW reporter 1.1/Rptr V1.9 with antenna FB-53		
KM3T	71518	453586
WZ7I	70791	483126
F1EYG	70365	474422
EA8BFK	58746	397578

☒ All
☐ invalid
☐ vlf
☐ 4000m
☐ 2200m
☐ 600m
☐ 160m
☐ 80m
☐ 60m
☐ 40m
☐ 30m
☐ 20m

- local monitoring at DB0HUP University of Passau, using
 - o MRTG (<https://oss.oetiker.ch/mrtg/>) and
 - o a set of custom scripts (https://github.com/dc7ds/hamnet_mrtg/tree/master/ft8-skimmer-DL0PF)
 - o accessible (only) via the European HAMNET:
http://44.149.43.22/index_MRTG.html

MRTG examples:

- FT8 spots on 40m and 80m

FT-8 Spots der letzten 5 Minuten Antenne FD-4 80m 40m

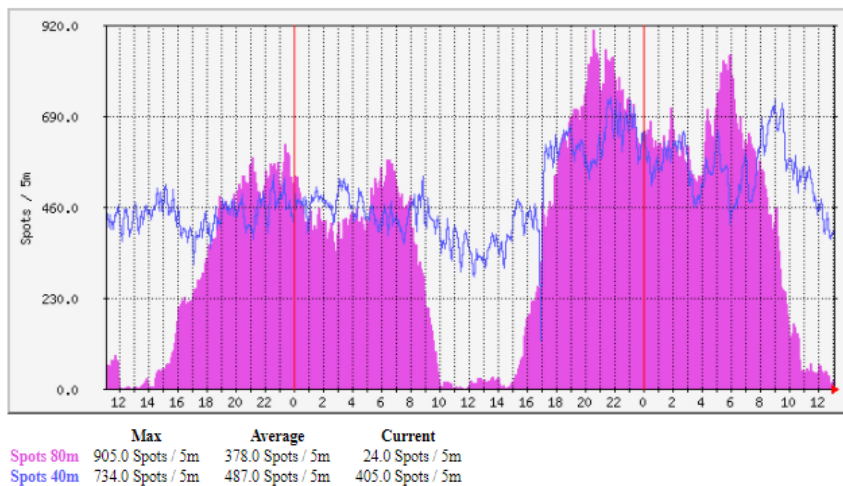
System: FT-8 Spots der letzten 5 Minuten Antenne FD-4 80m 40m

Maintainer: DARC OV Passau U11 Clubstation DL0PF

Description: FT-8 Spots der letzten 5 Minuten Antenne FD-4 80m 40m

The statistics were last updated Tuesday, 25 January 2022 at 13:07

'Daily' Graph (5 Minute Average)



- FT4 spots on 40m and 80m

FT-4 Spots der letzten 5 Minuten Antenne FD-4 30m 20m

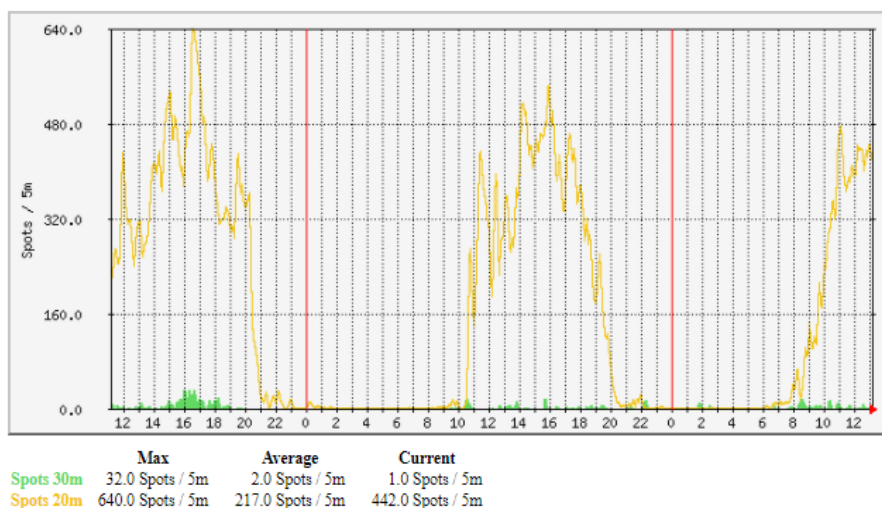
System: FT-4 Spots der letzten 5 Minuten Antenne FD-4 30m 20m

Maintainer: DARC OV Passau U11 Clubstation DL0PF

Description: FT-4 Spots der letzten 5 Minuten Antenne FD-4 30m 20m

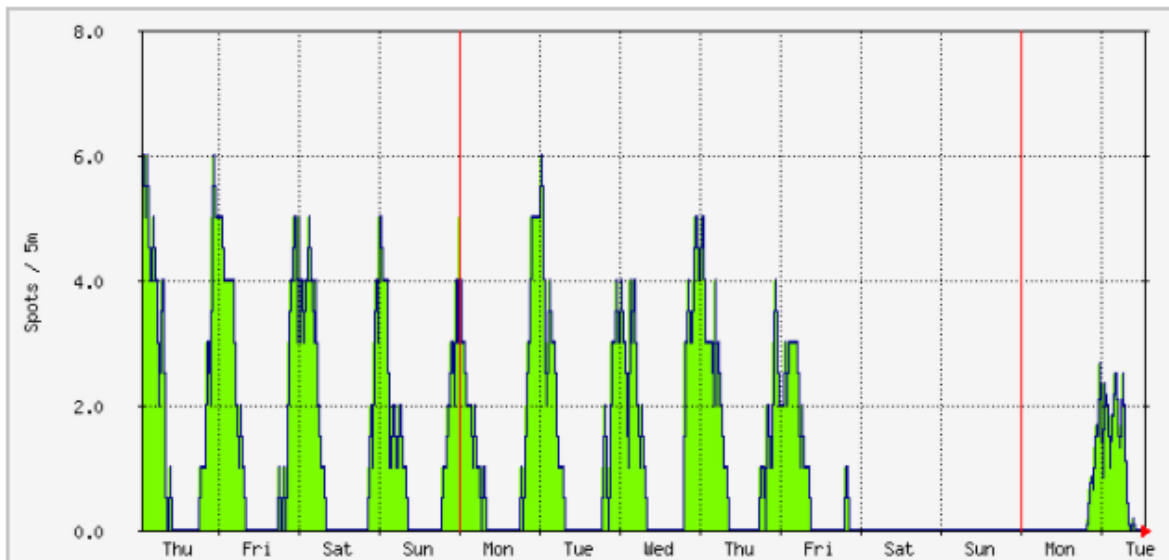
The statistics were last updated Tuesday, 25 January 2022 at 13:12

'Daily' Graph (5 Minute Average)



- WSPR spots on 60m and 160m

'Weekly' Graph (30 Minute Average)

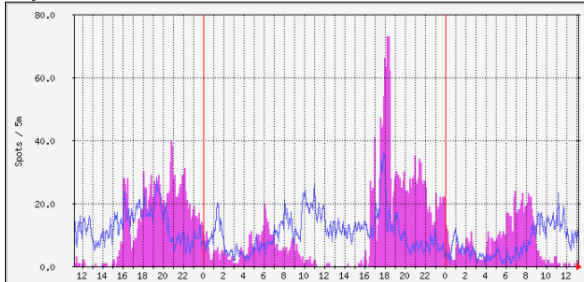


	Max	Average	Current
Spots 600m	6.0 Spots / 5m	2.0 Spots / 5m	0.0 Spots / 5m
Spots 600m	6.0 Spots / 5m	2.0 Spots / 5m	0.0 Spots / 5m

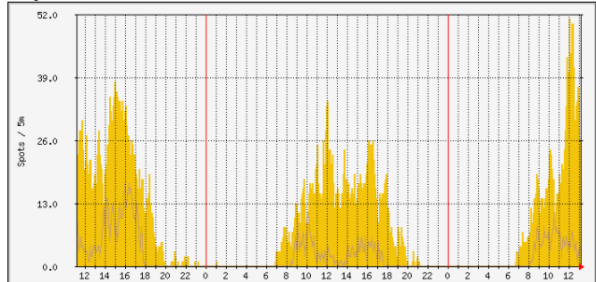
- cw spots on multiple bands

cw Skimmer DL0PF FD-4

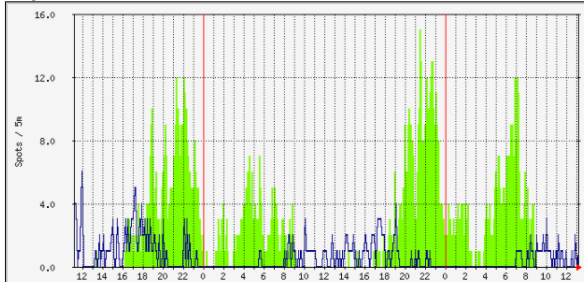
cw Spots der letzten 5 Minuten Antenne FD-4 80m 40m



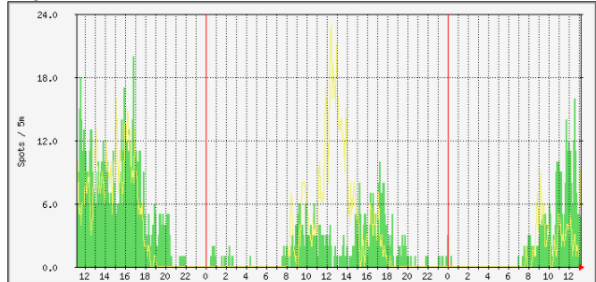
cw Spots der letzten 5 Minuten Antenne FD-4 20m 15m



cw Spots der letzten 5 Minuten Antenne FD-4 160m 60m

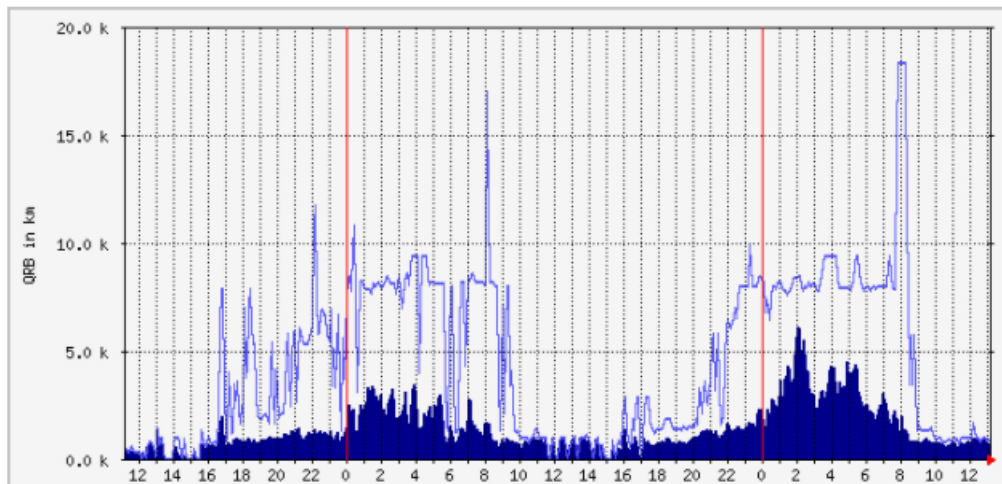


cw Spots der letzten 5 Minuten Antenne FD-4 30m 17m



- average and max distance of spotted stations (40m, FT8)

`Daily' Graph (5 Minute Average)



	Max	Average	Current
Spots 60m QRB Durchschnitt in km	6116.0 QRB in km	1433.0 QRB in km	676.0 QRB in km
Spots 60m QRB Maximum in km	18.3 kQRB in km	4652.0 QRB in km	791.0 QRB in km

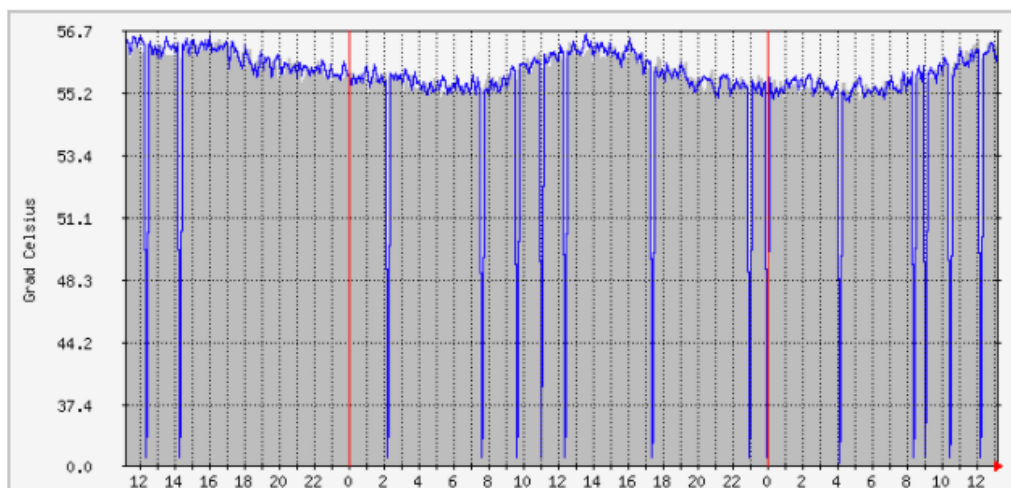
- Red Pitaya temp (missing some values due to instable network uplink)

ReD Pitaya Temp

System: ReD Pitaya Temp
 Maintainer: DARC OV Passau U11
 Description: ReD Pitaya Temp

The statistics were last updated Tuesday, 25 January 2022 at 13:11

`Daily' Graph (5 Minute Average)



	Max	Average	Current
Temp RedPi 1	56.5 C	54.3 C	56.3 C
Temp RedPi 2	56.6 C	54.2 C	56.2 C

Some impressions of clubstation DL0PF

