



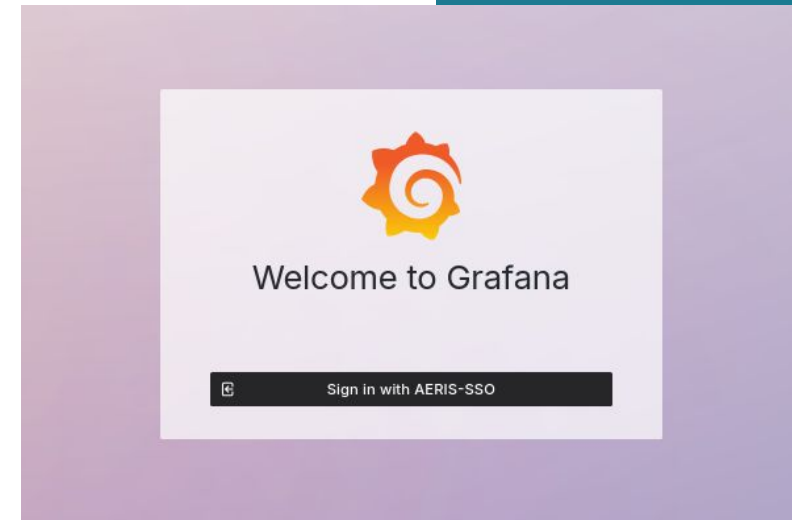
**HKDs service**  
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*CCRES/CLU Spring Workshop, online, 19-20 May 2025*

# Updates on Grafana

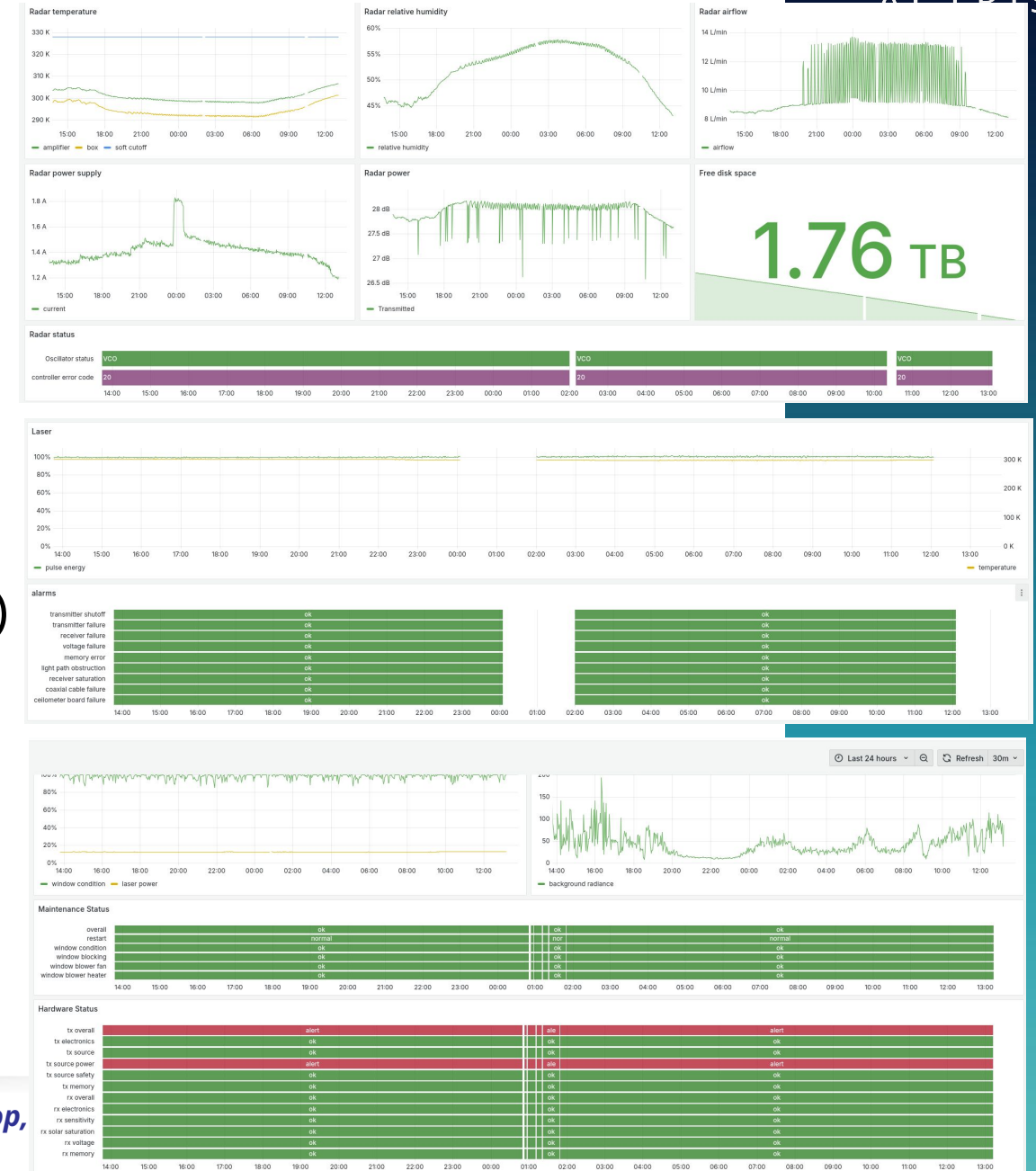
# Reminder on access

- Server available at <https://ccres.ipsl.fr/grafana/>
- Documentations on how to connect
  - <https://ccres.ipsl.fr/docs/>
  - Once you logged in for the first time don't forget to send an email to [ccres-dev@listes.ipsl.fr](mailto:ccres-dev@listes.ipsl.fr)



# Status on grafana

- Monitoring for 10 models of instruments
  - RADARs
    - basta**
    - RPG FMCW 35 and 94 GHz
  - MWRs
    - RPG hatpro
  - ALCs
    - lufft chm15k
    - vaisala **ct25k**, **cl31**, **cl51** and **cl61**
    - campbell scientific **cs135**
- At least one dashboards for 33 stations (+15)
- Oldest data 01-01-2023
- Users
  - More than 60 registered users
  - 16** active users in the last 30 days



# updates since Matera

- Update to grafana v11.6
- **6** new models of instrument
  - Thanks to HKD extraction from CLU
- Fix errors on hatpro dashboards
  - Mixing of temperature and humidity receivers status
  - Thanks Tobias
- Use of instrument human readable name from instrument DB instead of PID
  - example:  
**ESA RPG-FMCW-94-DP**  
instead of  
**rpg-fwcw-94** <https://hdl.handle.net/21.12132/3.90b1e5245b11487d>
- Updates of available stations and instruments every sunday

# Next updates

- Switch to grafana v12
  - Lots of change to dashboards. Need some checking
  - Changes to api
- Add new instruments
  - Doppler wind lidars
  - Disdrometers
  - MIRA radars
- Continue work on automatic alerts
  - Some tests are ongoing

Grafana-managed

palaiseau > palaiseau\_1h

3 normal | 1h | [edit] [refresh] [share]

Export rules

| State    | Name                                                 | Health | Summary                    | Next evaluation | Actions              |
|----------|------------------------------------------------------|--------|----------------------------|-----------------|----------------------|
| > Normal | hatpro_palaiseau_ambient-target-sensor-1-temperature | ok     | warning : hatpro palaiseau | in an hour      | [View] [Edit] [More] |
| > Normal | palaiseau_chm15k_module-temperature                  | ok     |                            | in an hour      | [View] [Edit] [More] |
| > Normal | plaiseau_chm15k_ntp-note                             | ok     |                            | in an hour      | [View] [Edit] [More] |

# Plan for MIRA HKDs

- We collected **loga** files and output of **watch\_radar** command from several stations (Bucharest, Jülich, lindenbergl, Munich)
- We should be able to have files with the same format
  - Not the same variables for each files
  - We should be able to decode the tags using the source code in perl
- We will soon contact stations with a MIRA to get an example of your file

```
[AN01] 31.10.24 09:21      Hv      12900      16500      13801 <B> High voltage / V
[AN02] 31.10.24 09:21      I_Mg      6.50      9.50      7.56 <B> Average magnetron current / nA
[AN03] 31.10.24 09:21      age_pds    -10.00      300.00      4.00 <B> Time since last PDS data saving / s
[AN04] 31.10.24 09:21      age_rmcLx  -10.00      300.00      2.00 <B> Time since last rmcLx data saving / s
[AN05] 31.10.24 09:21      df_pds    30000.00  90000000.00  1786141.38 <B> Disk space for spectra data / Mbytes
[AN06] 31.10.24 09:21      df_rmcLx  5000.00   90000000.00  332930.95 <B> Disk space for moment data / Mbytes
[AN07] 31.10.24 09:21      df_root   30000.00  99999999.00  355376.42 <B> Available disk space on root partition / Mbytes
[AN08] 31.10.24 09:21      df_home   30000.00  99999999.00  355376.42 <B> Available disk space on home partition / Mbytes
[AN09] 31.10.24 09:21      GetTrioLog 0.50      1.50      1.00 <B> State of log parameter retrieval from fuslon / 1=ok, 0=bad
[AN10] 31.10.24 09:21      UpsAge    -10.00      400.00      3.00 <B> Time since last UPS status saving / s
[AN11] 31.10.24 09:21      UpsSecV   219.00     238.00     230.00 <B> UPS secondary voltage / V
[AN12] 31.10.24 09:21      UpsPriv   210.00     250.00     231.90 <B> UPS primary voltage / V
[AN13] 31.10.24 09:21      ntp_state  0.50      1.50      1.00 <B> State of the ntp or chrony demon
[AN16] 31.10.24 09:21      AHeatState 0          2          0 <B> Antenna Heater State
[AN17] 31.10.24 09:21      TempAnt   1.000      52.000     17.357 <B> Antenna Temperature
[AN19] 31.10.24 09:21      TempMg    11.0      47.0      29.9 <B> Magnetron Temperature / C
[AN20] 31.10.24 09:21      FkCode    3.03      4.79      4.20 <B> Magnetron Filament Voltage / V
[AN21] 31.10.24 09:21      TxnErr     0000      FFFF      0000 <B> Transmitter Error Bits
[AN22] 31.10.24 09:21      RxnErr     0000      FFFF      0000 <B> Receiver Error Bits
[AN23] 31.10.24 09:21      ModPhErr  0000      FFFF      0000 <B> Modulator and MgPh Error Bits
[AN24] 31.10.24 09:21      HvErr     0000      FFFF      0000 <B> Hv Error Bits
[AN25] 31.10.24 09:21      AfcClock  0003      0000      0003 <B> Local Oscillator State
[AN26] 31.10.24 09:21      FrgLo     3506234    3506234    35069490 <7> Frequency of the magnetron / 100 kHz
[AN27] 31.10.24 09:21      DetunFin  -420      420      684 <7> Detune Fine
[AN28] 31.10.24 09:21      DetunCrS  -60      60      1 <B> Detune Coarse
[AN29] 31.10.24 09:21      PowTr     14.00     21.00     19.82 <B> Average transmitted Power / W
[AN30] 31.10.24 09:21      DetDw     410.0     550.0     462.2 <B> Puls Power - DetDw*1.7
[AN31] 31.10.24 09:21      DetSw     5.0      800.0     307.6 <B> Pulse Power of reflected Signal
[AN32] 31.10.24 09:21      DetSkip   -1         1         0 <B> Skipped Pulses / 10000
[AN33] 31.10.24 09:21      PowLO2    1500.00   1500.00   1633.44 <B> Power of 2nd LO
[AN34] 31.10.24 09:21      PowLO1    420.00    1250.00   491.00 <B> Power of 1st LO
[AN35] 31.10.24 09:21      PresMg     6.00     11.00     7.17 <B> Air Pres Mg. nBar vs Cabin
[AN36] 31.10.24 09:21      RHmg     -8.000     15.000     3.102 <B> Rel. humidity in the waveguides
[AN37] 31.10.24 09:21      RHair     1.000     65.000     36.050 <B> Rel. humidity in the enclosure
[AN38] 31.10.24 09:21      PowNoL1   -95.01    -90.01    -92.16 <B> Noise Pow Co-Channel / dB rel
[AN39] 31.10.24 09:21      PowNoL2   -95.01    -90.01    -91.23 <B> Noise Pow Cross-Channel / dB rel
[AN40] 31.10.24 09:21      RelNFCo    -9.8      -7.8      -8.1 <B> Noise Figure Co-Channel / dB rel
[AN41] 31.10.24 09:21      RelNFCx   -11.1     -9.1      -9.8 <B> Noise Figure Cross-Channel / dB rel
[AN42] 31.10.24 09:21      PcpOffset -9.00     9.00     -1.00 <B> Offset between detected Pulse Position and PCP
```

```
[Tue Mar 11 00:03:03 2025] <nav 110 <aa1 14.26 <aa2 4.4 <aa3 31.8 <aa4-13.4 <aa5 34.1 <aa6 14.0 <aa8-3117 <aa9 0 <aaa -3229 <aa0
99 <aap 0.0 <aav 0.0 <ab10000 <ab30200 <ab50003 <ba0 850 <ba1 4.07 <ba2 2.56 <ba3 5.1 <ba4 8.22 <ba5 3.0 <ba6-116.0 <ba7 3.0
a8 112 <ba9 2.0 <baa 850 <bab 4.07 <bac22.99 <bb00000 <bb10000 <bb20007 <ca2 31.3 <ca3 6.0 <ca4 16.9 <cb00000 <cb1001c <da03546159
da2261.15 <da31295.28 <da4 -55 <da5 0 <da6 0 <da7 4.0 <dae 23.52 <daf12.566 <dag 1 <dah 0 <dai 1343 <daj 0.0 <dal 1 <dam 0 <dan 26.25 <db00003 <db10000 <eap 90.0 <eav 0.0 <fa0 2.445 <fa1 9.451 <fa2 14.18 <fa3 13.458 <fa4
091 <fa5602.391 <fa6 29.415 <fa8 29.36 <fagD1000000 <fb00000 <fb10000 <pa0 -93.57 <pa1 -95.02 <pa2 512 <qa6 368 <qa7 354 <qa8 368
a0 -81.08 <ra1 -83.89 <rab 0 <ux1 6024.2 <ux2 132.9 <ux3 2729.1 <ux4 1901.6 <val 1 <lj0 25.1 <lj1 24.1 <lj7 25.4 <up0112 <up1230
<up2228.8 <lj20 <lj30 <lj40 <lj51 <lj61
```

# Feedbacks/Contacts

- 2 ways to contact us
  - open an issue on <https://github.com/ACTRIS-CCRES/HKD>
  - send an email to [ccres-dev@listes.ipsl.fr](mailto:ccres-dev@listes.ipsl.fr)



Thank you !