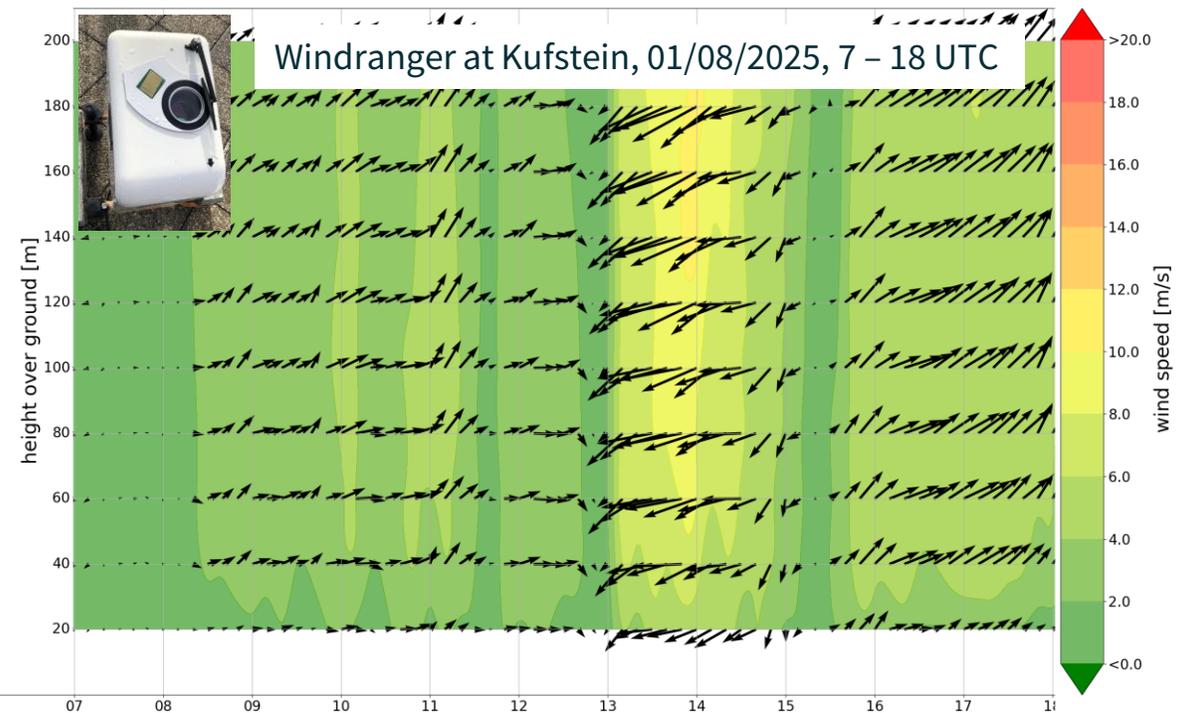


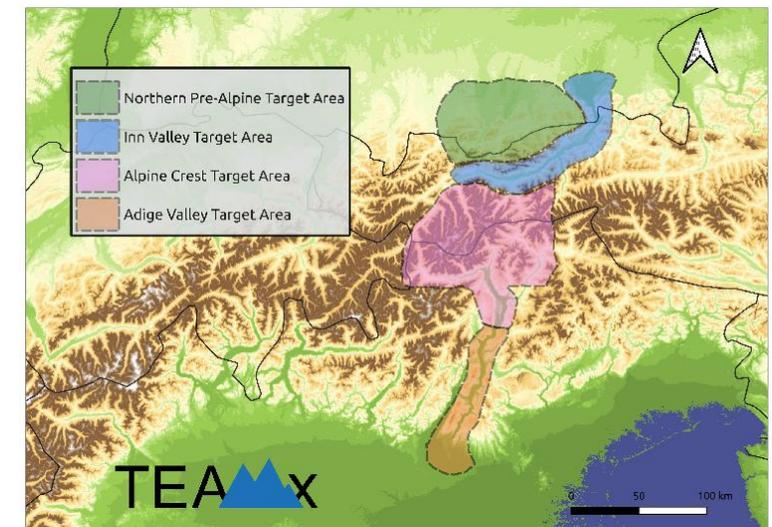
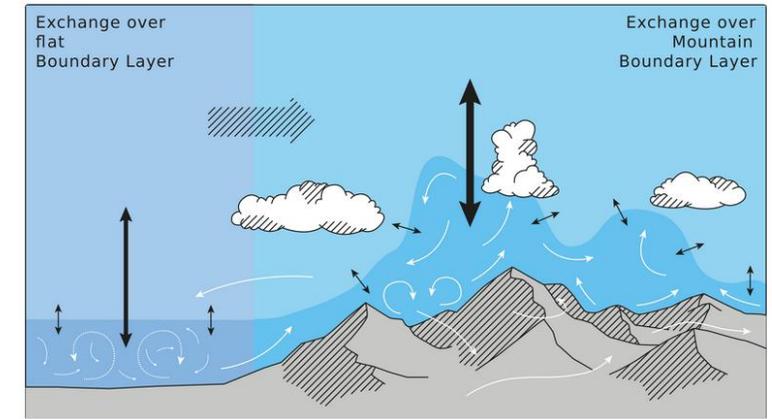
# GeoSphere Austria contributions to TEAMx

Dr. Johannes Vergeiner  
[johannes.vergeiner@geosphere.at](mailto:johannes.vergeiner@geosphere.at)  
Regional office Tyrol and Vorarlberg



19<sup>th</sup> February 2026

- TEAMx: Multi-scale **t**ransport and **e**xchange processes in the **a**tmosphere over **m**ountains – programme and **e**xperiment
- Programme coordination by Department of Atmospheric and Cryospheric Sciences at University of Innsbruck
- 4 target areas, amongst others Inn Valley target area (IVTA)
- TEAMx trigger for IWCR
- Big contribution through Post-docs (Daniel Deacu @GeoSphere Austria)



- Taking part in TEAMx-planning through CIG meetings, workshops and working groups (atmospheric chemistry, Marcus Hirtl Co-leader; mountain boundary layer, surface atm. exchange, orogr. precipitation)
- NWP
  - Participation in the model intercomparison study and the related publication with 1 km AROME version (CROSSINN campaign – IOP 8 , 13 Sep 2019)
  - Running the 1 km (!) AROME (C-LAEF) model during the winter and summer EOP and archiving all relevant input data for reruns (IOP cases)
- Air Quality
  - Modelling of long-range transport (e.g. Saharan dust events) over the alps
  - Daily AQ-predictions by using WRF-Chem with a MOS for all measurement stations
- Support for forecasts (only winter EOP; after that not needed anymore)
- Measurements
  - Pre-campaign for windlidar: summer 2022 @Kolsass, autumn 2022 @Kufstein, comparison at Uni roof-top
  - TEAMx Observational Campaign (TOC) – 09/2024 until 09/2025 with wEOP and sEOP

➤ See next slides

## Windlidar METEK Wind Ranger 200

Contact: [Kathrin.baumann-Stanzer@geosphere.at](mailto:Kathrin.baumann-Stanzer@geosphere.at)

Location and measurement period:

– TAWES Kufstein (12.16278 °E / 47.57528 °N) | 22/10/2024 – 18/11/2025\*

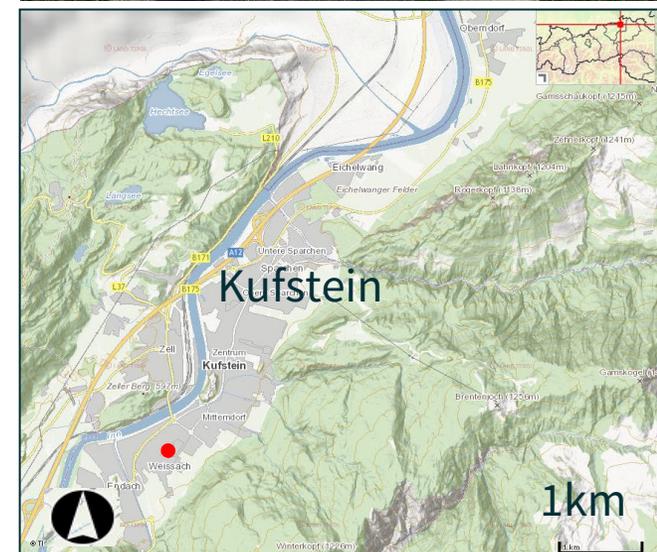
Main purpose: Capture flow at Inn valley exit (valley exit jet)

Parameters: Wind direction and speed, 20 – 200 m agl, 10 min resolution

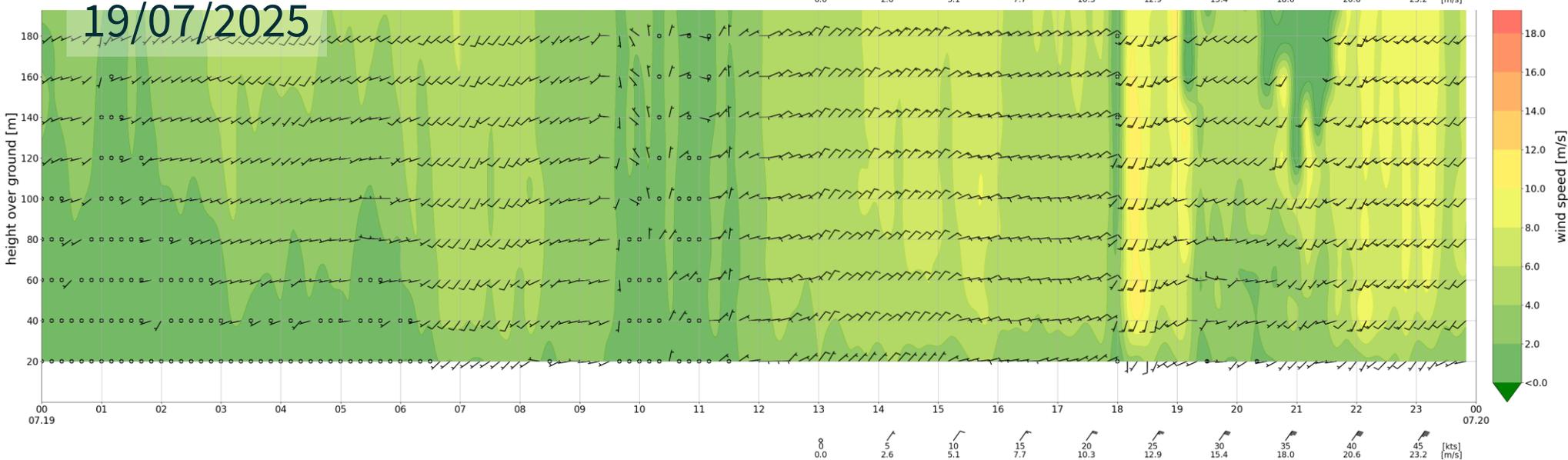
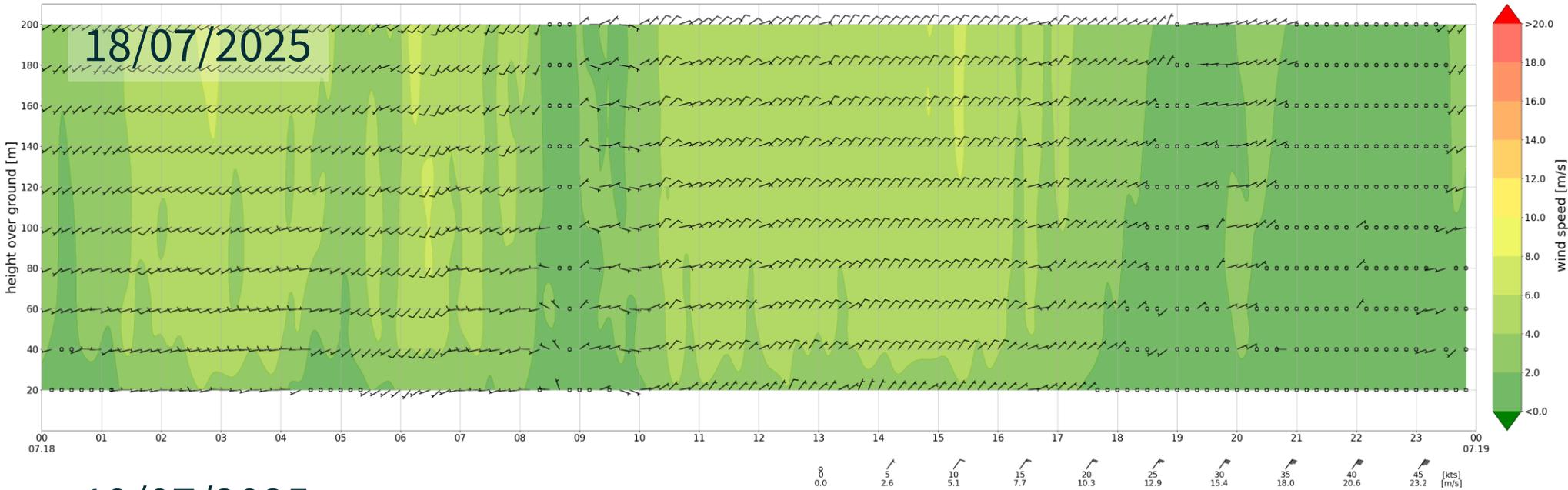
Status:

- Data available (netcdf)
- Further QC will be done
- Intended publication on zenodo no later than fall 2026

\* 04/30/2025: Change of instrument



# Windprofiles Kufstein – summer EOP – IOP18



## Ceilometers at Radfeld and Kufstein

Contact: [Kathrin.baumann-Stanzer@geosphere.at](mailto:Kathrin.baumann-Stanzer@geosphere.at)

Location and measurement period:

- Radfeld (11.9323 °E / 47.4589 °N) | 21/10/2024 – 16/11/2025
- Kufstein (12.1628 °E / 47.5753 °N) | since 01/06/2022

Parameters: Vertical profiles of aerosols, clouds and precipitation

Status:

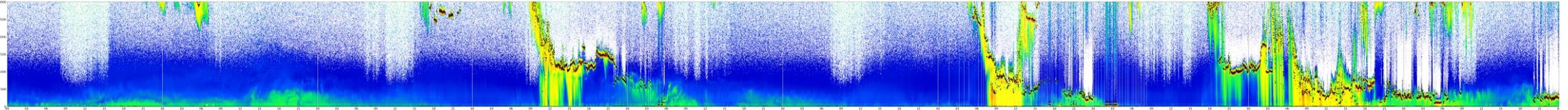
- Data available (netcdf)
- Further QC will be done
- Intended publication on zenodo no later than fall 2026



# Ceilometer – Radfeld winter EOP – 20/01/2025 bis 28/02/2025

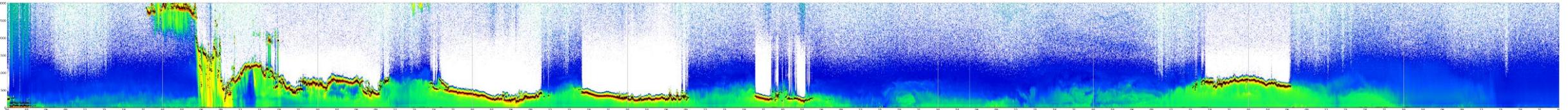
20/01/2025

29/01/2025



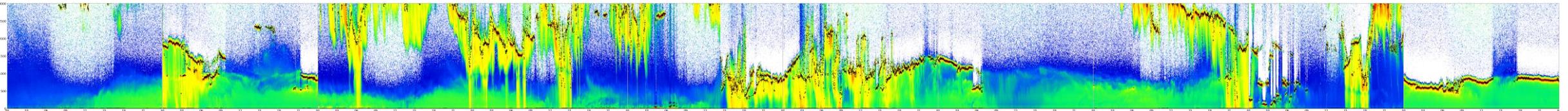
30/01/2025

08/02/2025



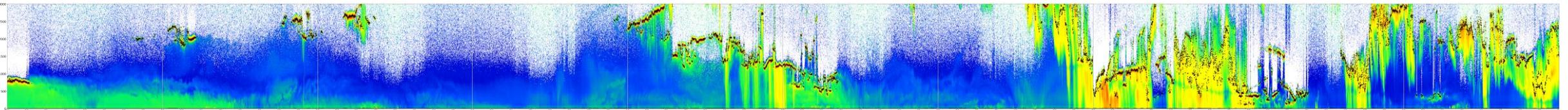
09/02/2025

18/02/2025



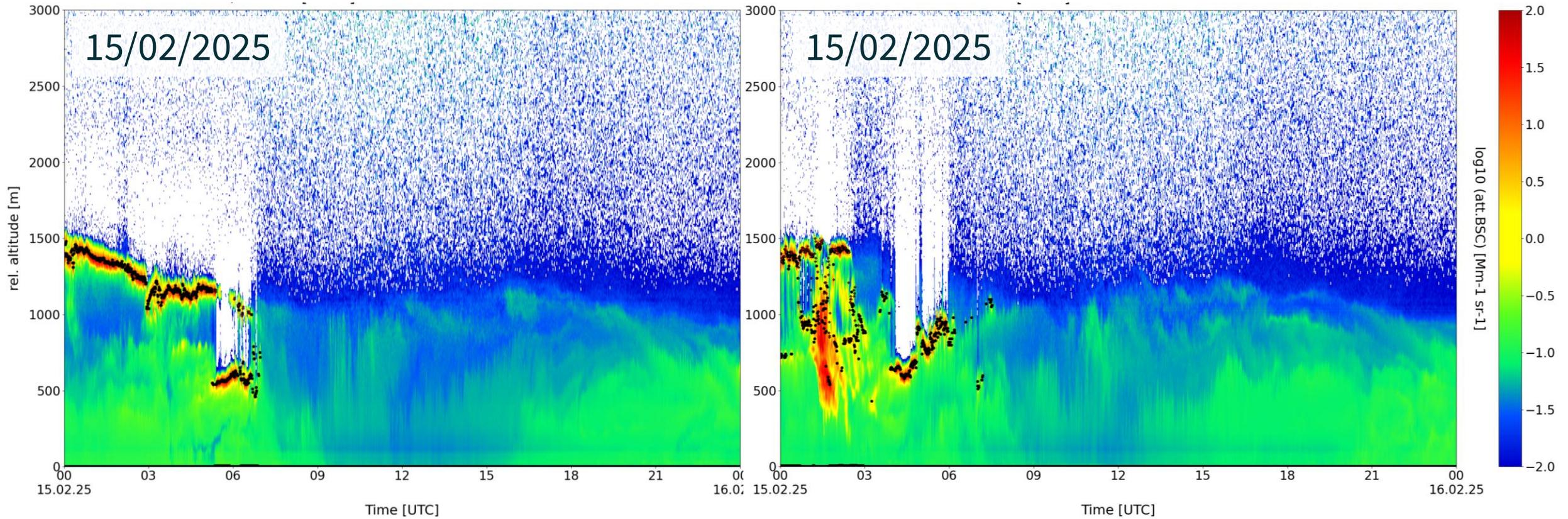
19/02/2025

28/02/2025



## Radfeld

## Kufstein



## AWS at Radfeld and Schlitters

Contact: [Johannes.Vergeiner@geosphere.at](mailto:Johannes.Vergeiner@geosphere.at)

Location and measurement period:

- Radfeld (11.9314 °E / 47.4564 °N) | 04.11.2024 – 02.09.2025
- Schlitters (11.8421 °E / 47.3849 °N) | until 03.11.2025

Parameters: T, rh, dd, ff, ffx, p, short and long wave radiation

Status:

- Data available (ASCII, 10 min res)
- tbd: final calibration of radiation sensor CNR4
- Intended publication on zenodo no later than fall 2026

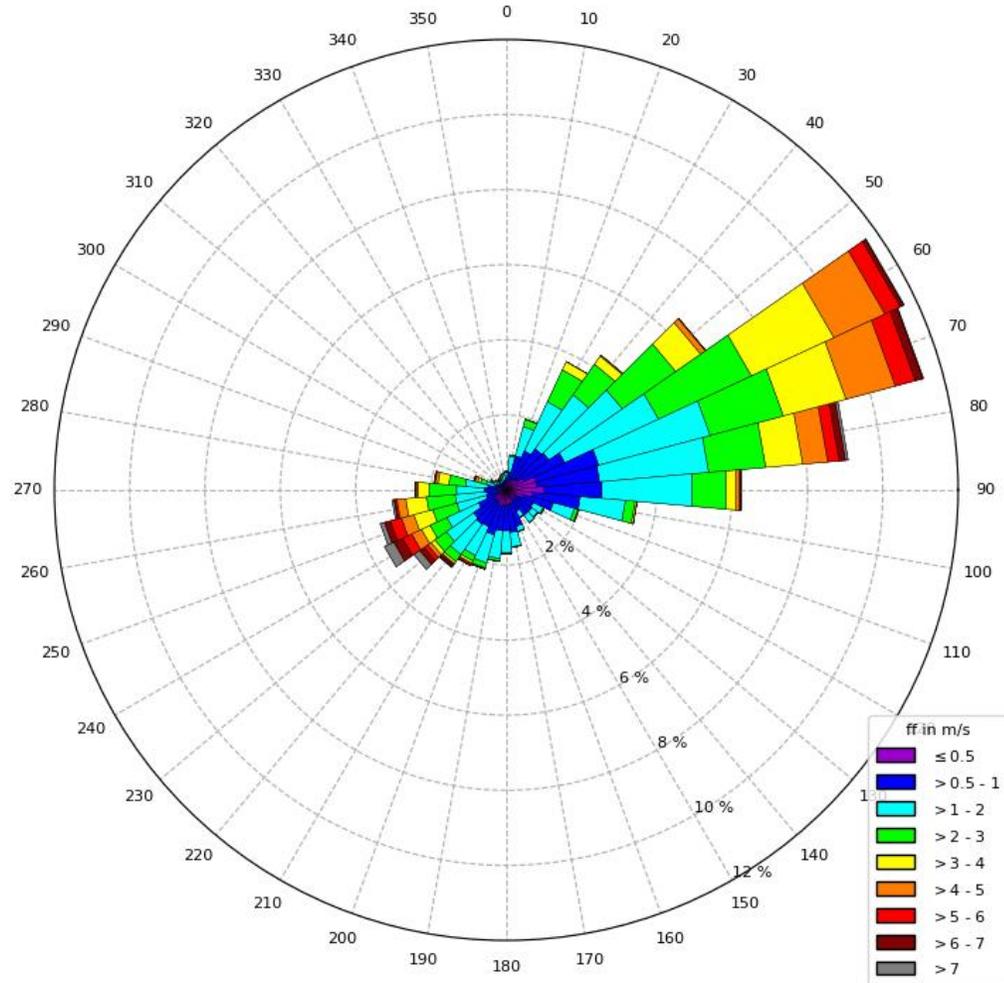
Radfeld  
(Inn valley)



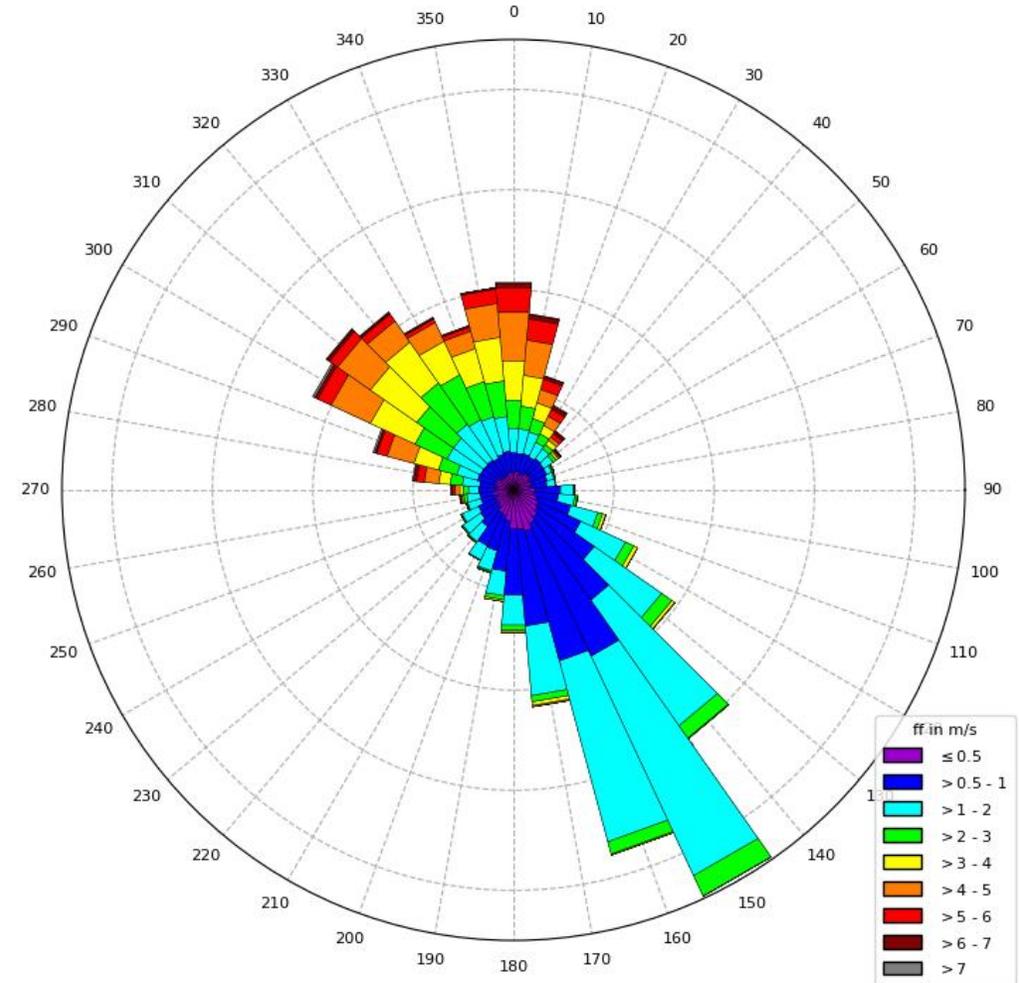
Schlitters  
(Exit Ziller valley)



## Radfeld



## Schlitters



- Study of Inn valley exit jet (lead by DWD, windlidar data of special interest)
- All data can be used by participants in TEAMx-programme
- Take part model intercomparison studies for selected IOPs
- AQ: What model resolution is needed to reproduce the ozone distribution in the valley?
- AQ: Large scale flow over alps vs. down-mixing e.g. during Saharan dust- and wildfire events

**THANK YOU FOR  
YOUR ATTENTION!**

**QUESTIONS?**