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# Snowcover data in avalanche forecasting

GCOS - Meeting (virtuell)

12.10.2021

Michael Butschek - ZAMG / Lawinenwarndienst Salzburg

# Weather Stations



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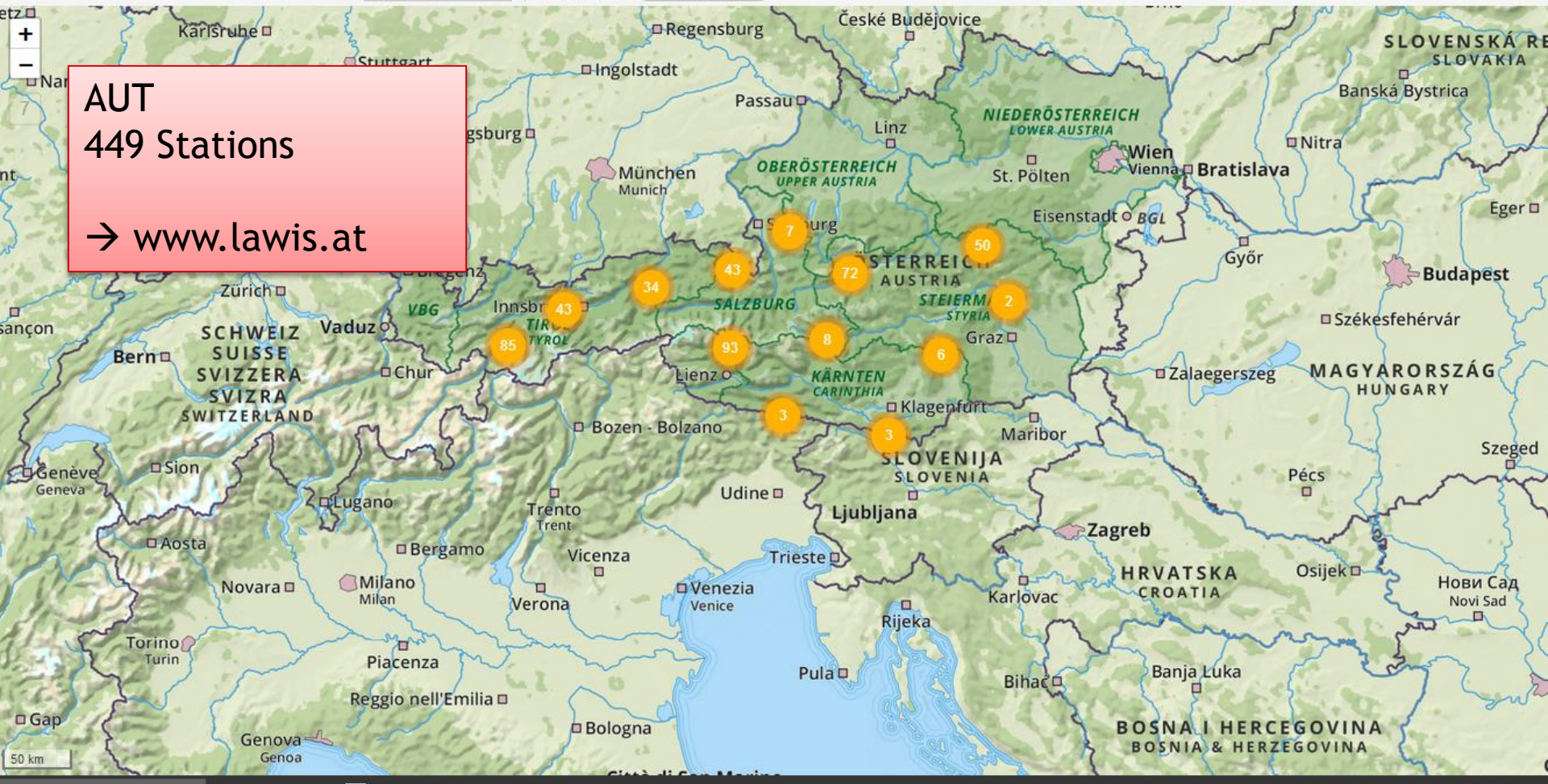
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Suche FILTER Österreich...

AUT  
449 Stations

→ [www.lawis.at](http://www.lawis.at)



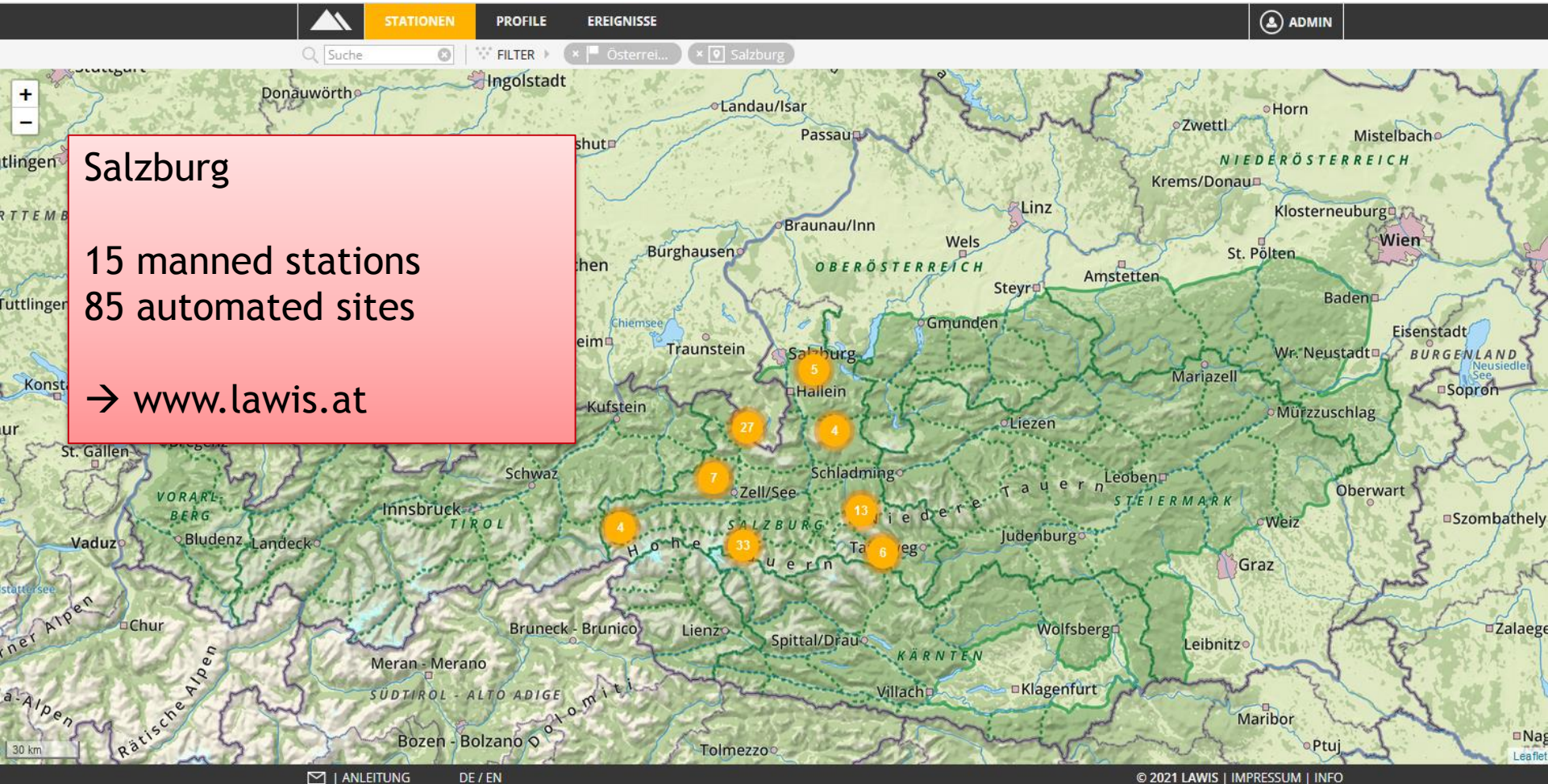
# Weather Stations



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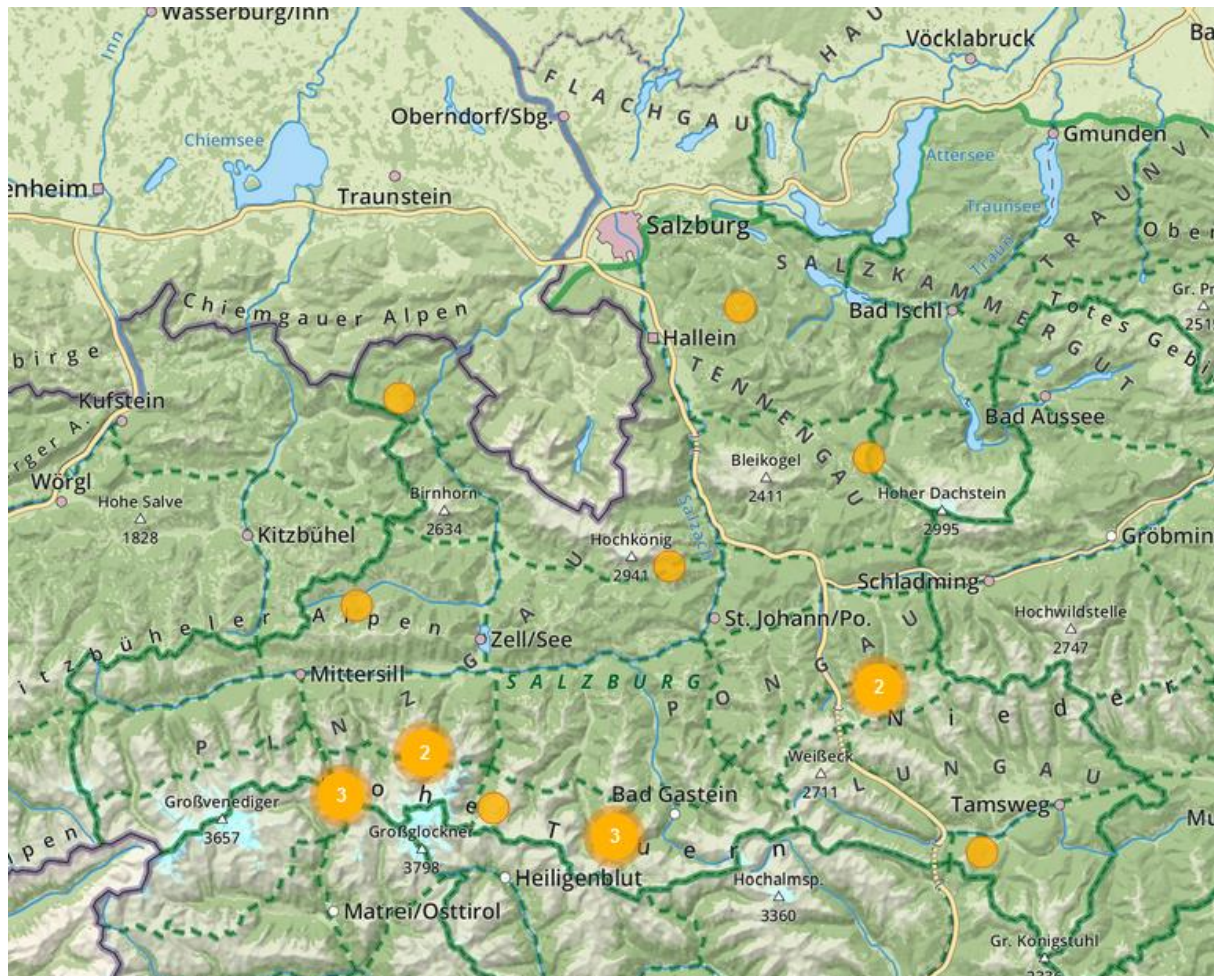
# Manned stations



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- Reporting on a daily basis
- Phone call typ. 06:15-09:00 LOC
- Observations from past 24hrs up to present
- → Wiski-Database



# Manned stations

**Snow Depth >>**

**Temperatures >>**

**Windspeed + drifting snow >>**

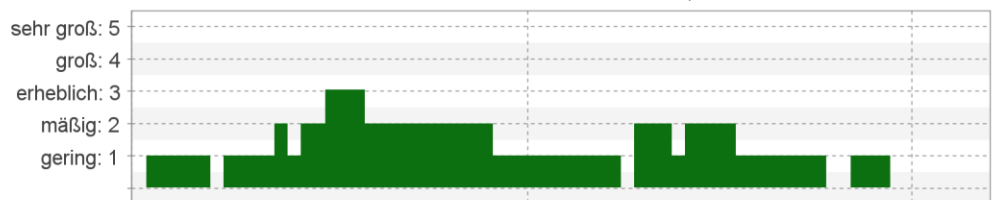
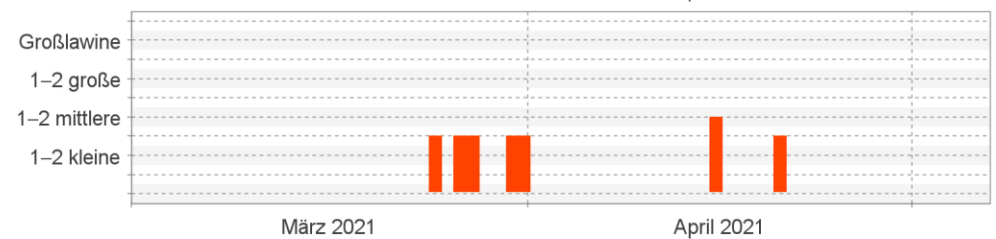
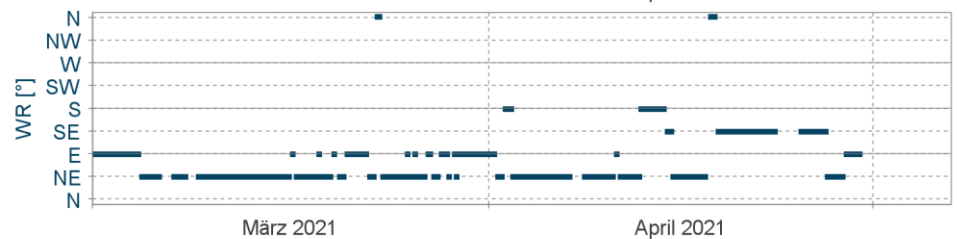
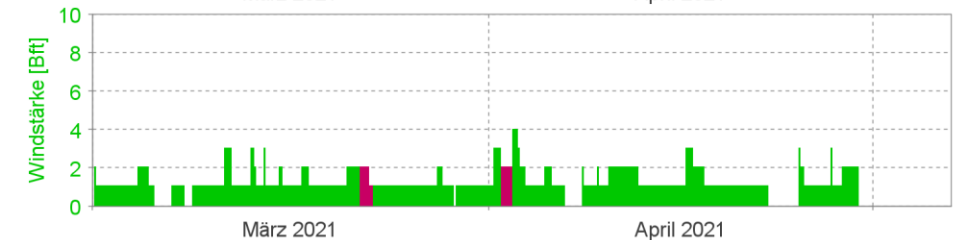
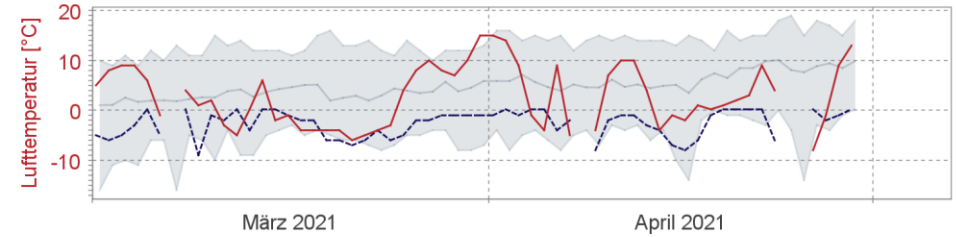
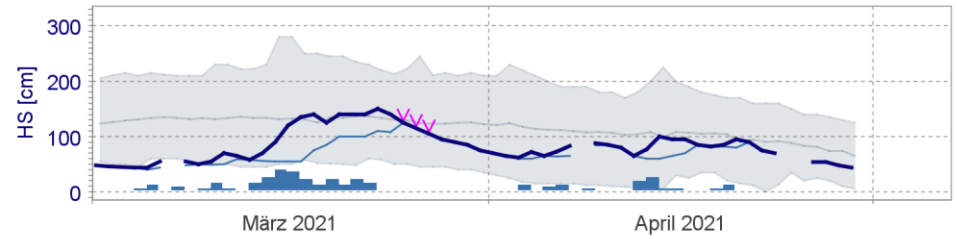
**Winddirection >>**

**Observed avalanches >>**

**Local avalanche danger estimate >>**

Beobachtung Arthurhaus (1660m)

07.10.21, 09:02



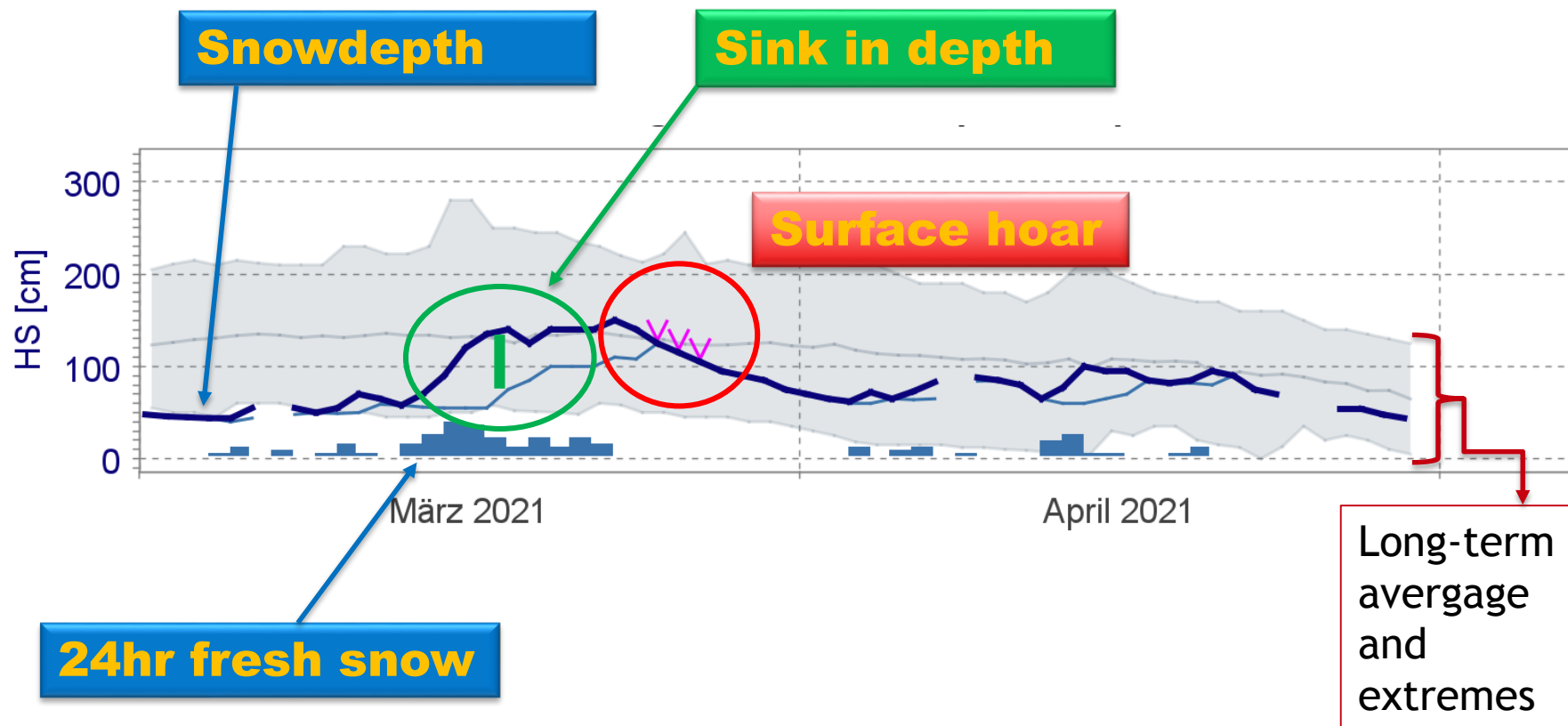
# Manned stations



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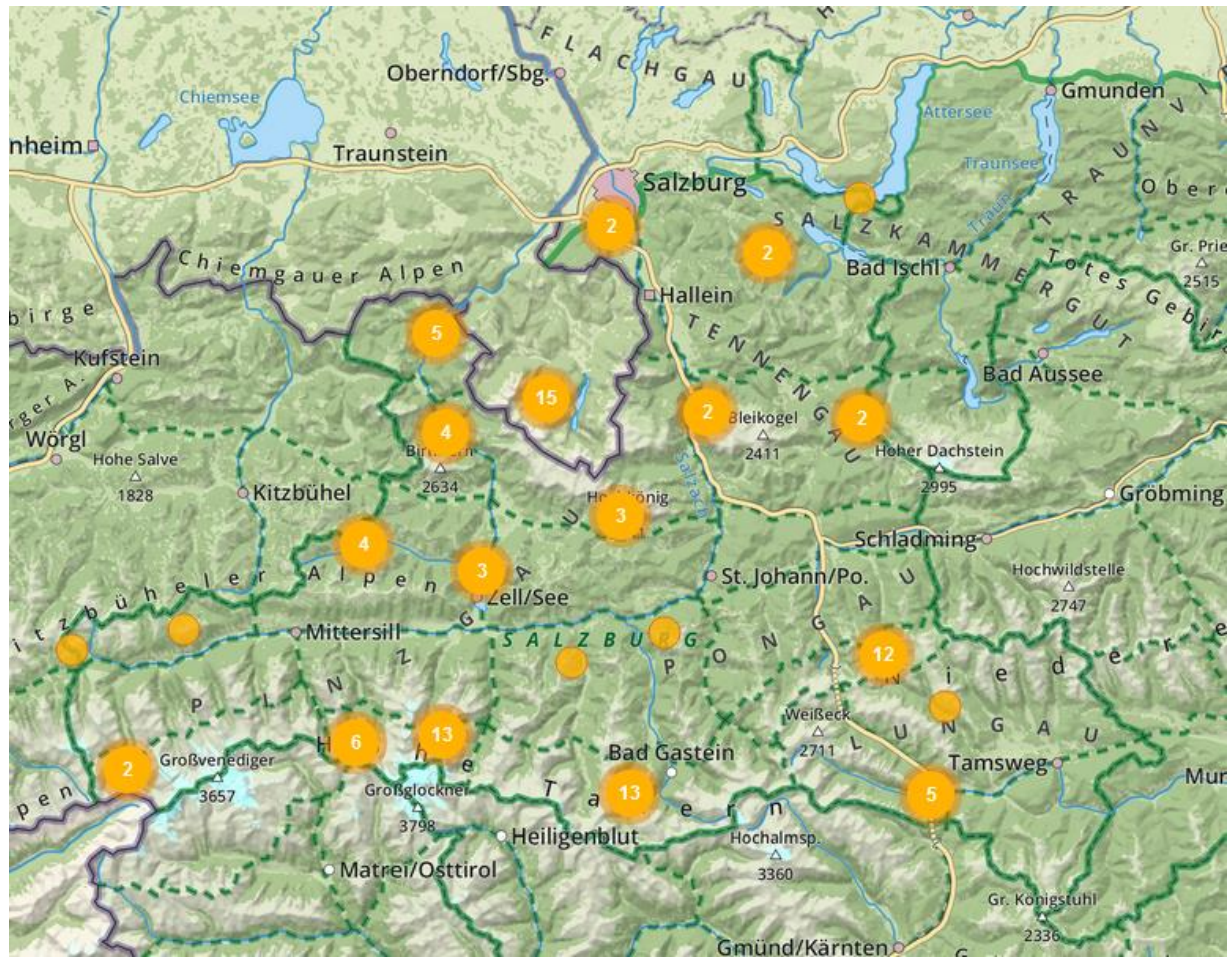
# Automated sites



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- Autonomous (PV)
- 10min - data
- GPRS transmission
- → Wiski-Database



# Automated Data



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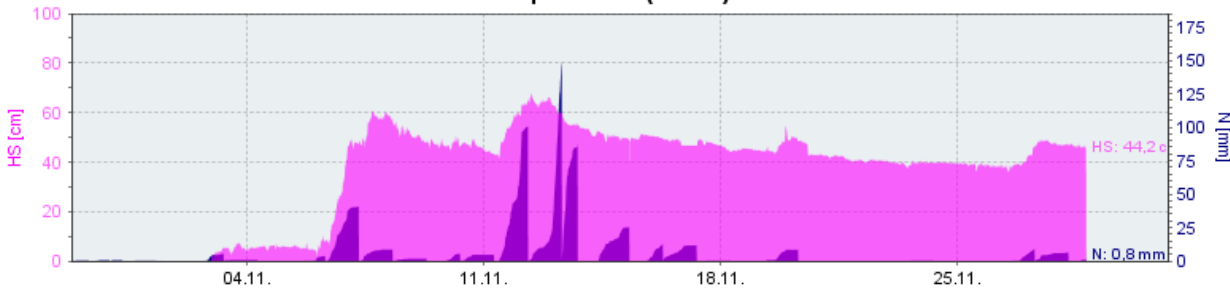
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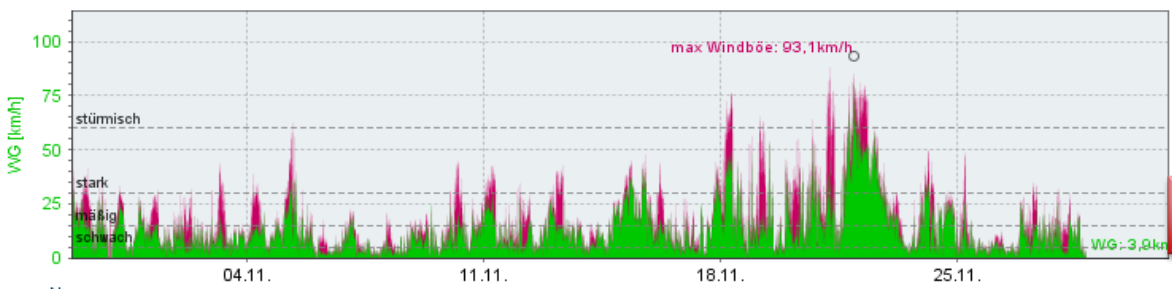
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Alpincenter (2450m)

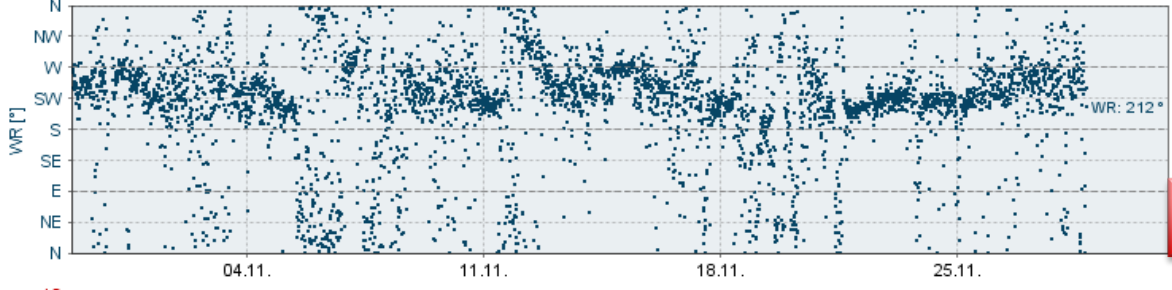
28.11.16 19:49



<< Snow depth & precipitation



<< Wind speed (avg, gusts)



<< Wind direction



<< Temperature/Dewpoint

■ Schneehöhe Alpincenter ■ Niederschlag ■ Windgeschwindigkeit Alpincenter ■ Windböe ■ Windrichtung — Lufttemperatur Alpincenter — Taupunkt



# AWS - Snow



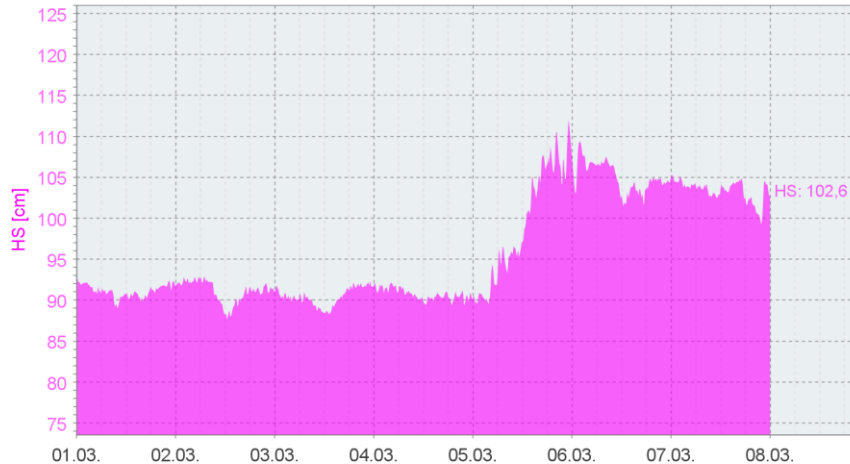
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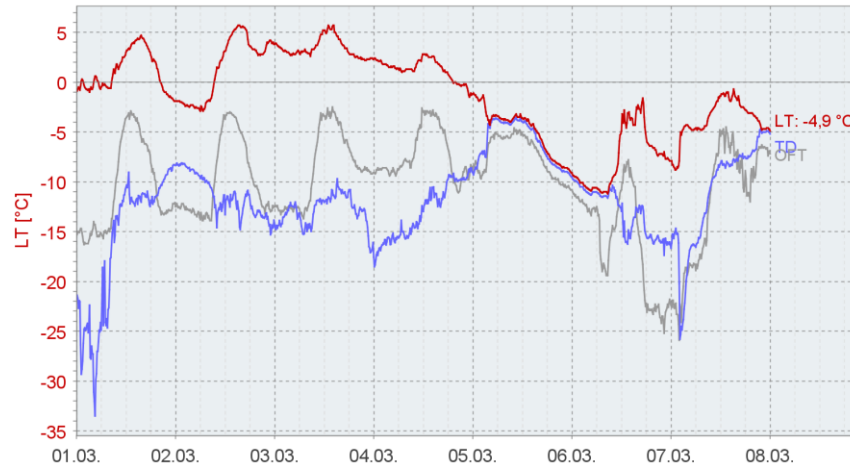
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Obertauern - Gamskar (1986m)

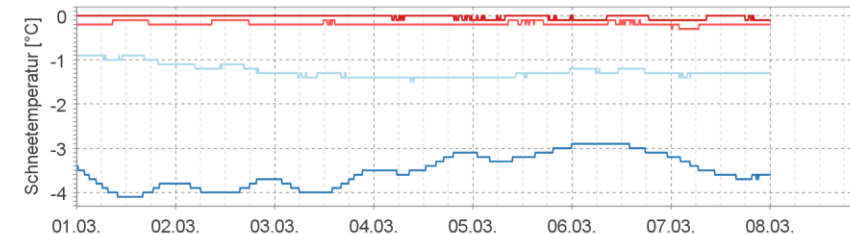
07.10.21, 11:32



<< Snow depth



<< Air-,  
Dewpoint  
& Surface  
temperature



<< Snow  
temperatures





- Snow Pillow

<< Snow water equivalent

# AWS - Special



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- Snow Melt Analyzer



<< Liquid water content

# AWS - Challenges



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**E N D E**

**Danke für die Aufmerksamkeit!**