

ICON-LES during FESSTVaL

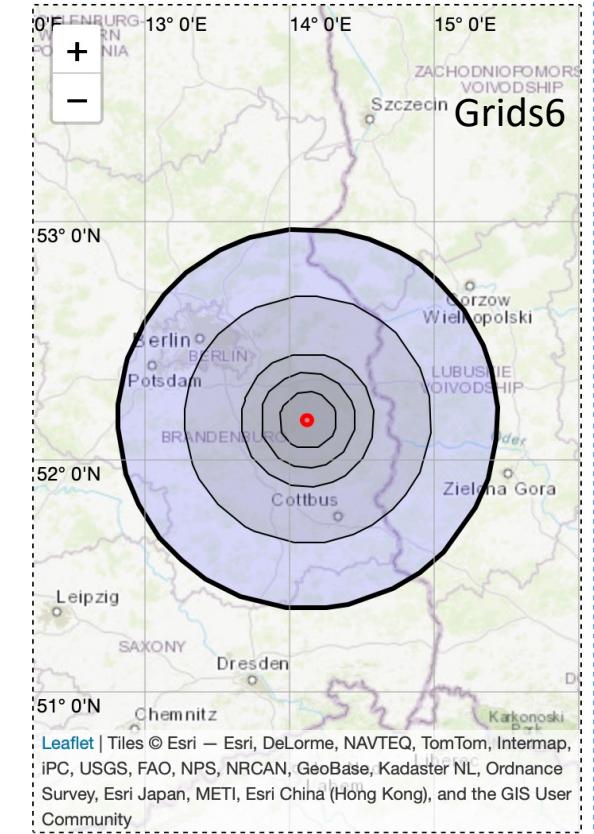
M. Sakradzija, D. Klocke, L. Schlemmer, G. Zängl, et al.

- 22h long simulations
- various realistic conditions

Simulated days:

17.06.2021
10.06.2021
30.05.2021
28.05.2021
05.08.2020
26.07.2020
13.07.2020

Domains similar to these:

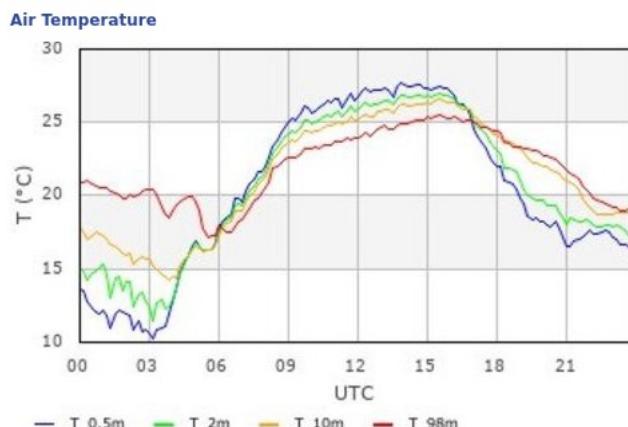
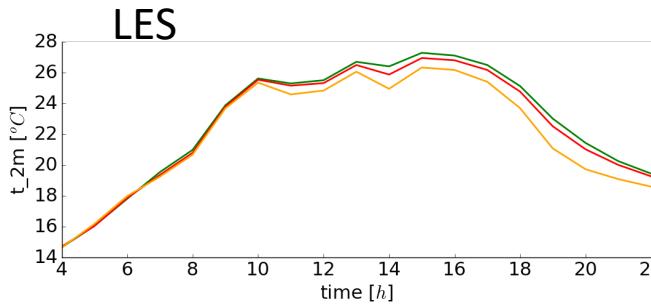


Contact: mirjana.sakradzija@dwd.de

CASE 1: 10.06.2021

Forced by ICON-D2

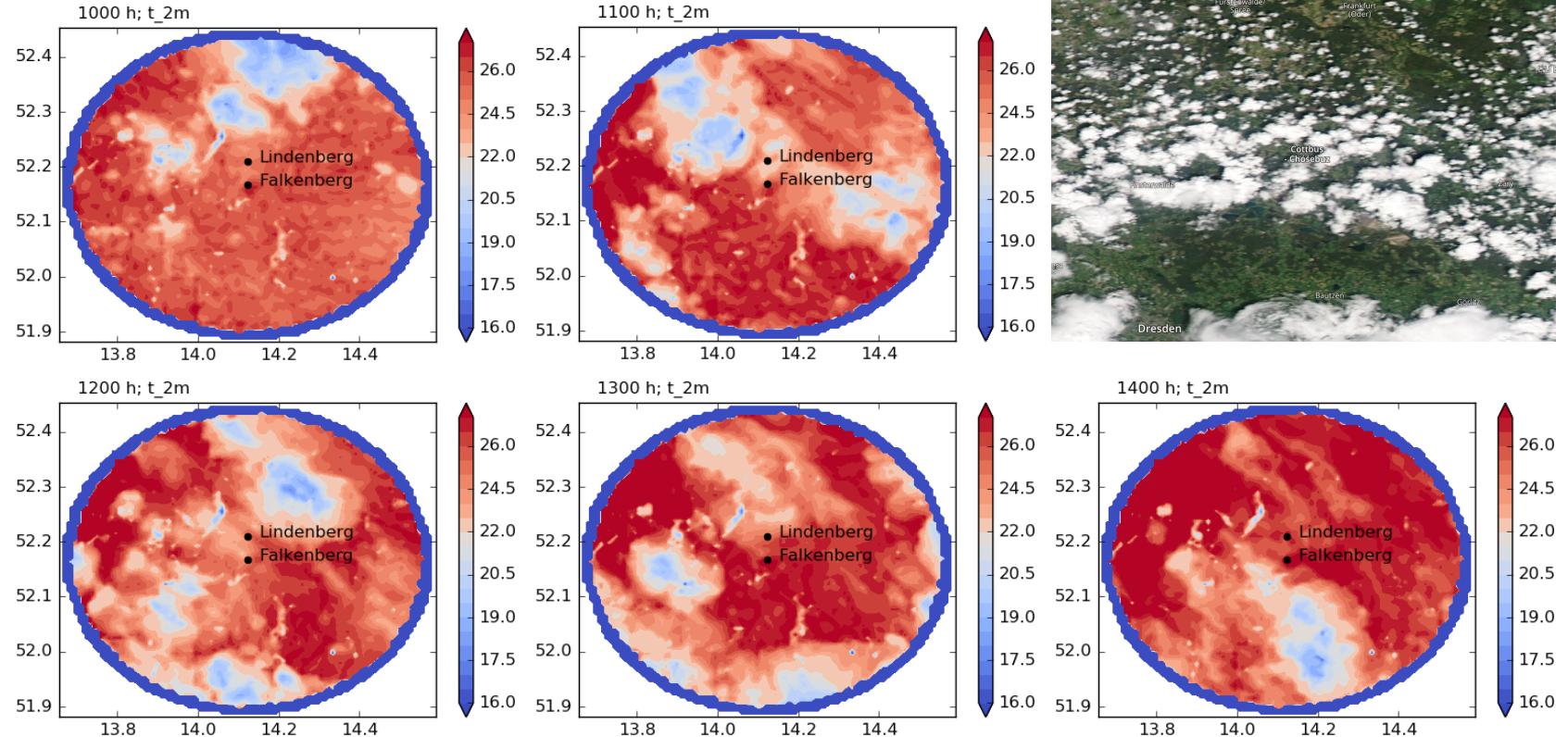
t_{2m} averaged over the inner-most domain
(small area around Lindenberg, Falkenberg)



Lindenberg Meteorological Observatory - Richard Aßmann Observatory

Falkenberg Boundary Layer Field Site 2021/05/28

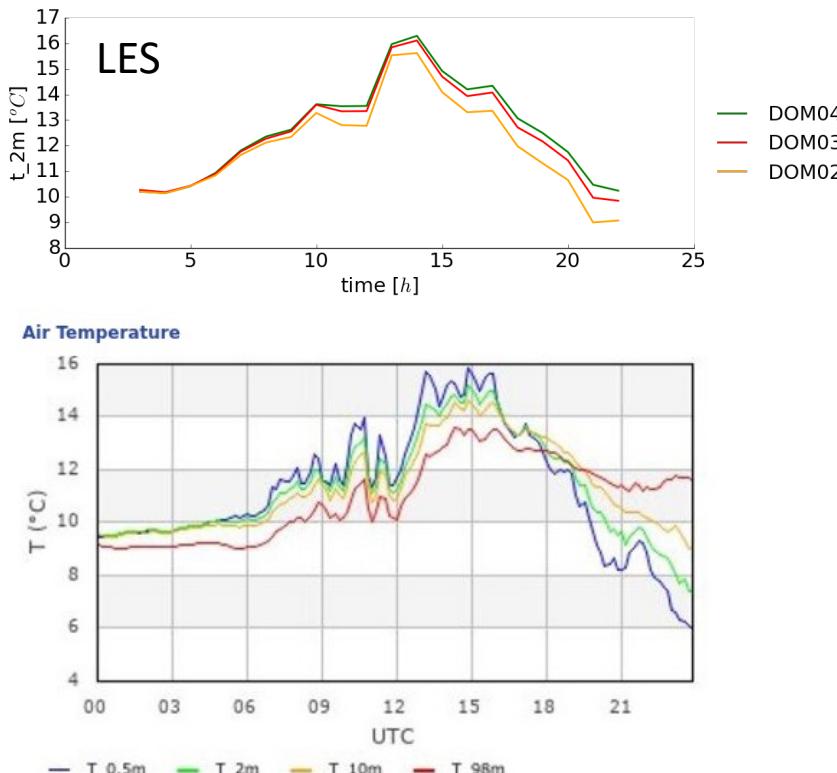
LES simulates small cold pools, t_{2m} :



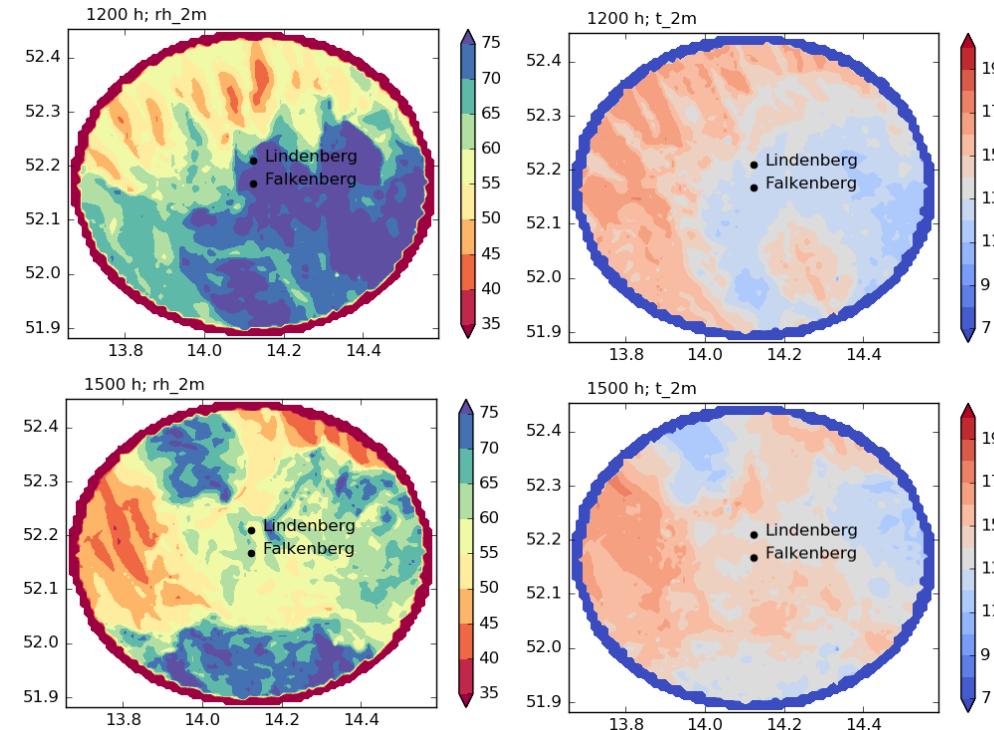
CASE 2: Deep-convective day: 28.05.2021

ICON-D2 forcing

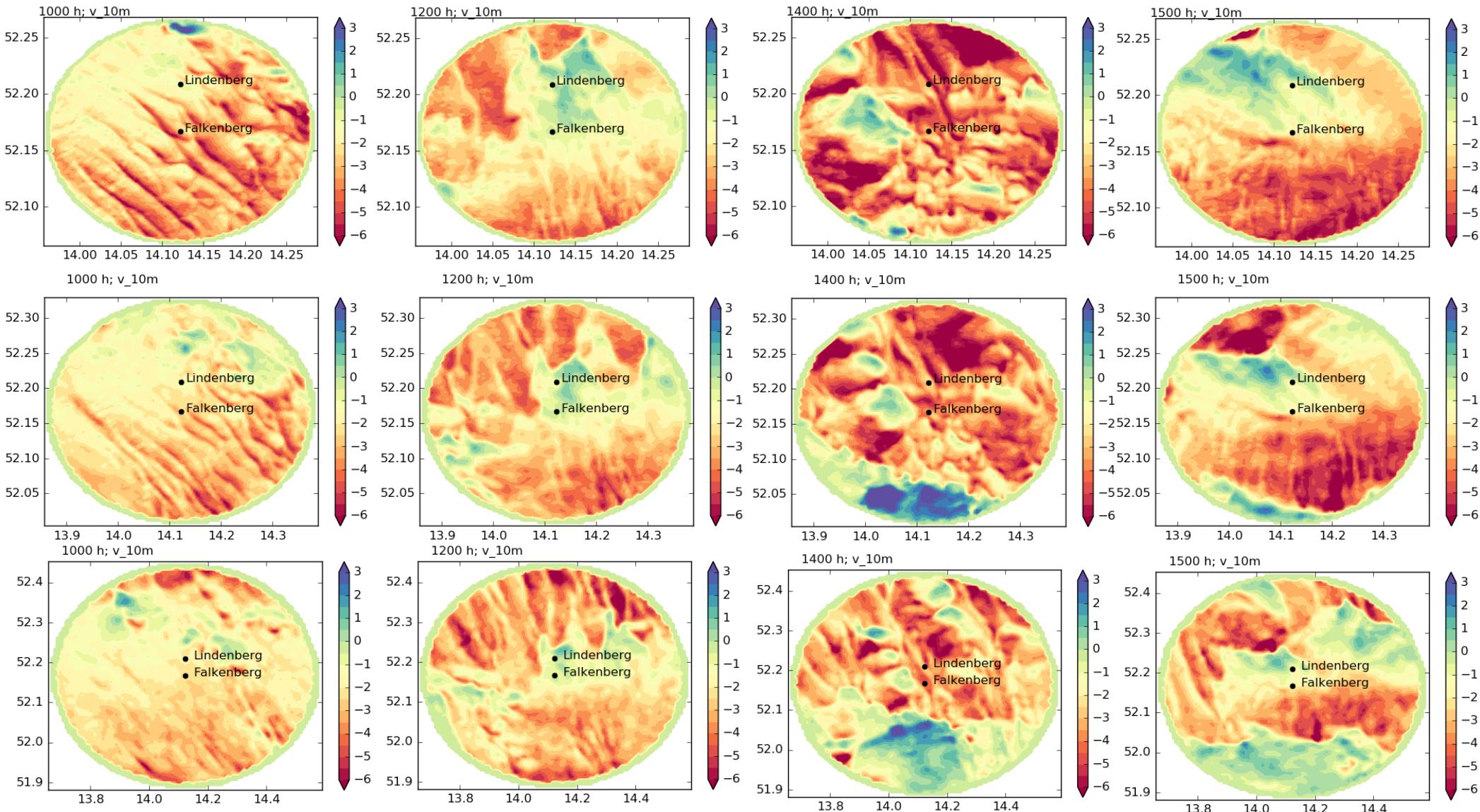
t_{2m} averaged over the inner-most domain
(small area around Lindenberg, Falkenberg)



Cold pools modelled within the domain;
might not match the exact position of the real events



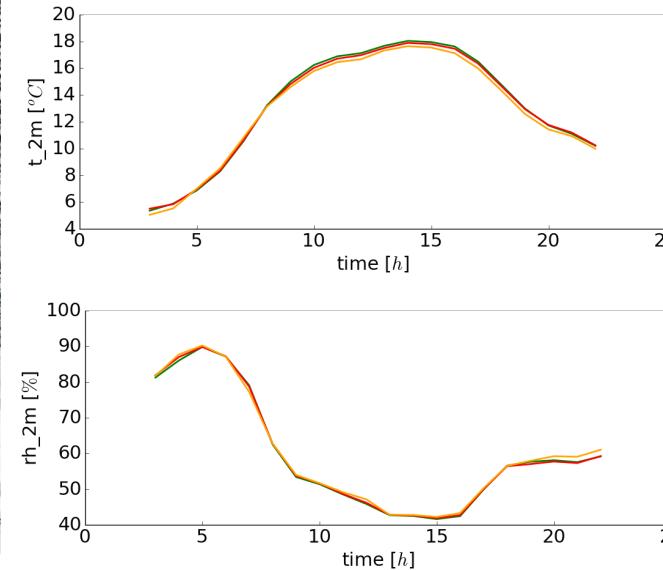
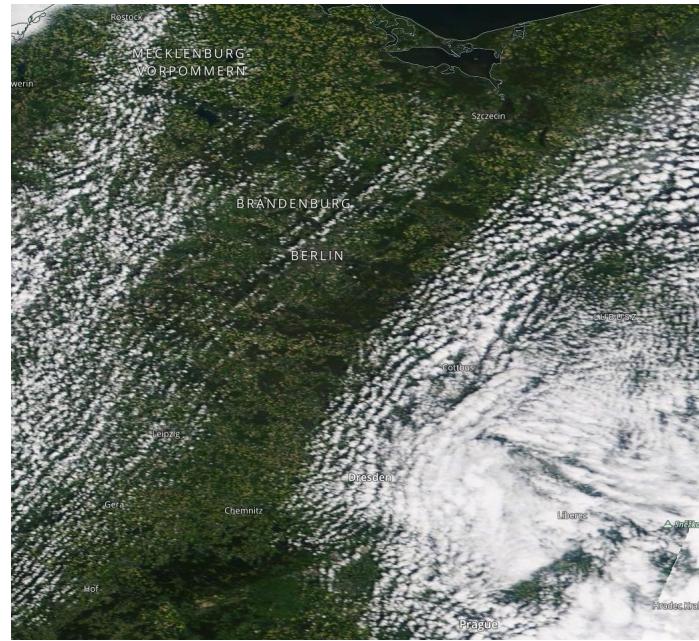
CASE 2: Deep-convective day: 28.05.2021



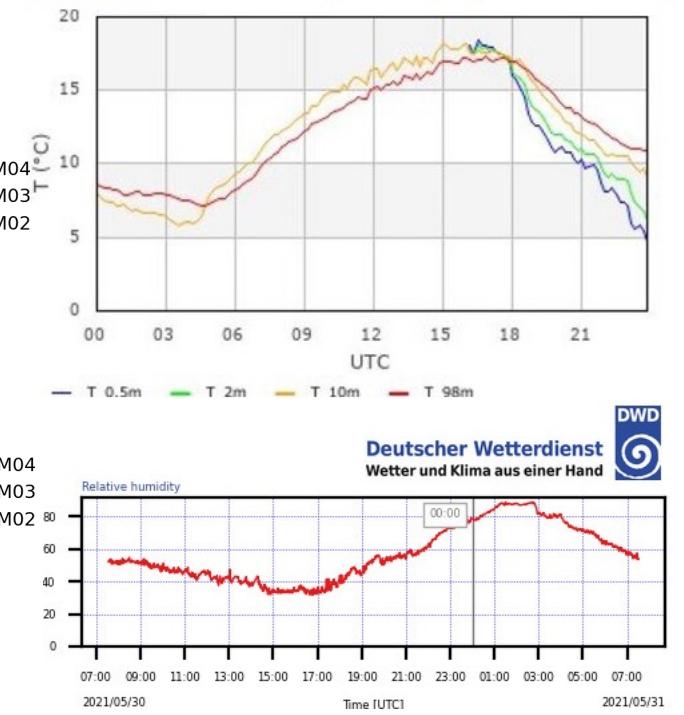
Wind patterns
(v_10m wind
component)

CASE 3: BL rolls/shallow convection 30.05.2021

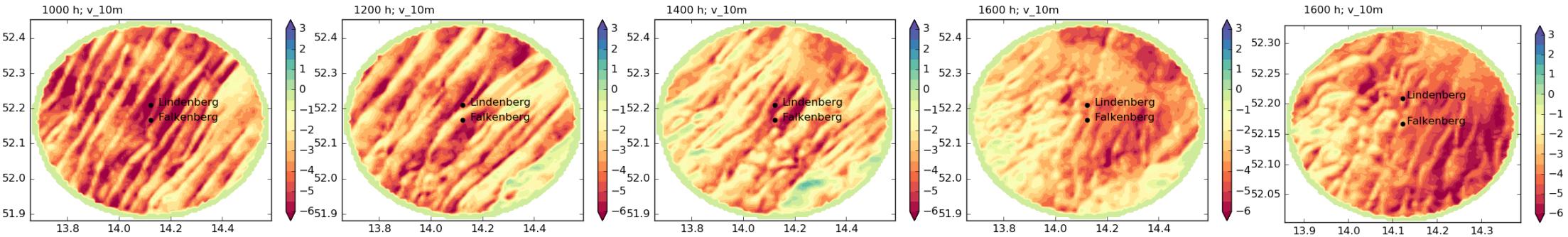
MODIS Terra



Air Temperature Falkenberg Boundary Layer Field Site 2021/05/30

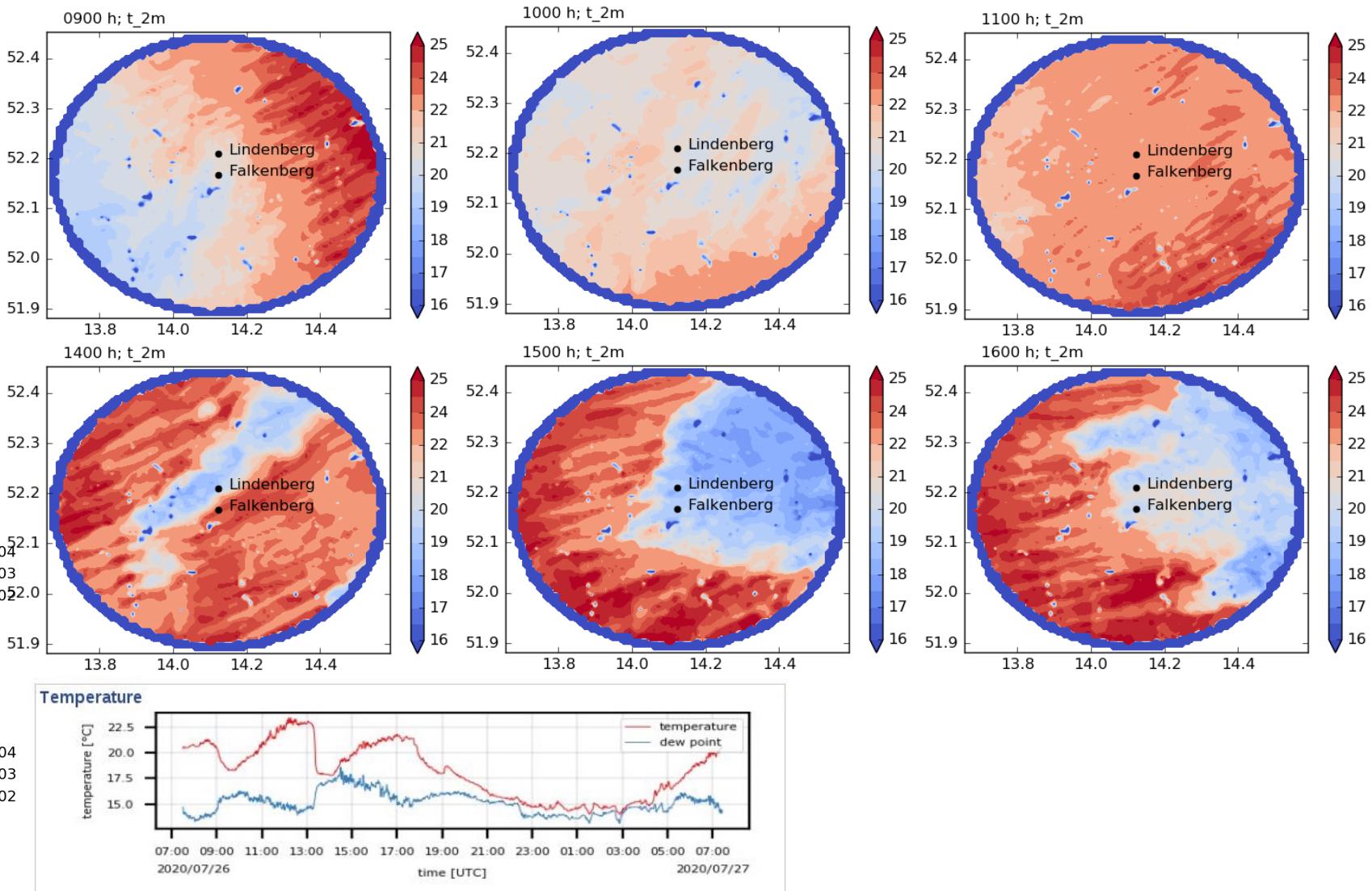
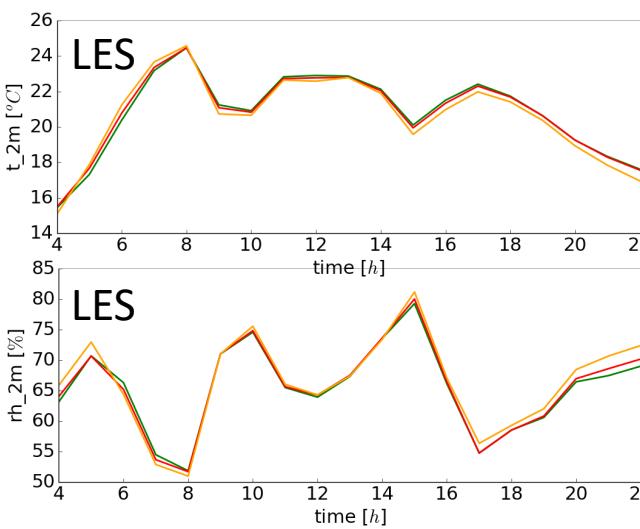
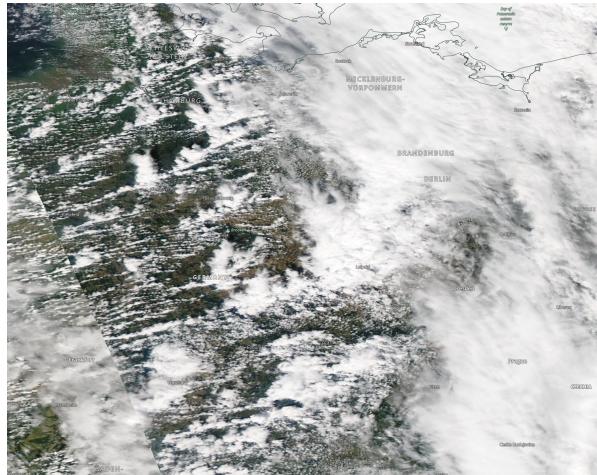


Wind patterns
(v_10m wind component)



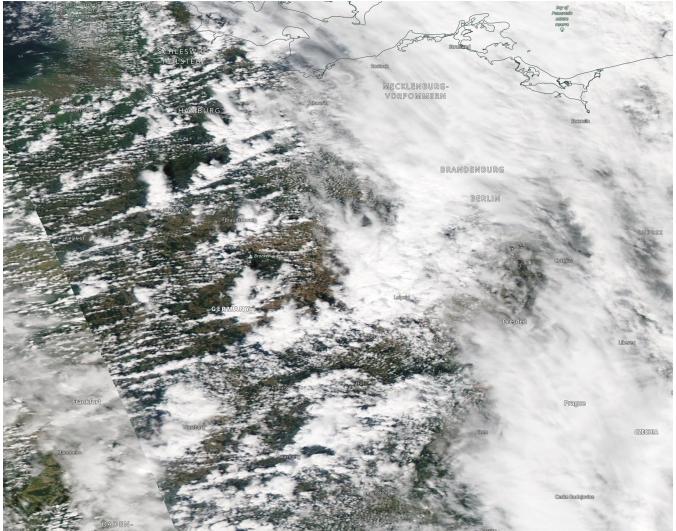
CASE 4: FEST@MOL 2020 cold pool 26.07.2020

MODIS Aqua



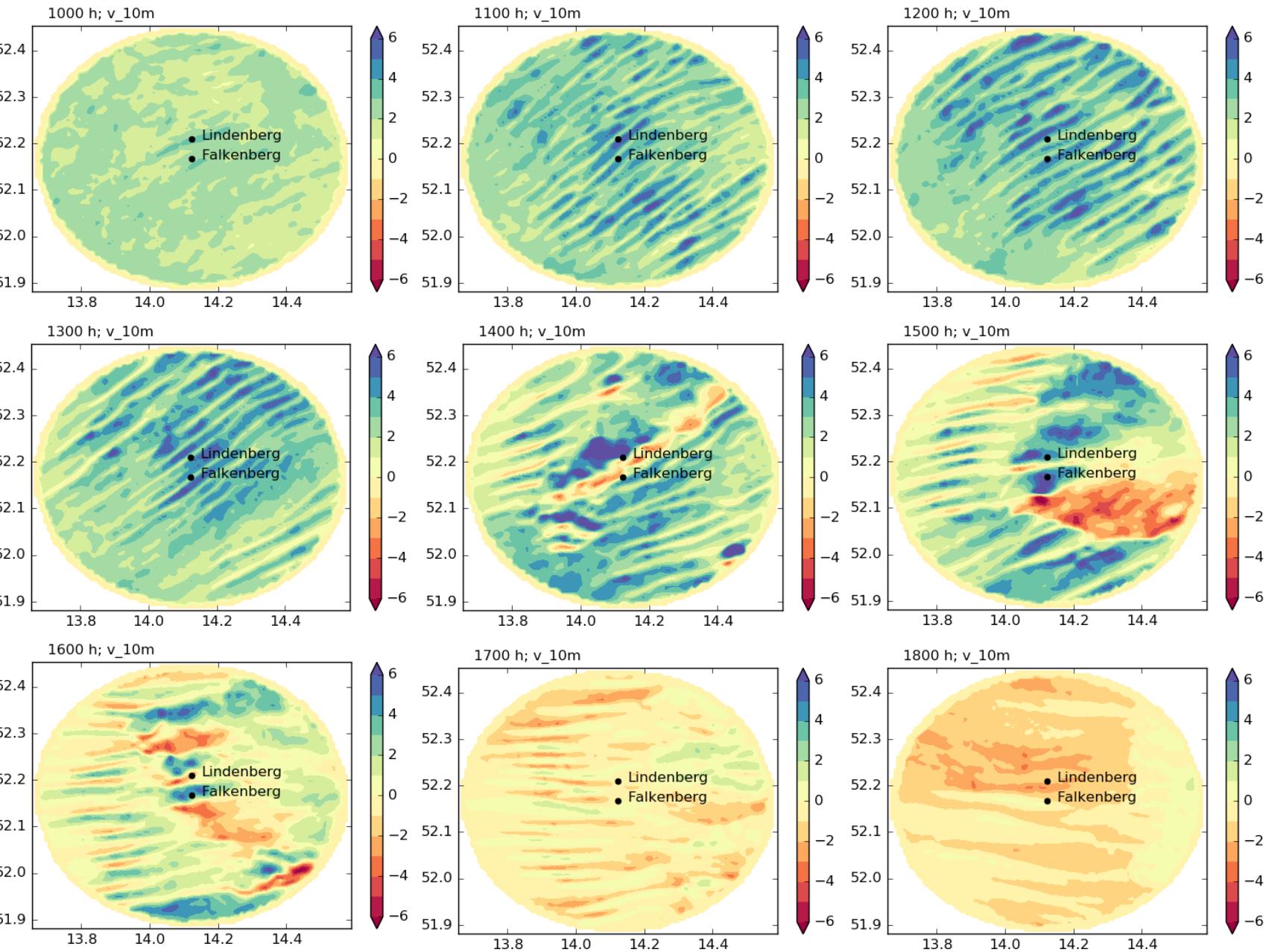
CASE 4: 26.07.2020

MODIS Aqua



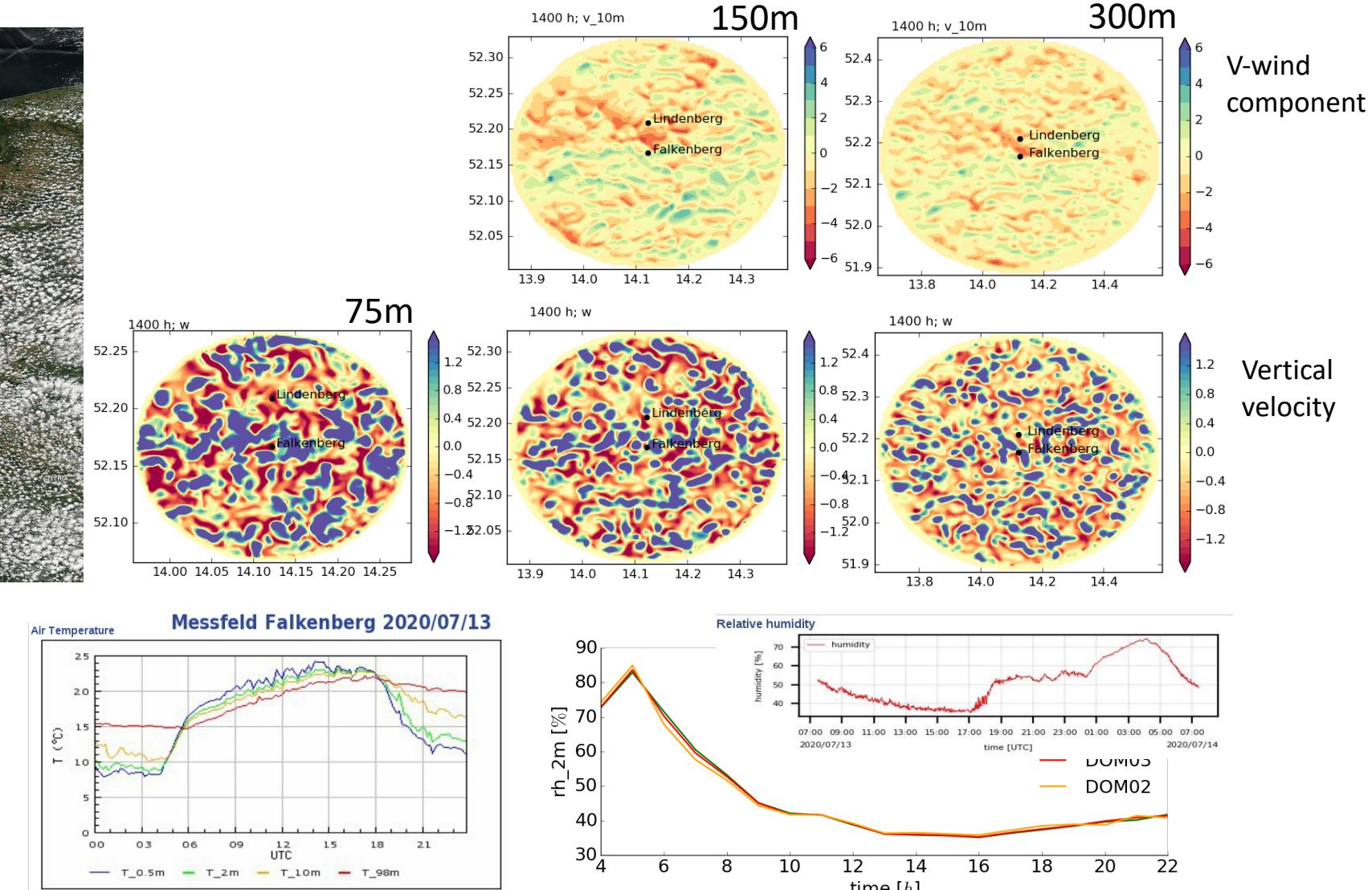
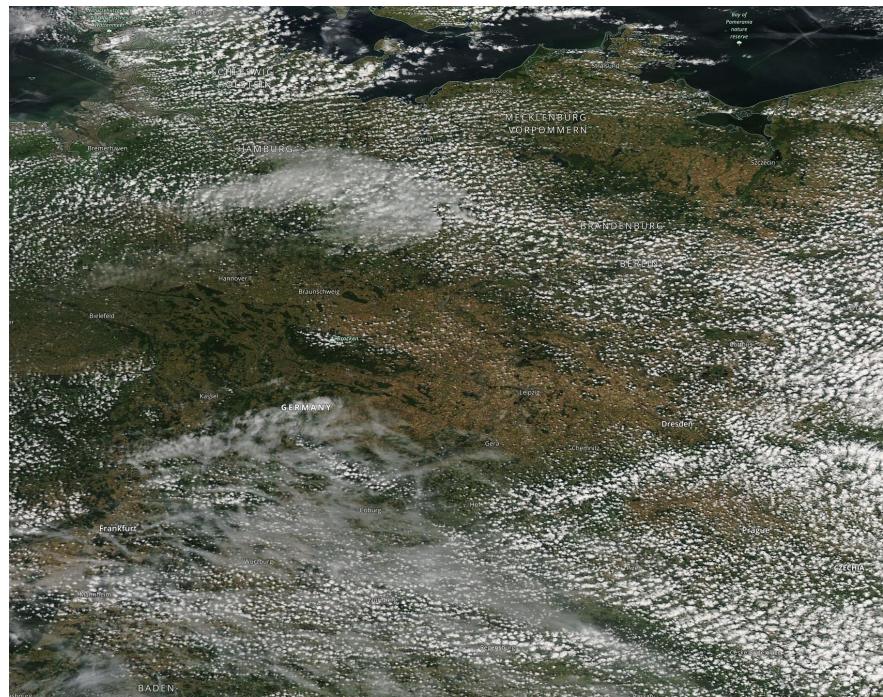
Wind patterns
(v_10m wind component)

DOM02 300m res

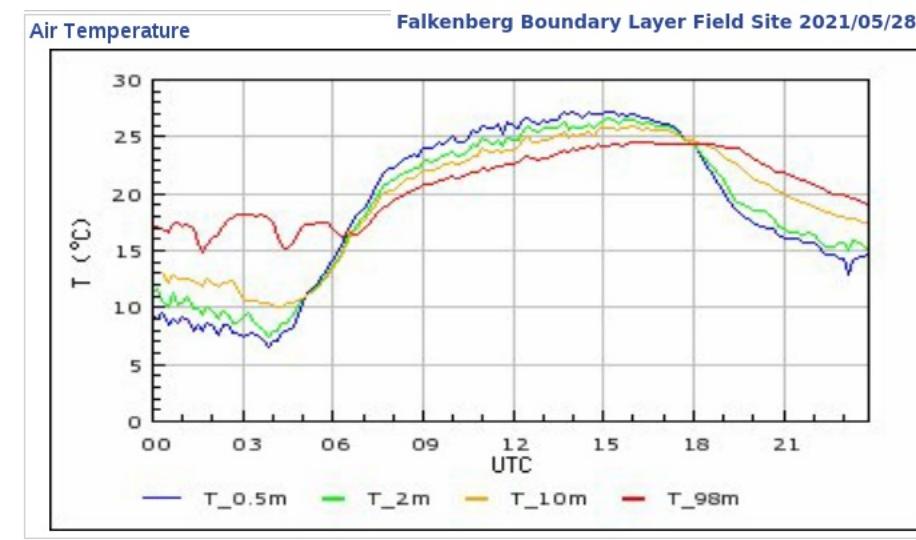
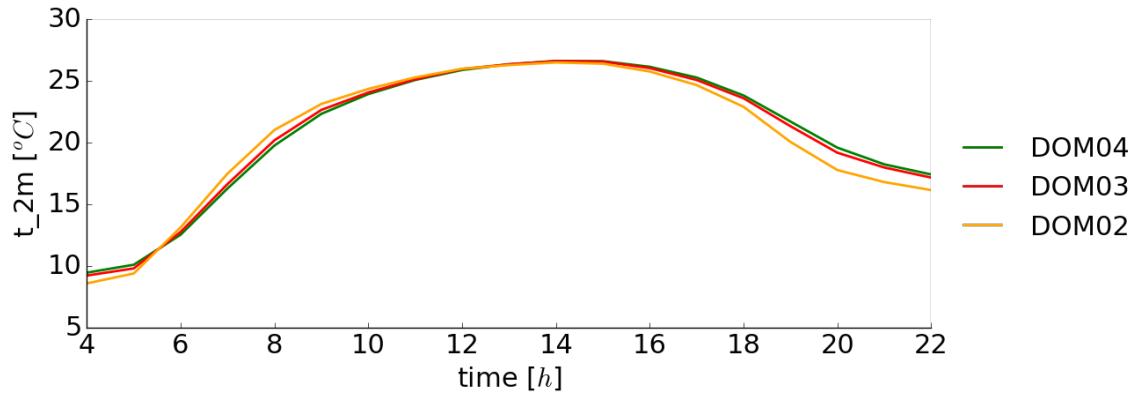
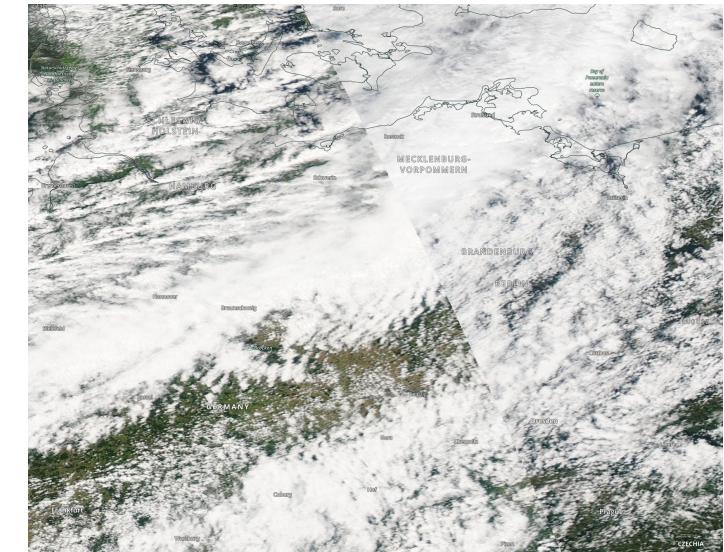
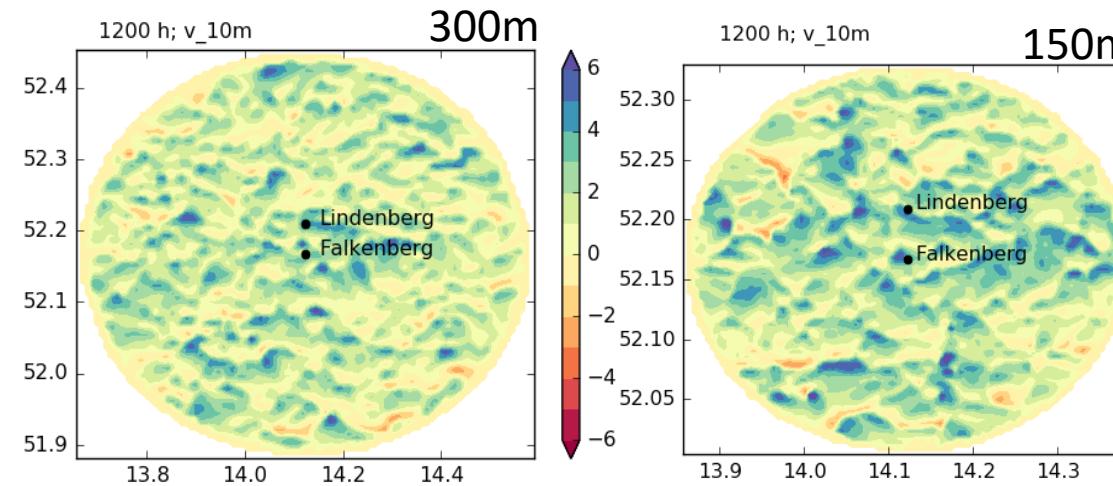


CASE 5: shallow convection 13.07.2020

MODIS



CASE 6: 05.08.2020



CASE 7: 17.06.2021

