

## ALADIN – ulazna polja

Za prognozu vremena LAM-om trebamo:

- podatke o podlozi (visina terena, granica kopno/more itd.)
- temperaturu površine mora
- prognostičke lateralne rubne uvjete

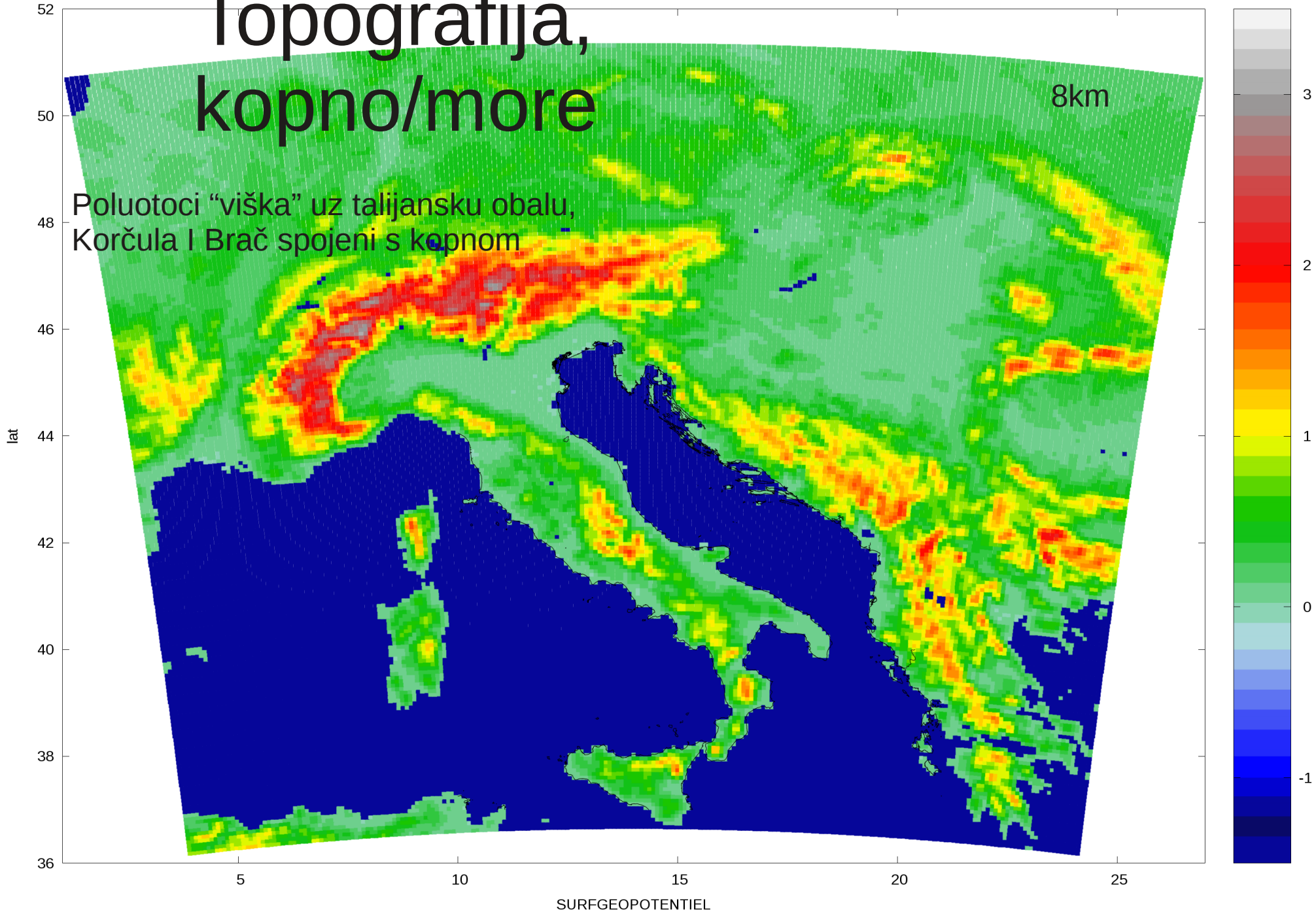
# Sadržaj

- topografija i ostala zadana “klimatološka” polja su uzeta iz različitih baza i ne odgovaraju lokalnoj stvarnosti
- temperatura mora koju koristimo u modelu potječe iz globalnog modela, utječe na obalnu cirkulaciju i općenito prognozu vjetra na obali
  - lateralni rubni uvjeti su dostupni svaka 3 sata, a to ponekad nije dovoljno

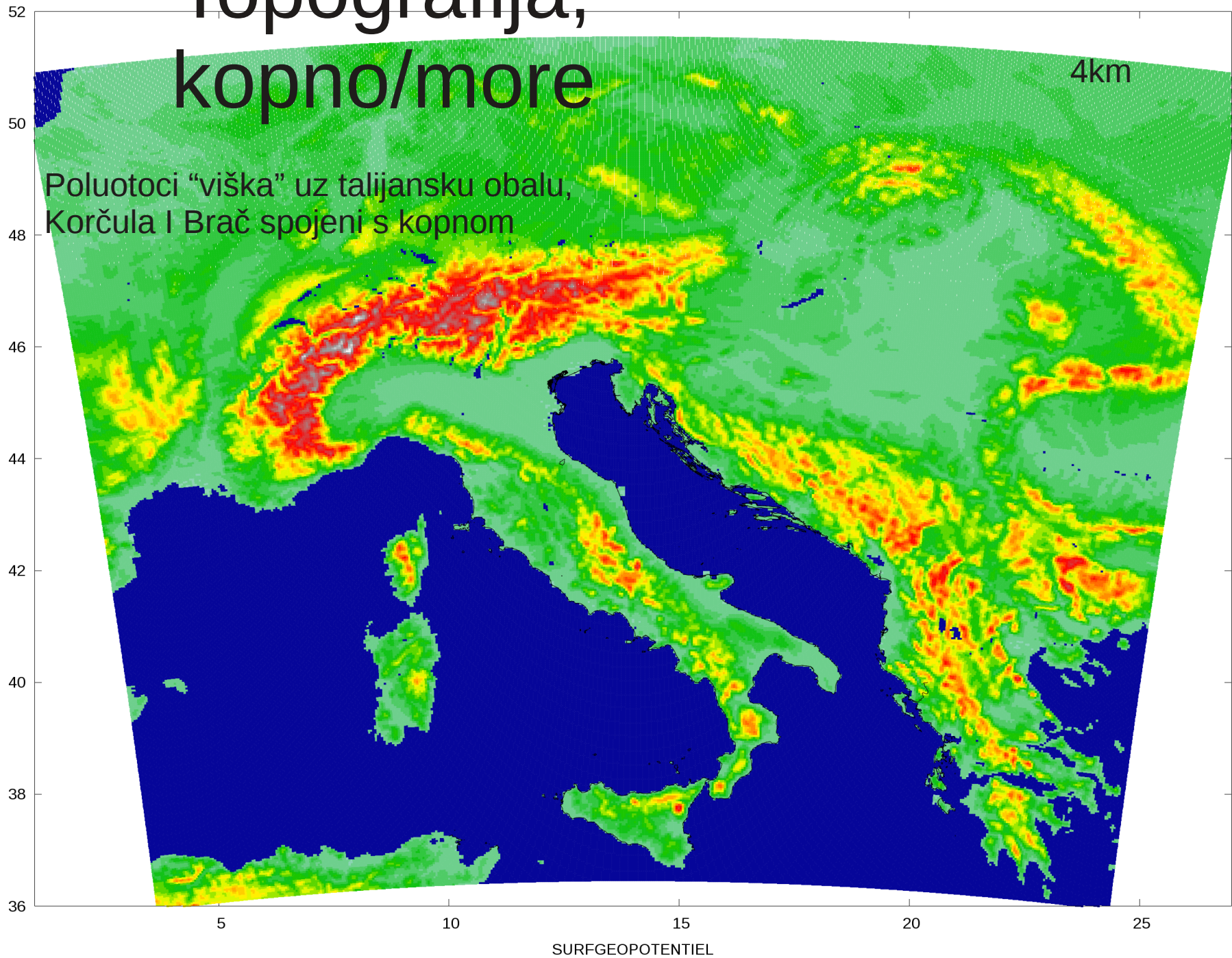
# Topografija, kopno/more

Poluotoci "viška" uz talijansku obalu,  
Korčula I Brač spojeni s kopnom

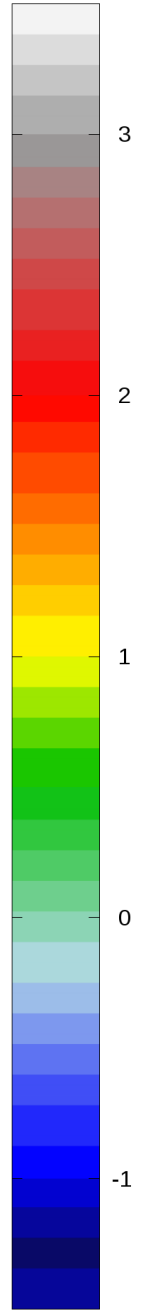
8km



# Topografija, kopno/more



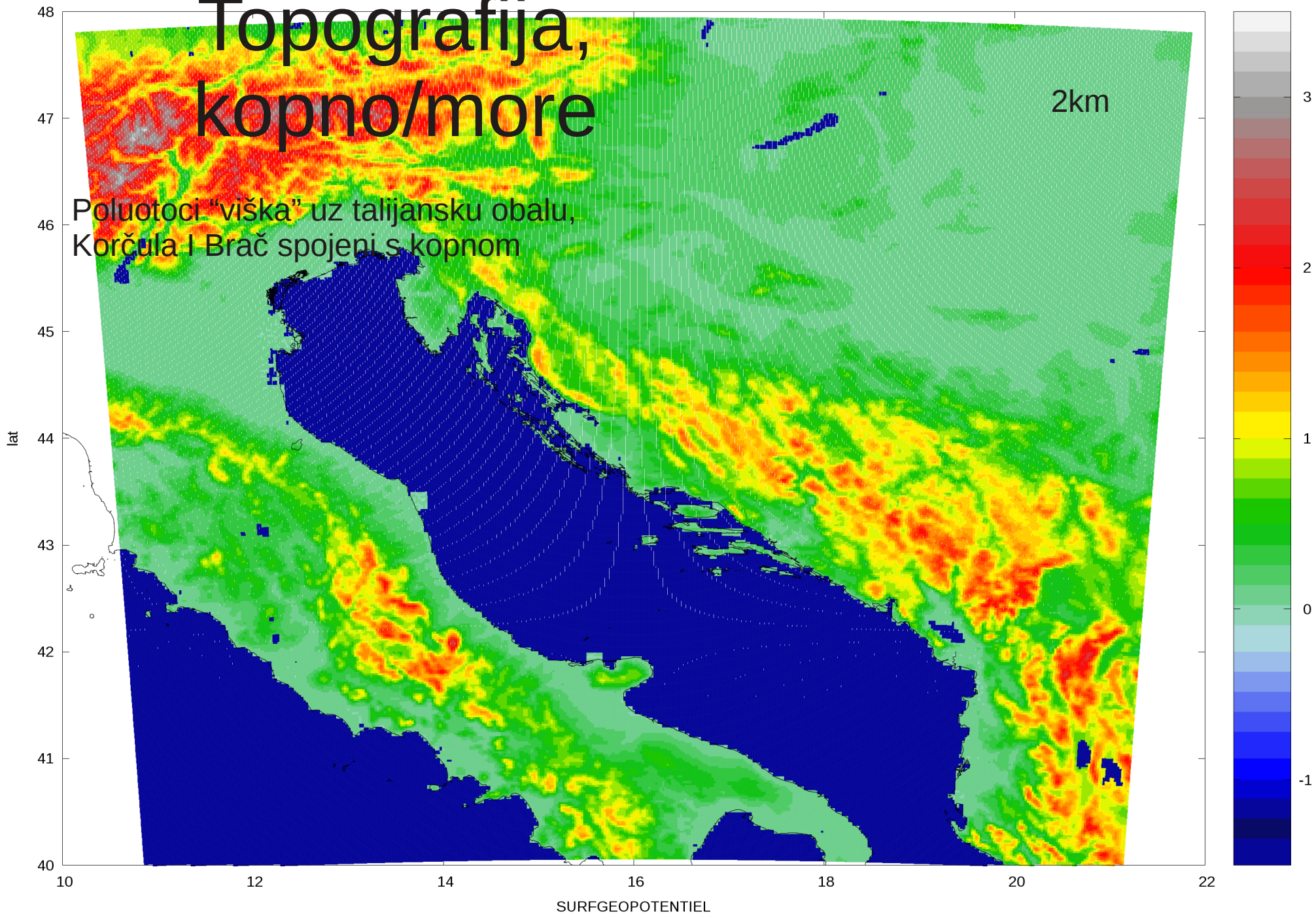
Poluotoci "viška" uz talijansku obalu,  
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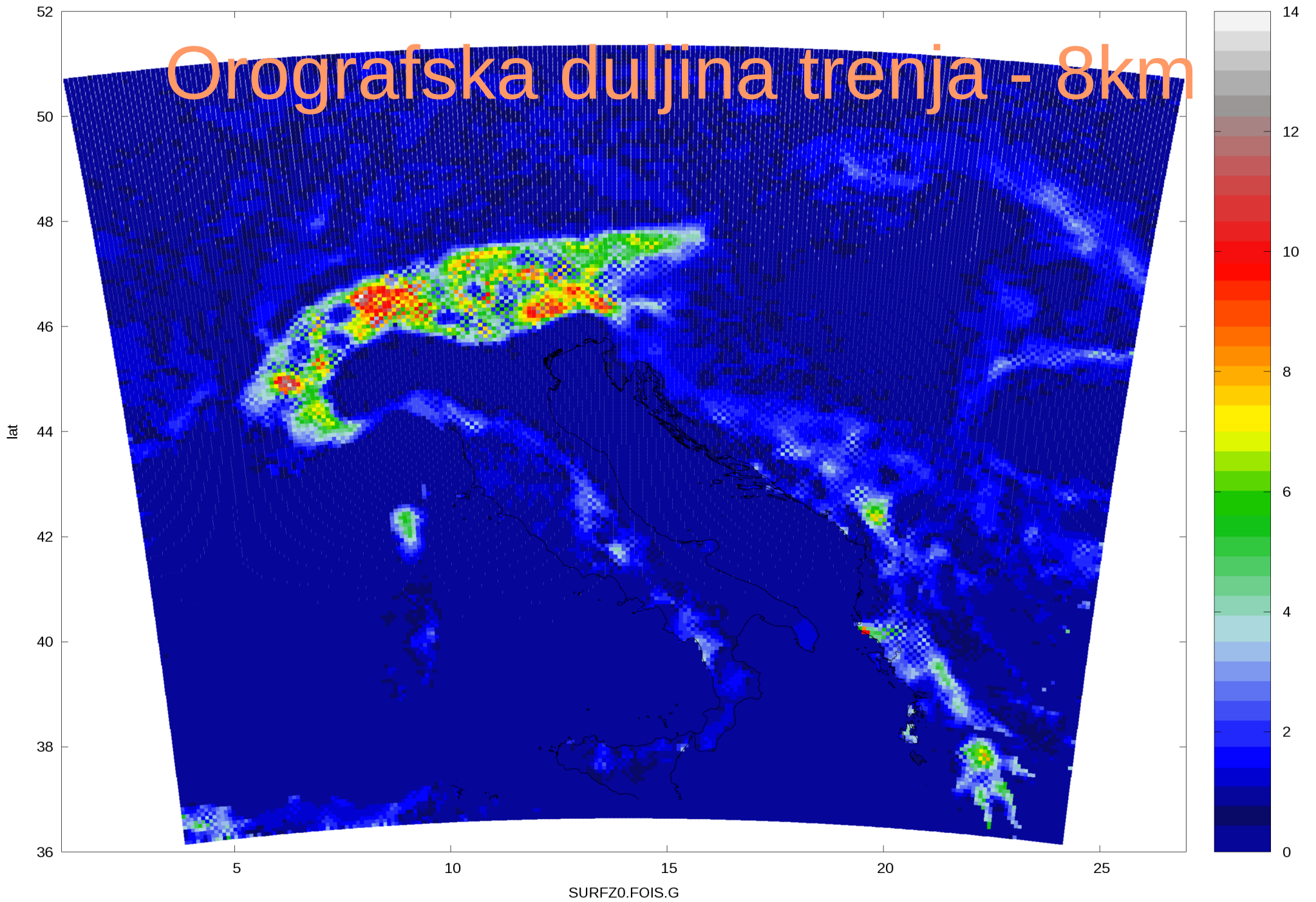
# Topografija, kopno/more

Poluotoci "viška" uz talijansku obalu,  
Korčula i Brač spojeni s kopnom

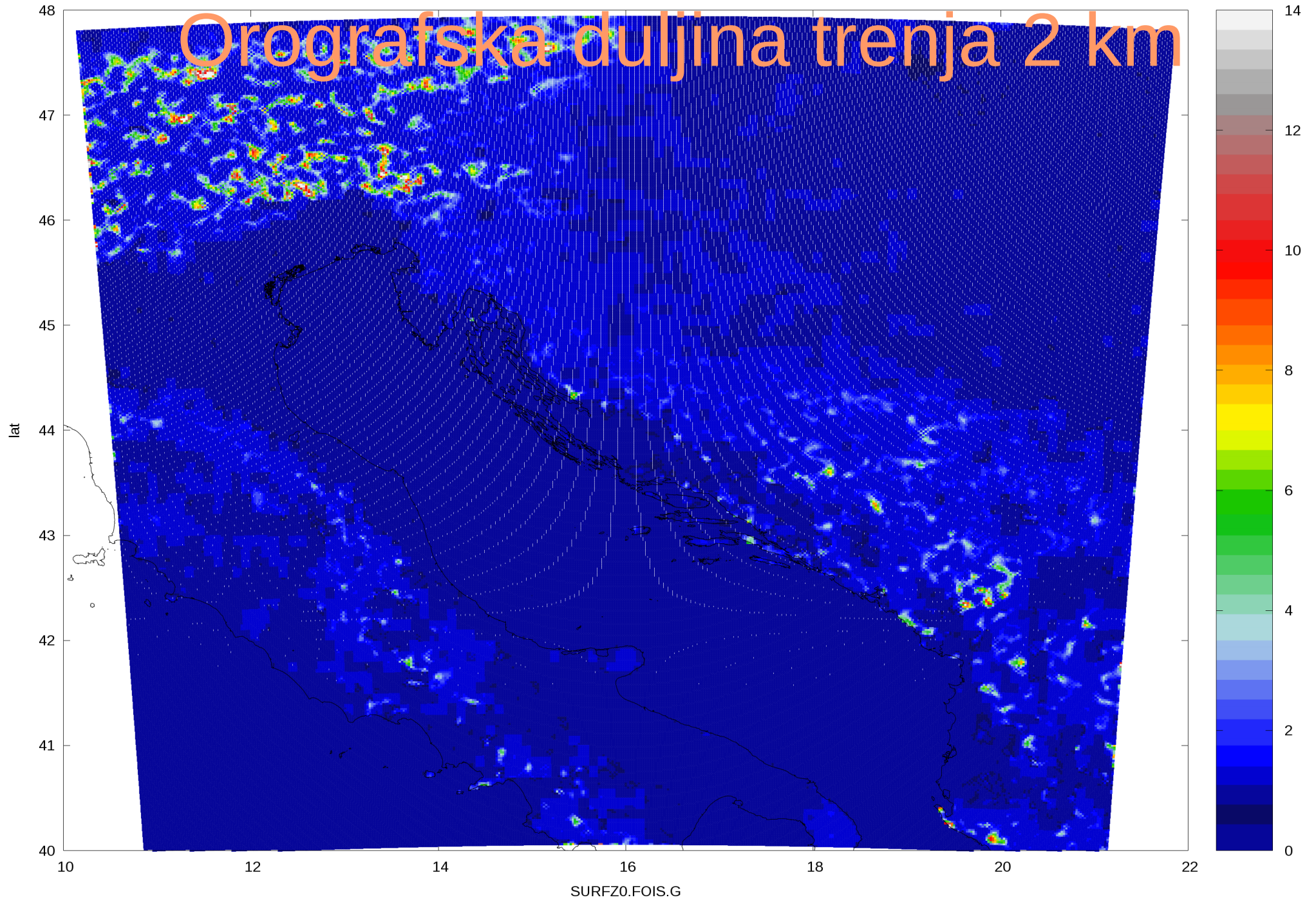
2km



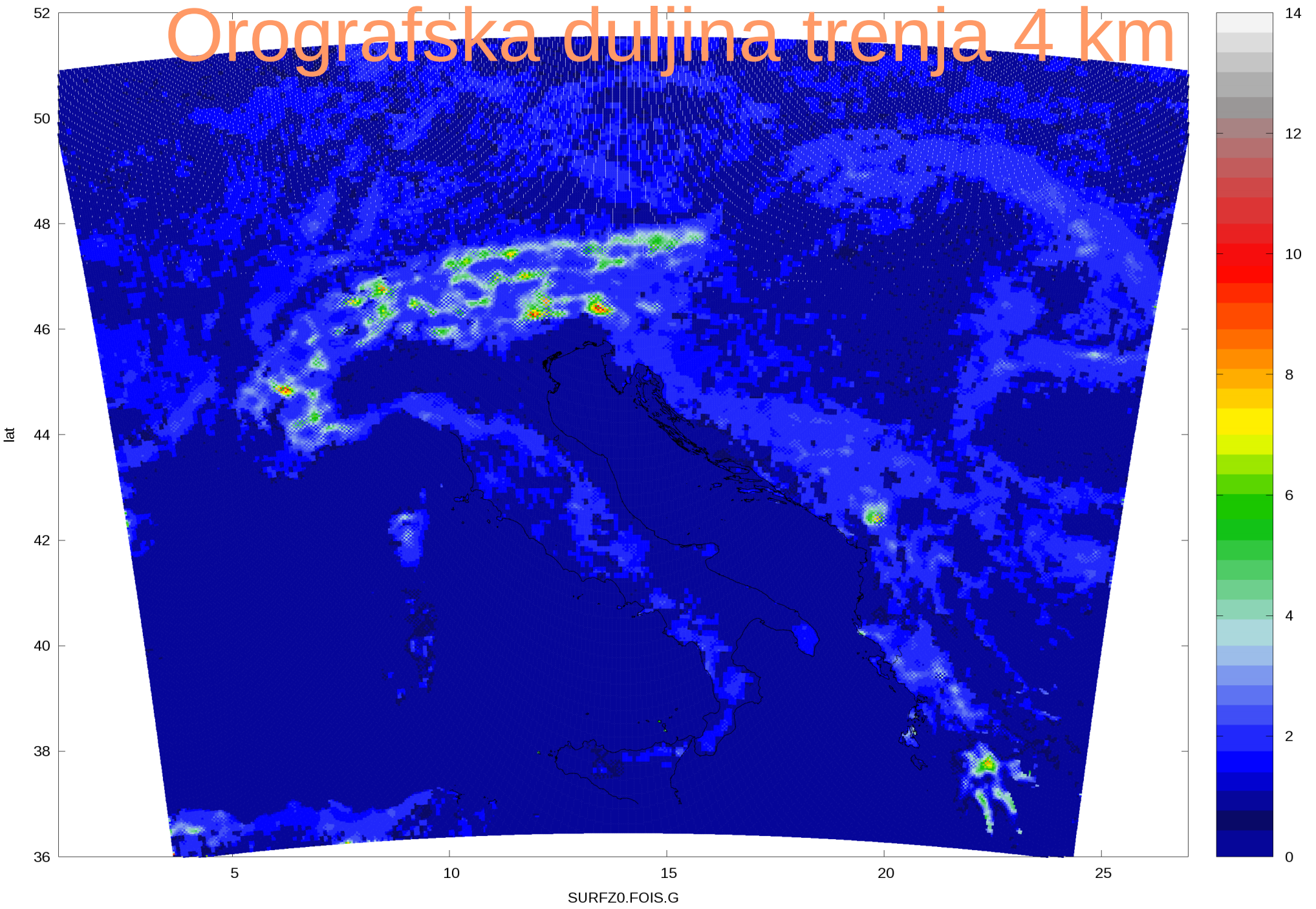
# Orografska duljina trenja - 8km



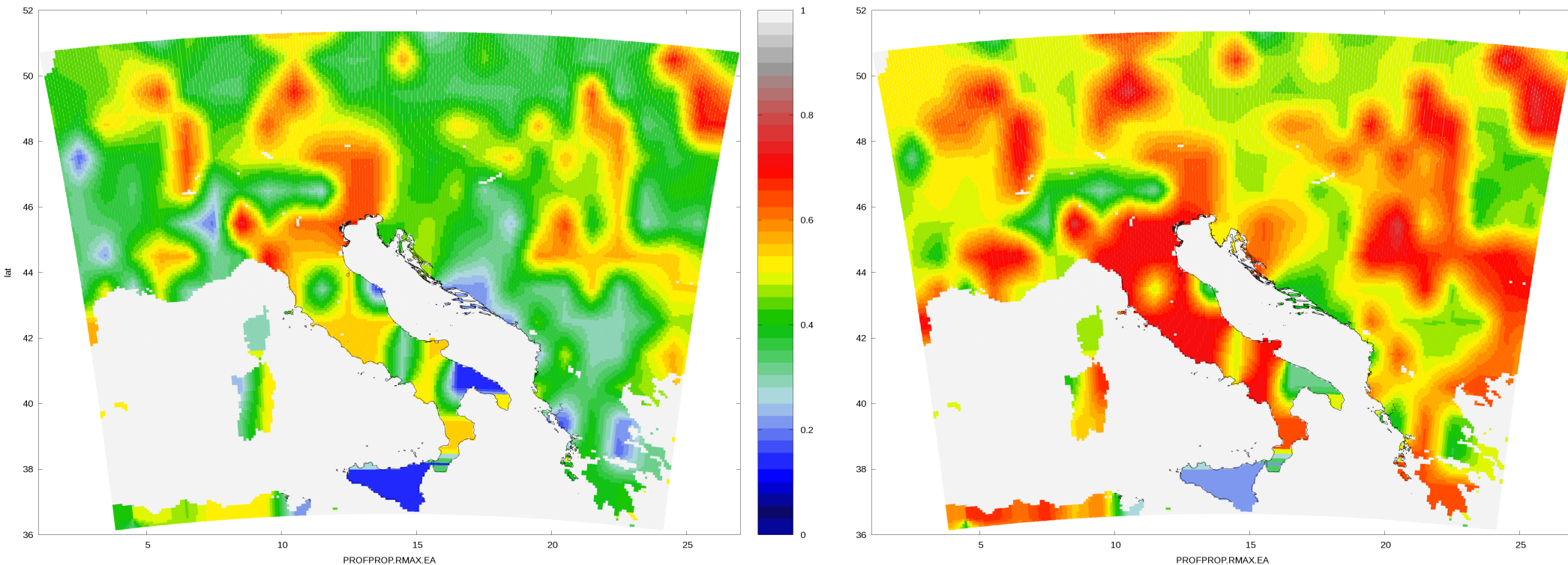
# Orografska duljina trenja 2 km



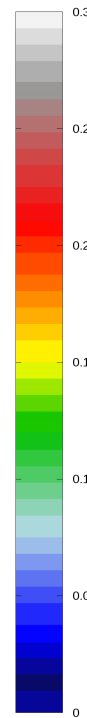
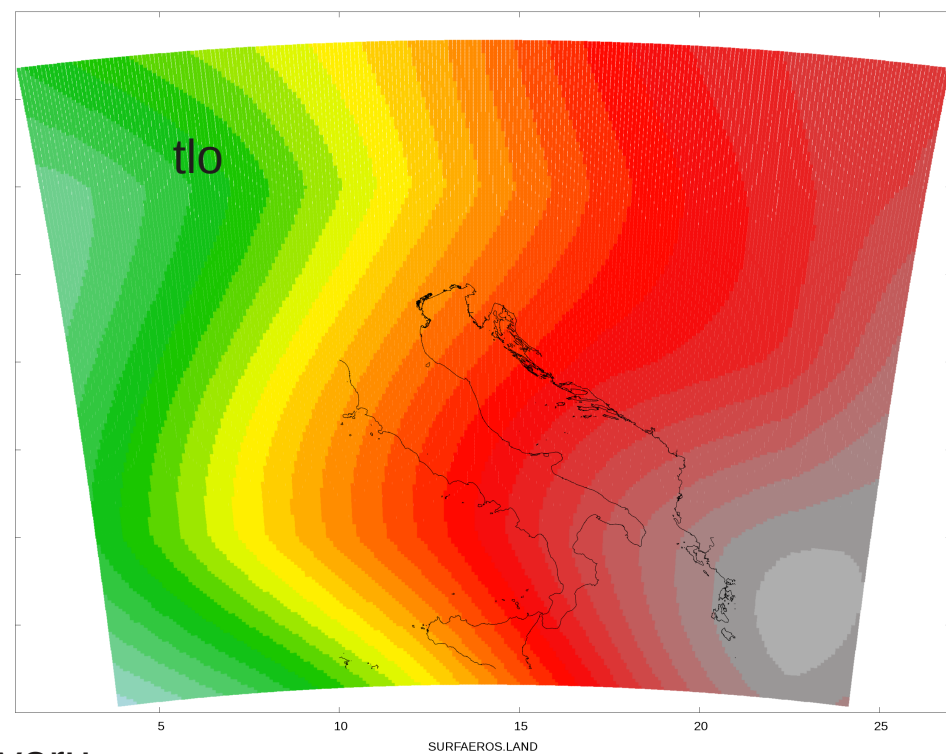
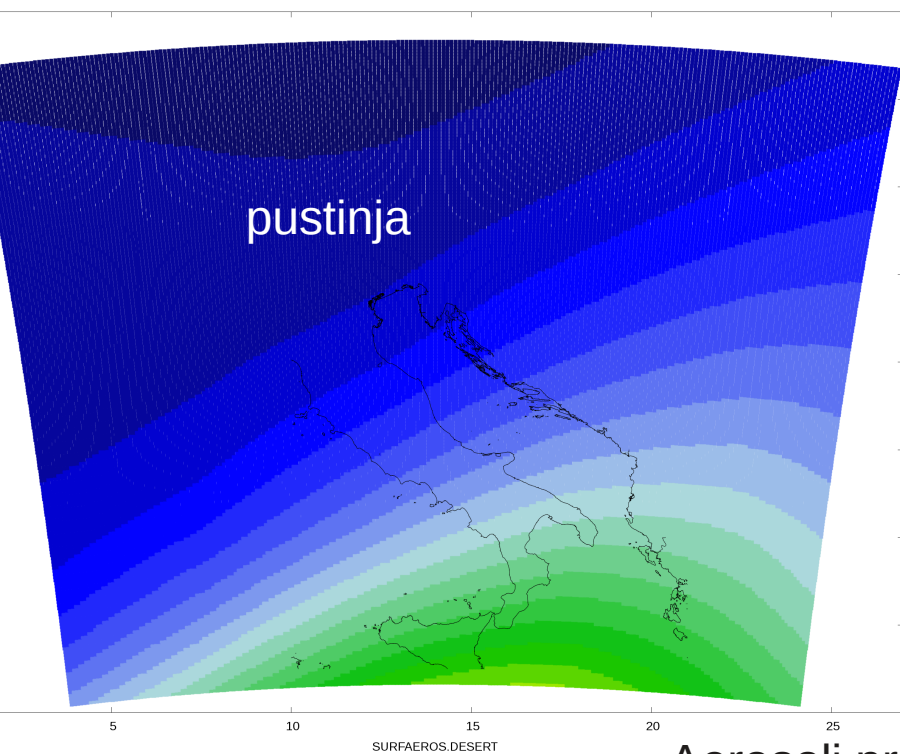
# Orografska duljina trenja 4 km



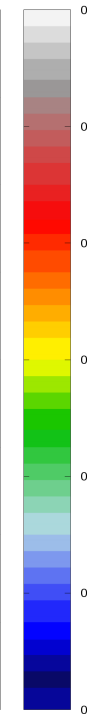
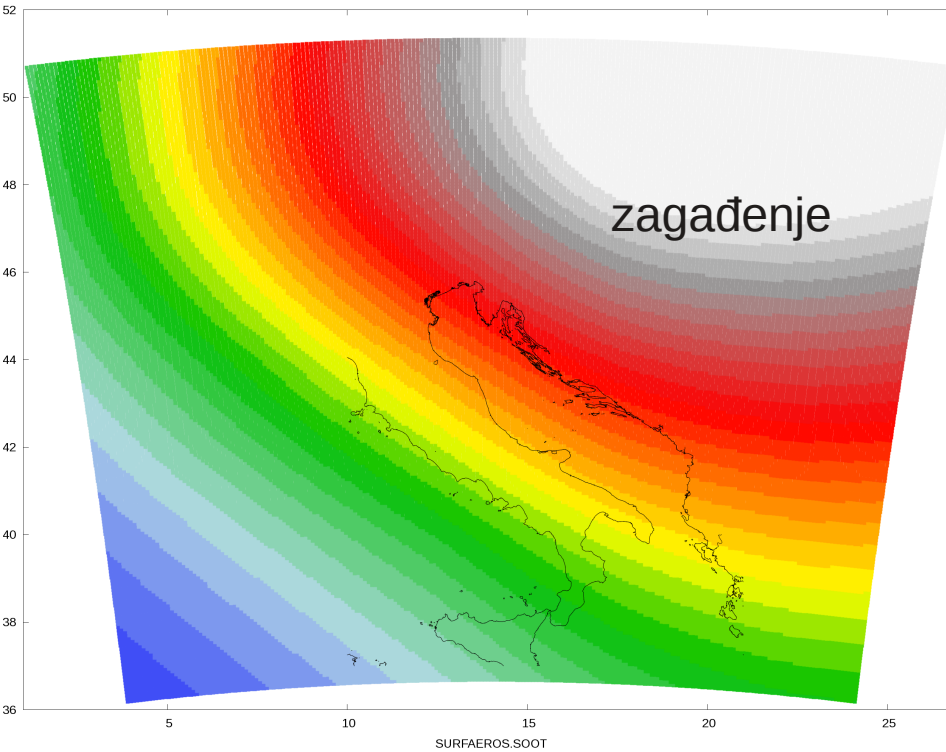
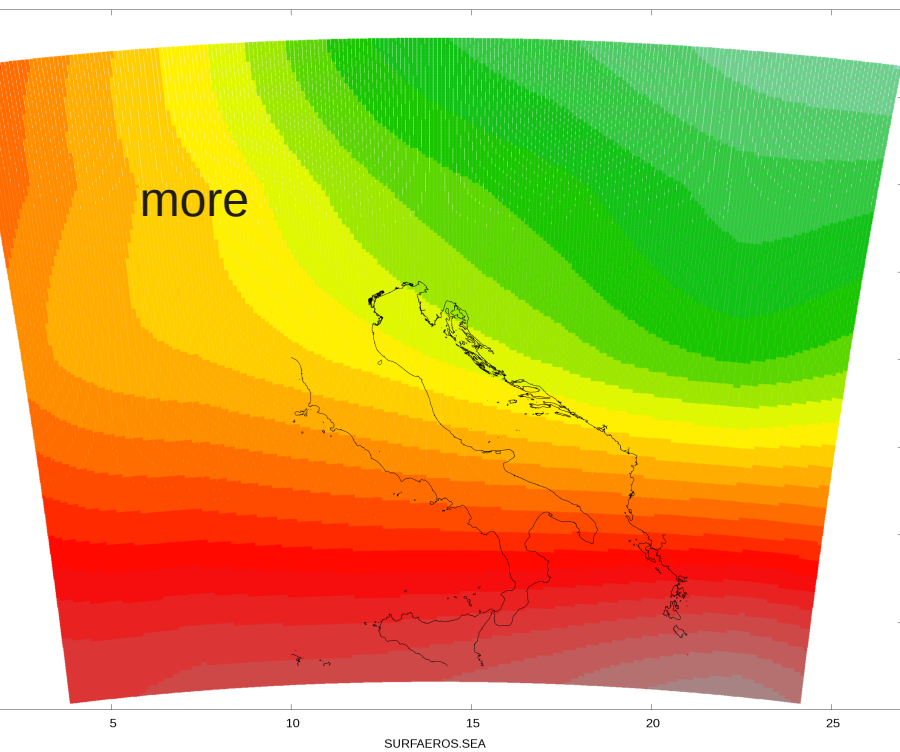
# Količina vlage u tlu

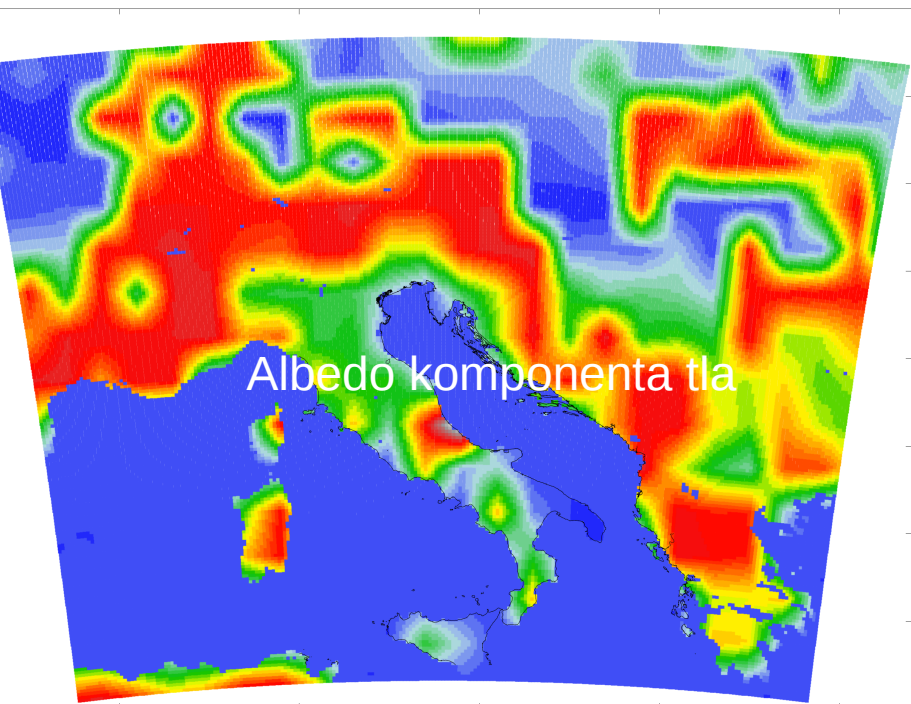


Utječe na temperaturu površine tla, temp na 2m, ....

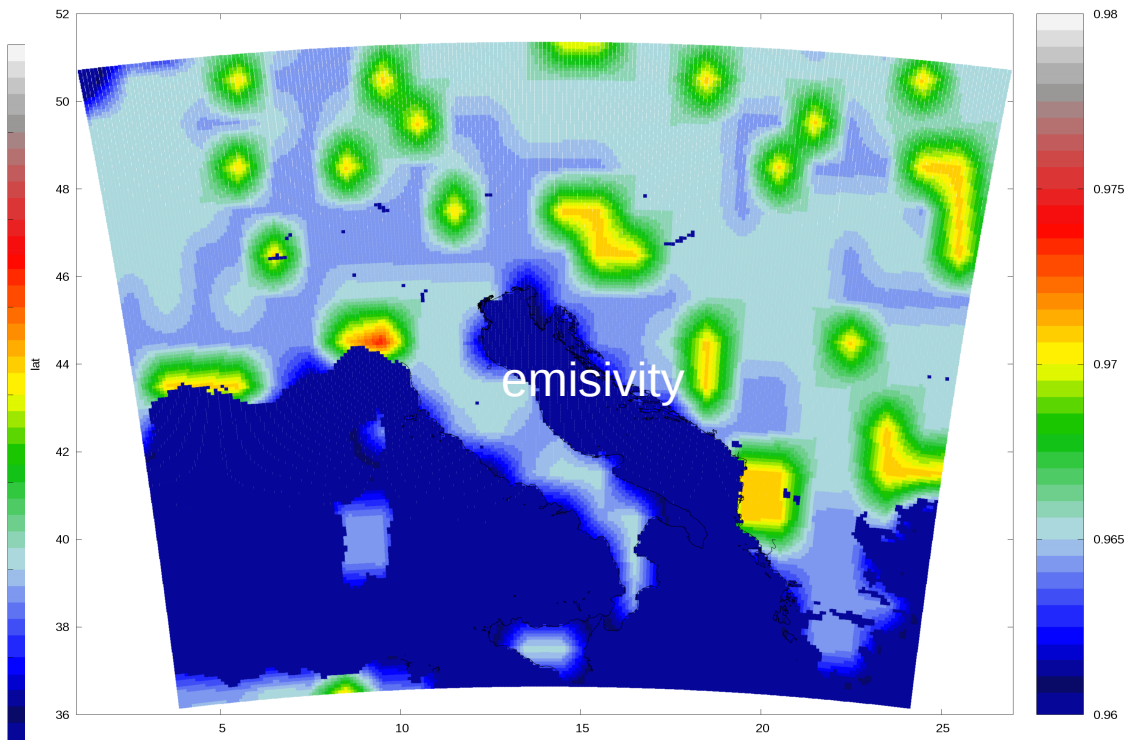


### Aerosoli prema izvoru

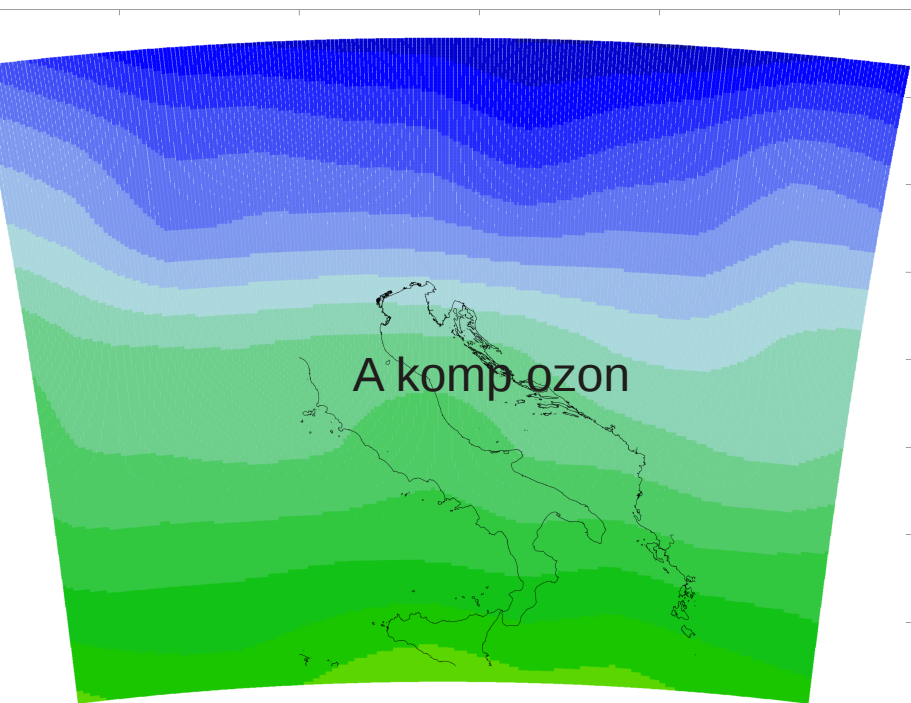




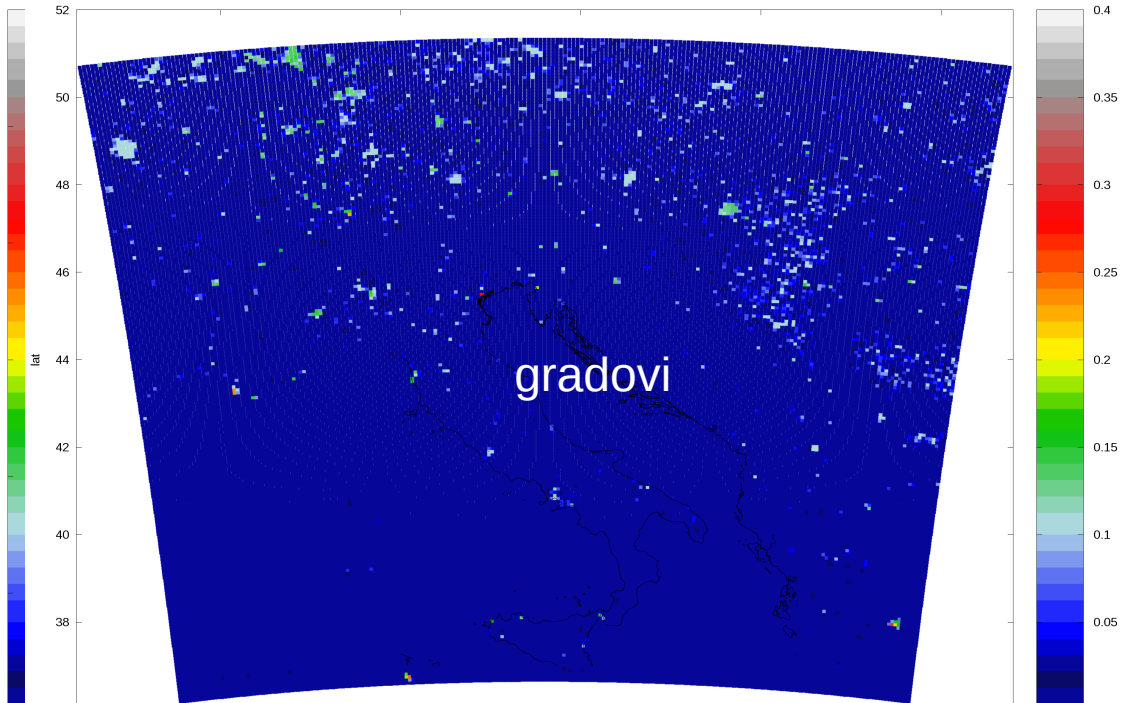
SURFALBEDO.SOLNU



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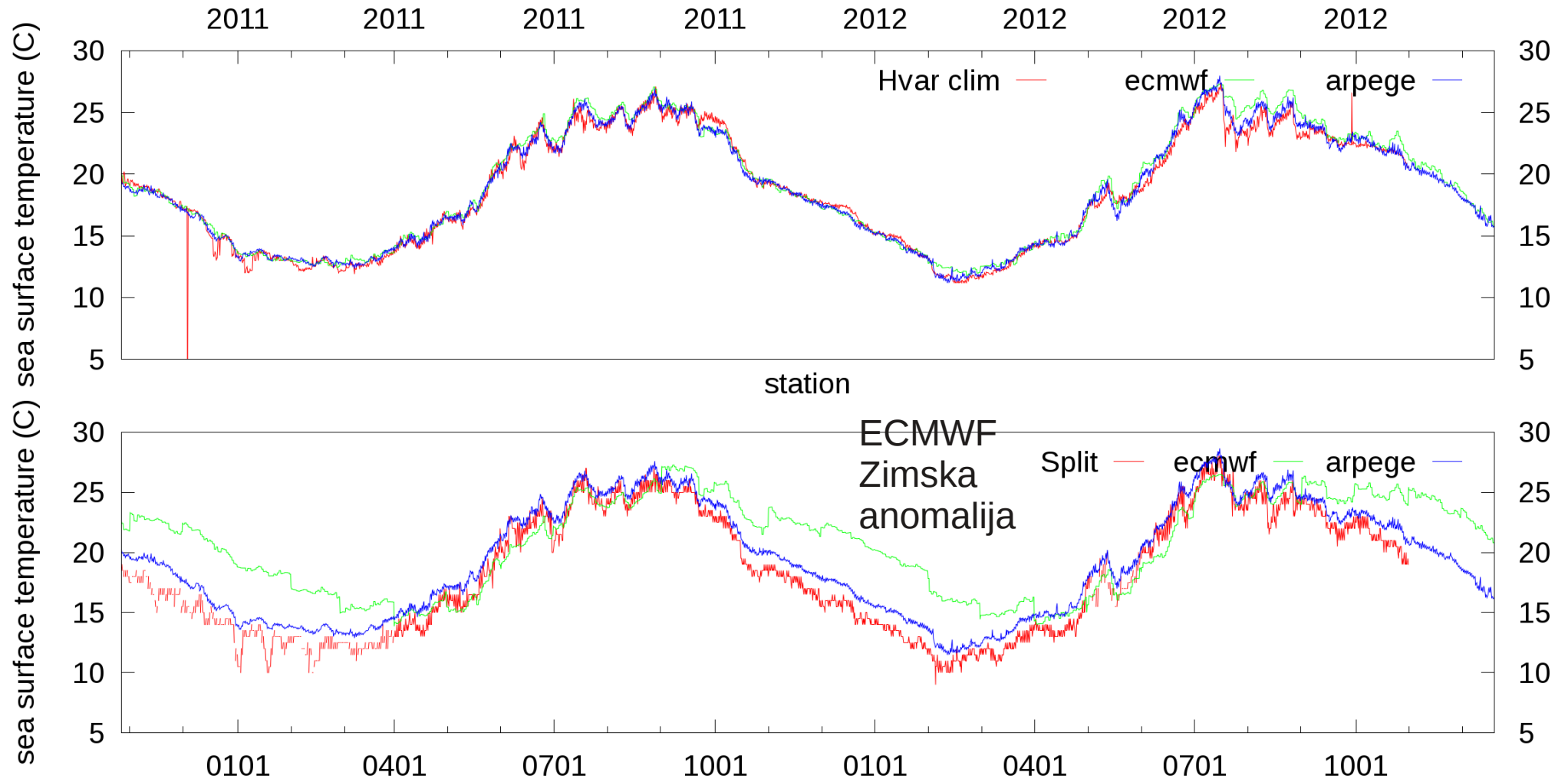


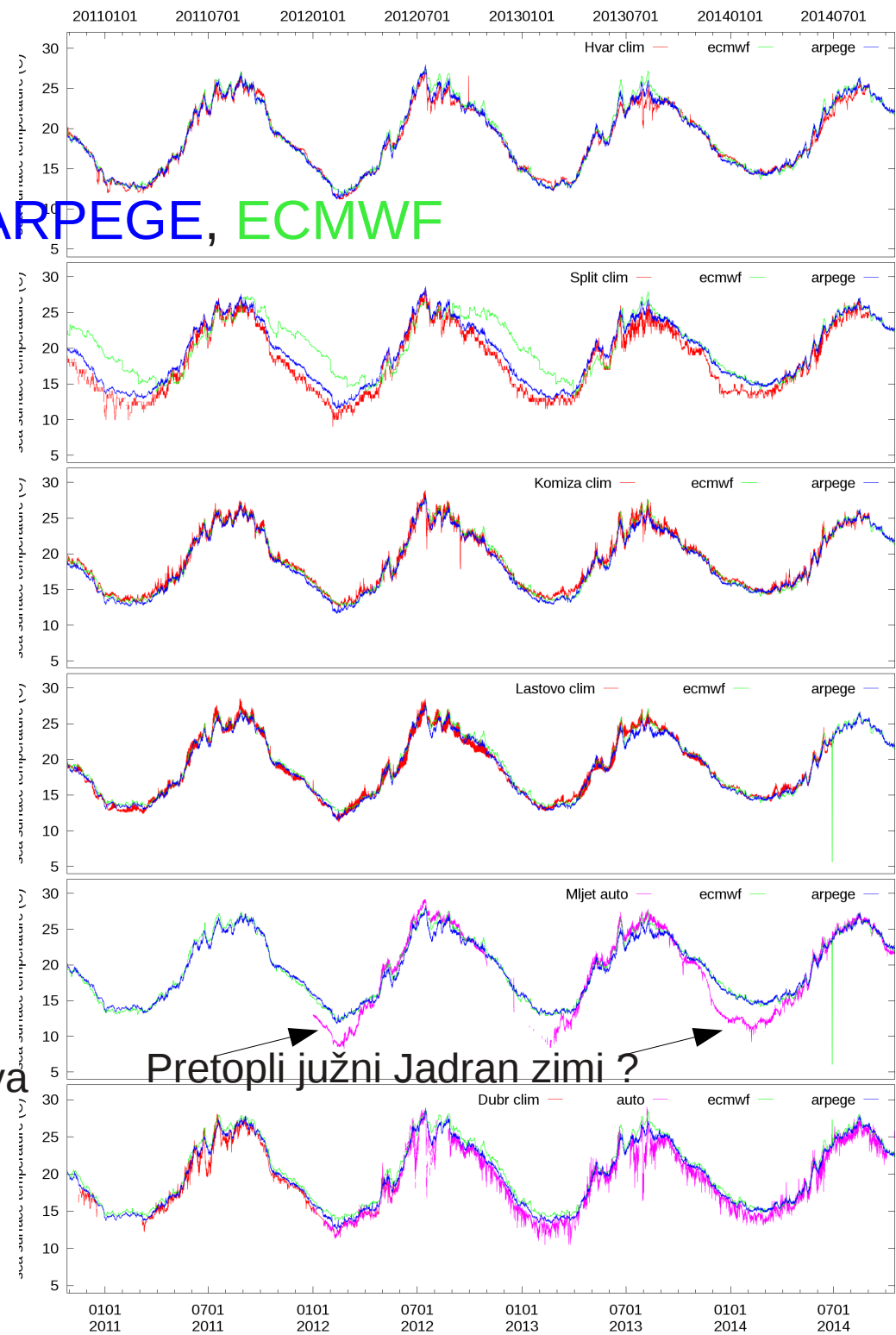
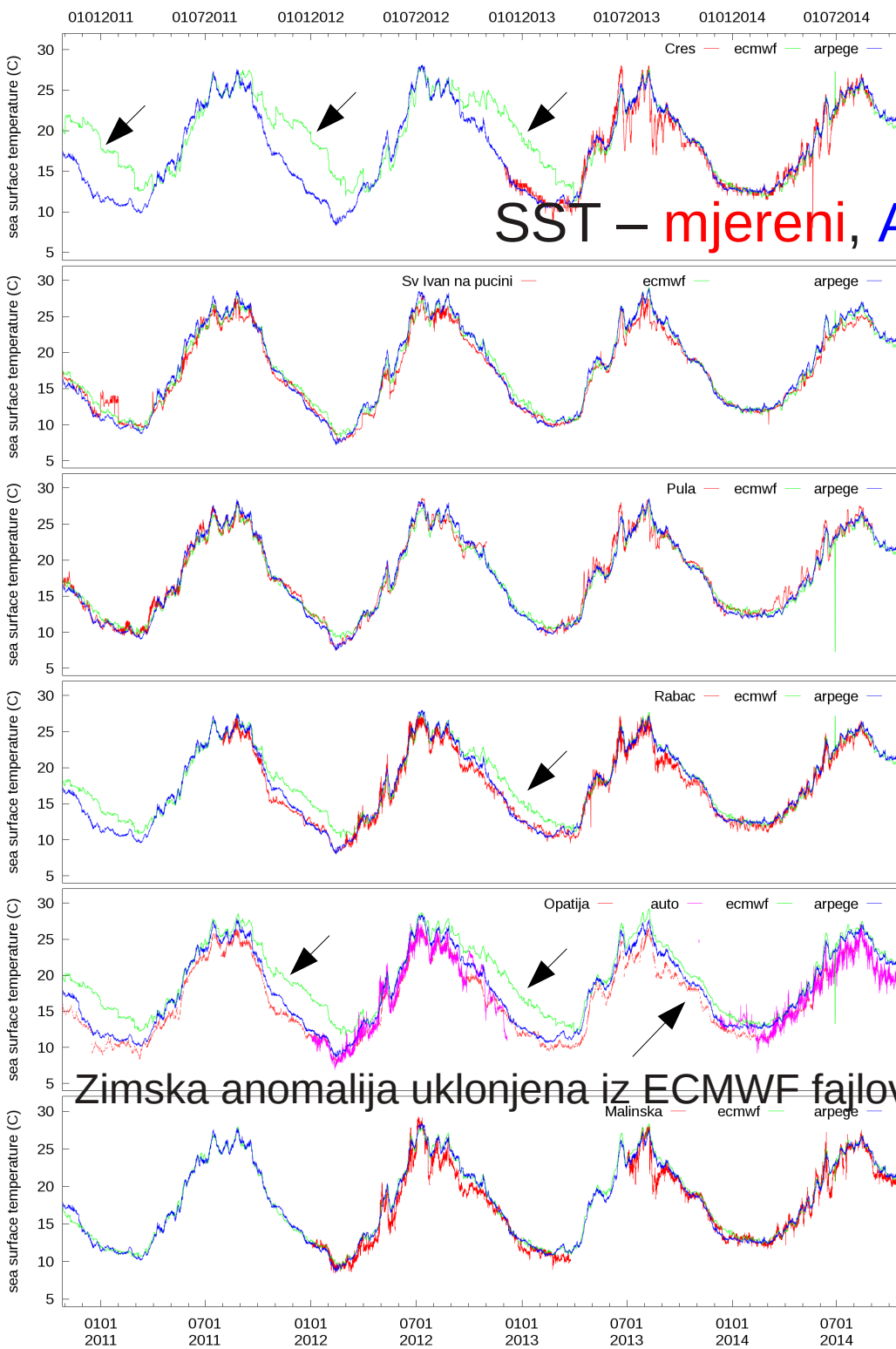
SURFA.OF.OZONE

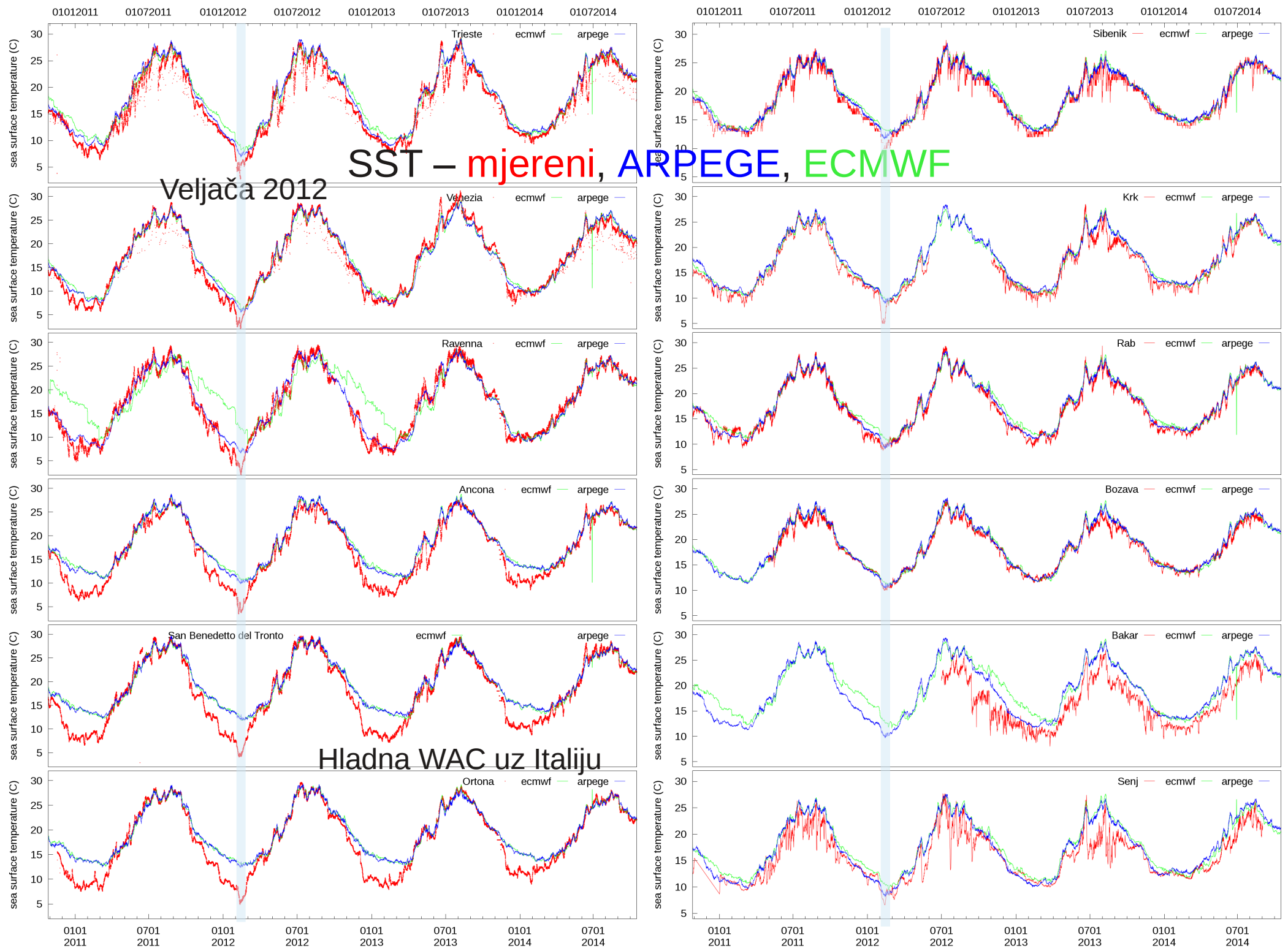


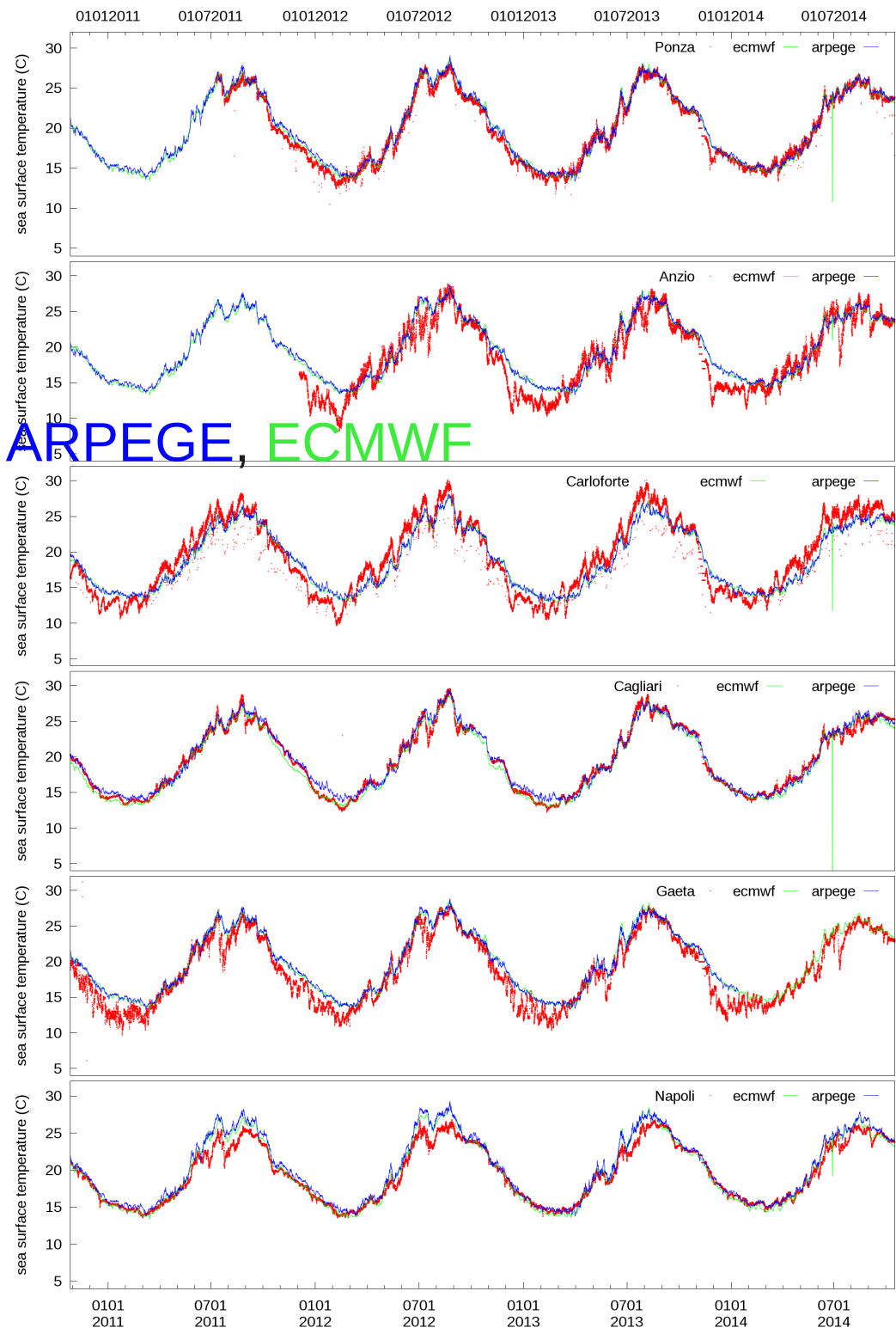
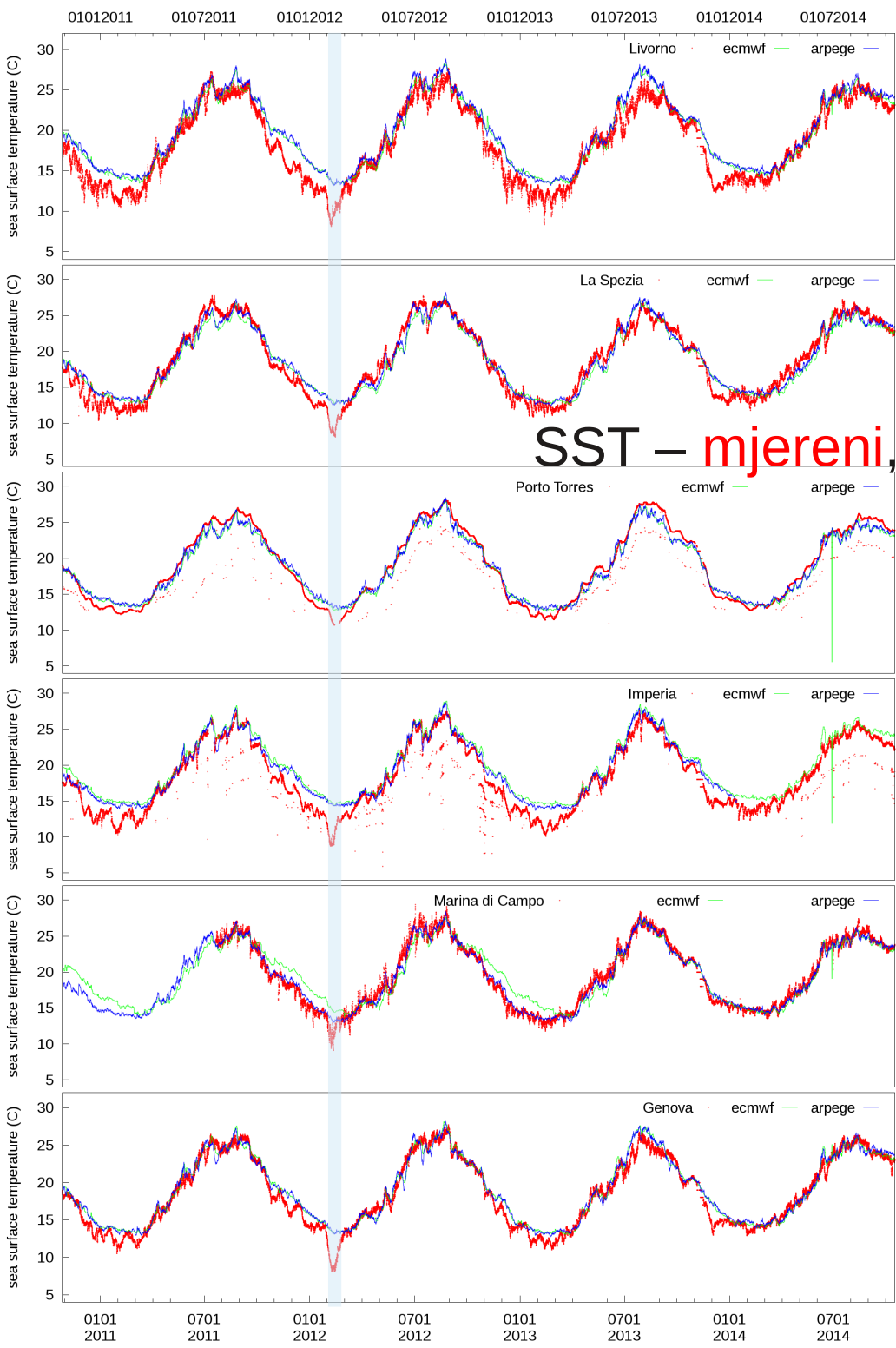
SURFPROP.URBANIS

# SST – mjereni, ARPEGE, ECMWF

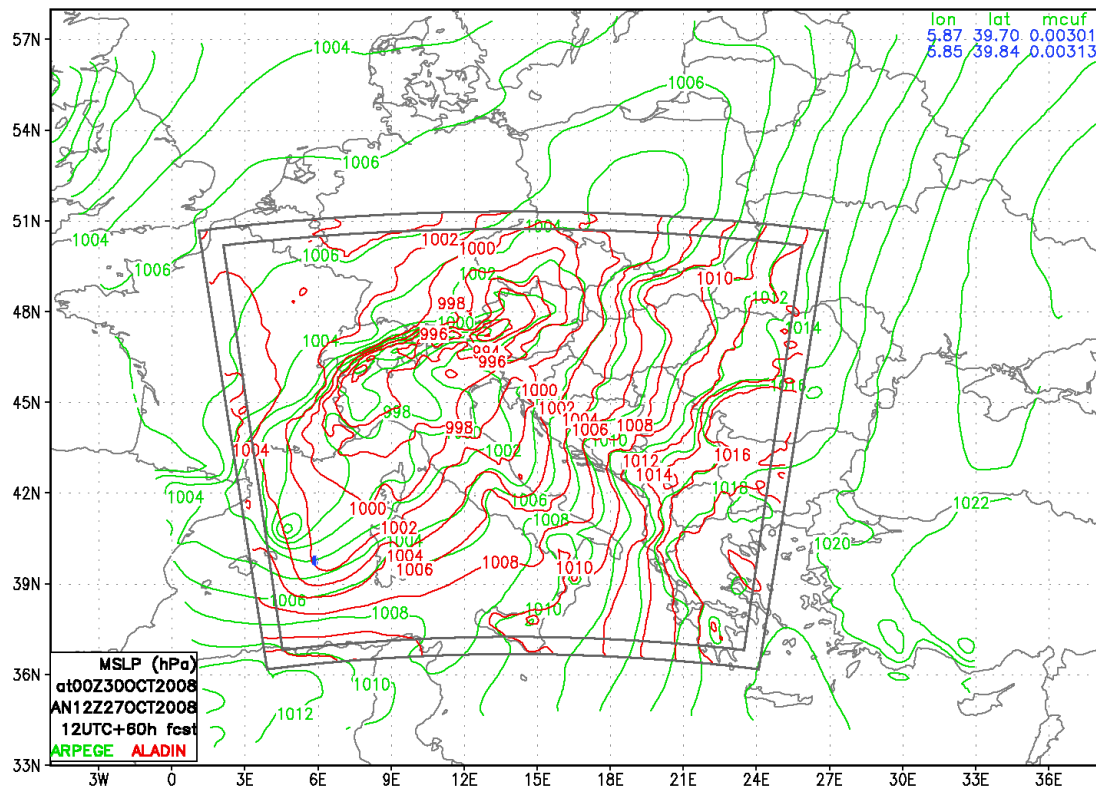








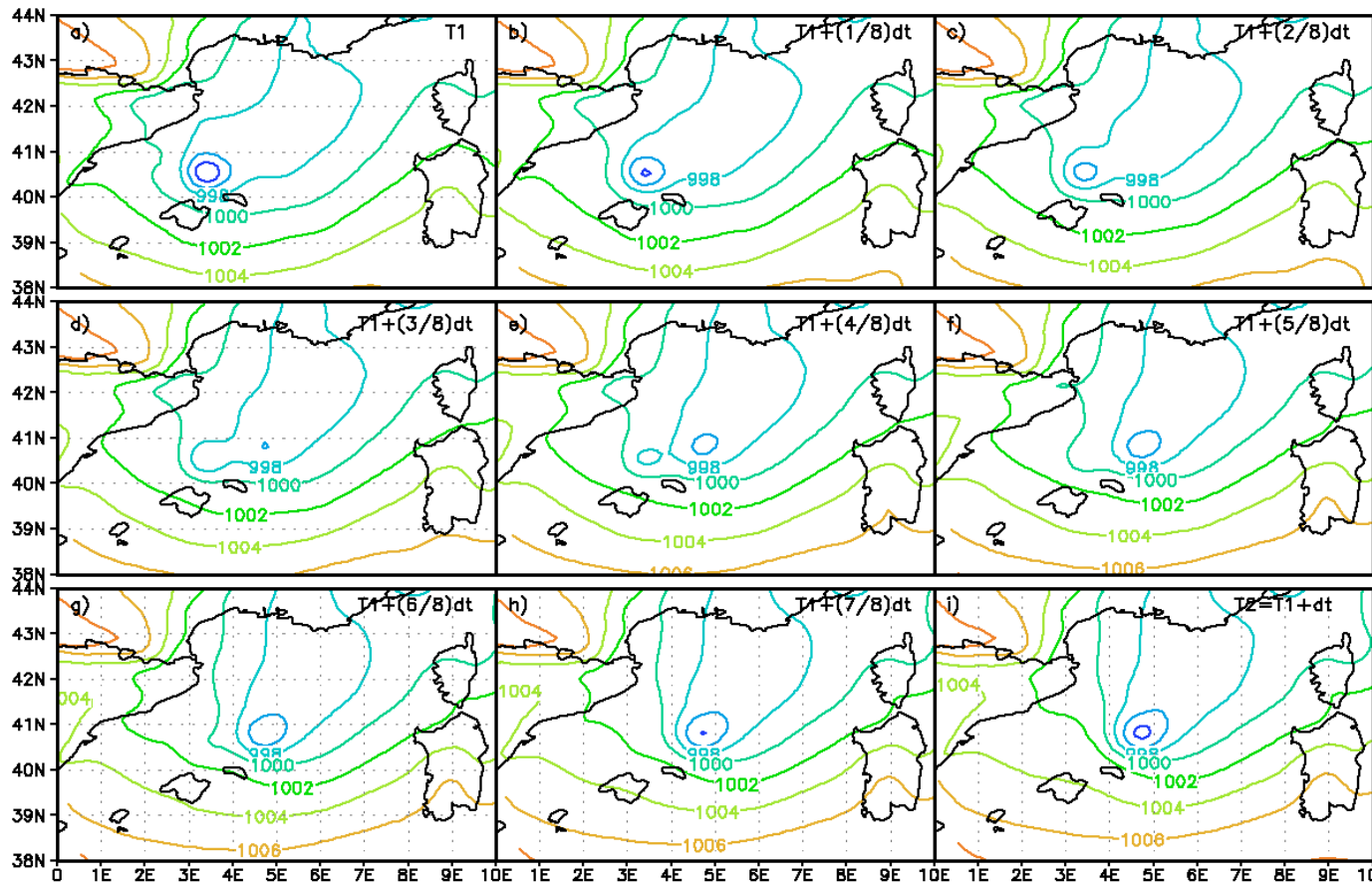
# LBC svaka 3 sata i brze ciklone



Lateralna prognostička polja koristimo u svakom vremenskom koraku (5.5 minuta) a imamo ih svaka 3 sata te ih stoga interpoliramo u vremenu – linearno.  
Ciklona može ući u domenu, a da ju LAM ne primjeti!

Tlak iz ARPEGE-a (zeleno) i ALADIN 8km prognoza (crveno) – ciklona je ušla u domenu tijekom 3 sata.

# Linearna interpolacija u vremenu



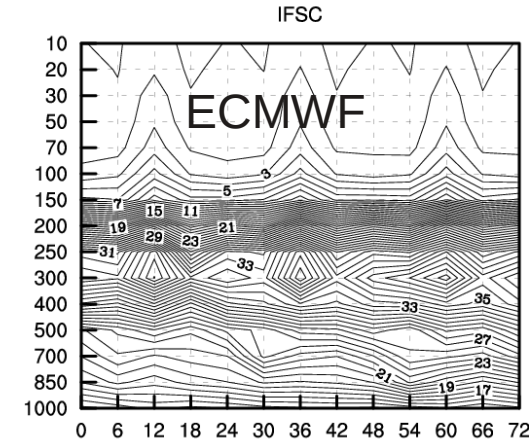
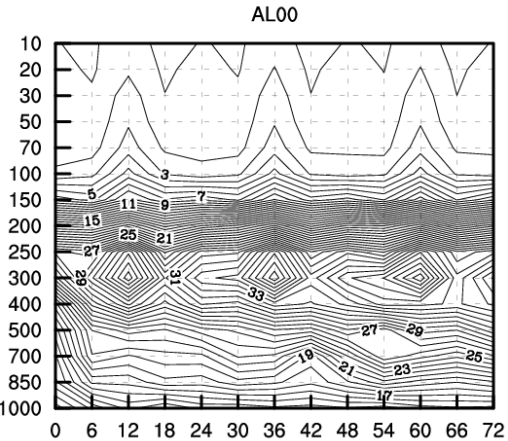
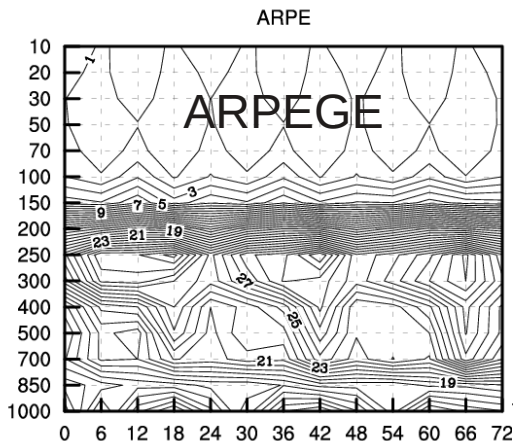
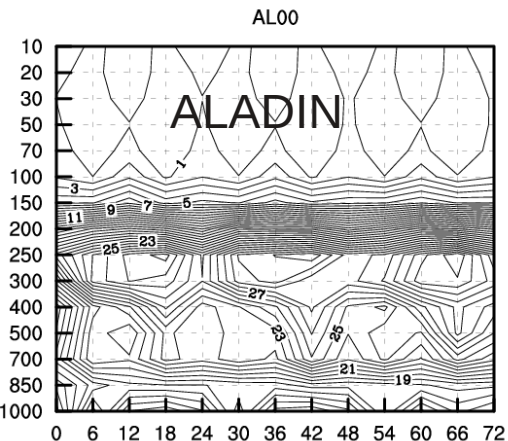
# Evolution of scores with forecast range

Period: 20130801...20130831 Network: 0UTC  
RELATIVE\_HUMIDITY (RMSE)

## RMSE

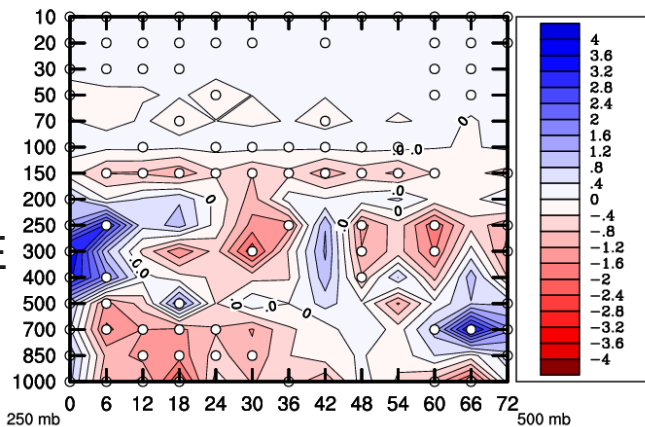
# Evolution of scores with forecast range

Period: 20140101...20140131 Network: 0UTC  
RELATIVE\_HUMIDITY (RMSE)



Difference ARPE - AL00 [%]

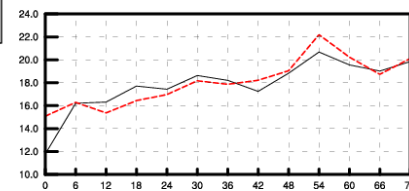
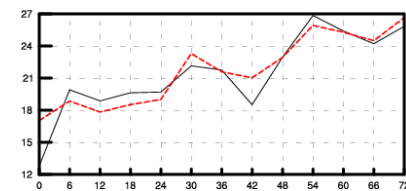
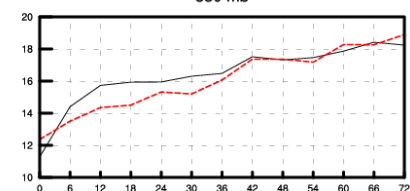
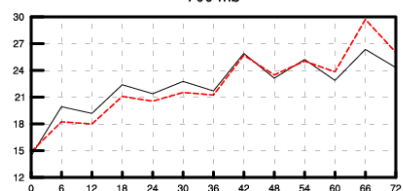
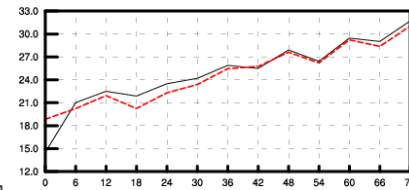
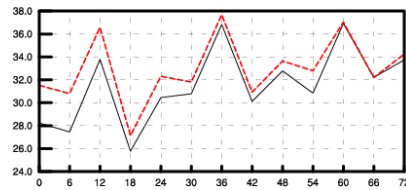
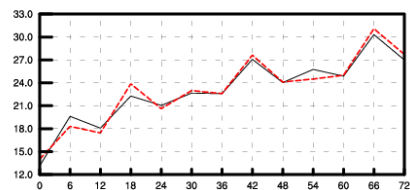
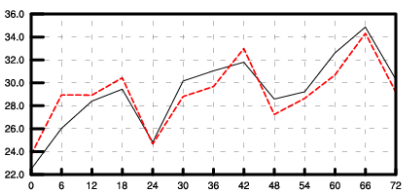
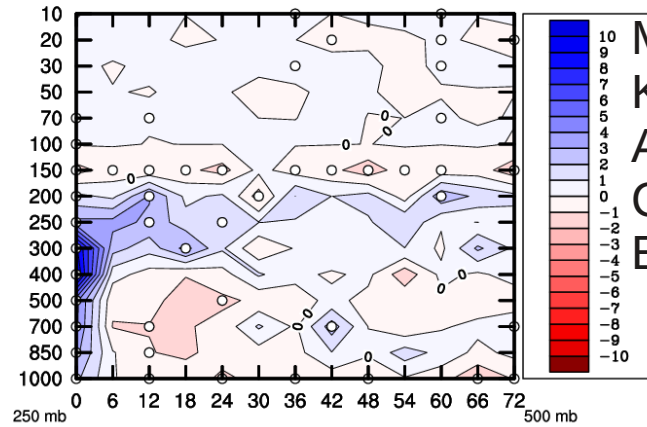
Mjesec  
Kad je  
ALADIN  
Cpl na  
ARPEGE



Greške modela  
(ALADIN, IFS,  
ARPEGE) su  
Vrlo slične

Difference IFSC - AL00 [%]

Mjesec  
Kad je  
ALADIN  
Cpl na  
ECMWF



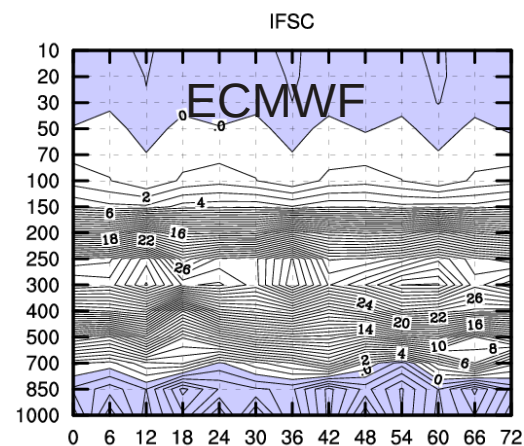
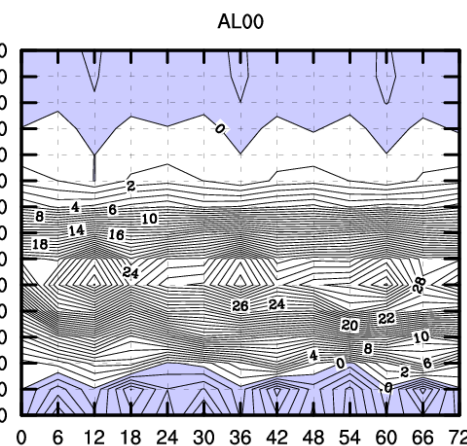
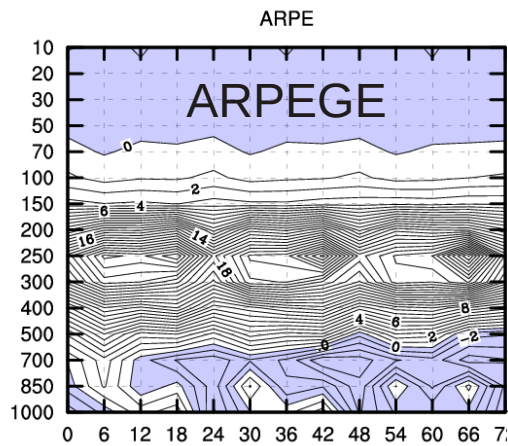
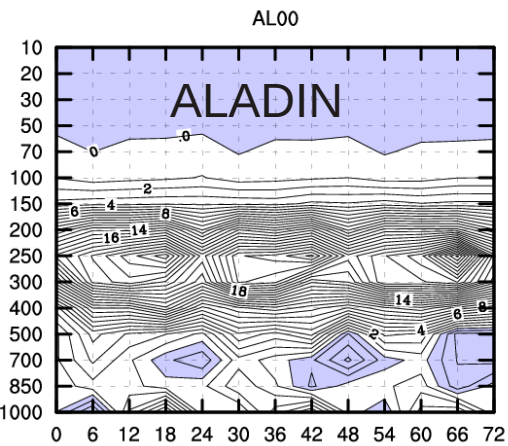
# Evolution of scores with forecast range

Period: 20130801...20130831 Network: 0UTC  
RELATIVE\_HUMIDITY (BIAS)

## BIAS

# Evolution of scores with forecast range

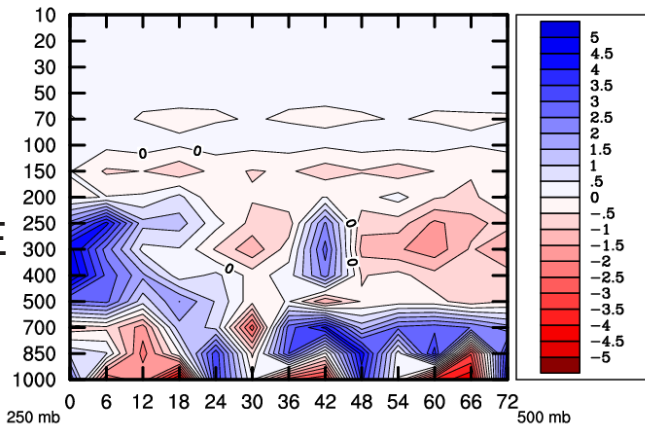
Period: 20140101...20140131 Network: 0UTC  
RELATIVE\_HUMIDITY (BIAS)



Difference ARPEGE - AL00 [%]

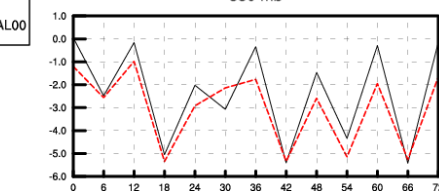
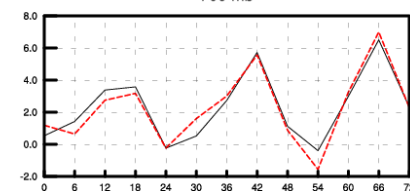
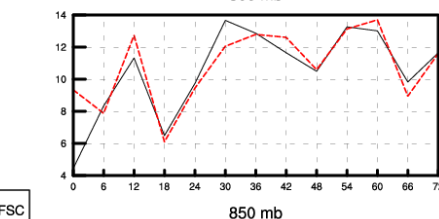
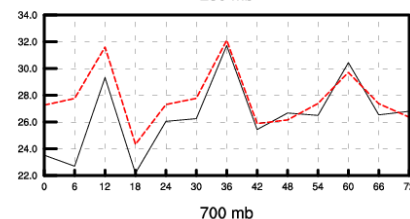
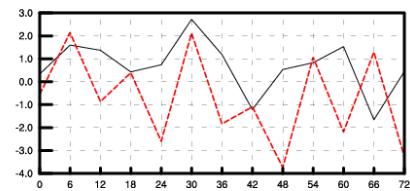
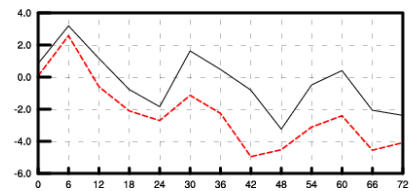
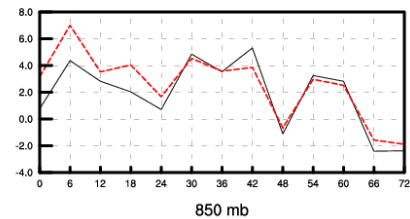
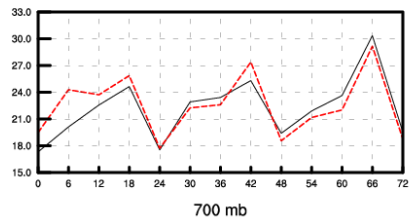
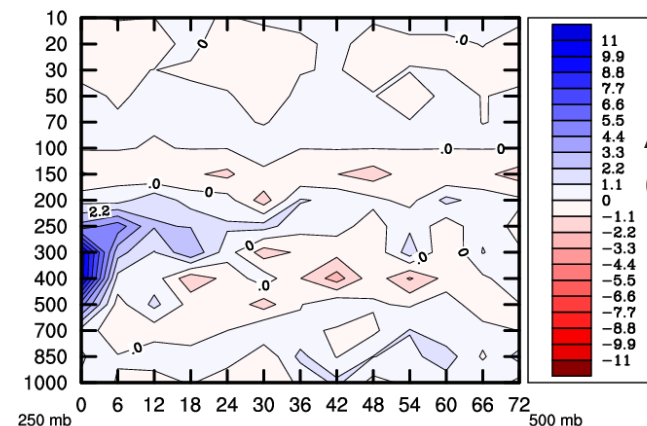
Difference IFSC - AL00 [%]

Mjesec  
Kad je  
ALADIN  
Cpl na  
ARPEGE



BIAS  
(ALADIN, IFS,  
ARPEGE)

Mjesec  
Kad je  
ALADIN  
Cpl na  
ECMWF



# BIAS vlage

- U sloju atmosfere do 700 hPa je premalo a iznad tog sloja previše vlage zato što premalo/previše vlage ulazi u domenu u tim slojevima