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Comparison of two ways to convert ECMWF soil variables into ALADIN/HARMONIE ones

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Outline of the presentation



- Fields extracted from MARS for the IFS/AAAH 901 + E927 configurations
- Fields comparison [GL vs (901 + E927)]

Extracted surface fields from MARS



27	Low vegetation cover
28	High vegetation cover
29	Type of low vegetation
30	Type of high vegetation
32	Snow albedo
33	Snow density
129	Orography
172	Land-sea mask
173	Surface roughness
174	Albedo
139	Soil temperature level 1
170	Soil temperature level 2
183	Soil temperature level 3
236	Soil temperature level 4
39	Volumetric soil water layer 1
40	Volumetric soil water layer 2
41	Volumetric soil water layer 3
42	Volumetric soil water layer 4
141	Snow depth
160	Standard deviation of orography
161	Anisotropy of sub-gridscale orography
162	Angle of sub-gridscale orography

198 - skin reservoir
content?

235 - skin temperature?



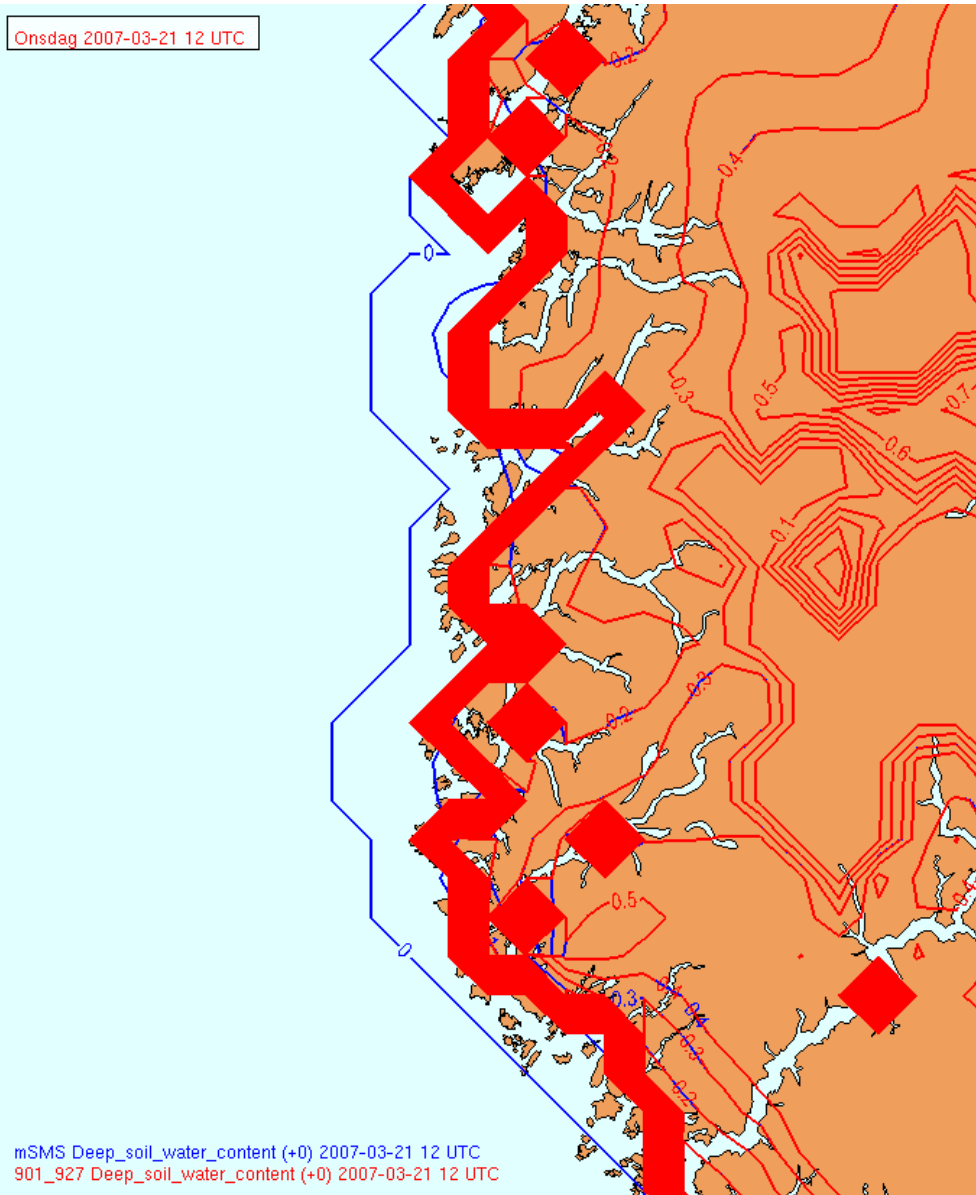
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- blending variable: PROFRESERV.EAU
- blending variable: PROFRESERV.GLACE
- blending variable: SURFTEMPERATURE
- blending variable: SURFRESERV.EAU
- blending variable: SURFRESERV.GLACE
- blending variable: SURFRESERV.INTER
- blending variable: SURFRESERV.NEIGE
- copying variable: SURFZ0.FOIS.G
- copying variable: SURFALBEDO
- copying variable: SURFEMISSIVITE
- copying variable: SURFET.GEOPOTENT
- copying variable: SURFIND.TERREMER
- copying variable: SURFPROP.VEGETAT
- copying variable: SURFVAR.GEOP.ANI
- copying variable: SURFVAR.GEOP.DIR
- copying variable: SURFIND.VEG.DOMI
- copying variable: SURFRESI.STO.MIN
- copying variable: SURFPROP.ARGILE
- copying variable: SURFPROP.SABLE
- copying variable: SURFEPAIS.SOL
- copying variable: SURFIND.FOLIAIRE
- copying variable: SURFRES.EVAPOTRA
- copying variable: SURFGZ0.THERM

Soil water content (superposition of the two fields)



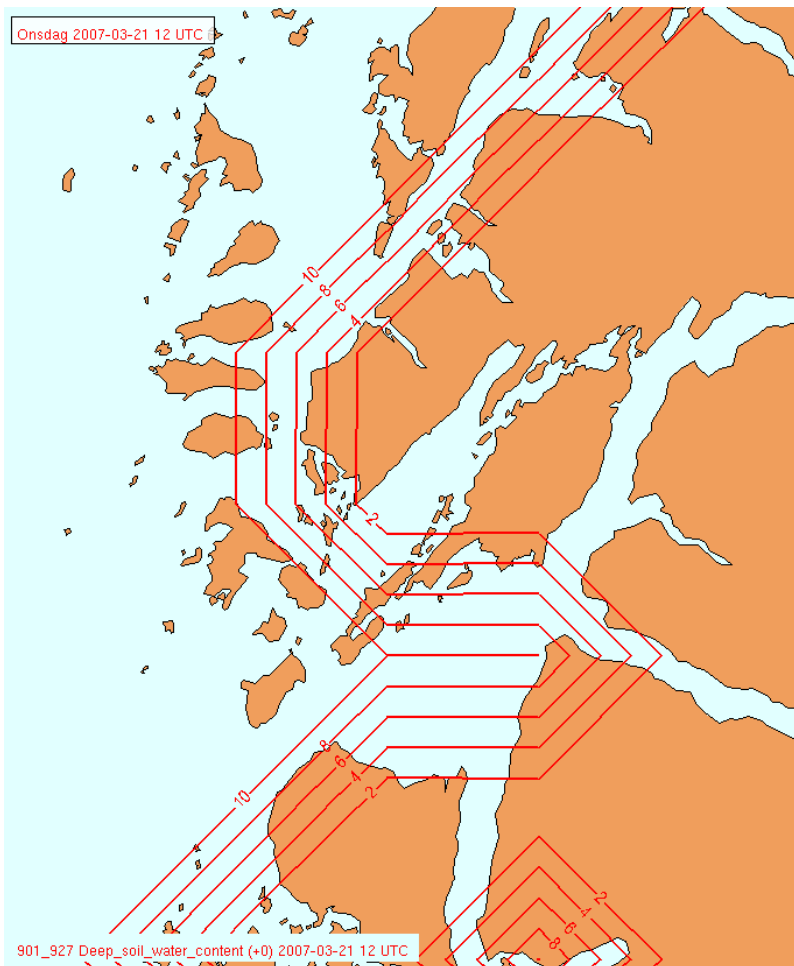
Onsdag 2007-03-21 12 UTC

Blue: GL case
Red: ALD case



mSMS Deep_soil_water_content (+0) 2007-03-21 12 UTC
901_927 Deep_soil_water_content (+0) 2007-03-21 12 UTC

Soil water content

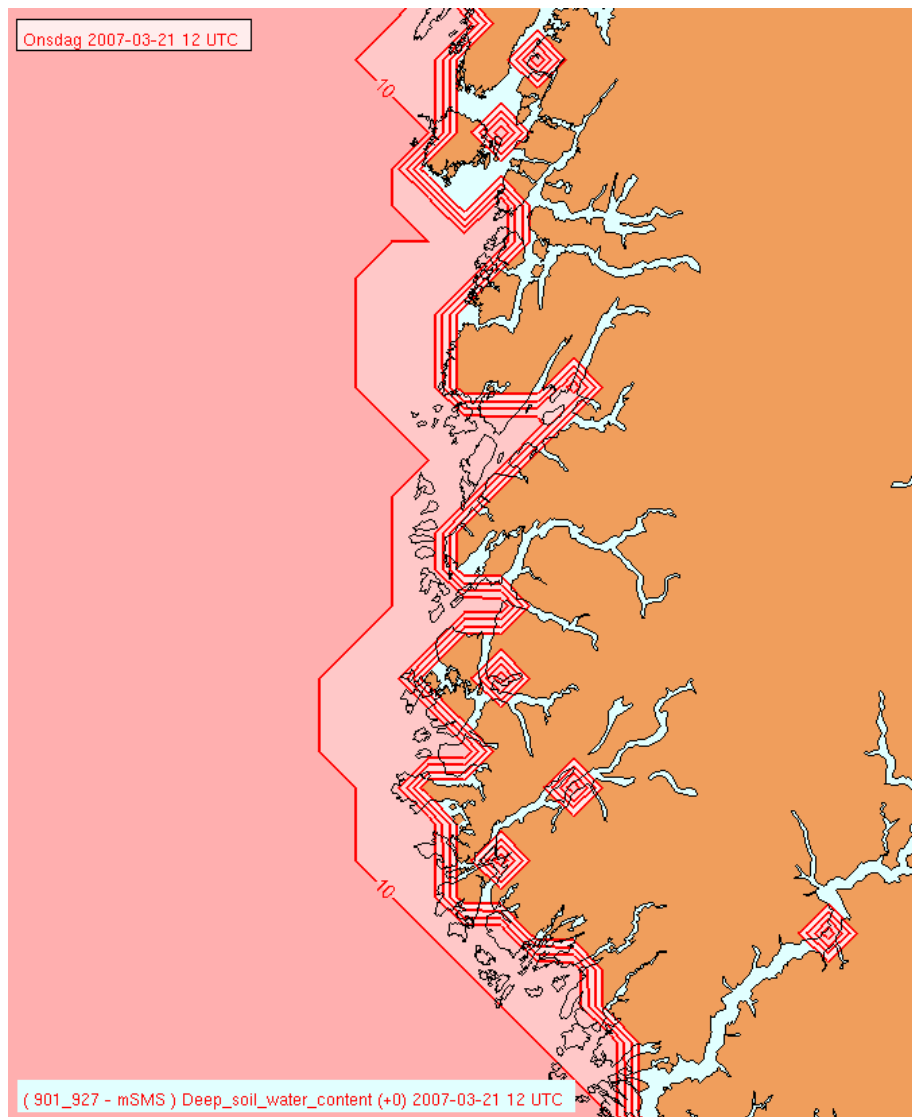


Red: ALD case



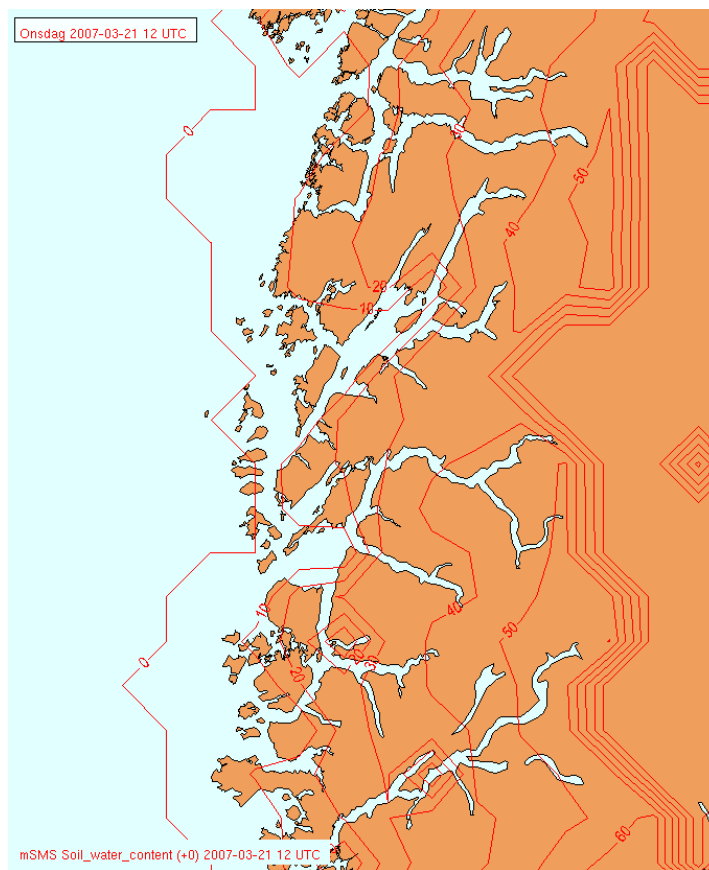
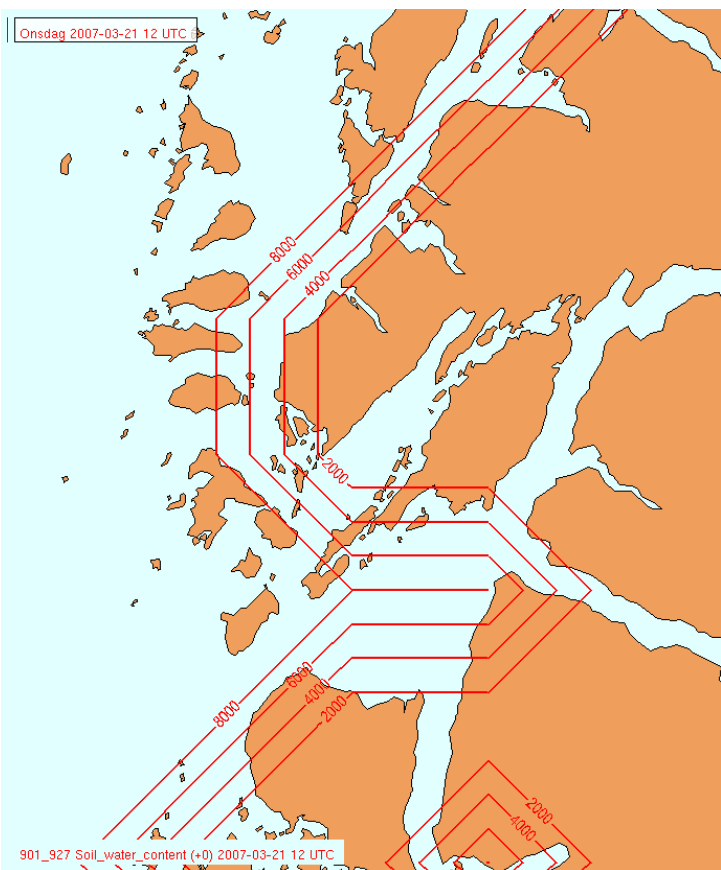
Blue: GL case

Soil water content (field difference)



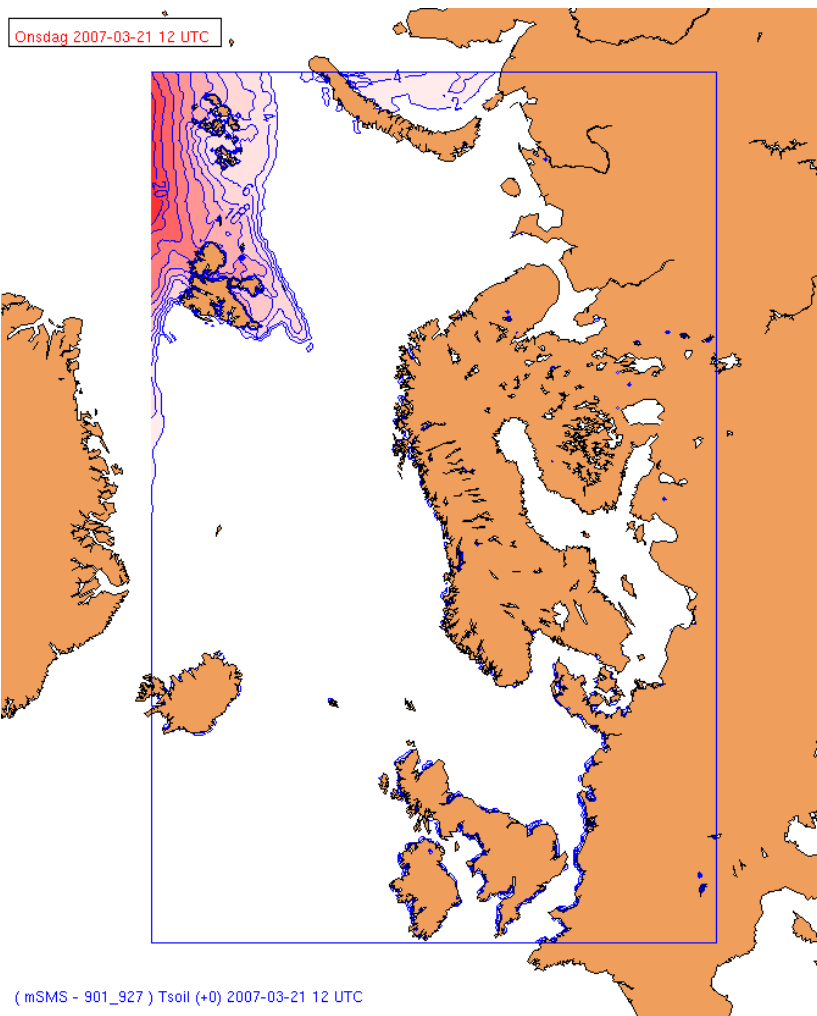


Re-scaled deep soil water content



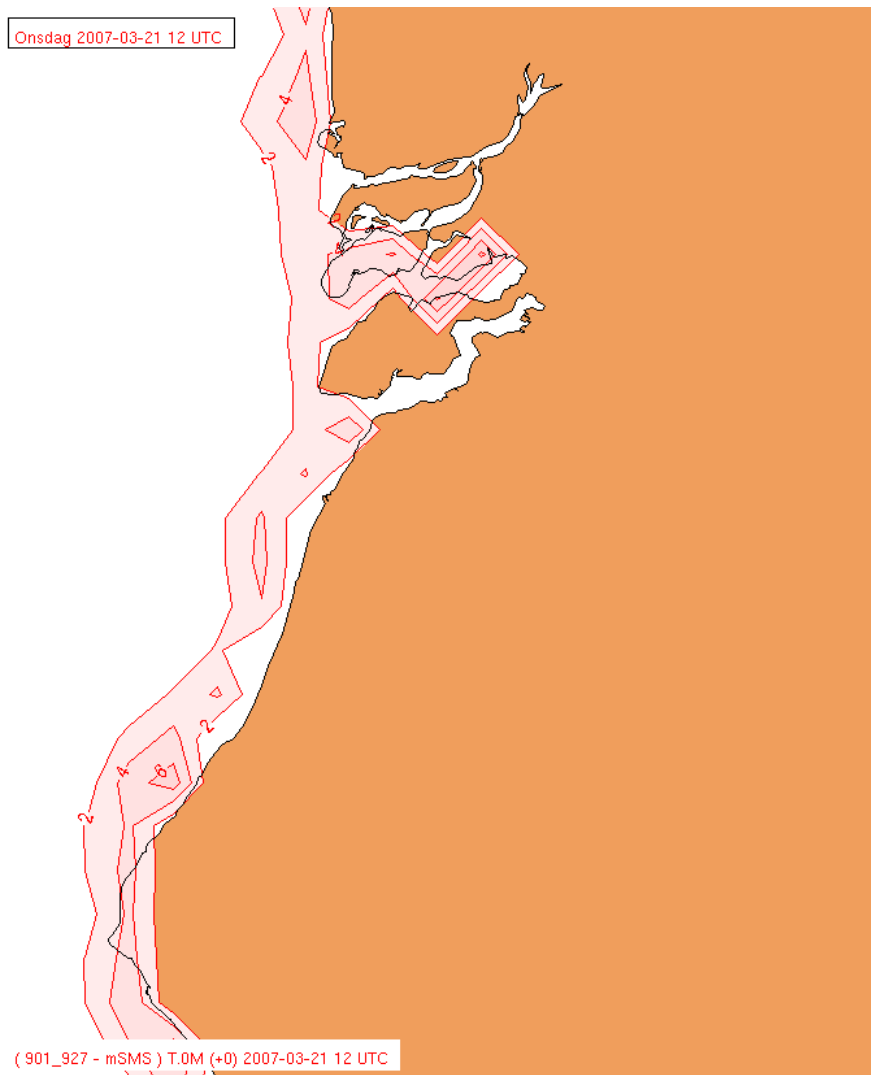


T-soil difference



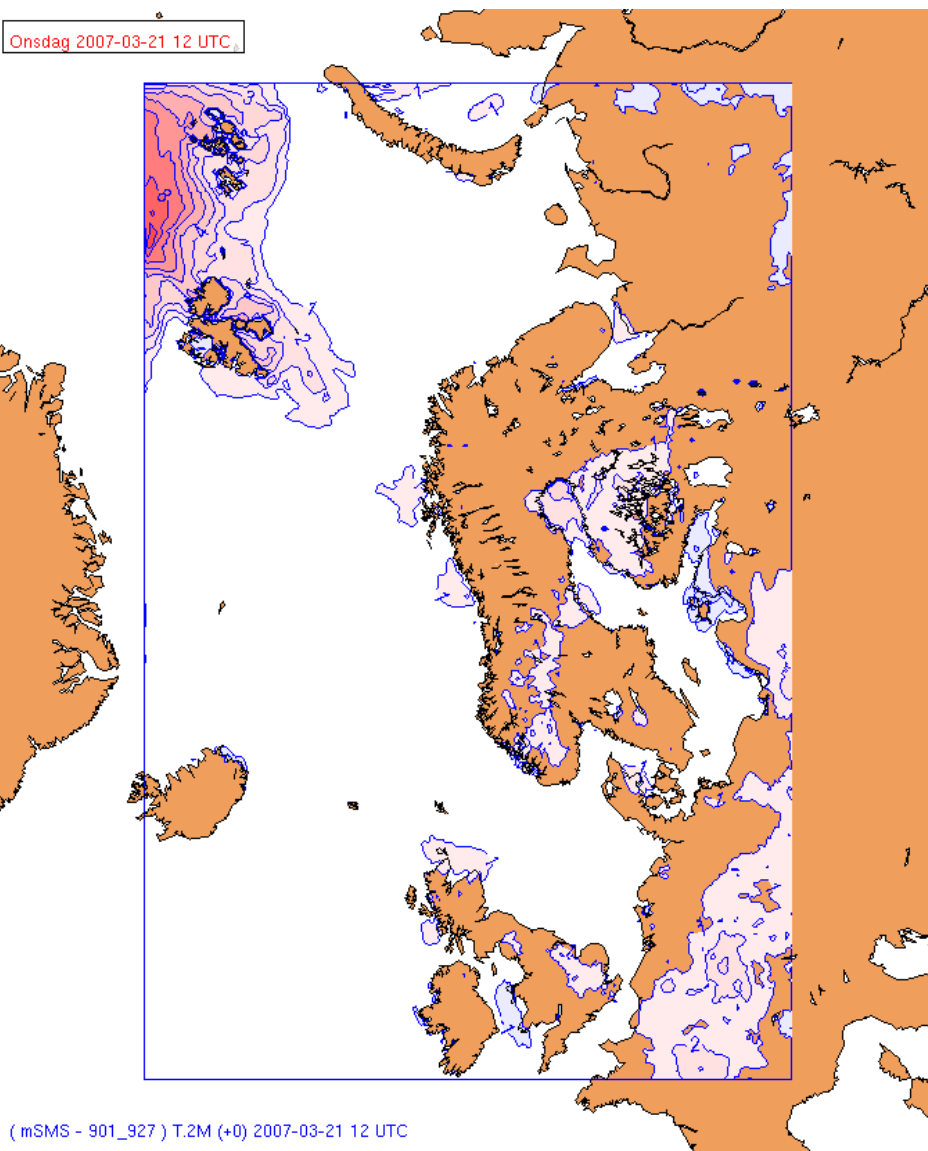


T-OM difference



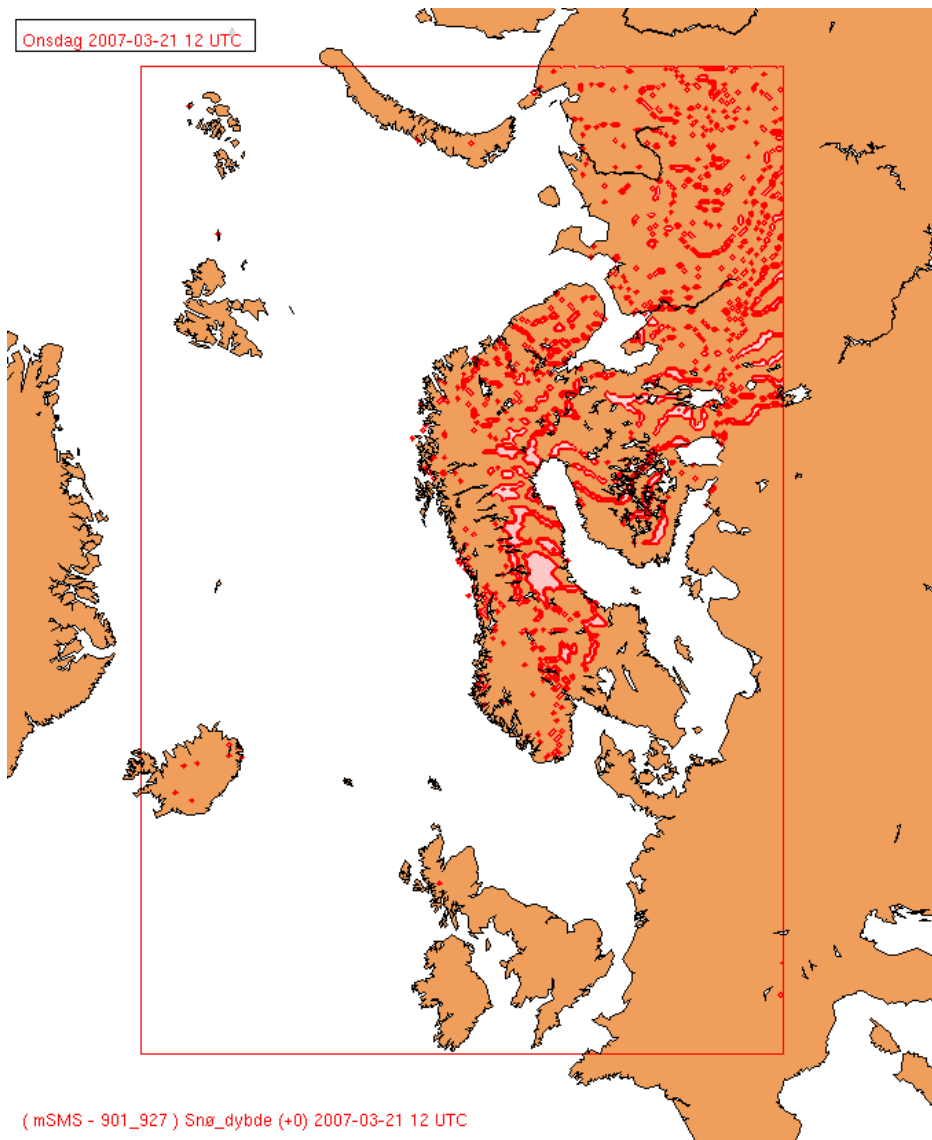


T-2M difference





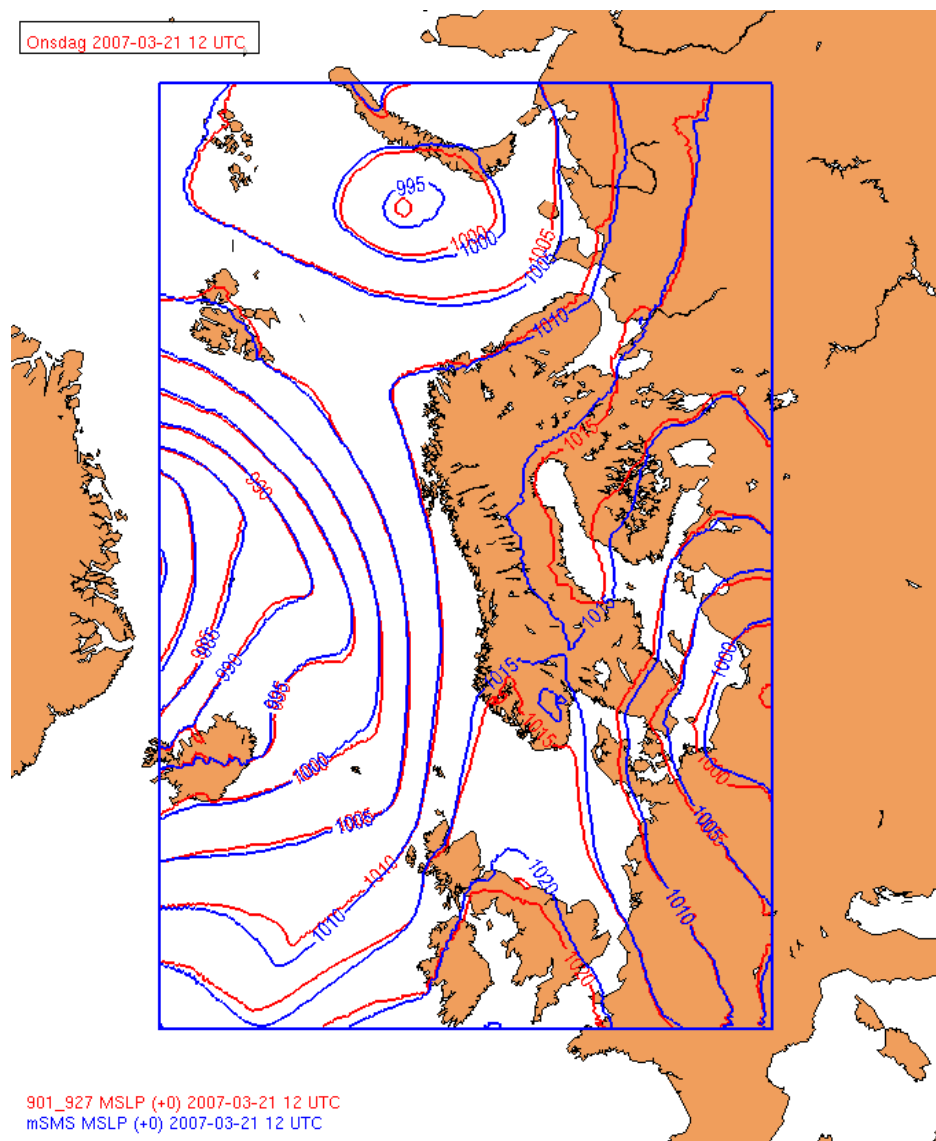
Snow difference





MSLP difference

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901_927 MSLP (+0) 2007-03-21 12 UTC
mSMS MSLP (+0) 2007-03-21 12 UTC