Norwegian Meteorological Institute
met.no

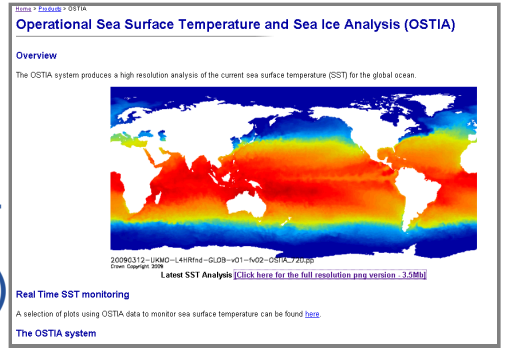
Status of CANARI SST and SIC in HARMONIE

Mariken Homleid

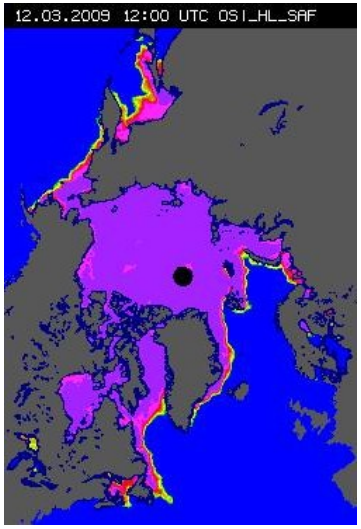
NetFAM working week on surface assimilation working, 16 March 2009

Outline

SST - Sea Surface Temperature – from ECMWF
- from OSTIA / UK MetOffice (30.sep.2008)



SIC - Sea Ice Concentration - from ECMWF
- from O&SI SAF / met.no (30.sep.2008)



Technical details

Show results with version 35h1branch,
6 June 2008

SST

- global
- ~6km
- daily

Observations

- AVHRR
- ATSR
- AMSR-E
- in situ

Analysis method

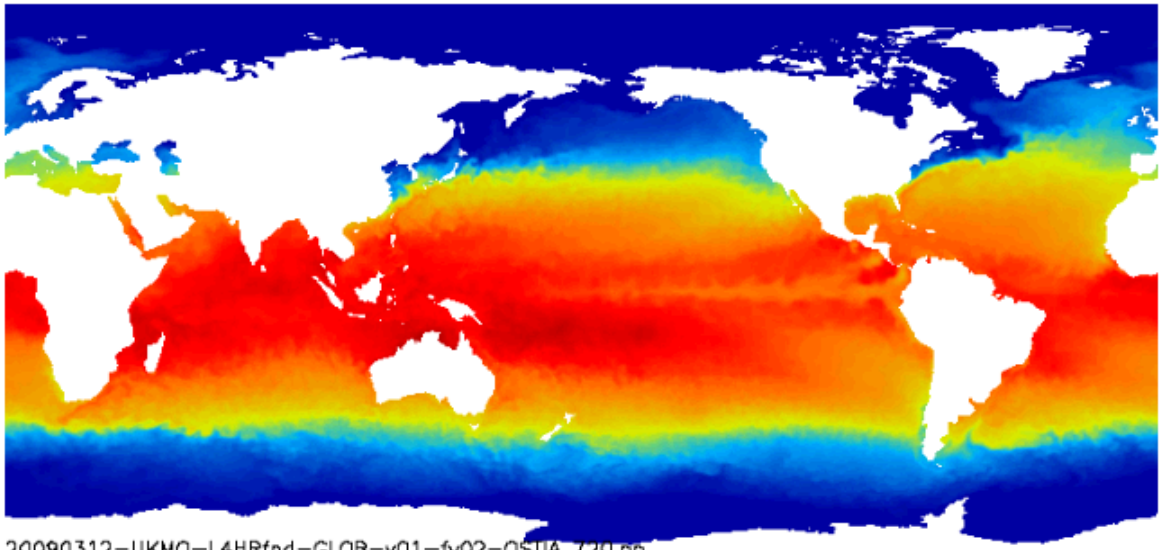
- OI
- quality control
- bias corrections

Home > Products > OSTIA

Operational Sea Surface Temperature and Sea Ice Analysis (OSTIA)

Overview

The OSTIA system produces a high resolution analysis of the current sea surface temperature (SST) for the global ocean.



20090312-UKMO-L4HRfnd-GLOB-v01-fv02-OSTIA_720.jpg

Crown Copyright 2009

Latest SST Analysis [Click here for the full resolution png version - 3.5Mb]

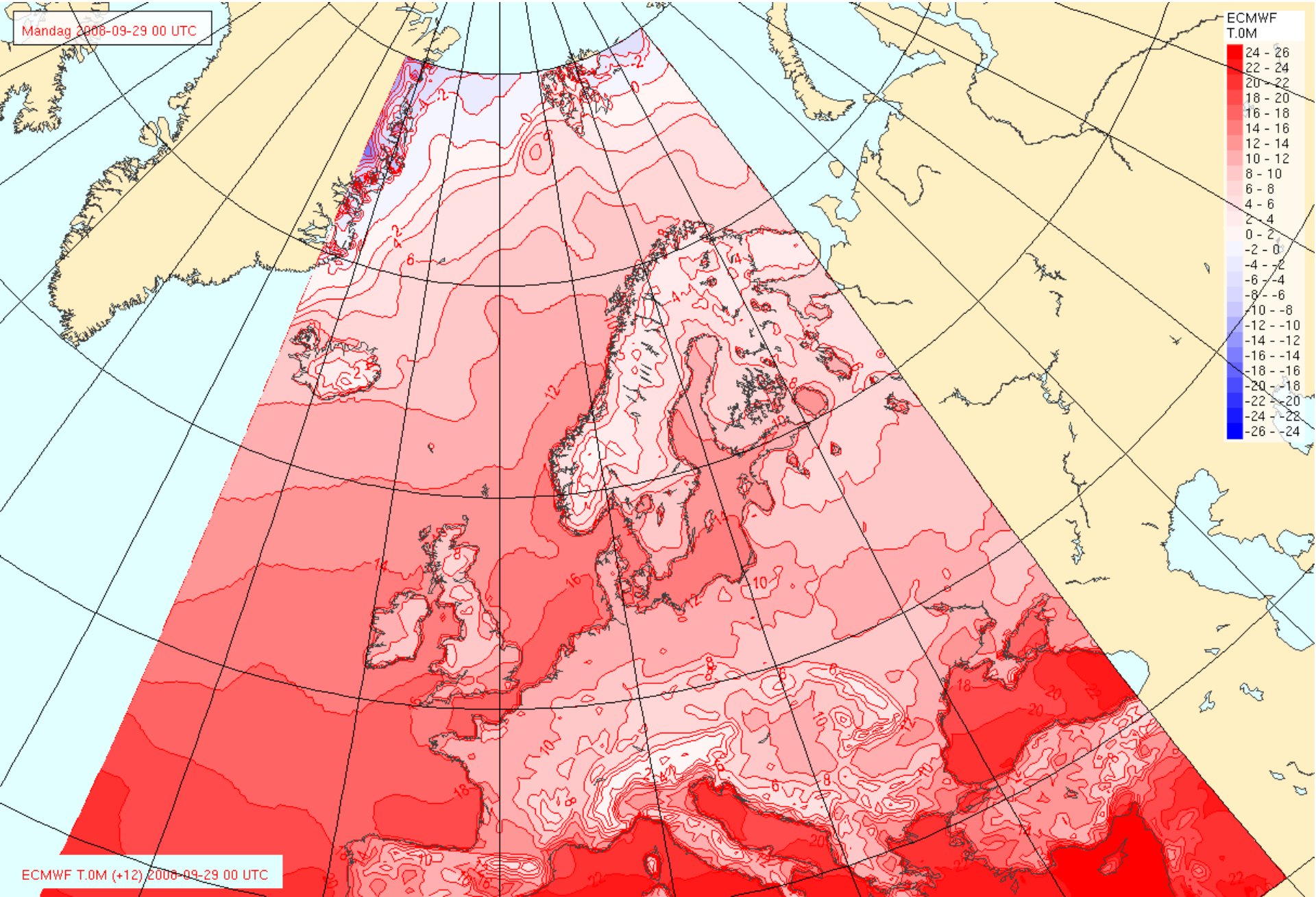
Real Time SST monitoring

A selection of plots using OSTIA data to monitor sea surface temperature can be found here.

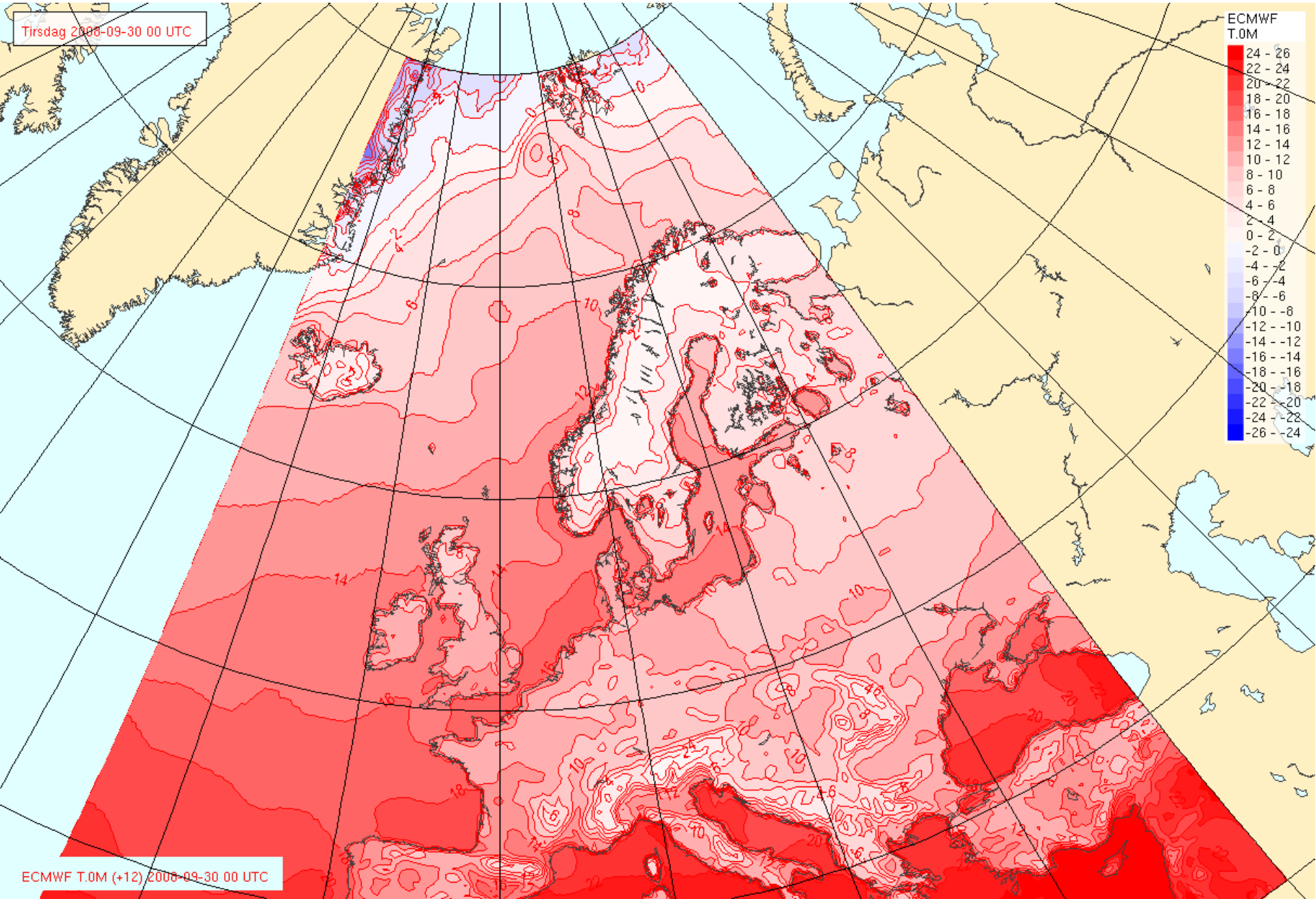
The OSTIA system

For more information see:
http://ghrsst-pp.metoffice.com/pages/latest_analysis/ostia.html

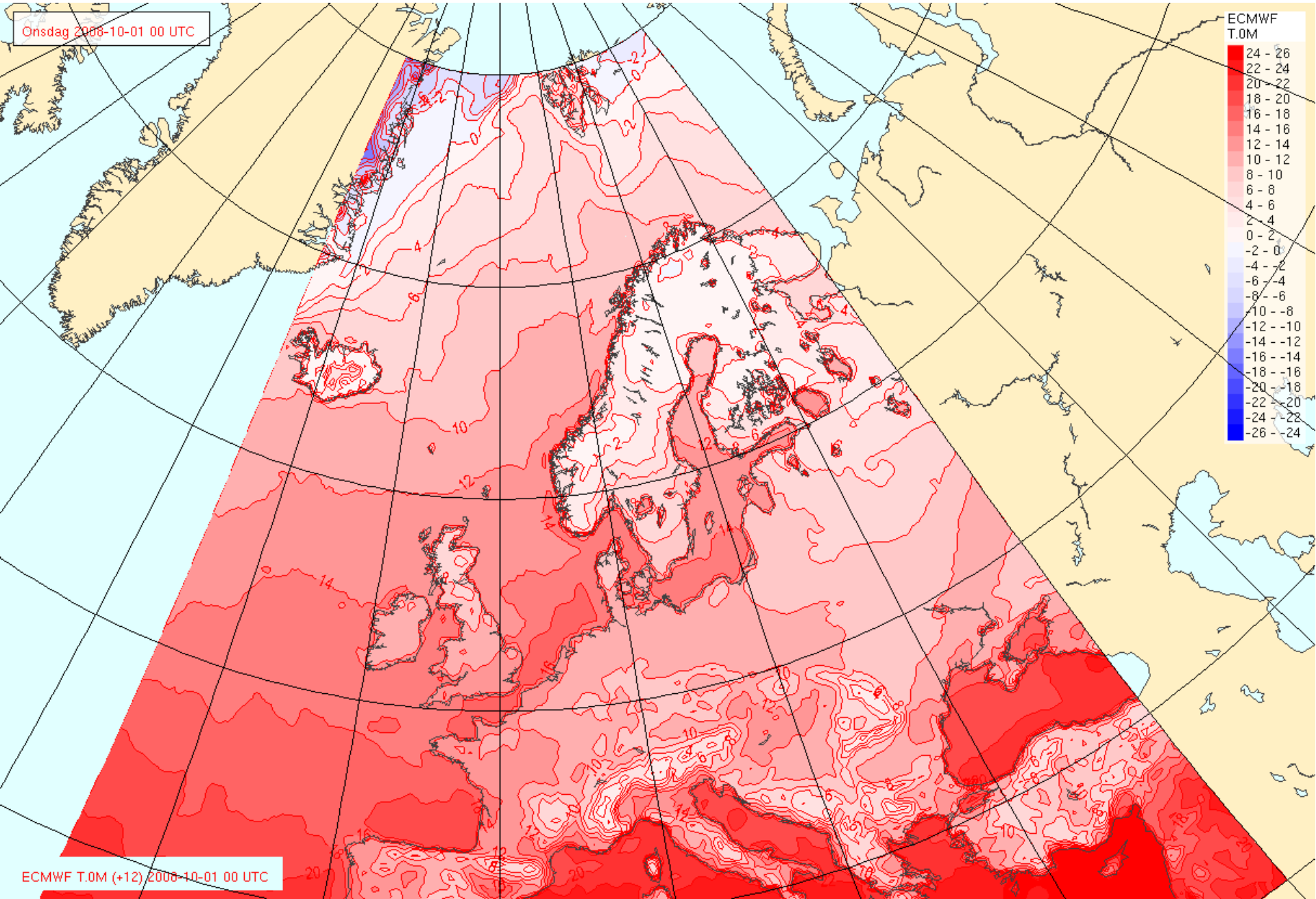
ECMWF SST/T0m 29. September 2008



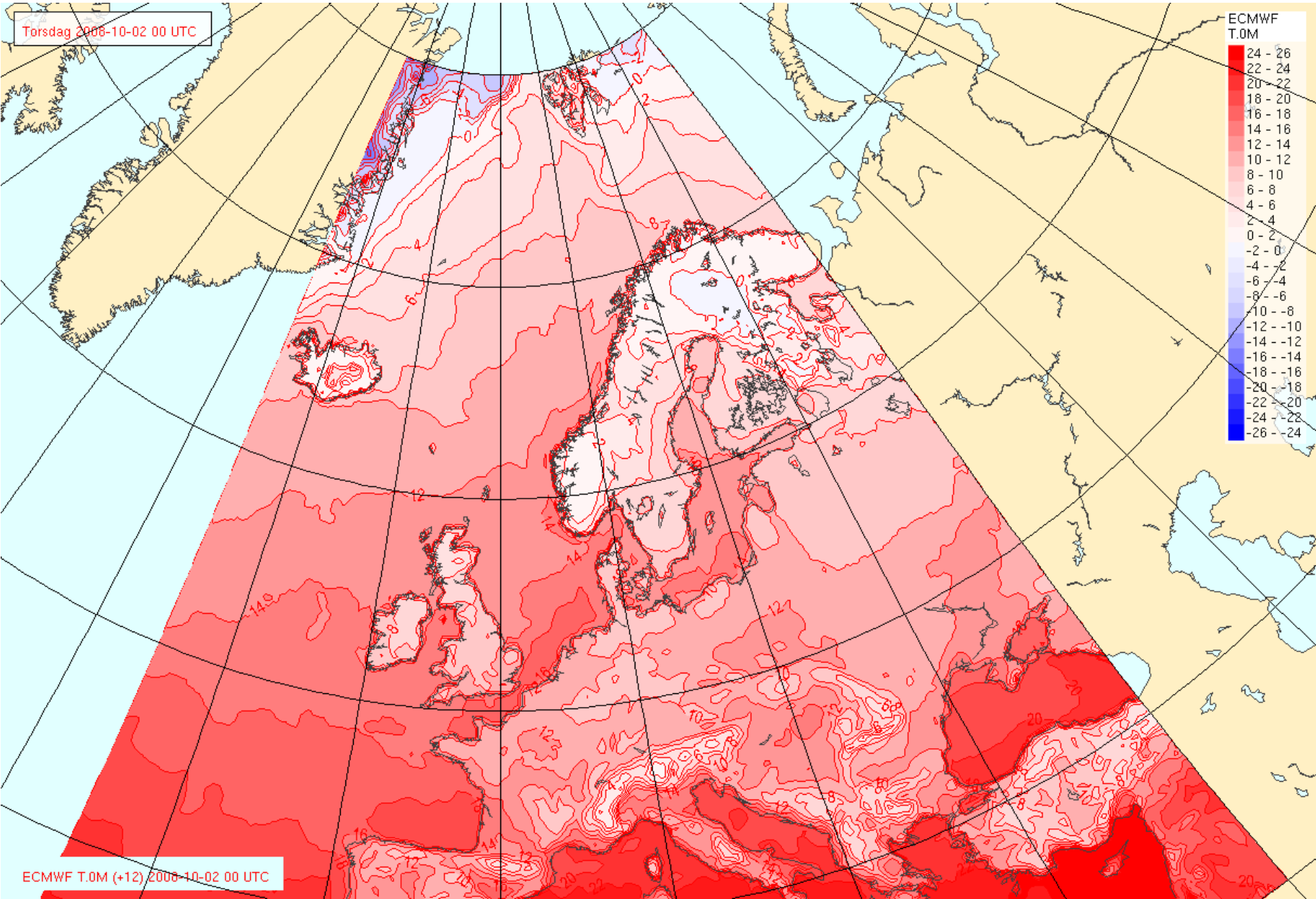
ECMWF SST/T0m 30. September 2008



ECMWF SST/T0m 1. October 2008



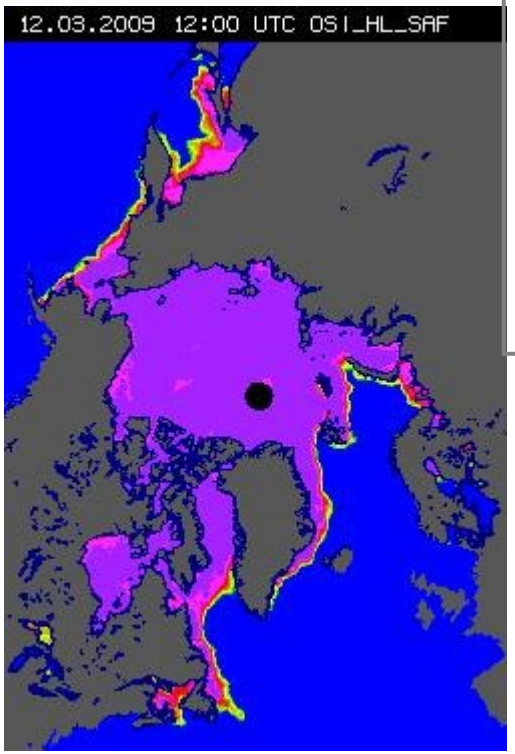
ECMWF SST/T0m 2. October 2008



SIC

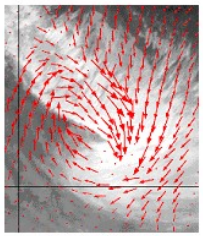
- daily
- hemispheric
- polar stereographic
- 10 km

Based on
- SSM/I



O&SI SAF Web Site
The O&SI SAF project bears on an european consortium hosted by Meteo-France

Home
Login (registered users)


Global Wind (KNMI)

EUMETSAT Ocean & Sea Ice Satellite Application Facility

For complementing its Central Facilities capability in Darmstadt and taking more benefit from specialized expertise in Member States, EUMETSAT created Satellite Application Facilities (SAFs), based on co-operation between several institutes and hosted by a National Meteorological Service.

The Ocean and Sea Ice Satellite Application Facility (OSI SAF) is an answer to the common requirements of meteorology and oceanography for a comprehensive information on the ocean-atmosphere interface.

One of the objectives of the OSI SAF is to produce, control and distribute operationally in near real-time OSI SAF products using available satellite data with the necessary Users Support activities... More on the project

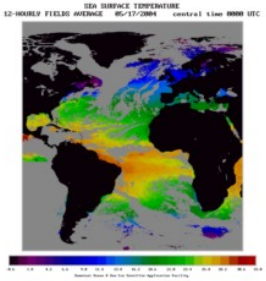
OSI SAF production status:

MAP SSI/DLI Ope.	LML SSI/DLI Ope.	MetOp SST Ope.
NAR SST Ope.	MAP SST Ope.	LML SST Ope.
HL Sea Ice Ope.	NH Sea Ice Ope.	SH Sea Ice Ope.
SeaWinds 100km Wind Ope.	SeaWinds 25km Wind Ope.	ASCAT 25km Wind Ope.
ASCAT 12.5km Wind Ope.		

Ope. Pre-ope. Demo. Degraded Outage

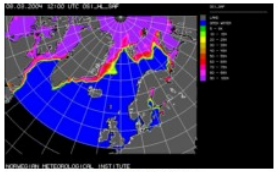
Menu:

Program overview : A view on the project.
Products presentation: : A view on the products.quicklooks, validation, statistics...
Documentation.
News : Complete list of news about the OSI SAF.
Links to related sites.
Account request : Users are invited to register by asking for an account. When logging in they will get access to the products and benefit from the User Support : **Help Desk**, up-to-date information about the production, including Service Messages, documentation and other relevant information.
Login: For registered users only.


Sea Surface Temperature (Météo-France)

Quicklooks and Product User Manuals:

Product	Quicklook	PUM
Atlantic SSI		1.5
Atlantic DLI		1.5
Atlantic SST		1.6
NAR SST		1.7
Metop SST		1.5
Sea Ice		3.5
Seawinds Wind 100km		1.5
Seawinds Wind 25km		1.5
ASCAT 25 km Wind		1.6
ASCAT 12.5 km Wind		1.6


Sea Ice (Met.no)

The Help Desk

The user Help desk aims at :
offering the users the opportunity to make any question, request or suggestion, with the guarantee that they demand will be acknowledged or answered to in time and addressed by the appropriate team.
providing the production centers and the project team with a profitable feed back from the users so that the production keeps on meeting its quality and availability requirements and that the need expressed by the user

For more information see:
http://www.osi-saf.org/index.php

Technical details related to the update of SST/Ts in CANARI

1) Update SST-field – in subroutine caclsst
   Over sea: ECMWF SST – **type AN – with missing v**
   along coasts and over la
   Coasts where lsm=0: extrapolation of ECMWF SST
   Over land: Ts from climate files

2) OI analysis of T2m and RH2m - in subroutine cat2as and cah2as

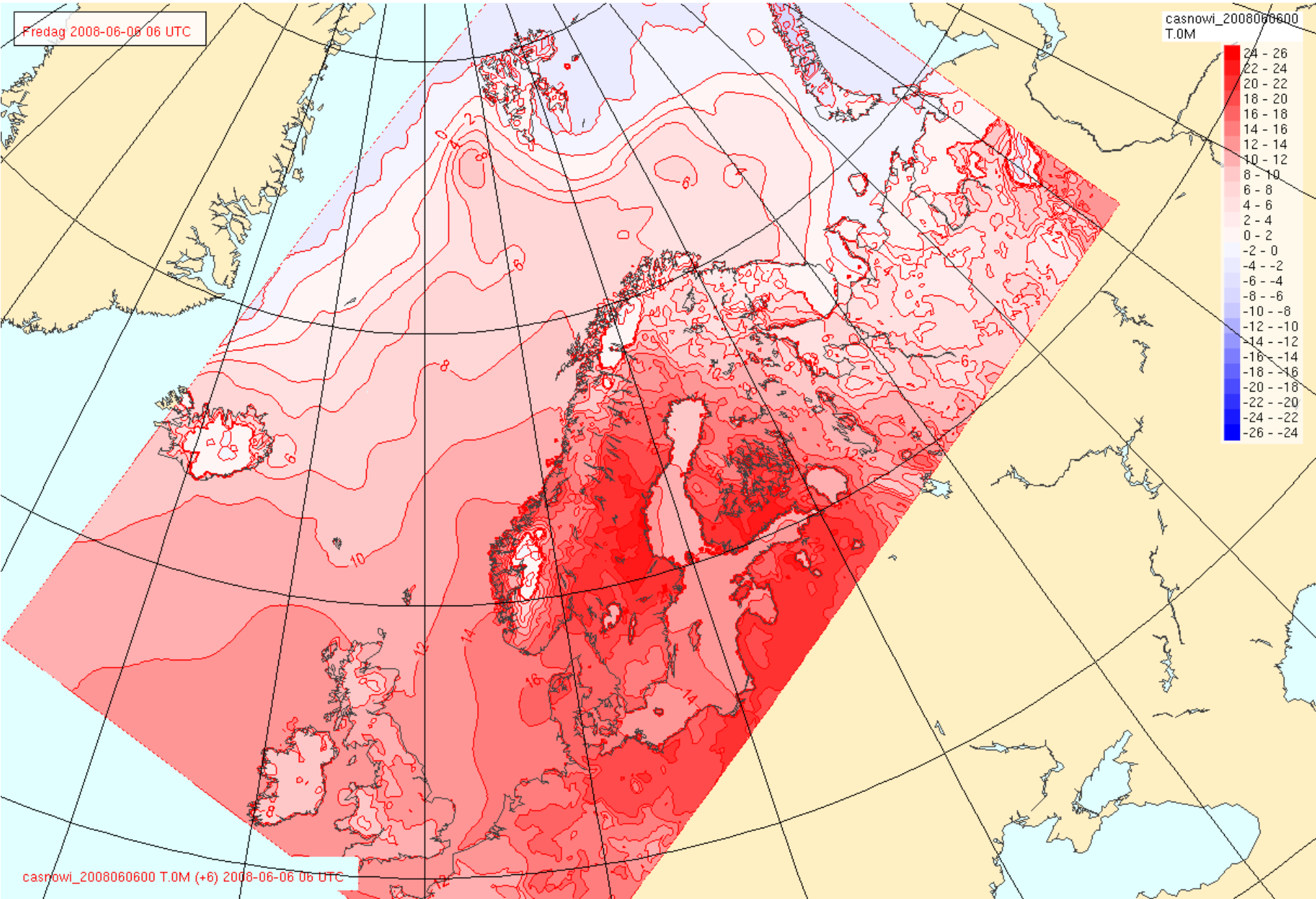
3) Update Ts based on T2m and RH2m analysis – in subroutine cacsts

4) Combine SST and Ts – in subroutine cacsts

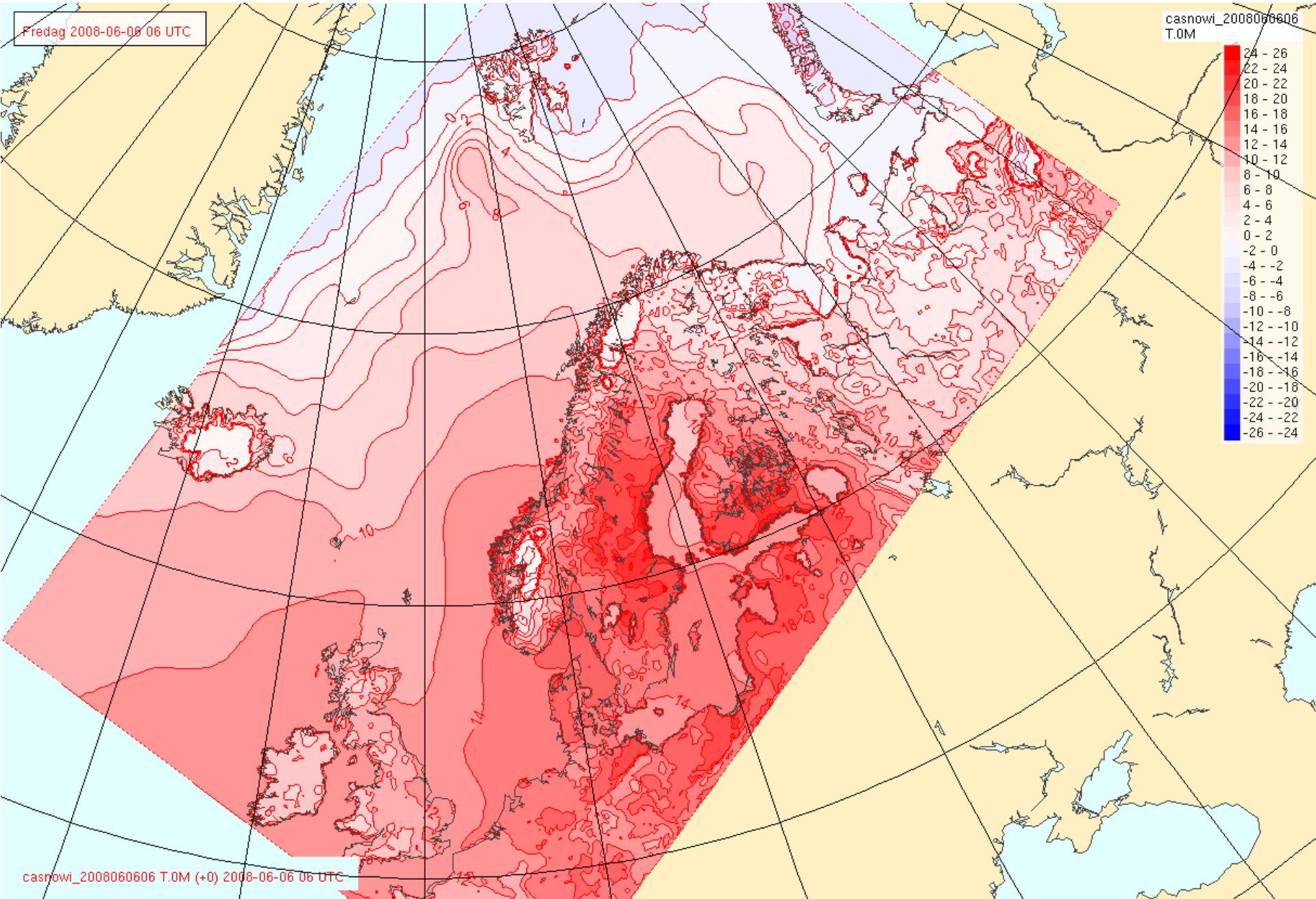
- ➔ Ts over sea (lsm=0): ECMWF SST
- ➔ Ts over land (lsm=1): updated by OI
- ➔ Ts over land (lsm=0) – lakes: climatological Ts

SIC from ECMWF available in CANARI, but not yet used in HARMONIE??

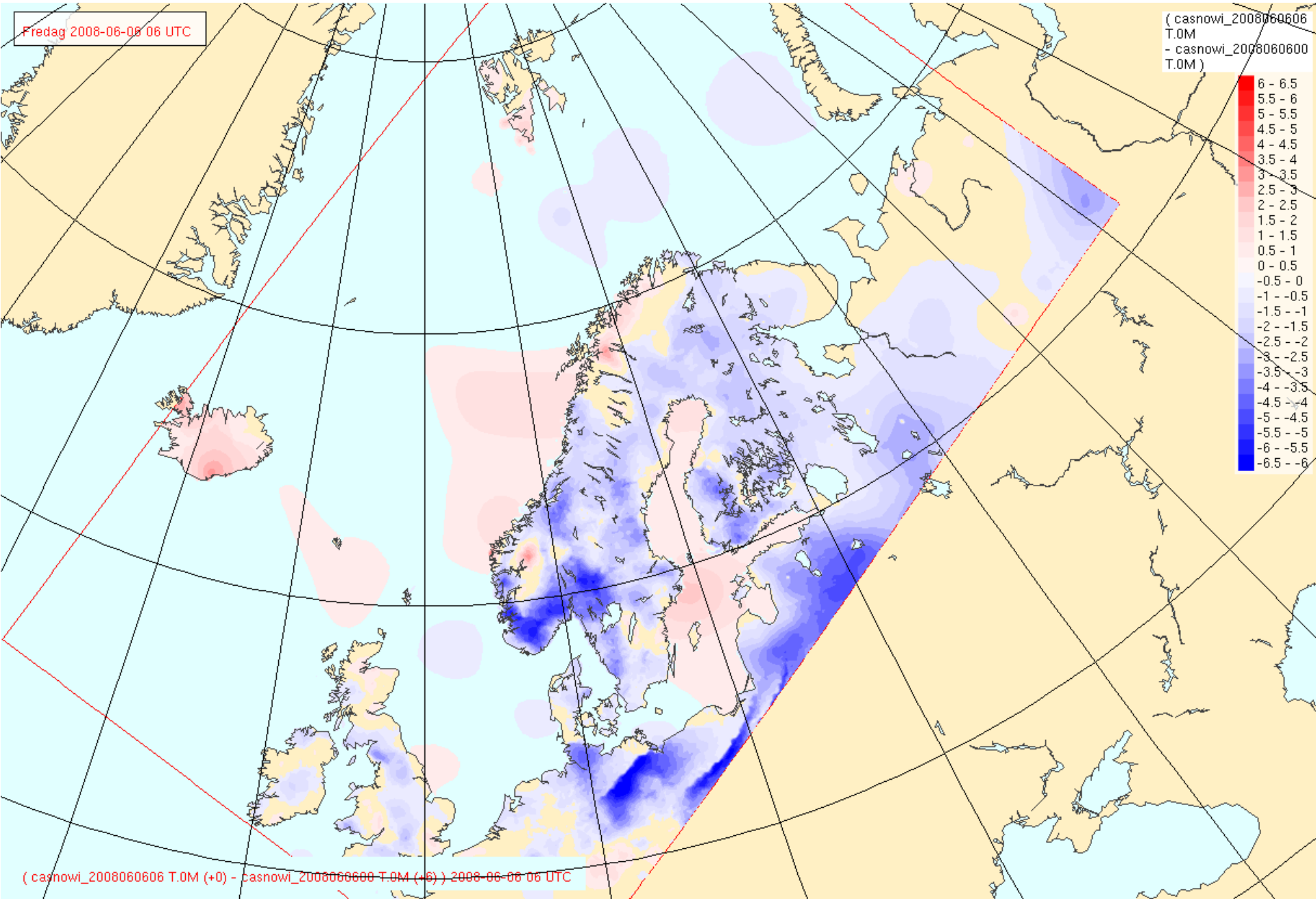
HARMONIE 35h1branch Ts 6. June 2008
00+6



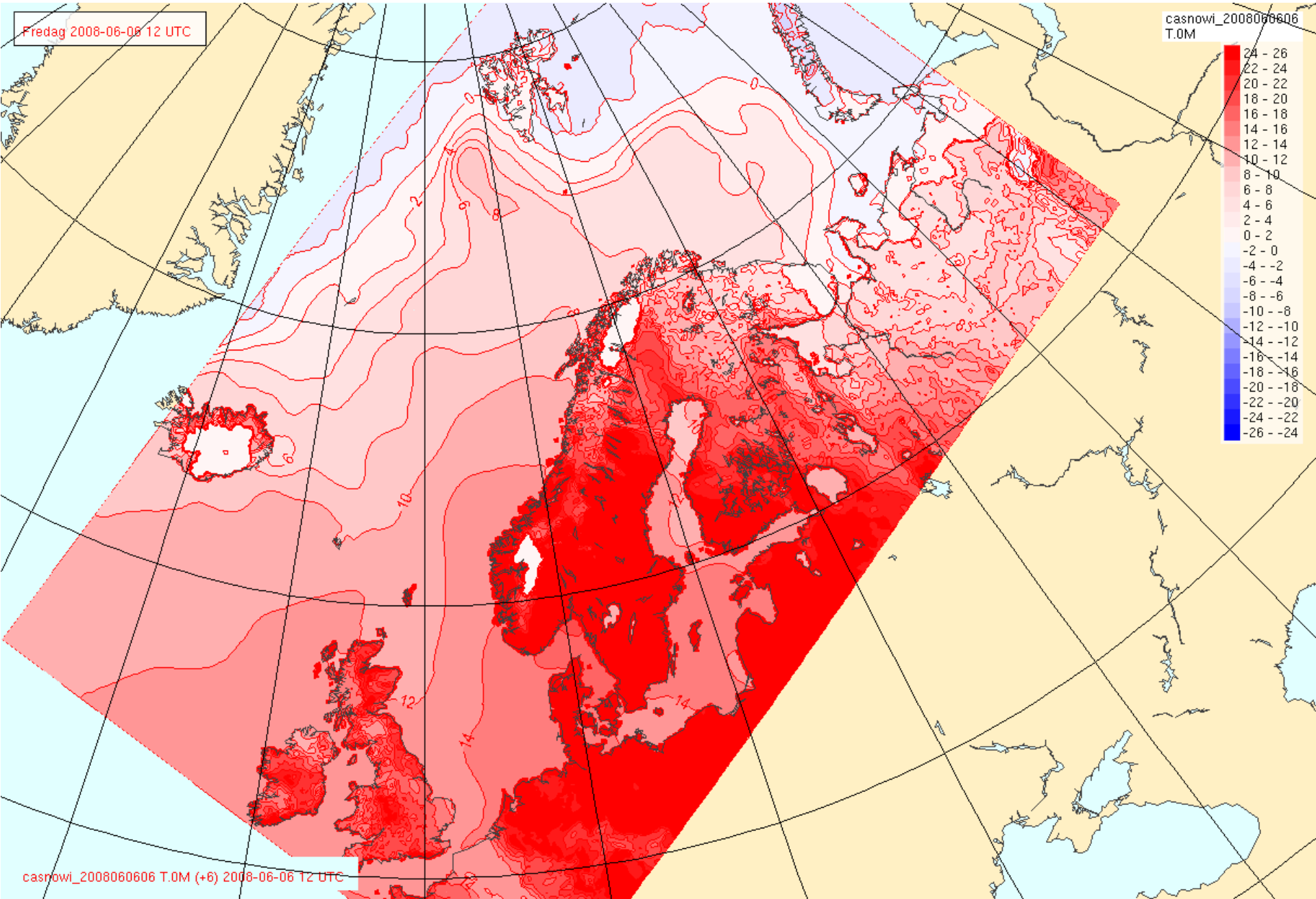
HARMONIE 35h1branch Ts 6. June 2008
06+0



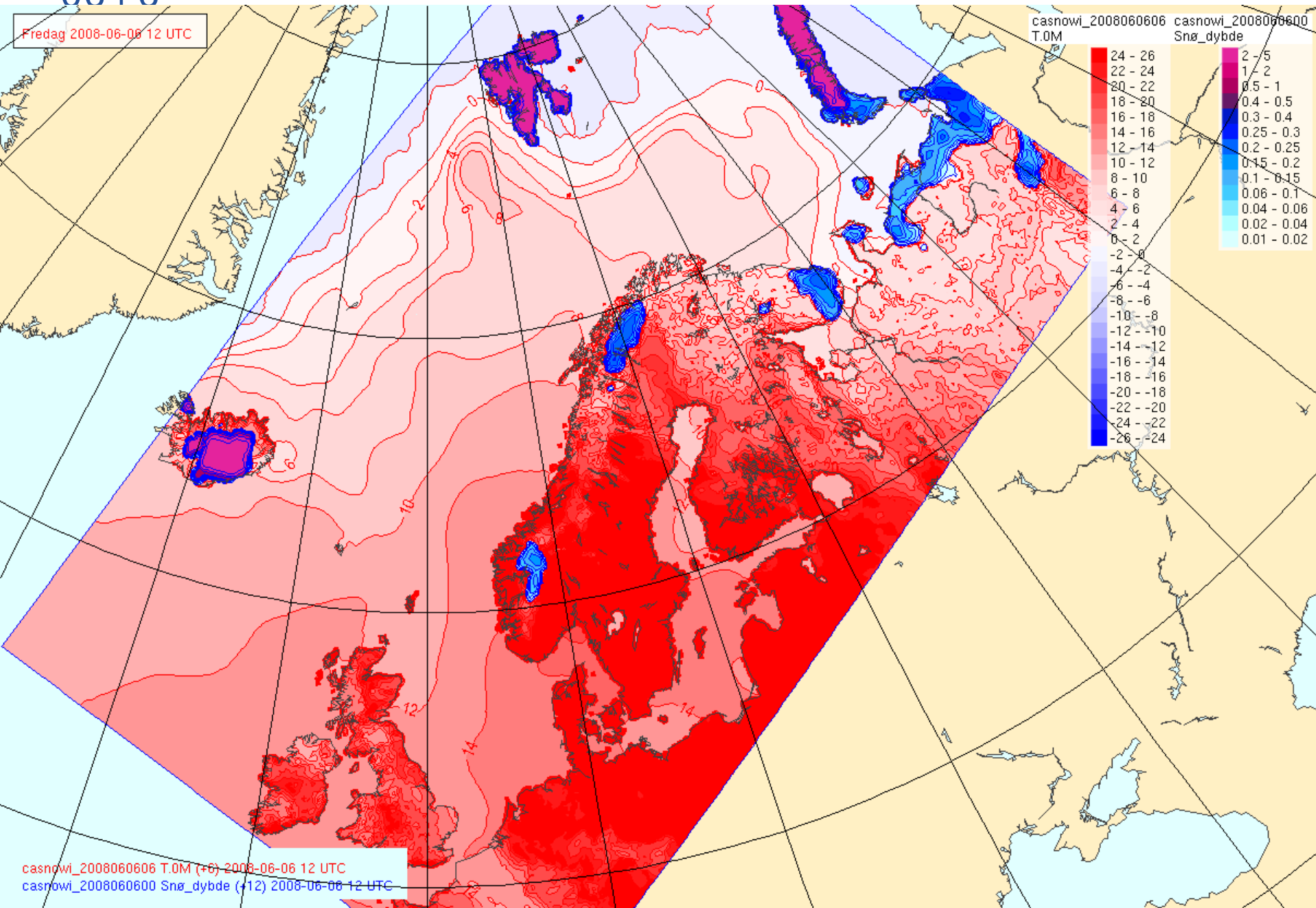
HARMONIE 35h1branch Ts – analysis increments 6. June 2008 06



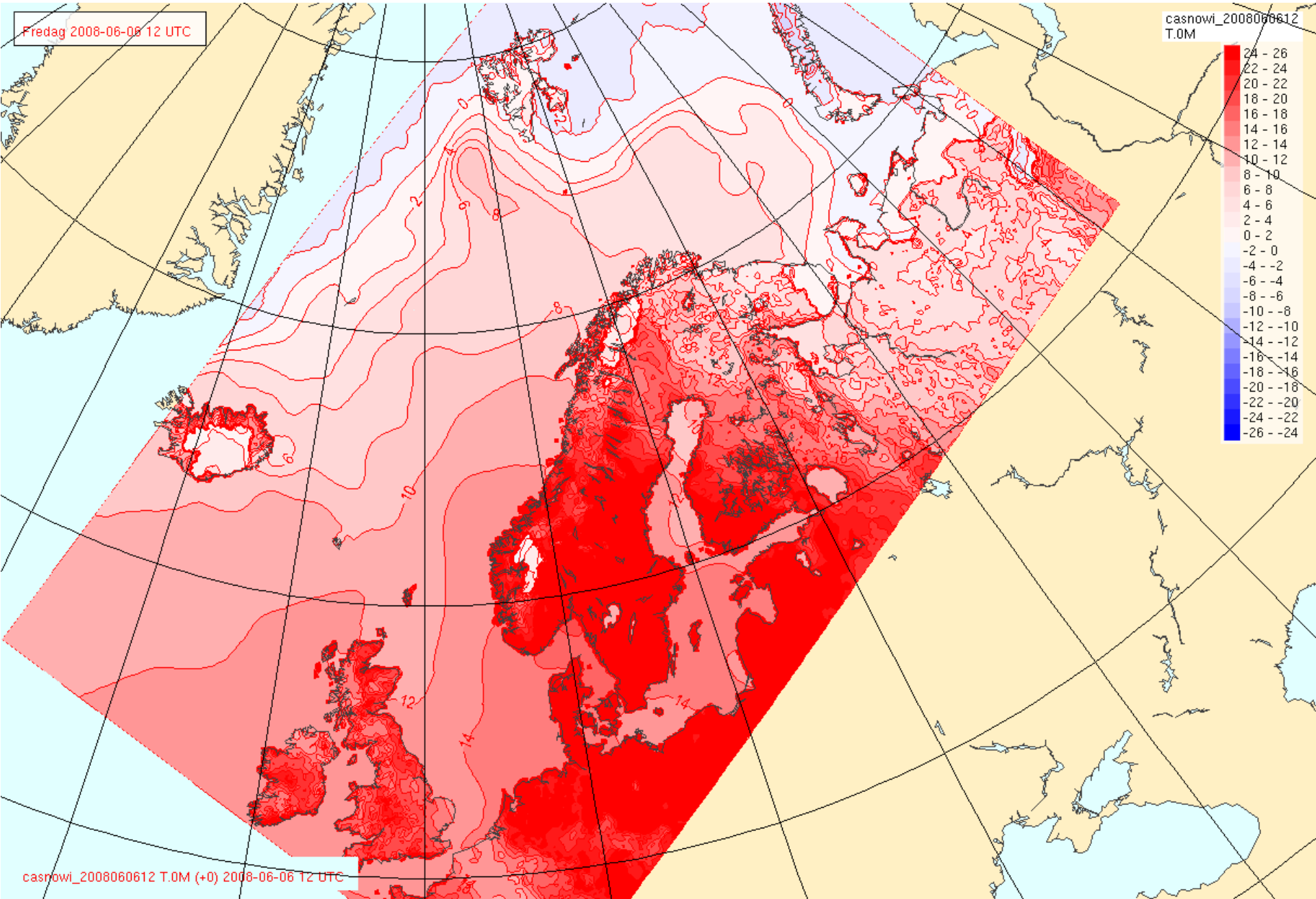
HARMONIE 35h1branch Ts 6. June 2008
06+6



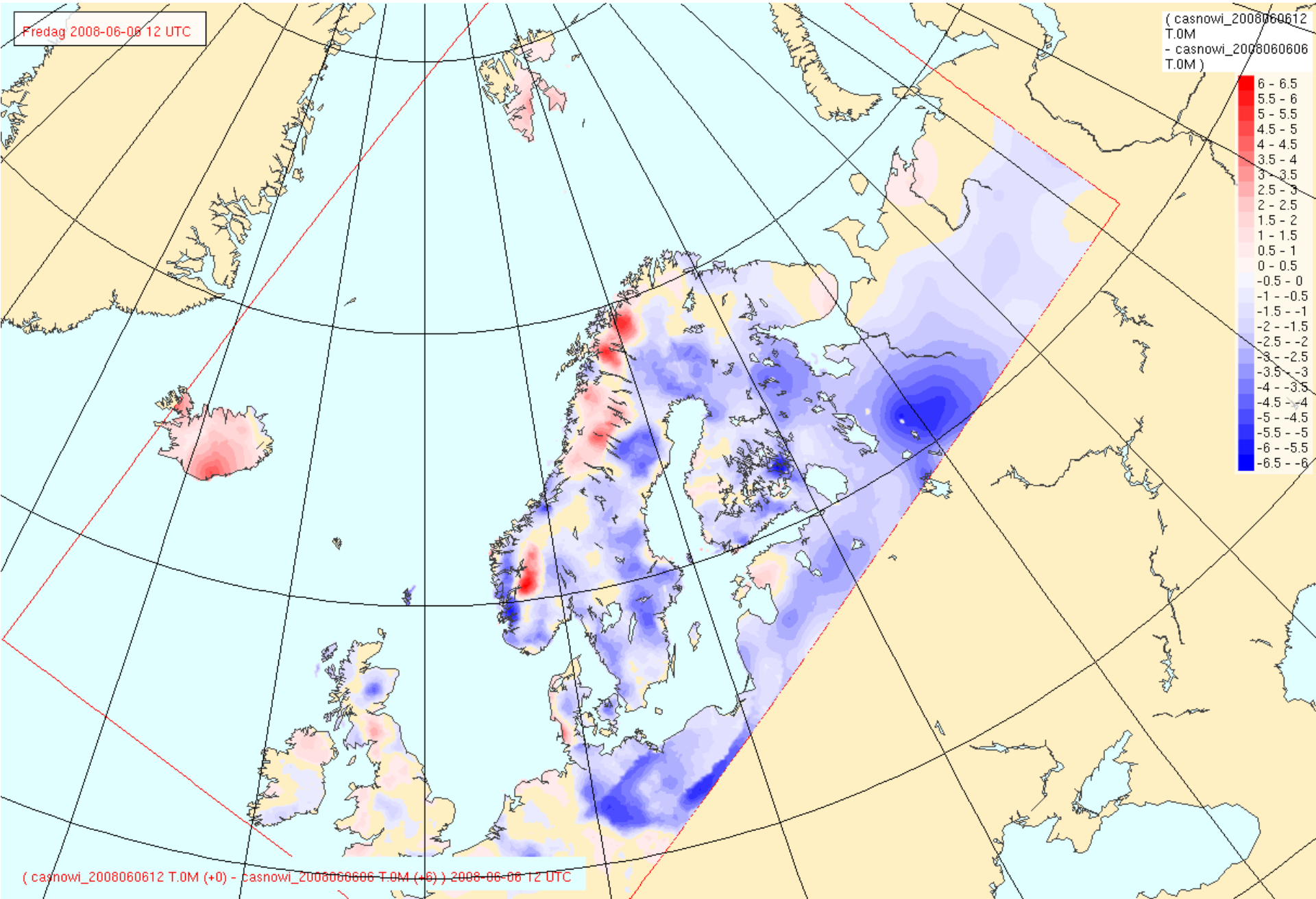
HARMONIE 35h1branch Ts + snow 6. June 2008 06+6



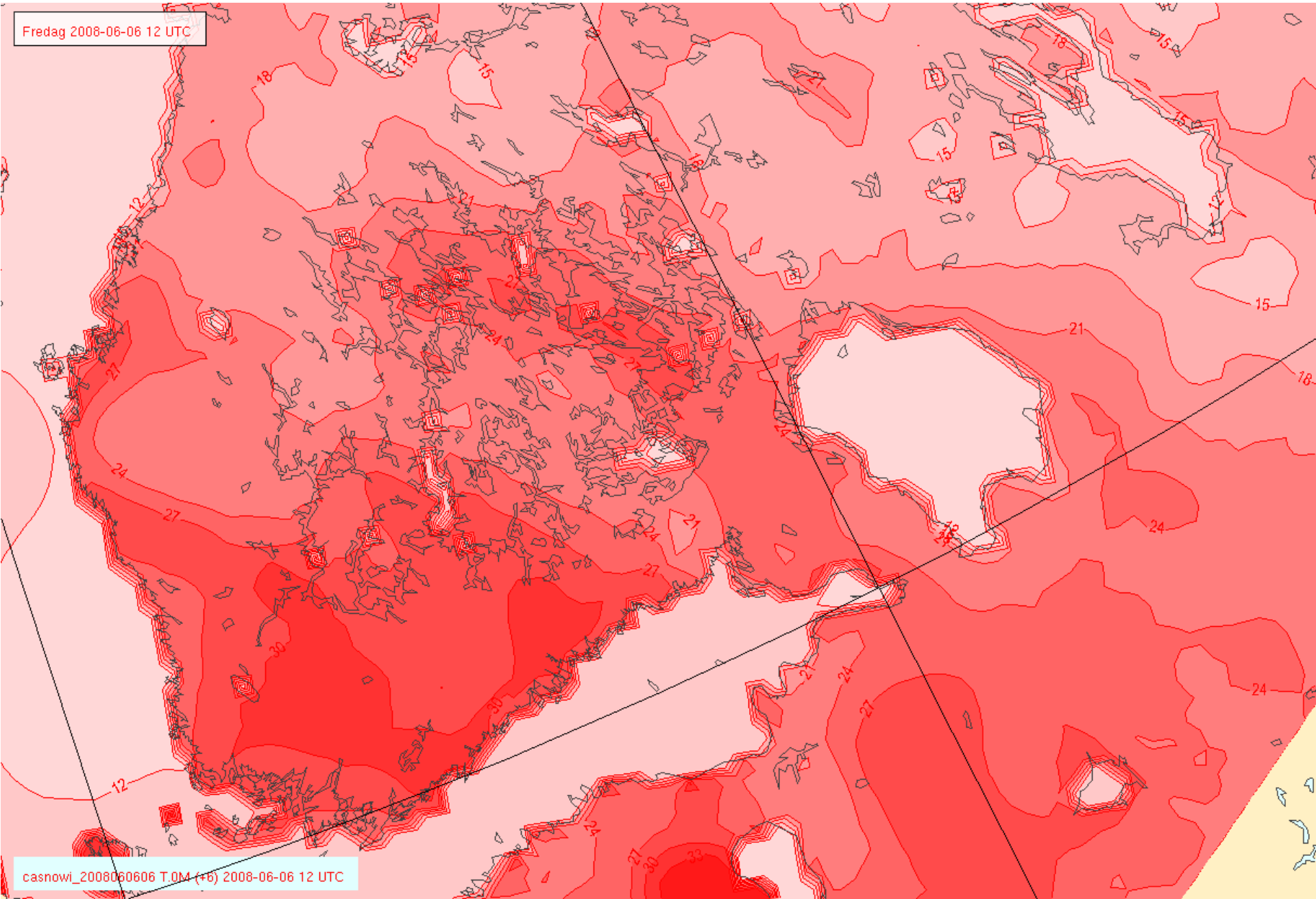
HARMONIE 35h1branch Ts 6. June 2008
12+0



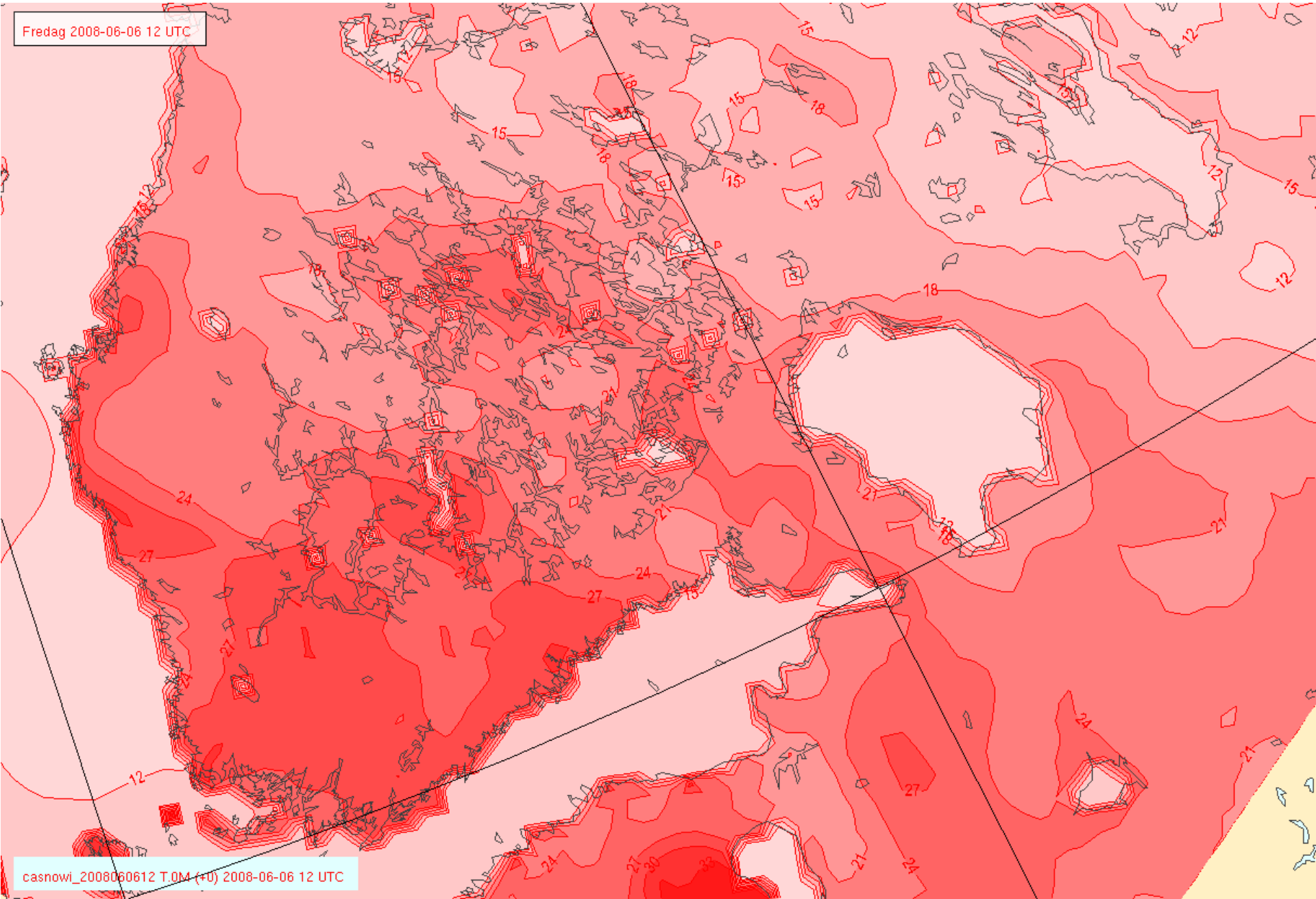
HARMONIE 35h1branch Ts – analysis increments 6. June 2008 12



HARMONIE 35h1branch Ts 6. June 2008
06+6



HARMONIE 35h1branch Ts 6. June 2008
12+0



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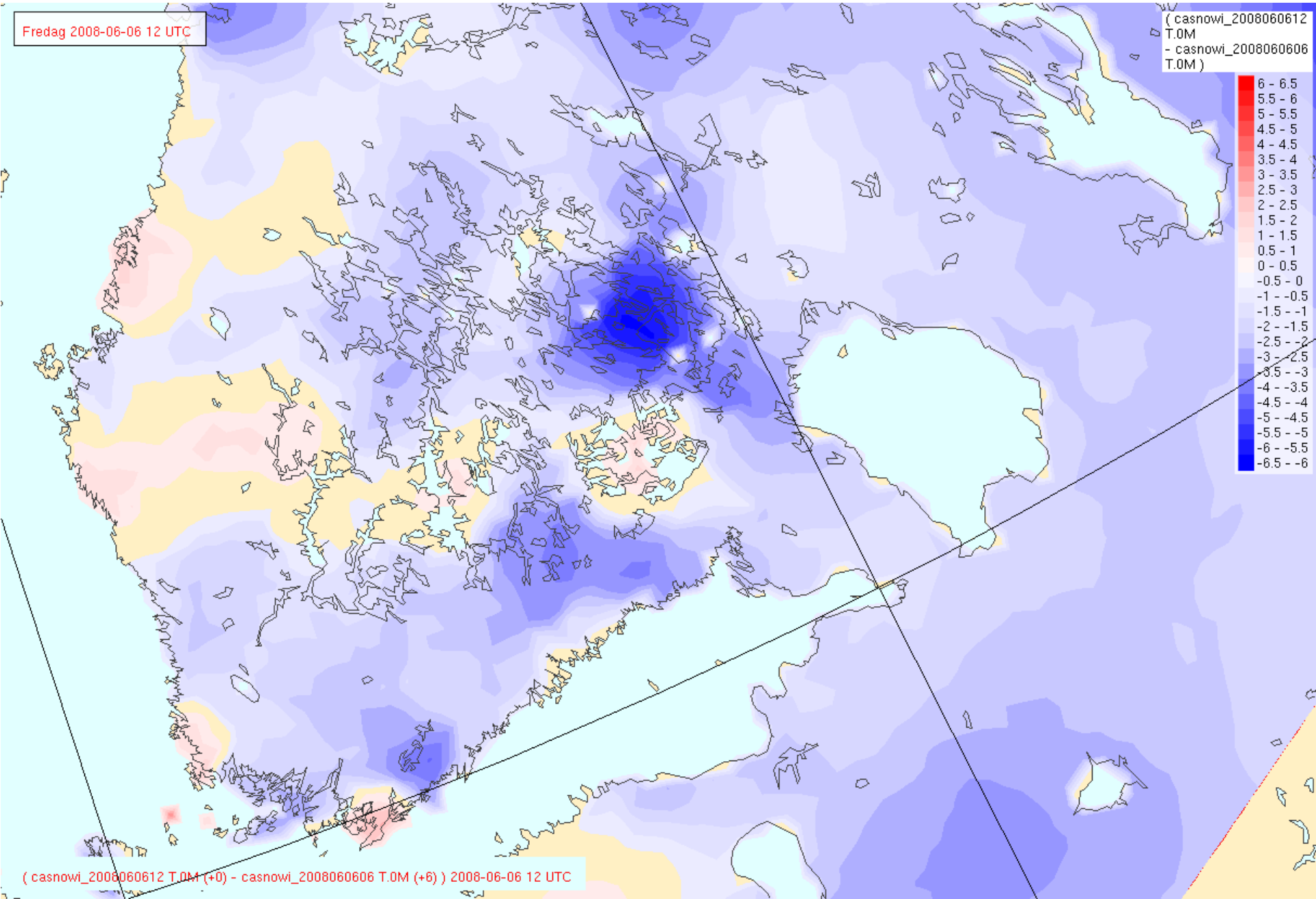

Summary:

Ts over sea (lsm=0): ECMWF SST (OSTIA)

Ts over land (lsm=1): updated by OI
Ts over land (lsm=0) – lakes: climatological Ts

Thank you!