



In general, HIRLAM 10m wind better than ECMWF.

However, winter 2011 feedback from FMI forecasters →

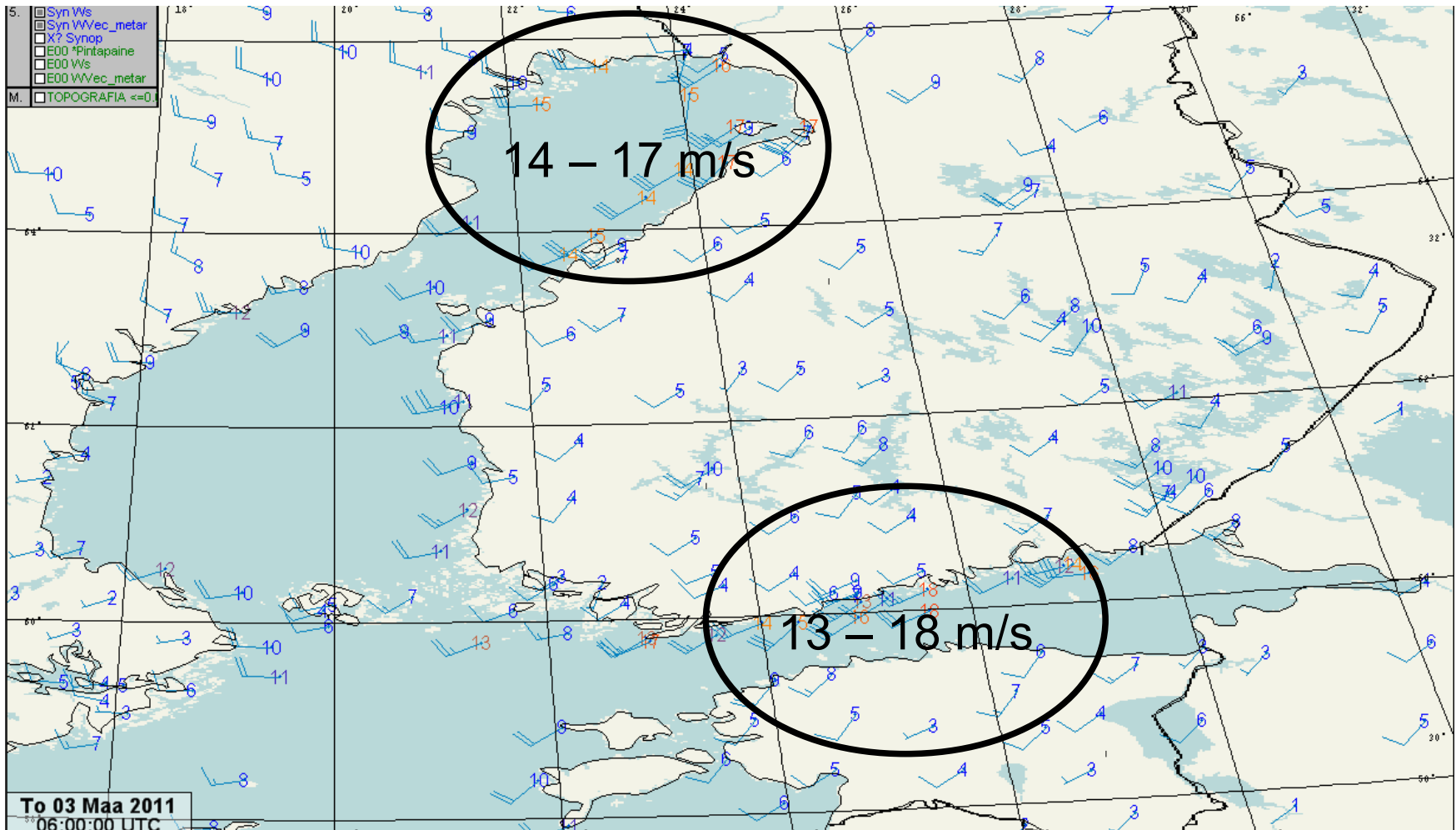
“HIRLAM systematically underestimates the 10m wind speed over sea ice!”

“ECMWF has been better in such conditions.”



Observations: 10m-wind speed (m/s)

- 3 March 2011, 6 UTC -



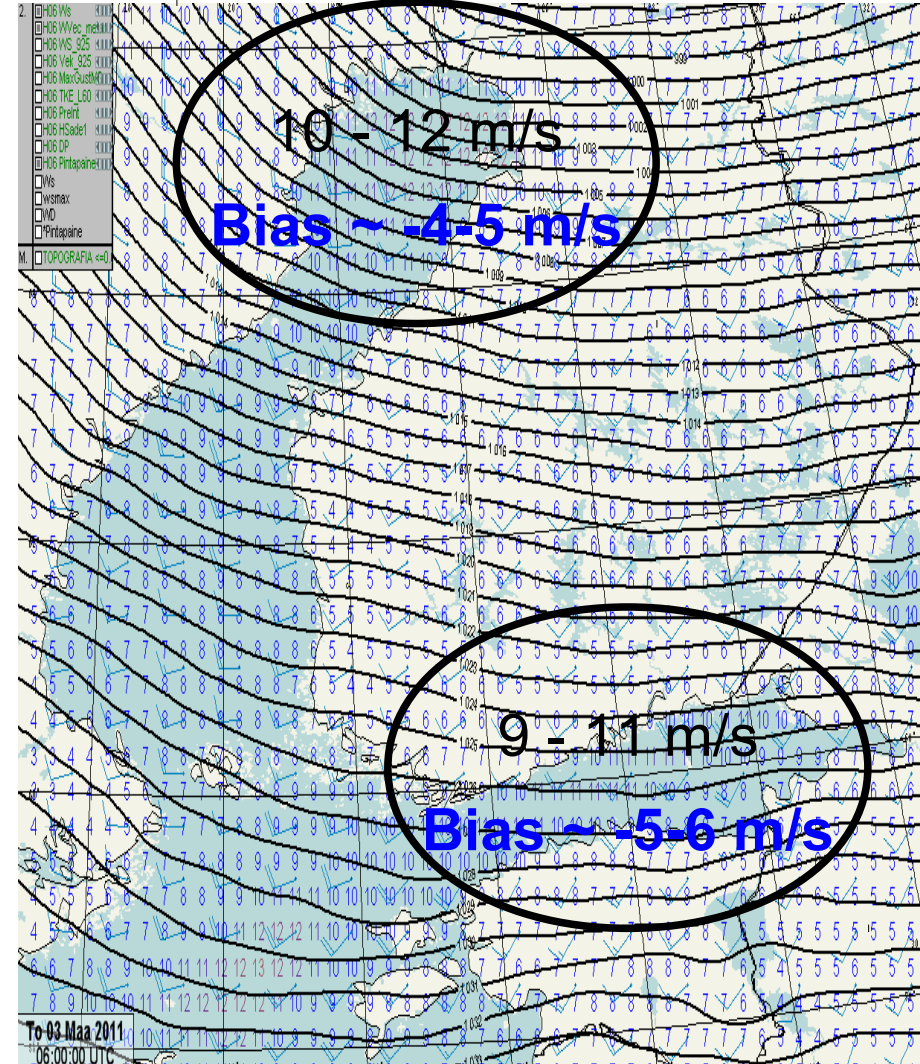
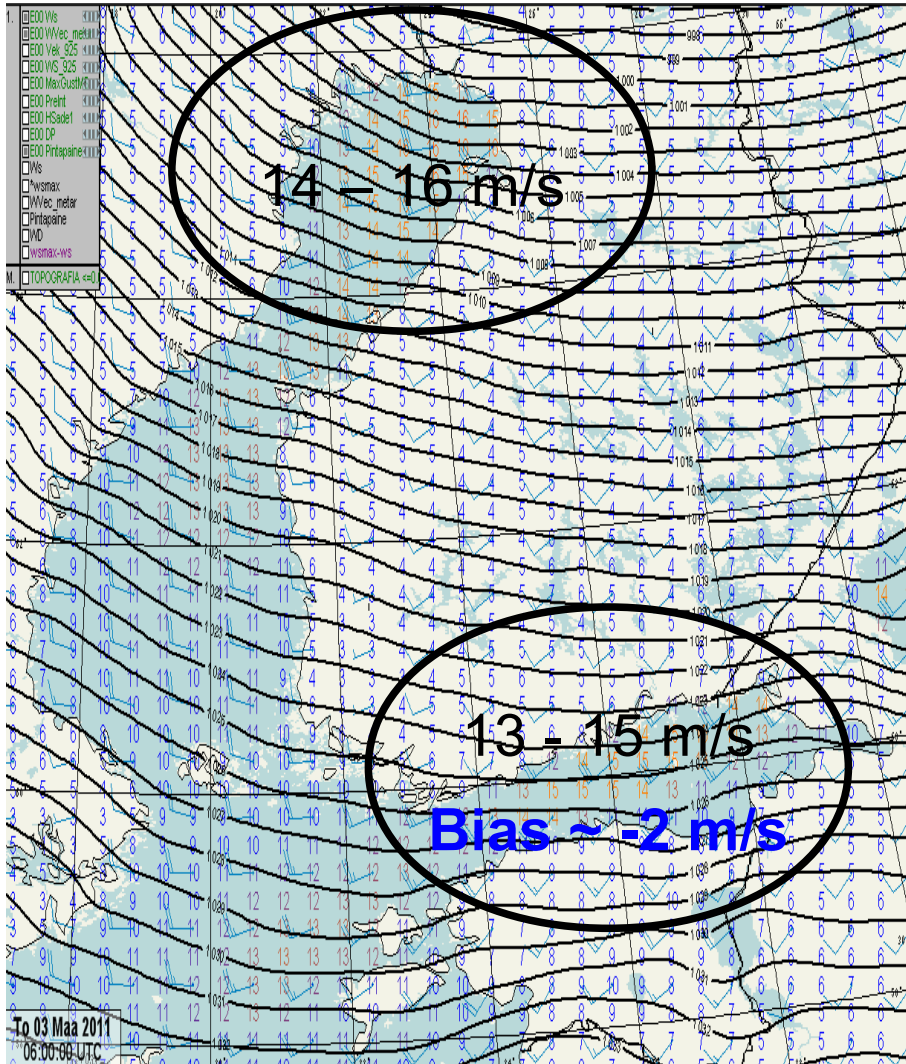


10m-wind speed (m/s)

- 3 March 2011, 6 UTC -

ECMWF - IFS

HIRLAM - RCR (V73)

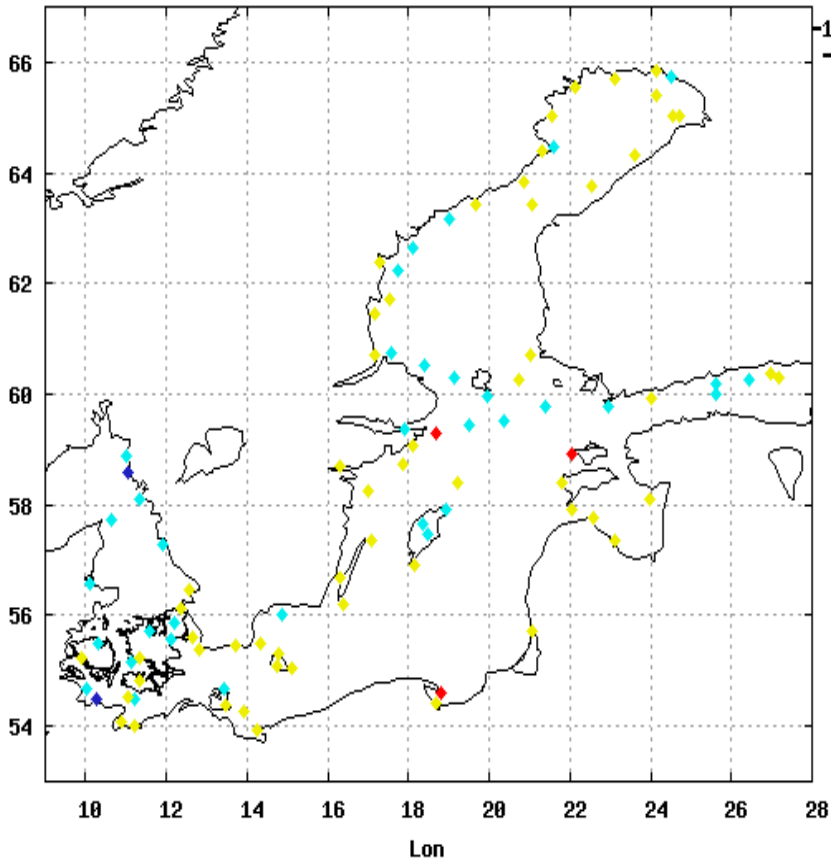




10m wind speed, bias, February 2011

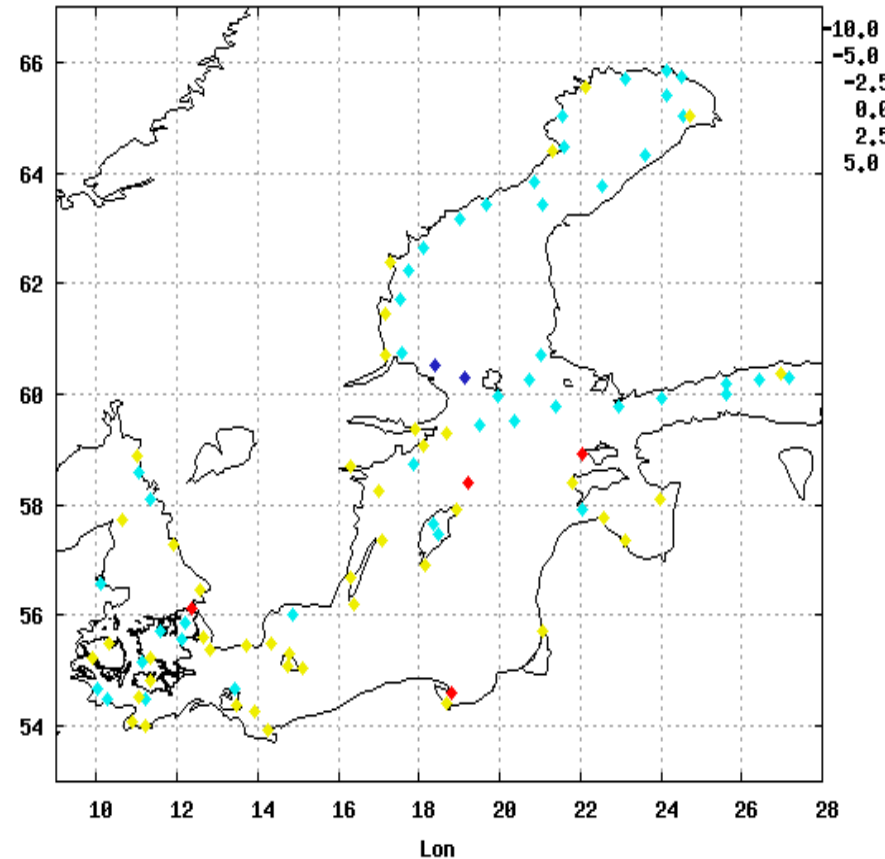
ECMWF - IFS

Exp: IFS Area: BalticSea 95 stations Period: 201102
Wind speed bias [m/s] at 12 UTC
At {00,12} + 18 24 42 48



HIRLAM - RCR (V73)

Exp: V73 Area: BalticSea 95 stations Period: 201102
Wind speed bias [m/s] at 12 UTC
At {00,12} + 18 24 42 48

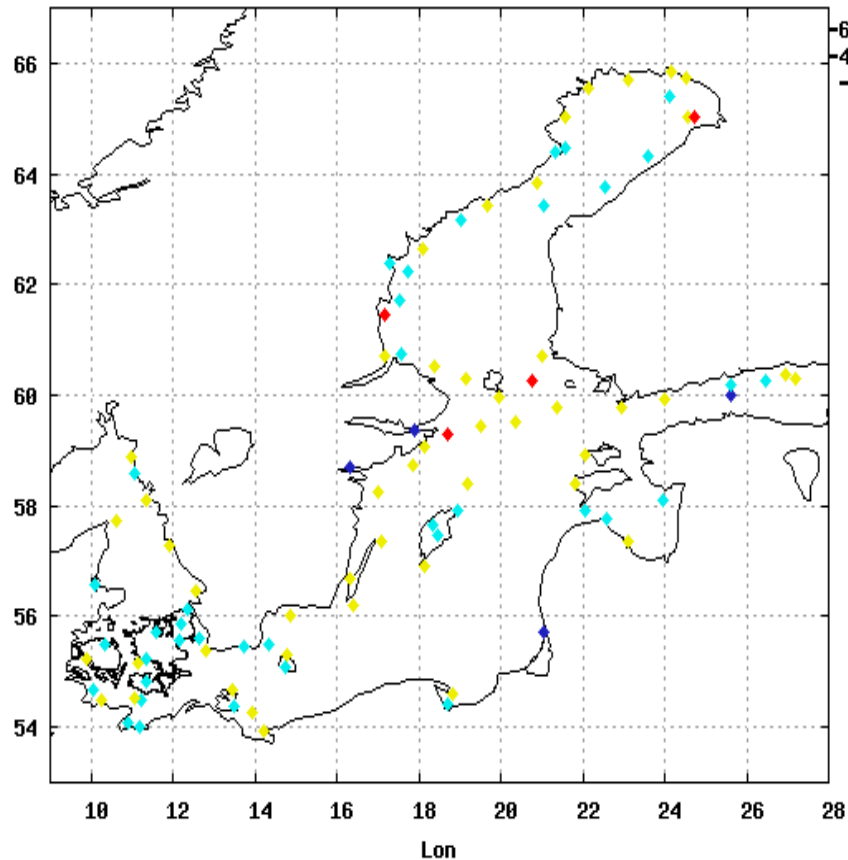




2m temperature, bias, February 2011

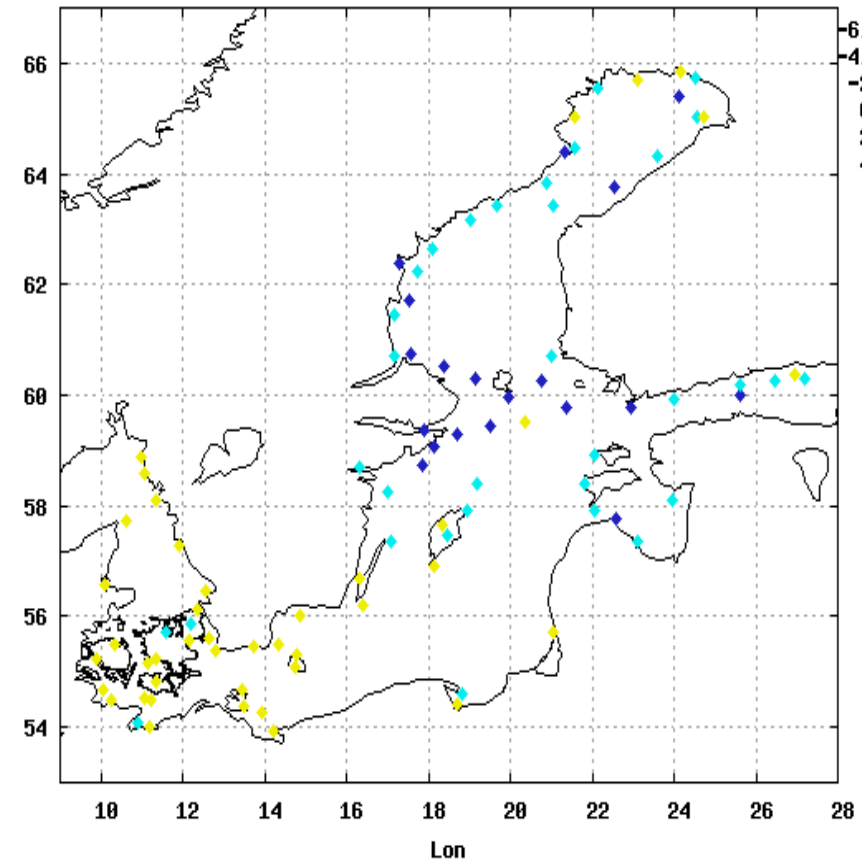
ECMWF - IFS

Exp: IFS Area: BalticSea 94 stations Period: 201102
Temperature bias [deg C] at 06 UTC
At {00,12} + 18 24 42 48



HIRLAM - RCR (V73)

Exp: V73 Area: BalticSea 94 stations Period: 201102
Temperature bias [deg C] at 06 UTC
At {00,12} + 18 24 42 48





- Feb 2011, over sea ice:
 - 10m-wind speed underestimated more in HIRLAM
 - 2m-temperature underestimated more in HIRLAM
- Feb 2011, over ice free regions
 - Both HIRLAM and ECMWF have similar bias pattern
- Reason for this difference?
 - Stability driven?
 - Roughness driven?
 - Something else?

EXP: RCRa, +00H, SST and Ice cov.
initial: 00Z15FEB2011 valid: 00Z15FEB2011

