

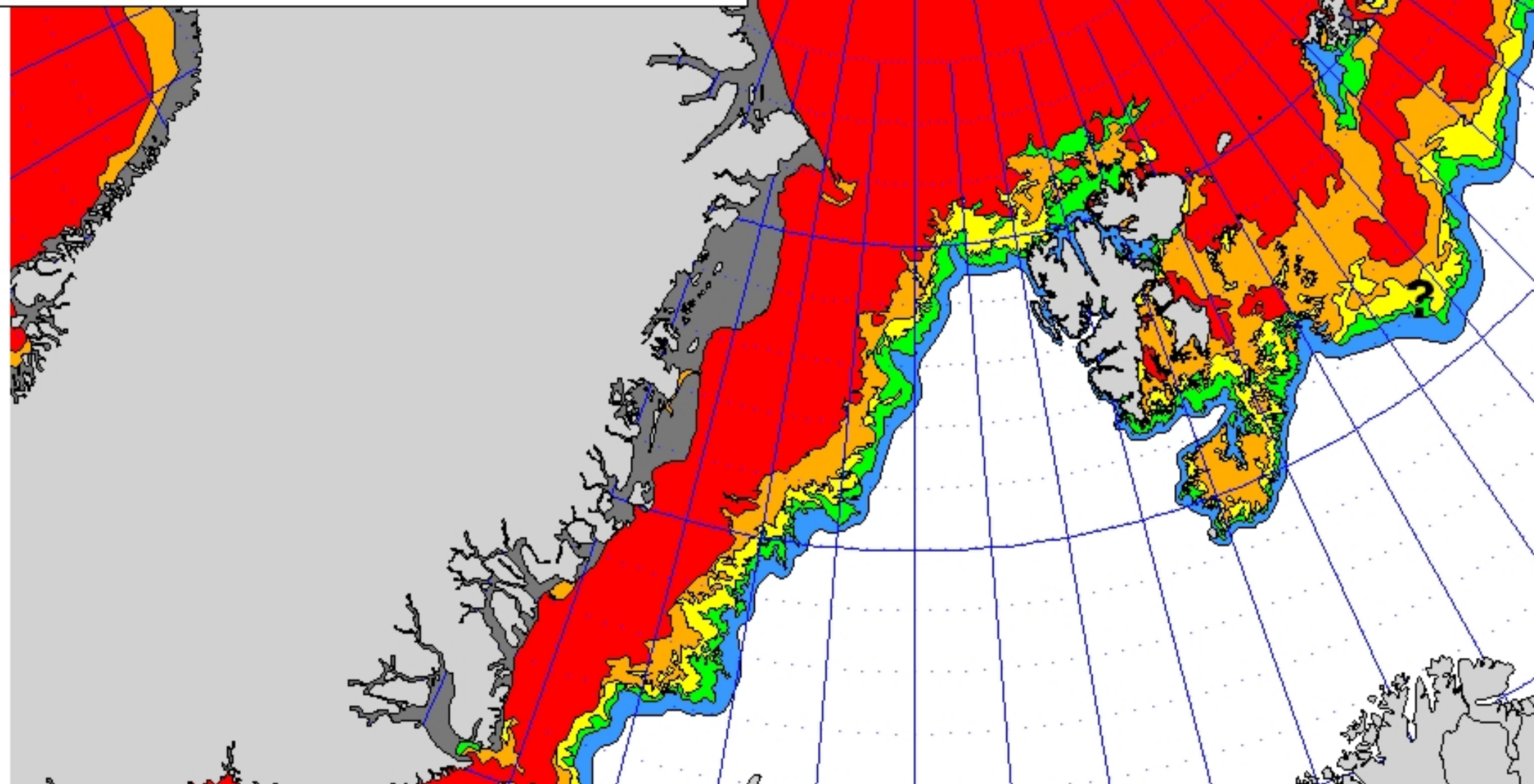


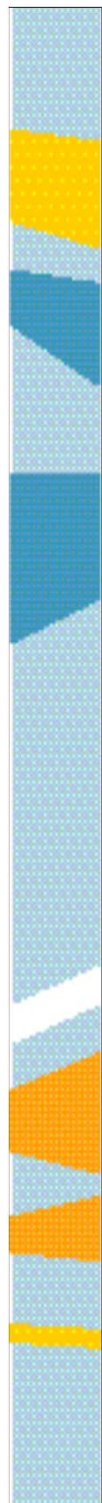
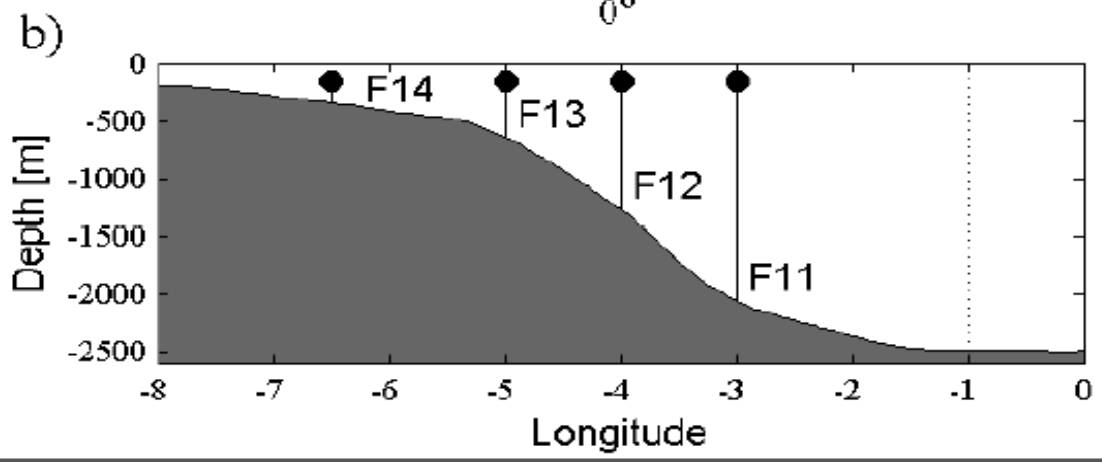
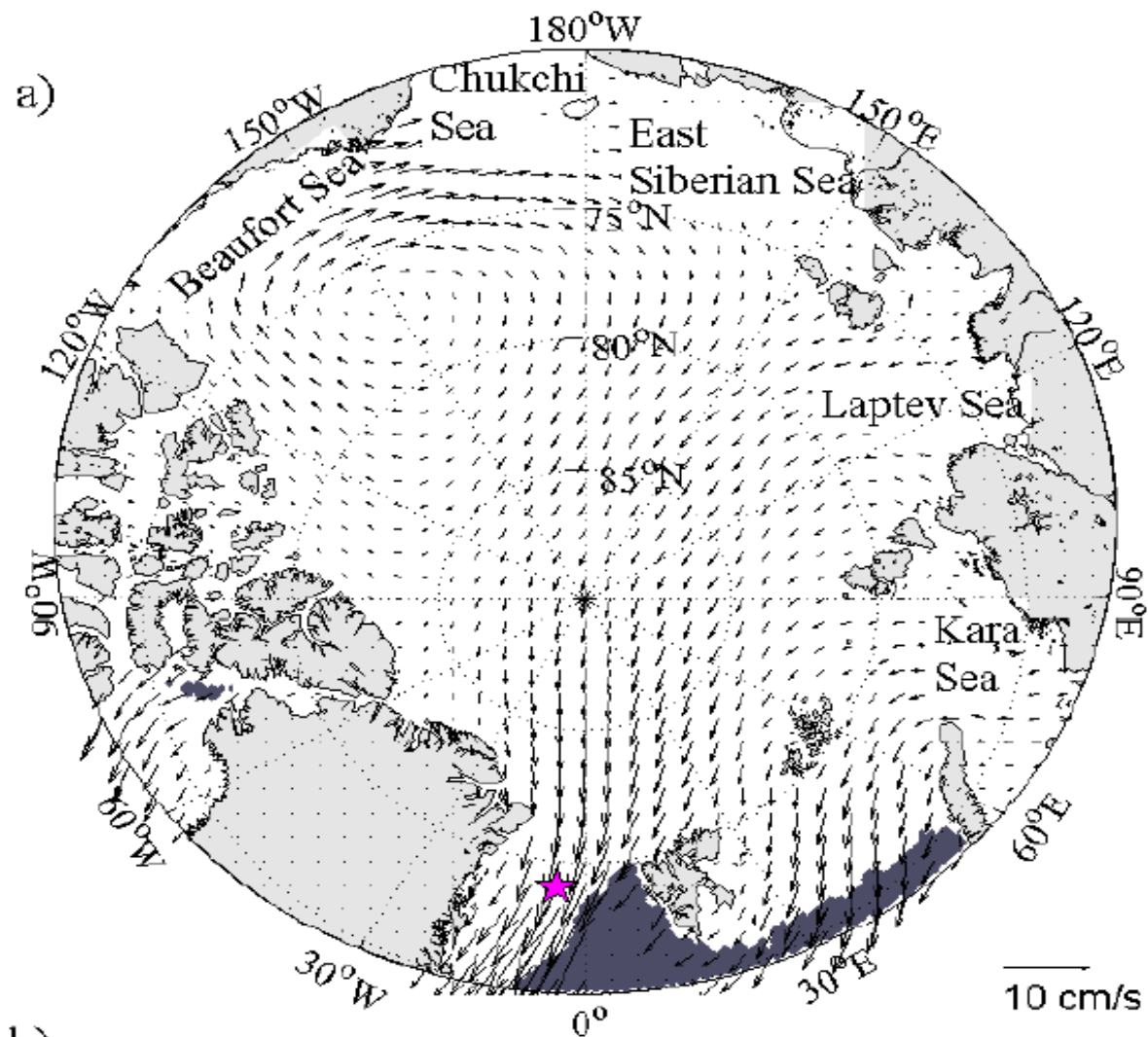
Meteorologisk  
institutt  
met.no

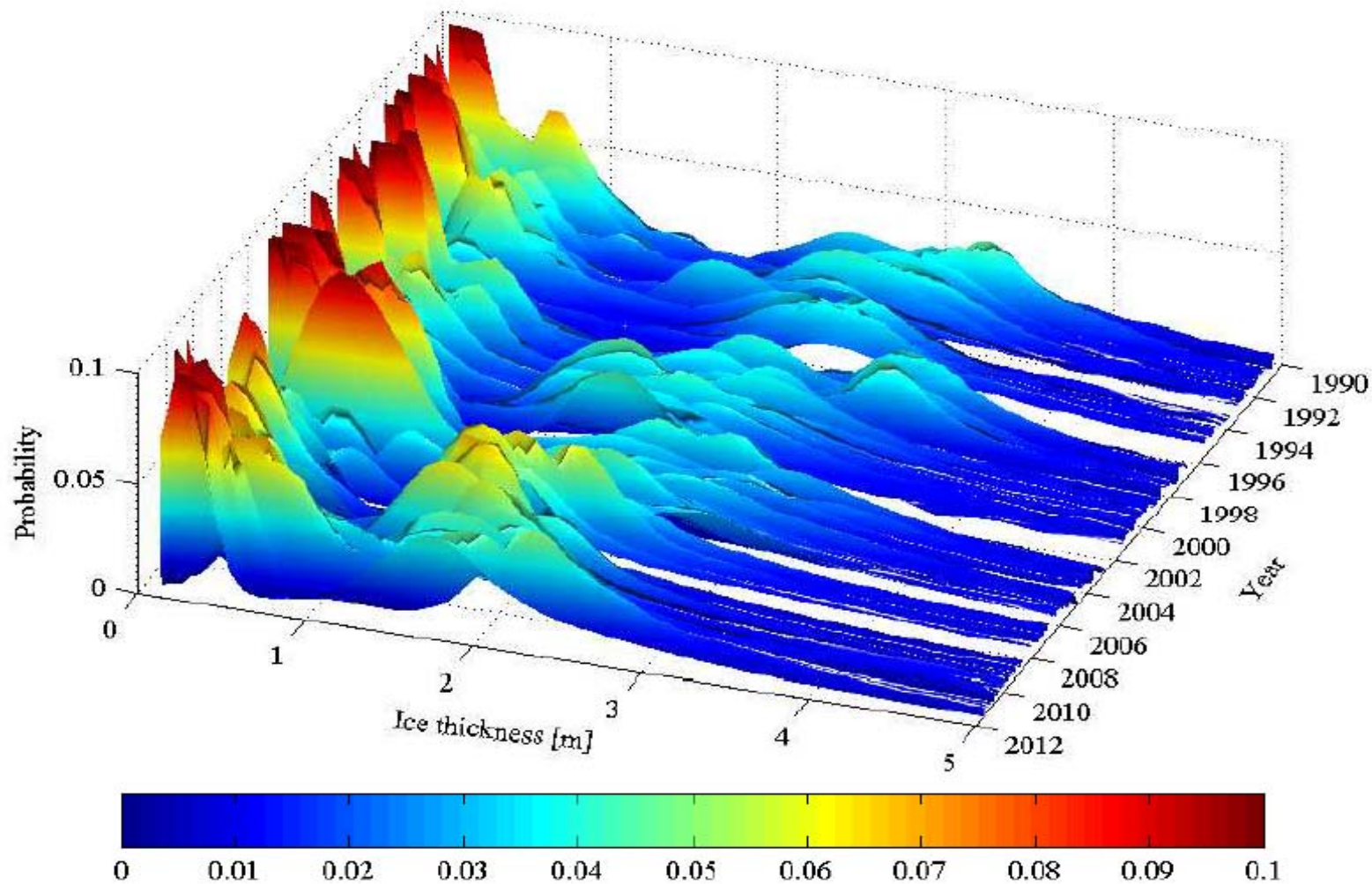
April 2nd 2014

Sea Ice Service  
Forecasting Division for Northern Norway

3 Tromsø, Norway Tel: +47 77621462 Fax: +47 77621401 email: [istjenesten@met.no](mailto:istjenesten@met.no)

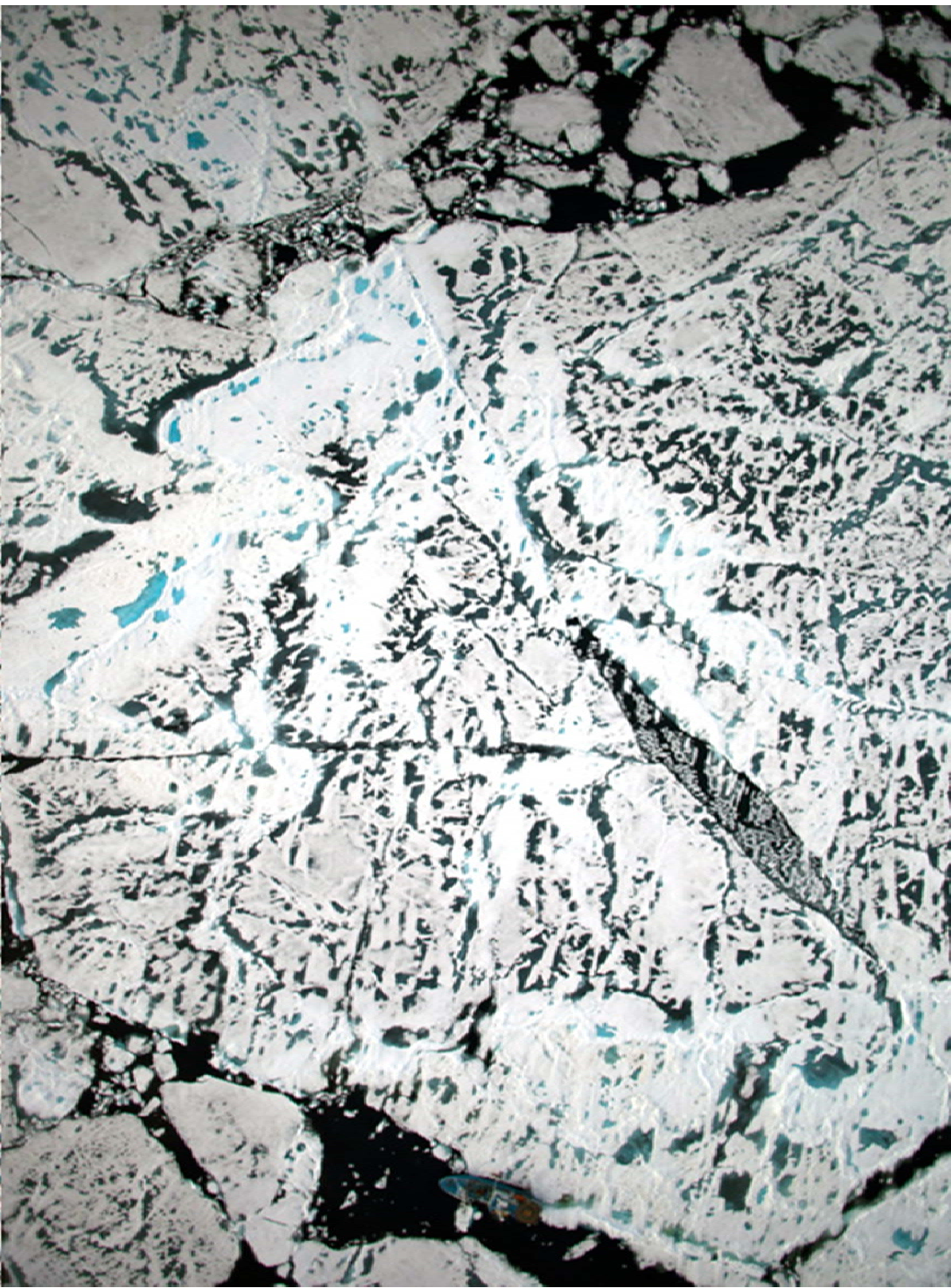
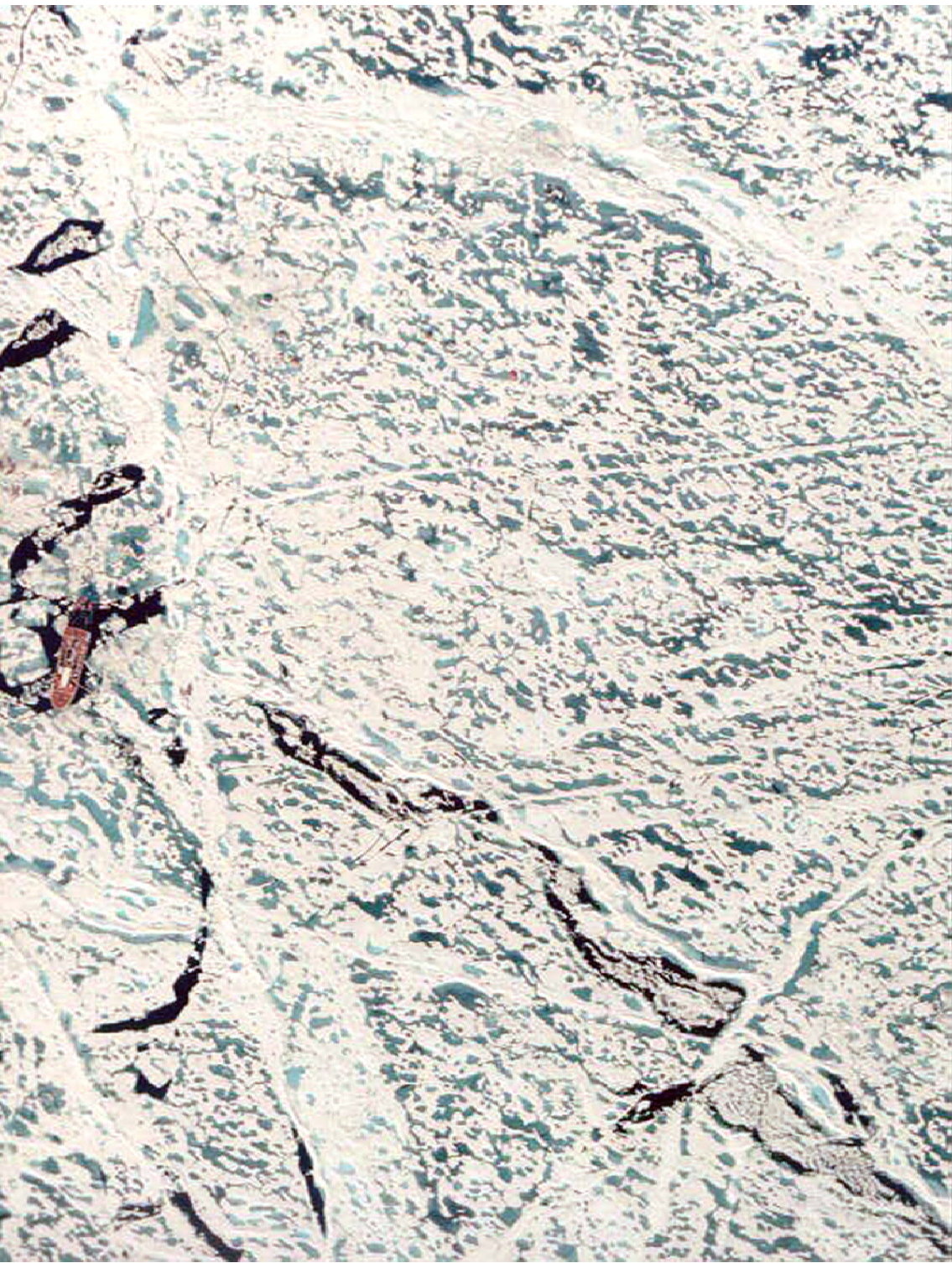






**Figure 6.** Time series of monthly ice thickness distributions. Each monthly ice thickness distribution over the 1990-2011 period is plotted, with the probabilities also highlighted in colors. The colorbar provides the scale. For visualization purposes a cutoff in probability of 0.1 has been applied, which keeps the old ice modal peaks at an appropriate scale.





Multi yr ice

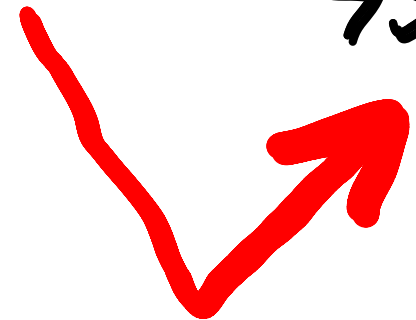
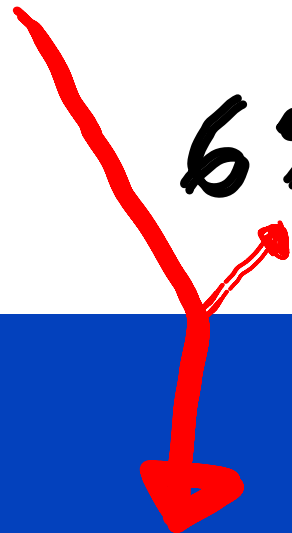
Ocean

First yr. ice

55%

6%

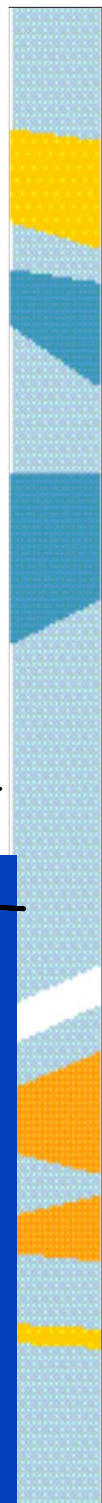
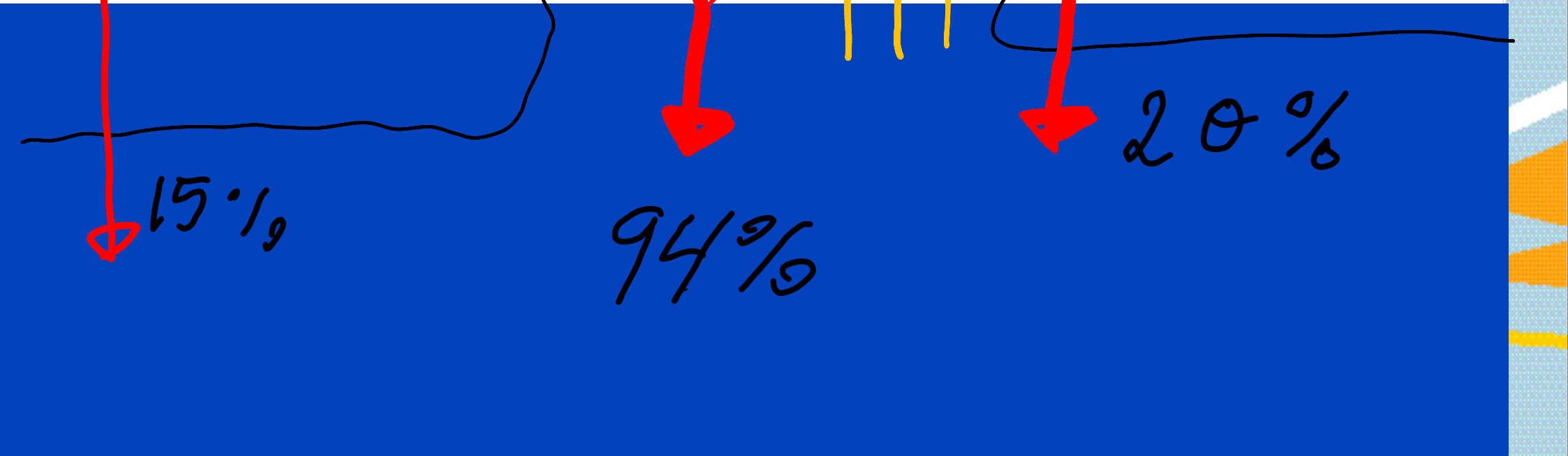
45%



15%

20%

94%



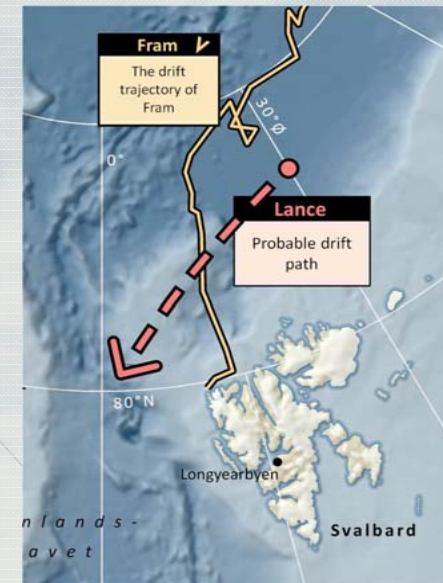
## Primary objective:

To understand the effects of the new thin, first year, sea ice regime in the Arctic on energy flux, ice dynamics and the ice associated ecosystem, and local and global climate.

## Secondary objectives:

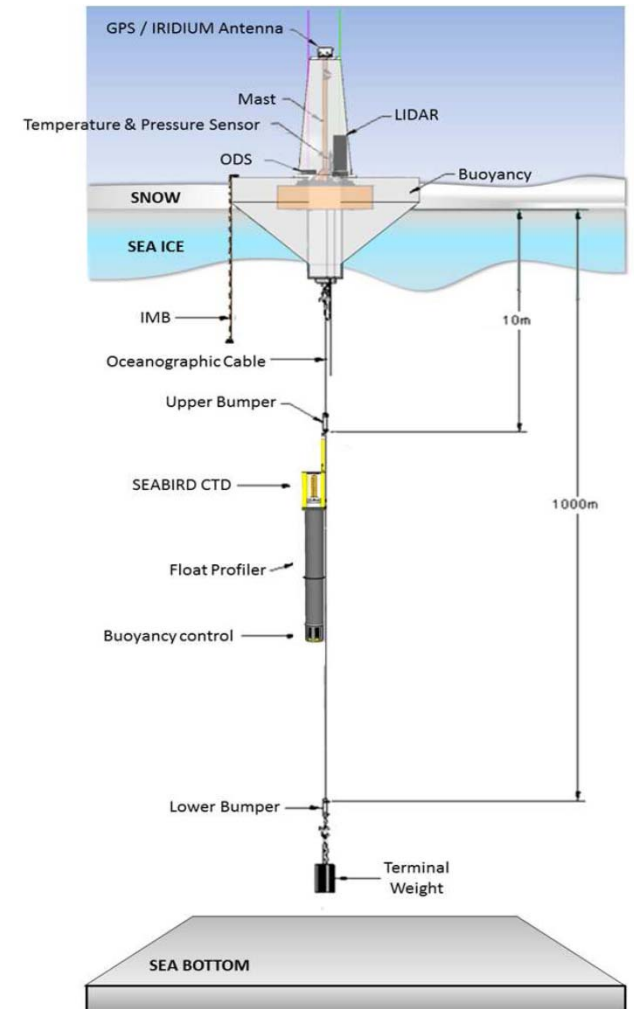
- Understand how available ocean heat is mixed upwards towards the sea ice and to what extent it influences the sea ice energy budget.
- Understand the fate of solar radiation incident on the first-year sea ice in the region and how its fate is affected by properties of the atmosphere, snow, ice, and ocean.
- Quantification of the changing mass balance of Arctic sea ice and its snow cover.
- Model the dynamics of the drifting ice.
- Understand the ice associated ecosystem and model future changes.
- **Effects on local and global weather systems.**

Method: RV Lance will be frozen into the drift ice at approximately N83.25 E30 in the beginning of January 2015 and passively drift with the ice probably in a southwesterly direction. The N-ICE2015 is planned to last for 6 months until the end of June 2015. For further information please contact project leader Harald Steen ( [steen@npolar.no](mailto:steen@npolar.no) )



# Collaboration

- ICE-ARC (BAS+++++) (IBM buoys, airplane campaign )
- NTNU – AMOS, SamCOT (ROV, UAV, sensor development)
- University in Bergen (UIB) (Deep ocean turbulence)
- iAOOS (Autonomous buoys , CTD, ice parameters and LIDAR)
- AWI (Radiosonde receiving eq. PhD)
- KOPRI (Radiosonde receiving eq.)
- AARI (UAV upper atmosphere measurements and high resolution images of sea ice.)
- FMI (Digitizing radar to measure with high resolution ice movement and deformations)
- NORUT - CICC13 (UAV campaign from Ny-Ålesund)

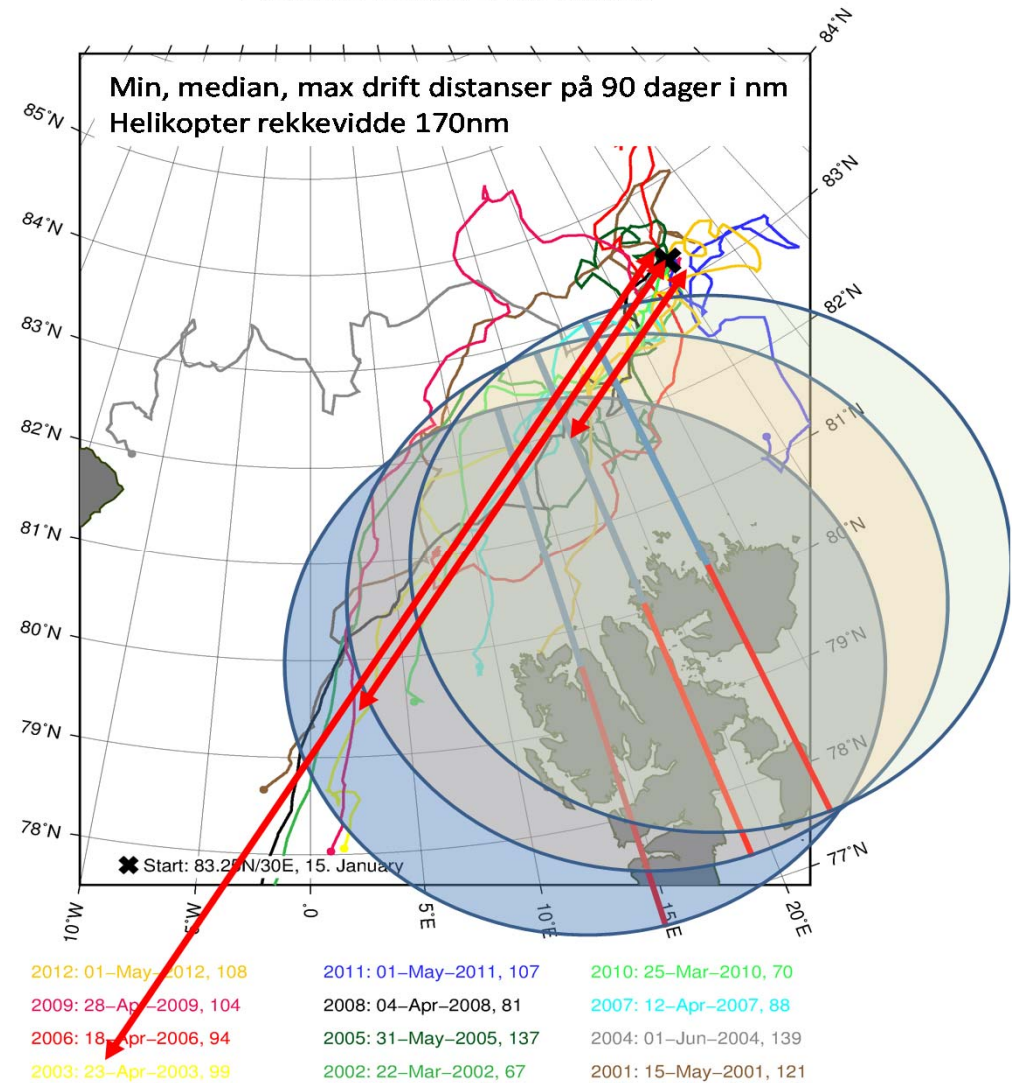


# N-ICE2015: drift trajectories and logistics



Freeze in: medio January 2015  
 Cruise end: late June

Possible Lance Drift Tracks





# Cruise plan

Month	Mon	JAN				Mon	FEB				Mon	MAR				Mon	APR				Mon	MAY				Mon	JUN																																																																																																																																																				
Date (Mondays)	5.1.	12.1.	19.1.	26.1.	2.2.	9.2.	16.2.	23.2.	2.3.	9.3.	16.3.	23.3.	30.3.	6.4.	13.4.	20.4.	27.4.	4.5.	11.5.	18.5.	25.5.	1.6.	8.6.	15.6.	22.6.	29.6.	6.7.																																																																																																																																																				
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