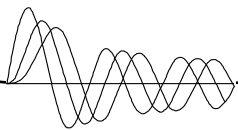**IOMASA**
DTU Status December 2004

Ørsted* DTU

DTU IOMASA Web site   http://www.seaice.dk/iomasa
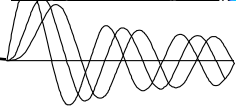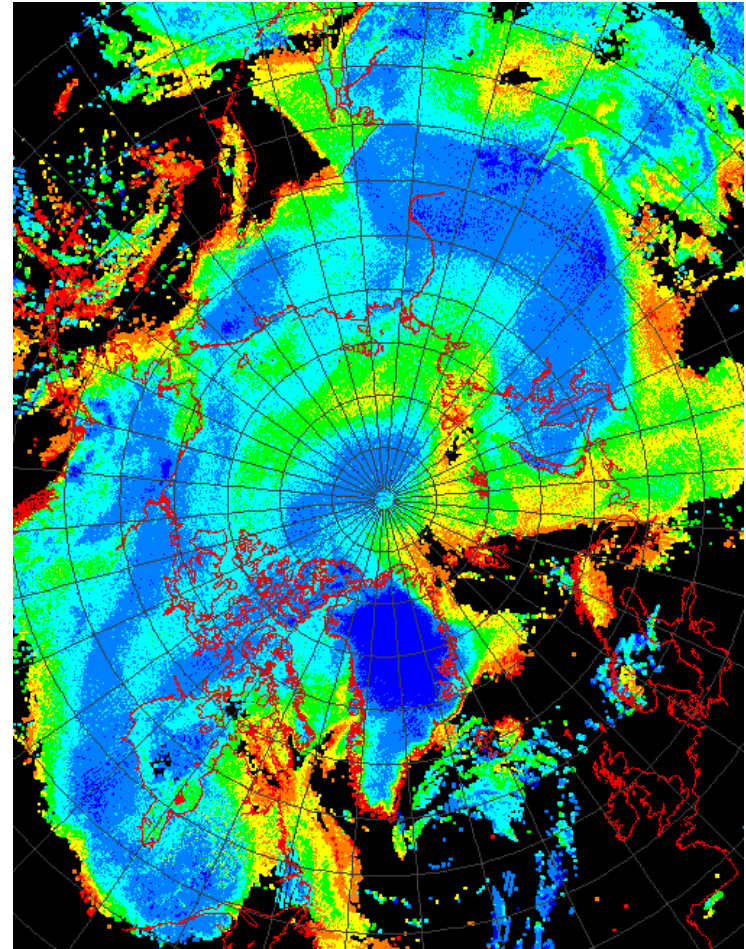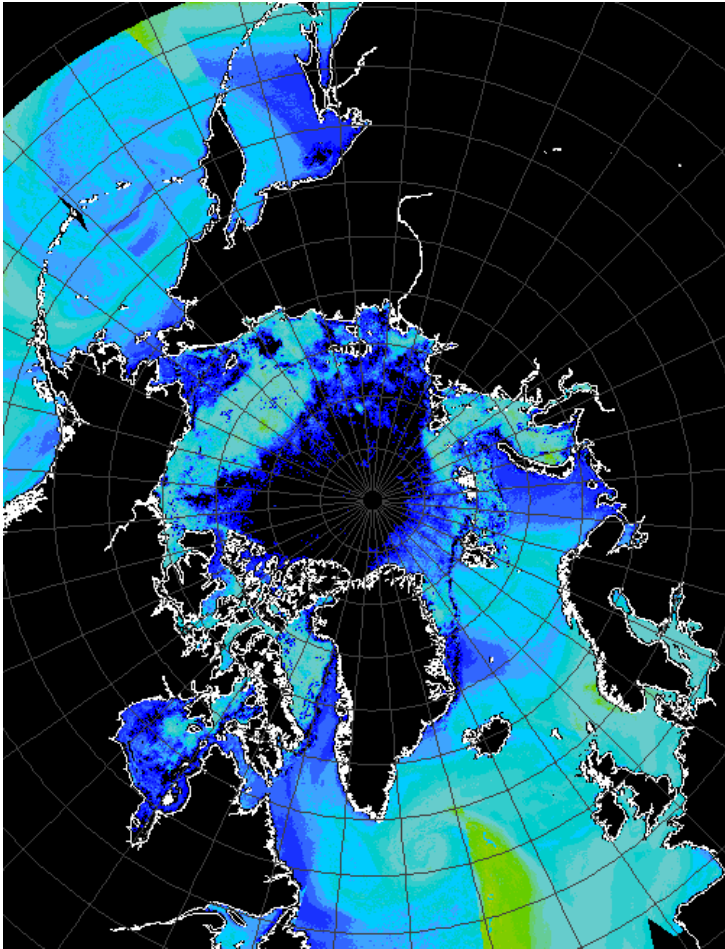
Ørsted* DTU
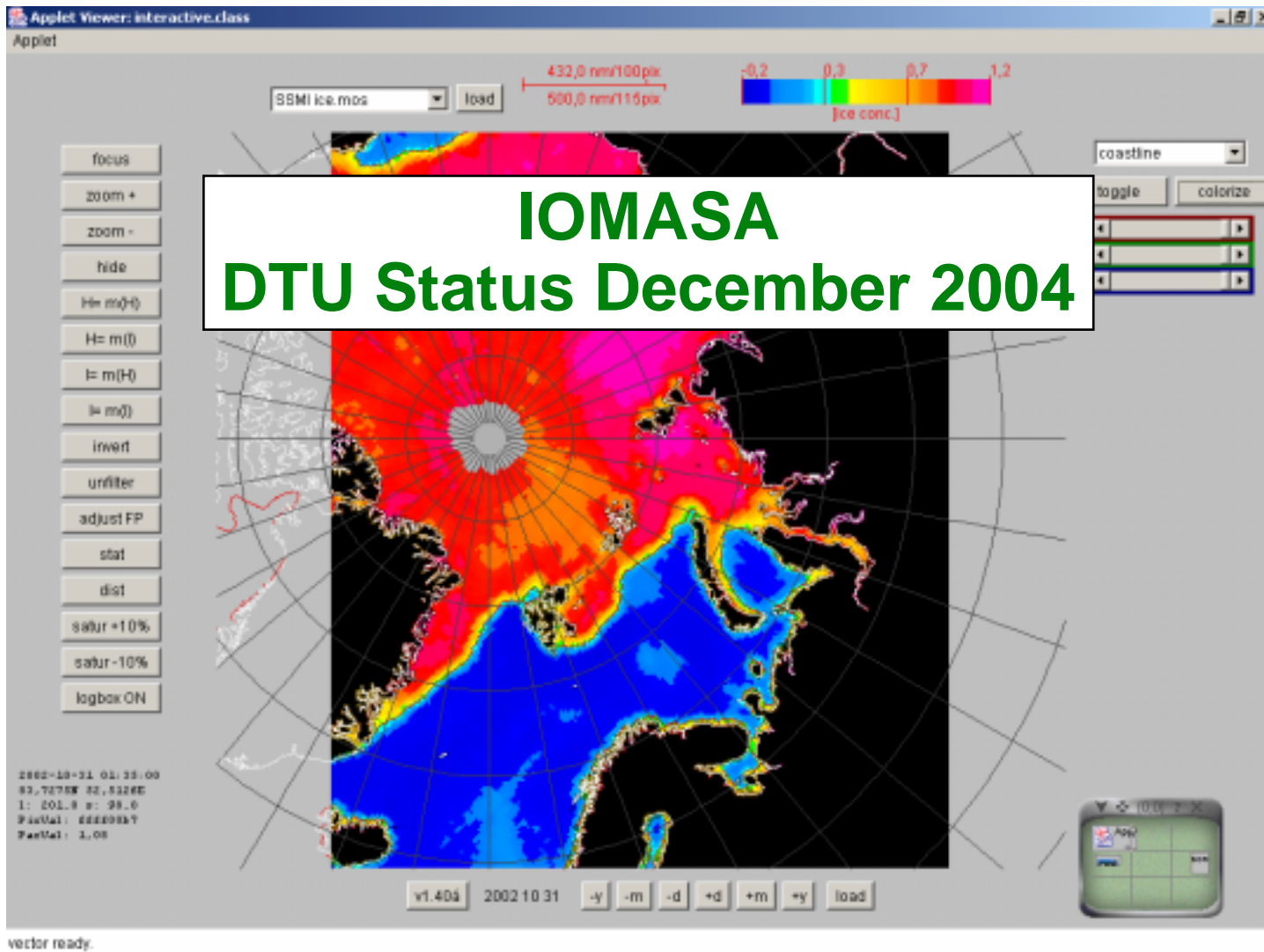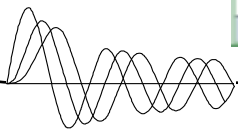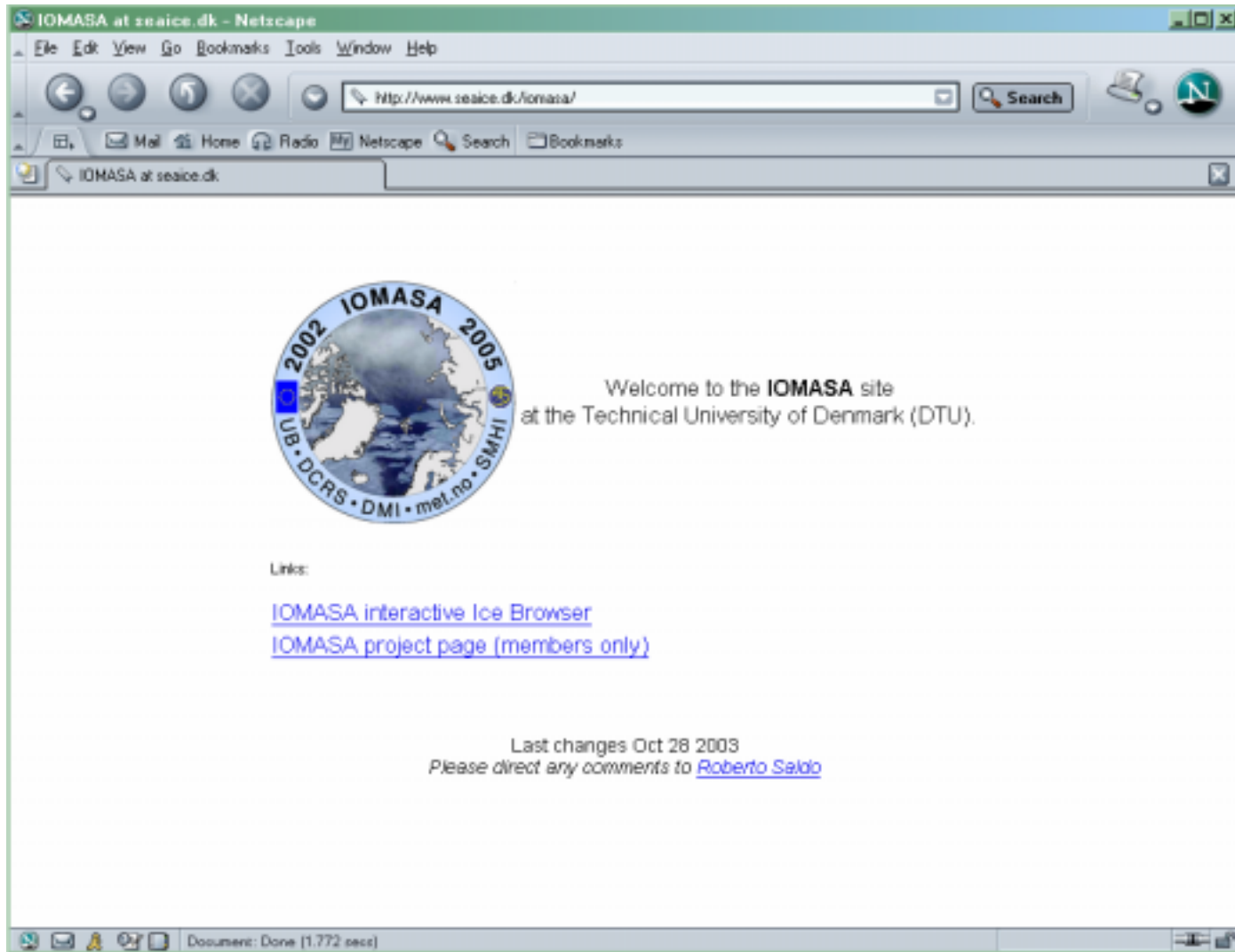
IOMASA data processing at DTU

- **IUP Bremen TWV alg.**
- **Advanced statistical retrieval**
  - SST, WS, WV, CLW, C, F, T_{ice}
  - Colour representation
  - Near real time processing

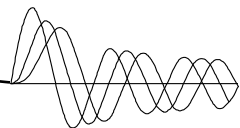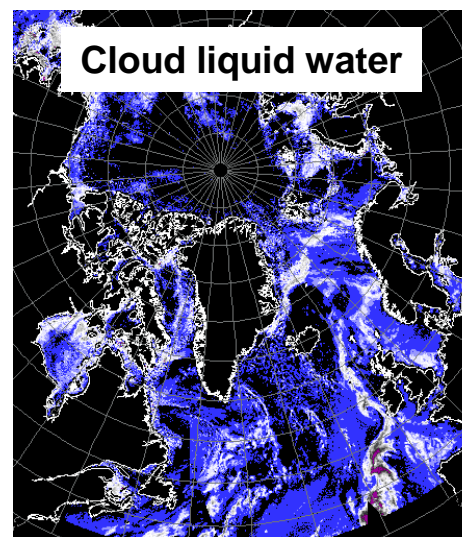- **Time series analysis**
  - AMSR-E
  - AMSU

Ørsted* DTU
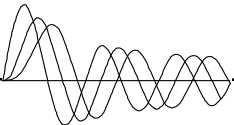
AMSR-E and AMSU total water vapour
December 5, 2004 (run since 12/7 2004)

Ørsted* DTU

AMSR-E parameter retrieval February 15, 2004

Ice concentration

MY-fraction

Ice temperature

Error

SST

Wind Speed

Water Vapour

Cloud liquid water

Ørsted* DTU
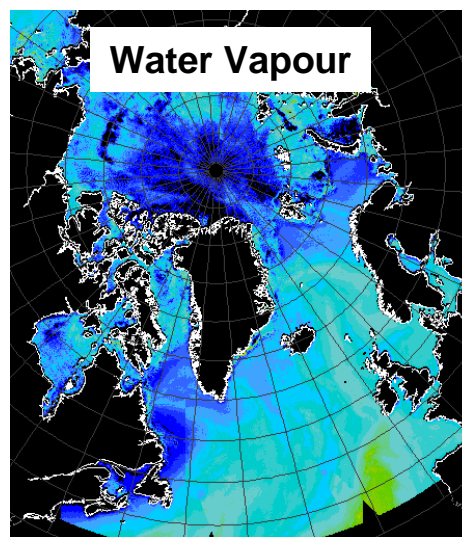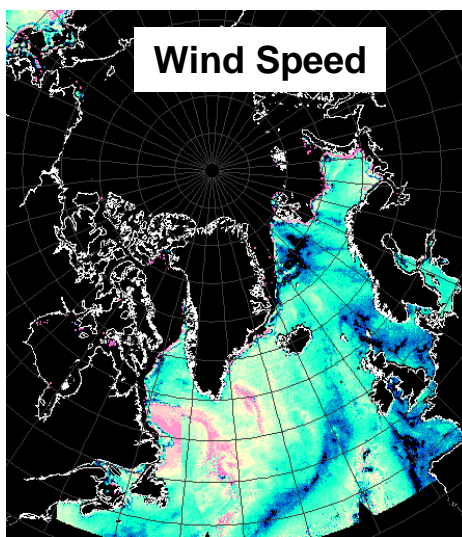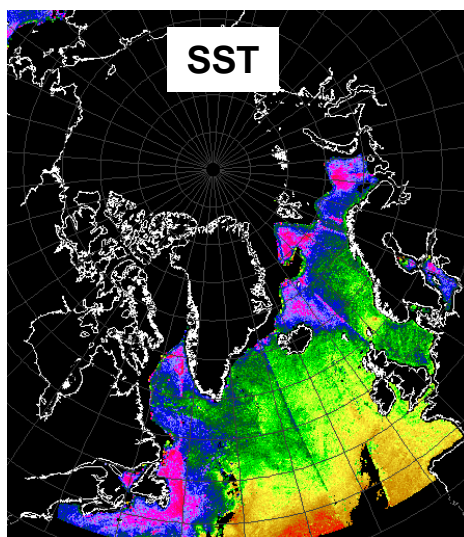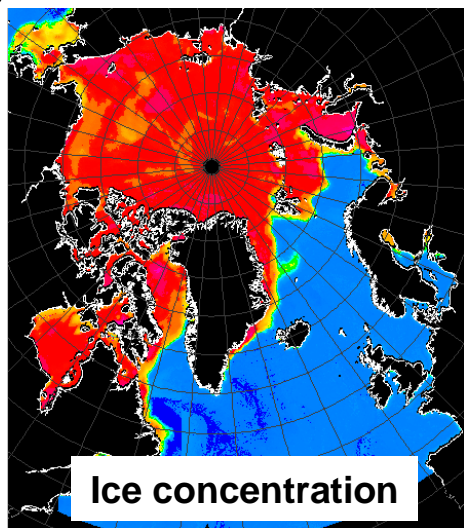
AMSR-E Sea surface temperature

Ørsted* DTU

CLW and R-factor 2004 05 07

Ørsted* DTU
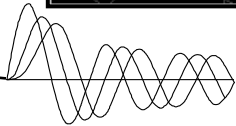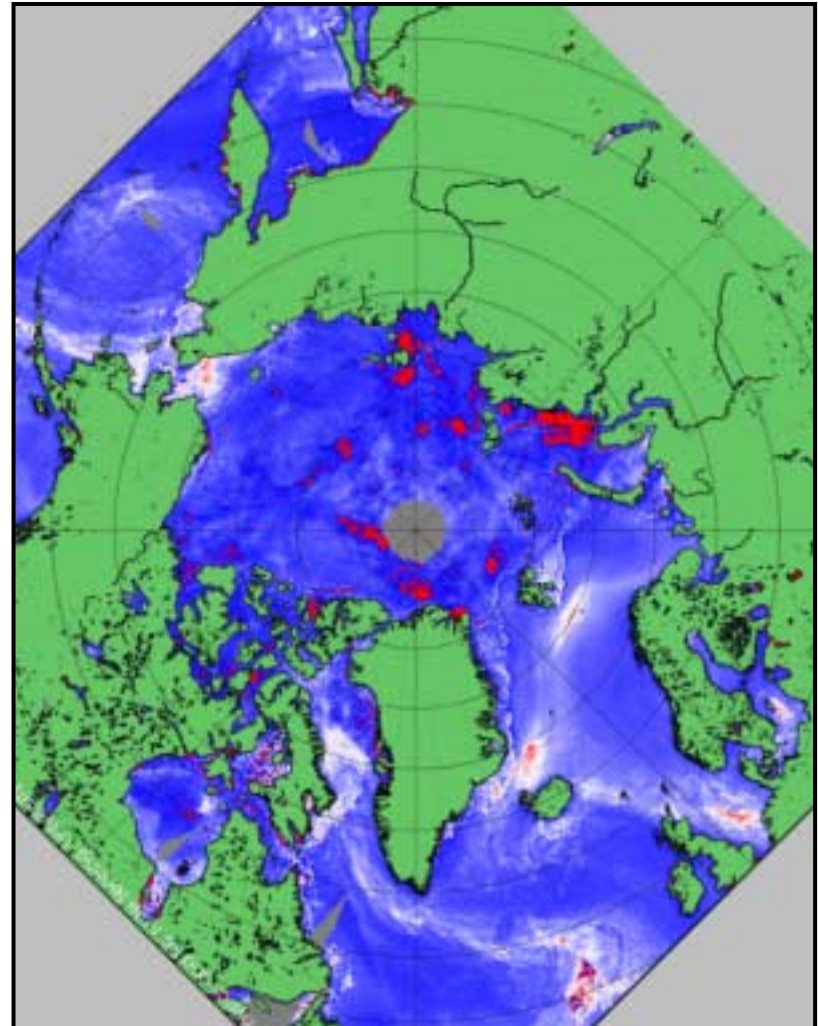
Ice concentration - no ice

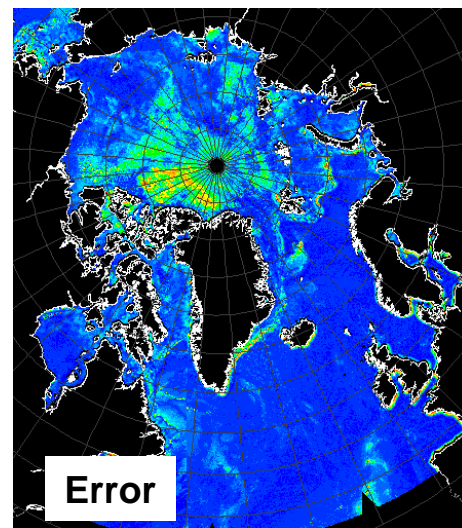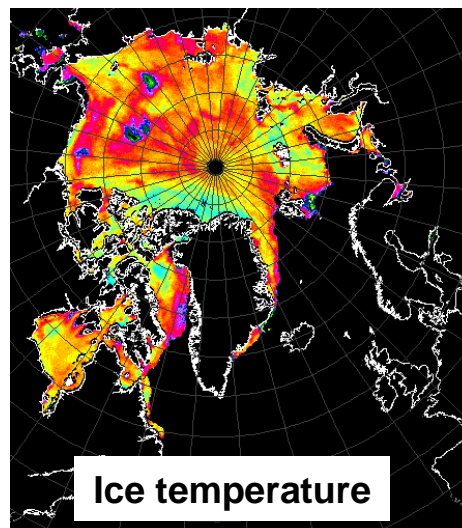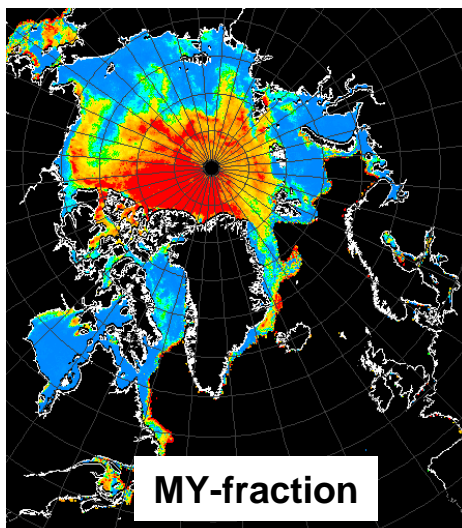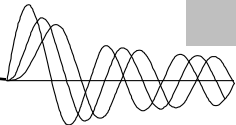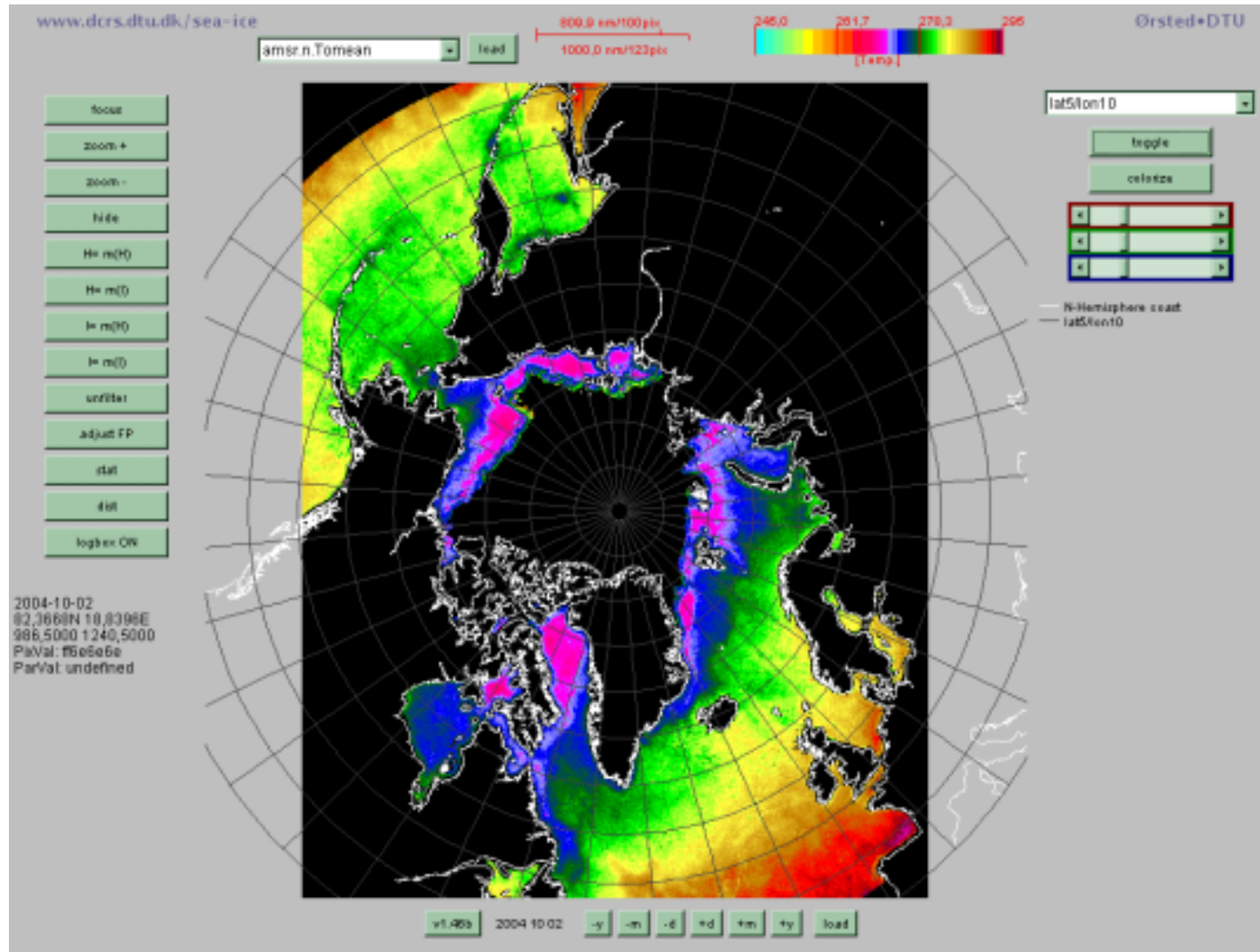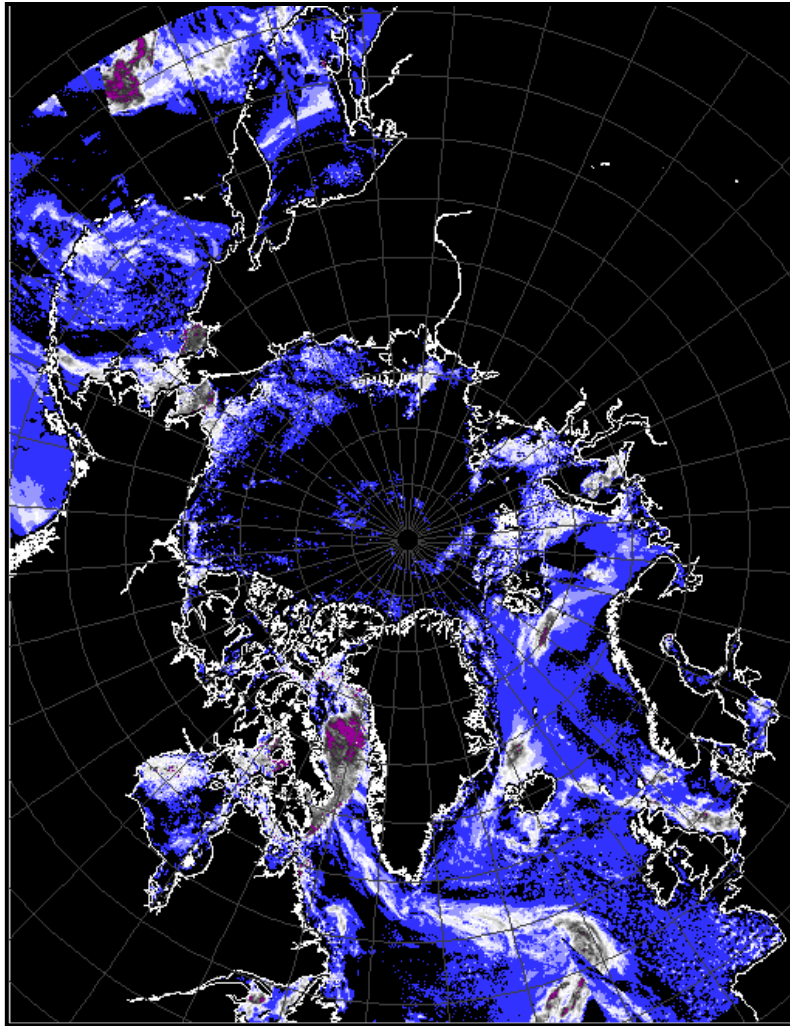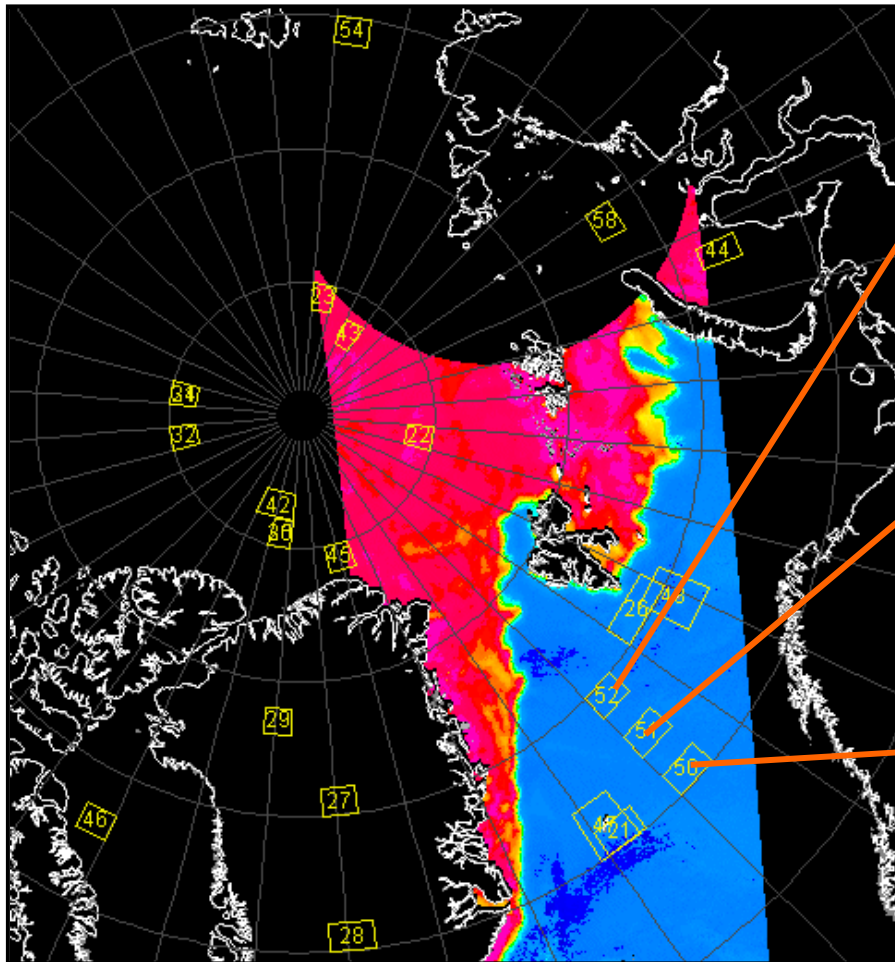|	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	0.0018	0.0274	0.0013	0.0269	0.0005	0.0028
NASA Team	0.0274	0.0509	0.0836	0.1302	-0.0563	0.0976

Table 4-5 The table shows the mean and standard deviation for each algorithm for area 52.

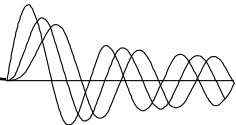|	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	0.0088	0.0391	0.0001	0.0042	0.0087	0.0388
NASA Team	0.0527	0.0626	-0.0793	0.1186	0.1320	0.1597

Table 4-4 The table shows the mean and standard deviation for each algorithm for area 51.
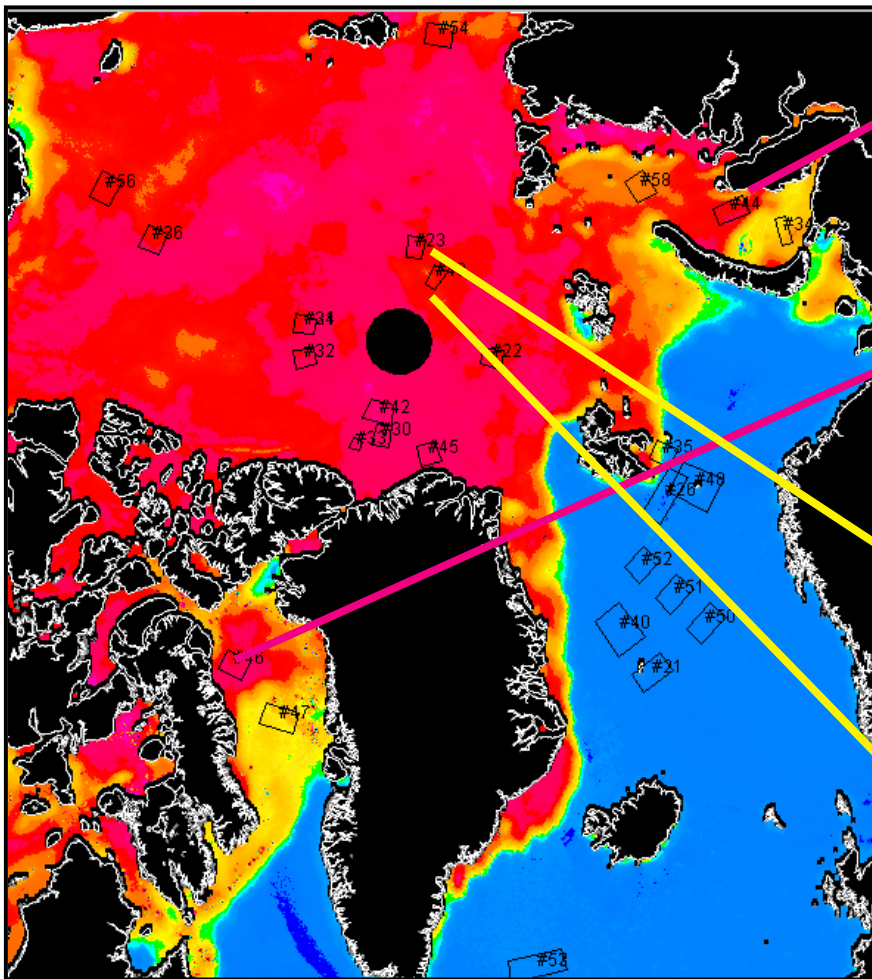
	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	0.0123	0.0405	0.0122	0.0404	0.0001	0.0015
NASA Team	0.0636	0.0614	0.1359	0.1648	-0.0722	0.1206

Table 4-3 The table shows the mean and standard deviation for each algorithm for area 50.

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Ice concentration - FY and MY ice

|	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	1.0166	0.1528	0.6524	0.3380	0.3642	0.2878
NASA Team	0.8646	0.1161	0.8177	0.1683	0.0428	0.0780

Table 4-7 The table shows the mean and standard deviation for each algorithm for area 44 (FY area).

|	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	0.9981	0.1273	0.6806	0.2960	0.3175	0.2801
NASA Team	0.8333	0.1214	0.7157	0.1586	0.1177	0.0701

Table 4-8 The table shows the mean and standard deviation for each algorithm for area 46 (FY area).

	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	1.0152	0.0673	0.2034	0.1515	0.8118	0.1095
NASA Team	0.9220	0.0599	0.3179	0.1214	0.6041	0.0987

Table 4-9 The table shows the mean and standard deviation for each algorithm for area 23 (MY area).

	Total ice concentration		FY ice concentration		MY ice concentration	
	Mean	Std.	Mean	Std.	Mean	Std.
Our algorithm	1.0337	0.0421	0.1193	0.1132	0.9144	0.0964
NASA Team	0.9527	0.0492	0.3853	0.0911	0.5674	0.0782

Table 4-10 The table shows the mean and standard deviation for each algorithm for area 43 (MY area).
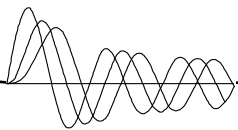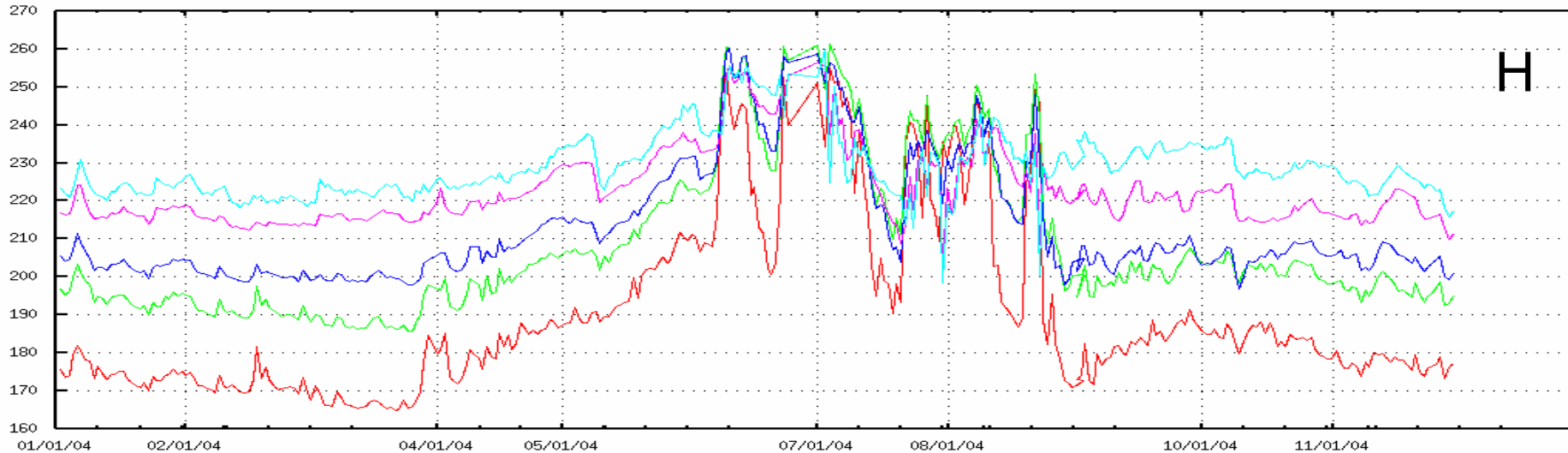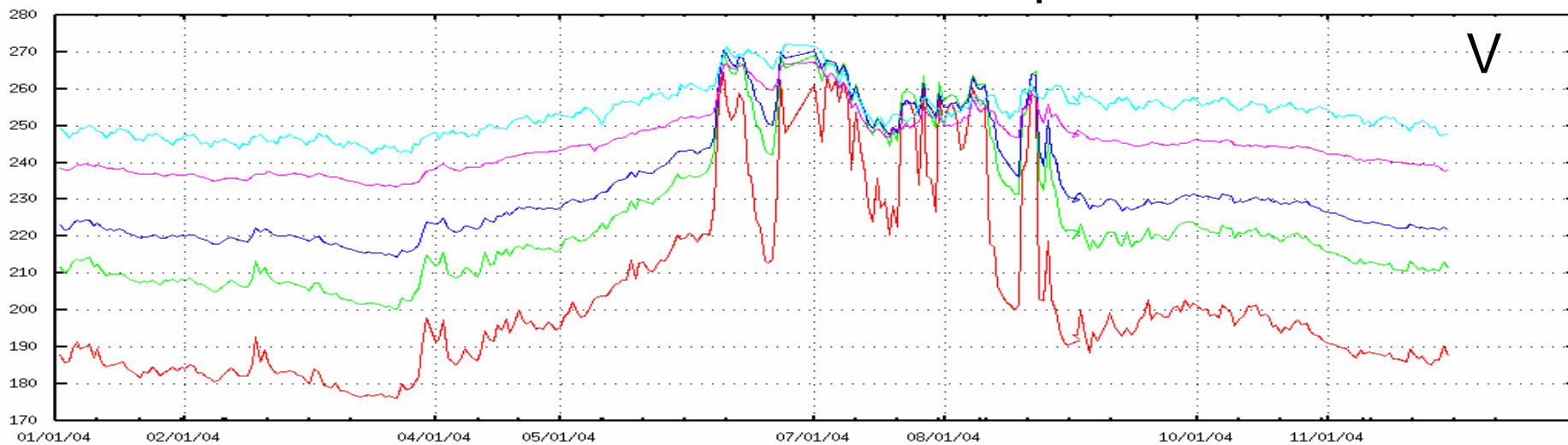
Ørsted* DTU
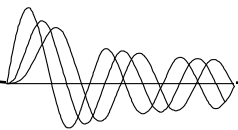
Time series AMSR MY-ice

Ørsted* DTU
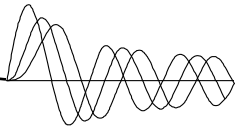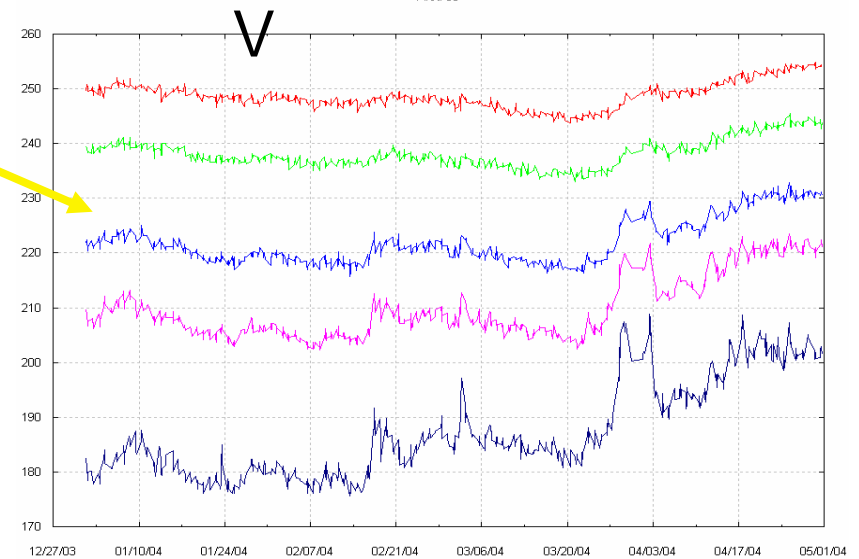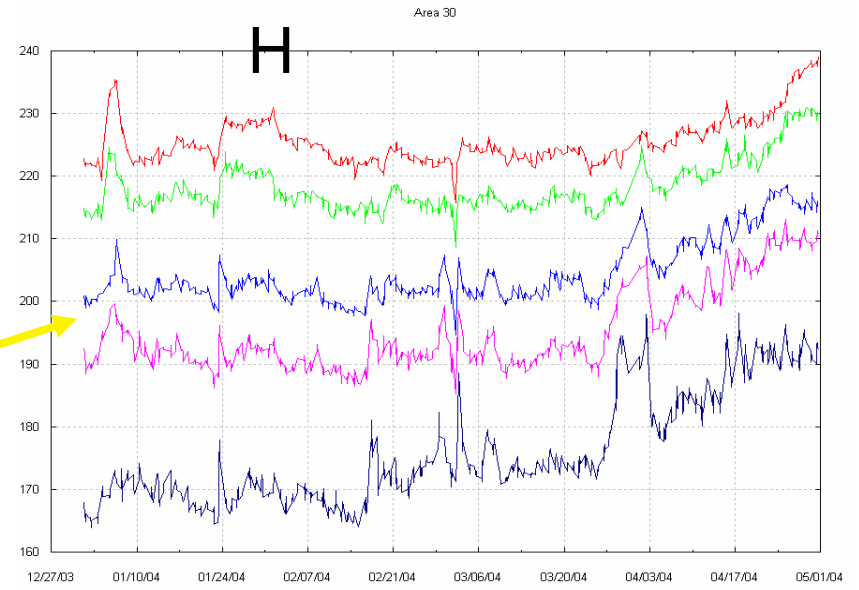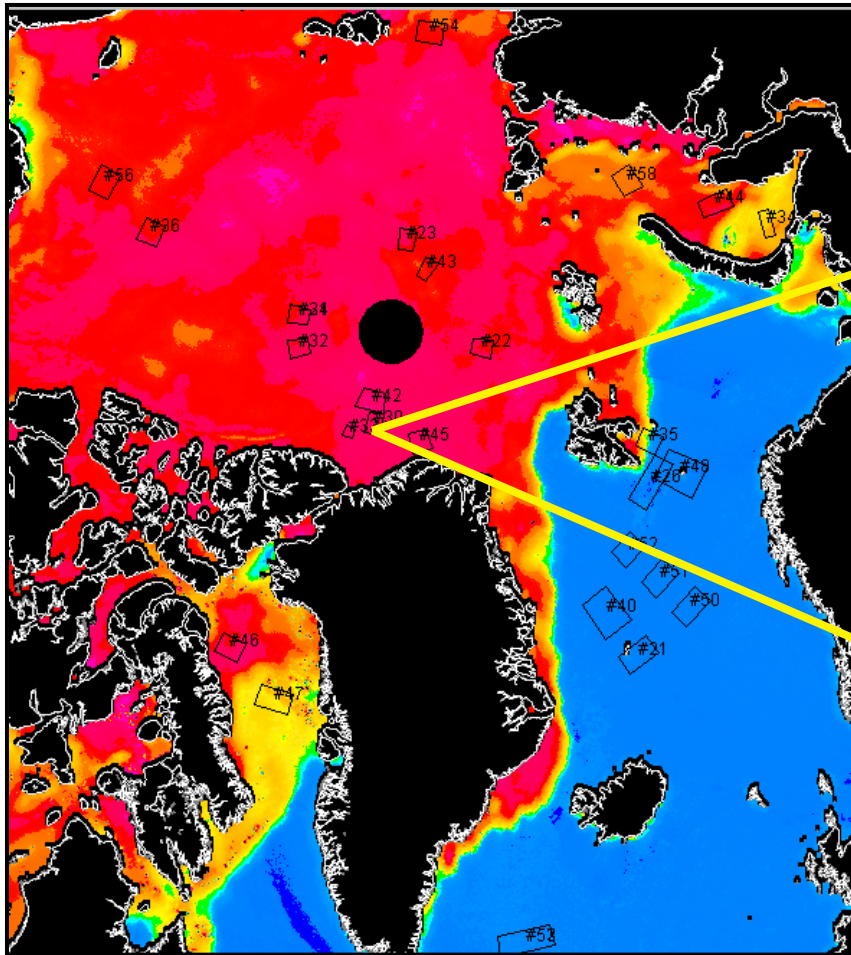
Time series AMSR FY-ice
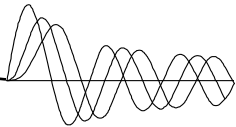
Ørsted* DTU
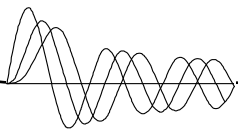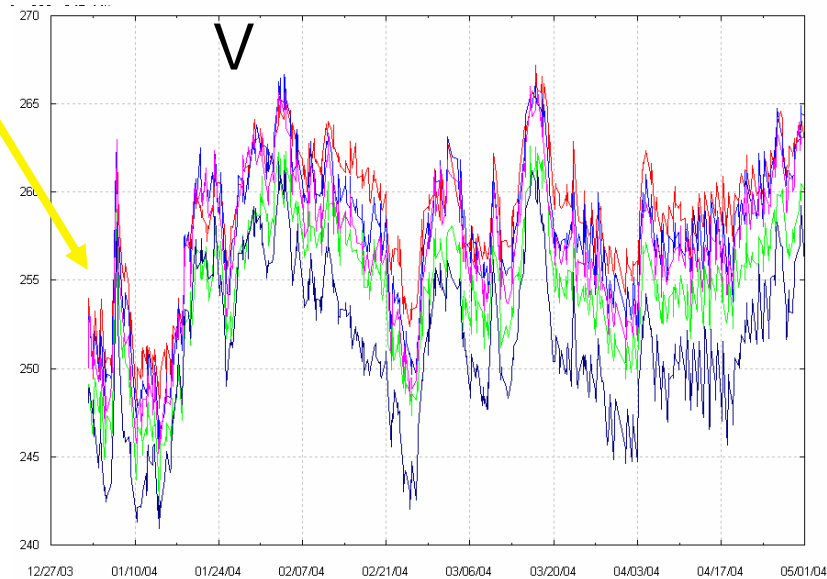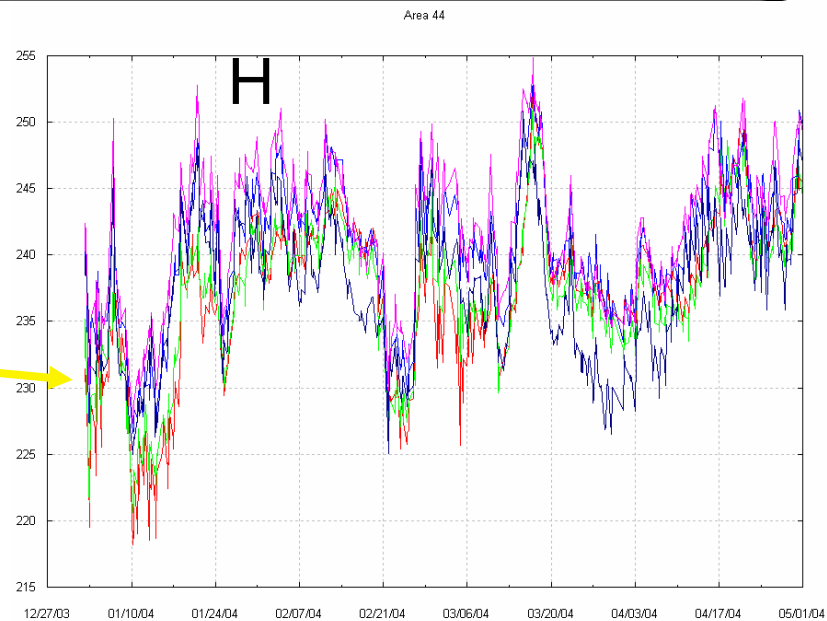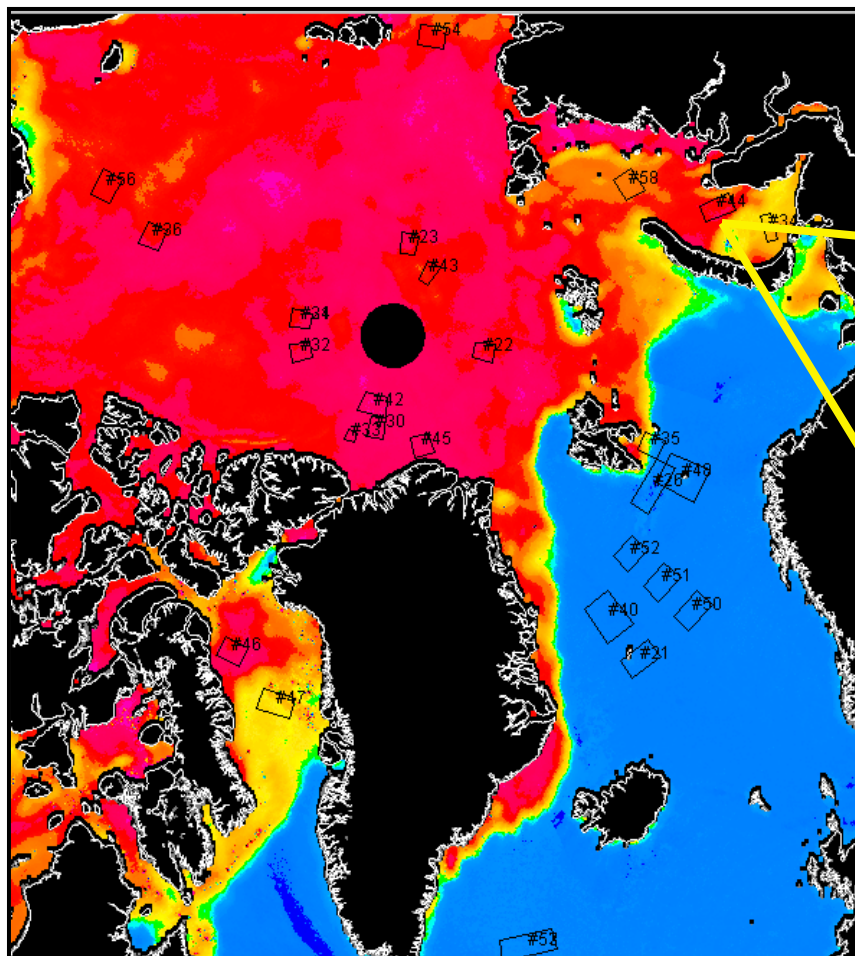
AMSR-E from GreenICE camp area
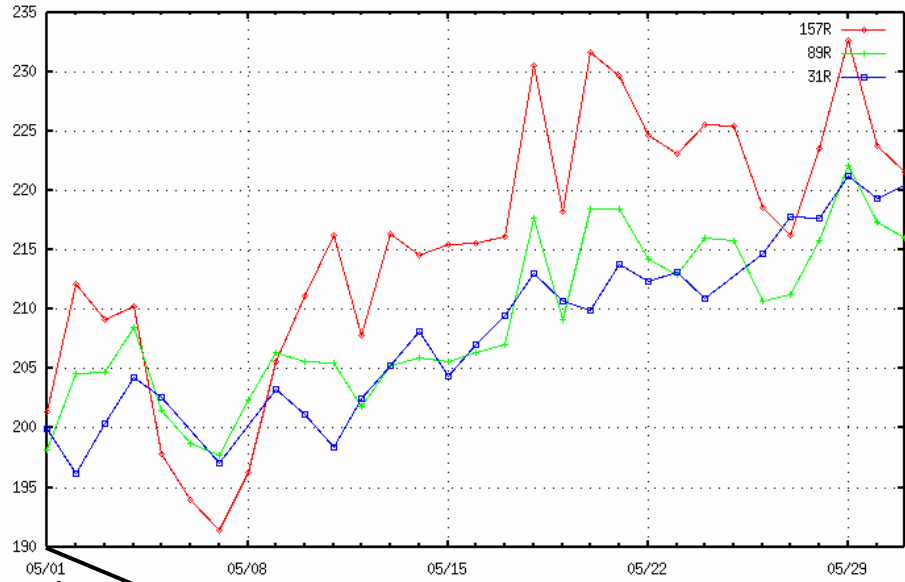

V

H

Ørsted* DTU

GreenICE camp area ice signatures – AMSR-E

Ørsted* DTU
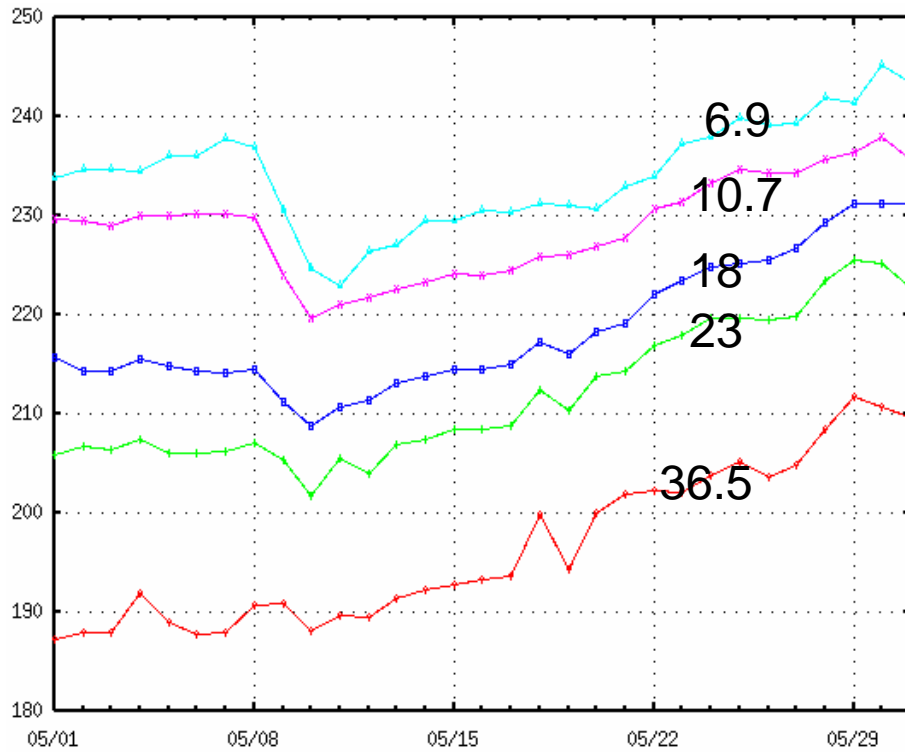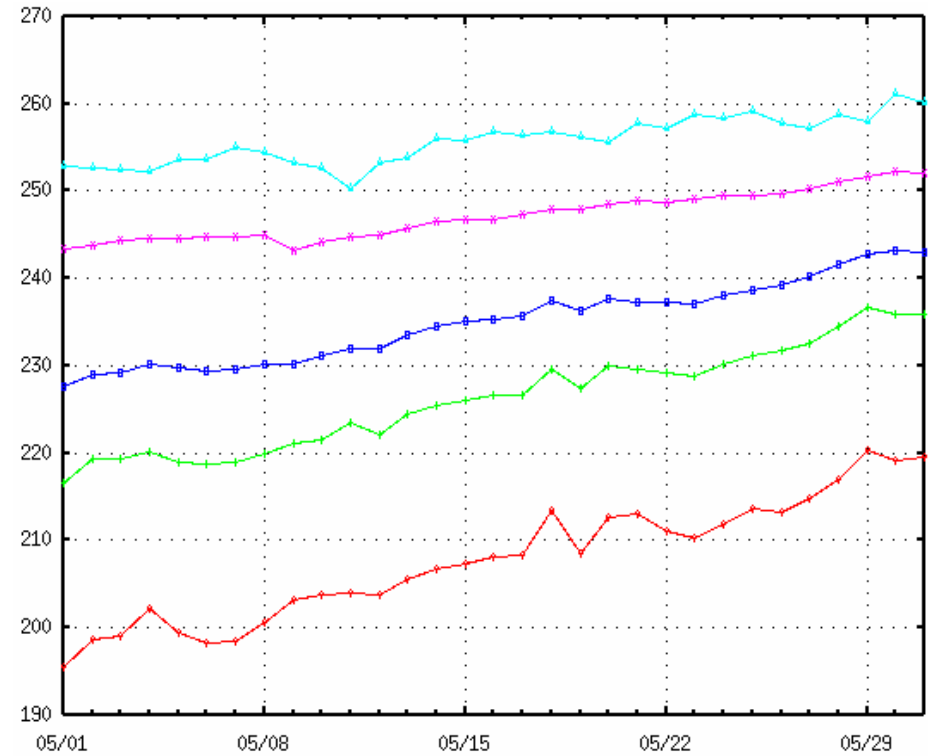
AMSU A & B from GreenICE camp area 2004
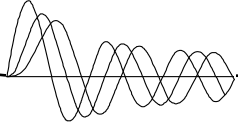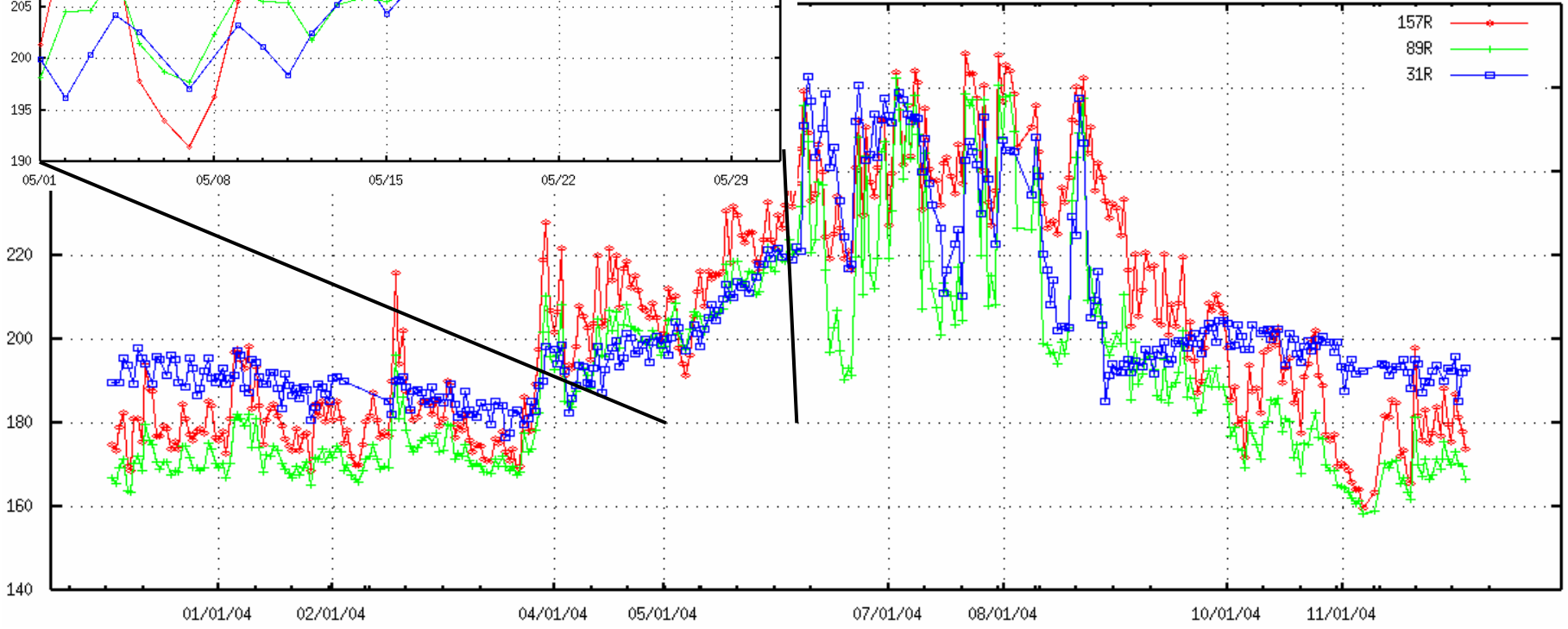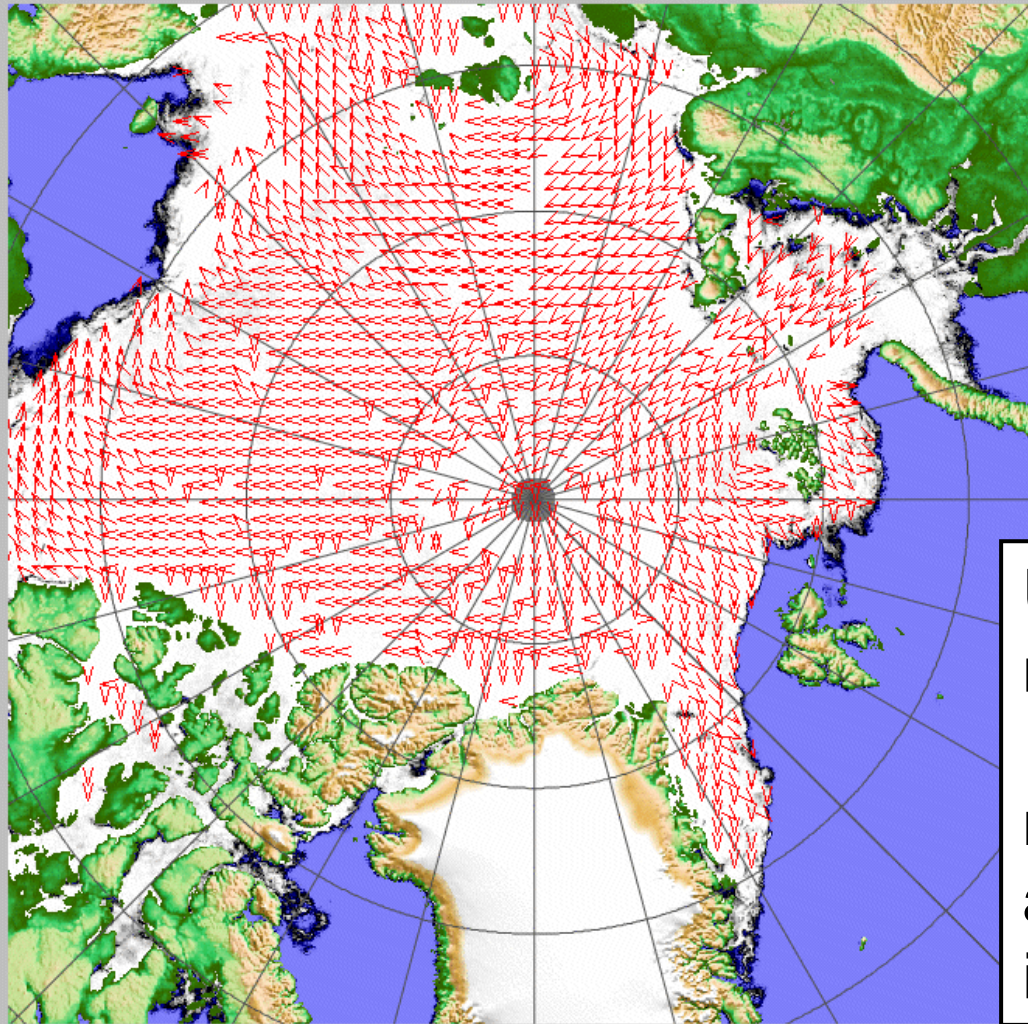
U-Bremen ice map with IFREMER merged AMSR and QuickSCAT ice drift
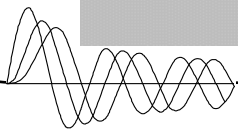
Ørsted* DTU
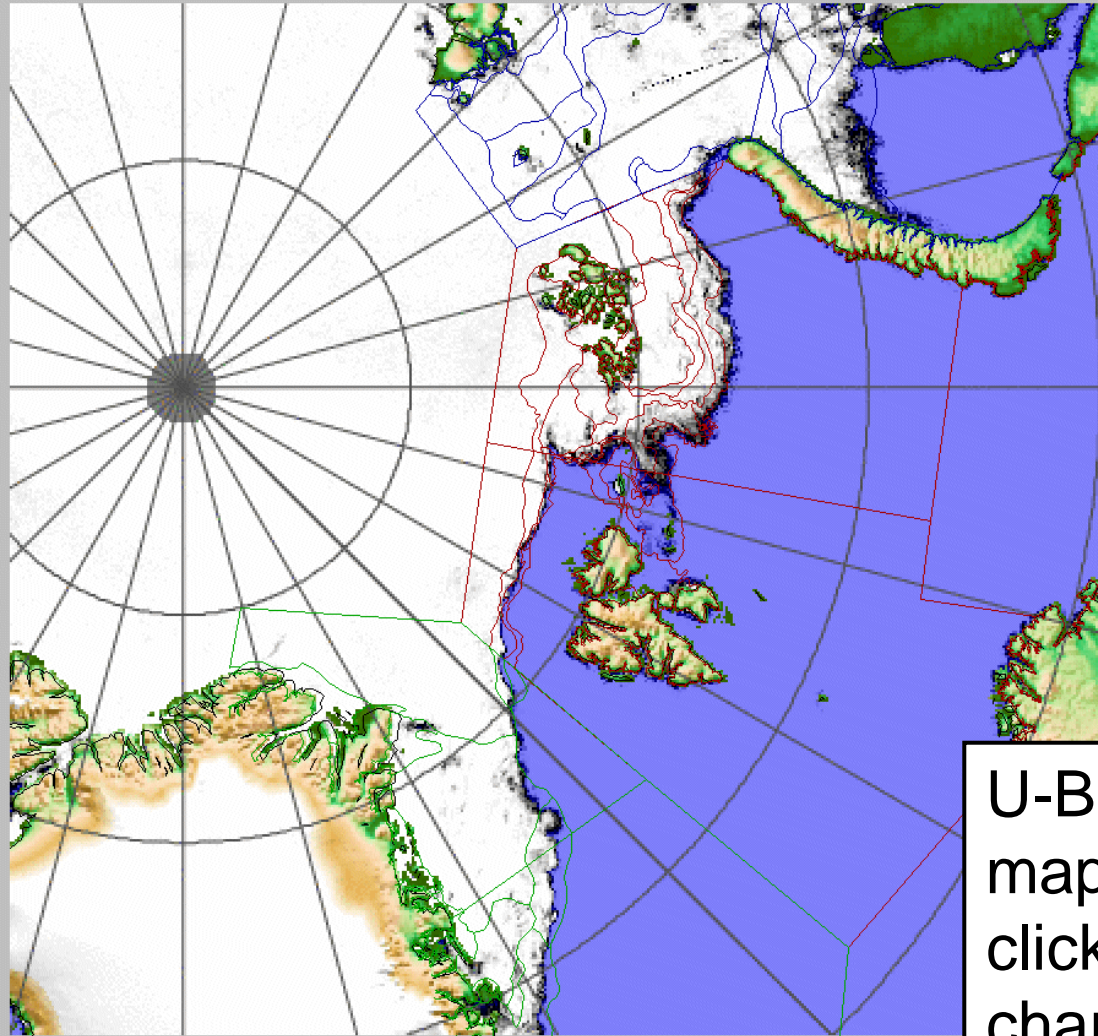
U-Bremen ice map with clickable NIC ice chart
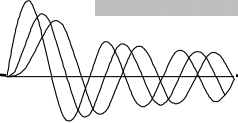
Snow parameter test

Min	Max	Mean	Std.	
100.0000	410.0000	255.48	92.5908	Density
0.1400	0.3200	0.23	0.0996	Thickness
3.4652	4.5995	4.20	0.1175	WS
1.0193	3.0306	1.74	0.4260	V
0.0020	0.0020	0.00	nan L	
273.4380	276.8977	274.12	0.5530	SST
259.5487	273.0000	264.08	4.5086	Tice
0.8878	1.0241	0.98	0.0914	C
0.0002	0.1651	0.03	0.0434	F
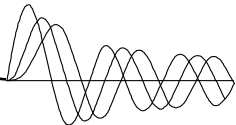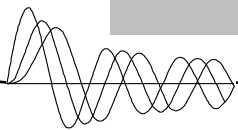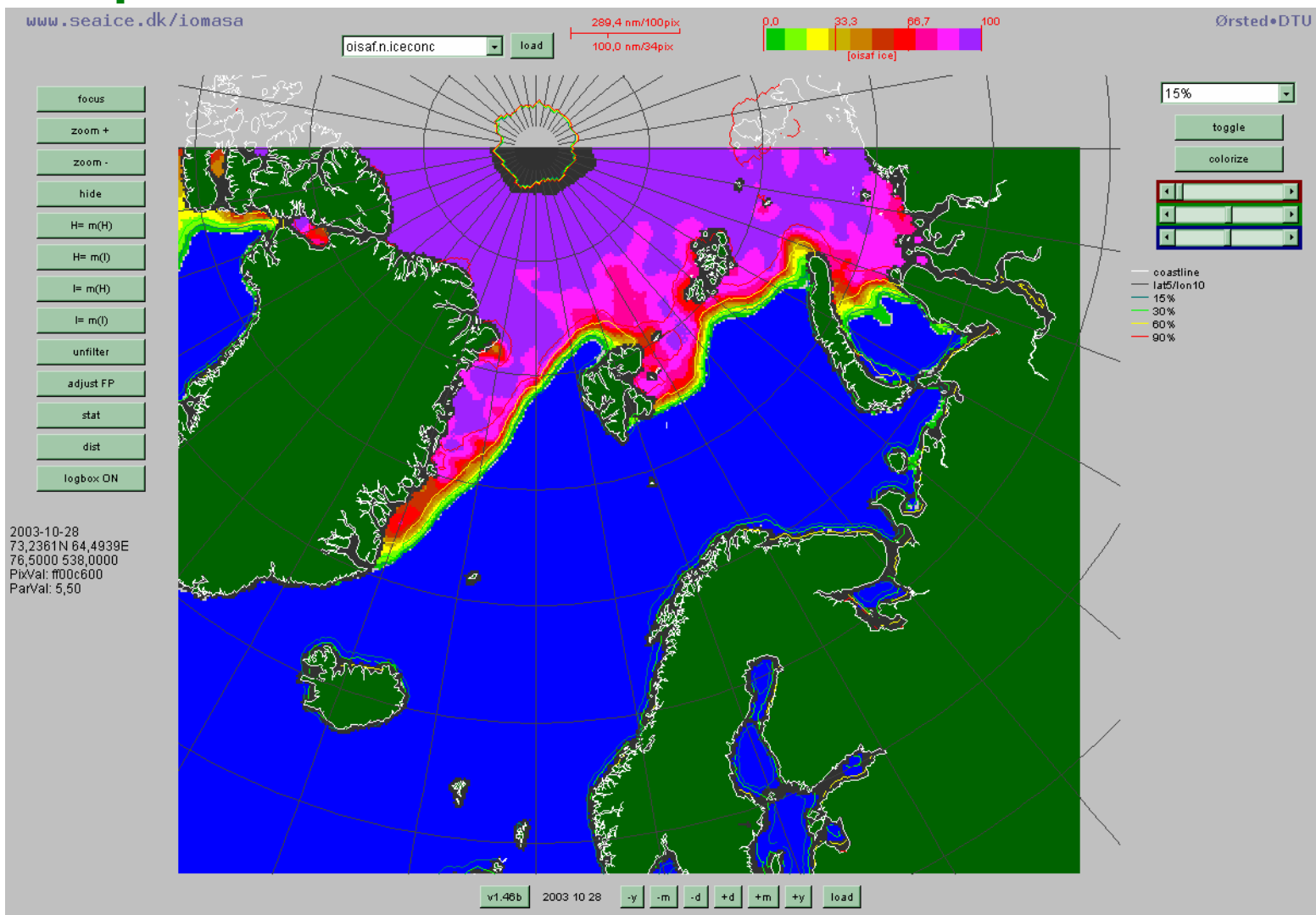
Ørsted* DTU

LTP - 29/12/2004 - 17

OI-SAF products in browser

Ørsted* DTU

OI-SAF products in browser

Ørsted* DTU
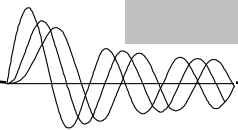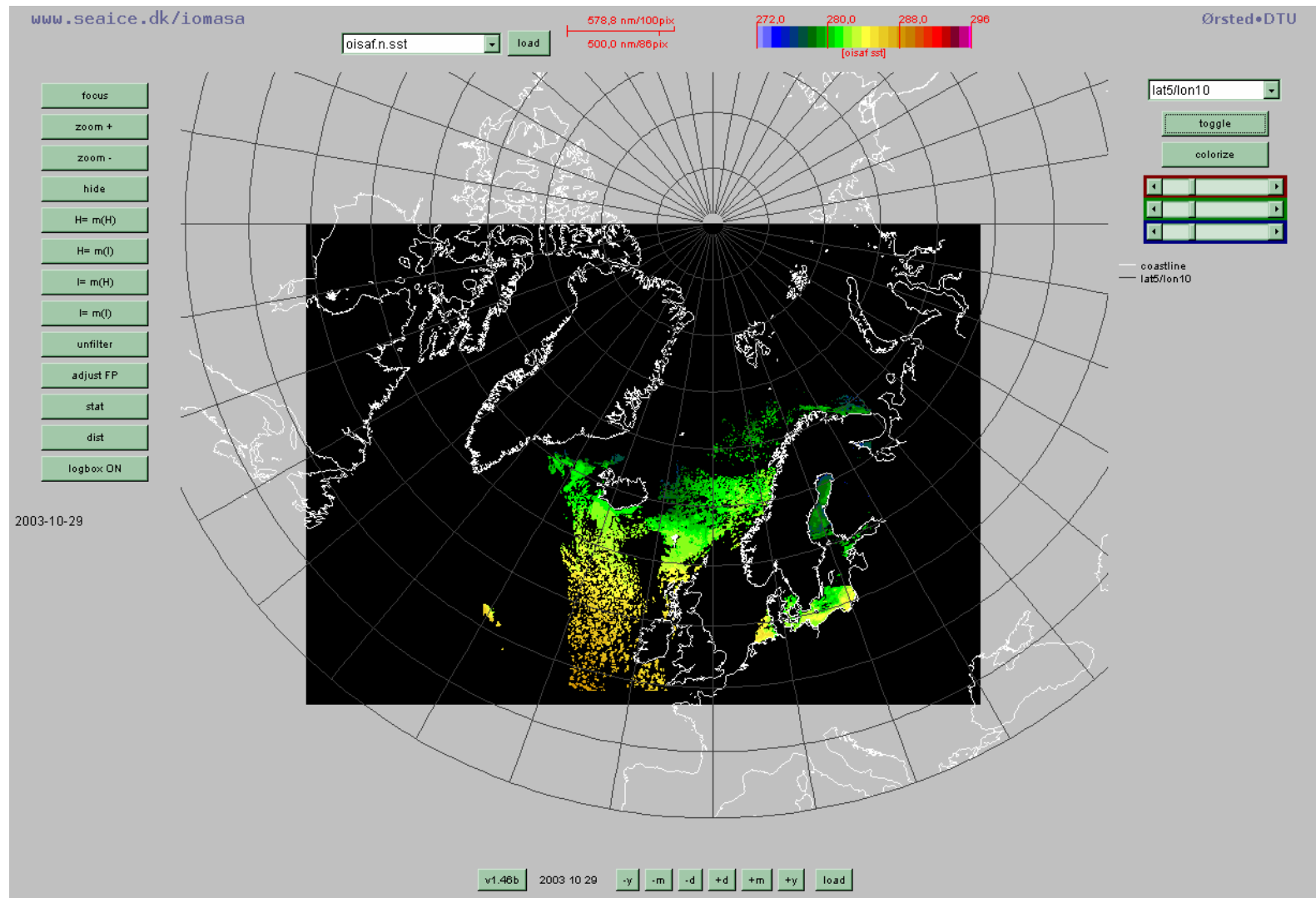
OI-SAF products in browser
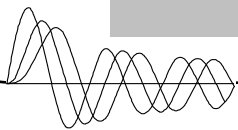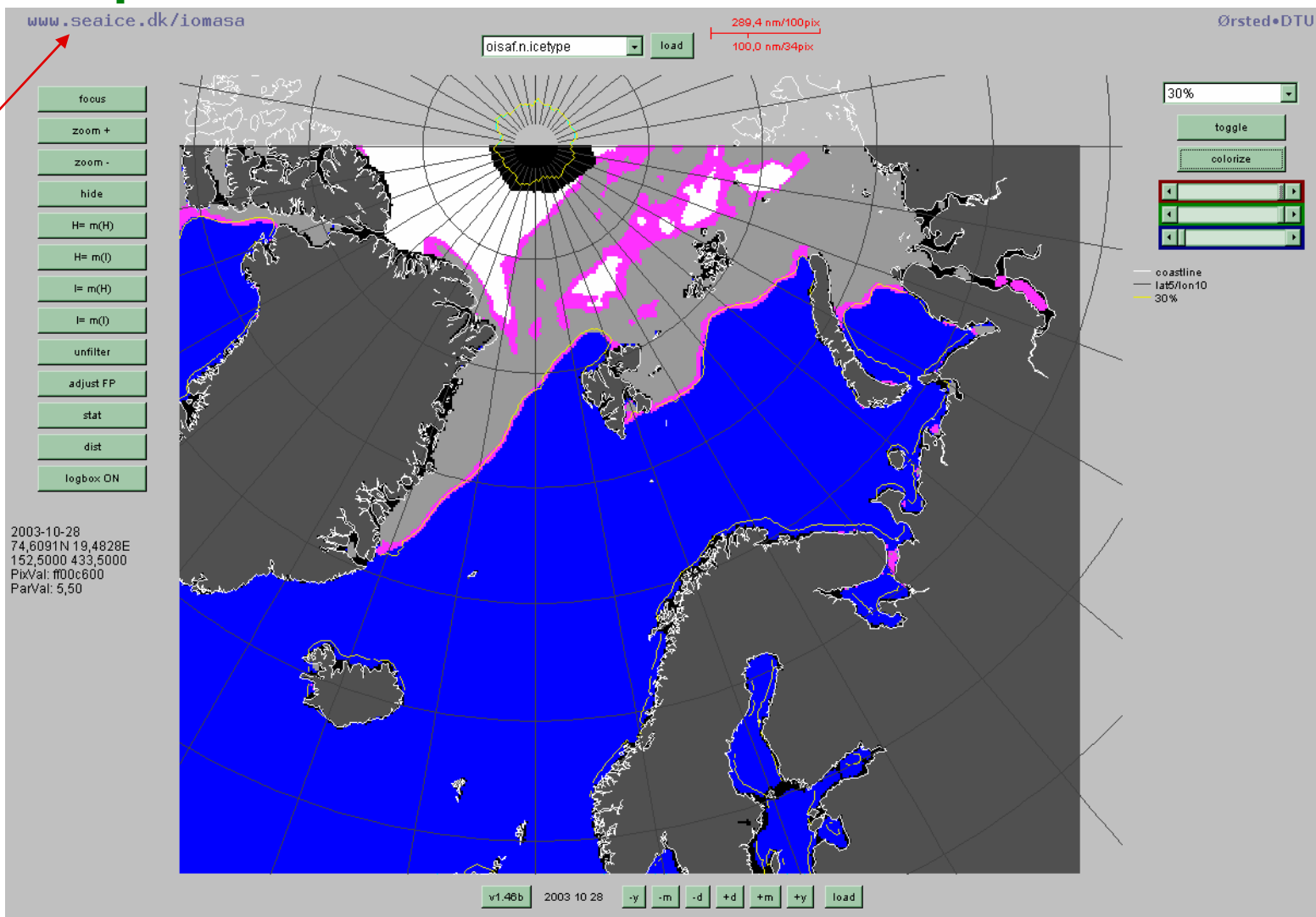
Ørsted* DTU

- **Ice products**
  - 89 GHz polarization difference
  - Bootstrap algorithm ice conc.
  - Combined alg. ~5 Km resolution.
- **Advanced statistical retrieval**
  - SST, WS, WV, CLW, C, F,T_{ice}

Ørsted* DTU