

Gert König-Langlo
Alfred-Wegener-Institut
für Polar- und Meeresforschung

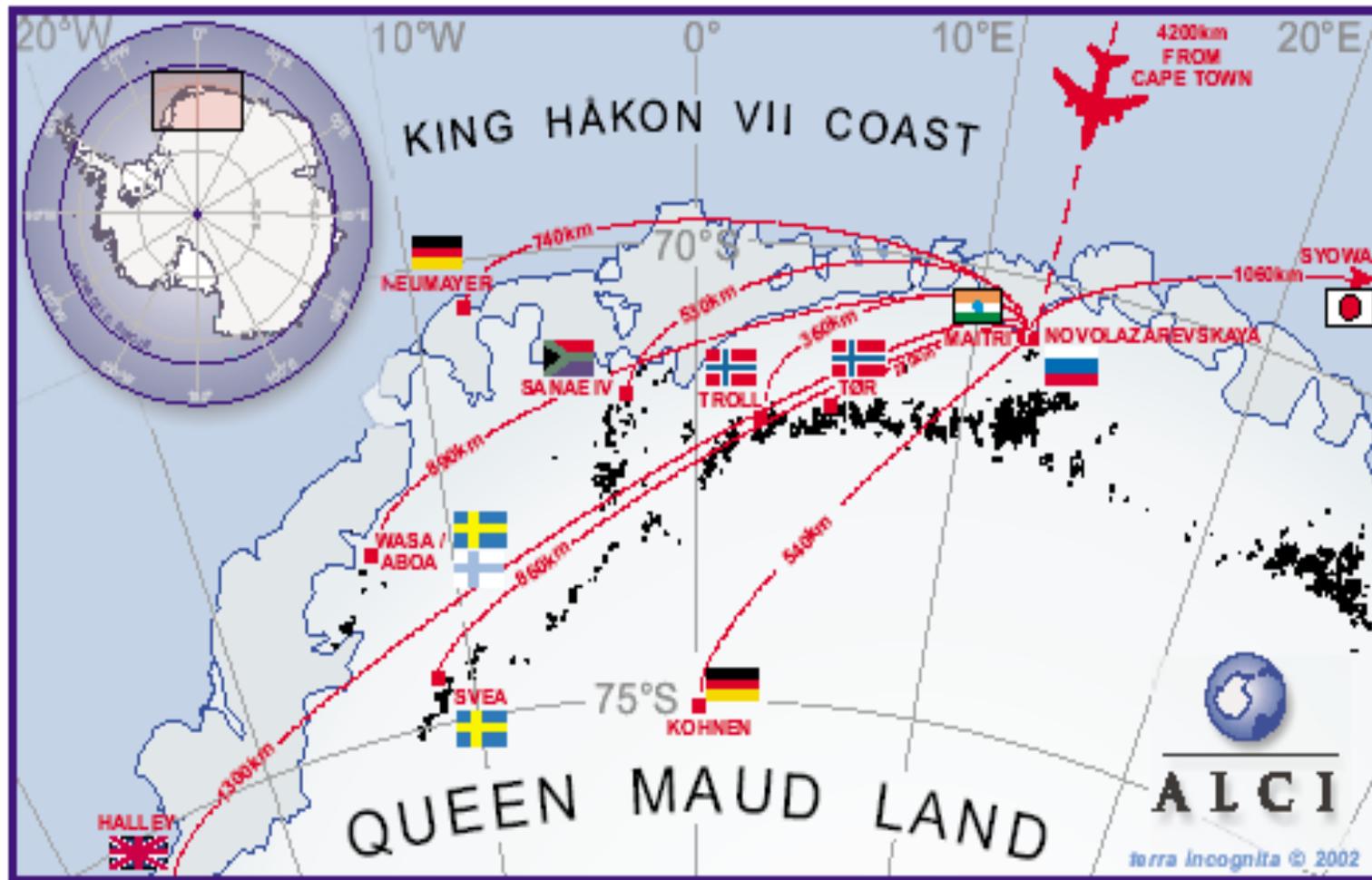
AWI



The Meteorological Observatory at Neumayer

2nd Antarctic Meteorological Observation,
Modeling, and Forecasting Workshop

Dronning Maud Land Air Network (DROMLAN)



Hartwig Gernandt, SCALOP Germany

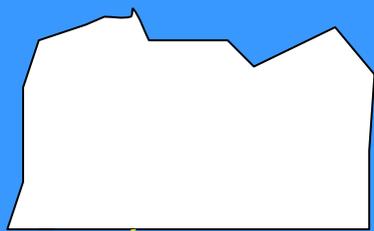
The Neumayer Station is currently working as the forecast center for the Dronning Maud Land Air Network (DROMLAN). So we see as a crucial task of the workshop to establish an efficient exchange of data and forecast products in order to support air operations within Antarctica and intercontinental flights during the IPY period.

From the German Antarctic Program Hans-Joachim Moeller (German Weather Service) and Gert König-Langlo (Alfred Wegener Institute for Polar and Marine Research) are participating at the meeting.

We would like to get into close contact to all other Antarctic forecasters to coordinate the coming IPY seasons!!

Neumayer Station

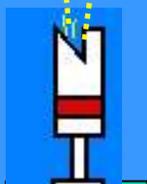




BSRN (Radiation)

Global, Reflex, Diffuse, Direct, OG1, RG8, UV, Spectral Solar (Sunfotometer), Long-Wave in, out, Sunshine Duration.

Laser Ceilometer

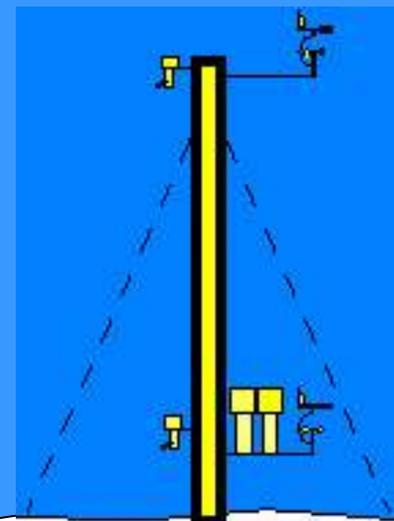


Upper Air Soundings

Temperature, Humidity, Wind Direction, Wind Velocity, Ozone.



Met-Tower
Temperature, Humidity, Wind Direction, Wind Velocity, in 2 + 10 m.



Ekström Ice Shelf 70°39'S, 8°15'W

Air pressure

Neumayer (Koldewey)

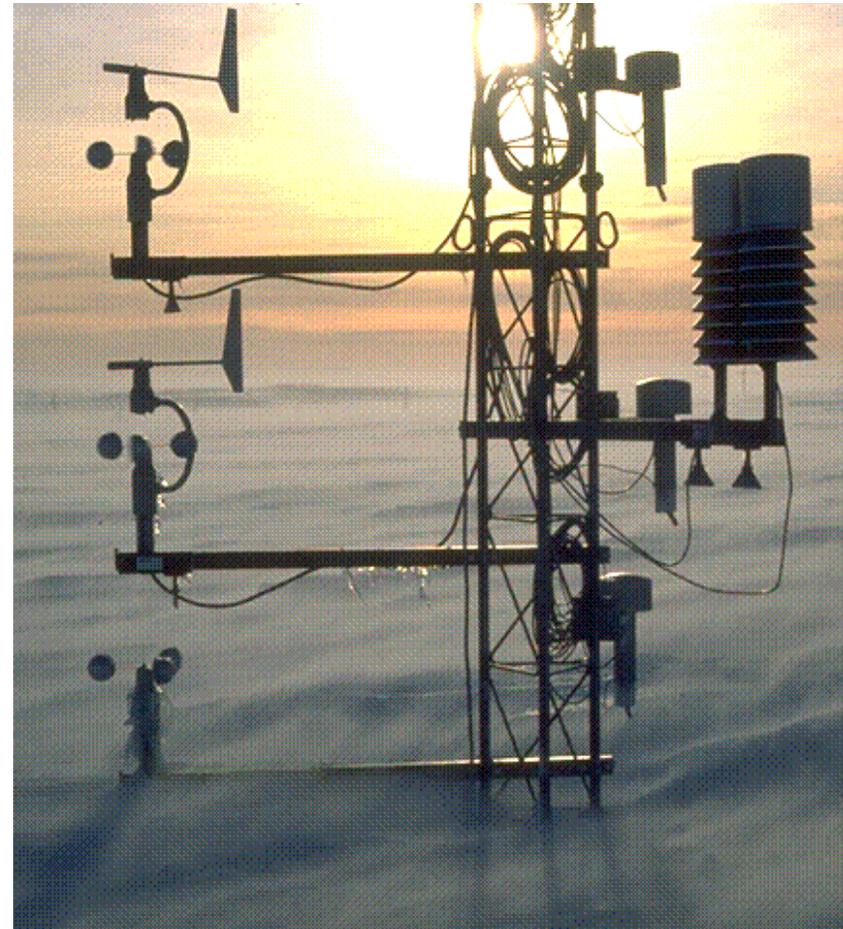
Meteorological Observatory

- 3-hourly routine synoptic observations
- Daily upper air soundings incl. Ozone
- „Baseline Surface Radiation Network“ (BSRN)

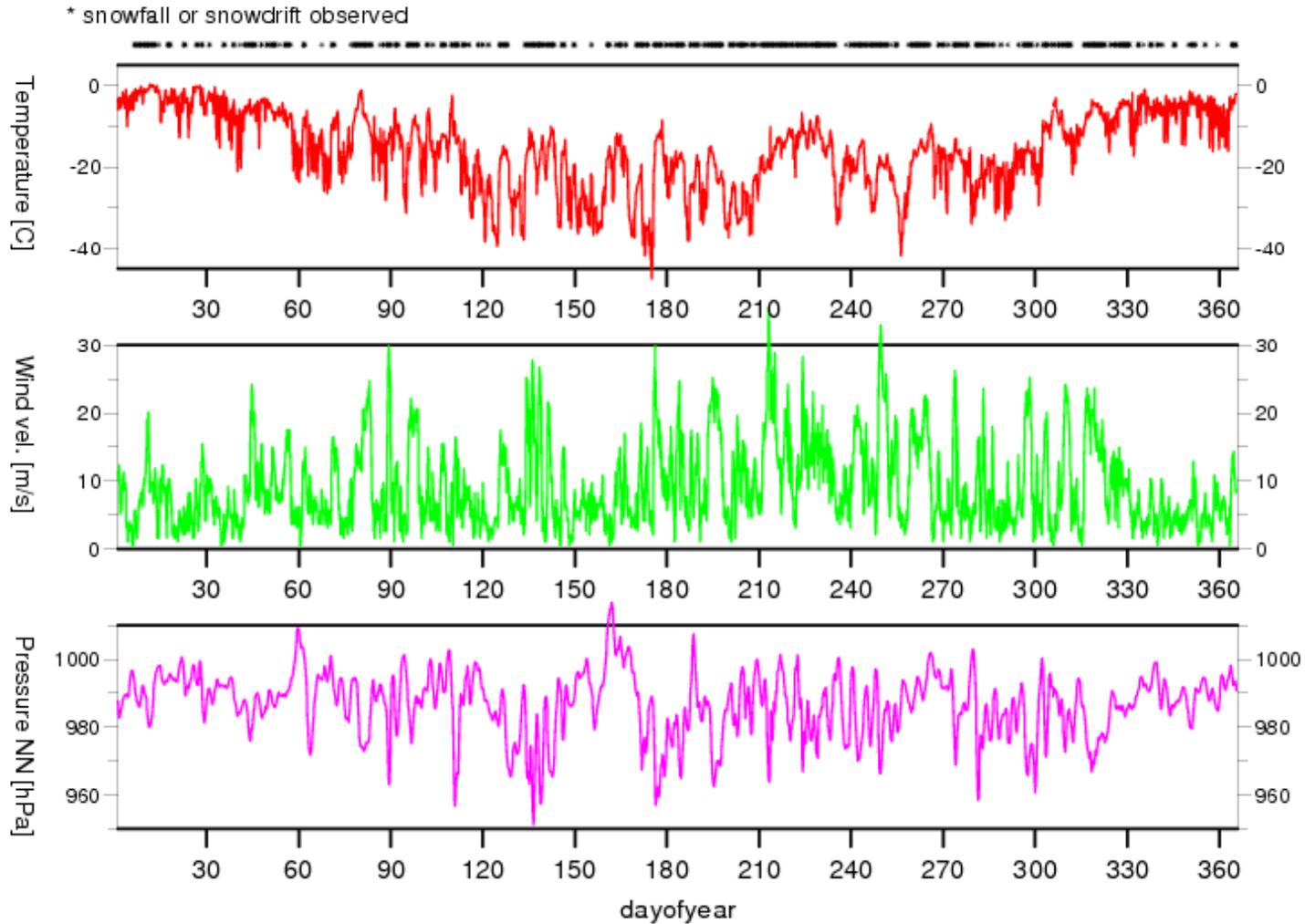


AWI

- 1. Global Telecommunication System (GTS)**
- 2. Baseline Surface Radiation Network (BSRN)**
- 3. Network for the Detection of Stratospheric Changes (NDACC, formerly NDSC)**
- 4. Global Atmospheric Watch (GAW)**



Meteorological Data from 2006

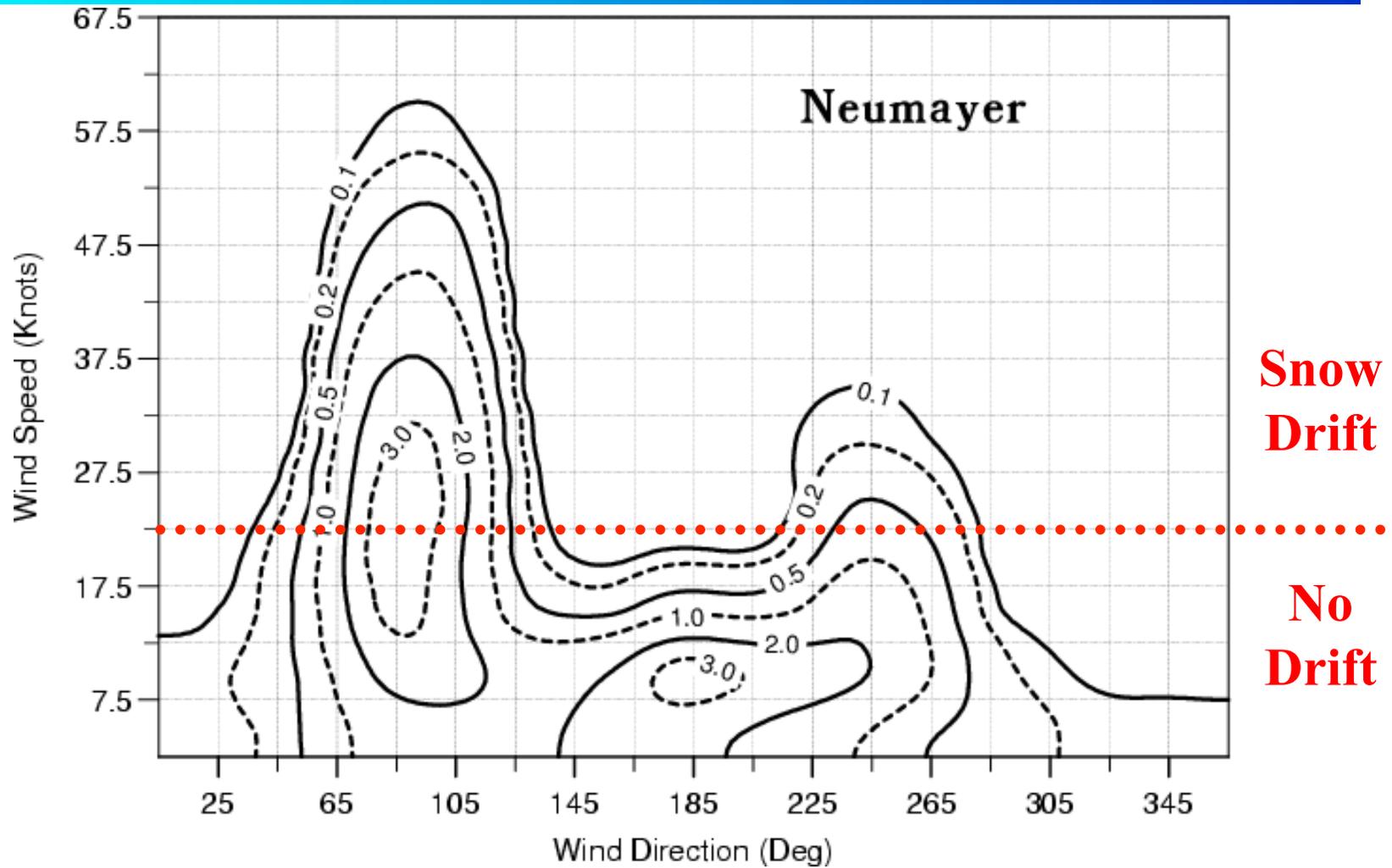


Monthly Averaged Windspeed at Neumayer

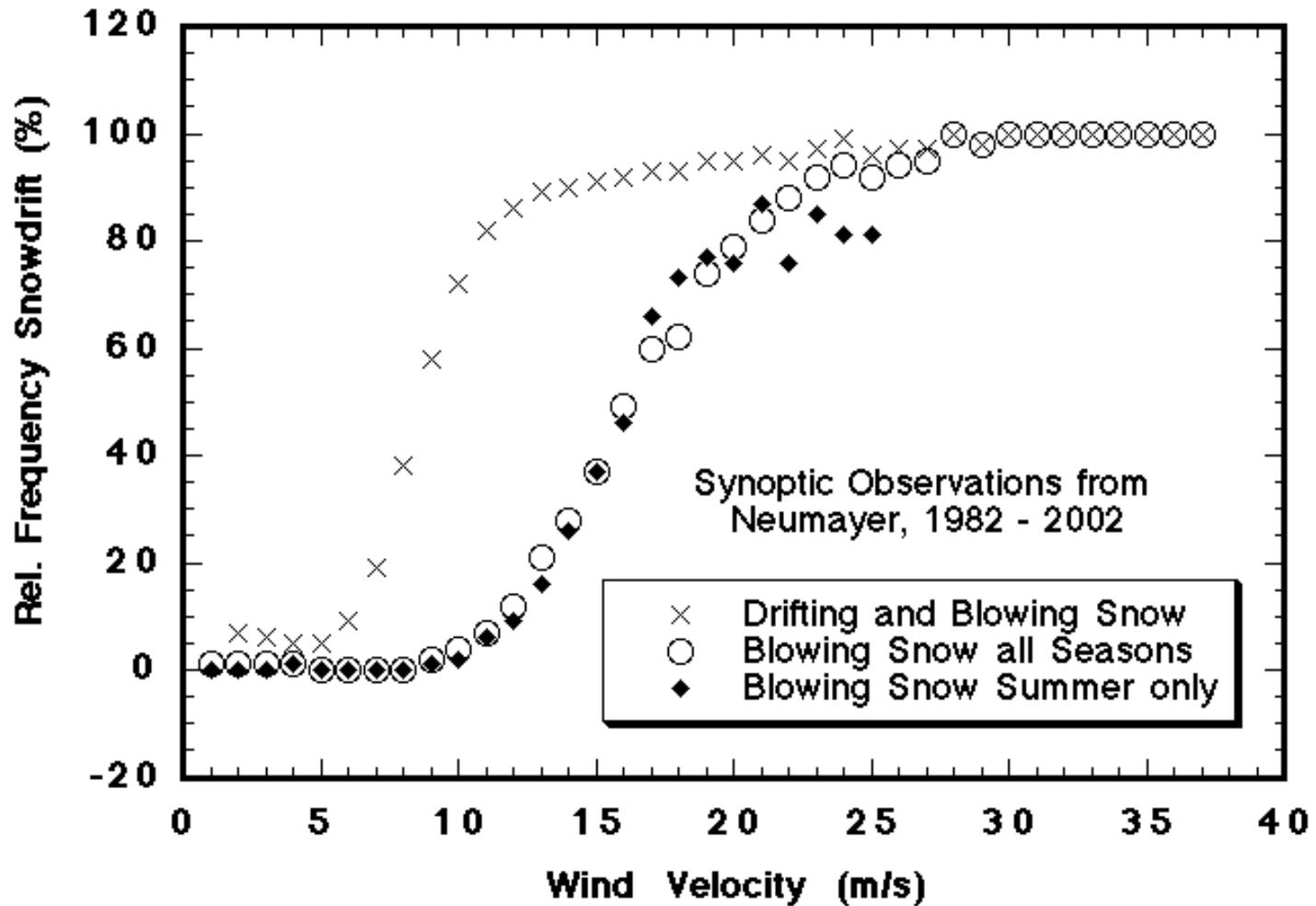
Windspeed in m/s at a height of 10 m above ground

Month	MeanFF10	MeanMaxFF10	MaxMaxFF10
1	6.68	20.16	28.32
2	7.71	21.54	28.81
3	9.22	24.30	28.81
4	9.90	26.76	32.96
5	9.61	26.69	32.41
6	9.78	27.69	35.49
7	9.62	28.14	36.52
8	10.11	29.89	36.52
9	9.49	26.83	32.92
10	9.24	27.39	33.95
11	9.71	25.26	33.95
12	7.09	21.34	30.35

Wind at Neumayer



Drift Versus Wind Speed



Wind Speed above 10 m/s

Frequency of observations (1981-2002) with a wind speed above 10m/s

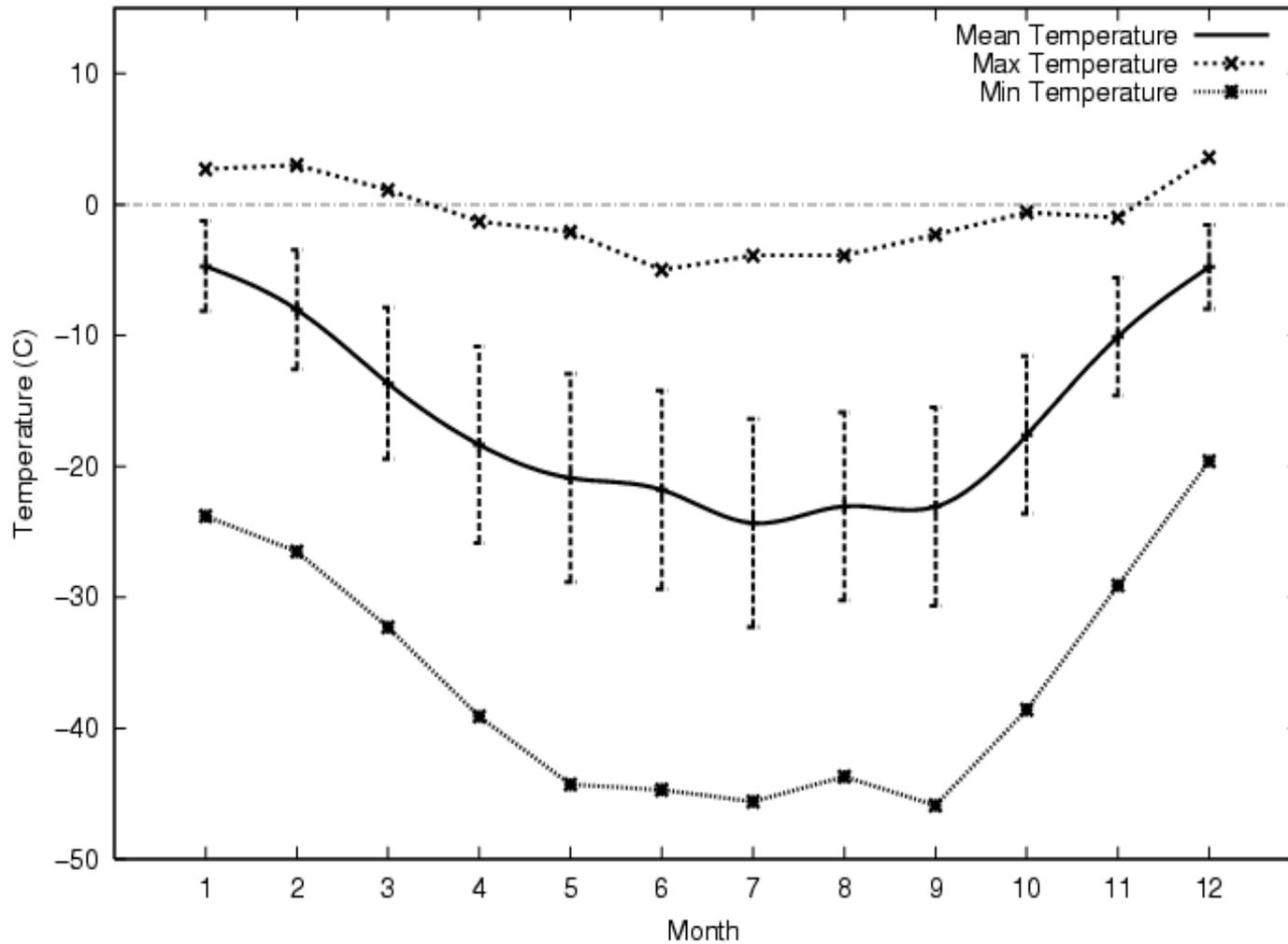
Month	Total	Greater10	Greater10Frequency (%)
1	5177	1048	20
2	4791	1380	28
3	5394	2012	37
4	5249	2121	40
5	5416	2114	39
6	5253	2092	39
7	5453	2052	37
8	5453	2122	38
9	5280	1956	37
10	5454	2041	37
11	5273	2306	43
12	5204	1282	24

Wind Speed above 15 m/s

Frequency of observations (1981-2002) with a wind speed above 15m/s

Month	Total	Greater15	Greater15Frequency (%)
1	5177	297	5
2	4791	515	10
3	5394	1053	19
4	5249	1162	22
5	5416	1143	21
6	5253	1136	21
7	5453	1144	20
8	5453	1321	24
9	5280	1078	20
10	5454	918	16
11	5273	992	18
12	5204	333	6

Monthly Averaged Temperatures at Neumayer





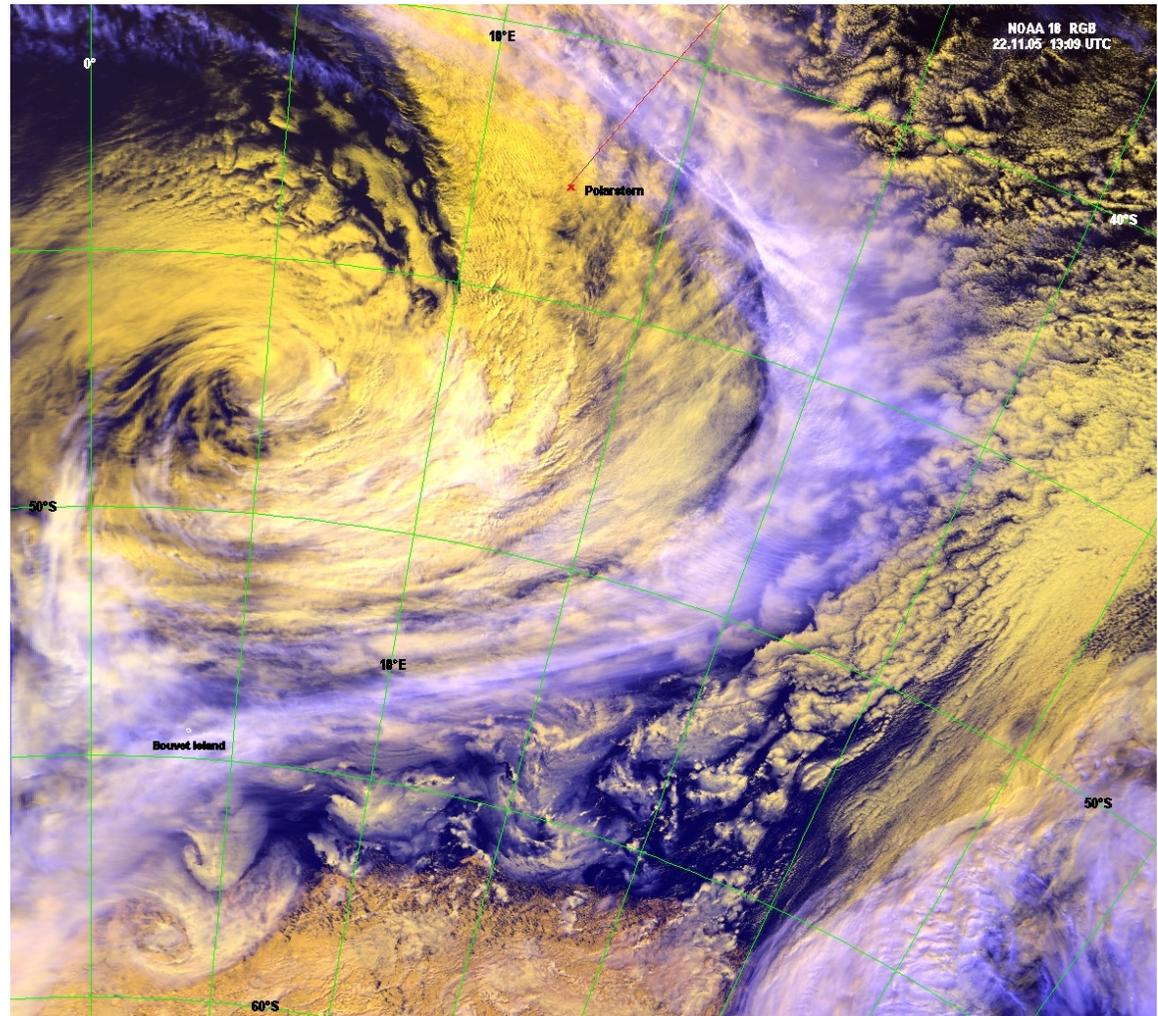
- **NOAA**
 - AVHRR (Advanced Very High Resolution Radiometer, 1 km Resolution)
 - DCS (Data Collection System - ARGOS)
- **DMSP**
 - OLS (Operational Linescan System, 500m Resolution)
 - SSMI

Over 15 passes a day!!!

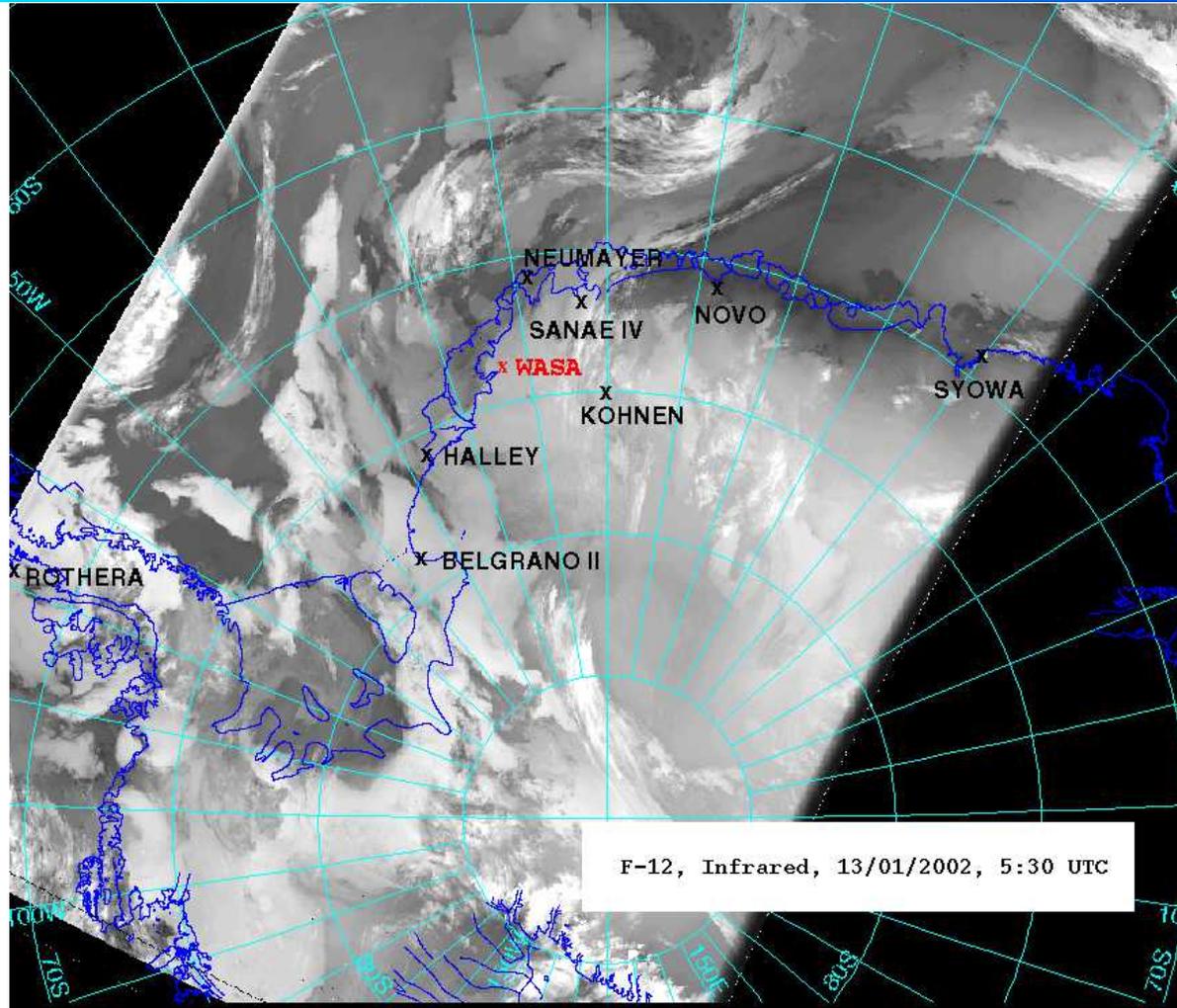


From Feb. 2009 on:

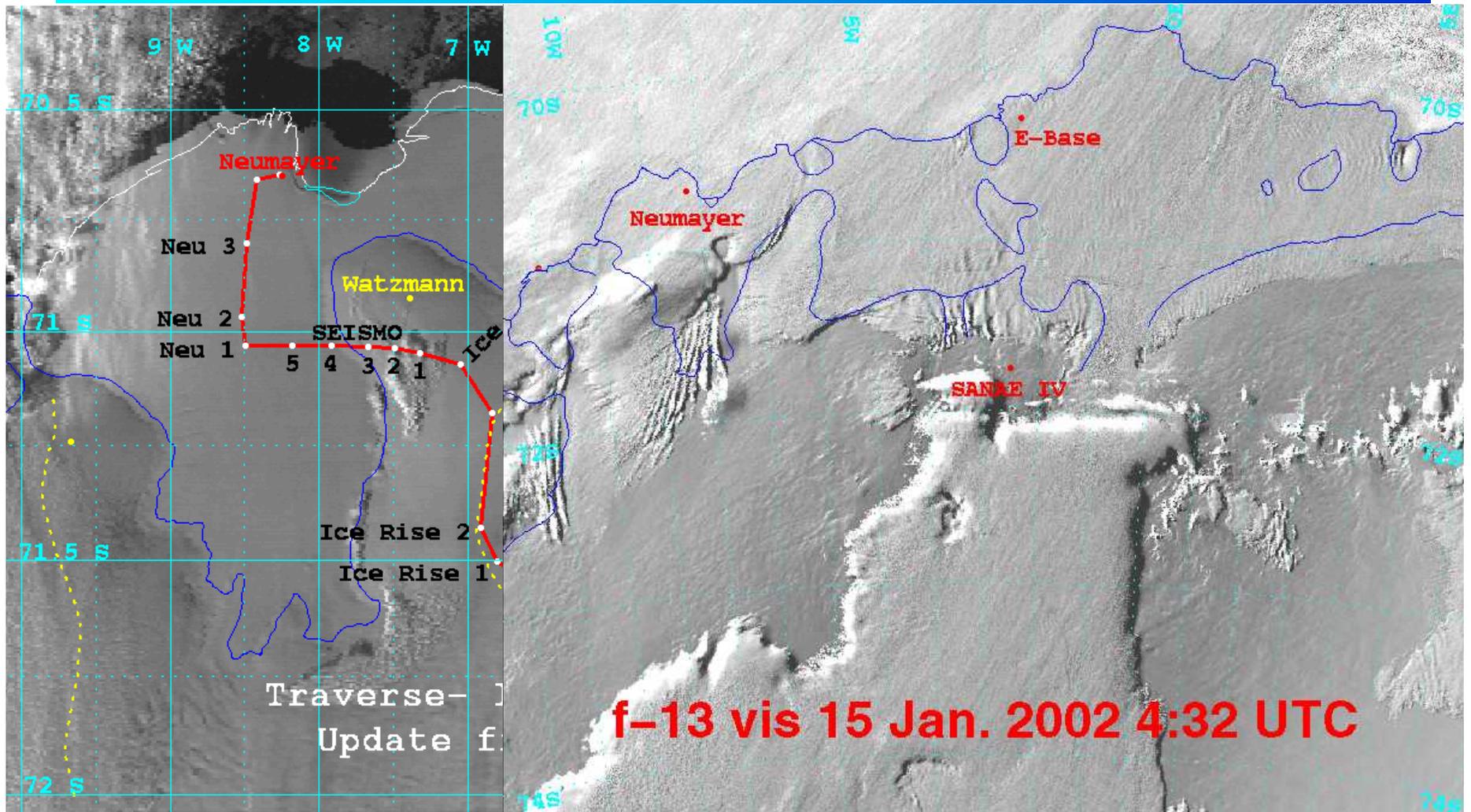
- **NOAA**
- **METOP**
- **Fengyun**
- **No DMSP !!!**

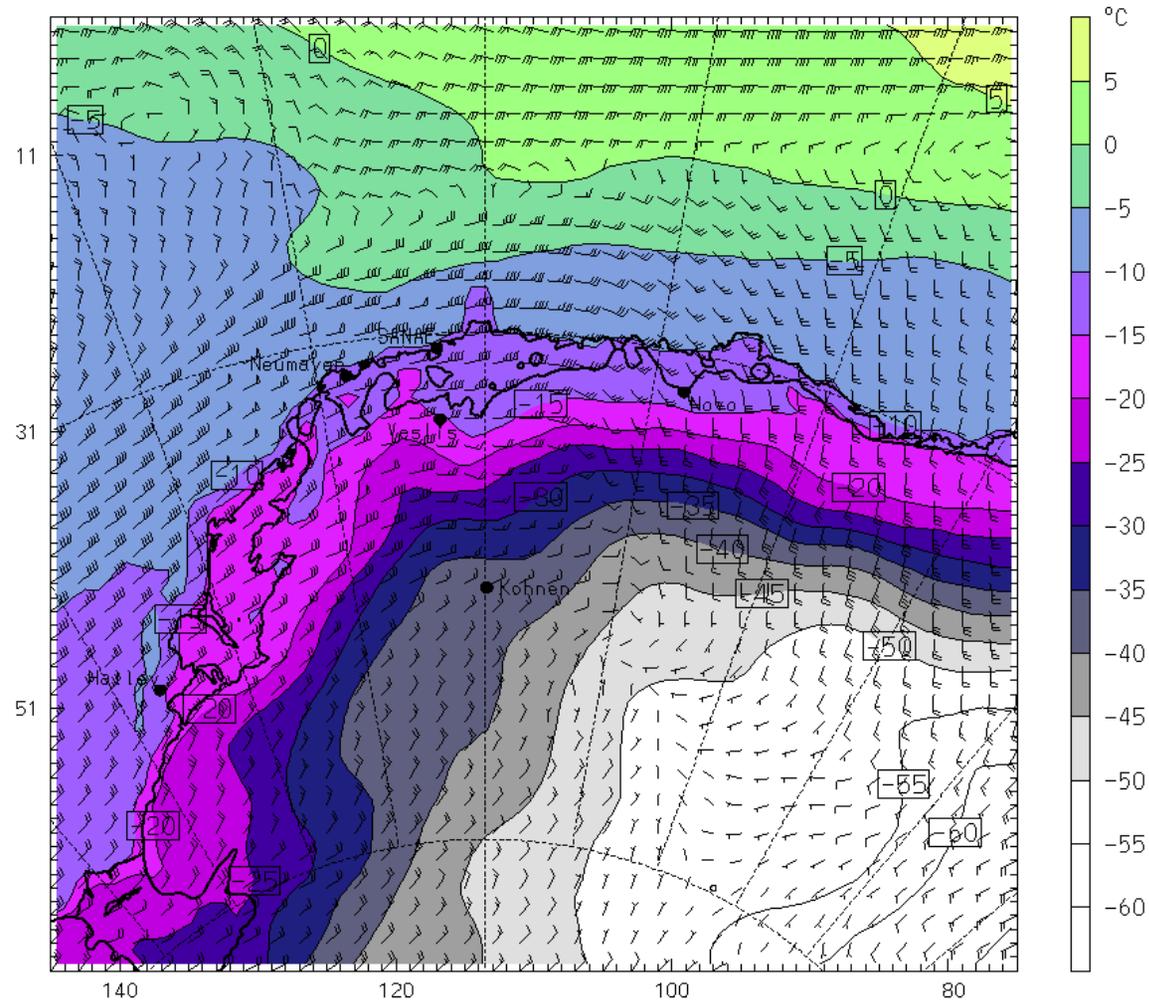


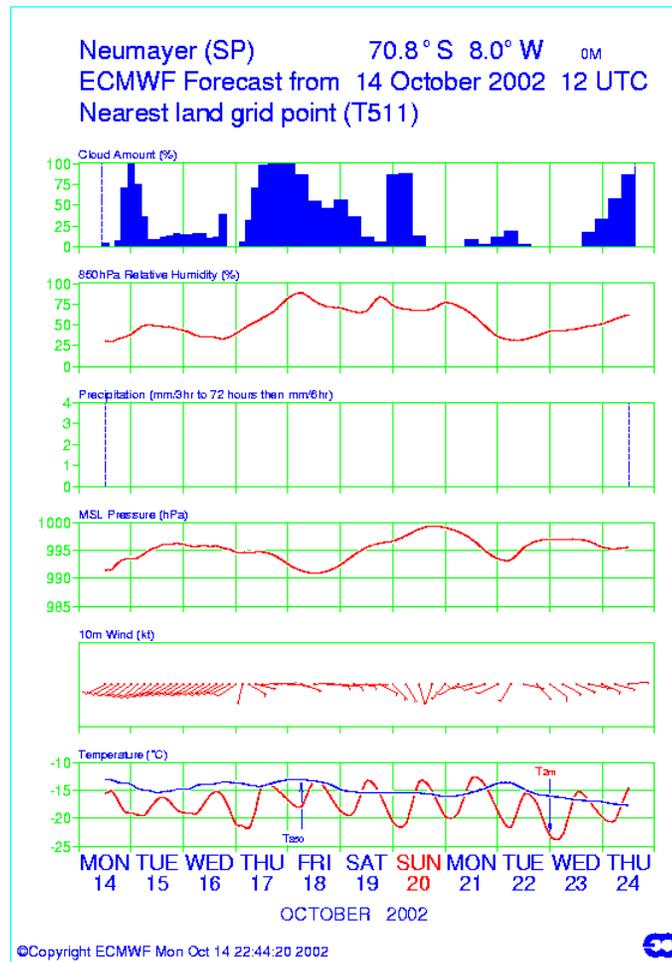
Local Sat-Pics Reception



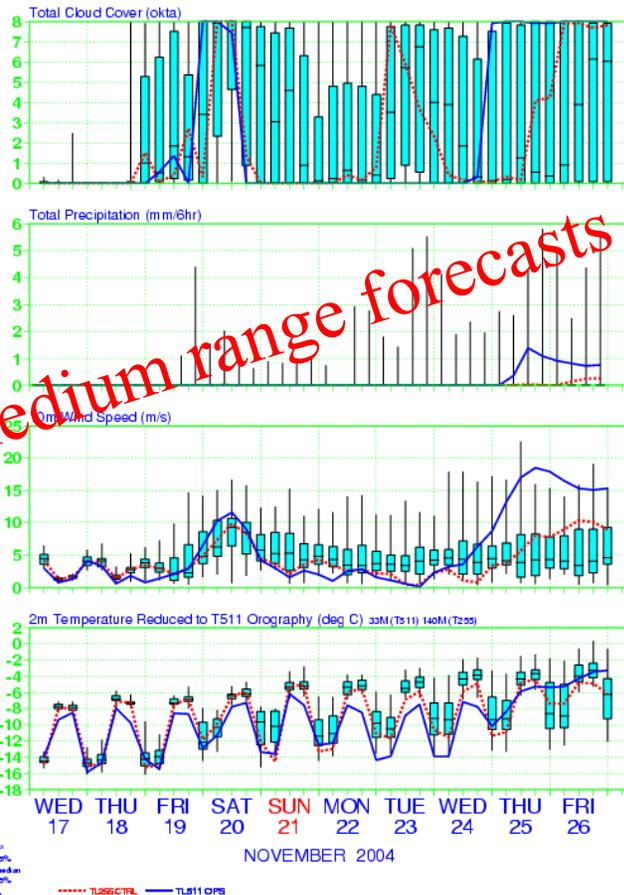
Local Sat-Pics Reception







EPS Meteogram
 Neumayer (SP) 71.2° S 8.0° W
 Deterministic Forecasts and EPS Distribution 17 November 2004 00 UTC



Important for medium range forecasts up to 10 days!

Building Neumayer III



Februar 2009, Ekström-Schelfeis, 70°40,8'S, 008°16,2'W

Happy End...

