

Observing and Forecasting Antarctic Clouds.

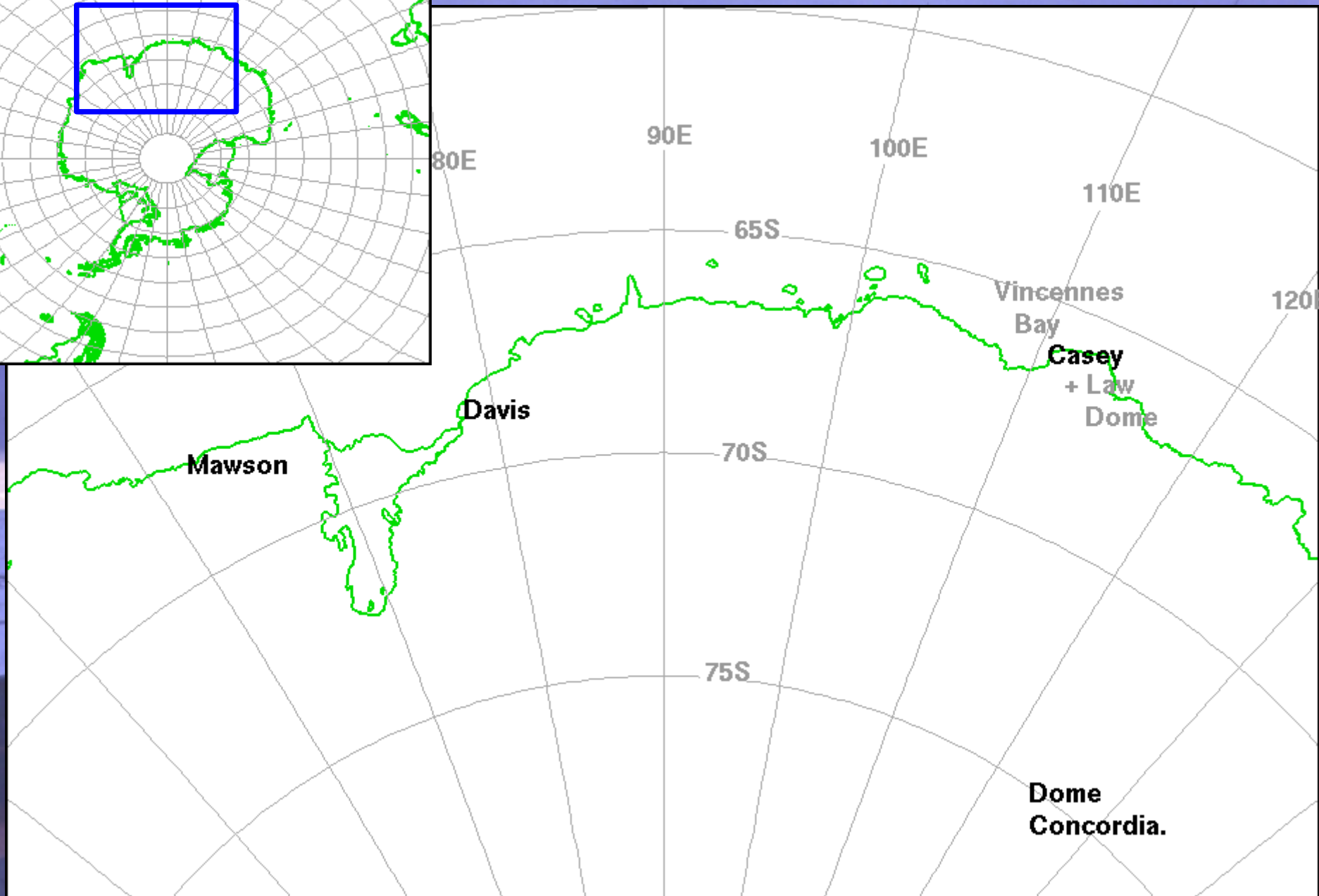
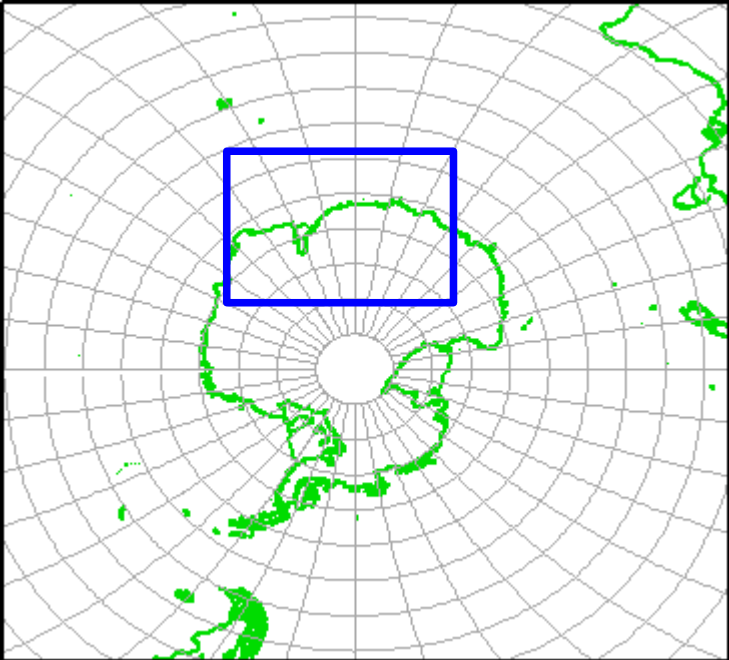
Neil Adams Australian Bureau of Meteorology,
Mana Inoue University of Tasmania

1. Observing Antarctic clouds

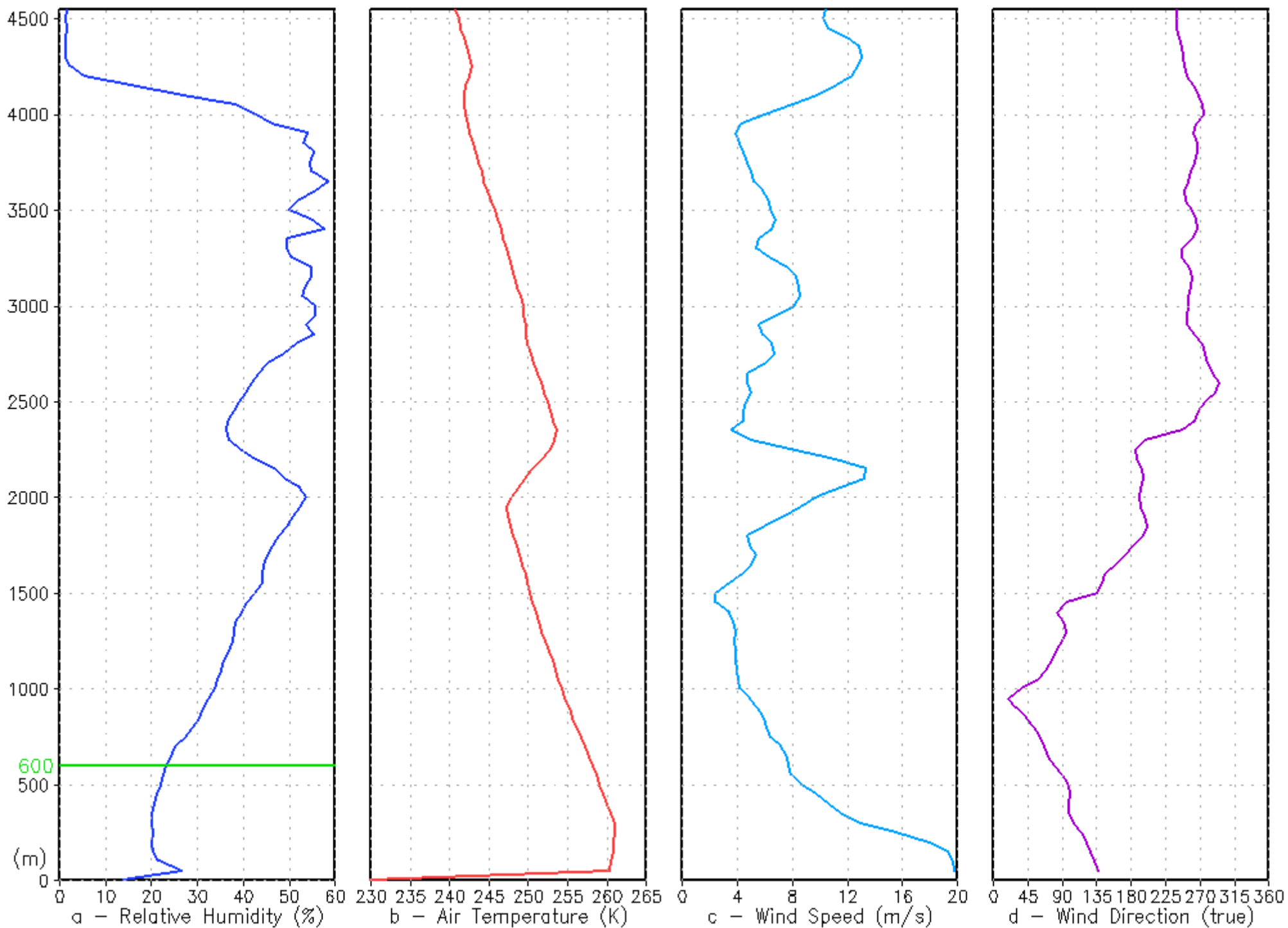
Radiosonde data – visual cloud observations

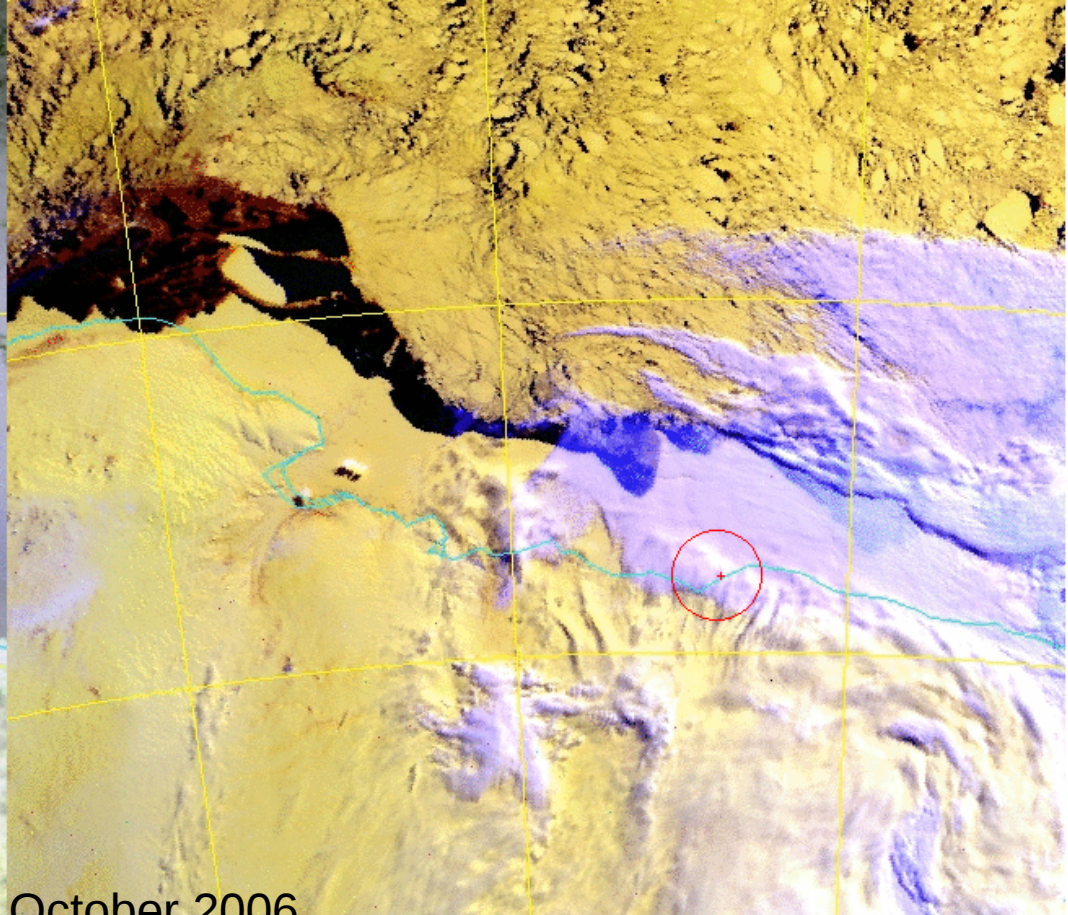
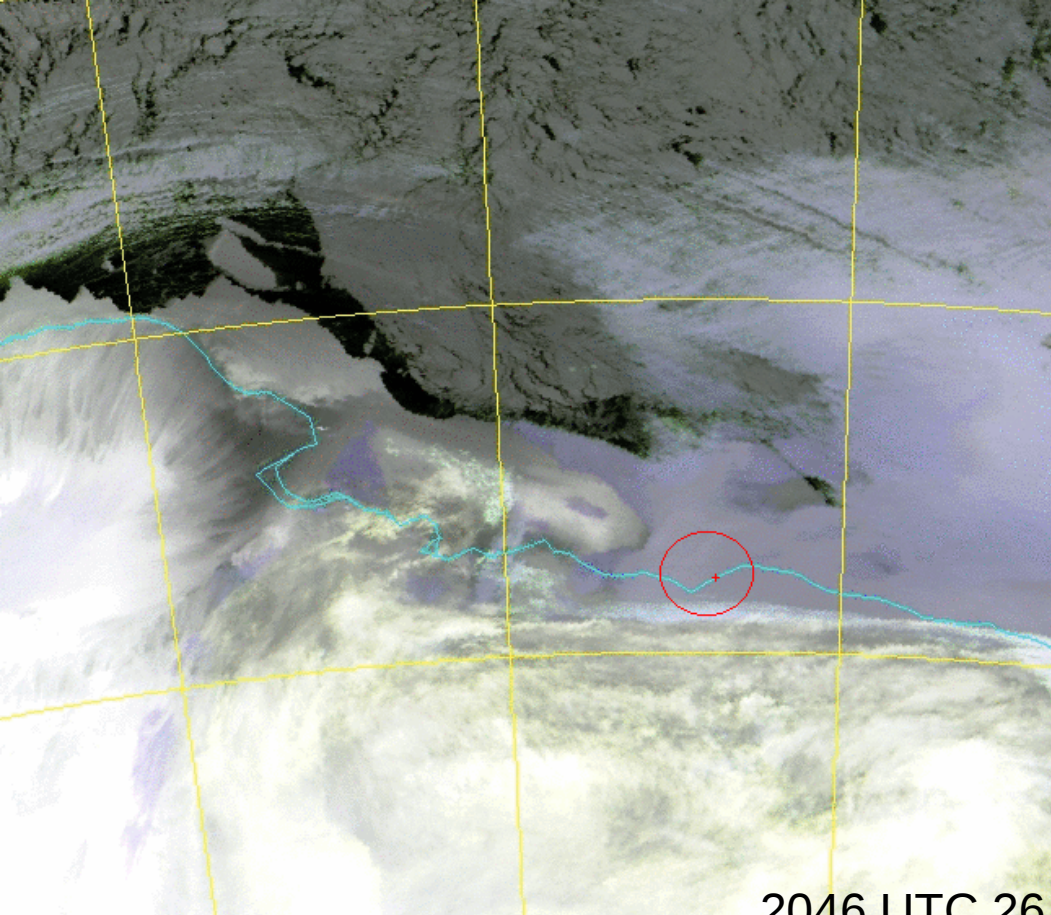
NWP cloud diagnostics

2. Cloud icing – a case study.



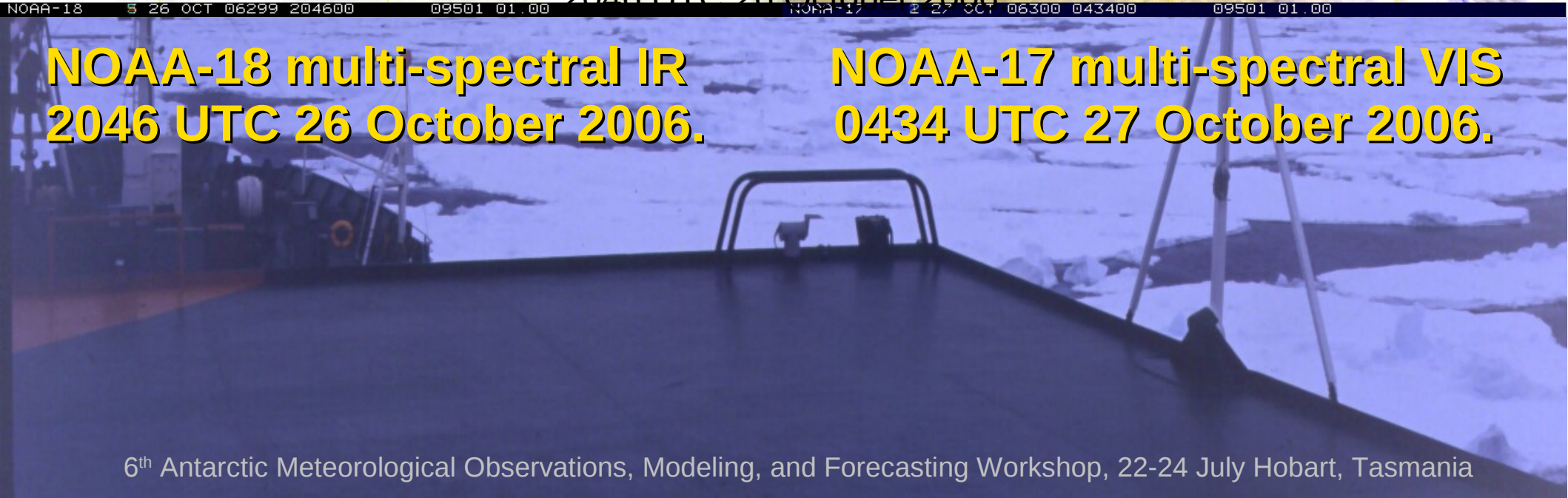
Mawson radiosonde 0000 UTC 27 October 2006

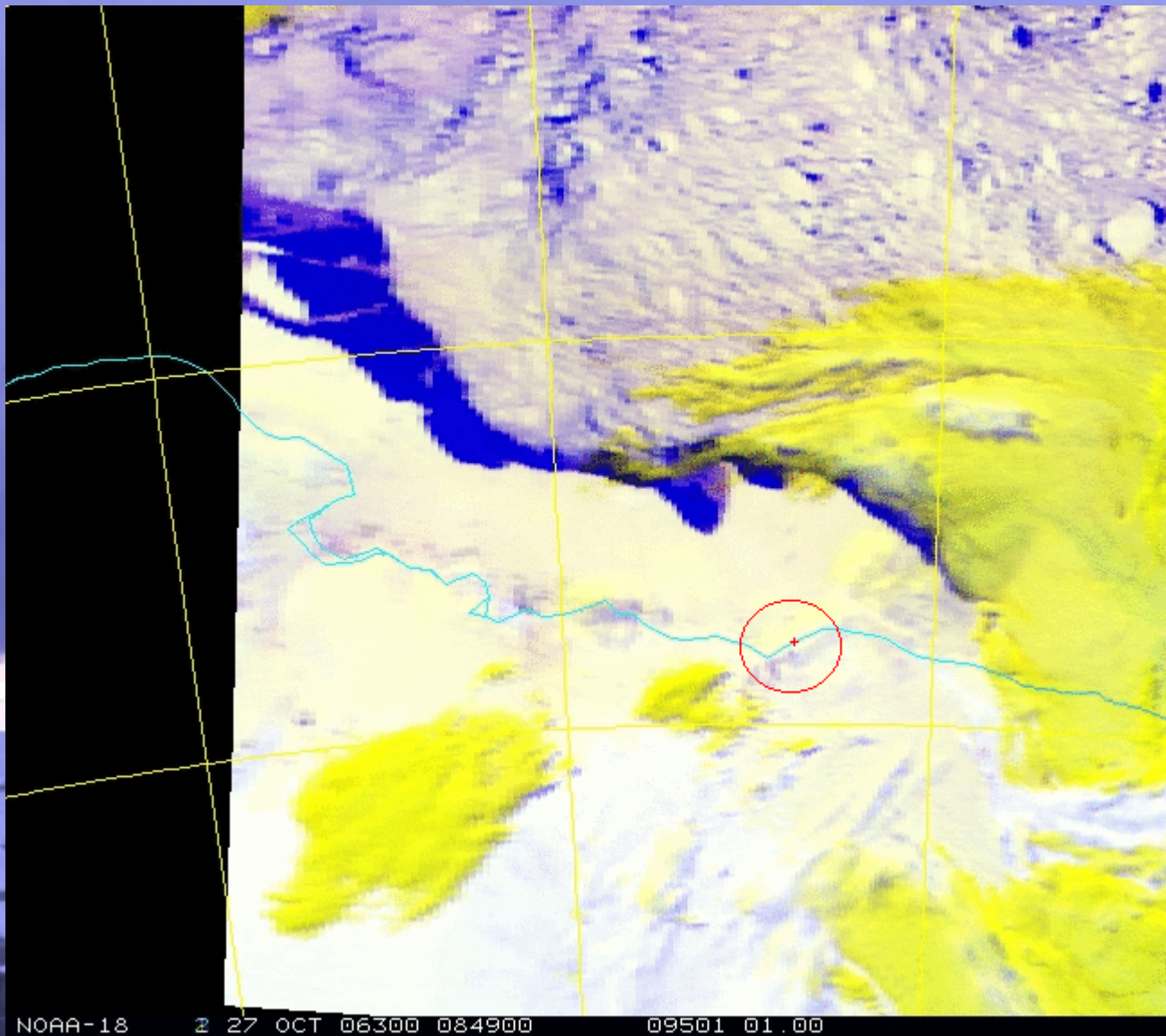




**NOAA-18 multi-spectral IR
2046 UTC 26 October 2006.**

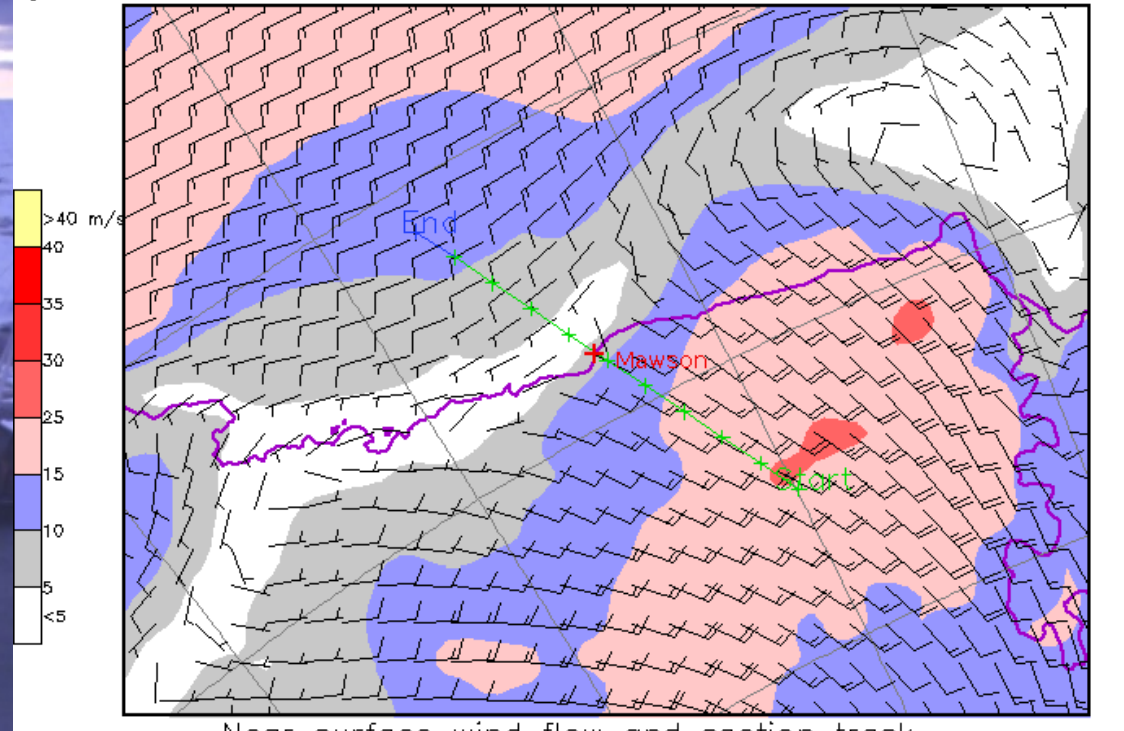
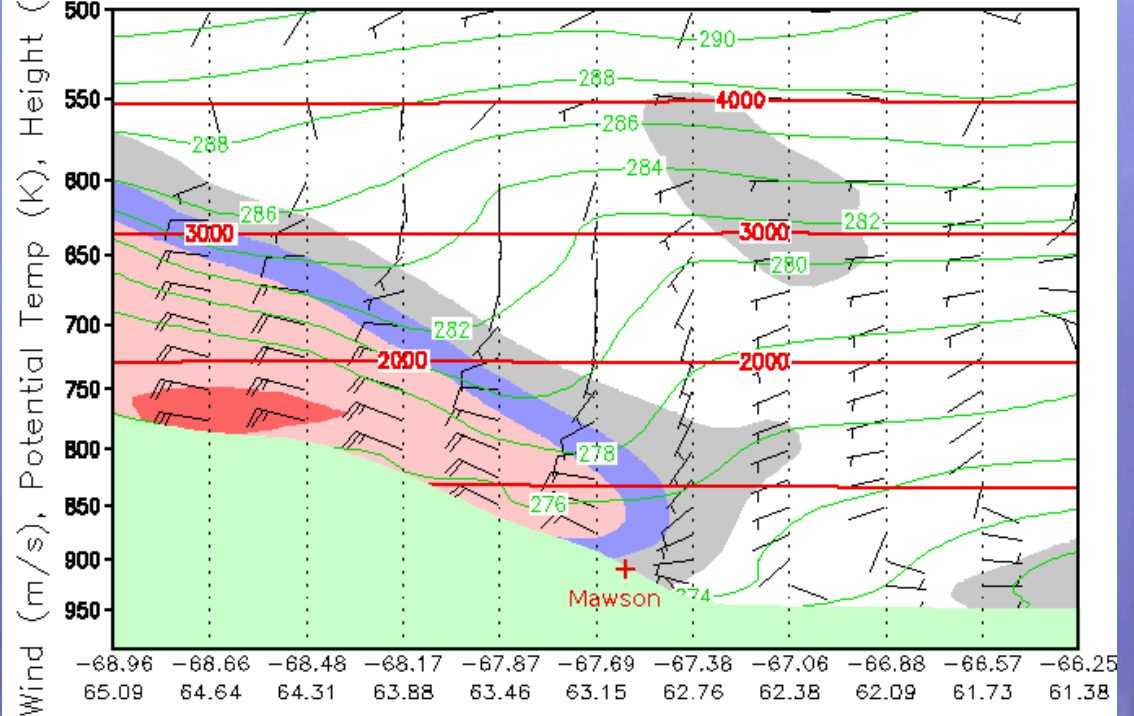
**NOAA-17 multi-spectral VIS
0434 UTC 27 October 2006.**



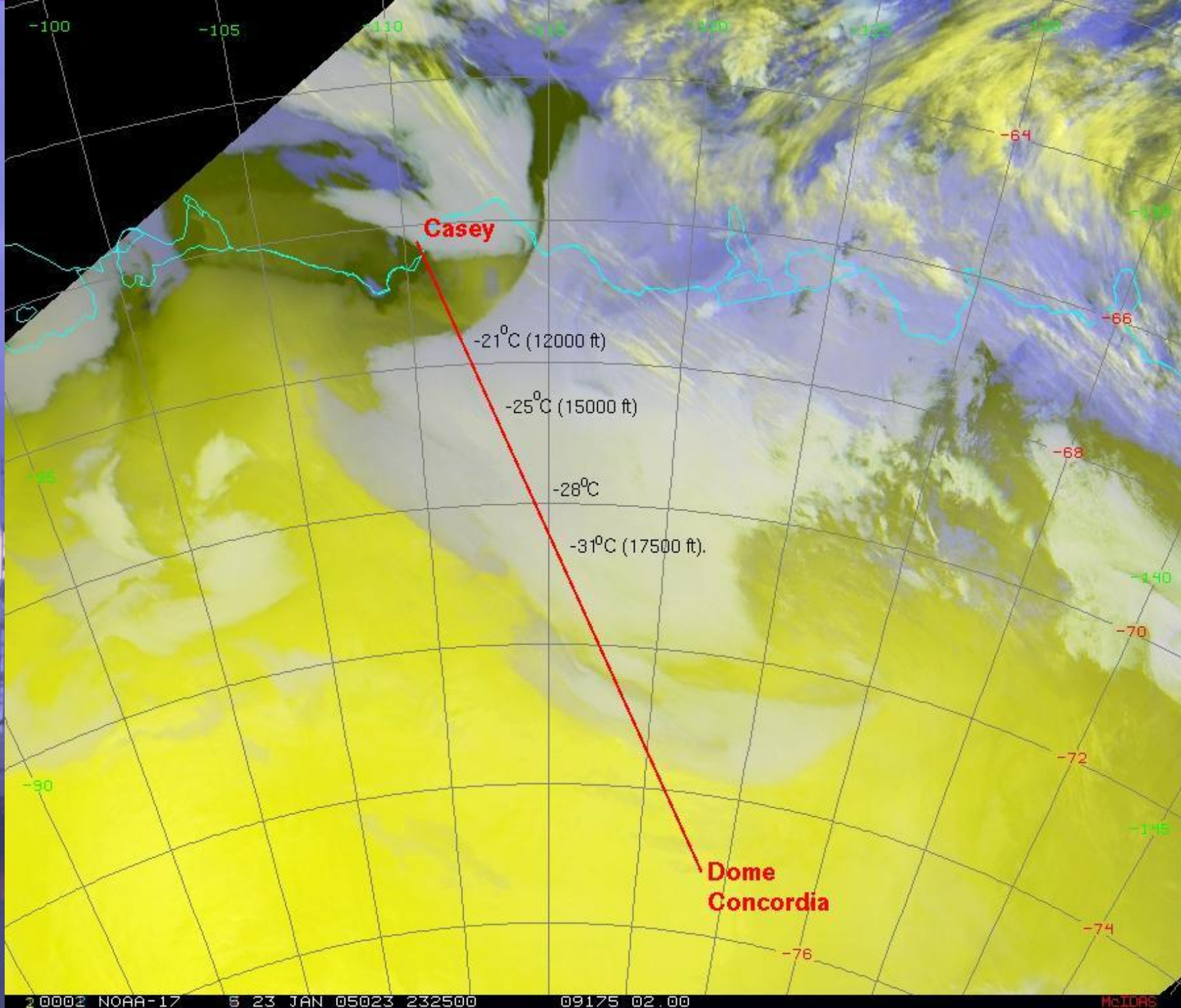


**NOAA-18 multi-spectral VIS
0849 UTC 27 October 2006.**

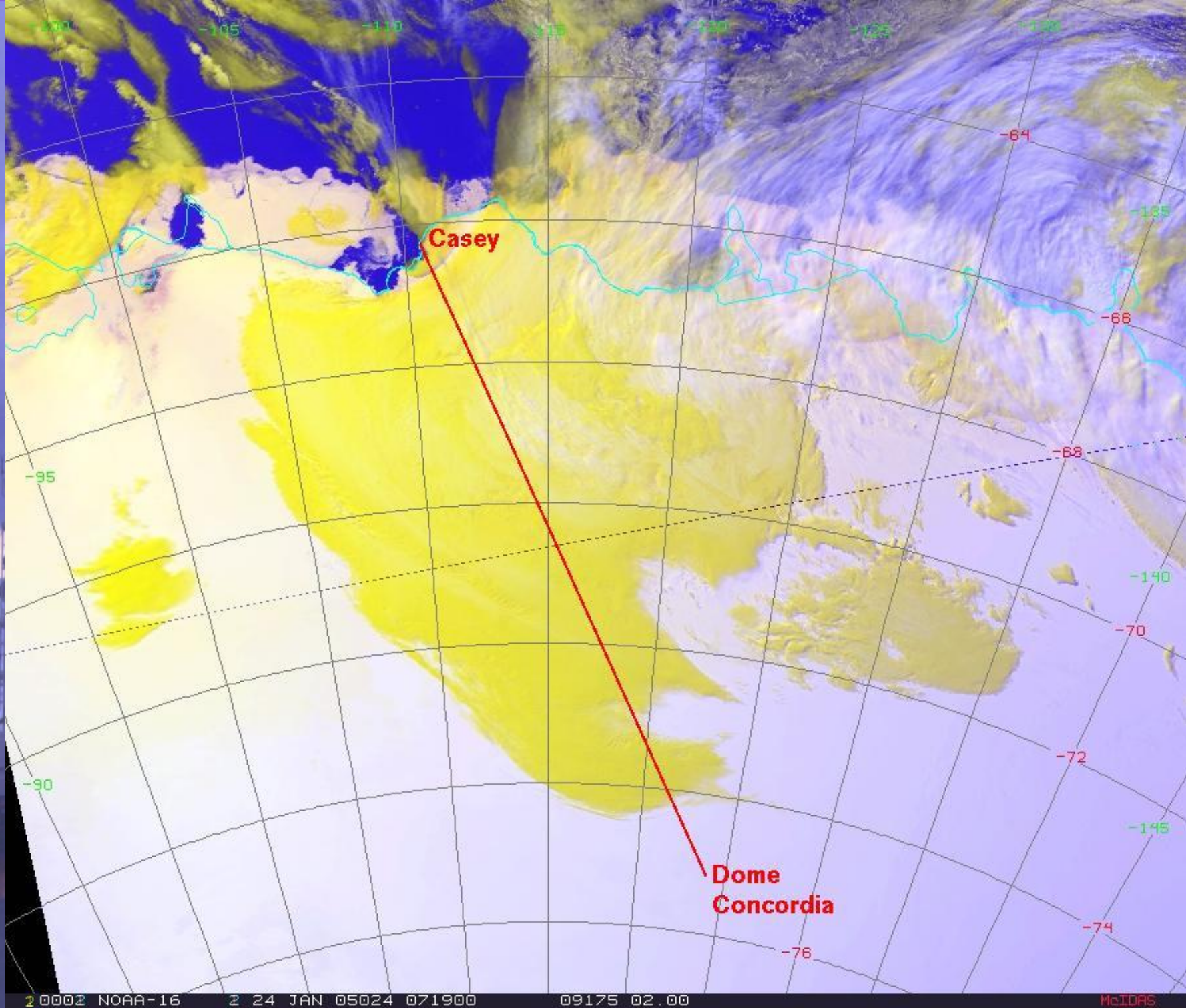
+021HR polarLAPS Section 09Z 26OCT2006



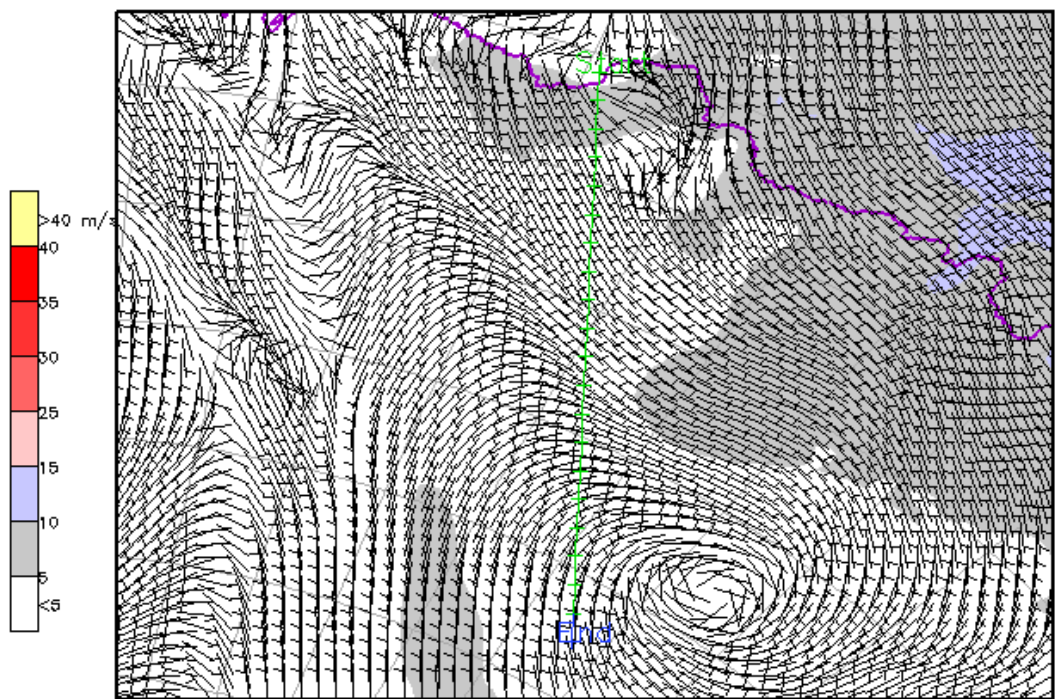
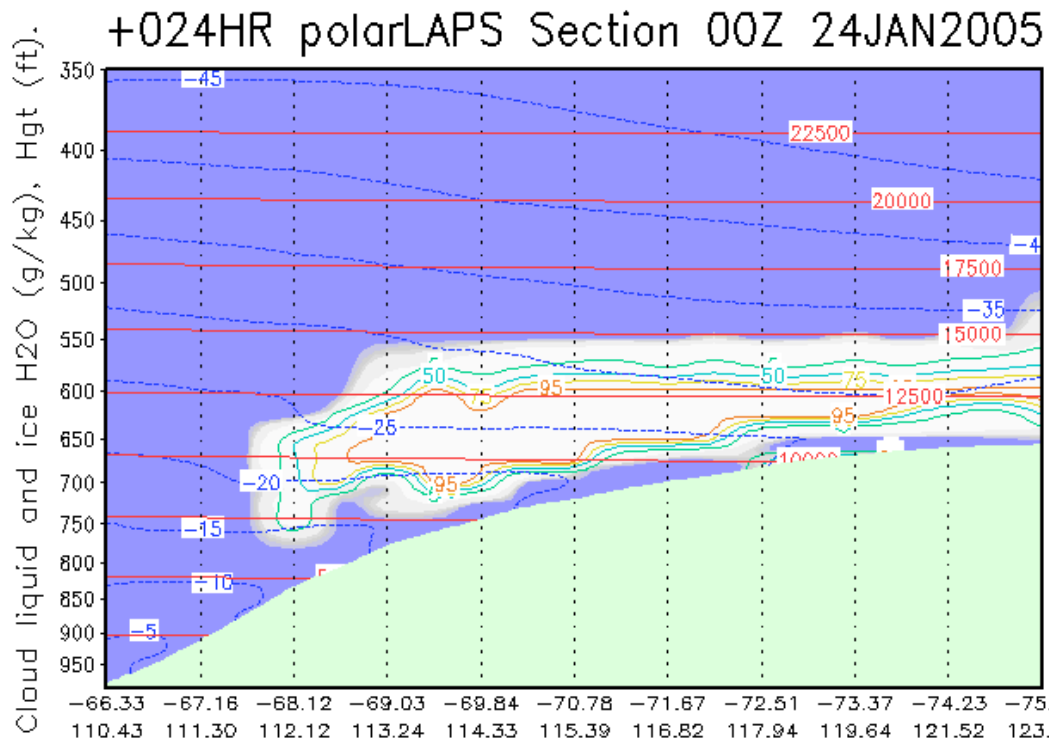
Near surface wind flow and section track.



6th Antarctic Meteorological Observations, Modeling, and Forecasting Workshop, 22-24 July Hobart, Tasmania



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Near surface wind flow and section track.

Conclusions.

- ★ RH is not a good discriminator of cloud,
- ★ Cloud liquid water content and cloud ice water content offer a potentially excellent diagnostic tool,
- ★ Mixed phase clouds present a clear danger in Antarctic flying,
- ★ Observational studies combined with modelling are essential to properly characterise Antarctic clouds and ensure NWP parameterisation schemes are performing adequately.