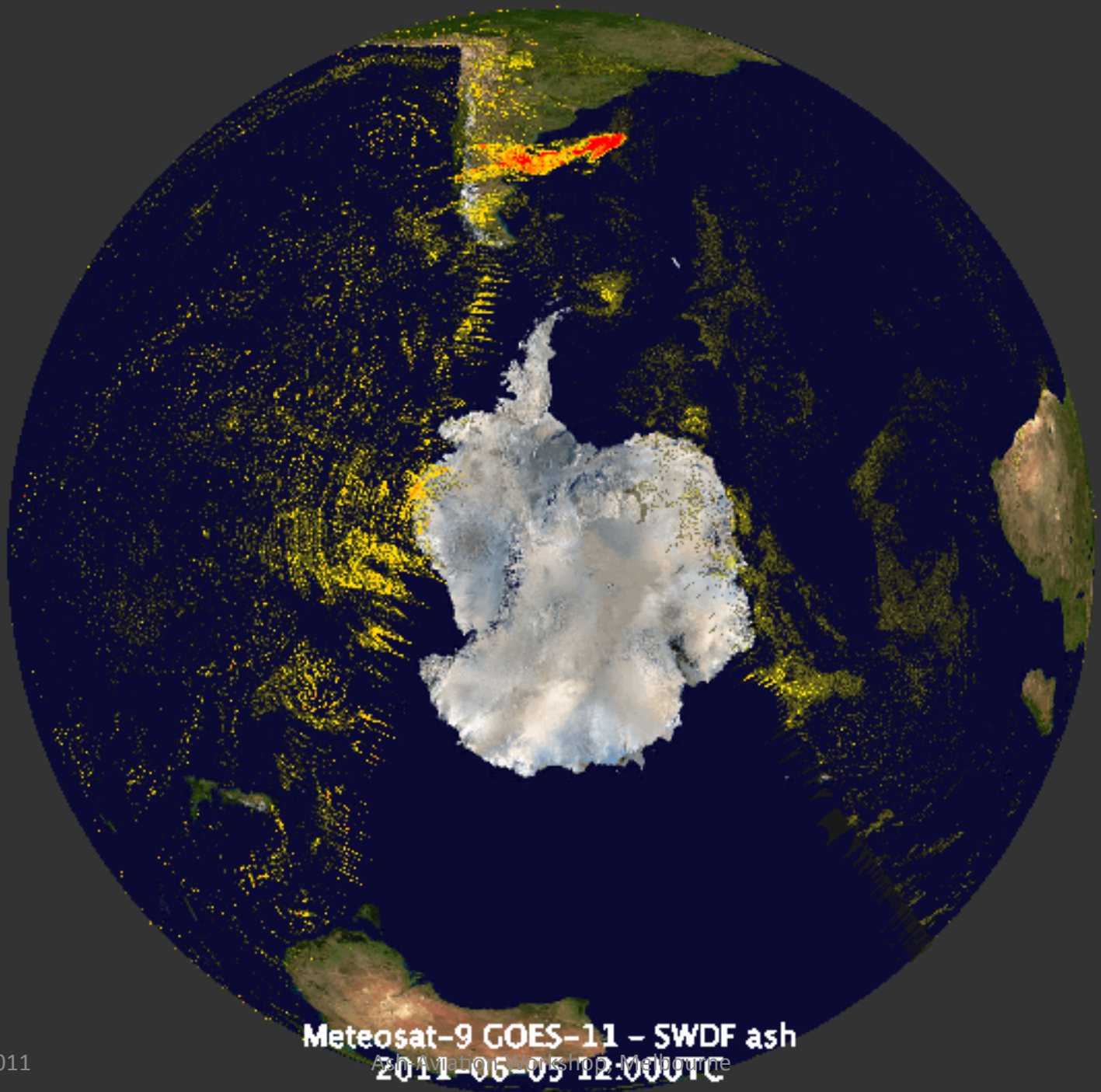


# Puyehue-Cordon Caulle

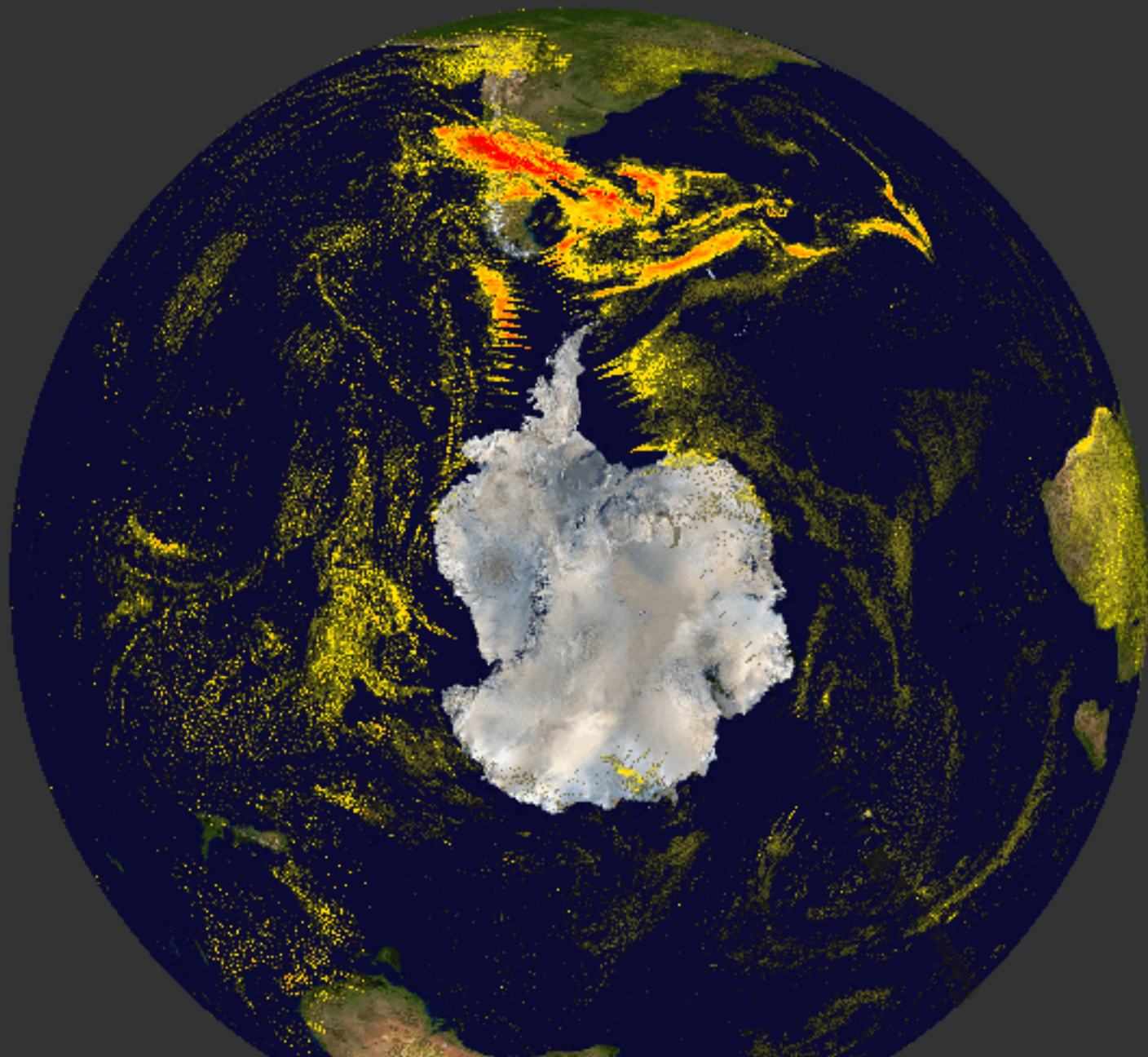


Dr Fred Prata  
Climate and Atmosphere Department  
Norwegian Institute for Air Research



8-9 July, 2011

**Meteosat-9 GOES-11 – SWDF ash**  
Ash Aviation Workshop, Melbourne  
**2011-06-05 12:00UTC**



8-9 July, 2011

**Meteosat-9 MTSAT-1R GOES-11 - SWDF ash**  
Ash plume from Mt. Shin-Melbourne  
**2011-06-16 00:00UTC**

# Issues raised – for discussion

- Long-range transport
- “old” versus “new” ash
- The use of the source term
- SO<sub>2</sub> as a surrogate for ash
- The need for concentrations

"I'd fly in any airline which is flying at the moment, because I believe after the dust has gone two-thirds of the way around the world, that it's so spread out that it might have a long-term effect but I don't think it's going to have a short-term effect" - Dick Smith

Read more:

<http://www.news.com.au/travel/news/chile-ash-cloud-hits-tassie-nz-flights/story-e6frfq80-1226073731601#ixzz1RPF7Qvo9>

# Virgin cancels Perth flights until tomorrow

AAP | June 15, 2011 3:36pm

| A<sup>+</sup> A<sup>-</sup> | Share    

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3  retweet

VIRGIN Australia's Perth flights will remain suspended until tomorrow afternoon and the airline has also cancelled some New Zealand flights due to the volcanic ash cloud.

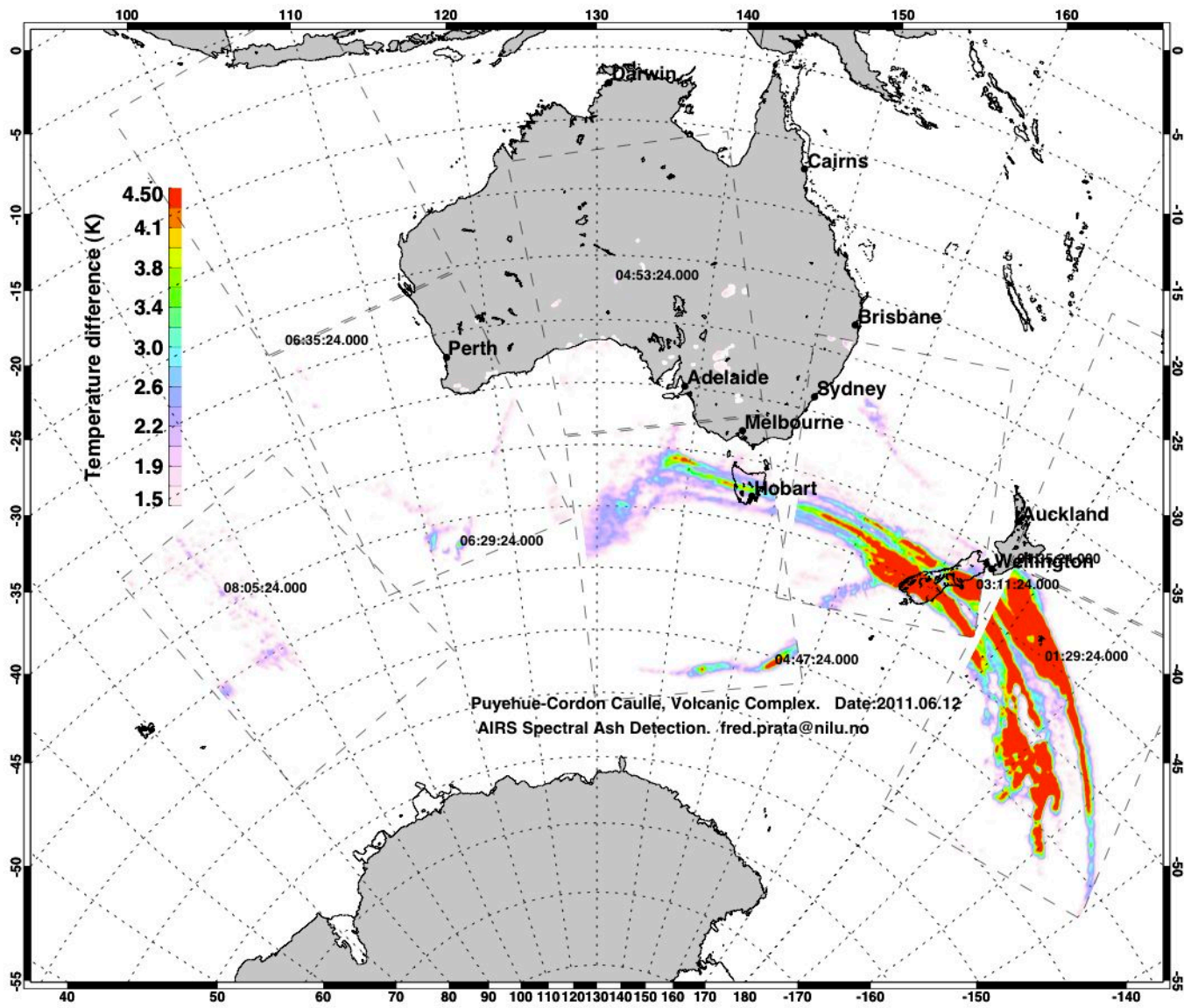
And Qantas has announced it will resume its Tasmanian flights tomorrow.

Virgin said the suspension of Perth services which began at 1pm (WST) today would remain in place until noon (WST) tomorrow, affecting 49 flights to and from the West Australian capital.

Its Pacific Blue airline has also cancelled flights to and from Christchurch and Wellington in New Zealand until at least 9am (AEST) on Thursday due to the ash plume over the south island.

The decision affects six flights.

Virgin group executive operations manager Sean Donohue said the airline's volcanic ash management team had determined that services should remain suspended until tomorrow.



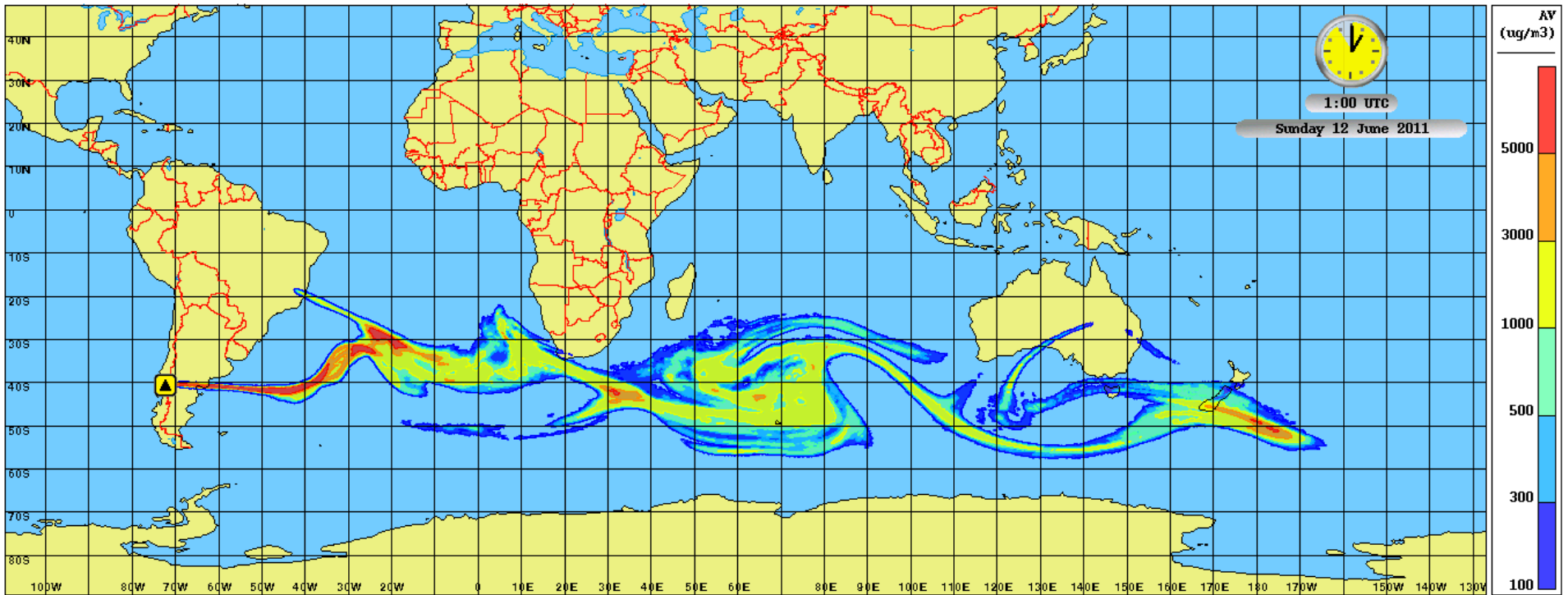
Valid date-time : 2011-06-12 01:00:00 UTC

 Environment Canada  
Meteorological Service of Canada

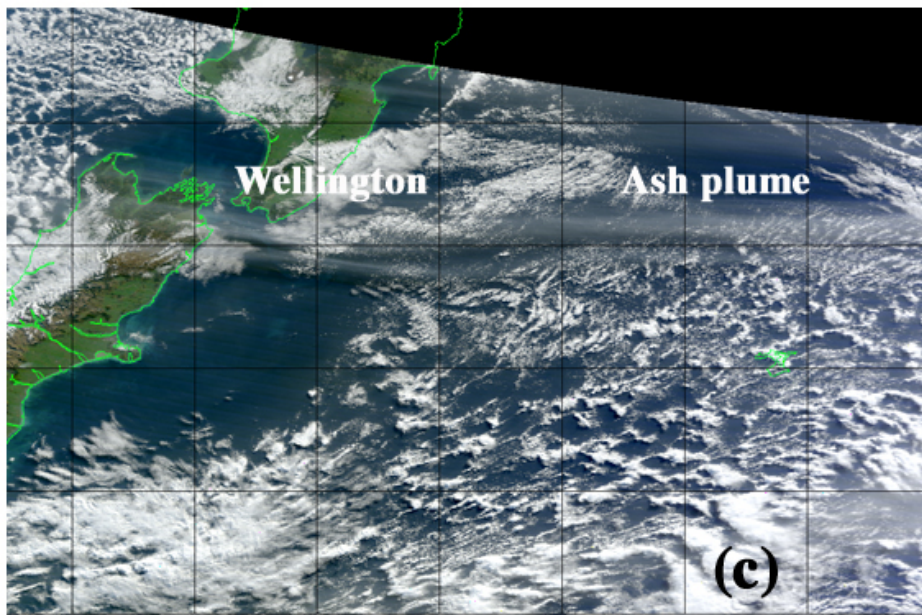
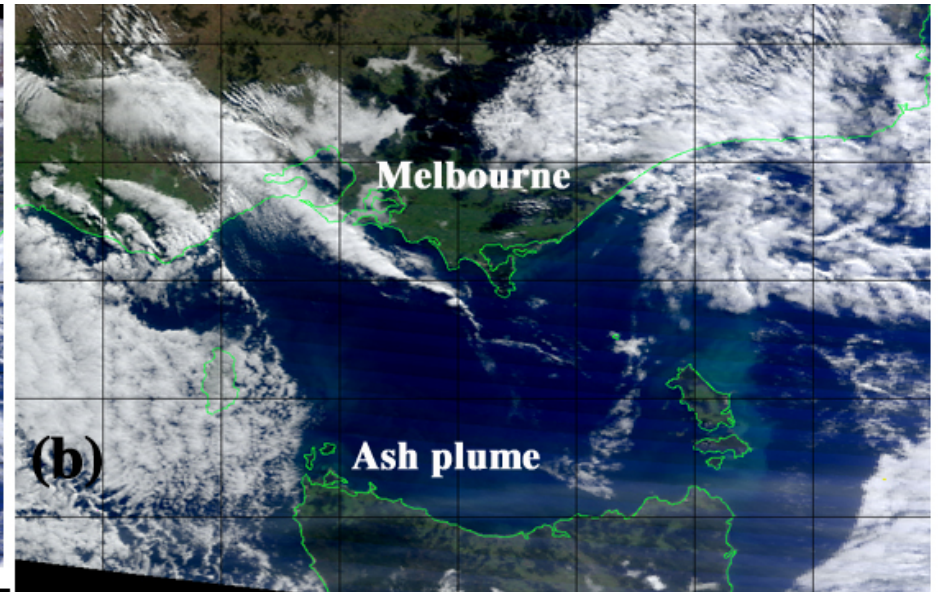
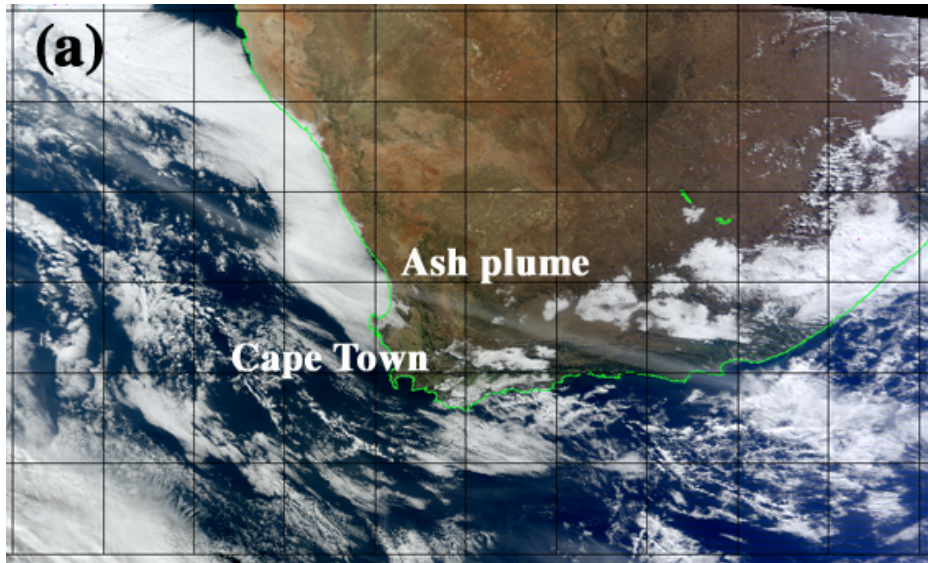
Environnement Canada  
Service météorologique du Canada

Potential Areas at Risk Containing Ash/SO2 Concentrations  
in Layer FL350-FL600 [micrograms/m3]

1:99413244 Kilometers  
0 1300 2600 3900 5200

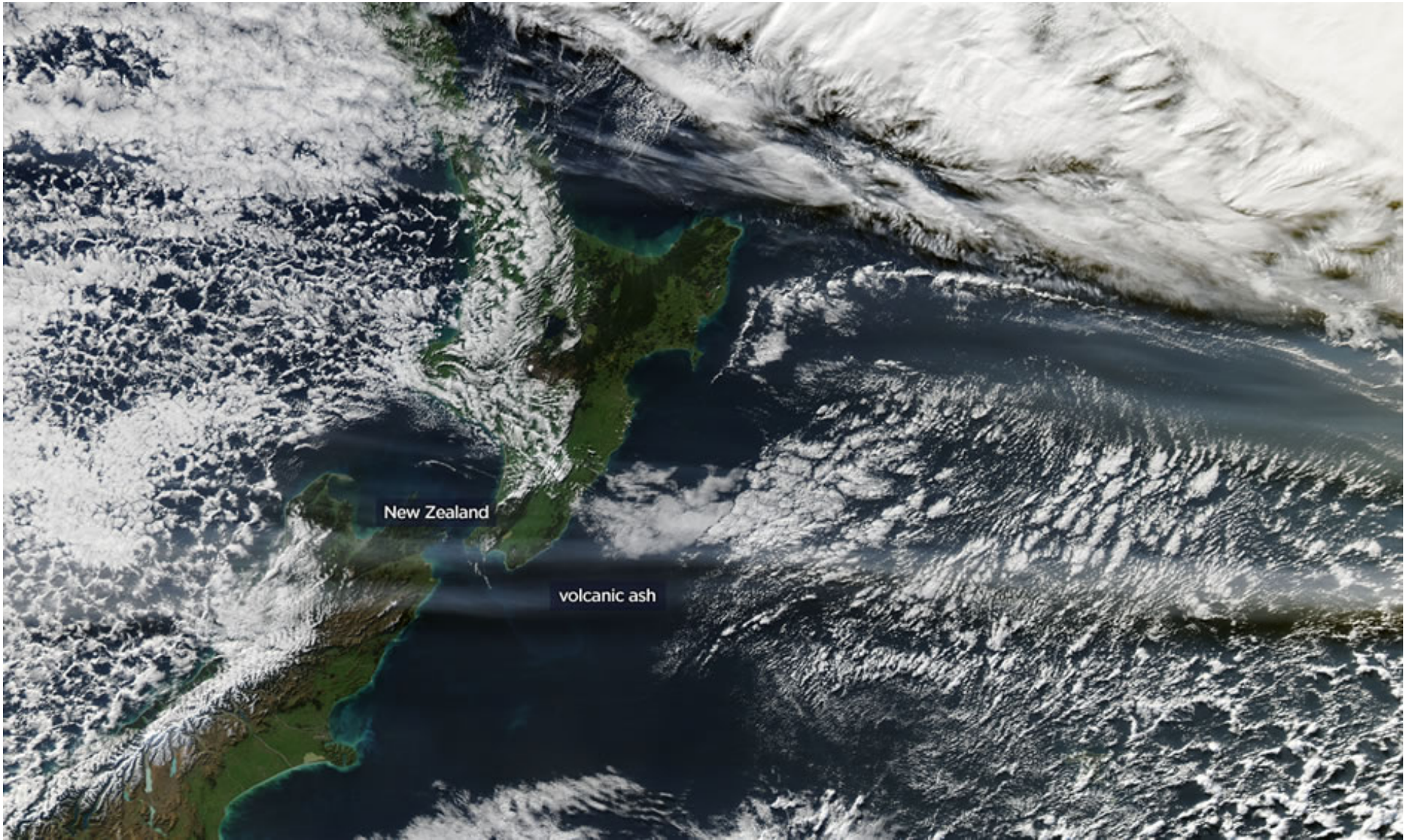




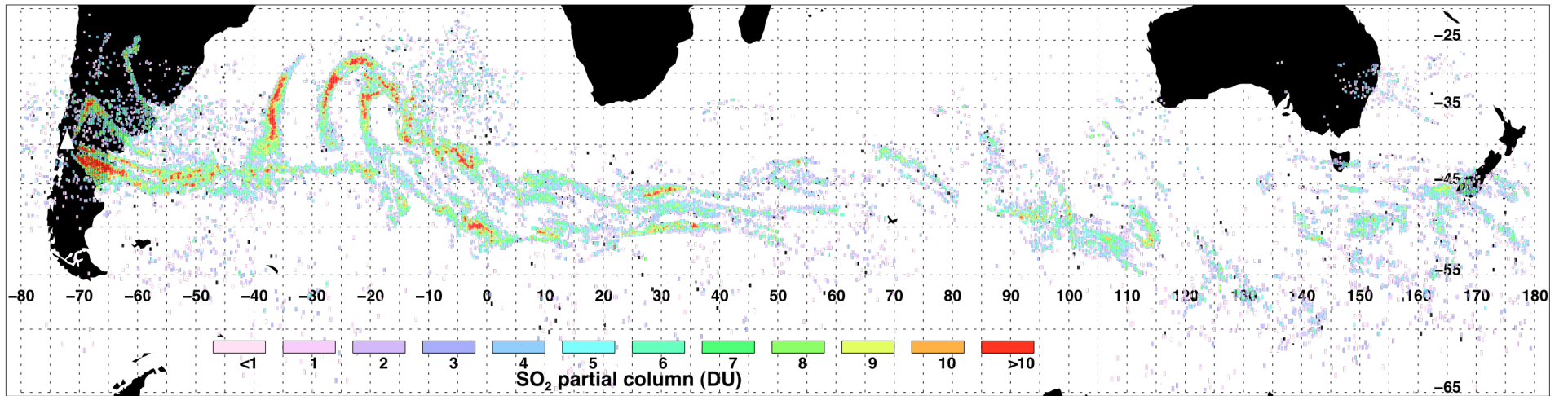


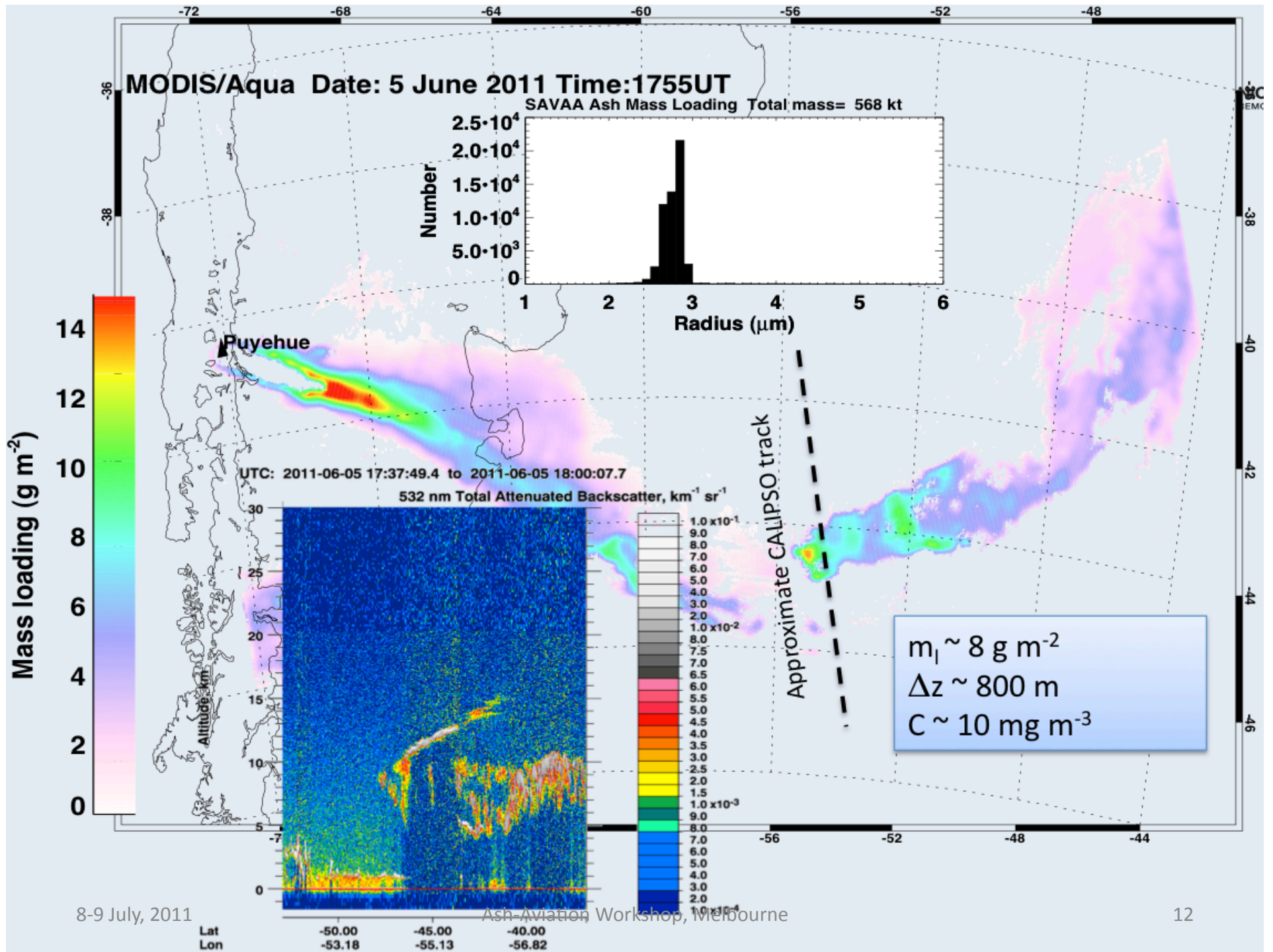
**MODIS True-color images  
all acquired on 12 June, 2011  
showing possible ash plumes over:  
(a) South Africa  
(b) Tasmania, Australia  
(c) New Zealand.**

**Only (a) can be confirmed in  
thermal data.**

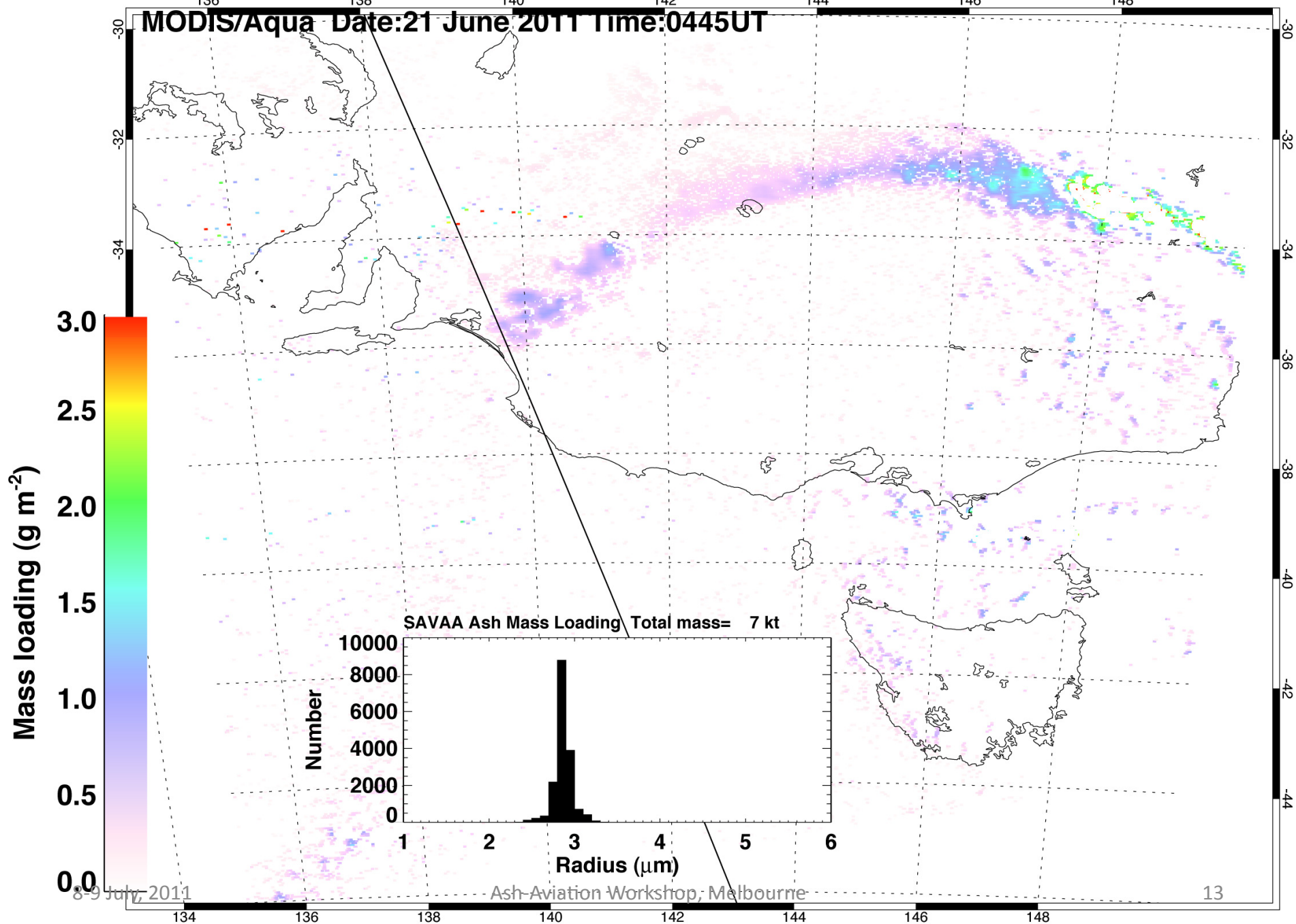


AIRS SO<sub>2</sub> Partial Column Retrievals. ▲ Puyehue–Cordon Caulle Eruption. 4–12 June, 2011. Dr Fred Prata, NILU. Email: fred.prata@nilu.no





MODIS/Aqua Date: 21 June 2011 Time: 0445UT



8-9 July, 2011

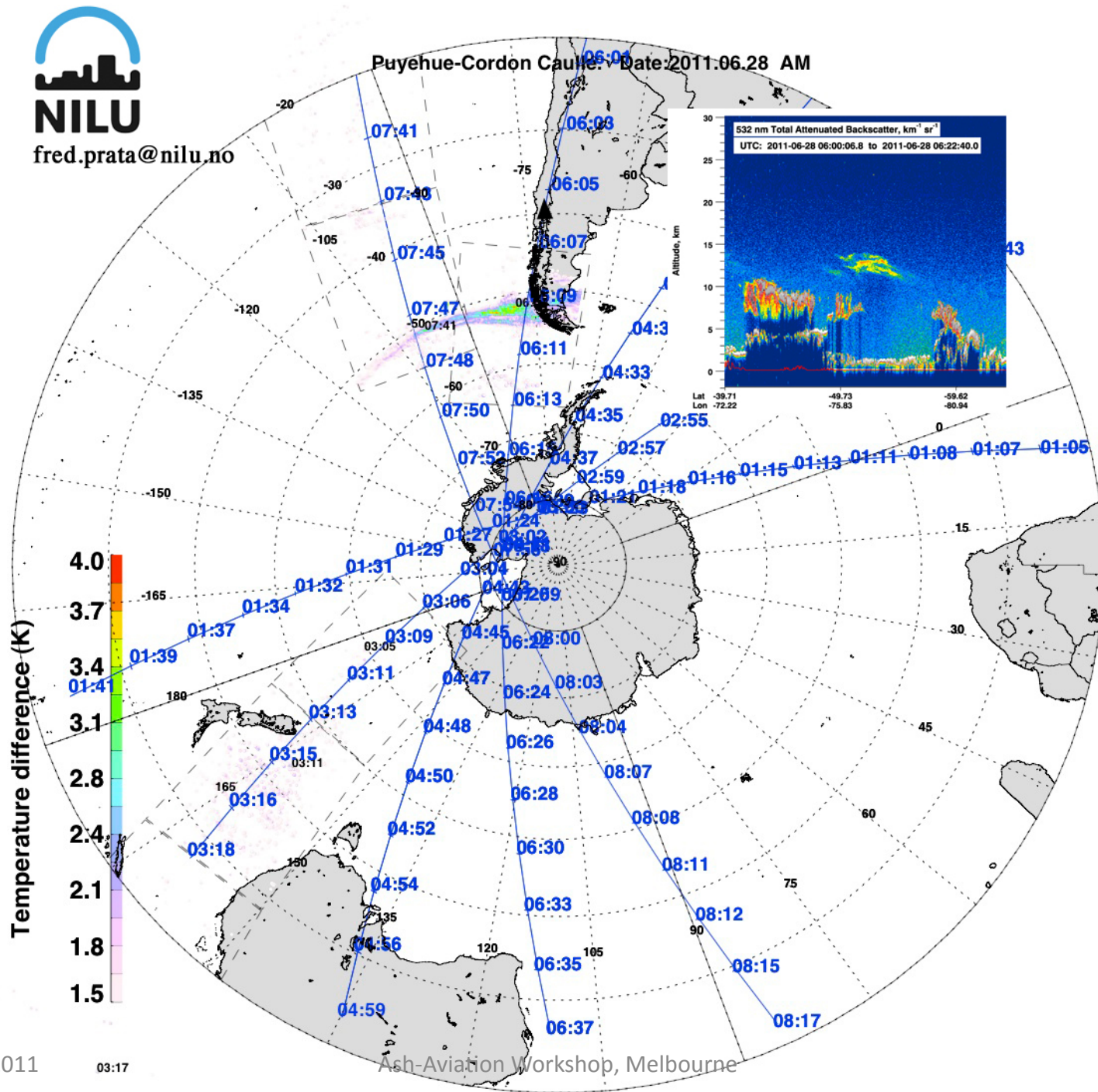
Ash-Aviation Workshop, Melbourne

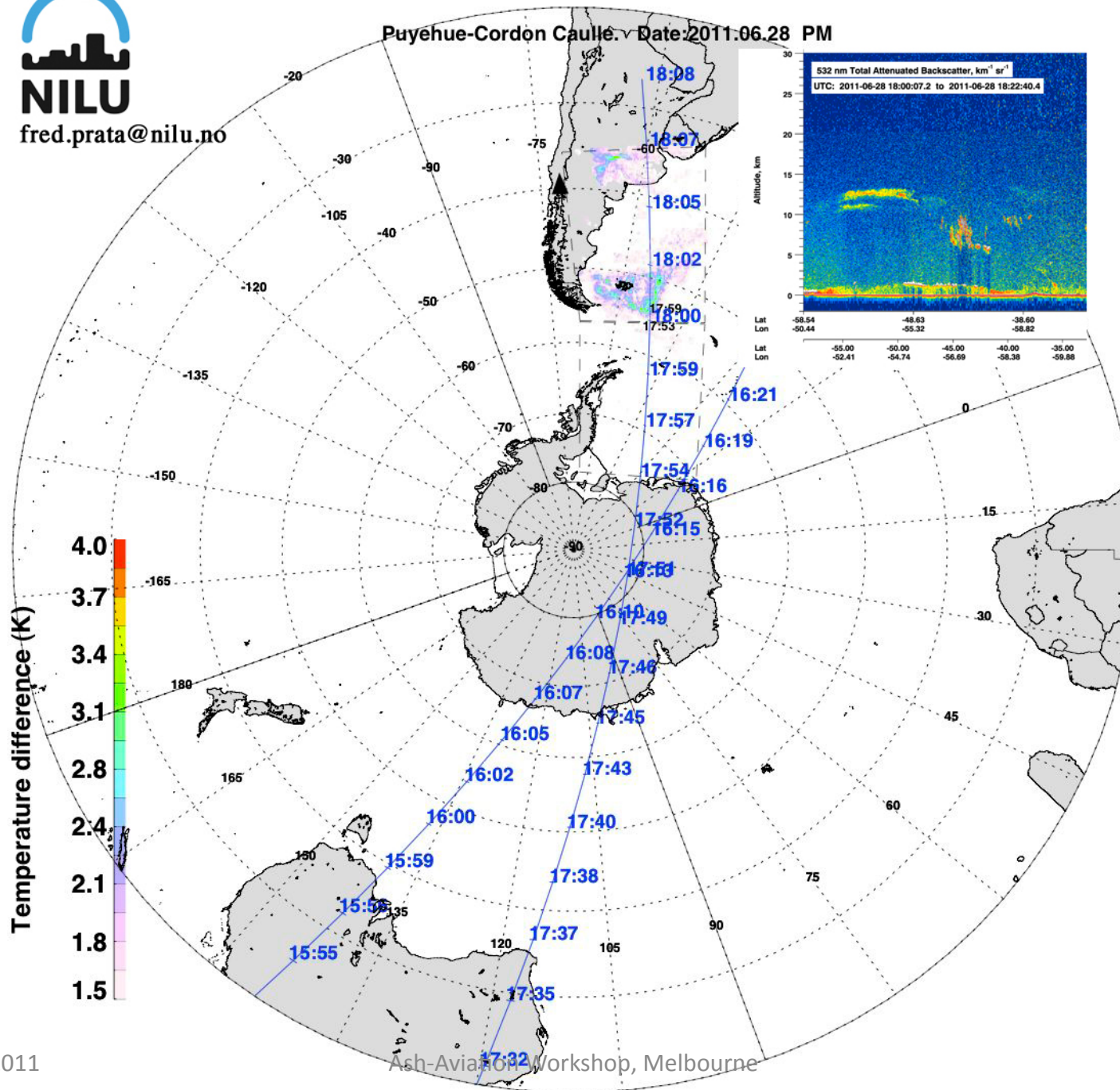
13

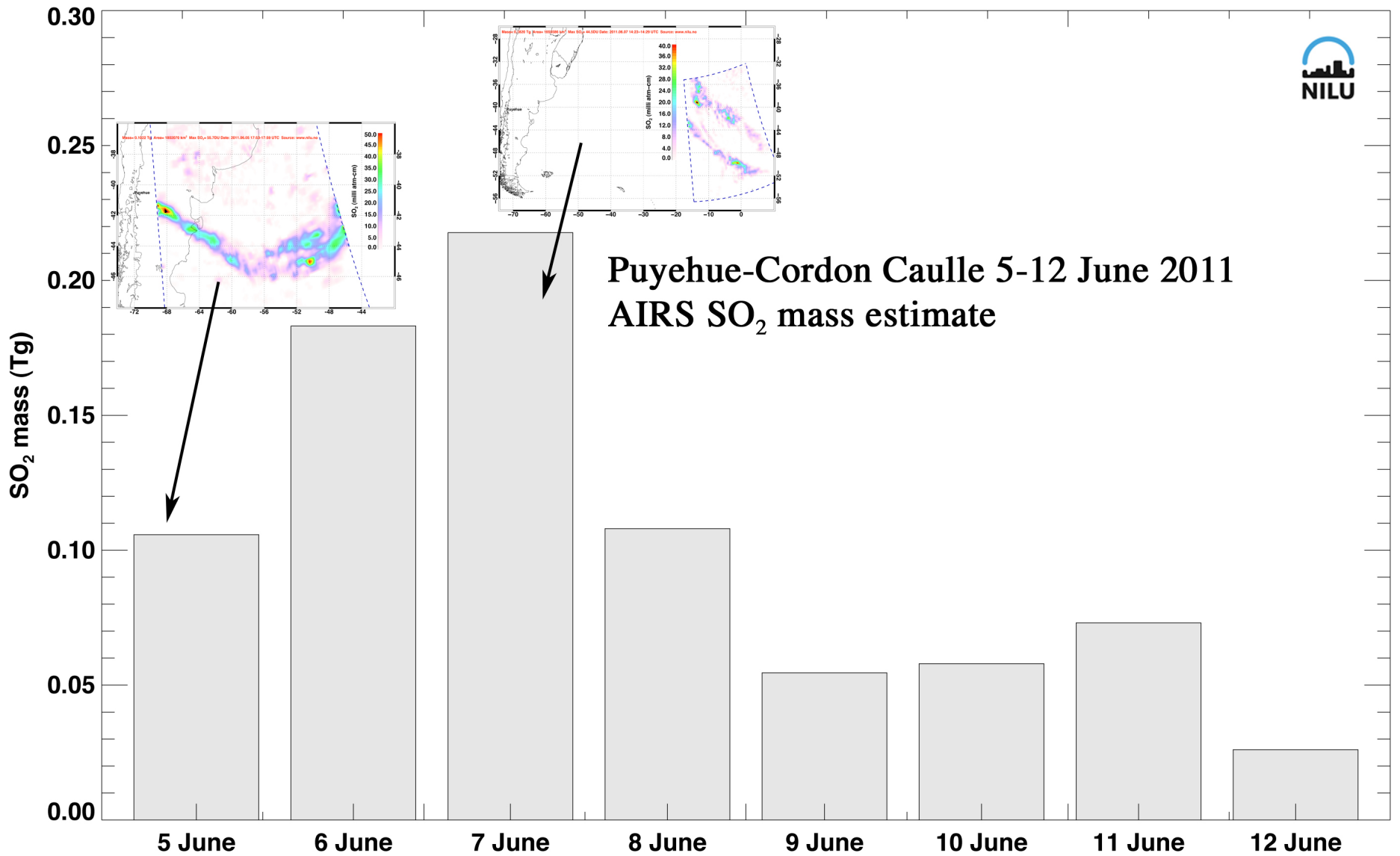


**NILU**

fred.prata@nilu.no



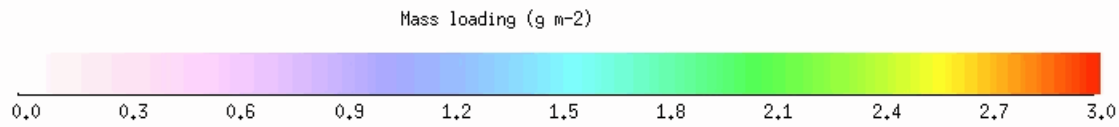




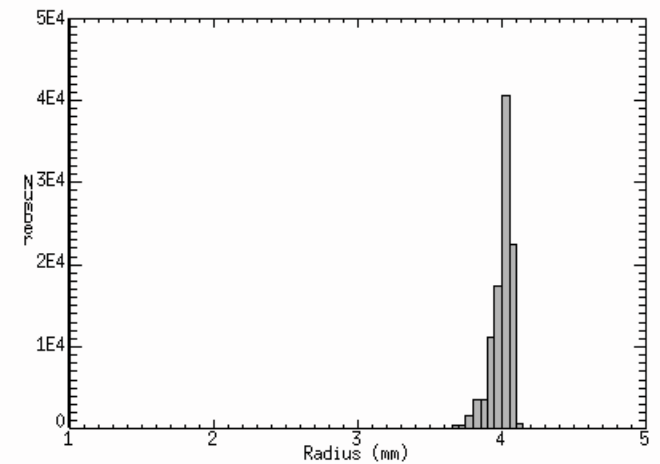
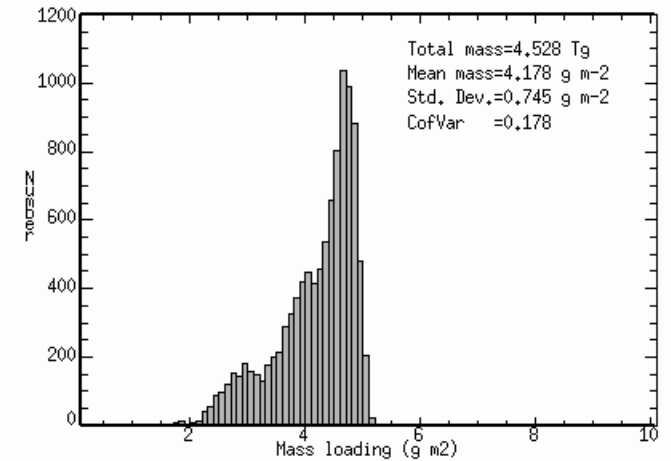
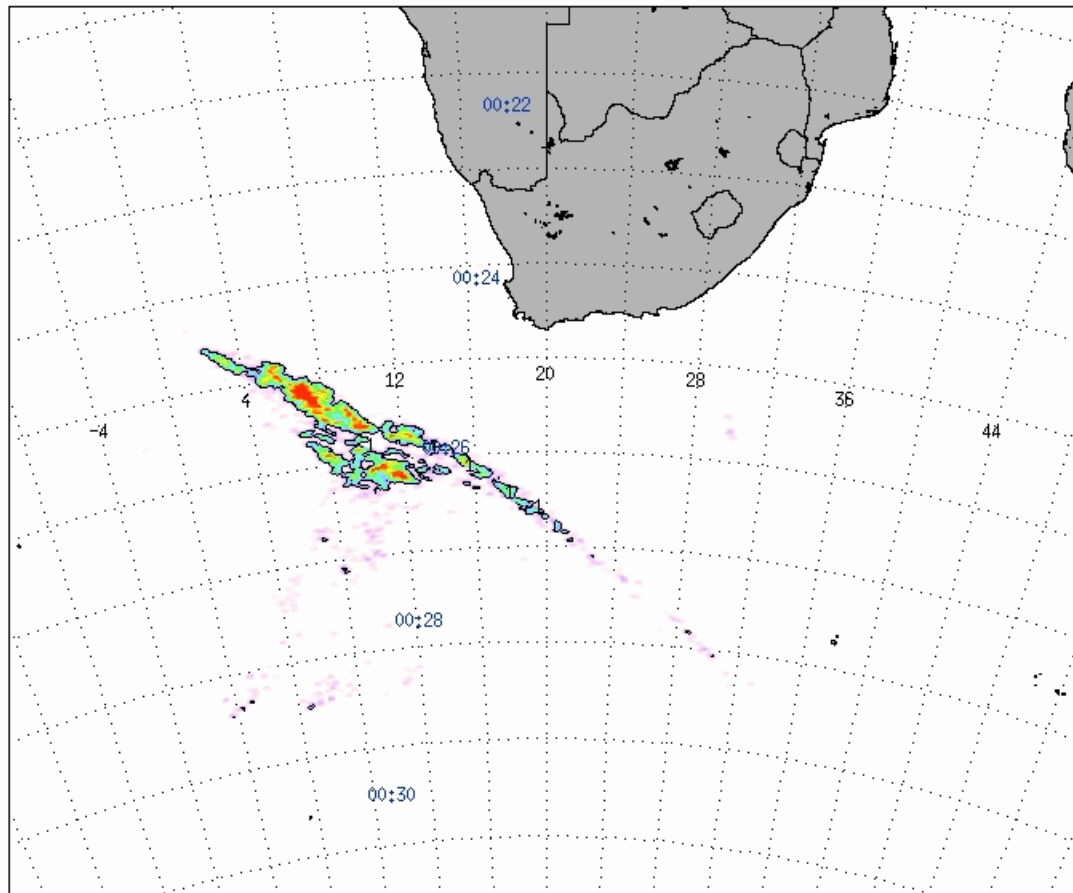


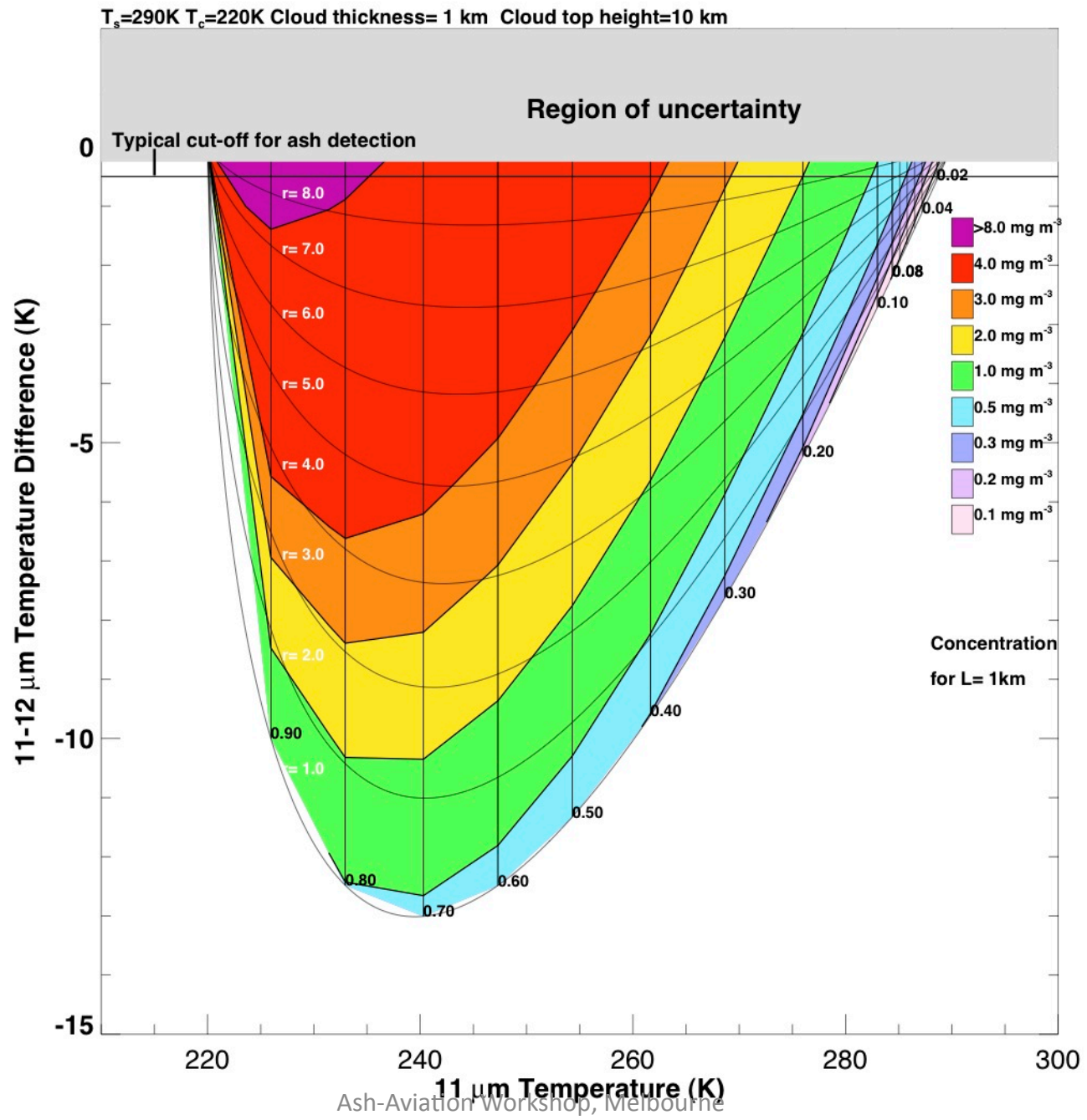
Date: 2011.06.11

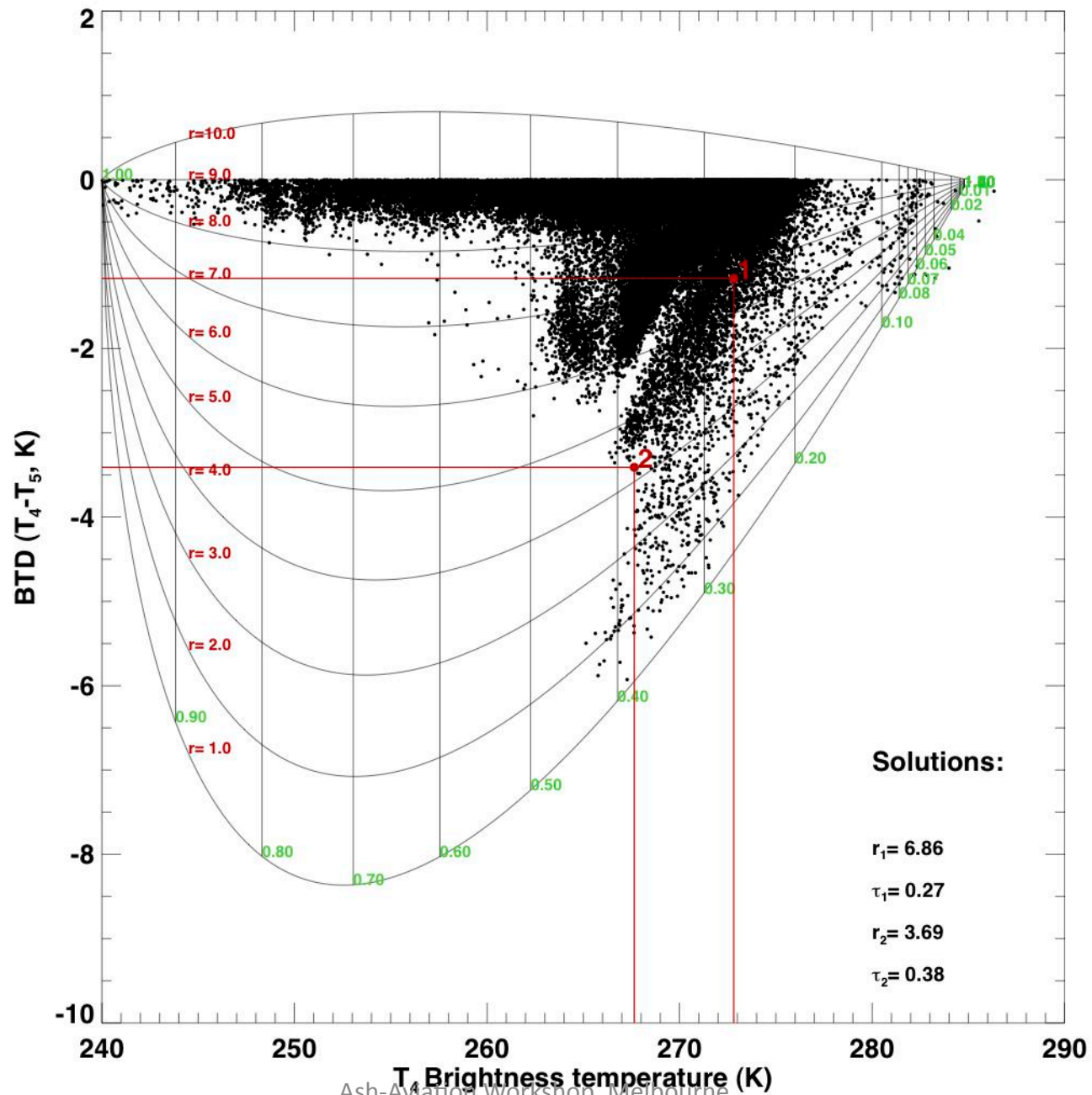
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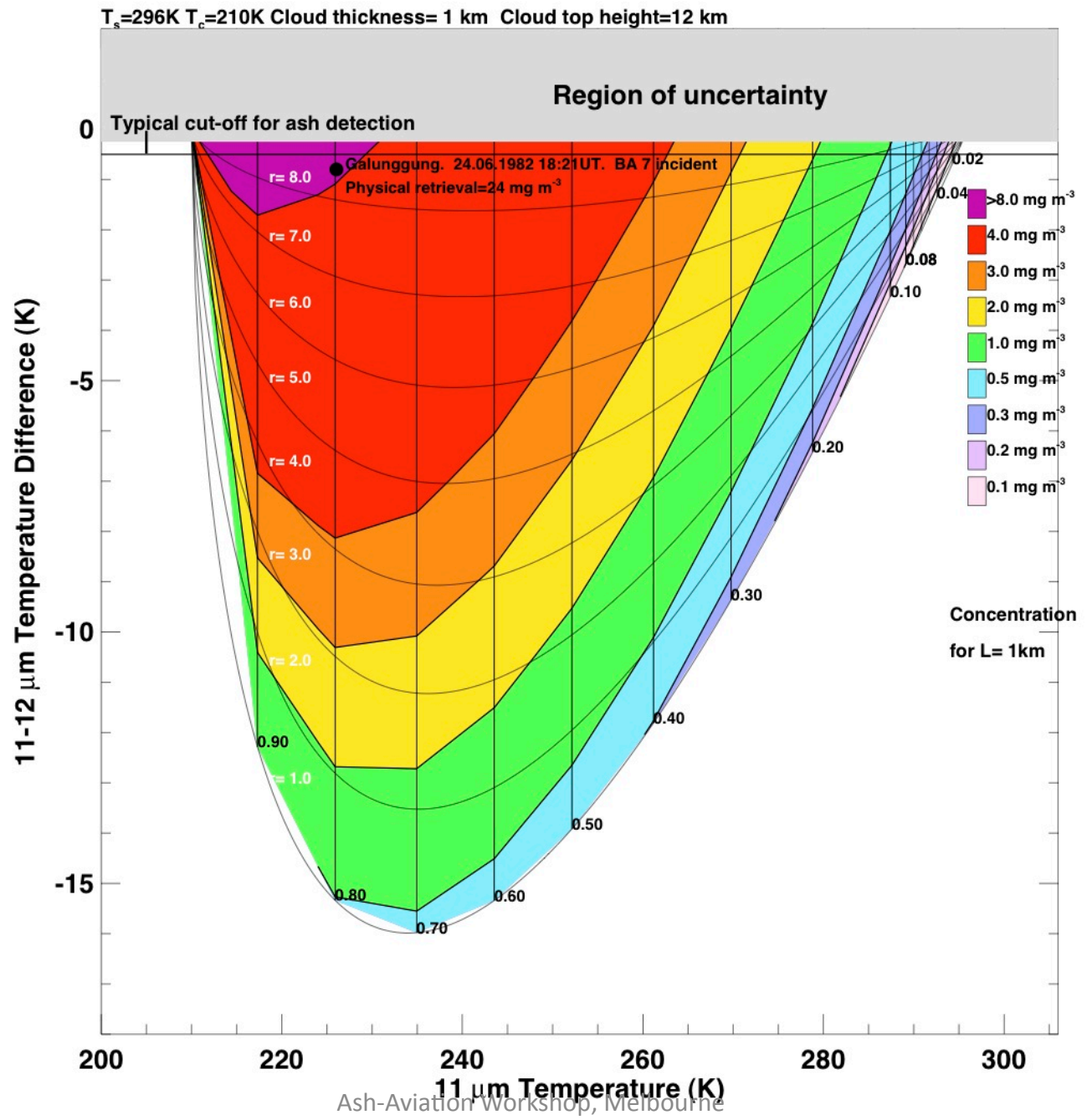


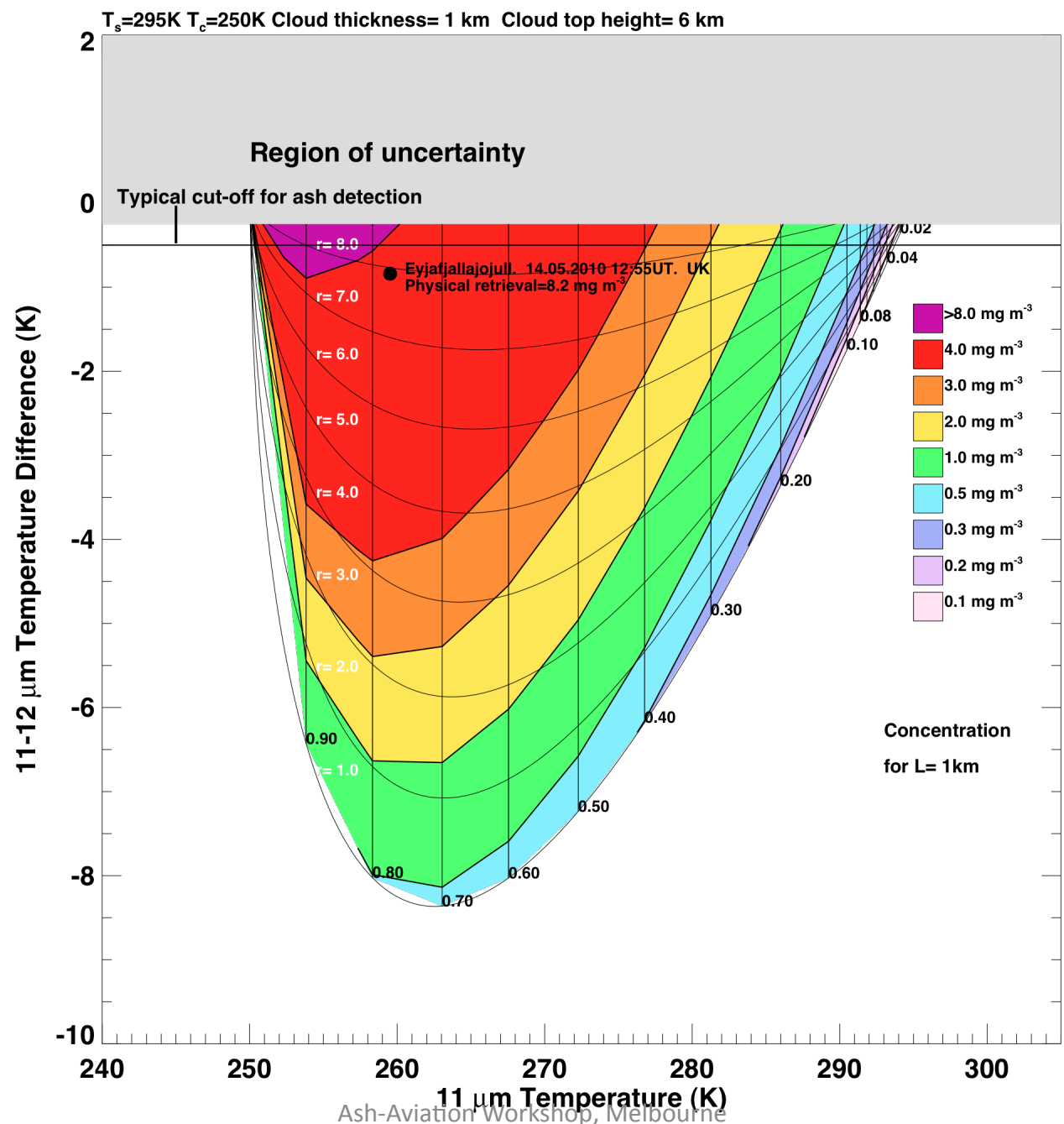
Mean radius (Gaussian)	: 3.99 nm
Mean radius (6-parameter fit)	: 4.03 nm
Total mass	: 4,528 Tg
Maximum mass loading	: 17.66 g m <sup>-2</sup>
Pixels with mass loading > 6.0	: 13 ( 0.1%)
Pixels with mass loading > 4.0	: 6947 (67.4%)
Pixels with mass loading > 2.0 and < 4.0	: 3327 (32.3%)
Pixels with mass loading > 0.2 and < 2.0	: 39 ( 0.4%)
Pixels with mass loading > 0.0	: 10313 ( 1.4%)
Total number of pixels	: 759278

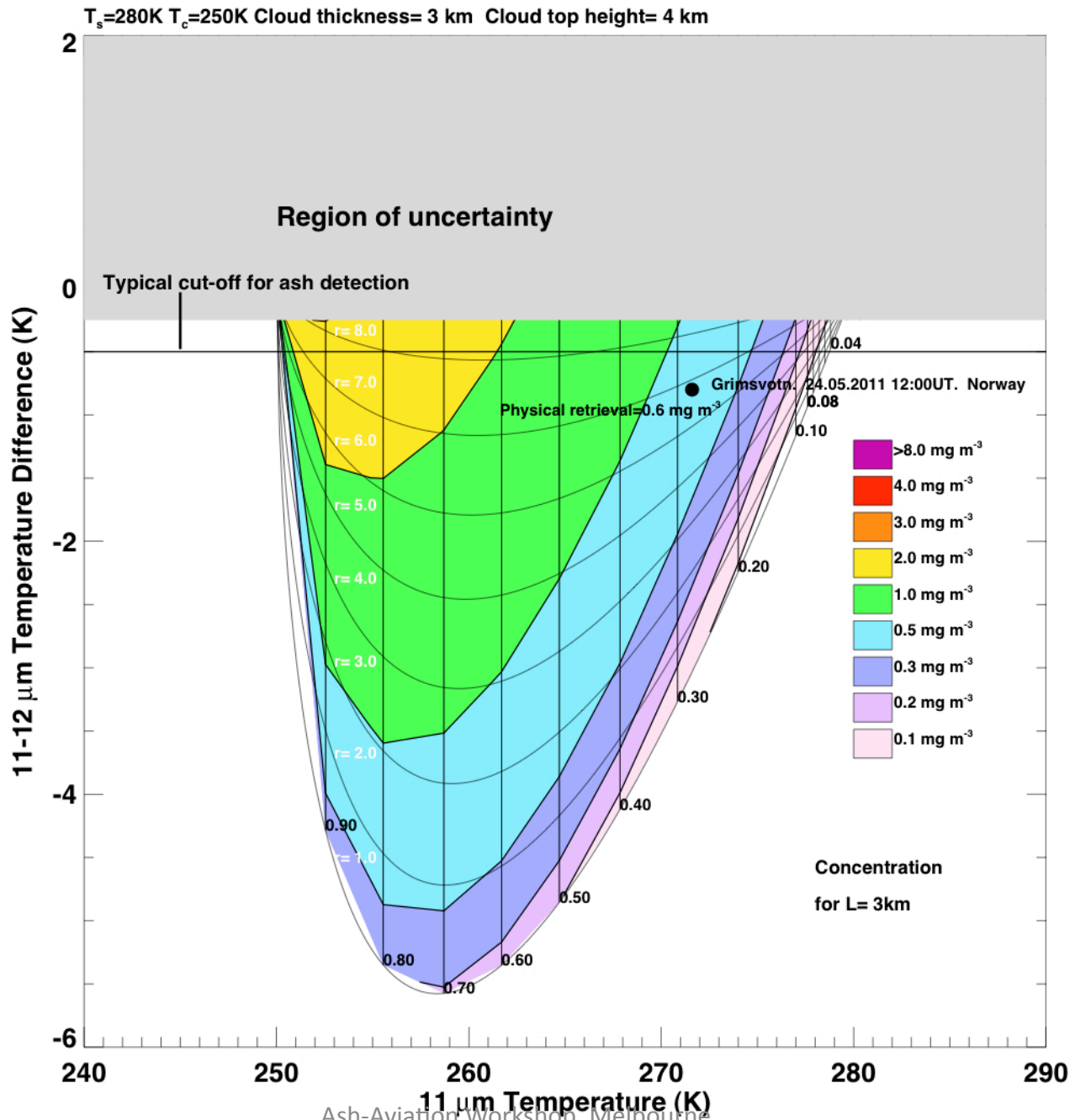


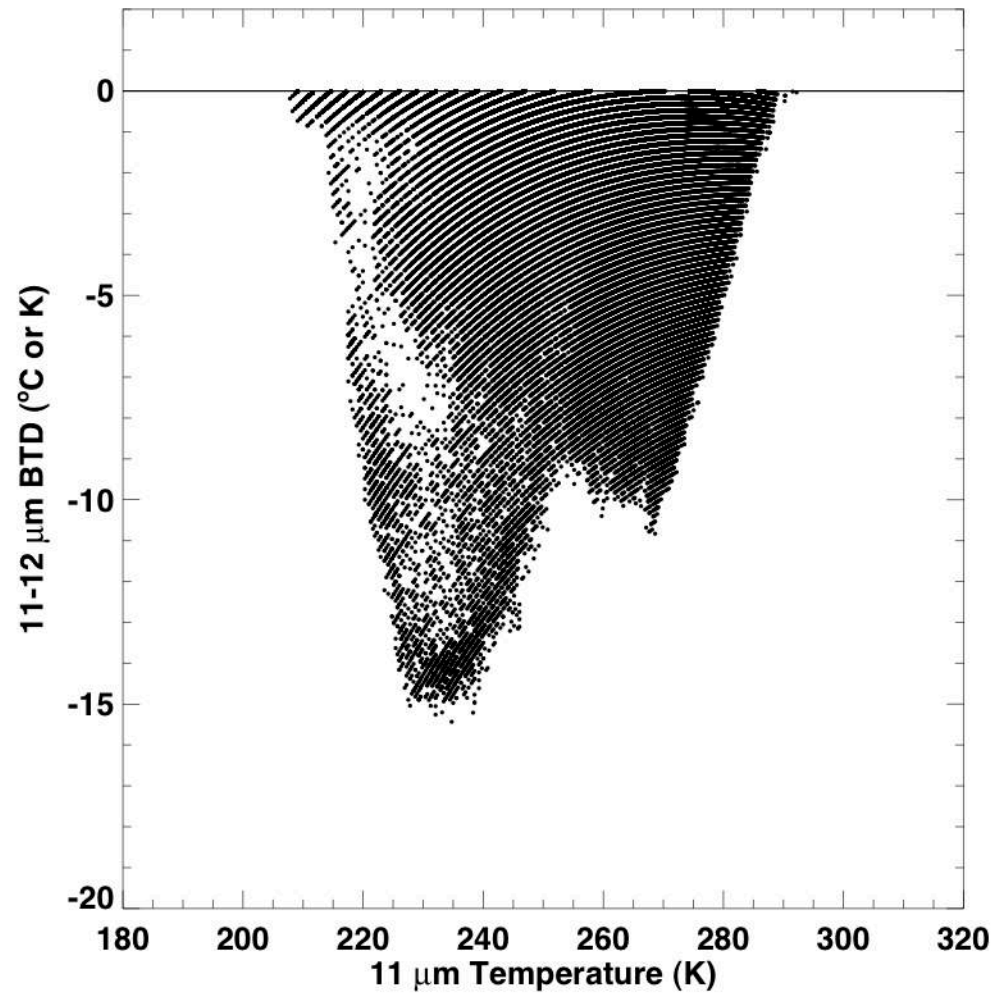


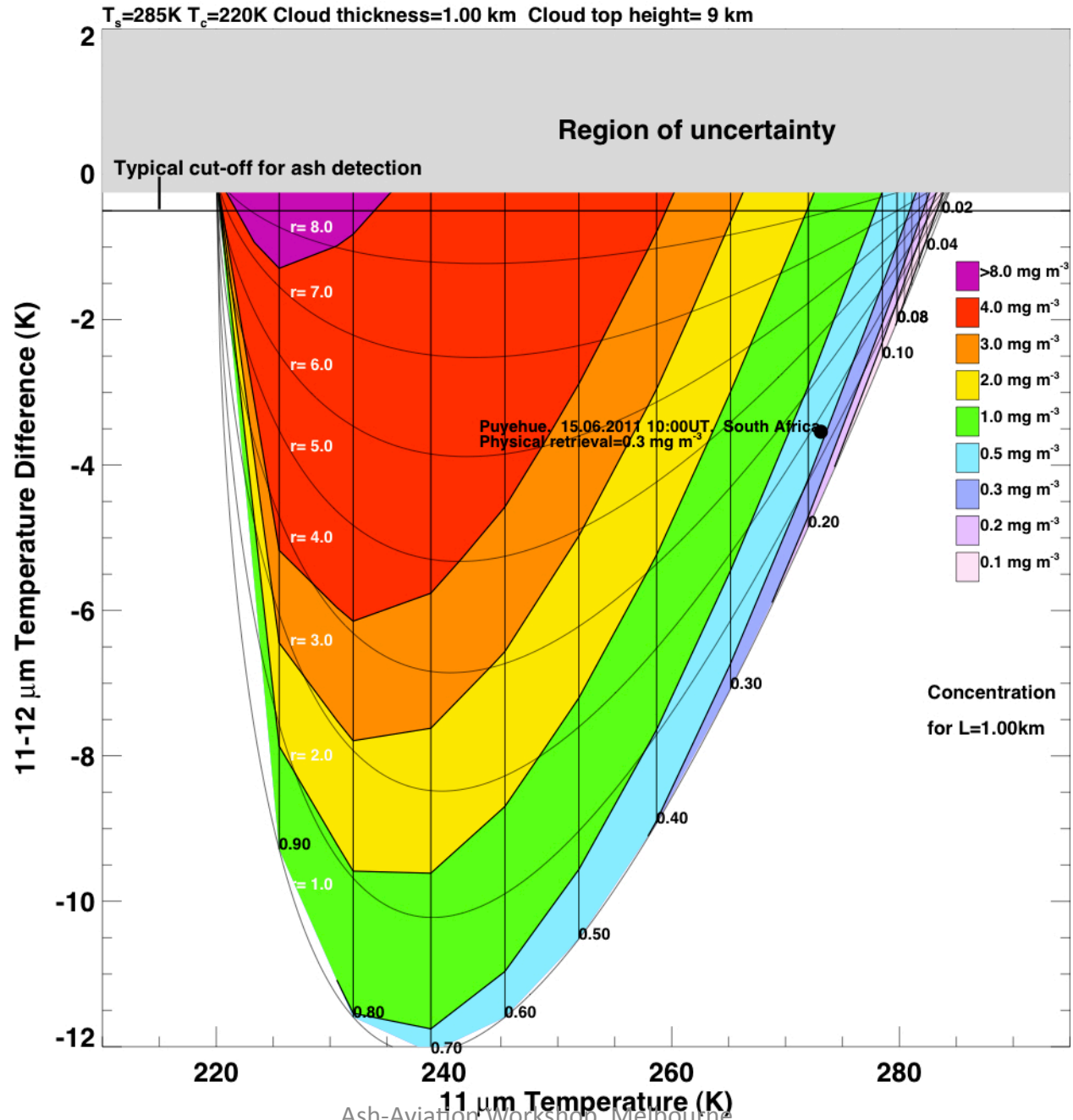




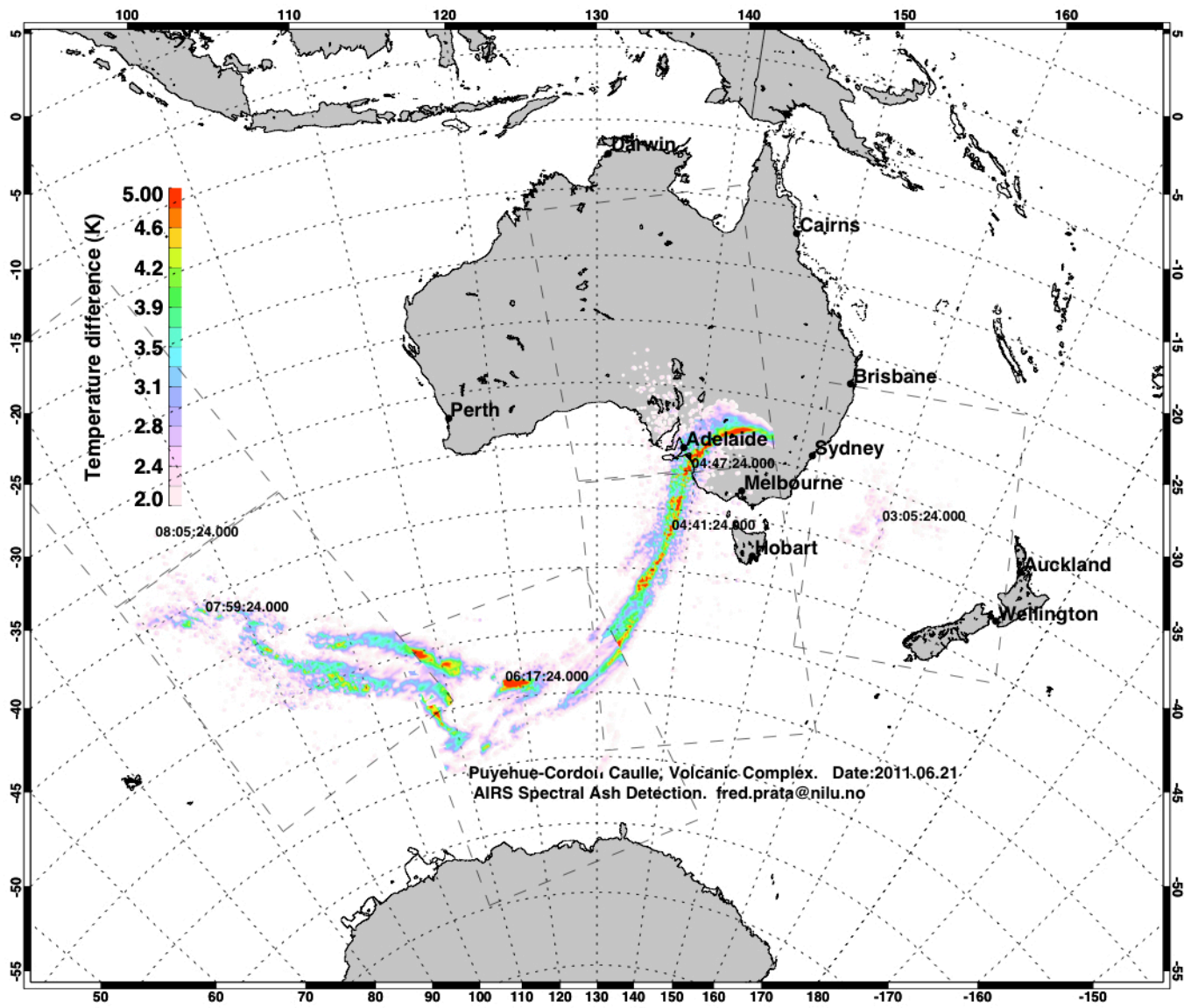


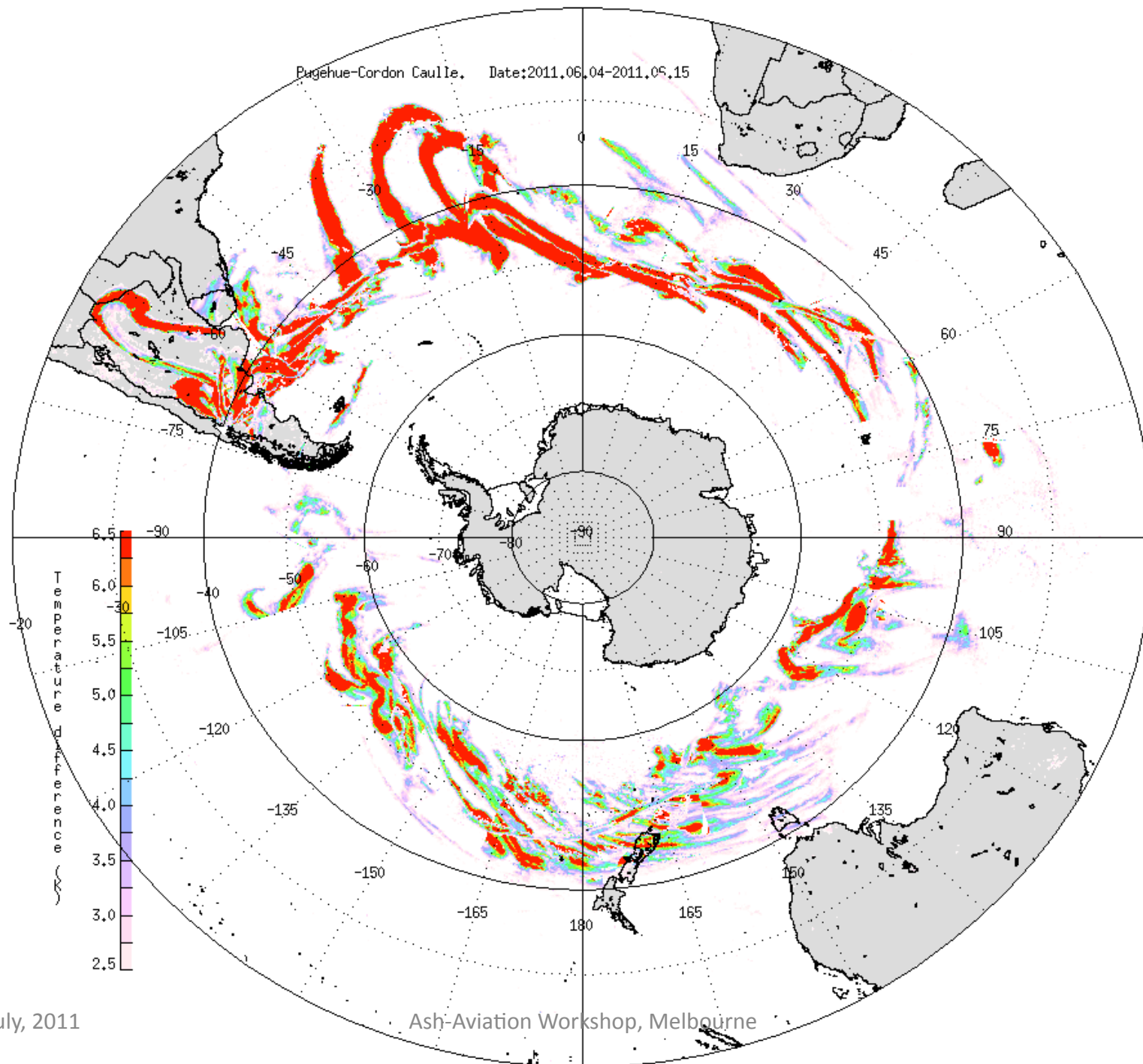


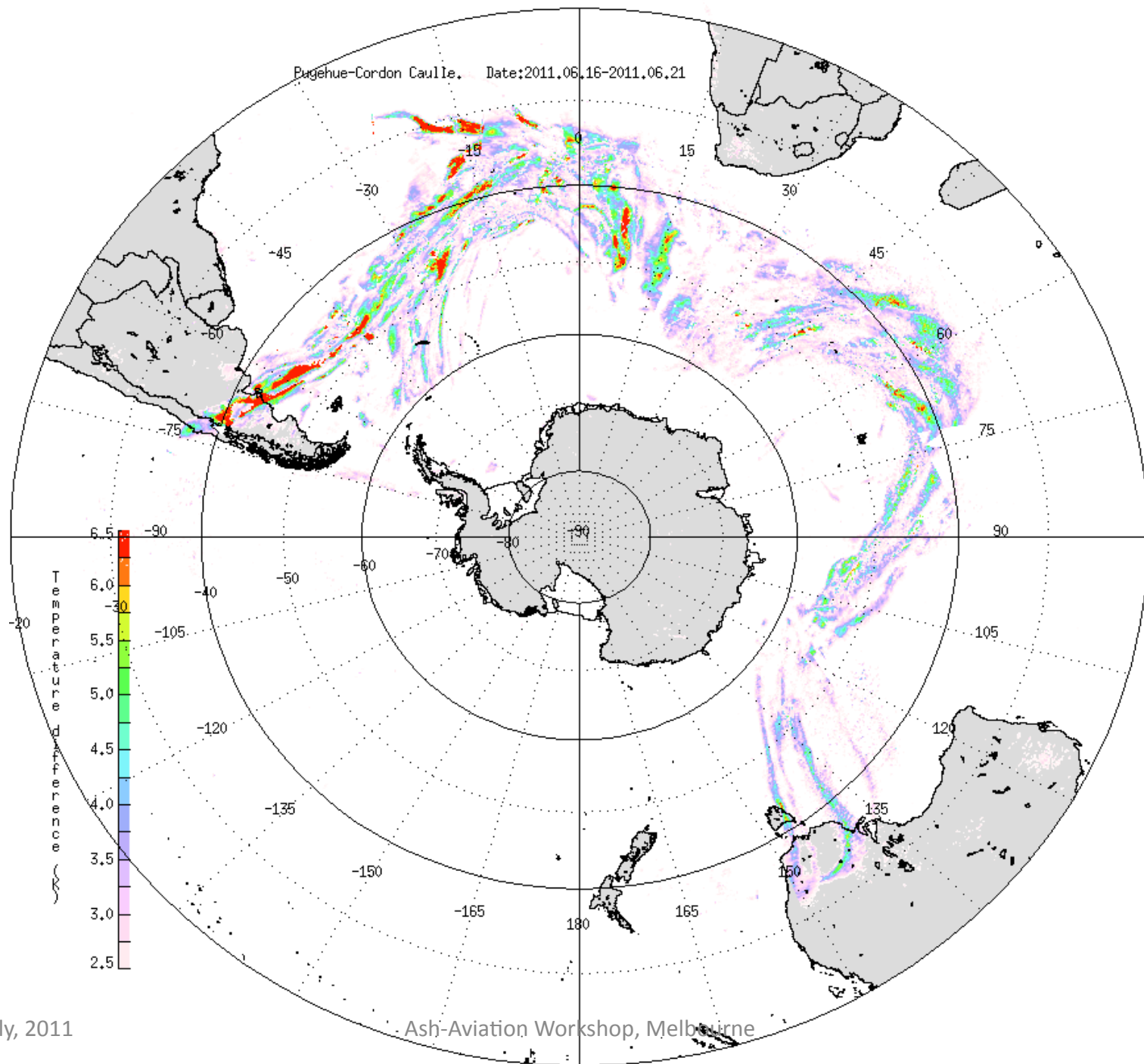










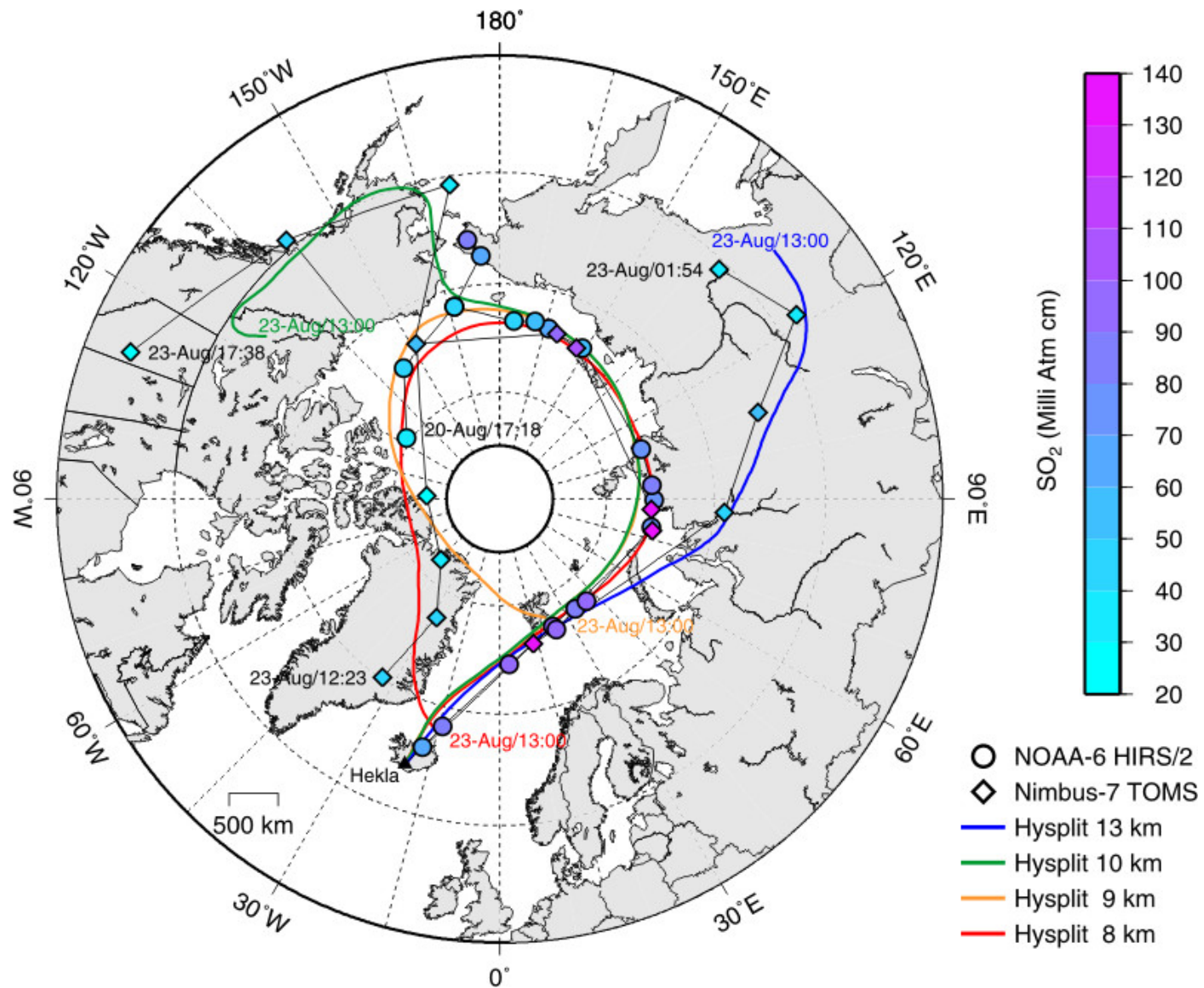


8-9 July, 2011

Ash-Aviation Workshop, Melbourne

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Carn, S., Prata, A. and S. Karlsdottir, 2008, Circumpolar transport of a volcanic cloud from Hekla (Iceland). *J. Geophys. Res.*, 113, D14311, doi:10.1029/2008JD009878.



IDENTIFICATION OF THE MOUNT HUDSON VOLCANIC CLOUD OVER SE AUSTRALIA

I. J. Barton, A. J. Prata, I. G. Watterson & S. A. Young

CSIRO, Division of Atmospheric Research

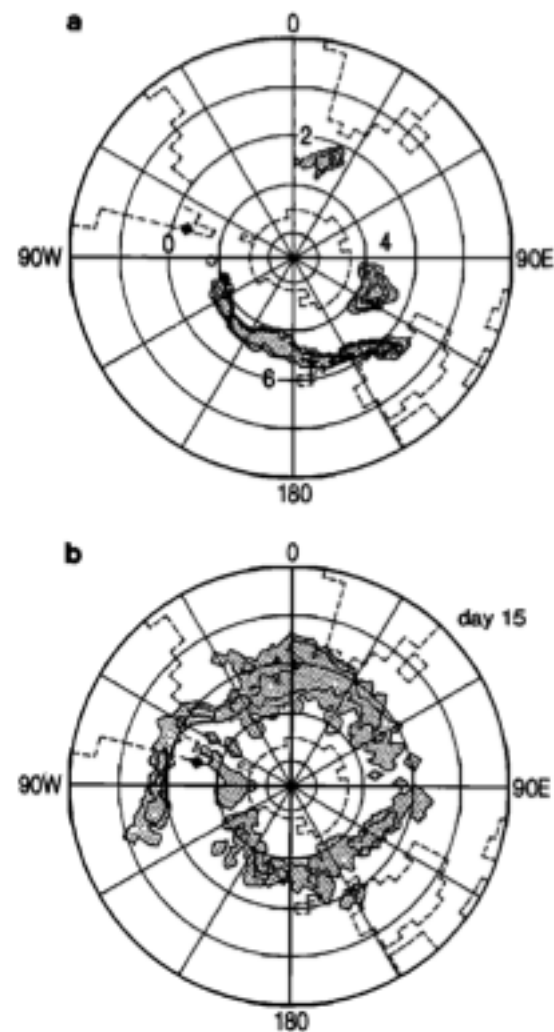
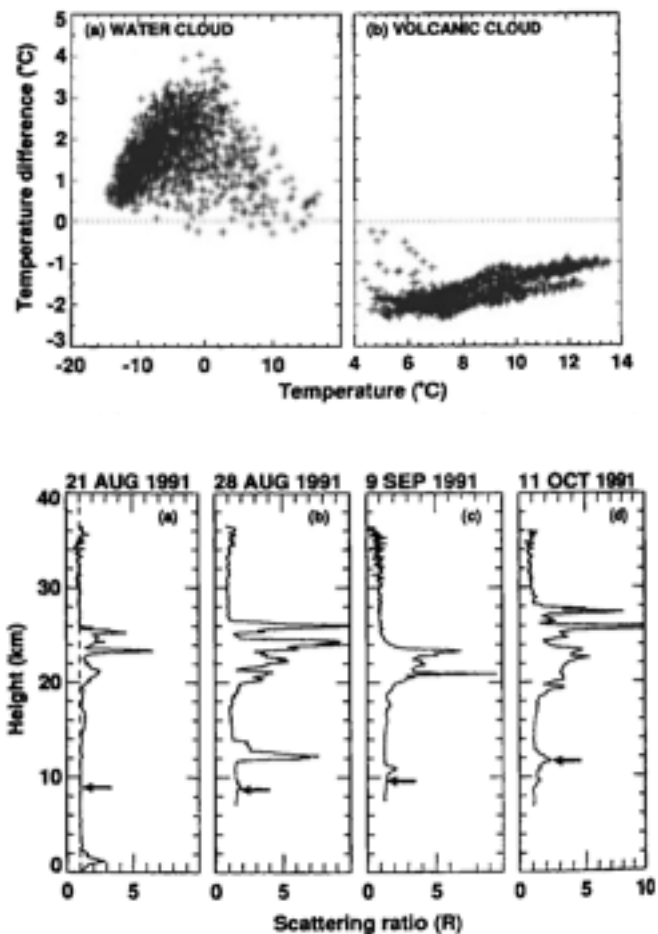


Fig. 4. Simulation of the location of the Mt Hudson volcanic cloud after (a) 0 days, 2 days, 4 days and 6 days and (b) 15 days. The contour intervals are 0.01, 0.1, 1, 3 and 10 (units explained in the text).