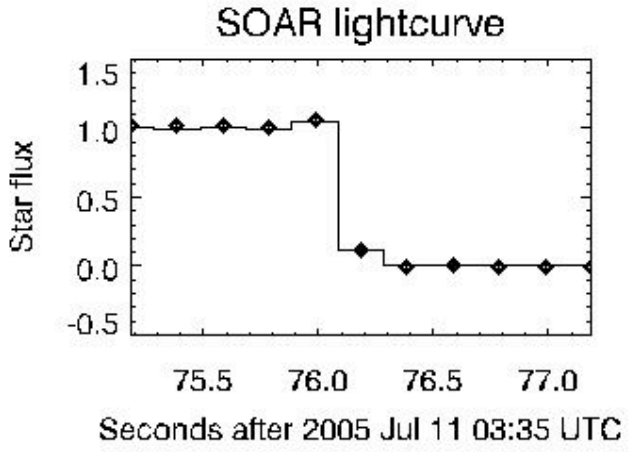
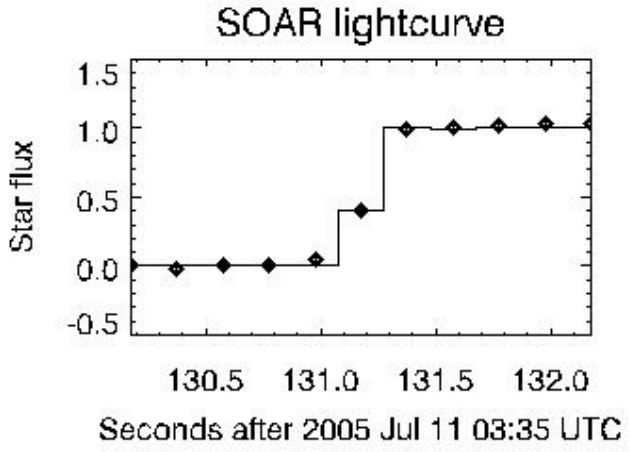
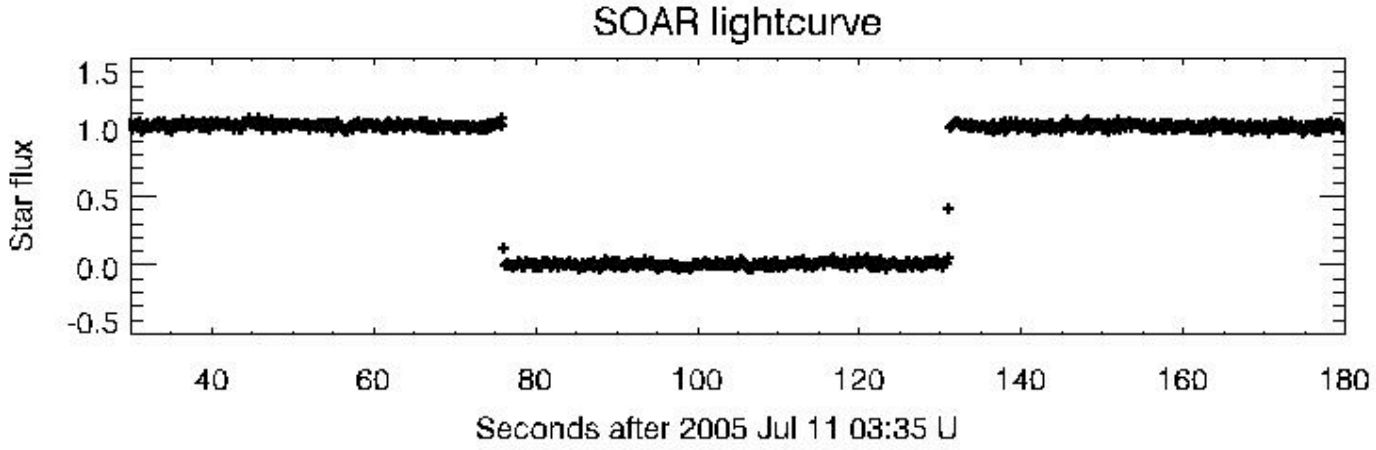
Charon-2005 July 11
Chile

Micromax on 4-m SOAR, Chile

SOAR lightcurve of Charon, 2005

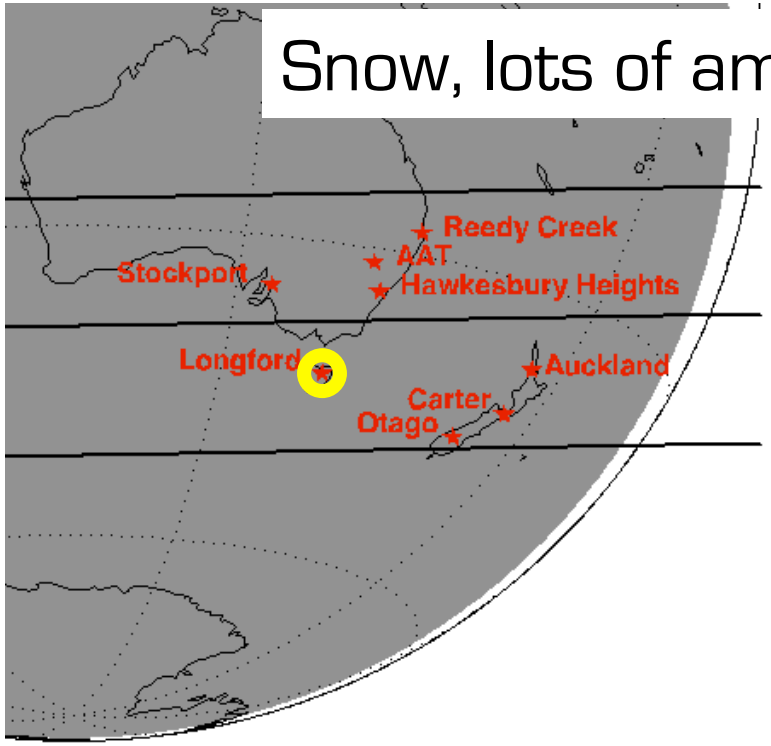


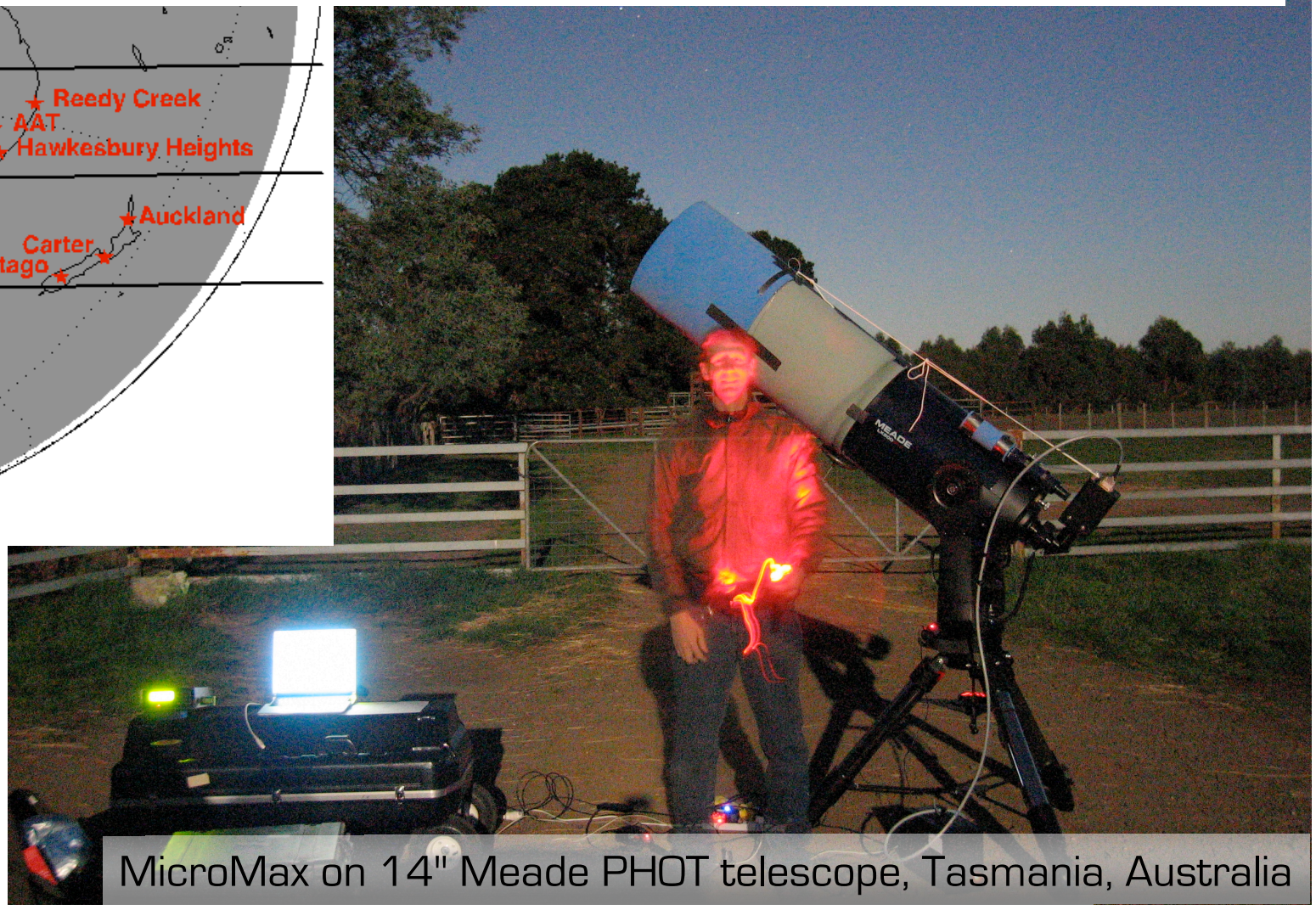




Pluto-2006 June 12
Australia & New Zealand

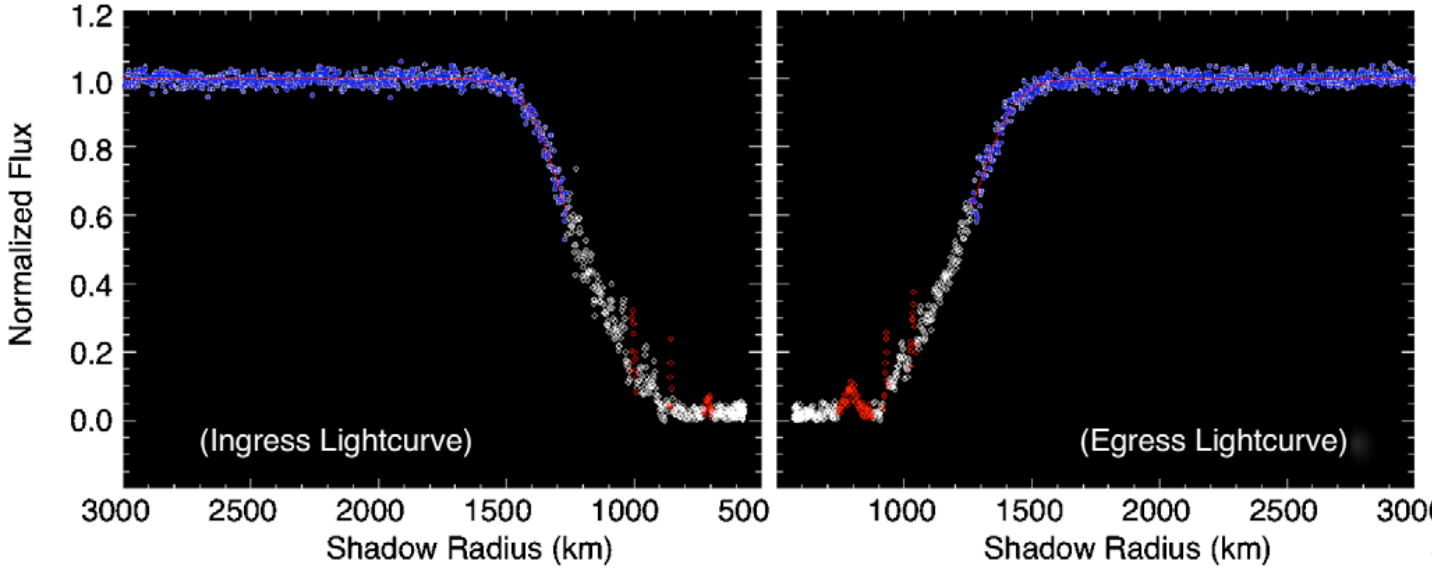
Snow, lots of amateurs, and one stunning lightcurve

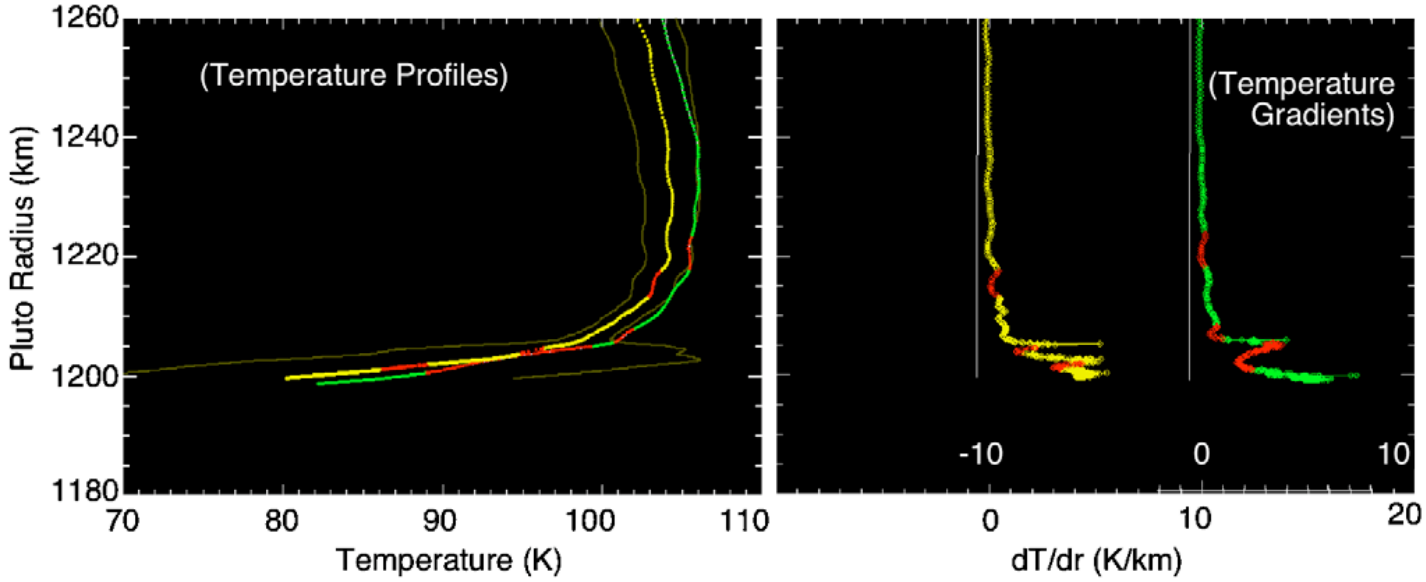




MicroMax on 14" Meade PHOT telescope, Tasmania, Australia

Occultations measure temperature profiles





AAT 4-m telescope

Frame Rate: 10 Hz

Signal to Noise Ratio per point: 62

Signal to Noise Ratio per 60 km: 331

GPS-based absolute timing accuracy better than 100 μsecond.

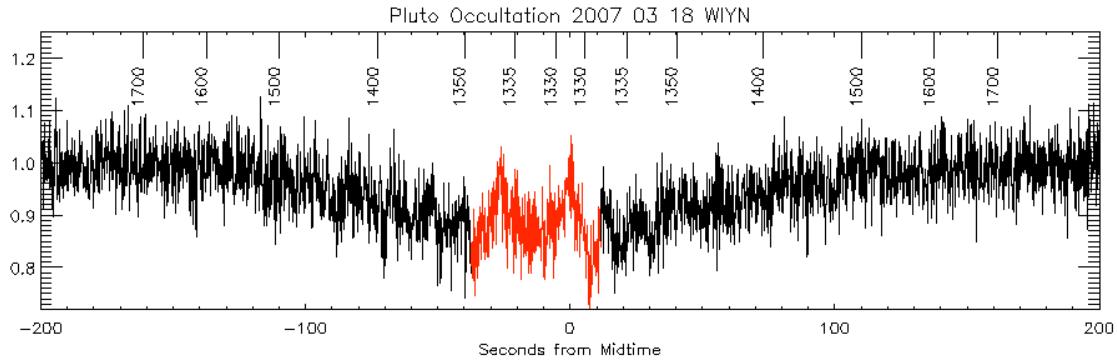
Spikes are resolved, differ in detail between ingress/egress

Pluto-2007 March 18
Western US and Baja

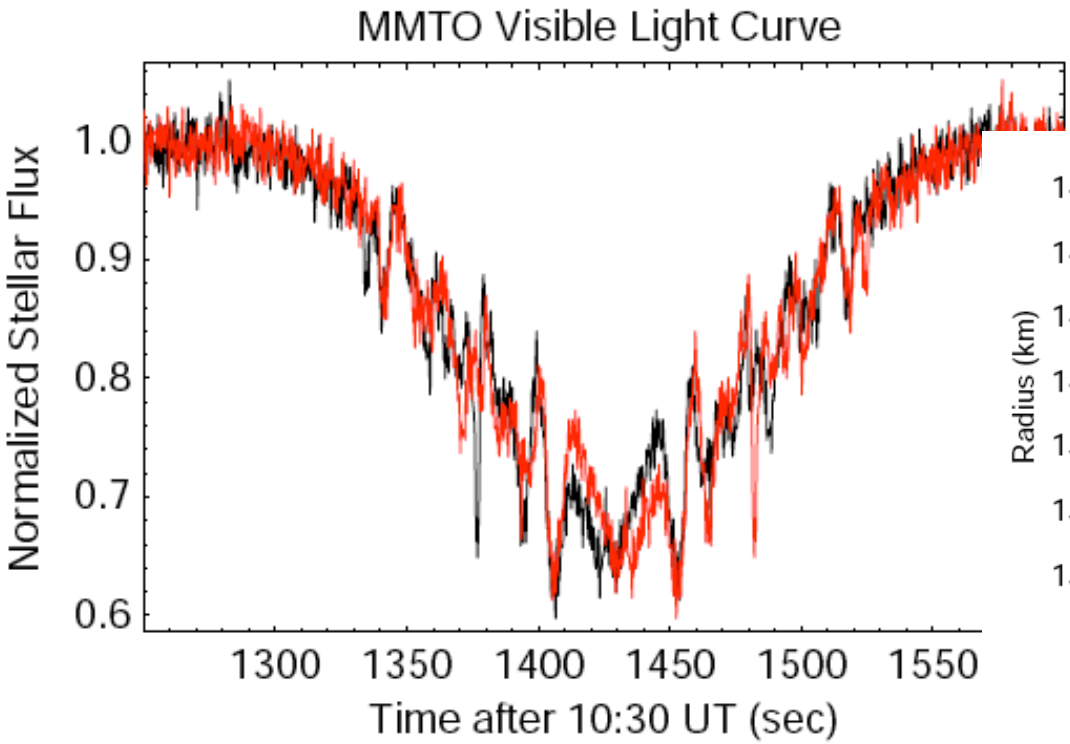
Eighteen telescopes! Visible and infrared!

PhotonMax on 1.5-m at San Pedro Martir, Baja, Mexico

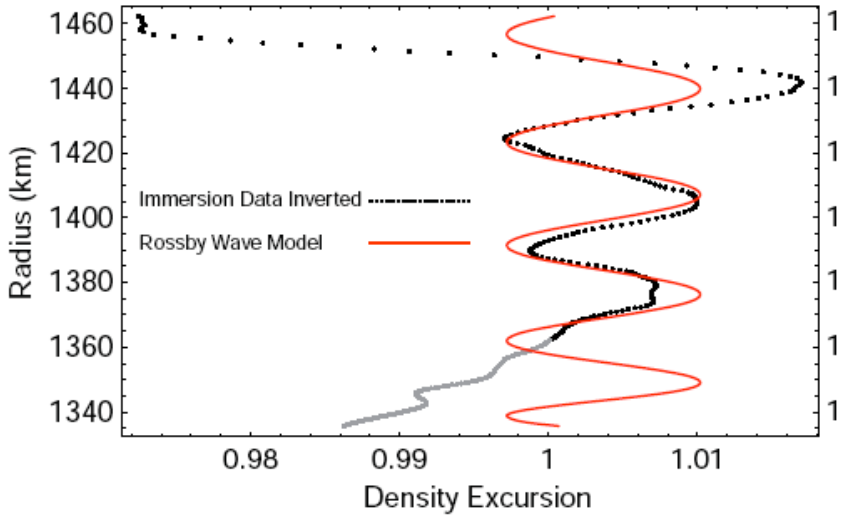
"Fangs" indicate high-altitude waves



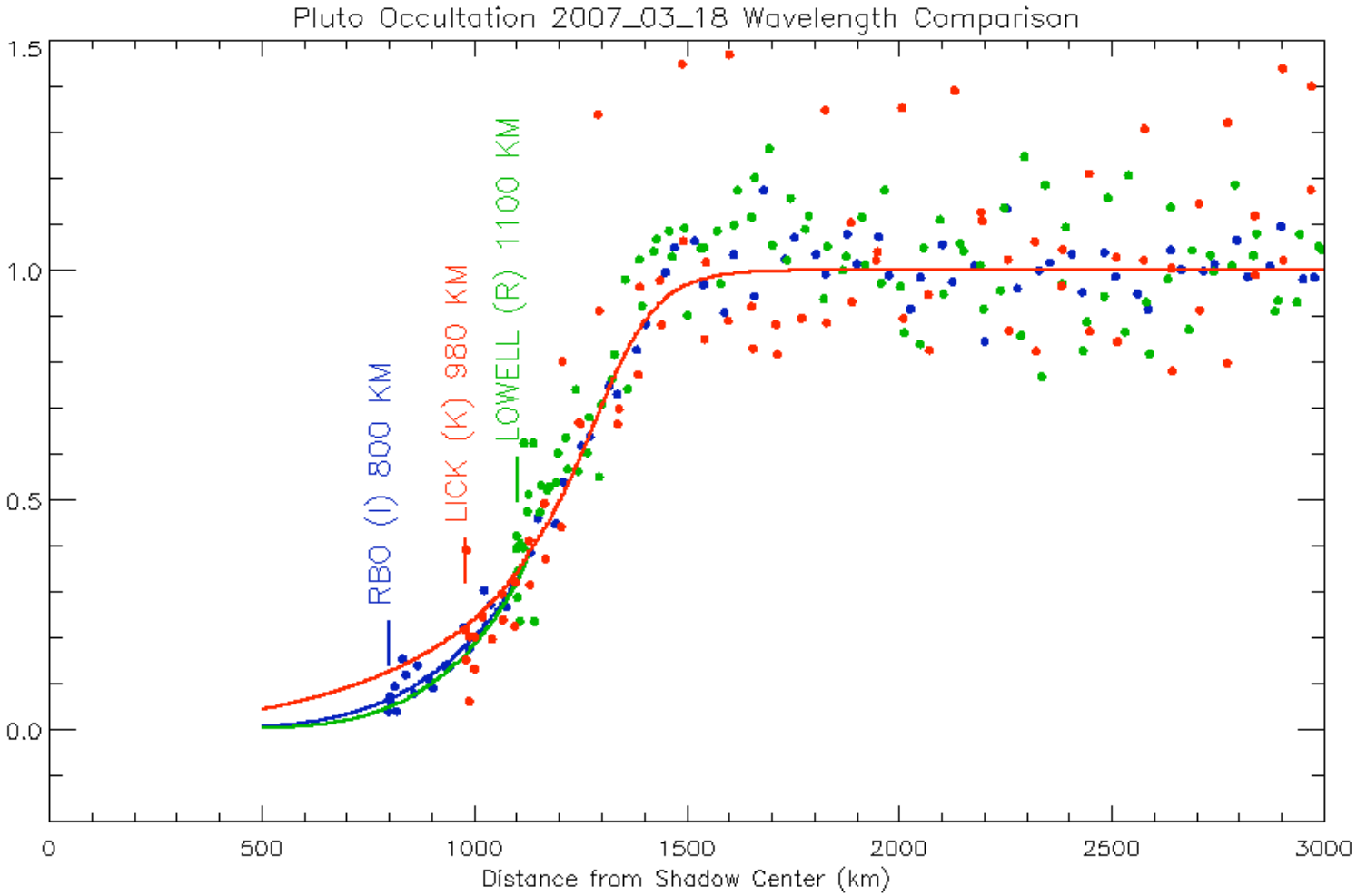
Pluto, Mar 18, 2007 (Young et al in prep)



Pluto, Mar 18, 2007 (Person et al 2008)

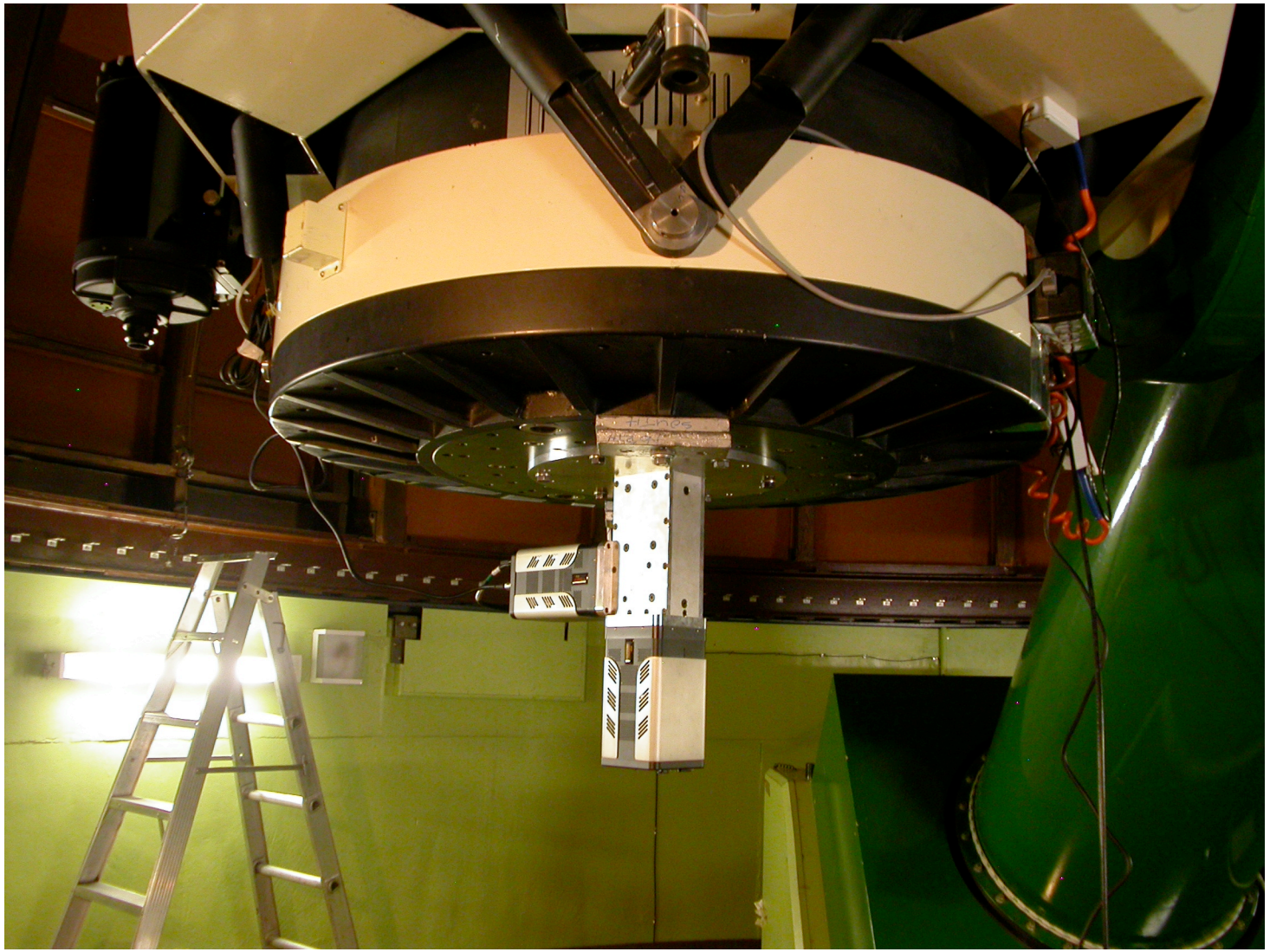


Occultation at different wavelengths constrain hazes



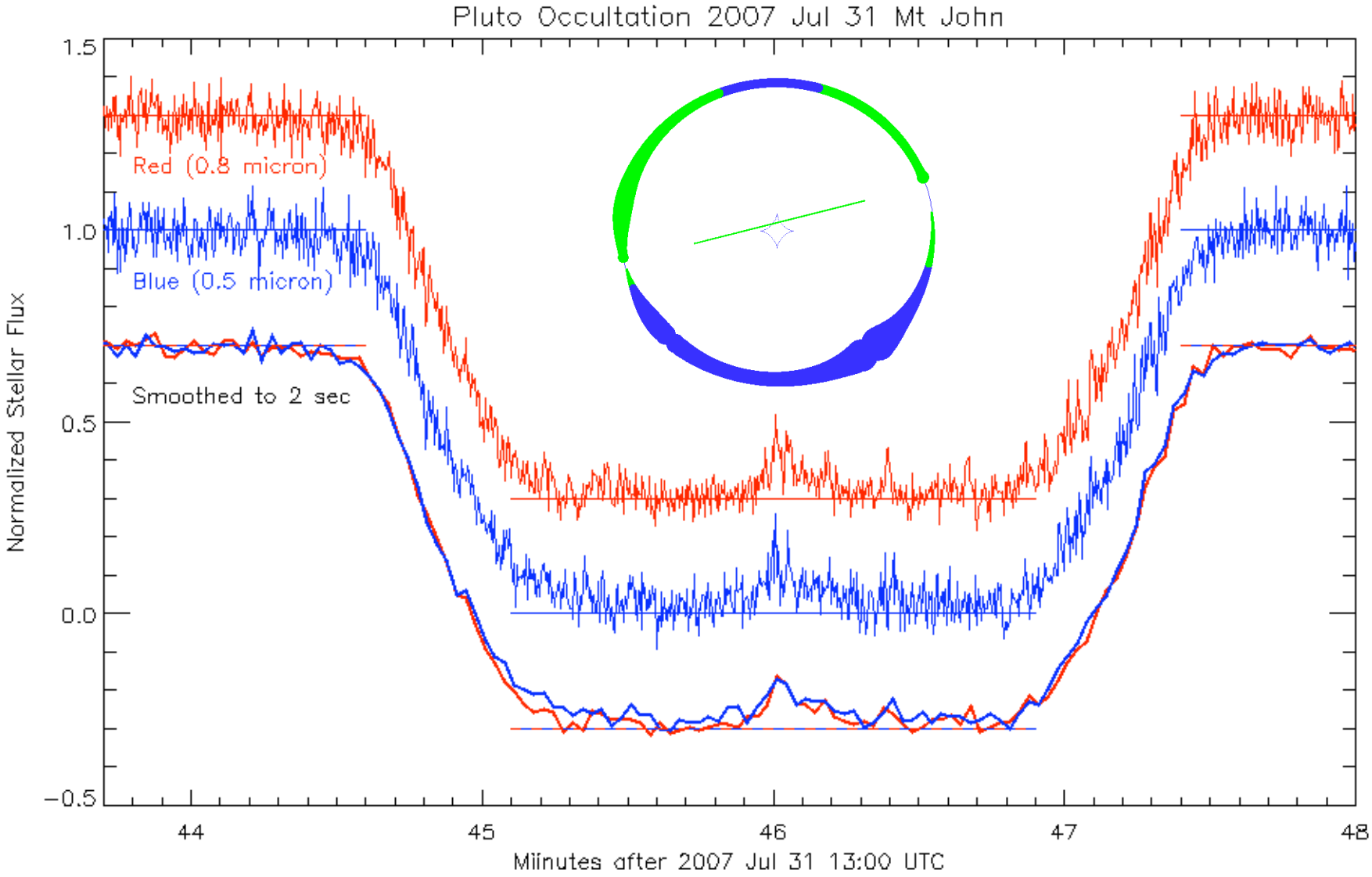
Pluto-2007 July 31
Return to Australia & New Zealand

Pluto-2007 July 31
Return to Australia & New Zealand



2 PhotonMax's with a dichroic on 1-m telescope, Mount John, New Zealand

Occultations crossing the evolute are sensitive to the atmosphere's shape

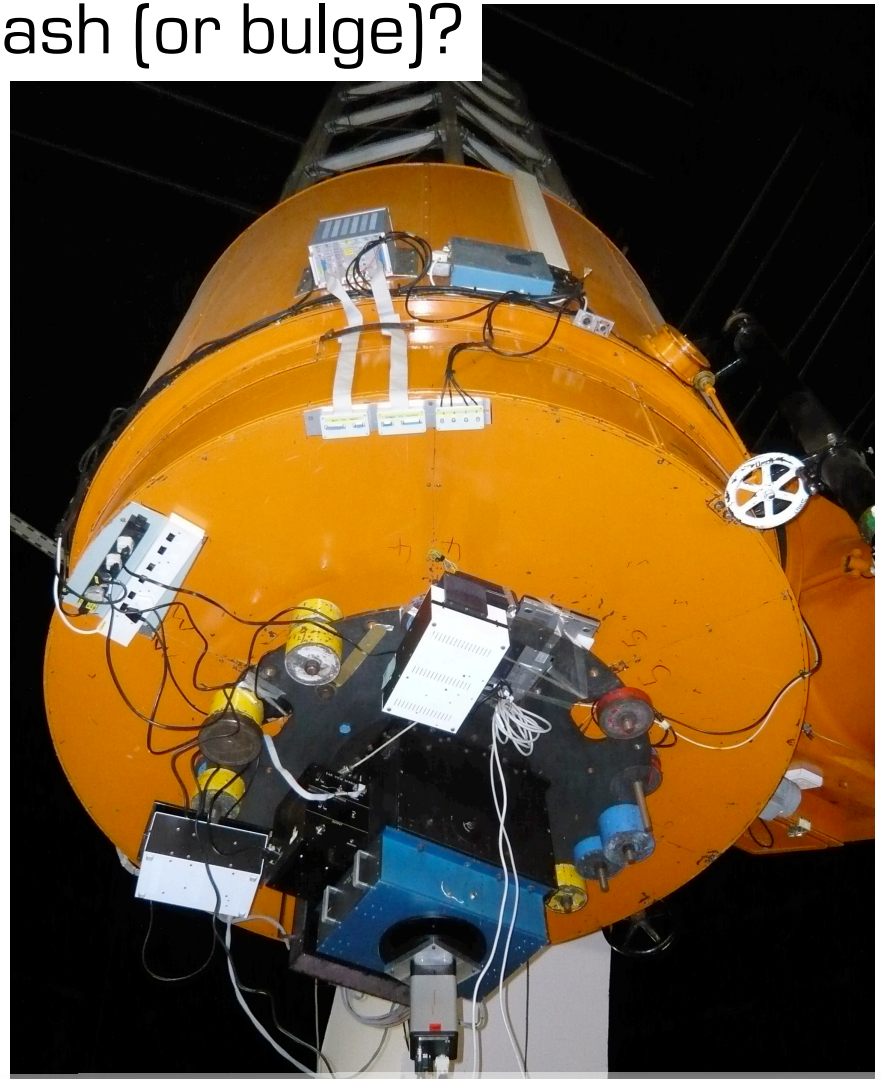


Pluto-2008 Aug 25
Western US again

Pluto-2009 Apr 21
Southern Africa

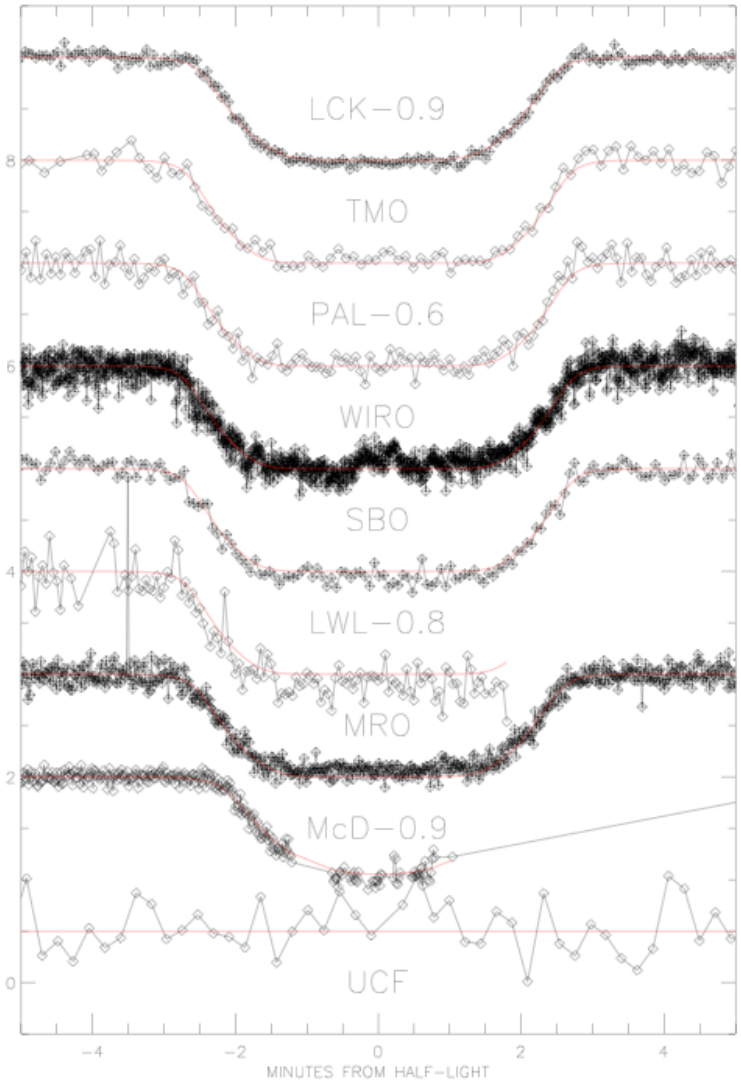
Possible central flash (or bulge)?

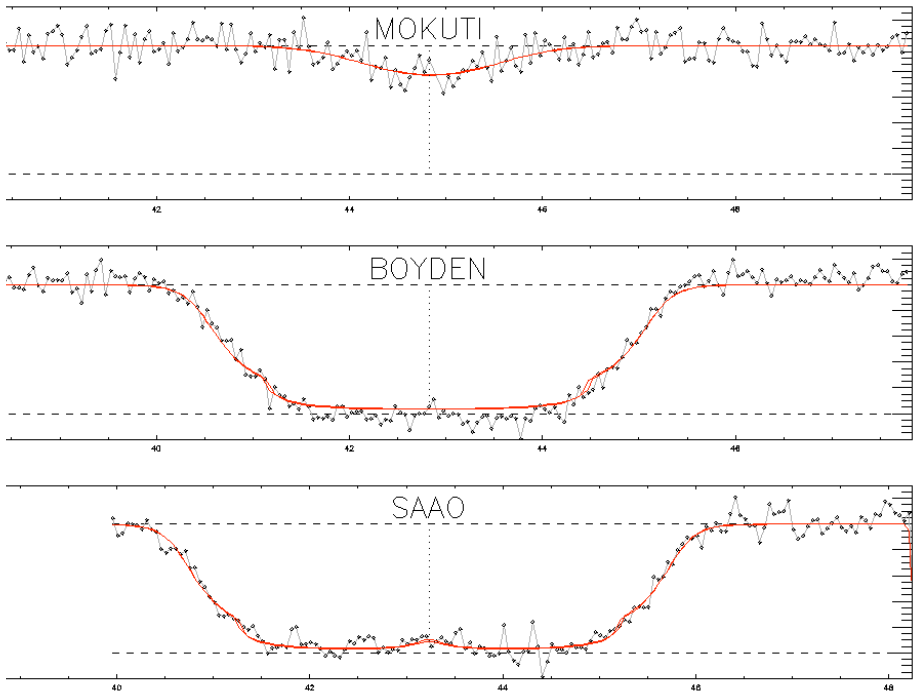
MicroMax on 36" Crossley, Lick, CA



PhotonMax on 1.9-m at SAAO, South Africa

Occultations near shadow center are sensitive to lower altitudes





Pluto-2010 Feb 14
First time to Europe

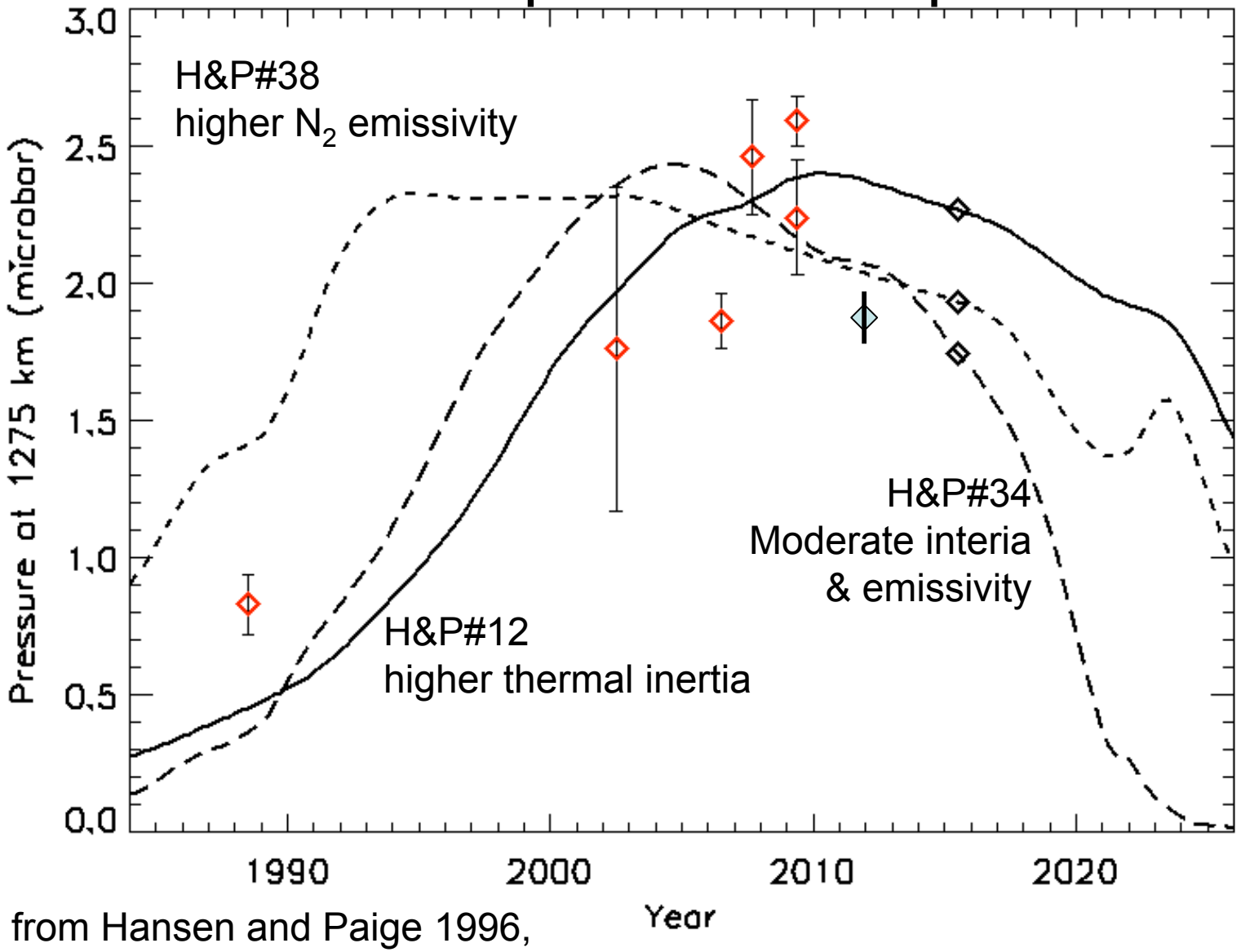
Pluto-2010 July 4
South Africa

Collaborations, odd telescopes, poor weather.

0.8-m, Obs. Haute Provence, France

0.65-m, Aloe Ridge, South Africa

Occultations measure pressure vs. time that can be compared with predictions



Models from Hansen and Paige 1996,