

Akatsuki 1μm camera awakens

N. Iwagami (Univ Tokyo) S. Ohtsuki (Senshu Univ)
T. Sakanoi (Tohoku Univ) S. Takagi (Tokai Univ)
G.L. Hashimoto (Okayama Univ)

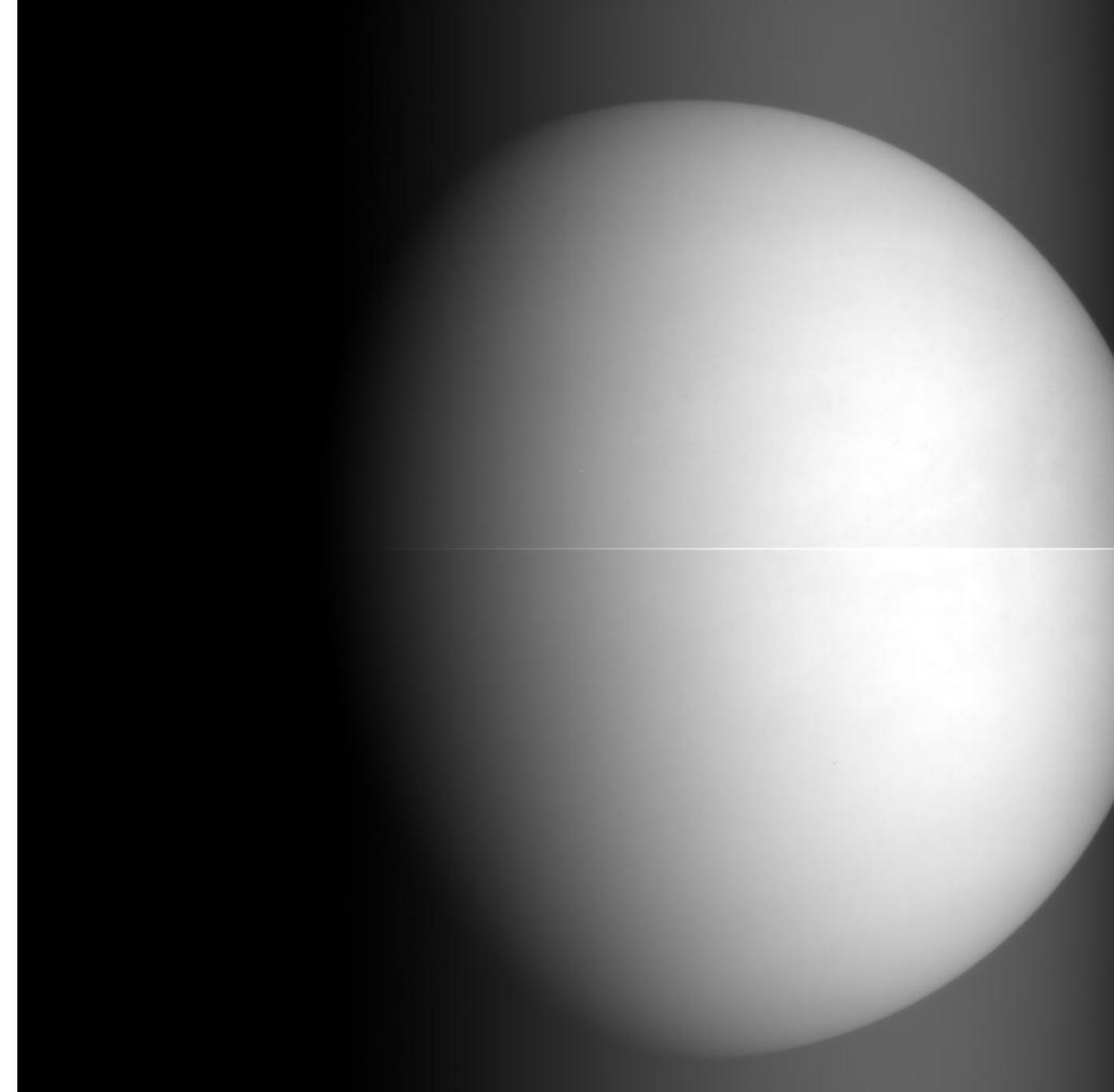
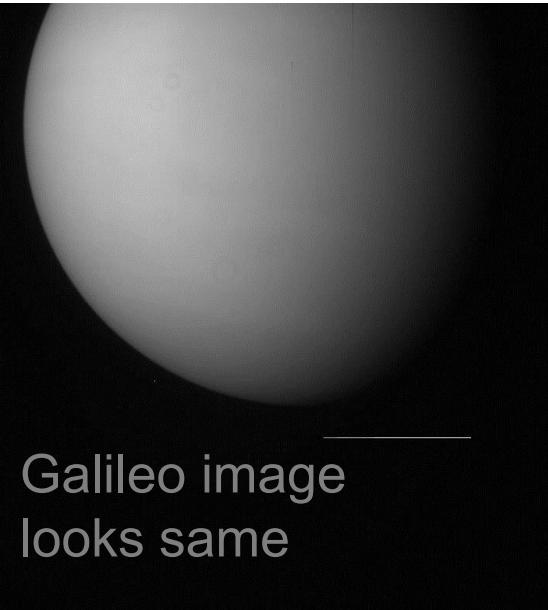
Episode 7

IR1 (1 μ m camera) awoke
after 5 years sleep.

0.9 μ m dayside raw image taken
5 hours after the insertion

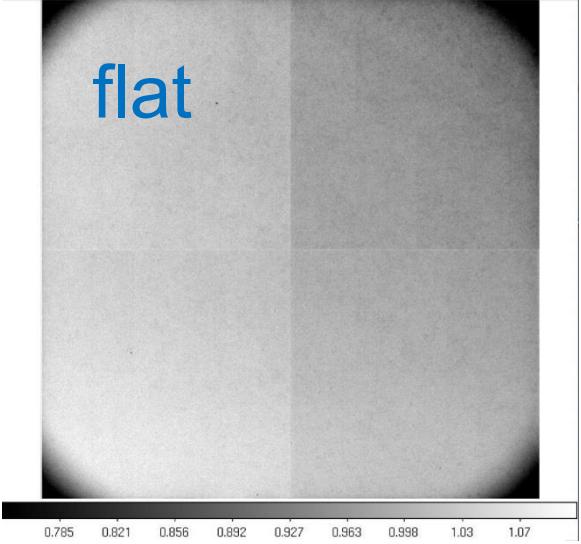
68,000 km away

No dead pixel is found, Happy!
3% contrast as expected

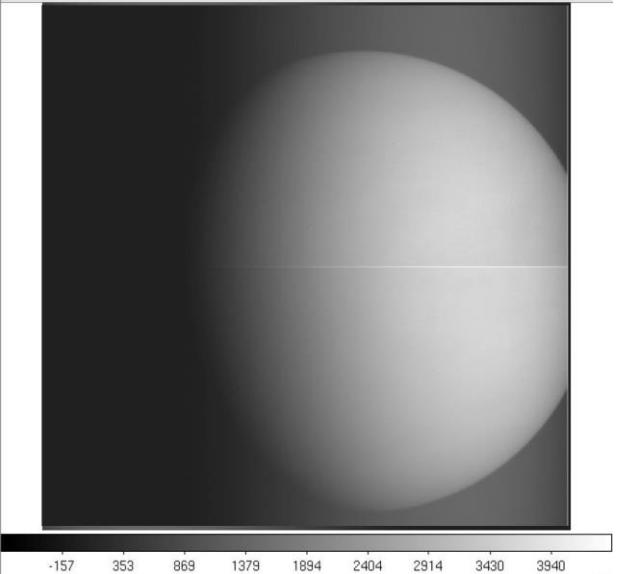


Episode 7b cooking

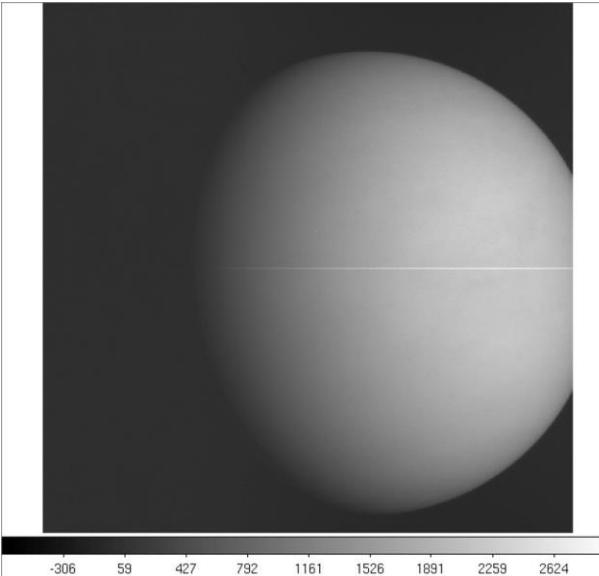
flat



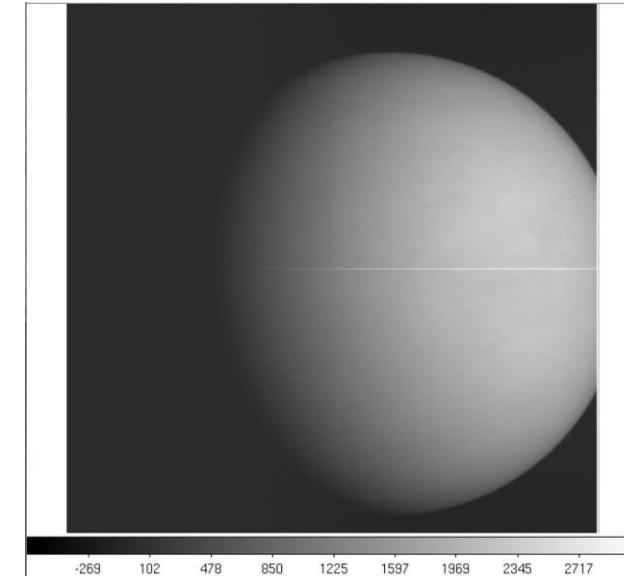
raw



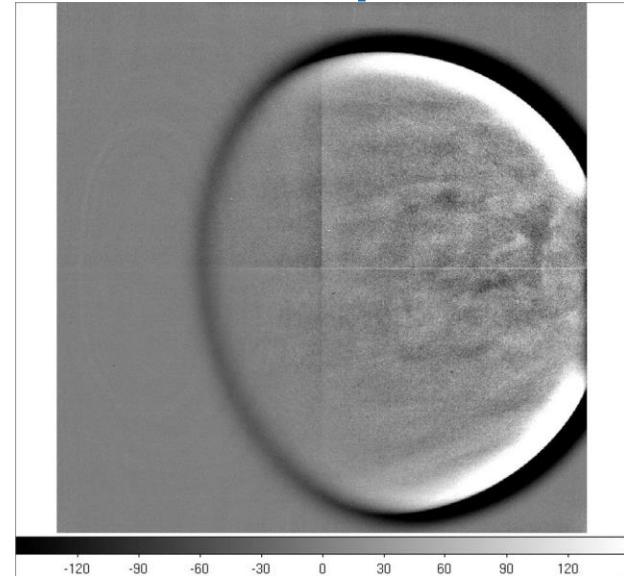
blooming
corrected



after flat



after hi-pass

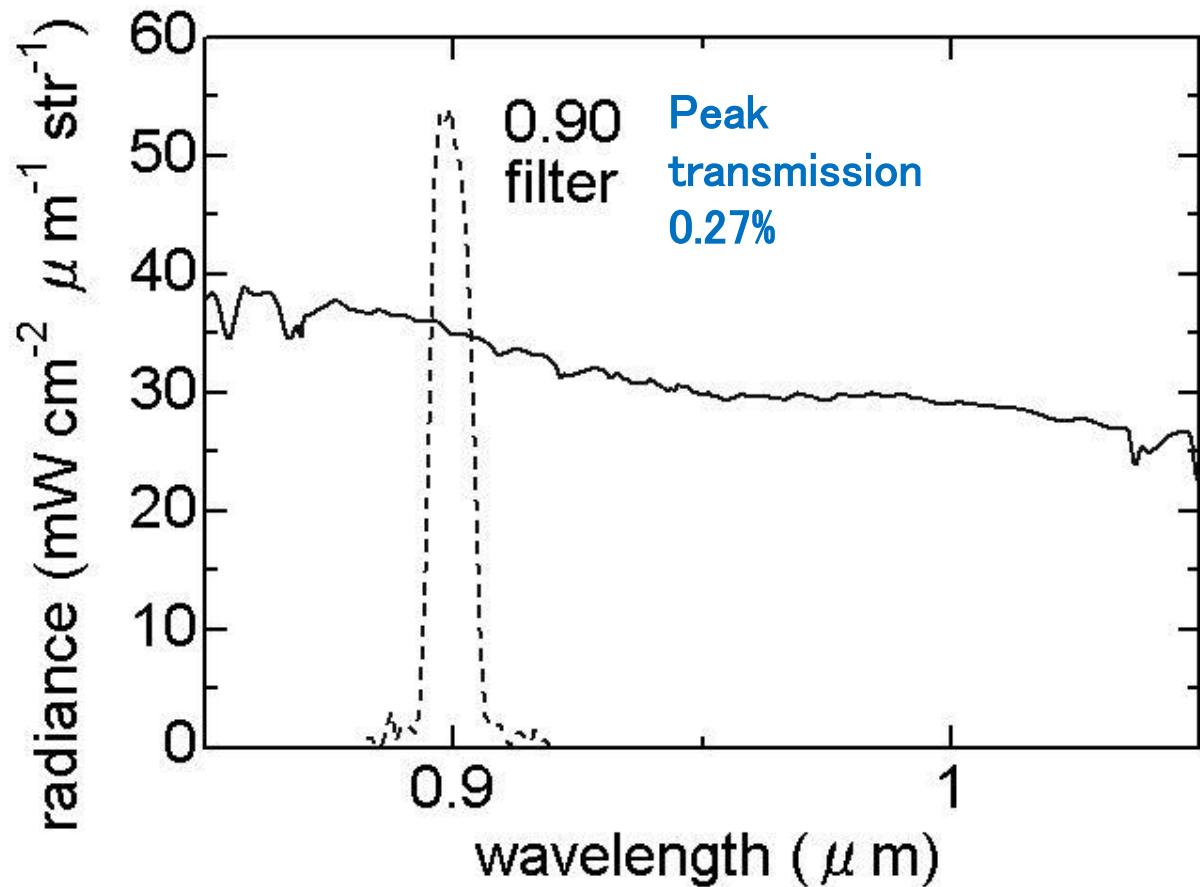


Dayside cloud tracking
may be possible after
such processing.

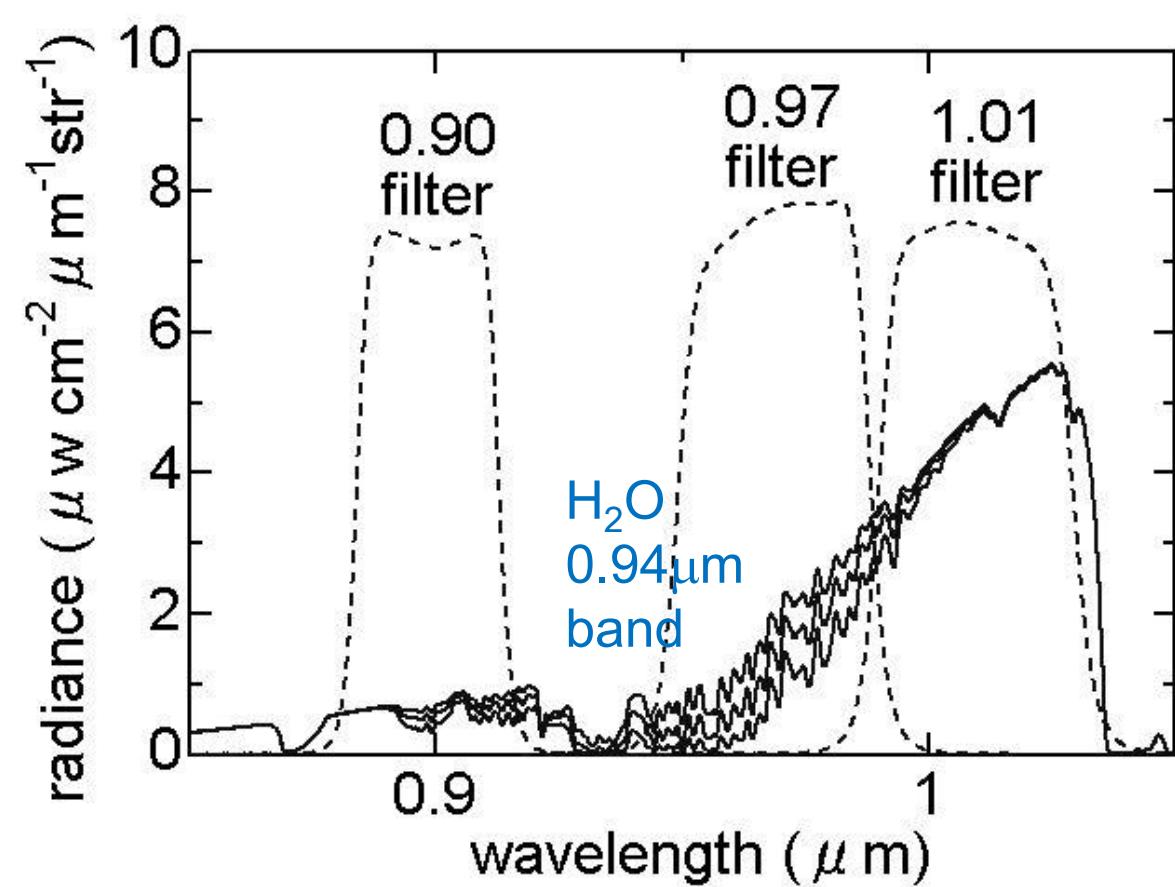
Episode 1

Filters

Dayside
scattered sunlight
cloud tracking



Nightside
thermal radiation
surface H_2O
lower cloud tracking
volcano quest



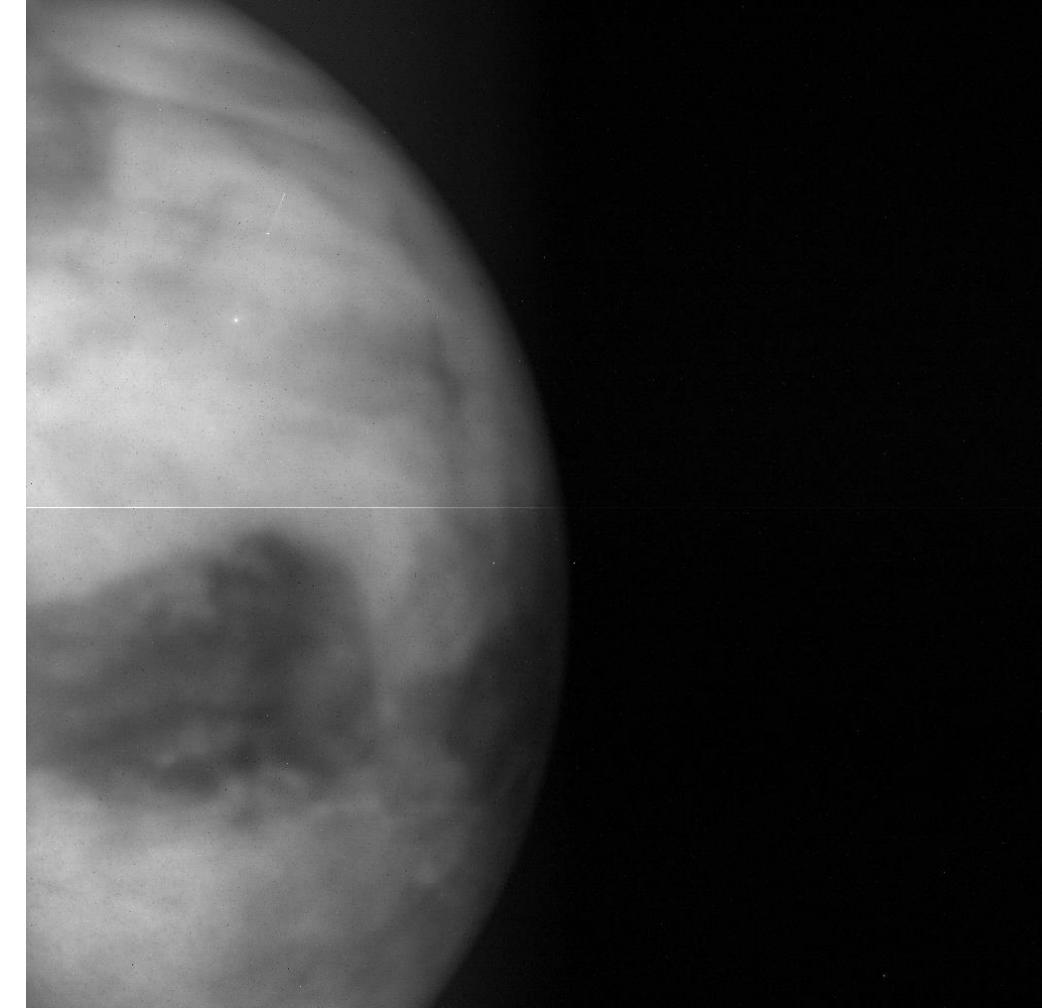
Episode 8

1.01 μ m nightside raw image

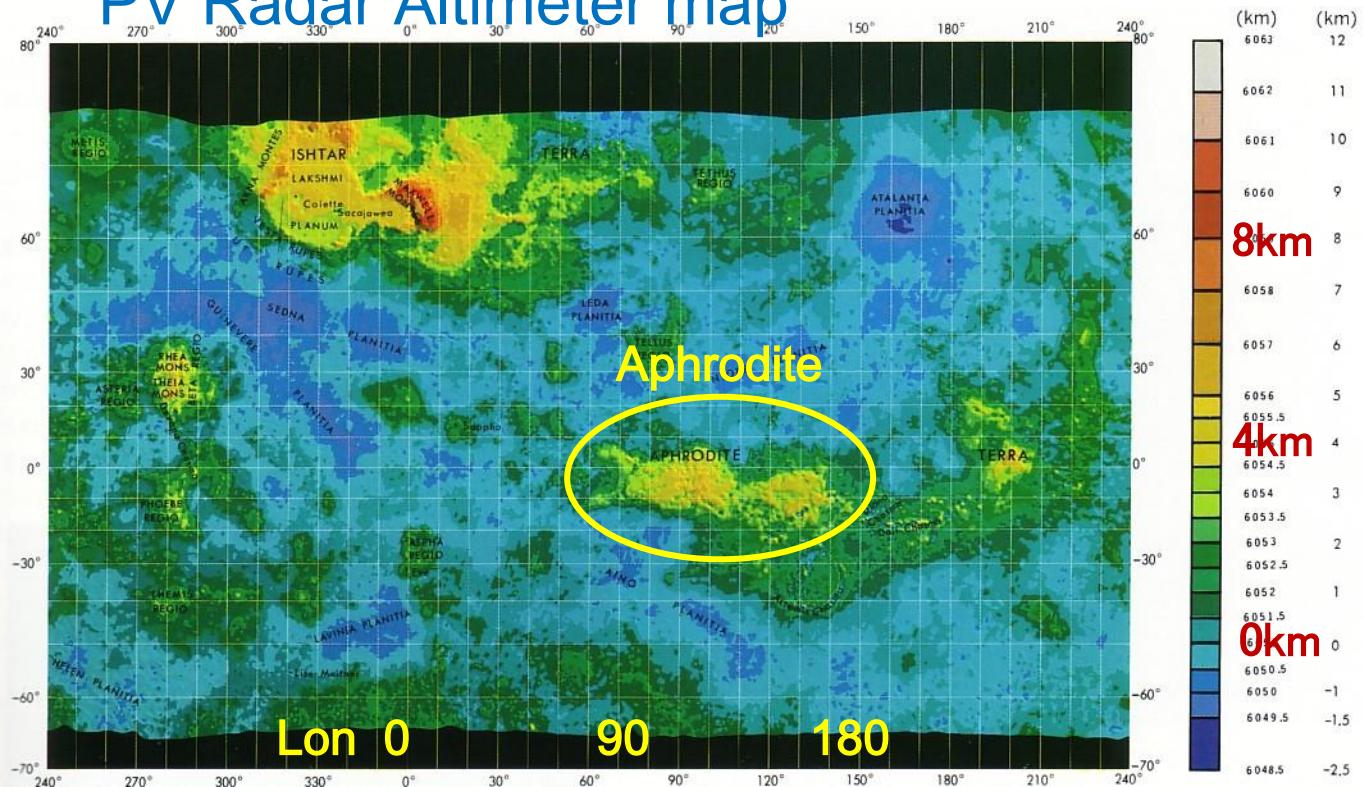
21Jan2016 44,000km

sub sol lat= -1° lon= -80°

sub s/c lat= $+3^\circ$ lon= $+67^\circ$



PV Radar Altimeter map



The large dark spot on the lower left, Aphrodite, 4km higher and 30 K cooler giving a half radiance

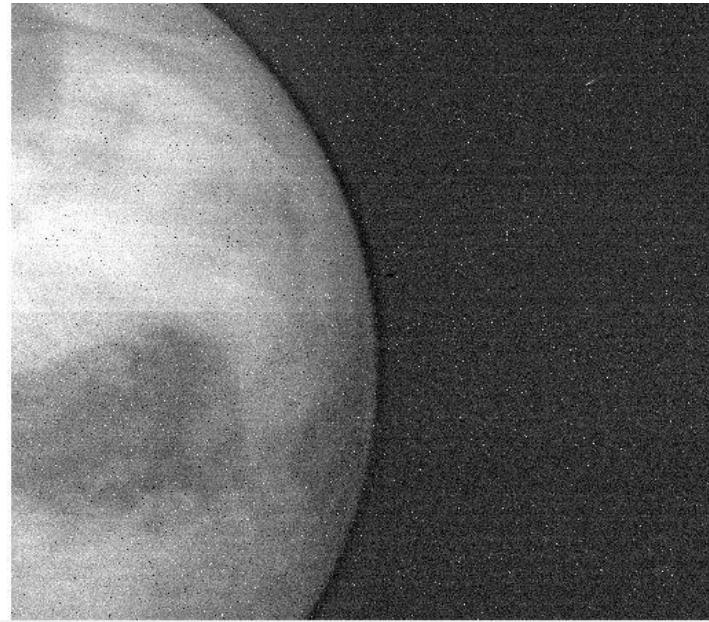
Episode 8b

Nightside images 21Jan2016 44,000km

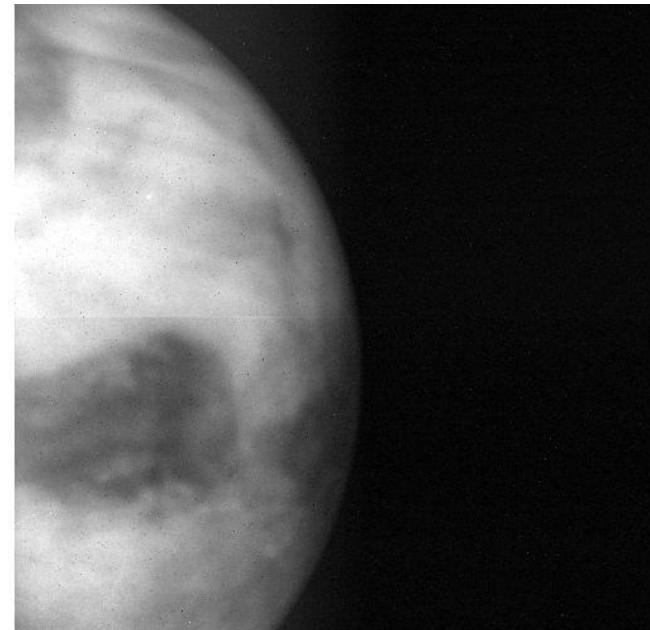
All nightside channels are working

surface H₂O, lower cloud and volcanos may be seen

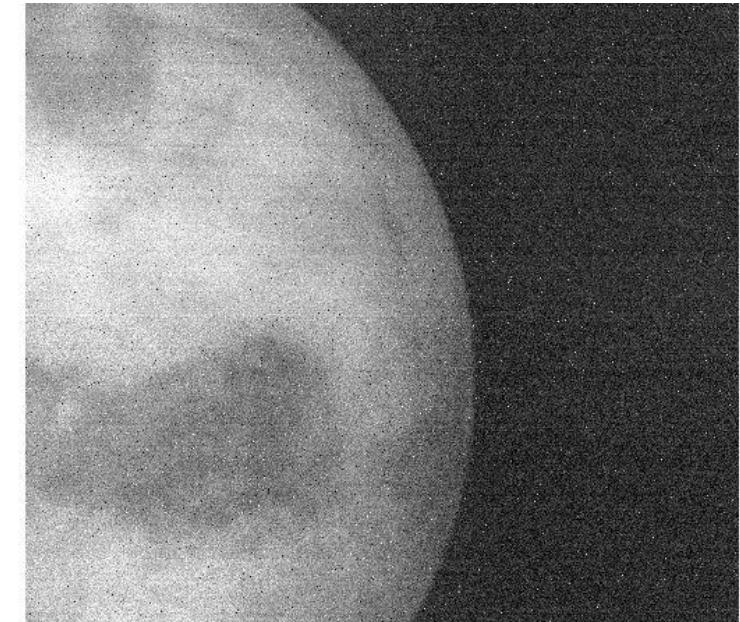
00:37 0.97μm



00:38 1.01μm



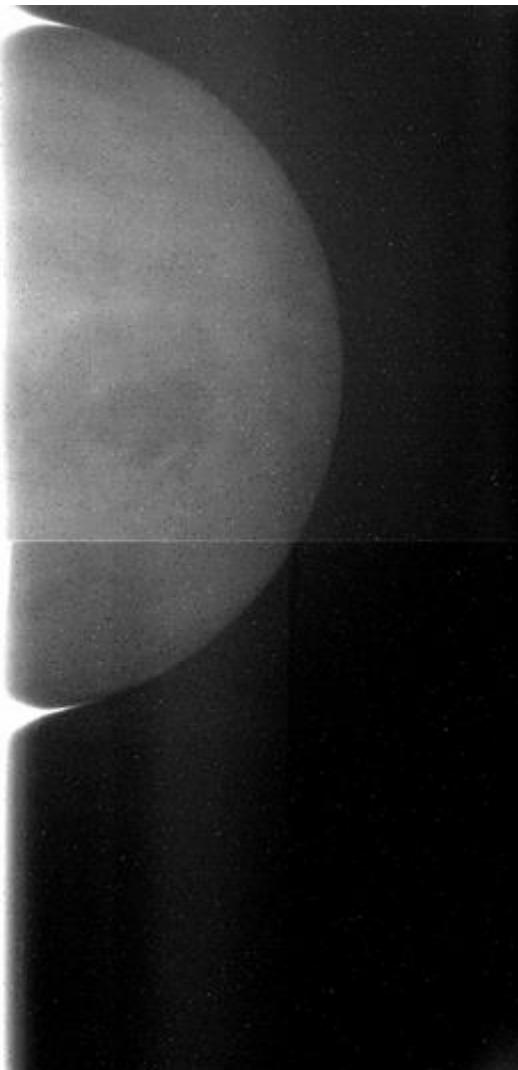
00:43 0.90μm



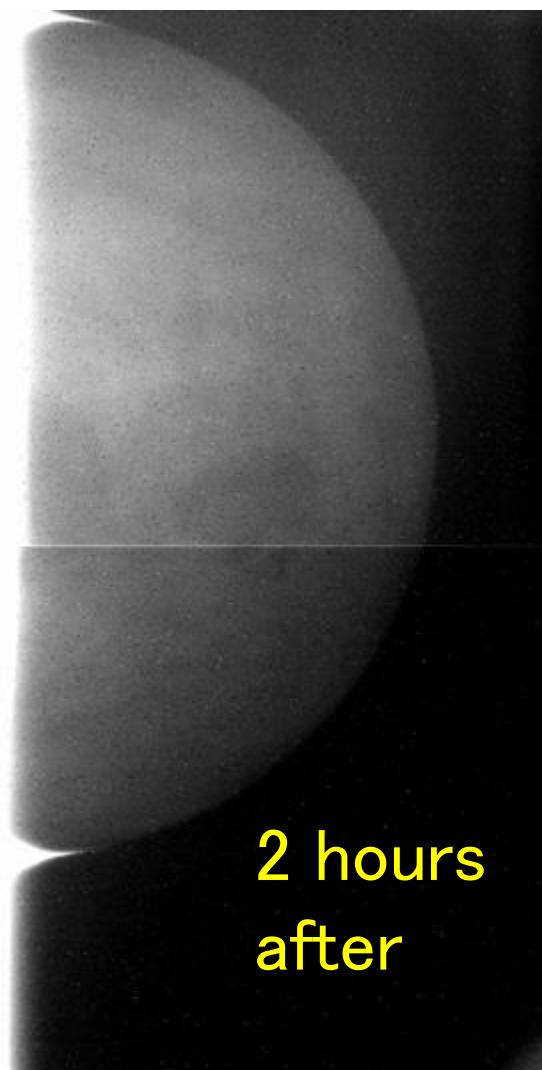
Episode 8c
0.90 μm
nightside
raw images
31Jan 2016

Nightside cloud
tracking may be
possible after
separating
the surface
contribution

11:36 91,000km
sub sol lat=-0° lon=-47°
sub s/c lat=+1° lon=+102°



13:36 76,000km
sub sol lat=-0° lon=-47°
sub s/c lat=+1° lon=+96°



Akatsuki 1 μ m camera IR1 is now working

END

Thank you for attention