

Akatsuki 1 μ m camera awakens

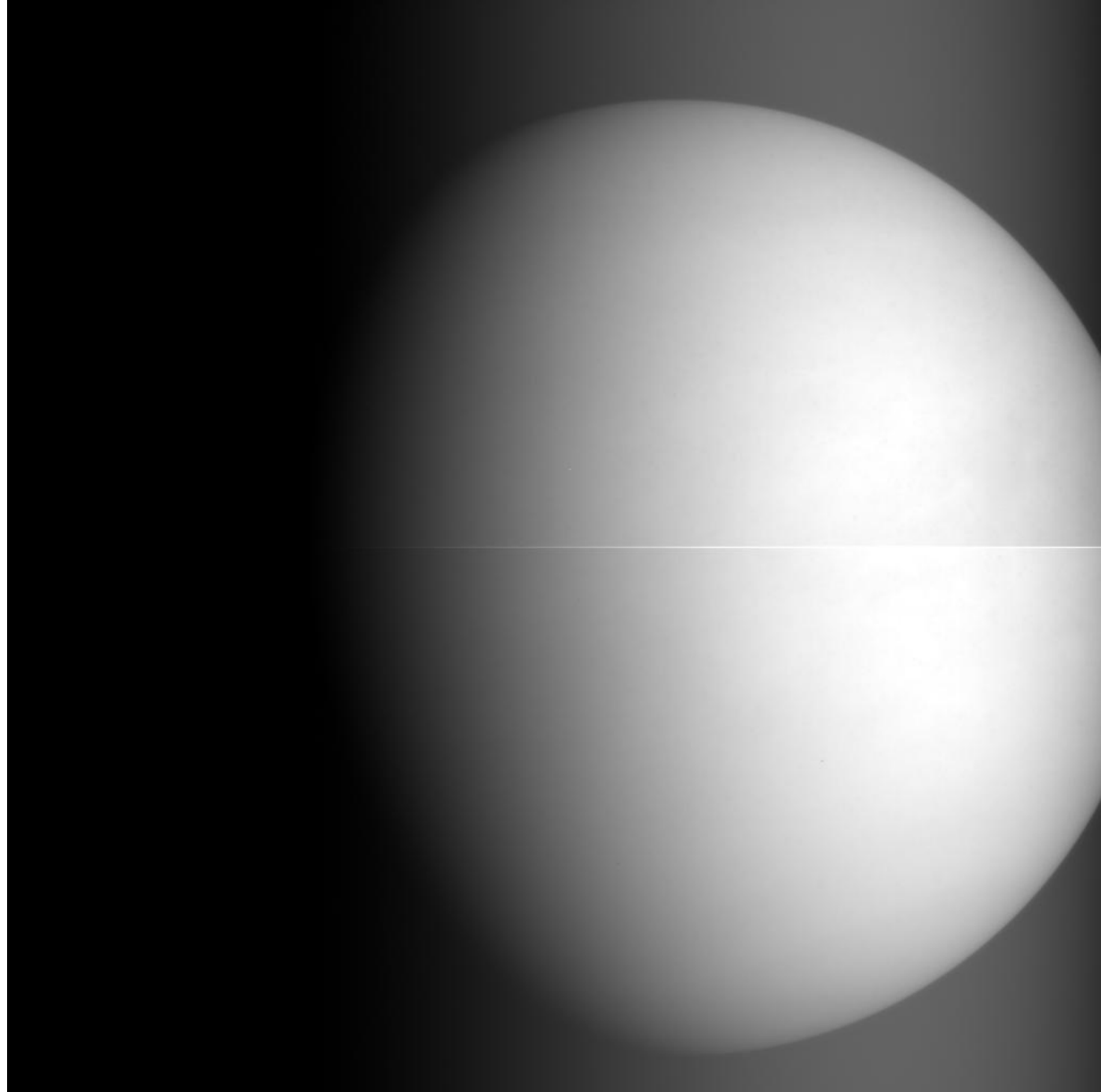
N. Iwagami (Univ Tokyo) S. Ohtsuki (Senshu Univ)
T. Sakanoi (Tohoku Univ) S. Takagi (Tokai Univ)
G.L. Hashimoto (Okayama Univ)

Episode 7

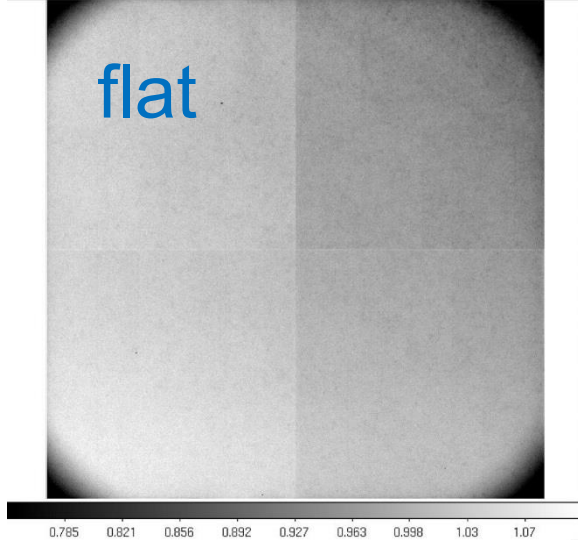
IR1 (1 μ m camera) awoke
after 5 years sleep.

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

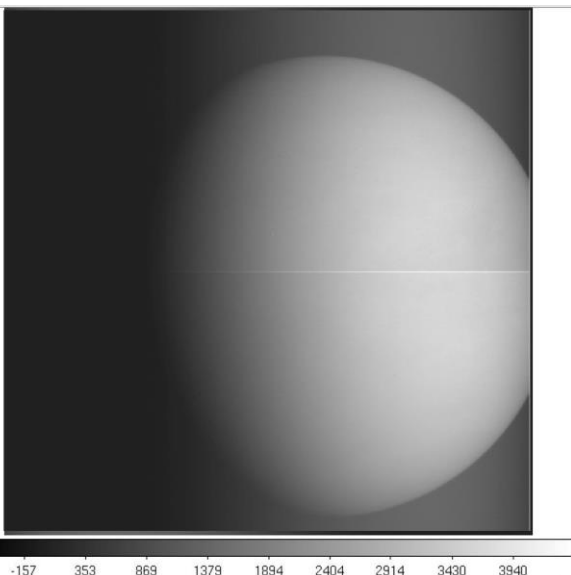


Episode 7b
cooking

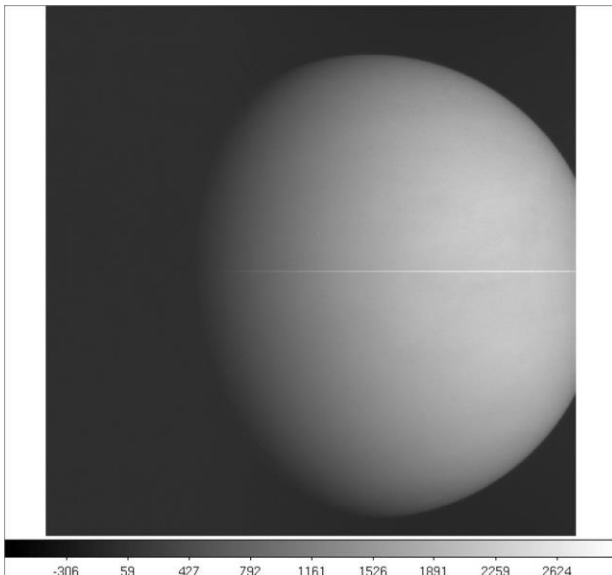


Dayside cloud tracking
may be possible after
such processing.

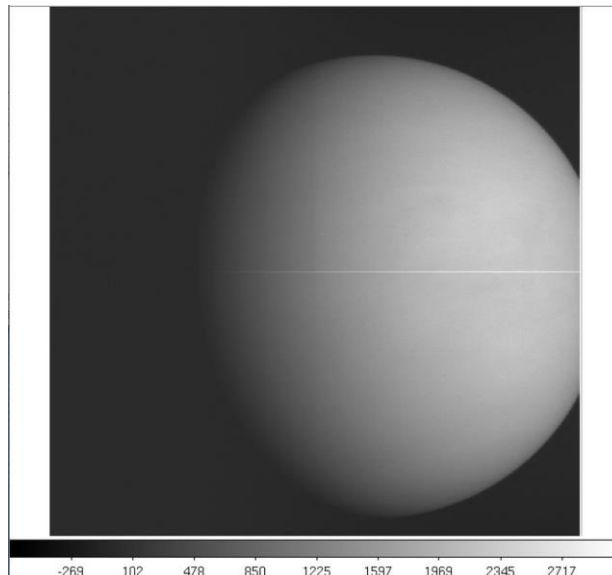
raw



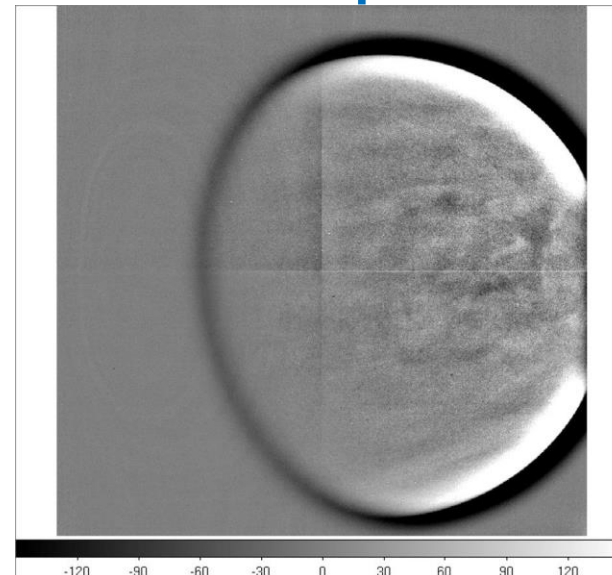
blooming
corrected



after flat



after hi-pass



Episode 1

Filters

Dayside

scattered sunlight

cloud tracking

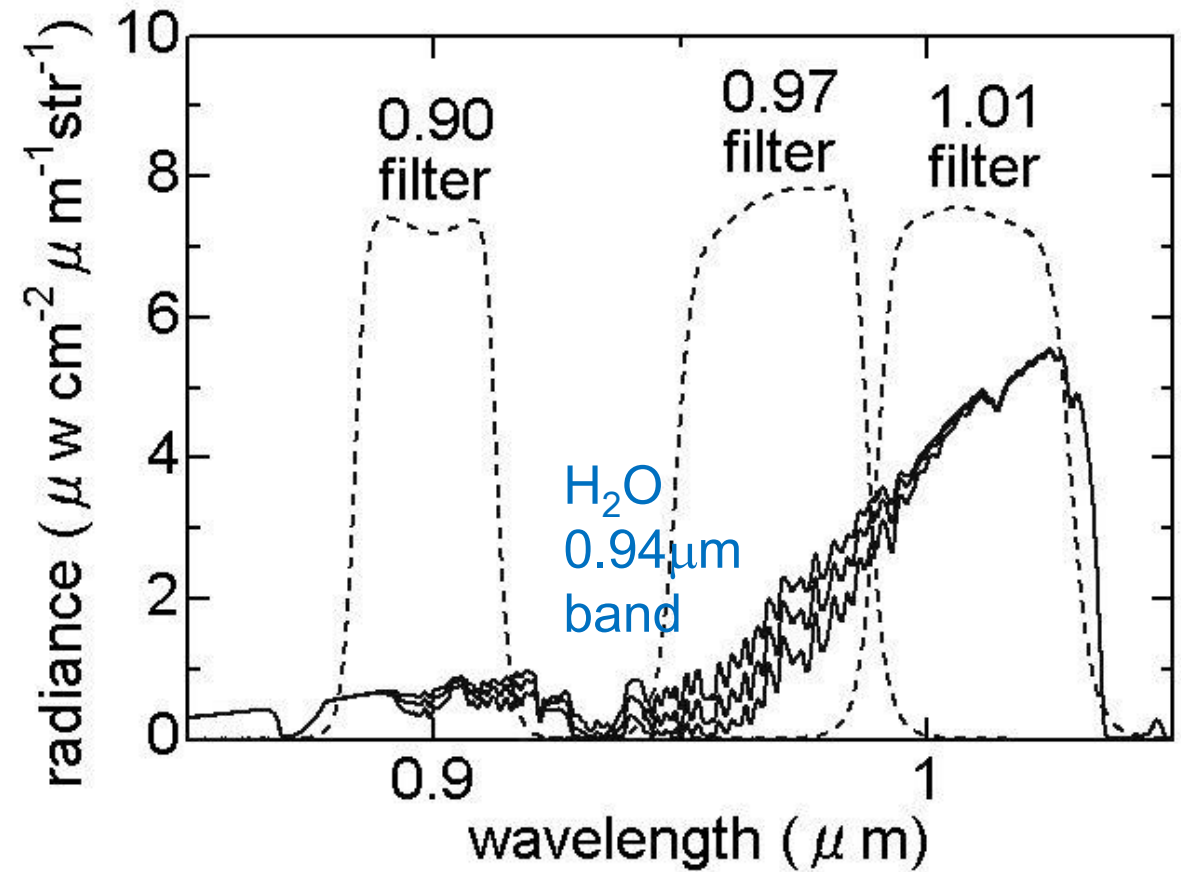
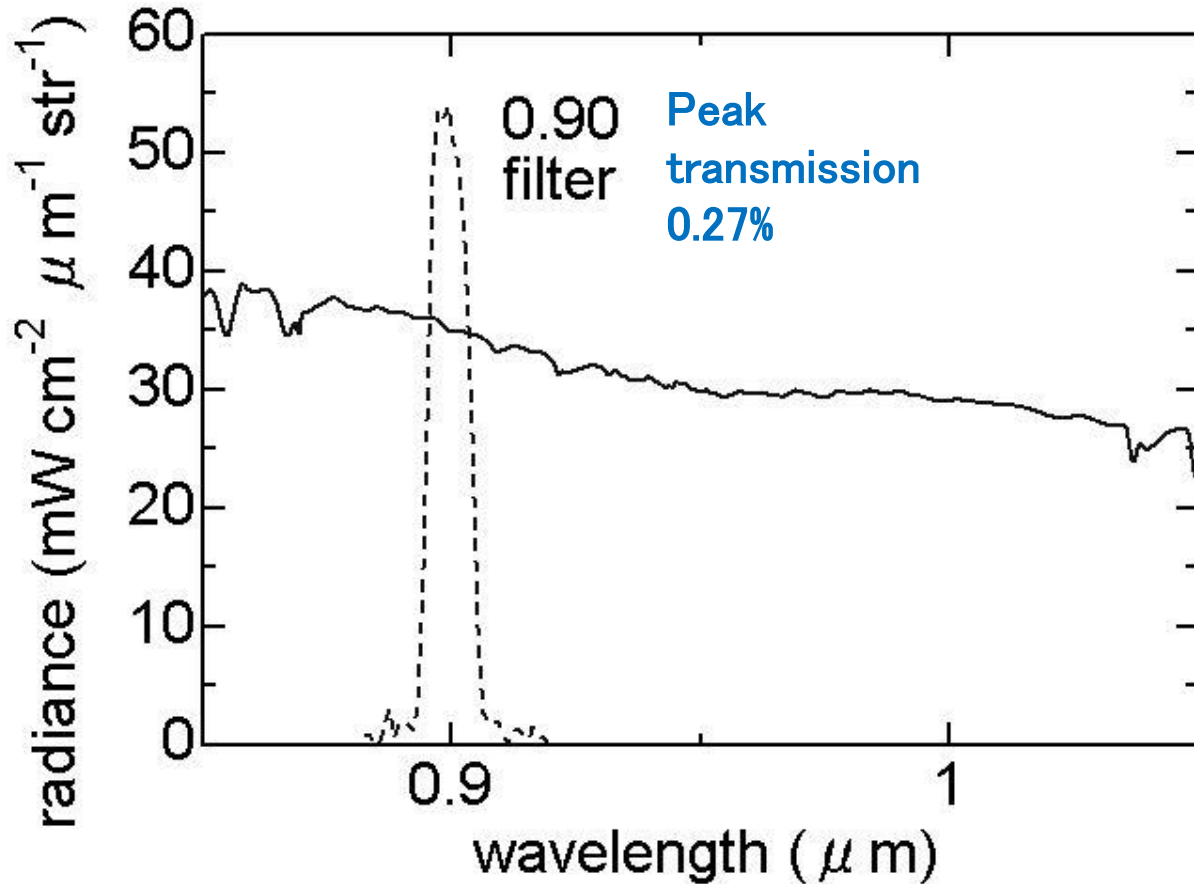
Nightside

thermal radiation

surface H₂O

lower cloud tracking

volcano quest



Episode 8

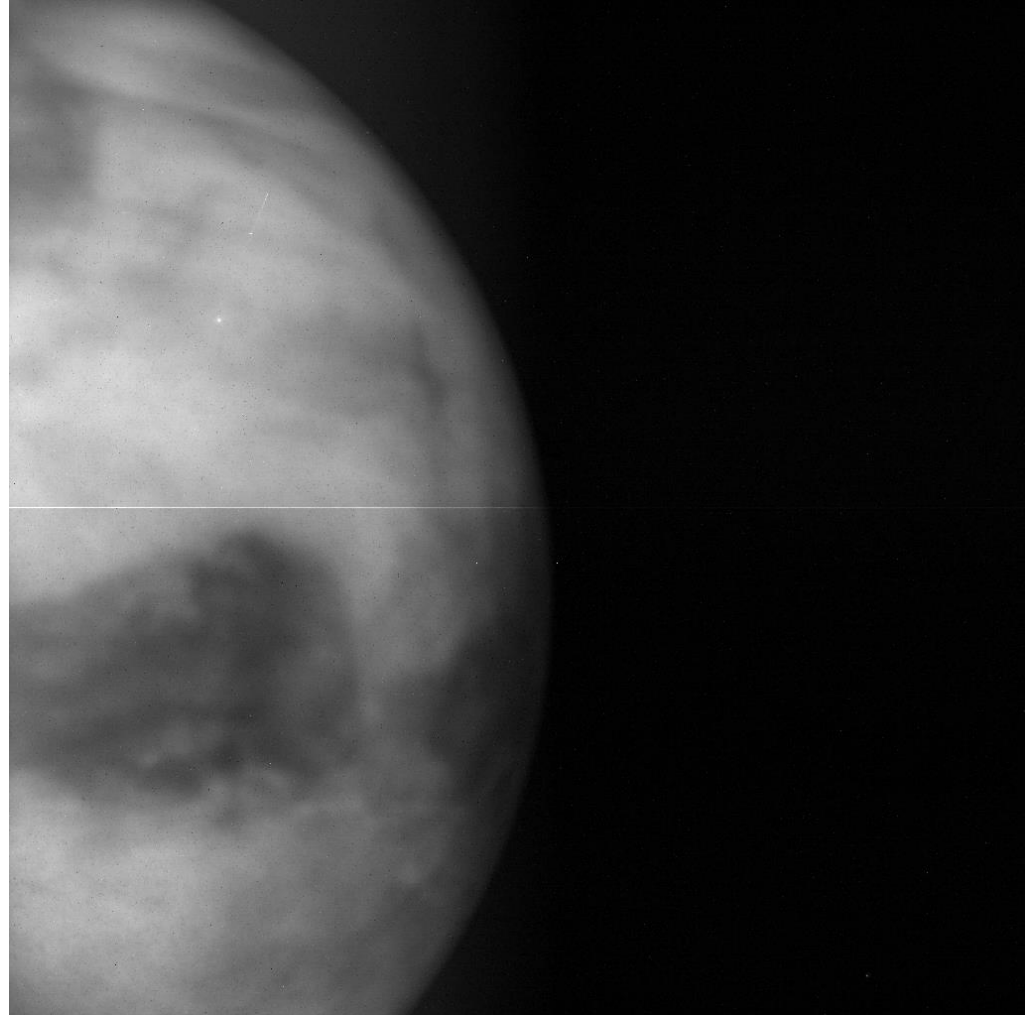
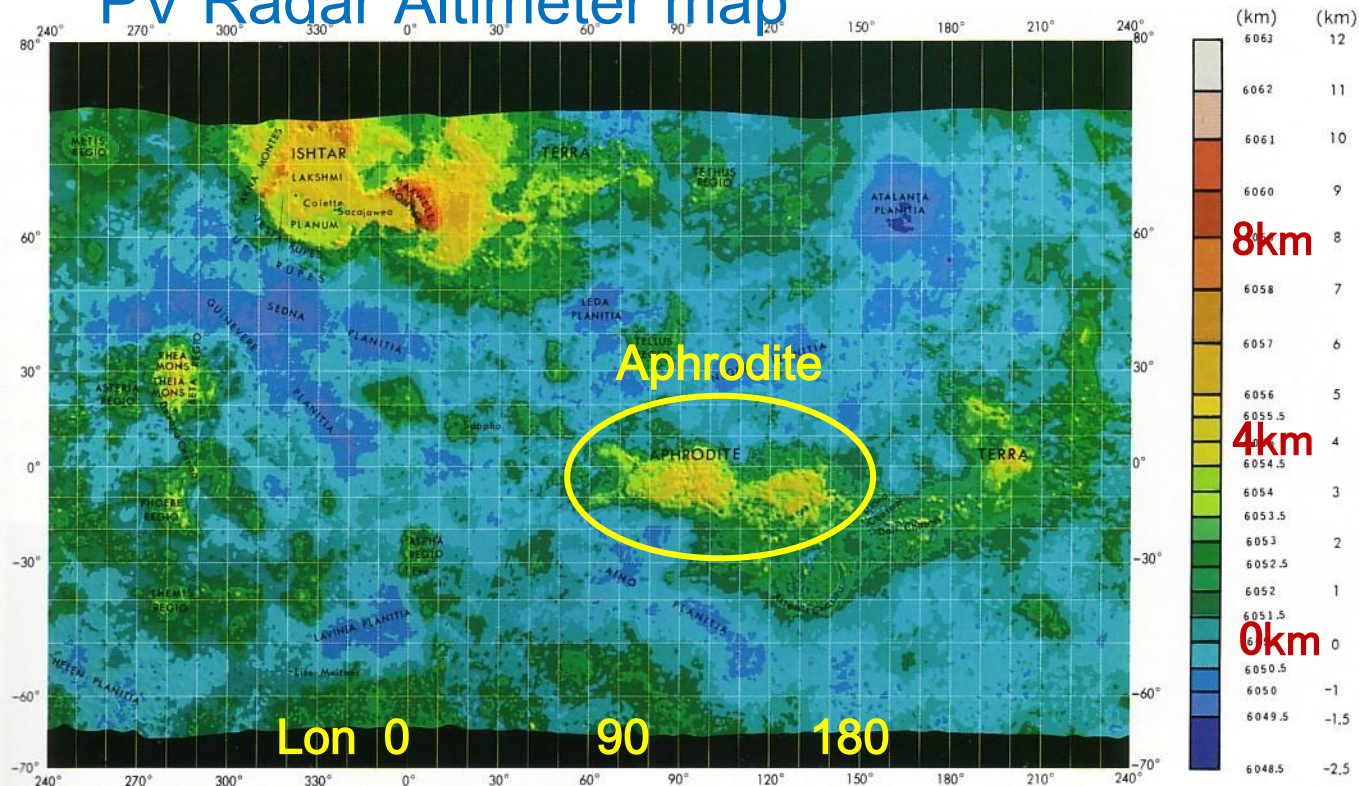
1.01 μ m nightside raw image

21Jan2016 44,000km

sub sol lat=-1 $^{\circ}$ lon=-80 $^{\circ}$

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

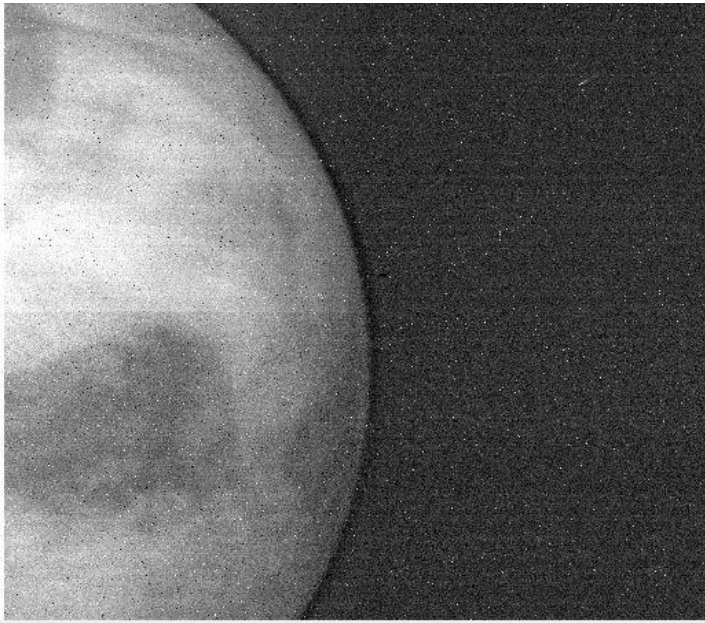
Episode 8b

Nightside images 21Jan2016 44,000km

All nightside channels are working

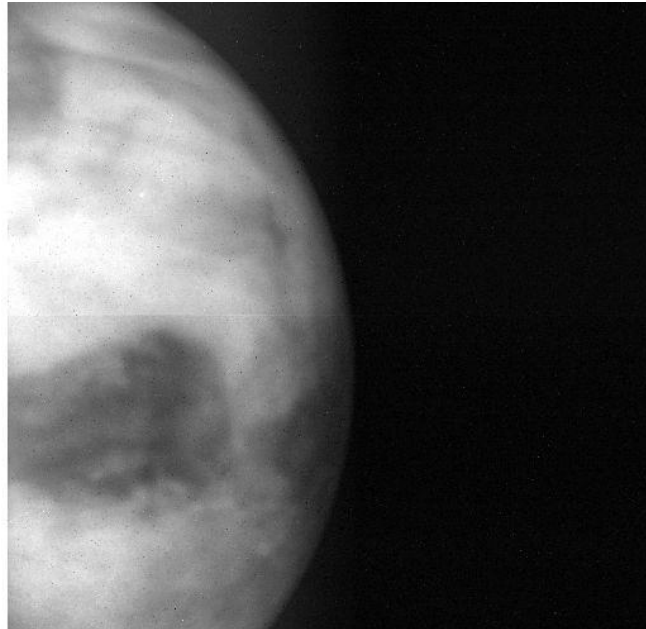
surface H₂O, lower cloud and volcanos may be seen

00:37 0.97 μ m



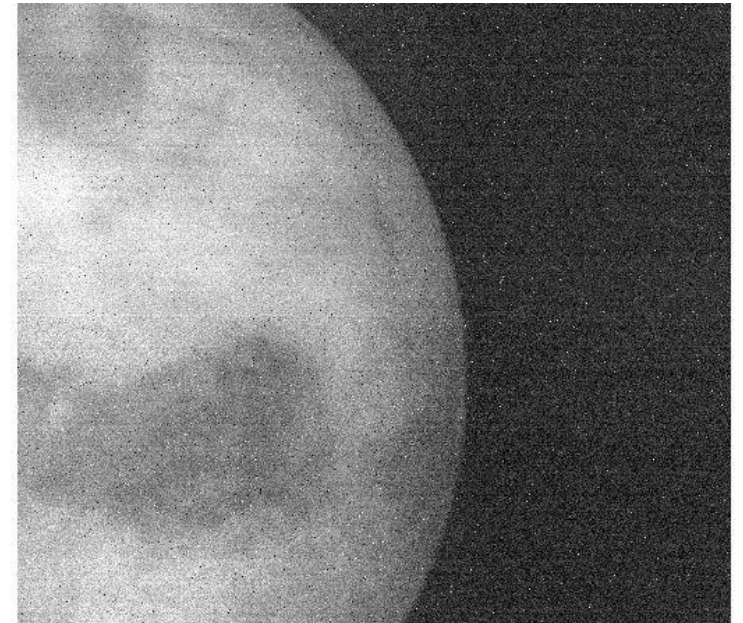
-10 0 10 20 30 40 50 60

00:38 1.01 μ m



0 50 100 150 200 250 300 350 400

00:43 0.90 μ m



-10 0 10 20 30 40 50

Episode 8c

0.90 μm

nightside

raw images

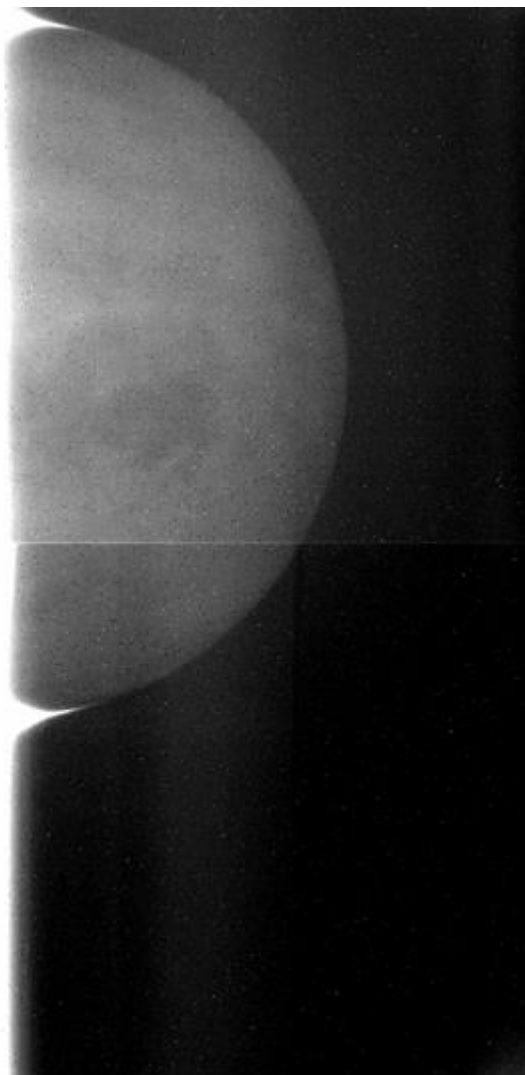
31 Jan 2016

Nightside cloud tracking may be possible after separating the surface contribution

11:36 91,000km

sub sol lat=-0° lon=-47°

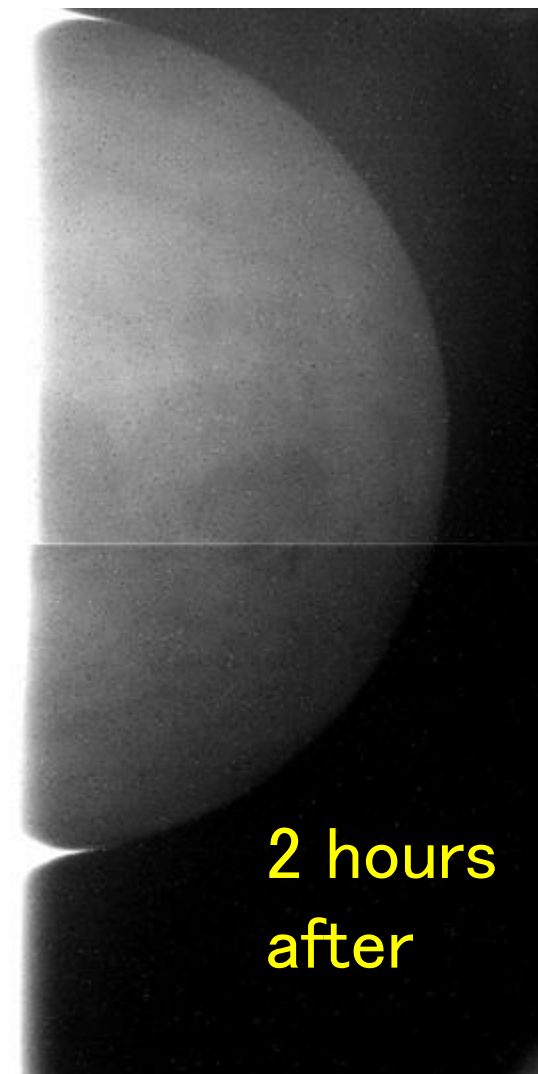
sub s/c lat=+1° lon=+102°



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