JunoCam at PJ32: What the pictures show

John Rogers (BAA) (2021 March)

Figures

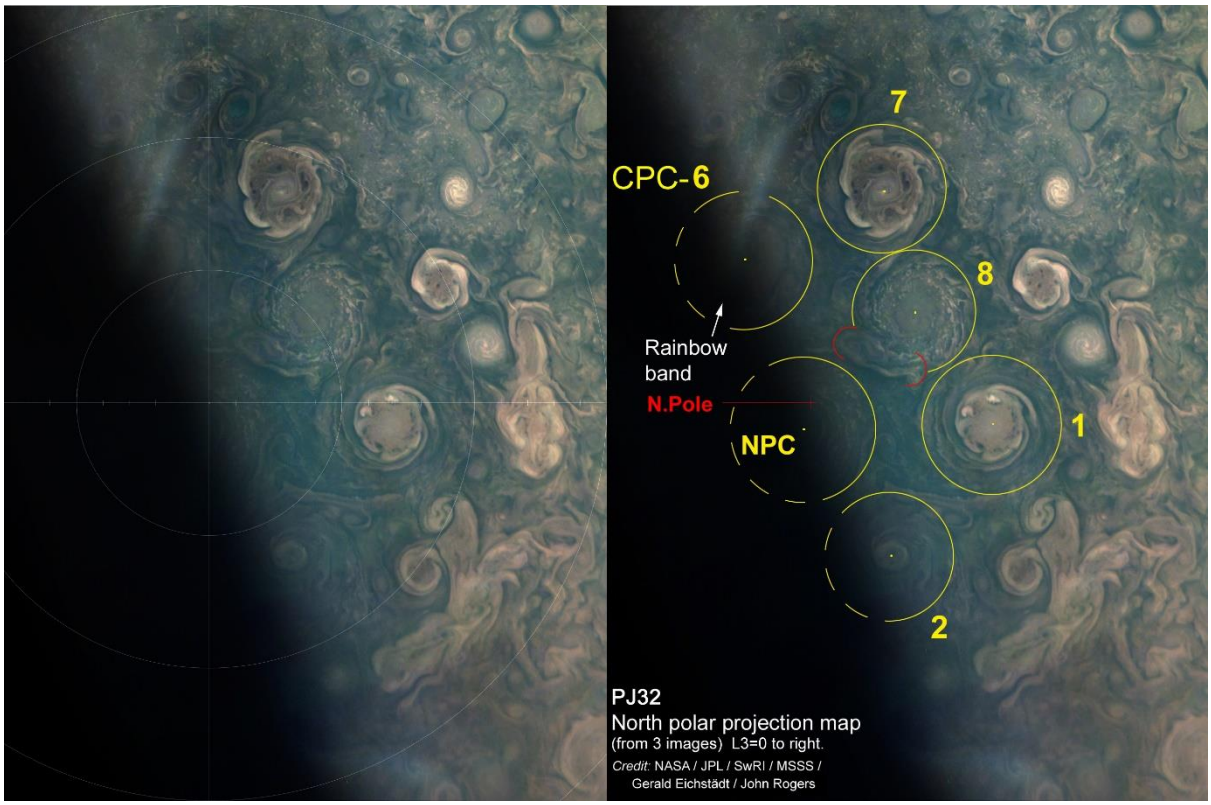

Figure 1. Composite map of the CPCs at PJ32.

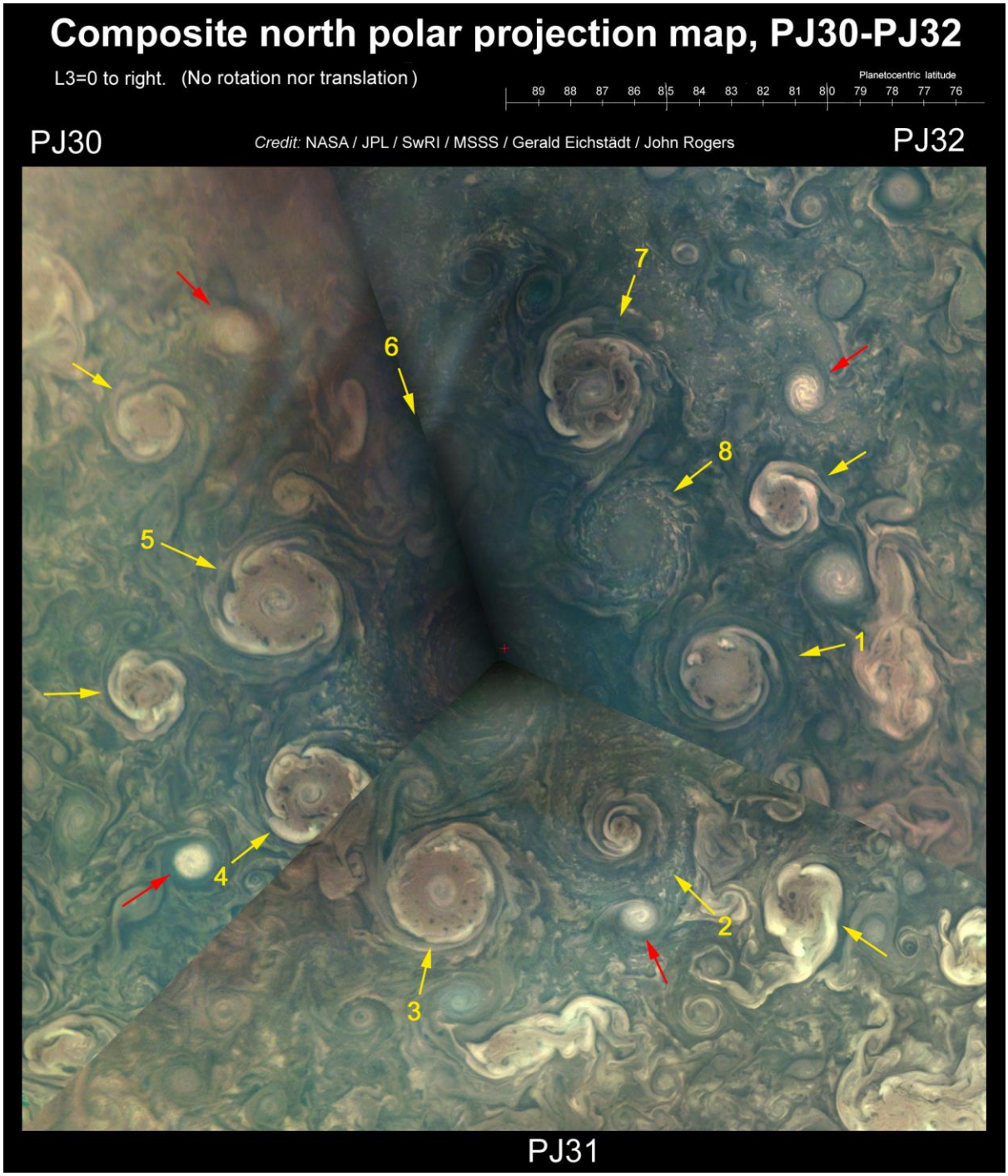

Figure 2. Composite map of the CPCs from PJ30 to PJ32. (The last map of this type was in our PJ28 report.) The long-lived CPCs are numbered. Unnumbered yellow arrows indicate smaller cyclones with filled central regions like miniature CPCs. Red arrows indicate small AWOs.

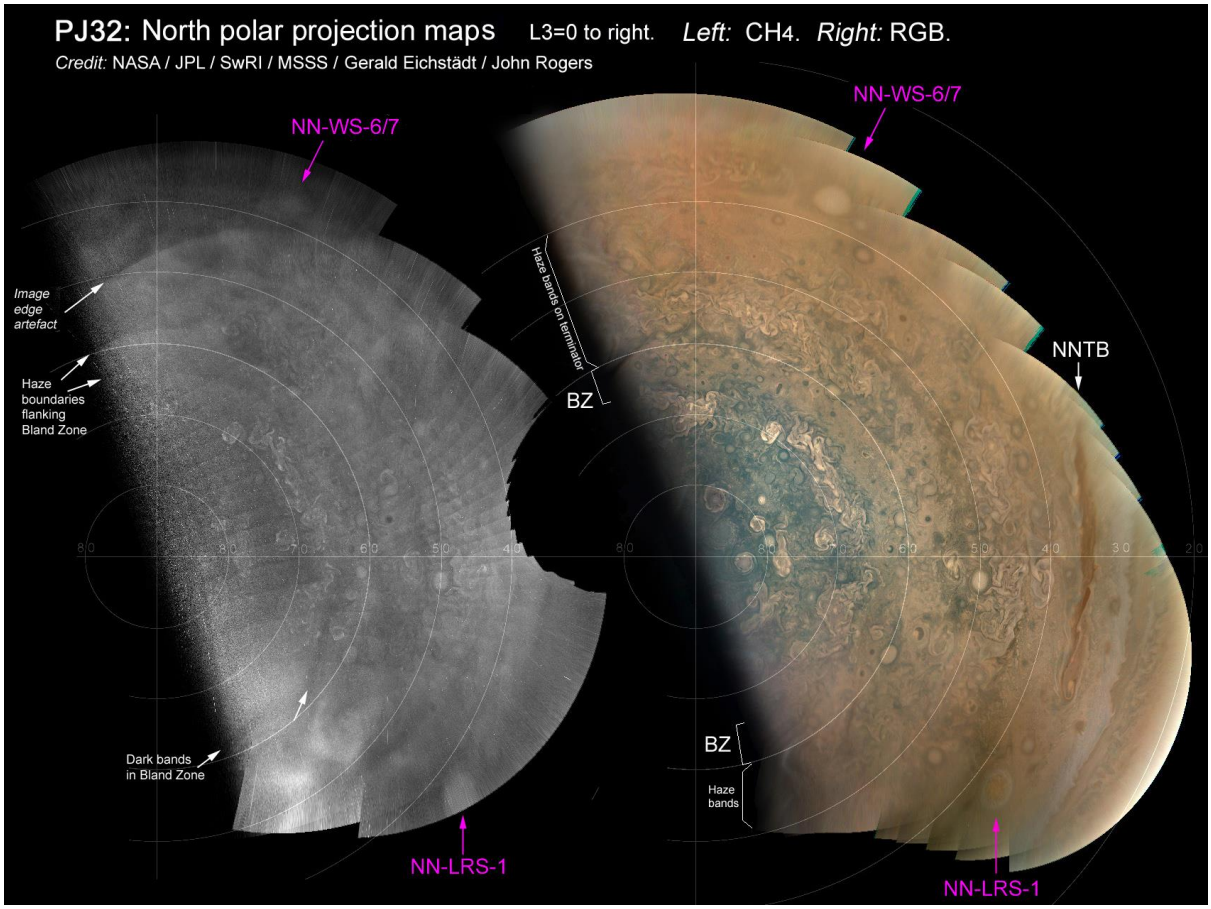

Figure 3. North polar projection maps of the northern hemisphere. (The CH_4 map is from images 24 & 27 & 30.)

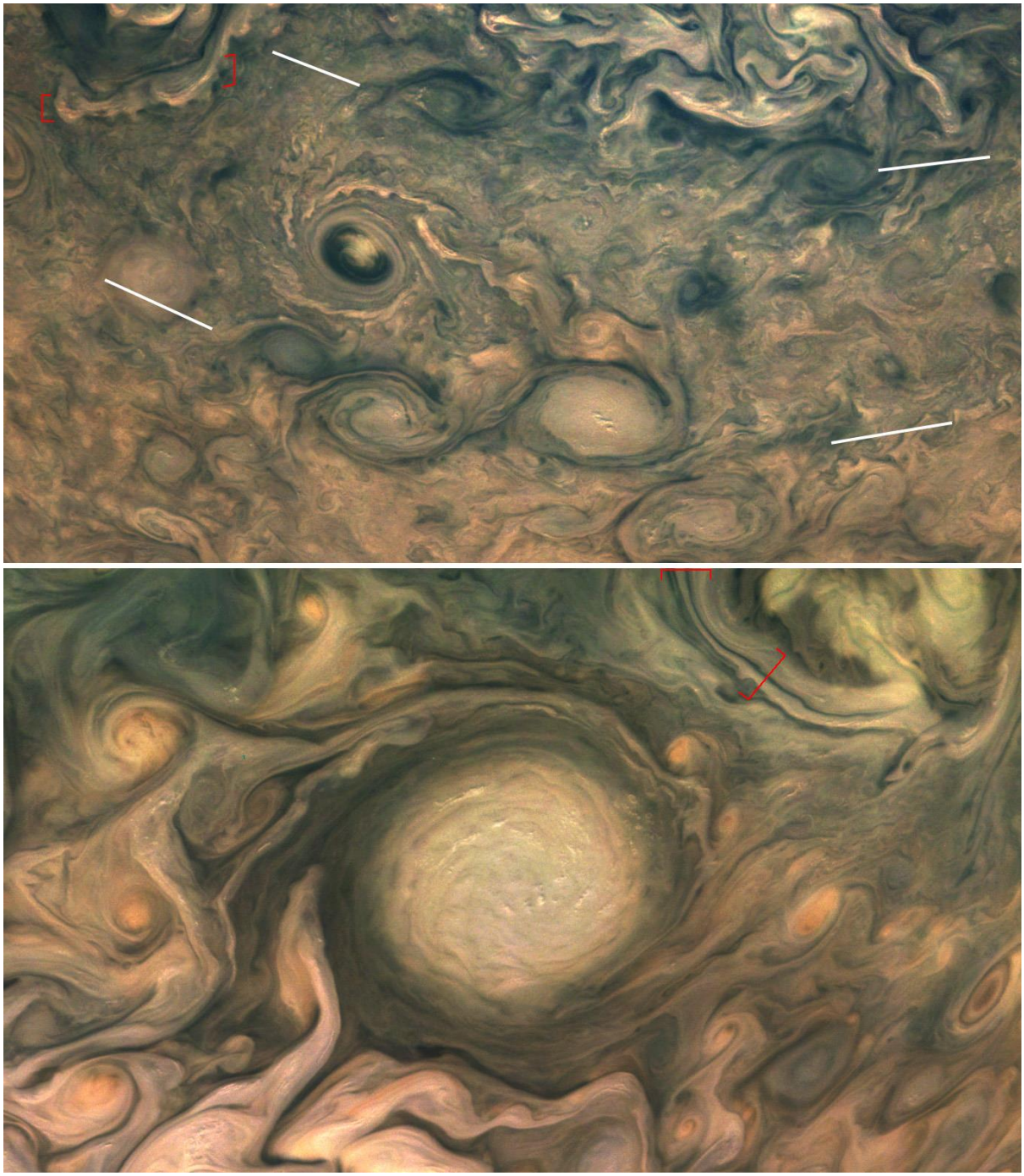

Figure 4. Closeups in far northern domains, with north approximately up (images processed by Gerald). (a) Cluster of ovals interrupting the Bland Zone: two AWOs and a dark compact cyclone, and smaller vortices. White lines outline the Bland Zone. (b) AWO in the N4 domain. Red brackets in each image indicate curious bands, each bordering a cyclonic disturbance, which consist of multiple parallel lines suggestive of waves. (Compare the parallel rows of popup clouds on the white border of the NNTB in Fig.5.)

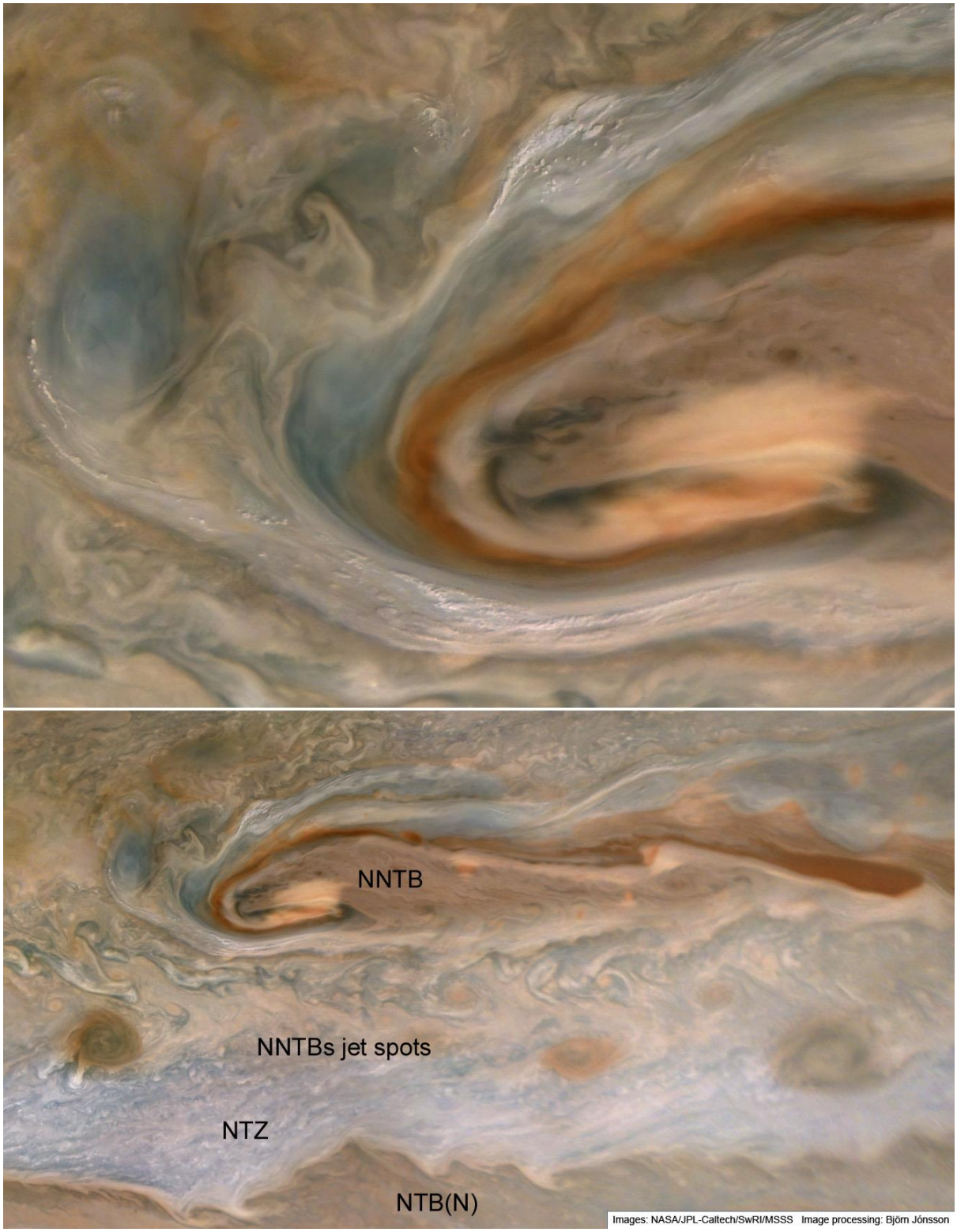

Figure 5. Cylindrical map of the NNTB & NTZ, by Björn Jónsson. North is up. *Below*: Complete map at reduced scale. *Above*: Full-scale excerpt covering the f. end of the NNTB.

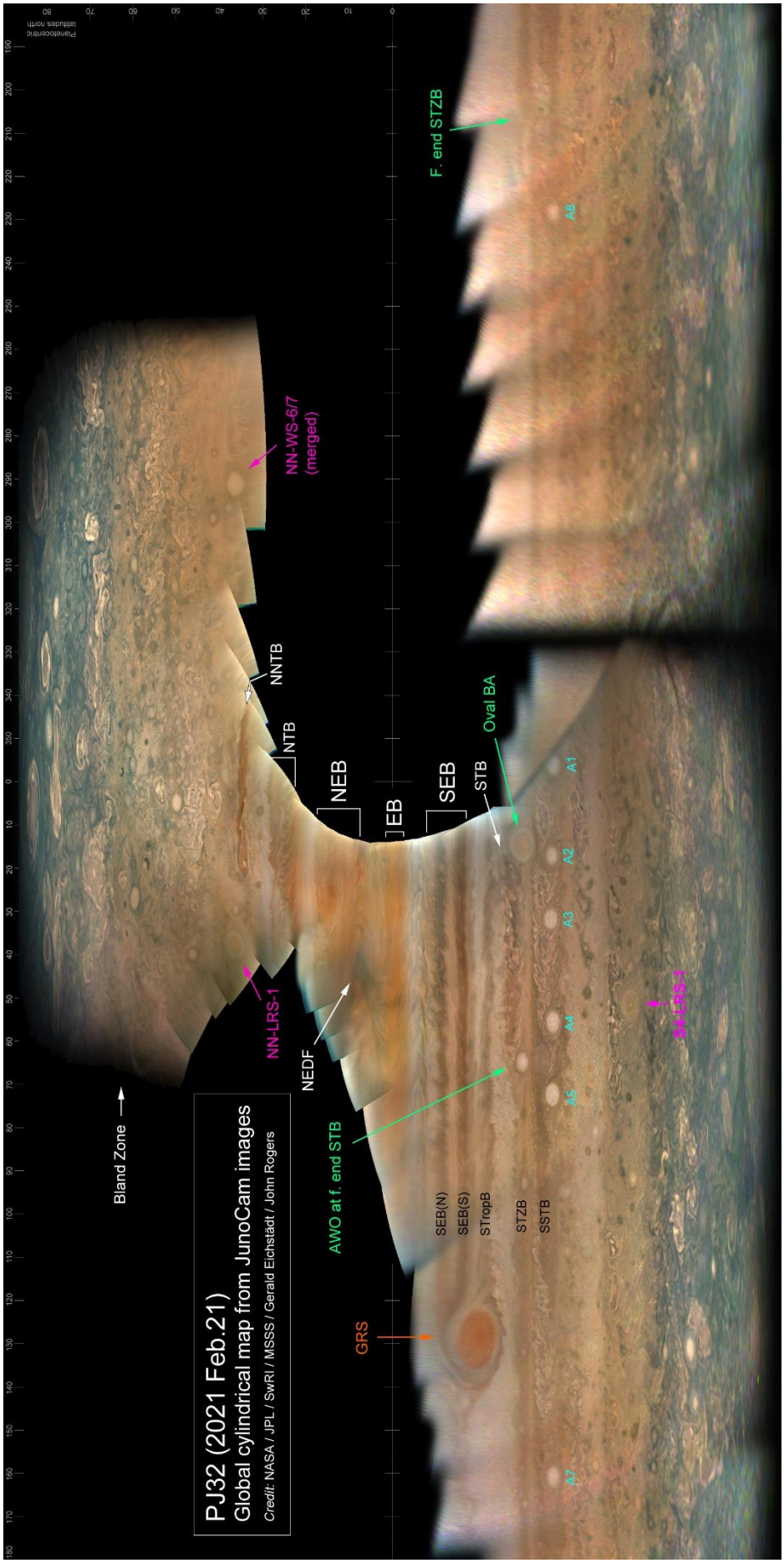
PJ32 (2021 Feb.21)
Global cylindrical map from JunoCam images
Credit: NASA / JPL / SwRI / MSSS / Gerald Eichstädt / John Rogers
Bland Zone
NN-LRS-1
NEDF
AWO at f. end STB
GRS
SEB(N)
SEB(S)
STropB
STZB
SSTB
A7
A5
A4
A3
A2
A1
A8
NN-SS-1
NN-WS-6/7
(merged)
NNTB
NTB
NEB
EB
SEB
STB
Oval BA
F. end STZB

Figure 6.

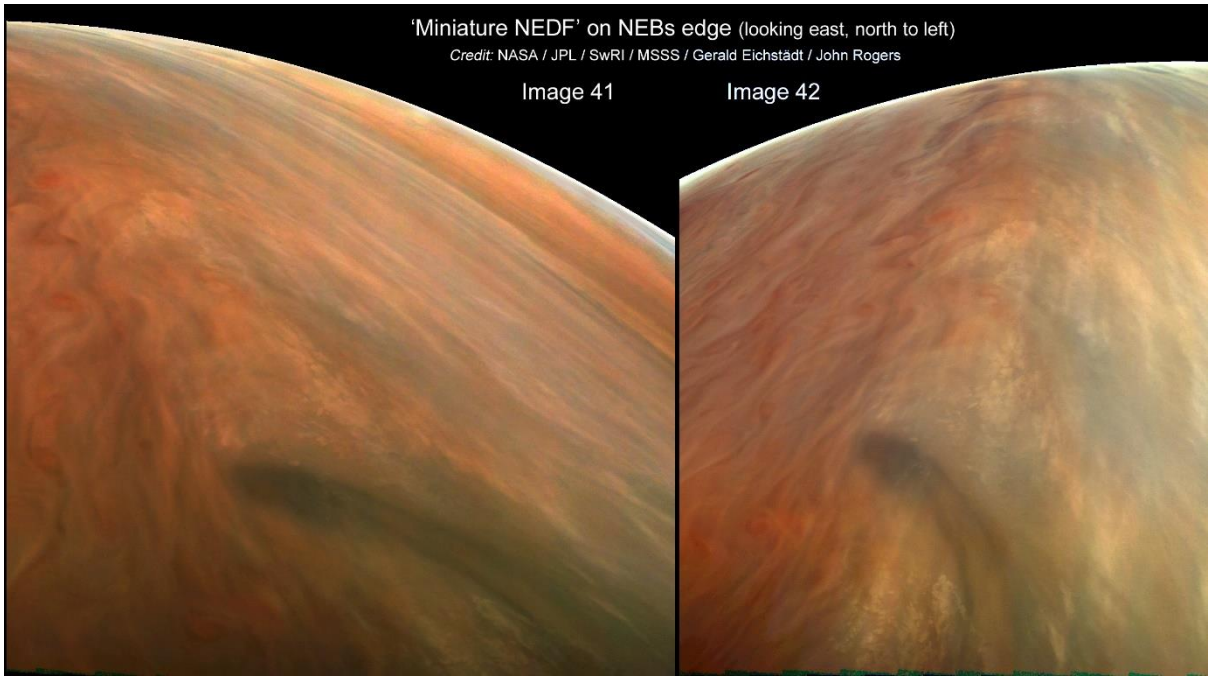

Figure 7. Two images showing a feature on the NEBs edge.

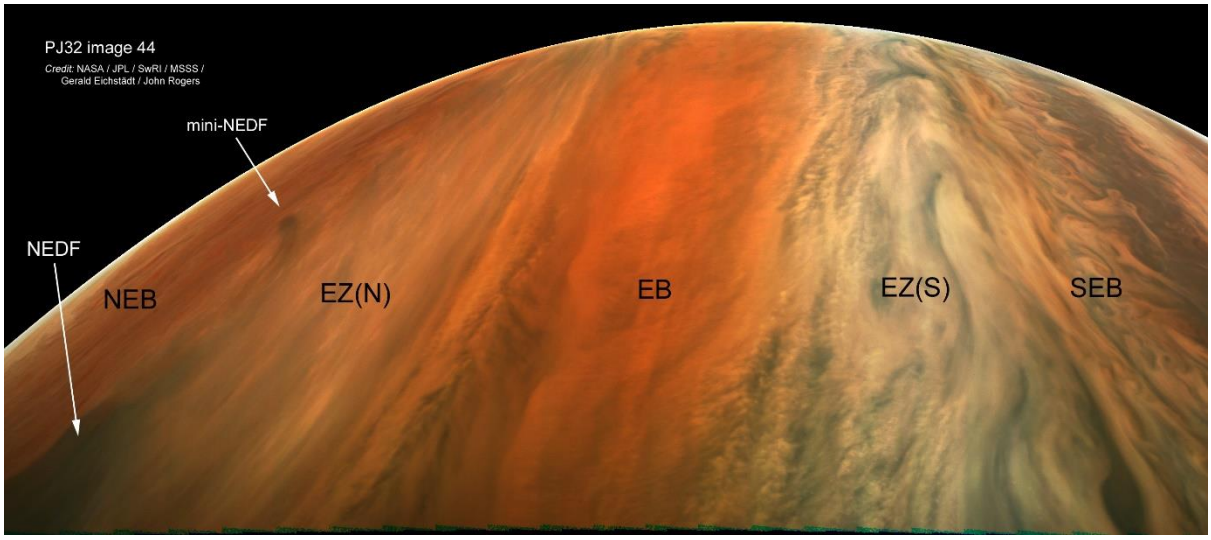

Figure 8. Image covering the full width of the EZ. Mesoscale waves are widespread over the orange EB.

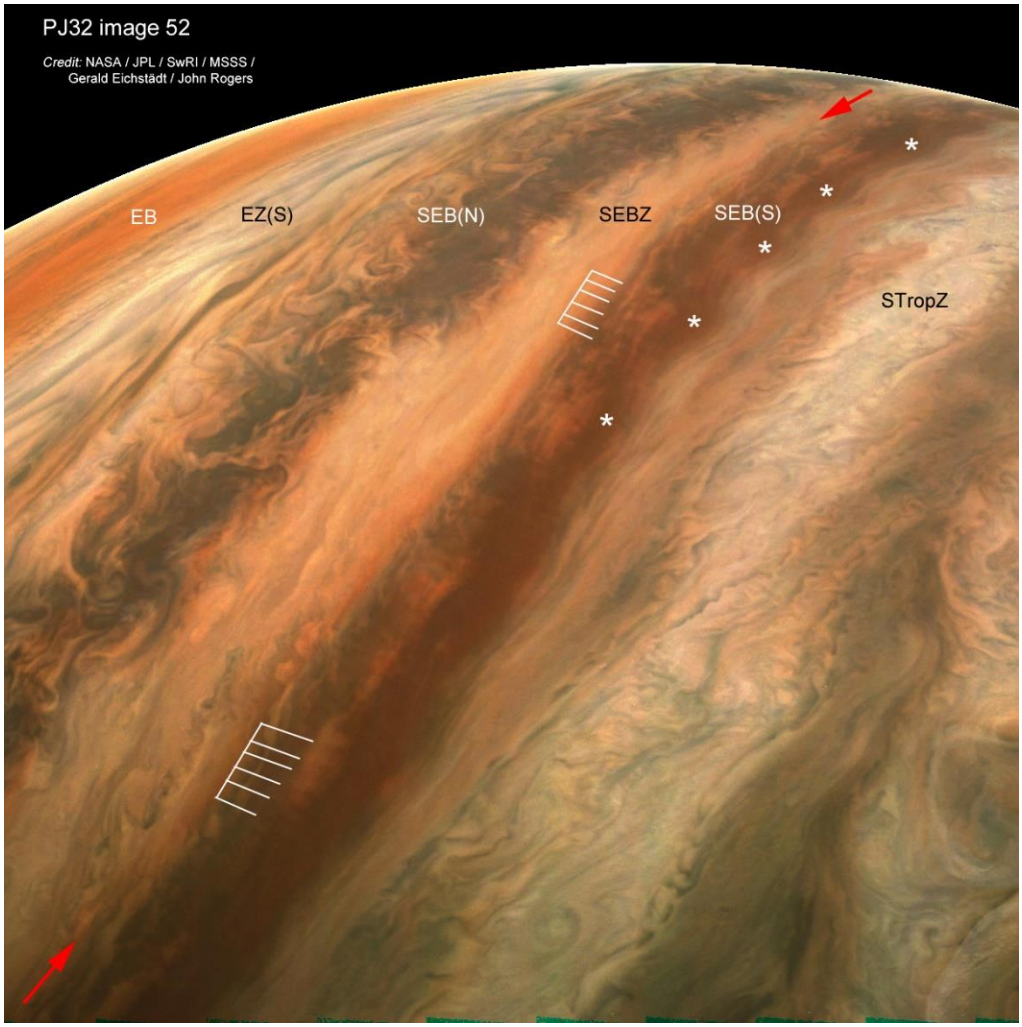

Figure 9. Oblique view of the SEB(S), showing mesoscale waves (e.g. two wavetrains indicated by white ‘combs’, and many between them), meandering waves on the SEBs (white asterisks), and a red haze band (red arrows).

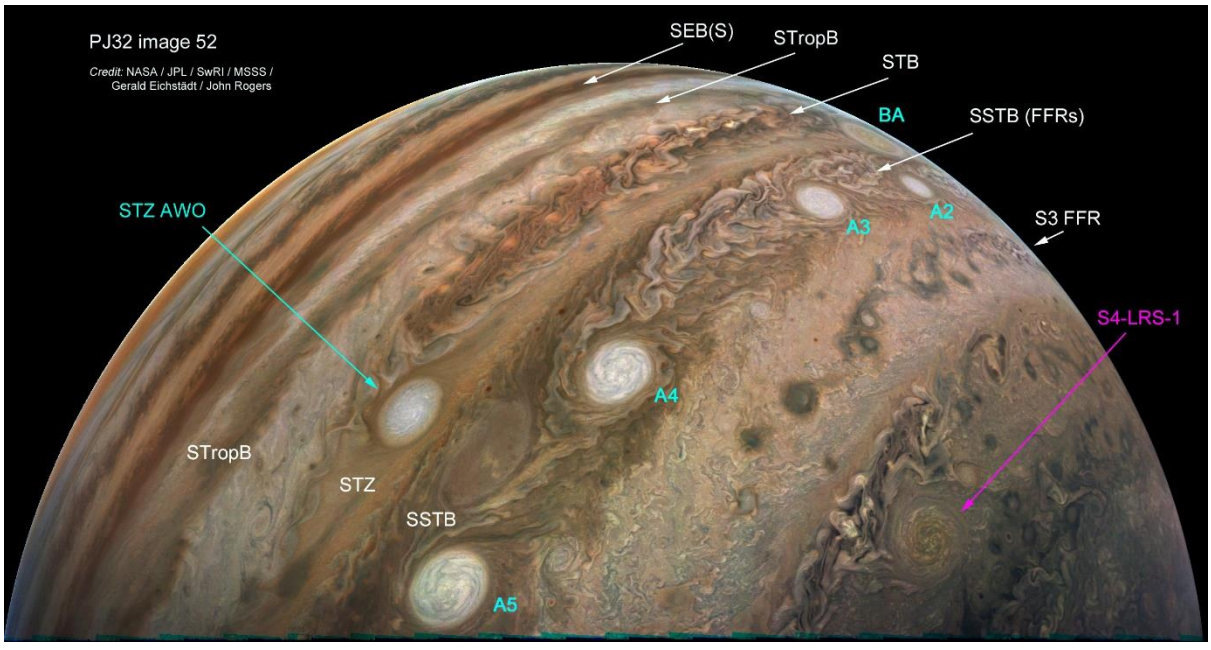

Figure 10. Image showing the southern temperate domains.

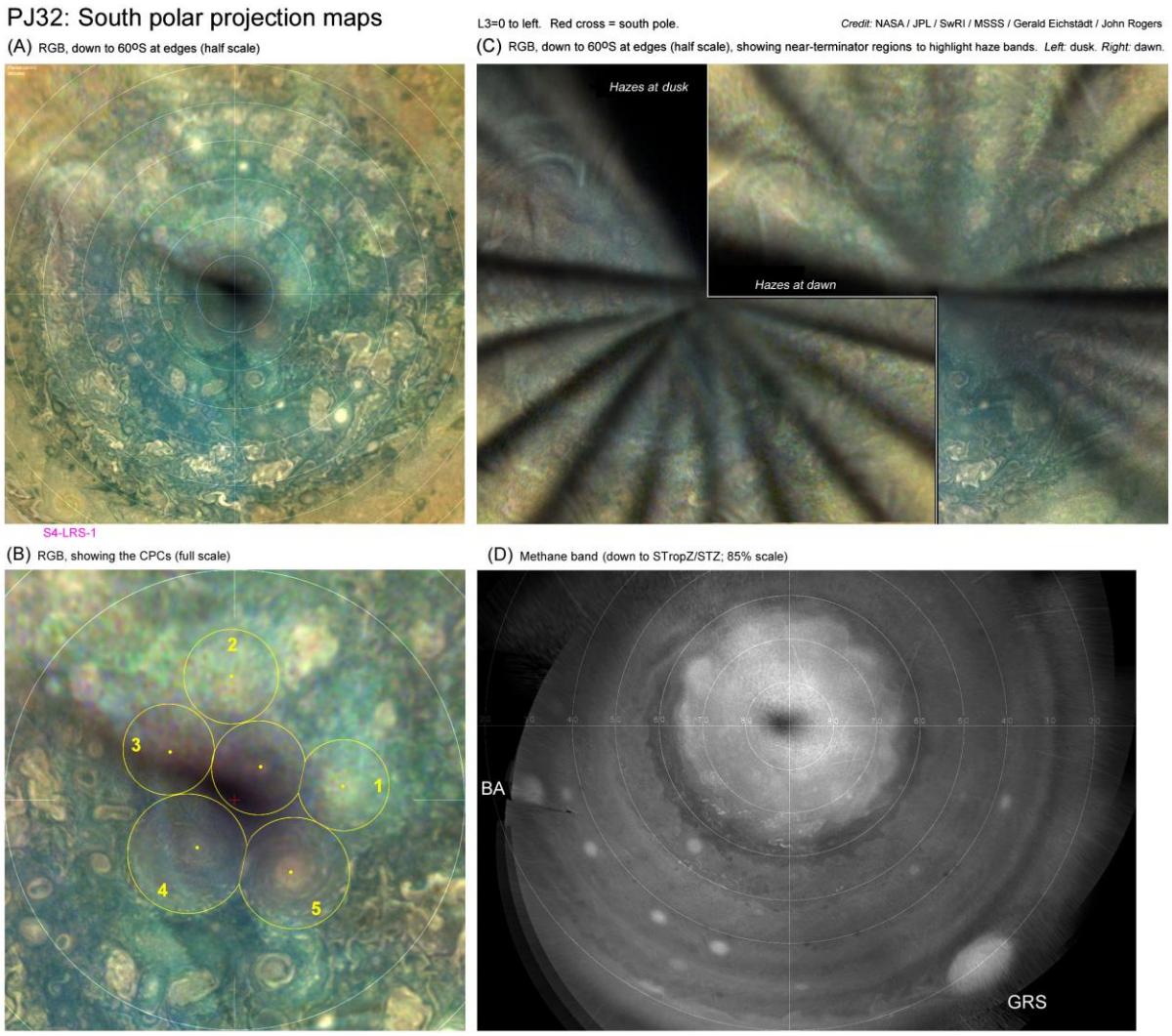

Figure 11. Four composite polar projection maps of the South Polar Region.

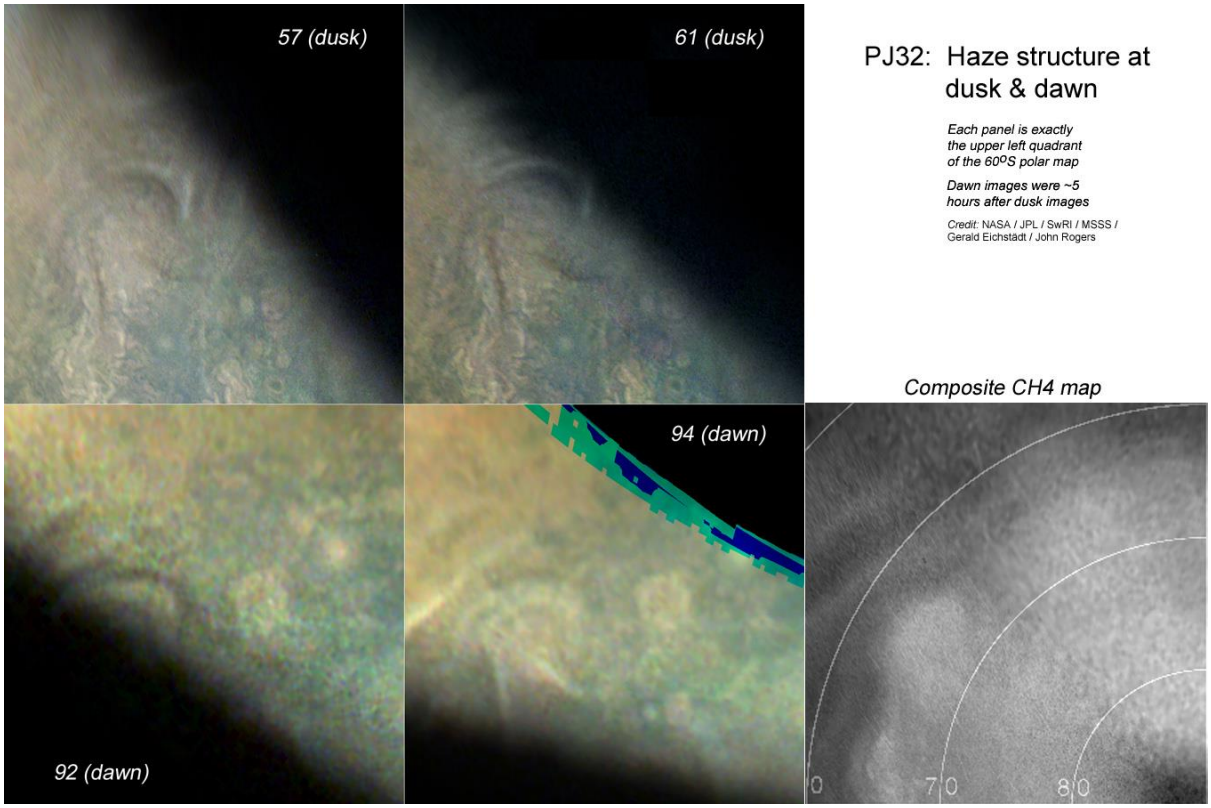

Figure 12. Four single polar projection maps of one quadrant of the SPR, showing a prominent set of arcuate haze bands, plus the same region in the composite methane map.

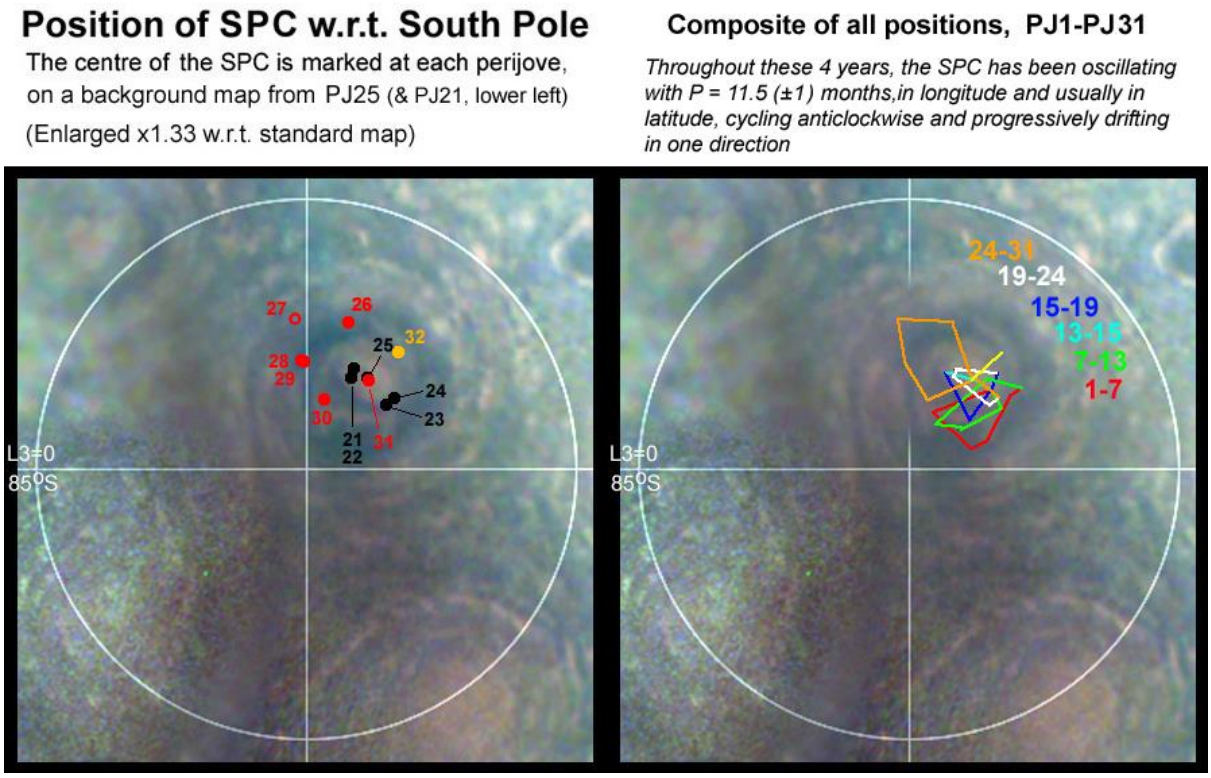

Figure 13. Motion of the central South Polar Cyclone over the past 1.5 years and the past 4.5 years.