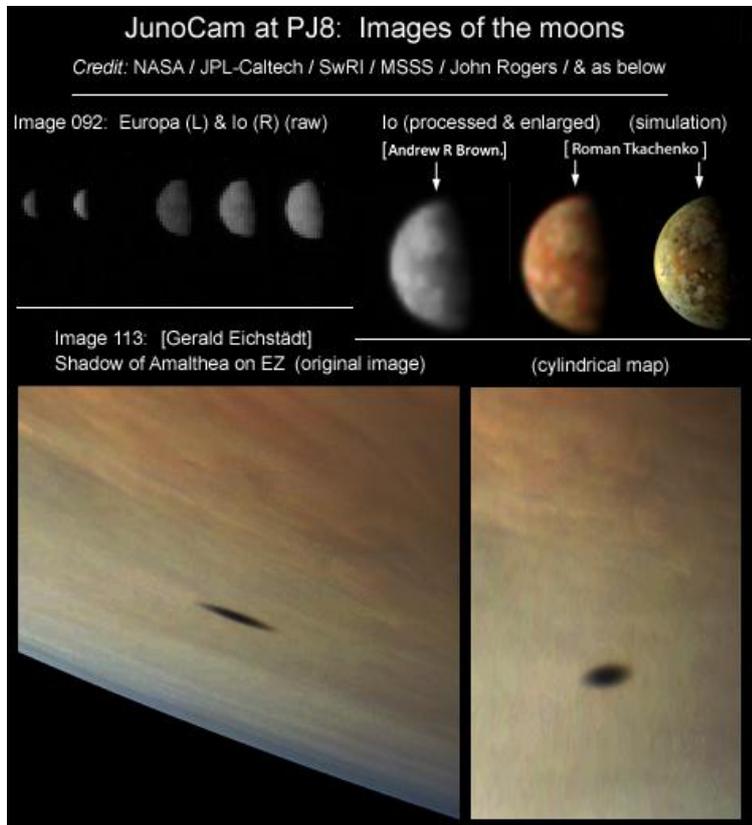


JunoCam at Perijove-8: What the images show

--John Rogers, 2017 Oct.16

Figures (miniature copies)



Supplementary Figure S1. Juno's first resolved images of Io and Europa, and the shadow of Amalthea.

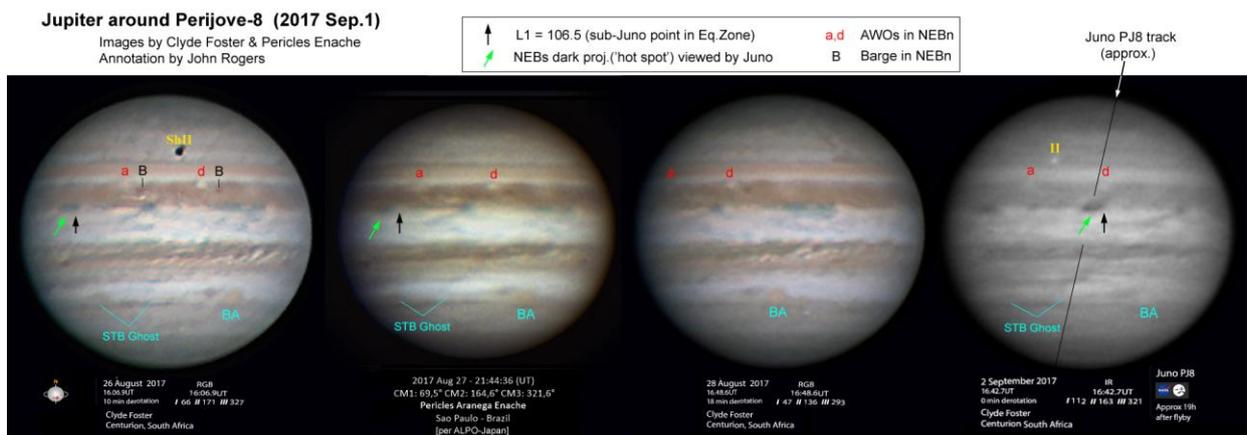


Figure 1. Ground-based images around the time of PJ8, showing the longitudes covered at perijove.

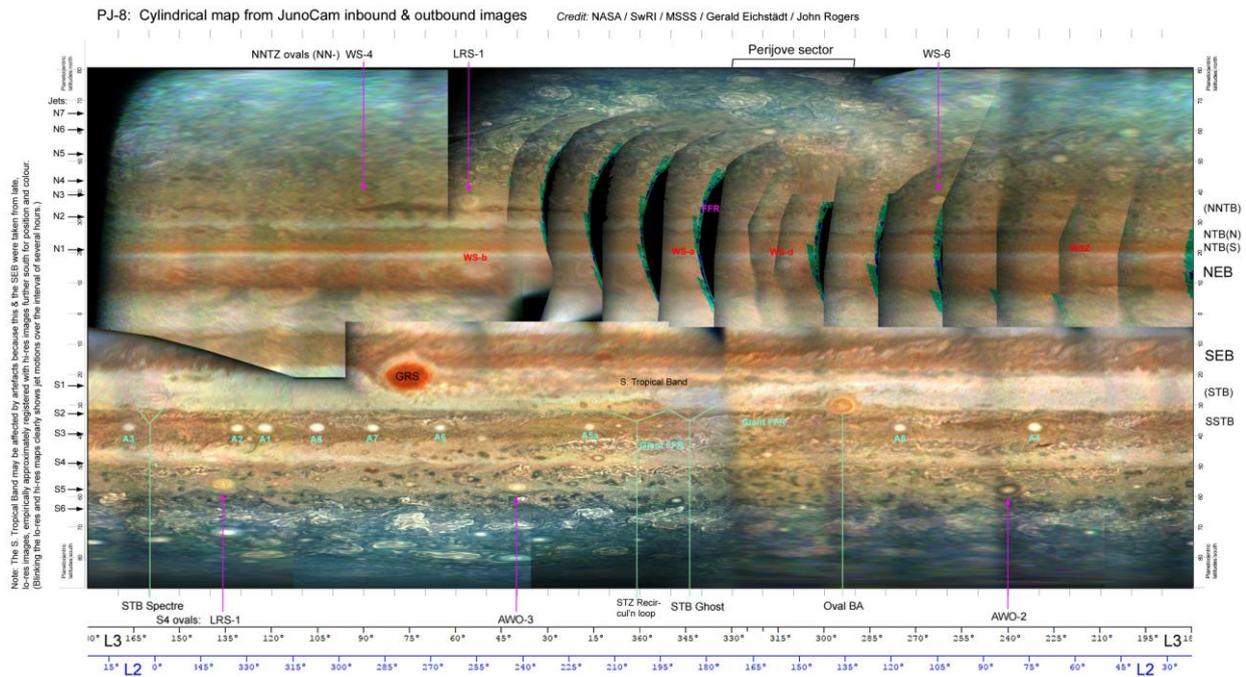


Figure 2. Cylindrical map of the planet on 2017 Sep.1 from the JunoCam inbound (north) and outbound (south) images as projected by Gerald Eichstädt. Blank strips represent missing data.

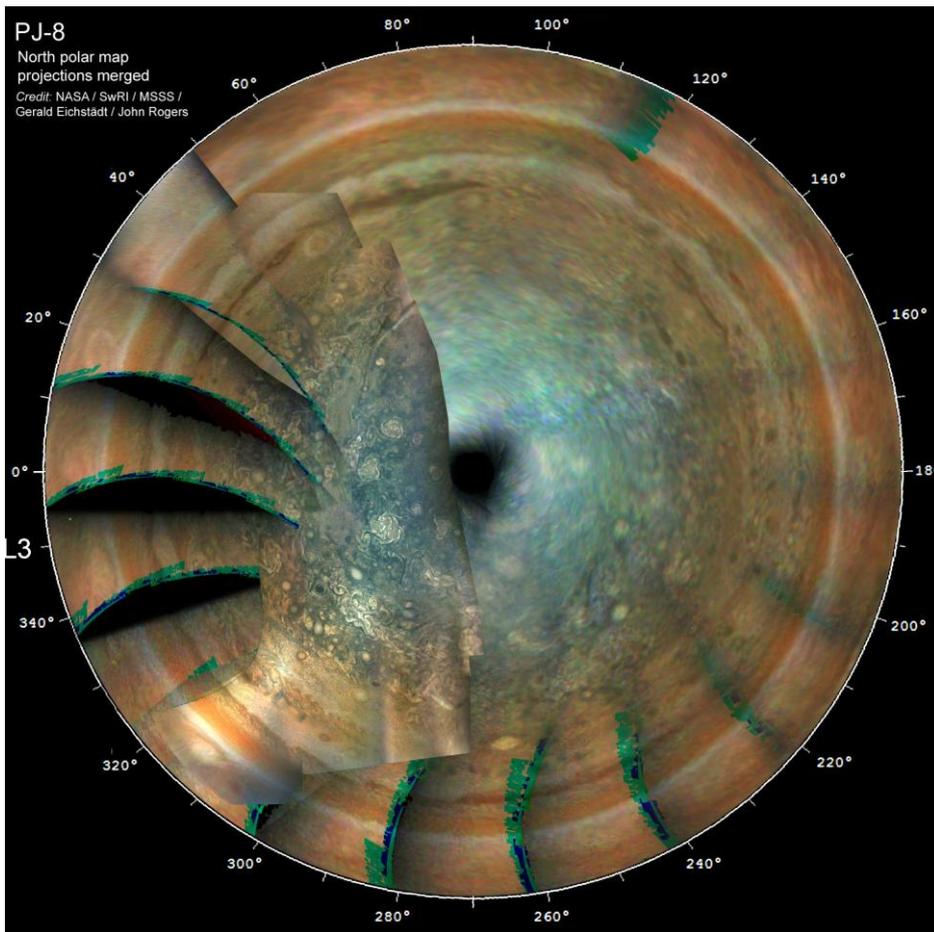


Figure 3. North polar projection map compiled from the inbound and over-the-north-pole images. (The curved 'spokes' are where data are missing due to the orbital evolution).

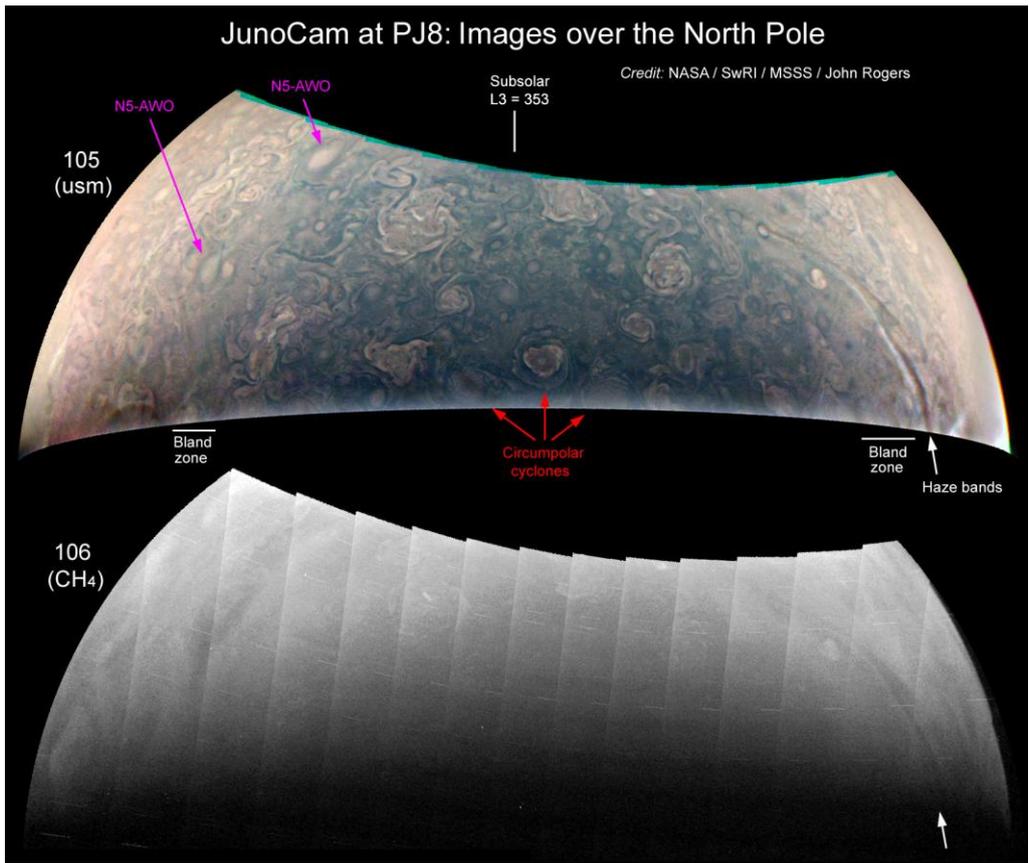


Figure 4. The over-the-north-pole image (105) and the accompanying methane-band image (106), in the projections by the JunoCam team.

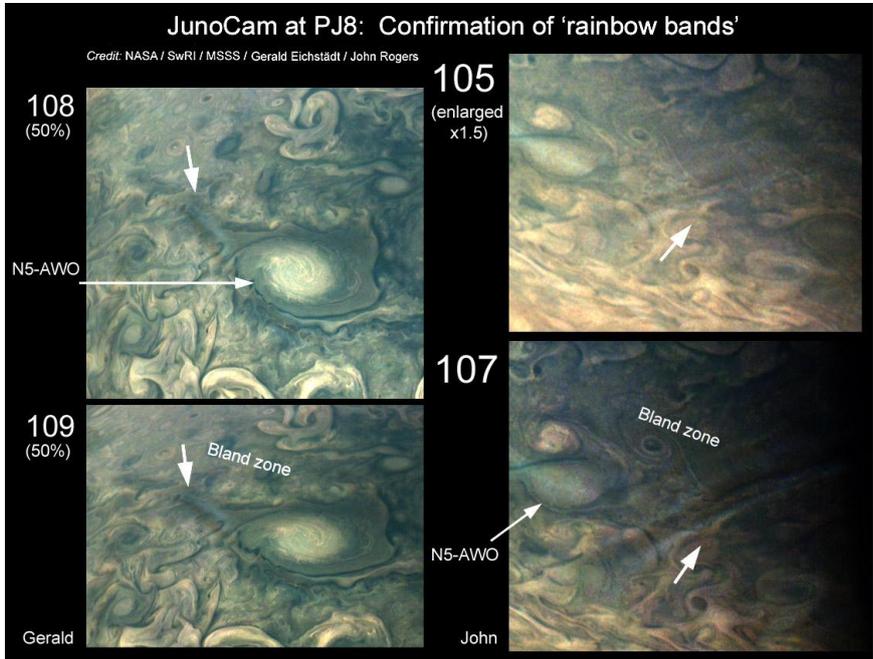


Figure 5. Two short sections of haze bands show rainbow-like colours (brown on one side, bluish on the other side), This is the first time that any 'rainbow bands' have shown up in two successive images, confirming their reality, as previous images were not taken close enough in time to catch the bands twice under similar lighting conditions. These images also include AWOs of the N5 domain; another broad haze band runs directly across one of these them.

PJ-8: Cylindrical map from JunoCam close-up images

Credit: NASA / SwRI / MSSS / Gerald Eichstädt / John Rogers

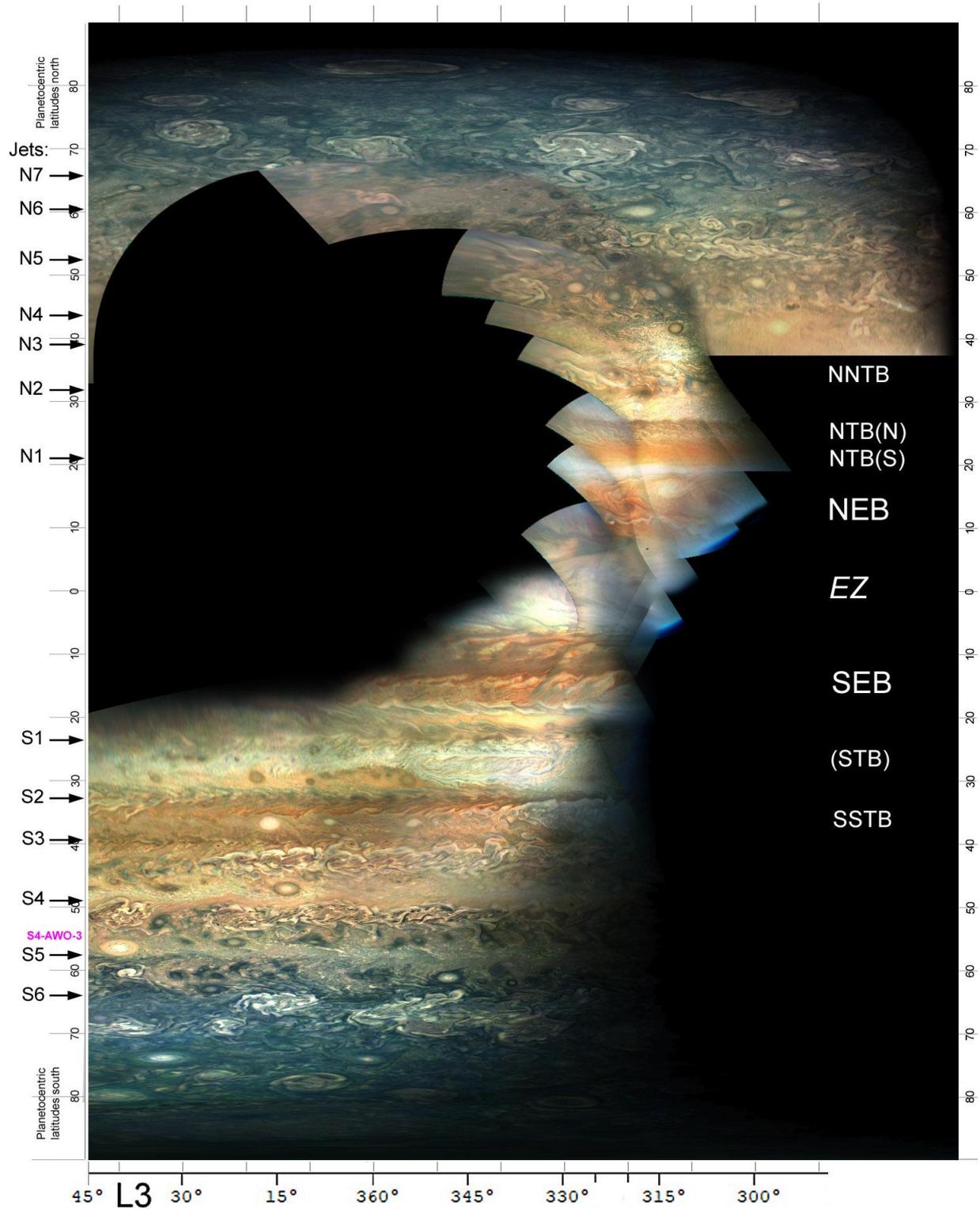
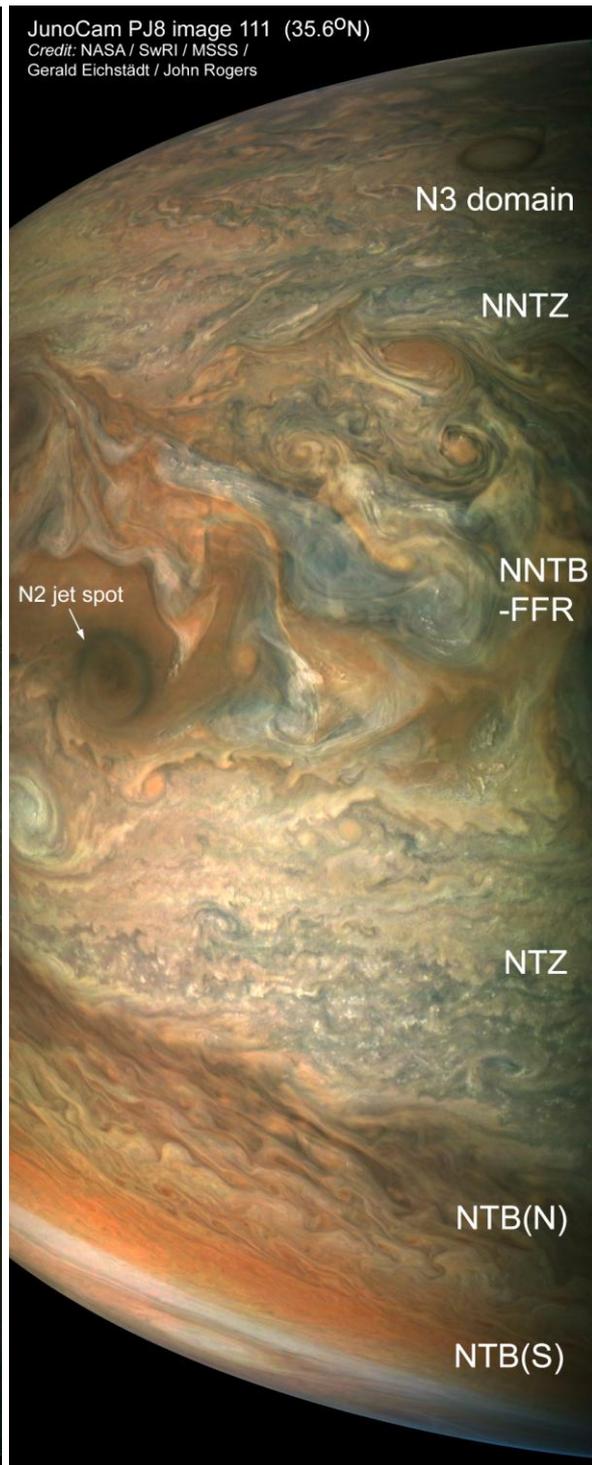
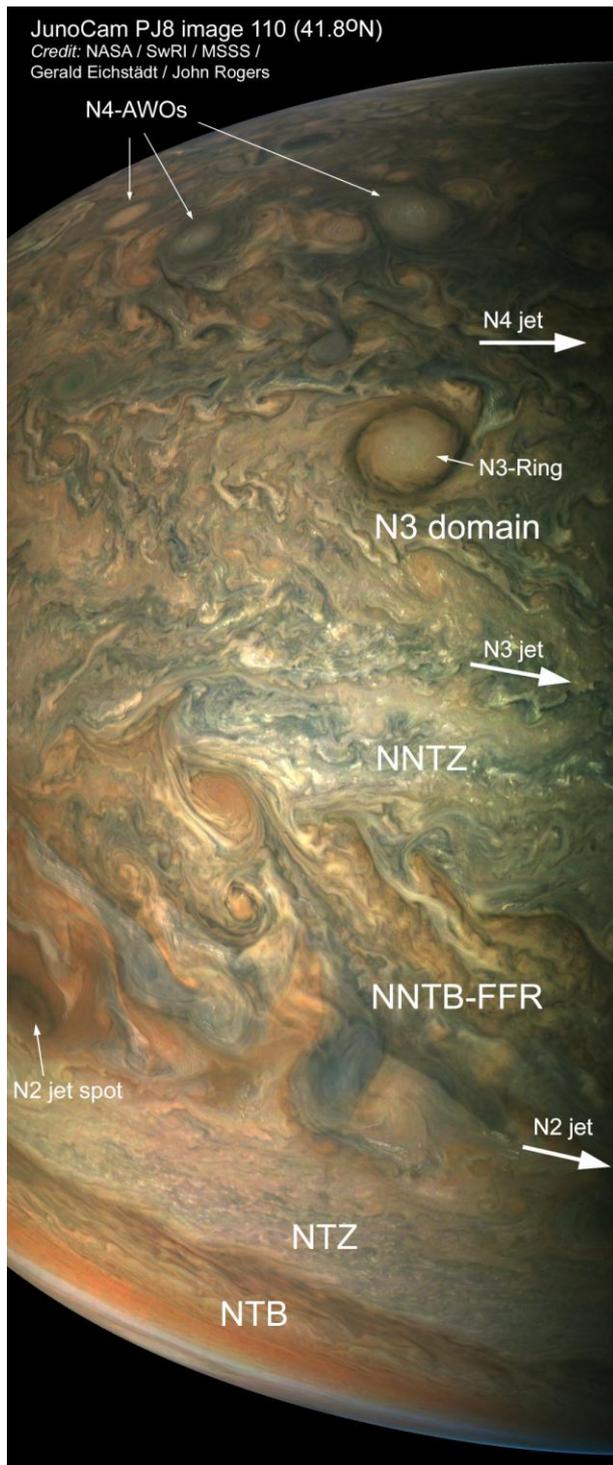
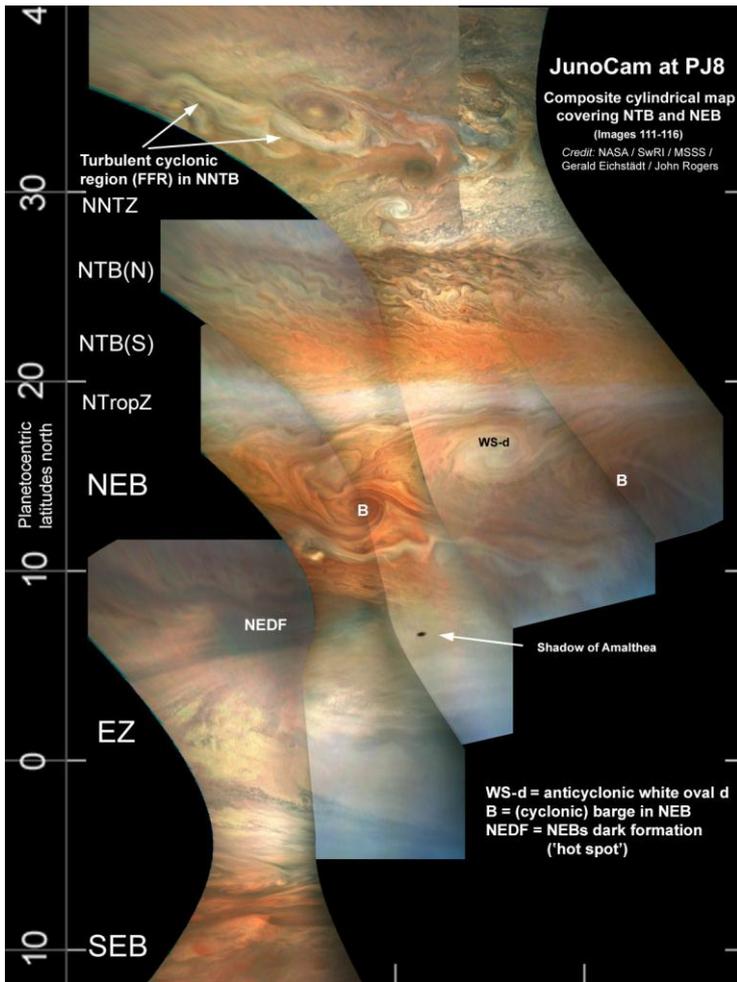


Figure 6; Compilation of miniature cylindrical maps of the perijove images as projected by Gerald.



Figures 7 (L) & 8 (R). Two full-size images of mid-northern latitudes, passing over the long-lived FFR in the NNTB, with the prograde jets marked approximately. Amid the swirling chaos, small anticyclonic ovals can be identified, including: several scattered through the middle of the N4 domain; a sharply bounded ring in the N3 domain; and a dark spot on the N2 jet. The NNTB-FFR includes swirling multicoloured streaks and vortices, haze bands cutting across them at different angles, and rows of tiny shadow-casting white clouds only ~15-30 km across.

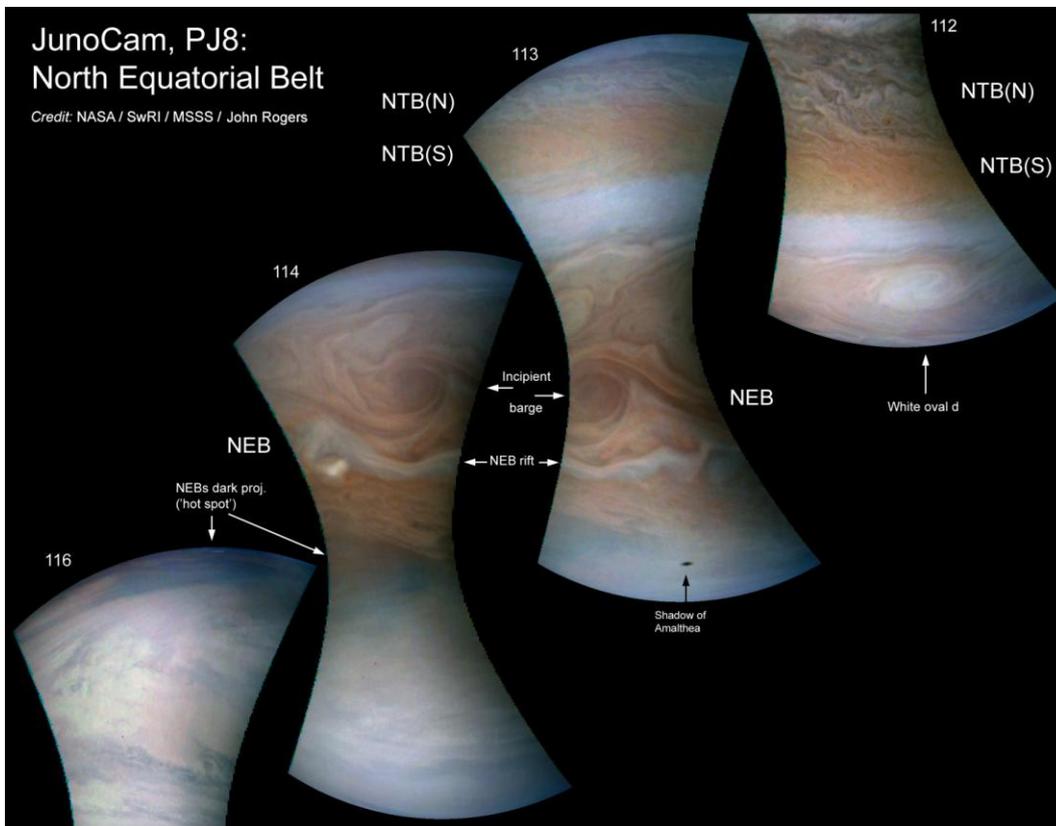


Figures 9 (left) & 10 (below). Closeup images of the NEB, including several of the recently-formed barges and AWOs.

Figure 9: cylindrical map compiled from Gerald's map projections.

Figure 10: perspective projections by the JunoCam team.

Both are at reduced resolution, but the original images did not show much detail at the smallest scale; most of the NEB clouds are genuinely diffuse.



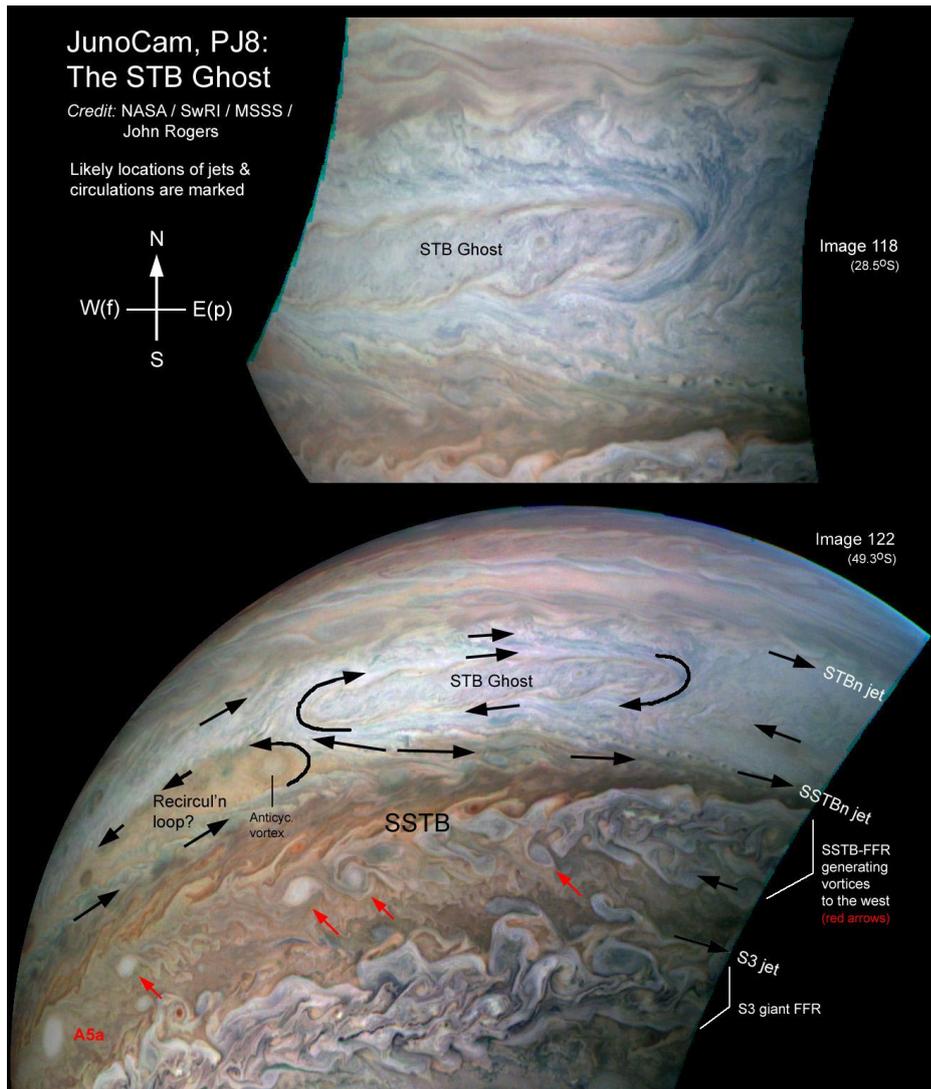


Figure 11. Two images of the STB Ghost (at reduced resolution), with key features and currents marked. The same sequence of images shows the sector of SSTB f. the giant FFR f. AWO-A5.

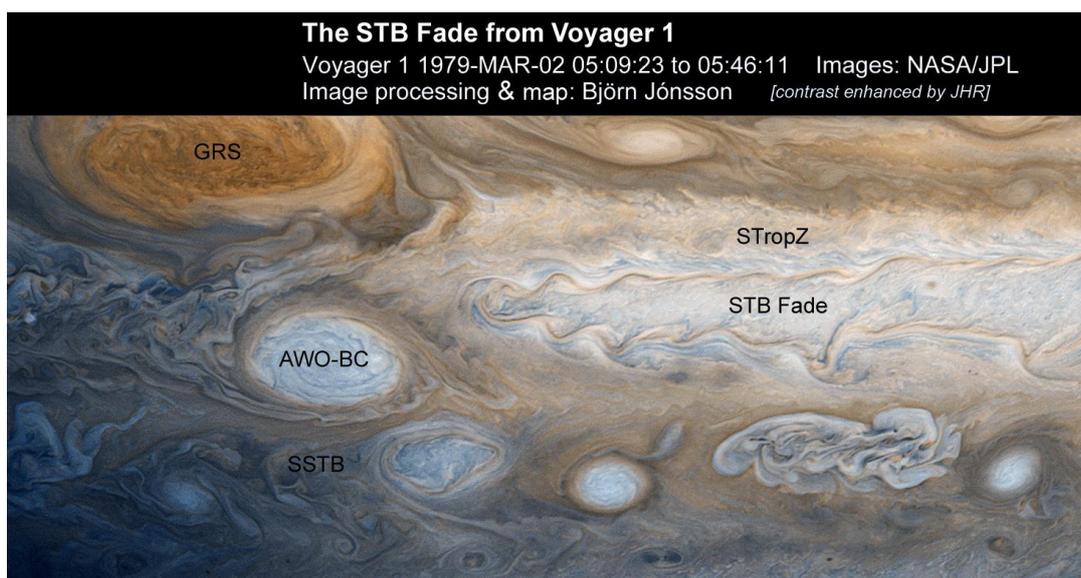


Figure 12. The STB Fade during the Voyager flybys in 1979. Note that the internal structure is identical to the STB Ghost, particularly the two-tone braided border.

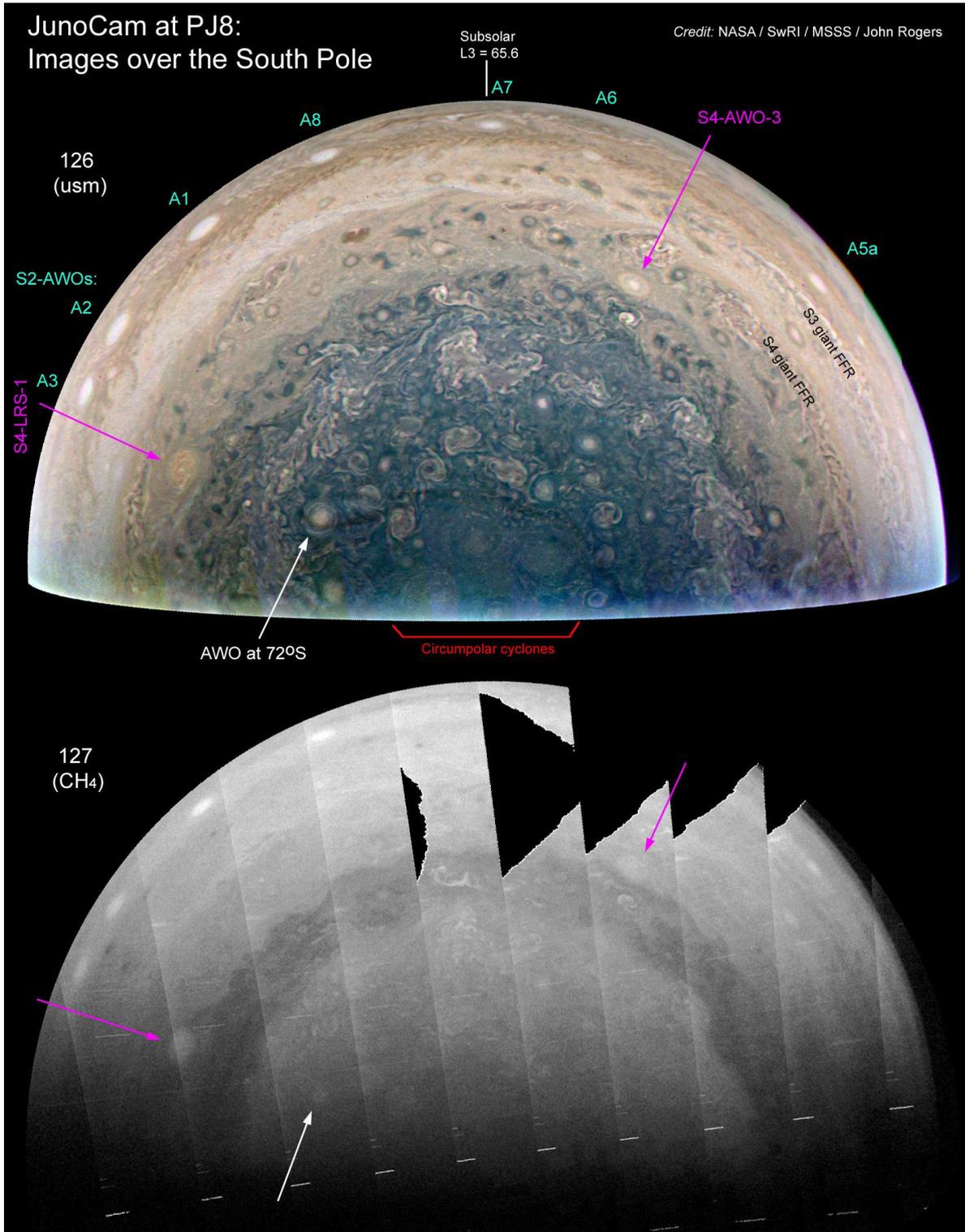


Figure 13. The over-the-south-pole image (126) and the accompanying methane-band image (127), in the projections by the JunoCam team.