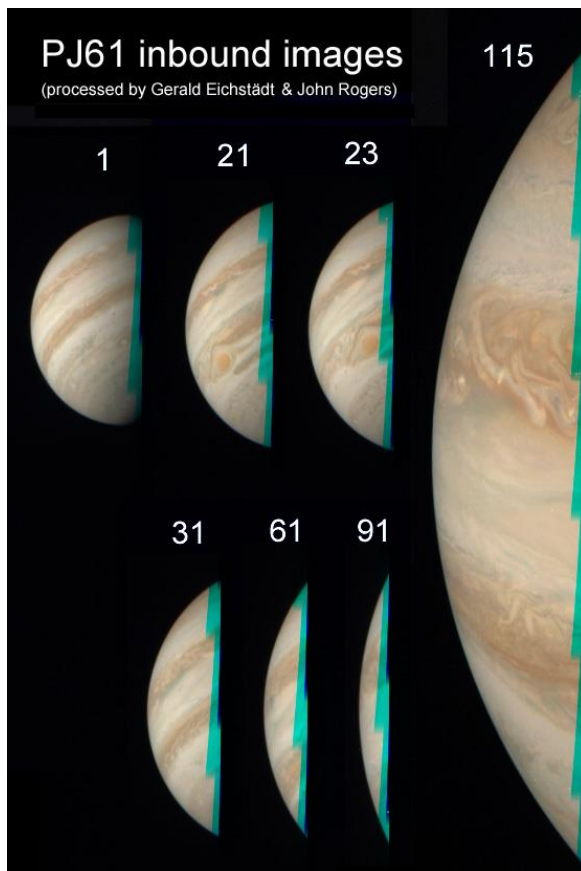


## JunoCam images at PJ61

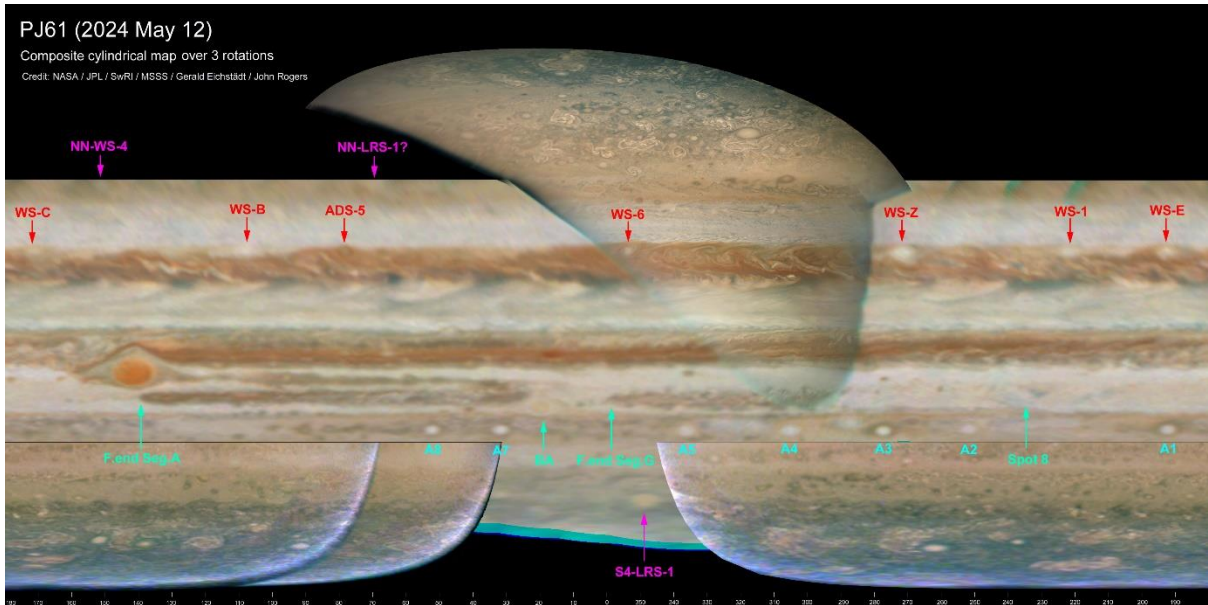
John Rogers (BAA)

Perijove-61 was on 2024 May 12. Perijove was at 51.3°N and equator crossing at L3=156, both on the dark side as usual. Jupiter at this time was invisible from Earth (solar conjunction being on May 18), so the inbound images from JunoCam, spanning two rotations, were invaluable in showing the state of the planet at this time. These maps show continuing development of the NEB since PJ60. Sample images are in [Figure 1](#). Our composite global map is in [Figure 2](#), and a hi-res map of the NEB by Kevin Gill is in [Figure 3](#). Imaging is now constrained by the spacecraft orientation as the orbit evolves, so that part of the planet no longer falls within the field of view during the late inbound phase ([Figure 1](#)). So the map ([Figure 2](#)) is mainly from the first inbound rotation. However, the last inbound images covered part of the northern hemisphere well (hence a sector in [Figure 2](#), and the map in [Figure 3](#)) – until overwhelmed by radiation. The intense radiation belt increasingly disrupts the imaging as Juno flies over the north polar region, and after images 137 (RGB) & 138 (CH<sub>4</sub>), little was received except a small part of image 143 ([Figure 4](#)). Unfortunately, all images of the north polar cyclone cluster were lost. Nevertheless, the outbound imaging resumed as normal ([Figure 5](#)). Further details are in the image captions.

### Figures:



**Figure 1.** Sample images. After the first inbound rotation (images 1-43), most of the planet was out of the field of view until the last inbound images (images 115-138).

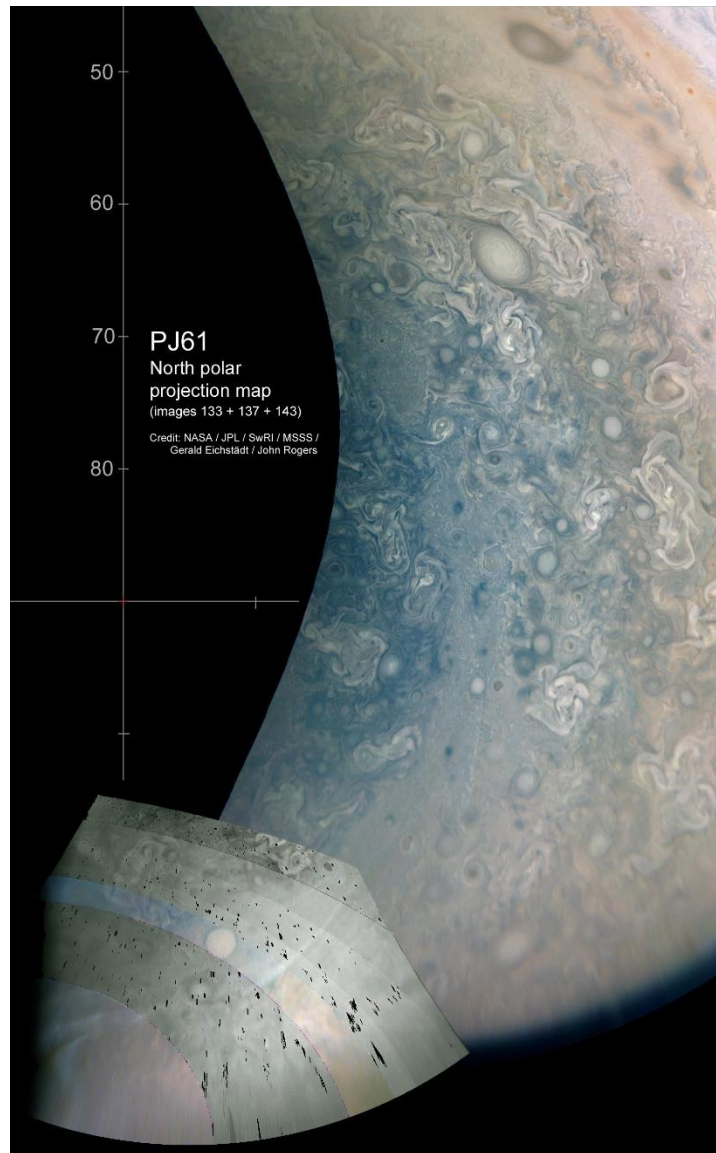


**Figure 2.** Composite cylindrical global map, combining maps generated by Gerald Eichstädt over 3 rotations: the first inbound rotation (images 1-43) for low latitudes; the last inbound images for a sector of northern hemisphere; and the outbound images for the high southern latitudes. Persistent features are labelled. Continuing development of the NEB since PJ60 can be seen: Anticyclonic Dark Spot 6 has turned into an AWO (now labelled WS-6), White Spot Z has become more intensely white (WS-Z), and the strip between them has darkened to extend the broadening of the NEB.



**Figure 3.** Hi-res map of a broadened and rifted sector of the NEB, by Kevin Gill.

**Figure 4.** North polar projection map, down to 45°N at the edges, from maps made by Gerald Eichstädt. This is from the last inbound images up to no.137, plus the small sector near the bottom from no.143. Only a few strips of this image were received, and most of these were not in full colour so have been converted to grey-scale in this version. It does reveal an unusual AWO *north* of the linear bands in the Bland Zone, at latitude 63°N.



**Figure 5.** South polar projection map, down to 45°S at the edges, by Gerald Eichstädt. As previously, comparison with the previous perijove after a rotation of 26° in longitude matches up the brightest AWO and suggests some similarity of the FFRs.

