JunoCam images at PJ73

John Rogers (BAA) (2025 July 8)

https://britastro.org/section_information_/jupiter-section-overview/results-from-juno-2025/junocam-at-pj73

Juno's Perijove-73 was on 2025 June 8. Although the spacecraft operated throughout, the JunoCam images were degraded by intense electronic noise. Unlike at PJ56, when the noise was streaky, at PJ73 it affects single pixels, so densely that the blue and methane channels show little real signal. Gerald Eichstädt salvaged images by binning 4x4 pixels and setting the brightness of each bin to that of the third darkest pixel. Some colour could be retrieved from the low-latitude images (e.g. Figure 1, which includes white oval NN-WS-4), but otherwise the best results were obtained by blending the red channel with a minor proportion of the green channel for a monochrome image, as in the maps in Figures 2 & 3. No outbound images have been produced.

The north polar map (Figure 3) does show 5 of the 8 CPCs, including CPC-5, which at PJ72 had changed from the 'filled' type to an almost featureless disk. At PJ73 it is a disk of the same size, now with some internal structure. This may include a central core, but the resolution is insufficient to determine its sense of rotation; the streaks around it appear to be cyclonic. Future imaging will be needed to see whether CPC-5 resumes the 'filled' structure or becomes fully cyclonic.



Figure 1

