

## JunoCam at PJ26: What the pictures show

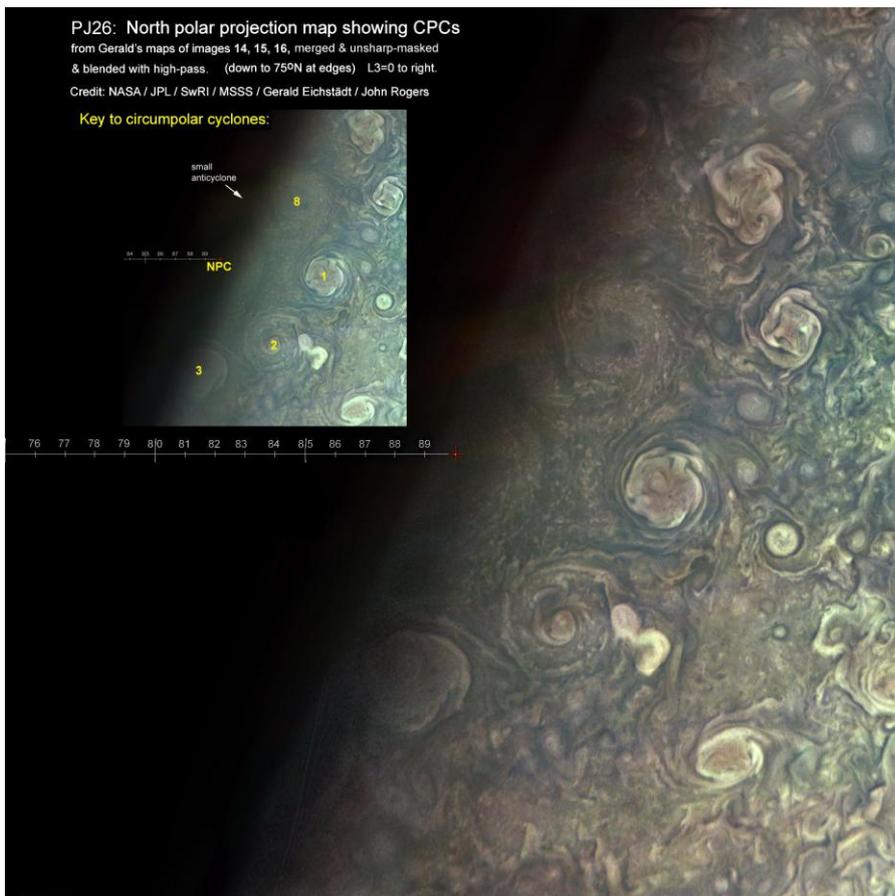
John Rogers (BAA), 2020 April

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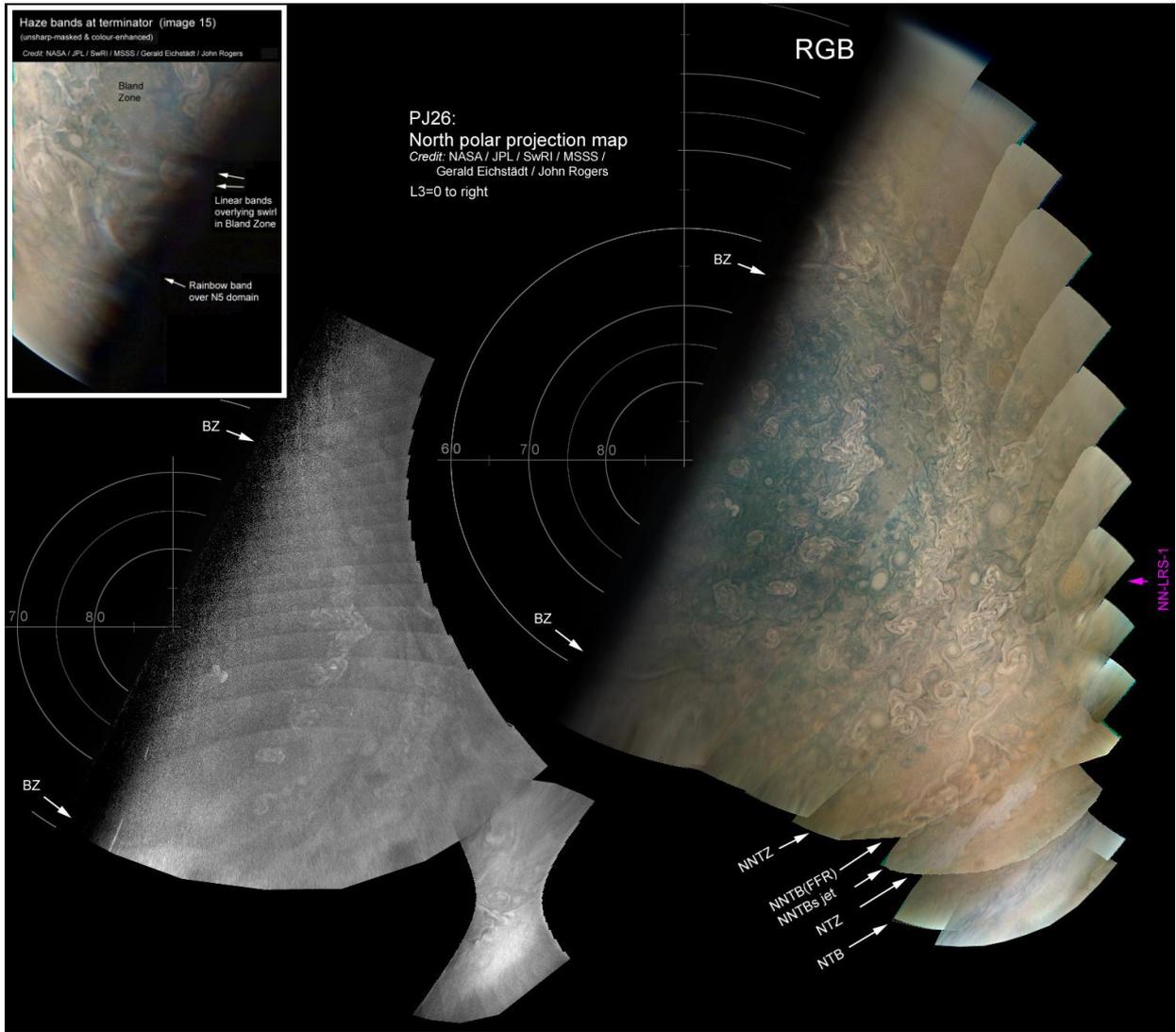
### Figures (miniature copies)



**Figure 1.** Images of the Galilean moons and the shadow of Metis.



**Figure 2.** Composite north polar projection map (down to 75°N at the edges), showing the circumpolar cyclones.

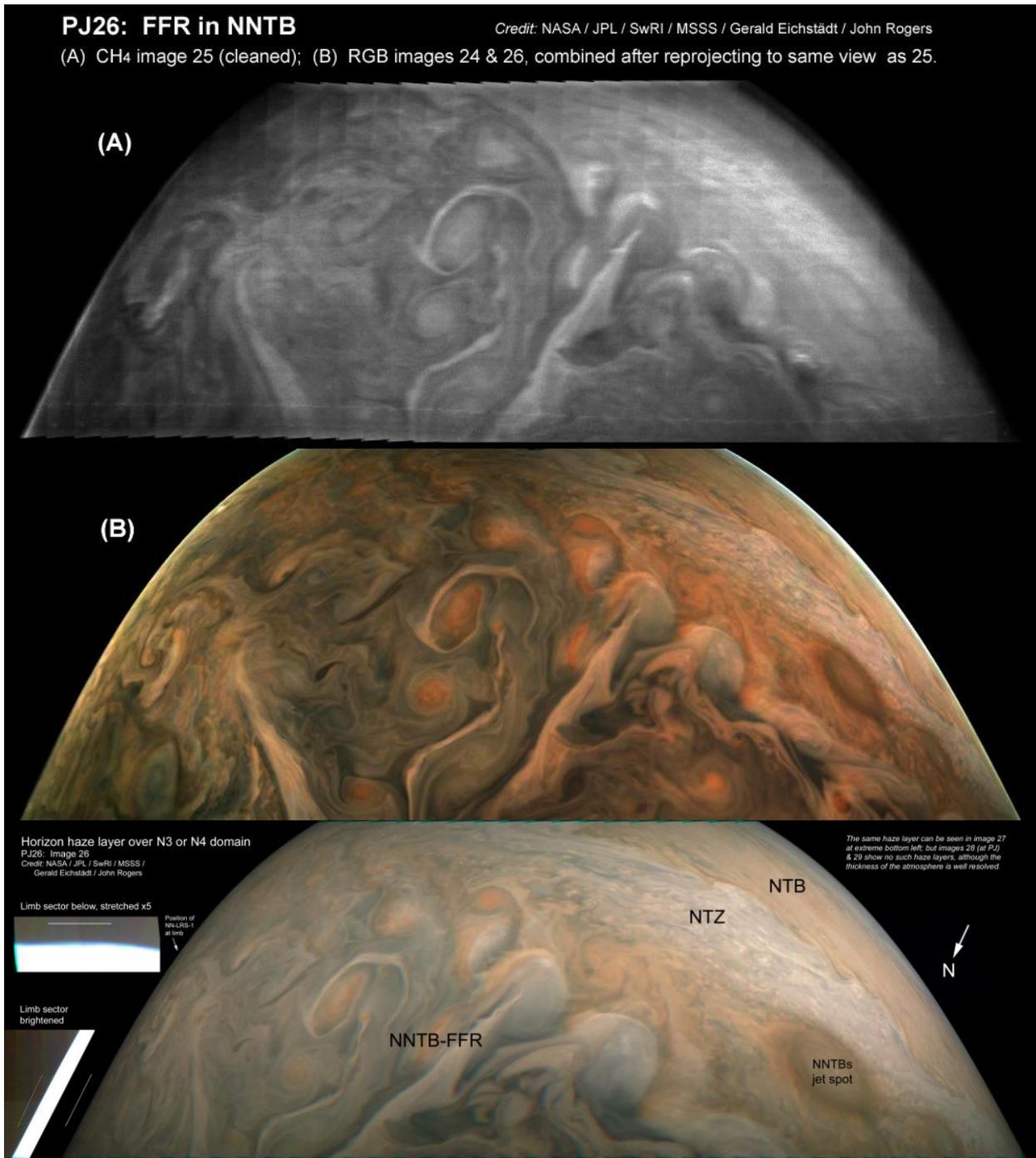


**Figure 3.** Composite north polar projection maps, in both RGB and CH<sub>4</sub>. (BZ = Bland Zone.)

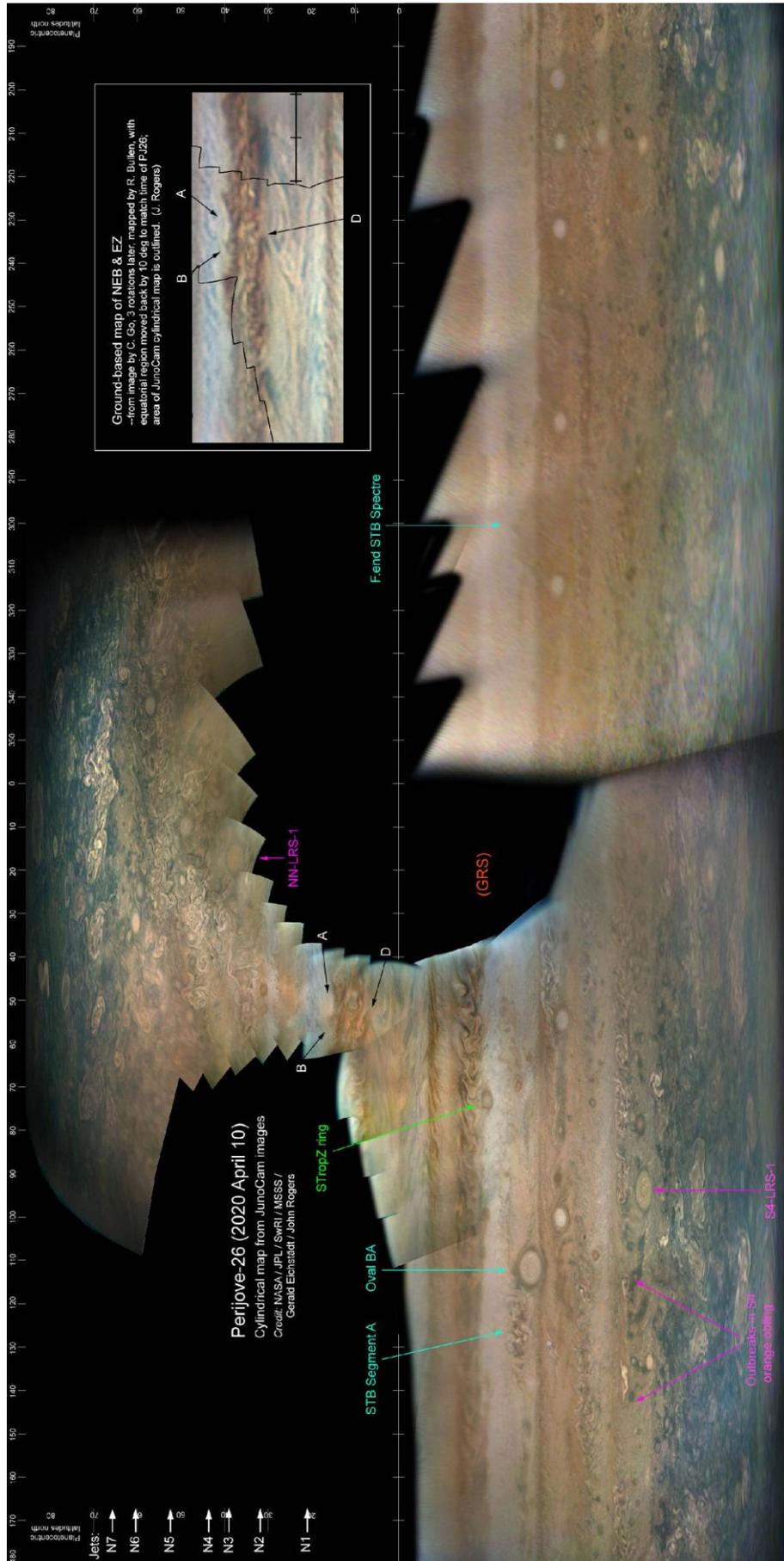
**Figure 4** [inset above left]. Part of image 15, enhanced to show haze bands near terminator.



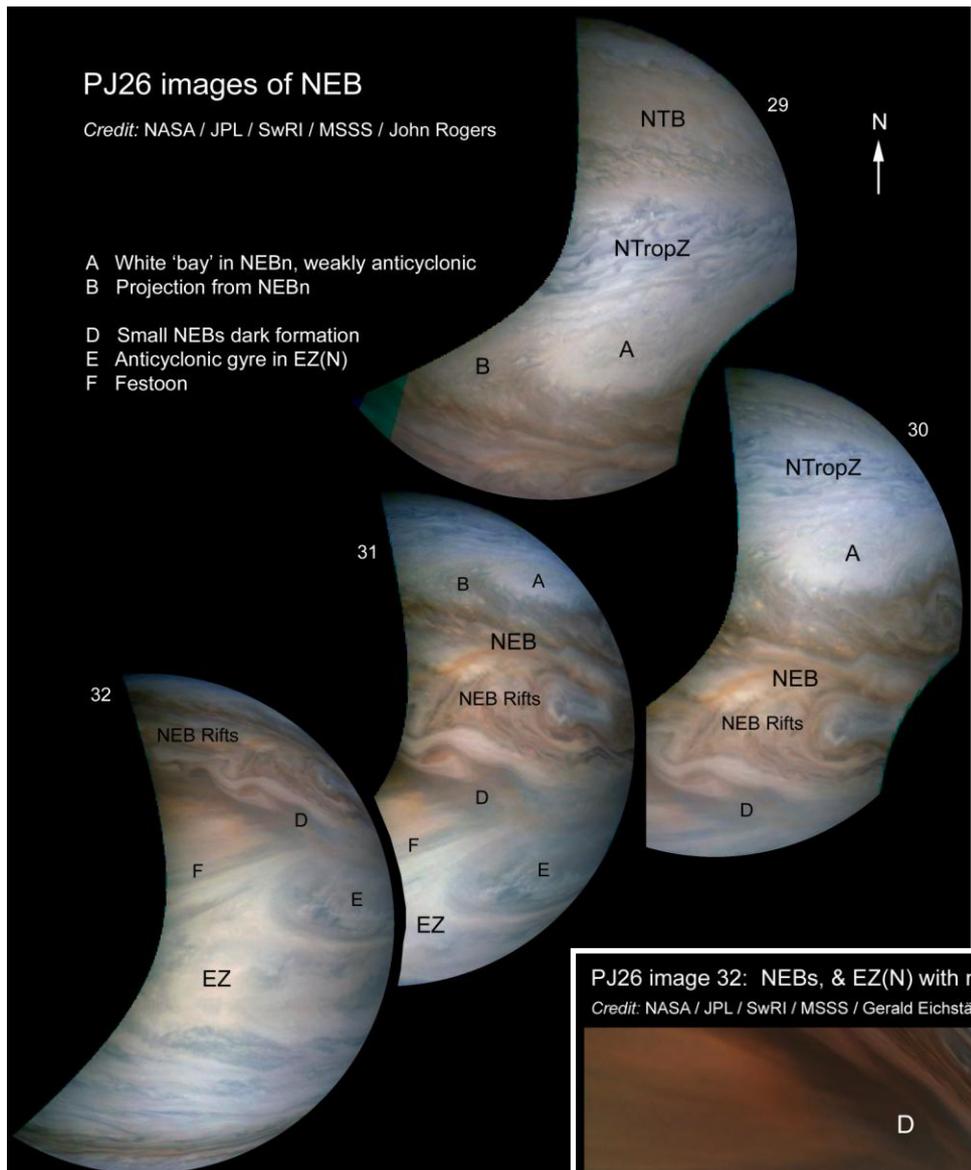
**Figure 5.** View of extensive FFRs in the N5 & N4 domains (north up)



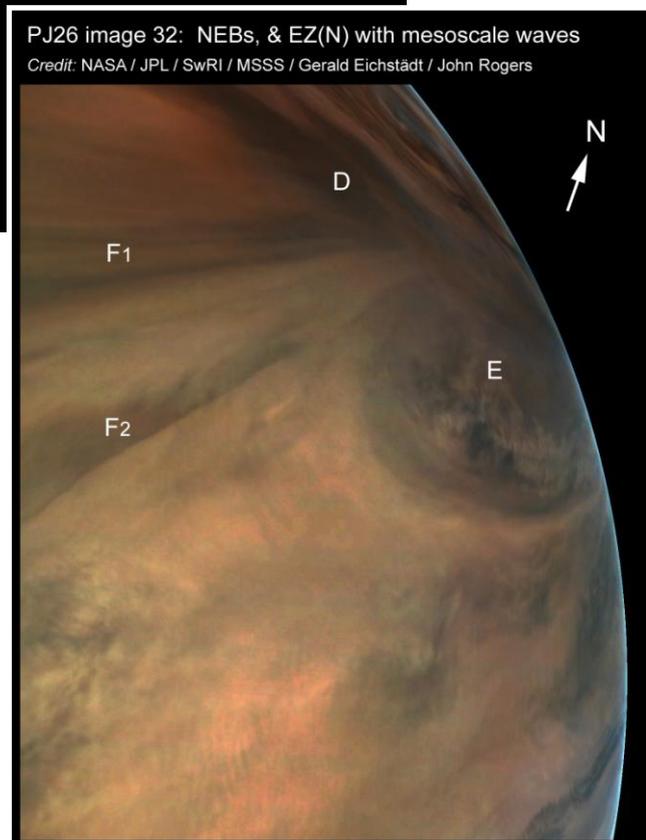
**Figure 6.** Views of the NNTB FFR, in various projections by Gerald Eichstädt (with south up to maintain perspective). (A) Methane image 25, ‘cleaned’ of artefactual noise. (B) RGB images 24 & 26, reprojected and combined. (C) RGB image 26, adapted from draft version, with part of the limb enhanced and enlarged at left to show a bright haze layer.



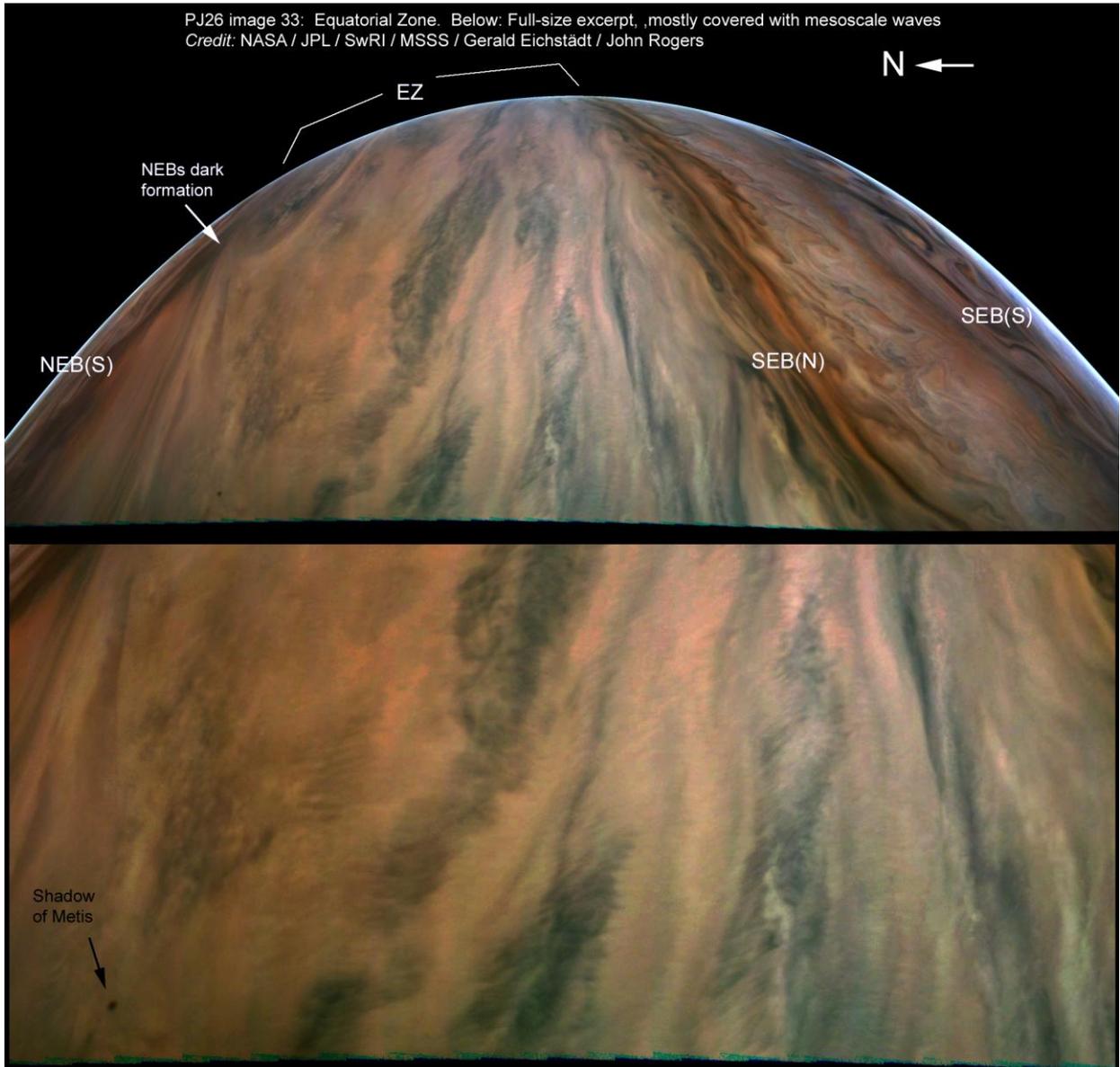
**Figure 7.** Global cylindrical map. For further labelling of the S2 and S4 domains, see [Figures 12 & 14](#). The inset ([Figure 7B](#)) is from a ground-based map of the NEB & EZ, longitude-shifted to match the time of perijove, adapted from our Report no.3 [ref.1].



**Figure 8.** Index images covering the NEB (from the 'version 01' images posted by the JunoCam team).

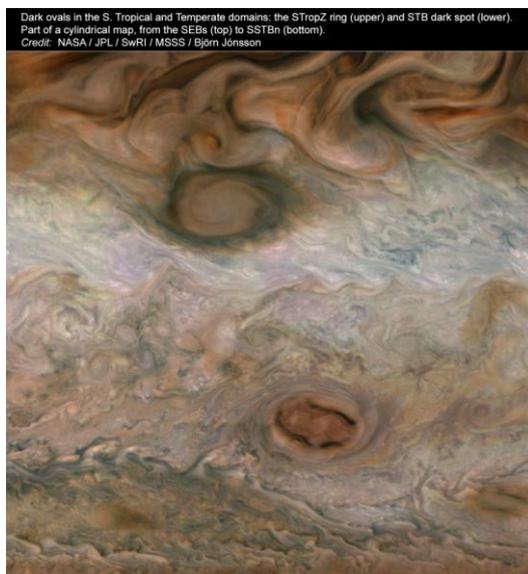


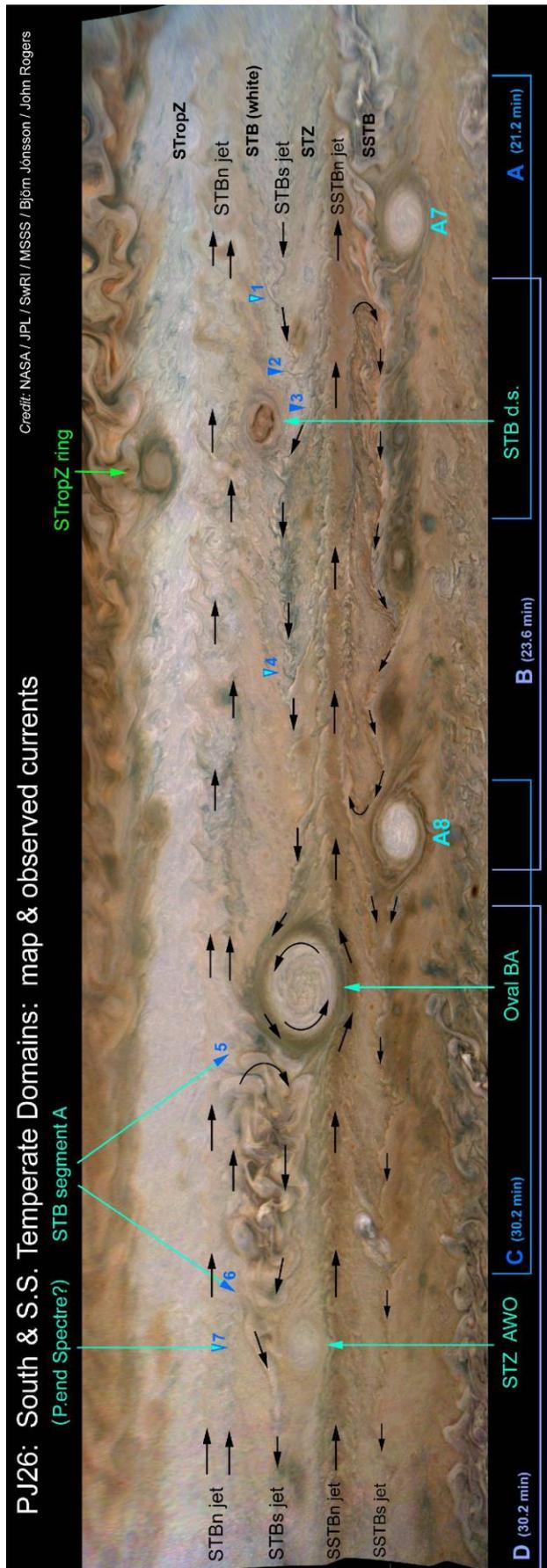
**Figure 9.** Part of image 32, showing the NEBs dark projection (D) and associated anticyclonic gyre (E) and festoons (F1, F2). There are mesoscale waves across large parts of the EZ. See main text for further description.



**Figure 10.** Part of image 33, showing mesoscale waves across most of the EZ.

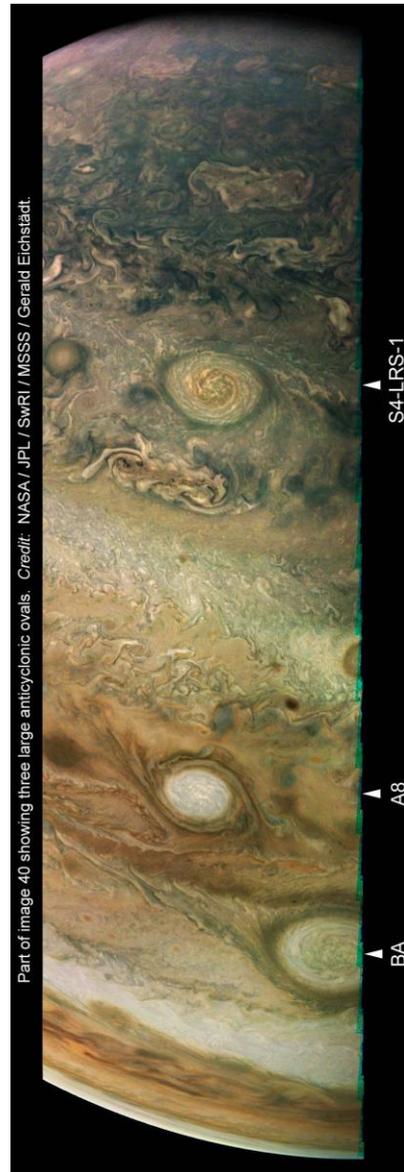
**Figure 11.** Excerpt from a map showing the STropZ ring (upper) and the STB dark spot (lower).



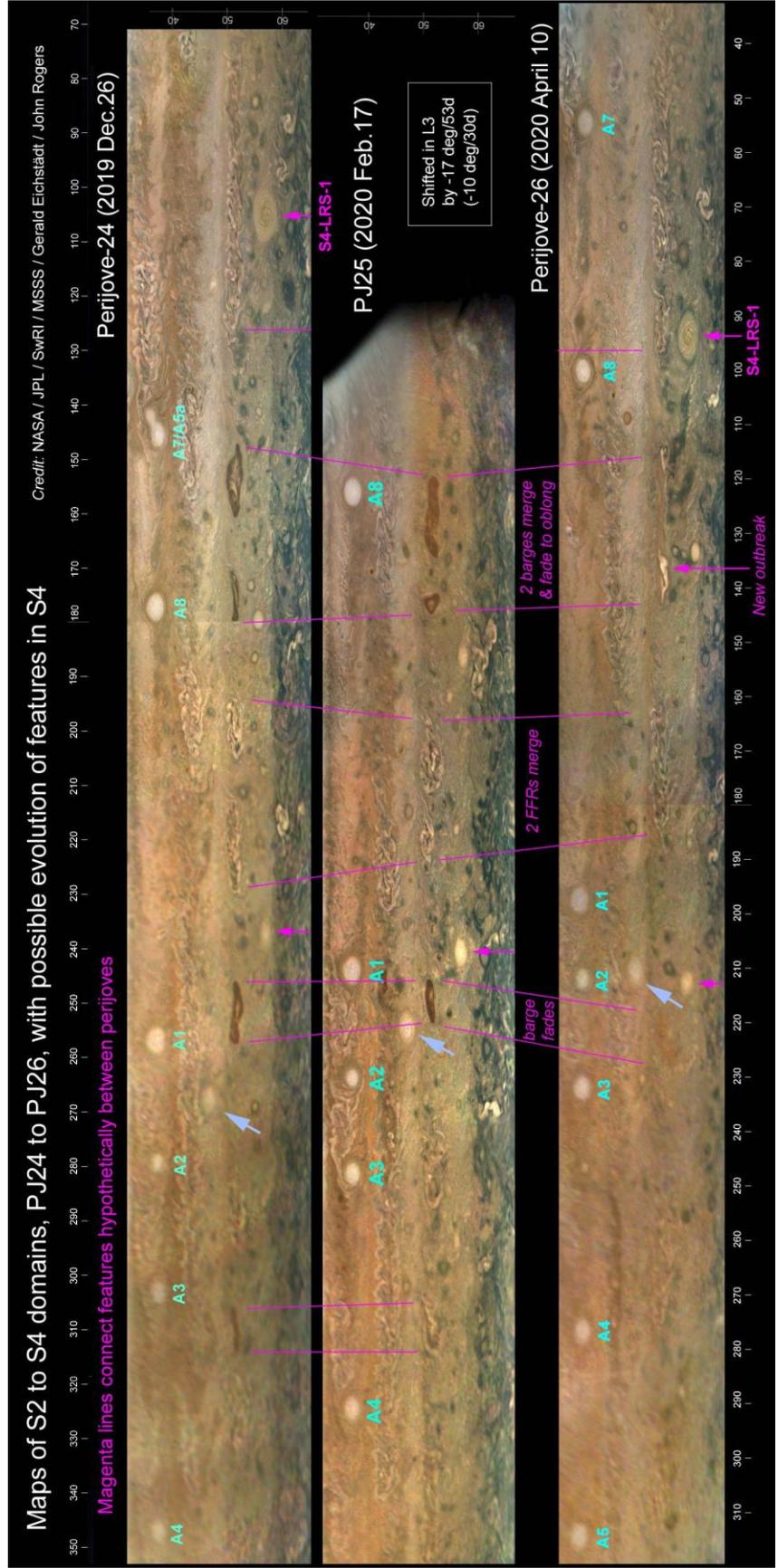


**Figure 12.** Cylindrical map of the South Temperate domain (by Björn Jónsson, reproduced at reduced scale). Features are identified, and candidate sites of recirculation are marked with numbered blue arrowheads – solid blue if confirmed by animations, light-centred if not. Black arrows show diagrammatically the major jets and circulations displayed by animations A to D. Blue brackets at bottom indicate the sectors blinked in those animations. See main text for full details.

**Figure 13.** Part of image 40 showing three large anticyclonic ovals.



**Figure 14.** JunoCam maps of the S2 to S4 domains at PJ24, PJ25 and PJ26 (from our reports), aligned with a shift of  $-17^\circ$  per perijove, showing possible evolution of features in the S4 domain.

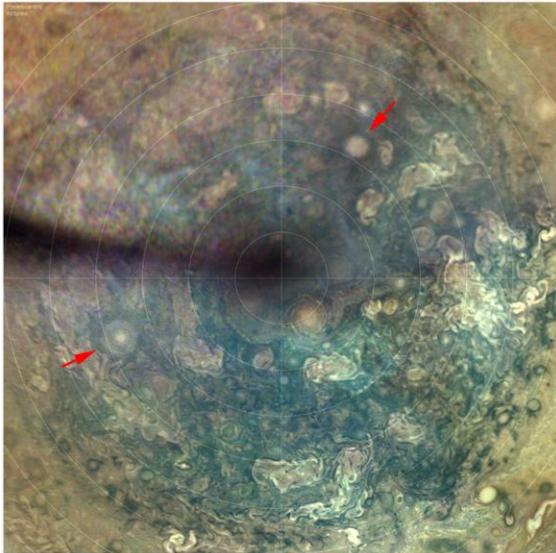


PJ26 South polar projection maps from JunoCam images.  
 (all at same scale, mostly down to 60 deg.S at edges)

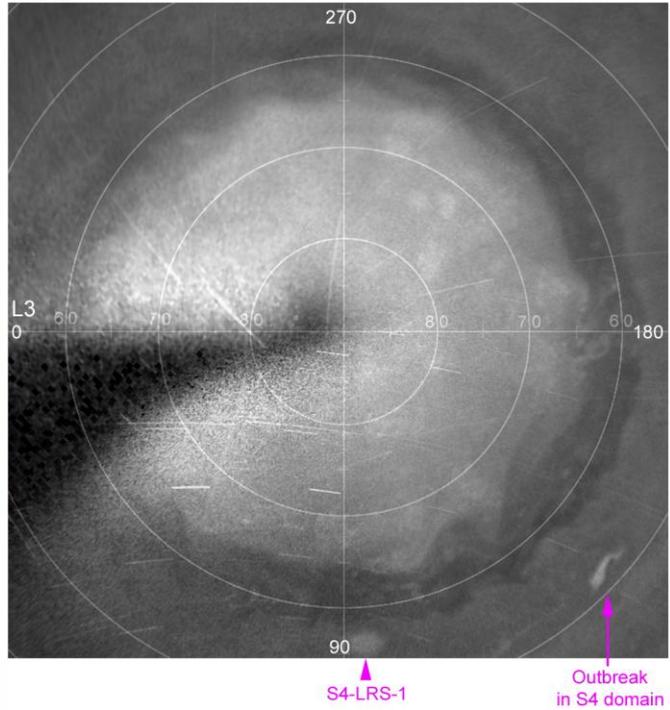
Credit: NASA / JPL / SwRI / MSSS / Gerald Eichstädt / John Rogers

(A) RGB

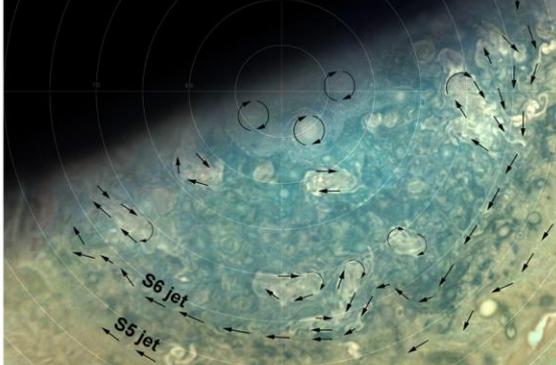
→ AWOs



(D) CH<sub>4</sub>

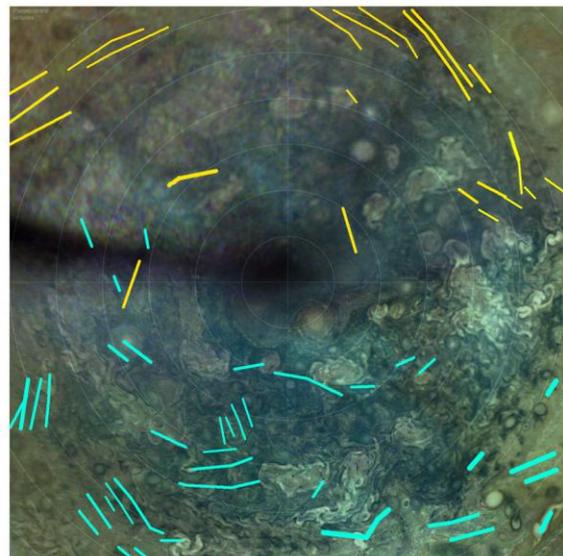


(B) Diagram of observed winds, overlaid on map of image 49 (MEA)

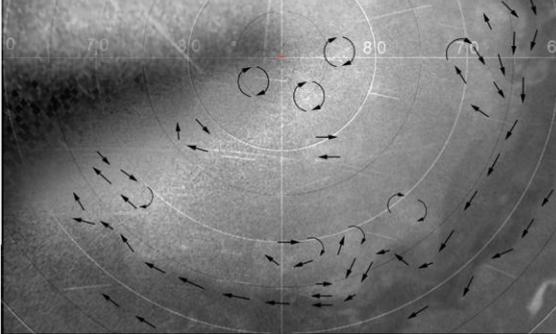


(E) Diagram of haze bands

Yellow: Dawn terminators; Cyan: Dusk terminators



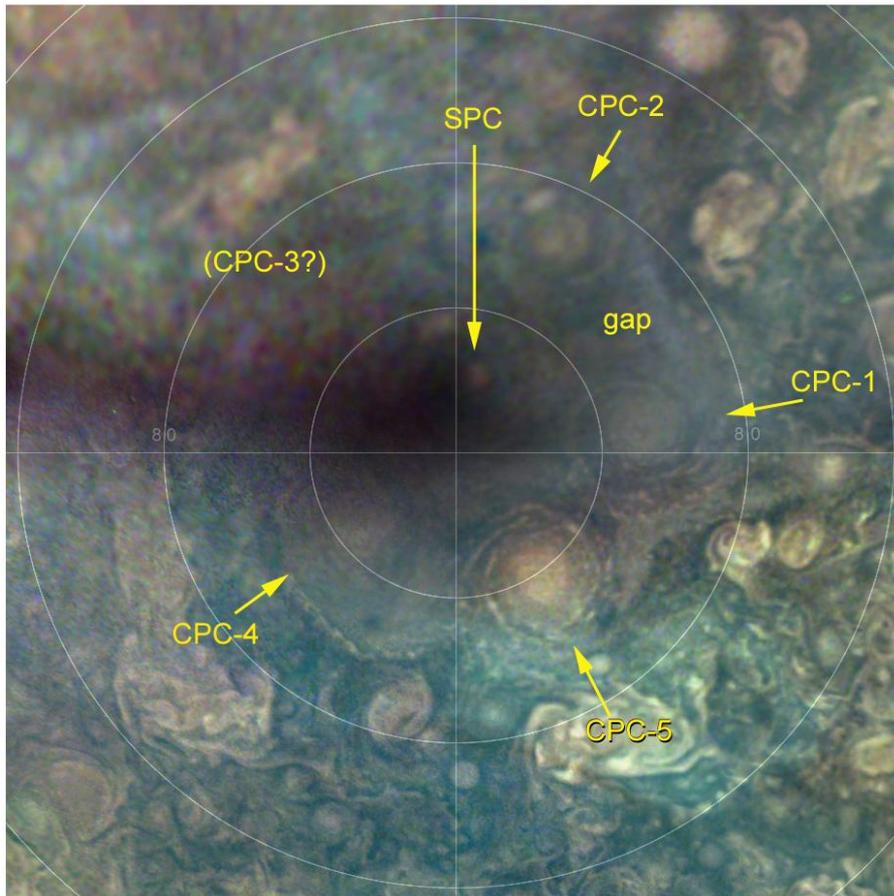
(C) Diagram of observed winds, overlaid on methane map



**Figure 15.** Composite south polar projection maps.

## PJ26: South polar projection map from JunoCam images

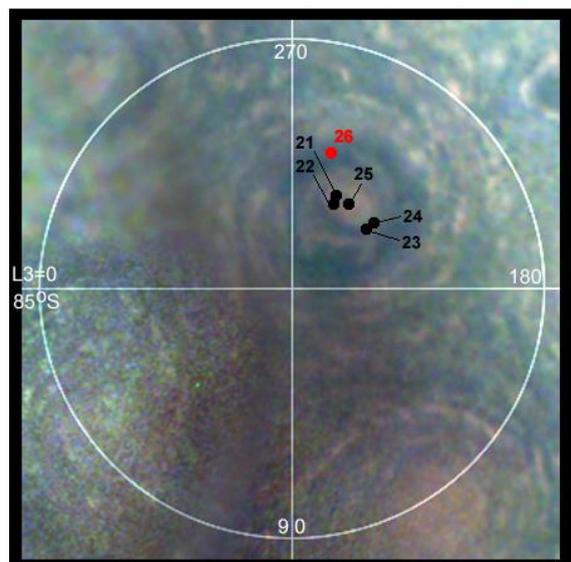
Credit: NASA / JPL / SwRI / MSSS / Gerald Eichstädt / John Rogers



**Figure 16.** Composite south polar projection map: the polygon of cyclones at full resolution.

### Position of SPC w.r.t. South Pole

The centre of the SPC is marked at each perijove, on a background map from PJ25 (& PJ21, lower left) (Enlarged x1.33 w.r.t. standard map)



**Figure 17.** Position of the centre of the South Polar Cyclone at PJ21 to PJ26, relative to the south pole.