## Jupiter in 2019: Report no.4

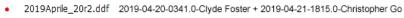
John Rogers (BAA) (2019 May 15)

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## **FIGURES** (Miniature copies)

Full-size figures are in a separate ZIP file.

Zonal wind profile from 2 pairs of images on 2019 April 19-21, by Marco Vedovato using WinJUPOS



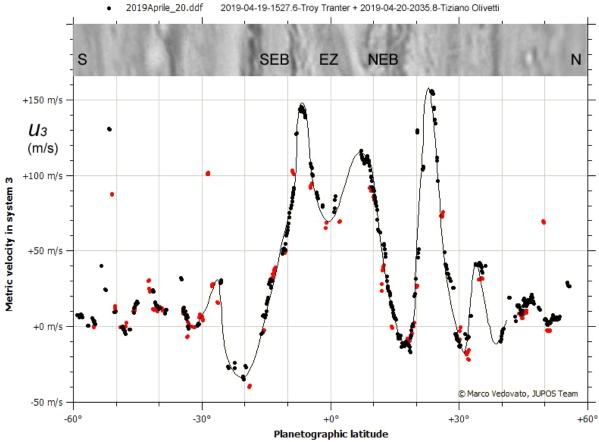
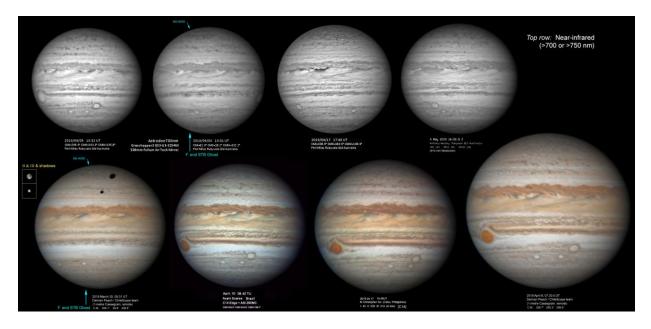


Figure 1.



**Figure 2.** Some of the highest-resolution images from 2019 March to May. Most of this set show oval BA, p. the GRS; two show the f. end of the STB Ghost, f. the GRS.

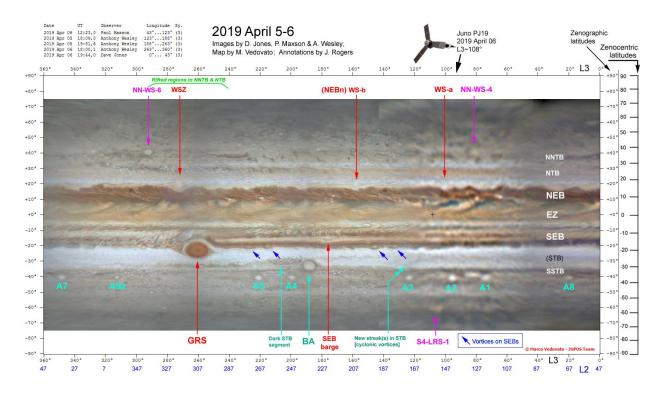


Figure 3

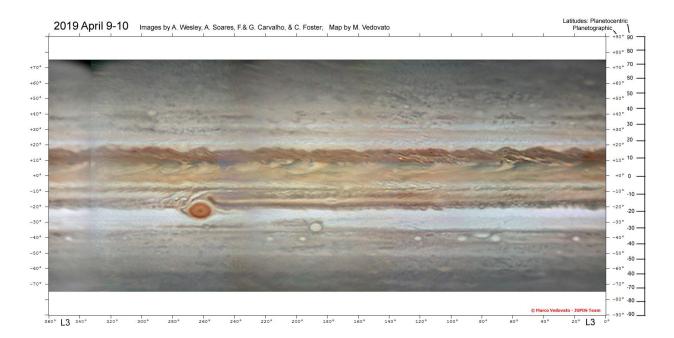


Figure 4

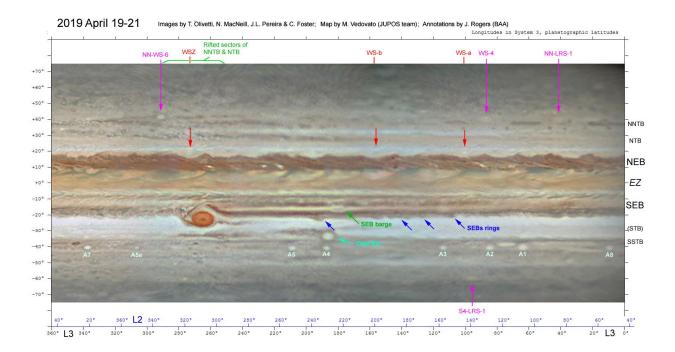
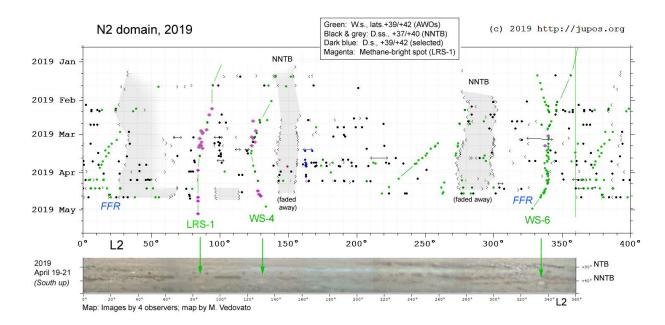
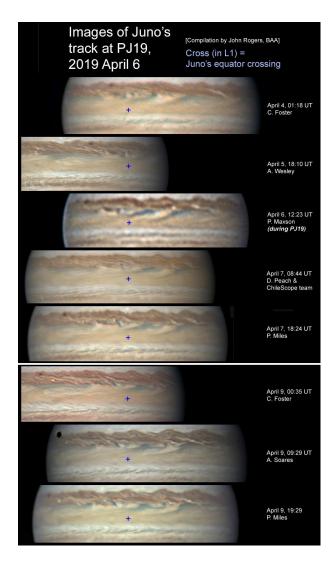


Figure 5



**Figure 6.** JUPOS chart of longitude vs time for the N2 domain (NNTZ ovals and NNTB segments). On JUPOS charts, longitude increases to the right, so the aligned map at bottom has south up.

**Figure 7.** Images of the EZ sector which Juno passed over at PJ19, covering several days around the perijove, with the point of equator crossing at L1=216 marked by a cross.



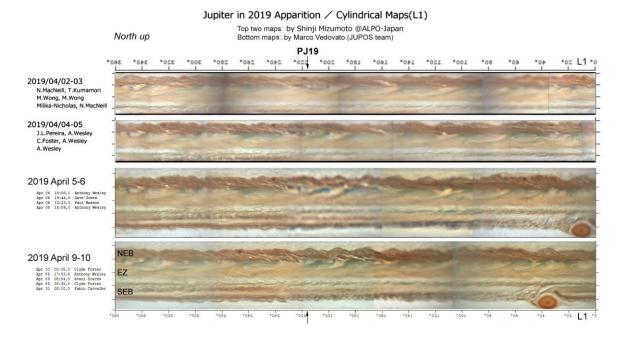


Figure 8. Maps of the EZ for several days around PJ19.

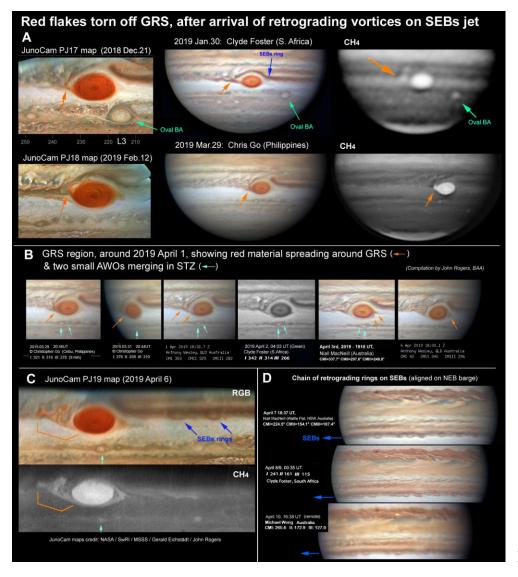
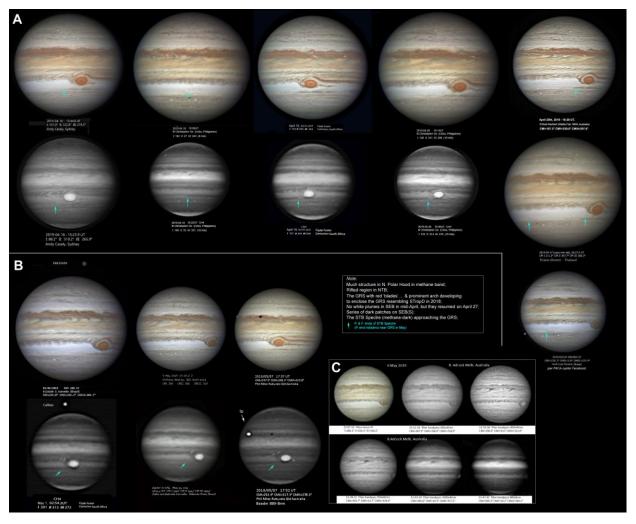
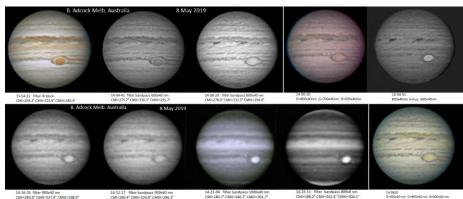


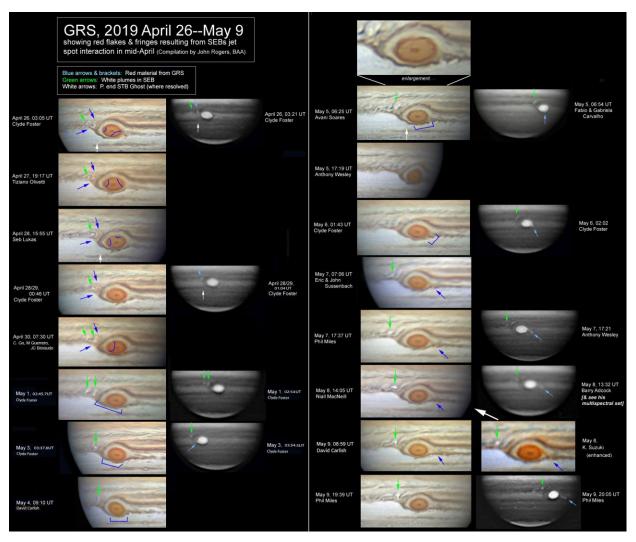
Figure 9



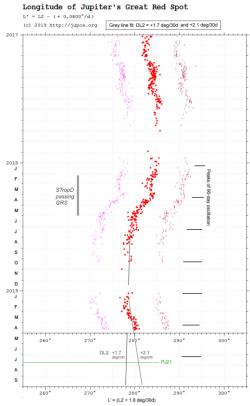


**Figure 10.** More images of the GRS region and the SEB f. it, including methane-band images, showing emergence of red 'flakes' and a large dark grey 'hook' around the GRS.

(A) April 16-28; (B) May 1-7; (C & D) May 6 & 8, multispectral sets by Barry Adcock. Barry Adcock, using a 246 mm apochromatic refractor in Melbourne (Australia), employs a set of filters covering wavebands from 600 nm to 1000 nm, including the methane absorption band at 889 nm and another around 1000 nm. Although continuum images in this range look superficially similar, his false-colour composites and his difference images show that there are variations in colour between 600 nm (orange) and 800-950 nm (IR continuum), with the GRS still being relatively more reflective at longer wavelengths. Conversely, the present EZ coloration is not particularly bright in this range.



**Figure 11.** More images of the GRS region (April 26-May 9), showing more detail of the developments around the GRS and a new white plume outbreak in the SEB f. it.



**Figure 12.** JUPOS chart for the GRS, updating the predictive chart from Report no.3,