

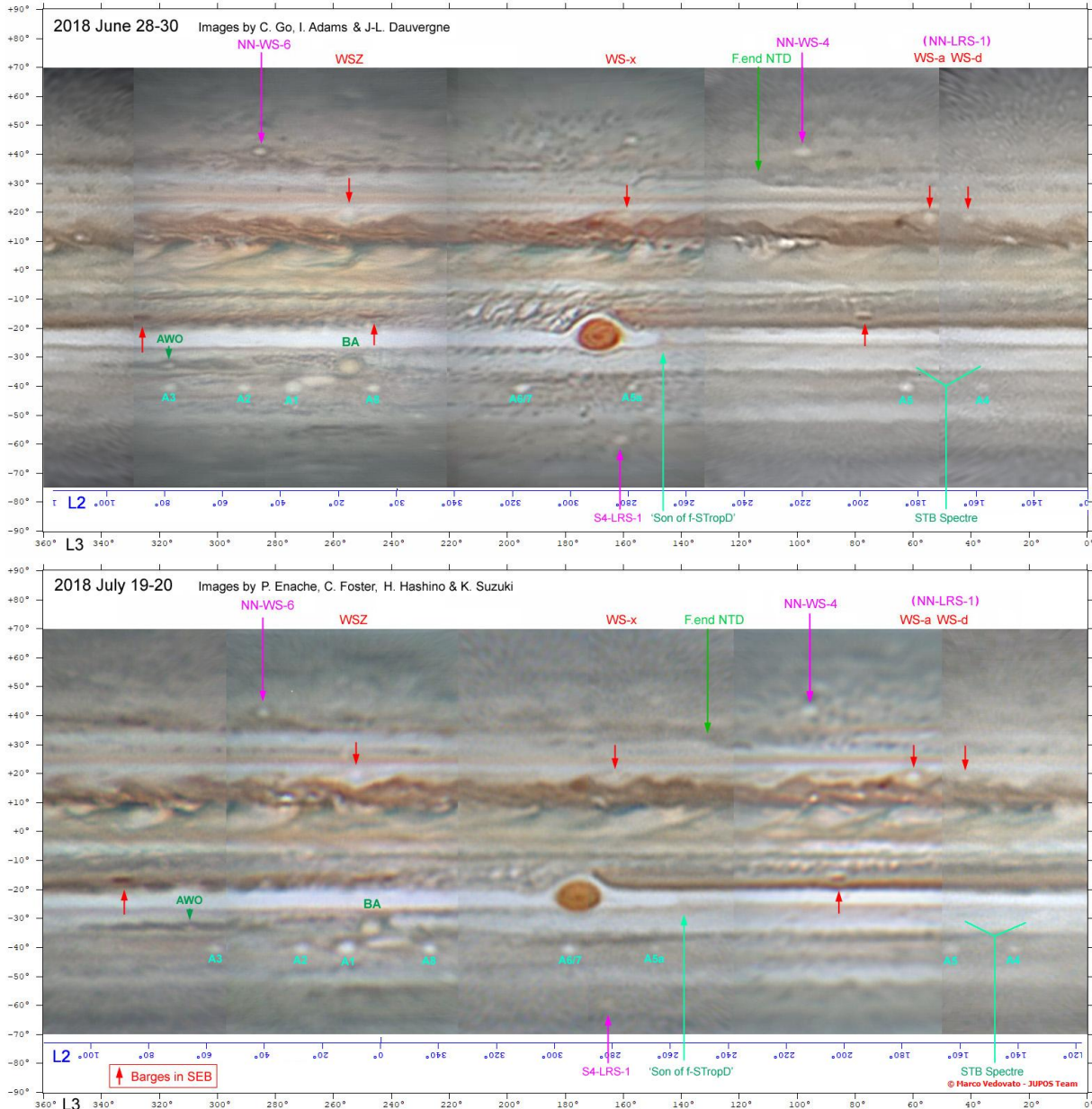
# Jupiter in 2018: Report no.6

John Rogers (BAA), using data from the JUPOS team (Gianluigi Adamoli, Rob Bullen, Michel Jacquesson, Marco Vedovato, & Hans-Jörg Mettig)

## Figures:

### Maps, 2018 June & July

North up Maps by Marco Vedovato (JUPOS team) Annotation by John Rogers (BAA)



**Figure 1 (a,b).** Recent maps of Jupiter: (a) June 28-30; (b) July 19-20. Longitudes in L3, with N up. (Maps for May 23-24 & June 9-10 were shown in Report no.5; maps for July 9-10 and July 14-17 (Einaga) were shown in Report on PJ14. In the Appendix is a larger set in L2 with S up, from June to Einaga's in August.)

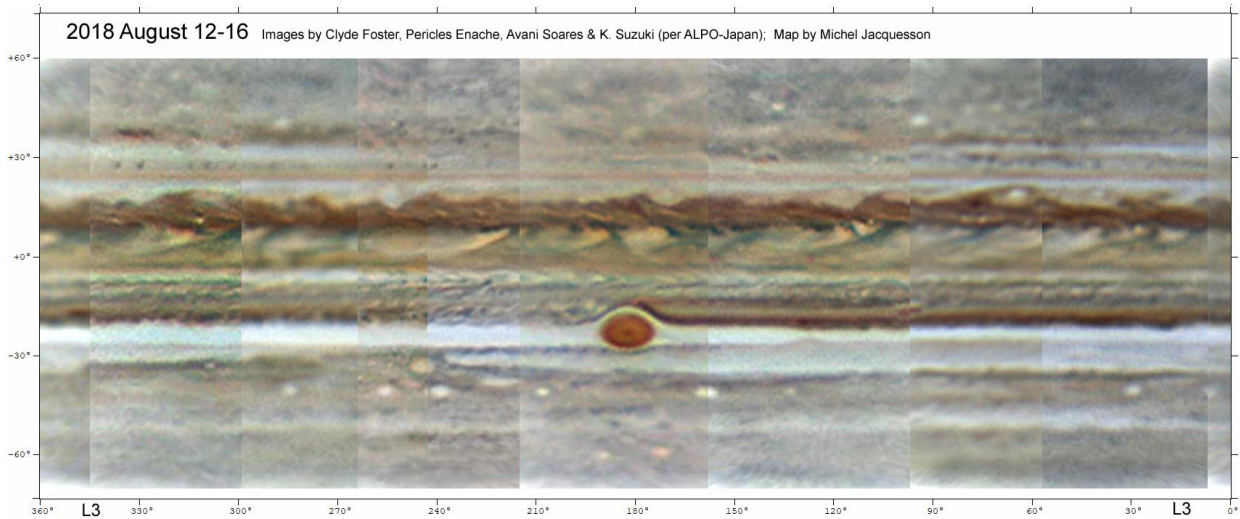


Figure 1 (c). August 12-16.

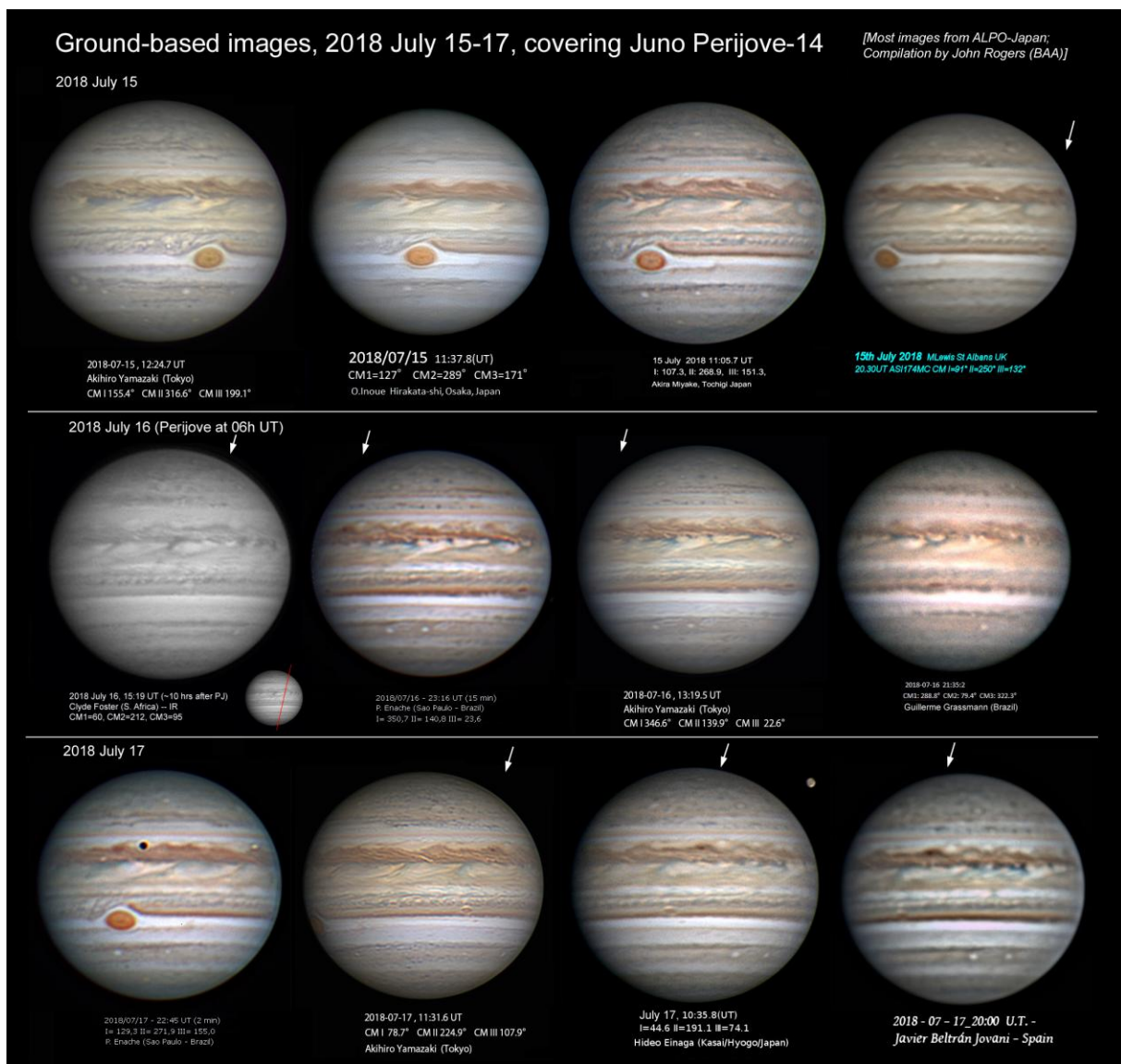
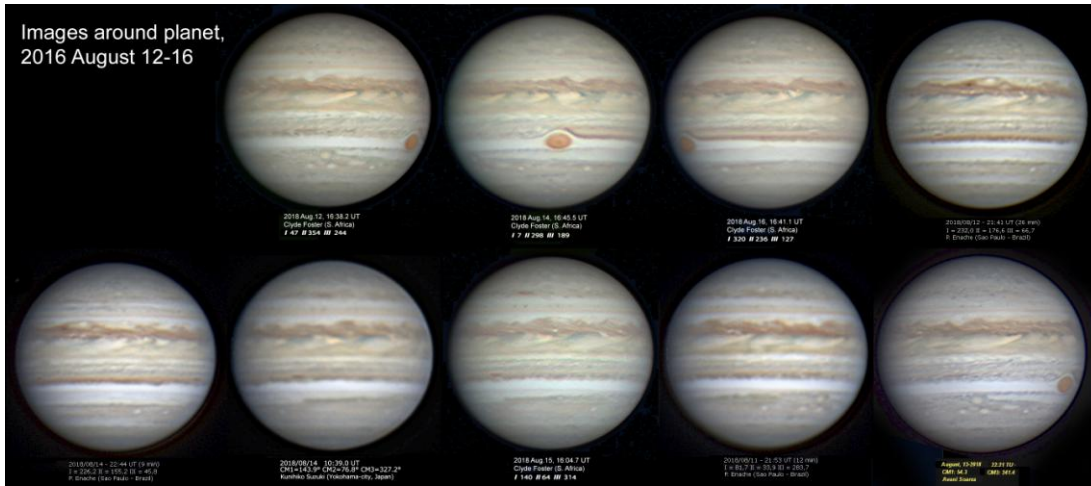
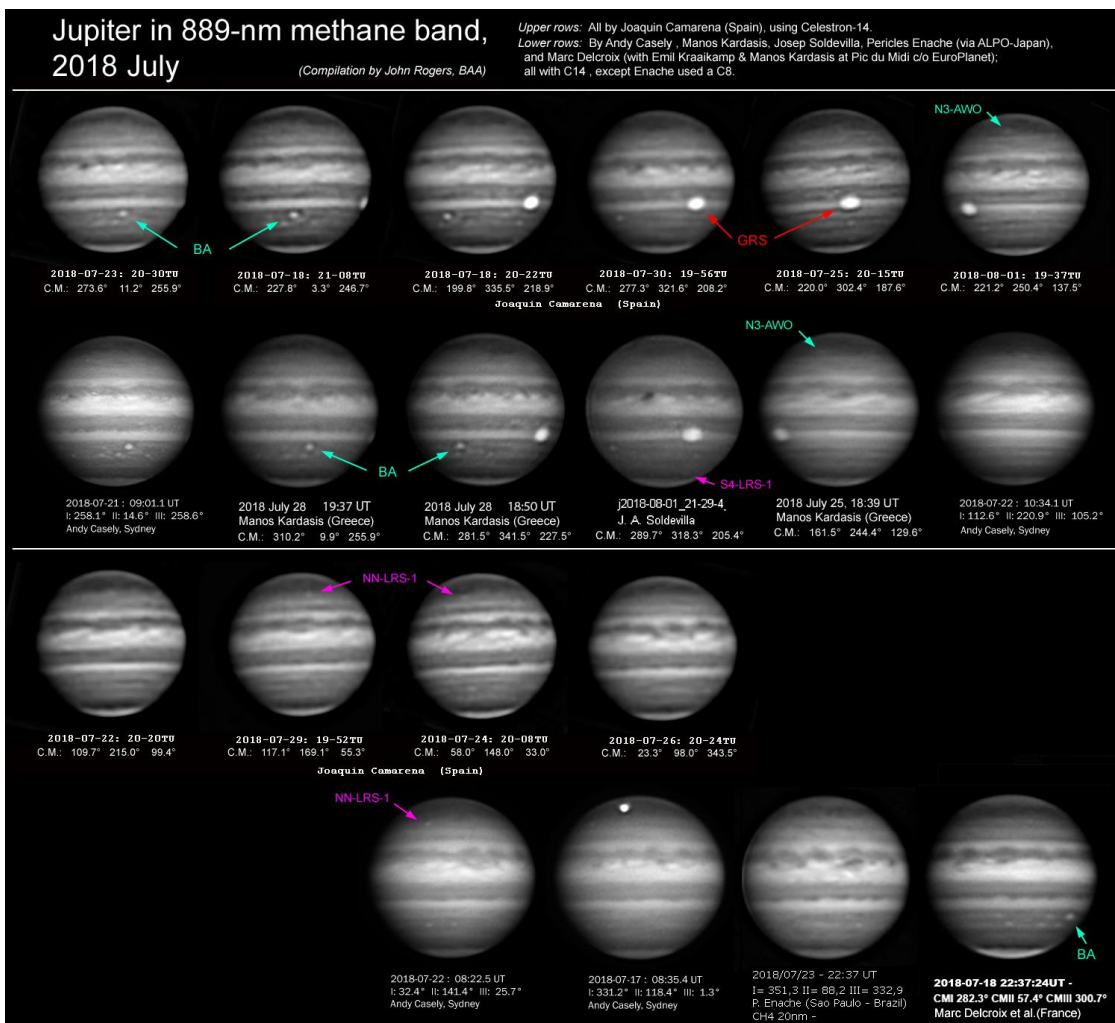


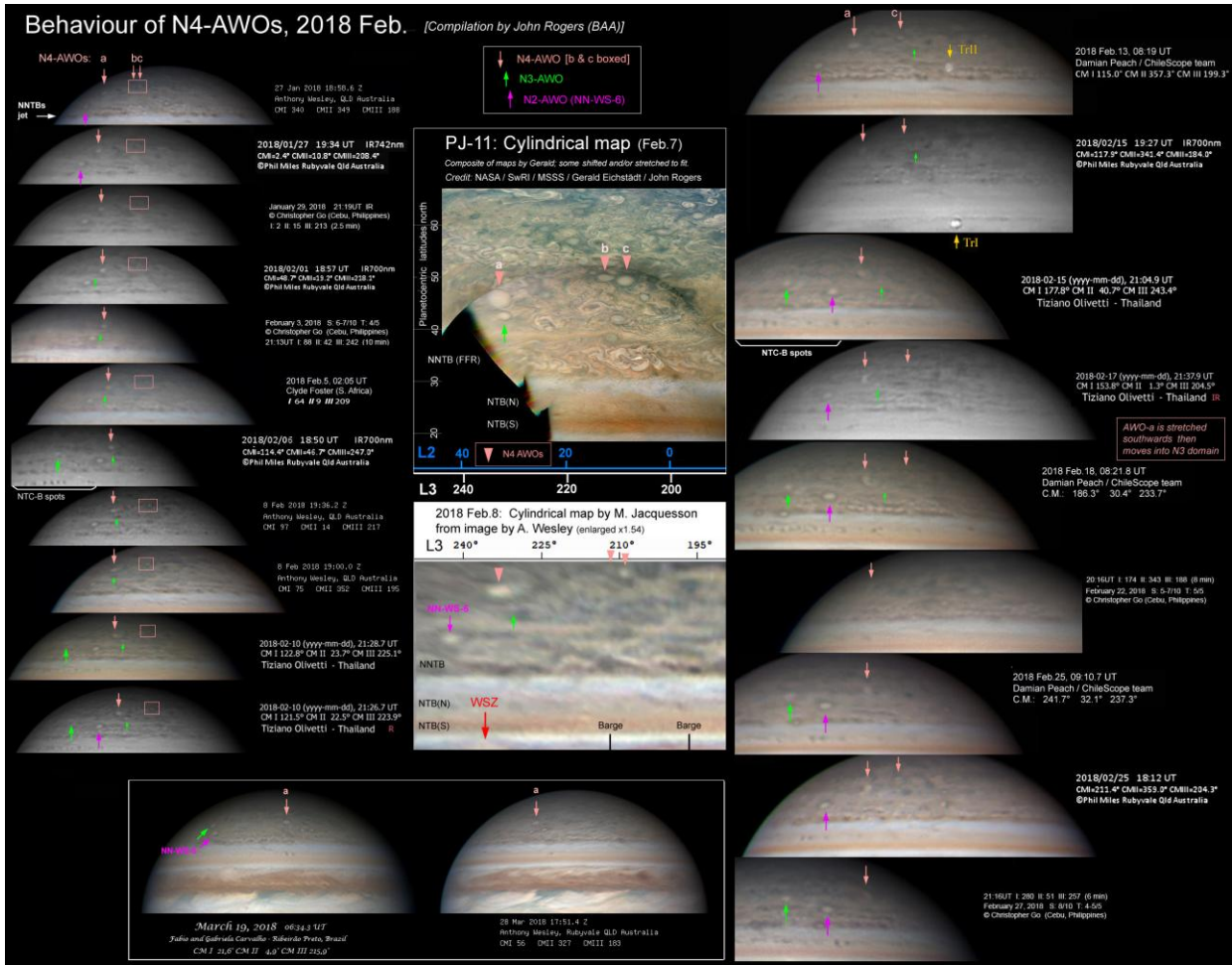
Figure 2. Set of images, 2018 July 15-17, covering Juno's perijove-14.



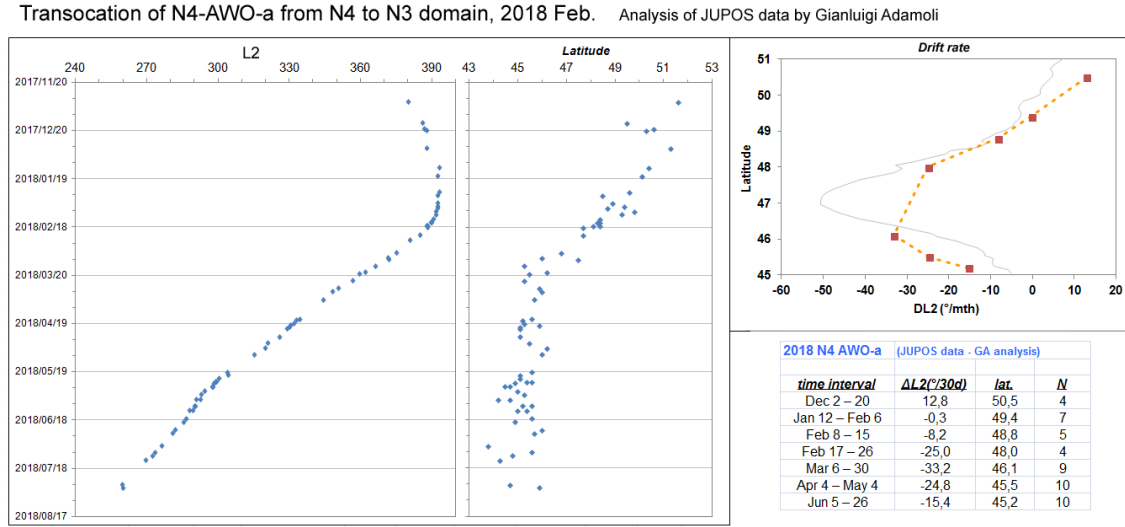
**Figure 3.** Set of images, 2018 Aug.12-16, ordered by longitude. (These were used for the map in Figure 1(c).)



**Figure 4.** Methane band images, 2018 July. Here are two sets of methane-band (889 nm) images from late July, by different observers, ordered by longitude. They were not made with the most selective filters possible, but still show the important features. These include methane-bright anticyclonic ovals, esp. the LRSs (marked), and also the S2-AWOs and (weakly) several others. Methane-dark waves are still prominent in the NEB sector from L2 10-140 (L3 255-25), but not elsewhere.

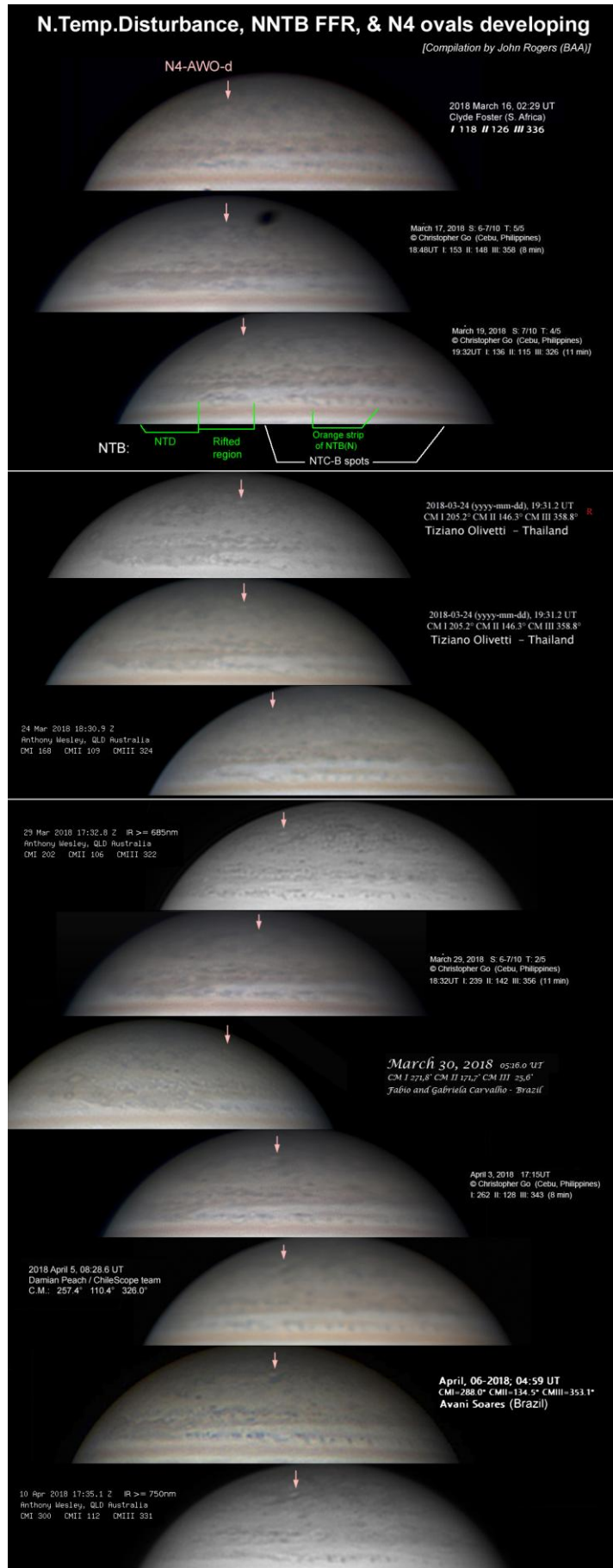


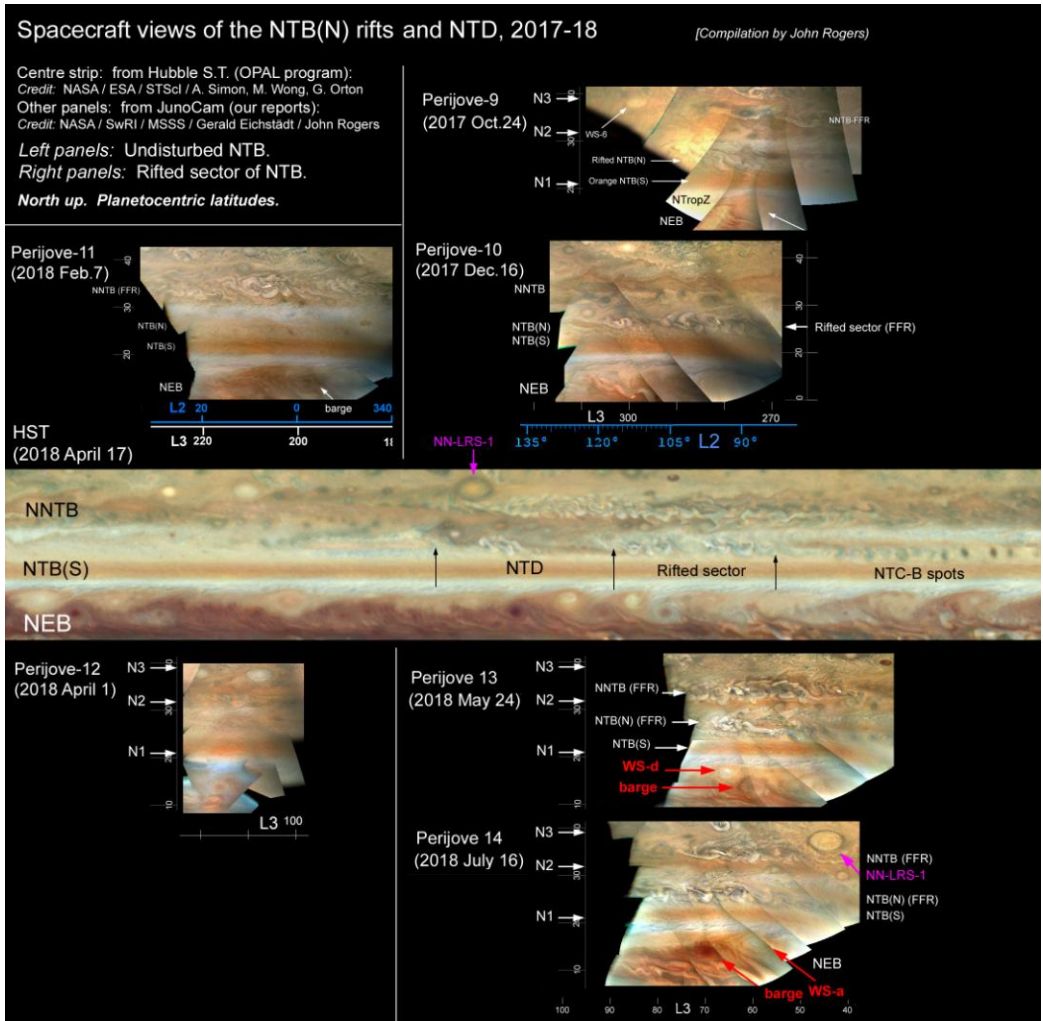
**Figure 5.** These images show the behaviour of three AWOs imaged in the N4 domain by JunoCam at PJ11 (see map in centre). AWO-a moves north from the N4 to the N3 domain, crossing the prograde jet. AWO-b, barely visible in the ground-based images, moves clockwise around the edge of AWO-c until it disappears. The images also show many spots on the NNTBs jet, & NTC-B spots p. the NTB rifted sector.



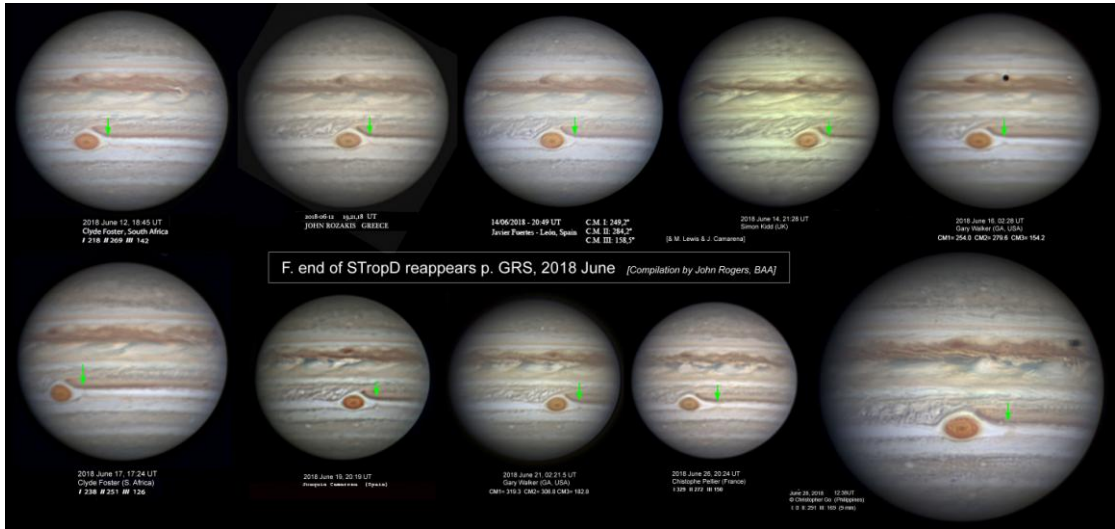
**Figure 6.** Charts tracking the translocation of N4-AWO-a from the N4 to the N3 domain, measured from images in Figure 5. Charts show the longitude (L2), latitude, and speed (DL2) compared with the ZWP from Cassini.

**Figure 7.** Images showing part of the northern hemisphere from March 16 to April 10, showing (at top) a complex region of the N4 domain containing the small AWO-d, and (at bottom) the NTB with NTD, rifted sector (rather quiescent at this time), fading orange remnant of a dark streak, and spots prograding in NTC-B.



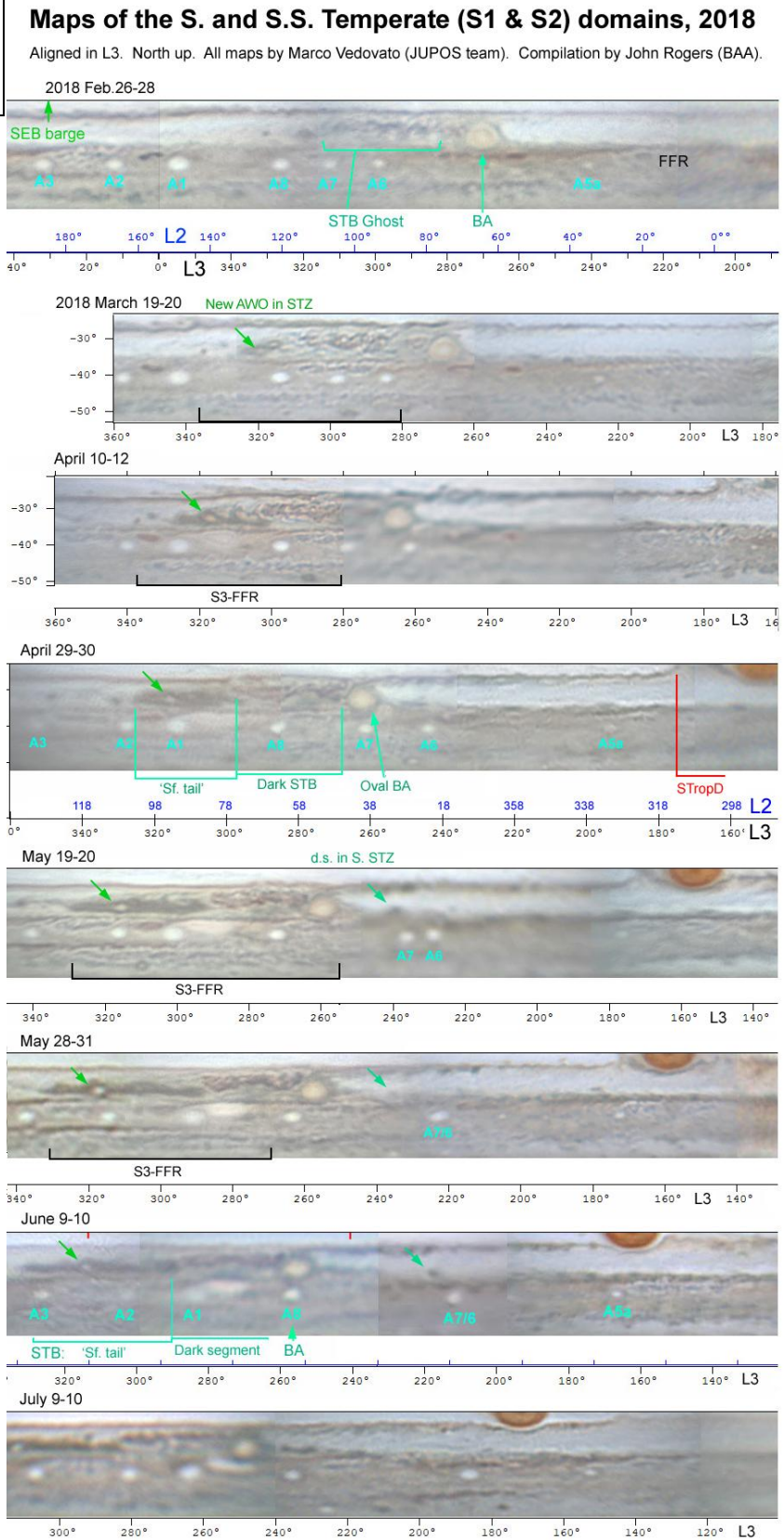


**Figure 8.** The NTB rifted sector and NTD in from spacecraft in this apparition: a map from Hubble on April 17, with index maps of the closeup images from JunoCam. (They are approximately aligned relative to the rifted sector rather than absolute longitude.) Fortuitously, 4 of the 6 perijoves covered the rifted sector (FFR), while PJ11 and PJ12 covered remote, undisturbed sectors.



**Figure 9.** Set of images showing what seems to be the f. end of the STropD reappearing after rapidly passing the GRS.

**Figure 10** (*separate file*):  
**ANIMATION** by Marco  
 Vedovato of his maps,  
 covering the STropD and its  
 entire passage past the GRS.  
 {GRS-STrD-  
 2018anim\_MV\_FINAL}



**Figure 11.** Set of maps showing part of the S1 and S2 domains. (All maps by Marco Vedovato, with north up.) In the S1 domain, the maps show oval BA and the new turbulent STB segment f. it formed from the STB Ghost; and in the STZ, the formation of the very dark 'Sf. tail' and the little AWO within it; also see Figure 12. In the S2 domain, the array of AWOs, with A6 and A7 merging on May 28-30, and the pale area between A8 and A1 turning white.

**Figure 12.** Set of images showing part of the southern hemisphere.

(S1 domain:) In the STZ, the very dark 'Sf. tail' and little AWO within it, both newly forming. The little AWO shows possible anticyclonic motion, and reddish colour (May 24, April 3) and was methane-bright from April 3 onwards – also in the PJ12 (April 1) south polar methane map [in my PJ12 report].

(S2) S2-AWOs A6-A8 & A1-A3, with the pale area between A8 and A1 before it turned white [see Figure 11]; also variation in activity in a cyclonic circulation between A2 and A3, between dark-quietescent and FFR states.

(S3) The long FFR and the sector of retrograding dark spots f. it.

(S4) A very dark streak or barge which elongates and splits, plus other such barges p. and f. it.

