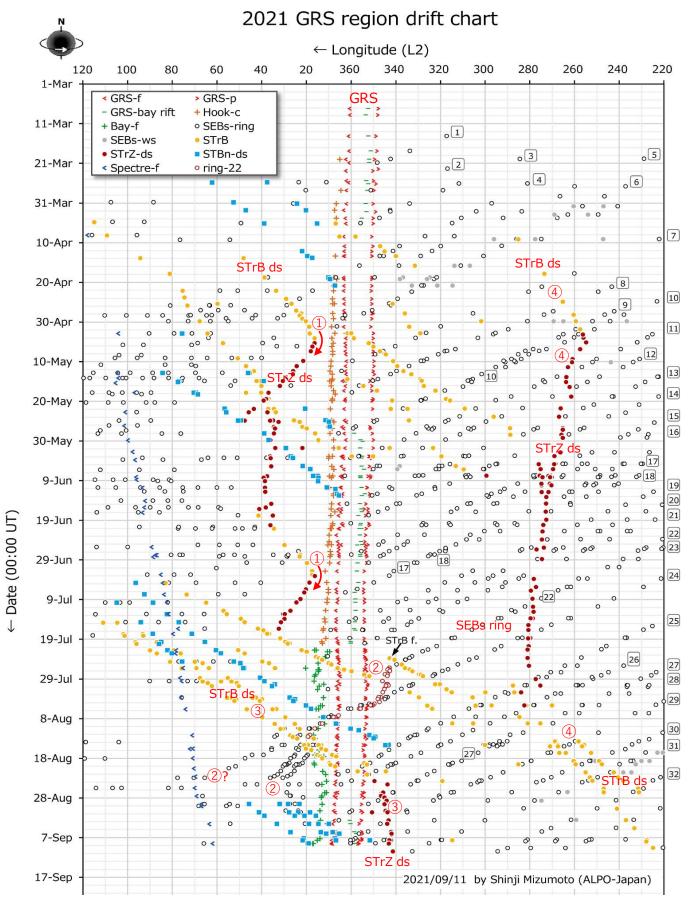
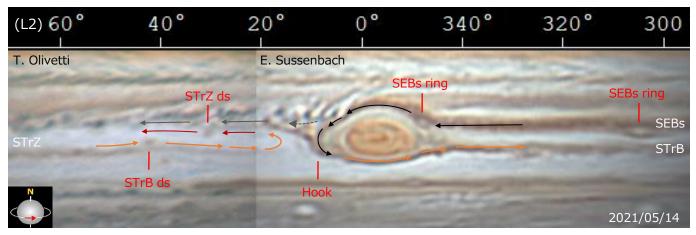
## 2021 Jupiter – The dark spots around the GRS showing unusual movements



 The area like the "Circulating Current p.e." was formed on the GRS f. side. <sup>1)</sup> (near L2=15°: This disappeared with the disappearance of the "Hook" on Jul. 23.)

(1) In early May and early Jul., the dark spots prograded the northern edge of the STrB (L2:  $1.6^{\circ}/day$ ) shifted north (near L2=15°).

 $\rightarrow$  After that, the dark spots retrograded on the STrZn (1.6°/day).

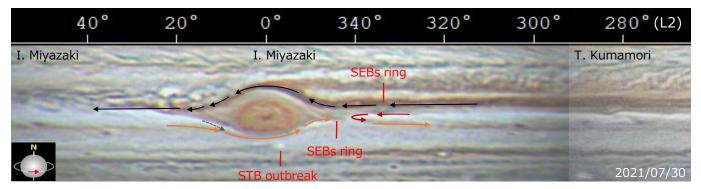


The area like the "Circulating Current f.e." was formed on the GRS p. side (near L2=340°).
It seems that it existed from mid-Jul. to mid-Aug..<sup>2) 3)</sup>

For the formation process, refer to Jul. 16-30 maps.

It seems that the disappearance of "Hook" and the accompanying fading of the STrB are related to the formation of this area.

- ② In late Jul., the retrograding SEBs ring (L2: 3.7°/day) shifted south just before the GRS-bay and slowed down (0.9°/day).
  - → In early Aug., the following ring (4.3°/day) caught up and the two rings entered the GRS-bay one after another (3.7°/day).
  - $\rightarrow$  In mid-Aug., after passing the GRS-bay, they slowed down again (0.9°/day).
  - $\rightarrow$  After that, the two rings seemed to disappear while gradually accelerating.



## Others

- ③ In mid-Aug., the two STrB dark spots (L2: -2.8°/day) passed south of the GRS (in a stretched shape). <sup>2) 3)</sup>
  - $\rightarrow$  In late Aug., the dark spots after passing shifted north and moved to the STrZ.
  - $\rightarrow$  Slowed down (-0.5°/day).

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<sup>(4)</sup> The floating dark spot on STrB-STrZ  $^{2) 3)}$ 

STrB d.s. (shifted north)  $\rightarrow$  STrZ d.s. (shifted south)  $\rightarrow$  STrB d.s. Latitude shift was repeated due to approach to the SEBs rings.

 $\rightarrow$  Drift rate changed each time.

## Summary

- Two areas like the "Circulating Current (one side)" were formed.
  - $\rightarrow$  The latitude of the dark spots passing near them has changed.
- Latitude of the dark spots changed due to the approach with other dark spots and the GRS.
- $\rightarrow$  The drift rate changed significantly due to slight latitude change.
- $\rightarrow$  The above follows the Zonal Wind Profile.

Zonal Wind Profile - OF	PAL 2016]	I. Miyazaki
-50 0	50 Chimney* 100	150 (Wind Velocity: m/sec)
-20		
-30	STrZ (STrB) ds	the particular and the second second
-40 (Lat: deg)		the second s
(Lat: deg)	and the second s	2021/09/07

<sup>\*</sup>Chimney: GRS-bay rift

- References (Links)
  - 1) Mizumoto S, The current appeared like the "Circulating Current p.e." (ALPO-Japan) <u>http://alpo-j.sakura.ne.jp/kk21/Current%20like%20Circulating%20Current-E.pdf</u>
  - 2) Mizumoto S, Jupiter in 2021 GRS-SEBs Animation (ALPO-Japan) http://alpo-j.sakura.ne.jp/Latest/j Cylindrical Maps/j21GRSanimL2n.htm
  - 3) Mizumoto S, Jupiter in 2021 GRS-SEBs Region Maps, P-6~10 (ALPO-Japan) <u>http://alpo-j.sakura.ne.jp/Latest/j Cylindrical Maps/j21GRSmapsL2n.htm</u>