Elucidation, this is the engine of Super-Rotation caught by Venus Express/ESA

*Hirofumi Mase¹

1.none

Only At this line, hot body - cold body - hot body, the hot body pulls each other(1). I call this hypothesis "2-temp.-rotating-disk"(Rotating-Disk). It's revealed that it can be observed easily every time at one period of Candle Oscillator(2). I'd like to explain this time the mechanism of the atmosphere's superrotation of Venus(SR) that the knowledge which Venus Express(VEX)/ESA got doesn't contradict.

I enumerate the matter(a-e) which can be confirmed when seeing image sequence of vortex in about 2000km radius from the South Pole at an altitude of about 65km(Fig.01-13)(4). (a)It's general that the vortex and the circumference(Territory) do the left rotation overall(Precession, angle 14deg./2h). (b)By skid or excessive rotation or both of them, in a body, Territory is moving(max 2000km) in a short time(4h) once per 2 days(Great Movement)(Fig.01,04,07,10,13). (c)By the movement that Territory was grasped at a specific place and was driven, all Great Movement advanced towards the direction where 150deg.W is made the center. (d)By changing the shade while maintaining the size-shaped mostly, the huge vortex occurs and disappears. But the shape of every vortex is various. (e)By Great Movement, the center of gravity of the vortex comes away big from the rotation center. And the new vortex of a state that both of them agree occurs. It changes from the previous one and meets next Great Movement.

I got (f)(g)(h) from the above. (f)Fact of (a)(b) shows that the structure(probably, flywheel and gyro) that Territory rotation doesn't collapse by Great Movement is equipped. (g)Fact of (b)(c) shows that a specific place in Territory is pulled to the point of almost fixing outside Territory. (h)Fact of (d)(e) shows that the vortex maintains, by flows along its structure, the rotational energy to the extent of that the Territory-rotation is influenced. And shows that, when the vortex rotation becomes unjust by external force(Great Movement), the vortex changes and adapts itself to the environment.

I'd like to build the model that fills (f)(g)(h) at the same time(Fig.17). At Layer2 where the high 65km is made the center, cold parts coexist with hot parts and polar dipole(6) is formed. This vortex produces flows in self-controlled way by using temperature structure and maintains the rotational energy by becoming rotational flow overall. This is main drive force of SR(Rotating-Disk1). Layer3, where the high 80km is made the center, is mounted on Layer2, and the same movement is done. When Hot Block near the edge of Layer3 is close to the point of polar collar, Hot Block is pulled each other between Hot Belt(turned by Rotating-Disk1)(Rotating-Disk2). SR is promoted temporarily at this time, so this must also be drive force of SR. (The part of Hot Belt is attracted to the pole direction)

Through "caster", Layer2 and Layer3 get on the turn-table-Layer1 that has the function of the flywheel and the gyro. Drive force is transmitted to Layer1 from Layer2 and Layer3. Stability is transmitted to Layer2 and Layer3 from Layer1.

(1)MASE/JpGU2008/E108-P007 (2)MASE/http://homepage3.nifty.com/hmase/upload110120web.pdf (3)MASE/J-GLOBAL ID:201302212255521162 (4)ESA/released 07 April 2011/The shape-shifting southern vortex of Venus/Reconstruction of the motion of Venus's polar atmosphere.(Credit:

ESA/VIRTIS-VenusX/INAF-IASF/LESIA-Obs. Paris/ Univ. Lisbon/Univ. Evora (D. Luz, Univ. Lisbon & D. Berry, Univ. Evora)

(this continuation is indicated on the drawing)

