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> Interactive Comment

Interactive comment on "Observation of a tidal effect on the Polar Jet Stream" by C. H. Best and R. Madrigali

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The polar vortex (Polar Vortex) is an area of low pressure semi-permanent mail share on Poli, which is delimited in its extension in latitude, right from the position of the polar jet stream (Jet Stream Polar). If we look from top projection on the north pole (as the South Pole) we notice the presence of this high altitude cold low pressure area, which limits its expansion and extension in latitude, bounded by the specific provision of the Polar Jet Stream, which defines the precise location of the VP in latitude. It is the change of speed and direction of JS polar under the pulling action of the gravitational force, which builds the formation of Rossby waves, with periodic variation of zonal flow or semizonale, meridian flow and retrograde (Rossby waves). Is with the construction of pronounced Rossby waves, that you change the location and expansion of the Polar





Vortex to the mid-low latitudes, building all the time disorders (baroclinic instability) that affects the lower middle latitudes. So you can name is the polar vortex as the Jet Stream, as they are part of the same entity atmospheric. In the paper he was named both the Polar Vortex the JS, since they are a single entity in proportion and there could be the Polar Vortex if there were the polar jet stream, which defines the extent and influence of atmospheric and climate VP to the mid-low latitudes, the center engine of the World Meteorological circulation. A complex mechanism but effective, JET STREAM / POLAR VORTEX since distributes air masses and baroclinic instability, not only modifying them at different latitudes of the planet, but also with the same latitude. Hence the importance of science to have discovered a major cause that moves the JS, The Tides, and that is to interact on JS deforming periodically and cyclically the Polar Vortex in expansion-contraction, at different latitudes world, with distribution throughout the global atmospheric circulation. On paper we talk about the Polar Vortex, but is intuitive to understand that the change in gravitational force has an impact on the Polar Jet Stream, changing accordingly the delimitation of the Vortex Polare.alle various latitudes, so was perplexed and surprised by this his reply. because the answer was already evident in the scientific interpretation of the meaning of the Polar Vortex and Polar jet stream.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 22701, 2015.

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