

Hurricane/tornado physics is wrong

Edgars Alksnis
e1alksnis@gmail.com

Due to wrong natural philosophy scientists scratch only surface of hurricane and tornado phenomena. Critique of mainstream science and some considerations which result from application of DesCartes philosophy in astrogeophysics are given.

keywords: hurricane Irma, hurricane Harvey, hurricane physics, vortex as fractal, hurricane theory critique, Coriolis effect wrong, tornado, Le Chatelier's principle, Einstein Poincare ether, Veinik, weather modification, solar activity, Huracan.

To deny the ether is ultimately to assume that empty space has no physical qualities whatever. The fundamental facts of mechanics do not harmonize with this view.

Albert Einstein



Fig. 1 Huracan was among the earliest and most ancient Mayan gods who were involved in the several cycles of creation.

1. Recent hurricanes Harvey and Irma have put things in their places- despite good knowledge of Atlantic sea surface temperatures as well as supercomputers in service of meteorologists, prediction of performance of tropical storms remain incomplete and

sometimes faulty. This will add a heavy argument to long-standing suspicion of dissident scientists that hurricanes and tornadoes are outside of understanding of university physics.

2. In latest decades we see undoubtedly short-term and long-term cosmic irritation of the Earth which generally follows Le Chatelier's principle (whenever a system in equilibrium is disturbed the system will adjust itself in such a way that the effect of the change will be nullified). Classical example here is reaction of „geomagnetic” field to the eruptions on the Sun. Recently Savchenko (2014) asked himself- why science do not use Le Chatelier's principle as universal law? The answer was- because both in action and reaction partially are involved ether (which does not exist according to physics textbooks). As we know from history of science, Einstein initially abandoned ether concept, than after 1916 returned to it- basically like to Poincare theory around 1900 (Granek, 2001, cf. Mathis1). Motif of Einstein besides relativity should be- needs of celestial mechanics. „New ether” seemed to be just like 19th century ether concept with one difference- it is not viewed more as being in a state of absolute rest. As we remember, ether concept never came back in physics textbooks so for example celestial mechanics remain non-mechanical still (Mathis2, De Mees 2003).

3. Last piece for solving of astrophysical puzzle perhaps found Mishin (2009) when he suggested that liquid is simply dense ether. Thus different media- ocean, Earth's (liquid) mantle, atmosphere, and space have something in common which explains their interaction in climate affairs. For explaining the data of astrophysics Bortels had proposed a hypothesis of „climatic radiation” back in 1956.

Taking in account this, heating and evaporation of ocean also can partially proceed in a mode do not foreseen in textbooks.

4. In author's worldview Earth's mantle is more liquid and dynamic as in geophysical theory. Turbulent liquids and gasses can transfer angular momentum trough the space. This has been shown for rotating liquid helium (Tajmar and Plesescu, 2009) and considered for exoplanet system (SPACE.com, 2011). Earth radiation from mantle turbulence obviously cannot freely penetrate lithosphere outside of tectonic faults.

5. Besides reasoning about Atlantic sea surface temperatures scientists undoubtedly feel effects from vorticity (fig. 2). Thus Emmanuel speaks about „unique and poorly understood nature of the air-sea interface” which would sound weird if only temperature and aerosols were involved. Strangely for standard reasoning sounds also following point, cited by Emmanuel: „early observations of cloud motions established that tropical cyclones are highly concentrated vortices that basically move with the background wind in which they are embedded. By the end of the 1940s, however, Davies (1948) and Rossby (1949) had established that vortices alter the vorticity distribution in their environment in such a ways to induce a poleward and westward drift of cyclonic vortices”. We can read further that there is a theory for hurricane forming when small vortices merge together in a big one.

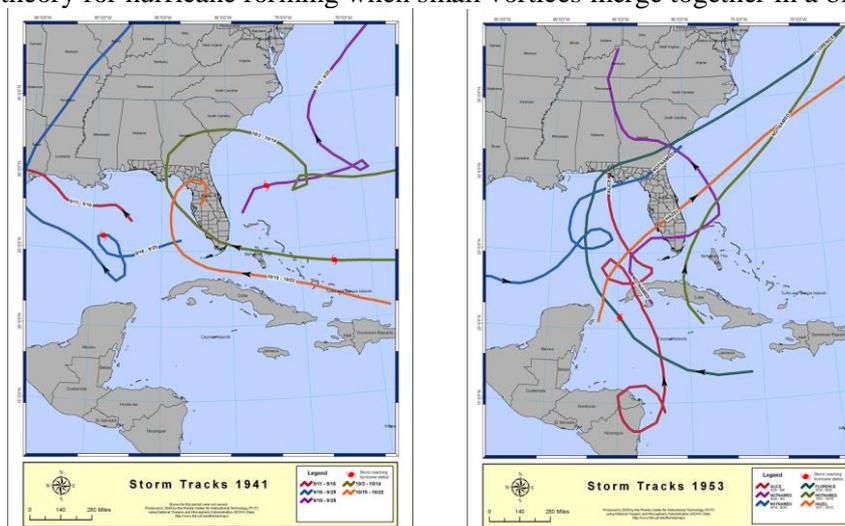


Fig.2 Atlantic tropical storm tracks near Florida in 1941 and 1953 showing loops in hurricane paths. Credit: Florida Center for Instructional Technology

Finally we have been told that „vortices that strongly resemble tropical cyclones occasionally form well outside the Tropics, including in the Mediterranean (see, e.g., Reale & Atlas, 2001) and sometimes at very high latitudes, where they are referred to as *polar lows*. Although this phenomenon may encompass a broad class of physical processes, some of these events appear to be physically isomorphic to tropical cyclones (Emanuel & Rotunno 1989). Most occur during the colder months, especially autumn and winter”. Ex-hurricane Ophelia is good example here (Fig.3).

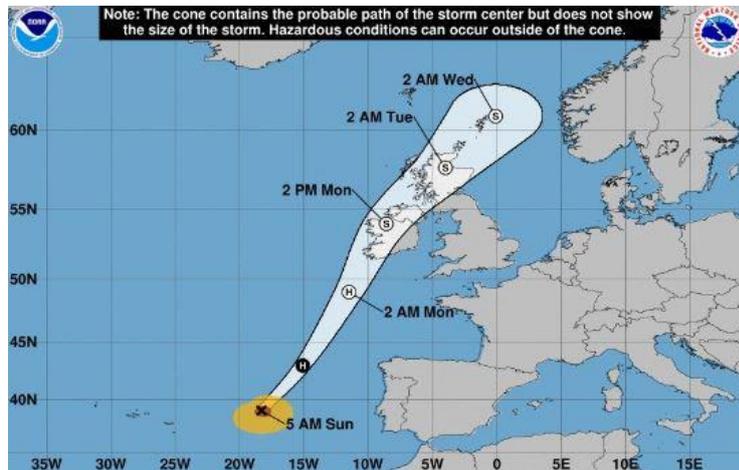


Fig. 3 Projected path of ex-hurricane Ophelia. Could be understand better if Earth’s mantle was more liquid as in textbooks. Credit: NOAA.

6. Thus temperature is not important for creation and development of „tropical cyclone”. Important is level of available energy, which source is typically associated with sea surface temperatures. However one cannot imagine that temperature only driven process can produce wind speed 85 m/s. Not for surprise, spatially resolved correlation between sea surface temperatures and hurricane frequency/intensity remain poor (fig. 4). Pure sea surface temperature- hurricane intensity correlation also has been found as dependent from other factors (Michaels et al., 2006).

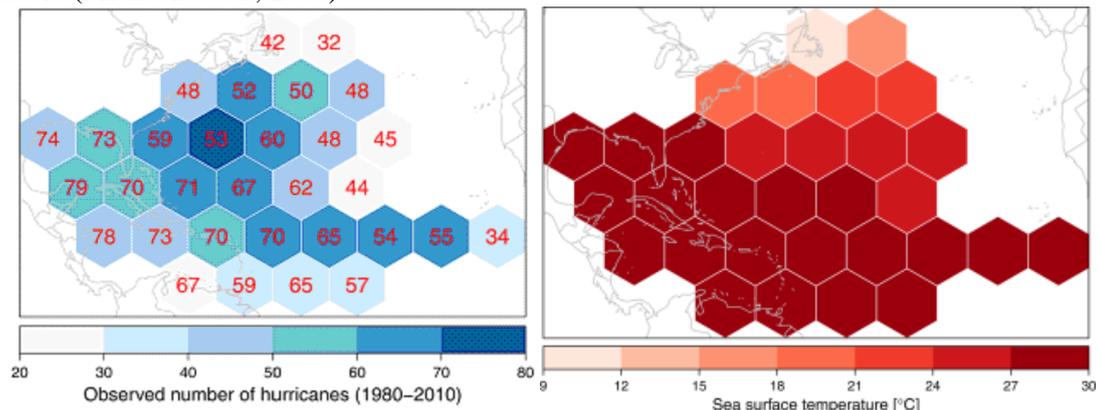


Fig.4 Poor spatial correlation between observed number and intensities of Atlantic hurricanes (left) and August to October sea surface temperatures (right) (1980–2010). From Strazzo et al. (2013)

If we look to hurricane trough the goggles of mainstream science as an apocalyptic Carnot machine (fig.5) which „can appear at any time”, difference in one degree of lower temperatures hardly can critically influence probability of all process. It is not clear also how scheme from fig.5 explains real vortices we see from space.

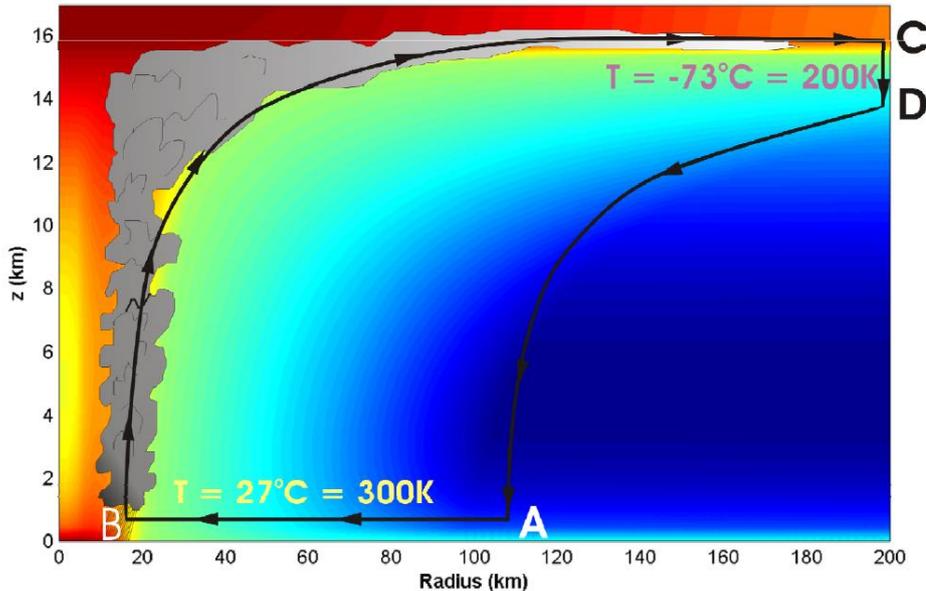


Fig. 5. Temperature centered look to hurricane problem. From: Emmanuel K. *Hurricane physics*. Internet.

Question about hurricane energy release within standard reasoning gives interesting results: total energy released through cloud/rain formation for average hurricane is estimated as 5.2×10^{19} Joules/day but estimation of wind energy for average hurricane gives the number 1.3×10^{17} Joules/day. One can see that the amount of energy released in a hurricane (by creating clouds/rain) that actually goes to maintaining the hurricane's spiraling winds is a huge ratio of 400 to 1 (NOAA1). More likely however here is opposite scenario- hurricane is mainly vortical phenomenon and corresponding clouds/rain forms partially due to certain catalytic effect of hurricane.

Regarding standard tale of hurricane specialists „water evaporates etc. etc.”- it was noticed from physics dissidents that modern interpretation of thermodynamics is incorrect. Perhaps is good time to revisit concept of Byelorussian academician-dissident Veinik (1991).

7. Let us move from infertile mathematics and narrow-minded reasoning to observations and true science. Dr. Johnson (2017) had regularly observed performance of small vortices on water, made some experimentation and tells us the following:

- a) spinning vortices several feet's in height forms on the nearly glass smooth surface of water in dead calm air (and not in the wind or turbulent water),
- b) vortices move in the same direction the water is flowing (with no wind) with velocity around $1/3$ or $1/2$ the velocity of the water.
- c) once a hurricane goes over land, its strength rapidly degrades and also that a lot of tornadoes are reported (which carries away rotational energy of a hurricane),
- d) hurricanes over land are generally observed to dissipate power remarkably rapidly, and simple friction with the ground cannot explain the massive reduction in kinetic energy, while the spawning of multiple tornadoes seems to provide such an explanation.

8. North hemisphere hurricanes occur mainly around autumnal equinox time. Graph of hurricane frequency by date is not smoothed Gaussian probability curve but sharp peaks (fig.6) which illustrate importance of equinox phenomena here. Scientists do not comprehend cause for equinoctial effects in geophysics (Alksnis, 2013); data from figs.6,7 make a strong assault to chaos theory.

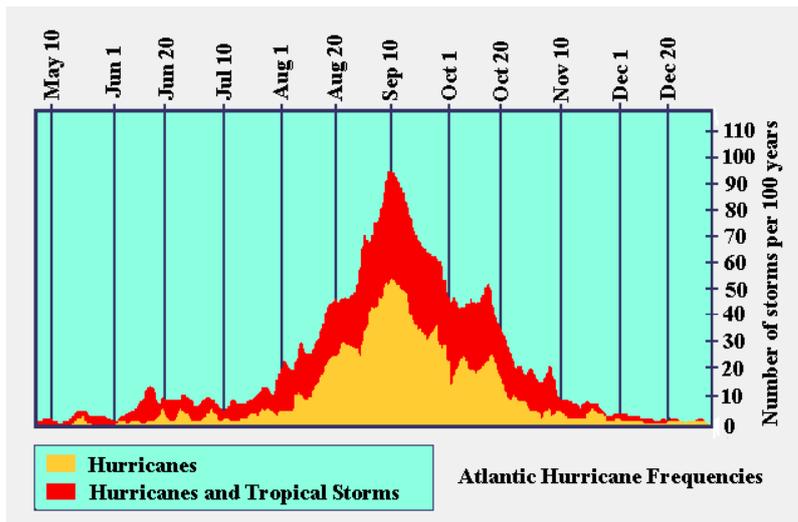


Fig. 6. Graph of hurricane frequency for the Atlantic Ocean hurricane season. Image credit: NOAA.

Autumnal equinox is period with increased potential for macroturbulence due to equator connected Earth's radiation (see for comparison seasonal effect to satellite anomalies (Fig.7).

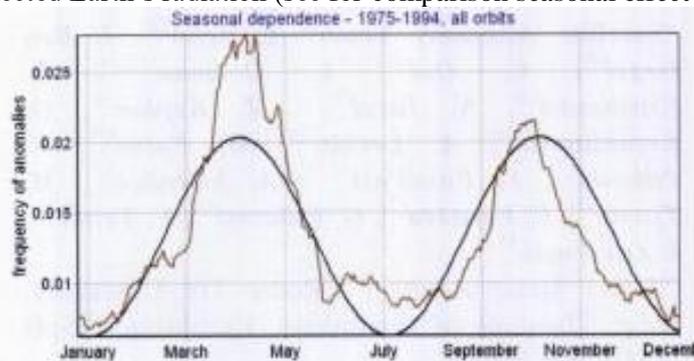


Fig. 7. All orbit satellite anomalies by month. From Dorman et al., 2011

9. Scientists do not comprehend also effects to the Earth from solar activity, which are mainly vortical (see for example Abarca del Rio et al., 2003, Moerner, 2013). Moreover, powerful vortices on the Sun had been revealed by ESA spacecraft (1998). Effects from solar variability to geophysics may be with some phase lag as we see for example from connection of solar activity and terrestrial volcanism (Khain and Khalilov, 2008). In slower processes a direct correlation between solar variability and hurricane intensity has been spotted: 75% reduction of Caribbean hurricanes during so-called Maunder minimum (1645 to 1715) (Trauet et al., 2017). Abnormalities in solar rotation during Maunder minimum had been reported (Ribes et al. 1988).

10. Mathis (2011) drew attention to unjustified use of Coriolis effect by mainstream scientists:

„Inertial circles also cannot be explained by the Coriolis effect ... and this dooms all of current meteorology. You need inertial circles to explain low pressure circles, according to the current math and diagrams, so if inertial circles are a fudge, the whole thing is a fudge. In the northern hemisphere, only the south and west motion of the circle can be attributed to the Coriolis effect. But since there is no possible north and east motion, we cannot complete the circle. The Coriolis effect might be able to create half circles, but it cannot create full circles”.

„It is interesting to note that tornados are not explained by the Coriolis force, since it seems clear that such a small tight curve cannot be explained that way. Wikipedia says, "while tornado-associated centrifugal forces are quite substantial, Coriolis forces associated with tornados are for practical purposes negligible." But this doesn't prevent even tighter curves like drains from being explained by the Coriolis force. We don't get a Rossby number for

drains, we just get some bad and limited experiments and the assurance that it must be the Coriolis force once again.

And this brings us back to the drain problem. Notice that drains in the northern hemisphere drain counter-clockwise, like the hurricane but not like the Coriolis motion”.

...”So unlike with Coriolis theory, the equator is not a zero line or a minimum line, it is a maximum line”....But back to the Earth. This must imply that the northern hemisphere should have more charge. Do we have any indication of that? Yes, we have many hurricanes in the North Atlantic, and almost none in the South Atlantic. Local magnetic fields hit a minimum in the southern hemisphere, in South Africa and South America.” („Magnetic fields” here partially are apparition of vortical effects-E.A.).

11. Scientists typically mistake vortical effects for infrared signals so their standard picturing of hurricane as a thermodynamic heat engine (fig.8) is somewhat defect- and large discrepancy between two ways how to estimate hurricane energy likely confirm it.

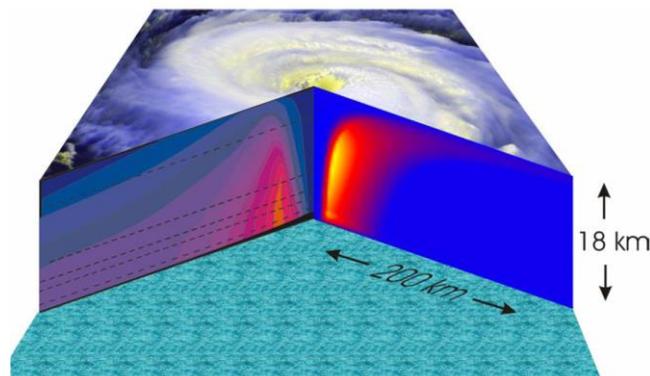


Fig.8. A cross-section of a hurricane. From Emmanuel K. *Tropical cyclones*. Internet.

Hurricane is mainly vortical phenomenon, which depend of astrogeophysical vortical environment. Vortices are known to make things dry- thus sometimes influence of solar activity to weather is simplified explained as „less clouds”. This can be explanation of clean hurricane eyes (as well as drought in California, for example). Not surprisingly hurricane rotation curves are somewhat similar with galactic rotation curves. For comparison- Savchenko mentioned powerful entropic or anti-entropic streams which created vortex thermo generator depending of working mode.

Comparison of hurricane areas on Earth with sunspot forming areas on the Sun (Fig.9) brings another argument in favor of more liquid Earth’s mantle.

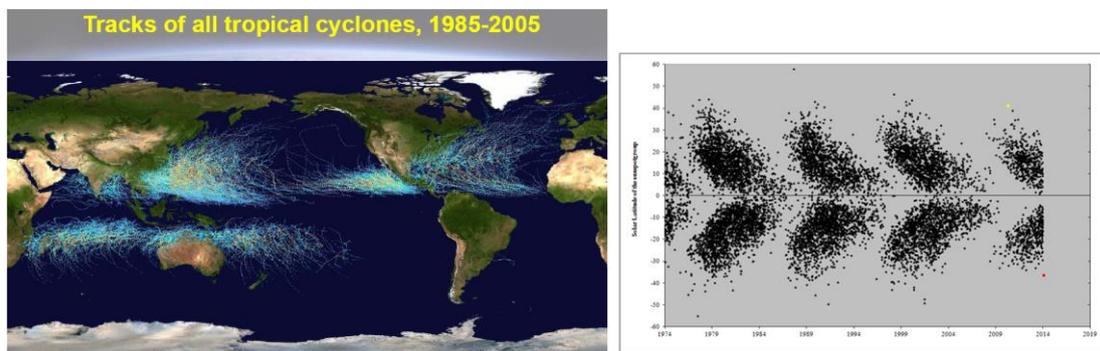


Fig. 9 Spatial comparison (against equators) of regions of large hurricanes on the Earth (left) and that with sunspot appearance on the Sun (right).

12. Hurricane/tornado phenomena better can be understood as effect of extreme ether disturbances. System in equilibrium received astrogeophysical irritation. Irritating energy is absorbed by matter and by ether (as analog here can be mentioned Benard convection cells). If water or air are present, a microturbulence will occur which can manifestate in

macroturbulence- heating or vorticity. So vortex appears as a kind of fractal for irritated volume of ether/matter. Mishin (2009) speaks about existence of two global toroidal planetary (ether) vortices of Earth. In this connection region of Sahara desert can be viewed as that with extreme radiant energy concentration- analog of Jupiter's Great Red Spot or vortices on other liquid planets (Wiki). Great Red Spot on Jupiter has complex connection with solar activity (cf. Balasubrahmanyam and Venkatesan, 1969; NASA, 2015) and is said to produce winds up to 120 meters per second.

13. Unlike mainstream science, vortical physics has something to say about why hurricanes are losing strenght on ground. First moment here are vortices over continents which understandably are different from that over the water. Second, „matter irradiated” (charge) field on continents is stronger (Mathis3). Second factor can repel hurricanes from shore up to certain level. Within our viewpoint strenght of continental vortices can change in time depending of geological factors (magma movement, changes in lithosphere). Torrential rain near the shore could arise due to peculiarity of continental vortex.

14. Planetary influence to hurricane/tornado occurrence probability is logical for vortical astrophysics (cf. Alksnis, 2014) (figs. 10-12).

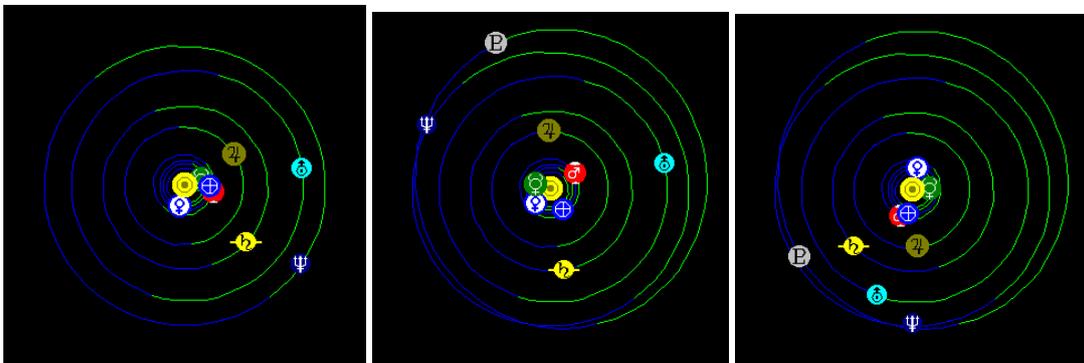


Fig. 10-12. Enigmatic planetary positions during extremely strong tornado outbreaks of August 19, 1845, July 24, 1930 and June 9, 1984, respectively. Credit: *Fourmilab*.

Planetary (and possible that of galactic center/Perseus arm) influence to terrestrial vortices is hard to decipher. Statistical methods are known, starting of 1960ties (Blizard, 1969, Landscheidt, 1984). Scientists describe solar flares while being under spell of „solar magnetic field”, „particles” etc. If we look to description of Comprehensive Flare Index parameters:

- a) importance of ionizing radiation
- b) importance of H-alpha flare
- c) magnitude of 10.7 cm solar radio flux
- d) dynamic spectrum
- e) magnitude of ~200 MHz flux

we can see, that these are attempts to explain with electromagnetism things which cannot be explained such way.

15. Velikovsky (1950) cited deciphered ancient Mayan manuscript Troano which narrates about stronger winds than today during some cosmic cataclysm- hurricane „broke up and carried away all towns and all forests”. Buddhist text on the "World Cycles" tells us about [500 km] wide tornado which after lifting objects from Earth's surface blows them to powder so they never fall back. Several cultures ascribed effects from „cosmic wind” to the Earth. In folklore one can find also intriguing motif about wizard which brought cloud down from the sky so lake formed. Myths of different civilizations are often not understandable within Standard model, so question remain the same as during the battle between catastrophist Velikovsky and cosmologists Sagan/Shklovsky in 1970'ties (Gingenthal, 1995)- can ancient myths show us flaws in modern theories?

Conclusion

Mainstream hurricane/tornado scientists have neither proper measuring instruments for reaching „smarter plans” of nature nor good theory. Temperature centered weather modification approach of Bill Gates (Vidal, 2012) is naive. Stratospheric aerosol injections are said to promote drought (Neslen, 2017). It is good time to go back to Des Cartes, Newton, Robert FitzRoy, Boscovitch, Einstein, Giorgio Piccardi, Kozyrev/Veinik in order to find some smarter remedy from space driven natural disasters.

References

- Abarca del Rio R. et al. (2003) Solar activity and earth rotation variability. *Journal of Geodynamics* **36**, 423–443.
- Alksnis E. (2013) Hurricane threats and the hypothesis of „climatic radiation”. *General Science Journal*.
- Alksnis E. (2014) Pushing the Sun out of it's place. *General Science Journal*.
- Balasubrahmanyam V., Venkatesan D. (1969) SOLAR ACTIVITY AND THE GREAT RED SPOT OF JUPITER. NASA report TM-X 63726.
- Blizard J. (1969) *Long range solar flare prediction*. NASA contractor report CR 61316.
- Bortels V. (1956). Die hypothetische Wetterstrahlung als vermutliches Agens kosmo-meteoro-biologischer Reaktionen. [Hypothetic climatic radiation as agent for cosmo-meteoro- biologic reactions]. *Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin* VI:115-124. (In German).
- DeMees T. (2003) *Gravitomagnetism including an introduction to Coriolis gravity theory*. Internet.
- Emmanuel K. *Tropical cyclones*. MIT
- ESA (1998) Surprises from SOHO include tornadoes on the Sun. Internet.
- Gingenthal C. (1995) Carl Sagan and Immanuel Velikovsky. *New Falcon publications*
- Gorshkov V. (2012) Manifestation of solar and geodynamic activity in the dynamics of the Earth's rotation. *Geomagnetism and Aeronomy*, **52**, Issue 7, 944–952
- Granek G. (2001) Einstein's Ether: F. Why did Einstein Come Back to the Ether? *Apeiron*, Vol. 8, No. 3, July 2001.
- Johnson C. (2017) *Hurricanes, the Physics and Analysis*. Internet.
- Khain V., Khalilov E. (2007) About possible influence of solar activity upon seismic and volcanic activities: long-term forecast. *SCIENCE WITHOUT BORDERS*. Vol.3. 2007/2008, 217.
- Landscheidt T. (1984) *Cycles of solar flares and weather*. In: N.-A. Morner and W. Karlen (eds), *Climatic Changes on a Yearly to Millennial Basis*, 473-481. D. Reidel Publishing Company.
- Mathis M1. *Tesla and Einstein Were Both Right*. Internet.
- Mathis M2. *Celestial mechanics unanswered questions*. Internet.
- Mathis M. (2011). *The Coriolis effect deconstructed*. Internet.
- Mathis M3. *The Unified Field theory*. Internet.
- Michaels P. et al. (2006) Sea-surface temperatures and tropical cyclones in the Atlantic basin. *Geophysical Research Letters*, **33**, issue 9, L09708.
- Mishin- see Мишин А.М. (2009) Начала высшей физики. Сборник статей. - СПб.:АНО "НТЦ им. Л.Т. Тучкова", 2009. - 276 с.
- Mörner N.-A. (2013) Solar Wind, Earth's Rotation and Changes in Terrestrial Climate. *Physical Review & Research International* 3(2): 117-136, 2013.
- NASA Jupiter's Great Red Spot: A Swirling Mystery. NASA.
- Neslen A. (2017) US scientists launch world's biggest solar geoengineering study. *The Guardian* 24 March, 2017.
- NOAA1 <http://www.aoml.noaa.gov/hrd/tcfaq/tcfaqD.html>
- Ribes E. et al. (1988) Solar Diameter and Solar Rotation During the Maunder Minimum. In: *Advances in Helio- and Asteroseismology*. Christensen-Dalsgaard J. and Frandsen S. (eds.),

pp 227-230.

Savchenko- see Альтернативная физика

<http://www.proatom.ru/modules.php?name=News&file=article&sid=5633>

Strazzo S. et al. (2013) Frequency, intensity, and sensitivity to sea surface temperature of North Atlantic tropical cyclones in best-track and simulated data. *Journal of Advances in Modelling of Earth Systems*. **5**, 500-509.

SPACE.com (2011) Alien Planet Speeds Up Parent Star. By SPACE.com Staff | January 10, 2011

Tajmar M., Plesescu F. (2009) Fiber-Optic-Gyroscope Measurements Close to Rotating Liquid Helium. [arXiv:0911.1033](https://arxiv.org/abs/0911.1033)

Trouet V. et al. (2017) Shipwreck rates reveal Caribbean tropical cyclone response to past radiative forcing. *PNAS*, **113**, 3169–3174.

Veinik- see Вейник А.И., "Термодинамика реальных процессов", Минск: "Навука і тэхніка", 1991. 576 стр (in Russian).

Velikovskiy I. (1950) *Worlds in collision*. McMillan. Chapter 3.

Vidal J. (2012) The man who would stop hurricanes with car tyres. *The Guardian*, Sunday 4 November 2012.

Wiki page „Extraterrestrial vortex”.

Acknowledgement: Mr. Peteris Luckans for discussion.

© Edgars Alksnis, 2017 (A personal opinion).