

Research and training center Biruch

<http://biruch.ru/>

Research center Bemkon

<http://www.sc-bemkon.com/>

ooo.bemkon@mail.ru

N.I. Konyukhov

**Cosmic energies and mankind:
graphs for reflection**

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K65 Cosmic energies and mankind: graphs for reflection. [Text] /
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This book is about the facts of fundamental dependency between the mankind development and cosmic energies: both electromagnetic and non-electromagnetic ones. The facts are systematized in graphs. Their interpretation and conclusions are a prerogative of the readers. It's not a simple one.

For those who are used to think independently.

Translated by Language Mining Team, langmining@gmail.com

Reviewers:

V.V. Ostapov - full member of the International Academy of Information Processes and Technologies, Academy of Geopolitical Problems etc., Doctor of Military Sciences, Professor.

V.P. Sustavov - full member of the Academy of Military Sciences, Doctor of Philosophy, Professor.

V.V. Sysoev - Honored scientist of Russia, Doctor of Psychology, Professor.

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Introduction

For decades, research centers were systematically studying the human changes in the process of practical, as well as industrial, activity, considering the factors of cosmic activity. The results of these studies are presented in books, lectures, articles and presentations made by the leaders and employees of these scientific centers: <http://biruch.ru/>, <http://bemkon.ru/>, <http://www.sc-bemkon.com/>.

Most important, these results are embedded in systems of personnel selection and training both in commercial and some government structures. Their effectiveness is confirmed by practice.

The essence of the obtained scientific results is in a definite consequence: it is impossible to understand the development of mankind and Russia without considering the cosmic energy factor in a scientific analysis.

Chapter 1. On psycho-cosmological studies and obtained scientific results

A system crisis - economic, spiritual, socio-political, has stricken our world. The most prominent and deep thinking scientists, upon receiving the Nobel Prize, admit the impotence of the science in which they received world recognition.

Paul Krugman admits this regarding the field of economics.

URL: <http://slon.ru/articles/130856/>. (Paul Krugman. How did economists get it so wrong? / The New York Times/ URL: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=1. 02.09.2009).

He admits to have a feeling that scientists do not analyze some important factors. Therefore, the understanding of what is happening is unsatisfactory, and even more so is the forecast of the future.

Cosmic energies are this hidden factor of society development that eludes from scientific analysis.

This conclusion and experimental and statistical evidence of such dependency were discovered in Russia. Russian cosmism has emerged.

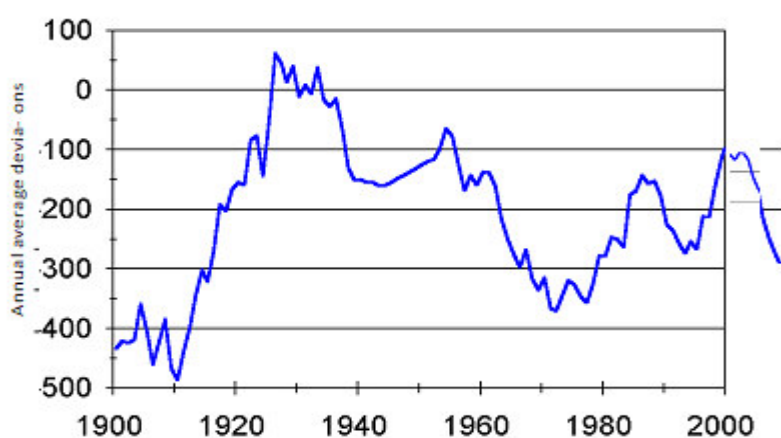
This is due to the fact that Russian people are more dependent on cosmic energies than other nations. We intuitively feel them. Moreover, Russian physicists have a broader understanding of the essence of cosmic energies: they persistently prove, besides the presence of electromagnetic energies, the significance of other, non-electromagnetic energies. Some called them ether energy, some others - torsion fields, solitons etc. There are dozens of names of these non-electromagnetic vortex energies. Among supporters and opponents of every point of view, every scientific school, there has been and continues an acute scientific discussion and even struggle. As a result, Russian cosmism is developing.

It is difficult to measure cosmic energies. The research has shown that Length Of Day (LOD) is such an integral, real, fairly accurate and accessible to all indicator since 1962. It reflects the Earth's axial rotation velocity.

In order to bypass the discussions of physicists regarding the not fully studied structure and composition of cosmic energies, we have proposed the term - cosmic energies associated with the Earth's rotational velocity, to emphasize that these are not electromagnetic cosmic energies. In fact, this is a black box method.

Scientists measure the Earth's rotational velocity through the angular rotational velocity and the length of day (LOD).

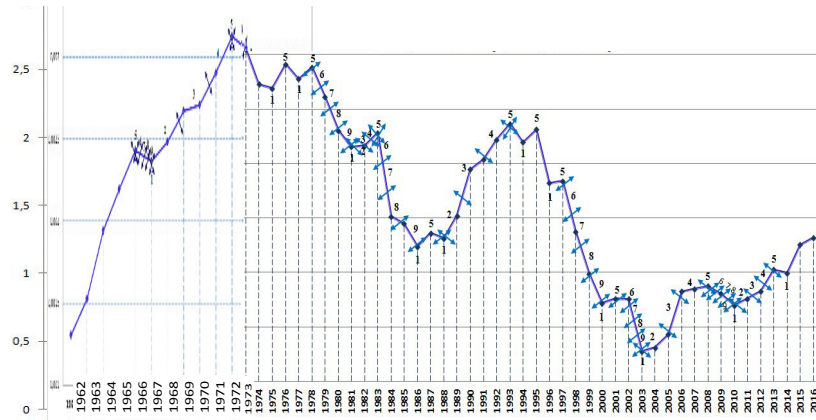
Annual average deviation values of the average Earth's rotational velocity



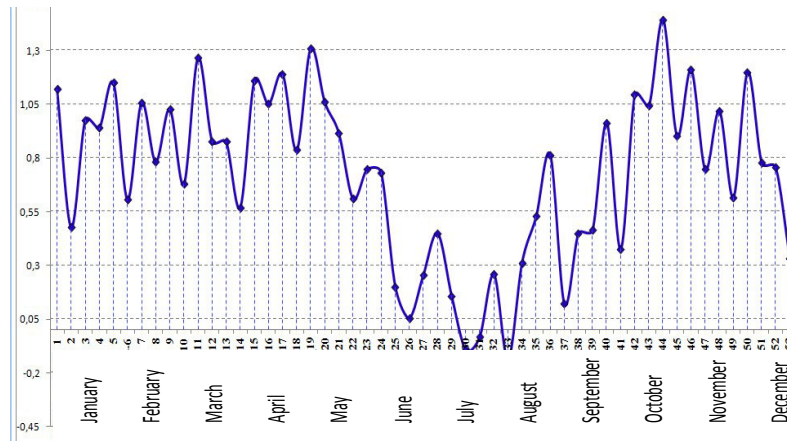
The figure shows the v value change over time for the 1900 - 2000 period. The axis of ordinates in these figures is given in $v * 10^{10}$ units (see V.D. Kokurov).

The graphs of the Earth's rotational velocity are mirror-like to the graphs of the length of day - LOD. LOD is measured highly accurately and placed at the websites of laboratories around the world.

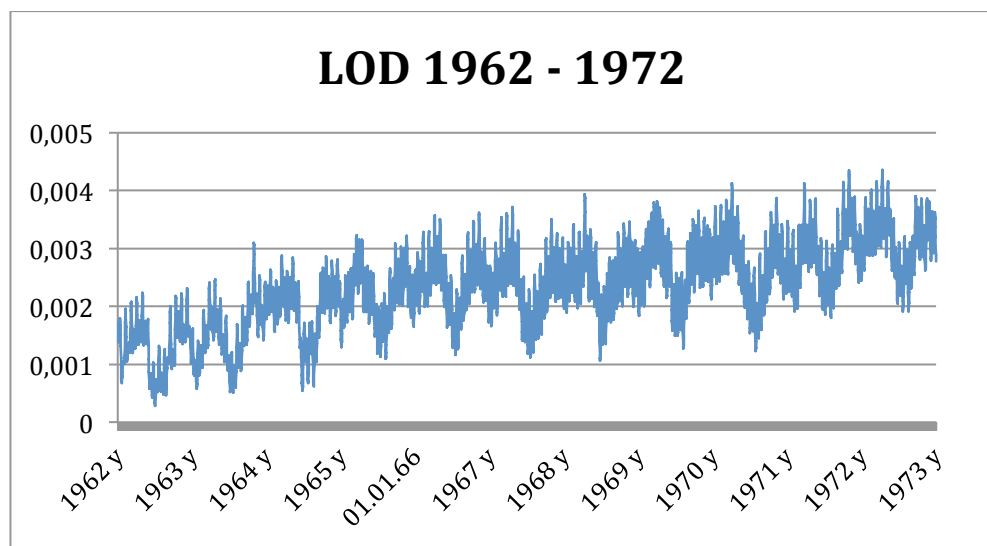
Earth LOD data since 1962 in ms
average for the year



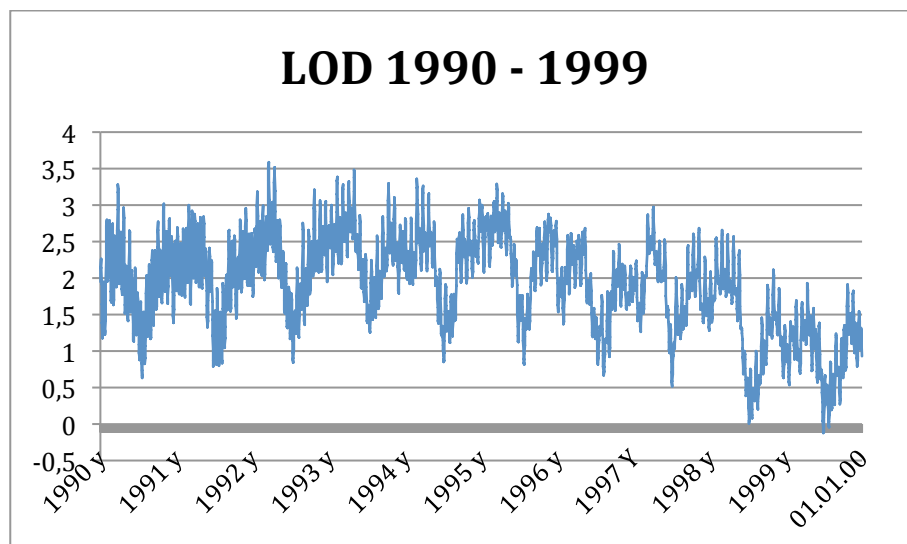
Earth LOD data 2000 in ms
average by week (example)

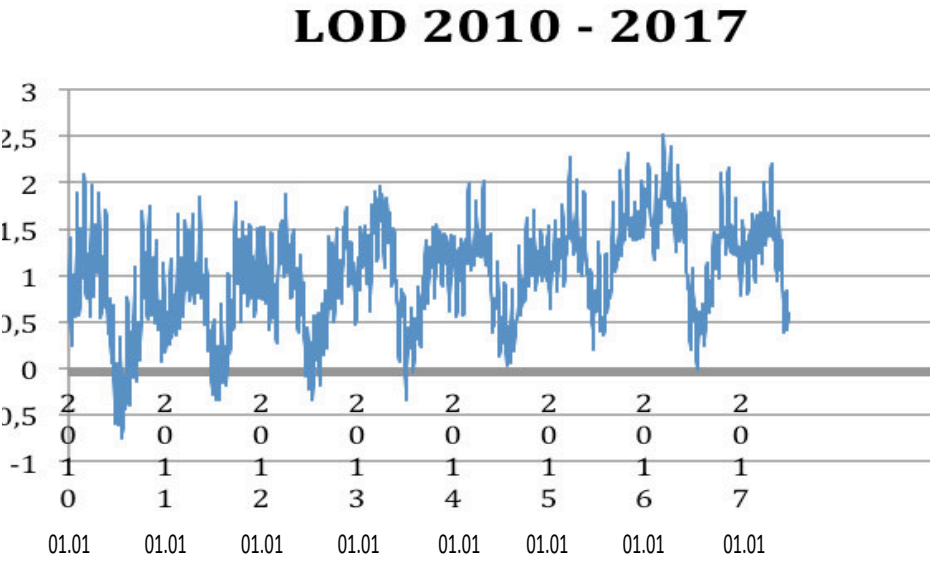
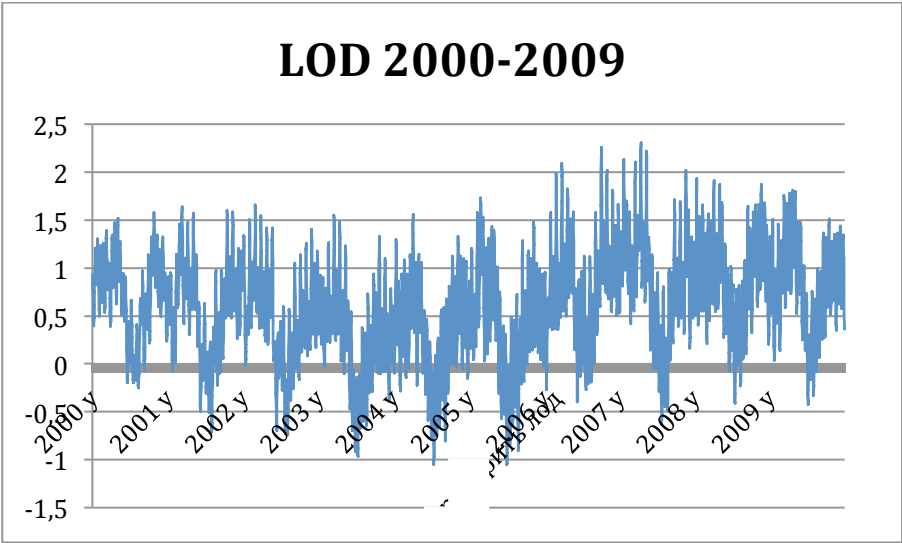


Average by day:

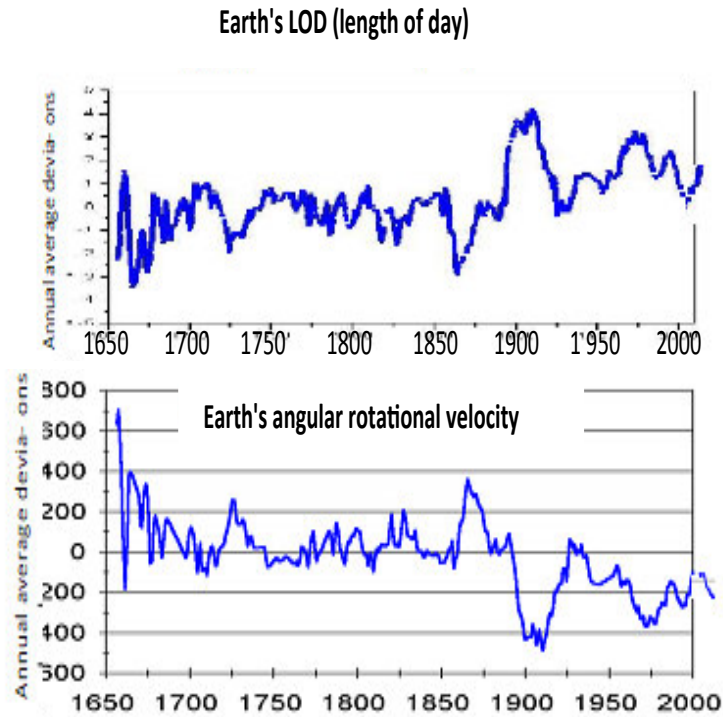


Since 1973, a new method for calculating LOD.



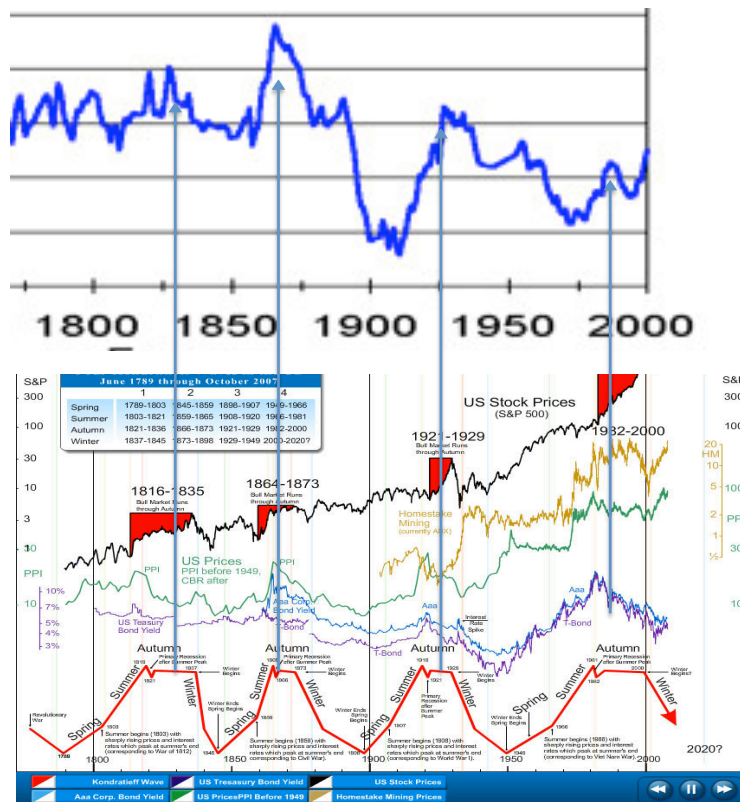


Consider that the length of day (LOD) graph is symmetrically opposite to the graph of the Earth's angular rotational velocity. According to LOD, slowdown of the Earth's rotational velocity is associated with the longer duration of the Earth's day.



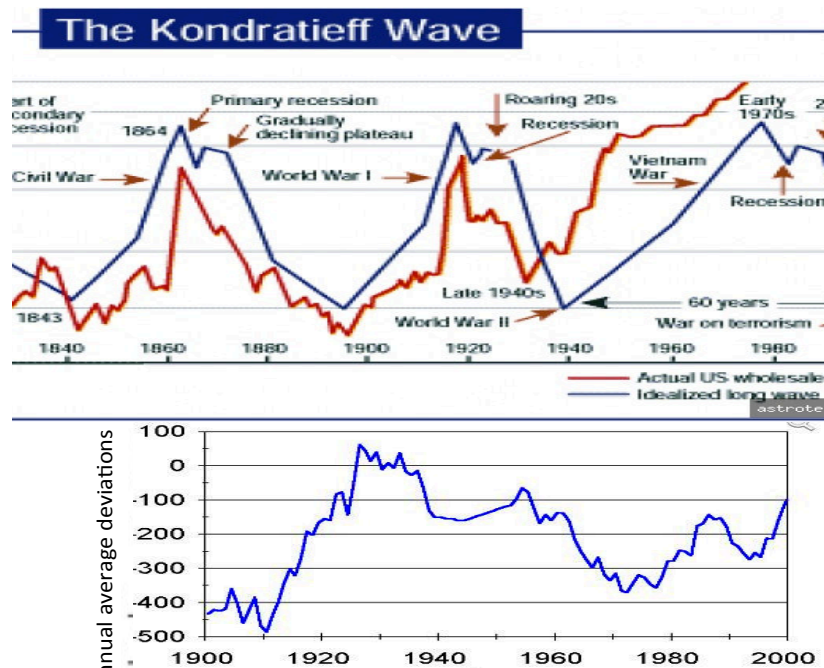
The figure shows the v value change over time for the 1650 - 2000 period. (see V.D. Kokurov).

The Earth's angular rotational velocity and Kondratieff cycles



<http://dewinforex.com/images/kondr-cycles-4.jpg>

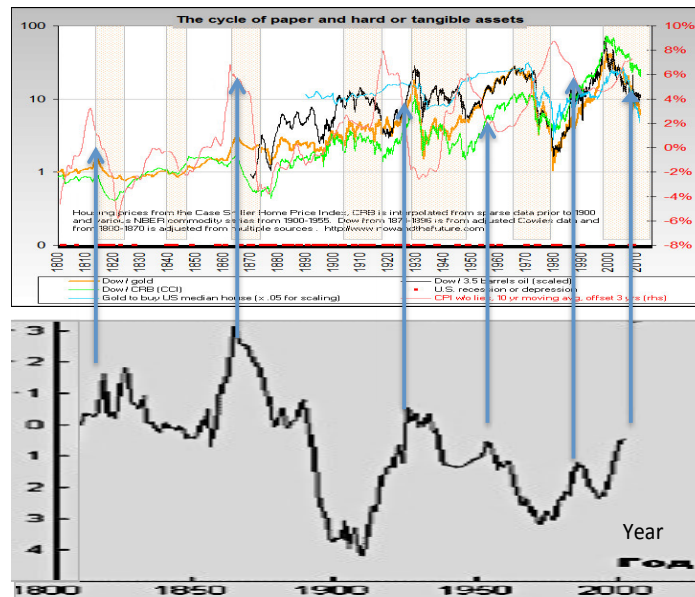
The Earth's angular rotational velocity and Kondratieff cycles with the displacement in 30 years



www.wikireading.ru/img/388787_13_i_016.jpg

Let us combine them with the well-known graphs of economists.
All fundamental economic and socio-political processes are visually
related to these graphs.

Fundamental economic indicators of the USA development and the Earth's rotational velocity

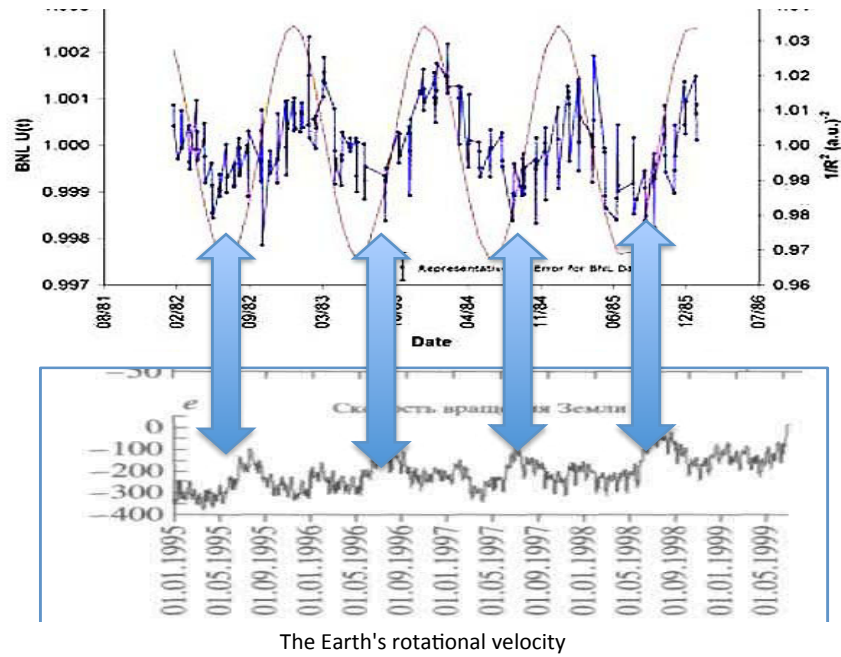


http://nowandfutures.com/key_stats.html

The system of such graphs has been obtained for different countries and for different economic and financial indicators. It leaves no doubt that the Earth's rotational velocity reflects powerful cosmic energies.

They affect economic processes on Earth, and are also related to the intensity of isotope decay. Scientists of the Brookhaven laboratory in the United States have discovered the annual periodicity of the decay process of silicon isotopes. It is correlated to the $1/R^2$ value, where R is the distance between the Earth and the Sun. At the same time, it is an indicator of the Earth's orbital movement velocity. In winter, at perihelion, it is maximal (the distance to the Sun is minimal), whereas in summer, in aphelion, it is minimal. With the change of the Earth's orbital movement velocity its axial rotational velocity also changes.

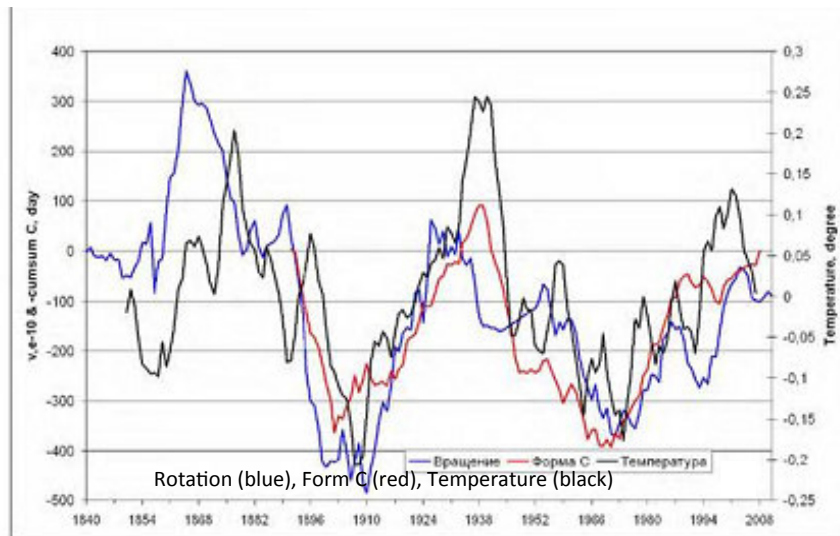
Comparative graph of the silicon isotope ^{32}Si half-life and the Earth's rotational velocity



См.: JereH. Jenkins, EphraimFischbach, JohnB. Buncher, JohnT. Gruenwald, DennisE. KrauseandJoshuaJ. Mattes, «EvidenceforCorrelationsBetween-NuclearDecayRatesandEarth-SunDistance» (arXiv:0808.3283v1 [astro-ph]).

These cosmic energies are so great that they affect the temperature changes on Earth.

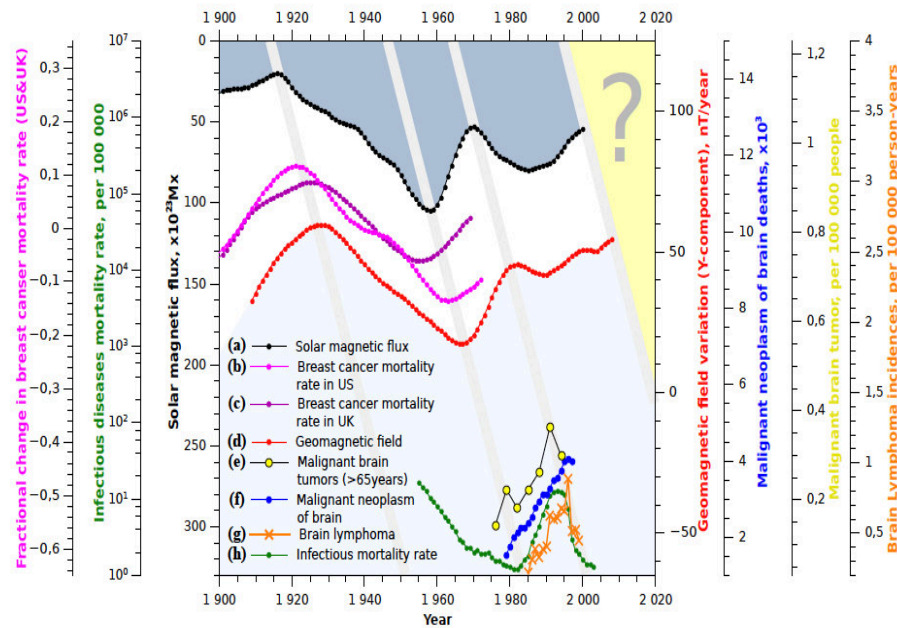
Temperature, humidity and the Earth's rotational velocity according to the Russian Hydrometeorological center data



Synchronous changes of the Earth's rotational velocity ($v \times 10^{10}$) in relative units (slid blue line), accumulated anomalies of the annual number of days with processes of the circulation form -C (red) and moving averages of the air temperature global anomalies for five years after the trend exclusion according to the HadCRUT3data (black).

Ref.: N. S. Sidorenkov. "Impact of the annual and monthly Earth's rotation on cycling of the atmospheric processes, weather and climate changes", Hydro-meteorological Centre of Russia.

Solar activity is a concrete manifestation of cosmic energies. There are profound works in this field.



Time evolution

(a) the variations of magnetic flux at the bottom (tachocline zone) of the Sun convective zone (see Dikpati, G. de Toma, and P. A. Gilman, 2008);

(b) fractional change in female breast cancer mortality (see: Juckett David A., 2009);

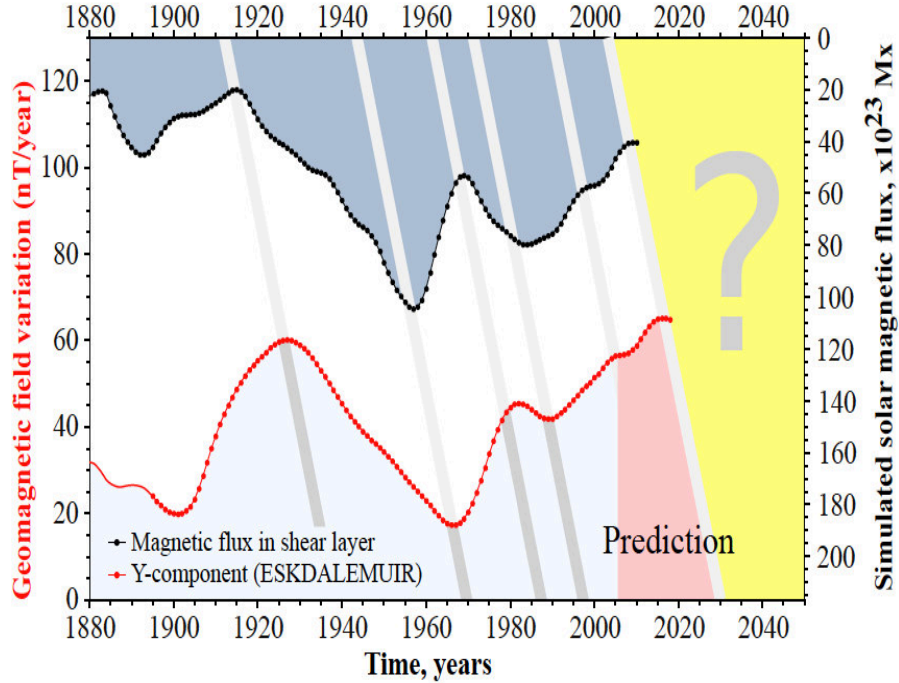
(c) fractional change in female breast cancer mortality for birth cohort in UK (see: Juckett David A., 2009);

(d) geomagnetic field secular variations (Y-component, nT/year) as observed at the Eskdalemuir observatory (England) (see: http://www.geomag.bgs.ac.uk/gifs/annual_means.shtml), where the variations (gY/gt) are directly proportional to the westward drift of magnetic features;

(e) Malignant brain tumor (brain stem) (see: Legler Julie M., 1999) ;

(f) the number of deaths from ICD9 item n 191 Malignant neoplasm of brain (see: Pechholdova M., 2008);

(g) Brain lymphoma incidences in US;
 (h) the mortality rates from infectious diseases (incl. Tuberculosis)
 at ages 15 – 34 in France (see: Mesle F., 2006);
 The curves (a) and (b) are smoothed by the sliding intervals of 5
 and 11 years.

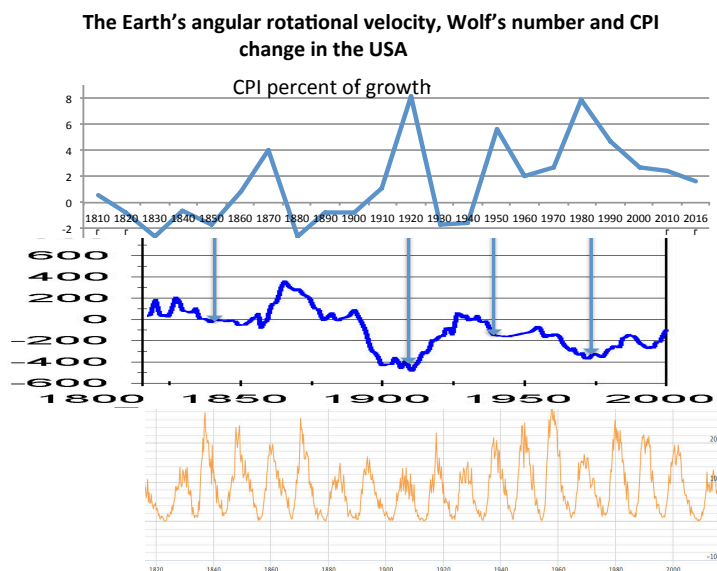


Time evolution of (a) the variations of the magnetic flux at the bottom (the tachocline zone) of the Sun convective zone (see: M. T. Santini, G. Rainaldi, and P. Indovina., 2009), (b) the geomagnetic field secular variations (the Y-component, nT / year) measured at the Eskdalemuir observatory (England), (see: A. R. Liboff, 2009). Curves are smoothed by the sliding intervals in 5 and 11 years.

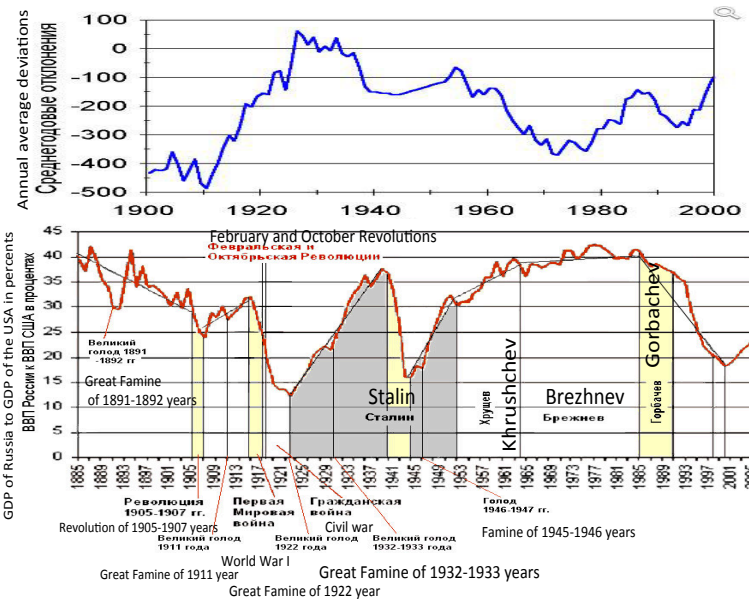
Rusov V. and his colleagues also used the rotation speed of the Earth.

So, the change of economic indicators depending on the Earth's rotational velocity does not look unusual any more.

We present the data for a given time period on the Earth's rotational velocity, on the change of consumer basket cost, that is, the CPI index (percentage of the previous year value), and on solar activity. These data are available for a period from the beginning of the XIX century.



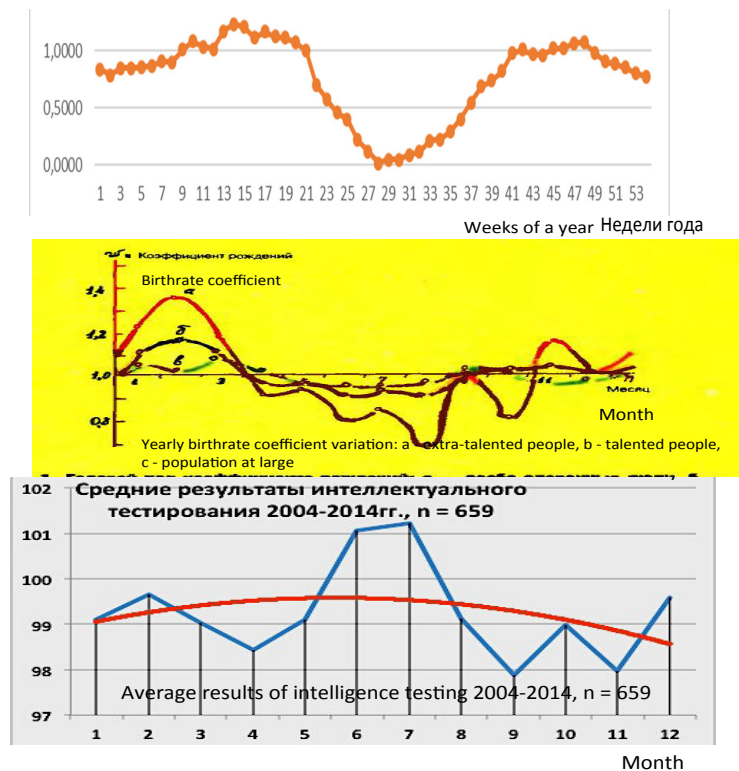
Such an integral indicator as the GDP growth rate also depends on the Earth's rotational velocity. This dependency is different in different countries.



But the GDP growth is determined by the people's labor activity. Naturally, people changes are also dependent on the Earth's rotational velocity. In the annual cycle, slowdown of the Earth's rotation (corresponds to winter) is related to the growth of people's creativity potential. Famous, creative personalities were born in winter months more often (data by E. Vinogradov).

Average length of earthday (LOD) for the corresponding week in a year, birthrate of extra-talented people and monthly average IQ value for the subjects of the same type

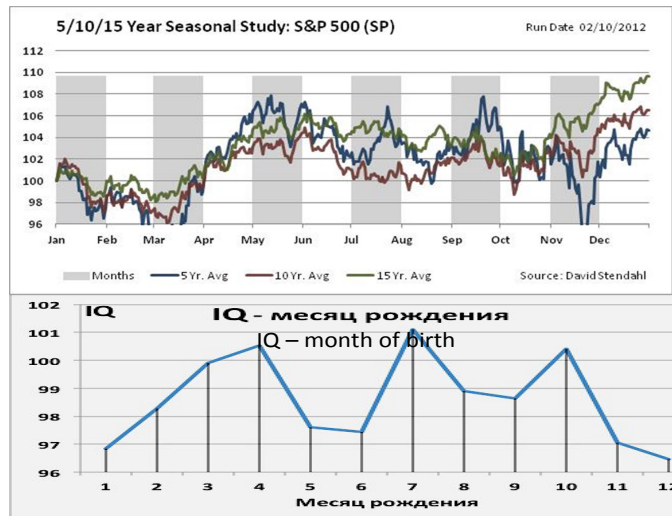
Length of earthday (LOD) and birthrate of extra-talented people



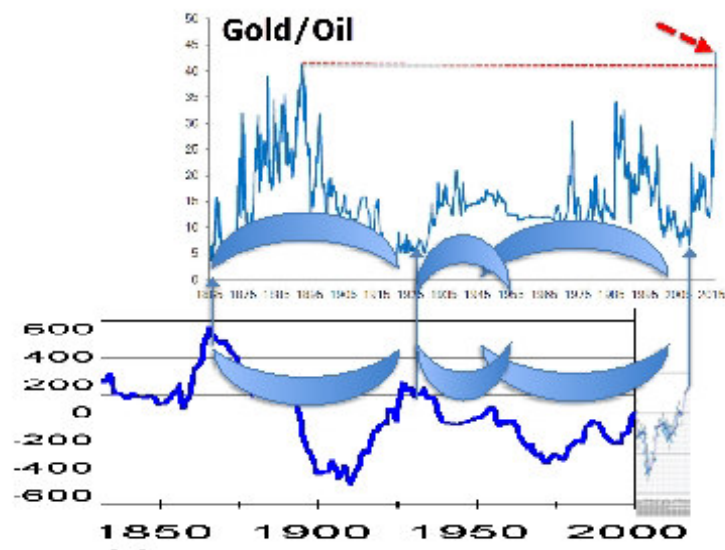
Whereas the formally logical IQ tests (intelligence coefficient) are better solved by people in summer, at the maximum Earth's rotational velocity.

The results of intellectual tests also depend on the subject's date of birth. That is, the cosmic energies associated with the Earth's rotational velocity affect personality at the moment of birth. These dependencies are also associated with the stock market movement.

Annual cycles of the S&P 500 index change for and IQ of surveyed depending on the month of birth



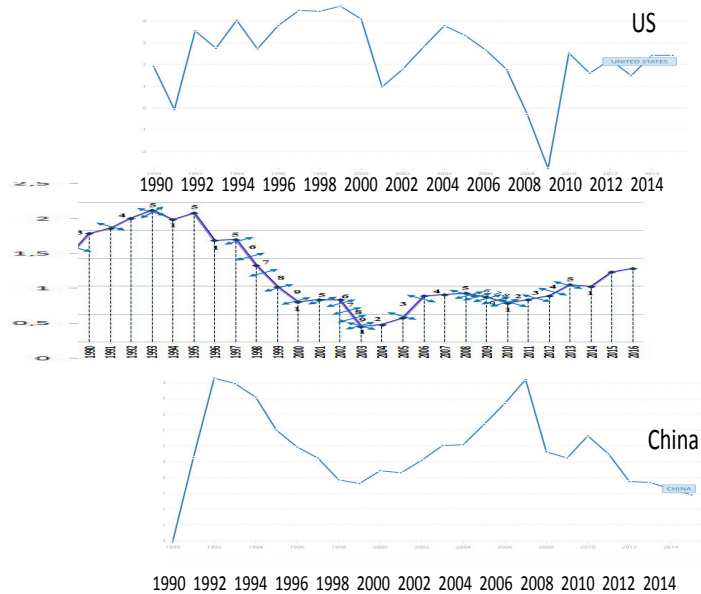
Gold/oil price ratio and the Earth's rotational velocity (LOD) in the XIX-XX centuries with a 7-year shift

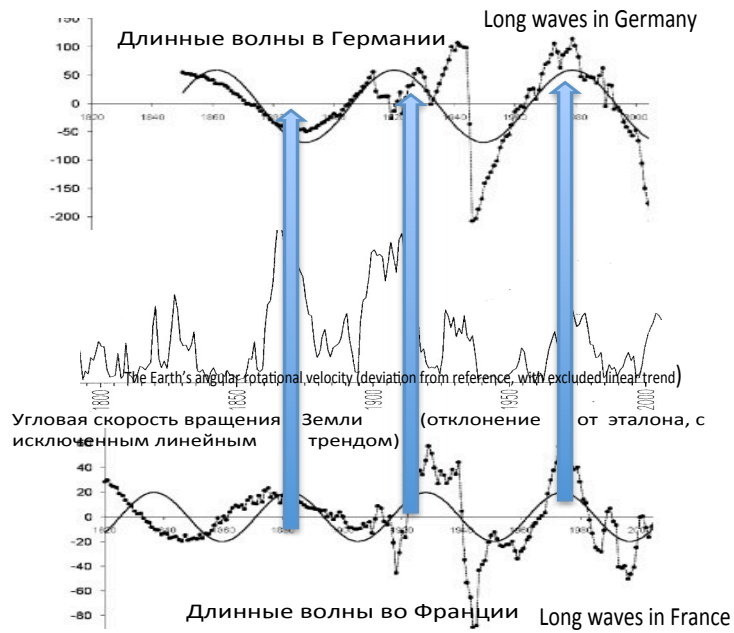


It was discovered that different countries respond to cosmic energies differently. In terms of GDP growth rates, all countries are divided into those whose GDP grows with the slowdown of the Earth's rotational velocity, and those whose GDP grows with the growth of the Earth's rotational velocity.

Rates of GDP growth for China, the United States in 1990-2015 and the Earth's rotational velocity (LOD) with the displacement in 4 years

Темпы роста ВВП Китая, США в 1990 – 2015 годах и скорость вращения Земли (LOD)
со сдвигом на 4 года





The graphs of long waves, cycles of economic development are taken from the book "Kondratiev waves: aspects and prospects". Volgograd, 2012. - 384 p.

All countries are surprisingly divided into two relatively opposite groups in terms of agreement degree of the Earth's rotational velocity with the GDP growth rates.

**Correlation Factors of GDP Growth Rate and the Earth LOD from
1973 to 2015. GDP Growth Percentage in 2015**

	R LOD 1973 – 2015	2015: GDP growth percentage
Latin America & Caribbean	-0,29	-0,29
East Asia & Pacific	0,41	3,92
Euro area	0,29	2,04
Germany	0,23	1,72
Japan	0,473	0,47
Middle East & North Africa	0,086	3,09
India	-0,417	7,24
	-	
Sweden	0,175	4,12
World	0,036	2,63
Norway	0,537	1,61
North America	0,14	2,44
Finland	0,21	0,21
China	-0,25	6,91
High income	0,239	2,08
Low income	0,663	4,4
Lower middle income	-0,363	5,3
South Africa	-0,13	1,26
South Asia	-0,427	7,1

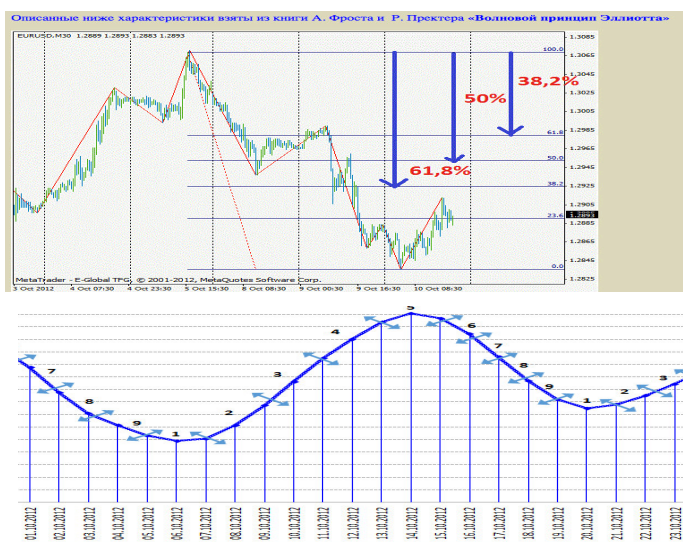
Generally, in the world there is almost no relationship between the Earth's rotational velocity and the GDP growth rates. R LOD/%World = 0.036.

Countries are almost equally divided into those that have a positive relationship between the GDP growth rates and LOD, and those whose GDP is negatively correlated with its values.

Financial markets change with the Earth's rotational velocity not only on the annual and ten-year time scale, but also on the daily basis.

There is another classic example of market behavior according to the Elliott wave theory. For a shorter and quieter period of time. This is classics: from the book on Elliott Waves.

Elliott wave on the stock market and the Earth's rotational velocity, Graph from the book "Elliott wave principle" by A. Frost, R. Prekter



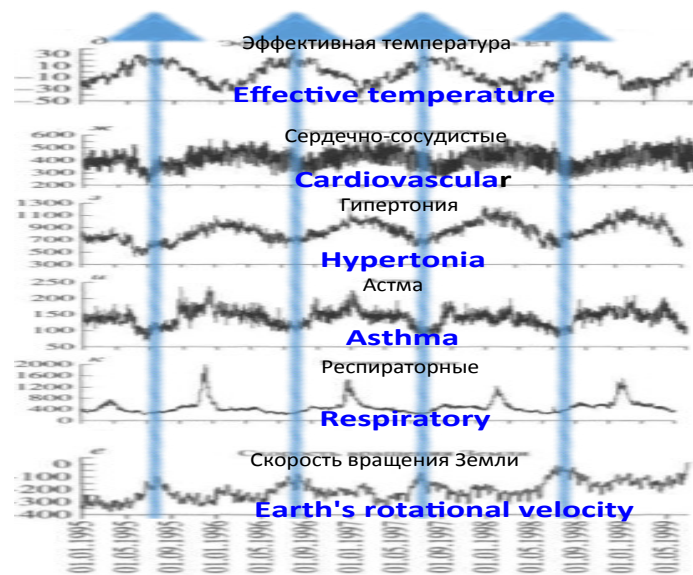
Elliott wave on the financial market and the Earth's rotational velocity. Graph is taken from "Wave principle of Elliot" of A. Frost and R. Prekter

The ratio of the cosmic energies associated with the Earth's rotational velocity and the solar activity makes clear some socio-political processes.

And even allows to predict protest actions. (see <http://bemkon.ru/Fragments/Article19.asp>)

Such an influence of cosmic energies on economic and social processes is related to the fact that people are different physiologically, at the level of their health, at the high and low Earth's rotational velocities.

A relationship was found between the frequency of ambulance calls in Moscow and the Earth's rotational velocity

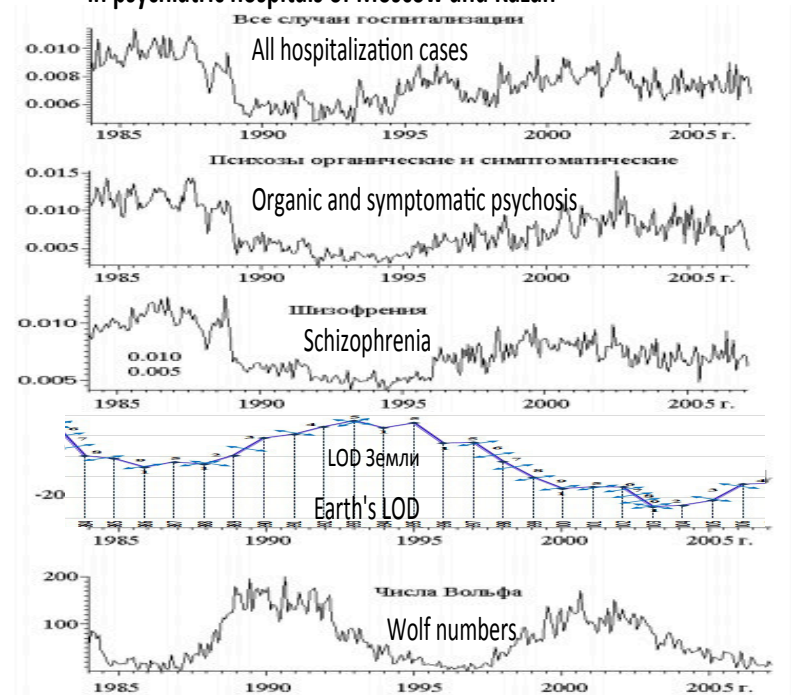


The frequency of ambulance calls is strikingly similar to the form of series of the Earth's rotational velocity; correlation coefficient (CC) is very high, statistically significant and equal to -0.46 with more than 1600 samples in each series and almost zero shift. This is almost absolute agreement for wave processes.

See: V.A. Chereshev, A.G. Gomburtsev, T.K. Breus. A man and his three surrounding environments. Vestnik of the Russian Academy of Sciences. 2007, vol. 77, №7, pp. 618-627.

This appears at monthly and annual scales, so these dependencies cannot be explained with seasonality of diseases.

Comparative analysis of the number dynamics of emergency hospitalizations in psychiatric hospitals of Moscow and Kazan

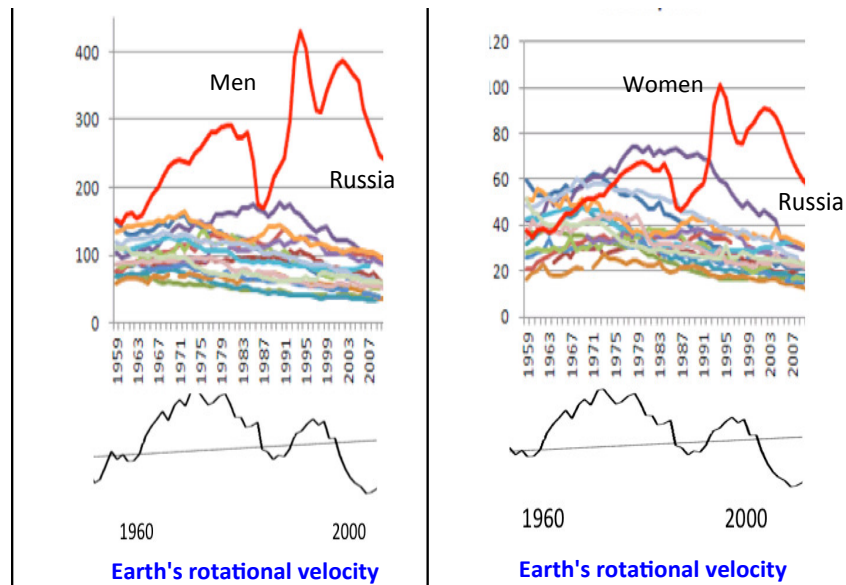


Combined series of numbers of hospitalization for men (a) and women (b) in Moscow (1984-1996) and Kazan (1996-2006) with 1 month sampling frequency (relative units in ordinate axis), and series of the Earth's rotational velocity and Wolf numbers for the same period

O.I. Aptikaeva, A.G. Gamburtsev, A.N. Martyushov. Geoliogeophysical factors and human health: comparative analysis of the number dynamics of emergency hospitalizations in psychiatric hospitals of Moscow and Kazan

Russian people's health and mortality rate are especially dependent on cosmic energies.

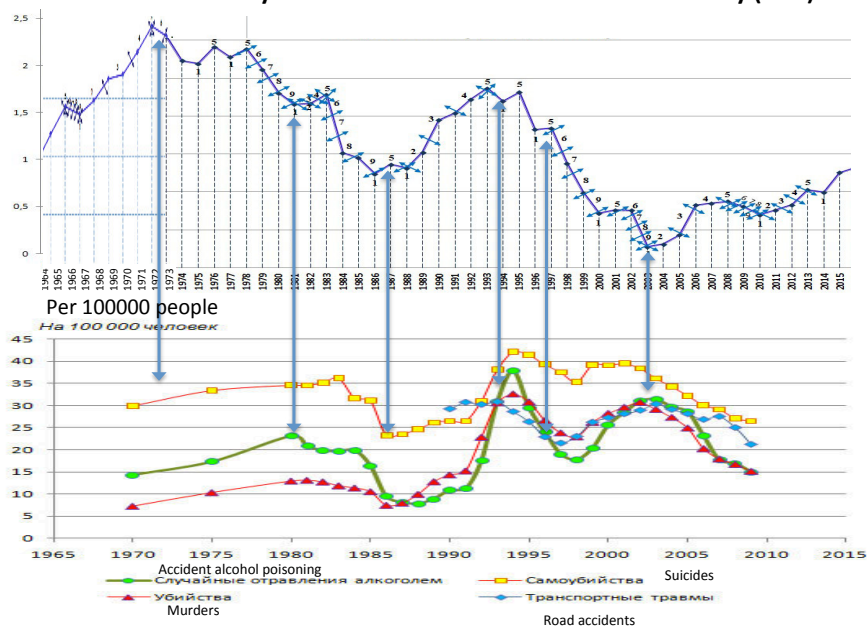
Mortality rate from external causes is Russia in the second half of the 20th - early



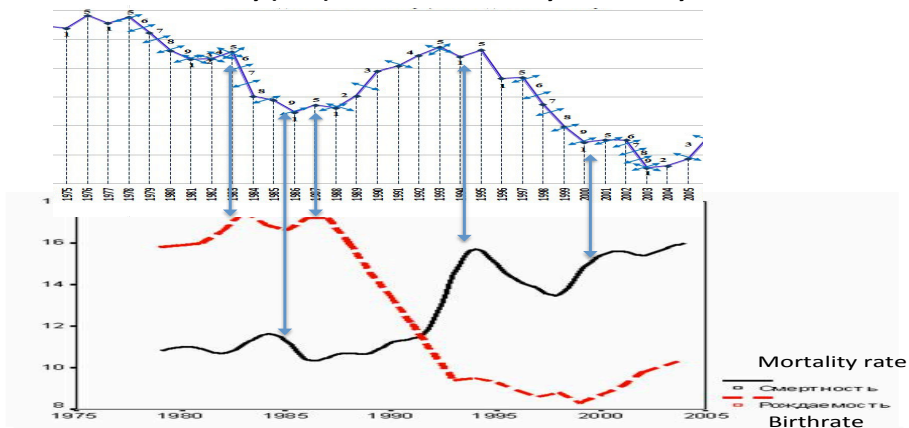
Austria
 United Kingdom
 Holland
 Italy
 Portugal
 USA
 France
 Japan

Bulgaria
 Hungary
 Spain
 Poland
 Romania
 Finland
 Sweden
 Russia

Accidental mortality in Russia and the Earth's rotational velocity (LOD)



Birthrate, mortality rate in Russia per 1000 people and the Earth's rotational velocity (LOD) in the late XX - early XXI century

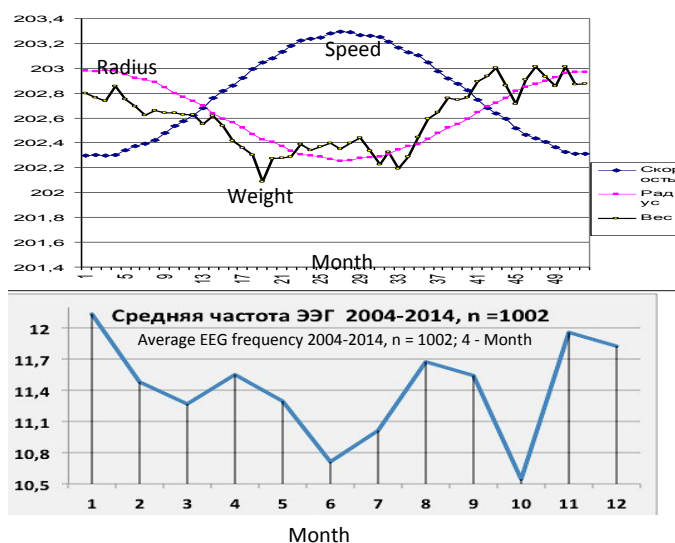


There is no mistake. For such dependencies were discovered for thousands of patients, ambulance call cases, both by doctor-scientists and statisticians.

But if health of Russian people depends on the Earth's rotational velocity, then this should affect their cardiograms and electroencephalograms. There is also a sample of thousands of subjects.

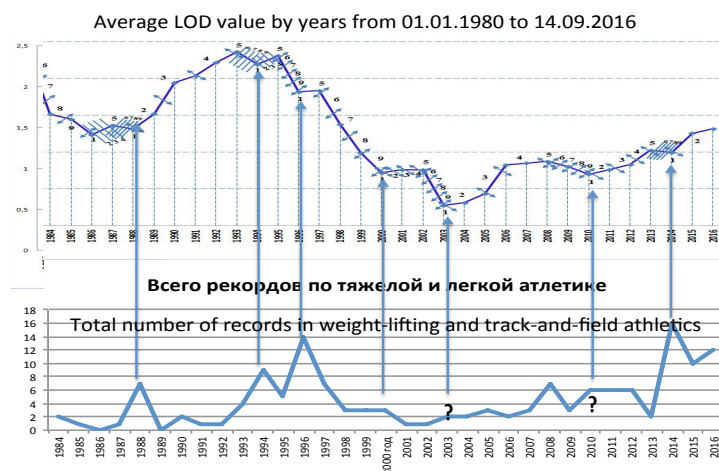
On the graph below, there is another indicator of cosmic energy - gravity. It changes with the change of the Earth's rotational velocity.

Graphs of changes of the Earth's orbital velocity and the average EEG frequency



But if there are biological, physiological, mental changes in people depending on the Earth's rotational velocity, then this should affect sports achievements and our working capacity.

The number of sports records in weight-lifting and track-and-field athletics in 2016, the Earth's rotational velocity (LOD) and their relationship with the stages of cosmic energy change cycles (1984-2016)



On the example of hundreds of Russian and world record-holders, two trends have been identified.

1) Russian athletes win more often at point 5 (minimum of the Earth's rotational velocity) of the cosmic energies change cycle on a scale of days, whereas foreign ones - at point 1 (maximum of the Earth's rotational velocity) of that cycle.

2) Russian athletes win less often during growth of the Earth's rotational velocity.

Our athletes have set Russian records three times more often at the point of 5-day change cycles of the Earth's rotational velocity.

The achievements of Russian athletes significantly depend on cosmic energies, to a greater extent than the achievements of athletes in most countries of the world.

Regarding athletes, the following relationships are identified.

1. At different stages of the change in the Earth's rotational velocity the greatest success is achieved by the athletes who are predisposed by psychotype to activity, to higher achievements precisely at the given cosmic energies.

2. Russian athletes more often win and set the highest records, which are not beaten for decades, in the periods of slowdown of the Earth's rotational velocity.

3. At the stages of different Earth's rotational velocity, different techniques and even systems of selection and athlete training will be more effective.

These conclusions are proven by statistics: during the most successful years, in terms of intensity of the considered cosmic energies, Russian athletes set historical records that cannot be beaten to this day.

Historical records in weight-lifting



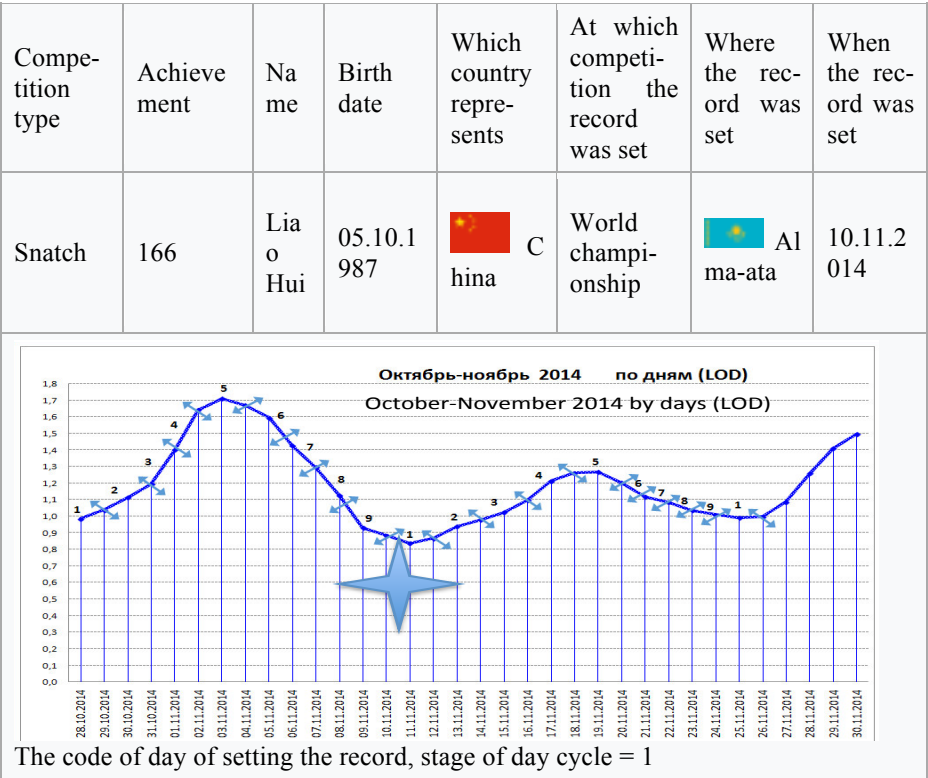
There are many reasons for speculation and even doubts. But we will insist only on the obvious: **at different stages of the Earth's rotational velocity, different types of athletes make great sports achievements.** As well as various tree clusters grow differently at the different Earth's rotational velocity.

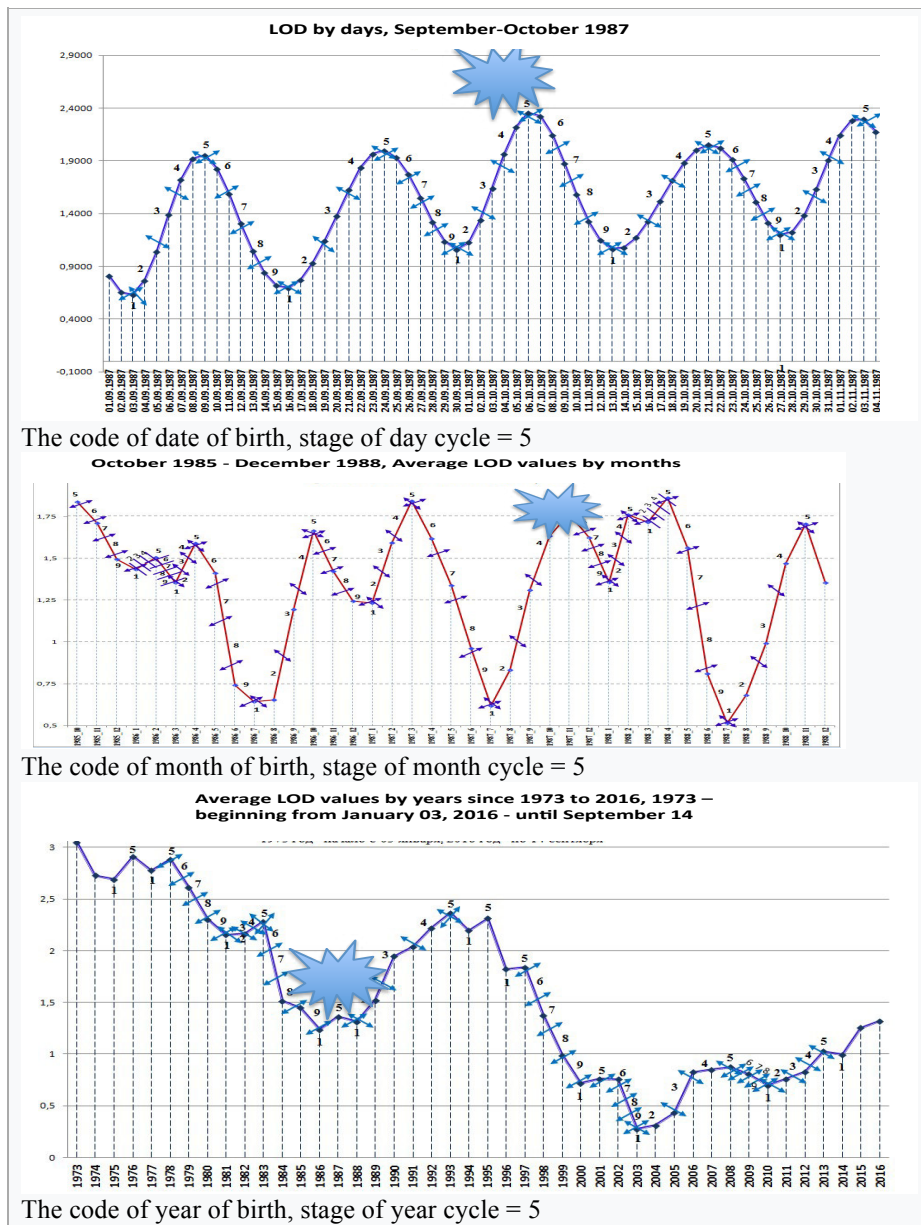
To obtain these results, the Earth's rotational velocity was divided into 9 sections: 1 - the highest velocity, 5 - the lowest. The personality type that is more active at point 1 was called type 1/1, the personality

type that is more active at point 5 was called type 5/5. The fact is that such cycles exist both on the scale of days and on the scale of years. Type 1/1 has personality traits, psycho-physiological features, which are identified both in day and annual cycles. The examples are presented in Chapter 9.1.

All sports achievements and athlete personalities, terrorist acts and personalities of famous terrorists, movement of stock markets and other markets, the most important historical events were digitized this way.

Here is an example of such digitization.





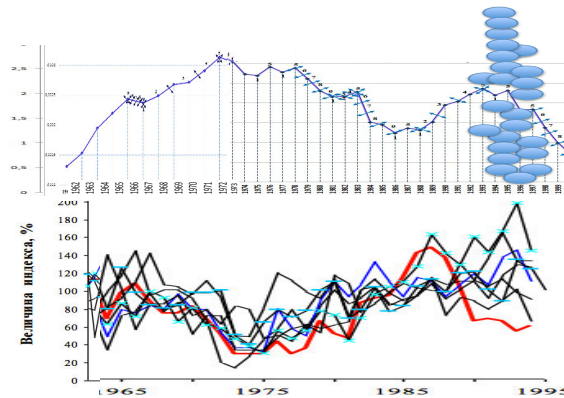
According to his birthday, this Chinese athlete is of type 5/5. These types are often particularly active on days of type 1/1. And vice versa. Chinese, like Russians, are very dependent on cosmic energies in their development.

We have distinguished 9 stages of the change in the Earth's rotational velocity. The probability of setting a record or having a birthday at each individual stage is equal to 0.11. At the same time, code 1 of birthday of great historical record-holders was 56.5%. That is, the probability is 5 times higher... But our athletes set records more often at slowdown of the Earth's rotational velocity. Taking into consideration the arguments and calculations presented above, the conclusion is obvious: the dependencies are certainly not random. And the years of great records being set match the years of the greatest difference in the tree growth rate.

For groups of people examined at different stages of the day and annual cycles the following data were obtained: EEG (electroencephalogram), ECG (electrocardiogram), solved test results, including those that diagnose intellectual qualities, personality traits, unconscious activity (Smirnov's technique etc.). This made it possible to predict changes in people at the change of the Earth's rotational velocity, at a certain arrangement of planets (which is related to the Earth's rotational velocity). This manifests itself in economic growth, in the growth of people's physiological activity and even biota, particularly in growth of tree rings.

Yu. P. Demakov discovered two tree clusters: one of them grows better at the growth of the Earth's rotational velocity, whereas the other - at its slowdown. GDP growth rates of different countries, achievements of athletes are similarly divided into two clusters, two groups.

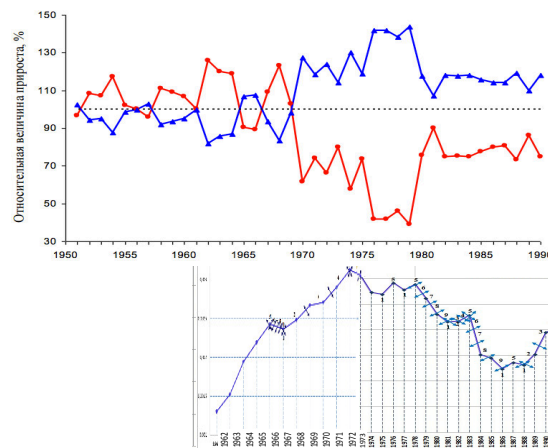
Years of the set historical records in weightlifting and tree-ring gain according to U.P. Demakov



<http://csfm.volgatech.net/presentation/Demakov.pdf>

Fir tree gain of various clusters (according to U.P. Demakov) and Earth LOD

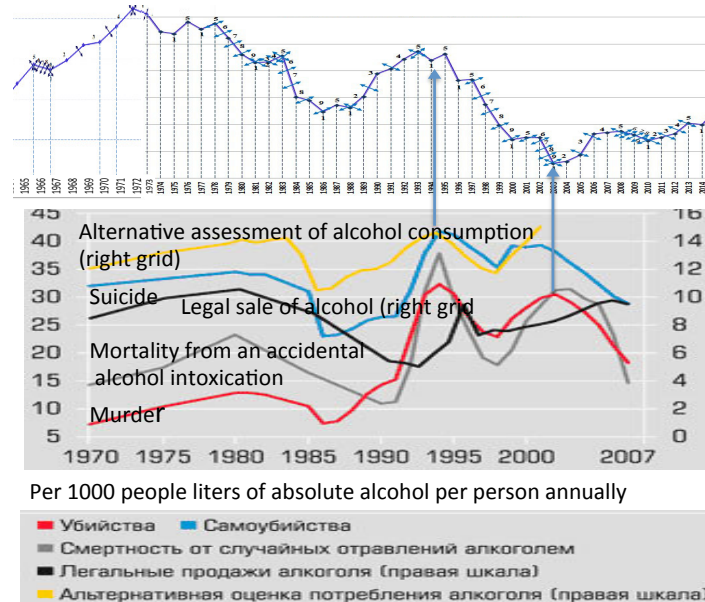
Dynamics of a relative value of a radial gain of fir trees of various clusters in a complex inundated plantation



The Earth's rotational velocity is related to many diverse indicators, which are measured by statistics.

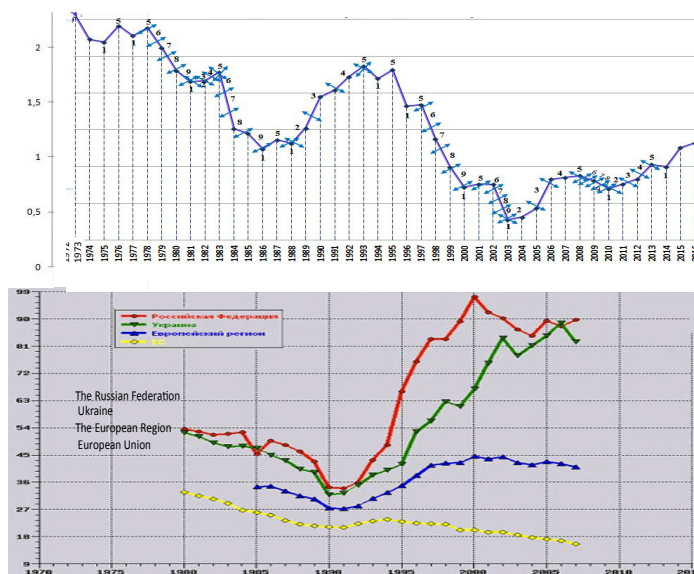
Alcohol consumption and mortality from external causes change simultaneously with the Earth's rotational velocity change

They grow, when the Earth LOD leaves the best possible zone for the Russians



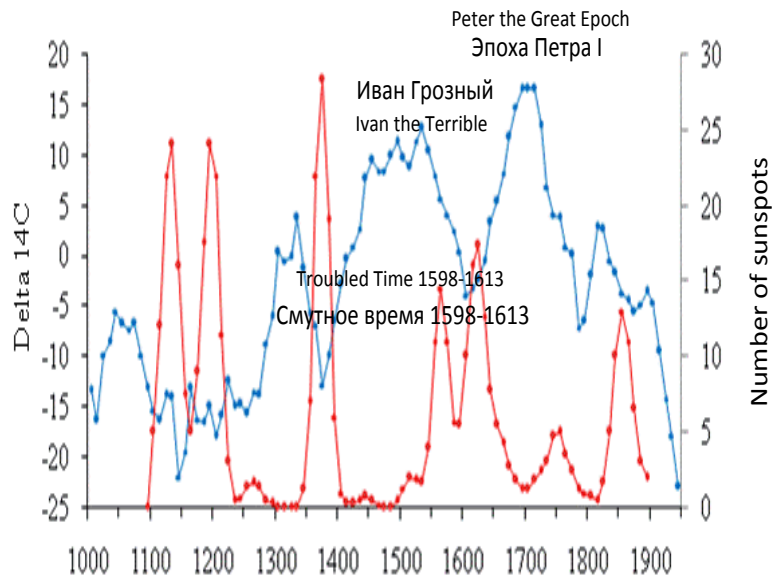
Source: Rosstat

The Earth's rotational velocity and all-form tuberculosis morbidity rate scaled on 100 thousand population



We measure the Earth's rotational velocity by modern techniques since 1962, by instrumental techniques - since 1650. Up to that time, one can judge about the dynamics of changes in cosmic energies by isotopes forming in tree rings, ice cores, by tree ring width, by the Earth's average temperature and other indicators.

From the graphs built based on the given parameters one can infer informative historical conclusions.

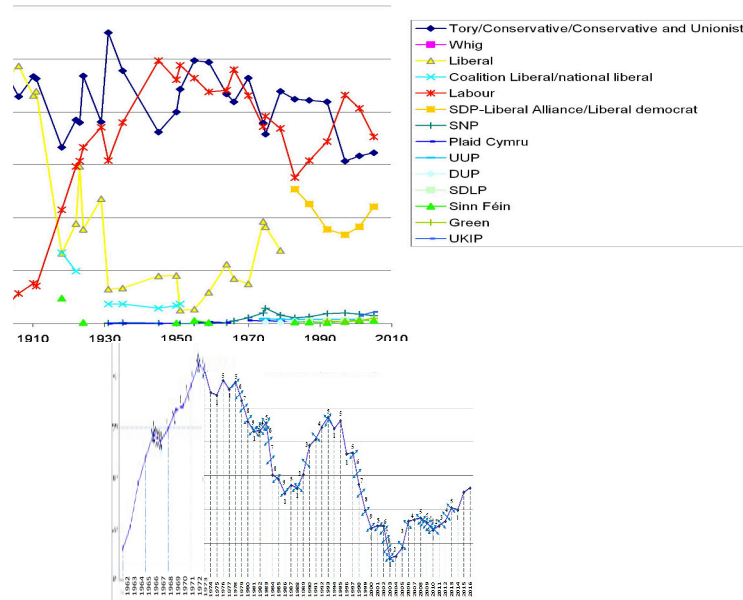


At peaks of cosmic energies, the heads of disobedient were cut and Russia was actively reformed. Whereas at minima of cosmic energies of the type, under the influence of which isotopes of various substances actively formed - the control over country was often lost, the social structure of society disintegrated.

People's political activity is also related to the Earth's rotational velocity. In England, people vote for the main parties in accordance with the Earth's rotational velocity. The composition of the main political parties also resonates with the Earth's rotational velocity.

Voting results for the election to the English parliament and the earth's rotational velocity with the shift for one generation

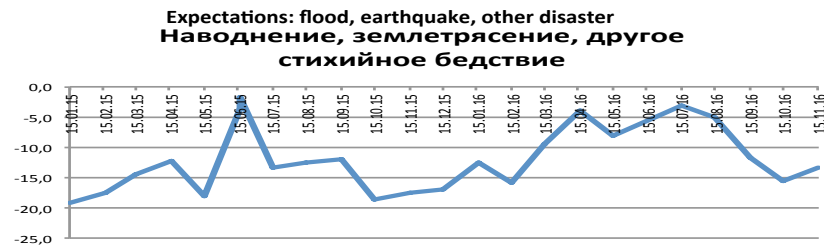
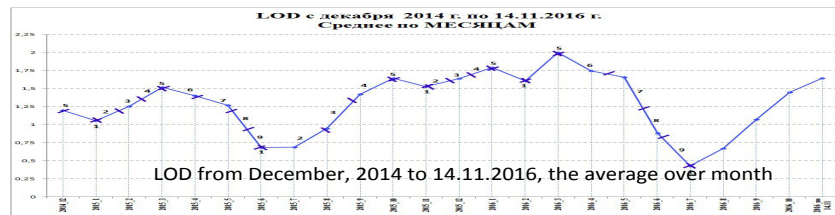
Major vote by party in UK general elections, 1832-2005



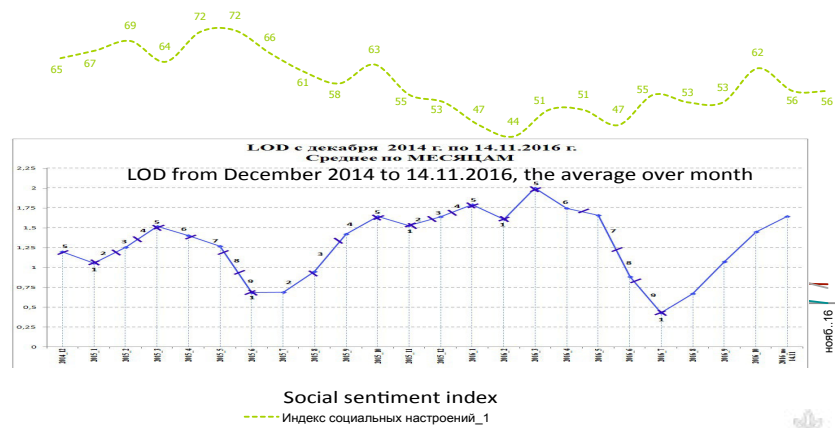
In Russia, social sentiment, political predilections substantially depend on cosmic energies associated with the Earth's rotational velocity. All revolutions in our country occurred at slowdown of the Earth's rotational velocity and growth of solar activity. Take into account that the cosmic energies associated with the Earth's rotational velocity are also associated with rotational velocities of other planets, with their mutual resonances. This was analyzed in detail (see Psycho-cosmic energies: protests, revolutions, leaps in development).

But even in our everyday worries, thoughts, moods and even in our fears we are dependent on cosmic energies.

Earth's rotational velocity (LOD) and population's expectation of earthquakes, disasters



Social sentiment index (All-Russian Public Opinion Research Center, ARPORC) and the Earth's rotational velocity in 2015-2016



People perceive differently increase and decrease of cosmic energies associated with the Earth's rotational velocity. Like plants and biota as a whole, we are divided into groups, clusters, types, which develop better at the increase and decrease of cosmic energies associated with the Earth's rotational velocity.

The most important applied research result is the understanding of how a person changes at the different Earth's rotational velocities and different combinations of that velocity and solar activity. This knowledge has been translated at the level of statistical dependencies, expert systems, person type diagnosis systems based on EEG (electroencephalogram), solved test results, birthdays and days of established personal achievements during lifetime. For every man, like an athlete, has his own achievements. For every person, those achievements more often took place either on days of type 1/1 or type 5/5. Hence, it is possible to forecast personal effectiveness for the forthcoming cosmic period. The fact is that people, like trees, are more active in their own cosmic period. Moreover, people that represent type 1/1 (as well as type 5/5) unconsciously unite. Type 1/1 is particularly active at the growth of the Earth's rotational velocity. Type 5/5 achieves more at the slowdown of the Earth's rotational velocity. The average lifetime of registered commercial structures in Europe is about 12 years not by chance. This is related to the rotation cycle of Jupiter and Saturn around the Sun, which affects the change in the Earth's rotational velocity. Hence, selection and timely replacement of directors, top managers and personnel taking into consideration the identified dependencies is the company's survival condition in the market.

The fall of empires is related to the similar dependencies (see "The breath of history"). In Russia, the greatest achievements among population throughout history took place at the slowdown of the Earth's rotational velocity.

People's dependency on cosmic energies associated with the Earth's rotational velocity is considered at physiological level: scientific ideas, theories, hypotheses, experimental data on this topic are generalized (see "Man in vortex of ether").

These results are not clear to many narrow specialists. That is why they are translated to the language understandable to thinking people,

to graphs and images. Depending on the agreement between the personality type and the needs for historical development, the given cosmic energies, everybody are conditionally separated into resonators (are in resonance with cosmic energies) and post-resonators. Type 1/1 and type 5/5 repeatedly change over, similar to the changes of tree clusters that grow at positive and negative correlation with the Earth's rotational velocity.

Main Personality Traits Of Resonators and Post-Resonators

Resonator	Post-Resonator
Pendular-kinesthetic intelligence	Auditory intelligence type
Kinesthetics	Auditorists
Domain experts	Social motivators
Metaprogram of the future	Metaprogram of the present
Rational requirements	Irrational requirements
Strive for cost saving	Strive for maximal profit
Internal reference	External reference
Metaprogram "HOW"	Metaprogram "WHAT"
Metaprogram of achieving	Unfounded abrupt change of metaprograms to the opposite ones
Metaprogram "common"	Metaprogram "defferent"
Paranoid features with compensatory traits	Hysteroid features without compensatory traits
Major personality trait – "need to"	Major personality trait – "want to"
Maniac features, in case it's not a profession connected with the risk	Maniac features, in case the profession requires contrasting traits
Ability of assessment based on the system data	Ability of assessment based on the separate facts
The main things are the truth and facts	The main thing is movement
Pronounced spiritual values	Pronounced material values
Minimization of protective reactions	Activity of protective reactions
Gives more that takes	Takes more than gives
Striving for exact sciences, knowledge	Striving for irrational constructions
Good family people	Decrease in the influence of the family
Minimal psychiatric disorders. There are accentuations	Increase in psychiatric disorders with age
Naturally subordinate to "religious establishment"	Naturally subordinate to "corporal elite"
Fight against asocial biological instincts	Life in accordance with the biological instincts that masked
For personality changing, inner values and meanings should be changed	For personality changing, external environment should be changed at first
Striving for "being"	Striving for "seeming"

See: Intelligence of the Manager: for Experts and Researchers. – M.: p. 128 – 148.

Resonators are the people whose activity is adequate to cosmic energies. They have enough energy to build an accurate picture of the world and to transform it and themselves. Whereas post-resonators do not have this energy and are forced to earn for a living by means of imitative behavior, often with the help of words, using trance guidance techniques. They are often good talkers, but bad practitioners. However, their techniques of influence on surrounding people are so perfect that they can cajole their chiefs for years using their skills. EEG techniques and other methods help to identify these different types of people in time (resonators and post-resonators, type 1/1 and type 5/5).

Cosmic energies change cyclically. And if so, then at some historical time type 1/1 will be more effective, while at another time - type 5/5. At each distinct cosmic time, there are different resonators and post-resonators.

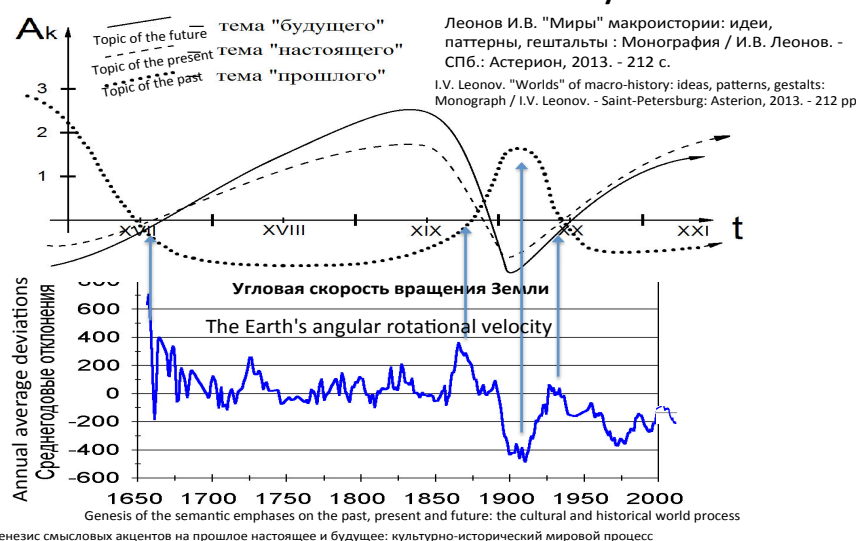
In the past, the society developed this way. Nowadays, the elite has created such mechanisms of people management that prevent resonators, the people of new type, from coming to power. This is one of the reasons of the decrease in economic growth rate, degradation of countries. This can be compared to trees that grow better due to cosmic energies but are not given water, fertilizers and comfortable temperature. Some trees do not grow well because of these reasons, whereas some other - because it is not their cosmic time. As a result, the whole forest dries out... In society, one type of people takes over the power in the state created by them and does not pass it to those who can provide an impulse to mankind development during their cosmic time.

The knowledge is important. But perception of this knowledge by general public is possible only if it is included in the system of generally accepted, taught at school, at universities. Therefore, it is important to replace the term "cosmic energies associated with the Earth's rotational velocity" with the common parameters of modern science. Those are electromagnetic energies, gravitational energies, the energy of galactic cosmic rays, etc. It turned out that the Earth's rotational velocity resonates, corresponds to the dynamics of change of these energies. Moreover, for empirical perception of the studied problems it is important to convert the Earth's rotational velocity into the indicators that are not so

abstract when perceived emotionally. These are the tree rings growth rate, the isotope forming of various substances in ice cores and tree rings, the temperature on Earth, the humidity, the presence of ground-water according to the Earth's rotational velocity, the change of magnetic poles on the Sun, the change of its surface temperature, etc. It turns out that all these very important and controversial phenomena are related to the Earth's rotational velocity. These relations allow to use the system indicators, the parameters for determining the moment when one type of people in the elite, the management board, should be replaced with another. Surprising, but Chinese scientists have already understood this. Even more surprising is that Chinese philosophers of the past also understood this. They understood that nations, countries, like people, develop at their own specific cosmic energies. Cycles of cosmic energies are associated with the cyclic development of mankind and nations.

There are deep studies which recorded the mass manifestation of one or another personality trait, a meta-program at a certain stage of mankind development.

Topic of the past, the present and the future in the world culture and the Earth's rotational velocity

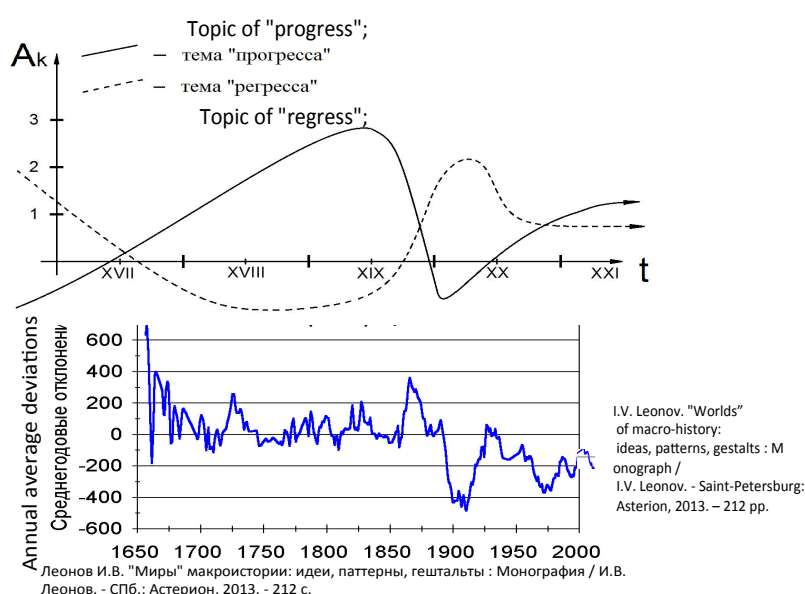


With the abrupt change of the Earth's rotational velocity in the early 1900s, the topic of philosophical understanding of reality also changes within the past-future meta-program: the interest to the past increases. At the peaks of the Earth's rotational velocity growth the priorities of philosophical, spiritual and literary aspirations change.

This is like the growth of trees of different clusters. When the sign of acceleration of the Earth's rotational velocity changes in ten-year, hundred-year cycles, poorly growing trees are replaced with a generation of trees that grow better exactly at this cosmic epoch.

In society, with the abrupt change of the Earth's rotational velocity happens the abrupt change of the whole culture, the aggravation of the struggle between progressive and regressive views.

Topic of regress and progress in the world culture and the Earth's rotational velocity



The changes in culture, in philosophical views, in literature - are forerunners of the future changes in society. In fact, these are the

graphs of cyclic occurrence and appearance of resonators, the passive, and post-resonators, the sub-passive.

In nature, the change of tree clusters and biota happens automatically, but optimally enough for development. In human society, this process is still very spontaneous in the fields of culture, art, philosophy, but already needs management in economy, state building. For it is difficult to automatically change the banking elite with the features of post-resonators to the resonators, practitioners, domain experts. Elite of the previous cosmic epoch will resist mercilessly.

What should be done?

Conclusion on Chapter 1

The world is currently at the turning point in its development. It is impossible to understand patterns and stages of this development, to precisely determine its goals without understanding the influence of cosmic energies on mankind. Knowledge of the coercive type is important here. Therefore, throughout this paper we provide graphs and describe patterns that were discovered by various independent researchers. They are objective. Such presentation of material counts on common sense, when it becomes critical and prevents us from making sound decisions regarding the arrangement of Russia. Common sense should become a coercive factor in the arrangement of Russia.

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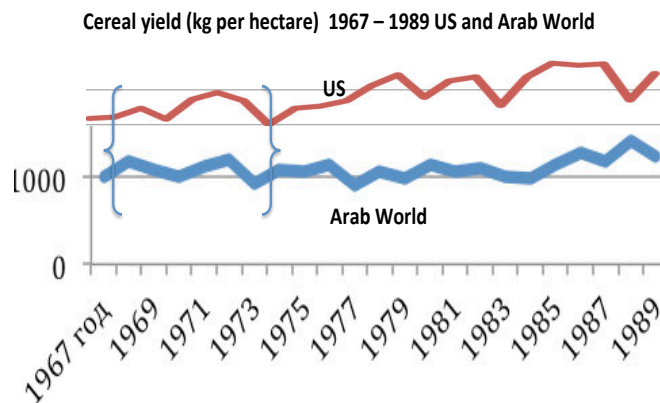
Chapter 2. Energy of gravitational, electromagnetic fields, of the Earth's rotational velocity, and the corresponding clusters of plants, animals and types of people

2.1 Clusters of plants and types of people depending on the change of cosmic energies

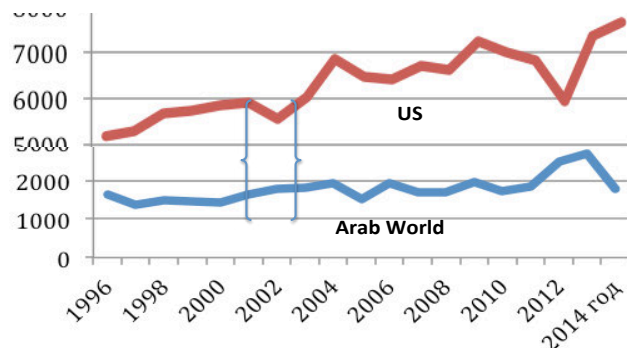
2.1.1 Clusters of plants and animals

If the dependency between biota development and the Earth's rotational velocity is universal, then this trend will also manifest itself in the growth of cereals. The World Bank possesses the comprehensive data regarding the growth of cereals. Yes, the variability of cereal growth yield must be fully manifested due to the factors considered by scientists in the tree ring growth formula (see Chapter 3), but with addition of the most essential that spans all the natural - cultivation technologies. This is the use of fertilizers, irrigation, herbicides, seeds, biotechnology etc. The technological factor mostly determines the growth of cereals: yield is higher year by year, decade by decade.

Nevertheless, there are countries in which there is still the difference in cereal growth depending on the Earth's rotational velocity. E.g., the USA and Arab countries have relatively opposite GDP and cereal growth rates depending on the Earth's rotational velocity.

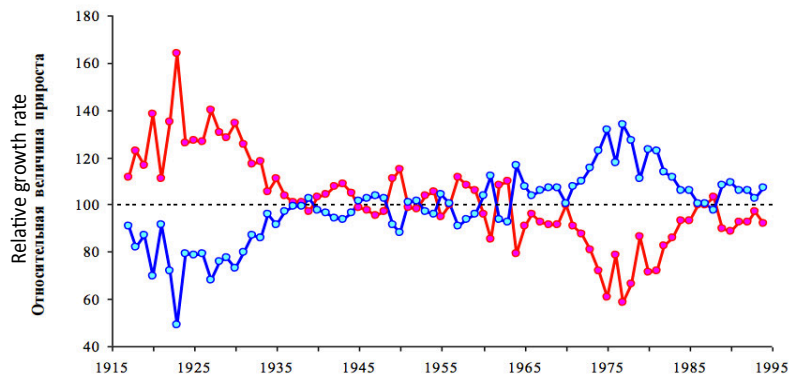


Cereal yield (kg per hectare) 1996 – 2014 US and Arab World



Let us look at the graph of tree rings growth of different clusters provided by Yu.P. Demakov.

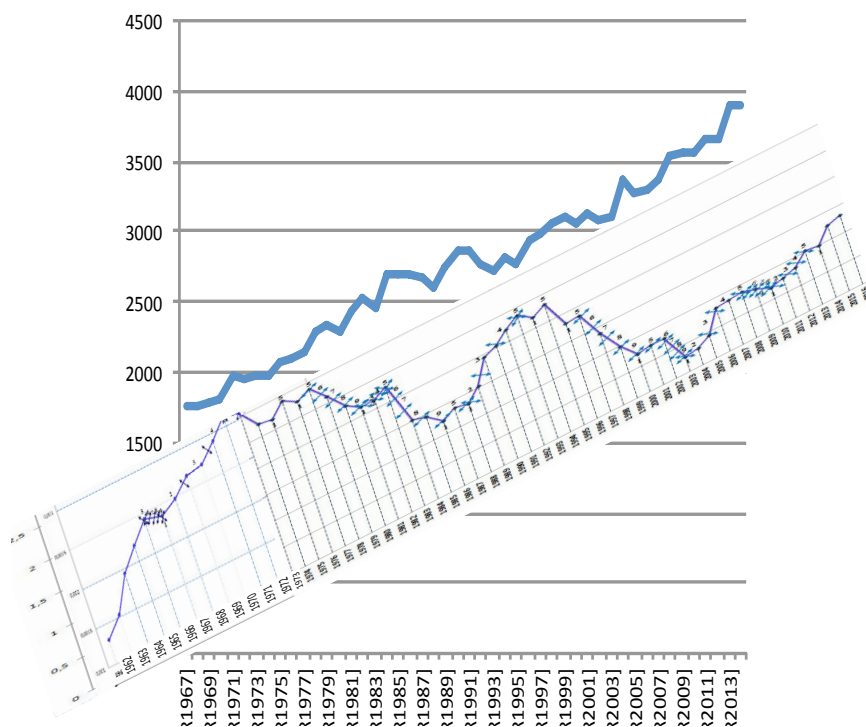
Dynamics of relative annual pine tree growth of different clusters in cultivation



Ref.: Yu. P. Demakov. Factors of annual tree growth dynamics.
<http://csfm.marstu.net/presentation/Demakov.pdf>

There is an analogy. Is there a relationship between the cereal yield growth in the world and the Earth's rotational velocity?

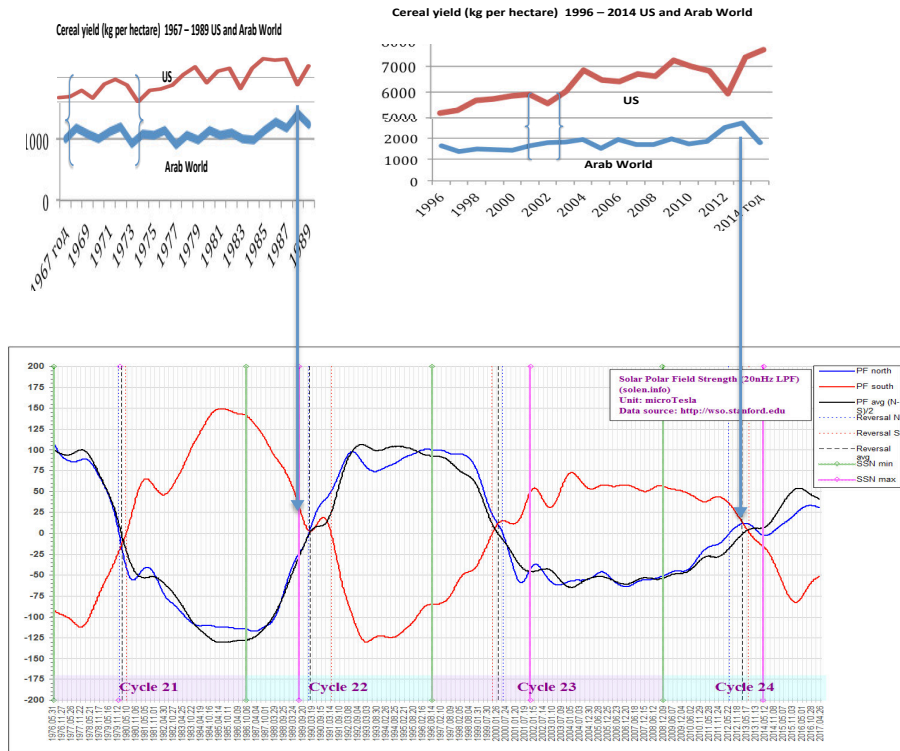
Cereal yield in the world and the Earth's rotational velocity



Yes, there is such a relationship. But it mostly manifested itself in the 90s. At the beginning of the XXI century it became less pronounced. Note: correlation between the tree growth and the Earth's rotational velocity is negative in Russia, whereas for the cereals worldwide it is positive.

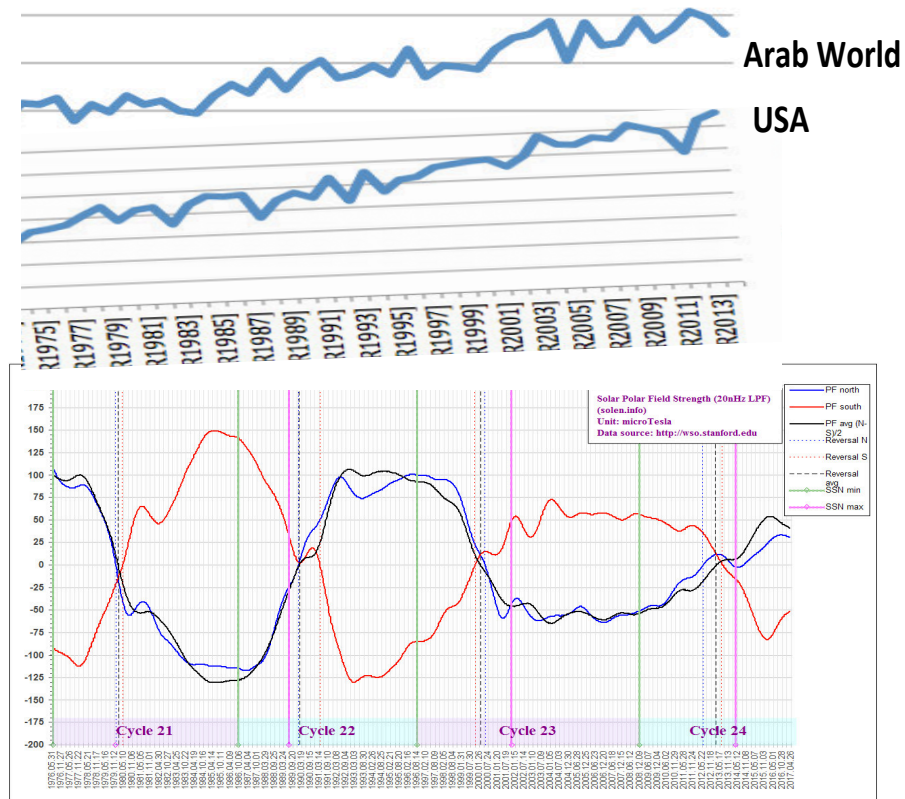
Will these dependencies remain regarding the intensity of the northern and southern solar magnetic fields?

Comparative cereal yield in the USA in the period of inversion of the northern and southern solar magnetic poles



On the graph above the cereal yield in Arab countries and in the USA is time-coordinated with the change of intensity of the solar magnetic field.

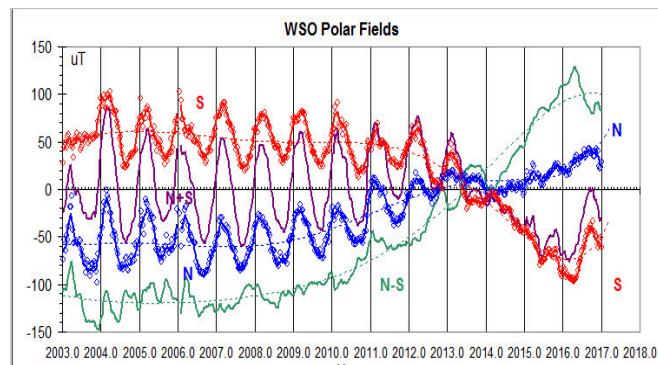
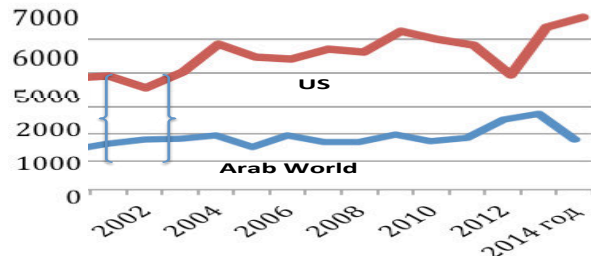
Intensity of the northern and southern poles of the solar magnetic field and cereal yield in the USA and Arab World countries



Let us enlarge the part of the graph, which is closer in time to the inversion of the magnetic field on the Sun in 2013.

Change of solar magnetic fields and cereal growth in the USA and Arab World

Cereal yield (kg per hectare) 1996 – 2014 US and Arab World

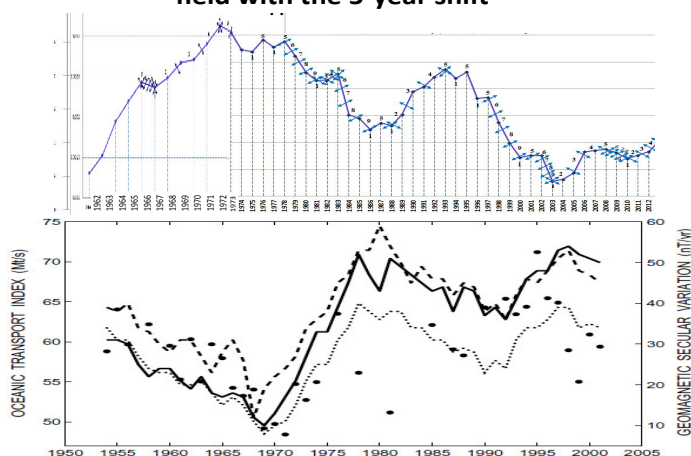


In the USA, cereal yield is higher than in Arab countries when the northern magnetic pole is positive. With the sign change of the solar magnetic pole the graph of cereal yield growth in these countries diverges. For the cereals that grow in the USA the period when the northern magnetic pole has a positive charge is more favorable. Whereas for the cereals that grow in Arab countries the period when the northern magnetic pole has a negative charge is more favorable. But this is also connected with the Earth's rotational velocity.

Magnetic fields of the Sun and the Earth, as well as the velocity of its rotation, are all interconnected.

There is the graph to support this:

Rotational velocity (LOD) and change of the Earth's geomagnetic field with the 5-year shift



<http://www.creationtheory.com/climatechange.html>

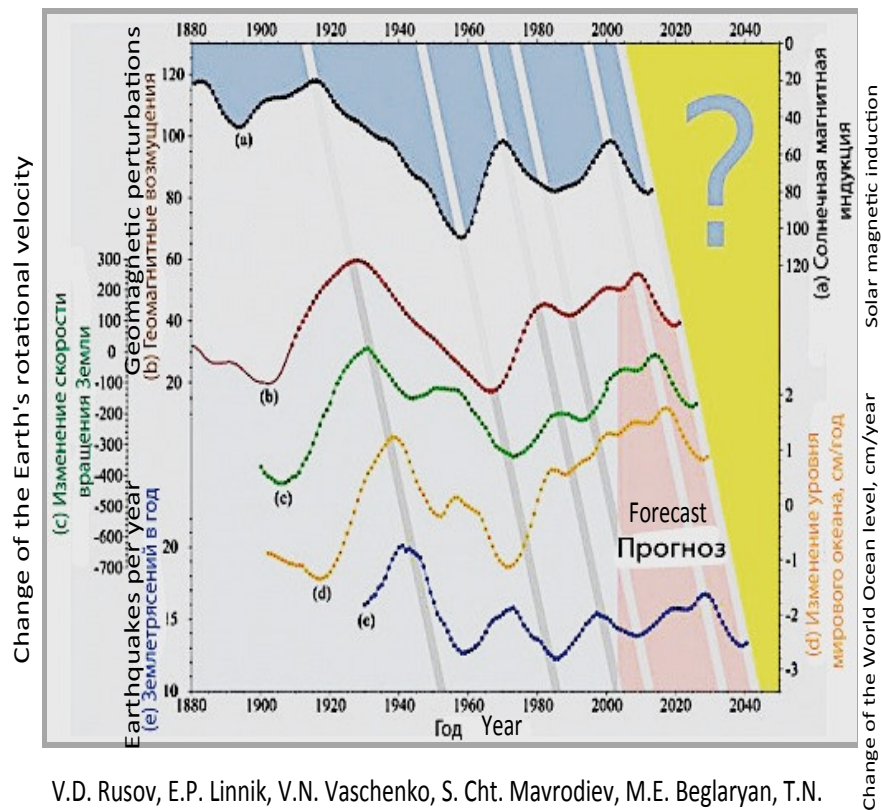
First, the Earth's magnetic field changes, after that - its rotational velocity. Although, at the scale of hundreds of years, this shift is not very noticeable.

Growth of plants is statistically related to the change of the Earth's magnetic field and with the change of its rotational velocity. Take into account that in different regions of the Earth the change dynamics of the magnetic field varies. Therefore, the shift to obtain a mapping between the graphs of the Earth's rotational velocity and the magnetic field intensity might be different in time.

The difference in cereal growth in the United States and Arab countries is higher at the greater difference in the intensity of the southern and northern solar magnetic fields.

Intensity of the solar magnetic pole is related to intensity of the Earth's magnetic pole. This relationship can be understood by analyzing the graph of Ukrainian scientists (V.D. Rusov, et al., 2011).

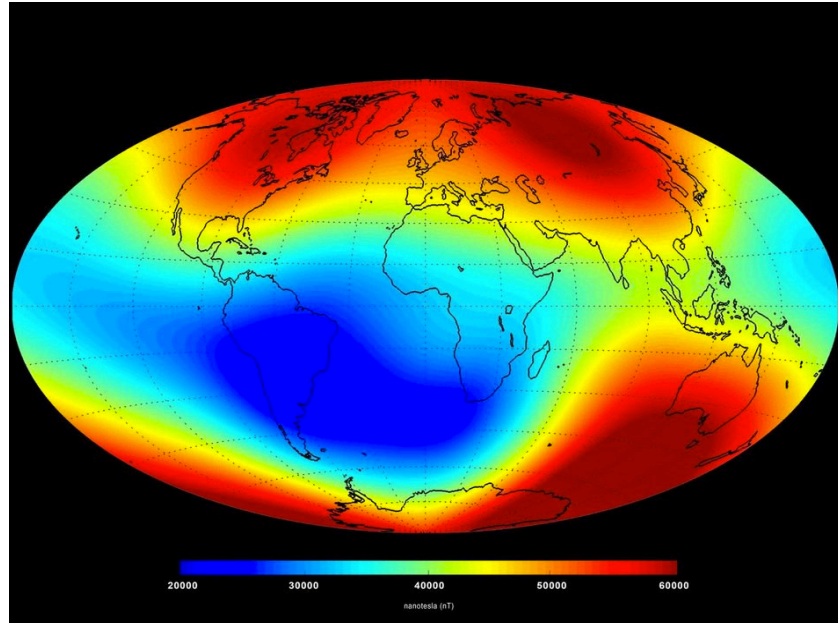
Magnetic activity of the Sun and mega-processes on the Earth



V.D. Rusov, E.P. Linnik, V.N. Vaschenko, S. Cht. Mavrodiev, M.E. Beglaryan, T.N. Zelentsova, V.A. Tarasov, D.A. Litvinov

There is a relationship, a correspondence, but it is shifted in time.

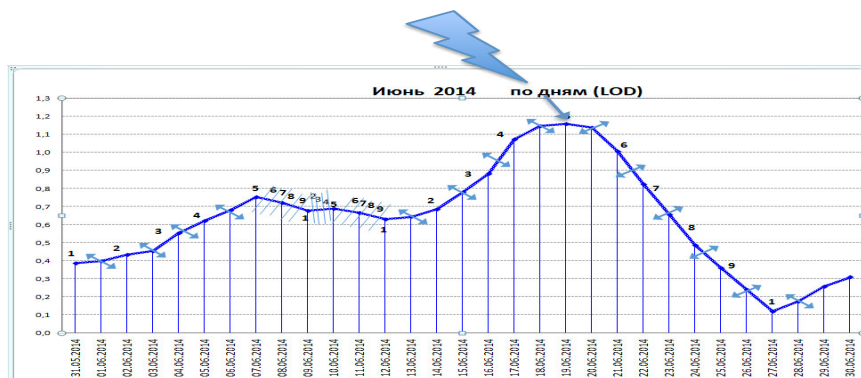
What relationship is there between the cereal yield in the world and the intensity of the Earth's magnetic field? To learn this, let us take the data of space monitoring of the magnetic field intensity in various regions of the Earth.



Swarm reveals Earth's changing magnetism, ESA, 19 June 2014, [http://www.esa.int/Our Activities/Observing the Earth/Swarm/Swarm reveals Earth s changing magnetism](http://www.esa.int/Our_Activities/Observing_the_Earth/Swarm/Swarm_reveals_Earth_s_changing_magnetism)

We will also present a graph of the change in the Earth's rotational velocity on the day when the data of its magnetic field were obtained.

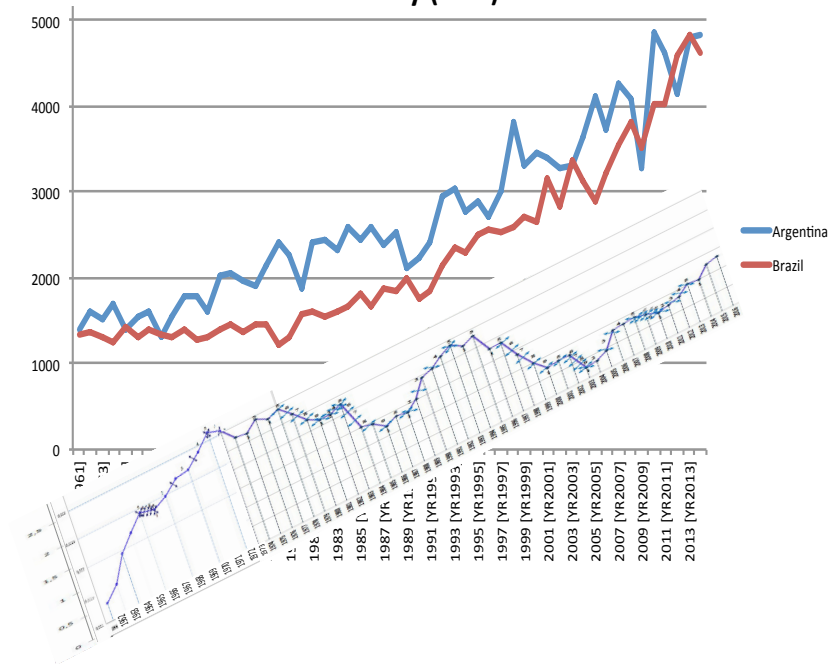
June 2014 by days (LOD)



It can be seen that the intensity of the magnetic field over North America is higher than over Arab countries. Then maybe this is the reason why we have a difference in cereal growth rates?

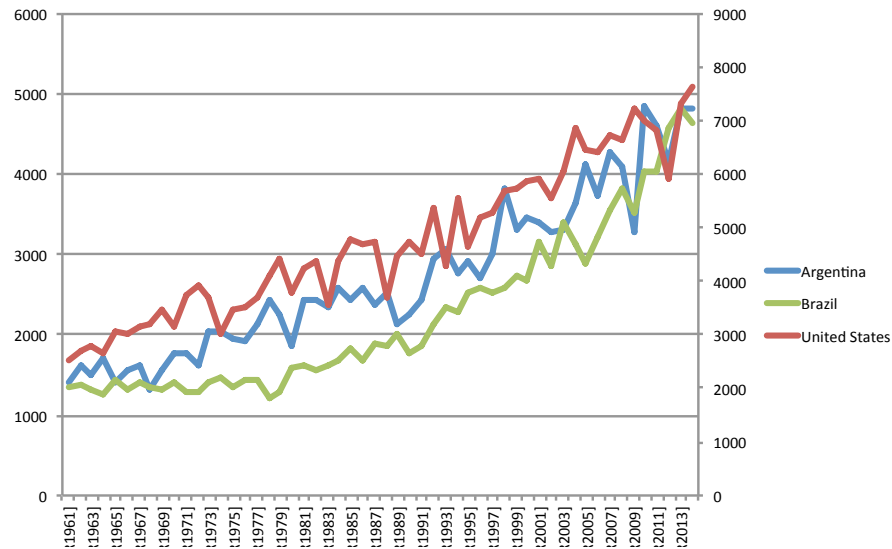
We will recheck this by comparing cereal growth in the world (matches cereal growth in the USA) with the growth in Argentina and Brazil where the magnetic field intensity is much lower.

Cereal yield in Argentina and Brazil and the Earth's rotational velocity (LOD)



Let us compare it with cereal yield in the USA.

Cereal yield in Brazil, Argentina, the USA

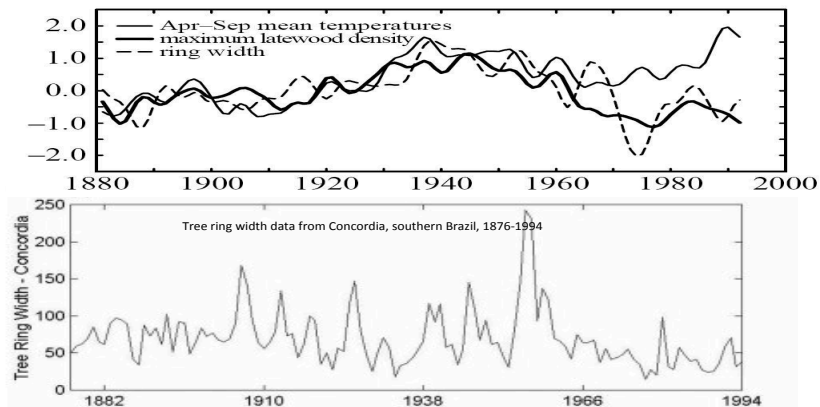


Yes, the trends of yield growth by years are relatively opposite. Although growth prevails in all countries. And correlation between these data is positive. Whereas each year fluctuations, deviations from mean values, anomalies are relatively opposite.

The greatest differences in fluctuation rates occur in the late 80s, early 90s. The smallest differences occur in 1961 and 2013. 2013 is the time of polarity reversal of the solar magnetic field. This process is prolonged, it takes more than a year. But exactly in 2013 there were the greatest changes of the solar magnetic fields on its poles. The North Pole became positive. These years, there is the smallest difference in cereals growth between the USA and Arab countries. According to our data, in 2013 the difference in EEG frequencies of the subjects also decreased. GDP growth rates of various countries became less variable than they were before.

How did trees usually grow in Argentina, Brazil and the USA?

Comparative data on tree ring width in the USA and Brazil

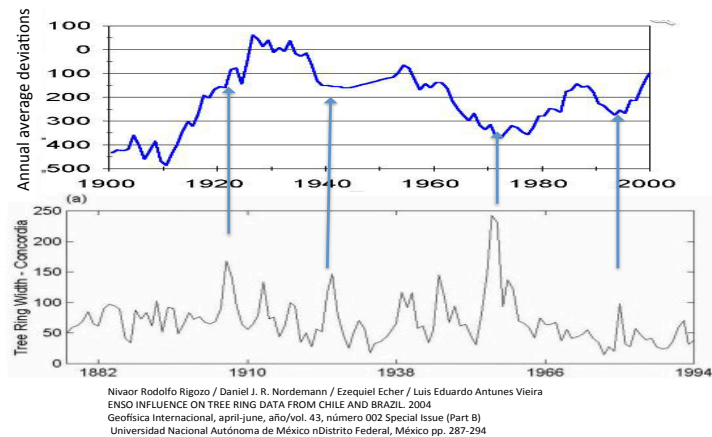


Nivaor Rodolfo Rigozo / Daniel J. R. Nordemann / Ezequiel Echer / Luis Eduardo Antunes Vieira ENSO INFLUENCE ON TREE RING DATA FROM CHILE AND BRAZIL. 2004
Geofísica Internacional, abril-june, año/vol. 43, número 002 Special Issue (Part B) Universidad Nacional Autónoma de México nDistrito Federal, México pp. 287-294

The trees have relatively opposite indicators, the same as in the case of cereals. At the same time, one must take into account the difference in temperature and climate between these countries.

Let us compare these graphs with the Earth's rotational velocity.

The Earth's rotational velocity and tree ring width in Brazil at a 12-year shift



Nivaor Rodolfo Rigozo / Daniel J. R. Nordemann / Ezequiel Echer / Luis Eduardo Antunes Vieira
ENSO INFLUENCE ON TREE RING DATA FROM CHILE AND BRAZIL. 2004
Geofísica Internacional, abril-june, año/vol. 43, número 002 Special Issue (Part B)
Universidad Nacional Autónoma de México nDistrito Federal, México pp. 287-294

There is the relationship between the tree growth rates and the Earth's rotational velocity: tree growth in Brazil is higher with at the slowdown of rotational velocity. In the USA trees grow better at the growth of the Earth's rotational velocity.

Yes, trees in the USA and Brazil, like cereals, grow with relatively opposite trends with respect to the Earth's rotational velocity.

So what, is the reason in the Earth's magnetic field?

Most likely this is a superposition of many factors, including genetic ones. This conclusion is based upon the analysis of high-yielding breeds of cows that were kept on the same farm. Milk yields there varied depending on the Earth's magnetic field intensity in the region where they were. They were located in one place, but their genetics was different. The statistics is impressive - more than a thousand cows of each breed.

See V.A. Afanasiev, S.M. Chibisov, A.A. Nikishov, A.Yu. Shitikov. Productivity of high-yielding cows of black-motley and red breeds at various helio-geomagnetic activity.

One of the conclusions of this study:

"Highly productive animals, obviously, possess more stable metabolism than average over the herd. Therefore, they, apparently, were less exposed to the influence of the Sun, but were more sensitive to the Earth's magnetic field intensity".

The most important final conclusions of this study are the following:

"1. The experiment revealed a strong relationship between the provided... indicators of annual average productivity and annual average geomagnetic activity data (Ar - index).

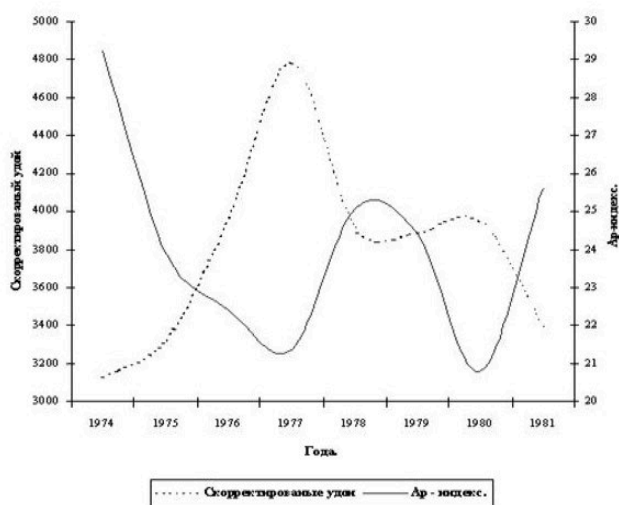
2. A negative value of r = from -0.37 to -0.74 was determined at $p \geq 0.95$, the relationship between the provided productivity of red breed animals and geomagnetic activity, which can be interpreted as a trend of decreasing productivity at the increase of geomagnetic activity, except 3-4 years close to the change of solar magnetic poles, i.e. the years of maximum solar activity.

3. The correlation between the adjusted productivity of black-motley breed and geomagnetic activity is positive with $r =$ from 0.53 to 0.74 at $p \geq 0.975$, which can be interpreted as a trend of increasing productivity at the increase of geomagnetic activity.

4. No valid correlation was observed between the solar activity and the yield of high-yielding cows of black-motley and red breeds".

Different breeds react differently to the geomagnetic situation and the Earth's rotational velocity. Here is one of the graphs of that study.

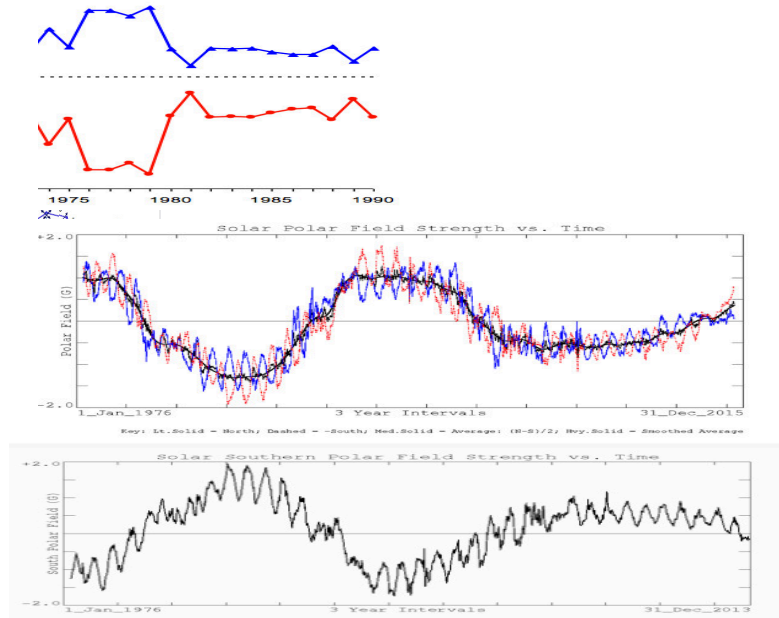
Change dynamics of the annual average productivity values normalized by the maximum milk yield at the different magnetic activity (Ar - index)



The authors discovered a special asynchrony of milk yields in the period "when the solar magnetic poles reversal takes place. In 1969, on the Northern part of the Sun, the South pole S turned to the North one N, whereas in 1980 the North pole N turned to S. Exactly during these years the greatest asynchrony of the curves takes place".

Intensity of the northern and southern magnetic poles on the Sun has a statistical relationship with the growth of tree rings of different clusters.

Difference in intensity between the northern and southern magnetic poles on the Sun and the growth of different tree clusters

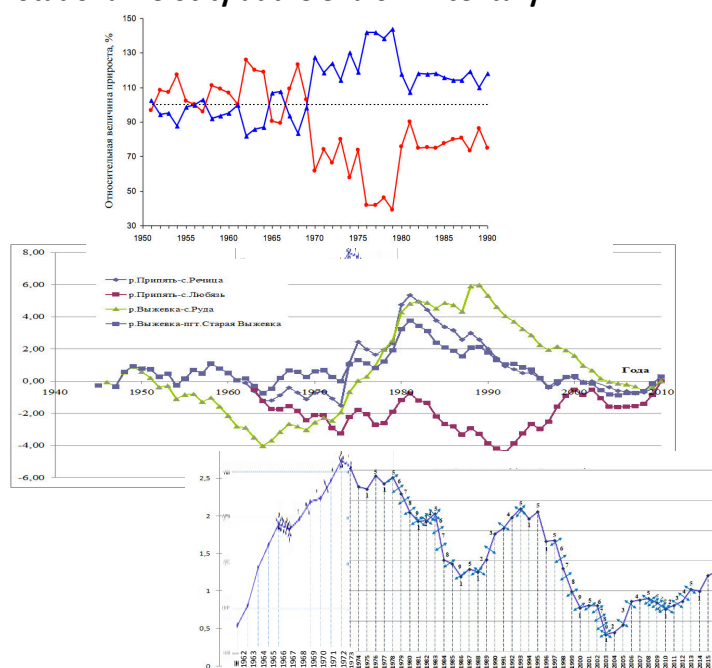


The difference in the ring width growth rate among clusters is higher at the greater difference in intensity of the northern and southern solar magnetic poles.

However, one should not reduce everything to the Earth's magnetic field or rotational velocity. These are mega-factors. They also affect the regional factors that influence the growth of plants. The methodology of cause-effect relationships lies in the graph of dependency of main mega-processes on the Earth on the solar magnetic activity. It includes

the shift of mega-processes in time. The graph below reflects a close cause-effect relationship between the Earth's rotational velocity, the availability of optimal groundwater level and the tree growth.

Groundwater level, tree growth of different clusters, the Earth's rotational velocity at the end of XX century



In different localities, depending on the magnetic and other energies, water and its magnetic and other properties change qualitatively. This is connected with the development of biota in this region (see S.Yu. Kuznetsova). Magnetic properties of water // Advances in modern natural science. - 2010. - № 10. - pp. 49-51; URL: <https://www.natural-sciences.com/en/article/view?id=9082>.

With the change of the Earth's rotational velocity water level changes everywhere. Magnetic field changes, too.

The Earth's rotational velocity and Caspian Sea level

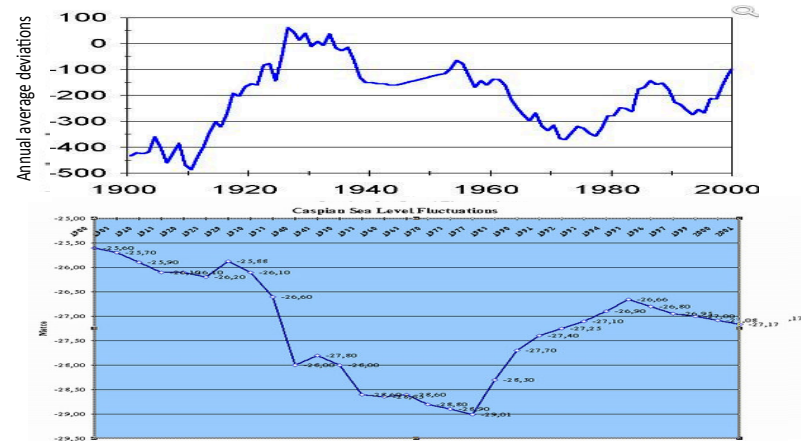
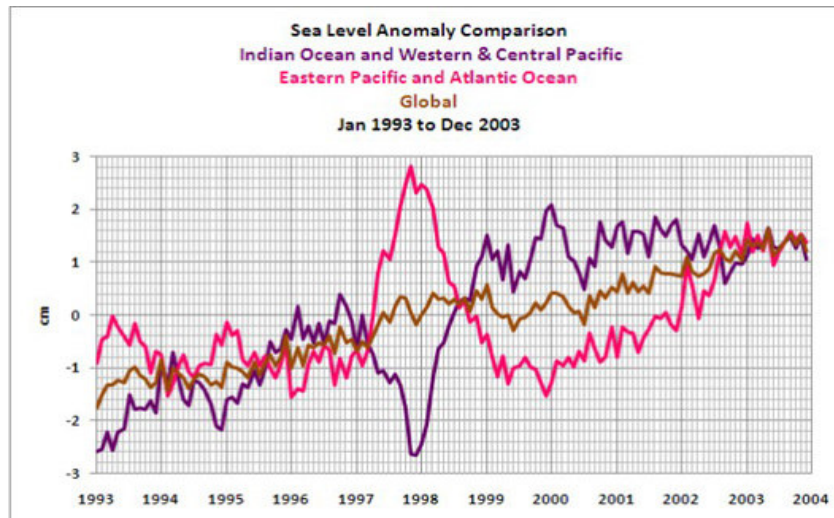


Схема взята с сайта: <http://www.hydrometeorology.ws/str24.html>

This also applies to the change of water level in the oceans world-wide.



Note: the difference in ocean levels is lower in 1994 and 2003. And it is maximum in 1998 and 2000.

And most surprising: water level in the oceans became contrastingly different the same year when tree rings started to grow faster.

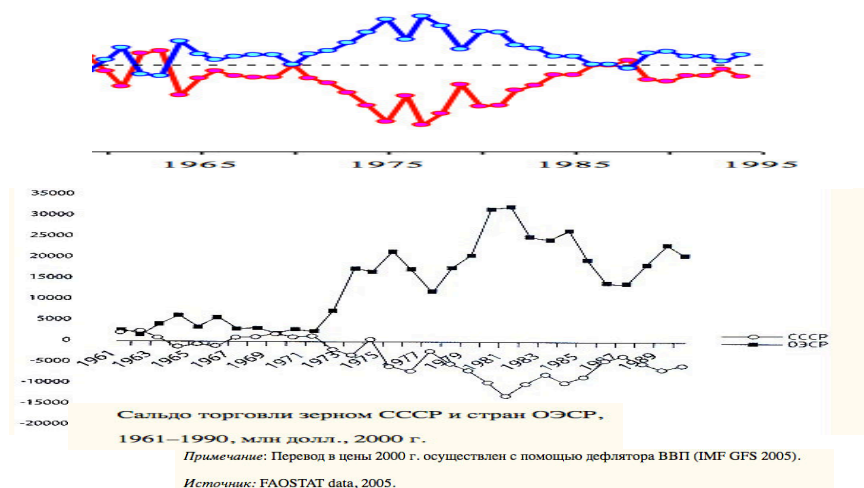
См.: Yang B, He M, Melvin TM, Zhao Y, Briffa KR (2013) Climate Control on Tree Growth at the Upper and Lower Treelines: A Case Study in the Qilian Mountains, Tibetan Plateau. PLOS ONE 8(7): e69065. <https://doi.org/10.1371/journal.pone.0069065>
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069065>

Naturally, water level in the oceans will be different under the influence of gravity. So what, did at this time the Earth's gravitational field become more contrasting in its different regions?

The Earth's rotational velocity and gravitational field, the Earth's and Sun's magnetosphere are all interrelated.

The relationship between the growth rate of plants, cereals and the Earth's rotational velocity is not just a scientific fact, but rather it has a concrete economic manifestation.

USSR and OECD (Organization for Economic Cooperation and Development) countries foreign trade balance compared with the growth of tree rings of different clusters



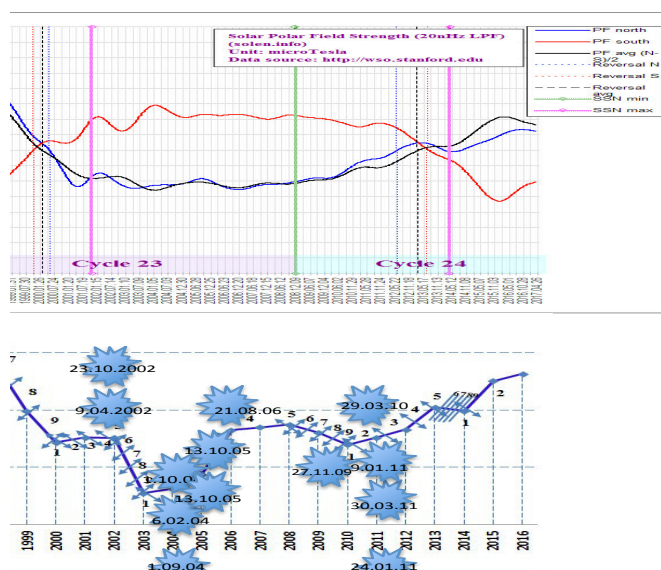
We do not claim anything that has not been proven. This is just a graph, in which the ring width growth of the trees of different clusters, so to say, matches the graph shape of the cereal trade balance of USSR and OECD countries. They match by form and time.

2.1.2 Types of people depending on the Earth's rotational velocity

There are two types of people - those who develop better at the growing Earth's rotational velocity and those who develop better at its decline. These types of people are studied in separate editions (Economic crisis: who is to blame and what to do, Psycho-economics, etc.).

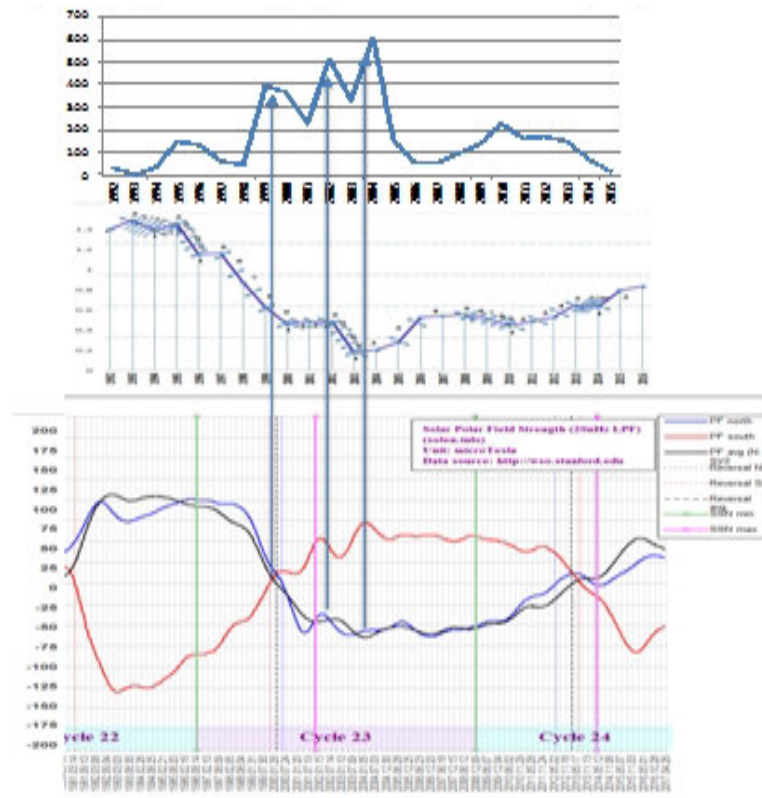
In its extreme form, this is the division to humans and non-humans. The majority of terrorists are non-humans, but more so are their ideologists. But humans and non-humans have different activity levels at different Earth's rotational velocities. This is the fundamental division of people to types. In some countries, terrorists are more active at the minimum Earth's rotational velocity, in the others - at the maximum rotational velocity. That is, the points of change of acceleration sign of the Earth's rotational velocity are the bifurcation points of manifestation of types 1/1 and 5/5.

Solar magnetic field intensity, Earth's rotational velocity (LOD) and major terrorist acts (according to TASU (Telegraph Agency of the Soviet Union) data) committed in Russia in XXI century



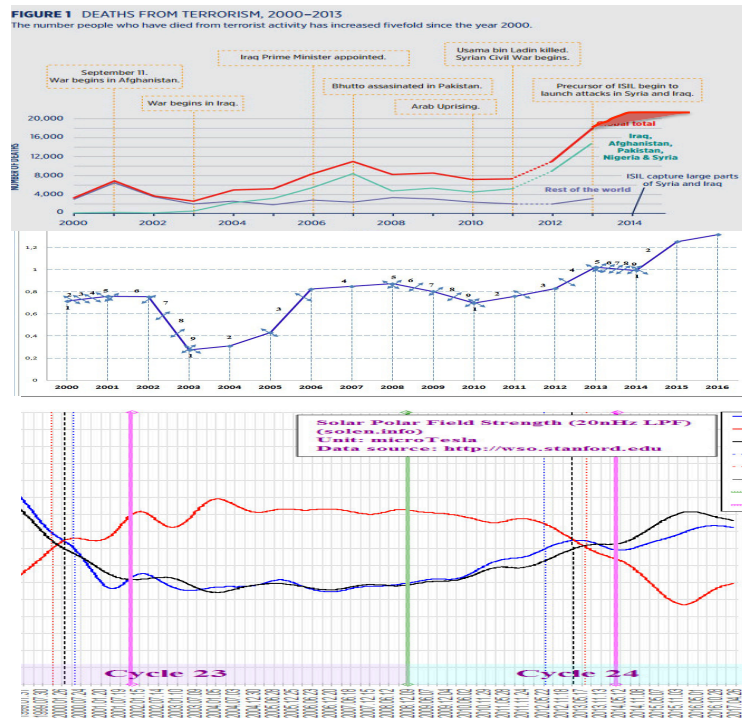
Let us be objective and note that, according to the graph above, the dependency of the terrorist acts committed in Russia on the Earth's rotational velocity is higher than on characteristics of the solar magnetic field. However, probabilistic processes are better manifested at large scales.

Number of people killed as a result of terrorist acts in Russia in 1992-2015, the Earth's rotational velocity (LOD) and solar magnetic filed



What is the situation around the world?

Change of the Earth day duration, number of casualties of terrorist acts around the world and the solar magnetic field (in 80% of cases terrorists are the immigrants from Islamic countries)



The inverse relationship.

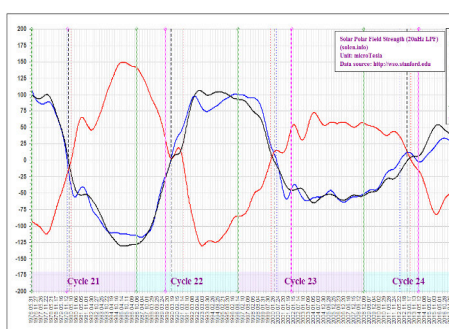
Accordingly, there is the inverse relationship of the solar magnetic field not only with the yield of grain, but also with the growth of trees and with the activity of terrorists from various regions of the world. And there are countries, nations, whose representatives, like different tree clusters, react oppositely, in different ways, to the increase and decrease of the Earth's rotational velocity and magnetic fields of the Earth and the Sun.

In Russia, the relationship of these phenomena with both the Earth's rotational velocity and with the change of solar magnetic fields is more pronounced. The peaks of terrorist acts in Russia coincided with the spikes of the growing intensity of the southern magnetic pole of the Sun.

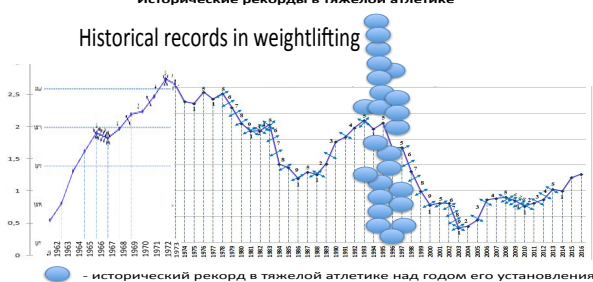
It is clear that people and biota react differently to the cosmic energies of the opposite sign. But what is better for Russia? According to the number of terrorist acts, it is already clear: it is better when the northern pole on the Sun is positively charged and when the Earth's rotational velocity slows down.

And what about the other cases?

Solar magnetic field intensity, the Earth's rotational velocity (LOD) and historical records of Russian weightlifters



Исторические рекорды в тяжелой атлетике



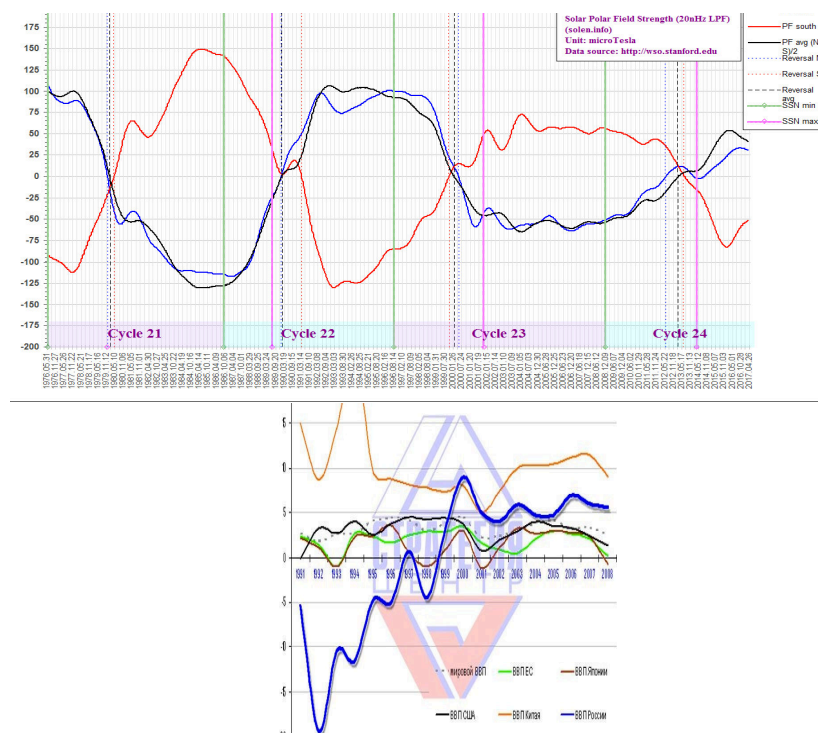
● - исторический рекорд в тяжелой атлетике над годом его установления

Historical record in weightlifting above its year

It is similar for athletes: it is better when the northern pole of the Sun has a positive charge, when the difference between the intensities of the southern and northern magnetic poles is great and when we are at point 5 of the change of the Earth's rotational velocity. Any first-grader may add: and when Russia is headed by appropriate people. Specialists will specify: when the elite is adequate to its people.

But maybe this only applies to sports achievements and terrorism?

Solar magnetic field intensity, the Earth's rotational velocity (LOD) and GDP growth rates from 1991 to the beginning of crisis in 2009

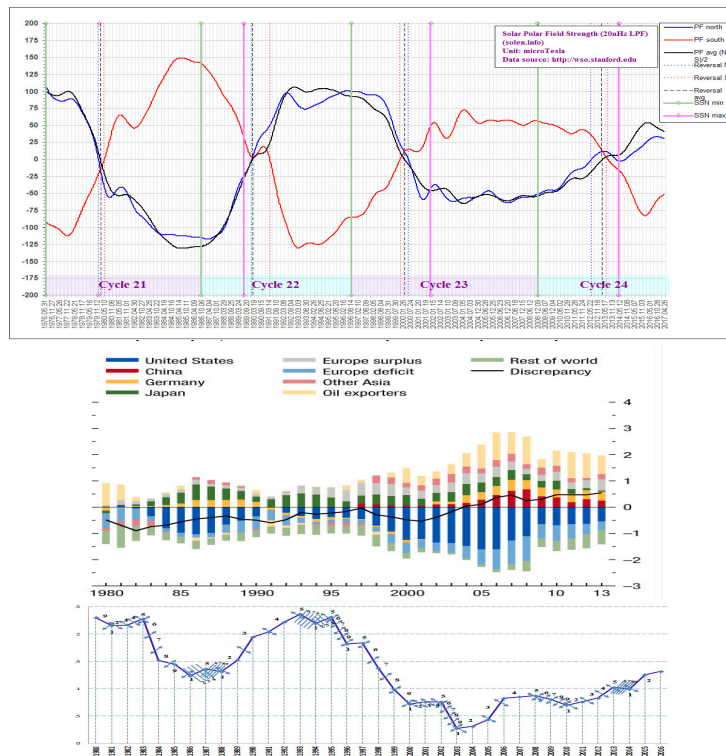


Russian GDP started to grow from the moment when the magnetic field of the northern pole of the Sun became positive and continued to grow till it retained this sign.

And what about the larger time interval?

But this is true for Russia. What about other countries?

Intensity of the northern and southern solar magnetic poles, the Earth's LOD and GDP growth rates in various countries



It does not sound good, but in fact it is true: everything is like for cows of different breeds.

With the increase of intensity between the northern and southern magnetic fields of the Sun, the difference in growth rates decreases at the Earth's rotational velocity slowdown. The degree of dependency of individual countries' development on cosmic energies is different.

Russia is the country for which space energies are especially important. Let us list the main signs of favorableness of space age for our development.

- Slowdown of the Earth's rotational velocity (see N.I. Konyukhov, 2017)

- The northern magnetic pole of the Sun is positive.

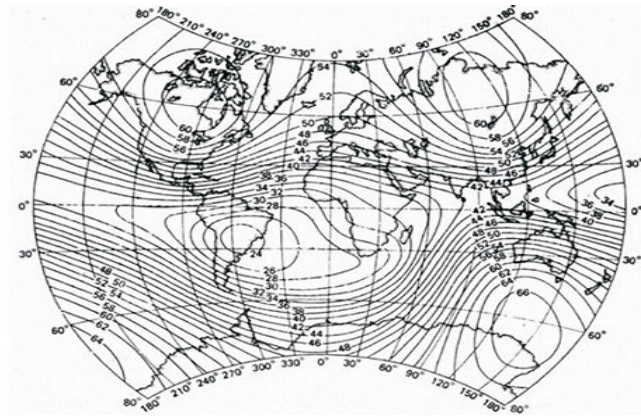
- Great difference of intensities of the northern and southern magnetic poles of the Sun.

We shall not hide the fact that on the graph above there is a contradiction between the Earth's rotational velocity and the intensity of solar magnetic field. We will talk about it later. The best option is when these factors resonate, when they correspond to each other. Such a historical period has not come yet for Russia since 1991. But it is close...

2.2 On the relationship between the Earth's rotational velocity and gravitational and magnetic fields

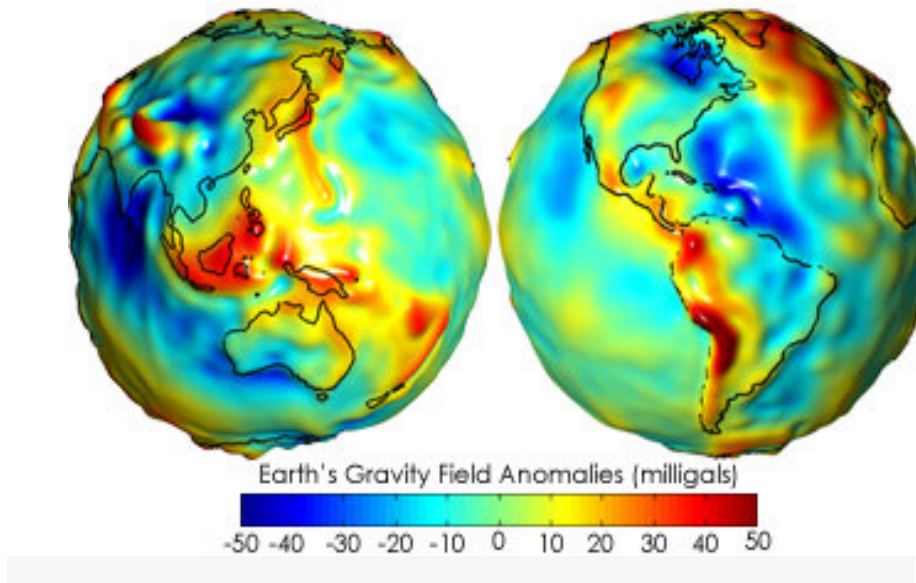
The figure below shows the Earth's magnetic field map for the 1980s. It is taken from the book by P. Sharm "Geographical methods in regional geology".

The complex structure of the Earth's magnetic field is visible.



But besides magnetic fields, it is important to take into account the impact of gravitational fields on biota and people. They are energetically more powerful.

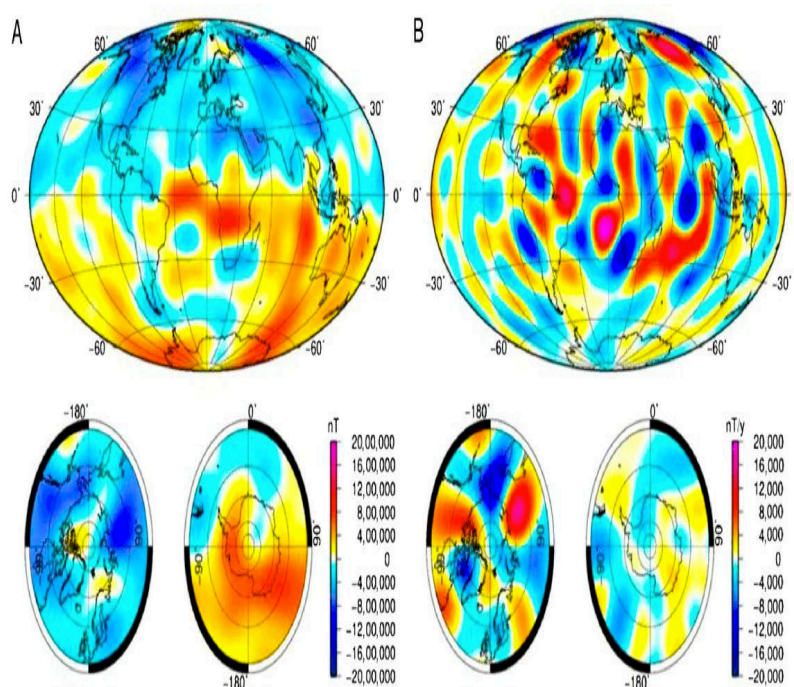
ESA has published the results of study of the Earth's gravitational field, which have been obtained by means of GOCE satellite.



<https://ria.ru/images/34230/57/342305723.jpg?338>

Yes, there are the differences in gravitational fields between the USA and Brazil, too. In South America gravitational fields are generally more powerful than in North America. Whereas magnetic fields are more powerful in North America than in South America.

The power of gravitational and magnetic fields on Earth is interrelated. This fact was discovered by scientists after analyzing the dynamics of change of gravitational and magnetic fields on Earth with the help of satellites for the several years of monitoring.

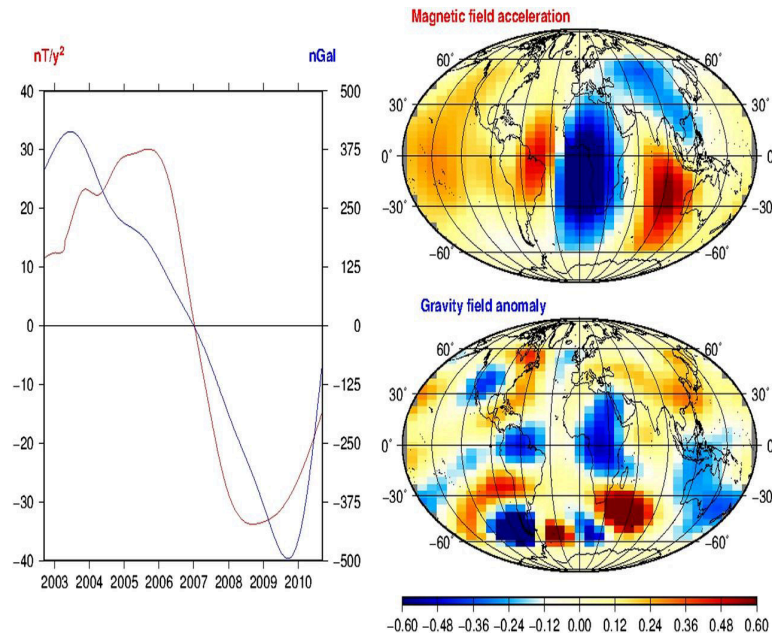


Credit: GFZ/Credit: Manda et al.

www.pnas.org/cgi/doi/10.1073/pnas.1207346109

The relationship between the gravitational and magnetic fields is expressed mathematically and reflected graphically.

Results of the singular value decomposition (SVD) for both time series.



Mioara Manda et al. PNAS 2012;109:19129-19133

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PNAS

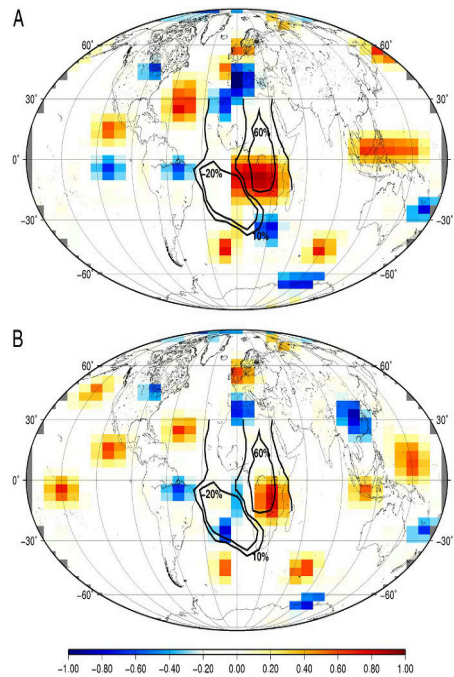
Intensity of the geomagnetic field is marked with red, the gravitational one - with blue.

These fields are related to the Earth's rotational velocity, too.

Magnetic field changes first, and then, with a one-year lag, the Earth's rotational velocity changes, too.

For the individual Earth regions correlations have been discovered between the values of magnetic and gravitational fields.

Correlation between the GRACE-A (A) or GRACE-B (B) gravity anomaly series and the secular acceleration of the vertical downward geomagnetic field component.



Mioara Manda et al. PNAS 2012;109:19129-19133

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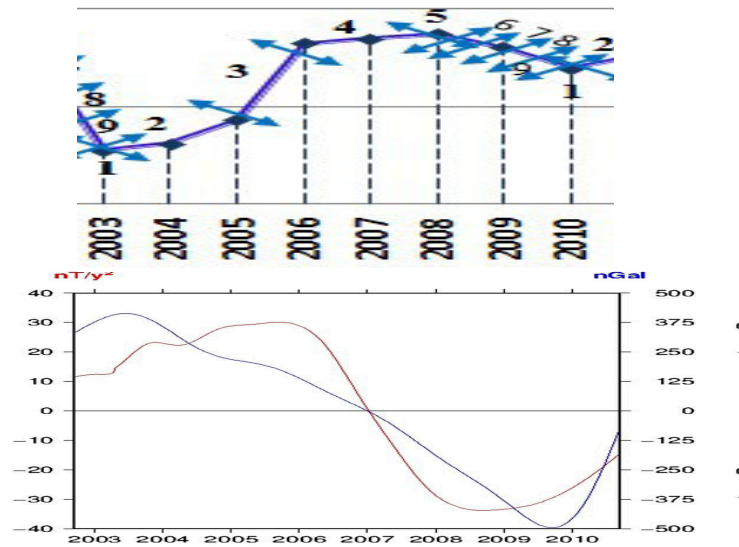
PNAS

Correlation between the GRACE-A (A) or GRACE-B (B) gravity anomaly series and the secular acceleration of the vertical downward geomagnetic field component. Black solid lines delimit areas where the variance of the GRACE-B models changes by the indicated values as compared to the GRACE-A. The open 10% contour line is drawn only around the LAB area. All correlation values that are not significant at the 95% level have been set to zero (white blocks).

Every place on Earth has its own ratio between the values of magnetic and gravitational fields.

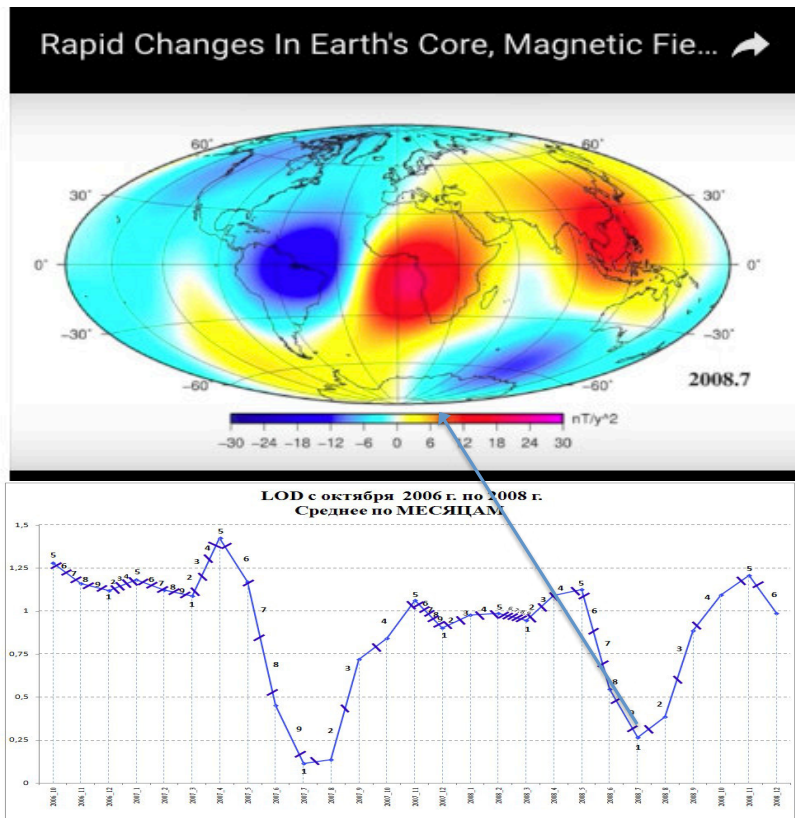
The dynamics of change of gravitational and magnetic fields coincides with the change of the Earth's rotational velocity.

Change of intensity of gravitational and magnetic fields and the Earth's rotational velocity (LOD)



Mioara Mandea et al. PNAS 2012;109:19129-19133

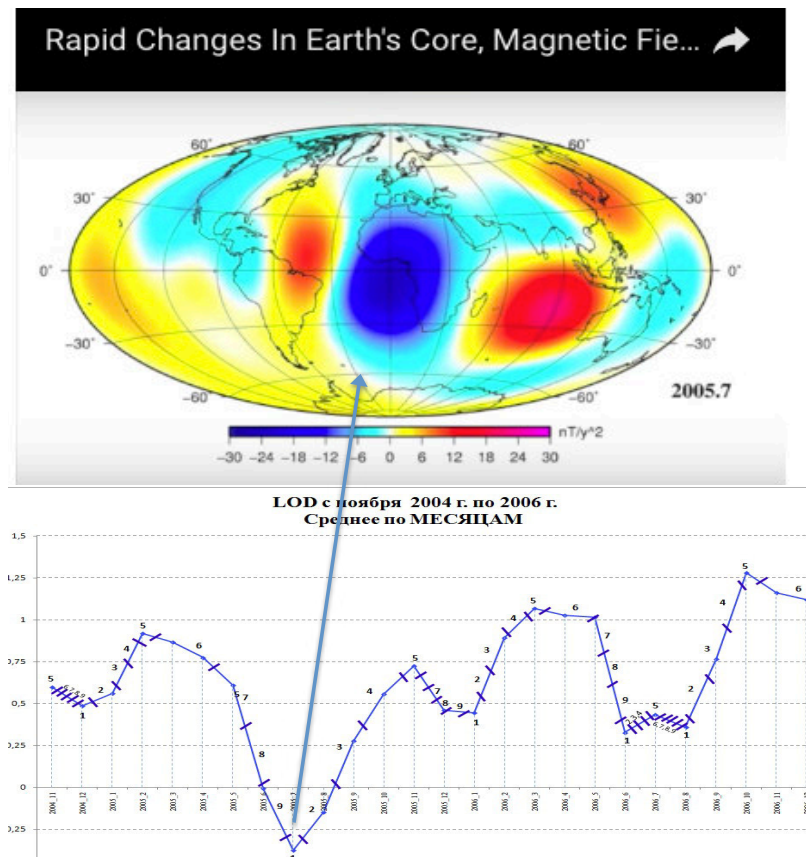
Herewith, for a more complete match of the graphs, the magnetic field should be shifted by 1 year back. That is, the Earth's magnetic field changes first, then, in a year, gravitational field changes too in similar proportions. Gravitational field coincides by dynamics and by time with the change of the Earth's rotational velocity.



nksiruyut-distrie-izmeneniya-v-zemnom-yaadre-magnitnom-pole-i-gravitacii.html

We took the most contrasting images of the Earth's magnetic field from the video that was uploaded to the Internet by project participants of satellite monitoring of the Earth's gravitational and magnetic field, and combined them with the Earth's rotational velocity. They coincided with minimum and maximum LOD values. Data step equals a month here.

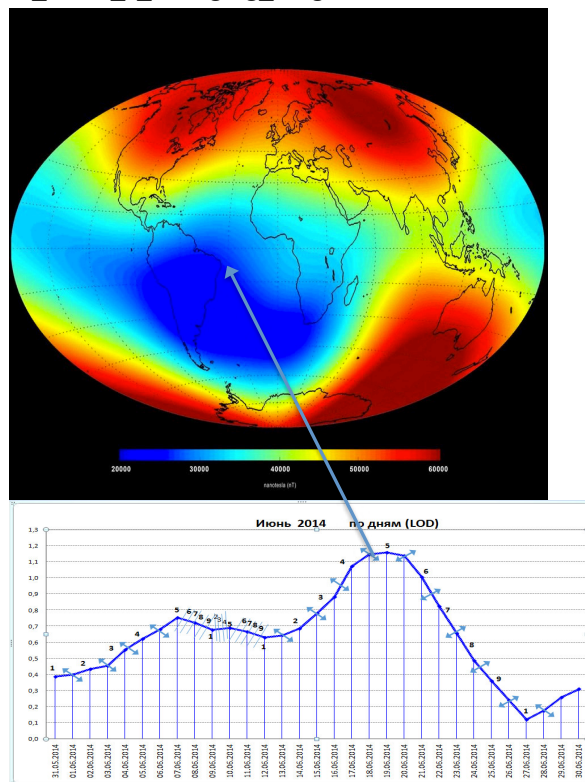
One more example:



Also, match of bifurcation points in the change of the Earth's rotational velocity and maximally contrasting values of magnetic and gravitational fields.

But there is the risk that the author unconsciously chooses those fragments of the video, which are in favor of the pattern being proven. Therefore, let us take the image that the authors themselves selected for publication. There is not only the year and the month, but also the day when these data were obtained. We will also provide a graph of the Earth's rotational velocity with the data on a single day scale.

Swarm reveals Earth's changing magnetism, ESA, 19 June 2014
http://www.esa.int/Our_Activities/Observing_the_Earth/Swarm/
 Swarm reveals Earth's changing magnetism



Magnetic fields on Earth change in time, but retain their basic structure for decades. Therefore, they are predictable.

http://info.geomag.us/Mainfield/main_F_2006.jpg

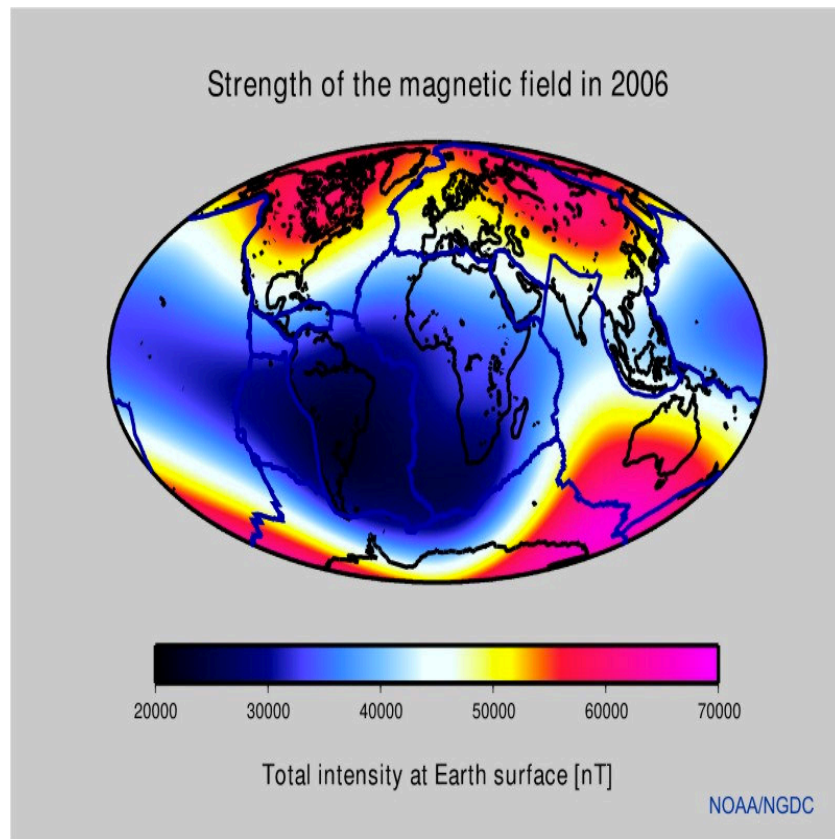
According to these data, the change of the Earth's magnetic field is consistent with its rotational velocity day by day. The Earth's magnetic field and its velocity are interrelated quantities. This also applies to the Earth's rotational velocity and magnitude of the force of gravity. This was discovered by European scientists. The data are systemic, in-depth,

evidence-based, experimental, expensive... But this relationship was once discovered and experimentally proven by the Russian scientist A.F. Chernyaev (1996, 2007). Alone, with scales in hands and limited financial opportunities. The content and even the title of his work is fascinating: Pulsation of the Earth, change in the weight of bodies and gravitational "constant". M.: 2007. - 101 p. The answer to the essence of the relationship between gravitational and magnetic fields lies in the title of the work itself.

Thus, having accurate data on the Earth's magnetic field, we can assume how gravitational field changes, how the Earth's rotational velocity changes and will change. Yes, the Earth's gravitational field is predictive for many indicators important to us. But it is hard to measure. Whereas the Earth's rotational velocity is much easier to measure. And it is related to the intensity of magnetic and gravitational fields. This applies to different cycles: both daily and millennial.

By knowing how the Earth's rotational velocity changes, we know how EEG changes among people, how the type of their personality changes. There is the statistics, there are the models, there are the forecasting methods. These models may be extrapolated both for understanding the future and for understanding the underlying psychological, psycho-physiological, biological prerequisites, causes of certain historical events. Provided that we know the intensity of magnetic, gravitational fields or the Earth's rotational velocity. This matter is not so simple. We know the approximate Earth's rotational velocity only since 1650, the accurate one - since 1962. In this regard, the physical indicators and phenomena that indirectly reflect and reflected in the past the Earth's rotational velocity become particularly relevant. These are the tree ring width, the content of isotopes in them, the average Earth's temperature, etc.

But before we begin analyzing this problem, let us note once more that magnetic fields on Earth are relatively stable. For their instability makes all the previous assumptions untrustworthy.



Look at the image of magnetic field intensity of the 80s of the last century and at the similar image of 2014: the main clusters of the Earth's magnetic field intensity are preserved. It is quite stable on a scale of decades.

On a scale of years, decades and days the most contrasting magnetic field values are associated with the days of the change in the acceleration sign of the Earth's rotational velocity. For people, these are the days of bifurcation in decision-making (in financial markets, in politics, etc.), of changes in EEG configuration, etc.

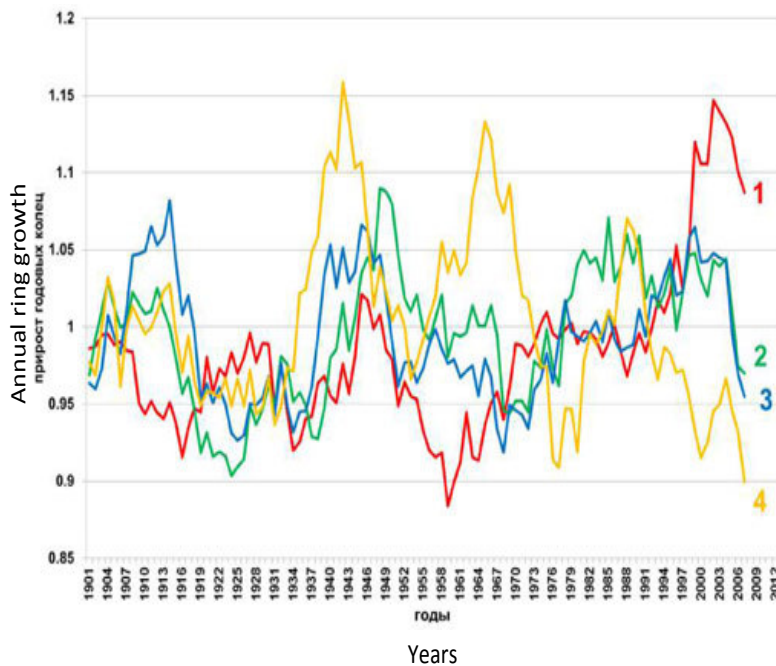
The change of the Earth's magnetic fields resonates with the change of its axial rotational velocity. Both are quite time-stable.

2.3 On the relationship between the tree ring width on Earth and the gravitational and magnetic fields

Russian scientists conducted the mass measurement of ring width among trees during the period when the maps of electromagnetic and gravitational fields were obtained. According to the results of mathematical analysis, the tree groups were distinguished for 4 relatively homogeneous regions.

<http://paleoglaciology.org/en/regions/EastEuropeanPlain/Droughts/>

Let us provide a graph of variation of tree ring width for each allocated region.



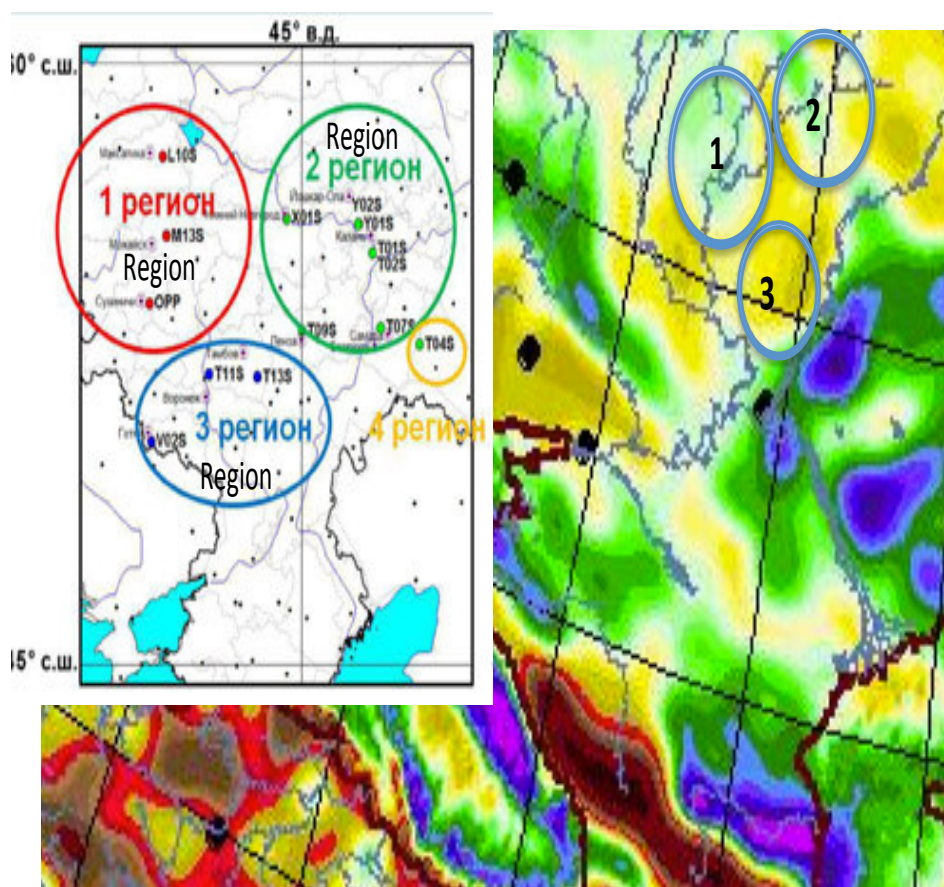
Let us compare the allocated regions with the maps of magnetic and gravitational fields.

The figure consists of three maps of Eastern Europe, specifically focusing on the area between 45° and 60° North latitude and 45° East longitude. The top-left map is titled '2015 г' and shows four regions circled in different colors: '1 регион' (red), '2 регион' (green), '3 регион' (blue), and '4 регион' (yellow). The top-right map shows three EOFs (Empirical Orthogonal Functions) circled in different colors: '2 EOF' (red), '1 EOF' (green), and '3 EOF' (blue). The bottom map shows a magnetic field map with three regions circled in different colors: '1 регион' (red), '2 регион' (green), and '3 регион' (blue). The maps include various geographical features like rivers, lakes, and coastlines, as well as labels for major cities and coordinates.

Blocks of trees distinguished with statistical analysis on the map of magnetic field

2015 г

Gravitational field (Fay anomalies) of the Eastern-European platform



Гравитационное поле (аномалии Фая) Восточно-Европейской платформы

Statistical, mathematical methods show that the distinguished blocks of trees grew in different gravitational and magnetic fields. Might it be the reason for the difference in growth among them?

Yes, gravitational and magnetic fields are constantly changing. And it is hard to say that during the period of tree growth their configuration was similar. Therefore, the conclusion in this regard will be careful: the hypothesis of a relationship between the magnetic and gravitational field intensity on Earth and the growth of trees has the right to exist. The available scientific data in this regard are encouraging.

The relationship between magnetic and gravitational fields has become generally recognized, it is visualized. This is the result of the work of the European Space Agency satellites in orbit. These are experimental data.

But, in the past century, these ideas were theoretically justified and experimentally estimated by our outstanding scientist Dyatlov Vladimir Lukich (Polarization model of non-uniform physical vacuum. The Institute of Mathematics of the Siberian Branch of the Academy of Sciences (SB AS), 1998). And he was supported by the Institute of Mathematics of the Siberian campus. Its leaders, its team were not afraid to protect V.L. Dyatlov by their authority under conditions close to persecution of the authors that express such ideas.

We must pay tribute to these clever and strong-willed people.

The work by V.L. Dyatlov proves the existence of gravity-spin energies and provides their calculation. According to his calculations, every planet possesses a certain amount of gravity-spin energies depending on its rotational velocity and mass. Apparently, Ukrainian scientist A.F. Pugach has learned to measure these energies. Whereas our Russian lone genius G.A. Nikolsky actually measured these energies. According to the results of these measurements, they change depending on the location of planets, the Moon. He called this non-electromagnetic vortex energy the soliton. It is proven that these non-electromagnetic energies are in the same system, in unity with the electromagnetic ones. Some energies convert into others. There is a mechanism of normalization of these energies. V.L. Dyatlov comprehensively proven the relationship between electromagnetic and gravity-spin energies.

In Russia, there is a tradition in acknowledging talents and geniuses. Individual geniuses make a breakthrough in science much earlier than similar discoveries take place in the West. These people were once disparaged. And now we pay tribute to them. Yes, we are like that...

Along with the works of V.L Dyatlov, Russian scientist A.S. Holmansk independently justified the fact that there are physico-chemical and physiological mechanisms of absorption and accumulation (storing) of these energies in biota, in the living things. These mechanisms are based on the ability of physiological liquids containing optically active molecules to absorb energy quanta that possess a property of helicity (spirons or solitons of K.Ya. Kondratiev and G.A. Nikolsky and possibly solar neutrinos [K.Ya. Kondratiev, G.A. Nikolsky. Vortex effects of the penetrating component of solar radiation // vd2-777.narod.ru/article2/vihr-effects.htm. According to A.S. Holmansk, human brain is the most complicated system of electromagnetic oscillatory circuits and oscillators that can resonate with electromagnetic energies (Schumann frequency) and other cosmic energies, and convert them into chiral quanta of metabolic energy http://j-asymmetry.com/2011/12/holmansk_1_2009_1/ etc.

There are the reasons to believe that there is a mechanism in the living that timely adjusts to "consume" the energy that begins to grow. And among every species of plants, animals there are the subspecies, clusters that are more oriented to "consume" one of the available energies.

Is there any biological expediency in this? Yes, there is.

2.4 On biological expediency of presence of different biota clusters by their reaction to cosmic energies

During the history of the Earth's existence, biological catastrophes occurred that were associated with the sign change of geomagnetic field. At the same time, scientists associate the catastrophes to a greater extent with the change of the magnetic field, since the change of temperature followed it. On Earth, the animals and plants remained that were more adaptable to such inversions. The ability to overcome magnetic inversions is inherent to all biological species. To people, too. Periodically, self-preservation of such ability takes place among people, plants and animals by adjusting us to periodic inversions on the Sun.

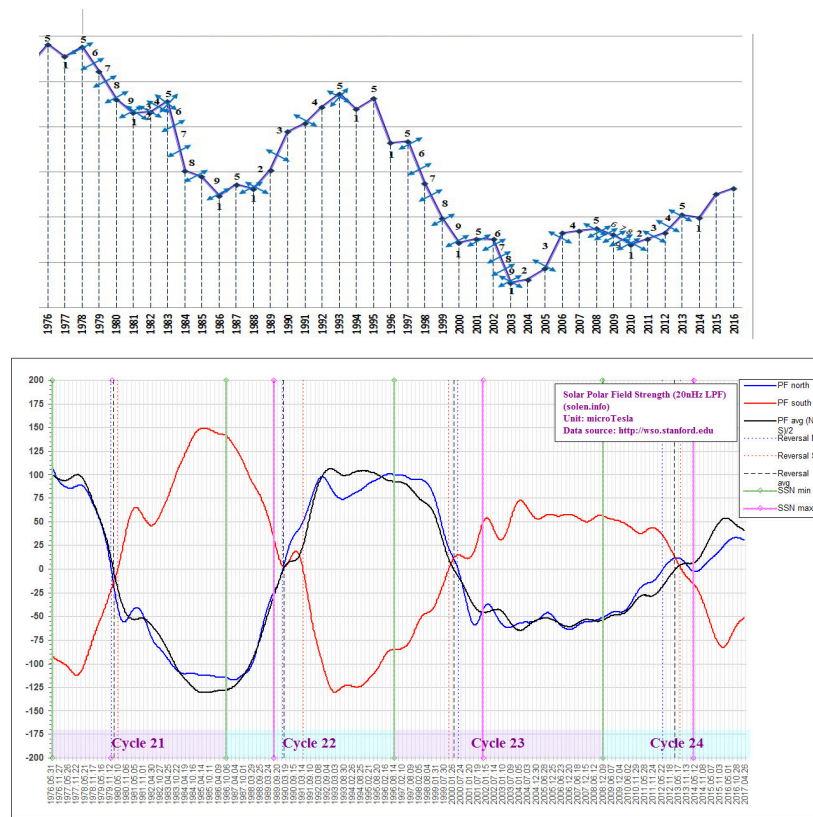
People have the ability of self-preservation at the changing solar magnetic fields both on a scale of decades, individual years, as well as on a scale of millennia, millions of years. Let us praise the researchers of the past for these discoveries: L.I. Sverlova. The influence of magnetic inversions on evolution of the organic world (see Cosmos and the evolution of organisms. Materials of the meeting "Cosmic factors and evolution of the organic world". Moscow: 1974, pp. 340 – 353).

Magnetic inversions not only cause biological, genetic changes among people. We are also changing psychologically.

After successful adjustment to a new type of cosmic energies we more often have the features of resonators. After loss of the life-giving resonances with cosmic energies, we more often have the features of post-resonators.

Geomagnetic inversions (the change of the Earth's magnetic poles) occur under the influence of galactic and solar inversions. Solar inversions have become the subject of study literally in the recent decades. And it turned out that they are related to the Earth's rotational velocity, or more precisely, to those cosmic energies, the factors that resonate with it.

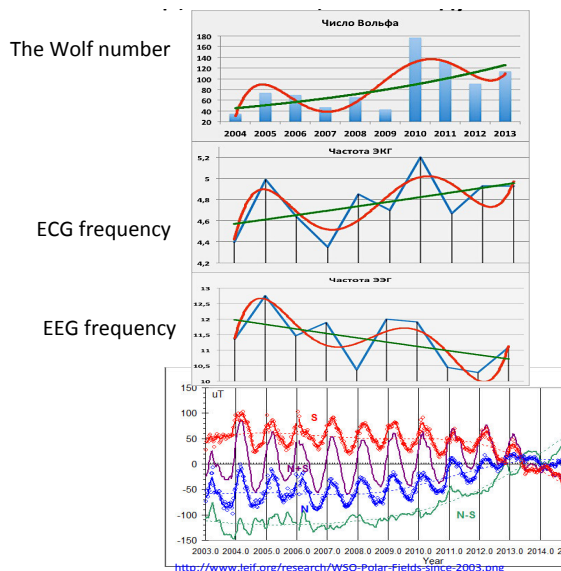
The Earth's rotational velocity and the solar magnetic fields intensity



Russia develops faster at the slowdown of the Earth's rotational velocity, at the positive sign of intensity of the northern magnetic pole on the Sun and at the high difference between the intensities of the northern and southern poles. Our EEG frequency decreases at the decreasing intensity of the solar northern magnetic pole. We can argue a lot about the cause-effect relationships. We just record such relationships with

the black-box method. According to the available data, there is an agreement among the facts under consideration.

The change in intensity of the northern and southern magnetic fields of the Sun, EEG frequency, ECG of the subjects and the Wolf number



Конюхов Н.И., Архипова О.Н., Конохова Е.Н., 2015, с.623
 N.I. Konyukhov, O.N. Arkhipova, E.N. Konyukhova,
 2015, p. 623

At the growing intensity of the solar northern magnetic pole EEG frequency among subjects increases, ECG frequency decreases. EEG frequency also increases at the slowdown of the Earth's rotational velocity. Coincidence of these two factors leads us into a special mental state, in which we are capable of breakthrough in development. These results were obtained on the sample of Russians aged 20 to 55 years that includes more than 1700 people.

According to these results, at the slowdown of the Earth's rotational velocity EEG frequency among subjects started to grow. We have been observing this since the beginning of the 2000s. At the increase in EEG frequency and at the transition of brain activity to the right half the creativity among people begins to grow.

At the decreasing EEG frequency creativity among Russians and people that live on the Russian territory also decreases. At its growth - creativity grows, and so does the spirit of collectivism, it becomes possible to unite people based of the idea of achieving a socially significant goal.

Conclusion on Chapter 2

All living things on Earth develop under the influence of cosmic energies. Presently, it can be stated that these energies have electromagnetic and gravity-spin components. The most systematic views on the essence of these cosmic energies, as well as their description are provided in the studies by V.L. Dyatlov. His thoughts and calculations in this field have important applied and methodological significance. Whereas the "gravity-spin energies" term is a compromise between the supporters of classical and new Physics.

Chapter 3. From width of annual tree-rings to analysis of cosmic energies' dynamics and development of a society

What is important for the common sense is the relation between tangible and measurable things and the ongoing global processes. To predict the development of the mankind, depending on cosmic energies, such indicators as the increase in number of annual tree rings, the Earth's rotational velocity, global temperatures, concentration of the isotopes contained in ice cores and in tree rings and others are crucial to consider not only for the common sense, but for the scientific predictions.

3.1 Relation between width of annual tree-rings and the Earth's rotational velocity in the past

The relation between the width of annual tree-rings, their thickness and the saturation with radioactive isotopes is extremely complicated. But fortunately, there are scientific institutions that have already studied this relation systematically (see <http://www.rmtrr.org/basics.html>).

Change in width of annual tree rings is shown in the model below created by the scientists.

$$\mathbf{Rr} = \mathbf{e} (\mathbf{Gt}, \mathbf{Ct}, \mathbf{D1t}, \mathbf{D2T}, \mathbf{Et})$$

Gt = change in width of annual tree-rings along with the change of the tree age

Ct = climate that influences the growth: precipitation, temperature, atmospheric pressure, forest fires, El Niño and others.

D1t = growth impediments on the local level: influence of insects, air pollution and others.

D2t = growth impediments on the regional level: fires, floods, earthquakes, volcanism, erosion and others.

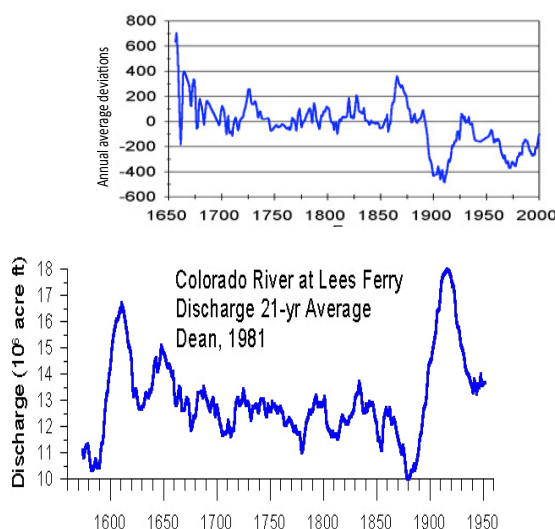
Et = "errors", variability because of other factors different from Gt, Ct, D1t, D2T ones.

And how will the tree rings will be increasing in their number, if we consider the factors listed above, standardize them and bring their impact to an average one? It can be found out by means of generalization of the biggest number of cases of measuring the widths of annual tree rings in different regions, in other words, by enhancing the number of samples, when the factors listed in the formula begin to do leveling of each other. This is the classical way of reducing the statistical sampling error.

This can be also reached by referring to growth of tree rings' measurements in unique regions where the above mentioned factors have minimal effect. There is such place and it is located in the USA near the Colorado River.

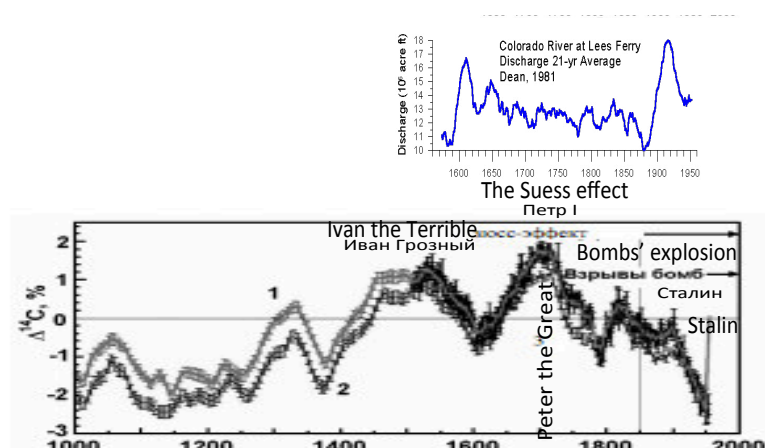
This is the unique place where the deviations from the average values in the width of tree-rings correlate very well with the Earth's rotational velocity.

Increase in the number of annual tree-rings in Lees Ferry (the USA) and the Earth's rotational velocity



It can be seen from the graph that, when the Earth's rotational velocity reduced rapidly in the second half of the 19th century, the width of annual tree-rings increased dramatically.

Increase in number of annual tree-rings in Lees Ferry (the USA) and concentration of radiocarbon in rings of the trees of Southern and Northern hemispheres



Comparison of changes in radiocarbon concentration measured in units of annual rings of the trees with the known age growing in Northern (curve 1) and Southern (curve 2) hemispheres

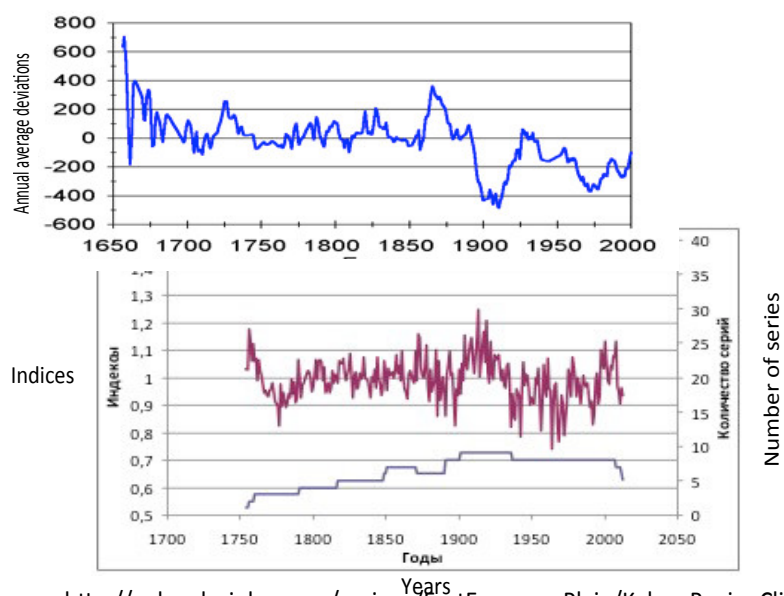
Not only the Earth's rotational velocity, but also the concentration of the isotopes of different substances in tree-rings and ice cores indicate the dynamics of cosmic energies. Trees grow better when the concentration of the isotopes decreases.

Now we are to refer to the data on the increase of width of annual tree-rings according to different samples and to generalized results of research in this field obtained by the most authoritative scientists.

In 1900s, the rapid change of the Earth's rotational velocity was followed by the dramatic change in width of annual rings of the trees which were growing on the territory of Russia.

If to make a time move by 25 years, then the correlation between the increase in number of annual tree-rings and the velocity of Earth's rotation becomes higher.

Earth's rotational velocity and optical density of a pine-tree sample taken from Kaluzhskiy Forest with a move by 25 years



<http://paleoglaciology.org/regions/EastEuropeanPlain/KalugaRegionClimate/>

The same move was also made for the trees which grow on the territory of China. At that, Chinese scientists have found out that the height of plant's location above the sea level influences the plant's growth. It has less effect on the increase in number of annual rings of different samples than the Earth's rotational velocity does. The graphs are shifted by 30 years.

Earth's rotational velocity and width of annual rings of the trees growing on different heights above the sea level (1650-2000 years) with a move by 30 years

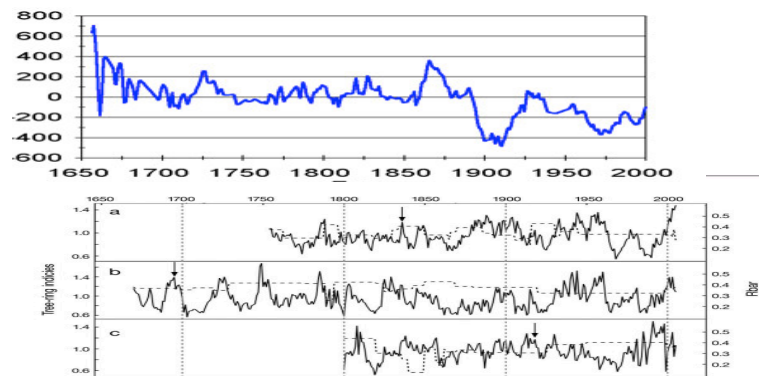
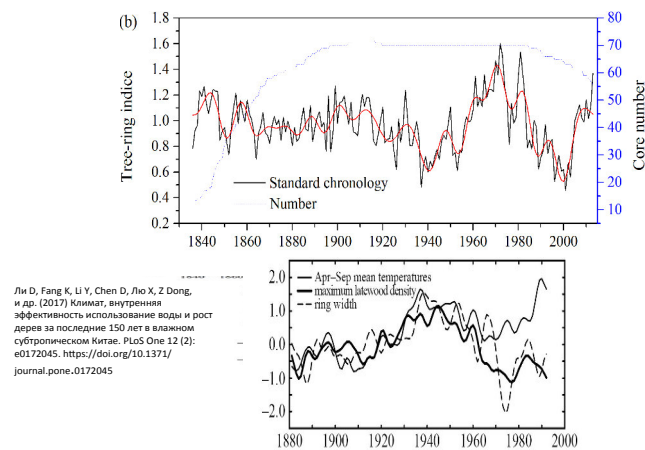


Fig. 3. Tree-ring width chronologies for 3 forest sites of the Baimang Snow Mountains, northwestern Yunnan Province, China. (a) Tacheng site chronology at a low elevation (2750 m), (b) Badi site chronology at a middle elevation (3050 m), (c) Yunling site chronology at a high elevation (3400 m), (d) sample count over time, with separately identified counts for the 3 chronologies. Black dashed line: moving Rbar (mean inter-series correlation); arrow: year with EPS (express population signal) > 0.85

There are some convincing graphs, some of which are shown below:

Growth of the trees and humidity level for the last 150 years in the subtropical region of China
(considering uneven increase in number of annual rings of the trees of different age)
and increase in number of annual tree-rings in the USA, average data taken from 10 different sites



Ли Д, Fang K, Li Y, Chen D, Лю X, Z Dong, и др. (2017) Климат, внутренняя эффективность использования воды и рост деревьев за последние 150 лет в влажном субтропическом Китае. PLoS One 12 (2): e0172045. <https://doi.org/10.1371/journal.pone.0172045>

In 1900s opposite tendencies in the increase in number of tree-rings in China and the United States could be observed.

Width of annual tree-rings measured in different northwestern areas of China and the Earth's rotational velocity with a move by 30 years

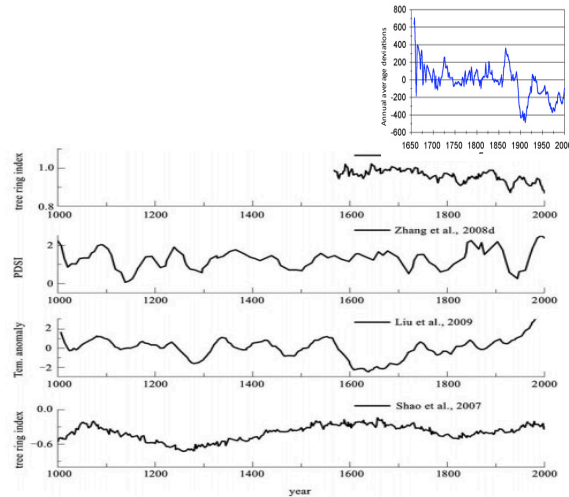


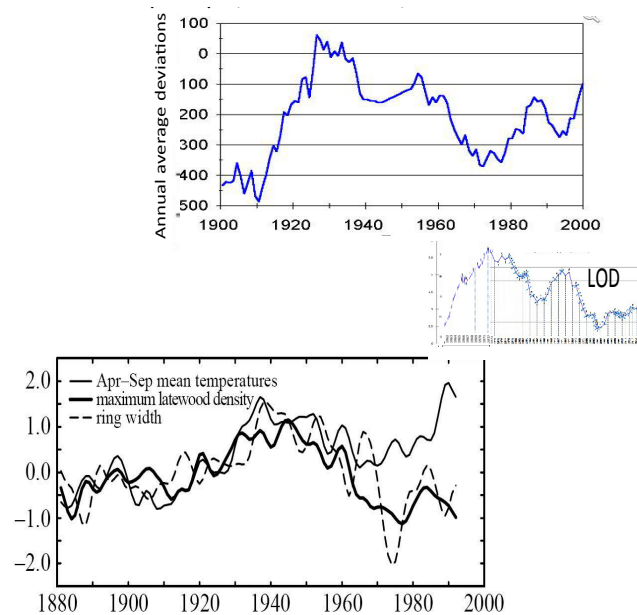
Fig. 2 Four long-term tree-ring based chronologies from different areas in northwest China. Three chronologies are truncated by the time period 1000 to 2000, and all the sequences are 40-year smoothed

A 368-year maximum temperature reconstruction based on tree-ring data in the northwestern Sichuan Plateau (NWSP), China

Liangjun Zhu¹, Yuesong Zhang², Zongshan Li², Binde Gao¹, and Xiaochun Wang¹

In the United States, the shift in increase of the tree-rings width, in relation to the Earth's rotational velocity, is different than in Europe, China and Russia.

Data on the width of annual tree rings (the USA, 10 main samples) and the Earth's rotational velocity with a move by 30 years



Average data on the width of annual tree-rings taken from different sites. The USA.

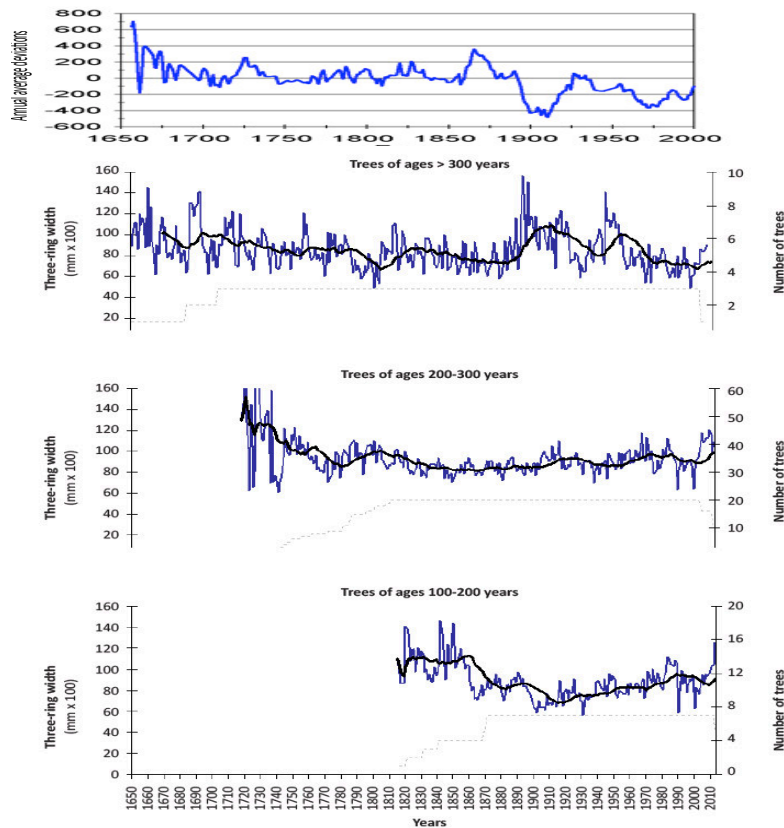
Wikipedia Средние данные ширины колец деревьев по всем сайтам. США.
Википедия. <http://www.climatedata.info/>

Like people, trees change the dynamics of their development depending on which cosmic energies they grow along with. However, there are always subspecies and species, which grow by the opposite tendency.

The change in the dynamics of development is manifested clearly in two different ways:

- with a shift for the time of the emergence of a new trees' generation,
- with a present trees' generation at present times along with a rapid change of cosmic energies.

Earth's rotational velocity and increase in number of oak-trees in Europe

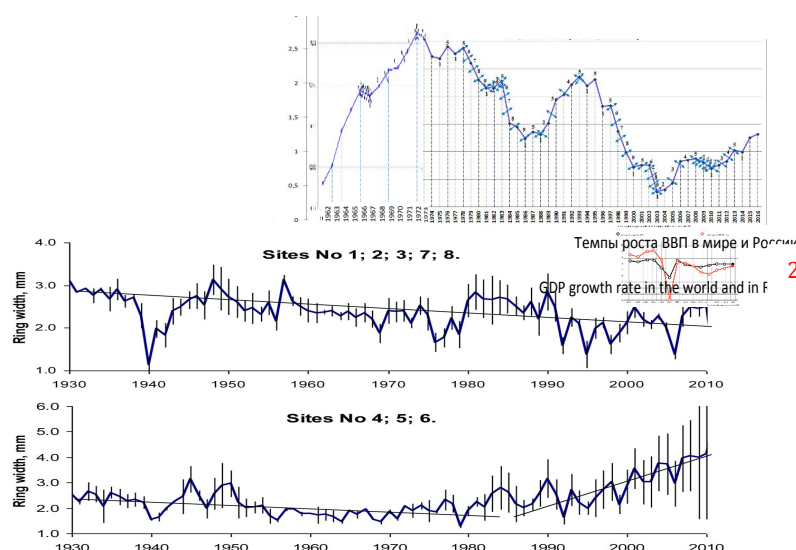


http://www.seefor.eu/images/arhiva/vol7_no1/papadopoulos/3.jpg

Under rapid decrease in the Earth's rotational velocity, oaks usually grow better according to the data taken from all the corners of Europe.

The European beech has a different growth dynamics.

Earth's rotational velocity (LOD), increase in number of annual rings of beeches in Europe and GDP growth rate in the world and in Russia



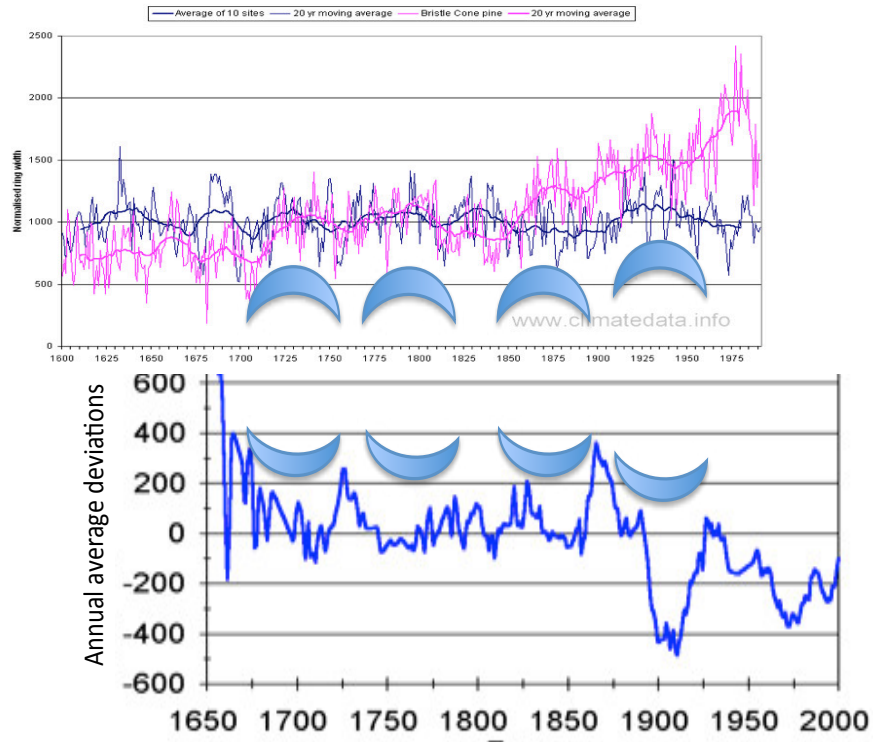
Let us draw your attention to the fact that measurements of tree-rings in samples 1,2,3,7, and 8 gave a relatively opposite result in relation to samples 4,5 and 6. However, the annual increase in the number of tree-rings has remained the same since 1990.

At the same time, the decreasing number of beeches in Europe coincided with the economic crisis and rapid increase of the Earth's rotational velocity. It might be considered that the cosmic energies which influence the increase in number of the tree-rings, also have a strong impact on people and the society. Does it mean that the beech reacts to the cosmic energies, which affect people, more directly?

The important conclusion is that the opposite tendencies in different trees' growth along with different velocity of Earth's rotation are the typical phenomenon.

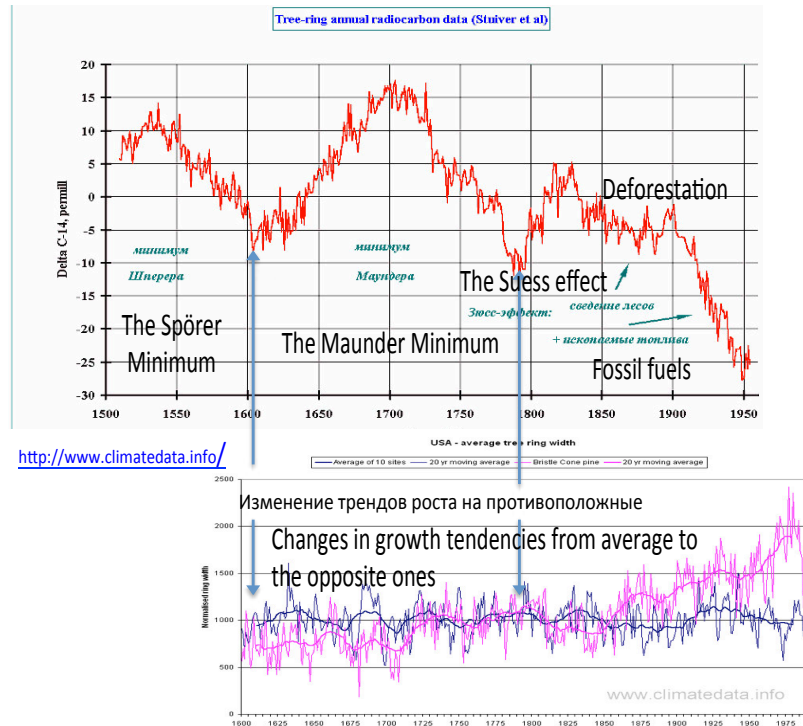
With a shift in 30 years, the correspondence between the change in Earth's rotation and increase in number of annual rings belonging to different trees is higher.

Earth's rotational velocity, average width of tree-rings according to 10 samples and the width of annual rings of a pine-tree taken from Bristley with a move by 30 years



The example above shows that the changes in growth tendencies of different trees samples occurred in the end of the 18th century. It correlates with the change in concentration of the isotopes in tree-rings successfully.

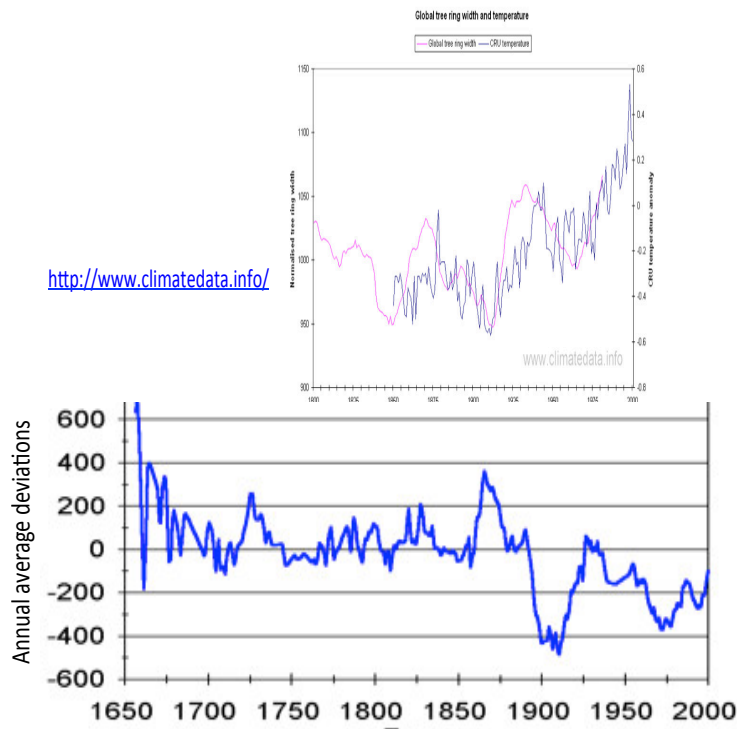
Concentration of the isotopes in tree-rings, average width of the annual rings belonging to the trees which grow in the North American region according to 10 samples in comparison with the width of annual rings of a pine-tree from Bristley



Two tree samples which follow the opposite tendencies of increase in number of annual tree-rings and one of the tree groups both may react on the change of Earth's rotational velocity.

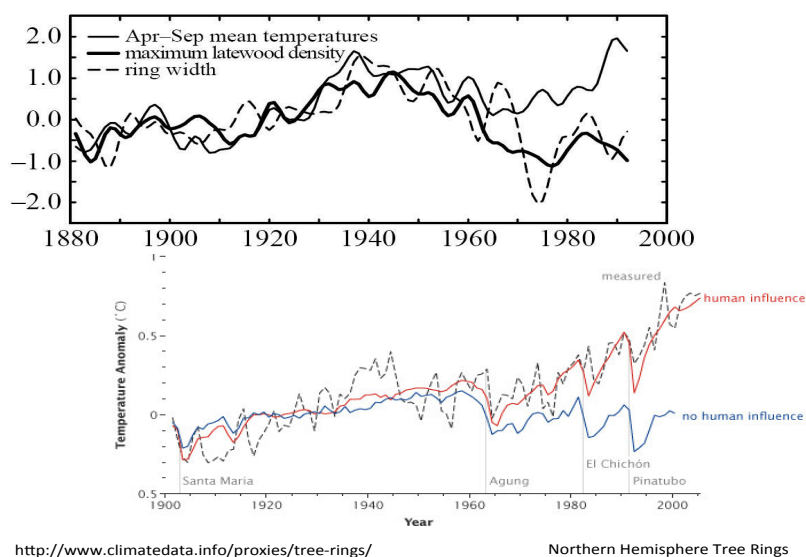
Coherence in change of the Earth's rotational velocity and the increase in the width of the trees-rings are also associated with the dynamics of global temperatures. However, such a standard coherence kept until 1960.

The Earth's rotational velocity, average temperature and width of tree-rings with a move by 30 years



Can it be that the temperature change is the reason of change of width of the tree-rings? In this case, there is a natural experiment. Since 1960 global temperatures have started to grow at another pace than the Earth's rotational velocity has. The anthropological factor has started to affect it. And what had caused the trees growth? It was the Earth's rotational velocity.

Real and simulated temperatures (with no human influence) and increase in width of annual tree-rings (according to the data provided by the USA research institutions)



Different sources show the similar data: the increase in width of the tree-rings is more directly related to the Earth's rotational velocity.

Thus, the usage of the unique forest areas, where the variation of previously mentioned factors, affecting the growth of the trees, is minimal, and generalizing of the data from the most authoritative researches in this field, show the similar results that the increase in the width of the tree-rings depends on the Earth's rotational velocity. This relation is dual. The increase in number of the tree-rings changes a) when the Earth's rotational velocity changes rapidly during a year and b) in years after the gradual and steady reduction or increase in the Earth's rotational velocity. In the latter case, it is essential to make a time move by several years on the graphs in order to correlate the increase in number of the tree-rings and the Earth's rotational velocity more accurately. It is usually the time of the trees' growth and their aging. The relations are the same as in case with the changes of economic growth pace and the Kondratiev waves depending on the Earth's rotational velocity. (see N.I. Konyuhov, O.N. Arhipova, E.N. Konyuhova, 2017).

3.2 Width of the tree-rings, their saturation with isotopes and magnetic fields of the Sun and Earth

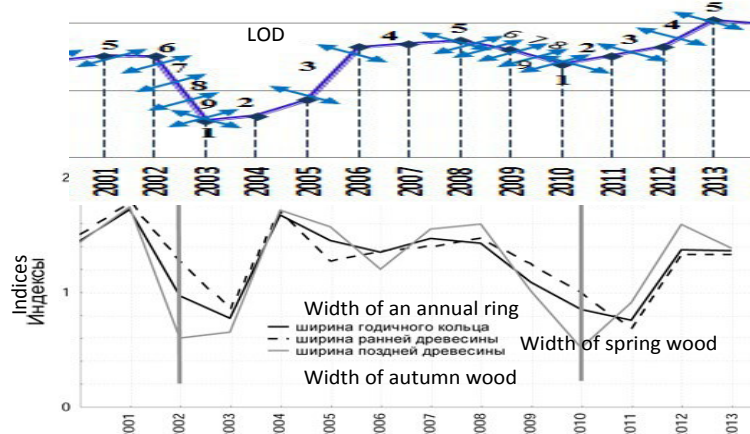
We would like to refer to the famous graph of the Ukrainian scientists once again (Rusov V.D., et al., 2011).

Any global process, including geomagnetic disturbances, indicates the activity of the Sun.

The graph shows that first changes the geomagnetic field and only then the Earth's rotational velocity. It means that geomagnetic field may help in forecasting the change of the Earth's rotational velocity and any other process accompanying it, including the width of the tree-rings, change in the human's brain activity, etc. (see the graph in Chapter 1).

However, if it is so, then when the magnetic field strength decreases, the width of annual rings of the majority of the trees is supposed to increase. And this is the case. There are some studies in Russia which are trustworthy enough.

Width of annual rings of a pine-tree from the European part of Russia

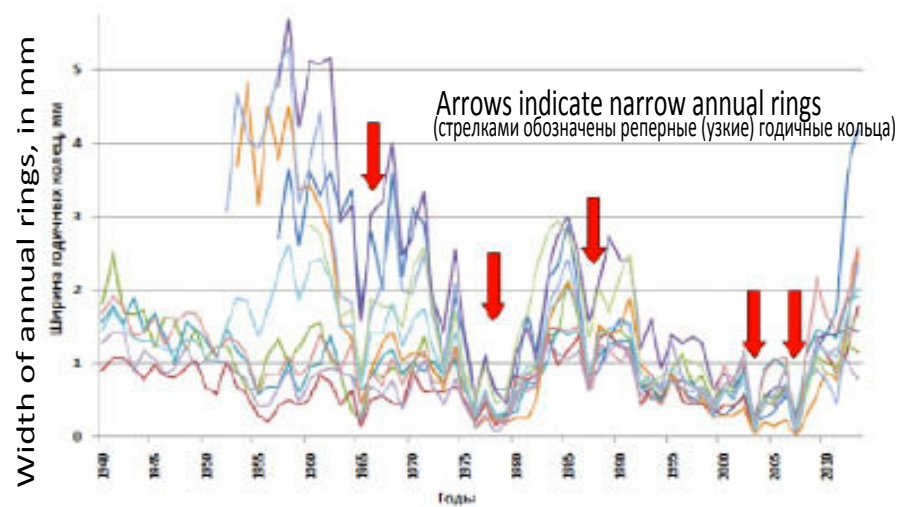
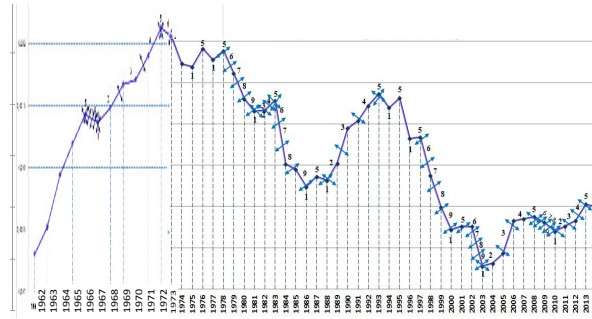


<http://paleoglaciology.org/ru/regions/EastEuropeanPlain/Droughts/>

Фрагмент хронологий ширины годичного кольца, а также его ранней и поздней древесины.
Вертикальными линиями показаны события аномальной жары

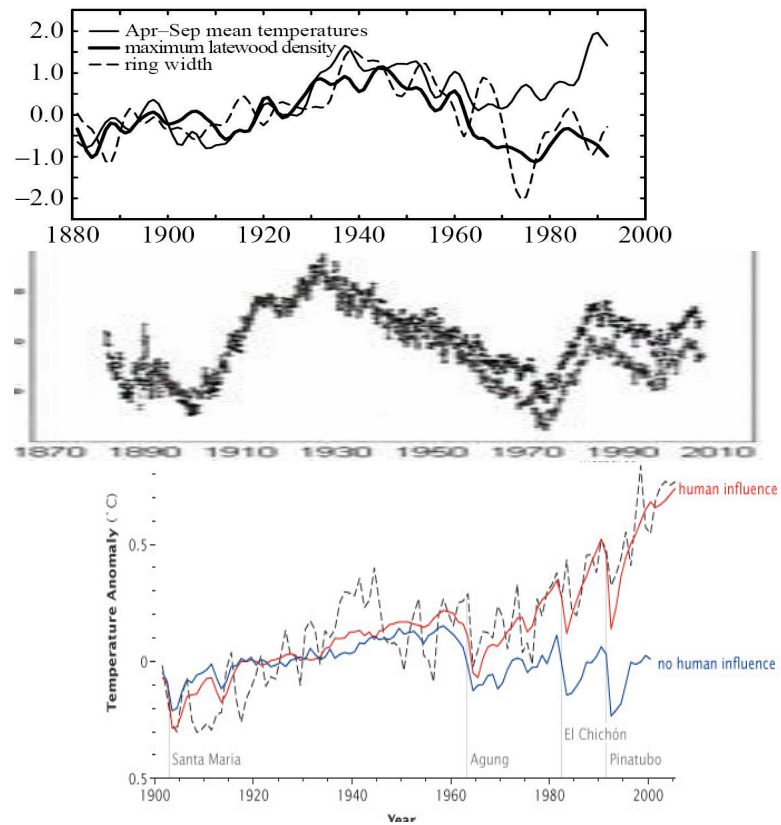
The chronology of width of an annual ring, and width of its spring and autumn woods.
Vertical lines indicate heat wave occasions

The Earth's rotational velocity and width of annual rings of core samples taken from the living trees (I.L. Vahnina)



www.natural-sciences.ru/ru/article/view?id=33926

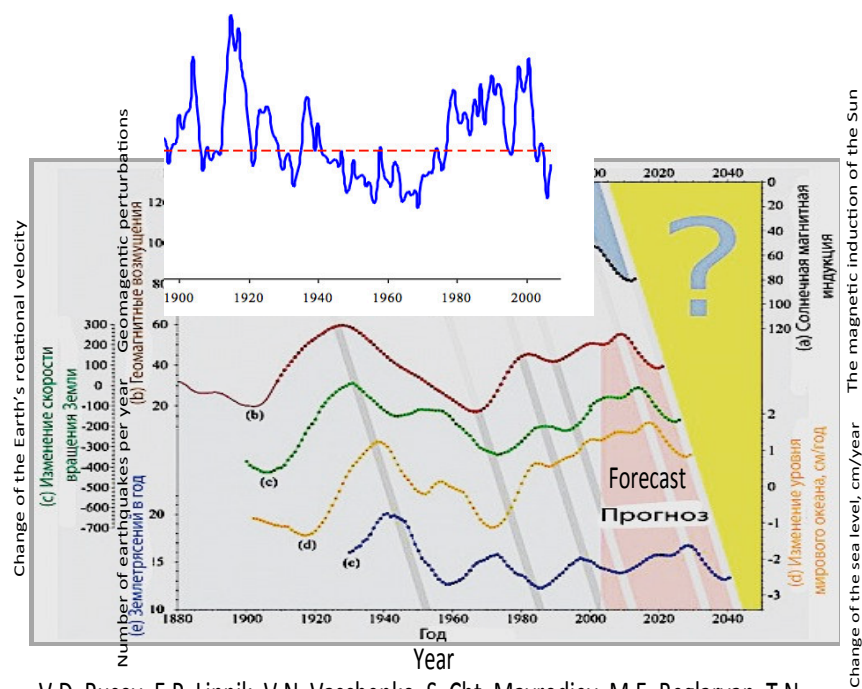
Average temperature, increase in number of tree-rings according to the data from different research institutions and the Earth's magnetic field strength with a time move by 5 years



Therefore, the Earth's magnetic field and the trees growth both depend on the magnetic field of the Sun.

Solar magnetic activity, global processes on Earth and width of tree-rings
on the territory of Russia (according to Y.P. Demakov)

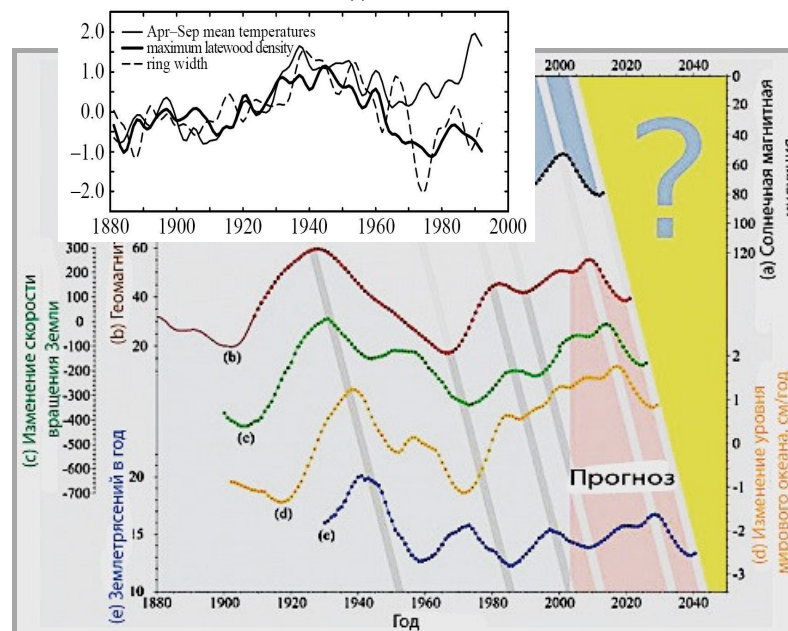
<http://csfm.vlgatech.net/presentation/Demakov.pdf>



V.D. Rusov, E.P. Linnik, V.N. Vaschenko, S. Cht. Mavrodiev, M.E. Beglaryan, T.N. Zelentsova, V.A. Tarasov, D.A. Litvinov

In the USA, trees also grow in accordance with the solar activity within a magnetic range and with the Earth's rotational velocity. And they grow better, when the Earth's rotational velocity is increasing.

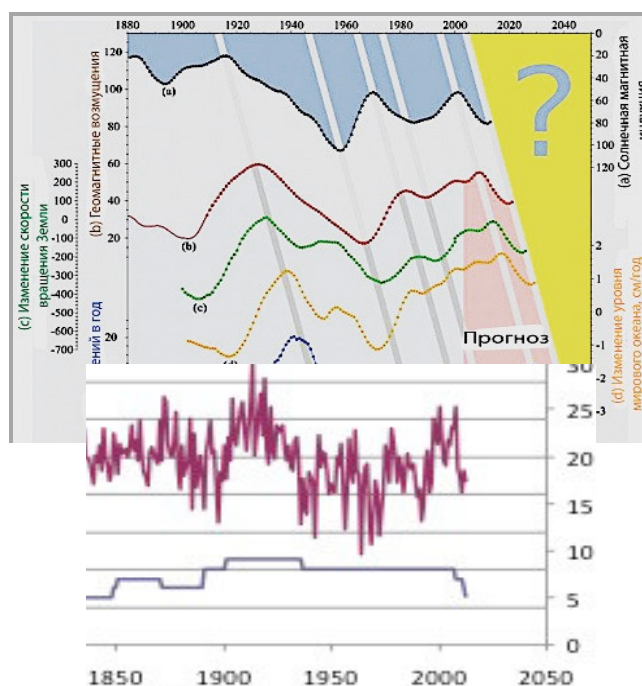
Solar magnetic activity and global processes on Earth and change in width of the annual tree-rings of 10 samples taken in the Northwestern part of America with a move by 20 years



V.D. Rusov, E.P. Linnik, V.N. Vaschenko, S. Cht. Mavrodiev, M.E. Beglaryan, T.N. Zelentsova, V.A. Tarasov, D.A. Litvinov

It looks interesting. Let's find some more evidences.

Solar magnetic activity, global processes on Earth and the width of the annual rings of pine-trees from the Kaluga forest with a time move by 20 years



<http://paleoglaciology.org/ru/regions/EastEuropeanPlain/KalugaRegionClimate/>

Trees in Russia grow better, when the velocity of Earth's rotation is reducing. The pace of both economic and spiritual development in Russia is directly connected with the cosmic energies, growth of the trees and the Earth's rotational velocity. If this statement is true, we can forecast it.

Based on the given data, the Earth's rotational velocity will be reducing up to 2040. It means that there will be times, favorable for the social, economic and spiritual development of Russia. These times may

be compared with the 1960s and 1970s, which were the times of enthusiasts.

This is the reason why it is so important to consider, which social and spiritual processes were typical for our nation in the past, when the Earth's rotational velocity was reducing.

The previously mentioned relations and regularities are required for such a systematic analysis.

Conclusion on Chapter 3.

The width of annual tree-rings is the important indicator that helps evaluate cosmic energies. Thus, it is crucial to understand that the relation between the width of tree-rings and the Earth's rotational velocity will be different depending on the region.

See

<http://www.sc-bemkon.com/books>

ooo.bemkon@mail.ru