

# 2012: THE END OF THE WORLD OR ASCENSION?

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## CONTENTS

### **PART 1. THE EVOLUTIONAL CYCLES IN DEVELOPMENT OF WORLD TRENDS**

- 1.1. The Comet Hale-Bopp and its Influence
  - 1.1.1. The Foci of the Comet Hale-Bopp and their Factors of Influence
  - 1.1.2. The manifestations of the HB's Foci in 1997 - 2011
  - 1.1.3. Strengthening of the Comet Hale-Bopp Foci by the resonances with the surges of Solar activity
- 1.2. Resonances between the Comet Hale-Bopp's Foci and Bifurcation points of greater importance
  - 1.2.1. The major evolutionary cycles and their Bifurcation points
  - 1.2.2. Solar activity and importance of its local surges
  - 1.2.3. Mayan calendar and its Bifurcation Points
  - 1.2.4. The Great Celestial Conjunction
  - 1.2.5. Epoch of Change of Root Races (See Part 5)
- 1.3. The Resonance of current Critical and Bifurcation points and the Development of World Trends

### **PART 2. EARTH WEATHER: TRENDS IN ATMOSPHERIC AND SURFACE DISASTERS**

- 2.1. Extreme heat
- 2.2. Extreme coldness
- 2.3. Tornadoes, natural fires; 2011
- 2.4. Floods (2011)
- 2.5. "The number of natural cataclysms would grow"

### **PART 3. SPACE WEATHER AND GEOMAGNETIC ACTIVITY**

- 3.1. Solar activity
- 3.2. Solar flares and Coronal mass ejections
- 3.3. Sunspot number Local maximum as an indicator of surges of Solar activity
- 3.4. Geomagnetic effects
- 3.5. Eclipses
- 3.6. Solar and Geomagnetic events in July 2010 - September 2011 and their correlations with the Foci
- 3.7. The 24th cycle of Solar activity
- 3.8. Solar activity and space weather: general correlations
  - 3.8.1. Synchronism between the comet Hale-Bopp Foci and surges of Solar activity
  - 3.8.2. Double Local Maximum as analog of 11-year Solar Cycle
  - 3.8.3. In 2012 the Solar activity would continue to grow
  - 3.8.4. Global trend towards the growth of damage caused by natural cataclysms

#### **PART 4. COSMIC ASPECTS OF SEISMIC AND VOLCANIC ACTIVITY**

- 4.1. The largest quakes in 15 years and the Foci of comet Hale-Bopp
- 4.2. Estimation of randomness of correlation between the major Earthquakes and Foci
- 4.3. The most destructive Earthquakes took place at Foci of the comet Hale-Bopp
  - 2004 Indian Ocean earthquake and tsunami, December 26, 2004
  - 2010 Haiti earthquake, January 12, 2010
  - 2010 Chile earthquake, February 27, 2010
  - 2011 earthquake and tsunami in Japan, March 11, 2011
  - 2011 series of devastating Earthquakes in New Zealand
- 4.4. Intensification of Volcanicity and Solar activity
- 4.5. Space aspects of seismicity
  - 4.5.1. A powerful surge of Solar activity before the Earthquake in Japan
  - 4.5.2. Powerful Gamma-ray bursts as predecessors of the largest Earthquakes
  - 4.5.3. Sky lights as precursors of Earthquakes

#### **PART 5. SEISMIC CATAclysms IN THE SECRET DOCTRINE AND AGNI YOGA**

- 5.1. General concepts relative to evolutionary cycles
- 5.1. General concepts relative to evolutionary cycles
- 5.3. Armageddon
- 5.4. Mahatmas
- 5.5. Lucifer
- 5.6. Psychism and new epidemics
- 5.7 The dates of Armageddon and the End of Black Age
- 5.8. Wars and revolutions
- 5.9. The forthcoming catastrophe in its term

#### **PART 6. TECHNOGENEOUS CATASTROPHES AND ACCIDENTS**

#### **PART 7. SOCIAL EFFECTS**

- Group 1. Economy: finances, corruption, criminality
  - Example. World debt crisis
- Group 2. Politics: internal and international scandals
  - Example. The trials over Ex-PM of Ukraine, Yu. Timoshenko
- Group 3. Psychosis in masses and individuals
  - Example. Trend of causes and effects: religious intolerance
- Group 4. coercion: attempt of revolt, terrorism, riots
  - Example. Trend in acts of terrorism performed by the same persons
- Group 5. Wars and Revolutions
  - Example G5.1. The Chain of all NATO's major military operations and "Arab Spring"
  - Example G 5.2. The Clairvoyant Baba Vanga predicts Fukushima and war in Libya
  - Example G 5.3. The "Arab Spring"
    - Tunisia
    - Egypt
    - Libya

#### **REFERENCES**

## PART 1. THE EVOLUTIONAL CYCLES IN DEVELOPMENT OF WORLD TRENDS

### 1.1. The Comet Hale-Bopp and its Influence

#### 1.1.1. The Foci of the Comet Hale-Bopp and their Factors of Influence

Comet Hale-Bopp **Time** (viz. Calendar) and **Geographical Foci** as well as their **Factors** of influence were specified in 1997 [1, 2] by analogy with those for the comet Hyakutake, 1996. They are based on astrological analysis of comet conjunctions with the Sun and some other events including perihelion. As it turned out, these Foci were continuing to exert their influence in the vicinities of the dates pertaining to the dates of the respective events in the subsequent years as well. That effect was suggested to be attributed to that that the Sun was passing the same points of Ecliptic. For this reason these Foci were named “calendar” and they were attributed a 5-day orb corresponding to a 5°-degree orb for the Sun’s conjunction with its position at the moment when the primal events took place. The **Time** (calendar) **Foci** are as follows

T1 December 21  
 T2 January 3  
 T3 March 3  
 T8 March 13 (resonant with T7, appeared in 1998)  
 T4 March 20  
 T5 March 24  
 TB April 7 - 11  
 T6 July 4  
 T6' July 14 (resonant with T6)  
 T7 September 16

**Geographical Foci** are specified by Meridian belts; the countries which they intersect indicate the regions where the Time Foci are much more liable to manifest themselves; in particular, they include the Eastern part of the USA, Israel, and other regions [2].

By their nature, the comet Hale-Bopp **Factors of Influence** were divided into three groups, within which the types of events were specified [2]:

#### 1. Natural calamities:

Earthquakes, eruptions of volcanoes;  
 Tsunamis, hurricanes, extreme cold and hot, snowfalls and floods, natural fires. Damage to agriculture.  
 Numerous deaths from destruction, drowning, epidemics, poisoning. Loss of dwelling, immovable property.

#### 2. Technical disasters:

Accidents at sea; train, airplane, **car** crashes;  
 Destruction and fires at engineering sites (mines, bridges, etc.);  
 Hacker activity, including unauthorized access to banks, government and corporate data bases.

#### 3. Social effects

Political and social disorders, mental and psychological collisions at all levels caused by vagueness of goals, arrogance, rash decision making):

Instability, irritability, illusions, aggressiveness, cruelty, obstinacy, terror;  
 Financial collapses and crises;  
 Loss of relations, disturbances, revolutions, violation of both physical frontiers and legislation;  
 Riots, revolts, revolutions, wars.

It was **predicted** that in the vicinities of Time Foci the events pertaining to these factors would take place much more intensely and have a record nature. In order to verify this forecast the events were collected with respect to their scale and frequency, and it turned out that not only the events pertaining to these factors of influence were actually concentrating around the Foci; within each type of events the records had also shown a trend to appear in the vicinities of these Foci [2 – 5].

### 1.1.2. The manifestations of the HB's Foci in 1997 - 2011

#### Concentration of records and extraordinary events at the HB Foci

The acquired statistics shows that not only the important events of all specified types (floods, fires, etc.) or records (gold price, exchange rates, temperature, etc.) have a trend to concentrate or to start in the narrow vicinities (5-day orbs) of the comet HB's Foci, but the most extraordinary events as well; for example – the most destructive earthquakes, wars and most drastic air crashes (Parts 2 - 5, 7). And even the surges of SA which are more numerous than the Foci, as a rule, take place at the dates of the latter.

And although some important events take place outside of the orbs of the Foci, this does not ruin the trend since these Foci are not assumed to present the “only” possible dates for all kind of events. But we may conclude that these **Foci** do present a **system of resonant points** at which the events pertaining to the specified factors of influence have a trend to occur with a higher frequency and on a larger scale.

#### Aftereffects and the trend to general intensification of manifestations

Already in 1997 – 1998 the statistics has shown [2, 3] that the Foci act not only as the centers of concentration of events; those types of events that were significantly manifested at a Focus (Foci) had subsequently formed quite stable trends: both short-term (for weeks) and long-term (for years).

In a **long-term trend** (or simply – a **trend**) the events of the respective type appear more or less systematically at the most part of subsequent Foci (for years).

In a **short-term trend (aftereffect)** an increased rate of manifestations is observed for weeks after a Focus for those types of events which developed noticeably at that Focus.

At that an intensification of manifestations of the Foci and trends is observed when a surge of SA takes place, and/or a critical point of passing new comet [1 -3] fits a vicinity of a Focus.

Meanwhile, especial interest presents the trend specifying a synchronism between the surges of SA and the comet HB's Foci which was firstly revealed during the last 11-year SA cycle [3] and once again appeared in the currently developing cycle (Part 3). It cannot be considered in other way, but as the indication that the Sun itself has started to “intensify” the processes on the Earth. And this suggestion has definite esoterical grounds which are considered in Part 3.

**Fore-bifurcation “explosion”.** After the initial pronounced manifestations of the comet HB's Foci in 1997 – 1998, the events at the Foci were developing less intensely, but steadily. However, since the Spring of 2010 the situation has changed drastically, and the trends, from Focus to Focus, had started to manifest themselves more and more intensely so that at the interval of 2009 – 2011 these trends, relative to the number of events, had attained almost exponential rate of growth, since each year the amount of events was increasing approximately by an order [7].

Besides, new classes of events had started to appear within the specified types. Moreover, regardless of the fact that these trends describe a series of heterogeneous processes, they continue to develop synchronously, at each subsequent Focus; from this we may conclude that since the year of 2011 they form a system of trends that characterize all aspects of modern life, and throughout the world, and which pertain both to the Nature, and to the world community. Therefore, although we cannot state that we know the “physical” cause of this situation, we can definitely say that this **system of trends reflects a sharp increase in all types of destructive processes in Nature and society, that develop exponentially.**

And although the modern science cannot explain this course of events, there exist the Esoterical concepts which explains it explicitly, as well as the influence of the Solar activity which, in general, provokes the same effects as those that are described by the comet HB's Factors of influence.

### 1.1.3. Strengthening of the Comet Hale-Bopp Foci influence by the resonances with the surges of Solar activity and passing of other comets in 1997 - 2011

Although at present physics does not provide us with a model that could clarify explicitly the effects a comet may exert on the Earthy processes, there are a series of implicit indications that show that these effects may be engendered by an electric nature of the comet and electromagnetic interactions between the Heavenly bodies and the Earth [6, 12, 13, [www.jmccanneyscience.com](http://www.jmccanneyscience.com)], and this concept is also supported by the esoteric Teaching [8 – 11].

Of course, these qualitative models are far from being perfect, but the fact of systematic correlations between the comet Hale-Bopp's Foci and the surges of Solar activity cannot be ignored, as well as a systematic correlation of the critical points of this comet with those of the subsequent comets [1]. Namely, that the probability of randomness of synchronism between the comet HB's Foci and local maxima of Solar activity (SA) is insignificantly small, both during the preceding 11-year SA cycle [3] and **now** (See Part 3 and [7]), means that the Sun itself had turned its activity towards the Earth. And this conclusion is very important from both physical and esoteric points of view.

Indeed, although we do not know all mechanisms through which the Sun exerts its influence on separate organisms and society as a whole, the existence of this influence, which is especially effectual during the surges of SA, is a well established fact [14 -17], and what is important – the aspects of its influence are generally similar to factors of influence of the comet Hale-Bopp (HB). So, as far as these surges energize all the Earthy processes, when synchronous with the HB's Foci they evidently stimulate them.

## 1.2. Resonances between the Comet Hale-Bopp's Foci and Bifurcation points of greater importance

### 1.2.1. The major evolutionary cycles and their Bifurcation points

A **bifurcation point** (BP) is understood as an epoch of large-scale transformation in an unstable process at which the latter may change its qualitative and quantitative properties drastically, as a rule – in one of several possible pathways. But in general we cannot say for sure, through which of these pathways the process would go. This is so because instability of a process presumes that there is at least one such control parameter a small variation of which may cause a great variation in the resulting behavior of the process. From this point of view a Focus presents a BP, but we will reserve this term for the processes of greater importance.

Although the system of trends defined by the comet HB's Foci is acknowledged qualitatively and numerically, and thus presents an effectual forecasting instrument, the authors are far from considering them as an isolated phenomenon in a sense that in the respective circumstances these Foci would be so pronounced had they appeared, say, a century ago. On the contrary, there are grounds to consider the influence the comet HB's Foci may exert as a part of the system of much more important system of **Causes of global importance** with their own **Bifurcation Points**.

General importance present those BPs which mark the end of evolutionary cycles, and the longer the cycle the more pronounced the effect of the BP.

From this point of view the local surges of Solar activity (SA) and maxima of 11-year SA cycles along with the comet HB's Foci present the lowest level of these Cycles which manifest themselves more or less “discretely” at the BPs which for distinction call the **critical points**; and the higher the importance of the Cause, the less pronounced the effect of its Bifurcation point from the viewpoint of observed events (or from the historical perspective) since this point works at a much greater time interval.

Therefore, at the Foci and surges of SA we may observe a sample of important events, while the manifestations of the bifurcation points the higher cycles engender are less visible, but specify more important consequences – the **trends** which we may recognize just in a historical perspective, that is in years or decades.

On the other hand, all these cycles specify the flow of evolutionary time [18], and the longer the cycle – the greater the acceleration of time by the end<sup>1</sup> of the cycle. Therefore, if a Critical point (e.g. Focus) coincides with a BP of greater cycle, it would cause much greater effect than it was able to exert a decade before – out of sphere of influence of this BP. So, if the BPs of a series of cycles coincide, they come to a resonance that amplifies the net effect, and if the lengths of the cycles differ by orders the Bifurcation points of the longer ones intensify the manifestations of the critical points of the shorter ones.

But what critical and bifurcation points we are speaking about? In the course of increase of their importance, these are the **crucial epochs** of the following **evolutional cycles**:

**Critical Points:**

- \* Foci of the comet Hale-Bopp,
- \* surges of Solar activity.

**Bifurcation points:**

- \* **termination of 5125-year (Long Count) Mayan Calendar**, with its internal BPs [19],
- \* **termination of 26000-year Cycle of precession of Equinoxes (Sidereal year)** that is defined by the
- \* **Great Celestial Conjunctions (GCC)** - the most important of those that occur each **6500 years** [18, 20];
- \* **Change of Root Race** by the end of Cali Yuga ( Part 5, [8 - 11]).

In common, they define the present time as the era of global transformation.

### 1.2.2. Solar activity and importance of its local surges

**Solar activity.** Since the XIX century it is known that the years of maxima of SA exert influence on some natural processes. In the beginning of XX century [Alexander Tchijevsky](#) [14] has shown that during these years the peoples are more inclined, in particular, to various protests, riots and wars. This state of exaltation of separate beings and peoples for convenience could also be called “**passionarity**” – by analogy with the concept which [Lev Gumilev](#) had entered for specifying the level of vital energy and power characteristic of any given ethnic group.

This is neither positive, nor negative property of an ethnic group since it characterizes not the goal, but the level of energy and intention of this group to act. Note, that this property, together with “obscuration” corresponds to the Esoterical Teaching which states that each Root Race, subrace, ethnic group, like a human being, has a period of growth (when it is full of energy), culmination and obscuration followed by disappearing.

In this sense a high level of SA during the years of maximal Solar activity benefits to general increase in passionarity, whereas the surges of SA – to abrupt growth of passionarity that may lead to unexpected outbreaks in personal (e.g. crazy shooting, etc.) or mass behavior (riots, etc.); if properly organized, an enthusiasm engendered by surges of SA may also be used constructively.

But what is important, the aspects of development of passionarity correspond to the Factors of influence of the comet HB. So, if a solar flare or local SSN maximum occurs around a comet HB’s Focus, as in resonance it intensifies the manifestations of the latter – both physically and mentally, by increasing the passionarity of masses; if after a Focus – it engenders aftereffects. And that striking fact that almost each Focus is accompanied by a solar flare of local sunspot maximum provides us with the evidence that the Sun itself, as the main energizer of all aspects of Earthly life, rules over these bifurcation points.

Notice, that in the current 11-year Solar activity cycle the first cycle maxima took place in November, 2011, the second may occur in the middle or by the end of 2012 (See Part 3), but at present it is impossible to say more exactly how it will develop in time and relative to the behaviour of solar indices.

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<sup>1</sup> Remind that the origin of a cycle coincides with the termination epoch of the preceding cycle of the same type; for example, the current 5125-year cycle of the Long count of the Mayan Calendar (“Fifth Sun”) – December 21, 2012 – is the origin of the next cycle of Long count (“Sixth Sun”)

### 1.2.3. Mayan calendar and its Bifurcation Points

It turned out that apart from the conventional critical points of the Mayan calendar (the end dates of Baktuns, etc.), there exist special kind of bifurcation points which are specified by the Golden section partitioning of the Mayan calendar [21] and define the dates (epochs) of the (1) Finite (FAST) and (2) Infinite Auric Spiral of Time (IAST); the epochs of the former are in the past now, while the epochs of the latter continue to appear until the end of the Mayan calendar with the lesser and lesser intervals [19].

After 2006 there were three Bifurcation points of this type:

BP15: March 20, 2009,

BP16: August 26, 2010,

BP17: July 16, 2011,

which had manifested themselves in a pronounced way and in compliance with the comet HB's Factors of influence (with respect to the current classification they are rather to be considered as the *critical* points, since the periods they define are short). In [7] it was presumed that if the next BP of this series,

BP18: February 1, 2012,

would manifest itself in the same way, we should expect that the remaining BPs of this series would also act effectually. And indeed, the BP18 has actually manifested itself significantly and relative to all Factors of influence pertaining to the comet HB. These are unrecorded distribution of frosts and snow storms in the Eastern Hemisphere – up to North Africa, Turkey and Central Asia, numerous shipwrecks, earthquake with a hundred of victims, and a series of important events in finances, political life (Syria, Egypt) etc.

So, we may expect that till the end of this year, that is actually – till the end of the Mayan calendar, these are not only the Foci of the comet HB that would act, but the Mayan calendar BPs as well. And if each of the critical points of these two sets would impart to the growth of intensity of the revealed trends, the situation may develop to a very critical threshold, since the Mayan calendar BPs will appear more and more frequently (Table 1.1): - up to the final and most important BP of December 21, 2012.

Table 1.1. Mayan calendar bifurcation points BP<sub>i</sub> (Infinite Auric Spirals of Time) - Fragment [19].

Number <b>i</b>	Date		
	Year	Month	Day
0	3114 BC	9	6
1	1156 BC	5	9
2	55	4	7
⋮	⋮	⋮	⋮
12	1997	1	20
13	2003	2	19
14	2006	11	22
15	2009	3	20
16	2010	8	26
17	2011	7	16
18	2012	2	1
19	2012	6	4
20	2012	8	19
⋮	⋮	⋮	⋮
31	2012	12	20
32	2012	12	21
⋮	⋮	⋮	⋮
50	2012	12	21
51	2012	12	21
⋮			
⋮			

### 1.2.4. The Great Celestial Conjunction

An analysis of orientation of the Zodiac relative to the Centre of the Galaxy has allowed us to put forward a hypothesis (1996) that we live in the era of great evolutionary changes [20]. In brief, this conclusion reflects the idea that during a Sidereal year of approximately 26 000 years (the period of precession of equinoxes, or Plato year) the axes of the tropical Zodiac four times are aligned to the centre of Galaxy, which in more detail and Esoteric background is presented in [18, 27], where these alignments are called the **Great Celestial Conjunctions (GCC)**. The most important of them takes place now and marks the End and the Origin of the Sidereal year.

So, by definition, the GCCs separate the cycles with the length of 6500 years ( $\frac{1}{4}$  of the Sidereal year), and the current GCC marks the origin of the cycle of precession of equinoxes. Besides, the orientation of the current GCC provides a kind of physical channel [13] through which the Galactic Centre may pass its influence to the Earth directly.

**GCC and the ATS.** Although the period of GCC,  $T_{GCC} = 6500$  yr, is specific for the Earth, it is also directly associated with the system of Golden Section periods (Auric Time Scale, ATS [16, 22 - 24]) that unite the periods in Solar System and a broad system of Earth phenomena (from pulse and brain waves to geological cycles). Namely, although it does not fit the main time series  $\Gamma = \{\Phi^k\}_{k=-\infty, \infty}$  and  $\Gamma^* = \{2 \cdot \Phi^k\}_{k=-\infty, \infty}$  of the ATS, with a high accuracy (0.3%) the period  $T_{GCC}$  presents the mean of their adjacent terms  $\Phi^{18}$  and  $2 \cdot \Phi^{17}$ :

$$T_{GCC} = (\Phi^{18} + 2 \cdot \Phi^{17}) / 2 = (5778 + 7142) / 2 = 6460 \cong 6442 \quad (\delta \approx 0.3\%),$$

where 6442 – is  $\frac{1}{4}$  of more exact duration of the Sidereal year, 25770 yr [12].

**GCC and geological data.** **Flysch** is a wide spread formation presenting a sequence of **sedimentary** strata comprised by the layers of conglomerate and loamy carbonate rocks that were deposited in a deep **marine facies** in the **foreland basin** of a developing **orogen** (viz. during large-scale geological events). This **multilayer formation** is well studied both quantitatively and qualitatively. For this reason it is considered by geologists as a kind of “geological clock” for timing the geological events.

This way it was revealed that the cataclysms that shuddered the Earth were repeating cyclically and synchronously in different regions, with quite stable period of approximately  $T_F = 6500 \text{ years}^2$  For this and other reasons it was also suggested that to the large extent the nature of these cycles belongs to Cosmogeneous influence.

Moreover, this period,  $T_F$ , is considered as the most stable and reliably proven among the remaining ones that are associated with geological events including seismicity and volcanism (as well, it is also associated with historical processes). As well, this basic period is acknowledged in its multiples  $k \times T_F$ , ( $k = \frac{1}{4}, \frac{1}{2}, 2, 4, \dots$ ) – up to dozens and hundreds of millennia, the most important and known of which is the period  $T_E = 4 \times T_F$  of precession of Equinoxes – about 26 000 years – or Sidereal (or Plato) year.

And this is namely the period of Great Celestial Conjunctions! So, The importance of the cycle of Great Celestial Conjunctions lies, at least, in the fact that it defines the epochs of great cataclysms.

Note, that the current GCC presents the **origin of the Sidereal year** with an orb which covers a period of approximately **1979 - 2018** [20].

Note also, that this is for the first time in the Sidereal year that the completion of the 5125-year cycle of the (Long Count) **Mayan Calendar** (December 21, 2012) fits the end of this year at the era of the current GCC [18]; as a result, the critical points of these two cycles also come to resonance and, hence, the influence of the former increases the manifestations of the latter.

<sup>2</sup> V. Soloviev. Rhythms in development of nature and society. Kharkov National University, 2008.-138 p. In Russian



### 1.2.5. Epoch of Change of Root Races (See Part 5)

The Change of Root Races is quite seldom event, or rather the era; it takes place once a million or more years [8] and signifies the origination of people of new Root Race in various parts of the world, this time – of the VI-th Race. This one has started since the middle of the XX-th Century with the termination of the Cali Yuga [11]. Notice to this end, that the “conventional” terms for Cali Yuga are used in Vedic sources for masking the actual terms since the latter were presenting great secret before they came [9, 11]

### 1.3. The Resonance of current Critical and Bifurcation points and the Development of World Trends

All the long-term cycle bifurcation points are associated with acceleration of evolutionary time, and the longer the cycle, the more pronounced and all-embracing is the influence of the respective BP onto various aspects of life in Nature and society. At the same time, as far as nothing happens in Nature abruptly, the transformations at a bifurcation point do not present a “momentary” event, but have definite duration being quite short relative to the length of the cycle (See Fig. 1.1).

This situation is illustrated by the *linear sweep* of *evolutional time*  $E$  [18] relative to the physical time  $t$  in Cartesian coordinate system (axis  $E$  vs. axis  $t$ ) which takes a form of a *saw* (a) where *cogs* (b) correspond to separate cycles with long *flat fragments* (0–1) that after a *fast growing* (1–2) have not less *abrupt fall* (2–3). Thus, a Manvantara is followed by dissolution, a Round – by obscurity, a Ring (Root Race) – by global cataclysm (See Part 5); a change of a leading Sub-race – by local cataclysm that may cause cardinal changes in nature and social life, but in a separate region(s).

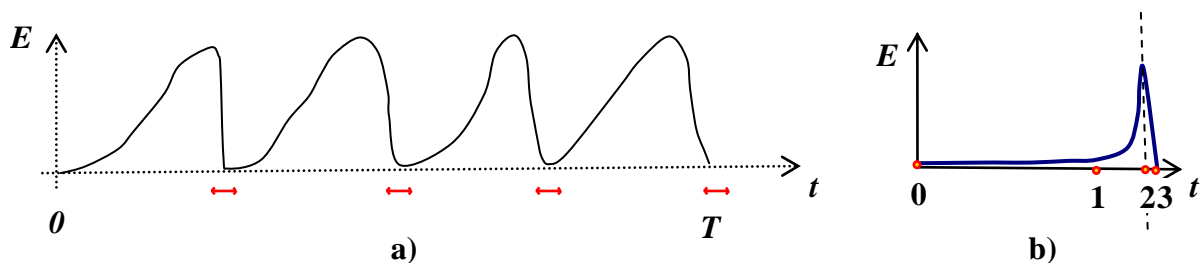


Fig. 1.1. Linear sweeps of evolutionary time

- a) An arrow  $\leftrightarrow$  marks the period of rapid decay (in physical time  $t$ ) of culture being described by the respective cycle, after which a new count of evolutionary time is started due to ceasing of most processes.
- b) The qualitative phases of an evolutionary cycle: long-time “linear” evolution (0–1), short-term “explosive” evolution (1–2), culmination by the end of the cycle (2), and quick slump (2-3).

Further on, the correlation of the Bifurcation epochs of the considered cycles shows that each orb of termination epoch of the greater cycle contains the ends of the lesser ones (Fig. 1.2) – up to the epoch of the Mayan calendar, as well as the Critical points (comet HB’s Foci, BPs of AST and surges of Solar activity) fit the orbs of BPs of the greater cycles (for the MC this is a period of culmination preceding the end of the calendar, since this date is defined exactly and thus has no orb defining an uncertainty of the date).

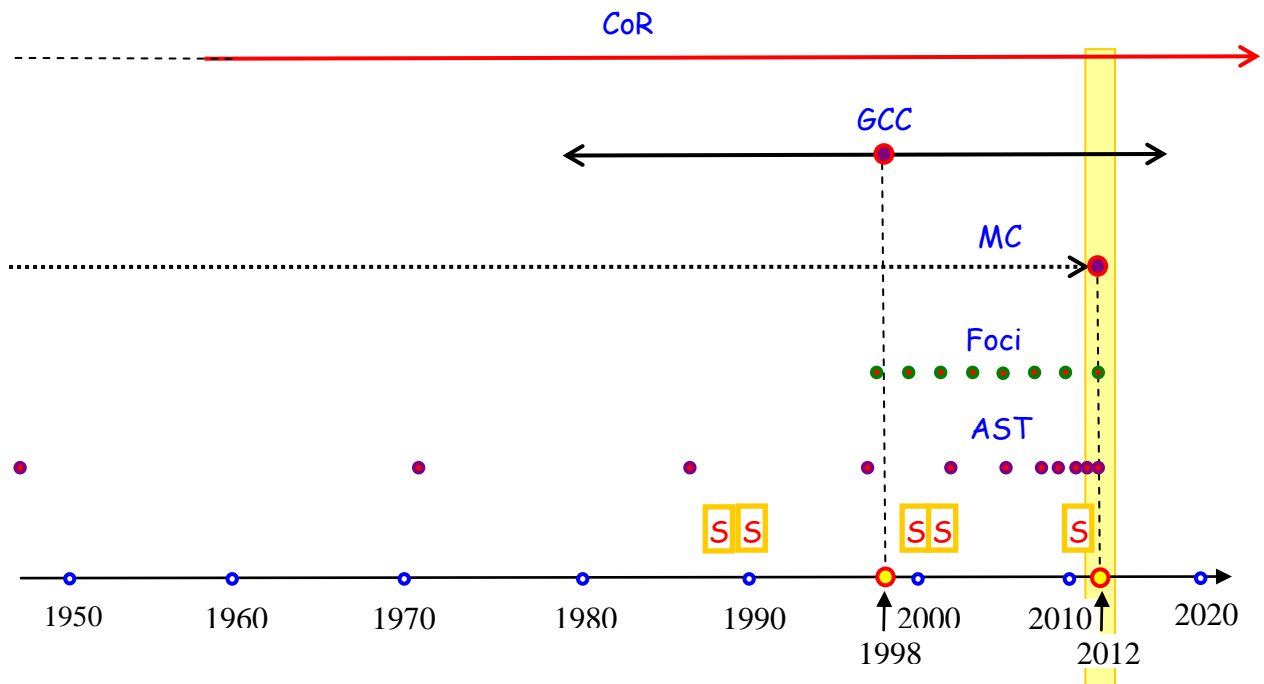


Fig. 1.2. The ends of the major evolutionary cycles (BPs) and critical points of the short-term cycles

CoR,  $\rightarrow$  – the era of Change of Races and its interval (prolongs to the future);

GCC,  $\bullet$  – the Great Celestial Conjunction presenting the end of current Sidereal year, and its orb  $\leftrightarrow$ ;

MC,  $\bullet$  – the end of Mayan Calendar  $\cdots\rightarrow$ , viz. 5125-year Long Count, or the “Fifth Sun” cycle;

Foci,  $\bullet$  – the Foci of the comet Hale-Bopp; whether they will be effectual after 2012 is unknown;

AST,  $\bullet$  – the Mayan calendar Bifurcation points presenting the epochs of the Auric Spirals of Time;

**S** – the years of 11-year Solar activity maxima; in the current cycle the first cycle maxima took place in November, 2011, the second may occur in the middle or by the end of 2012 (See Part 3).

**Yellow band** reflects the resonant time interval before December 21, 2012, until which all the considered Bifurcation and critical points are effectual

Hereto it should be noted that the end of each cycle (viz. a critical or bifurcation point) presents the epoch of culmination of the properties imparted to this cycle, which is followed by a slump; and the greater the duration of a cycle – the greater the swing of variation in manifestations of these properties that, in general, defines the acceleration of evolutionary time before the Bifurcation point of this cycle. To this end, we must also take into account that for the considered cycles these properties define the factors pertaining to both Nature and society.

Therefore, the conjunction of all known BPs and CPs belonging to evolutionary cycles presents, in essence, a large-scale Resonance of evolutionary cycles where:

\* the CPs of the lesser cycles are energized by the influence of the BPs of greater cycles (Fig.1.3.b);

\* inversely, these CPs “warm up” the situation before each BP of greater cycle (Fig.1.3.a) thus providing its manifestations (viz. evolutionary transformations) at a longer time interval.

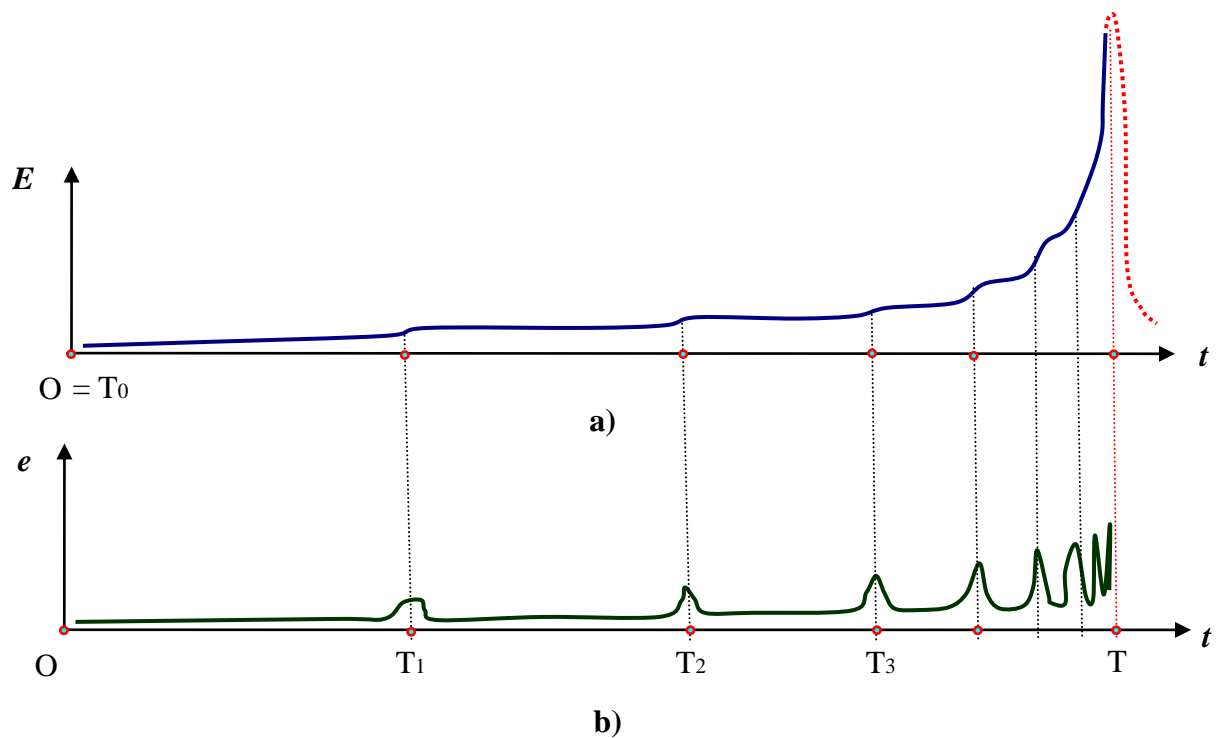


Fig. 1.3. Evolutional time as it is specified by a longer (a) and shorter (b) cycles

a) The evolutionary time  $E$  as a function of physical time  $t$  at the interval of cycle duration  $(O, T)$ ; the dotted line  $\dots\dots$  presents a flow of evolutionary time after the bifurcation point  $T$ .

b) The evolutionary time  $e$  as a function of physical time  $t$  for the cycles at intervals  $(T_0, T_1)$ ,  $(T_1, T_2)$ , ...

Notice, that these correlations of cycles present an important example of **fractality of evolutionary processes**; in particular, the curves in Fig. 1.3 illustrate the Golden section structure of the Mayan calendar (b) and how it influences a greater cycle (MC or 6500-year cycle between two GCCs).

Namely, the processes that are to take place during the era of Change of Races are “modulated” by the events and trends that are developing around the BP presenting the completion of the Sidereal year. In its turn, the latter one is detailed by the transformations in Nature and society being specific to the epoch of GCC which, at present, coincides with the end of the Mayan Calendar (more exactly – with the 5125-year cycle Long Count currently presenting the “Fifth Sun”). Last, but not least, are the CPs specified by the surges of Solar activity and Foci of the comet Hale-Bopp.

As the clocks are associated with natural cycles, so we may say that the new noon (viz. the epoch of new Race) comes when the hour, minute and second hands reach the respective place; in this analogy the former must reach the BP of the Sidereal year, the “minute hand” – the GCC and Mayan BPs, and the latter – the Critical points specified by the surges of SA and Foci.

Hence, all these BPs and CPs synchronize the global process, but after these “hands” had passed the “noon”, none of these points would remain effectual. Therefore, as far as the last BP with the exactly defined epoch – the end of the Mayan calendar takes place this year, and the BP of the GCC precedes it, we may expect that the very seldom Resonance defined by the Culmination of all these cycles should take place in the vicinity of the termination epoch of the Mayan calendar.

But what transformations it may bring? The most important ones relate to the greater cycles and are clearly seen in evolutionary changes embracing all spheres of life during the last centuries; they develop exponentially thus giving the “explosion” of evolutionary time [18, 21].

The shortest cycles of the considered set are much more specific (in their manifestations) and can be found in the events of the last decades, e.g. – as the manifestations of Foci of the comet Hale-Bopp and surges of Solar activity, which deepen the trends prescribed by the larger cycles; first of all – in natural and social cataclysms.

And it is evident that such an acceleration cannot continue not even for a long time, but even for decades, and must be slowed down some way – abruptly or continuously. To this end, a question arises: whether it follows from the above consideration that these cataclysms would stop after December 21, 2012, after the middle-cycles' BP had passed?

The Esoteric Teaching tells (Part 5) that the termination of those large-scale cycles is always associated with a large-scale catastrophes, first of all – by Earthquakes and volcano eruptions, and possible mass extinction. And the observed growth of cataclysms in Nature and society, that was predicted by the end of XIX and in the beginning of XX centuries [8 – 11], give evidence in favour of this statement. From this point of view we may expect that the manifestations of the Foci would become even more pronounced later this year. Moreover, by taking into account that the Bifurcation points of the Mayan calendar became not less effectual than the Foci, we may also presume that their manifestations would be not less effectual than those of the Foci.

Besides, as far as these BPs appear more and more frequently (Table 1.1) as we approach the end of the Mayan calendar, we may presume that this concentration of MC Bifurcation points may create a profound effect of much greater influence and, thus, much greater probability of greater cataclysms, but not obligatory on December 21. In this sense the approach to the end of the Mayan calendar may be likened to pressing a spring: the closer we come to this date, the more destructive events may take place in nature (first of all – quakes and eruptions) and society. If this hypothesis is correct, the date December 21, 2012 presents a symbolical epoch of final culmination of middle-cycles, after which the acceleration of all the considered trends would change to slowing down, and we would appear in a new reality.

This way we may conclude that a non-stop acceleration of processes in all aspects of life corresponds fully to the concept of acceleration of evolutionary time [18] before the point of bifurcation that is to take place at the epoch of GCC [18, 20], and this evolutionary transformation should be much more pronounced than at a “conventional” GCC since this time it occurs at the very seldom Bifurcation point defining the era of origination of New Race. And the growing intensity of natural cataclysms and large-scale decline of morality (as in of Atlas) corresponds entirely to what was predicted to occur at the change of Races.

Therefore these are not the Foci and BPs of the Mayan calendar, neither the surges of SA, which cause such pronounced evolutionary transformations and cataclysms, but the long-term evolutionary cycles, the BPs of which we survive now; yet, the former still define the “ticks”, both quantitatively and qualitatively, which approach us to the “noon” of the full-scale transformation at the Racial BP.

To put it conceptually, the above considerations allow us to conclude that it is neither the End of the World, nor the Ascension that await us, but, if a large-scale seismic cataclysm and/or social catastrophe would actually occur on approach to the end of this year – a life in new reality.

To this end it is important to trace the most important trends in nature and society, and especially those which correlate the Earthy processes with the Solar activity since in such an important period the Earth, with respect to the Esoteric Teaching, is to be influenced by the energies of its Hierarchy – the Sun. As to the Earth, the basic interest present the Earthquakes and volcano eruptions, that are to displace the V-th Root Race after its culmination, and the international affairs (wars, finances, etc.) as an indicator of growth of dissoluteness considered in a broad sense. An overview of these correlations is presented below.

Meanwhile, since a detailed analysis of all these trends requires a lot of space, below we present just an overview of these correlations which cover, first of all, the period of July 2010 to September 2011; more or less full analysis of this period has taken about 150 pages, apart from 300 page Appendix containing the statistical data (events pertaining to the trends) and reference materials [7].

At the same time, as we have no written historical evidences that could provide us with a description of what we may expect to occur at a Racial BP except of legends re to Atlas, in order to highlight the basic concepts of Cosmogogenesis and Anthropogenesis presenting a systematic description of the effects accompanying the Racial changes, we also added a very short overview pertaining to this matter.

## PART 2. EARTH WEATHER: TRENDS IN ATMOSPHERIC AND SURFACE DISASTERS

Consider the basic features and examples of trends pertaining to appearing of cataclysms associated with atmospheric and surface disasters (storms, hurricanes, floods, extremal temperatures, etc.); in detail they are considered in [7]. The quakes and volcano eruptions are specially considered below, in Part 4.

A trend is understood as a time dependence of a parameter which is chosen for depicting some process in time; it is generally assumed that the trend exists if this dependence is described by a relatively stable function. This parameter may present a measurable quantity (e.g. – temperature), intensity of events, or other characteristic.

For the considered types of processes the trends may be divided into two groups; for short, call them the global and local. The former describes a long-term behavior of the respective parameter; as a rule – by its total or mean yearly value. For example, an average yearly temperature on the Earth, a yearly amount of precipitation in a region, etc. The latter reflects a number of records (e.g. in temperature) or events of definite type (e.g. seats of fire) in a region.

Consideration of both these trends allows us to distinguish between the relatively slow year-to-year variation in general properties and sharp variation of the same property (**contrast**) at a smaller time interval. For example, although the average temperature on the surface of the Earth increases very slowly, the contrast in temperatures in different regions may be very high and keep for a long periods.

The necessity to consider the trends of both these types is explained by intensifications of contrasts in weather parameters – the situation that was foretold for the current epoch [1, 3]. And although they actually follow the Foci, but with a greater orb since the weather presents quite an inertial process which cannot change quickly.

### Trends in number and scale of cataclysms engendered by extremal atmospheric conditions

#### 2.1. Extreme heat

##### 2010

The most prolonged extreme heat had developed in 2000 around the Foci **T6** (July 4, 14), **BP16** (Aug. 26):

**Russia**: so prolonged and extremely hot weather was not observed at least for 1000 years. The deviation of mean temperature against the norm made 8° C.

**Japan** has survived the most hot Summer in 113 years of observations. Tokyo: the record of duration of heat over 30° C – 71 days (30 days continuously); in Moscow such temperatures were continuing for 43 days (30 days continuously). Nevertheless, by absolute value Moscow (38.2°C) outruns Tokyo (37.2°C)

**Israel** has survived the most hot August in the history of this country.

##### 2011

**France** (Spring Foci and surges of SA). This Spring is the most hot since the beginning of the XX century and most dry in 50 years. Mean temperature has exceeded the norm by 2.6°C. Almost two months there were no rains in most part of territories. Soil moisture contents is the lowest in 50 years. The restrictions are applied on water consumption in 28 of 96 administrative districts. It is expected that almost half of the winter wheat crop will be lost. The government allots 1 billion Euro for elimination of the consequences of the drought.

**USA**. Unprecedented heat has settled in the central regions of the USA around the Foci **T6** (July 4, 14), **BP17** (July 16) which covered 80% of the territory of the USA for a month: Mean temperature exceeded the norm by 7 – 12°C. Average daily maximum exceeds 30°C. Since the beginning of July there were registered about 670 temperature records, 39 victims. The most dangerous situation was in Phoenix where for 33 days the temperature was about 38°C, and sometimes reached 45°C. The state of emergency was announced in Texas, where the temperature below 40°C was seldom. The temperature around 40°C had settled in 18 states as well: in Illinois, Kansas, Wisconsin. Due to a lack of water and grass the farmers are required to slaughter the cattle. This heat is accompanied by dust storms and powerful forest fires in 11 States that cover 554 000 hectares.

**Russia.** July of 2011 becomes the second most hot in the history of this region, after July 2010. Mean temperature exceeded the norm by 5°C. But the area of the forest fires was three times greater than in 2010.

**Hong Kong** had demonstrated in August as much as 3 records: the most hot month during the period of observations (since 1884), the record mean temperature 29.5°C that exceeded the norm by 1.1°C, and the record of isolation (242 hours) – 52.3 hr above the norm.

**Spain.** That September (around the Focus **T7**, September 16) was the most hot since 1990 and the fifth hot in 50 years. Mean temperature exceeded the norm by 1.8°C, and the most dry since 1988 in Spain and in two regions – the most dry in the history. At the same time, a local thunderstorm resulted in 100 mm of precipitation a day, the lightings of which were seen at 50 miles.

Note to this end that the thunderstorms that year were especially destructive and in many countries they had taken many lives.

**Germany, Great Britain.** September 2011 is also recognized as the most hot in the century.

**China.** Since the beginning of the year there were three droughty periods in this country. By the end of Spring, in the Central and South-West parts of the country the most sever in 50 years drought was followed by heavy rains that caused the floods. So, in Summer they started to fight both with the drought, and with the floods.

**Oceania.** A state of emergency was declared in Pacific state of Tuvalu due to the lack of fresh water (!). In a situation when a monthly precipitation make, as a rule, 200 to 400 mm (!) the wells cannot be used due to the murrain and drought that lasts for 6 months. It is expected that the drought would continue for 3 months more. New Zealand sent a plane with fresh water and two desalination plants. The cause of the drought is associated with El Ninja.

## 2.2. Extreme coldness, 2011

### T1 (December 21, 2010), T2 (January 3, 2011) - Northern Hemisphere

**Britain** survived the most cold December in 100 years with mean monthly temperature of –1°C. The record snowfalls blocked the largest airports (Dec. 20).

A similar situation is in **France, Germany** and many other countries: on December 21 – 26 many airports are closed due to mighty snowfalls and frosts. Mass protests of passengers outgrow in scandals and scuffles with personnel.

**Russia.** Moscow: a snowy collapse – the cyclones come one after another. In contrast, a “summer” came to the northern Caucasus: in Krasnodar the temperature is +20°C. Even the old residents do not remember such cataclysms (Dec.25). Meanwhile, the frosts of –45°C had caused the state of emergency in Altay and Khakassia (Jan. 3).

**India.** The strongest cold distributed over the northern part of the country that killed more than 27 (Jan. 3)

**China.** More than 1.5 million people of province Guychzou had damaged from frosts (Jan.4)

### T3 (March 3)

**Russia.** The frosts establish records. In Yakutia the temperature decreased to – 59°C, in Altay – to – 40°C. In St Petersburg the second decade of February became the most cold over the period of observations.

### T6 (July 4) – T6' (July 14), BP17 (July 16 2011) - Southern Hemisphere

**Brazil** suffers from cold (– 15°C), snow and icy rain, although the norm is about +10°C. Tourists have no warm closing, many local residents had never saw snow (Jul 1).

**Bolivia.** Heavy snow storm results in dozens of victims. More than 7000 people are blocked by snowdrifts. State of emergency is declared in several regions. An anomalous cold came to a traditionally warm areas. (July 13)

**Chili.** Heavy snow storms blocked 16 000 people in the southern part of the country; besides, in that region rage the frosts being the strongest in South America. That July became the most snowy and cold in Chili over the last 10 years (July 20).

**South Africa.** This Winter is unusually cold and snowy.

### 2.3. Tornadoes, natural fires; 2011

In average, about 2000 tornados occur on the Earth, and around 1500 of them take place in the USA. The largest impact was on April 3-4, 1974 when 148 tornados killed 148 people in 13 States of that country.

**The USA: the season of tornados has started at the Focus TB (April 7-11):**

April 6. A passing of atmospheric front was accompanied by heavy showers, hail, and 20 tornados that killed 9 people, uprooted many trees, tired the electric power lines.

April 11. 3 devastating tornados stoke Iowa

April 15-16. Heavy showers, hurricanes and tornados killed 9 people and damaged many houses in Oklahoma, Louisiana and Arkansas

April 16. Although the Spring had come to the most part of the USA, a snow storm had attacked Nebraska: a 40 cm snow layer covered the State in a day and hampered the traffic.

April 16. Tornadoes attack: the USA had not seen such raging of natural disasters for a quarter of century. South-East of the USA is under an influence of the cyclone which engendered a tornado almost in each State; in 12 of them the speed of wind exceeded 250 km/hr. In a result of the storm, 45 people are killed, a power station is deenergized in Virginia. More than 60 tornados are registered in North Carolina – a record in 25 years.

April 19. Obama declares a state of emergency in North Carolina. Over the last days the powerful tornados had passed over several States. More than 35 000 houses are without electricity, agricultural grounds are seriously damaged.

The tornadoes are followed by floods which cover new regions in North Carolina, Oklahoma, Alabama, Virginia as well as in the Eastern States.

April 20. New Transamerica cyclone causes more showers, thunderstorms, tornados, floods.

April 28. Tornadoes – are the habitual for Americans, but not to that scale, power and season. In the result of April tornados 350 are killed, more than 10 000 housed destroyed. Thus, just on April 27 and 28 there were registered 211 tornados, that makes the absolute record for the USA.

May 3. Record raging of tornados in the USA. The series of tornado that stroke the Southern States by the end of April was the most powerful in the history of the USA; there were 362 tornados, 312 – just a day.

June 5. Since January 1, the score of tornado victims in the USA makes 523 people – the largest number of tornado victims in 75 years. In total, there were more than 1000 tornados, 1/3 of which took place in April when more than 360 were killed.

June 8. Tornadoes had destructed the insurance industry of the USA. In 2011 billions of dollars were to be paid for compensation of damage caused by thunderstorms, tornados, floods.

Along with tornados and thunderstorms, the **forest fires** are intensely distributed in April: the drought in Texas transforms in the phase of natural fires that are caused by dry thunderstorms. In three weeks of fires (starting with April 4-5) more than 200 houses and half a million hectares of forests and steeps have burnt down in Texas. The damage makes billions of USD.

### 2.4. Floods (2011)

**After-effects of TB** caused by a series of surges of Solar activity (See Part 3)

**USA. "Great flood of 2011"** in Ohio, Mississippi and other States. Cloudbursts and melting of great amount of snow have highly increased the water-level of Missouri. Montana: the state of emergency is declared in 51 counties. North Dakota: state of emergency is declared in 7 counties. South Dakota, Iowa, Nebraska – evacuation is proposed. The flood in the USA has attained the status of the **largest one in dozens of years**. The **flooding of Mississippi** has **exceeded all the previous records**.

**Australia.** In Spring of 2011 the series of gales and floods that stroke the mining and agriculture regions became more destructive to economy than the droughts of the preceding years. In the first quarter of 2011 the economy decreased by a maximal value in 20 years.

## T6' (July 14)

**China.** More than 400 people sunk and 112 missed in floods caused by cloudbursts that stroke Eastern, Central, Southern and South-West regions in Summer.

## T7 (September 16)

**Atlantic.** (Sept. 8) The number of tropical gales in 2011 is 1.5 times greater than the norm

### China:

Sept.15. For the 5-th day cloudbursts do not stop

Sept.19. Two plants are destroyed by a landslide. 32 people killed.

Sept. 20. In the result of long-term cloudbursts in *Central China* it is observed a flood being extremely rare for this season. The water flow reaches the maximal level in 20 years.

The greatest in 50 years flood in the *North-West part of China*. Road traffic is blocked, bridges are damaged. 70 000 people are evacuated

The largest since 1847 flood in *South-Western part of China*: 31 000 houses are destroyed, 16 000 hectares of crops are wiped out, at least 14 victims. The direct damage to economy is about \$1 billion.

Sept. 29. Typhoon Nesat paralyzed the Southern China; 300 000 people are evacuated.

**Cambodia:** the September flood killed more than 150 people. 170 000 people are suffered, 350 000 hectares of crops are damaged

**India.** In 3 States 2 million people left their houses due to the floods caused by cloudbursts that started on September 12. More than 100 victims of floods and landslides. Several regions are blocked. In Bihar the state of emergency is declared due to the lack of food. Most part of Orissa is flooded. The water level in two main rivers Gang and Gomati has exceeded the record level of 1975 and continues to grow.(Sept. 26)

**Pakistan.** The heavy floods caused by cloudbursts killed more than 1000 people; millions are homeless since hundreds of thousand houses are destroyed. The water level continues to increase (Sept. 20)

**Thailand.** New wave of disastrous long-term flood that started on July Foci and sharpened on Focus T7 was continuing in October. The heavies flood in a hundred years: 2/3 of the country is submergeB under water, several hundred victims, 3 million damaged, hundreds of plans are closed including Toyota, Western Digital, etc. General damage is estimated in billions of USD.

## 2.5. "The number of natural cataclysms would grow"

**1. The number of climatic anomalies would grow** – this is the forecast of the International Committee on issues of Global Changes of the Geological Environment, "[GEOCHANGE](#)"; it also predicts that the active phase of natural cataclysms will continue till 2015, whereas the most anxious would be 2013 and 2015, and starting with 2016 great territories would be flooded. They will include sharp temperature differences, destructive storms and fires, thunderstorms and hail that are superseded the drought.

A similar forecast is supported by NASA; thus, James Hansen, the director of Goddard Institute for Space Studies (GISS), tells that the mathematical models show that the average temperature would grow further. Climatologists say that the cyclones now migrate more frequently from North to South than from West to East, as it was earlier so that the cold air masses from Arctic descend to middle latitudes, while the warm masses – ascend to North. Exactly what we see this Winter, around the BP18 (February 1), with the Ultra-polar invasion of Polar masses – down to Northern Africa, and filling the Arctic and North America regions with warm air masses.

Moreover, the International Committee GEOCHANGE says that the weather anomalies are caused not only by the rise of mean global temperature, but other large-scale variations embracing the Planet – from the core to ionosphere and magnetosphere. In particular, it presents the NASA's data relative to the variation of the Earth's form: the Planet expands in Equator and contracts along the Poles.

The rate with which the North Magnetic Pole shifts has increased several hundreds times: from 9 km/yr in 1970 to 40-50 km/yr at present.



**2. In 30 years the number of natural cataclysms has tripled.** A monitoring over 140 countries provided by Oxfam Inc. has shown that this number is continuously growing: from 133 in 1980 to more than 350 in 2010. The number of victims of natural cataclysms has raised from 2.2 million in 1975 to 250 million in 2009, and may amount to 375 million in 2015.

**3. The Earth is getting warmer and warmer.** The average temperature of the Planet has reached 14°C – the absolute record in 130 years of meteorological observations; the previous record is exceeded by 1 °C. All the most hot years were registered in the preceding years. The global warming has become the reality.

**4. Each subsequent Summer would be worse than the preceding.** This conclusion was made by the climatologists of Stanford University with the use of 50 climatic models and world-wide meteorological data. This would exert serious damage to agriculture and health of the people; for example, the heat in Europe in 2003 has killed 40 000 people. As well, the National Oceanic and Atmospheric Administration, NOAA has acknowledged the year of 2010 as the most hot in the history of observations (June 2011).

Besides, the International Energy Agency says recently that growth of concentration of carbonic acid in the air, that stimulates the global warming, has accelerated significantly.

**5. The Earth is at the threshold of the global drought.** The Independent writes that water tables are falling in many parts of the world. Himalayan glaciers will shrink massively in the next century, reducing natural water storage in the mountains. The shortfalls will have to come from groundwater and surface storage. Many great rivers have drastically diminished flows. Bangladesh is suffering from the diversion of Ganges River water and increased salinisation. In China, deep groundwater levels have dropped as much as 295ft (90m) in places. Underground aquifers in many places are shrinking so rapidly that NASA satellites are detecting changes in the Earth's gravity...

The forecasted “Great resettlement” caused by climatic changes and lack of water sources is becoming a reality. The first large-scale project of this kind is prepared in China for Shensi province where 392 thousand people are to be resettled during 10 years. For this, \$ 2.14 billion will be spent. The residents of the Northern regions – are in the waiting list (march 2011).

**6. The situation with food resources is also worsening** as the Food and Agriculture Organization of the United Nations notes; in particular, it marks a fast growth of food prices.

**7. Mass poisoning and epidemics, both among people and animal,** become more frequent and pronounced. And this trend is also sharpening at the Foci of the comet Hale-Bopp. Note, that this trend corresponds to the esoteric forecast [11] relative to appearing of new diseases and epidemics including psychic ones. We may also remind that the growth of Solar activity stimulates the development of epidemics – up to pandemics [15, 25].

**8. The reduction of Polar ices** is observed both in Arctic and Antarctic.

**Arctic.** The satellite observations provided since 1979 show that an average area of polar ices has a trend to decrease, and the melting rate had accelerated since 1995. The record minimum was observed in September 2007, the same value as in September 2011.

Moreover, the Norway Polar Institute reports that you cannot find now such thick ice-floes as were seen in 90-ies: the multi-year ice-floes with a thickness of more than 5 meters have practically disappeared, although in 90-ies they made 28% of all polar ices. Since 90-ies the thickness of the most thick ice-floes has decreased from 4.3 to 2.2 m. The thickness of multi-year ice-floes has actually reached the thickness of one-year ice-floes. This means that in the forthcoming years the polar ice-shield could melt down in a single Summer season which would benefit to a greater increase of global warming.

**Antarctic.** Similar effects take place in this region; besides, its glaciers are destroyed by the quakes and tsunamis that are frequent in Pacific and Indian Oceans. Thus, the tsunami that was engendered by the quake in Japan (See Part 4) had broken off, firstly for this glacier since 1965, huge icebergs from Antarctic ice-shield, the total area of which was two times greater than Manhattan.

## PART 3. SPACE WEATHER AND GEOMAGNETIC ACTIVITY

### 3.1. Solar activity

Physics may explain the influence of solar activity (SA), but just for the situations where the main effect is caused by an interaction of particles and electromagnetic waves. At the same time, there are a lot of correlations has been reliably revealed over the couple of centuries which describe how different types of processes in Nature and society react to an increase of Solar activity – both to the local surges and to the epochs of 11-year SA cycle maxima [15, 25]; in particular, it is established that the Solar cycles so to say “modulate” the social activity, or rather – passionarity of masses. As well, the analysis of the comet Hale-Bopp’s Foci has shown [1, 7] that the surges of SA acts in a way being similar to the factors of influence of this comet.

Moreover, the detailed analysis of noninertial processes has shown that the surges of SA exert influence which may be likened both to the Foci and to the 11-year cycle. In the former case the surges of SA that take place after a Focus engender the aftereffects of the Focus. In the latter case a powerful, or a near series of SA surges may produce an effect (in a society) similar to that which develop during the maximum of an 11-year cycle (the examples are presented in Figs. below).

For these reasons the surges of SA and geomagnetic storms may be considered along with the comet HB’s Foci. But what is even more interesting is the fact that these surges also show a trend to occur in the close vicinities of these Foci. But before considering these effects we are to specify the terms.

The Sun's magnetic field leads to many effects that are collectively called Solar activity, including sunspots on the surface of the Sun, solar flares, coronal mass ejections (CME), and variations in solar wind that carry material through the Solar System [6, 12, 13].

### 3.2. Solar flares and Coronal mass ejections

Solar flares are classified as A, B, C, M or X according to the peak flux of X-rays near Earth. Each class has a peak flux ten times greater than the preceding one. Within a class there is a linear scale from 1 to 9.

Solar flares strongly influence the local space weather in the vicinity of the Earth. They can produce streams of highly energetic particles in the solar wind, known as a CME. These particles can impact the Earth's magnetosphere, and present radiation hazards to spacecraft, astronauts and cosmonauts.

A geomagnetic storm is a temporary disturbance of the Earth's magnetosphere caused by a disturbance in the interplanetary medium, which presents a major component of space weather. It is caused by massive solar flares and CMEs which interact with the Earth's magnetic field.

There were no solar flares of higher classes (M and X) in 2009, and 22 – in 2010. As the SA in the 24<sup>th</sup> 11-year cycle has started to develop in 2011, the solar flares started to appear more frequently and became more powerful; for example, by August 9, 2011 the most powerful solar flares took place on February 15 (X2), March 10 (X1), August 9 (X7). Notice that these are the most powerful solar flares since the flare of December 14, 2006 (X9) that took place in the previous 11-year cycle.

It is also important that in contrast to the sunspots which present more or less stable formations, neither the time nor the power of the flares and CMEs is predictable.

The influence the solar events may exert to the Earthy objects and processes may start immediately with coming of information about the event (as it comes in a form of electromagnetic radiation), and 10 – 40 hours later, with coming of particles and magnetic clouds. However, in some cases the latter period may be much shorter when plasma is ejected from the Sun with greater power as it was on February 15, 2011 when plasma ejected by the most powerful flare of this cycle reached the Earth in dozens of minutes. Besides, some experiments conducted by A.L. Tchijevsky had shown that some bacteria reacted (changed their color) several hours or days before a solar event.

In the below consideration (e.g. in Diagram 3.1) the flares and CMEs are designated by letter **F**. These are the most powerful events [7] that were reported even in mass media.

### 3.3. Sunspot number Local maximum as an indicator of surges of Solar activity

Manifesting intense magnetic activity, [sunspots](#) host secondary phenomena; thus, most solar flares and CMEs originate in magnetically active regions around visible sunspot groupings. Sunspot populations quickly rise and more slowly fall on an irregular cycle of 11 years. Besides, the sunspot number (SSN) correlates with the intensity of solar radiation, for instance – with the radio flux. Moreover, the SSN statistics covers 4 centuries, whereas the remaining indices (e.g. – radio flux) – only decades.

For these reasons this quantity is still used as one of the most important indices which reflects the general level of SA and can be used for comparing the SA levels in different epochs and studying the SA influence on the Earthy processes that took place centuries and millennia ago [16, 42, 43]; in particular, as it was done by A.L. Tchijevsky [15] when he studied how the phases of a solar cycle affect the development of social processes.

But it turned out, that even the shorter subcycles of SA exert a similar influence, not obligatory the maximal values of SSN in an 11-year cycle. Namely, it turned out that even a local, but sharp surge of SSN causes a powerful *passionate* response in a society at a relatively small time interval – up to 1 – 2 weeks. For this reason the surges of SA in terms of local maxima of SSN are considered below as well.

**Definition.** The local maximum  $N^* = N_k$  of sunspot number  $N$  is the maximal value in a series  $N_1, N_2, \dots, N_k$  of increasing values of this index [International Daily Sunspot Numbers] on the interval  $\Delta$  of  $k$  days  $D_1, D_2, \dots, D_k$  provided that on  $D_{k+1}$  this value  $N_{k+1}$  takes lesser value (viz.  $N_{k+1} < N_k$ ), and the value  $N_k$  is not less than  $m$  times greater than  $N_1$  (viz.  $N_k \geq m \times N_1$ ), where  $m$  is a specified value. In this case call the value  $m$  the *intensity*, and  $\Delta$  – the *duration* of the surge of Solar activity relative to this index  $N$ .

Note that the *local maximum of monthly mean SSN* may also be defined in the same way.

After a local maximum the daily SSN are generally decrease or fluctuate without significant variations. To this end it is *important that the lesser the duration  $\Delta$  and the greater the scale factor  $k$  and the absolute value  $N$ , the greater the influence which this surge exerts to the Earthy processes.*

In the detailed analysis [7] an increase in  $N$  is considered a local maximum if  $m > 2$  and  $\Delta$  is not less than a week or decade. In Diagram 3.1 the dates of these maxima are denoted by letter **L**.

Moreover, the local maxima act even more efficiently if a daily maximum develops on the background of the monthly maximum. In this case even outside of the interval of cycle maximum an epochal event may take place as it is illustrated by the following examples (Figs. 3.1 – 3.3).

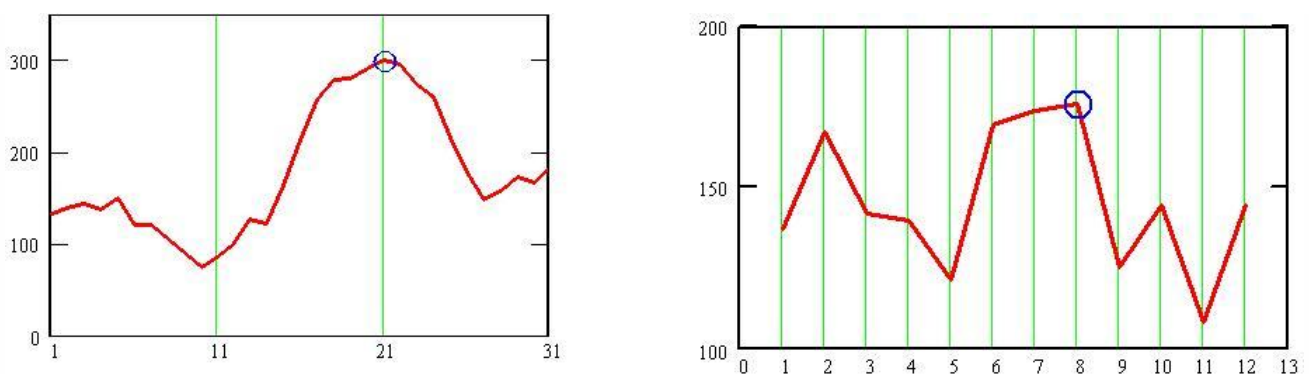


Fig. 3.1. An attempt of coup d'etat in USSR (Aug. 19, 1991) and its fail (Aug. 21, 1991)

Left: SSN by days of August 1991, Right: SSN by months of 1991

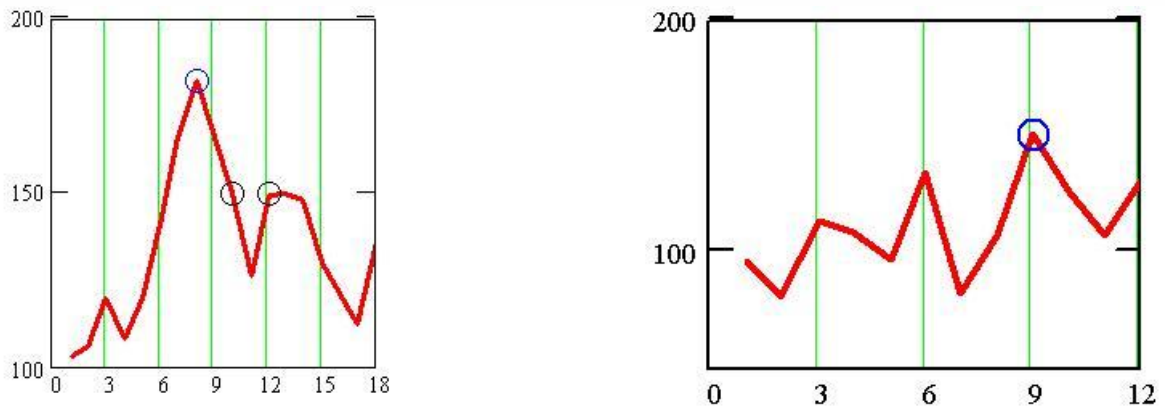


Fig. 3.2. WTC attack in New York, September 11, 2001 (in the orb of the Focus T7, Sept. 16)  
Left: SSN by days of September 2001, Right: SSN by months of 1991

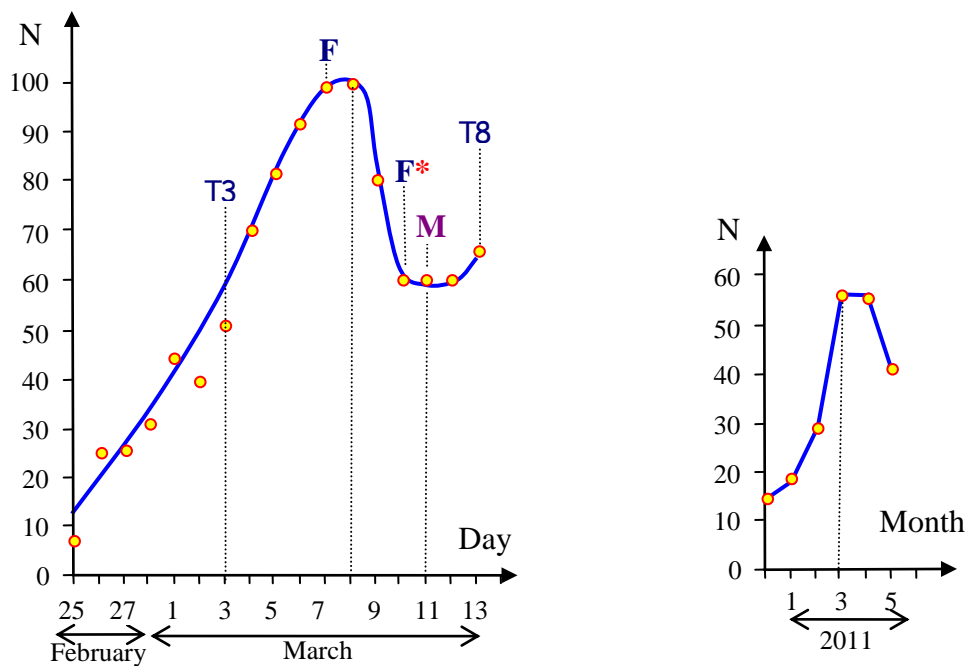


Fig. 3.3. Earthquake and tsunami in Japan, March 11, 2011 (in 2-day orb of the Focus T8, March 13)

Notice that this quake was preceded by the following series of Solar phenomena:

- **Local SSN maximum re to daily values**: in 12 days (Feb. 25 – **March 8**) the SSN has raised 12.5 times (from 8 to 100) and reached the absolute daily maximum (for that moment) of the current 11-year cycle.
- **Local SSN maximum re to monthly values**: from December 201 to **March 2011** the monthly mean SSN has raised 4 times (from 14.4 to 55.8).
- **Solar flares (F)** and CMEs on **March 7, 10**; such powerful events were not observed since 2006.
- **Geomagnetic storm (M)** on **March 11** caused by flare of March 7 and increased by flare of March 10.

### 3.4. Geomagnetic effects

While considering the effects the Solar activity may exert on the Earthly objects we shouldn't forget that the Earth is disposed quite close to the Sun – in 107 of Solar diameters only. That is why it is not surprising that major Solar events are echoed in the Earth, the more so if an ejection of solar flare or CME is directed to the Earth. This influence is also considered as very important in esoterical sources [8, 11].

In particular, the Sun exerts influence on Magnetosphere, thus causing [Geomagnetic storms](#), [Ozone depletion](#), shift in circulation of tropospheric and stratospheric air flows; besides, it is seemingly the cause of increase of life hazardous lightnings and “space” lightnings and other ether effects that show a close correlation with the surges of SA.

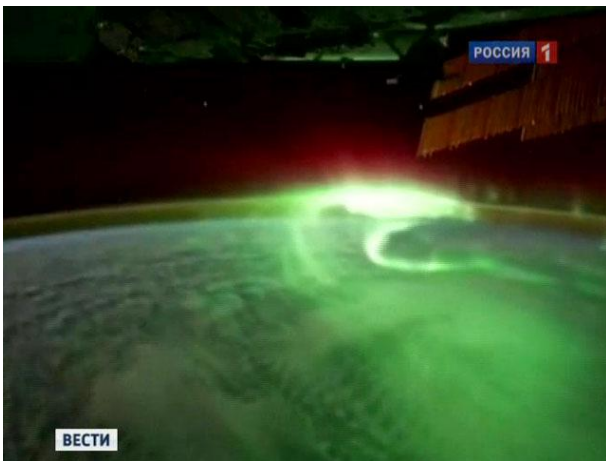
The surges of SA may also cause damage to biological objects including people due to affection of brain rhythms being controlled by electric signals thus damaging the psychophysiological reactions that may lead to headache, increase of blood pressure, etc. – up to mental disorders (amotivational irritability and/or aggressiveness) which increase the individual passionarity, and hence – the passionarity of masses. Moreover, the surges of SA may cause failures even in [power systems](#), not speaking of electronic appliances which are used in industrial systems and banking.

As a result, the surges of SA engender social instability, unequal acts (e.g. acts of terrorism), etc. the intensity of which culminates at the years of maxima of 11-year SA [15, 25].

As a rule, a magnetic storm continues for several days [[Space Environment Center, NOAA](#)]. In Diagram 3.1 the dates of maximal effect of major geomagnetic storms are denoted by letter **M**. In 2009 there were only 4 storms of this level, and 16 – in 2011; in 2011 they became even more frequent and powerful. Note also, that as far as the Sun enters the phase of maximal activity within the 11-year cycle, the geomagnetic storms may become much more effectual.

At the same time, the Space-Earth interaction does not restricted by the geomagnetic storms and Solar plasma impacts.

**First**, these are the [Upper-atmospheric lightning](#), in particular - blue jets which project to the lowest levels of the ionosphere, 40 to 50 km above the earth and do not appear to be directly triggered by lightning. They were first recorded in 1989 by the [Space Shuttle](#) as it passed over Australia. By 2007, fewer than a hundred images had been obtained. In 2001 Russian satellite “[Tatiana-2](#)” with the use of ultra-violet filter has discovered new class of phenomena of this type – the “lightnings” with a diameter of up to 100 km that reach the altitudes of 40 – 100 km (See the photo at the left).



They appear independently of weather conditions but not everywhere: in multiple (hundreds of discharges a second) they are observed above European part of Russia, Latin America, Australia, but are not seen above Siberia, deserts and Oceans. Besides, some of them are formed at an altitude of 10 km where the planes fly.

**Second**, the [falling meteors](#) and [artificial debris](#), as well as [spaceships descending](#) from the Earth orbit may cause the [disturbances of geomagnetic field](#). This effect was detected by Russian scientists in 2011 who studied the electromagnetic field of the Earth during the braking of the transport space ship “Progress” (this effect may be caused by a plasma screen that appears around a descending object when it enters the dense layers of atmosphere).

**Third**, the powerful [Solar flares and CMEs](#) that took place in January - September 2011 has [caused](#) a significant [Ozone depletion](#). Thus, by the report of the World Meteorological Organization, WMO, in February-March 2011 the Ozone layer above Arctic has depleted up to the record level – almost by 40% (Published April 5, 2011 – at the Focus TB, April 7-11)

The Ozone depletion reaches 50% (May 29, 2011)

The giant Ozone hole above Arctic continues to grow (probably after the Solar flares in July and August): now, it is considered as more dangerous than it was expected. At the altitude of 20 km the loss of Ozone increased to 80%. The experts say that the hole of such sizes is very atypical for Arctic atmosphere and by its size it may exceed the largest [Ozone hole above Antarctic](#) (October 3).

So, we see that the disturbances in the magnetosphere of Earth, that are caused either by Sun or by other space objects, may affect almost all aspects of life on the Earth and is closely correlated with the seismic effects (as to the latter – See Part 4).

### 3.5. Eclipses

It is interesting that the Eclipses of 2011, although a posteriori, were synchronized with the Solar flares and, a priori [4], – with several Foci of the comet Hale-Bopp. As far as the Eclipses are also important in Solar-Earth interactions, they were taken into consideration in Diagram 3.1 where they are marked as **E**.

### 3.6. Solar and Geomagnetic events in July 2010 - September 2011 and their correlations with the Foci of comet Hale-Bopp

Table 3.1. [International Daily Sunspot Numbers \(2010\)](#)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr	Day
12	11	15	17	8	11	8	16	21	25	13	19	2010	01
14	9	24	17	13	13	8	16	<b>40</b>	19	11	21	2010	02
11	9	23	18	25	15	8	9	34	20	11	24	2010	03
10	8	25	25	32	20	9	21	40	15	9	<b>31</b>	2010	04
7	8	18	26	29	19	<b>17</b>	34	30	9	17	26	2010	05
0	24	0	19	12	9	16	34	20	0	22	17	2010	06
0	25	8	16	10	13	8	32	10	0	23	18	2010	07
10	39	11	22	10	10	8	25	0	0	23	18	2010	08
10	37	0	7	0	21	11	36	0	9	19	17	2010	09
15	33	0	8	0	28	14	38	11	9	30	21	2010	10
25	29	22	8	0	33	<b>23</b>	<b>44</b>	8	9	32	16	2010	11
24	27	23	8	0	33	22	33	9	9	30	16	2010	12
21	28	20	7	0	18	19	27	18	16	<b>43</b>	28	2010	13
18	22	21	0	0	10	11	22	19	26	38	16	2010	14
18	20	17	0	0	0	16	25	19	29	38	8	2010	15
16	20	15	0	0	0	10	34	30	34	37	14	2010	16
12	28	18	0	0	9	9	17	<b>37</b>	40	35	7	2010	17
9	15	19	0	0	9	9	15	35	42	29	0	2010	18
0	13	14	0	0	19	9	10	34	<b>44</b>	26	0	2010	19
9	13	9	0	0	13	19	8	27	36	18	0	2010	20
12	11	14	7	9	10	22	0	26	25	17	0	2010	21
21	11	11	7	13	11	23	0	25	25	15	10	2010	22
26	10	9	0	14	10	28	0	27	31	16	10	2010	23
26	20	11	0	12	9	<b>30</b>	8	27	42	8	8	2010	24
23	19	15	12	15	12	25	<b>15</b>	27	47	15	15	2010	25
17	18	14	0	10	13	21	<b>15</b>	34	44	14	<b>20</b>	2010	26
9	9	22	0	8	8	12	8	39	29	8	10	2010	27
8	9	20	8	8	8	22	8	38	22	17	13	2010	28
8		21	0	12	16	24	18	38	27	18	11	2010	29
8		21	7	18	8	20	19	33	23	15	8	2010	30
11		17		11		17	20		24		27	2010	31
13.2	18.8	15.4	8.0	8.7	13.6	16.1	19.6	25.2	23.5	21.6	14.5		

Note: the Local Maxima in July - December are emphasized

Table 3.2. International Daily Sunspot Numbers (2011)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr	Day
<b>33</b>	15	44	48	50	83	<b>38</b>	<b>82</b>	85	83	87	86	2011	01
<b>33</b>	13	40	45	39	<b>89</b>	30	73	88	83	89	85	2011	02
32	18	52	43	51	86	28	62	91	79	87	103	2011	03
<b>33</b>	22	70	48	54	76	31	71	68	90	69	<b>108</b>	2011	04
25	16	82	40	54	53	22	68	74	70	79	101	2011	05
19	11	92	41	32	46	23	61	58	70	101	101	2011	06
24	9	98	58	31	38	28	61	47	62	<b>120</b>	88	2011	07
17	<b>39</b>	<b>100</b>	60	45	30	43	54	35	48	119	106	2011	08
22	31	80	56	60	26	33	47	47	55	123	76	2011	09
18	21	59	40	64	22	40	28	52	63	118	68	2011	10
17	35	59	48	47	15	<b>51</b>	29	61	87	113	62	2011	11
15	37	59	66	33	11	49	22	90	102	109	51	2011	12
9	48	66	79	26	10	46	14	94	113	113	54	2011	13
0	<b>53</b>	43	88	37	24	46	0	110	119	114	52	2011	14
8	51	34	<b>91</b>	41	34	56	9	<b>124</b>	104	98	38	2011	15
14	48	27	66	41	39	50	24	<b>124</b>	108	87	50	2011	16
19	40	27	51	36	39	63	39	104	<b>123</b>	84	60	2011	17
22	52	20	51	29	<b>40</b>	<b>78</b>	45	93	109	92	67	2011	18
18	50	23	51	26	31	74	46	92	99	89	<b>77</b>	2011	19
20	42	21	52	25	26	48	45	80	128	95	72	2011	20
<b>23</b>	29	17	57	26	33	41	56	70	<b>136</b>	88	73	2011	21
22	23	32	62	40	33	37	71	71	122	96	69	2011	22
23	19	30	56	22	38	29	<b>75</b>	59	94	99	69	2011	23
20	15	39	46	8	43	29	54	75	91	91	56	2011	24
19	8	69	40	17	33	20	50	79	77	<b>110</b>	65	2011	25
17	26	72	53	30	18	29	66	73	73	91	<b>78</b>	2011	26
14	27	84	52	45	10	43	59	67	65	86	76	2011	27
9	31	<b>88</b>	44	52	25	65	49	71	71	68	73	2011	28
10		74	44	70	27	61	43	83	66	94	75	2011	29
13		68	57	82	32	62	69	75	72	92	62	2011	30
14		62		76		67	<b>96</b>		67		62	2011	31
18.7	29.6	55.8	54.4	41.5	37.0	43.8	50.5	78.0	88.0	96.7	73.0		

Note: the Local Maxima in January - September are emphasized

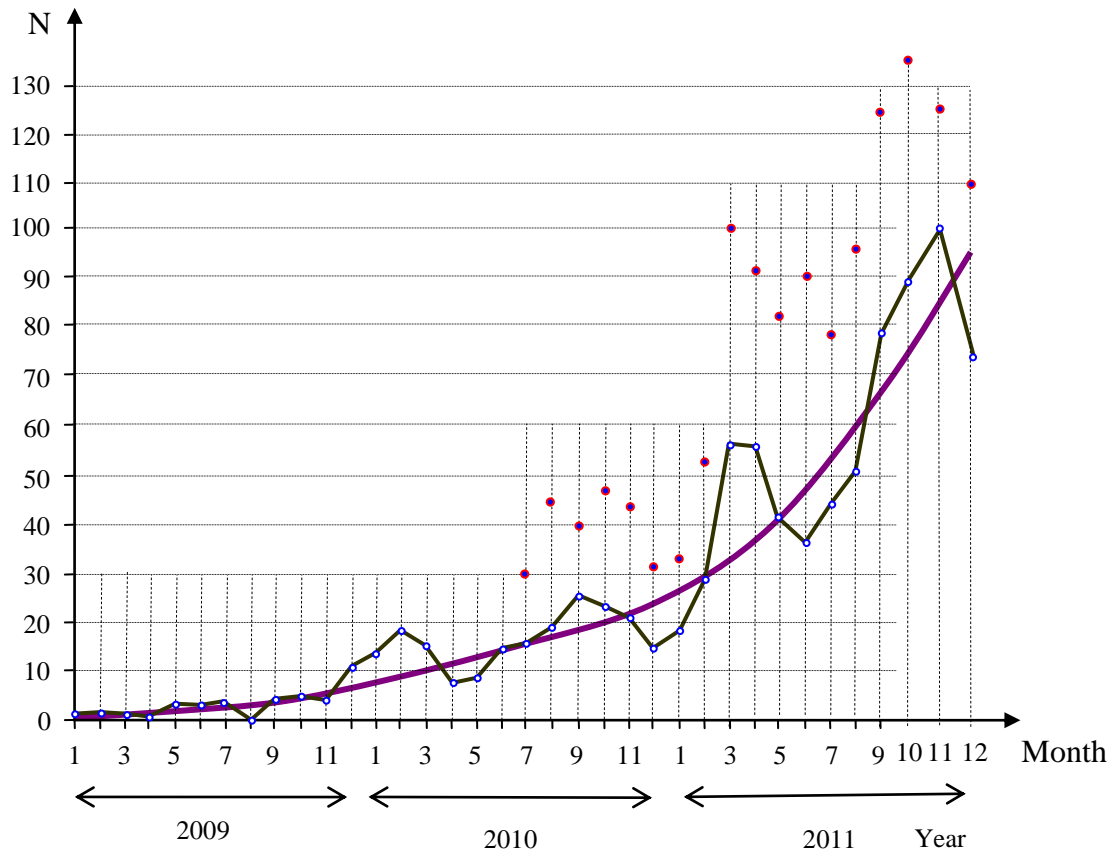


Рис. 3.4. Maximal and mean monthly SSN [International SSN]

- - mean monthly SSN
- - monthly maximum of daily values
- - smoothed monthly mean SSN

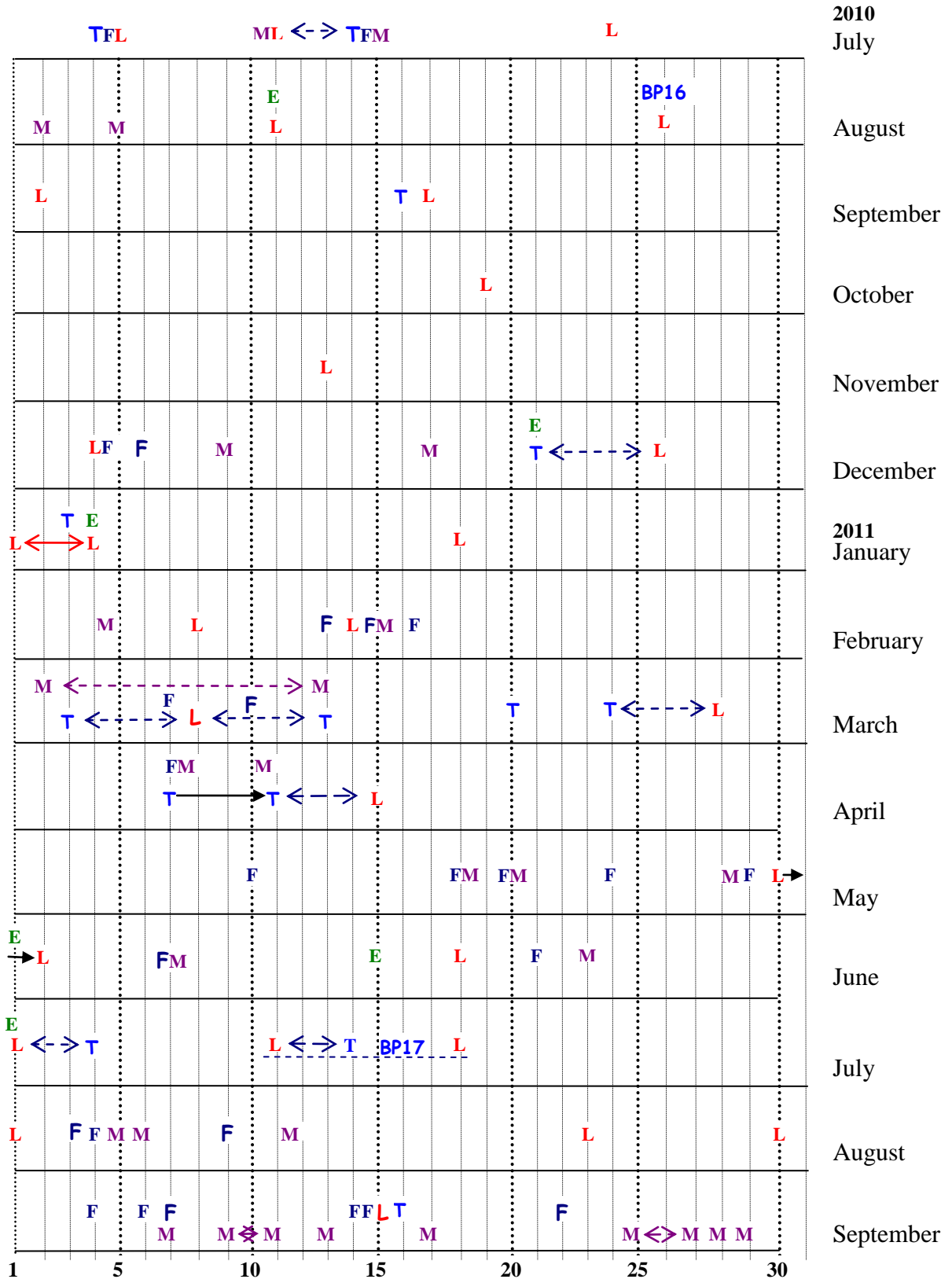
**Note.** When the article was prepared for posting (March 8, 2012) it turned out that after a slump of Solar activity in January-February 2012, it had produced an intensive surge at the Focus T3 (March 3):

1. **L** In 6 days (February 29 to March 6) the [SSN](#) has raised 5 times and reached the second maximal value in 2012 since the middle of January
2. **F, M** [March 5](#): X5 class **flare** – [the second largest of this solar cycle](#). The leading edge of the CME reached Earth on March 8-9, 2012 and caused an **extreme geomagnetic storm**
3. **M** [March 4<sup>th</sup>](#) produced another, wider CME that might yet intersect Earth. The cloud is expected to deliver a glancing blow to our planet's magnetic field on March 6<sup>th</sup>.



Remind that in the following Diagram the letter **T** stands for comet Hale-Bopp's Foci; a time interval defining their orb is denoted by blue dash line; **BP** denotes the Auric Bifurcation Points of Mayan calendar

Diagram 3.1. Calendar dates of comet HB's Foci **T**, daily SSN Local maxima **L** (See Tables 3.1,3.2), Solar Flares and CMEs **F** [7], Geomagnetic storms **M** [7] and Eclipses **E**



### 3.7. The 24<sup>th</sup> cycle of Solar activity

The current cycle of Solar activity, the [24<sup>th</sup>](#) in the Zurich series that is tracked since 1755, has started in 2008 – several years later than it was expected, and until 2011 the estimates relative to its intensity and year of maximum are still diverse. Some scientists expect that the intensity of Solar cycles would decrease starting with the current one, some other – that, on the contrary, it will be very powerful, with intense Solar storms that could be able to break down the computer systems (WWW, GPS, mobiles, banking, etc.) and even electric power networks. The estimate for the year of cycle maximum also remains quite indefinite.

In reality, even the Solar storms that took place in February and March 2011 were the most powerful in years, and the subsequent solar flares in April – September were not less powerful and seldom (See [Diagram 3.1](#)).

With respect to the form and general properties of the solar cycles the existing estimates are based on two assumptions. Firstly, that a smoothed level of SSN presents a unimodal line ([Fig.3.5.a](#)), viz. presents a curve with one maximum. However, in reality this is not so ([Figs.3.5.b, 3.6](#)). Secondly, that the cycles develop, in general, independently, that is the form and duration of the next cycle for the most part do not depend on the parameters of the preceding cycle. But this approach also cannot supply us with a reliable forecast of the year of maximum even with a half-a-cycle predictive period.

For these reasons it was developed the Regular model of Solar cycles [16, 17, 23] where not the year of maximum was considered, but the centre of a cycle being described by a stable parameter – median. Secondly, it presumes that the cycles develop “regularly” in the sense that each subsequent one takes place in the vicinity of the respective “model” peak; these peaks are distributed uniformly and a deviation of the observed median from the peak makes  $\pm$  several years.

On the ground of 4-century astronomical observations and existing chronicles re to the years of solar maxima the parameters of this model were estimated and it was shown [23] that this model allows to forecast the epochs (viz. years) of maxima for several cycles in advance with not less accuracy that the existing models can for a single cycle. Besides, it is shown that the deviations of the observed years of medians belong to the series  $T_0 \times \Phi^k$  where  $T_0 = 11.07$  (years) is the average duration of the 11-year Solar cycle, and  $\Phi$  – is the Golden section ( $k$  may take the values  $0, \pm 1, \pm 2$ , etc.).

For example, for the 23<sup>rd</sup> cycle the epochs of observed median and model peak make

$$Me_{23} = 2001.21 \text{ и } t_{23}^* = 2003.94,$$

that is the median (or the “centre”) of the 23<sup>rd</sup> cycle took place 2.7 years before the model epoch.

Therefore, from the viewpoint of the Regular model the observed “delay” in starting of the current 24<sup>th</sup> cycle does not present any abnormality, and the centre of the 24<sup>th</sup> cycle mustn’t occur in the epoch  $T_0 + t_{23}^* = 2015$ , but may take place 0 – 2 years before or after this date, that is in the interval 2013 – 2017 years. Besides, if we assume that the duration of the 24<sup>th</sup> cycle does not deviate significantly from the preceding ones (viz. equal to  $T_0 = 11.07$  yr), than an estimate for the median of the 24<sup>th</sup> cycle makes

$$Me_{24} = 2001.21 + 11.07 = 2012.28, \text{ viz. } \text{April 2012}. \quad (3.1)$$

$$\text{NASA forecasts (May 2009) the maximum of the 24<sup>th</sup> cycle for } \text{May 2013}. \quad (3.2)$$

Notice, that in any case these are the estimates, and the actual median and maximum we will be able to obtain just on completion of this cycle.

Moreover, as far as the preceding and some other cycles were bi-modal ([Fig.3.6](#)), the [24<sup>th</sup> cycle](#) may also have **two maxima**: in [2011-2012](#) and [2013-2014](#).

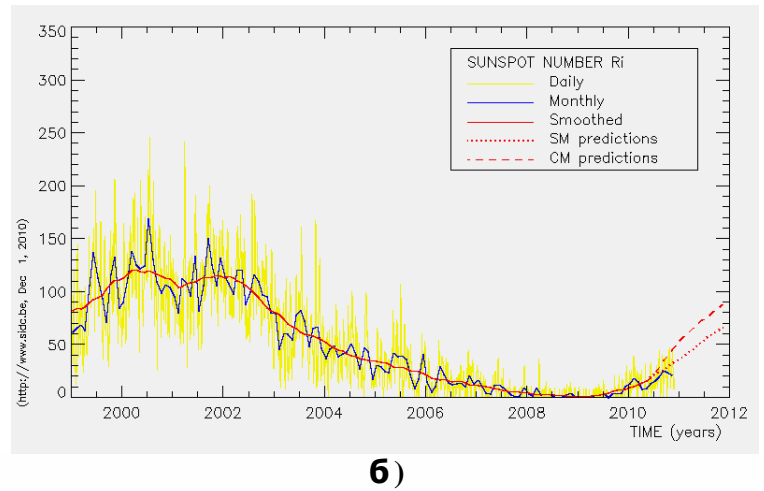
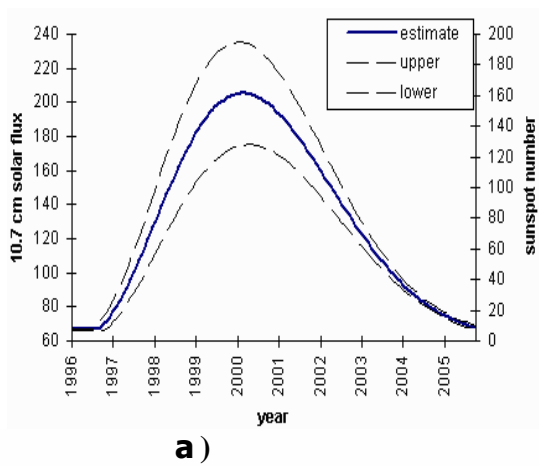


Fig. 3.5. Unimodal curve used for forecasting the distribution of SSN in an 11-year SA cycle and bimodality of the observed distribution for the 23<sup>rd</sup> cycle

For describing the development of the SSN the typical scientific models use a unimodal curve (a), and if the observed behavior actually follows this trend the cycle maximum and median coincide. However, in reality this is not always so and the last two cycles were bimodal as is seen from (b) and in more detail – from Fig. 3.6, with the cycle maxima being scattered by two years.

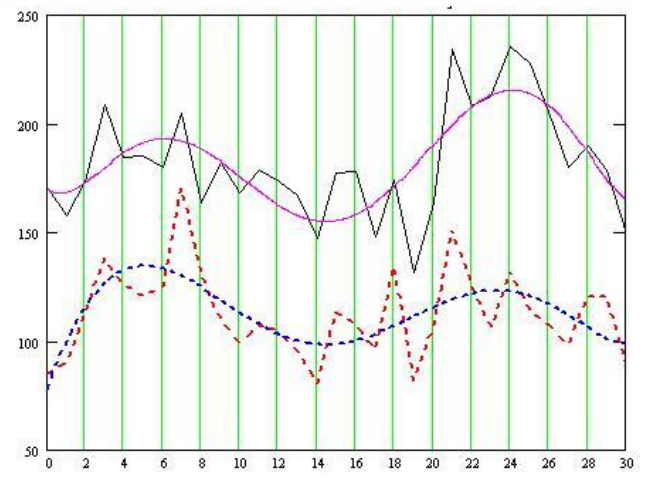
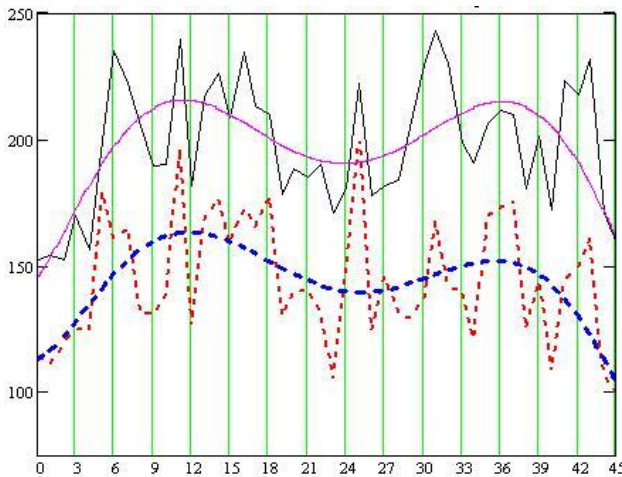


Fig. 3.6. Bimodality of the observed distributions of SSN and Radio flux for 22<sup>nd</sup> and 23<sup>rd</sup> cycles

Monthly mean SSN (*red dashed* polygon) and smoothing curve for it (*blue dashed* line), and radio flux (*black* polygon) and smoothing curve for it (*pink* line) for 22<sup>nd</sup> and 23<sup>rd</sup> cycles.

The month numbers are shown below; 1 corresponds to August 1988 – for the left chart, and to January 2000 – for the right one. In these distributions the medians reside approximately at the midpoints of maxima

### 3.8. Solar activity and space weather: general correlations

#### 3.8.1. Synchronism between the comet Hale-Bopp Foci and surges of Solar activity

**3.8.1.1.** Over the period of July 2010 – September 2011 there are 15 Foci of the comet Hale-Bopp and 2 Bifurcation points of the Mayan Calendar (BP 16 & BP 17), and we see that all the SSN local maxima (LM) fit these Foci except T4 (March 20, 2011). More formally this synchronism may be describes as follows.

\* With an average orb of **~2.5 days** a **local maximum of SA took place** at each Focus of the comet Hale-Bopp and bifurcation point of the Mayan calendar (BP16, BP17) with a probability  $P = 1 - 1/15 \approx 0.9$ .

\* With the use of hypergeometric distribution the probability of the event that in 2011 the 8 Foci of 9 fit the 5-day intervals of 17 local maxima makes  $P_{T,LM} \approx 10^{-4}$ .

This means that the “randomness” of the synchronism between the Comet Hale-Bopp’s Foci and the Local maxima of SSN is theoretically possible, but should actually be excluded, since this correlation has only 1 chance of 10 000 to occur at random. This probability may also be estimated with the use of other models, but that would not change the final conclusion that the synchronism between the Foci and Local maxima is not accidental and takes place not at random.

**3.8.1.2.** It is also important to note that over the considered period there were only two very powerful **Double Local maxima (DLM)** – relative to daily and monthly values of SSN – and the both of them coincide with the foci:

\* **DLM in March, in 3–5 day orb of the focus T8 (March 13).**

The Local maxima (re to daily and monthly values of SSN) were the largest since the previous 11-year cycle; besides, they were accompanied with a powerful Solar flare that engendered geomagnetic storm:

SSN LM re to daily values (March 8 2011): **100** (in 12 days the SSN has grown 11 times – from 8 to 100);

SSN LM re to monthly values: **55.8** (in 3 months the SSN has grown 4 times);

Solar flare (March 10, 2011) of Class X-1.5 a flare of such intensity was not observed since 2006. Its plasma jet was directed towards the Earth and caused geomagnetic storm.

Apart from sound manifestations with respect to all Factors of influence, this surge of SA (at focus T8) has seemingly initiated the **earthquake in Japan** (See Part 4).

\* **DLM in September, exactly at the Focus T7 (September 16).**

This time the Local maxima were also presenting the record (since the previous cycle) re to both the daily and monthly SSN values. And in this time they were accompanied by a solar flare that caused a geomagnetic storm:

SSN LM re to daily values (Sept. 16, 2011): **124** (almost 4 times in 7 days – from 35 to 124);

SSN LM re to monthly values: **78** (in 3 months the SSN has grown 2 times).

Besides, before the LM re to daily SSN a solar flare took place and a fall of comet to the Sun; besides, the solar wind increased its rate by 2 times. These events caused a powerful geomagnetic storm on September 16 – 17. On September 22 on more long-lasting flare (12 hours) and CME caused new powerful geomagnetic storm.

Apart from sound manifestations with respect to all Factors of influence, these surges of SA (at focus T7) became synchronous with **new phase of the World financial crisis** that started [5] on September 15, 2008 – that is **also at the Focus T7!** (See Part 7), as well as **with 911** and perihelion of comet **Elenin** (September 10) which, as the preceding comets [1], has intensified this Focus seemingly due to its intense disintegration in the middle of September, that is at **T7**.

### 3.8.2. Double Local Maximum as analog of 11-year Solar Cycle

An analysis of manifestations of the **SSN Local maxima** in 23<sup>rd</sup> and 24<sup>th</sup> cycles shows that in general they **exert the same influence** that is specified by the **comet HB's Factors of influence**.

Besides, if a **Local Maxima** takes place after a **Focus**, it **elongates** the manifestations of the latter which are observed as **aftereffects** with the same Factors of influence.

Moreover, a peculiar qualitative effect is inherent to the **Double LM**: in the sense of developing of processes (first of all – in social groups) it manifests itself as a **small-scale 11-year SA cycle**. It is meant that, as in bifurcation point, it causes very important events which specify the determinative trends for months or years (like the events considered in Figs. 3.1 – 3.3), and these events develop re to four phases of the Solar cycle [14] – growth, culmination, recession, lull.

### 3.8.3. In 2012 the Solar activity would continue to grow

An analysis of development of Solar activity shows that it still has a trend to grow, and the forecasts tell that the **24<sup>th</sup> cycle** may have the **maximum in 2012**, or **two maxima**: in **2011-2012** and **2013-2014**.

### 3.8.4. Global trend towards the growth of damage caused by natural cataclysms

The insurance market **Lloyds of London** has declared (September 26, 2011) that since the beginning of the year **the material losses made the record amount** – more than a billion USD. The insurers explain this by the unprecedented series of natural catastrophes over the world including quakes in Japan and New Zealand (See Part 4), flood in Australia. In half a year the amount of insurance compensations exceeded \$10 billion.

**Swiss insurance company Swiss Re** has summed up that the total payments for catastrophes in 2011 (\$103 billion) more that two times exceed those of 2010 (\$48 billion), whereas the total damage caused by technogeneous and natural catastrophes in 2011 amounts to \$ 350 billion.

The most devastating for insurers were:

Earthquake and tsunami in Japan – \$ 35 billion;

Earthquake in New Zealand – \$ 8-11 billion;

Tornadoes in the USA – \$14 billion (just Hurricane Irene cost \$4.9 billion).

So, as far as the surges of SA are de facto synchronized with (if not cause) natural calamities, including the quakes and volcano eruptions, and the form are expected to grow in 2012, the grounds exist to conclude that the year of 2012 would be even more rich in natural calamities than the previous year.

Besides, by taking into consideration that the surges of SA (flares and LMs) de facto follow the Foci of the comet Hale-Bopp we may conclude that in the current Era of Great Celestial Conjunction the Sun itself has “turned its face to the Earth” in preparing it to the Racial change by influencing the Earth process in these points of bifurcation.

## PART 4. COSMIC ASPECTS OF SEISMIC AND VOLCANIC ACTIVITY

### 4.1. The largest quakes in 15 years and the Foci of comet Hale-Bopp

There is no universal criterion re to the destructive power of the quakes. Some of them are very powerful, but take place in non-populated areas, some are “typical” re to their magnitude, but occur in densely populated areas thus causing great damage. For this reason to most “significant” quakes those are referred which have caused many victims and great devastation. With respect to this criterion over the last 15 years (1997 – 2011) the following quakes are selected (occasionally, this period coincides with the period of action of the comet HB’s Foci), from the list of which those are extracted (including the quakes that took place at the Foci) where the score of victims was less than 500.

- (T 3, orb 3 days) 28.02.1997 Iran, M 7.1. 1 600 victims, dozens of thousand homeless  
30.05.1998. Afghanistan. 4 000 victims.  
17.08.1999. Turkey, M 7.4 M. 17 000 victims.
- (T 7, orb 5 days) 21.09.1999. Taiwan, M 7.9 M. 2 500 victims.  
26.01.2001. India, M 7.9. 20 000 victims, more than million homeless  
21.05.2003. Alger. 2 000 victims.
- (T 3, orb 7 days) 24.02.2004. Morocco. More than 500 victims.
- (T 1, orb 5 days) 26.12.2004. Sumatra. M 9. The quake and tsunami kill more than 300 000 people
- (T 4, orb 3 days) 28.03.2005. Sumatra. 1 300 victims.  
08.10.2005. Pakistan, M 7.6. 73 000 victims, millions homeless.  
27.05.2006. Java, M 6.2. 6 000 victims.  
15.08.2007. Peru. 519 victims.  
12.05.2008. China, M 7.8. 87 000 victims.
- (T 3, orb 1 day) 06.04.2009. Italy (r. L’Aquila), M 5.8. More than 300 victims and destruction of the city invoked a world resonance: the most destructive quake in Italy since 1980.  
**Note.** On September 20, once again at a Focus (this time – at T7, Sept.16) an unprecedented trial has started in Italy over six seismologists: they were accused in inadvertent death of 300 people because they had not forecasted that quake! They are threatened a term of 15 years.
- (T 2, orb 9 days) 12.01.2010. Haiti. More than 200 000 victims. Cholera epidemic followed
- (T 3, orb 4 days) 27.02.2010 Chili. Several thousand victims
- (T B, orb 3 days) 14.04.2010. China, M 6.9. More than 2 000 victims
- (T 3, orb 3 days) 11.03.2011. Japan. More than 27 000 victims
- Note:** M – Magnitude. In more detail – See below.

### 4.2. Estimation of randomness of correlation between the major Earthquakes and Foci

Thus, in 15 years, since the origination of the Foci of comet Hale-Bopp, 10 of 18 largest quakes took place at these Foci with a mean orb of  $\pm 4$  days. If we assume that there is no correlation between the quakes and Foci, then the probability  $p_1$  of randomness of occurring a quake in a  $\pm 4$ -day orb of a Focus may be estimated by a ratio of width of 9 orbs a year (T 1 – T 8, T B) to the number of days in a year

$$p_1 = \frac{(4 \cdot 2) \times 9}{365} \approx 0.2. \quad (4.1)$$

The fact that this value is significantly less than  $\frac{1}{2}$  is already testifying against that assumption in favour of non-randomness of origination of the quakes in 4-day vicinities of the Foci.

And this conclusion becomes even more evident if we consider all those 18 quakes. In this case the probability  $P_{10}$  of randomness of occurring of 10 of 18 quakes in a  $\pm 4$ -day orb of a Foci with the use of binomial distribution is estimated by the following value

$$P_{10}^B = C_{18}^{10} p_1^{10} (1-p_1)^8 = \frac{18!}{10!8!} (0.2)^{10} (0.8)^8 = 7.5 \times 10^{-4} \sim 10^{-3}. \quad (4.2)$$

In other words, there is only 1 chance of 1000 that 10 of 18 most destructive quakes occurred at Foci accidentally. By order of magnitude the same estimate gives the hyper geometric model ( $\mu = 18 \times 0.2 = 3.6$ )

$$P_{10}^G \approx e^{-\mu} \frac{\mu^x}{x!} \approx 2.7 \times 10^{-3} \sim 10^{-3}, \quad (4.3)$$

Other models may also be considered but the fact that the estimates (4.2) and (4.3) of probability  $P_{10}$  are in agreement ( $10^{-3}$ ) shows that, in general, **there is no more than 1 chance of 1000 that 10 largest quakes of 18 have occurred at the comet Hale-Bopp's Foci occasionally.**

**These estimates give an incontestable proof that the largest Earthquakes have an explicit trend to occur in a relatively narrow 4-day vicinity of these Foci.**

#### 4.3. The most destructive Earthquakes took place at Foci of the comet Hale-Bopp

In the previous paragraph we have considered the largest quakes in 15 years, but their consequences re to number of victims and damage differ greatly. Consider now the quakes being the most devastating relative to these criteria. Notice to this end that each of them fits a 5-day vicinity of a Focus thus corresponding to 5-day orb of Foci and  $5^\circ$  orb of Sun which specify a zone of efficient influence of both the comet Foci and the surges of Solar activity.

#### 2004 Indian Ocean earthquake and tsunami, December 26, 2004

(5-day orb of the Focus T1, December 21)

The earthquake was caused by subduction and triggered a series of devastating tsunamis along the coasts of most landmasses bordering the Indian Ocean, **killing over 230,000 people in fourteen countries**, and inundating coastal communities **with waves up to 30 meters (98 ft) high**. It was one of the **deadliest natural disasters in recorded history**.

With a magnitude of  $M_w$  9.1–9.3, it is the **third largest earthquake** ever recorded on a seismograph. The earthquake had **the longest duration of faulting ever observed, between 8.3 and 10 minutes**. It **caused the entire planet to vibrate as much as 1 centimeter** and triggered other earthquakes as far away as Alaska. The plight of the affected people and countries prompted a worldwide humanitarian response. In all, the worldwide community donated more than **\$14 billion in humanitarian aid**.

The shift of mass and the massive release of energy very slightly altered the Earth's rotation. Theoretical models suggest the earthquake **shortened the length of a day by 2.68 microseconds**. It also caused the **Earth to minutely "wobble" on its axis by up to 2.5 cm**. Besides, it was so powerful that **it shifted the axis by about 6 centimeters**.

2010 Haiti earthquake, January 12, 2010  
(5-day orb of the Focus T2, January 3)

It was a catastrophic **magnitude 7.0**  $M_w$  earthquake followed by a series of 14 powerful aftershocks. An estimated **3 million people were affected** by the quake; the Haitian government reported that an **estimated 316,000 people had died**, **300,000 had been injured** and **1,000,000 made homeless**. The government of Haiti also estimated that **250,000 residences and 30,000 commercial buildings had collapsed** or were severely damaged.

Later on, **cholera epidemic** broke out, probably introduced by improper sanitation due to destruction of water supply systems. By the end of 2010, **more than 3,333 had died** at a rate of about 50 deaths a day.

2010 Chile earthquake, February 27, 2010  
(4-day orb of the Focus T3, March 3)

With a **magnitude of 8.8**, it ranks as the **sixth largest** earthquake ever to be recorded by a seismograph, the **largest in Chili since 1960** and in the world since the **2004 Indian Ocean earthquake** and before the **Japan quake of 2011**. It was felt strongly by about 80% of population. The aftershocks with a magnitude of up to 6 were continuing for a week (viz. within the orb of Focus T3) – until March 6 when 130 aftershocks were registered (13 – with magnitude exceeding magnitude 6).

More than **700 people** (by some estimates – up to **1500**) **lost their lives** and about **9% of the population lost their homes**. The earthquake also generated a **blackout that affected 93% of population** for several days. President declared a "**state of catastrophe**" and sent **military troops** to take control of the most affected areas.

The earthquake triggered a **tsunami** which **devastated several coastal towns** in **Chile**. Tsunami warnings were issued in 53 countries, and the wave caused minor damage in the **San Diego** area of **California** and in **Japan**, where damage to the fisheries business was estimated at \$66.7 million.

Swiss Reinsurance Co., and Munich Re AG estimated that the Chilean quake would cost the insurance industry \$4-7 billion. Earthquake's losses to economy of Chile are estimated at **\$15-30 billion**.

By estimates of **NASA** scientists, the **Chile earthquake** have **shifted Earth's axis by 8 centimeters** and **shortened a day by approximately 1.26 microseconds**. At that, it moved the Earth's axis even more than the Sumatran one, despite not being as strong.

**NOTE.** The most pronounced **aftereffect** took place 19 months later, on September 24, 2011 – once again at a Focus (this time – **T7**, September 16): A blackout has affected millions of Chileans: miners, passengers of underground trains, mobile phones are inoperative. The last large-scale blackout in Chili took place during the quake of February 27, 2010 after which the Authorities announced that new blackouts may take place due to some damages caused by that quake.

2011 earthquake and tsunami in Japan, March 11, 2011  
(2-day orb of the Focus T8, March 13)

The **Great East Japan Earthquake** was a **magnitude 9.0** undersea megathrust earthquake off the coast of Japan. It was **the most powerful known earthquake ever to have hit Japan**, and one of the five **most powerful earthquakes in the world** since modern record-keeping began in 1900.



The Japanese Police Agency confirmed **15 850 deaths, 3 287 people missing and 6 011 injured; 125,000 buildings damaged or destroyed**. The earthquake and tsunami caused **extensive and severe structural damage in Japan**, including heavy **damage to roads and railways** as well as **fires** in many areas, and a **dam collapse**. Japanese Prime Minister Naoto Kan said, "**In the 65 years after the end of World War II, this is the toughest and the most difficult crisis for Japan.**". Around **4.4 million households** in northeastern Japan were left **without electricity** and **1.5 million without water**.

The earthquake triggered powerful **tsunami waves** that reached **heights of up to 40.5 meters** and which, in the Sendai area, **travelled up to 10 km inland**. It presented the most destructive factor of that quake. A video was issued which showed how, as in thriller, a huge whirlpool was slowly drawing in a large ship with hundred passengers on board. The tsunami also caused **a number of nuclear accidents**, primarily the ongoing level 7 meltdowns at three reactors in the Fukushima Nuclear Power Plant complex, and the associated evacuation zones **affecting hundreds of thousands of residents**.

Many electrical generators were taken down, and at least three nuclear reactors suffered explosions due to hydrogen gas that had built up within their outer containment buildings after cooling system failure. **Residents** within a 20 km radius of the Fukushima Daiichi Nuclear Power Plant and a 10 km radius of the Fukushima II Nuclear Power Plant **were evacuated**.

Early estimates placed **insured losses** from the earthquake alone at **\$14.5 to \$34.6 billion**. The Bank of Japan offered **\$183 billion to the banking system** on 14 March in an effort to normalize market conditions. The World Bank's estimated **economic cost was \$235 billion, making it the most expensive natural disaster in world history**

**GEOPHYSICAL EFFECTS.** The earthquake shifted the Earth's axis by estimates of between **10 cm and 25 cm**. This deviation led to a number of small **planetary changes**, including the **length of a day**, the **tilt of the Earth**, and the **Chandler wobble**. Thus:

The speed of the Earth's rotation increased, **shortening the day by 1.8 microseconds**;

The quake **moved portions of northeastern Japan by as much as 2.4 m** closer to North America, making portions of Japan's landmass wider than before.

A **400 km stretch of coastline dropped vertically by 0.6 m**, allowing the tsunami to travel farther and faster onto land.

The **seabed** in the area between the epicenter and the **Japan Trench** **moved 50 meters east-southeast and rose about 7 meters** as a result of the quake.

### World effects

**Tsunami.** In 18 hours it reached **Antarctica** being **13 600 km distant** from Japan and cut off huge icebergs with total are twice as that of Manhattan. Notice that icebergs did not left that glacier since 1965.

March 12. Evacuation in the US Pacific shore; 5 people missing. Damages may reach millions of USD.

**Economy.** The regional MSCI Asia Pacific has fallen; the Japanese Nikkei 225 index had fallen maximally since October 2008 (the peak of World financial crisis). A series of car factories were closed.

**Seismicity.** On March 12 new tsunami (4 m) had totally destroyed Japan city Rikudzen-Takata. After the Earthquake, 13 volcanoes had evoked just in Japan.

March 14-15. A series of local quakes in Moscow which is not referred to a seismic area.

March 16. A 5.3 quake in Chili.

March 17. A 6.5 quake in Vanuatu.

### A series of devastating Earthquakes in New Zealand

In spite of the absence of extreme magnitudes, the series of quakes in New Zealand has caused great damage to this country being comparable with those of the most devastating cataclysms in the world in 2011, and the effect they have exerted to economy of new Zealand was even greater than the Japan's quake to economy of Japan (Notice that these quakes cost New Zealand about 8% of GDP, whereas the hurricane Kathrin cost the USA less than 1% of GDP). But they were seemingly overshadowed by the quake and tsunami in Japan.

The most destructive in this series were the following Earthquakes.

#### T7 (September 16)

2010 Canterbury (or Christchurch) earthquake was a 7.1 magnitude earthquake which struck the South Island of New Zealand on September 4, 2010. The quake caused widespread damage and several power outages, particularly in the city of Christchurch, New Zealand's second largest city. The National Crisis Management Centre was activated, and Civil Defence declared a state of emergency for Christchurch and several districts.. The New Zealand Army was deployed to the worst affected areas. Claims from the earthquake were confirmed at being between \$2.75 and \$3.5 billion NZD. Aftershocks have continued into 2012, with some causing significant damage themselves. The strongest to date, of magnitude 6.3, occurred on 22 February 2011.

#### T3 (March 3)

February 2011 Christchurch earthquake. An earthquake of magnitude 6.3 occurred on February 22, 2011. It is regarded by seismologists as an aftershock of the 2010 earthquake.

The earthquake caused widespread damage across Christchurch, especially in the central city and eastern suburbs, with damage exacerbated by buildings and infrastructure already being weakened by the 4 September 2010 earthquake and its aftershocks. Significant liquefaction affected the eastern suburbs, producing around 400,000 tonnes of silt. The earthquake was reported to be felt across the South Island and the lower and central North Island.

In total, 185 people were killed in the earthquake, making the earthquake the second-deadliest natural disaster recorded in New Zealand (after the 1931 Hawke's Bay earthquake), and fourth-deadliest disaster of any kind recorded in New Zealand, with nationals from more than 20 countries among the victims. The government declared a state of national emergency.

The total cost of rebuilding to insurers to be around NZ\$20-30 billion, making it by far New Zealand's costliest natural disaster, and the third-costliest earthquake (nominally) worldwide.

The earthquake has been the most damaging in a year-long earthquake swarm affecting the Christchurch area. After that, in 2011 it has been followed by large aftershocks on June 13, July 6 and December 23.

#### T6 (July 4)

On July 6 the most powerful (magnitude 7.8) earthquake took place off shore New Zealand. But it has not affected the country significantly since its epicenter was near Kermadec islands. However, a tsunami attacked New Zealand with a height of above 1 m.

#### T1 (December 21)

On December 23 a new quake (magnitude 5.8) occurred in New Zealand. International airport in Christchurch does not work; blackout left 15 000 people without electricity. People are evacuated from public buildings.

#### 4.4. Intensification of Volcanicity and Solar activity

It is known that volcanism and seismic activity accompany each other. As well, the former demonstrates the same synchronism with the surges of Solar activity and Foci as the latter [7, 26]. Moreover, in 2010, starting with Iceland, the volcanic activity has attained a perilous trend since the ejected ashes had started to exert global influence; the silicate ashes not only distributed over much greater territories thus influencing the weather, but had started to threaten the life itself (by injuring the respiratory tract) and flights (by quickly damaging the engines). Indeed:

##### ICELAND

T4 (March 20)

Eyjafjalla – the eruption of this Icelandic volcano has begun on **20 March 2010**, that is exactly at the Focus T4 – after a 200-year hibernation. After that, at the Focus TB it had exploded:

TB (April 7 – 11)

A new crater has opened and "exploded" with ashes that caused a transport collapse, unprecedented since the WWII: the flights were cancelled, but it was impossible to substitute the planes by buses and trains. More than 300 airports were blocked, 63 000 flights were cancelled (including those to the USA and China), the material losses for the air companies made **200 million Euro a day**. 7 million people were forced to abandon their flights, 10 million people tried to get trains. General losses of airlines makes **2 billion Euros**, not counting damage to passengers and cargo.

CHILE, June 4

In 2011 the situation repeated in Peru, and to a lesser degree in other regions (Africa, Indonesia, Sicilia): Puyehue – this Chilean volcano has started to erupt on **June 4, 2011**. At least **3,500 people were evacuated** from nearby areas, while the ash cloud was blown across cities all around the Southern hemisphere, including Buenos Aires, Montevideo, Stanley, Porto Alegre, Cape Town, Hobart, Perth, Adelaide, Sydney, Melbourne, Wellington and Auckland, forcing airlines to cancel hundreds of international and domestic flights and causing travel chaos: this eruption placed the cost of disruptions to airlines at A\$21 million for Qantas and \$11 million for Virgin Australia. The tourism industry was also impacted, costing A\$15 million during the two-week period, with CEO John Lee of lobbying group Tourism & Transport Forum stating a daily cost of at least A\$10 million as a result of complete closure of Sydney and Melbourne's main airports.

By 18 June the ash cloud had completed its first circle of the globe. An estimated **one hundred million tons of ash, sand and pumice were ejected** - requiring power equivalent to 70 atomic bombs.

The government of Neuquen province, Argentina, declared an economic emergency as the ash cloud was harming tourism and threatening livestock. The Argentine president announced on national television plans to supply \$2.41 billion dollars to 1,400 farmers and businesses in the area affected by the ash cloud. They also plan to spend \$7 million on the cleanup operation, and double social benefits, and defer tax payments for the hardest hit regions.

Meanwhile, at the beginning of eruption the seismologists promised that the eruption would stop in 2 – 3 days and would have no serious consequences. And that forecast probably was correct and had to take place. But nobody knew at that moment that in several days it would take place

**the Solar flare (June 8, 2011) - the most energetic in 5 years**

which would change the situation drastically:

**Mass Media (June 10):** South America is covered by the ash cloud. Airports and many roads are closed, many cities are blocked, food and fresh water are in short or absent; in many places population is evacuated, state of emergency. Threat of floods, mass mortality of fishes.

By ejection and distribution of the ash the Chilean volcano is considered as surpassing its Icelandic cousin: its tail has made several turns around the Earth.

## 4.5. Space aspects of seismicity

Conventional physics has no models which neither describe, nor rejects the connection between the Space objects and seismicity. As well, it provides no models for prediction of earthquakes. At the same time, there is quite a reliable statistics that give evidence in favour of existence of this connection; in particular, it states that many powerful quakes and volcano eruptions are preceded by energetic Space events. And Esotery supports the concept that the Space energies are capable to exert an influence sufficient for starting of seismic events; in particular, it states that electromagnetic and more subtle energies can break an unsteady balance that keep the [tectonic plates](#) thus causing them to move. This idea is also considered in the concept of "[Electric universe](#)".

Some of these correlations were described above. Consider some of them in more detail.

### 4.5.1. A powerful surge of Solar activity before the Earthquake in Japan

**L (March 8).** The Sunspot Number reaches the absolute maximum of the developing cycle ( $N = 100$ ) in the point of Double Local Maximum (See Fig. A2.3) when in 11 days the SSN has increased 12 times.

**F (March 7).** The Solar activity continues to grow: there are 12 flares of medium level and one flare of class M3.7 are registered.

**F (March 10)** the second Solar flare of X-class is registered during a month; although the second flare, X1.5, is less energetic than the former X-2.2 (February 15, 2011), its plasma "bullet" is directed exactly towards the Earth and therefore would inevitably invoke a geomagnetic storm.

**M** Geomagnetic storms:

March 9	<b>Strong Geomagnetic storm</b>
March 10	<b>Strong Geomagnetic storm</b>
March 11	<b>Minor Geomagnetic storm</b>
March 12	<b>Minor Geomagnetic storm</b>
March 13	<b>Moderate Geomagnetic storm</b>
March 14	<b>Minor Geomagnetic storm</b>

### 4.5.2. Powerful Gamma-ray bursts as predecessors of the largest Earthquakes

Collecting the below statistic (Table 4.1) was started when it was discovered that the ever registered quake with magnitude 9.3 (See para.2) in Indian Ocean was accompanied (December 27) by the most energetic of the ever registered [Gamma-ray burst](#) [18] being 100 times more powerful than any of the preceding ones (these bursts are associated with gravitational waves and most powerful and distant object in the Universe). It was as bright as the Full Moon (in invisible part of spectrum), paralyzed the form of ionosphere and blocked long-wave communications.

And although it was registered 44 hours later than the quake, it must be specially noted the following.

First, in a series of events (including those which occurred in 2011) associated with dropping of a comet to the Sun (e.g. Comet [C/2010 X1 \(Elenin\)](#)), the Solar flares took place slightly before the moment a comet collided the Sun.

Second, as it was said above, some bacteria react to the Solar events before (sometimes 1 – 2 days) the radiation or other information concerning such events reaches the Earth.

So, for testing the hypothesis re to a synchronism between the Gamma-ray bursts with either Earthquakes and comet HB's Foci correlate the dates of the most powerful bursts against those of the most powerful quakes which are presented in Table 4.1.

Table 4.1. In corpore, the data in this Table are taken from the article "[Earthquakes from the Space](#)", except of the event GRB 670702 (July 2, 1967) that occurred long before the appearing of the comet Hale-Bopp and column 3 which is added for the purpose of correlation

Gamma-ray burst		Focus	Earthquake	
1	2	3	4	5
Designation	Date	Date	Date	Location and magnitude
	day.month.year	day.month	day.month.year	
GRB 20100305A	05.03.2010	T 3 (03.03)	08.03.2010	Turkey, M 6; Hawaii, M 4.4
GRB 20100302A	02.03.2010	T 3 (03.03)	03.03.2010	Taiwan, M 6.4
GRB 20100219A	19.02.2010	T 3 (03.03)	27.02.2010	* Chile, M 8.8; Japan, M 7
GRB 100111A	11.01.2010	T 2 (03.01)	12.01.2010	* Haiti, M 6.8
GRB 080413A	13.04.2008	T B (7-11.04)	12.04.2008	China, M 7.9
GRB 080411A	11.04.2008			
GRB 990123	23.01.1999		24.01.1999	Columbia, M 5.9
GRB 970228	27.02.1997	T 3 (03.03)	27.02.1997	Great Britain, M 5.2
GRB 970508	08.05.1997		10.05.1997	Iran, M 7.3
GRB 080313	13.03.2008	T 8 (13.03)		
GRB 080320A	20.03.2008	T 4 (20.03)	20.03.2008	China, M 7.2
GRB 080912	12.09.2008	T 7 (16.09)	11.09.2008	USA (Washington), M 4.8
			10.09.2008	UAE, Iran, M 6.6
GRB 080916C	16.09.2008	T 7 (16.09)	16.09.2008	East Timor, M 6.1
			16.09.2008	India, M 4.7
GRB 041227	27.12.2004	T 1 (03.01)	26.12.2004	* Sumatra, M 9.3

Notes:

M – Magnitude

\* – The most powerful Earthquakes re to Sec.3

The Earthquake in Japan, which took place after publication of data presented in this Table, was also preceded by a series of Gamma-ray bursts GRB 110305A (10s), GRB 110301A (7s) and quite powerful GRB 110302A that lasted 1 minute.

The GRBs also took place before the quakes in New Zealand: two days before the first Earthquake (Sept. 4) it occurred a powerful GRB 100902A (210s), two weeks before the February quake – even more powerful GRB 110205A that lasted 5 minutes

As it is seen from this Table, the Gamma-ray bursts coincide with the comet HB's Foci with a mean orb of 3.6 days (without events on 8.5.97 and 23.01.99 which evidently out of an orb).

If we assume that the bursts are not correlated with the Foci, the probability of coincidence of these two types of events may be estimated as in (4.1). Paradoxically as it may seem, but with this assumption the probability of "randomness" of such coincidences for all Foci and Gamma-ray bursts (including the events on 8.5.97 and 23.01.99) with respect to model (4.2) makes insignificantly small value

$$P_{10}^B = C_{14}^{12} p_1^{12} (1 - p_1)^2 = \frac{14!}{12! 2!} (0.2)^{12} (0.8)^2 = 2 \times 10^{-7} \sim 10^{-7}. \quad (4.4)$$

A similar estimate gives the model (4.3). Therefore,

It could seem strikingly, but there is only one chance in 10 000 000 that the Gamma-ray bursts, major Earthquakes and Foci coincide by accident; this means that even if not all of these GRBs are extremely powerful, there is a close correlation between the former types of events, and not less astonishing - that the Foci also coincide with them, even if some Gamma-ray bursts were not taken into account in statistics presented in Table 4.1.

### 4.5.3. Sky lights as precursors of Earthquakes

A strange lights in the sky, several hours before an earthquake, were observed in many regions (Figs. 4.1, 4.2).

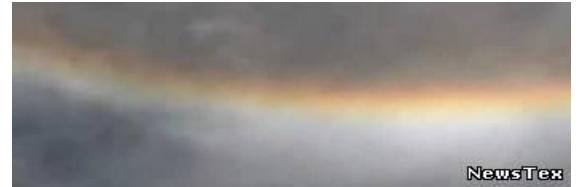


Fig. 4.1. These lights were observed in Chile, several hours before an Earthquake



Fig. 4.2. These lights were observed in China several hours before a powerful (M7.9) Earthquake in Sichuan on May 12, 2008, 450 km N-W from epicenter

This effect shows that the seismicity is also associated with the electromagnetic interactions. And although it may be attributed to manifestations of piezoelectricity engendered by extreme pressure applied to crystal rock structures, there are no complete physical theory that can explain and make use of such effects.

Indirectly this is acknowledged by behaviour of animals and people before the Earthquakes, even at large enough distance from epicenter, that may be explained by influence the electromagnetic waves exert on electric circuits in a brain. As well, this shows the way how seismicity may be influenced by Space objects. The electric origin of the most part of natural processes is also stated by Esotery [8, 11].

And namely these correlations present the essence of the bonds that tie seismicity, mass consciousness and Space, and why the distortions in mass consciousness cause the earthquakes and spoil the Space medium.

## PART 5. SEISMIC CATAclysms IN THE SECRET DOCTRINE AND AGNI YOGA

The basic concepts of Cosmogogenesis and Anthropogenesis, as they were transferred to her by Mahatmas by the end of the XIX century, were described by [Helen Blavatsky](#) in The Secret Doctrine [8]. In particular, they contain a description of the basic cycles defining the stages of evolution of humanity. And although the dates of the critical points of the most part of cycles were not announced, in her articles [9] she dropped some hints relative to the events that should take place in the XX century (See below).

After that, in the first part of the XX century Mahatmas had revealed more aspects of this Teaching that were described in the books of Agni Yoga [10] that were written by [Helena Roerich](#). Besides, a series of very important concepts and terms she described in her letters to colleagues [11] (below, they are referenced by dates), which she obtained from the same source; for this reason these letters present an invaluable source of esoteric knowledge as well, the more so since they contain the forecasts and terms for the current era. Unluckily, only part of these letters is translated in English and just for the period of 1929 – 1939; those letters that are written in the subsequent 15 years and contain exclusively important information are available in Russian.

So, The Secret Doctrine, or the Esoteric Teaching of Mahatmas provides us with a *system* of coordinated concepts which describe how the worlds and their humanities evolve. Of course, it is not a simple thing, but could it be otherwise?

Nevertheless, as far as these concepts reveal the background of the trends that we observe in the world, it is of great importance to take a closer look at them. At the same time, we understand that not each reader of this work has such an opportunity. Therefore, for first acquaintance we present some quotes from these works which may give a general idea relative to the concepts pertaining to the essence of this work.

### 5.1. General concepts relative to evolutionary cycles [8]

Pralaya – a word already explained – is not a term that applies only to every "Night of Brahma," or the world's dissolution following every Manvantara, equal to 71 Maha-yugas. It applies also to each "obscuration" as well, and even to every Cataclysm that puts an end, by Fire or by Water in turn, to each Root-Race. Pralaya is a term like that of "Manu" – the generic name for the Sistas, who, under the appellation of "King," are shown in the Puranas as preserved "with the seed of all things in an ark from the waters of that flood" (or the fires of a general volcanic conflagration, the commencement of which we already see for our Fifth-Race in the terrible earthquakes and eruptions of these late years, and especially in the present one) ... which in the season of a pralaya overspreads the world" (the Earth). (See Preface, p. lxxxi., to Wilson's "Vishnu Purana.") Time is only a form of "Vishnu" – truly, as Parasara says in that Purana. In the Hindu Yuga Kalpa, we have the regular descending series 4, 3, 2, with ciphers multiplied as occasion requires for esoteric purposes, but not, as Wilson and other Orientalists thought, for "sectarian embellishments." A Kalpa may be an age, a "Day" of Brahma, or a sidereal Kalpa, astronomical and earthly. Those calculations are found in all the Puranas, but some differ – as for instance, "the year of the seven Rishis, 3,030 mortal years, and the year of Dhruva, 9,090 in the Linga Purana," which are again esoteric, and which do represent actual (secret) chronology. As said in the Brahma Vaivarta: "Chronologers compute a Kalpa by the life of Brahma. Minor Kalpas, as Samvarta and the rest, are numerous." "Minor Kalpas" denote here every period of destruction, as was well understood by Wilson himself, who explains the latter as "those in which the Samvarta wind or other destructive agents operate" (Vishnu Purana, p. 54, vol. I.). [Vol. 2, 307]

The commentary tells us that the Third Race was only about the middle point of its development when: "The axle of the Wheel tilted. The Sun and Moon shone no longer over the heads of that portion of the SWEAT BORN; people knew snow, ice, and frost, and men, plants, and animals were dwarfed in their growth. Those that did not perish REMAINED AS HALF-GROWN BABES\* IN SIZE AND INTELLECT. This was the third pralaya of the races.

Which means again, that our globe is subject to seven periodical entire changes which go *pari passu* with the races. For the Secret Doctrine teaches that, during this Round, there must be seven terrestrial pralayas, three occasioned by the change in the inclination of the earth's axis. It is a law which acts at its appointed

time, and not at all blindly, as science may think, but in strict accordance and harmony with Karmic law. In Occultism this inexorable law is referred to as "the great ADJUSTER." Science confesses its ignorance of the cause producing climatic vicissitudes and such changes in the axial direction, which are always followed by these vicissitudes; nor does it seem so sure of the axial changes. And being unable to account for them, it is prepared rather to deny the axial phenomena altogether, than admit the intelligent Karmic hand and law which alone could reasonably explain such sudden changes and their results. It has tried to account for them by various more or less fantastic speculations; one of which would be the sudden, and as imaginary, collision of our earth with a comet (De Boucheporn's hypothesis), as the cause of all the geological revolutions. But we prefer holding to our esoteric explanation, since FOHAT is as good as any comet, having, in addition, universal intelligence to guide him.

Thus, since Vaivasvata Manu's Humanity appeared on this Earth, there have already been four such axial disturbances; when the old continents – save the first one – were sucked in by the oceans, other lands appeared, and huge mountain chains arose where there had been none before. The face of the Globe was completely changed each time; the survival of the fittest nations and races was secured through timely help; and the unfit ones – the failures – were disposed of by being swept off the earth. Such sorting and shifting does not happen between sunset and sunrise, as one may think, but requires several thousands of years before the new house is set in order.

The Sub-races are subject to the same cleansing process, as also the side-branchlets (the family-Races). Let one, well-acquainted with astronomy and mathematics, throw a retrospective glance into the twilight and shadows of the Past. Let him observe, take notes of what he knows of the history of peoples and nations, and collate their respective rises and falls with what is known of astronomical cycles – especially with the Sidereal year, equal to 25,868 of our solar years. If the observer is gifted with the faintest intuition, then will he find how the weal and woe of nations is intimately connected with the beginning and close of this sidereal cycle. True, the non-occultist has the disadvantage that he has no such far distant times to rely upon. He knows nothing, through exact Science, of what took place nearly 10,000 years ago; yet he may find consolation in the knowledge or – if he so prefers – speculation on the fate of every one of the modern nations he knows of – about 16,000 years hence. [Vol. 2, 329]

Thus lost continents are officially suspected. That worlds (also Races) are periodically destroyed by fire (volcanoes and earthquakes) and water, in turn, and renewed, is a doctrine as old as man. Manu, Hermes, the Chaldees, all antiquity believed in this. Twice already has the face of the globe been changed by fire, and twice by water, since man appeared on it. As land needs rest and renovation, new forces, and a change for its soil, so does water. Thence arises a periodical redistribution of land and water, change of climates, etc., all brought on by geological revolution, and ending in a final change in the axis. Astronomers may pooh-pooh the idea of a periodical change in the behaviour of the globe's axis, and smile at the conversation given in the Book of Enoch between Noah and his "grandfather" Enoch; the allegory is, nevertheless, a geological and an astronomical fact: there is a secular change in the inclination of the earth's axis, and its appointed time is recorded in one of the great Secret Cycles. As in many other questions, Science is gradually moving toward our way of thinking. [Vol. 2, 725]

The continents perish in turn by fire and water: either through earthquakes and volcanic eruptions, or by sinking and the great displacement of waters. Our continents have to perish owing to the former cataclysmal process. The incessant earthquakes of this and the past years may be a warning. [Vol. 2, 776]

"The connection," comments Lyell, "between the doctrine of successive catastrophes and repeated deteriorations in the moral character of the human race, is more intimate and natural than might at first be imagined. For, in a rude state of society, all great calamities are regarded by the people as judgments of God on the wickedness of man. ... In like manner in the account given to Solon by the Egyptian priests of the submersion of the island of Atlantis under the waters of the ocean, after repeated shocks of an earthquake, we find that the event happened when Jupiter had seen the moral depravity of the inhabitants."

True; but was it not owing to the fact that all esoteric truths were given out to the public by the Initiates of the temples under the guise of allegories? "Jupiter," is merely the personification of that immutable Cyclic Law, which arrests the downward tendency of each Root-Race, after attaining the zenith of its glory. [Vol. 2, 786]



For the Atlanteans were post diluvian to the Lemurians, and Lemuria was not submerged as Atlantis was, but was sunk under the waves, owing to earthquakes and subterranean fires, as Great Britain and Europe will be one day. It is the ignorance of our men of science, who will accept neither the tradition that several continents have already sunk, nor the periodical law which acts throughout the Manvantaric cycle – it is this ignorance that is the chief cause of all the confusion. [Vol. 2, 266]

As all such Cataclysms are periodical and cyclical, and as Manu Vaivasvata figures as a generic character, under various circumstances and events (vide infra: "The Seven Manus of Humanity"), there seems to be no serious objection to the supposition that the first "great flood" had an allegorical, as well as a cosmic meaning, and that it happened at the end of the Satya Yuga, the "age of Truth," when the Second Root Race, "The Manu with bones," made its primeval appearance as "the Sweat-Born."

The Second Flood – the so-called "universal" – which affected the Fourth Root Race (now conveniently regarded by theology as "the accursed race of giants," the CAINITES, and "the sons of Ham") is that flood which was first perceived by geology. If one carefully compares the accounts in the various legends of the Chaldees and other exoteric works of the nations, it will be found that all of them agree with the orthodox narratives given in the Brahmanical books. [Vol. 2, 145]

It is simply knowledge and mathematically correct computations which enable the WISE MEN OF THE EAST to foretell, for instance, that England is on the eve of such or another catastrophe; France, nearing such a point of her cycle, and Europe in general threatened with, or rather, on the eve of, a cataclysm, which her own cycle of racial Karma has led her to. [Vol. 1, 646]

## 5.2. Critical points of evolutionary cycles in the XX-th century

The time which humanity is now experiencing is one of transition from the evolution of the intellect to the evolution of spirituality. This period will be marked by the achievement of the predominance of the spirit over the intellect. This transition will be completed during the change of races. Thus, the sixth race is now taking its rightful place. As you know, each change of races is accompanied by cosmic cataclysms. Such purification is necessary for the development of the new race. These cosmic cataclysms will take place as a result of the shifting of the earth's axis. The scientists of today most emphatically point to this shifting, which has been happening for some time and may result in catastrophes.

Precisely, the sixth race must begin the New Era, and this preparatory period is very strenuous. But it would be wrong to think that the sixth race is being born in one particular country or nationality; it is spread widely. Certainly, there is always the main kernel of the sixth race, and in the time of catastrophe its members will be gathered into places of safety.

The great fiery purification is approaching. That is why it is so important to purify thoughts and heart and attempt to assimilate the fires of space.

At the time of the change of races, there always comes a Great Revelation, and, as usual, only those whose consciousness belongs to the next degree of development, i.e., to the new coming race, can assimilate it fully. The rest will benefit insofar as they are able. It is wrong, however, to think that the remaining races will be exterminated. The best will be saved, and some may even flourish. Only the refuse, those who are unable to proceed with evolution, will die out or will entirely degenerate; we can see examples of such degeneration among many primitive peoples. Thus, the aborigines of Australia are the degenerated descendants of sub-races who at one time belonged to the great third race; this race was superior to us in its achievements, for the Great Sons of Reason were incarnated in it. [June 7, 1934]

Christ, speaking of the end of the world and of the Day of Judgment, could not have had in mind the final completion of the evolution of our planet. For if that evolution were to follow its natural course of development, the planet would enter its seventh cycle and its humanity would enter the seventh race, with all its sub-races, so that at the crowning of such an evolution there could not be a Day of Judgment. For by that time humanity and the planet would have reached the condition of the higher worlds where there is no conscious opposition to good by any evil force.

But of course, Christ knew the difficult karma of humanity. He knew of the threatening danger, and therefore He had in mind the approaching removal of the race, which is always followed by tremendous cosmic cataclysms and is foreshadowed by the great sorting of the good seeds in advance of the final Judgment. Being an Initiate, He knew that this catastrophe could become the Last Day, owing to the terrible downfall of spirituality in the human race. Quite possibly, there may not be a sufficient amount of high counteracting, or rather, discharging energies to save the planet from the final gigantic explosion. To this explosion the Prince of the world is directing all his efforts, as he knows that in a purified atmosphere pierced by the new fiery energies the spheres of Earth will become unbearable for him, and his continued presence here made impossible. Therefore, he attempts to explode the planet in order, as it is said, "to float away on the wreck." Does not the Apostle Peter speak of the same removal of the race (Second Epistle 3:9-13)? Also, it is indicated in Revelations (21:1) and Isaiah (66:22).

In the Teaching, it is said that precisely the spirit of man can act as the exploder of the planet. It is mentioned also that the number of Those who are able to resist this is very small, and that They bear the whole burden of maintaining the planet's balance. A strong spirit can save a whole area from earthquake. Thus, in the ancient days, the Great Teachers sent their advanced disciples to places threatened by earthquakes. [August 23, 1934]

...I want to remind you about the absolute inevitability of the New Era. The fiery energies are in their greatest tension attracted toward Earth, and if not accepted, realized and assimilated they will cause terrific earthquakes and other cosmic perturbations, and also revolutions, wars and new epidemics. We are now at the very entrance of a New Era, a New Race, and therefore our time may be compared with the times of Atlantis, the existence of which becomes more and more evident to our science. [August 28, 1931]

Numerous cosmic energies are evoked from the Subtle World and act invisibly on our physical plane. Not to mention the unprecedented pressure of the electrophorous manifestation, radio waves, and other invisible rays which are not being used by humanity, each earthquake, each commotion, each explosion, and all the horrors of war bring the lowest strata of the Subtle World and the physical plane closer together. Wars and revolutions are the most dreadful, the most powerful evocations of the lower energies from the Subtle World. The lower entities are nourished by the emanations of blood and decomposition. One can well imagine what kind of entities fill the atmosphere around destructive actions. [November 23, 1937]

### 5.3. Armageddon

We are in 1887 and the nineteenth century is close to its death. **The twentieth century has strange developments in store for humanity, and may even be the last of its name.**

[9: "Esoteric Character Of The Gospels"]

*If Theosophy prevailing in the struggle, its all-embracing philosophy strikes deep root into the minds and hearts of men, if its doctrines of Reincarnation and Karma, in other words, of Hope and Responsibility, find a home in the lives of the new generations, then, indeed, will dawn the day of joy and gladness for all who now suffer and are outcast. For real Theosophy IS ALTRUISM, and we cannot repeat it too often. It is brotherly love, mutual help, unswerving devotion to Truth. If once men do but realize that in these alone can true happiness be found, and never in wealth, possessions, or any selfish gratification, then the dark clouds will roll away, and a new humanity will be born upon earth. **Then, the GOLDEN AGE will be there, indeed.***

**But if not, then the storm will burst, and our boasted western civilization and enlightenment will sink in such a sea of horror that its parallel History has never yet recorded.**

[9: "Our Cycle and the Next"]

... You know that the hour of the Great Battle has struck. Many prophecies and revelations have been given at various times in all Teachings. The Great Armageddon started at the end of the year 1931, opening with the Great Battle for which the Teacher was preparing us. We must understand the proportions of this Battle, which takes place on all planes or worlds. We must understand the rigor of our time and that the heavenly battle is followed by the earthly one. Therefore, let us not be surprised by the accumulation of events. "So much has been said about the Heavenly Host, about Michael, the Archstrategist, about the manifestation of an affirmed Leader, and all calamities. Therefore I say – caution!"

We already are not on the outer fringe of the battle but marching in the vanguard. Therefore, while carrying the Banner entrusted to us, let us hold close to the leading Hierarch. Remember this, for the enemy's projectiles are bursting only in the midst of the last ranks, as was shown to me in the wonderful vision of the victorious army led by the Leader. Let not your hearts tremble under the heavy aggression of the dark ones, as the nearness of the Great Heart will give you the necessary strength of resistance. Let us manifest intrepid kingliness of spirit. Let us inscribe a page of valiance, of a great deed, into the history of our lives! Let it not be said of us, "Verily, the Great Battle is hardly yet mentioned and someone already expresses weariness. What will such a one say when he sees the numerous host of the enemy?"

In this connection, I shall mention several prophecies regarding this Great Battle: "Every Yuga has its significant time, as a preparatory period, but there can be accelerations which must intensify unusually all forces. One must not understand the great decisive Battle as just a war. The manifestation of that Battle is far deeper. It will proceed along the entire Subtle and Earthly Worlds. It will express itself not only in battles, but also in unusual clashes of peoples. The boundaries between the belligerent ones will be as anfractuous as those between good and evil. Many decisive battles will be inaccessible to the earthly eye. The threatening clashes of the Subtle World will be manifested as catastrophes on the earthly path. Likewise will the earthly courage be reflected upon the Subtle and Fiery Worlds. The Great Battle will be the first link of connection of the worlds. Thus, one can expect swift actions along all directions. Cooperation has a tremendous significance in this Battle. The star of the Flaming Heart already brings great help. This help may not always be visible, but one can cite the example of a writer who exerts tremendous influence yet nevertheless does not know his readers. The same is true in the cooperation of the two worlds. One must be highly strained in the days of battle. Of course this does not exclude all other daily labor, and during each labor one must remember to dispatch it by thought for the benefit of Light. So with each hostile arrow, one must realize that this blow is accepted in the name of the Great Battle." [3: Heart]

"I would like the present time to be the turning point in your life. What was possible yesterday may not be possible tomorrow. Truly, courage unthinkable yesterday may be attained tomorrow. The battle on the Earth will be as terrible as it is in the Subtle Worlds. The world is broken into numerous factions. Only complete striving toward Us will save you. Of course, the least little sign of disorder and hostility among you will be painful for Me. Remember this! Thus, I confirm the development of Our actions in spite of the unprecedented attacks! But in this battle there is no reconciliation. We shall note disturbances in Europe, we shall witness many treacheries, but the Great Battle will solve the problems of the world. We also should realize that Light is invincible. The manifestation of darkness is a sign of ignorance. I repeat that tomorrow we shall awaken entirely different. In the Subtle World collisions are taking place along the line of the dead hearts. You will shortly see the results of these actions on Earth: everywhere there will be incoherence. The fall of countries, epidemics and poor harvests also will be manifested, and the world will split into new divisions."

Thus, all forces are at variance with each other. The situation of the world is terrible, and it is important to be firm until the new circumstances contribute their help. Everyone should be firm.

"Besides the fact that the dark forces are active in all countries and are influencing their allies in various classes, some of ours are weak because of their narrowness. It is absolutely necessary to maintain the position until we prepare the new circumstances. This present period is unavoidable, but one must accept it as a path toward the future. However, great care must be taken. . . ." [December 12, 1931]

The Battle of Armageddon cannot be a straight victorious march because Great Forces are involved in it on both sides. The victory of the Forces of Light, however, is evident, as they are allied with the Cosmic Magnet. The latter attracts the greatest powers, against which the dark ones cannot hold out. The element

of pure Fire burns them. But we must have patience. The battle is started by the dark ones because in their fury they are trying to destroy as much as they can before their days are over. From them, and from their best collaborators – the tepid and neutral ones – come all the terrors of revolutions, all the violence. They try through general spiritual impoverishment to create confusion and complete disorder. The heavy currents of Saturn and of other unfavorable combinations of the planets are especially helpful to them. At the moment, all the Forces of Light are focused on the bridling of the elements disturbed by the dark forces. Nobody can imagine how much divine energy is now being spent on just controlling the underground fire! The dark ones try in every possible way to kill what is light and pure. That is why unification is so necessary. As it is said, "Notice the inexplicable attacks, which depress the whole planet. It is not accidental that the constant Rays are sent for defense. Serious dangers already have been avoided." [December 29, 1932]

And now, about your significant dream. No doubt this dream comes from a High Source. Our planet is going through a most dangerous time, indeed the most critical period. If humanity refuses to be spiritually resurrected before the approach of the fiery cosmic energies, the cataclysms which always accompany a change of race may result in the total explosion and destruction of our Earth. But before this final catastrophe of our planet happens, many children will have time to grow old. Undoubtedly, partial cataclysms will occur during the next coming decades. Therefore, the Lords of Light more than ever call humanity to the spiritual awakening, to the realization of the gravity of the approaching fiery reconstruction. All people of pure, unprejudiced consciousness shall be saved and led away into safe places, just as in the last days of Atlantis. Of course, each reconstruction of the world brings great possibilities as well, and although our time is threatening, it nevertheless can be beautiful and constructive. One should try most intensely to help lay the foundation for the coming luminous constructive age that is so near – in fact much nearer than many think, surrounded as they are with destruction and decay. [December 6, 1934]

What is Armageddon? Armageddon is the great decisive Battle between the Forces of Light and darkness. It was predicted in all the ancient scriptures, and the name "Armageddon, as well as the description of it, can be found in the Apocalypse. The year 1936 is indicated as most significant. It is interesting to note that these calculations are also found in the pyramid of Cheops. Thus, today, we find ourselves in the midst of this Battle, which will increase. This Battle is still more fearful in the Subtle World, but eventually its reflections will be intensified on the earthly plane. Great is the tension of space, and the tensed fiery energies are surging in the subterranean and superterranean spheres, threatening an explosion. Verily, the planet is in convulsions. The time is most ominous. Verily, we are facing an incredible world catastrophe. As it is said, "The hostile elements of the race refuse to submit to destiny. The departing race seeks to destroy the chosen successors, but We must save them. Destiny may be eased and the battle ended sooner." So far, there are no signs of easement. But the ark of the sixth race is already being built. Let us trust that it will be larger than that of Noah.

Yes, the New Epoch requires spiritual cognition. The New Epoch must manifest due respect to the Mother of the World, to the Feminine Element. "The bird of the spirit of Humanity cannot fly with only one wing" – these are words of Vivekananda, who meant to affirm the great significance of the Feminine Principle. Man does not willingly give full rights to woman. However, this opposition but intensifies the forces; and woman, fighting for her cosmic rights, will acquire the knowledge of her power. [Oct. 10, 1934]

And now, regarding Armageddon, you are quite right – Armageddon is symbolic of the last decisive battle between Light and darkness. But it should not be thought that this battle can soon be over. It will continue for a number of years, but the fury of it will differ in various parts of the planet. Where the human spirit awakens more quickly for the leadership of the spirit, there the great construction will begin. With each year the influence of the forces of Light will increase, but it is essential that the human spirit be able to accept the gifts that are sent. The greatest possibilities are knocking at humanity's door, but the choice is always free. Verily, the coming time will be the greatest test for all humanity.

The word Armageddon is the Greek equivalent of the Hebrew har megiddon (the mountain district of Megiddo). In the Hebrew writings, the final great battle between the Forces of Light and darkness was indicated by this name, and was foretold by all the ancient prophecies in the scriptures of all peoples as

the "Great Day of God's Judgment." Much is said about it in the Apocalypse, and in the same book (chap. 16, vs. 16), this name is mentioned. Moreover, the dates of this battle and of the beginning of the New Epoch, or Cycle, can also be found in the most precise calculations of both the Egyptians and the Hindus.

The name of this battle is symbolic in memory of a terrible and actual battle which took place in Megiddo (an ancient city in Palestine), not far from which the Canaanites under the leadership of Sisera were entirely destroyed. This dreadful total destruction remained for a long time a terrible memory for the nations that witnessed it. According to all the Scriptures, the dates are now coming for the final destruction of the army of Gog upon the mountains of Israel. And Israel does not necessarily mean the Jews, it signifies precisely "the chosen." In a similar way, the mountains of Israel must be understood as other mountains, just as the New Jerusalem does not necessarily mean Jerusalem in Palestine. The sacred language always uses symbols. There is the Heavenly Jerusalem – the Abode of the Hierarchy of Light – and the earthly Jerusalem, which should be understood as that place which, throughout all the Earthly cataclysms, remained intact and inviolate. [March 30, 1936]

However, now is the time of the grave and decisive Armageddon, and therefore all research and all scientific tasks are temporarily stopped; and all the Forces of Light are directed to repulsing on both planes the ceaseless attacks and terrible craftiness of the Black Brotherhood. Thus, on the Watchtower neither sleep nor rest is known. Who of the Earth-dwellers is able to imagine this condition of supreme tension? In addition, many Brothers spend most of their time in the Subtle World, for precisely there the Teraphim of victory are created. And so, in the Subtle World there now resounds the call and the victorious song of the Warriors of Shambhala. For thousands of years the great Stronghold of Light has prepared for this battle with the forces of darkness. The predicted Armageddon is dreadful; all the subterranean monsters take part in it, and the Forces of all planes are drawn into it. Does not the madness that is now taking place indicate the unprecedented times! Who ponders upon the menace to our planet? Do many know that the main concern of the Stronghold of Light is to save our planet from premature explosion? Indeed, the most awful outbreaks of subterranean fire threaten our planet. In many places on the ocean beds the earthly crust is very much eroded, but who thinks about these threatening signs?

No Earth-dweller could withstand that intensive labor which is now taking place in the Stronghold of Light. That is why humanity is so criminal when, in its madness, it commits blasphemy against its Saviors. They call to Christ while every moment betraying his Covenants and vilifying the Hierarchy of Light to which He belongs. But the disparagement of the smallest member in the Chain of this Hierarchy cannot find justification in Christ's eyes. "Many will say to me in that day, Lord, Lord, have we not prophesied in thy name? and in thy name have cast out devils? and in thy name done many wonderful works? And then will I profess unto them, I never knew you: depart from me, ye that work iniquity." (St.. Matthew 7:22,23) Thus can one hope for happiness and for justification when saying, "the General Good is just empty words:?" Such a man will be left empty, for, verily, emptiness is in his heart and head. Christ and the General Good are synonymous. [January 17, 1936]

The year is passing; a most difficult year, which was indicated long ago as the year of the beginning of the battle between the Archangel Michael and the Dragon. The threatening Armageddon takes place on both planes – visible and invisible. The forces of darkness are fiercely attacking all the undertakings of Light, but we solemnly accept this battle, because we know for whom and for what we are fighting. And many illnesses are connected with the unheard of tension on both planes. [May 24, 1936]

#### 5.4. Mahatmas

You also know that, during partial Pralayas, or renovations of the planet or solar system, the Highest Beings (Jacob's Ladder), who collectively represent Cosmic Reason and the Creative Element, stand on guard and plan the future cycle of life of the solar system or planet. Later They themselves become the chief executors of these plans. How else could all the legends about the pantheon of Gods, or Avatars and Man-Gods be explained? Indeed, the Hierarchic Principle is the cosmic law, the leading principle. Therefore, there is a Highest Spiritual Being, or Hierarch who takes upon himself responsibility for the whole cycle or a certain Manvantara. In human conception such a Greatest Spirit is merged with the Image of a personal God or even Universal God. [July 2, 1937]

The Great Advent predicted by all the ancient scriptures means the ending of Armageddon and the arrival of the epoch of the regeneration of the spirit, which is linked with the formation of the sixth race.

Of course, none of the Great Lords will appear in a physical body. But the spiritual power of the Three Lords will be manifested on the earthly plane at the crucial hour. Remember, it is said that the Son of Man will appear in thunder and lightning and in a trice. [October 18, 1934]

Not a single Great Teacher of Humanity has left our solar system. Moreover, They have not even left the spheres which surround our planet. On the contrary, They are now nearer to us than ever, as the fury of Armageddon requires the tension of all the Forces of the Hierarchy of Light. But even if there were no Armageddon, all these Highest Spirits would continue their perfecting on other higher spheres and planets still within the boundaries of our solar system. Earth is not the highest planet in our solar system. The High Spirits come to our planet from a higher planet for the acceleration of the evolution of our humanity. But since their planet has not as yet completed the entire cycle of its evolution, They will remain there when the cycle will be in conformity with their spiritual state. [April 20, 1935]

And now regarding your questions: One must bear in mind that during the whole expanse of their lives all the Great Teachers, and Mahatmas, or the White Brothers, were Bodhisattvas. Maha-Chohan, or Great Lord, is the title of the Lord of Shambhala. The duties connected with this appointment are undertaken alternately by the White Brothers, according to their individual tasks. The Seven Chohans correspond to the Seven Kumaras of The Secret Doctrine, but esoterically there are eight of them. All these Seven Kumaras were the Lords of Fire, who endowed humanity with Mind.

As for the brothers of darkness, these are certainly encountered within humanity itself. They are very numerous, and no wonder, for their path is the path of gratification of the base passions. The percentage of true workers of Light is very small; likewise, the percentage of “fireflies” is not large, the more so in that their ignorance and lukewarmness, or non-resistance to evil, work for the benefit of the brothers of darkness. It is difficult to imagine how skillful are the spirits of high degree among the brothers of darkness who consciously work for disunity. It is said that they love to use those who approach the Teaching of Light and who attach themselves to communities established for the Common Good, yet are not firm in devotion and convictions. Playing upon their waverings and by instilling doubt, they are able to bring on confusion and deterioration. That is why caution is advised with the new untested souls when they approach the Teaching. The brothers of darkness are very fond of brilliant intellects developed at the expense of heart, for through them they can act most subtly. Indeed, only the crudest spirits attack and make use of low consciousnesses. “If humans are threatened by devils, the Archangel is accosted by Satan himself! If small devils bother brothers – Satan himself besets hermits.” And as it is said in the first volume of *Leaves of Morya’s Garden*: “I know thee who scratches at the door. Thou hopest upon the shoulders of a guest to enter My House. I know thee. Thou hast become subtle and resourceful, even more resourceful than many of Mine. Thou has fastened thy clasps and prepared thy garments. Thou hast even *studied all My expressions*. I hear thee pronounce even JOY. But here I shall stop thee. Thou dost not dare pronounce the joy of Love. Thy joy is the joy of hatred. But behind hatred is hovering the loathsome shadow of doubt. And doubt is not worthy of a shield. I will receive thy arrows in My Shield. But if thou wilt persist. I will send thee with a smile – but one.” Thus, let us protect ourselves from all those who waver.

You ask when the brothers of darkness came into existence. Strictly speaking, they came at the same time as the Brothers of Light, from the moment that there appeared a spark of intelligence and of conscious, that is, free, will in man. With the first glimpse of discrimination comes the first concept of good and evil, and the already conscious will directs man hither or thither. But an entirely organized camp of the brothers of darkness began to function in Atlantis, during the Fourth Race. Their great battle with the Sons of Wisdom, or Light, ended in victory for the latter and in the destruction of Atlantis.

At the head of the Sons of Light stands the Archangel Michael. His adversary in the camp of darkness is Satan (who still bears the name, Lucifer, although he lost the right to this name long ago); at one time he was amongst the great Kumaras, who bestowed the light of Mind upon the poor Earth-dwellers, who lacked it. In connection with this, read the legend about Lucifer in *On Eastern Cross-*

roads.\*\* This legend is based on a great Truth. Thus, the Prince of the World is now fighting for his very existence. The predicted great Armageddon of our race is in full swing. And again the Archangel Michael, with his resplendent host, is fighting against Lucifer. Of course, victory is always with the forces of Light, but dreadful cataclysms are unavoidable. That is why the strongholds of Light are so essential—during the approaching threatening time they can give shelter to all the Forces of Light. Although the decisive moment is behind you there is still time for many children to grow old. Thus the destiny of the world is in the hands of humanity. The planet can be saved only if there is a resurrection of the spirit, only if the consciousness is liberated from the phantoms of the past and directed toward the construction of the New World on the basis of a new understanding of cooperation and knowledge. As I have already written on these themes, I will quote from one of my letters, it might be helpful to you:

Every great Teacher, speaking of the end of the world, could not have had in mind the final completion of the evolution of our planet. For if evolution were to follow its natural course of development, the planet would enter its seventh and last cycle and its humanity would enter the Seventh Race, with all its sub-races, so that at the crowning of such an evolution there could not be a Day of Judgment. For by that time humanity and the planet would have reached the condition of the higher worlds where there is no imperfection or conscious opposition to good by any evil force.

But of course, the Great Teachers knew the difficult karma of humanity and the planet. They knew of the threatening danger, and therefore They had in mind the approaching removal of the race, which is always followed by tremendous cosmic cataclysms and is foreshadowed by the great sorting in advance of the final Judgment. Being Initiates, They knew that this catastrophe could become the Last Day, owing to the terrible downfall of spirituality in the human race. Quite possibly, there may not be a sufficient amount of high counteracting, or rather, discharging energies to save the planet from the final gigantic explosion. To this explosion the Prince of the World is directing all his efforts, since he knows that in a purified atmosphere pierced by the new fiery rays, or energies, the spheres of Earth will become unbearable for him, and his continued presence here made impossible. Therefore, he strives for an explosion in order to float away on the wreck.

Remember, in the Teaching it is said that precisely the spirit of man can become the exploder of the planet. It is mentioned also that the number of dischargers is very small, and that They bear the whole burden of maintaining the planet's balance. A strong spirit can save a whole area from earthquake. Thus, in the ancient days, the Great Teachers sent their advanced disciples to places threatened by earthquakes.

Many people think that the dark ones act only through evil, corruption and crime. How wrong they are! Only crude and relatively insignificant forces act in this way. Much more dangerous are those who masquerade under the Light of the Teaching.

Ignorance and lack of intuition push many into the arms of darkness, and deprive them for a long time, if not forever, of the salutary influence and attraction of the rays of the great Stronghold of Light. Dreadful is Armageddon – the dark forces are struggling for their very existence. Despair unites them and makes them so persistent in trying to achieve their aim. The Prince of the World has very many talented collaborators – some conscious, some unconscious – and it is foolish to think that they do not know the ways of the most cunning subtlety. There are very shrewd and inventive, and they act according to the level of their victims. But all of them lack tolerance and warmth of heart. Thus intertwined is darkness with Light on our Earth.

The snare of darkness is woven by skillful hands.

Many terrifying things are now practiced in the world. A great deal of the most disgusting sorcery is spread all over Earth. Of course the biggest centers of population are usually chosen by the main dark forces and are used as their centers. And their best weapon is the ignorant masses. That is why the unity of all the white and near-white forces is so essential! But the latter so easily become greyish and fill the ranks of those of whom it is said in the Apocalypse, “because thou art lukewarm, and neither cold nor hot, I will spue thee out of my mouth.” Only the power of devotion and the striving to serve the Great Hierarchy of Light can save from the widely spread snares of the Prince of the World.

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\*\* Josephine Saint-Hilaire, *On Eastern Crossroads, Legends and Prophecies of Asia*, (New York, Frederick A. Stokes company, 1930).

Yes, the wave of evil is inundating Earth, and all the efforts of the self-denying workers of Light are needed in order to save the sinking vessel of humanity! That is why it is so extremely important to send out the sparks of Light, but at the same time to watch lest he who receives a spark, by lending it to one who does not merit it, set fire to the whole structure. The human soul is bottomless! And the most dreadful scourge of the soul is ambition; verily, there is not a worse foe, nor a more common one. If this viper is not checked immediately, it assumes the size of a boa constrictor. Ambition is a burning scourge for the stoutest hearts, and a terrible torture, which man cruelly prepares for himself. [July 16, 1935]

The great incarnations of the seven Kumaras, or the Sons of Reason – Sons of Light – were to be found in ancient times among the initiates of all countries and peoples, and later among the greatest minds of more recent epochs. Throughout the entire evolution of our planet, we owe to these greatest Spirits the progress of our consciousness. They incarnated in all races and nations on the threshold of a new shifting of consciousness and at each new turn in history. Verily, the greatest Images of antiquity are connected with these Sons of Light. The fall of Lucifer began from the time of Atlantis. Later he could be recognized in Ravana, the adversary of Rama, the hero of the epic poem, the Mahabharata. The Great Spirits tirelessly undertook the most difficult tasks of life, but few of their contemporaries understood even partially the grandeur and self-renunciation of these true Men-Gods. Hardly anyone can comprehend the entire significance of Their creativeness on the earthly plane and in the supermundane worlds. Many beautiful mysteries exist in the Cosmos, and when the spirit contacts them, the heart is filled with exaltation and with infinite gratitude to these spirits, the creators of our consciousness. During endless thousands of years, in self-sacrificing service for the good of humanity, They renounced the highest joys of the Fiery World and with bloody sweat stood on guard, accepting the wreaths of thorns and draining the cups of poison tendered by the hands of humanity, whose benefactors They were. When the veil is removed from the mystery, many hearts will tremble because of the crimes committed against these Saviors. [November 18, 1935]

One may only regret that apparently the persons you have mentioned are familiar neither with the Eastern philosophical systems and teachings nor with *The Secret Doctrine* by H. P. Blavatsky. Therefore, they do not know who are the Kumaras, Sons of Light, Mind-born Sons, etc., mentioned there. And even if they have read *The Secret Doctrine*, they do not know how to make the next turn of the key. There is one chain of the Hierarchy of Light, which continues into Infinity, and all the true Carriers of Light who appear and who are still on our Earth are links of it. Certainly, the Sons of Light, who came from the higher worlds (Venus and Jupiter) to our planet at the end of the Third Race of our Round for the hastening of the evolution of humanity, are the Greatest Spirits, who are at the head of the Hierarchy of Light that is the nearest and most accessible to us, owing to karma. They are the progenitors of our consciousness; to them, we owe our mental development. And, of course, They belong to the Chain of the Builders of the Cosmos. Each such Builder must pass through human evolution in order that later He may rise as the head of this or that planet. But as evolution is infinite, all these builders, after completing one cycle of evolution, commence another and are born again, but on higher worlds. Ponder more deeply upon the concept of Infinity.

And regarding the statement of the person you mentioned, it would be interesting, first of all, to find out what he meant by saying that the Himalayan Mahatmas are born of Earth. For, strictly speaking, we can consider only the Prince of this world and all the Earth-dwellers who correspond to his ray as the Spirit and spirits born of Earth; for each seed of the spirit is conceived under a certain luminary, which, during a whole Manvantara, remains its leading star. Thus, the Prince of this world belongs to Earth, and owing to his previous achievements on another planet and because of a cosmic right he is the Host of Earth. Naturally, nearest to him are those spirits who are also born under the ray corresponding to his. But there are many spirits on our Earth who are already subject to higher vibrations because of their essence, or who possess the potentiality of the energies of other worlds that comprise our solar system, even those as distant as Uranus and Neptune. Moreover, let us bear in mind that the life of all the kingdoms of nature was transferred to our planet from the Moon. That is why in *The Secret Doctrine* the dual ancestors of humanity are pointed out – the Lunar and the Solar. The Lunar ancestors became in reality present humanity itself, or, rather, the majority of it, whereas the Solar ancestors are those Sons of Light who undertook the self-sacrificing work of creativeness for the benefit of the whole cosmos. They came to our plan-



et from the higher worlds, as has already been said, at the end of the Third Race of our Round. Since that time, They have continuously incarnated on the threshold of all Races and all great events, so that each time They could give a new impulse to the consciousness of humanity. Verily, Their lives are paved with self-sacrificing, heroic achievements. Verily, They have drained many chalices of poison. Thus, in the time of Atlantis they were the Founders of the Great Brotherhood on the Sacred Island. So also they are the Guardians of the Trans-Himalayan Stronghold during our Race.

Certainly the Mahatmas of the Himalayas are unable to contact the auras of Earth-dwellers for long. They cannot even remain in the atmosphere of the valleys, owing to the lack of correspondence in vibrations. Therefore a prolonged contact is mutually harmful; and in the case of Earth-dwellers it can be even dangerous. Thus, in the times of H. P. B. the Mahatma K. H., who contacted the aura of the valleys longer than the other Mahatmas, was recalled by his Hierarch into the Stronghold for recuperation. Likewise, we know that another Mahatma, when coming to see Blavatsky in the mountains of Sikkim, had to inhale a special preparation of ozone almost continuously. We also know that neither Buddha nor Christ were able to remain for long in the cities and amidst people and often had to retire into the desert.

The Himalayan Mahatmas live in complete solitude and admit into their Stronghold one or, at the most, two candidates in a century. Of course, there are exceptions. But They send their disciples and younger brothers to incarnate on Earth with a special mission; and from their very infancy They direct and watch over them. The occult bond established during many thousands of years makes the spiritual contact easy; and the accelerated opening of the centers and their fiery transmutation, which provides the fiery conduit for clairaudience and clairvoyance, becomes possible. But even with such readiness of spirit, the brother-disciple must manifest an absolute unwavering striving and great intensity in following the Leading Hand. Many tests must he endure, even on the last step. And the difficulties pile up and at times seem to be insurmountable. Even so, Judases are inevitable on the path in order that the path of Light may be inculcated more vividly. And the symbol of the draining of the chalice of poison remains inseparable from the Path of Service to humanity.

Sometimes the Mahatmas call their disciples into one of their Ashrams for a certain period: here They prepare their organisms for the sacred assimilation of subtle energies and give them instructions. So it was with H. P. B., who spent three years in Their Ashram before giving the world *The Secret Doctrine*. But you are quite right in saying that we ought not to be preoccupied with questions about which hierarchic degrees the Himalayan Brothers occupy in the chain of Infinity. We must work with the Great Teacher who called us, realizing that the degree of evolution of his Spirit is, for the present, inaccessible to us; and may God help us to be able to approach Him at the end of our planetary Manvantara.

And now, in a book of the Teaching there is a paragraph which might be applied to many earthly teachers. Here it is: "The Teacher who has not overcome intolerance cannot mold the future. The Teaching is given for the future. The spirit cannot advance without forging perfectment. Thus, it is possible to command the attention of listeners, but it is far more necessary to arouse a movement forward. The Teacher does not forbid reading different books. Everyone who fears puts limitations on himself, but the leader summons to a broad cognition. He will not restrain one from good in all its aspects. This liberality of spirit is indispensable. He who does not even wish to listen is already afraid of something. Thus, the fiery condition requires broad gates and the speediest of wings."\*

You are also right that expecting an evident sign from the Teacher to give us an impulse for intensified work would be considered as temptation and indicates weakness of striving. Thus, in the book *Agni Yoga* there is a beautiful paragraph: "To Him of the great Illumination there came a pupil seeking a miracle: 'After the miracle I shall have faith.' The Teacher sadly smiled and revealed to him a great miracle. 'Now,' exclaimed the pupil, 'I am ready to pass through the steps of the Teaching under your guidance.' But the Teacher, pointing to the door, said: 'Go, I no longer need you!'"

Verily, blessed are those who believe without having to see, for this proves that their spirit has brought this faith from previous lives, and the chalice of their achievements approaches its final accumulation. [December 7, 1935]

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\* *Fiery World III*

### 5.5. Lucifer

In all the remote legends, the description of the creation of our Earth concerns, of course, only the Fourth Round, following the pralaya, or obscuration which began after the Third Round. Of the first two races of this Round, we have a most limited knowledge, and as yet it has not been revealed by the Great Teachers, because it is difficult for our consciousness to comprehend that condition which has no present equivalent on Earth. But in the Fourth Round, man appeared earlier than the animals. The prayer of Christ, which still remains unheeded, was the prayer of the heart for the welfare of all humanity. Each Great Spirit directs evolution strictly in accordance with the laws of the Cosmic Magnet or with the law of evolution. And therefore the will of such a spirit is so powerful, because it is identical with the Will of the cosmos.

The fall of Lucifer actually came about as the result of his raising against the law of evolution or the Will of cosmos. Reread the legend about Lucifer in *On Eastern Crossroads* – it is the truth.

Thus at the time when the Great Brothers of Lucifer, who came with him to our Earth, are building an eternal movement; at that time when They say, "Why have one Earth when all worlds are destined," and thus create the right path for humanity so that through a broad cooperation with the far-off worlds a true exchange shall be established. Lucifer prefers to fence himself off from the neighbors. But in the unity of Be-ness, in the law of interchange, any separateness results only in dissolution or death. However, Lucifer could only impede, not interrupt the current of life. Precisely His rebellion and the carrying out of His plan for the self-sufficiency of earthly matter brought forth a corrective from the body of the White Brotherhood, an organization unknown to other planets, because of its obligatory battle-readiness. As it is said, "The battle of desperation transformed the Bearer of Light; and the ruby aura became infused with the blood-red glow. His followers truly began to apply depraved means," which only delay the dates but do not exhaust the destiny. Therefore the armor and the swords of the Brotherhood could have been gladly reforged into the parts of the laboratory apparatuses much sooner, and the Ladder of Light, which is the link between Heaven and Earth, could have been set much closer. "How vivid the recollection that the last Great Teacher suffered an outrageous death for what would seem to have been already long since known to humanity!"

You may ask how this psychology of isolation was created. But in each big feudal lord you can see an identical example.

Lucifer is the Prince of this world(Earth) in the fullest meaning of the word. His spirit potentially possess all the same energies that belong to Earth.

In normal conditions, the Host of Earth would exalt matter by filling its particles with the idea of unity. The Spirit of the Lord of the planet goes through the human form as the first teacher of the mastery over matter, and therefore he becomes an expert in the properties of this matter. With a worthy attitude, he would be a valuable friend of all new formations; there would be no antagonistic actions, only a search for mutually beneficial ones. But the Host of Earth doesn't think so; he does not care for the friendship of spirit. You can well imagine how the Host of Earth knows all Earth's labyrinths! And a too great enlightenment interferes with his plans! His servants are not adverse to learning something useful for themselves; they even have their own gatherings where they discuss how to use the new discoveries to harm the growth of spirituality. But his difficulty is that the movements of spirit are very fast, and the reservoir of the Source of the White Brotherhood is great. Still, one cannot deny his inventiveness, and especially now when the dates have arrived. Now you realize how serious and threatening is the raging Armageddon – the battle of the Forces of Light with the hordes of Darkness! [January 18, 1936]

And now about the Prince of the World. Certainly the battle with the Forces of Light fills him with despair. He knows that he is unable to win and therefore he prefers to explode the planet so that he may remain for some time yet in the atmosphere of the explosion. Near the fragments (of course, not the physical ones) of an exploded planet, its atmosphere is preserved for a lengthy period, which would enable the Prince of the World to remain in it. In fact, the higher layers of space are not accessible to him, and therefore he has either to float amidst the fragments and their surrounding atmosphere or go to Saturn. But the

conditions on Saturn are very oppressive, and how many aeons would have to pass before our planet would again reach a state that would be favorable for the development of fully conscious life!

You write that you "understand the uselessness of the struggle against the Divine Principle of Good," and that you are amazed that such a great spirit as the Prince of the World could oppose the immutable law. Yet even four-fifths of the two billion human beings do not understand this. Besides, what an incredible power of spirit must be possessed in order to be able to admit one's error and begin a new path overburdened by aeons of terrible karma.

We know about the limitlessness of self-perfectment, therefore the spirit who has fallen to the level of the Prince of Darkness could hardly have had all the needed qualifications for perfection. When a spirit attains the realization of the potentiality of his limitless power and immutability, when he masters many cosmic mysteries and forces and knows that he can become a creator of this or that world, when he realizes the ignorance of the masses that surround him, then, indeed, a tremendous power of the heart is required to resist many temptations, and, first of all – pride of spirit. One should always remember that not a single human feeling disappears; on the contrary, all feelings grow without end, and must therefore be transmuted into higher perceptions of good or they may become more refined in evil.

Why is it so difficult to recognize that the Prince of the World, being the Host of our Earth by cosmic right, could not overcome a feeling of pride and jealousy toward other Spirits of Light? According to the esoteric data, at the time when the Great Brothers of Lucifer, the archangels of the Christian Church who came with him to our Earth, built the eternal movement; at the time when They said, Why be limited to Earth alone when all worlds are destined, thus creating the right path for humanity and establishing a real exchange through broad cooperation with the far-off worlds; Lucifer preferred to segregate himself from his neighbors. But in the unity of Be-ness, through the law of interchange, any kind of isolation leads to disintegration or death. Therefore, Lucifer was able only to complicate the flow of life, but he could not stop it. His Brothers, who are perpetually on Guard and who are at the top of Jacob's Ladder, are the true Saviors of mankind...

And so, let us not create a poetic image of the Prince of the World. Perhaps after aeons and aeons his redemption will begin, but at present he has reached the apogee of hatred for humanity, and is about ready to display the apotheosis of his reign of destruction...

The manifested world is based upon the bipolarity of all that exists and therefore it is but natural that limited human thought, in searching for the reasons for the existence of opposites and in picturing the Divine Origin only in its positive aspect, inevitably had to come to the conclusion that two elements exist, perpetually fighting against each other – God and Devil. And so, the Planetary Spirit, the Prince of the World, became the personification of all evil, of all the imperfection which exists in nature.

But the lofty thought of the East long ago solved the problem of the existence of evil. The One Element, the One Divine Principle, or the Absolute, which contains the potentiality of all Being, therefore all the opposites as well, also bears in Itself the eternal process of unfoldment, or perfectment. Upon this process or motion are based all manifestations and the entire evolution. Motion, or evolution creates the relativity of all concepts, out of which arise the opposites. Only through perpetual change and comparison of pairs of opposites can reality be comprehended. [November 27, 1937]

### 5.6. Psychism and new epidemics

I am so happy if my letter brought you the necessary explanations, as it is most important to have a clear understanding of what is meant by the path of discipleship and the path of Service. Without a realization of the difficulties and of the austere beauty of service, without the firm decision to choose precisely this path of achievement and self-denial, we may be drawn into the horrible snares of psychism, mediumism and black magic. I say horrible because, if once caught, an incredible effort of will power will have to be used in order to rid oneself of it. And how many possess such a will power? Therefore, avoid all mechanical exercises, which develop the projection of the subtle body and the acquiring of low forms of psychism.

In the Teaching a preparatory stage is indicated, wherein the organism is gradually prepared for the reception of the higher influences – but all mechanical exercises are forbidden. The quick results achieved by you, when the "methods of projecting into the astral" were applied, only prove that you are psychically and mediumistically inclined. Therefore, you should be especially careful. As I have to write very often on this subject I shall quote some extracts from my letters to other correspondents, thus saving time:

"You ask me how to perfect yourself psychically? There is only one answer: by applying the Teaching in your life – the rest will come in due time. First of all, the complete purification of your consciousness is necessary, with eradication of the slightest sign of irritability. The latter is most dangerous during the process of psychic development. High achievements are practically impossible for the organism polluted by imperil. It is clearly stated in the Teaching that *it is impossible to acquire the psychic technique without a Teacher*, as this technique is connected with dangerous processes. Therefore, we can only patiently prepare our organism, applying all the indications to daily life. The Teacher knows when it is possible to develop the hidden power.

"Believe me, the Teacher will not lose a single moment if He sees the disciple is ready to accept the first steps or the next degree corresponding to his spiritual development. There are many degrees of psychism, and the Great Teachers are extremely concerned about the increased manifestations of lower forms of it. As for the ignorant, dishonest or undeveloped consciousness, it often ends with mediumship and obsession. Therefore, the Teachers are so against all artificial exercises and methods which lead toward the rapid acquisition of lower psychic powers. The surest, the most natural way is the development of the heart and the purification of the consciousness.

"It is difficult even to imagine how the infection of lower psychism has gripped people. And how distorted have become all the great concepts and the great Images of the Lords! Some people imagine the Teachers in garments adorned with precious stones, or even as guardians of chests filled with gold and diamonds! How astonished such people would be if they could but grasp the true picture! Nothing is further removed from the lives of the Great Teachers than the concept of well-being and luxury. Their lives are full of beauty, but then, beauty and luxury are two opposites.

It is always necessary to remember that lower psychism can manifest itself only in the lower strata of the Subtle World, where there are quite a few pompous Olympians and plenty of impersonators of the Great Teachers of Light.

"Let us also remember that there is the very powerful Black Lodge, which tries in many ways to imitate the methods of the White Brotherhood. It is characteristic of them to use all means in order to entice into their camp those who are on the first steps of the Teaching, and whose convictions are not yet firm. Each hesitation in thought, each doubt can carry one away into the opposite camp.

"All this I write in order to warn against the terrible danger of artificial exercises. Only those achievements are valuable that come naturally, as then they manifest the inner, spiritual development. With such development, eventually all-comprehensive power becomes possible. Let us not forget that the forces developed by artificial methods are not lasting, whereas all that is acquired by inner spiritual efforts *cannot be lost*. All these hidden powers are developed in man gradually and, as a rule, by the man himself, in proportion to his mastering of his lower nature in the long course of his previous lives. Therefore, some people who approach the Teaching begin comparatively early to show signs of such development. For instance (and this is indicated in the Teaching), they may see stars of various size, color and brightness. Each such star has its own meaning, either warning or indicating or comforting. Sometimes there are light formations and sparks, either within oneself or near by. There are visions of flowers, whole scenes, and finally one begins to hear the Voice of the Teacher. But one can also hear the voices of friends, as well as the undesirable voices from the lower spheres of the Subtle World. One should subtly discriminate regarding these manifestations. Fatigue or an excessive tension of a center may cause inflammation and is most dangerous – it can even bring death. [January 7, 1937]

{The below is a review of some terms, concepts and predictions that were presented in Helen Roerich's letters to colleagues, mainly after 1939}.

## 5.7 The dates of Armageddon and the End of Black Age [11]

### 1931

The great Armageddon has started by the end of 1931

### 1936

In all prophecies this year was marked as the year of personal Battle of the Great Lord with the enemy, or Archangel Michael, or Lord M. with the **hierophant** of evil, or scriptural dragon. It is interesting to note that the evolutionary cycles encoded in the Great Pyramid terminate at this year.

### 1942

The year 1942, according to all the most ancient writings, is considered to the end of Kali Yuga and the beginning of the new, beautiful cycle.

The year 1942 marks the end of the Black Age; our planet will enter a new, better epoch.

However, this does not mean that the heavens will open and at once paradise will come on Earth. No, the consequences engendered by the end of Kali Yuga will still be felt, and with even greater force on certain parts of the planet, but on the other parts new construction will begin. And although the effects of the Black Age will still tag along, the bright sowings already begin to produce sprouts under the beneficial rays of new combinations of the luminaries; and the sowers of darkness will begin to suffer defeat

### 1949

«The New Era began on the 17th of October, when the enemy was driven out of our Solar System. “The new constructive work will begin under My Rays.”» [November 1, 1949]

However, we will witness the development of the consequences of intended destruction of our planet by the forces of Darkness, but the planet will not be exploded, only partial destructions would take place.

**This departure of great force of darkness that resisted the Space influence has caused the acceleration of evolution and attraction to the ray of Solar Hierarchy. [12.09.1952]**

## 5.8. Wars and revolutions

Wars and revolutions are the most dreadful, the most powerful evocations of the lower energies from the Subtle World. The lower entities are nourished by the emanations of blood and decomposition. One can well imagine what kind of entities fill the atmosphere around destructive actions. Only strong spirits who are shielded by a firm protective net of psychic energy can resist this infection. [November 23, 1937]

A war cannot solve any problem of life. Meanwhile, the irresponsible persons continue to foment the fires of intolerance and detestation by masking their true goals with the antiquated slogans.

The arduous trials of mankind have not finished and new large-scale clashes are prepared. But we are assured in brevity of the forthcoming collisions. The world war will be averted, only separate conflicts will take place [11].

## 5.9. The forthcoming catastrophe in its term

The Cosmic fairness sends the menacing warnings in a form of more and more frequent Earthquakes, hurricanes, floods and starvations, but all these signs do not touch the hardened hearts. The Teaching does not penetrate into the hearts of peoples who are still remaining inclined just to material benefits.

“Now is the judgment of this world; now the ruler of this world will be cast out” [John 12:31]. Christ knew the destiny of the world that would be prepared by the mankind itself, and that our V<sup>th</sup> Race would be tested in that Trial in a form of immense cataclysm that always accompany change of Races, as well as disappearing of older lands and appearing new ones – up to the change in the orientation of the Globe.

By the end of the XX<sup>th</sup> century the menacing symptoms will appear once again, and the fate of the Globe and mankind will depend entirely on our efforts to avert these dreadful calamities by adverting to high moral that giving the only way to salvation.

The ancient prophecies say: “In the Day of the Last Judgment it is only one of three who would remain alive”. The newest tells: “one of six would remain”. The humanity has tried to worsen its fate: the Lucifer’s sowing had actually taken large swing and the crop was large. The Powers of Light will stop the explosion of the Planet, but nobody can stop the consequences of that malicious sowing: those who had sowed the hurricane should get it. Karma, the Cosmic Justice, will throw out those who resist the Laws of Evolution, or otherwise a destruction of the planet may take place which will cause drastic perturbations not only in the Solar system , but in the Galactic as well.

Therefore, The Cosmic Justice is inviolable, but the terms may change, and frequently [18] it is impossible to specify the exact Earth time of event even if it is inevitable since it has been formed in the Subtle planes, because some obstacles may accelerate or decelerate the realization of the Celestial decision.

In any case the events will develop unexpectedly, and the dreadful time will sweep over as a cleaning whirlwind. The evil being stored in the world will be destroyed by upheavals. The distribution of evil will be stopped. The Cosmic Justice will take into action new forces. The best will be protected in special ways.

So, these are the human follies which cause realization of Cosmic Plans, and only destruction of the cause may destruct the consequences. And the Powers of Light may accelerate or delay a Cosmic Plan, but cannot reject unless the cause has been destroyed. This explains why it was possible to postpone and to decrease the scale of the forthcoming catastrophe, but not to abolish it. And that is why the preliminary warnings were given and still continue to appear in natural, social and technical cataclysms, but still are not seen.

...yes, my dear, we are approaching the menacing times: the long ago dormant volcanoes will awaken, and many lands – perish. Powerful Earthquakes will occur, and you must remember that at present the quakes present the greatest danger that threatens the mankind.

## PART 6. TECHNOGENEOUS CATASTROPHES AND ACCIDENTS

In 2010, and especially – in 2011 this Factor has started to manifest itself more intensely – both in number of accidents and victims and, once again, the events were concentrating at the comet HB's Foci. At that, the most pronounced trend was observed in air crashes, whereas the most devastating was the catastrophe at the Fukushima Nuclear Power Plant. As far as the statistics pertaining to this Factor is large enough [7], we confine the consideration of this Factor to general trend in air accidents.

Before 2010 there were not more than several air accidents at the Foci. However, starting with the Spring of 2010 the situation has changed and the number of air catastrophes and accidents at each Foci and during the aftereffect periods increases by an order – up to a couple of dozens. This is apart from the wave of accidents associated with hooligan laser attacks (with the aim to dazzle the pilots) and other intentional acts (threats to explode, etc.) being considered within the scope of Factor 3 (Social effects).

The avalanche of air catastrophes in 2010 was seemingly started at Focus **TB** (April 7 – 11):

- 09.04 Russia, Voronezh. Crash landing of An-24
- 10.04 Russia, Kamchatka. After the landing, an avalanche has covered a helicopter by a 10 meter layer of snow; 10 victims, including 5 German tourists
- 10.04 Afghanistan. Taliban shot down the US helicopter CV-22; 4 victims, several wounded
- 10.04 Russia, Smolensk. President of Poland and his retinue of 95 people including the highest authorities of the state were lost in a crash landing at zero-zero weather. The plane was recognized trig; it is assumed it was caused by order of the authorities who, as in Summer of 2008 in Georgia, forced the pilots to land at non-flying weather.

Note. In 30 years 5 presidential planes has crashed, but such a mass mortality of the highest rank authorities was not observed:

- 1981 – President of Ecuador. The plane crashed in a mountain (pilot's error is suggested)
- 1986 – President of Mozambique and his retinue (39 people). The plane crashed in a mountain
- 1988 – Prime Minister and commander-in-chief of Pakistan (diversion is presumed)
- 1994 – Presidents of Rwanda and Burundi. The plane is brought down by missile
- 2004 – President of Macedonia. Air crash due to a pilot's error. Notice, that this is the first catastrophe of this series that takes place after the arrival of the comet Hale-Bopp. And it occurs on February 26, that is in an orb of the Focus **T3** (March 3).

It is also worthy of notice that in 2010 the aviation problems at the Focus **TB** were manifested in a synthesis of all three Factors of influence – natural (volcanic ash cancelled the flights), technical (a surge of air crashes), and social problems of hundreds of thousand passengers – unprecedented since WWII):

- 14.04 Start of air communication collapse in Europe and problems with flights to other continents

In particular, in the last years all the largest air catastrophes in Russia took place namely at the Foci of the comet Hale-Bopp, apart from air force and small planes [7]:

- T7** (September 16) September 14 2008 Perm: Boeing 737, 88 victims
- TB** (April 7 – 11) April 10 2010 Smolensk: Tu-154, President of Poland, 96 victims
- T3** (March 3) March 5 2011 Belgorod: An-148, 6 victims
- T7** (September 16) September 7 2011 Yaroslavl: Yak-42, 43 victims

Only by a miracle the people were saved in the following two accidents, also at the Foci:

**T7** (September 16) September 7 2010 Komi: emergent landing of Tu-154M caused by cessation of electrical appliances. In conditions of extremely low visibility and without monitoring devices the pilots have succeeded to land the liner on a desolate airfield in a forest (!) intended for small planes. The air specialists call this the miracle since neither the plane, nor the passengers were not damaged.

**T2** (3 января) January 1, 2011 Surgut: after takeoff the engine of liner Tu-154 got inflamed. The pilots have succeeded to land the liner, but on landing the plane broke in 2 parts and got inflamed. The fire was spreading extremely quickly, but only 3 passengers were lost.

The statistics [7] shows that **UFOS** also have a trend to appear more frequently at the comet HB's Foci.

## PART 7. SOCIAL EFFECTS:

The main groups of trends which develop in society and manifest themselves by concentration of events at the Foci of the comet Hale-Bopp

The trends pertaining to the groups of the third Factor of influence [7] are not less numerous and impressive than those which are observed concerning the natural calamities. And the intensity and scale of events comprising these trends also grow exponentially since the year of 2010, especially those which are associated with social disturbances and wars. But in short of space we consider only several examples.

### GROUP 1. ECONOMY: finances, corruption, criminality

- # Extreme events in economy (record prices, etc.)
- # International scandals and tensions in economy and finances
- # Corruption in the highest circles
- # Large-scale swindles, illegal gambling industry
- # Mafia
- # Large-scale larceny and robbery
- # Narcotics and narco-traffic

### EXAMPLE. World debt crisis

\* **September 15, 2008** (viz. at the Focus **T7**, **September16**): the avalanche of threats of bankruptcies of the largest banks and Financial corporations in the USA starts the first phase of the world debt crisis engendered by the bubble of Debt Instruments.

\* After some stabilization in 2009 – 2010, in **2011**, after a series of surges of Solar activity, the crisis inflames with a new force [7] and, once again, at the Foci Bifurcation point. Initially, at the resonant **Focus T6'** (**July 14**) that almost coincide with the Mayan calendar Bifurcation Point **BP17** (**July 16, 2011**), new problems have arisen that shocked the world economy with a threat of new intensification of the world debt crisis:

1. For the first time the threat of default of the USA with respect to the limit of National Debt Instruments is discussed ([United States debt-ceiling crisis](#)), which the analysts call “the end of financial system”.
2. For the first time in the history the Credit rating of the USA is lowered by one point. This is estimated as the beginning of new financial era.
3. While not having resolved the financial problems of Greece, Europe comes into collision with problems of Italy to be solved immediately, Spain and Portugal – are the next.
4. The world stock exchange markets are in fever, like at the beginning of the crisis in September 2008. In a week, they have lost more than \$ 2.6 billions of capitalization in danger that economy moves towards new recession.
5. To this end a threat of recession and falling of living standards has become the reality. The world leaders provide emergent consultations with the aim to prevent the beginning of new phase of global crisis.

\* **In the middle of September, 2011** – once again at the Focus **T7** (**September16**) that was intensified by the surges of SA – the second wave of the world financial crisis had started, this time – in Europe ([European sovereign debt crisis](#)), and first of all – with the debt problems of Greece. This time it was already called “Depression” and even “Great depression” since it had evidently exceeded the frames of debt instruments. But it is still unclear – what shall be done.

1. [Europe sends the signal SOS](#). The EU officials warn the ministers of finances about the threat of new debt crisis due to the system debts in Europe (**September 15**) before their meeting on **September 16-17**.



They say that the debt crisis has entered “new phase”. The European markets of shares have fallen to the minimum of 26 months, the European Bank index – minimal level since March 2009(also at March Foci). Inflation in Eurozone had accelerated in September to a maximum since 2008.

The head of the European Central Bank warns that Eurozone will become the epicenter of the new crisis. In September, firstly in 2 years the industrial sector of Eurozone drops.

2. **Asian markets** have dropped due to the problems of Europe: the Tokyo bourse key index has fallen to a minimum of 2.5 years.

3. **The USA**. The FR warns about considerable risks of slowing down of economy (**September 22**). In order to avoid stagnation, a special \$400 billion program is started. George Soros says that the second wave of recession has started in the USA; the European authorities have lost the control.

4. **IMF** warns about the most serious threat to world financial system since the crisis of 2008, especially – for European banks.

5. **The world financial markets** are covered with tsunami of **pattern-2008**. The investors began to talk about the beginning of new global recession. After the head of the FR, the heads of the IMF and WB had started to discuss the threats to world economy.

Just in a week (**September 15 – 22**) the total cost of securities at the leading markets has dropped by \$3.5 billions; even the gold began to fall.

6. **The “Occupy Wall-Street” movement** has began on **September 17**, 2011, that is namely at this Focus.

## .GROUP 2. POLITICS: internal and international scandals

# The highest officials of States, Parliaments

# Diplomats

# Trials over presidents and PMs

# breakdown of international talks and agreements

# Non-armed conflicts

# Overcoming and revision of state borders

# Contraband

#. Armed conflicts at the state borders

# Espionage

# Kidnapping from foreign countries and international secret operations

## EXAMPLE. The trials over Ex-PM of Ukraine, Yu. Timoshenko

**T1** (December 21)

December 15 (2010) General prosecutor of Ukraine processes the criminal case against Timoshenko.

December 21 The status of Timoshenko is changed to accused.

December 25 The Office of General Prosecutor (OGP) decides whether to process the second criminal case against Timoshenko

**TB** (April 7-11)

April 11 One more criminal case is processed against Timoshenko

**L** (June 18) Local maximum of SA

**F** (June 21) – powerful X-ray flare on the Sun and CME directed towards the Earth.

**M** (June 23) A powerful geomagnetic storm (from CME of June 21)

June 24 Start of the trial over Timoshenko

**T6** (July 4)

July 9 Court of Appeal renews a pursuit against Timoshenko re to the Krivorozhstal

**L** (August 1) Local maximum

**F** (August 4) 4 flares of M-class in a day

**M** (August 5-6) The most severe geomagnetic storm in 6 years

August 5 Timoshenko is arrested and placed in investigation jail. This arrest invoked a wave of criticism in Europe and USA.

**T7** (16 с е н т я б р я )

September 14 It was expected that the sentence will be passed on September 15-16, but an unexpected and long-term break was announced in the sitting of the court.

**L** (October 8-17) SSN Local maximum and maximal of the cycle

**M** (October 11) Geomagnetic storm

October 11 Timoshenko is doomed to 7 years of prison and \$189.5 million fine re to the Gas agreement with Russia

**L M** (October 24-25) Powerful Geomagnetic storm after Solar flares and growth of SSN

October 24 The fourth case is started against Timoshenko (non-payment of taxes)

**T1** (December 21)

December 16 Timoshenko lodges a complaint to the European Court of Human Rights

December 20 The European Court of Human Rights asks Ukraine to clear the obstacles of the arrest and keeping in prison

December 23 Court of Appeal in Kiev has not changed the verdict for Timoshenko

December 19 At the Summit Ukraine-EU the prepared agreement re to political association was not signed since Timoshenko was not released from the prison.

**T3** (March 3)

February 27, 2012 Minister of internal affairs in Cabinet of Timoshenko is doomed to 4 years of prison

### GROUP 3. PSYCHOSIS in masses and individuals

# Prison riots and escapes

# Mass hooliganism and fans

# Demos and strikes

# Perversions (pedophiles, use of brute force, maniacs, hostages)

# Amotivational serial murder, suicide (crazy shooting, attacks on kindergartens)

# Faulty miners

# Nationalism and racial intolerance

# Vandalism (e.g. - crushing the monuments)

# Acts of terror in planes, hi-jacking, etc.

# Cyber attacks (hooliganism, profiteering, damaging, stealing)

### EXAMPLE. Trend of causes and effects: religious intolerance

**T7** (September 16)

September 11, 2010 Two priests in the USA have burnt 2 copies of Koran

September 12, 2010 Afghanistan: two people are killed, 7 wounded when security was dispersing an anti-US and anti-NATO demo in protest against the public action of American priests

September 13, 2010 An Australian has smoked Koran and Bible and put this video in the Web

**T4** (March 20)

March 20, 2011 A priest in Florida has burnt Koran once again - in an emphatic manner, before 30 people

**TB** (April 7-11)

April 1, 2011 Afghanistan: several thousand people organized a demo in protest to burning Koran in America; in a result of disorders, 8 UNO official are killed, 10 diplomats are wounded

April 1 The pastor who burnt Koran does not take responsibility for the massacre in Afghanistan

April 3 Afghanistan, Djelalabad: two thousand people protested against burning of Koran

April 4 Afghanistan: the crowd attacked the UNO office in Kandahar; more than 100 victims, dozens wounded

April 10: the situation in Afghanistan has extremely exacerbated: all week long the country was exploded with protests; the NATO objects were attacked in all regions

**T3** (March 3)

February 21, 2012: Burning of Koran at the NATO base in Bagram has exploded the country once again, but this time – with a greater swing and many victims among the NATO officials and militaries.

## GROUP 4. COERCION: attempt of revolt, terrorism, riots

(some countries were marked at separate Foci )

**Africa:** Côte d'Ivoire, Burkina Faso, Congo, Nigeria, Somalia, Sudan, Uganda, SAR, Mali

**Asia:** Afghanistan, Pakistan, Iraq, Iran, India, Tajikistani, Korea, Indonesia, Thailand, Philippines

**Europe:** Ireland, Britain, Greece, Switzerland, Denmark, Germany, Holland, France, Italy, Czech , Russia, Byelorussia

**America:** USA, Mexico, Columbia, Venezuela, Peru

**EXAMPLE.** Trend in acts of terrorism performed by the same persons

(Notice that in Byelorussia each of the below events is an exceptional)

**T7** (September 16)

**September 14, 2005. Vitebsk:** at 7 PM at a trolleybus stop near a city park a can has exploded which was filled with nuts and bolts. Two people are wounded

**September 22, 2005 Vitebsk.** at 10 PM, a hundred meters from the place of the first explosion, a can of the same type has exploded near a café; 50 people are wounded

**T6** (4 July)

**July 4, 2008. Minsk:** on the Day of Independence, at the gala performance, where President was present, a self-made bomb of the same type had exploded in the crowd after a midnight. 55 people are wounded, 47 of them were hospitalized. One more bomb was found that had not exploded

**TB** (April 7-11)

**April 11, 2011 Minsk. Explosion in the underground: 15 killed and up to 200 wounded** (30 people – badly wounded). It was unprecedented act in the country. The power of explosion is 5 – 7 kg in trotyl equivalent

**April 13, 2011 Minsk** All the terrorists are arrested

**April 14, 2011** The terrorists made avowal of guilt. Their leader – Dmitri Konovalov – said that he was fond of ailing people, and that it was he who performed the previous explosions.

**T7** (September 16)

**September 15, 2011** Starting of the judicial proceeding against the bombers. It was the most resonant process in the history of Byelorussia.

## GROUP 5. WARS AND REVOLUTIONS

Whatever justification is used for invasion of international forces into a sovereign country without a request of its government, it is always remain the aggression in its essence, either it is called a war, operation, or revolution. The genuine goals of these operations are not always quite clear for common people, as they are masked by political legends and mass media slogans, but they do exist since nobody would waste resources and lives without the intention to get more.

And the fact that during the last 20 years the chain of such operations obtains its new links with an acceleration cannot be ignored. An analysis of this situation is given in [7], which is based on statistics of the major world events, analysis of the doctrine of the so called “Controlled Chaos” which uses the mathematical Chaos Theory as a tool of making political decisions, Esoteric concepts (including those which explain why engendering of Chaos presents a tool of black magic), and some other considerations.

So, as far as we have no space here for getting into detail of this analysis, consider just several links of that chain; namely, how the major trends in this sphere were manifesting themselves at the Foci of the comet Hale-Bopp in 2011 (and still continue to do so in 2012).

And namely the existence of these trends in all major wars and revolutions of the past 20 years speaks for itself – as they are bound to these Foci, they present a kind of succession of Karmic events spiraling to the point of denouement which hardly could present a happy end, the more so since the chains of events pertaining to other factors of influence also follow these Foci and Bifurcation Points.

In other words, all these Foci-centered trends cannot but must bear the Karmic consequences which seemingly have exceeded the bounds of just warnings.

#### EXAMPLE G5.1. The Chain of all NATO's major military operations and "Arab Spring"

Table G5.1. Dates of commencement of all NATO's major military operations and onset of "Arab Spring" are distributed by the Foci of the comet Hale-Bopp

Focus, Date	Operation	
	Date	Description
T5 (March 24)	March 24, 1999	Onset of bombardments of <a href="#">Yugoslavia</a>
T3 (March 3)	March 1-2, 2002	Onset of <a href="#">Operation Anaconda</a> in <a href="#">Afghanistan</a> . The first large-scale battle in the US War in Afghanistan since the <a href="#">Battle of Tora Bora</a> (Dec. 12 -17, viz. at Focus T1) in December 2001. This was the first operation in the Afghanistan theater to involve a large number of US conventional forces participating in direct combat activities. One of the most important operations in war on terrorism that started a large-scale presence of NATO troops in this country
T4 (March 20)	March 20, 2003	Onset of invasion in <a href="#">Iraq</a>
T1 (December 21)	December 18, 2010	Self-burning and riots in <a href="#">Tunisia</a> that started a chain of revolutions in North Africa and Middle East – the so-called " <a href="#">Arab Spring</a> "
T4 (March 20)	March 19, 2011	The coalition of the USA, UK, France, Italy and Canada has started the missile and bombing attacks over <a href="#">Libya</a>

#### EXAMPLE G5.2. The Clairvoyant Baba Vanga predicts Fukushima and war in Libya

The widely known clairvoyant [Baba Vanga](#) (1911-1996) [predicted](#) the 911 catastrophe, month and year of shipwreck of Russian submarine Kursk, and many other important things. In particular, she said that (1) the year 2011 would present the turning-point in the evolution of mankind, and that after a nuclear catastrophe in the Northern Hemisphere that would destroy most part of animals and plants, a war would begin with a Moslem state. Besides, she said that (2) the WWIII would start in November 2010.

Of course, she was not 100% correct, but evidently saw a reflection of astral images of the forthcoming events as they were developing 5 years before they come into reality and expressed them as she understood the images.

Indeed, (1) firstly the catastrophe in Japan (March 11, 2011) killed more than 27 000 people, destroyed many thousands houses and exerted great damage to agriculture due to contamination of the soil after the destruction of Fukushima Nuclear Power Plant. And after that, on March 19, 2011, NATO started the war against Libya (if we would call a spade a spade). Further on, (2) after having not seen the starting of large-scale military operation the people decided that this time she made a mistake; but in reality on December 18, 2010 (See below) – quite close to the forecast – the "Arab Spring" starts that quickly develops in a non-stop series of riots and overturns called "Arab Spring" (that continues until present), war in Libya (where the military from 3 continents participate), and threats to apply arms to Syria and Iran. So, if a long-term combat of armies of 4 continents (Europe, America, Africa, Asia) is not a WW formally, it is at least a kind of development of events which could be described this way informally.

It is also interesting to note that her predictions relative to development of Russia correlate with those of [Paracelsus](#), [Edgar Cayce](#), [Rano Nero](#) (Raqno Nero, viz. "the Black spider").

### EXAMPLE G5.3. The "Arab Spring"

It's naïve to believe in spontaneity of chain of revolts and riots in North Africa and Middle East countries

#### TUNISIA

##### T1 (December 21)

December 18, 2010. Self-burning and riots in [Tunisia](#) that started a chain of revolutions in North Africa and Middle East – the so-called "[Arab Spring](#)". Enraged crowd attacks the residence of the leading party, the headquarters of the National guard, Railway station, commit arsons. First victims.

##### T2 (January 3)

January 3 – 8, 2011. Demos and riots propagate onto other cities of Tunisia. Dozens of victims.

January 14. After a peak of riots the president leaves the country. The power is transferred to military

##### TB (April 7 – 11)

April 8. The officials try to calm down the new wave of riots and anti-governmental demos. Curfew is announced, gathering of people on the streets is prohibited.

##### *Aftereffect*

May 8 The protesters commit arsons, attack banks and offices; 70 people are arrested.

May 6 – 9 More than 600 participants of demos are arrested including two members of al-Qaeda.

May 18 Skirmish between the military and militants; 3 soldiers are killed.

##### T1 (December 21)

Dec.19 The ministry of tourism reports that riots and revolution have shortened the income by 40%

#### EGYPT

##### T2 (January 3)

January 1 An unprecedented act of terrorism: an explosion of bomb at the Christian church in Alexandria kills 21 people. In response, the Christians burst into a mosque and had thrown the Moslems with stones

January 4 Restarting of the protests of Copts: 4000 demo in Cairo demands to punish the organizers of the blast in Alexandria

##### T3 (March 3)

March 7 New riots in Cairo after the disorders in January. Several hundred people attacked the headquarters of the security service. The demo requires to dismiss this service.

##### T5 (March 24)

March 25 The protesters fill the streets of Cairo anew; more than 2000 people demand the reforms

##### TB (April 7 - 11)

April 7 An explosion near the Great Pyramids in Giza, 3 wounded

April 8 More than 3000 people came to Tahrir Square. They demand to institute criminal proceedings against the former president. Police

April 9 After dispersal of protesters 1 is killed and 71 wounded. New wave of riots has covered Cairo.

April 10 Former president and his sons are called to General Prosecutor of Egypt. Two months after the resignation of president the protesters, once again, erect the barricades in the centre of Cairo.

New wave of protests in Middle East: many thousands demos in Yemen and Syria have transformed into armed collisions with dozens of victims. Firstly, since the resignation of president, the Egyptian army has suppressed the actions of opposition

April 22 the state of emergency is announced in the Southern part of Egypt

Aftereffects: the bloodsheds are developing in May and June, probably due to the surges of SA and growth of passionarity

**T6** (July 4)

June 30 Russian Officials recommend to avoid tourist travels to Egypt (the latter presents one of the most popular places for a rest) due to a sharp exacerbation of the situation in this country (starting of disorders: protesters erect barricades and fight against police. The police and military have come to Tahrir Square, but then left it with the aim not to provoke the protesters.

More than 1000 people are wounded (including 40 policemen)

July 4 A powerful explosion destroys the gas pipe to Israel and Jordan

July 7 Riots and fight with police in Suez. The protesters attacked the governmental offices

**T6'** (July 14), **BP17** (July 16)

July 15 Hundreds of thousand demonstrators on Tahrir Square put forward the ultimatum to military

July 21 New Government has taken the oath (after the resignation of President)

July 22 Hundreds of wounded in Cairo after fighting with police

July 29 Dozens of armed Islamites tried to occupy Al-Arish – the “gas capital” of Egypt

July 30 The demonstrators on Tahrir Square demand to settle the Islamic state: the “brothers-Islamites” were supported by hundreds of thousand supporters

**T7** (September 16)

September 9 Hundreds of protesters attacked the Embassy of Israel in Giza

September 19 Once again, the centre of Cairo is filled with protesters who demand to abolish the curfew. Large-scale disorders in Alexandria, Suez, Sinai.

**T1** (December 21)

December 18 New wave of collisions in Cairo. The protesters demand to transfer the power to “civil government” which they will elect themselves, throw the stones in police. 9 victims, hundreds wounded.

December 19 The protesters tried to set the Parliament to fire. 12 victims, 950 wounded.

Lucsor: the protesters blocked the road for 40 buses with tourists.

State Secretary of the USA expressed the concern with the situation in Egypt

December 20, 21 Protests and collisions with police in Cairo continue at a great swing

17 victims, more than 1000 wounded, 600 are hospitalized.

December 23 The result of the second stage of parliamentary election are announced: “brothers-Islamites” – 40 seats, salaphites – 15, liberals and independent – only 4 seats.

**LIBYA****T2** (January 3)

January 6 Cardinal worsening of Libya’s relations with the USA and GB: the US recalls its ambassador for consultations due to Wikileaks publications re to unprejudiced words relative to Muammar Gaddafi

**T3** (March 3)

The clashes between the governmental forces and armed insurgents continue without a break.

8 British commando are arrested in Libya.

**T8** (March 13)

March 10 The Euro parliament has recognized the insurgents’ National Transitional Council (NTC) of Libya for the only legitimate power of this country

March 11 The governmental troops take the city Ras-Lanuf that opens the way to the residence of opposition – Bengasi.

The first prisons of war – a helicopter with Holland soldiers are caught by Gaddafi troops

March 15 The exodus from Africa: island of Lampedusa becomes overfilled with refugees

**T4** (March 20)

March 18 The United Nations Security Council (UNSC) adopts the resolution # 1973 which in essence allows a military operation against Gaddafi, except of ground operation.

**March 19** The USA, France, GB, Italy and Canada have started the war against the sovereign Libyan Government (operation “Odyssey Dawn”) with the missile and bombing raids in Libyan territory. In that day more than 100 cruise missiles were launched just from the USSs, apart from air bombs.

**TB** (April 7 – 11)

April 2 By this date about 180 operational flights are performed by NATO, 17 NATO war ships guard the shore of Libya.

European Council allows use of military forces in Libya

April 3 Refugees have started disorders in Lampedusa

April 7 The USA has frozen \$34 billion at the Gaddafi's accounts

April 9 By this day NATO has performed 1434 operational flights, about 150 a day. This allowed to throw off the Gaddafi's troops from Bengasi

April 12 Italy is left along with the refugees: the EU ministers of internal affairs have refused unanimously the proposal of Italy to distribute 26 000 refugees between the countries of EU

April 17 France does not let the refugees in; for this reason Italy threatens to leave the EU.

**T6** (July 4)

June 30 For the first time the limitations to the Schengen Agreement are discussed at the EU Summit.

July 1 BBC: contrary to the resolution of UNSC, France was supplying the insurgents with armaments

July 4 The elder Gaddafi's son states that a NATO commando has come with the aim to kill his father (by the information of the President of Int. chess federation).

July 5 Denmark settled the checkpoints – for Schengen Agreement this is firstly in many years; Germany and Sweden express their concern re to this act

**T6'** (July 14), **BP17** (July 16)

July 15 The USA has recognized the insurgents' National Transitional Council (NTC) of Libya for the only legitimate power of this country

July 22 Germany will quickly give Euro 100 million credit to the Libyan insurgents

**T7** (September 16)

September 11 The Libyan insurgents kill each other: in clashes between the armed groups 12 are killed, dozens are wounded

September 17 Nigeria Foreign Minister: after the war in Libya, al-Qaeda became stronger

African Union and UNO have recognized the NTC

Aftereffect

October 21 BBC, Human Right Watch: Muammar Gaddafi had been killed after he was arrested. The hunting for his car on the motor road was organized with the use of American unmanned plane "Predator"

To this end the following events are to be remind:

The death of Gaddafi was planned (City Press, Johannesburg): he was fraudulently lured out under the supervision of NATO planes, after then the guided NTC militants caught and executed him.

March 21: It is reported that cruise missiles were used for bombing the residence of Gaddafi

April 27 The head of Foreign Office digressed from qualifying the competence of NATO to kill Gaddafi

May 2 The insurgents await that after killing Ben Laden, the USA will kill Gaddafi as well

May 10 Reuters: at least 10 bomb explosion took place at night near the residence of Gaddafi

May 15 The GB head of General Staff: Killing of Gaddafi during bombing should not be considered as breaking the law

June 10 A high rank NATO general acknowledged anonymity that he UNSC resolution # 1973 allows to deliver a blow directly to Gaddafi

June 25 Foreign Policy (by the words of Mike Turner, U.S. Representative): by the words of high rank NATO general, NATO actually aimed to kill Gaddafi.

July 4 The elder Gaddafi's son states that a NATO commando has come with the aim to kill his father (by the information of the President of Int. chess federation).

**T1** (December 21)

December 16 The International Criminal Court qualifies the killing of Gaddafi as war criminality.

**T3** (March 3)

March 6, 2012 Libya Breaking Apart as Militia Factions Declare Independent State

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