

ELECTROMECHANICAL PROCESS OF DISASTER LAND

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REZUMAT. În lucrare este prezentată repartizarea liniilor magnetice produse de curenții centurii nucleare terestre și a centurilor de radiație Van Allen și acțiunea reciprocă dintre aceste câmpuri. Sunt înaintate ipoteze referitoare la cauzele provocatoare de cutremure terestre, tsunami ș.a. Se determină direcția de acțiune a forțelor electromagnetice care dau naștere la unde seismice inclusiv cosmice.

Cuvinte cheie: câmp magnetic, centură de radiație, centură terestră, cutremur, erupții vulcanice, furtuni magnetice, forțe gravitaționale, tsunami, plăci tectonice.

ABSTRACT. In this paper is presented the distribution of magnetic lines produced by nuclear ring currents and terrestrial radiation belts Van Allen and mutual action of these fields. Hypotheses are advanced concerning the causes of challenging terrestrial earthquakes, tsunamis, etc. Is determined the direction of electromagnetic force action causing seismic waves including cosmic.

Keywords: magnetic fields, radiation belt, belt land, earthquake, volcanic eruptions, magnetic storms, gravitational forces, tsunami, plate tectonics.

1. INTRODUCTION

In the last time frequently abnormal natural phenomena appearing in different terrestrial areas, with tragic consequences for our civilization.

Even if these volcanoes, earthquakes, tsunami were not so frequent in the past, however, always the question of determining the cause of these phenomena hazardous to terrestrial life.

Science at present is more occupied by research and development, in particular, of technical means to create great conveniences for people, enormous expenses related to material goods at the expense of maintaining a satisfactory environment for everyone

If some of these costs would be invested in the study of phenomena indicated above, the world could be prevented in advance about the ongoing catastrophes, because the number of victims jumping to minimize. To achieve these researches theoretical and experimental is necessary also to involve the research scientists from different fields.

2. MAGNETIC FIELD TERRESTRIAL

It is known [1] that the seismic activity is concentrated in the planetary level in two areas: one around the Pacific Ocean and the Himalayas and other ICEP ends Dinaric Mountains, Carpathians and Atlas.

The circle in recent years and intensified Pacific earthquakes and tsunami caused serious human and material loss and the number of victims and exceeded the previous registered. The paper forward the hypothesis regarding the prevention of earthquake zones indicated, related to electromagnetic processes in the deep Earth, caused by solar radioactivitatea and occupied the position of Moon from Earth. It is assumed that the satellite was separated from Earth to Moon is Earth's broken body in the Pacific Ocean due to the impact of a celestial body. To some extent this hypothesis is confirmed by those that are deep in the Pacific Ocean more than ten thousand kilometers and is most unlike other ocean depth. This area is the thin crust and ocean periphery of plate tectonic boundary coincides with the Pacific. Recalled the impact of mechanical axis of rotation shifted the Earth at an angle of $23^{\circ}30'$ compared with the initial focus.

Earth structure is well known as in-depth, both in outer space [1-4]. Figure 1 shows the Earth in the

section and the magnetic field produced by terrestrial ring current, calculated with the finite element method application. This calculation showed that the Earth's magnetic axis is indeed loaded.

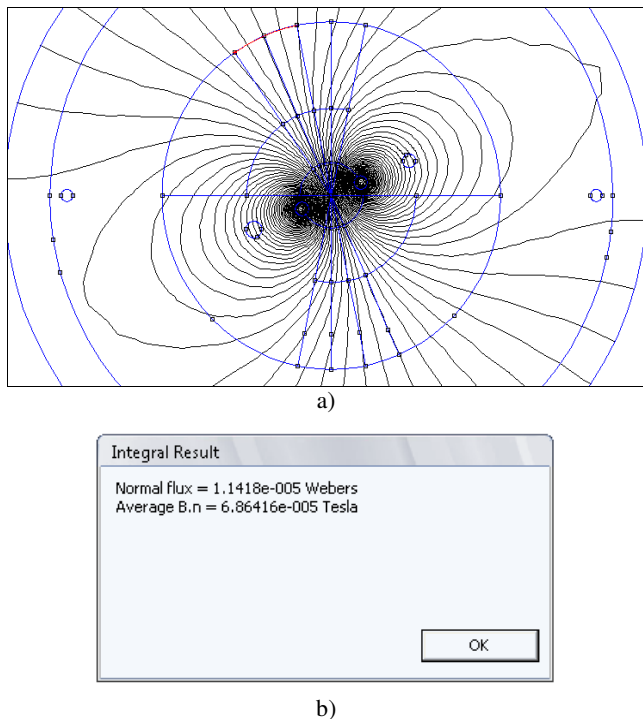


Fig. 1. Magnetic field produced by nuclear belt land
 a) picture of the magnetic field,
 b) values and magnetic induction flow.

Flow and magnetic induction values in the center and that the Earth's poles are given in Figure 1, b, which are also calculated with the finite element method application.

It is known that the processes in the atmosphere and solar wind give rise to solar magnetic storms and influence triggering earthquakes and tsunamis.

Further analysis of these processes is proposed. If the earth's magnetic field would not be influenced by the transverse magnetic field [3, 4] and the magnetic field produced by currents Van Allen radiation belts, the magnetic axis and rotation of the Earth would coincide. However, these magnetic fields and the earth's magnetic field distort? Between these axes is an angle that varies.

We recognize that the earth's magnetic field is influenced only by the magnetic field of inner Van Allen belt located at a distance of approximately 3,600 km from the Earth's surface. Painting interior magnetic field produced by the radiation belts and magnetic flux and magnetic induction values are given in Fig. 2, a, b.

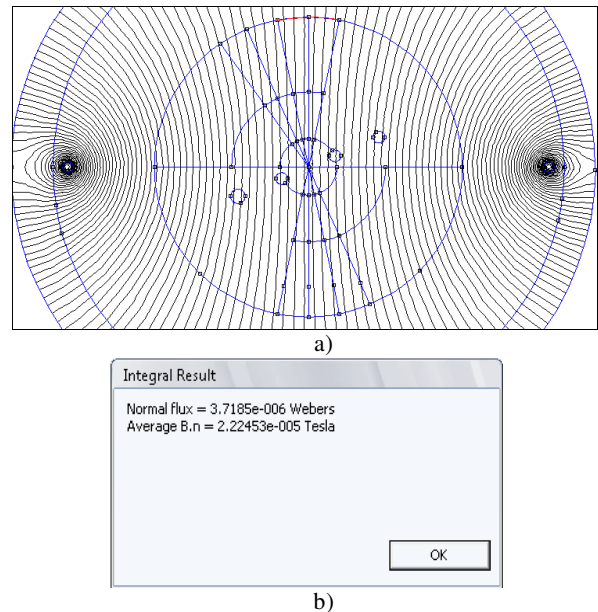


Fig. 2. Magnetic field produced by current Van Allen radiation belt inside the
 a) picture of the magnetic field,
 b) values and magnetic induction flow.

Axis magnetic field is perpendicular to the ecliptic that crosses and Earth.

The magnetic field produced by current overlapping belt land and magnetic field produced by the inner radiation belt, the resultant magnetic axis offsets relative to the rotation by about $11^{07'}$ (Fig. 3).

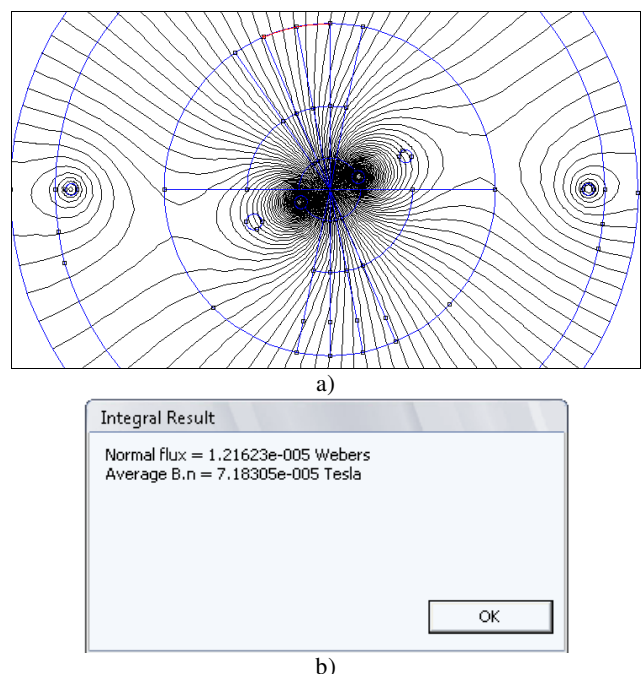


Fig. 3. Magnetic field produced by currents belt land and the inner radiation belt Van Allen
 a) picture of the magnetic field,
 b) values and magnetic induction flow.

Flow and the resulting magnetic induction values obtained by calculation are shown in Figure 3, b.

Through magnetic field belts, Earth and inner nuclear radiation forces interact in and oriented opposite angle relative to perpendicular to the plane of the ecliptic. Because terrestrial radiation belts plans under the angle when the forces and can be decomposed into components:

radial $F_{TR} = F_T \cos \alpha$

and axial $F_{TA} = F_T \sin \alpha$

The same forces of radiation belts can be decomposed into components:

radial $F_{CR} = F_C \cos \alpha$

and axial $F_{CA} = F_a \sin \alpha$

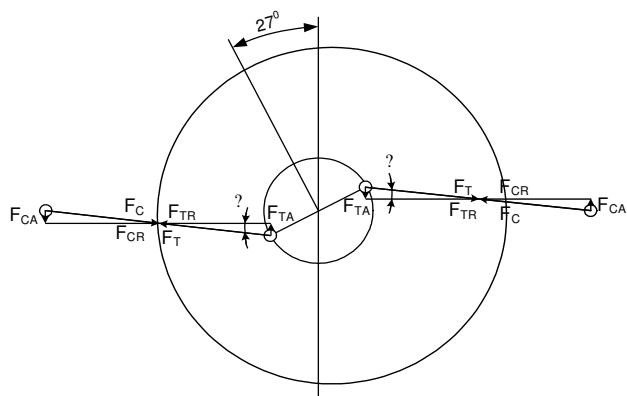


Fig. 4. Components of forces of interaction between terrestrial nuclear ring and inner radiation belt Van Allen.

Forces F_{TA} și F_{CA} (Fig. 4) tend to put these belts in the same plane and radial force components and tend to bring the belts.

It is known that the Earth is subjected to external forces caused by satellites or the Moon and the Sun.

The force of interaction between the Earth and the Moon is about twice larger than Earth and the force of interaction between the Sun. These interaction forces can be determined by the expression

$$F = G \frac{m_1 \cdot m_2}{d^2}$$

where G is the constant of universal gravitation.

Obviously, this force of attraction of the Sun is lower because the distance between the Sun and Earth is many times higher compared to that between Earth and Moon. Moon in its orbit motion compensate a part of the force of attraction of the Earth. Follows that the planet oriented meridian month given the force of attraction of the Earth will decrease. It follows that the particle present in the body of the planet will be less attracted to the center of Earth. Planet deforms

towards its satellite, terrestrial tides causing. This great deformed crust and atmosphere ocean space, moving the waveform while moving Moon orbit. Wave amplitude earth's crust, the Moon passing in the high reaches (0.3 to 0.5) m, and the arrangement of the Earth, Moon and Sun on a line, this value exceeds 0.7m.

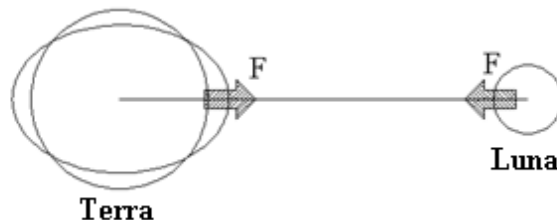


Fig. 5. The phenomenon of tidal land

We recognize that increased solar radiation, the radiation belt current increases, thus increasing the forces caused by currents.

Under the action of these forces belt land should move in both directions, vertically and horizontally, but we are a solid, which gives rise to vertical and horizontal, which spread to the Earth's crust.

In areas with finer bark, as the Pacific Ocean, tectonic plates begin to move and cause earthquakes and tsunamis in the open ocean dry.

This occurs when the sun is high radioactive activity, or rather, the solar wind intensified.

There are opinion that the moon does not cause earthquakes, just great, but this claim is unfounded.

Possibly, if the waves caused by gravitational forces between Earth and moon will coincide with the frequency of waves result from the interaction of radiation belt and belt land caused by electromagnetic forces in the deep Earth, wave resonance will be shown with all the tragic consequences. This will contribute to the unpredictable movement of tectonic plates which cause earthquakes, tsunamis, volcanoes, radiation and light phenomena.

Light phenomenon: fire, lightning, bright stripes of different colors were observed during terrestrial earthquakes in different seismic zones. There have also been observed during earthquakes in Piatra Neamt, Oituz, Prahova, Slobozia and other areas of Romania. In our opinion these lightning ionizes shows that vertical waves in earthquake areas of ground and space radiation belts, because space is conductor and place the polar auroras similar to lightning.

Events in Japan took place between when the solar wind intensified and the Moon closest to Earth.

The distance between Earth and the Moon fell from 405508 km. up to 363300 km.

Earthquake and tsunami, which continued to be held in Japan, probably coincidence related movement intensified movements of the moon and solar wind.

3. CONCLUSION

At present the development of terrestrial civilization, the problem becomes more acute terrestrial cataclysms.

He performed an analysis with application laws in electromagnetism and numerical methods for calculating electric and magnetic circuits to determine the causes of land disasters: earthquakes, tsunamis, etc..

Hypothesis that the solar wind has been shown and Moon in perigee entry are important causes of initiation of terrestrial disasters, which can be prevented in seismic areas.

The causes presented in working would result from the timing of these cataclysms that would reduce damage and human jertvele globally.

BIBLIOGRAPHY

- [1] **C. Possa, Armaş** *Geografie fizica*, Editura Enciclopedica, 1998, pp.175-186.
- [2] **T. Ambros**, *Les Processus Electromagnetiques et Electromecaniques dans l'espace Cosmique*, SIELMEN 2005, V-1, pp.9-11.
- [3] **I. Kopolov**, *Electromecanica planet? Zemlea*, Moscva, Iz-vo. MEI, 1997, pp.56-71.
- [4] **I. Kopolov**, *Electromagnitnaea Vselennaia*, Moscva, Izdatelischii dom. MEI, 1997, pp.36-42.
- [5] **Ambros T.** *Electromecanica Cosmică, Convertizoare cosmice de energie*, Reşiţa, Ed. "Eftimie Murgu", 2007, pp.93.