

POSSIBILITY OF MAGNETIC ANOMALIES USE IN RECREATION BUSINESS

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Abstract

Anomalous geomagnetic field is the natural factor for recreational industry. The researchers in the world and Latvia have shown that human body is responsible to change in the intensity of the anomalous magnetic (AM) field. It is now already known that physiologically body needs the magnetic field intensity from -300 nT to 300 nT. Human can bear (owing to own internal resources) the intensity from -300 nT to -1000 nT and from +300 nT to 1000 nT. These two intervals have been called the adaptive intervals. There are also the areas of pathology, where only a short-term stay for people is possible.

Only zero (agonic) magnetic field line and positive magnetic anomalies with intensity exceeding +1000 nT are of interest for recreational activities. Zero field intensity and optimal interval are the most favourable magnetic field values for the organism. This intensity interval is ideal for treatment of nervous, circulatory, cardiovascular, reproductive, and endocrine, respiratory and other disorders.

The optimal interval is favourable for long-stay location of recreational and therapeutic institutions.

Magnetic anomalies over +1000 nT are intermittent if a short-term stay (from a few days to a month) has curative properties. Modern researches have shown that magnetic anomalies suppress reproductive function of microorganisms allowing using thereof as therapeutic area for treatment and prevention from tuberculosis and other infectious and chronic diseases as well as for prevention from neoplasms.

Keywords: *recreation, magnetic field intensity, zero line, magnetic anomalies*

The humanity has learned about the existence of magnetism in the antique times (VI century BC). English physicist William Gilbert published an essay "On the Magnet, Magnetic Bodies, and the Great Magnet of the Earth" in 1600 establishing the existence of the magnetic field of our planet. Later this field (Earth core generated field) will be called the main magnetic field. In the XX century it was found that the Earth magnetic field consists of three fields: core, anomalous (generated by iron ores and granites of the Earth's crust) and external (generated by other astronomical objects of the universe).

Study of the magnetic radiation effect on humans was conditioned by formation and implementation of the space exploration idea in the XX century.

Living organisms response to the anomalous magnetic field impact of varying intensity is of the particular interest.

The first studies of this impact are dated by XVIII century. Medical experts Andri and Toure checking the results of the experiment conducted by abbot Lenoble on magnetism influence to the nervous system, have come to the conclusion that this effect is as doubtless as a magnetic pool of various subjects.

Further investigations by John Russell, Oleg Tkachenko, Lyudmila Kartunova and others have shown that organisms feel good and reproduce successfully in the area of zero (agonic) magnetic field line with zero intensity [1,2,3,4]. Human being is not an exception. The large number of settlements in the world is located in zero magnetic field intensity area. Cities and towns of Latvia also tend to zero isoline [4].

The completed scientific researches to ascertain MF values favourable for the human organisms allowed revealing the optimal interval of the field intensity values. This interval covers the intensity values from -300 nT to 300 nT with zero isoline in the middle. As experiments by the Czech physician J. Novak showed, the low intensity of magnetic field impact on organisms gives positive therapeutic effect on a number of diseases and, in the first place, on nervous system disorders.

Thus, areas with MP intensity from -300 nT to +300 nT can be regarded as recreational areas for a long-term stay and as natural therapeutic areas (provided favourability from the other natural factors).

Establishment of recreational areas require special geo-ecological maps containing information on magnetic intensity. The question about global magnetic survey of the Earth surface was raised at the XI Assembly in Toronto (Canada) in 1957. "World magnetic survey" project was developed in the frames of the USSR, USA, Canada and Japan. They carried out the component surveys of the Earth magnetic field. Currently, all countries, including Latvia, have the maps of anomalous magnetic. Geoenvironmental maps were developed on the basis of the anomalous magnetic field maps, allowing properly allocating population in the magnetic field. According to these maps, the anomalous magnetic field intensity parameters in Latvia range from -1200 nT to +834 nT. Availability of the information on the field intensity at every point in the country and the knowledge of body response to impact on different magnetic field intensity allowed planning location of recreational areas based on objective natural criteria.

At the beginning of the report it was mentioned that positive magnetic anomalies over 1,000 nT also have recreational value. These territories are not very useful for permanent residence, since intense magnetic field produces depressing effect on organisms, negative impact to reproductive organs, nervous system and psyche, circulatory and endocrine systems. However, a short stay in the anomalous magnetic field does not cause pathologies and produce a number of positive effects.

These effects include:

1. Ability of the anomalous magnetic field intensity above 1000 nT (magnetic anomalies (MA) to suppress reproductive ability of microorganisms, parasites and development of cancer cells that have been already proved by J. Kraine, D. Bernoti, S. Proskurakova and many other researchers;

2. Informational essence of MA magnetic radiation.

These properties can be advantageously used both in recreational business and in creation of health resorts. There are already good examples of tuberculosis patients' placement in the intense magnetic anomalies (sanatorium for children in Tērvete, Infectious Diseases Hospital in Aluksne, etc.).

Magnetic anomalies may also serve as therapeutic areas to fight with cancer. There are examples of successful struggle with cancer using MA (I. Spule (Germany), K.S. MacLean (US), S.A. Proskuryakova (Russia), etc.) in the world.

Magnetic anomalies have one more property, which can be used in recreational industry. This is the informative properties of magnetic radiation. People's staying in the intense magnetic radiation field increases human intelligence, activates thinking, makes the body more mobile. It was experimentally proved that a signal of any nature with intensity from 10^{-12} to 10^{-2} W/m² (Kholodov, 1970) produce the informative effect on the organism. Therefore, these positive anomalies can be used for scientific tourism (organizing conferences, symposia, meetings, business meetings), various competitions,

MF can be a place to arrange holiday hotels for creative professionals (artists, actors, sculptors, writers, mathematicians, physicists, etc.).

AMF activates thinking because greater content of information contributes to mergency of new thoughts, ideas, findings [Kholodov, 1975, Chizhevsky, 1973].

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