THE ALGORITHM OF INTERPRETING HUMAN LIFE EMF EFFECTS

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Key words: Native electric and magnetic field, Learning algorithms.

The delimitation of the unit volume and their reference, their geographically position where the ELF effects analysis is performed. The map of natural CEM, added and differentiated function of the local architecture. The ascertainment of levels of the basal artificial electromagnetic charge and of its variation, the personal characteristics, the human groups from the subject make part and of the types of relationships, the local characteristics of the biosphere and its organization, hierarchy, fixed and transitory states of the alive systems and inanimate which included also the subject who is analyzed. Direct local effect, the individual effect included into volume unit and resulted in time unit, effects of addition the dosimetry of the effects. The interpretation follows if these exist clinical chronic effects, the effects of the action and the reaction at these effects on different levels on the point of view of the biological channel. The research is referred at witness zone and the interpretation is made following statistics correlation.

1. NATIVE ELECTRIC AND MAGNETIC LEVEL

1.1. GEOMAGNETIC FIELD

The definition of the geographical location in longitude, latitude and vertical elevation, where we measure the effects of EMF at the human life level, the neighboring and the classification of these neighbouring locations in locations with the same and different EMF characteristics.

From international databases, the first step is to determine with precision the geographical coordinates of the native geomagnetic local level.

By convention, latitude in the southern hemisphere and longitude in the Western Hemisphere are negative.

The magnetic component conventions are Declination (D) positive east, Inclination (I) and vertical intensity (Z), positive down, North horizontal component (X) positive north, and East horizontal component (Y) positive east.

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Although results are shown to the tenth of a minute for D and I, accuracy is generally 30 minutes. Accuracy for the intensity components is usually below 200 nT.

For more information, or to obtain the latest model, visit the geomagnetism web site: http://www.ngdc.noaa.gov/seg/potfld/geomag.shtml.

1.2. EARTH ELECTRIC FIELD

The electric field intensity varies measurements taken at different altitudes above sea level. Assuming an exponential increase of the conductivity with altitude, it can be shown that the electric field decreases exponentially with altitude.

1.3. LOCAL ENVIRONMENTAL CONDITIONS

The second step is the characterization of the local environmental conditions for the period of the investigation: the natural (solar) lighting, the thunderbolts, temperature, humidity, seasons, etc. because the native features of the environment and the geomagnetic local level has a great influence to the local electromagnetic characteristics.

Another important point is the inventory of the geomorphologic, geophysical, and geological (especially the mineral composition structure of a specific region of the earth's crust.) characteristics of the location where the bio-compatibility investigation will be performed. The highest composition in ferrous minerals, in calcium, in other minerals affects the geomagnetic native characteristics.

The characteristics of the water sources subterranean and overhead (body of water, lakes and rivers) the position of these water reservoirs referring to the location of the investigation.

The position of the forests and agricultural lands culture, distances from these to the place of the investigation.

The background, cosmic and telluric local radiation must be known because this has another influence to the natural and artificial electromagnetic characteristics of the electromagnetic level.

2. ARTIFICIAL SOURCES OF EMF

It must be known the geometry and building characteristics and composition of the local constructions in relations with the geomorphologic and geological properties of the terrain.

Position and the features of the electric conducting wires, water supply system, natural gas pipes, wire telephony, air conditioning, system for transporting overhead and subterranean.
The measurement of the characteristics of the EMF levels in the area of the investigations and their schedule.
The mapping of the EMF, including the characteristics anterior defined and measured.

3. THE HUMAN LIFE INVESTIGATION

Obtaining the informed consent from the subjects investigated in the bio-electromagnetic compatibility field.

The defining of the human life in investigation: ID, professional characteristics, learning characteristics, sports, medical characteristics (heredocollaterals antecedents, actual state of health, operating performances, the medical predictions), their experiences in adaptation, conditioning, acclimatization, stress factors.

Definition of the group relations of this subject, type of relations (concentrically, simple hierarchy, fuzzy hierarchy, cooperationists, etc.), local characteristics of the biosphere, groups components, their position in the trophy string, their role in the biological relations of the investigated subject.

The definition of the stable and transitions state of the alive systems including the analyzed subject.

The characterization of the compartments where the analyzed subject works, learns, rests, means of transportation. The place of these compartments in the local native and artificial system.

Building the action chart and tabulation and the calculus of the EMF attenuation from the artificial source to the alive target.

Medical interpretation of the biological final effects of the EMF if these are significant.

Referring the research to the witness compartments with the same and different characteristics.

3.1. BIOELECTROMAGNETIC GENERAL EFFECTS

The increasing of the molecular agitation, local temperature to a reference level determined by the natural level of the electric and magnetic field.

Action to the biological water solutions level. The transformations of the state and metabolism of the electrolytes. Transformation of the glucoses, lipids and proteins metabolism.

Reactive modifications for compensation of an electromagnetically inducted effect. The increasing of the basal metabolism.
Modification at the cellular signaling with the transitional algorithms formation for adaptation-acclimatization.

3.1.1. BIO-ELECTROMAGNETICALLY EFFECTS, DOSIMETRY

The bio-electromagnetically dosimetry depends of:

A) *The moment of the investigation effects:*

- Acute
- Directs
- Reactive
- Chronics

B) *The level of investigation:*

- Nanoscopically
- Microscopically
- Mesoscopically
- Macroscopically
- Neuro-psychically and behaviorist

C) *Type of effects*

- Thermals
- Non thermals (bioelectrical, biochemical)

3.1.2. EFFECTS OF ADDITION-EROSION

The forming of the transition algorithm for acclimatization-adapting. Time and level of performance.

The stabilization of the characteristics gained.

The evaluation of the personal history in adaptation, defining the patterns of adaptation, evaluation of their effects in actual situation.

The fixing of the transitional-functional characteristics in structural characteristics.

Structural (paraclinically) evaluation of the actual medical and biological status.

Definition of the actual algorithm of the adaptation, prediction about the level of performance to adaptation-acclimatization of the investigated subject. Possibility of pathological transformation of the actual biological acquisition.

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