

STUDY OF THE HUMAN ENERGY CHANGES DURING CAUCASUS EXPEDITION, July – August 2006-08-11

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Aim: Study of human acclimatization and reactions to altitudes from 2000 m to 4200 m.

Participants: 12 people age 10 – 61, both genders, apparently healthy, city residences, France.

Area: Caucasus Mountains, Elbrus area.

Weather conditions: Ideal, temperature at day-time 23-27 C, at night 5 -7 C, sunny, increasing moon.

Technique: Measurements with the GDV Camera instrument every night after dinner. Data processing was done in the GDV programs.

Results.

The attitude graph of the group trekking is presented at fig.1. On the 27.07 group arrived to the Caucasus Mountains and in two days people climbed two 4000 m peaks. On the 31.07 they moved to the hotel in the village Terscol at 2000 m. 01.08 group came to the slopes of Elbrus mountain and slept overnight at 3600 m. 02.08 people worked from 3600 m to 4200 m and after lunch came back to the hotel. 03.08 group moved to Ullu-tau area and for two nights camped there walking at day to different nearby places. 05.08 group came back to the hotel.

Every night the energy level was measured with the GDV instrument. Places of measurements are shown as blue dots on the graph fig.1.

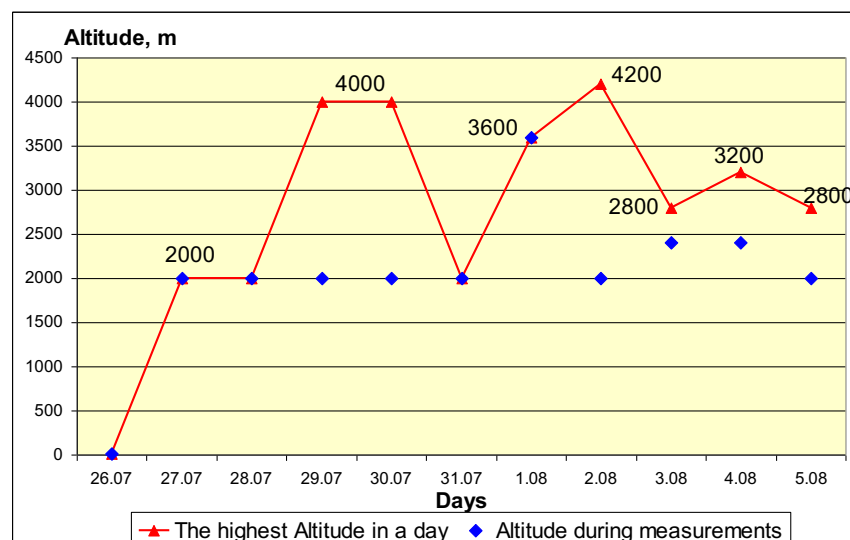


Fig.1. The altitude graph of the group trekking. Altitudes of measurements are shown as blue dots.

For all participants a strong increase of Area and Intensity parameters at the Elbrus slopes (3600 m – 01.08) was found (see graphs fig. 2,3). After descending to 2000 m (02.08) parameters dropped, but differently for different people. Strong increase in Area and Intensity was measured 03.08 and 04.08 at the Ullu-Tau mountains area and some decrease for most people 05.08.

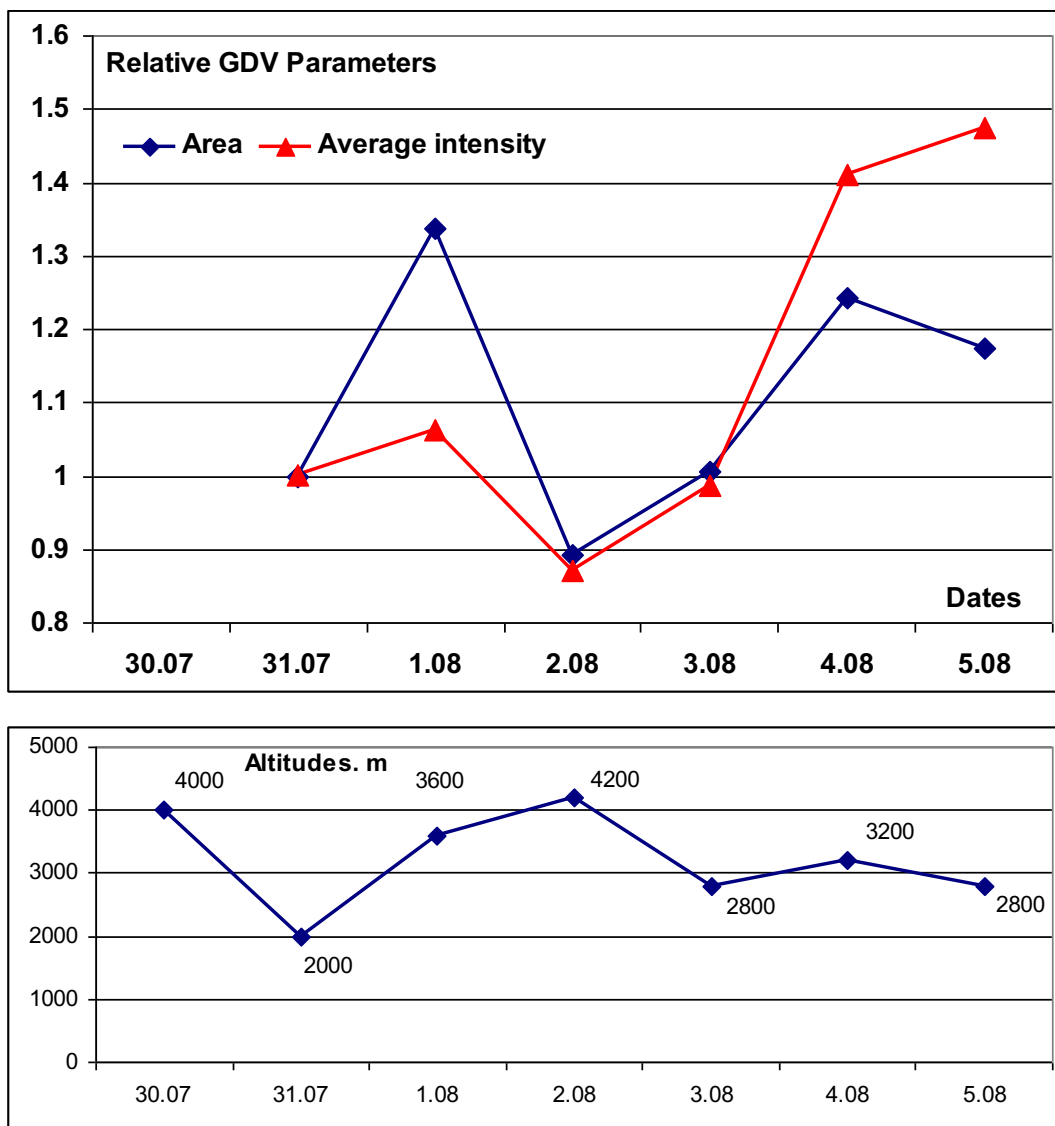


Fig.2. Change of relative GDV parameters averaged on the group of 10 people correlated with the highest ascend of the day.

Conclusion

Measured GDV parameters represent the reaction of the organism to high altitudes acclimatization. For this group the acclimatization pattern was optimal: ascending to 4000 m and descending to 2000 m, which allowed organism to use all the benefits of high altitudes and strongly increase energy after trekking. Individual variations represent the level of individual health.

As we see from the data, GDV instrument is a sensitive tool to control acclimatization process in the mountains.

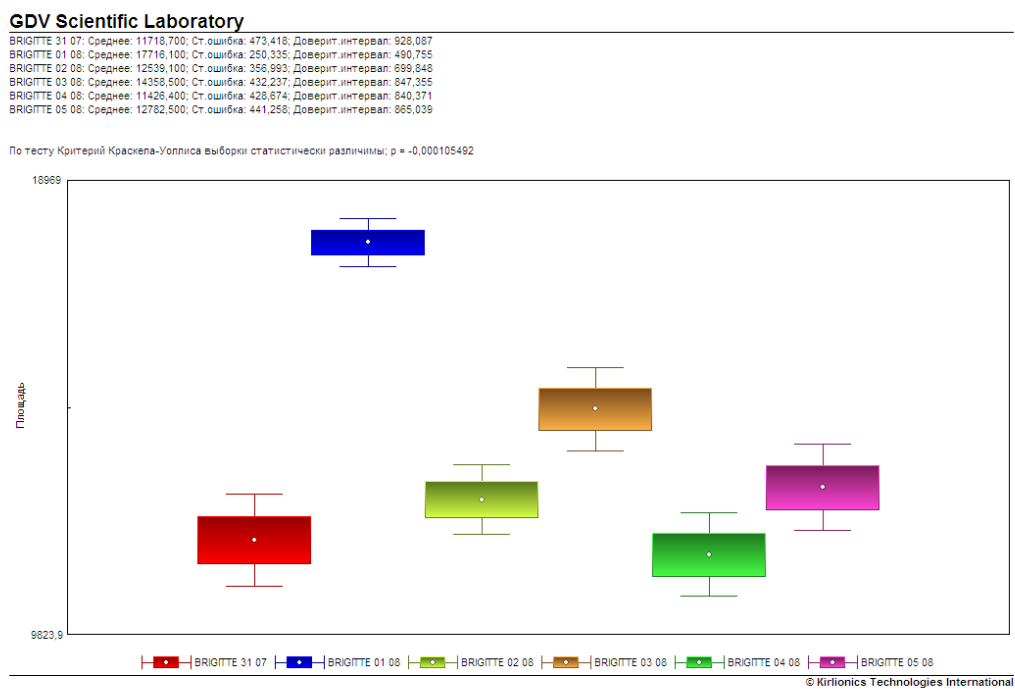


Fig. 3. Change of the Area GDV parameter day-by-day for one of the participants.