



Российская
Академия Наук



Russian
Academy of Sciences



IEEE

Book of Abstracts

International Conference on

Problems of Geocosmos



6-th international conference
Problems Of Geocosmos

May 23-27, 2006, Saint-Petersburg, Russia

ample, in November 2001 , August-September 2005 r and etc). These periods included strong MS.

It was examined MS with the value of $A_p > 100$. There was analysed data of N1 and N2 during a few days before MS and during 15–30 days after MS. It was set, in particular, that with the probability of $P = 0,2-0,6$ in all considered cases there was the increase of common number of SE in 1,5–3 times (sometimes and anymore) and amounts of SE| with $M > 5$ in 1,5–4 times on 2-3, 4-5, 6-7, 8-9, 12-14, 16-18 and 24-25 days after MS.

Some features of global seismicity in periods after the strongest Solar flares

A.M. Gokov

(V. Karazin Kharkiv National University Kharkiv, Ukraine)

e-mail: Alexander.M.Gokov@univer.kharkov.ua

It is known that the large Solar protons flares, what is going on approximately one times for three suns cycle, initiate the transition of the power processes into Earth in the boundary states, which are saved to the next strong | flares and is determined the size of the power flux at the earthquakes for this period. Noticed also, that seismic activity in the Solar activity cycle has the largest level in the period of minimum of 11-years Solar cycle and during the strong Solar flares what is going on in the period of the increased solar activity. However the detailed investigations, evidently, was not conducted.

In work on the basis of analysis of Catalogue of earthquakes of National Center of information about the earthquakes of Geological service of the USA (NEIS USGS) [<http://neic.usgs.gov>] the results of research of possible changes of global | seismic activity of the Earth in periods after 17 strong Solar flares of class X for two cycles of solar activity from an interval 1974–2006 are discussed. Among them the most strong and geoeffective Solar flares: 06.03.1989 X15.0/3b; 14.07.2000 X5.7/3b; 01, 04, 06, 09, 11 and 15.06.2001 X12.0/3b-4b; 28.10.2003 X17.2/4b; 04.11.2003 X17.4/3b (peak value| of X28.0); 07.11.2004 X2.0; 11.11.2004 X2.5/3b; 07.09.2005 X17.0.

To investigate of such changes for data|data| for these periods from the Catalogue the everyday distributing of number of earthquakes, NQ, is calculated in the temporal interval of 10 days before and 30 days after every

Solar flares. There were analysed the sequences of data|data| of NQ, including all registered earthquakes and separately also for the earthquakes with magnitude of $M > 5$, $M > 6$ and $M > 7$.

It was determine that in all considered cases with probability 0,2–0,8 there was the increase of common number of earthquakes in 1,5–3,5 time (sometimes anymore) approximately during days and number |quantities| of earthquakes with $M > 5$ in 1,5–4,5 time on 2, 5–6, 7–11 and 17 days after the Solar flares. It is important, that after the strong flares the strong earthquakes with $M > 6$ in 5–6, 10–13, 16–19 days and in 5, 17–19 and 21 days – with $M > 7$ were registered.

The possible mechanisms (the chainlets of due to the strong mutual coupling between the geophysical processes in the system Earth-Space|cosmos|) of transmission of power disturbances after the strong Solar flares which can cause|calls| the set changes of seismic activity of the Earth is discussed.