On the changes of the total ozone content caused by Forbush decrease

V.V. Pchelkin, V.I. Demin (Polar Geophysical Institute, Apatity, Russia)

The changes of the total ozone content (TOC) caused by the cosmic rays and, as a result, the changes of the atmosphere thermodynamic properties, are often considered as a possible mechanism of solar influence on theweather (e.g., [1]). However, the results of this relationship study are controversial [2]. In particular, this is caused by shortness of the time series being processed. We have examined by the superimposed epoch technique more than 200 cases of different intensity Forbush decrease and the corresponding response in the TOC.

- 1. S.I. Avdjushin, A.D. Danilov. Sun, weather and climate: today's look on problem (survey).//Geomagnetism and Aeronomy, 2000, v.40, №5, pp. 3-14;
- 2. A.A. Krivolutsky, A.A. Kuminov, A.I. Repnev. Influence of cosmic rays on the Earth's ozonosphere (survey).// Geomagnetism and Aeronomy, 1999, v.39, №3, pp. 3-15.