

**ATMOSPHERE DRAG PROPERTIES
OF SATELLITE UNDER INFLUENCE OF
«SPACE WEATHER»**

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A drag dynamics of artificial satellites [1] in the intervals of heights of perigees equal 300-350 km, 500-550 km and 700-750 km was investigated. Methods of processing of time sets were applied to the analysis of data was approved at research of variations of radio sources. Data of surveillations during a minimum of solar activity were analyzed. For such periods presence long periods wave processes in the upper atmosphere of the Earth of large-scale solar magnetic fields determined by structure in a solar wind and solar-moon tides is characteristic.

For such periods the presence of long periodic wave processes is characteristic in the overhead atmosphere of Earth of the large-scale sun magnetic fields determined a structure in sun wind and by sun-lunar waves. The list of basic periods (cycles) in the spectrum of satellite drag with the various heights of perigees is presented. Despite of distinction of average values of drag certain "types" of change of drag are marked. In spectra of artificial satellite drag at various heights there are conterminous intervals of the periods: $\sim 10^2$ d and 25.7-30 day. During too time there is a big set of the incoincident periods.

The semi-annual variation connected with change of position of the Earth concerning solar equator, variation generated by change of a geomagnetic field and joint influence tides of the Moon and the Sun in an interval of the periods of 25-30 day is shown. Shorter cycles of satellites drag basically are caused by variations of a geomagnetic field. Separate episodes of sharp increase a flux of UV- radiation also are reflected in changes of movement of an artificial satellite by sharp splash in amplification of drag [2].

1. E.Doombos, H.Klinkrad. Modelling of space weather effects on satellite drag. *Advances in Space Research*, 37,1229-1239,2006.

2. N.Koshkin, L.Korniychuk, E.Korobeynikova, M.Ryabov, K.Sukhov. The features of change of the drag perturbations of artificial satellite orbits during extreme developments of solar activity of 2003 - 2004 years. // *Sun and Geosphere*. 2006, v. 1(2), p.46-49.