

VLF DATA ACQUISITION AND CENTRAL DATABASE STORING

**Vladimir Srećković, Desanka Šulić, Aleksandra Nina, Anatolij Mihajlov,
Ljubinko Ignjatović**

Institute of physics, Belgrade, Serbia

E-mail: vlada@ipb.ac.rs, dsulic@ipb.ac.rs, sandrast@ipb.ac.rs

The ionosphere, having characteristics of plasma, is very sensitive to electromagnetic disturbances whose intensity and number mainly vary with solar activity. These disturbances cause numerous complicated physical, chemical and dynamical phenomena in the lower ionosphere and may directly affect human activities, especially in the telecommunications. Besides a pure scientific interest to study the influence of solar activity on the terrestrial atmosphere, the understanding and predicting the resulting turbulent regions of the ionosphere has important applications for radio communications, military operations in remote locations, planned networks of mobile communications satellites, high-precision applications of global navigation satellite systems, etc. The lower ionosphere such as the D region (60–90 km) where the altitude range is too low for satellites and too high for atmospheric balloons, requires measurements mostly based on radio wave propagation techniques. In the past few years, we study the influence of solar perturbations on electron concentration in the terrestrial ionospheric D-region by analyzing the amplitude and phase time variations of very low frequency (VLF) radio waves emitted by VLF transmitter all over the world and recorded by the AWESOME and ABSPAL receivers in Belgrade (Serbia) in real time. Naturally, there is a need to store these huge amount of collected data. Here, we will try to present a need of central database storing and exchange with other VLF stations and groups.