Cloud cover plays a key role in the Earth's climate system. Clouds regulate radiation budget of the planet thus reflecting shortwave radiation coming from the sun and absorbing longwave radiation coming from the Earth. It should be noted, that the largest uncertainty in the climate change is connected with cloudiness changes.

The key problem of cloudiness detection is the lack of reference observations. There are several up-to-date datasets for cloudiness, based on satellite or surface observations. In our work we carried out an analysis to assess and compare different characteristics of global cloudiness using different data based on satellite and surface observations and also on reanalysis data.

Global cloudiness from observations is about 0.2, for certain data it reaches 0.3. Global cloudiness over land from satellite and surface observations is between 0.2 and 0.3. Global cloudiness over ocean is higher. It is about 0.7 from satellite data and ship's observations. Global cloudiness from reanalysis data is less than from observations. It is evaluated between 0.2 and 0.3.

It is worthwhile pointing out that the largest distinctions between different data are noted in high latitudes, especially in winter.

**Cloudiness Over Land and Ocean**

**Annual Cycle**

**Zonal Distribution**