

ANSO Atmosphere Observation Network Serves for Belt and Road Initiative

The ANSO atmosphere observation network will launch 5 observation sites in Hefei, Beijing, Tomsk, Moscow and Minsk for the environmental and climate research serving the Belt and Road Initiative. Three types of the instruments self-made by Hefei Institutes of Physical Science Chinese Academy of Sciences, will be installed respectively in each site named as a compact lidar, an all-sky-view camera and a laser precipitation meter. The Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences, the V.E.Zuev Institute of Atmospheric Optics Russian Academy of Sciences, the General Physics Institute Russian Academy of Sciences and the B.I. Stepanov Institute of Physics of National Academy of Sciences of Belarus will be responsible for the site observation and instrument maintenance respectively. The standards of the observation, retrieval algorithms and products releasing of each instrument will be systematically established by the above five contributors during the implementation of this project. This network will provide very unique atmosphere parameter database such as aerosol vertical distribution, cloud cover and precipitation which could be used to study the air pollution and transportation, atmosphere-earth energy balance and the severe weather forecasting. This network can also be regarded as a complementary to the Pan-Third Pole Environment Study Program. Long-term run and expansion of this network will accumulate a huge fundamental data and will be shared for the scientists from the Belt and Road regions. The impact of the extensive development of the regional socio-economy and to the global and climate change based on this database and the scientific researches will be well revealed for the policy makers.



