Geophysical Research Abstracts
Vol. 15, EGU2013-1115-3, 2013
EGU General Assembly 2013
© Author(s) 2013. CC Attribution 3.0 License.

Total ozone and NO_2 observations in Asiatic Russia by SAOZ spectrometers in 2012

Dmitry Shepelev (1), Valery Dorokhov (2), Florence Goutail (3), Andrea Pazmino (3), and Jean-Pierre Pommereau (3)

(1) Chukotka UGMS, Pevek, Russian Federation (napalm77@yandex.ru), (2) Central Aerological Observatory, Moscow, Russian Federation (vdor@starlink.ru), (3) LATMOS, CNRS, Guyancourt, France

The SAOZ (Systeme d'Analyse par Observation Zenitale) is a UV-visible diode array spectrometer developed at the Service d'Aeronomie, CNRS, France in the late 80s for monitoring stratospheric ozone (O_3) and nitrogen dioxide (NO_2). The spectrometer uses the technique of differential optical absorption spectroscopy (DOAS) in the ultraviolet and visible wavelengths of sun in the registration of the zenith sky. The wavelength range of the SAOZ instrument is in Chappuis band of ozone absorption, with a spectral resolution of 1 nm for version V-1024. Measurement absolute accuracy is 6% for total ozone and 10% for nitrogen dioxide. Data for the atmospheric content of O_3 and NO_2 measured by the SAOZ spectrometers are available at the World SAOZ database. The first Asiatic SAOZ station started operation in 1991 at Zhigansk aerological station, East Siberia. A SAOZ spectrometer has been operating at Salekhard aerological station, West Siberia, since 1998. The resulting total ozone and nitrogen dioxide observations recorded in Siberia in 2012 will be shown and discussed.