

# ARMENIA

## Results of activity

Total ozone measurements in Armenia are carried out at the local ozone-observing network since 1990.

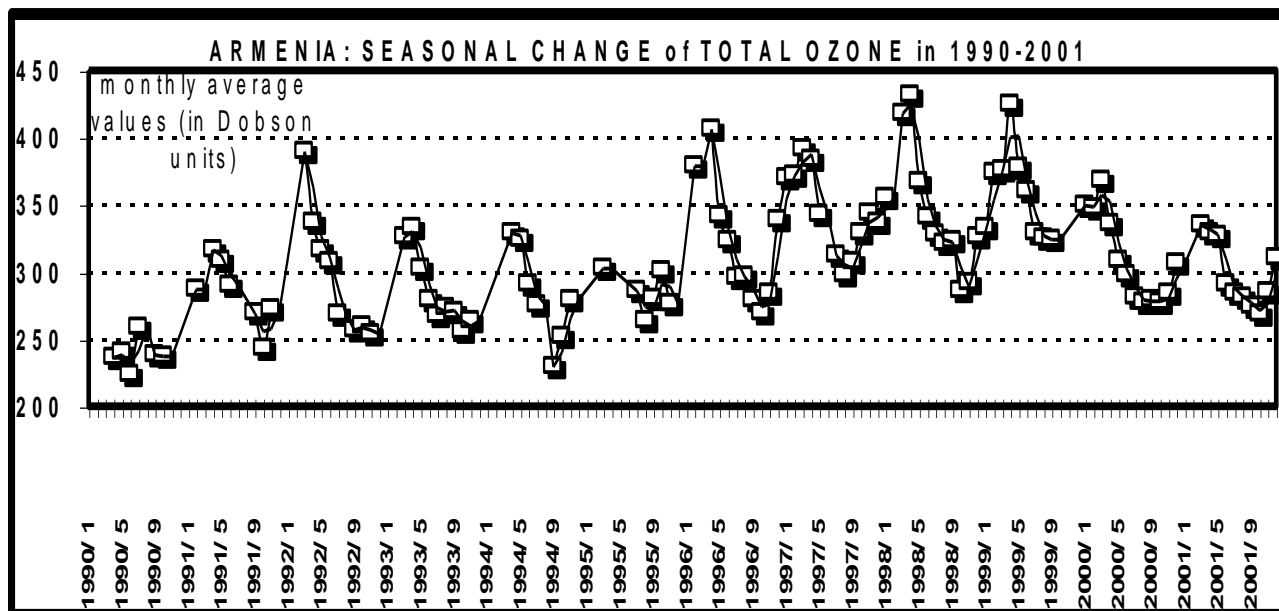


Table 1: Ozone Observing Network of Armenia.

Station	Location	Coordinate, altitude (m a.s.l.)	Instrument	Last calibration	Observations since
"YEREVAN"	Yerevan	40.1N, 44.3E; 1113	M-124	2001	1990
"SEVAN"	Sevan	40.3N, 45.1E; 1927	M-124	2001	*)
"AMBERD"	Mt. Aragats	40.3N, 44.1E; 2070	D-044	2000	2000
"ARAGATS"	Mt. Aragats	40.3N, 44.1E; 3227	M-124	2001	*)

\*) Reserve station.

Since 2000 with assistance of WMO, DWD (Germany) and SOOHK of CHMI (Czech Republic) on a southern slope of mountain Aragats was organized the station WMO/GO3OS/ID#410 ("Amberd").

In addition to long-term measurements of total ozone on the station "Yerevan" were carried out also the short-term simultaneous ozone measurements on the stations "Sevan" and "Aragats". The results of these measurements were used to study average levels and dynamics of surface ozone and its vertical distribution in range of 1000-3000 m a.s.l.

The connection between changes of ozone layer and the morbidity of populations of Armenia by skin cancer is investigated.

## Ongoing activity

The results of ozone monitoring on Dobson station "Amberd" are regularly submitted in monthly reports to WOUDC (Toronto, Canada). Data processing, management and transmission via WMO/GTS format are carried out by software developed at SOOHK. The processing and management of results of ozone monitoring on station "Yerevan" is carried out by software developed in Armenia.

The comparative analysis of total ozone monitoring at both stations "Yerevan" and "Amberd" is used for an estimation of vertical distribution of surface ozone and for debugging of the developed UV-radiation transfer model in view of typical for Armenia mountainous conditions.

On the basis of the information provided by the *Institute of Biological Physics and Biostatistics, University of Veterinary Medicine Vienna* ([http://i115srv.vu-wien.ac.at/uv/uv-index/uvi\\_eue.txt](http://i115srv.vu-wien.ac.at/uv/uv-index/uvi_eue.txt)) and according to the recommendations of COST-713 Action "UVB Forecasting" is daily calculated and published through mass media forecast for UV-indexes for mostly inhabited areas of Armenia. The meanings of UV-indexes for Armenia are in-group of the highest for Europe.

### **Planned activities**

The planned activities, alongside with continuation of the current activities, include also

- ◆ Organization of aerosol-monitoring on the stations of a local ozone observing network
- ◆ Organization of UV-monitoring on the stations of a local ozone observing network
  - 1) to study UV-climate of Armenia and
  - 2) to regularly submit to WOUDC UV-data on region of Southern Caucasus.
- ◆ Study specification of methodology COST-713 Action "UVB Forecasting" for application in the conditions of mountainous countries using the data of UV-monitoring and developed UV-radiation transfer model.

In realization of these plans we are ready also to the international cooperation in particular in questions connected to the use of equipment having appropriate class of accuracy.

In case of successful realization of this activity the results may be applied for the region of Southern Caucasus distinguished by its complex relief, as well for the general progress of UV-climatology science.

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