

Ozone-Web – Near Real-Time Information on Ground Level Ozone Concentrations for Europe

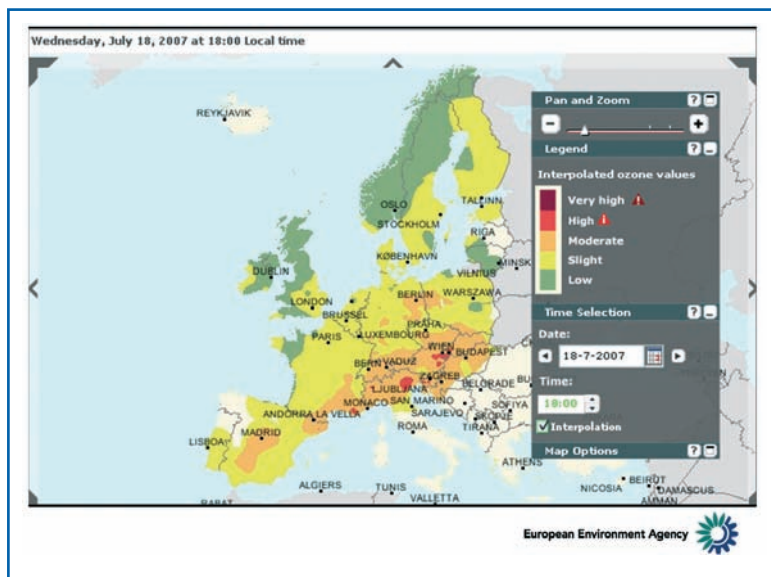
Description

Ozone Web <http://www.eea.europa.eu/maps/ozone/> is a public website based around ozone data and air quality information integrated in European Environment Agencies (EEA's) spatial data infrastructure. It is published within the EEA main site and links back to data providers as well as to national and regional air quality websites, giving easy access to more local information.

The purpose of the web site is to inform about ground level ozone in Europe for current and recent situations on an hourly basis based on near real-time data. Either by entering a place name or by clicking on a map of Europe, users are able to follow air quality across Europe. The web site also includes information on the health implications of ozone values.

Ground level ozone is a health hazard that presents one of the most prominent air pollution problems in Europe. It can irritate airways, causing breathing difficulties and damaging lungs after only a few hours of exposure. Up to 30% of Europe's urban population is exposed to ozone concentrations above the threshold levels set by the EU. Ozone pollution is responsible for as many as 20 000 deaths in Europe every year.

As a joint European project, Ozone Web reflects the international character of air pollution. It is produced in one place but may have an impact in another many hundreds of kilometres away. Data from more than 700 air quality monitoring stations is sent to the EEA every hour and displayed in near real-time on the web site. The web site is an excellent example of how an international institution can create partnerships with member countries to serve and empower citizens.



Ground level ozone concentration over Europe on July 18th 2007 6:00 p.m. local time

Added value

The web site demonstrates how multi-national near real-time environmental data can be stream-lined, harmonized and used to create a visual and easily understandable presentation of air quality measurement data for the public using state of the art information technology. The web site provides the following main features:

- European status (what is the situation in Europe) including current and recent historic status data;
- Advanced mapping tool;
- Interpolated maps;
- Comparison views;
- Supporting texts;
- Links to national, regional or local data providers.

Relevance to GEO

Ozone Web is linked to a number of GEO societal benefit areas (SBAs) mainly to 'Human Health Improvement' and 'Management and Protection of Ecosystems' since ozone is also affecting plant growth. There are also links to 'Understanding and Adapting to Climate Variability and Change'. Ground level ozone concentrations are linked to heat waves with high impacts on human health.

Ground level ozone concentrations are especially relevant for the GEO tasks 'Strengthen Observation and Information Systems for Health (HE-07-01)', 'Environment and Health Monitoring and Modelling (HE-07-02)', and can deliver validation data for 'Integrated Atmospheric Pollution Monitoring, Modelling and Forecasting (HE-07-03)'. Ozone Web may also be used as good practice example for near real time assimilation of multi-source data and support the Geo tasks 'Enabling Deployment of a GEOSS Architecture (AR-07-01)' and 'GEOSS Architecture Implementation Plan (AR-07-02)'.

The most important issues for GEO are in line with the basic principles of Ozone Web as there are:

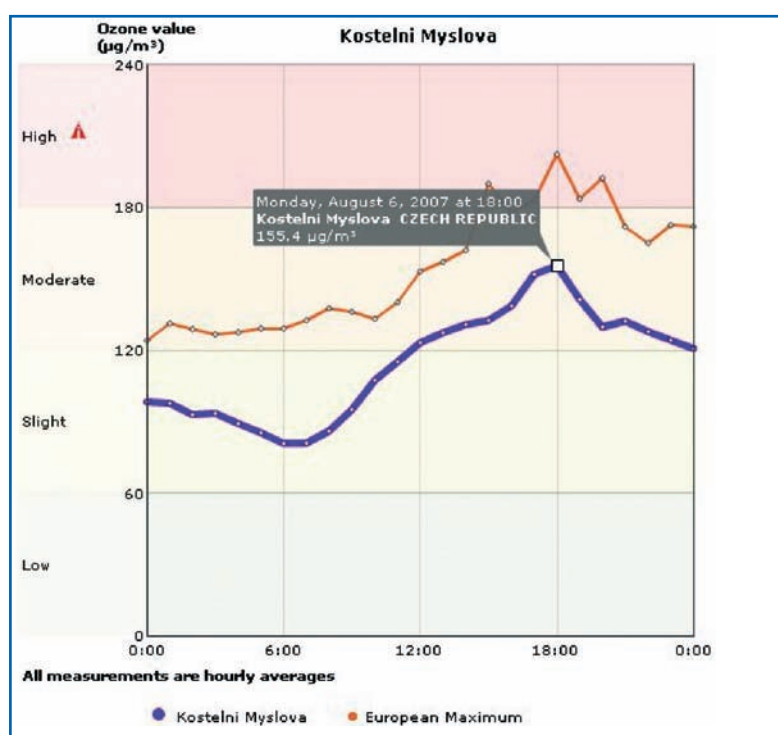
- Control: Data providers remain in control of the data provision and use.
- Visibility: Visibility should be given to the data providers (branding and their services).
- Quality control: Data received in real-time by EEA will be filtered to check for data outside pre-set limits and null or error values.
- Added value services: EEA aims to provide added value services back to the data provider organisations based on the data.

Participants

Ozone Web is a joint activity from European Environment Agency (EEA), its 32 Member States organized in the European Environment Information and Observation Network (EIONET). 24 of the countries are also GEOSS members. EEA and the European Commission (DG-Environment) are a participating organization of GEO. Links to other organizations and networks around the globe are envisaged.

Current Status and Next Steps

Ozone Web is an operational web based. Over the next year the project plans to expand data coverage to other pollutants such as particulate matter and link the different thematic layers to other environmental information as well as to other regional and global data sets.



Ozone concentration over the whole day as measured at an individual station