

International Ozone Commission (IOC)



President
Professor Robert Hudson
University of Maryland
Tel: +1 301 405 5394
Fax: +1 301 314 9482
e-mail: HUDSON@METOSRV2.UMD.EDU

Secretary
Professor Christos Zerefos
National & Kapodistrian
University of Athens
Tel. & Fax: +30 10 7230963
e-mail: zerefos@auth.gr

Vice President
Professor Toshihiro Ogawa
National Space Development
Agency of Japan (NASDA)
Tel: +81 3 6221 9001
Fax: +81 3 6221 9191
e-mail: t.ogawa@eorc.nasda.go.jp

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Press Release

Ozone remains depleted over the poles and the middle latitudes of both hemispheres

The United Nations declared the 16th of September as the International Day for the Protection of the Ozone Layer to commemorate the 16th of September 1987, the date when the Montreal Protocol was first signed. The Protocol controls the production and use of anthropogenic species which since the early 1970s have destroyed about 10% of the earth's ozone shield which protects life from the harmful solar ultraviolet radiation. The Protocol is an example of selfless cooperation between the developed and developing countries and provides an excellent paradigm to the international community for cooperation in complex environmental issues of global importance.

The theme of the International Day for the Preservation of the Ozone Layer on **16 September 2002** is: **“Save O3ur Sky: Protect Yourself; Protect the Ozone Layer”**.

Please visit the web site of UNEP at the following specific address where you will find suggestions for several activities on the 2002 International Ozone Day.

[http:// www.unep.org/ozone/ozone_day2002/](http://www.unep.org/ozone/ozone_day2002/)

This summer WMO/UNEP released the “Scientific Assessment of Ozone Depletion: 2002”, which was prepared by the Scientific Assessment Panel of the Montreal Protocol on Substances that deplete the Ozone Layer. Previous assessments in 1989, 1991, 1994 and 1998 led to subsequent Amendments and Adjustments of the 1987 Protocol by advancing our understanding and providing the input required to

strengthened the overall understanding of the ozone layer and its effect on UV radiation.

Springtime Antarctic Ozone depletion due to halogens, known as “ozone hole” has been large throughout the last decade. The ozone hole area has increased in size during these years, which however varies from year to year and it is not yet possible to say whether the area of the ozone hole has maximized. This year the development of the ozone hole started relatively late but is expected to peak during October.

In some recent cold Arctic winters maximum total column ozone losses due to halogens have reached 30%. Recent observations in the stratosphere indicate that the total chlorine abundance is at or near a peak, while bromine abundances are probably still increasing.

Models predict that the Antarctic ozone levels will start recovering by 2010 due to projected decreases of halogens in the stratosphere, but it is not expected to reach pre-1980 levels before the middle of this century. Arctic ozone depletion is highly variable and the time of ozone recovery is generally difficult.

Ozone remains depleted in the middle latitudes of both hemispheres. Over Northern Hemisphere midlatitudes the largest long-term ozone decreases in the past two decades are observed during winter spring (about 4% per decade), while over the Southern Hemisphere midlatitudes, ozone decreases are about 6% per decade during all seasons.

Measurements continue to confirm that decreases of ozone column amounts lead to increases in the biologically active part of UV radiation. UV irradiance has increased since the early 80's by 6-14% over the middle and high latitudes of both hemispheres.

During the last years emphasis has been given on the issues of interconnections between ozone depletion and climate change. New research has begun to explore the coupling between climate change and the recovery of the ozone layer. Water vapour, carbon dioxide, methane and other greenhouse gases all influence ozone depletion. In turn, ozone depletion through its association with UV-B increases influences the chemical composition of the atmosphere.

It has to be emphasized that failure to comply with the Montreal Protocol would delay or could even prevent the recovery of the ozone layer. For example continued constant production of ozone depleting substances at the 1999 amounts would likely extend the expected recovery of the ozone layer well past the year 2100.

The International Ozone Commission (IO₃C) of IAMAS-IUGG **urges all national and international Agencies**, which support scientific research and monitoring of ozone and related parameters to continue supporting these activities. The IO₃C is ready to collaborate and make significant scientific contributions, as has been done in the preparations of the Ozone Assessments in the past decades.

This text has been reviewed by the IO₃C members last on 13 September, 2002.

For more information: Professor Christos Zerefos, Secretary of the International Ozone Commission, University of Athens, Faculty of Geology and Geoenvironment, Laboratory of Atmospheric Physics and Climatology, Panepistimioupolis, Athens, Greece, Tel. & Fax: (+30 10) 7230963, mobile: 0030 944570099, e-mail: zerefos@auth.gr, <http://lap.physics.auth.gr/ozonemaps>