ATHENS STATEMENT
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On the occasion of the 20th anniversary of the Montreal Protocol for the protection of the ozone layer, scientists gathered at the Academy of Athens today, September 26, 2007. They noted that the success of the Montreal Protocol is largely based on scientific progress made over the last decades. A world of extreme high chlorine, low ozone, and high UV has presently been avoided. Continued adherence to the Montreal Protocol will assure that this remains the case in the future.
It is perhaps one of the most illustrious examples of a successful global collaboration between scientific, industrial and environmental organizations and policy makers. Control of ozone depleting substances as imposed by the Montreal Protocol is not the only factor that influences the variability of ozone and of harmful solar UV radiation. Aerosols, volcanic eruptions and climate change also influence the expected recovery of the ozone layer from the effects of halocarbons.
In areas like Greece where climate change may lead to significant reduction in precipitation and more frequent heat waves with more intense urban ozone and aerosol pollution events, new scientific and policy challenges will have to be faced.

Impact of Climate Change – Ozone climate Interactions

The decrease in ozone-depleting substances is a dominant factor in the expected return of ozone levels to pre-1980 values. However changes in climate will influence if, when, and to what extent ozone will return to pre-1980 values in different regions.

Future increases of greenhouse gas concentrations will contribute to the average cooling in the stratosphere. Chemical reaction rates in the atmosphere are dependent on temperature, and thus the concentration of ozone is sensitive to climate changes. Stratospheric cooling was observed during the past two decades. Further changes to the temperature and circulation of the stratosphere could affect climate and weather in the troposphere.

Implications for Policy Formulation

The Montreal Protocol is working: There is clear evidence of a decrease in the atmospheric burden of ozone-depleting substances and some early signs of stratospheric ozone recovery.

Failure to comply with the Montreal Protocol would delay, or could even prevent, recovery of the ozone layer.

Understanding the interconnections between ozone depletion and climate change is crucial for projections of future ozone abundances.

Stratospheric and tropospheric ozone are critical components of the global climate system. Understanding this system requires continuation and strengthening of observation systems for ozone and other relevant species, both from ground and space. These observations will provide indispensable information about the phase-out of halocarbons as required by the Montreal Protocol and about the evolution of the atmosphere under climate change. Continuous efforts in laboratory studies and model developments are also needed.

It is imperative to develop similar cooperative relationships between scientific, industrial and environmental organizations and policy makers to develop effective approaches to environmental threats in the “anthroposcene” era.

Prof. S. Rowland (Nobel Prize / Univ. of California, USA)
Prof. G. Brasseur (Assoc. Director NCAR, USA)
Prof. R. Bojkov (Previous WMO, Univ. of Dresden)
Prof. M.-L. Chanin (CNRS, France)
Dr. J. Farman (Ozone Secretariat, UK)
Dr. S. Godin-Beekmann (Vice President, IO3C / CNRS, France)
M. Gonzalez (Executive Secretary, UNEP Ozone Secretariat)
Prof. I. Isaksen (President, IO3C / Univ. of Oslo, Norway)
Prof. I. Karol (Voeikov Main Geophysical Observ., Russia)
Prof. M. Kurylo (NASA, USA)
Dr. M. McFarland (DuPont Fluoroproducts, USA)
Prof. J. Pyle (Univ. of Cambridge, UK)
Prof. R. Stolarski (NASA Goddard Space Flight Center, USA)
Prof. C. Zerefos (President of NOA, Secretary IO3C)