

First Meeting of GESAMP Working Group 38

The Atmospheric Input of Chemicals to the Ocean Tucson, Arizona, USA 10-14 December 2008

The first meeting of the United Nations GESAMP Working Group 38, The Atmospheric Input of Chemicals to the Ocean, took place at the University of Arizona, Tucson, Arizona, USA from 10-14 December 2008. This meeting was organized and supported by the Global Atmosphere Watch (GAW) and the World Weather Research Programme (WWRP) of the World Meteorological Organization (WMO), with additional support from the ICSU Scientific Committee on Oceanic Research, the International Maritime Organization (IMO), the Swedish International Development Agency, and the University of Arizona

Working Group 38 was formed to address the following Terms of Reference:

- 1) Assess the need for the development of new model and measurement products for improving our understanding of the impacts of the atmospheric deposition of nitrogen species and dust (iron) to the ocean;
- 2) Review the present information on the atmospheric deposition of phosphorus species to both the marine and terrestrial environments, considering both natural and anthropogenic sources, and evaluate the impact of atmospheric phosphorus deposition on marine and terrestrial ecosystems. Consider whether such a review of any other substance would be useful.
- 3) Work with the WMO Sand and Dust Storm Warning and Assessment System and with the WMO Precipitation Chemistry Data Synthesis and Community Project to evaluate the needs of the marine community and assist in clearly articulating them in the development of these WMO efforts

During the meeting the Working Group addressed these three charges in detail. Charges 1) and 2) were addressed by gathering information for three separate papers/documents that the working group will write in the areas of phosphorus, nitrogen, iron and organic matter deposition from the atmosphere to the ocean. The tentative titles of these three papers are:

“Implications of changing ratios of limiting nutrients in the surface oceans as a result of atmospheric deposition”

“Uncertainties in iron and phosphorus deposition to the ocean”

“Atmospheric organic materials and the nutrients they carry to the ocean”

Three subgroups were formed to address these three topics, and detailed outlines and responsibilities for various parts of these documents were made. The co-authors of these 3 papers will work throughout the coming year gathering all the data and information necessary to complete the papers, with draft sections being written in the intersessional period. Working Group 38 will meet again in early 2010 to complete the discussions and prepare the papers for publication.

Charge 3 was addressed by the development during the meeting of two letter reports, including recommendations. These letter reports address the issues outlined in Charge 3) and will be submitted by GESAMP to WMO in early 2009.

GESAMP Working Group 38 has tentatively chosen the week of January 11, 2010 for its second meeting, with the venue likely being IMO in London.