



Quadrennial Report (1999 - 2002) of the International Commission on Climate (ICCL) of the International Association of Meteorology and Atmospheric Sciences (IAMAS)

Michael MacCracken (President) and Kendal McGuffie (Executive Secretary)
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Over the four-year period 1999 through 2002, significant advances have been made in the field of climate science. In addition to the publication of the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) in 2001, significant scientific advances have been made. Among the most notable have been the more definitive detection and attribution of human-induced climate change, the increasing recognition of various multi-decadal variations in the climate (e.g., the Pacific Decadal Oscillation, the Arctic Oscillation, and the North Atlantic Oscillation), and the significant improvement of climate models (including especially the potential for significantly better resolution of climate models with the start up of Japan's Earth Simulator and the successes in use of massively parallel computers).

Throughout this period, the International Commission on Climate (ICCL) has continued with a steady, but relatively modest, level of activity. This level of effort has been satisfactory because the issue of climate is receiving significant international attention from both the research and policy communities and because many organizations are sponsoring meetings on climate issues ranging from El Niño to global warming. In addition, international cooperation has been encouraged through the various projects of the WCRP, which have led in developing research plans and have organization of a number of special meetings for the international community of scientists. The community of scientists whom the ICCL represents has been active participants in these efforts and there has been extensive participation in such activities as the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). With so much activity focused on climate change and variability, those in the community have even been hopeful of years with fewer activities.

Within IAMAS, the ICCL has continued to be very active in suggesting, planning, and conducting symposia as part of the biennial congresses of IAMAS. For the congresses in Birmingham in 1999 and Innsbruck in 2001, the ICCL took the lead in the planning of a number of the symposia. Among the most popular topics were sessions on model development and verification, climate variability, detection and projection of climate change, and on representations of various processes in climate models. Among the special highlights at the congress in Innsbruck was a

special plenary on the results of IPCC's Third Assessment Report that had as speakers several of the convening lead authors. Because the subject of climate is intimately tied to the interests of many of the other IAMAS commissions, ICCL members have also assisted in the planning of many additional symposia.

For the IAMAS Congress in Sapporo in 2003, the ICCL has helped to develop a number of sessions. To complement the disciplinary focus of a number of the symposia being developed by other IAMAS commissions, a number of the symposia developed under ICCL auspices were organized in the hopes of bringing focus to addressing the uncertainties associated with several key issues arising in the assessments of climate change. Thus, sessions are being developed to consider climate sensitivity, the potential for surprises or sudden change, the climate of the last 1000 years, and more.

With respect to its organizational activities, ICCL held commission meetings in both Birmingham and Innsbruck. In part because there are so many other climate related organizations, the attendance at these meetings was rather limited. In addition to re-electing its officers at the Birmingham Congress, the main commission efforts were to develop suggestions to propose for the upcoming IAMAS and IUGG meetings. Although IPCC activities are already starting up for IPCC's Fourth Assessment Report and a number of meetings are being held under the auspices of WCRP and its various programmes, we expect that the IAMAS congresses will continue to be an important place for scientists from around the world to interact and contribute to scientific progress through the convening of symposia dealing with climate variability and change.

Since the IAMAS Congress in Innsbruck, the ICCL leadership has been working to reinvigorate its membership and to draft a set of statutes that will meet the requirements of IAMAS. As part of this discussion, the ongoing role of ICCL will be further discussed, seeking to clarify how ICCL can best help to promote the science of climate change and the enhancement of capabilities for its study around the world, particularly working with those in developing countries to meet their needs. Also, new officers for the ICCL will need to be elected at Sapporo as the president and secretary of ICCL have both served for two four-year terms and so are at the limit of how long they can serve in their positions.