111

MESSAGES FROM THE ICE: ANTARCTIC ICE CORE RECORDS AND THE GLOBAL CLIMATE SYSTEM

T.D. van Ommen

[1]Australian Antarctic Division, Hobart, Australia, [2]Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Australia

Ice cores provide some of the richest archives of past climate behaviour available to us. The use of ice core data has become a foundation of climate study, and in Antarctica, with the sparse, short instrumental record, ice core climate data is of particular importance.

Although ice core studies are not new, there is much new data emerging from Antarctic ice core science. New records are becoming available from the deep drilling programs run by EPICA (European Consortium for Ice Coring in Antarctica) at Dome C and Kohnen Station, Dome Fuji, as well as earlier cores from Vostok, Siple Dome, Taylor Dome, Law Dome, and from an increasing array of shorter cores collected by the SCAR-ITASE (International Trans Antarctic Scientific Expedition) Programme. Improving measurement technology is adding new species to the wide range of parameters that can be measured and plans for further coring in the near future ensure that the ice core contribution to understanding the global climate system is set to continue.

Indeed, a better understanding of the interpretation and calibration of ice core data is a central component of the new SCAR Programme: *Antarctica and the Global Climate System.* This talk will survey some of the recent developments in Antarctic ice core science and look forward to some of the exciting prospects emerging for the future.