

Canada/France Scientific Mixed Commission

The bilateral workshop on Cold Regions Technology is an initiative of the Canada/France Scientific Mixed Commission (SMC), established in 1973 by the governments of Canada and France under the umbrella of their bilateral agreement on science and technology. The mandate of the SMC is to promote through collaborative projects or exploratory missions activities intended to result in scientific and technological advances of potential industrial or economic benefit. The Canadian Department of External Affairs and the French Ministry of Foreign Affairs are responsible for the overall coordination of SMC-approved programs. The SMC itself meets every two years in order to ensure the supervision and orientation of the bilateral agreement.

A wide range of programs has been developed by the SMC during the past ten years to promote joint research in selected areas including space and oceanology; biotechnology; information technology; new materials; and cold regions technology. Exchange programs; post-doctoral grants; inter-university agreements; inter-governmental agency agreements and a variety of other activities have all been designed to enhance cooperation in these priority areas. According to the proceedings of the Seventh Session of the SMC (Paris, May 1988), the "projects prepared for the SMC and submitted for the evaluation of French and Canadian experts demonstrate the vitality of a constantly expanding system of scientific cooperation."

Included in this expanding system of scientific cooperation is cold regions technology, an area recently identified as a potential priority by the SMC. Joint research projects in cold regions research examined by the SMC at its 1988 meeting were divided into three categories: operations in progress, new operations and prospective operations.

Three major initiatives are currently included in the operations in progress: ice/structure interaction, focussed specifically on ice-breakers and platforms in polar regions; experimental simulation and theoretical modelling of the freezing process and of the freezing-thawing of soils; and, heat transfer in cold regions. New research projects now being initiated include the measurement of the impact of an iceberg on sea floor; the study of the protection of pavement in cold regions; and engineering of frozen soils and ice. Proposed operations being considered include the corrosion of steels under arctic conditions; the development of a drum centrifuge for the study of ice; and, finally, the workshop on Cold Regions Technology.

The Workshop

The Workshop on Cold Regions Technology will cover a two-day period and will be divided into five main sessions, each devoted to a specific aspect of cold regions technology.

Session 1, Research Capabilities, will set the stage for the workshop, by