

STUDY OF CANADIAN SHIELD

Funds provided by the Council will help the University of Manitoba to obtain an understanding of the various environments that occur within the Canadian Precambrian Shield. The studies will enable the university to relate the distribution of metals to these environments so that the mineral resources can be extracted continuously, and in increasing amounts, in a systematic manner to keep pace with increasing population and advancing technology. This objective represents a first step to determine the history of the earth from its formation to the end of the Precambrian and to demonstrate how its history may be used effectively for the social and economic betterment of Canada.

EARTH SCIENCES

A grant to McMaster University, Hamilton, Ontario, will help expand isotopic and nuclear studies in earth science, an area in which the university already is heavily involved. The funds will enable the departments of chemistry, physics and geology to conduct multidisciplinary research in sediment diagenesis and petroleum studies, ore-formation and ore-prospecting and isotopes-as-tracers in oceanography and studies of ancient rocks.

METALWORK RESEARCH

Other funds granted to McMaster University, Hamilton, will help the university to support a research program in metalworking to be conducted in four main areas — metal-forming, metal-cutting and machine-tools utilization, electrical methods of metal-removal and technological control of production systems. Results of the research will find other uses in various ways through the university's Centre for Applied Research and Engineering Design and its Canadian Institute for Metalworking. It also will result in the employment in Canadian industry of graduate students who did their research in metalworking.

LASER RESEARCH

A grant to Laval University's Laboratoire de recherche en optique et lasers (Laser and Optics Research Laboratory) will enable this multidisciplinary group to expand its laser research. Part of the grant will aid programs in microwave, infrared and optical-communications methods encompassing holography and optical data processing. Another portion is earmarked for research into carbon dioxide TEA (Transversely Existed Atmospheric) lasers, including plasma heating applications. Another project will involve electron-optics research, including studies on organic dye lasers, tunable lasers and non-linear optics.

PEST-CONTROL

Memorial University of Newfoundland will receive grants to support a program of research towards the biological control of mosquito and blackfly pests. This will involve studies aimed at finding other forms of life which would prey on mosquitoes and black-

flies. Studies will also be conducted of possible hazards to the health of wildlife that may be posed by the eventual incorporation of such microbial control agents into integrated methodologies for the effective and selective reduction of mosquito and blackfly populations.

POLLUTION

Grants to the University of Ottawa will be used in a major collaborative research project on a multicomponent analysis of persistent pollutants in a three-mile stretch of the Ottawa River. The project will be multidisciplinary, involving biologists, civil engineers and geologists, in addition to the necessary expertise in chemical analysis and biometrics. More than 30 scientists and engineers will participate in the project. The study will be conducted in collaboration with NRC scientists primarily from the Division of Biological Sciences.

DAY-CARE SERVICES EXPAND

As a result of amendments to the Canada Assistance Plan, the Federal Government will expand its assistance to day-care services across Canada and establish a day-care information centre in Ottawa.

The Federal Government will share not only in staff costs but also in costs of equipment, materials and other operational expenditures. This change reflects interest at the federal level in the development of community services to support the family as the basic social unit of society. Day-care of children is considered an important element in such services. The provisions of the Canada Assistance Plan are directed to low-income families.

The degree of expansion of the nation's day-care programs would depend largely on provincial initiative, Health and Welfare Minister John Munro said. However, Mr. Munro estimated that the additional costs to the Federal Government of extended coverage and expansion would be between \$2 and \$4 million for the rest of the 1972-73 fiscal year, rising in 1973-74 to between \$4 and \$8 million.

The cost of the day-care information centre was estimated at \$50,000 this year and \$75,000 next year.

It is possible in a limited way only to estimate Canada's total need for day-care services. Information, however, indicates that more than 1 million Canadian children have mothers who go out to work and 350,000 of the children are younger than six years. Of these, about 140,000 are looked after daily but only 7,000 are placed in day-care centres.

The necessity for day-care in Canada was pointed up by the Royal Commission on the Status of Women; the Canadian Conference on Day Care, held last year, also recommended that the Federal Government increase its participation in the provision of day-care services, and representations were made on this subject by the Federation of Business and Professional Women's Clubs.