requests for large-scale photography during the past two years, a result, probably, of the widening appreciation of the value of such photography for planning and of the diversity of its uses.

The estimates for 1959-60 contain an amount of approximately $3.5 million for the geological survey of Canada. I might note here, by the way, that the badly needed new building on Booth street to house the staff of the survey is nearing completion and should be ready for occupancy in a few months.

The docket you received includes an information circular giving the main results of the geological survey's field activities in 1958. In reference to this circular I should like also to direct your attention to the clipping on the display board from a recent issue of The Northern Miner telling of the interest various companies are showing in the mineral possibilities of two widely separated areas in Canada as a result of the circular.

Last year the survey had 77 parties on field work. This year we expect to field 80 parties.

Our plans call for a considerable expansion of our ground water work, especially in the prairie provinces. For the past number of years our ground water studies have been confined mainly to providing what may be termed first-aid to areas that have faced serious water-supply problems. We now intend to get down to a systematic study of ground water geology.

Since 1952 we have been giving top priority in our geological work to the reconnaissance mapping of large areas in order to keep abreast of mineral resources development requirements. In this connection we hope in 1959 to complete the geological reconnaissance of what we call 'Operation Fort George', a 115,000-square-mile area lying immediately east of James bay in Quebec. We also intend to carry out three other such projects. One of these, named 'Operation Pelly', will cover a 20,000-square-mile area in southeastern Yukon. Another, named 'Operation Coppermine', will cover some 60,000 square miles in the western portion of the Canadian shield in the northern part of Mackenzie district, Northwest Territories. In the third, the geology of 125,000 square miles of Banks and Victoria islands in the Arctic archipelago will be mapped. The interest in the mineral potential of these and other arctic and subarctic regions is steadily mounting.

Included in this year's field program is a proposed aeromagnetic survey of an area in Ontario and Quebec bounded roughly on the west by a line joining Parry Sound and Englehart and extending north of Ottawa and eastward to Lake Chibougamau in Quebec. Information gained from the survey will be used in studies of the geology of the region.

I have mentioned Canada's responsibility for developing the resources of its continental shelves. In part, this responsibility will call for a thorough survey of the geology of the shelves in the years ahead in order to evaluate their mineral possibilities. To do this will require the recruiting of a qualified staff of geologists, a matter we now have under active consideration.

The answer to many problems confronting geologists today is to be found only in research which provides the scientific tools needed to probe the earth's geological secrets. To this end the geological survey is giving increasing attention to fundamental research in various fields, one of these being in the development of what is known as the carbon-dating technique. In this work we are endeavouring to determine the best applications of this important technique in the study of geological problems relating to age-determination, with particular reference to our studies in pleistocene geology.

Through funds provided by parliament the Geological Survey has been providing grants-in-aid since 1951 to Canadian universities in support of research projects. Our estimates for 1959-60 contain an amount of $50,000—the same as last year—to cover these grants. We had 40 applications last year