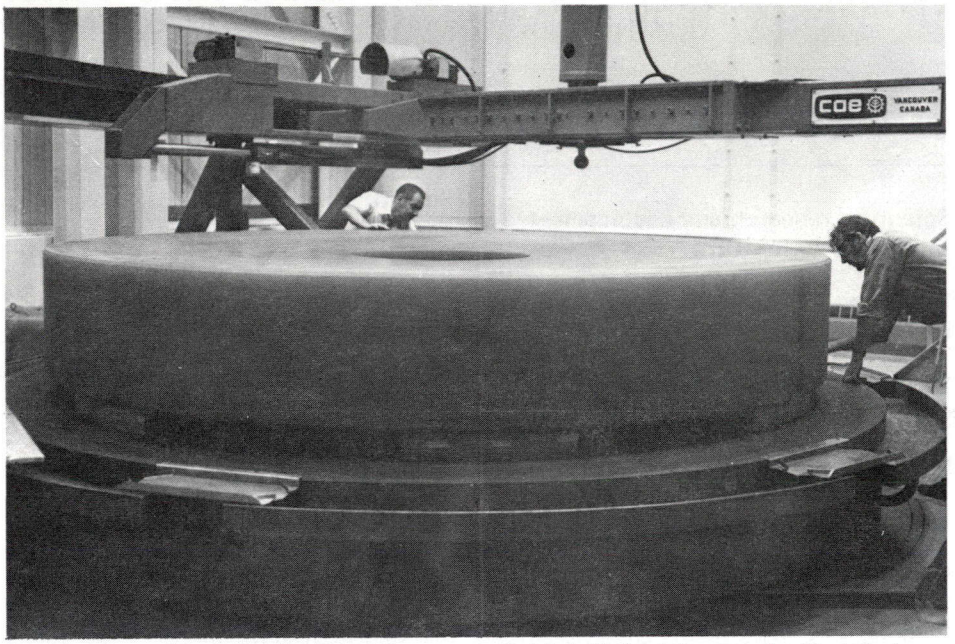
been completed on top of the mountain and the telescope's primary mirror is presently being ground and polished at the Dominion Astrophysical Observatory in Victoria, B.C., a task which should take two-and-one-half years to complete. The telescope yolk and frame support are being manufactured in France.

Mauna Kea, at an altitude of nearly 4,200 metres (13,780 ft), is one of the best sites in the northern hemisphere for optical astronomy, particularly for infrared observations.



Preparation of lens at the Dominion Astrophysical Observatory, Victoria, British Columbia, for the Canada/France/Hawaii telescope.

Sewage-water purification

. With NRC support, scientists at the University of Sherbrooke have developed a method of purifying sewage waters using peat moss as a filtering or leaching agent.

A pilot plant capable of processing 20,000 gallons of sewage water a day is now in use at the University to absorb heavy metals such as zinc, iron and lead, as well as cyanides, phosphates and organic matter such as oil, detergents and dyes. A patent has been issued for the process and Canadian industries are currently considering its use for purification of factory effluent waters.

Meat storage

. The Division of Biological Sciences' Food Technology Section has been carrying out research in an important area of the food industry, the refrigeration of meats. Microbiologists are seeking methods of increasing the "shelf life" of prepackaged beef by determining the optimal conditions of storage. At present, meat is purchased by retail stores in half-carcass sizes which must be sold no later than three days after cutting and packaging.

The NRC studies are being undertaken in anticipation of an important change in the manner of this operation; in future, the packaging of consumer cuts of meat will take place in a central packaging plant or in the slaughterhouse itself. This innovation will not only increase the efficiency of the meat-distribution process but will also allow retail stores to specialize in certain cuts. This centralized packaging idea will require an extension of the present three-day limit on storage to approximately seven to ten days be-

NRC – Canada's contact with an advancing scientific frontier

Since its founding in 1916, NRC has played a major role in Canada's scientific development. Today, it functions as a national science laboratory, a patron of Canadian scientific research and a vital link between the scientific interests of government, industry and universities in Canada.

The Council's laboratory activities are concentrated in ten major research divisions spanning various aspects of the life sciences, physical sciences and engineering. The newest of these, The Herzberg Institute of Astrophysics, has been named in honour of Dr. Gerhard Herzberg, distinguished NRC scientist and recipient of the 1971 Nobel Prize for his important contributions to the field of spectroscopy.

A focal point for much of the laboratory research is the 400-acre Montreal Road site on the outskirts of Ottawa. Here, an active research community involves some 550 scientists and engineers among its 2,000 employees. Other facilities include the original Sussex Drive laboratories in Ottawa, which date from 1932, as well as regional laboratories in Saskatchewan and Nova Scotia.

In addition to these, NRC also maintains numerous other scientific and technical facilities across Canada. These facilities which are intended for a variety of users, are often too expensive or too specialized for most Canadian industries or scientific organizations to support on their own.

The Canada/France telescope in Hawaii, described elsewhere in this article, will be an important addition on completion in 1978, when viewing time and observational facilities will be shared by the three participating nations.

Today, applied research is focused on selected areas related to long-term problems of national concern such as energy, food, building and construction and transportation. NRC also provides research support towards social objectives such as public safety and security, protection of property, health and environmental quality.

In all of its varied research programs, the NRC acts in response to Canada's changing needs and scientific priorities.

In addition to its "in-house" research activity NRC is also closely allied with Canadian industry through co-operative research and development and through direct financial assistance. Similarly, an extensive program of grants and scholarships is the main source of direct aid to scientific research in the universities.

(Continued on P. 6)