

The principal permanent facility operated by SRFB is the Churchill Research Range (CRR), near the town of Churchill, Manitoba, on the shore of Hudson Bay, in a location where important geophysical events occur and which provides an excellent rocket impact area. The CRR is a fully equipped subarctic research range which has been operated by NRC since 1965. In addition to its regular scientific rocket launchings, the CRR operates various ground-based instruments continuously and is a meteorological sounding rocket station in the North American synoptic network. The CRR assists in scientific balloon launching programs involving balloons up to 1 million cubic metres, carrying payloads as heavy as 1,000 kg. The Branch also operates the Great Whale Geophysical Station at Poste-de-la-Baleine, Quebec, which is manned by technicians to record auroral phenomena. There is also a small rocket launching facility at Resolute, NWT, which is manned as required.

The Institute of Astrophysics. In recognition of Dr. Gerhard Herzberg's outstanding scientific contributions, his interest in and contributions to astrophysics, and his distinguished role as a scientist and scientific leader at NRC, this new Institute is to be named "The Herzberg Astrophysics Institute".

While details regarding the structure and program of research of the Institute have yet to be developed, the general concept has been under consideration for some time. Basically, this involves bringing together NRC research in optical and radio astronomy, cosmic ray research and laboratory astrophysics. By consolidating existing strengths and resources it is hoped not only to achieve a more effective capability to exploit new scientific opportunities but also to develop in Canada a centre of scientific excellence in this field. The eventual availability of an important new telescope in Hawaii and related facilities and techniques, as well as the need for a stronger focal point in Canada for research in astrophysics, were also important factors in the decision.

Industrial Research Assistance Program (IRAP). The main thrust of NRC's effort in support of industrial innovation and development is channelled through this program. Companies participating in IRAP hold full responsibility for carrying out research in their own facilities or under subcontract to Canadian universities, provincial research councils or commercial laboratories. They retain all titles and rights to the results of the jointly funded research. The object of the program, in which NRC and the company contribute approximately equal shares, is to provide financial assistance to research teams engaged on projects of more than usual significance to the company's future which also hold some promise of making a significant contribution to the economic well-being of the country.

An example of IRAP support that produced significant results can be found in the records of the Canadian company that used funding from the program to develop a novel method of surveying for deposits of natural gas and oil. This technique depends on the determination of the helium content of air samples taken from the soil. Equipment and techniques for sampling and analysis have been developed, and surveys carried out over known deposits and over areas known to contain fossil fuels have indicated that the method has potential value as an exploration tool. Currently, the company is working with a number of oil companies in the testing of its method under field conditions.

Associate Committees have existed during the entire history of NRC, their beginnings and duration being as varied as the subject areas they encompass. While some committees have been in existence for relatively long periods of time, others are of recent origin. Still others, having fulfilled their purposes, have been disbanded.

Associate Committees can be grouped into five categories, and variations thereof, based on the reasons for their formation. One type of Committee might be called a precursor to a scientific society, with interests being focused around a relatively new or neglected scientific discipline. An example in this category is the Associate Committee on Quaternary Research, set up to co-ordinate and stimulate quaternary research in Canada. The second type of Committee is formed in response to a clearly identifiable problem area, particularly when solutions require a broad range of skills. The Associate Committee on Bird Hazards to Aircraft is one typical example. A third type of Committee is formed to act in an advisory role in an area of research closely related to work in the NRC laboratories.

In a number of areas where federal and provincial governments share jurisdiction, "neutral form" Associate Committees play a valuable role. An example is the Canadian