Further decentralization of authority is effected by subdivision into Ranger Districts, of which there are approximately 25 in each Forest District. Twelve directional, servicing or policy-forming Divisions constitute the head office of the Forest Service at Victoria.

Efforts continue to bring British Columbia's forest resources under sustained-yield management and the forest industries are making progress toward more complete utilization of their raw materials. The problem is urgent despite the fact that, with a present annual scale of approximately 1,602,000 M cu. ft., the total inventory would appear sufficient to support current needs in perpetuity. One of the more spectacular results of sustained-yield administration has been the swinging of a greater proportion of the annual forest harvest to the interior of the province. The over-cut coast (wet belt) forests now account for about 56 p.c. of the total forest cut each year and the interior for 44 p.c. For all practical purposes, the entire interior forest is publicly owned; the great majority of privately owned, leased or licensed forests are on the coast.

Several systems of timber disposal are in effect. The most publicized is the Tree Farm Licence, which constitutes a contract between the government and a company or individual whereby the latter agrees to manage, protect and harvest an area of forest land for the best possible return, in exchange for the right to the timber crop on the area. Tree Farm Licences are subject to re-examination for renewal every 21 years. Provincial Forests, Pulp Harvesting Forests and Public Sustained-Yield Units are the governmental equivalent of the Tree Farm Licence with the timber, when it is ready for cutting, being disposed of by public auction. Of major interest is the Pulpwood Harvesting Area plan, unique in North America, which calls for the integration of a 'sawlog' economy with a new pulp industry; five of these Areas have now been established—three in Prince George Forest District, one in Prince Rupert Forest District and one in Kamloops Forest District. Management, silviculture, roadbuilding and protection on such Areas are the responsibility of the Forest Service. Other tenures of lesser importance are Tree Farms, Farm Woodlot Licences, and those Timber Sales issued outside 'regulated' areas.

Forest fire prevention techniques and organization for effective forest fire suppression are vital aspects of planned sustained-yield management. A greatly expanded pulp industry, added to the long-established logging and sawmill industries, has increased the necessity for more adequate fire control. Extensive use is made of aircraft under various terms of contract. Air tankers and fire-spotter aircraft are employed during the fire season and helicopters and other aircraft are employed under contract for patrol duties and for the transport of fire suppression crews. The rugged topography and the many remote and sparsely populated areas of the province demand the availability of a variety of transportation methods to tie in with fast discovery and early attack on all forest fires.

Close liaison with the federal Department of Forestry and Rural Development, through facilities at Victoria and Vernon, provides detailed information on insect and fungal enemies of the forest and on fire research.

Subsection 3.—The Pulp and Paper Research Institute of Canada*

The Pulp and Paper Research Institute of Canada is a centre of research and learning concerned with virtually every aspect of the production and use of pulp and paper products. It was established in 1913 as a branch of the Dominion Forest Products Laboratories and in 1927 was reorganized under the joint sponsorship of the Canadian Pulp and Paper Association, the Federal Government and McGill University. The Institute staff carries out fundamental research and some applied research in the fields of woodland operations and pulp and paper mill operations. In addition, in co-operation with McGill University, it trains postgraduate students who are working toward master's and doctorate degrees in physical chemistry, wood chemistry, or chemical and mechanical engineering, and whose theses subjects lie in fields of interest to the pulp and paper industry.

* Prepared by Miss M. Daly, Pulp and Paper Research Institute of Canada, Montreal, Que.