

ranger. The numbers of fire-control personnel vary greatly from district to district, and also within subdivisions, but an attempt is made to have sufficient men available to attack quickly any fires that are reported.

If catastrophically large fires are to be avoided, early detection and quick initial attack on fires that do start are of paramount importance. Some provinces have hundreds of lookouts strategically located throughout their forested areas; when observations from two or more lookouts are obtained on a fire, often referred to as a "smoke", its location can be quickly pin-pointed by triangulation. In some regions, aircraft patrol is the primary means of fire detection, but more frequently aircraft are used to supplement a fixed lookout system. Despite this extensive detection system, a large number of fires in Canada are first reported by tourists, residents, crews of commercial airlines and other members of the general public.

In several provinces, specially-trained fire-suppression crews, often referred to as "standby crews" or "shock troops", are kept in constant readiness throughout the fire season for first attack on fires as they are reported. All fire-control services employ modern fire-fighting equipment suitable to their own conditions. Many specialized types of hand tools and light-weight items of power equipment are supplemented by heavy machinery such as tankers, ploughs and bulldozers. Aircraft, both fixed-wing and helicopters, are used to an ever-increasing extent in forest-fire control. Apart from their detection role, aircraft are used to transport men and equipment to the fire line, to drop water and fire retardants on the fire itself and to provide observation points from which suppression of large fires can be directed.

Through the Department of Forestry Act, the provinces are assisted in fire-control by the provision of cash grants and by a well-developed forest-fire research unit. In times of emergency, personnel and equipment of the Armed Forces may be placed at the disposal of provincial authorities to assist in fire suppression.

Prevention of fires is an important function of all forest-fire control services; education is considered the most effective method. All media of communication, including posters, television, radio and newspapers, are employed, but the personal influence of local rangers and other forest officers at forest-access points and recreation areas is probably the most effective way of educating the forest traveller in fire prevention. Education is supported by legislation; restriction or prohibition of travel in forest areas during periods of serious fire danger is common practice. In most regions, permits are required before a fire may be set during the fire season and such permits may be cancelled if the danger of fire becomes at all serious.

Forestry Information to the Public

Because of the immense value of the forests and the forest industries to the welfare of all Canadians, and because the vast majority of the resource is publicly owned, programmes of public education have been an integral part of the Canadian forest community for many years.

The provincial and federal governments, independent forestry associations and industry sustain programmes to encourage a better understanding of the value of the forest resource by the public. Much of the emphasis has been on public responsibility in the prevention of forest fires. There has been a slight change in recent years, however, designed to familiarize the public with the