

range from high to low volatile bituminous coking coals. Production increased to 964,663 tons, about 9.3 p.c. of the country's output, with an average value of \$6.690 per ton and 24.24 cents per million Btu. About 9 p.c. of the output was from strip mines. The average output per man-day was 28.215 tons for strip mines and 4.678 tons for underground mines.

Beneficiation facilities located at Union Bay (Vancouver Island) and Michel (East Kootenay) process nearly all of British Columbia's coal production. Of the 1961 output, 15 p.c. was shipped to Manitoba, 1.3 p.c. to Ontario, and negligible quantities to Alberta and Saskatchewan. Almost 44 p.c. of the output of coking coal from the Crowsnest area was exported to southwestern United States and Japan for blending in the manufacture of metallurgical coke.

In the Yukon Territory, 7,703 tons of coal were taken from a single underground mine with an average output per man-day of 3.231 tons. This coal was valued at \$14.830 per ton and 64.76 cents per million Btu.

Section 2.—Government Aid to the Mineral Industry

Subsection 1.—Federal Government Aid

The Department of Mines and Technical Surveys.*—The federal Department of Mines and Technical Surveys came into being on Jan. 20, 1950, in the reorganization of the former Department of Mines and Resources. The Department has six branches—Surveys and Mapping Branch, Geological Survey of Canada, Mines Branch, Dominion Observatories, Geographical Branch and, established effective Apr. 1, 1962, the Marine Sciences Branch. The Department's functions include the administration of the Emergency Gold Mining Assistance Act, the Explosives Act and the Canada Lands Act.

Surveys and Mapping Branch.—This Branch provides the base maps required for use in the development of Canada's natural resources, is responsible for legal surveys of federal lands and provides a national system of levelling and precision surveys for use as geodetic control by federal, provincial and private agencies.

The Geodetic Survey provides the original surveys that form the framework or basic control for mapping throughout Canada and for engineering and surveying projects related to natural resources development. Survey stations are established at fairly regular intervals across Canada and are marked by permanent monuments whose latitudes, longitudes and elevations above mean sea level are determined with a high degree of accuracy.

The Topographical Survey provides topographical maps that show all significant natural and artificial features fundamental to the study and economic development of mineral and other natural resources. The Field Survey Section is responsible for the field surveys that provide ground control for mapping from aerial photographs, and the Air Surveys Section plots and produces maps from these aerial photographs. The National Air Photographic Library indexes, preserves and distributes prints of all aerial photography done by or for the Federal Government.

The Legal Surveys and Aeronautical Charts Division makes and records legal surveys of federal Crown lands in the Yukon and Northwest Territories, the National Parks and Indian lands and reserves. This Division prepares aeronautical charts and electoral maps and prepares and distributes flight manuals.

The Map Compilation and Reproduction Division prepares, drafts and reproduces maps, charts and plans for lithographic printing in multi-colour. The work includes the preparation and photo-reproduction of air chart bases, the reproduction and printing of air information for aeronautical charts, the preparation and printing of topographic maps and the reproduction and printing of hydrographic charts.

* Revised, under the direction of the Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.