

Farm cash income, the most important component of farm net income, reached the all-time high of \$2,928.9 million in 1961, 2.4 per cent above the previous record of \$2,859.1 million in 1952, and 5.3 per cent higher than the \$2,781.5 million realized in 1960. Major contributions to the increase in farm cash income between 1960 and 1961 were higher returns from the sale of wheat, flaxseed, tobacco, cattle, calves, hogs, dairy and poultry products, and increased Canadian Wheat Board participation payments.

NEW CANADIAN TELESCOPE

Canada's newest and most advanced telescope, which had been four years in the making, went into operation recently at the astrophysical observatory, Victoria, British Columbia.

The 48-inch instrument, built in England by the firm of Grubb-Parsons, was designed by members of the Dominion Observatories Branch of the Department of Mines and Technical Survey. With its accessories, it is housed in its own domed building on Victoria's Observatory Hill, not far from the 42-year-old dome of the 73-inch telescope familiar to Victorians.

Like most large modern telescopes, the new instrument is of the reflecting type, especially suited for spectroscopic analysis, since the light from the stars does not pass through any glass but is reflected; and magnified, by concave and convex mirrors. It is the diameter of the principal mirror which determines the size of the telescope.

The cost of the telescope and building (without the spectroscope) is approximately \$700,000. Before calling for tenders on the instrument, Dominion Observatories scientists built an exact scale-model to test the mechanical setup.

ADVANTAGE OVER EARLIER TELESCOPE

Though smaller than its older brother, the new telescope has several important advantages, thanks to its unique design. The spectroscope, instead of being attached directly to the telescope, is housed in a separate room below the dome and is larger than that used with the older instrument. The balancing counterweight, an essential part of every large telescope, has been placed to the rear and below the instrument. This and other features make it possible for the telescope to be pointed at any part of the sky, leaving no "blind spots".

The new telescope will greatly increase the number and variety of observations that can be made by the staff of the Victoria astrophysical observatory, whose main task is the investigation of the physical properties of stars, chiefly by means of spectroscopic analysis. Such analysis also helps to determine the direction and velocity of star movements and the properties of interstellar space. The new instrument will also be used for direct photography and photoelectric photometry.

First on the list of jobs for the telescope is an investigation of the atmospheres of giant double stars.

"The installation of the new telescope," a spokesman for the Department said, "will not only meet research requirements, it will also help to broaden professional opportunities for Canada's astronomers, who have attained an enviable international reputation."

JET SERVICE TO WEST INDIES

In February, Trans-Canada Air Lines inaugurated DC-8 jetliner service to Trinidad and Barbados, bringing a new era of speed and comfort to travellers fleeing Canada's winter weather. The giant jets, carrying 99 economy-class passengers and 28 first-class passengers, will leave Toronto each Monday on a weekly schedule for the two Caribbean islands. There will be onward connections from most other major Canadian cities. They will make the 2,500-mile journey from Toronto to Barbados in less than five flying hours, and to Trinidad in less than six.

With the inauguration of this new service, TCA will be providing jet links between Canada and all the islands of the Caribbean it serves, except Antigua, where runway restrictions prevent jet service. The airline is providing twice weekly service to Antigua from Toronto and Montreal with 425-mile-an-hour turbo-prop Vanguards.

With the introduction of the DC-8 jets, TCA is continuing a tradition of service to the Caribbean that began December 1, 1948, with a weekly flight to Trinidad with 42-passenger "North Stars".

During 1949, the first full year of operation to Trinidad, TCA carried 832 passengers between Canada and the island's capital city, Port-of-Spain. In 1961, it carried more than 2,500 passengers. Scheduled service to Barbados began in 1949, and in 1950, the first full year of operation, 1,348 passengers made the air journey between Canada and this tropical island. In 1961, the airline carried almost 5,000 passengers between Canada and Bridgetown Barbados.

STUCHEN TO MALAYA

The Secretary of State for External Affairs recently announced that Mr. Philip Stuchen of the Department of Trade and Commerce was being sent to Malaya under the Colombo Plan to act as industrial development adviser to the Government of Malaya. He left Canada for Malaya on February 24 on a six-month assignment.

Mr. Stuchen is at present special adviser in the Economics Branch of the Department of Trade and Commerce in Ottawa. At the request of the Government of Malaya his services are being provided as part of Canada's technical assistance programme under the Colombo Plan. Among other duties, he will make a survey and advise the Government of Malaya on possible industries which might be economically established in that country.