

SATELLITE-TRACKING STATION

One of Canada's contributions to co-operative space research with the United States is the staffing and maintaining of a satellite-tracking station at Stiles Cove, about 13 miles north of St. John's, Newfoundland.

The station, which recently celebrated its sixth anniversary, is operated as part of the Satellite Tracking and Data Acquisition Network (STADAN) of the U.S. National Aeronautics and Space Administration (NASA).

In its brief lifetime, 55 satellites - two Canadian - have made thousands of passes within range of the station's data-receiving and -recording instruments.

The purpose of a STADAN station (there are only 13 in the world) is to determine the angular positions of satellites or other vehicles coming into its field of vision, to receive and record data transmitted from such vehicles and to issue commands regarding their operation.

The St. John's station employs 13 antennae arranged as interferometers for recording the position of satellites passing overhead. For telemetry passages, two antennae are used for receiving data from satellites and three for command transmissions to satellites.

An average satellite is in view of the station at predicted times for as long as 20 minutes on each orbit. Such a passage will be repeated three or four times at perhaps two-hour intervals followed by a much longer period in which no passages occur within the station's range. Thus, on certain days, it is possible for the station to be handling six to eight satellites involving 30 to 40 separate operations.

Since 1961, there have been more than 20,000 interferometer trackings and more than 13,000 telemetry contacts with satellites by the St. John's station.

In the last two years, approximately 200 passes each for the Canadian satellites *Alouette I* and *Alouette II* have been tracked to give accurate orbital information.

During the same period 600 telemetry recordings have been made of *Alouette I* data and over 3,000 on *Alouette II*.

Data is forwarded to the Goddard Space Flight Centre, near Washington, the control centre for the 13 STADAN stations in Australia, North and South America, South Africa, England and Hawaii.

DRAPEAU EXHIBITIONS DELEGATE

Prime Minister Pearson recently announced the appointment of Mayor Jean Drapeau of Montreal as senior Canadian delegate to the Bureau of International Exhibitions in Paris. "In view of Mayor Drapeau's background and interests, particularly his great experience with Expo 67, I am sure he will make a great contribution to the functioning of the Bureau," Mr. Pearson said.

The Bureau of International Exhibitions administers the 1928 Convention Relating to International Exhibitions to which Canada is a signatory. As senior Canadian delegate, Mayor Drapeau will attend meetings of the Administrative Council and will represent the Canadian Government on matters coming before the Bureau. Day-to-day liaison and work with the Bureau will continue to be the responsibility of the Minister-Counsellor (Commercial) of the Canadian Embassy, Paris, who reports to the Minister of Trade and Commerce.

STYLES FOR SERVICEWOMEN

Following on the current testing of a new style of uniform by men of the Canadian Armed Forces, the Department of National Defence is considering a new style of dress for Canadian servicewomen.

A small committee, including servicewomen, has studied a variety of sketches from which several styles have been chosen for consideration.

The new style selected is expected to be more feminine than the one in current use, the shirt and tie being abandoned and the length of the skirt shortened to the level of the knee. The cloth under consideration is the same as that used for the men's uniform but other cloths will also be examined for suitability.

A test uniform should be ready for trial by 20 or 25 servicewomen early in 1968 and there is a good chance that all women in the services (some 2,000) will have a new basic uniform during 1969.

It is possible that the new dress will be common to all servicewomen, including nursing sisters, radar plotters, food services, with rank and occupational markings similar to those for men.

GROSS NATIONAL PRODUCT

Canada's gross national product in the second quarter of 1967 reached a level of \$61.5 billion, seasonally adjusted at annual rates - an increase of 2.2 per cent from the first quarter. With prices rising, this advance represented a gain of close to 1 per cent in real terms.

Although the rise in the current value of the GNP roughly matches the average increase in three of the four preceding quarters, as a result of continuing price increases, the advance in constant dollars compares less favourably.

The increase in total demand from the first quarter at over \$2 billion, was the largest in five quarters; its components displayed wide fluctuations. On the income side, the factors of production contributed fairly evenly to the domestic portion of this increase; this was strongly reinforced by supplies coming from abroad. Although its effect cannot be fully evaluated in quantitative terms, centennial celebrations and, in particular, Expo '67 had a pervasive effect on the economy.