scientific satellites to date, and have made outstanding contributions to our knowledge of the ionosphere.

SUCCESS OF BLACK BRANT ROCKET

At the Churchill Research Range, operation of which was taken over by the National Research Council in January 1966, research rockets instrumented by NRC, DRB and several Canadian universities are being launched regularly for exploration of the auroral zone. The vehicles employed for this purpose are the DRB Black Brant series. These rockets are being launched at an average rate of about one a month and are satisfactorily performing every task required of them. As a result, a number of foreign governments are now proposing to use Black Brant rockets in their own space research programmes.

Thus, the vehicle requirements for the Canadian Space Research Programme are at present being adequately met by the Black Brant rocket, and none of the scientific agencies concerned have yet expressed any future need which could not be satisfied by these rockets. Since the HARP technique does not offer any significant advantage over Black Brant, and imposes certain limitations on instrumentation due to high-launch acceleration, the cost of developing HARP as an alternative launching system cannot be justified on the basis of any known Canadian requirement.

SILVER COINAGE

Mr. Mitchell Sharp, Minister of Finance, has announced that the Government has authorized a special issue of ten-cent and 25-cent coins to be put in circulation over a short period until it is feasible to issue the new nickel coins.

On December 23 last it was announced that pure nickel had been selected as the best material for future Canadian coins. The selectors currently used in coin-vending machines cannot accept both the outstanding silver coins and the new nickel coins. New selectors are being developed which will accept both, and these are now expected to be available within a few months. When they are installed in vending machines, the new nickel coins, as well as the existing silver coins, can be used in the machines without inconvenience to the public. It is believed that enough of these new selectors will be installed early in 1968 to make it possible to circulate the new nickel coins at that time.

ECONOMY MEASURE

Meanwhile the shortage of silver that has rapidly intensified in recent months, and its high cost, makes it advisable to economize by producing ten- and 25-cent coins containing less silver than existing coins, but still suitable for use in the selectors currently used in coin-vending machines. The Royal Canadian Mint has developed and tested new ten-cent and 25-cent coins made of an alloy containing 50 per cent silver and 50 per cent copper. These will not be as durable or attractive as the new nickel coins, nor as economical to produce, but will serve adequately in the interim. They will be indistinguishable from the present coins but will not keep their attractive appearance indefinitely.

The silver coins contained in the centennial numismatic coin sets currently being sold by the Mint will not be affected by the proposed change in the coins issued for circulation.

DRB REORGANIZED

The reorganization of the headquarters of the Defence Research Board in Ottawa, completed early this month, aims at centralizing defence research policy and planning and decentralizing many of the scientific activities carried out at headquarters since the Board's inception in 1947.

The reorganization, which is designed to meet the need for closer collaboration between DRB scientists and Canada's Armed Forces, will strengthen the scientific and technological association that exists between the establishments and Canadian universities and industry. It will provide better career opportunities for defence scientists, and enable headquarters personnel to concentrate on policy and planning in co-operation with the Armed

Among the functions that are to be transferred to the research laboratories are the responsibility for co-operative technical programmes with Canada's allies, the research-grants programme at Canadian universities and industrial-research activities.

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CHRISTMAS STAMPS

The Canada Post Office will issue Christmas stamps for the fourth consecutive year, in denominations of 5 cents and 3 cents.

The 5-cent stamp, printed in green, and the 3-cent, printed in red, are identical in design except for their denominative values. They will be small and horizontal in shape. In the lower right corner, is a group of three children dressed in winter clothing, singing carols. On the left is a snow-laden evergreen reminiscent of the traditional Yule tree and, in the background, symbolic of "peace on earth", is a reproduction of the Parliament Buildings Peace Tower in Ottawa. The inscription "Noel" and "Christmas" appears over the heads of the children; "Canada" is shown under the heads of shown under the book from which they sing, and the design is completed by the denomination appearing in the upper left.

The new stamps, which are based on a submission by the British American Bank Note Company Limited, Ottawa, are produced by the steel-plate engraving process. The full issue - 255 million of the 3-cent value and 90 million of the 5-cent denomination will be printed by the Canadian Bank Note Company Limited, Ottawa.

The stamps will be released in October to allow sufficient time for overseas Christmas mailing.