

No. 9914

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**UNITED STATES OF AMERICA  
and  
CANADA**

**Exchange of notes constituting an agreement regarding  
a cooperative study of the polar cap ionosphere  
(with attachment). Ottawa, 9 and 11 August 1967**

*Authentic text: English.*

*Registered by the United States of America on 1 October 1969.*

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**ÉTATS-UNIS D'AMÉRIQUE  
et  
CANADA**

**Échange de notes constituant un accord relatif à une  
étude conjointe de l'ionosphère de la calotte polaire  
(avec pièce jointe). Ottawa, 9 et 11 août 1967**

*Texte authentique : anglais.*

*Enregistré par les États-Unis d'Amérique le 1<sup>er</sup> octobre 1969.*

EXCHANGE OF NOTES CONSTITUTING AN AGREEMENT<sup>1</sup>  
BETWEEN THE UNITED STATES OF AMERICA AND  
CANADA REGARDING A COOPERATIVE STUDY OF  
THE POLAR CAP IONOSPHERE

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No. 44

The Embassy of the United States of America presents its compliments to the Department of External Affairs and refers to discussions which have been held between personnel of the United States National Aeronautics and Space Administration and the Canadian National Research Council looking toward a cooperative effort to study, during the proximate years of solar activity, the polar cap ionosphere. To fulfill this objective, a series of 6 to 12 sounding rockets would be launched to an altitude of 100 km at Resolute Bay, Canada, commencing in the fall of 1967 and continuing at an approximate rate of three per year until the fall of 1969. The experiments to be flown would study polar cap absorption events and the polar ionosphere "D" region as well as measure the height profile of high energy protons.

The studies of the polar ionospheric "D" region will be directed at assessing the importance of mesospheric circulation effects which may be partly responsible for the maintenance of the lower ionosphere during the quiet polar night. The experiments will utilize a groundbased transmission of RF energy to rocket-borne receivers (Faraday — Rotation Experiment), and the rockets will be fired to a peak altitude of 90-100 km, utilizing a minimum launch elevation of 85 degrees.

This program is expected to start during the summer of 1967, and continue until the summer of 1969, with rockets launched at a rate of approximately two to four per year. As presently conceived, the program would be initiated with the launching of up to four rockets in September or October 1967. These launches will be coordinated with a Canadian NRC expedition that is currently scheduled for this period. The second series of launchings is planned for June or July of 1968, followed by a third series in the winter of 1968-1969. The fourth launch series is planned for summer 1969.

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<sup>1</sup> Came into force on 11 August 1967 by the exchange of the said notes.