

Artificial Auroral Experiments to Sweep Over Poker Flats

Artificial auroras, expected to be easily visible to the eye, will be generated sometime this week above central Alaska.

A large Castor rocket will boost a 2000-lb. payload from the University of Alaska's Poker Flat Research Range at Chatanika. The payload contains massive battery supplies for electron accelerators that will operate when the vehicle reaches auroral altitude, roughly 100 km.

Intense beams of accelerated electrons then will strike the high atmosphere to generate the

artificial auroras.

The rocket itself will be a spectacular sight in the Fairbanks area as it lifts off from Poker Flat. About two minutes later the electron guns will begin operation to produce the auroras. More than 100 auroral rays will be produced if all works well. Each will last about 1 sec, and the time between auroras will also be 1 sec.

The rocket will be flown by the Air Force Cambridge Research Laboratory in Massachusetts to study the interaction of charges particles with the atmosphere.

The payload was built by Visidyne, Inc. under the supervision of Mr. Orr Shepherd. Dr. A.T. Stair and Mr. Robert O'Neill, both of AFCRL, are the project scientists. The overall program is supported by the Defense Nuclear Agency.

Television and other observation of the auroras will be done by Geophysical Institute, at Ester Dome Observatory, and at Ft. Yukon.

Dr. T. Neil Davis, Deputy Director of the Geophysical Institute, said that attempts will be made to notify local radio and TV stations just before the rocket flight so that residents of central Alaska can observe if they wish.

Also, Poker Flat is involved in launching a series of barium

release rockets each clear night during evening and morning twilight. These also create a spectacular view for observers.

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