

## Radio controlled-- Approach lights

Eleven Alaskan airports will be equipped with standard radio control systems for approach lights, with the installations to be completed before the end of 1976, the Alaskan Region of the Federal Aviation Administration announced recently.

At three of the airports—Aniak, Ft. Yukon and

St. Mary's—the new system will allow a pilot in flight to activate airport lights just prior to landing. FAA does not have an airport traffic control tower or flight service station at these three locations.

At three other locations where the FAA provides air traffic services on a part-time basis—Yakutat, Homer and Bettles—air-to-ground airport lighting controls will be available to pilots at times when air traffic services are not being provided.

The new radio control systems for airport approach lighting will also go in at five other Alaskan airports where the FAA provides round-the-clock air traffic service: Ketchikan, Cordova, Kenai, Deadhorse and Barrow. At these locations, however, pilots will not activate the

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## Satcom I on geosynchronous orbit

The RCA Satcom I domestic communications satellite has achieved geosynchronous orbit and moved toward operational status today with its solar panels deployed and generating electricity directly from sunlight.

Howard R. Hawkins, president, RCA Communications, reported that the spacecraft was in "excellent health" with extra on-board fuel for 9½ years of operation, which is well above design criteria.

He said the satellite now would undergo in-space testing of its systems before going into commercial service, scheduled for February.

The RCA Satcom I is the heart of RCA's domestic communications satellite system designed to provide telephone, video and data services to customers throughout the 50 states.

The satellite is the most advanced communications spacecraft ever put into commercial service. It has 24 channels (or transponders), which is double the capacity of any similar satellite yet launched. It is a three-axis stabilized spacecraft employing new technology developed by RCA, compared with the spin-stabilized mode used in previous communications satellites.

"The RCA Satcom I represents a significant step forward in communications space ventures, marking the beginning of a new generation of satellites providing high reliability, low-cost communications throughout the United States," Hawkins said.

The RCA Satcom I can operate via earth stations in Alaska, Hawaii and the

contiguous 48 states. Initial satellite operations will be with nine existing RCA earth stations.

An additional 12 RCA standard stations, and up to 60 small earth stations are scheduled for operation with the RCA Satcom System in 1976.

There also will be another 11 earth stations in operation that will be just for video reception, and they will be used for Home Box Office programming.

In addition, Home Box Office said that more than 100 applications are in process or on file with the Federal Communications Commission for video-only earth stations.

RCA has scheduled the launch of a similar 24-channel communications satellite—RCA Satcom II—for the end of March 1976.

RCA Satcom I was launched into elliptical earth orbit from Cape Canaveral, Florida, on Dec. 12, 1975. Approximately 68 hours later, a small rocket was fired to place the satellite into geosynchronous orbit 22,300 miles above the equator, which will be its permanent home.

After achieving geosynchronous orbit—in which the satellite and the earth rotate in the same direction at the same speed—the satellite was stabilized and its solar panels deployed.

The panels are constantly aimed at the sun to produce 740 watts of power by converting sunlight directly into electricity to run all the spacecraft's functions.

The satellite's unmatched cost effectiveness results from development of a lightweight, high-capacity spacecraft with 24 separate channels that could be launched by an economical Thor Delta launch vehicle.

The existing Thor Delta 2914 was capable of lifting only 12-channel satellites.

By uprating the 2914's payload capacity from 1,550 pounds to 2,000 pounds, the new Thor Delta 3914 was able to launch the lightweight, 24-channel RCA satellite, achieving twice the capacity of previous communications

satellites with a single launch.

Each transponder on the RCA Satcom I is capable of handling 1,200 voice grade channels, one color television transmission, or more than 60 million bits per second of digital data.

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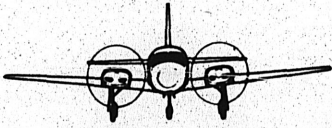
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