

# BCF Draws on Space Age to Aid Research

A novel space-age program of cooperation between a Department of the Interior research vessel and whether satellites in orbit is set to begin off the coast of West Africa late this year.

If successful, such projects could supply knowledge of inestimable value to commercial fishermen in terms of more efficient predictions of favorable fishing conditions and larger catches, Secretary of the Interior Stewart L. Udall said.

The Bureau of Commercial Fisheries (BCF) ship, "Undaunted," has been chosen as the first marine research vessel to work with Nimbus satellites in a feasibility study on monitoring oceanic fronts from space.

The vessel operates out of Miami, where it is attached to the Bureau's Tropical Atlantic Biological Laboratory.

Oceanic fronts, present in specific areas of the world, form boundaries between water masses and appear to act as concentrating mechanisms for surface-schooling fish like the tunas.

The study is part of a program funded by NASA and administered by the U.S. Navy Oceanographic Office to determine what useful oceanographic data can be collected by spacecraft.

BCF personnel in charge of the project are Dr. Paul M. Maughan of Washington, D. C., and Dr. Merton C. Ingham of the Miami laboratory.

Under the experimental arrangement, the "Undaunted" will use standard equipment to gather fishery, oceanographic, and meteorological data; however, the regular equipment will be augmented by a new automatic picture transmission (APT) receiver aboard the ship.

The APT will receive

(Continued on page 8)

# Space Age Aid . .

(Continued from Page 2)

meteorological photos of the study area each day by direct broadcast from NASA satellites orbiting the earth at about 700 miles. Daylight picture will be via a visible wavelength; night transmissions in infra-red wavelength.

Daily routine of oceanographic vessels consists primarily of occupying scientific "stations." Each station entails stopping the ship to collect samples of marine life and sea water for analysis either aboard or at the home laboratory.

Hundreds of such stations, some requiring up to four or five hours, would be necessary to cover an area as large as that shown in a single photograph taken from a satellite.

BCF scientists hope that the broader coverage offered by spacecraft picture transmission, combined with routine oceanographic observations, will provide a more effective and more rapid method of surveying the ocean.