

By W.T.M. GRIGG  
Science Service Staff Writer

WASHINGTON, -- Tiros I, the weather station launched into orbit Friday (April 1), is only about a third full. The rest is empty space.

According to an official of the National Aeronautics and Space Administration, the hatbox-shaped satellite could not carry much more instrumentation without becoming too heavy to be lifted into orbit by the 90-foot, 105,000-pound Thor-Able rocket. Tiros I weighs 270 pounds.

Then why did NASA not decrease the size of the satellite shell: Because this would have reduced the area for exposure of solar cells. These convert sunlight into electricity to run Tiros' instruments.

So, like a woman on a diet, Tiros is an attempt to strike a balance between weight reduction and energy enough to function.

But Tiros, again like a woman, accidentally overdid the weight reduction. A device to measure the heat budget of the earth was not included in Tiros I, as planned, because the device was not ready in time.

Tiros II, scheduled later this year, will include the device (but will still be far from full). The infrared device will measure the heat coming from the earth and the heat coming from space, an official of the U.S. Weather Bureau has said.

This will provide data on the energy budget of the atmosphere -- the income, outgo and what is left in the bank. This type of information should be enormously valuable for understanding the atmosphere and the weather.

A smaller infrared device in Tiros I tells only whether it is facing the earth or not. This keeps track of the spinning of the satellite.

But Tiros' manufacturer, the Radio Corporation of America, reports that even without the major infrared device Tiros I is perhaps the most elaborate electronics package yet sent into orbit around the earth.

It contains two miniature TV cameras, video tape recorders, transmitters, solar cells and rechargeable battery power supplies, plus control and communications equipment.

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