

SATELLITES:

Wide-Screen Picture

Talented Tiros, the weather satellite, completed its 130th turn around earth last Sunday morning and had transmitted more than 2,000 recognizable pictures to the United States.

The shots that it took with its TV cameras last week were even more spectacular than the first series released. They showed vast panoramic sweeps of Africa and the Near East coming through clearly enough to distinguish such ground features as the Nile and the Sinai Peninsula (right).

But back in Washington, this remarkable achievement was blurred by a public-relations foul-up on the part of the National Aeronautics and Space Administration that began soon after Tiros was launched.

When the satellite was being readied, NASA was mindful of its military eye-in-the-skies implications and designed it specifically to identify weather patterns and to ignore ground details. For example, the resolving power of its narrow-angle camera from the orbiting altitude of 450 miles was 1,000 feet—which means that an aircraft carrier of the Saratoga class could in theory be picked up only as an indistinguishable blip on the photograph. The trouble was that NASA failed to mention the camera's resolving power in any of its initial announcements. Apparently the hope was that everyone would ignore the touchy political implications of camera-carrying satellites if NASA simply said nothing. The exact opposite, of course, occurred: An air of high intrigue settled over the whole project. Capabilities it didn't possess were attributed to Tiros. And all through the week reports circulated that it was capable of spying on Russia and China.

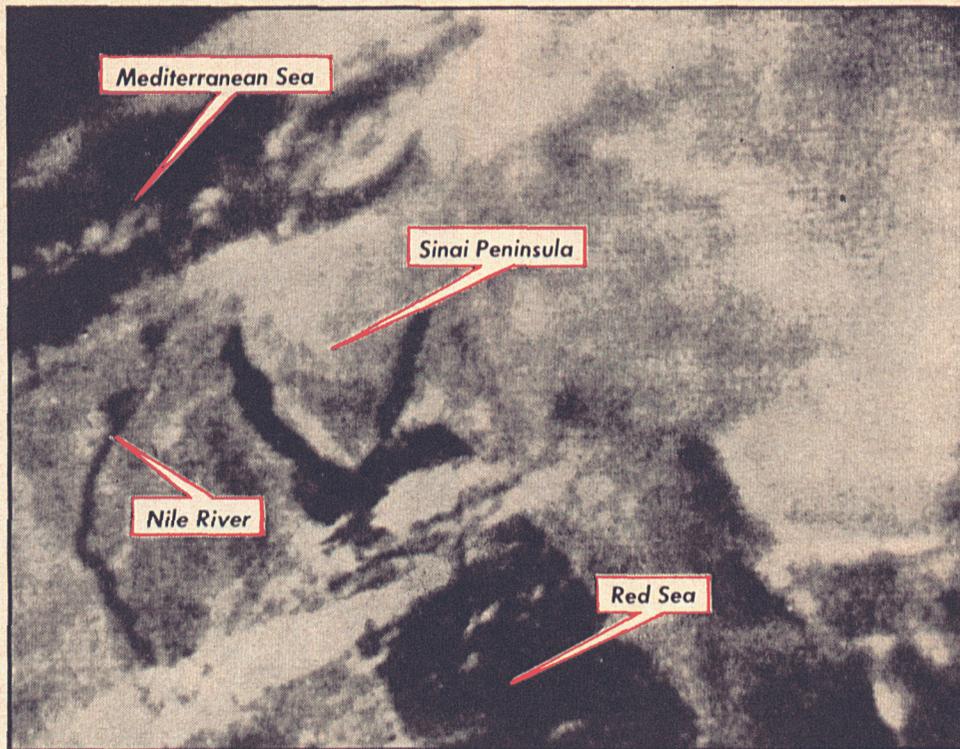
Belatedly, at the end of the week, NASA called a conference to clear up "possible confusions" about the role of its satellite. In any case, the spy question had been academic since the first day in orbit: The clock for the narrow-angle camera had broken down, making it impossible to take high-resolution pictures where and when the ground stations wanted.

FALLOUT:

The Facts Are Brighter

Has the radioactive fallout hazard from nuclear-weapons tests been consistently overrated?

The answer is yes, according to a panel of experts who met last week at the annual session of the American Chemical Society in Cleveland. They put together a new and remarkably optimistic



A sunny day East: Few clouds obscured Tiros' view from 450 miles up

picture of fallout. It suggests that previous estimates were based on a series of honest errors—scanty data, incorrect assumptions, and "scientific conservatism"—which had the net effect of magnifying the health threat.

As summarized by Prof. J. Laurence Kulp, who conducts fallout research at Columbia University for the Defense Department, here is what the new picture shows:

►The amount of strontium-90, the chief cancer-causing poison that has been thrown into the world's atmosphere by all nuclear tests to date, is a whopping 50 per cent less (figures are given only in percentages because of security) than had been thought. This was determined by direct measurements made by high-flying (60,000 feet) Air Force U-2 planes as part of a once top-secret project.

►These same radiation-sampling planes determined that only 10 per cent of this strontium-90—instead of the previously estimated 50 per cent—is still held up in the stratosphere.

►At the same time, the poison that has already fallen to earth is not being "taken up" or absorbed by food plants and grass to the extent heretofore believed. This means that less strontium eventually ends up (via vegetables and milk from the cows which eat the grass) in human bone, particularly the bones of young, growing children.

The new figures left unaffected the scientific argument as to whether any amount of strontium in the bone can cause cancer. But, Kulp said, "the high-

est level of contamination in the diet has already passed, and in any event the amount of contamination was less than thought. By 1962, fallout will be negligible and the skies will be 'clean'—if big tests don't resume."

THE H-BOMB:

An Escape From Terror?

As a deeply religious man, an electrical engineer, and a successful businessman, Thomas E. Murray was first fascinated with the atom as a peaceful source of power.

But shortly after President Truman appointed him one of the five AEC commissioners in 1950, he found himself a leader in the titanic battle for building the first H-bomb (despite "moral" misgivings of some top AEC scientists).

And since leaving the AEC in 1957, Murray has argued for continued testing so that the U.S. could develop small-yield nuclear weapons for battlefield use and for anti-missile missiles.

The dilemma of this hard-fighting public official who played a major part in The Era of Terror (Murray's phrase for the H-bomb age), is told in his new book published this week.* A revealing account of the great atomic issues of the 1950s and an analysis of the test ban now being negotiated, the book lets go with some nuclear blockbusters:

►"The public has been given the im-

*Nuclear Policy for War and Peace. 244 pages. World. \$4.

National Oceanic and Atmospheric Administration TIROS Satellites and Satellite Meteorology

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