



SMS-1 monitored 1974's Hurricane Fifi.

probe may not be long for this world.

If SMS-1 is still working over the Atlantic on Jan. 30, the second satellite will be aimed at 120 degrees west longitude, where it can cover the Pacific Ocean (its original target was 135 degrees west) but still be within moving distance of the Atlantic in case its predecessor fails. If SMS-1 has already died by launch time, SMS-B will be sent to 95 degrees west, where it can provide more centralized coverage of North America while still keeping a close eye on the hurricane breeding grounds of the Atlantic.

In June, a third satellite is to be launched, depending on the condition of the other two. NOAA expects SMS-1 to be ineffective by then, so the newcomer will probably take up the Atlantic job, while SMS-B is shifted to its originally planned 135-degree position southeast of Hawaii.

Besides taking pictures, the new probes are equipped to gather data from thousands of seismic, hydrologic and other sensors on the ground—making them a new breed of weather-watchers indeed. □

Passing of the AEC

After 27 years and 18 days, the Atomic Energy Commission passed into oblivion at midnight last Sunday, its research and development capacity passing to a new Energy Research and Development Administration (ERDA) and its regulatory function to the Nuclear Regulatory Commission (NRC). Born out of the postwar struggle to put atomic energy under civilian control, the AEC died amidst an acrimonious debate over its safety procedures and charges that it had oversold the usefulness and environmental desirability of its product. By separating regulatory and promotional functions and incorporating development of other forms of energy into the new administration, these dilemmas were theoretically by-passed, and within a year ERDA and the Department of Defense must submit joint recommendations on whether all weapons development should also be separated. □

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Radio astronomers trace curve of space

Einstein introduced the idea of curved space into modern physics. Einstein convinced all reputable cosmologists of the rightness of the idea. The observational question is: Which way is the universe curved and how much? Einstein's theory allows any number of both open and closed curvatures, including as one option the flat (Euclidean) space that seemed self-evident to Einstein's predecessors in the days before general relativity.

One possible measuring stick is the apparent sizes of celestial objects. The apparent sizes of objects of the same intrinsic size will vary according to the distance of each one. The manner of the variation is dependent on the curvature of space and will be different for different curvatures.

Attempts to use this method with visible galaxies have not been successful because galaxies vary too much in intrinsic size. In the Dec. 20/27 NATURE Antony Hewish, A. C. S. Redhead and P. J. Duffett-Smith of Cambridge University's Mullard Radio Astronomy Observatory present an attempt using radio sources. Not whole

radio sources, which offer the same problems as galaxies, but small scintillating components of radio sources that are about one second of arc across and seem to be more regular in their size. The apparent sizes of these scintillating components can be measured by a method called interplanetary scintillation, which involves observing the change in their scintillation as they are viewed through different amounts of interplanetary plasma.

The results so far are rather inconclusive, but they are bad news for flat-space believers. They seem consistent with deceleration parameters between one-half and two. If one takes Einstein's cosmological assumptions (others are possible, leading to more complex relationships), that would mean a positively curved, closed contracting universe.

"It is clearly desirable to obtain information on a larger sample of sources," the three observers conclude, "but it is already evident that the angular sizes of scintillating components in radio sources are hard to explain by Euclidean geometry." □

Oak Ridgers explode over name change

There's plenty of energy at Oak Ridge, Tenn., these days, sparked by a surprise name change in the Oak Ridge National Laboratory. Nobody's cheering. In fact, 2,000 of the laboratory's scientists and employees have bombarded Congress with telephone calls, telegrams and petitions protesting the change of the name to Holifield National Laboratory for former Rep. Chet Holifield (D-Calif.). Holifield, who retired this year, was a charter member of the Joint Committee on Atomic Energy, and became its chairman in 1961.

Local antagonism in Oak Ridge is, according to the town's newspaper, the worst public outcry against Congressional action in the community's history. Protesters claim the change is unnecessarily drastic, damaging the long-standing international reputation of the laboratory. They suggest instead naming the center's administration building, presently called "Building 4500," the Holifield Building, or using a hyphenated name (Oak Ridge-Holifield National Laboratory). Others suggest naming the Clinch River (Tenn.) Breeder Reactor, presently incomplete and unnamed, after Holifield. Oak Ridge citizens say the Oak Ridge plant is too historic, that the name itself is synonymous with the separation of uranium in constructing the atomic bomb.

A petition carrying almost 40 pages of names acknowledges Holifield's 30 years of service to the development of atomic energy for peacetime use but says "the laboratory should not lose the identification it has so proudly maintained for years."

Sen. Howard H. Baker Jr. and Rep. John Duncan (R-Tenn.) have introduced separate legislation against the change, saying, "there are more appropriate means of recognizing Rep. Holifield than by changing the name of the foundation," but a revote probably will take weeks. The bill slipped through Congress just before the Christmas recess, and was signed into law by President Ford Jan. 3.

Reversals of similar surprise name changes at Cape Canaveral and at the Jet Propulsion Laboratory in Pasadena should give Oak Ridge protesters heart. When JPL personnel protested the change of JPL's name to the H. Allen Smith Jet Propulsion Laboratory, Smith, a California Congressman, sent a bill to Congress requesting his name be dropped from the laboratory's official name. But because the Atomic Energy Commission disbanded last week, the Oak Ridge laboratory will be reprinting its stationery with the new Energy Research and Development Administration letterhead, and will logically, change the Oak Ridge insignia at the same time. □

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