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### METEOROLOGY

## Ideal Weather Service Of Future Described

► HOW THE IDEAL weather service of the future could work was reported by Prof. Morris Neiburger, chairman of the meteorology department at the University of California, Los Angeles.

He emphasized that this ideal was "many years, many research projects and many experiments away."

Dr. Neiburger foresees a group of satellites skimming above the atmosphere, radioing back reports from which ground stations deduce temperatures, humidity and ozone content at various atmospheric levels.

Other satellites, 22,000 miles above sea level, move around the equator at the earth's rotating speed, continuously monitoring large areas of the earth. Two stations, one on the moon and the other on the opposite side of the earth, observe the total radiation emitted by the earth and cloud cover.

Reports from satellites and from automatic observation stations on the ground are collected at computer centers. The centers, in turn, release predictions on world-wide atmospheric circulation patterns and compute and correct global weather forecasts for weeks, months and even years ahead.

At regional centers, computers automatically digest the world-wide forecasts and deduce specific temperature, precipitation and wind forecasts for their areas. Flight forecasting centers compute weather conditions from take-off to landing for all planes.

A communication network services industrial firms, newspapers and television stations with weather information. Any citizen can get up-to-the-minute forecasts by dialing on his telephone.

• Science News Letter, 78:356 December 3, 1960

### ROCKETS AND MISSILES

## Space Capsules on Show At National Air Museum

► SPACE CAPSULES have joined the other historic Space Age "relics" now on display at the Smithsonian Institution's National Air Museum.

The capsules, used last May 28, in the nation's first successful rocket launching and recovery of animal life from outer space, were presented to the Museum by the Army.

They are the cradles that carried monkeys Able and Baker on a 1,500-mile Jupiter rocket flight, during which the animals experienced nine minutes of weightlessness and nearly 40 g's, or 40 times the normal force of gravity, without harm.

Able, who later died from causes not induced by the history-making flight, is preserved and mounted in the Air Museum display in the original cradle in which she made her flight. Baker is still alive and well.

The flight of the monkeys covered 2,000 "space miles" at a maximum altitude of about 300 miles, with a peak velocity of 10,000 miles per hour. During the flight,

the monkeys rested in special contoured fibreglass beds in a semisupine position during the launch phase, in much the same physical position the Project Mercury astronauts will assume in their flights and orbits.

Philip S. Hopkins, director of the National Air Museum, commenting on this latest addition to the Museum's rapidly growing Space Flight Collection, observed that "This historic ascension, forerunner of manned space flight, is an example of history repeating itself. In 1783, before man's first ascent into the air in free flight in a Montgolfier Balloon, a duck, a sheep, and a rooster were sent aloft for experiment. Similarly today, before the first astronaut accomplishes human space flight, the monkeys Able and Baker have safely preceded him. We consider this a truly significant specimen in the history of flight."

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