

corders, so the data can be immediately available for forecasting the storm's movement as well as for later, through research.

Radiosonde stations used for guided missiles tested off the Florida coast are part of the enlarged network to help keep track of hurricanes. Great Britain, France, the Netherlands and Colombia have joined their radiosonde stations in cooperation.

Tremendous Energies Generated

Another aim of the intensive project is to learn more about a hurricane's energy budget. A typical hurricane takes in about 20 million tons of air every minute at the bottom, usually below a few thousand feet. This air rises swiftly and is thrown out at the top, around 30,000 or 40,000 feet.

In this way, the atmosphere acts as an enormous wringer, squeezing moisture out of the air.

The moisture condenses and produces heat energy at a rate equivalent to about 600 atom bombs a minute, Weather Bureau experts calculate.

A typical hurricane lasts about 10 days, liberating heat, by condensation of water, equivalent to something like 10 million atom bombs, enough energy to supply all electrical needs for the United States for the next 600 years.

Trying to control such a storm is far beyond our capabilities, Weather Bureau officials believe. There is hope, however, that probing for and finding a storm's weak spots, particularly in its early stages, might prove possible.

Modifying a hurricane before it is full-fledged will be investigated this year. Only one out of every ten likely disturbances actually develops into a storm. The idea is to try to dissipate these relatively small whirlpools of air, since their total energy content is much less than that of a fully developed storm.

A research vessel from Woods Hole

Oceanographic Institution, the Crawford, will spend the five months from June to October in the southern Atlantic. Scientists aboard will make detailed measurements aimed at finding a weak link that might be used to stop hurricanes.

In the United States, scientists will study the problem of storm surges, which are the real killers. Storm surges are not just huge waves, but a general rise in water levels, resulting in the inundation of coastal regions.

Hurricane waves a hundred feet high have also been reported, but few persons survive the passage of such mountainous crests so no one knows for sure how high they tower or whether they occur as single waves or in series.

Girls' names will again be given to this year's hurricanes, in alphabetical order from the following list: Anna, Betsy, Carla, Dora, Ethel, Flossy, Greta, Hattie, Inez, Judith, Kitty, Laura, Molly, Nona, Odette, Paula, Quenby, Rhoda, Sadie, Terese, Ursel, Vesta, Winny, Xina, Yola, and Zenda.

Tropical storms are classified as depressions until winds exceed 38 miles per hour, as storms when winds are up to 72 miles per hour, and as hurricanes when winds are more than 73 miles per hour.

Science News Letter, June 9, 1956

MEDICINE

Find New Virus in Fifth Disease Outbreak

► DISCOVERY OF A NEW VIRUS in patients during a school epidemic of Fifth Disease was announced by Drs. P. Brachman, G. Rake, G. Werner, A. Ketler and J. Scully of the University of Pennsylvania School of Medicine, Philadelphia, at a New York Academy of Sciences conference on Viruses in Search of Disease.

Whether the new virus is still in search of its disease or whether it is the cause of Fifth Disease is not yet known.

Fifth Disease is one of those mysterious ailments that attack children and for which no cause is known. In Fifth Disease, there is a rose-colored pimply rash, which feels hot and itches, and sometimes fever. It chiefly attacks children between the ages of four and 12.

In the Philadelphia grade school outbreak, two teachers and one parent got the disease, as well as 64 children in the school of 376. Third graders were hardest hit.

Fifth Disease is also known as *Erythema infectiosum*, which means an infectious rash.

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BIOCHEMISTRY

Anti-Tumor Chemical Acts Differently on Cell

► A CHEMICAL with potential cancer-checking ability is reported by Drs. A. Haddow and W. C. J. Ross of the Institute of Cancer Research, Royal Cancer Hospital, London.

The chemical is an alkyl sulfonate. Its action on cells, however, is different from that of other alkylating agents, such as sulfur and nitrogen mustards. Studies by Dr. O. G. Fahmy and Mrs. M. J. Fahmy of the same institute show that in fruit flies it is practically ineffective on the mature sperm but very active on the early germ cells.

Most striking feature of this chemical, they found, is the very high frequency of visible mutations it induces.

The studies of this chemical, which is 2-chloroethyl methane sulfonate, are reported in *Nature* (May 26).

Science News Letter, June 9, 1956