

METEOROLOGY

Will Hamper Forecasts

Withdrawal of U. S. ships from weather reporting network in Atlantic will hamper long-range forecasts. Weather data from them has been used to predict flying conditions.

► THE WITHDRAWAL of U. S. Coast Guard cutters from the chain of North Atlantic weather observation stations will seriously hamper the long-range forecasting efforts of meteorologists.

In announcing withdrawal from the chain as of June 30, the U. S. representative at International Civil Aviation Organization at Montreal gave as the reason that benefits from the program, set up in 1946, "are no longer commensurate with the cost." Cooperating with the United States in maintaining the chain are Britain, Norway, France and the Netherlands.

The weather data have been used by meteorologists to make forecasts for planes flying across the North Atlantic. An even more important use of the data obtained by the weather chain ships is in the development of long-range five- and 30-day forecasts.

While it is partially true that weather moves from west to east, making the North Atlantic information of great use to European weathermen, it is also true that weather over the Atlantic may "block" a developing weather system and force it back over the United States.

A case in which this happened is the New England hurricane of 1938. The hur-

ricane was blocked in its general movement eastward out to sea and struck the mainland with terrible force.

Meteorologists have been trying to develop means of taking data from points all over the globe and drawing up a weather map covering the conditions over an entire hemisphere. With this as a basis, long-range forecasts for trans-ocean flying can be made.

Six weather station ships in another international effort are now being maintained in the Pacific, and the information obtained by them is being used in long-range forecasts. It is presently believed that the government will not cut this service.

The United States estimated the costs of maintaining each of its 15 cutters in the area at \$1,000,000. The total costs of the ocean station program is \$17,500,000. In addition to the contributions of ships, money payments are made to the program by Belgium, Denmark, Iceland, Ireland, Mexico, Portugal, Spain, Sweden and Switzerland. Their payments are distributed among the countries contributing more than their share of ships.

Many experts foresee that, without U. S. ships, the network will be disbanded.

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GENERAL SCIENCE

New Engineering Outlook

► THE SCIENTIFIC Manpower Commission has urged parents and teachers to take a new outlook toward science and engineering to attract more of the nation's youth into technical circles.

The positive aspects of engineering so greatly outweigh the negative angles that adults may be doing their children a disservice by emphasizing such things as "hard math," Dr. Howard A. Meyerhoff, president of the Commission, told SCIENCE SERVICE.

Children with a bent toward science will have little trouble with their mathematics, he said, although their parents may have failed high school algebra.

Emphasis should be put upon the fascinating array of scientific fields, the great chances for advancement, the almost unlimited opportunities to serve America, the well-paying positions and the security offered by technical professions.

Furthermore, Dr. Meyerhoff pointed out, it is not true that Junior must bury his nose in a test tube to become a scientist. He may not have a flair for research. There is a job for every youngster who likes

science. If he is not interested in research, he still has the vast and intriguing fields of development, production, operation and maintenance to enter.

Dr. Meyerhoff listed the following as "indexes" to the child's interest in science:

1. When Junior or Susie put something together again after they have taken it apart.
2. When they read popularly written science and mechanical magazines, or when they choose books dealing with such things as airplanes, motors, butterflies, primitive peoples, medicine and expeditions.
3. When their report cards show creditable work in mathematics. A's are not necessary here. Arithmetic in grade school is quite different in principle from the engineer's differential equations. Persons who struggled desperately to pass percentages in the seventh grade have made A-plusses in college calculus.

Parents who spot any or all of these characteristics in their children should quietly encourage—but not force—their children to continue exploring science.

The child can be urged to join a Boy or

Girl Scout troupe to learn more about nature. He can be given subscriptions to magazines which include scientific articles of interest to him. He can be given inexpensive scientific instruments as presents.

Teachers have an even greater opportunity to influence children, Dr. Meyerhoff believes. The teacher is in a better position to discover the particular mental ability of the child, and to place in the child's path the things most likely to stimulate him to seek the best job of which he is capable.

However, teachers can exert a bad influence as well as a good one, Dr. Meyerhoff warned. Many teachers are "scared as all heck" of scientific subjects. Their own fear often spills over unintentionally to the child.

The future of the entire country depends upon the youth now in grade and high schools, Dr. Meyerhoff said. These boys and girls tomorrow will have to hasten the pace of American technology to maintain U. S. world leadership.

"When you come right down to it," Dr. Meyerhoff went on, "the survival of this nation rests upon our technology, and this hinges on the adequacy of our technically trained men and women."

"There is a tremendous trust in the hands of American parents and teachers today," he said. "We cannot afford to mishandle it."

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GENERAL SCIENCE

Senator Wiley Asks Aid For Inventors' Council

► FEDERAL AID for the National Inventors Council has been called for by Sen. Alexander Wiley (R-Wis.), chairman of the Senate Foreign Relations Committee.

Sen. Wiley told the Veterans of Foreign Wars that the National Inventors Council, which screens ideas having possible military value, needs more funds and a larger staff.

At present, he said, the thousands of ideas pouring into the Council are being evaluated by merely one junior engineer.

"This," he went on, "is an utterly fantastic situation for the greatest country in the world—thousands of ideas pouring in, one engineer to sift them."

"It is absurd in a country relying so heavily upon inventive progress and constant technological improvement."

The Senator said that the inventive genius of science and engineering, of military men and civilians, has not been sufficiently tapped here and abroad. He pointed out that many great advances in military equipment have been contributed by civilians.

Specifically he cited the Colt revolver, the Garand rifle, the Whitehead torpedo, Vieilles' smokeless powder and the Erickson revolving turret warship.

New ideas are needed to fortify America against aggression. Aviation experts predict America's defensive potential could stop only 10% of an aerial attack under ideal conditions. This would be no deterrent at all, he pointed out.

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