

Use of Natural Phenomena Against Foe Is Studied by Navy

By Howard Simons
Staff Reporter

The Navy has set up a program to study how natural events such as hurricanes, tidal waves and earthquakes might be used as battlefield weapons.

The primary aim is to determine how the United States could defend itself in a combat situation against the use of such destructive forces by an enemy.

But the studies will also reveal how these same forces might be used offensively by the United States.

The Office of Naval Research here, which is conducting some of the studies and managing the program, has invited industrial firms to propose research ideas in the field of geophysical warfare, as it is called.

Officially, the Navy defines geophysical warfare as "the control modification or accurate prediction of natural phenomena for gain in a military conflict situation."

Ideas to Explore

Unofficially, the ideas the Navy wants to explore include the following:

- Is it possible to create tidal waves?

- Is it possible to control the direction of a hurricane in such a manner so as to steer it toward an enemy encampment or flotilla?

- What tactical advantage might be gained by enriching the Van Allen radiation belts, as occurred when the United States set off a high-altitude nuclear blast over the Pacific on July 9?

- Can the weather be controlled to hinder or harass an enemy force?

- Can earthquakes be triggered at will in a specific locale or artificial earthquakes be created by setting off nuclear devices?

No One Knows

No one knows for certain whether any or all of these and related ideas are feasible or even desirable. It is for this reason that the Navy classifies these unconventional ideas as "blue-sky" research. Nonetheless, the Navy is interested in determining whether new ideas or old ideas in the field of geophysical warfare can be made workable.

Marshall Yovits, director of ONR's Naval Analysis Group, said that "the probability of

using natural forces as weapons appears for the present at least to be remote."

"But," Yovits said, "the geophysical warfare studies open exciting research possibilities and will have significant civilian application in helping to understand, to predict and to control these natural forces."

Not all the ideas that the Navy might consider are "blue-sky." In recent years several scientists have suggested that man will eventually be able to control various natural forces for good and for evil.

Weather War

Some meteorologists, for instance, have testified frequently about the potential of waging "weather war" through the control and modification of the weather.

Just last week Alan T. Waterman, director of the National Science Foundation, cautioned at a congressional hearing that careless scientific experimentation with the weather "might touch off a catastrophic reaction."

And the Weather Bureau has been experimenting with hurricane-control methods that might eventually give man the means to direct the course of a hurricane.