

PSYCHOLOGY

No Panic Foreseen in U.S.

An enemy attack is not likely to panic American people. Report to Civil Defense says accurate information is key to calm, realistic behavior in time of great stress.

► THE AMERICAN PEOPLE are not likely to become victims of blind panic in case of enemy attack or imminent danger of it.

This is the unanimous conclusion of the Committee on Disaster Studies of the National Research Council and the National Academy of Sciences, based on a subcommittee's report.

What authorities should do, instead of worrying about panic, the experts concluded, is "to enable the natural human resources of this country to function effectively" in a national emergency.

They indicated there is reason to believe the American people will face whatever dangers or threats of danger may come with energetic and appropriate action.

Mass panic occurs very rarely anywhere in the world, the committee found. Authentic, known instances of mass panic in the last 50 years have been few in number and very restricted in effect, the experts pointed out, although there has been almost continual war somewhere in the world.

A "striking finding" from observations of large-scale disasters, including the A-bomb attack against Japan and the massive bombing assaults against England and Germany, they said, "is that the people who are most frightened and most upset very soon become extremely docile and can easily be induced to conform to the rules and regulations of the local authorities."

Plans for defense against A-bomb or H-bomb disaster should include consideration of ways and means of preventing panic in two types of situations, the committee recommended.

Should Plan Escape Routes

When thousands of injured, confused or stunned survivors try to escape from fires and other sources of danger, it is likely that large numbers of trapped people will converge on limited escape routes.

The authorities, foreseeing this, should plan alternate escape routes from each target area. Of even greater importance is the continuous reconnaissance of people and traffic, preferably from the air for maximum scanning of "escape hatches." Information thus obtained should be relayed to the people in the traffic stream.

The second type of situation to anticipate occurs in a community believed threatened by a devastating blow, where, nevertheless, people must continue to work at essential jobs.

To prepare for such a situation, the committee urged, emergency plans for protecting the population must be put into ac-

tion and public attention must be called to the plans.

Most important, people need to know what is expected of them—they need to be given clear-cut information as to what the dangers are and how to cope with them.

Rather than giving rise to social disorganization, paralysis or hysteria, accurate information is likely to promote behavior directed realistically toward meeting the emergency.

Members of the subcommittee preparing the statement for the Federal Civil Defense Administration are Drs. Irving L. Janis, psychologist of Yale University, Dwight W. Chapman, psychologist of Vassar, John P. Gillin, anthropologist of the University of North Carolina, and John P. Spiegel, psychiatrist of Harvard University.

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PSYCHOLOGY

Aiding Engineering Career

► HIGH SCHOOL BOYS looking forward to a career in engineering should study mechanical drawing in high school, and play around after school tinkering with a hot rod or have other mechanical hobbies.

They might also find it useful to get a part-time or summer job at some mechanical work, which can help them score higher on the spatial visualization aptitude test for entrance to engineering school.

Such hobbies and occupations help boost engineering aptitude test scores, a study by Drs. Mary F. Blade and Walter S. Watson of the Cooper Union, New York, has revealed.

High scores on the spatial visualization test indicate an aptitude for engineering study, their research showed. Low scores, however, do not necessarily indicate lack of aptitude. They may reflect a lack of related experience.

The psychologists studied scores on repeated testing of the same students before and after their freshman year. Students included 593 cadets at West Point, 114 engineering freshmen at the University of Wisconsin and 89 engineering students at Cooper Union.

The Cooper Union students were tested again at graduation. A group of 124 non-engineering students at Wisconsin took the tests.

The spatial visualization test is a good predictor of graduation from engineering school, the psychologists found. It is a

• RADIO

Saturday, August 13, 1955, 5:00-5:15 p.m. EDT
"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Report from the International Conference on the Peaceful Uses of Atomic Energy in Geneva.

ENGINEERING

"Brain" Helps Design Brakes for Airplanes

► AN ELECTRONIC "BRAIN" is eliminating months of landing tests for new aircraft brake designs.

Wheel temperatures soar to more than 2,000 degrees Fahrenheit, enough to turn steel white hot, seconds after the brakes are applied on a 300,000-pound plane coming in at 100 miles or more an hour. B. F. Goodrich engineers in Troy, Ohio, who developed the device, said these searing temperatures present a great problem to designers of today's large bombers, commercial planes and jet fighters.

The computer, which simulates critical temperature rise in aircraft brakes, will allow scientists to find the limits of new materials and designs for landing gear.

Science News Letter, August 6, 1955

better indicator of success than is mathematical ability, but a combination score of mathematics and spatial visualization is better than either taken alone.

After a year of engineering training, the students had higher scores on the spatial test. Their gains are much more than those of non-engineering students.

The psychologists have some practical advice for engineering teachers as a result of the research.

They suggest it would be a good idea to postpone giving the spatial aptitude test until the end of a year of general studies, including engineering drawing and descriptive geometry, because by that time the test would be a better predictor of success. In the meantime teachers of drawing and descriptive geometry might use a different instruction method for those with undeveloped spatial visualization due to lack of experience.

Such students might be given more use of solid models, construction and manipulation, while those with better spatial visualization worked with theoretical problems.

Details of the research are reported in *Psychological Monographs* (Vol. 69, No. 12).

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The archer *fish* takes water into its mouth, then squirts it out again to knock insects off perches and into the water where the fish can eat them.