



CARRIER-BASED BLIMP—The range and usefulness of blimps in anti-submarine warfare are greatly increased, the U. S. Navy has recently demonstrated, by take-offs and landings from the same type of carrier vessel used for Naval planes. The airship can be rearmed and re-fueled on the carrier, and also provided with a relief crew.

ARCHITECTURE

Design for Peace not War

► ATOMIC Energy Commission advice on dispersing buildings or putting them underground to avoid atom-bomb destruction: "Don't."

That is what Sumner T. Pike, member of the A.E.C., told the American Institute of Architects at its meeting in Houston, Texas. Scatter the buildings by all means, he advised, but don't do it simply through fear of destruction in war.

There are other and better reasons for dispersal than that, he declared; sanitation, relief from congestion, considerations of esthetics and efficiency all call for wider spacing of structures. And response to these needs for normal living will automatically provide a reasonable degree of military protection.

Similarly, Mr. Pike continued, the strengthening and fire-proofing of buildings merely through fear of atom-bomb blasting is doing a good thing for the wrong reason. Better make buildings fire-resistant because that is a desirable end in itself, and increase their structural strength to enable them to withstand natural shocks such as earthquakes and hurricanes. Making them completely bomb-proof or sinking them into the ground would add intolerably to their cost, and should not be done at all, except

for those few installations which the national defense may mark as priority targets.

Soundest defense in time of war is a people made healthy and intelligent by the best possible life in time of peace, the speaker declared. Their consciousness that they have a life worth defending, and the things that flow from it, are the best possible weapons in a cold war, he said in conclusion. "They make up our war potential when peace is lost. To design for peace is our best defense."

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PHOTOGRAPHY - AERONAUTICS

Precision Calibrator for Aerial Cameras Developed

► A COMPACT instrument designed to calibrate precision airplane-mapping cameras has been developed by the National Bureau of Standards.

The new calibrator has several advantages over the one previously used. It requires but one negative for calibration instead of four, thus saving considerable time. Different sizes and shapes of the various makes of cameras to be tested can be more easily mounted regardless of their

irregular protuberances.

The camera holder consists of a tripod placed over an opening in a table. The camera to be tested is held in position over the opening by gravity. It points vertically downward, with lateral movement prevented by stops. The table opening permits light to reach the camera lens from 25 collimators, instruments to make the rays parallel. The bank of collimators, arranged in the form of a cross, is mounted in a special casting beneath the table and centered below the opening.

Characteristics, such as focal lengths, distortion, and resolving power, of lenses for aerial cameras must be carefully measured. Specifications for precision mapping cameras, prepared jointly by the National Bureau of Standards and the American Society of Photogrammetry, are very stringent. Besides the characteristics of the lenses, a mapping camera must incorporate such features as a fixed focal plane, and rigid connection of the lens, focal plane, and camera cone into a single unit.

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PHYSICS

Sun's Energy May Be Harnessed To Produce Food

► THE SUN, greatest source of energy known to us, may be tapped more efficiently, thanks to research with by-products of the atomic bomb.

Dr. Robert F. Bacher, scientist-commissioner of the U. S. Atomic Energy Commission declared:

"We may be standing on the threshold of a series of discoveries which will have tremendous effect upon the ability of people to produce food and fuel by means of solar energy."

He said it is "possible" that man may learn to make food from the energy of the sun in the way in which plants do.

Dr. Bacher described new research developments as a guest of Watson Davis, director of Science Service, on Adventures in Science heard over the Columbia network.

The process by which plants utilize solar energy in food-making, called photosynthesis, is being studied with radioactive carbon tracers by Dr. Melvin Calvin of the University of California and other scientists, the Commissioner explained.

"Today, the rate of discovery in this field is high and increasing rapidly," Dr. Bacher pointed out. He cautioned that photosynthesis has proved to be "more complicated than anyone previously believed."

But if scientists can solve the mystery of photosynthesis, they will be making an important practical discovery, Dr. Bacher indicated.

"With many parts of the world today unable to produce sufficient food for the people who live there, probably no development is of greater importance."

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