



"MOVING" ISLAND—Palau Island, one of the Caroline islands in the western Pacific Ocean, has been relocated as a result of the Army Map Service's study. The lightly drawn outline of the island represents, against the background of the fixed meridians and parallels, its accepted position. The heavily drawn outline represents its new position, with the oval indicating the possible limits of error in the measurements.

SEISMOLOGY

California Quakes Due

➤ THE NORTHERN California region is due for a major earthquake before the end of the century, 76% (22) of selected earthquake specialists have declared.

In a SCIENCE SERVICE Grand Jury inquiry, only 3% (1) of the panel surveyed answered "No" to the statement: "Major earthquakes should be expected before the end of the century in the northern California region." Of the 29 who sent replies, 21% (6) chose not to express an opinion on this region.

The March, 1957, shocks have not relieved the earth strain in the San Francisco region and further major shocks should be expected in a few years: 52% (15) agreed with this statement. Not voting on this danger were 27% (8), while 21% (6) disagreed.

Southern California is in greater danger than northern California, the experts voted. Major earthquakes should be expected in southern California before the end of the century, 93% (27) of the experts declared. None disagreed and only 7% (2) refrained from voting.

In giving their answers, the experts were guaranteed that they would not be identified individually by name, position or otherwise. For the 48 polled, 60% (29) returned ballots. Those invited to the jury were leading seismologists and geophysicists of the western world.

Other parts of the nation in which major earthquakes have occurred in the past are in much less danger. When asked about the expedition of major earthquakes before the end of the century, the jury voted:

St. Louis region: Yes, 10% (3); No, 45% (13); Not voting, 45% (13).

Boston region: Yes, 7% (2); No, 52% (15); Not voting 41% (12).

Charleston, S. C., region: Yes, None, 59% (17); Not voting, 41% (12).

With regard to whether the March San Francisco shocks relieved the earth strains in that region, one expert said it will require 5,000 or more of the March shocks to equal that of the great April 18, 1906, shock. Another expert estimated the comparison as in the order of a million.

One expert observed the March earthquake in San Francisco was not a major shock and California has earthquakes of this size at least once a year on an average.

The definition of a major quake proved difficult to some experts, while others defined it as 5.0 on the Richter scale of earthquake intensity.

One expert felt there is danger to the Pacific Northwest.

Several felt that a statistical approach to the earthquake problem is not justified and one suggested that the opinions of the California seismologists specializing in California seismicity would be of more value.

(See p. 211 of the April 6 issue of the SCIENCE NEWS LETTER for the results of an earlier survey of earthquake specialists.)

Science News Letter, May 11, 1957

The largest elevators in the world, powerful enough to speed the Navy's heaviest jet bombers up to the flight deck in a matter of 15 seconds, will be installed on the newest super aircraft carrier, the Kitty Hawk.

GEODESY

Palau Island Relocated 4,000 Feet Northwest

➤ PALAU ISLAND in the Pacific has been given a new position on maps 4,000 feet to the northwest of its present one.

Army Map Service scientists reported the relocation to the American Geophysical Union meeting in Washington. Since the island is several hundred miles from the Philippines, Shoran methods could not be used.

The scientists found Palau's location more exactly by successfully observing at least twice the cutting off of a star's light by the moon from two separate sites, the position of one being already accurately known. After corrections for the roughness of the moon's edge due to mountains, the position of the unknown site can be calculated by comparing observation times with those at the known.

Other Pacific islands also being surveyed by the Map Service include, Ulithi, Marcus and Guam. Those reporting the work were S. W. Henrikseen, S. H. Genatt, M. Q. Marchant and C. D. Batchlor, who worked under the guidance of Dr. John O'Keefe.

Science News Letter, May 11, 1957

METEOROLOGY

Weather Reporting Over Century Old

➤ THE FAMOUS U. S. weather maps had their origin more than a hundred years ago in the Smithsonian Institution in Washington, Dr. Leonard Carmichael, secretary of the Smithsonian, told the American Philosophical Society meeting in Philadelphia.

In the second annual report (1848) of the Smithsonian, Joseph Henry, its first secretary and a great experimental scientist for whom the unit of induction in electricity, the henry, is named, outlined a plan to use the electric telegraph to gather weather reports from a vast network of voluntary observers over the country.

In 1878, Dr. Carmichael said, the first weather maps ever compiled from telegraphic reports were made and displayed each day in the old Smithsonian building.

When Congress later established the Weather Bureau, at Henry's urging, the Smithsonian's complete weather map system was turned over to the new bureau.

The Smithsonian also pioneered in doing war research for the Government, Dr. Carmichael reported. It is reported that during the Civil War, night after night, mysterious lights were flashed from the Smithsonian tower to distant stations, testing new methods of military signaling.

Henry also had a part in what was probably the beginning of military aircraft in America. He encouraged Thaddeus S. C. Lowe, pioneer aeronaut, to send up balloons from the Smithsonian grounds to test their practicability for military use.

Science News Letter, May 11, 1957