

GEOPHYSICS

Nuclear Test Waves Detected Many Times

➤ **ATMOSPHERIC WAVES** sent out by the Russian explosion of a 50-megaton nuclear bomb at Novaya Zemlya on Oct. 30 passed around the earth at least five times.

The waves were detected by microbarographs, which measure changes in atmospheric pressure, at the Atomic Weapons Research Establishment, Essex, England, as well as at other places. The waves were successively reflected at the point on the globe directly opposite Novaya Zemlya, or in the region of Marie Byrd Lane in the Antarctic, and then again at Novaya Zemlya.

There was relatively little absorption or scattering of the waves, E. W. Carpenter, G. Harwood and T. Whiteside report in *Nature*, 192:857, 1961. They suggest that observations of future tests made with improved instruments would yield "extremely interesting" information about the earth's atmosphere.

• Science News Letter, 80:407 December 16, 1961

MEDICINE

Accurate Measurements For Cholesterol Sought

➤ A **SATISFACTORY** universal standard for measuring blood cholesterol is being sought by the College of American Pathologists in Chicago.

All laboratory directors and pathologists in the United States are invited to participate in a national preliminary survey that will show the present status of the chemical procedure and lead to an acceptable standard for all places.

Estimation of serum cholesterol, long used in the study of diabetes, nephritis and disorders of the liver, has become recently more important because of the relation of cholesterol metabolism to hardening of the arteries and heart disease.

Wide variations in present methods of measuring serum cholesterol are unsatisfactory, pathologists say.

• Science News Letter, 80:407 December 16, 1961

TECHNOLOGY

All Colors Now Brought Into Coordinated System

➤ A **COMPLETE METHOD** for coordinating color names, color specifications and colors themselves is now available to all segments of industry.

Kenneth Kelly of the National Bureau of Standards said that the names for colors have become more and more fanciful and therefore "more confusing, until a real tower of Babel" has developed. This is not surprising, he reported to a Building Research Institute symposium in Washington, D.C., since the normal human eye can distinguish about ten million different colors.

The facts that there are three distinct methods of deriving color designations, that

color can be said to have three "dimensions," and that color is a subjective experience have all contributed to the confusion. Color can be identified by a name, by comparison with the colored samples of a color-order system, or by the results of color measurement with an instrument such as a spectrophotometer or colorimeter.

The three dimensions of color consist of its hue, such as red, yellow, green, blue, purple; its lightness; and its saturation, or degree of difference from a gray of the same lightness.

One solution to this problem is the Inter-Society Color Council-NBS method of designating colors, and its accompanying dictionary of color names. These two organizations have jointly sponsored the 28 years of research that now promises to bring color order out of color chaos.

The ISCC-NBS system divides the entire color solid, which represents all possible colors, into a series of 28 color ranges, to each of which is assigned a common hue name, such as red, bluish green or violet.

A great deal of confusion about color names and color designations has existed among builders, building materials manufacturers, architects, interior decorators and other industries involved in color. The new system, which has a total of 267 color designations, was devised to eliminate this confusion.

If a solid shaped like a grapefruit, depicting all visible color, is envisioned, then the 28-hue range designations would be comparable to the sections of the grapefruit. The ISCC-NBS system then presents variations in the other two dimensions, lightness and saturation, of the hue name ranges.

In the red hue, for example, variations in lightness would range from pinkish white at the top down to reddish black at the bottom. Variations in saturation, again using the red hue, would range from vivid red at the outer edge of the section to reddish gray at the center of the solid.

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Questions

ASTRONOMY—How much did the new 210-foot Australian radio telescope cost? p. 394.

GEOPHYSICS—What month of 1962 was suggested as the first International Geophysical Month? p. 394.

TECHNOLOGY—How many color designations are contained in the new method for coordinating color names? p. 407.

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