Dr. Kenneth Evenson Wins Stratton Award Of NBS

Dr. Kenneth M. Evenson, of the NBS Boulder Laboratories, has received the 1972 Samuel Wesley Stratton Award.

His measurement of the frequency of an infrared laser beam — the highest frequency measurement ever made — was hailed when it was announced earlier this year as a measurement breakthrough which for the first time linked the international standards for length and time.

The Stratton Award, named for the bureau's first director, is given yearly by the U.S. Department of Commerce's National Bureau of Standards for outstanding scientific or engineering achievement by a staff member. The award consists of $1,500 and a bronze plaque. The award was announced in September and presented this week.

Dr. Evenson joined NBS in 1963 after studying physics at Purdue and Oregon State Universities. He received his physics degrees from Montana State College (B.S.) and Oregon State University (M.S. and Ph.D.). He was a Fulbright Scholar at the Universitaet Tubingen in Germany from 1955 to 1956. At NBS, he has worked mainly with lasers and their applications to fundamental physical research. He is a member of the American Physical Society.

He also received a Department of Commerce Silver Medal this year for his work in molecular physics and quantum electronics, including the laser frequency studies and the use of infrared lasers for molecular spectroscopy.

Dr. Kenneth M. Evenson

BOULDER DAILY CAMERA Saturday, November 18, 1972

TIME, DECEMBER 4, 1972 **SCIENCE**

More Light on Light

Almost as long as there have been scientists, man has been trying to measure the speed of light. In 1638, Galileo stationed a brace of lantern bearers on hilltops and tried to time their flashes—with no luck at all. Since then, Danes, Frenchmen and Americans have succeeded in narrowing down the figure to generally accepted modern-day figures, but the search for greater precision still goes on.

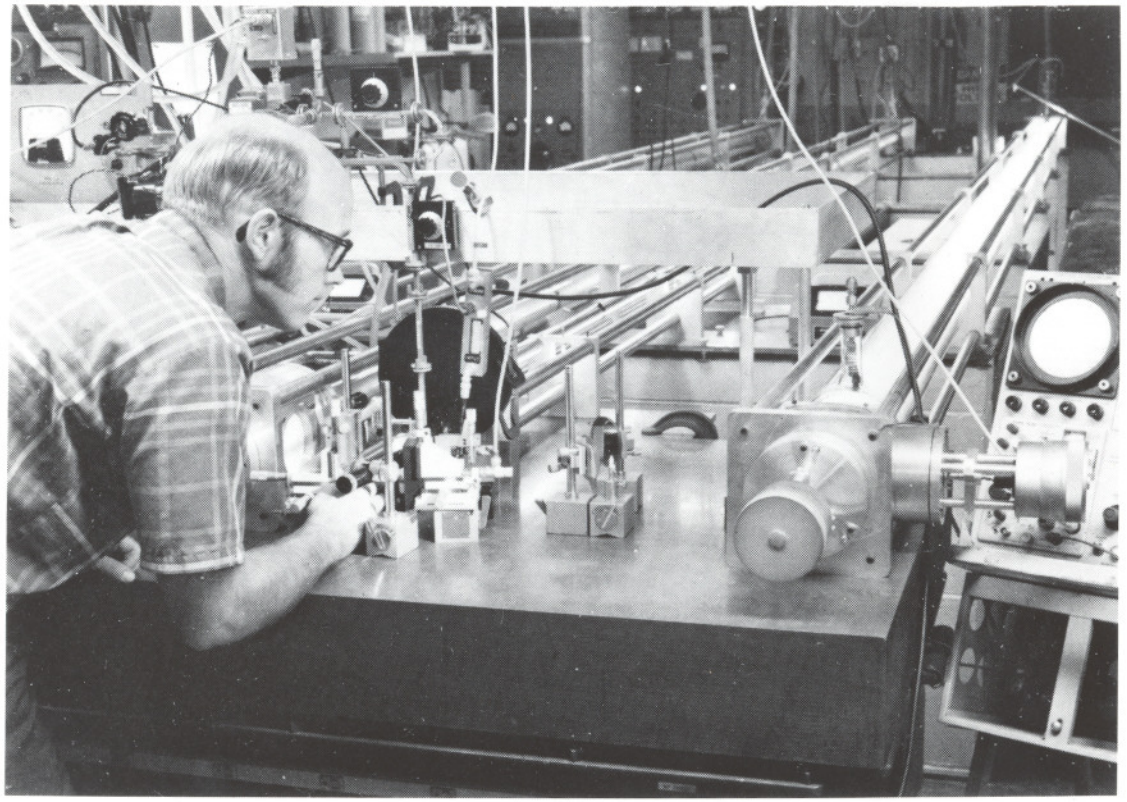
As scientists refined their measurement skills, they realized more and more the significance of light's speed. By the time it was established that all electromagnetic waves move at the velocity of light in a vacuum, that speed was recognized as a constant of nature. Einstein's theories hold that nothing in the universe can ever move faster. The constant (represented by the letter c) appears in his famous equation $E = mc^2$, the formula for the conversion of mass into energy, which was grimly proven July 16, 1945 in the first atomic blast at Alamogordo, N. Mex.

Now scientists working under Dr. Kenneth M. Evenson at the National Bureau of Standards in Boulder, Colo., have measured c with new accuracy. Working with a laser beam—pure light of a single frequency—they have refined the measurement of light's speed to 186,282.3960 miles per second. In effect they reduced the accepted speed by roughly 144 feet per second. This may not seem important to camera fans worrying about exposure, or yachtsmen timing a flashing light on a dark night. But it could make a considerable difference to scientists calculating the precise landing site of an astronaut, or astronomers studying immense celestial distances which are measured in light years. Most important of all, man will have a more exact knowledge of the limits and the dimensions of the universe of which he occupies so small a part.

OSU Grad In 'Time'

The lead article in the science section of the Dec. 4 Time magazine salutes research being done by Kenneth M. Evenson, who received his doctor's degree in physics from Oregon State University in 1964.

In the story entitled "More Light on Light," Time points out that "almost as long as there have been scientists, man has been trying to measure the speed of light . . . but the search for greater precision still goes on."



Kenneth Evenson. In 1972, in collaboration with other researchers, Evenson refined the measurement of the speed of light using a helium-neon laser. The result: 299,792.458 kilometers a second.