for cosmic-ray physics, Shapiro heads a group investigating the composition, energy spectra and other properties of cosmic rays. He was principal investigator for Gemini cosmic-ray experiment S-9, a collaborative project with Goddard Space Flight Center that was flown on Gemini XI.

Last year the Naval Research Laboratory established a chair of cosmic-ray physics to confer special recognition on Shapiro as a distinguished scientist of exceptional accomplishment. He served since 1953 as superintendent of the nucleonics division at the Laboratory. In 1965 he resigned from that position to concentrate on astrophysical research.

Ives Medal Presented To Edwin Land by OSA

For his contributions to optics, Edwin H. Land, president of the Polaroid Corp. receives the 1967 Frederic E. Ives Medal from the Optical Society of America this month. The medal was endowed by Herbert E. Ives, in 1928, in honor of his father, who was known for his early work in color photography and for the invention of the halftone printing process.

Land's principal contributions are in polarized light, photography and color vision. While still an undergraduate at Harvard, he was concerned by the

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fact that polarization was difficult to use in scientific research, although it is a common property of radiation. He conceived the idea of suspending submicroscopic polarizing elements, having the same alignment, in a clear sheet of glass or plastic. The result of this technique was the original polarizing sheet, known as "Polaroid J-sheet." Subsequent research led to the development of a wide variety of crystalline and noncrystalline polarizers.

In photography he is known for the invention of the Polaroid Land camera, that produces pictures instantly. Land's work in optics led him to propose revisions in classical concepts of color vision, when he developed a two-color photographic system that yields a full range of colors. This system suggested a modification of the Young-Helmholtz three-color theory.

George A. Morton Receives David Richardson Medal

For outstanding contributions in the applications of optics, George A. Morton of Radio Corporation of America has been selected as the second recipient of the David Richardson Medal by the Optical Society of America. The medal was established in honor of David Richardson for his contributions to the development of diffraction gratings.

The director of the conversion laboratory at RCA, Morton is widely recognized in the field of applied optics. He has worked extensively in television, electronics, electron optics, infrared imaging, computors, nucleonics and related areas. His developments on photomultipliers for scintillation counting has led to extensive applications in nuclear physics, and his research on photoconductors is the basis for a major portion of current infrared activity.

Arthur H. Compton Award Goes to Norman Hilberry

The Arthur Holly Compton Award for outstanding contributions to education in the fields of nuclear science and engineering has been granted to Norman Hillberry, professor of nuclear engineering at the University of Arizona. The recently established award, which carries a stipend of $1000, is conferred annually by the American Nuclear Society. It is in recognition of the late Arthur Holly Compton, scientist, teacher and Nobel laureate.

Hilberry was a member of the cosmic ray expedition to South America, that was sponsored by the University of Chicago and the US State Depart-