

of a cable TV system and in 1962 two franchises, covering about 30 miles of shoreline in Nevada and California, were granted. In 1964, when Mr. Grignon retired from 20th Century-Fox, preliminary work on the new project, including system design, had been completed. In September 1964 a relatively small plant supplying subscribers with five TV channels (four of the channels via microwave) had been completed. According to Mr. Grignon, the estimated five-year potential is 7,000 subscribers, which means that about 75 miles of cable, split into two separate systems, would be required. At present, Tahoe Systems specializes in CATV, but other types of engineering services are planned for the future.

A TV camera system described as "the most sensitive ever sent into space" is aboard the NASA Orbiting Astronomical Observatory (OAO). The camera was built by RCA's Astro-Electronics Div., Princeton, N.J., for the Grumman Aircraft Engineering Corp., prime contractor for OAO. The Astro-Electronics Div. also built the camera systems for the Ranger, Tiros and Nimbus space programs. The OAO camera is the only television "eye" on the spacecraft. It is designed to study ultraviolet, x-ray and gamma regions of the electromagnetic spectrum with the purpose of adding to the sum total of human knowledge about the origins and destinations of the universe.

The 3,900-lb satellite is essentially a large telescope with vidicon and photo-multiplier tubes sensing what the telescope sees. This information is transmitted to the Earth in digital "language" and is fed to computers for processing. The camera employs a grid pattern on the 1-in. specially designed vidicon to give extremely high pointing precision with a relatively low number of scanning lines. When the telescope focuses a star field on the camera, certain stars are blocked out by dots in the grid reticle of the vidicon. The dots represent 30 seconds of arc and the stars approximately 8 seconds of arc. Identification of the blocked-out target or reference stars by the surrounding star field establishes the pointing accuracy of the spacecraft to within approximately eight one-thousandths of a degree.

As support to the main guidance system, the camera operates on command from the ground for about 5 min during each 100-min orbit. With a picture taking

rate of 1/s, it can transmit some 300 pictures to the ground during each orbit for evaluation of satellite attitude.

Photosystems Corporation, of Plainview, L.I., N.Y., developer of high-speed and three-dimensional cameras, has been merged into Worldmark Press, Inc. The merged corporation will be known as Photosystems Corporation. Cameras developed by Photosystems include a camera to take three-dimensional photographs in color. The camera, automatic and electronically controlled, utilizes a system of micro-miniature lenses — about "3 hair widths in diameter," the announcement stated — to provide about five times the sharpness of a conventional camera lens. About 650 are used for each 3-D picture. The tiny lenses are also used in a high-speed camera said to be capable of taking from 100 to 1 million pictures/s. Worldmark Press publishes encyclopedias.

Photosystems does consultant work for the U.S. Government, United Aircraft and other organizations on advanced weapons systems. Through its marketing subsidiary, Dimensions Unlimited, the firm controls the rights to 47 U.S., Canadian and British patents pertaining to three-dimensional photography and lens manufacture. President of Photosystems Corp. is Richard A. Hayes. The firm will also continue to publish *Worldmark Encyclopedia of the Nations* through an exclusive license and royalty agreement with Moshe Y. Sachs, who originated the encyclopedia.

Allstate Film Lab., Inc., is a new firm created to supply such services as printing and processing of black-and-white prints for 16mm, double 8 and Super 8, including reduction prints, slitting and packaging film. Editing facilities are available for producers of 16mm and 8mm films. The firm is located at 933-935 E. 51 St., Brooklyn, N.Y. 11203, and occupies a newly constructed 4,000 ft² building. Equipments include high-speed printing and processing machines designed by Precision Laboratories, a division of Precision Cine Equipment Corp. President of the new firm is Irwin R. Sheldon. Secretary-Treasurer is Louis C. Peraino. Mr. Sheldon is also President of Precision Laboratories.

Saponin, a wetting agent extracted from Chilean soapbark (the inner bark of the

Quillaja Saponaria Molina tree) is used at Eastman Kodak Co. as an ingredient in light-sensitive emulsions. Saponin is used rather than a more common detergent because it is chemically inert in a photographic emulsion and has no deteriorating effect on the qualities of the film or paper. It is extracted from the soapbark by soaking the bark in water in which the saponin dissolves. A special chemical treatment removes impurities from the solution and, after drying, a whitish-yellow powder remains. A solution of this powder is then added to photographic emulsion to be coated on rolls of film or paper in extremely thin coatings, often less than one-tenth the thickness of a human hair.

Professional Cine Products has moved into new and larger quarters at 2959 Ladybird Lane, Dallas, Tex. The firm is owned and operated by Gordon Yoder. In the new building there will be a display room showing professional equipment for 16mm and 35mm as well as a line of sophisticated amateur cameras and equipment. A much larger stock of rental equipment will be maintained in the new building, including cameras, lighting equipment, power supplies amplifiers, recorders and other equipments, the announcement stated.

Edward H. Carman III has been appointed Director, Sales Development for Special Markets, Business Systems Markets Div., Eastman Kodak Co. He joined Kodak in 1946 as a product designer and manufacturing engineer at Kodak Park. Two years later he transferred to the Navy Ordnance Div. and in 1949 he moved to Kodak Office as a member of the general management staff. In 1958 he received an M.S. degree at Massachusetts Institute of Technology under a Sloan Fellowship in Industrial Management and in 1959 he returned to Kodak. In 1962 he transferred to the sales administration staff and two years later he joined the marketing executive staff as manager of marketing agreements.

Sylvia Jarvis has been appointed Vice-President of Motion Picture Enterprises, Inc., Tarrytown, N.Y. 10592. Miss Jarvis, who will soon celebrate her 20th year in the industry, retains her present position in charge of all M.P.E. domestic and foreign sales.

New SMPTE Sustaining Members

Association of Film Craftsmen-NABET, 1619 Broadway, Room 404, New York, N.Y. 10019.

After client conception, one NABET Contract covers any film production from inception (production breakdown) through production (complete production crew) to completion (final editing), via one telephone call to Local #15, the Association of Film Craftsmen, NABET (National Association of Broadcast Employees and Technicians). This single film production Local is subdivided into ten major craft categories; including Camera, Editing, Electric, Grip, Make-Up, Production, Prop, Set Craftsmen, Set Design, and Sound. The Local has established high professional standards, expecting to be instrumental in encouraging more and better east coast film production. Looking toward

this goal, they are now actively conducting training and upgrading courses in all craft categories, as is their Brother Local #531 in Hollywood.

Address inquiries to: Chmn. Information & Education, at the address above.

Lumen Christi Productions, 2099 Abington Rd., Cleveland, Ohio 44106

Lumen Christi Productions is a complete 16mm movie production facility with accents on mobility and an artistic approach to educational film-making. Its studio is located in Cleveland's University Circle, where postgraduate college students provide talent in art and communications. The latest in camera, sound, and lighting equipment are being employed in producing medical films, documentaries and travelogs anywhere in the world.

Address inquiries to: Robert J. Ward, Director, at the address above.