

PACEX™

is Worth Its Weight in Silver



PACEX

Water Recycling System

- Recovers Silver
- Reduces Pollution
- Saves Water
- Saves Energy

Models for laboratories
of any size

SEND COUPON BELOW



PACE

International Corporation

3727 S. Robertson Blvd.,
Culver City, Ca. 90230

Please send information on a
Pacex system to fit our needs

YOUR NAME AND TITLE

COMPANY NAME

STREET ADDRESS

CITY STATE ZIP

Our total rate of wash water
flow is _____ gallons per
minute.

Our total volume of wash
water used per day is
_____ gallons.

S-10

Obituary



John E. Volkmann

John E. Volkmann, a Fellow of the SMPTE, died 9 July 1980 in Princeton, New Jersey, after a short illness. His professional career spanned more than 50 years.

Volkmann was born in Chicago, Ill., 26 July 1905. He received his BS (1927), MS (1928), and Professional Degree (1940) from the University of Illinois. He joined the Society (then the SMPE) in 1937.

He worked continuously with RCA in the field of acoustics, specializing in the development and application of large scale auditorium-loudspeakers and stereophonic sound systems, as well as serving as a consultant on architectural, electronic, and acoustic problems. He contributed to the completion of innumerable projects, including stereophonic sound systems for the Radio City Music Hall,

the Hollywood Bowl, the recording acoustics for Walt Disney's *Fantasia*, custom loudspeakers for the New York World's Fairs of 1938 and 1964-65, and the Jones Beach Marine Stadium. He provided the acoustic design for RCA Italiana's 364,000 ft³ Studio A, regarded as the largest and first ever built for the recording of full scale operas and symphonic orchestras. He was responsible for the development and design of the sound systems for the John F. Kennedy Center in Washington, D.C. He applied his pioneering concept of variable acoustics to the design of the RCA Victor Recording Studios in New York City.

For more than three decades, Volkmann was in charge of the advanced acoustic development and theater engineering activities at RCA, Camden, N.J. In 1964 he transferred to the RCA Laboratories, Princeton, N.J., as a member of the technical staff. He retired from RCA in 1970.

He was the author of numerous technical papers for scientific journals and held several U.S. Patents.

In 1962 he received the RCA Achievement Award for "Advances in the Development of Architectural Acoustics" and in 1967 the John H. Potts Memorial Award from the Audio Engineering Society for "Elegant Application of Acoustic Principles in the Development of Large Scale Loudspeakers and Sound Systems." He was a member of a number of honorary scientific fraternities and was a Fellow of the Acoustical Society of America, the Audio Engineering Society, and the Society of Motion Picture and Television Engineers.

— Harry F. Olson

Cont. from p. 808

Center, Seattle, Wash., with an attendance of 12 members. Joseph Semmelmayr of Eastman Kodak described the new Eastman 5373/7373 Sound Recording II film. His explanation included both the practical and theoretical aspects of the new film.

Clive Tobin explained the technical problems encountered in the production of optical soundtracks and the methods used to overcome these problems. A spirited question-and-answer period followed the two presentations. — Thomas J. Bowles (Secretary-Treasurer), King Videocable Co., P.O. Box 24525, Seattle, WA 98124.

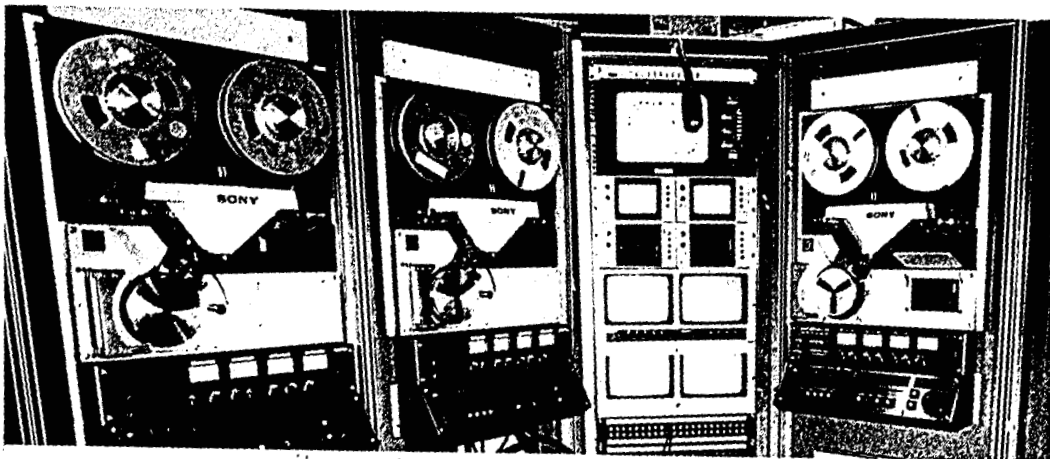
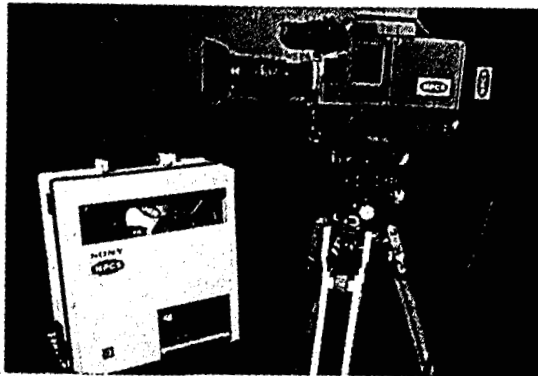
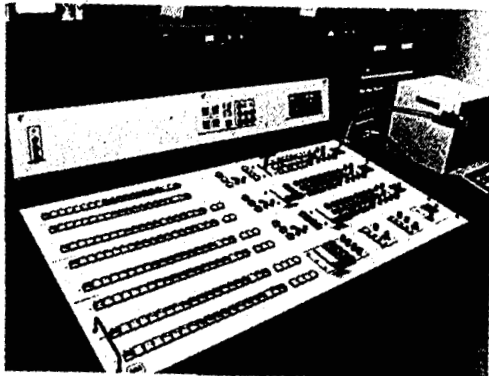
Rochester, 11 June — The meeting was held at the National Technical Institute for the Deaf (NTID), Rochester Institute of Technology, with an attendance of 25 members and guests. The speaker was Robert Murray, NTID Project Director, who had headed a study commissioned by the Public Broadcasting System aimed at the development of a closed caption system for the benefit of persons with impaired hearing. Murray described the background of the closed captioning project and ran a videotape with the closed caption shown on a monitor. The project aimed at developing a method of encoding closed captions on film without necessitating transferring the film to videotape.

Murray discussed the approach being used for recording the captioning information and the means being used to transfer the captions to the home receiver. A dinner at the Inn on the Campus followed the meeting. — K. Gerald Evans (Secretary-Treasurer), WHEC Inc., East Ave., Rochester, NY 14604.

San Francisco, 18 June — The meeting was held at the Avenue Theatre in San Francisco where 140 members and guests attended an outstanding program on Silent Movies. Robert F. Vaughn who provided music and sound effects for silent movies in the '20s gave us an example of what made the movies great. He showed some of this silent movie memorabilia; demonstrated an excellent Wurlitzer pipe organ; and then provided the music for a Buster Keaton shot, *The Goat*, and showed a copy of one of the original hand colored film, *El Espectro Rojo (The Red Ghost)* made in 1906. Finally, he presented the feature film, *Charlie's Aunt*, with Syd Chaplin. Everyone present enjoyed the evening's entertainment and all regained an appreciation of what our forerunners did to make this industry great. — Joseph A. Semmelmayr (Secretary-Treasurer), Eastman Kodak Co., P.O. Box 3145, San Francisco, CA 94119.

MPCS IS:

BROADCAST VIDEO SALES*



- Ikegami, Sony, Adda, ISI, Tektronix, and much more—all under one roof.
- From a single camera to a complete system, featuring hands-on demo before the sale and the latest in new product technologies.
- Manufacturers selected for quality products, not for profit margins.
- We sell the very same equipment we use in our own production facility, the International Production Center (IPC).
- Our 15 years of selling to and servicing major networks and TV stations make us your most reliable equipment supplier.
- Our engineering team, hand-picked from among the brightest people in the industry is your assurance of solid system design capabilities and maximum product performance.

We sell more broadcast video equipment than any other dealer. Chances are, if you buy broadcast equipment from a dealer, you're buying it from MPCS. If not, why not find out what we're all about, by calling in NYS, 212-586-3690. Out-of-state, toll-free 800-223-0622. Ask for our broadcast sales dept.

* MPCS, the 8½ story video center on West 57 St. is Broadcast Video Sales and more: The International Production Center (a complete TV production facility), industrial video sales, video rentals and Videomart, the largest home TV center in New York.

MPCS VIDEO INDUSTRIES, INC.
MPCS Video Center Bldg.
514 West 57 St. New York, NY 10019



THEATRE CITY

ALABAMA Twin Cinemas	Alexander City
ALASKA Fireweed One Theatre	Anchorage
ARKANSAS Central Theatre Spring Cinema Theatre United Artists University Heights Theatre	Hot Springs Siloan Springs Little Rock
ARIZONA Mall Cinema Yuma Theatre	Casa Grande Yuma
CALIFORNIA Eagle Theatre Fox Theatre Holiday Cinema Valley Cinema	Eagle Rock Fullerton Hemet Manteca
COLORADO Cooper I	Greeley
CONNECTICUT Fine Arts I Trans-Lux Greenwich Plaza	Westport Greenwich
DELAWARE Branmar Cinema Center Concord Mall Cinema	Wilmington Newark Wilmington
FLORIDA Biscayne Twin Byron Theatre Campbell Square Triplex Carlyle Theatre Century Valley Clubhouse Theatre Cinema 4 Concord Theatre Coral Way 97 Theatre Cross Roads Theatre Dadeland II Theatre Gateway Theatre II International Cinema Equip. Co. (Screening room) Inverrary Plaza Theatre Kendale Lakes Triplex Loews Theatre Miller Square Theatres Movies 10 Theatre Ocala Triples Palm Springs Theatre Park West Theatre Parkway Five Theatres Plaza Twin Cinemas Plaza Theatre Satellite Theatre Sunshine Twin Tavernier Town Theatre Wometco Gateway Theatre	Miami Miami Beach Homestead Miami Boca Raton Pembroke Pines Miami Miami St. Petersburg Miami Ft. Lauderdale Miami Lauderhill Miami Coral Springs Miami Ft. Lauderdale Ocala Hialeah Winter Park Tallahassee Gainesville Hollywood Satellite Beach Tallahassee Tavernier Miami
GEORGIA Masters Four Cinema Parkwood Cinema Shannon Theatre South Dekalb Quad Storey National Quad Theatre Strand Theatre	Augusta Griffin Atlanta Decatur College Park Jesup
ILLINOIS Bremen Theatre Catlow Theatre Century Theatre Diana Cinema Gem Theatre Hillside Theatre Westlake Theatre	Tinley Park Barrington Hoffman Estates Homewood Villa Grove Hillside Peoria
INDIANA Cinema I Concord Theatre East Park Cinema	Elkhart Elkhart Evansville

**EPRAD STARLET
And STARSCOPE
SOUND SYSTEMS**

**now thrill
audiences with
ticket-selling
sound**



**in more than 428
INSTALLATIONS*
WORLDWIDE**

From St. Petersburg to Singapore, Portland to Paramaribo, Eprad Starlet and StarScope sound processing systems are delighting audiences and theatre operators, worldwide. And for sound reasons. Eprad systems reproduce everything on the soundtrack (Dolby® processed or otherwise) with crisp, pure, exciting realism. The sound moves magically with the film action to provide unforgettable entertainment...the kind that brings patrons back time and time again to pyramid boxoffice receipts.

What's more, Eprad Sound Processing Systems are 100% solid-state, and utilize the finest components available. So, in any environment, reliability and integrity of performance are assured.

Join the hundreds of Eprad Sound Processing System users worldwide, with Eprad installations of your own. Write us, or call today for details about the complete range of Eprad Systems to match the needs of any theatre.



EPRAD INCORPORATED
Box 4712/Toledo, Ohio 43620
(419) 243-8106

*List of installations as of August 25, 1980. Certain theatres listed operate multiple auditoriums equipped with Eprad Sound. Every effort has been made to assure list accuracy, but we do not accept responsibility for inadvertent errors.

THEATRE CITY

INDIANA Emerson Theatre Princeton State Theatre Theatre A Village Cinema	Indianapolis Princeton Logansport Evansville Terre Haute
IOWA Engler Theatre Waverly Theatre	Iowa City Waverly
KANSAS Varsity Wareham	Lawrence Manhattan
KENTUCKY Florence Cinema Mid Town Cinema Twin Cinemas	Florence Ashland Mayfield
LOUISIANA Chateau Twin Cinemas Gulf South Broadcasters	Kenner Metairie
MAINE Brewer Cinema	Brewer
MARYLAND Bethesda Theatre Cinema III Langley Theatre Montgomery Theatre North Point Plaza Theatre Roth Theatre West View Cinemas	Bethesda Frederick Silver Spring Montgomery Baltimore Silver Spring Baltimore
MASSACHUSETTS Holyoke Cinema Kate Ann Cinema	Holyoke Groveland
MICHIGAN Ann Arbor Twin Theatre Alpine Cinemas 4 Clinton Theatre Dearborn Entertainment Center Eastland Twin Theatres Esquire Fenton Cinemas La Parisian Theatre Main Theatre Oxford Theatre Plaza Cinemas Quad Theatres Quo Vadis Rivertown Cinemas Studio 28 Twenty-Ninth St. Quad Theatres	Ann Arbor Grand Rapids Muskegon Clinton Dearborn Bay City Grosse Pointe Fenton Garden City Royal Oak Oxford Kalamazoo Saginaw Westland Cheboygan Wyoming Kentwood
MINNESOTA Cine 4 Fair Mall Cinema Safari Twin	Winona Fairmont Moorehead
MISSOURI Brentwood Theatre Cave Springs Cinemas Crestwood Theatre Davis Theatre Esquire Cinemas Meramec Cinema I Summit Plaza Theatre Village Theatre	St. Louis St. Peters St. Louis Higginsville St. Louis Sullivan Holts Summit St. Louis
MONTANA Cine 3 Fox Holiday Theatre Twilight Cinema Center Village Twin	Billings Great Falls Great Falls Missoula
NEVADA The Movies	Carson City
NEW JERSEY Cinema 23 Landis Twin Moorestown Plaza Movie City 5	Cedar Grove Vineland Moorestown Woodridge

THEATRE	CITY	THEATRE	CITY	THEATRE	CITY
NEW YORK		TEXAS		CENTRAL & SOUTH AMERICA	
Amherst Theatre	Buffalo	Cinema 1, 2, 3	Weatherford	MEXICO	
Auburn Cinema	Auburn	Cine Theatre	Kingsville	Cine Madorado	Colomila Amagua
Aviation Cinemas	Glens Falls	Cine 2	Pharr		Chihuahua
Cinema 1-6 Sangertown Square	New Hartford	Cinema 6	Temple	Cine Chetumal	Chetumal
Genessee Mall Cinema	Batavia	Gaslite Cinemas	Tyler		
Olean Cinemas	Olean	The Movies	Laredo	PANAMA	
Plattsburgh Cinemas	Plattsburgh	Show Place 4	Lubbock	Cine Bella Vista	Panama City
Route 9 Cinemas	Glens Falls	West Palms Theatre	Westlaco	Cine Opera	Panama City
Saratoga Cinema	Saratoga Springs				
NORTH CAROLINA		VERMONT		SURINAM	
Martin Triple	High Point	First Cinema	Brattleboro	Star Theatre	Paramaribo
Oleander Cinemas	Wilmington			VENEZUELA	
NORTH DAKOTA		VIRGINIA		Teatro Concreta	Caracas
Oak Park	Minot	Americanna Theatre	Annandale	Teatro Humbolt	Caracas
Plaza I	Grand Forks	Cinema 7	Arlington	Teatro Del Este	Caracas
		Crystal City Cinema	Crystal City		
		Tazewell Cinema	Tazewell		
OHIO		WASHINGTON			
Act I	Cincinnati	Almo Theatre	Poulsbo		
Athena Theatre	Athens	Coliseum Theatre	Seattle		
Avon Mall	Avon Lake	Lacy 6 Plex	Lacy	FRANCE	
Cinema North	Columbus			Cinema Marivaux Sarl	Paris
Cinema West	Hamilton	WEST VIRGINIA			
Frontier Theatre	Lima	Capital Theatre	Charleston	SWITZERLAND	
Great Lakes Mall Cinema	Mentor	Cinema I	Morgantown	Capitol	Brique
Great Lakes Cinema	Mentor	Kanawha Theatre	Buckhannon	Cinema ABC	Geneve
Great Northern Theatre	Cleveland	Mount Hope Theatre	Mount Hope	Cinema Cine 17	Geneve
McKinley Theatre	Canton	Raleigh Mall Twin	Beckley	Cinema Classic	Geneve
McKinley Theatre	McKinley Heights	State Theatre	Charleston	Cinema Corso	Geneve
Movie World	Niles	Terrace Twin	Bridgeport	Cinema Cosmus	Geneve
New Lyric Twin Cinemas	Wooster	Village Theatre	Charleston	Cinema Forum	Geneve
Northgate 5 Cinemas	Cincinnati			Cinema Rex	Berne
Salem #4	Dayton	WYOMING		Eldorado	Lausanne
Shannon Theatre	Bluffton	Cole Square Cinema	Cheyenne	Hollywood	Bale
Showcase Cinema I	Toledo	Vall Theatre	Powell	Le Star	Geneve
Spring Valley Cinemas	Gallipolis	WYO Theatre	Sheridan		
Strongsville Cinemas	Strongsville			WEST GERMANY	
Tri County Cinema	Cincinnati	DISTRICT OF COLUMBIA		Elysee	Aachen
OREGON		Georgetown Fine Arts	Georgetown	Filmstudio	Essen
Cinema World Theatre	Eugene	K&B Cinemas	Washington	Gemini FTB	Schlob Braunschweig
Music Box Theatre	Portland	MacArthur Theatre	Washington	Gemini FTB	Karlsruhe
				Gemini FTB	Freiburg
PENNSYLVANIA		PUERTO RICO		Gloria Theatre	Duisburg
Capital Theatre	Shenandoah	Plaza Las Americas	Puerto Rico	Gloria Theatre	Hagen
Capital Twin	Bloomsburg			Kinocenter	Trostberg
Cinema 1, 2, 3, 4	Altoona			Modernes Theatre	Wuppertal
Cinemas III, Warren Mall	Warren			Monopol Theatre	Coesfeld
Cinema 61	Pottsville			Movie	Essen
Cinema I	Indiana	CANADA		Preview Studio	Dusseldorf
Duke & Duchess Theatre	Geistown	PROVINCE OF ALBERTA		Lux am Bahnhof	Dusseldorf
Eric Mark I Cinema	Philadelphia	Meadowlark Cinema	Edmonton	Rex-Cine-Center	Koln
Eric Plaza Twin Theatres	King of Prussia	North Hill Cinema	Calgary	Savoy	Dusseldorf
Eric Twin Cinema	Ardmore			Scala	Bielefeld
Gateway Cinemas	King of Prussia	PROVINCE OF BRITISH COLUMBIA		Smoky	Bochum
Goldman Theatre	Philadelphia	Park Theatre	Vancouver	Studio	Bochum
Mid Town Theatre	Philadelphia	Westminster Triplex	New Westminster	Studio X	Dortmund
Rainbow Cinema	McKeesport			Union Theatre	Remscheid
Sam Eric Theatre	Philadelphia	PROVINCE OF ONTARIO			
Sam's Place	Philadelphia	Lyric Theatre	Kitchener		
Strand Theatre	Kutztown				
309 Cinema	Montgomeryville				
Tri-State Theatre	Matamoras				
Twenty-Fifth Street Theatre	Easton				
SOUTH DAKOTA					
Shocase Cinemas	Huron				
State Theatre	Brookings				
State Theatre	Pierre				
TENNESSEE					
Bell Court Cinema I	Nashville				
Belle Meade Theatre	Nashville				
Bonnie Kate Theatre	Elizabethton				
Henderson Family Theatre	Hendersonville				
Hickory Hollow Theatre	Nashville				
Holiday Cinema	Bristol				
Lionshead Cinema	Nashville				
Martin Theatre	Chattanooga				
Varsity Theatre	Martin				
		CENTRAL & SOUTH AMERICA			
		COLOMBIA			
		Cine Opera			
		Cine Scala			
		Cine Bogota	Bogota		
		Radio City			
		Cine Libertadores			
		EQUADOR			
		Cine Inca	Guayaquil		
				OTHER OVERSEAS	
				AUSTRALIA	
				Mecca Theatres	Kogarah, N.S.W.
				Saraton Theatre	Grafton, N.S.W.
				Village Theatres	Melbourne, Victoria
				ISRAEL (One System)	Jerusalem
				KUWAIT Super StarScope 6	
				MALAYSIA	
				Federal Theatre	Kuala Lumpur
				SINGAPORE	
				Capital Theatre	Singapore
				Lido Theatre	Singapore
				Prince Theatre	Singapore
				SOUTH AFRICA	
				Van Riebeck Cinemas	Tsumeb Namibia So. West Africa