

## SBE NATIONAL AWARDS

SBE Chapter 24 was again fortunate to gather in a few National Honors at the Saturday Evening Banquet in LA.

Thanks to his superior efforts, editor Paul Stoffel, assisted by his wife Joanne, brought the **BEST CHAPTER NEWSLETTER AWARD** home to Madison. Congratulations Paul!!

In recognition of the many people and Broadcast related organizations who participated and worked hard to make it happen, the 1993 All Chapter Teleconference, originating from Madison and sponsored by Chapters 24, 28, 80, and 112; was Co-winner of the **BEST REGIONAL CONVENTION OR CONFERENCE**. The Syracuse New York Regional Convention sponsored by Chapters 22, 1, 57, and 58 shared the award.

A concerted effort on the part of four Chapter 24 student members brought home the **BEST ARTICLE, PAPER, OR PROGRAM** by a **STUDENT MEMBER** Award for the article "Platteville Spring Symposium Notes". Published in the April 1993 Chapter 24 newsletter, the article was co-written and the award shared by Tim Trendt, Andy Rothschild, Kurt Miller, and Matt Mommaerts.

The remaining National Awards winners are:

**BEST TECHNICAL ARTICLE OR PROGRAM:** "Broadband Implementation of Physically Short Highly Top Loaded Antiskywave Antennas" by Timothy Cutforth P.E. of Vir James Broadcast Engineering Consultants.

**BEST NON TECHNICAL ARTICLE OR PROGRAM:** "User Friendly EBS" by Richard Rudman, KFVB in LA.

**MOST SENIOR CHAPTER:** Syracuse New York, Chapter 22.

**MOST CERTIFIED CHAPTER:** Tulsa OK Chapter 56.

**GREATEST GROWTH OF NEW MEMBERS:** Jackson, MS Chapter 125.

**HIGHEST MEMBER ATTENDANCE:** El Paso TX Chapter 38.

**BROADCAST ENGINEER OF THE YEAR:** Al Hillstrom, Retired and living in Phoenix, AZ.

## 1994 SBE NATIONAL ELECTIONS

The result of the 1994 National Elections have been announced. They are:

**PRESIDENT** - Chuck Kelly-Broadcast Electronics, Quincy IL

**VICE PRESIDENT**- Terry Baun-Criterion Broadcast Services, Milwaukee

**SECRETARY**- Keith Kintner-KLCS-TV Los Angeles

**TREASURER**- Bob Goza of Beaufort, Missouri

Six Board electees are:

**Leonard J. Charles** - WISC TV Madison, WI

Michael Fast - WCBM Baltimore MD

Michael McCarthy - Chicago IL

Troy Pennington - Birmingham AL

John Schneider - Seattle

Tom Weber - Indianapolis, IN

In addition, after the Board of Directors meeting in LA, Phil Aaland resigned the remaining year of his board seat. Phil was due to start the third year of his term. SBE President Chuck Kelly, appointed Jim Bernier of NY to fill the remaining year of that board position.

## NOVEMBER MEETING

Wednesday  
November 9, 1994

The November Chapter 24 meeting has been changed and will be held in conjunction with the 1994 Broadcasters Clinic and Regional SBE Conference. We will meet at the Holiday Inn SE, the site of the Broadcasters Clinic, on Wednesday evening November 9th at 7PM.

## IN THIS ISSUE

Minutes..... page 2

Convention Meeting.....page 4

Amateur Radio News... page 5

C-Band Interference.....page 7

## THE 1994 SBE CONVENTION

by Leonard Charles

This years SBE Convention at the World Media Expo in LA was a success by all accounts. The SBE portion of the Expo had 324 registrations, up from 312 last year. For some, the Convention started a day early with the Ennes workshops, held the day preceding the Convention. Participation in the workshops was also up from last year with 96 registrations compared to 69. Ennes seminars included Computer Hardware Systems, the Business of Contract Engineering, and a fully loaded bus trip up to the Mt. Wilson antenna installations. The SBE Engineering confer-

*Continued on page 2*

## CHAPTER 24 OFFICERS

### CHAPTER CHAIR and SBE National Board Member:

Leonard Charles (WISC-TV)  
W - 271-4321  
H - 274-0041

### VICE-CHAIR:

Paul Stoffel (WHA-TV, WI Public TV)  
W - 263-2175  
H - 241-4621

### SECRETARY:

Mark Croom (WNWC-FM)  
W - 271-1025  
H - 221-1979

### TREASURER:

Stan Sarch (WISC-TV)  
W - 271-4321  
H - 831-1168

## COMMITTEE APPOINTEES

### Program Committee:

Mark Croom	271-1150
Denise Maney	277-8001
Kerry Maki	833-0047
Steve Zimmerman	274-1234

**Membership:** Leonard Charles

**Sustaining Membership:** Fred Sperry

**Strategic Plan:** Dennis Behr

**Special Events:** Kevin Ruppert

### Certification and Education:

Jim Hermanson (Past-Chair)  
Tim Trendt, UW-Platteville

**Frequency Coordinator:** Tom Smith

work 608-263-2174  
home 608-837-2729

### SBE National Vice-President & Liaison:

Terry Baun (Chapter 28 Milwaukee)  
414-449-5300 (voice)  
414-449-5380 (fax)  
414-873-7807 (BBS)

## October Business Meeting Minutes



### Regular meeting, 10/19/94

Chapter chairman Leonard Charles opened the meeting at 7:08 PM. The minutes were approved as published. There was no treasurer's report, although Chuck stated that he knew we were in the black. Chuck reported the membership at 70, with 122 newsletters mailed this month. Chuck publicly welcomed the new members and those renewed from arrears. The Chapter thanks sustaining members Keith Emmons of Emmons Associates, and Herb Van Driel of Panasonic for their renewals this month.

Dennis Behr had nothing to report from the strategic planning committee. Denise Maney of the program committee reported that our planned program for November was not going to work out due to the relative lack of progress on the construction of the Candelabra project, and that the new program was not settled, and would have to be announced in the newsletter next month. (See program announcement page of this newsletter, ed.)

It was reported that Kevin Ruppert is continuing his work in preparation for the Broadcasters Clinic booth for Chapter 24. He is still soliciting any pieces of vintage broadcast gear to display in the booth. Certification chair Jim Hermanson stated that the next local certification exams will be held November 10-20, after which the next opportunity will be in the Spring. He also reported that one of the instructional courses provided by Chapter 24 Sustaining Member Broadcast Communications has been certified by the SBE for credit toward recertification.

Frequency coordinator Tom Smith stated that election night would be a busy night in the old spectrum, and also noted that his most frequent coordination requests are for the wireless microphone frequencies.

In news from the National, Chuck reported on the heels of this year's teleconference that next year the annual SBE Teleconference (started in 1993 by Chapter 24) would be held at the Syracuse, New York regional convention. Chuck also announced the results of the annual awards competition. Included among the winners were Chapter 24's newsletter, and editor Paul Stoffel for best newsletter; and the best student article was written by some UW-Platteville student members of Chapter 24, reporting on the technology symposium held there last year. The actual awards will be presented at the Broadcasters Clinic on November 9, 1994.

Chuck reported his election to the SBE board of directors, and also his election to the awards committee. He also gave a few highlights of the 4 and 1/2 hour national board meeting. He noted that a national job placement service will be working with the SBE to help place those seeking employment in broadcast engineering positions. He also noted the membership meeting at the World Media Expo featured the swearing-in of the new officers.

Chuck reminded attendees that the Broadcasters Clinic coming up on November 8-10 will feature a program by Chapter 24.

The only item of old business regarded the annual Broadcasters Clinic scholarship. This year there were no applicants. A professional announcement was made by Steve Zimmerman on behalf of Bob Gesling, who has been promoted to Assistant Chief Engineer at WKOW-TV.

The 1994 Chapter 24 Distinguished Service Award was presented to Jim Hermanson, in recognition of many years of faithful and varied service to the Chapter.

The business meeting was concluded, and representatives of Dynatech Video Group presented a program on their D2S2 video file server technology.

Respectfully submitted,

Mark W. Croom  
Secretary

## 1994 Convention

*Continued from page 1*

ence highlighted all of the newest technology for TV, Radio, and HF Broadcast and many common issues including Management, FCC/FAA and Broadcast Auxilliary Issues, and digital, digital, digital!! Of course the latest in the EBS evolution was put forth in conjunction with the Broadcaster's roll in public disaster management on the heels of the LA earthquake earlier in the year.

The Los Angeles Convention Center was immense enough that each of the participating organizations; the NAB, the RTNDA, the SBE and SMPTE, held their own set of seminars almost unaware of the other's presence. That presence became obvious on entering the NAB managed exhibit floor. Over 480 Exhibitors filled the hall nicely with a variety of exhibits accommodating the four organizations comprising the Expo. For the Broadcast Engineer hoping to hold out until the digital craze goes away, its time to throw in that towel. Any booth absent of a computer controlled piece of equipment comprising at least part of the product line was rare. The audio computer editing workstation, for many years considered the cutting edge of technology, has now taken a back seat to the Video edit work station/server.

Again, in-band AM DAB was on the floor and working, offering a sound not usually equated with an AM transmission system and all those ENG and RPU vehicles are being replaced with the presence of every size of SNG vehicle imaginable. It was difficult to not find something worth investigating. And, when it came time to rest, live Radio talk shows offered up the likes of G. Gordon Liddy and the David Brenner show on the floor or in the lobby.

The SBE headquarters hotel, the New Otani in downtown LA, provided an excellent atmosphere for socializing with the Thursday evening SBE member reception held outdoors under perfect California weather in the Japanese Gardens. Only the blast of an automobile explosion a block away at the "on location" filming of Lawnmower Man 2, could interrupt a serene atmosphere, and at that, only the "out a towners" paused to notice.

Located only a few blocks from the LA County Courthouse, if so moved, one could witness the movements of all those OJ attorneys, once in the morning and again in the late afternoon.

Perhaps the best part of the trip was a constant mild breeze that kept the smog from building resulting in crystal clear days every day, and the efficiency of the shuttle buses making a daring trek down the famed California freeways un-necessary. Whether you'd like to live there or not, LA is a nice place to hold a convention...especially if the ground doesn't shake!

## FCC STUDYING TOWER RULE CHANGES

*by Tom Smith*

The FCC is considering a formal rule-making on changing rules regarding tower responsibility. The proposed rule-making would move the burden on tower responsibility from the users leasing space on a tower to the owner.


In the past stations leasing space have received heavy fines for tower violations and the owners have escaped any liability. The current rules consider the tower as part of a licensee's responsibility and the FCC does not maintain information on tower owners.

The FCC has suggest a number of proposals including separating towers information from the radio application and making it a separate filing. This would free stations leasing space from having to file an application on a tower change that does not apply to them. Only the tower owner and the station making the change would need to file. Also in the case of a violation the tower owner would be responsible for violations. The FCC may consider some joint liability in violations.

If the proposals are enacted, the paperwork to the FCC should decrease and so should fines to stations. There would not be much of a change for stations operating on a tower owned by themselves.

The FCC could release the notice of rule-making as early as next January.

*Information from Radio World*



**Chapter 24 BBS**  
**608-277-5239**  
**Chris Cain, Sysop**

**Leonard Charles is the editor  
for the Electronic Version of this  
Newsletter uploaded monthly  
onto SBE Chapter 24's BBS.**

**dynatech**

MARK ROSS  
*General Project Manager*  
*D<sup>2</sup>S<sup>2</sup> DigiStore*

6400 Enterprize Lane  
Madison, WI 53719

Phone: 608-276-4680  
Fax: 608-276-4684

The best professional video in the world



**VIDEO**  
IMAGES

Milwaukee  
Madison  
Chicago

**Jim Braun**  
District Sales Manager

Video Images, Inc.  
2137 S. Stoughton Road Madison, WI 53716-2851  
(608) 221-8888

**TECTAN**

High Performance  
Audio Transmission Products  
For Video Microwave Systems

STL Composite Stereo (TV or FM Radio)  
STL Discrete Audio Channels (90dB+S/N)  
Satellite Up- and Down-Link Audio Channels

For your local representative call: (800)TECTAN1

**MRC** Telecommunications

Digital Services Corporate Networks Teleport Chicago

**James F. Doherty**  
Traffic Supervisor

275 North Corporate Drive Phone: 414/792-7708  
Brookfield, WI 53045-5818 FAX: 414/792-7717

**SONY** Kevin Peckham  
Account Manager  
Broadcast Products Division

Sony Communications Products Company  
1200 North Arlington Heights Road  
Itasca, Illinois 60143  
Telephone (808) 271-3778  
(708) 773-8048

Service Center (708) 773-8037  
Emer Tech Assist. (201) 833-9533  
National Parts Center (800) 538-7550

## CONVENTION BOARD OF DIRECTORS MEETING

by Leonard Charles

The Fall SBE Board of Directors meeting was held in LA the evening preceding the start of the Conference. It began just after 6PM. All Board members, and all three Board members elect, were present at this meeting.

Chuck Kelly made his committee appointments for the coming year. They are:

Accounts Payable and Receivable - Bob Goza  
 BBS/CompuServe - Jim Bernier  
 Certification and Ennes workshops - Jim Wulliman  
 Chapter Administration and Liaison - John Schneider  
 Chapter Awards Committee - Leonard Charles  
 Conference Committee - Jerry Whitaker  
 FCC Liaison and Legislative Action - Dane Ericksen  
 Fellowship Selection - David Carr  
 Finance Committee - Troy Pennington  
 Frequency Coordination - David Carr  
 High Frequency Broadcast - Doug Garlinger  
 Industry Relations - Terry Baun  
 International Growth - Sandy Sandberg  
 Membership Growth - Mike Fast  
 Membership Records - Keith Kintner  
 Nominations Committee - Robert Reymont  
 Press Relations - Terry Baun  
 Sustaining Membership Growth/Services - Ed Miller  
 Video Library Production - Jim Wulliman

John Poray remains our Executive Director and Chris Imlay our General Counsel.

A few of the highlights of the meeting:

- The treasurer's September financial report was released and analyzed. It is available to any member requesting a copy from their Chapter Chair.
- Amendments to the By-laws was discussed and approved.

Article III, Section 4 was amended to allow a Board member to run for an officer's position following two consecutive Board terms but not another Board term without a two year layoff. Previous wording prohibited a Board member to serve neither another Board term nor an officer's position after two consecutive Board terms. Article IV, Section 2 was amended to set term limits of two terms for the President and Vice President, and up to four consecutive terms for the Secretary and Treasurer with no officer or Board member being able to hold office for more than eight years without a two year hiatus.

Article VI, Section 2 was amended to allow all past Board members to serve as Chairman of committees. All members shall be receiving an updated copy of the National By Laws including an explanation of what has changed.

- The Ennes Scholarship Fund Trust and the Ennes Educational Foundation, Inc., were consolidated. To do this, the Board had to first vote to dissolve the Ennes Educational Foundation and then re-define and re-name the Ennes Scholarship Fund Trust. The new trust is entitled "The Harold Ennes Educational Foundation Trust".

- The Television Operators Handbook and Course final text was unveiled and made available for inspection by Board members. It was heralded as an exemplary effort which will be available following formal printing shortly after the first of the year.

- A Certification Path for Contract Engineers was discussed with nothing being decided. Many pros and cons were offered up for contemplation

- This year's Ennes Scholarship recipient was announced but hadn't returned to school this current semester so the prize remains unclaimed until and if the recipient returns to school.

- The Certification statistics released show 180 new certifications awarded this year to date with 142 memberships generated by certification.

- The FCC liaison Committee documented 31 comments, reply comments, informal comments, requests for rulings or rule makings or petitions filings by the committee beginning in 1988 to the present. A history of these filings and the resultant rulings is available to members through the National Office.

- The SBE General counsel reported on his involvement in Texas Litigation, Chapter Incorporation, Chapter/National relationship and Responsibilities, Engineering Title issues, and the issue of an Engineer on a FCC Commissioner's Staff

- The 1995 Budget was presented and approved.

- Our Computer hardware support structure at the National office was discussed and plans were forged for more immediate assistance to the National's computer needs when problems arise.

- The Membership report was released, we have 4522 members Nationally, we gained 524 and lost 701 this year. Still in relation to the declining Broadcast Engineering positions in the industry, we are maintaining our percentage of the available market.

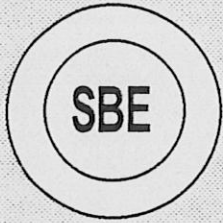
- The Sustaining Membership Committee report shows the National SBE's Sustaining Members totaling 68, that's up 4 from 1993.

- A Liability Insurance update for Contract Engineers was discussed and approved and will be available to members soon. The underwriting company is American States Insurance through the Myers-Baker & Co., insurance brokerage in Chicago.

- A Job Placement Service was discussed and approved with Keystone International, Inc. There is no cost to the SBE or the member involved and the SBE will get a finders fee for each placement.

The meeting adjourned just after 10:30pm.

# NOVEMBER MEETING and PROGRAM



**Society of Broadcast Engineers  
CHAPTER 24 MADISON, WISCONSIN  
Wednesday, November 9, 1994**

## Meeting and Program

The November Chapter 24 meeting has been changed and will be held in conjunction with the 1994 Broadcasters Clinic and Regional SBE Conference. We will meet at the Holiday Inn SE, the site of the Broadcasters Clinic, on Wednesday evening November 9th at 7PM. A short meeting/awards presentation will be followed by the annual Clinic Nuts N Bolts session.

Please note, registration to the Broadcasters Clinic is not required to attend this Regional SBE meeting or the Nuts and Bolts session that follows. SBE Board member(s) will be on hand to answer your questions about the organization. Hope to see you all there!!

*Visitors and guests are welcome at all our SBE meetings!*

## 1994-95 MEETING/PROGRAM DATES

<u>Date</u>	<u>Topic</u>
December TBA	Disk-based Video/BTS Media Pool System
January 1995	Tour of New facilities at WMGN/WTDY/WJJO

Program Committee: Kerry Maki 833-0047 Denise Maney 277-8001 Steve Zimmerman 274-1234 Mark Croom 271-1025



## AMATEUR RADIO NEWS

by Tom Weeden, WJ9H

● The joint resolution of Congress mentioned in last month's column passed both houses in the early morning hours of October 7. Senate Joint Resolution 90 passed on the floor of the Senate under unanimous consent at 12:10 AM. The bill went to the House and was passed unanimously at 2:45 AM. The bill asks for "reasonable accomodation" in the operation of Amateur Radio in homes, automobiles, and public places. The American Radio Relay League (ARRL) hopes that such "sense of the Congress" legislation could provide a strong foundation for later FCC interpretations of the law and provide a much-needed Congressional pat on the back.

● The FCC has instituted a toll-free phone line at its Gettysburg, PA licensing division for customer service inquiries. Callers may obtain direct assistance between 8 AM and 4:30 PM Eastern Time. At other times, an automated information system will be on line with recorded messages on interference complaints, form requests, records, Amateur Radio call sign assignments, fee information, and processing times. A touchtone telephone is required for the automated system. The number is (800) 322-1117.

● Three California amateurs have been ordered by the FCC to show cause why their station licenses should not be revoked after accusations that the three volunteer examiners misrepresented facts at an exam session. The hams are accused of signing paperwork indicating that several persons had passed amateur exam elements when, the FCC says, they had not, and that the elements were not administered at all. The "show cause" order was issued September 27. The three had 30 days to request a hearing before an administrative law judge.

From November 1994 "QST" Magazine

## FIRST GROUP OF STATIONS SELECTED FOR EXPANDED AM BAND

by Tom Smith

The FCC has selected 79 stations to make the move to the expanded AM band in order to reduce interference in the existing band. These stations will be moving to the frequency band from 1605 to 1705 khz. They were selected from a list of 688 stations that requested to move to the band. The stations selected were considered to make the most improvement in the interference problems by making the move. More stations were not selected because the FCC wishes to avoid interference problems in the rest of the AM band. They may add a few more stations at later time if the interference criteria allow.

The FCC will hold a 30 day period in which objections to those on the list can be filed. After consideration of the objections, a final list will be published, and those stations on it will have 60 days to submit an application. After another 30 day period, during which petitions for reconsideration can be filed on specific applications, the FCC will grant permits. The stations will then have a period of 5 years to simulcast on both their new and old frequencies from the date the new stations are licensed.

In Wisconsin, there will be 2 stations moving to the expanded band. They are WKSH in Sussex moving from 1370 to 1700 and WNNO in Wisconsin Dells moving from 900 to 1660. Also WEBC in Duluth will move from 560 to 1680. They will also get a power increase to 10 kw day and 1 kw night.

From *Broadcasting & Cable and Radio World*

Tower Erectors	Antenna Specialists
	
<b>RICHARD WOOD</b> PRESIDENT	
BROADCAST MICROWAVE LAND MOBILE	
1965 WEST RIDGE ROAD P.O. BOX 51 COTTAGE GROVE, WI 53527 (808) 839-4075	


## ATV TESTS DECLARED A SUCCESS

by Tom Smith

The field tests of the Grand Alliance's transmissions system has been completed and the Alliance has declared them a success. The tests were conducted in the Charlotte N.C. area over the air on both the VHF and UHF bands and also over cable systems. The 8-level vestigial side-band system gave a satisfactory signal in twice as many locations as an NTSC signal in the VHF band and in 92% of locations in the UHF band. The NTSC signal was satisfactory in only 76% of the receiver locations. Cable reception was also considered good. The VHF channel 6 was used and was subject to FM and electrical interference. There were 199 sites used in the UHF reception tests and 169 sites in the VHF tests.

The test compared the quality of the NTSC signal to the bit-rate errors in the digital signal. Pictures were not compared during the tests. There will be further tests of the total Grand Alliance system including the MPEG compression system, the scan rates and the audio system. Final recommendations to the FCC are expected to be early next year.

From *TV Broadcast and Broadcasting & Cable* magazines

	
<b>COMMUNICATIONS TECHNOLOGIES INC.</b>	
8213 MIDDLETON SPRINGS DRIVE MIDDLETON, WISCONSIN 53582-2173 808/831-4636 FAX 808/838-1848	
CONSULTING ENGINEERING FOR THE BROADCASTING AND CABLE TELEVISION INDUSTRIES	
DICK GALL	NEAL McLAIN

<b>Ned White</b> Branch Manager	
	
<b>Roscor Wisconsin</b> 800 West Virginia Milwaukee, Wisconsin 53204 Phone: 414-223-2600 FAX: 414-223-3434	

## News from Other Chapters

THE BROADCAST NEWSLETTER  
OCTOBER 1994  
Chapter 28, Milwaukee, WI  
Terry Baun, editor

- Congratulations to Steve Olson of Video Images, recently promoted to the position of Manager, Strategic Partners for the Milwaukee-based video company.
- Some sad news from Indianapolis, as we recently learned of the death of Mary Louise Ennes, widow of Harold Ennes. Mrs. Ennes was 75 years of age. The late Harold Ennes was a distinguished author on broadcast engineering subjects, and good friend of the SBE and its educational efforts. It is his name that is honored by our Educational Foundation. Our condolences to the family.

### The Signal Loop Chapter 26 Chicago

#### Introduction to Fiber Optics by Warren Shulz

During the September meeting, Charlie Amann of CommScope presented a lively discussion on basic fiber optics. Here is a summary of my notes, starting with a list of fiber benefits. For additional information, members may contact him at (704) 459-5099.

**High Bandwidth:** Current practices allow 1.6 gigabits per second transmission rates over a single mode fiber in one direction. This capacity equals about 64,000 one-way-telephone conversations.

**Low Attenuation:** Single mode fiber can operate at a distance of 70 kilometers before regeneration is needed.

**Light Weight:** Only eight microns in diameter.

**No Metal:** No metal conductors, no ground loops, no crosstalk into fiber or out of fiber.

**Passive Media:** No on-line power and no ground connection needed to use fiber optic cable.

**Difficult to Tap:** With no electro-

magnetic radiation, fiber is almost impossible to tap, without a noticeable decrease in signal strength.

Fiber can be used for voice, data, or video with the appropriate encoding and decoding equipment. Light travels within the fiber core. Cladding, surrounding the core, reflects the core light back to the core. Total reflection helps keep losses to the lowest possible level. Dispersion of a pulse is the limiting factor in how far a signal can be carried and recognized. Light emitting diodes are not as pure a light source as a laser emitter. Thus, for the longest possible runs without regeneration a laser is most efficient, although it is more expensive.

Standard indoor packaging bundles groups of 12 single mode fiber elements. Distribution cables are made with up to 72 fiber elements. Each element can be fitted with a connector for termination into the service equipment. Cables are color coded: orange is multimode, yellow is single mode, and blue is plenum rated.

Outdoor fiber packaging uses loose tubes with a gel filling. The filling is used to exclude moisture. While the moisture won't affect the fiber, a freeze-thaw cycle would damage the fiber. Outdoor closure boxes are similar to those used for copper cables. Outdoor cables can contain up to 216 fiber elements. Almost all of the cables are printed with foot marks on the outer jacket.

Test equipment includes devices to measure loss. However, any fault would probably require replacement of the fiber run.

### SBE WAVEGUIDE CLAY'S CORNER by Clay Freinwald, Chapter 16 Seattle

• NAB has asked the FCC to exempt stations from the NRSC-2 regulations that run a couple of transmitters, The Harris MW- 1 and the Continental 317. Apparently the rigs put out a little extra in the bandwidth department.

• EIA and ANSI have adopted a final standard (EIA-608) for data transmission on line 21, field 2.

## C-BAND INTERFERENCE PROBLEMS

by Tom Smith

The National Telecommunications and Information Administration has issued a report saying that the current generation of C-Band satellite receivers are highly susceptible to radar stations operating in nearby bands. The NTIA claims that the receivers are not selective enough to reject the radar transmissions and that the problem can be corrected with a preselection filter.

The problem was discovered by some Florida radio stations who found their signals from their digital receivers were disrupted every 9 to 10 seconds. The cause was found to be airborne radars, but land based radar can also cause the problems operating in the S-band.

Broadcasters said that the installation of the filters solved the interference problem and would like the filtering to be added to new receivers.


From *Broadcasting & Cable*



**Jim Rogers**  
Western Regional Sales Manager

Western Office 12812 Arabian Way Poway, CA 92084	TEL: (619) 748-2151 FAX: (619) 748-1879 C-Serve: 70410,2032
--	---

a THOMSON - CSF Company



A PHILIPS AND BOSCH COMPANY

**Steve C. Peck**  
Regional Sales Manager

Broadcast Television Systems, Inc. 10600 W. Higgins Rd., Suite 500 Rosemont, IL 60018	Direct (608) 246-9797 Main (708) 803-8060 FAX (608) 246-8283
---	--

**SCHARCH ELECTRONICS CO.**

Small Business Communications  
1105 Middleton Street  
MADISON, WI 53717-1078  
(608) 831-2266 (800) 831-2266



**Broadcasters Clinic 1994  
and  
Upper Midwest Regional  
Society of Broadcast  
Engineers Conference**

**November 8-9-10, 1994  
Holiday Inn Southeast  
Madison, WI**

**For Information call  
Don Borchert at 608-837-3462**

Today's Broadcast Engineer faces many challenges—dealing with the day-to-day operations of a station, keeping pace with the rapid changes in technology, and furthering his or her own professional goals.

In developing the agenda for Broadcasters Clinic 1994, the Program Committee was guided by the following mission. Sessions should address:

- Career development
- Dealing with today's opportunities
- Preparing for the future

**CHAPTER 24  
SUSTAINING  
MEMBERS**

Our latest renewals:

Emmons Associates  
Panasonic Broadcast

Thanks to all our  
Sustaining Members:

- BTS
- Broadcast Communications
- CTI
- Clark Wire and Cable
- Comark Communications
- Dynatech Video
- Electronic Industries
- Fuji Film I&I
- Harris Allied Broadcast
- Maney Logic
- MRC Telecommunications
- Roscor Wisconsin
- Scharch Electronics
- Skyline Communications
- Sony Broadcast
- Tectan, Inc.
- Teleport Minnesota
- The Tape Co.
- Video Images
- WISC-TV 3
- WKOW-TV 27
- WMSN 47
- WMTV 15

**Panasonic**



Panasonic Broadcast Systems Company  
Division of Matsushita Electric Corporation of America

1707 N. Randall Road, #1-C-3  
Elgin, IL 80123-7847  
(608) 493-2619  
(708) 468-5160  
(608) 493-2519(fax)

**HERB VAN DRIEL**  
Central District Sales Manager



**MITCH MONTGOMERY**  
District Manager - RF Sales

BROADCAST DIVISION  
8418 NW Beech  
Kansas City, MO 64153 U.S.A.  
Phone: 816-891-7300  
FAX: 816-891-8323  
Quincy: 217/222-8200

*"Tower Site Maintenance"* by

**Broadcast Communications**

P.O. Box 730  
New Glarus, WI 53574  
608/527-5674 (FAX)

**608/527-5670 Call Today!**



**27**

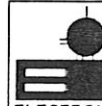
**WKOW  
MADISON**

(608) 274-1234  
Fax# (608) 274-9514

5727 Tokay Boulevard, Madison, WI 53719



**GORDY DAILEY**  
BROADCAST SALES



**ELECTRONIC INDUSTRIES INC.**  
19 E. IRVING AVE • P.O. BOX 288 • OSHKOSH, WI 54902  
*distributors of electronic equipment and supplies*

PHONES: 414-235-8930  
414-739-8900  
FAX: 414-235-4233

IN-STATE WATS: 1-800-445-0222  
OUT OF STATE WATS: 1-800-558-0222



4155 SIBLEY MEMORIAL HWY.  
EAGAN, MN 55122-1904  
(612)890-8920 • FAX (612)890-7009

**EMMONS ASSOCIATES, INC.**  
DISTRIBUTORS AND REPRESENTATIVES • TELEVISION EQUIPMENT

**KEITH EMMONS**

Use existing switches and lites  
with RS422 SERIAL controlled UTRs



Terminal strip + RS422 interface  
in a compact four inch module.

**maney-logic**

608-277-8001



**The  
Tape  
Company**

**Tim Galassini**  
801 Sivert Drive  
Wood Dale, Illinois 60191  
708•595•3113 Phone  
708•595•0052 Fax

ORDERS: Contact  
Order Processing

Quality People... Quality Service



**Society of Broadcast Engineers, Inc.**  
 8445 Keystone Crossing  
 Suite 140  
 Indianapolis, IN 46240



Office (317) 253-1640  
 Fax (317) 253-0418  
 Job Line (317) 253-0474  
 BBS (317) 253-7555



**SEDATE HOLLAND**  
 ACCOUNT REPRESENTATIVE  
 PROFESSIONAL PRODUCTS  
 MAGNETIC PRODUCTS DIVISION

FUJI PHOTO FILM U.S.A., INC.  
 1285 HAMILTON PARKWAY  
 ITASCA, IL 60143  
 (708) 773-7200 • (800) 877-0555



(708) 272-9889  
 Fax (708) 272-9564  
 1-800-CABLE-IT!

Susan Clark  
 151 S. Pfingsten Road #B  
 Deerfield, IL 60015

**15**  
**WMTV**

615 Forward Drive, Madison, Wisconsin 53711  
 Phone: 608-274-1515  
 Fax: 608-274-2737



Everybody knows it's on...



7847 BIG SKY DRIVE MADISON, WI 53719  
 (608)833-0047 FAX(608)833-5055




**WISC-TV**  
 MADISON 3



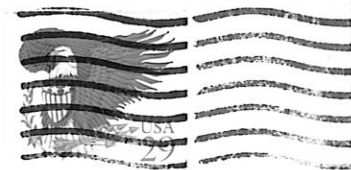
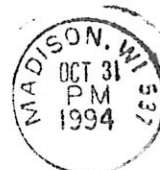
A communication service of Midwest Cable & Satellite, Inc.

Mark Durenberger  
 Director of Technical Operations  
 (612) 330-2433

11th on the Mall  
 Minneapolis, MN 55403-2450  
 FAX (612) 330-2401



**SBE Chapter 24 Newsletter**  
 34 Rustic Parkway  
 Madison, WI 53713-4700



**FIRST CLASS MAIL**

1

Tom Weeden  
 6802 Putnam Road  
 Madison, WI 53711-3959

Newsletter edited on Pagemaker 5.0 by: Mark Croom and Paul Stoffel  
 Contributors this month: Leonard Charles, Fred Sperry, Tom Weeden, Tom Smith, SBE Chapters 28, 26, 16.  
 Chris Cain for downloading information from CompuServe®

© 1994 by SBE Chapter 24. Views expressed herein do not necessarily reflect the official positions of the Society, its officers, or its members. SBE Chapter 24 regrets, but is not liable for, any omissions or errors. The Chapter 24 Newsletter is published twelve times per year. Other SBE Chapters are permitted to use excerpts if attributed to the original author, sources and SBE Chapter 24.