

Edited by: Leonard Charles
 Articles Welcomell Send them to:
 Chapter 24 Newsletter
 5714 Modenaire St.
 Madison, WI 53711
 (608)-274-0041
 (608)-271-4321
 (hard copy or ASCII text message
 on BBS at 608-274-7776)

Contributors this month:
 Doug McDonell
 Tom Weeden
 Stan Sarch
 Jim Crooks

MEETING ANNOUNCEMENT

DATE: Jan 15, 1991

AT CORBY'S/Nakoma Plaza
 Dinner at 5:45PM
 Meeting at 7:00pm

The program will be presented by Neal McLain. A TECHNICAL VISIT TO A CABLE TELEVISION SYSTEM. This is a slide show tour of a hypothetical cable system (a composite of several cable systems).

UPCOMING MEETING DATES

February 13, 1991
 March 21, 1991
 April 23, 1991
 May 22, 1991

YOUR OFFICERS....

CHAIRMAN:

Steve Zimmerman (WKOW TV) W - 274-1234
 H - 845-8738

VICE CHAIRMAN:

Jim Hermanson (WTSO/WZEE) W - 275-7130
 H - 231-2005

SECRETARY:

Tom Weeden (WMTV TV) W - 274-1515
 H - 276-7915

TREASURER:

Fred Sperry (WI Public TV/ W - 273-5500
 TOC) H - 833-

6074

COMMITTEE APPOINTEES


Past President - Denny Behr
 Membership - Dave Gerisch
 Sustaining Membership - Leonard Charles
 Strategic Plan Comm - Denny Behr (Chair)
 Newsletter - Leonard Charles
 Program Chairman - Kevin Ruppert
 Cert/Ed - Doug McDonell/Tim Trendt
 Frequency Coor - Chris Cair
 Chapter Liason - Paul Meyer

Paul Meyer replaces Doug Smith as Chapter 24 Chapter Liaison. Doug has moved to Nashville. We thank Doug for all his dedicated efforts to Chapter 24 over the years and we welcome Paul in his position of Chapter Liaison.

LAST MONTH'S MEETING....

DECEMBER 1990 MEETING MINUTES

Chapter 24 of the Society of Broadcast Engineers met Wednesday, December 12, 1990, at Corby's Restaurant in Madison



Cellular One
 The Mobile Telephone Company

Christina Roth
 Account Executive
 Mobile (608) 575-ROTH (7684)

1702 West Dotline Highway
 Madison, WI 53713 Office (608) 283-0010


for its regular monthly meeting. There were 18 SBE members present, including 16 who are SBE certified, and 2 guests.

Chairman Steve Zimmerman called the meeting to order at 7:05 PM. Secretary Tom Weeden read the minutes of the November meeting. Newsletter Editor and Sustaining Membership Chairman Leonard Charles reported that 110 newsletters were distributed in December. He also reported 18 sustaining members, with 4 outstanding renewals. Certification and Education Chairman Doug McDonell announced that there will be new certifications presented at an upcoming meeting. Next local exam session will be in June, 1991, which will include some students from UW-Platteville.

Chairman Zimmerman announced that Paul Meyer will replace Doug Smith, who has left Madison, as Chapter Liaison.

There was no old business.

In new business, Leonard Charles



Steve Peck
 Sales Representative

Roscor Wisconsin
 2510 Green Ridge Drive
 Madison, WI 53704
 Phone: 608-242-1575

announced that he will be handing off his responsibilities as newsletter editor to Deanna Morris.

In professional announcements, Doug Smith has accepted a position at WSMV TV, Nashville TN.

The meeting adjourned at 7:12 PM. Program Chairman Kevin Ruppert then introduced Greg Groeper from Audio Precision, who gave a demonstration of the System One audio test set.

Tom Weeden, Secretary

CERTIFICATION....

Next Exams will take place locally in June of 1991. Contact Certification Chairman Doug McDonell at 222-1580.

THE LEGALS....


info by Doug McDonell

The FCC has dismissed with prejudice the

Your Complete Source for Turn-Key Tower Systems

Broadcast Communica

P.O. Box 131
 Verona, WI 53593
 Bus. (608) 845-6755
 FAX (608) 845-5413



JOHN CROOKS
 Vice President

applications of Skywave Communications Corporation, Key Communication, Inc., and Roger Kluge for failure to prosecute. The applications were for the new FM channel in Verona.

The Commission has designated for hearing three competing applications for Channel 286A in Waunakee, WI.

An application has been granted to Molly E. Nuth of Mayville, WI for an FM CP to replace an expired permit. The CP is for WMYM, 98.7MHZ to serve Mayville and is granted with conditions.

The FCC has proposed allotting Channel 291A to Adams, WI as its first broadcast service. Comments are due February 8th with replies due February 25.

The Commission has designated for hearing three competing applications for Channel 283A in Whitewater, WI.

FCC NEWS....

by Leonard Charles

The FCC has established a new class of amateur operator license requiring no

Panasonic **MII**

Panasonic Broadcast Systems Company
Division of Matsushita Electric Corporation of America

425 E. Algonquin Rd.
Arlington Heights, IL 60005
(800) 483-2619
(708) 981-7325

HERB VAN DRIEL
midwest district sales manager

code test (see the Amateur Radio column in this issue). In addition, those incapable of passing higher speed code exams due to severe handicaps are exempted from such exams.


The Commission has granted a modification of CP for the United States Satellite Broadcasting Company. The company had been authorized two 8-channel DBS satellites. The change allows them an 8 channel, a 5 channel, and a 3 channel DBS satellite system.

The FCC has handed out a \$10,000 fine to People Wireless, Inc., owner of KDKO-AM in Littleton, CO. The station failed to change from daytime power to nighttime power and pattern, failed to cease operation within 3 hours after failure of the station's remote control system, and was found to be using an unlicensed STL.

The FCC has fined Dolcolm Broadcasting,

licensee of WTHZ-FM of Tallahassee, FL, \$18,000 for EEO violations. The Commission also issued a short term renewal subject to reporting conditions. The EEO violations came to light as the result of a Florida State NAACP filing

1121 RIVERHOOD DRIVE
BURNEDVILLE, MN 55337
(612) 890-8920



EMMONS ASSOCIATES, INC.


KEITH EMMONS

of a petition to deny license renewal. Although that petition was later withdrawn, the Commission found that violations had indeed occurred.

The Wireless Cable Associations's request to have the FCC's cable report to congress modified has been denied by the Commission. The WCA is not happy with the opinion that program access for cable competitors should be assured even when system operators have an interest in the program.

Fines totaling \$350,000 have been levied for infractions against rules covering lighting and painting of towers. Sixteen percent of the 1,031 towers inspected in November were found to be in violation.

The FCC handed out \$200,000 in fines at the Comdex computer tradeshow in Las Vegas. The violations involve emissions from home computers and other consumer video products that interfere with radio, television, and cellular frequencies. The Class B standard of emissions is 30 feet. Class A restrictions for industrial and non-



RICHARD WOOD
PRESIDENT

BROADCAST
MICROWAVE
LAND MOBILE

1965 WEST RIDGE ROAD P.O. BOX 51
COTTAGE GROVE, WI 53527 (608) 839-4075

consumer products is 300 feet. 105 of the 250 vendors at the show were not in compliance with the bulk of the offenders being laptops.

Excerpts from Broadcasting magazine.

RADIO....


By Stan Scharch

Slight changes to the FM translator rules have been made by the FCC in November. While a primary station may still provide technical assistance to a translator operator, operation cost may no longer be supplemented by the primary station.

The NRSC has hired an outside consultant to perform receiver testing before the 1991 MAB show. The tests will provide additional information about possible adverse effects of heavy audio processing. Receivers tested will include a home hi-fi type, car radio, and a portable radio.

Three digital audio companies are aggressively pursuing Cable TV distributed digital radio services that could be available to some consumers as early as mid 1991. If cable operators participate, it is anticipated that about 30 digital audio services would be delivered over existing Cable TV facilities.

Yet another AM regional station has



615 FORWARD DRIVE • MADISON, WISCONSIN 53711 • 808-274-1515

applied to the FCC for a power increase above the normal 5 KW on a US regional channel. KARI in Blaine, WA has applied for an upgrade to 25 KW day power.

Denon has introduced the CD Recorder. The write once, read many technology will first be available in Japan and Canada this year. The US is next, but Denon officials are unsure when. Hopefully the \$30,000 price tag will drop by then.

(Excerpts from Radio World)

AMATEUR RADIO NEWS....

by Tom Weeden, WJ9H

For the first time in the history of amateur radio in the United States, one will be able to obtain a license without having to show proficiency in Morse Code. In an action by the FCC on December 13, the Morse Code testing

requirement for the Technician class amateur license was removed. This change will take effect on February 14. Those obtaining Technician licenses after the rules change will have full amateur privileges above 30 MHz but will not be allowed to use the Novice / Technician allocations below 30 MHz unless they pass the 5 WPM code test now required of both Novices and Technicians. There will be no special call sign groups or other distinction between Technicians licensed for operation below 30 MHz and those "code free" Technicians restricted to VHF and above aside from FCC and Volunteer Examiner Coordinators' records. The

Let us demonstrate the convenience of computer prompting in the lightweight C64 diskless Field Prompter by money-logic.	Field Prompter by many-logic
4535 Thurston Ln Madison WI 53711 (608) 277-8001	Smooth scrolling 13 speed rotary control with recall. Non volatile storage. Input via RS232 or built in editor.

Novice license is unaffected by this action, and existing Technician licensees will be "grandfathered" into the new system. This rule change differs from the original FCC proposal, which would have given a new "Communicator" license class to all amateur privileges above 220 MHz. The name "Communicator" has been dropped, and privileges will include the very popular 2-meter band (144-148 MHz).

Astronaut Ron Parise, WA4SIR, finally made it into space as the shuttle Columbia lifted off the morning of December 2. Ron was on the air from the shuttle within 24 hours, making several 2-meter packet-radio contacts and having conversations with ham-radio-equipped school classrooms. Ron was hoping to have the first ever space-to-space amateur radio contact with Musa Manarov,

AT&T - PANASONIC - S.W. BELL TELEPHONE SYSTEMS
Scharch Electronics Company 2321 Whitlock Road Madison, WI 53719 (608) 271-1600

U2MIR, aboard the Soviet MIR space station, but Columbia was brought home a day early due to weather problems on the ground. The two spacecrafts' orbits would have coincided on Columbia's final

day up, which would have made the direct radio contact possible. It is unclear whether Musa will still be on MIR when this spring's STS-37 mission and its crew of FIVE Amateur Radio operators, who also happen to be astronauts, will be launched.

The US Court of Appeals for the District of Columbia Circuit has denied the American Radio Relay League's petition for review of the FCC order reallocating 220 to 222 MHz to the land mobile service. The Court concluded that by law it had to give great deference to the views of the Commission, and it could not say that the Commission did not arrive at a reasoned decision. Amateurs will have to vacate the band when the Commission writes new rules for the land mobile service to include the new frequencies.

In other legal news, the FCC denied an ARRL petition for reconsideration of Part 15 rules regarding operation of non-licensed RF devices. Standards in effect since June 1989 concern radiation from equipment ranging from radio receivers to garage door openers. The Commission concluded that the new regulations do afford adequate and appropriate interference protection to the amateur service.

(From January 1991 QST and W1AW radioteletype bulletins.)

CLINIC RANKINGS....

The 1990 Broadcasters Clinic questionnaire results show a tie for the

<div style="font-size: 2em; font-weight: bold; margin-bottom: 5px;">VIDEO</div> <div style="font-weight: bold; margin-bottom: 5px;">I M A G E S</div> <div style="font-size: 0.8em;"> Jim Braun District Sales Manager Video Images, Inc. 2137 S. Stoughton Road • Madison, WI 53716-2851 (608) 221-8888 </div>	Milwaukee Madison Chicago
---	---------------------------------

most popular seminar. The paper "Local Area Network Computers for Broadcast Facilities" given by Chris Cain / Chief Engineer of Channel 3 in Madison tied with "Update of the FAA EMI Program" given by George Werl / Consultant of Edina, MN. There was also a tie for second between the paper "Power Line Protection Systems" by Bogdan Klobassa / Northern Technology of Spokane, WA, and "HDTV-Video and Audio Considerations" by Tom Keller / Broadcast Technology Partners. Third

most popular was "Advanced Communication for Broadcasters (ISDN)" by Sam Zellner / Ameritech-Illinois Bell.

FATAL MISHAP....

Dallas Cox, a 20 year veteran VOA engineer died of cardiac arrest due to electrocution when he received a 6000 volt shock as he was performing corrective maintenance at a VOA transmitter site. According to preliminary reports, Cox entered the transmitter after turning off the high voltage but not the filament supply. While inside, he apparently made contact with some equipment still charged resulting in the severe shock. Cox had been called to the Greenville, N.C. site in response to a transmitter fault indication.

NATIONAL NEWS UPDATE....

The SBE Board unanimously approved the appointment of Marvin Born to fill the unexpired 2-year term and Terry Baun to

WTSO	AM 1070
Z104	

fill the unexpired 1-year term on the SBE Board of Directors.

Mr. Baun is the President of Criterion Broadcast Services, a radio broadcast technical consulting and service company. He has been involved in broadcast engineering for over twenty years. He has been active with the SBE since 1976 serving at both the national and local level. Mr. Baun is a certified SBE Professional Broadcast Engineer.

Mr. Born is the Vice President of engineering, WBNS Stations, Columbus, Ohio. He has been in broadcast engineering since 1967 and an SBE member since 1977. Mr. Born is a certified SBE Professional Broadcast Engineer and a Senior member of the SBE.

The FCC has adopted a rulemaking petition filed by the SBE proposing a definition for the term "frequency congested area." New Fixed Broadcast Auxiliary microwave stations located in

frequency congested areas have been required to utilize spectrum efficient "Category A" transmitting antennas since as early as 1981 although those "frequency congested areas" had never been defined. In general, Category A antennas require dish diameters of 8 feet or greater for 2 and 7 GHz and 6

time ago, the Military phased out all of its Collins gear, mainly the classic KWM-2A, and purchased brand spanking new Harris solid state equipment.

surely smiling down from the great Ham Shack in the Sky. So are the rest of us, who have always believed that "real radios glow in the dark."

AWARDS....

The NAB Engineering Achievement Awards for TV and Radio in 1991 have been announced. The TV Award will go to Kerns H. Powers, a consultant with the David Sarnoff Research Center, for his involvement in developing the signal processing techniques for color television in the early 50's when he was with RCA. In Radio, George W. Marti will be awarded as the first to use microwave transmissions for remote control. The Awards will be presented at this years NAB convention April 16 in Las Vegas.

Meanwhile, the Academy of Television Arts and Sciences has awarded an EMMY to Merrald Schrader and Don Preist of Varian for their work in developing the Klystrode for UHF TV service.

PHONE VIDEO....

Phone Companies involvement in delivery of video services in their service area will again be a hot topic in the 102nd Congress. Senator Conrad Burns of Montana, who sponsored failed legislation on the subject in the last Congress, is looking into modifications to his proposal to allow a better change at passage. Some points of the legislation are expected to be: defer for five years a telco's ability to own or produce programming. They would be banned from originating programming altogether. After five years, telco's would be limited to ownership interest in only 10% of available channels. Telco's would be required to provide fiber to all subscribers and Broadcasters could either grant or refuse retransmission consent. If granted, a retransmission scheme would kick in, and telcos would have to carry local stations free or if a fee is negotiated, a cap would exist to protect subscribers.



SONY
Kevin Peckham
Account Manager
Broadcast Products Division

Sony Communications Products Company
1200 North Arlington Heights Road
Itasca, Illinois 60143
Telephone (608) 271-3778
(708) 773-6046
Service Center (708) 773-6037
Emer. Tech. Assist. (201) 833-9533
National Parts Center (800) 538-7550

feet or greater for the 13 GHz band. The SBE criteria presumes that all Standard Metropolitan Statistical Areas as defined by the current U.S. Census, are "areas subject to frequency congestion".


In order to provide better coordination between equipment manufacturers and suppliers and SBE chapters, the SBE has established a "speakers bureau". The concept would provide a central point for keeping track of technical papers to be given by industry experts so that chapter program chairmen could use the resource to plan programs. Likewise, coordination between chapters would mean manufacturers could present a paper to a number of geologically close chapters in one trip thus cutting down expenses. The contact is Ed Karl at WNAAC-TV (508) 252-9711.

In the desert, as part of Operation Desert Shield, the military techs were busy erecting support poles and stringing dipoles between them. All was well until the wind blew and sand flew, resulting in Mother Nature's version of a Van de Graff static electricity generator. Down the coax and into the CMOS and FET front ends of all those nice, shiny, new, store-bought, fresh radios it came. Then.... silence.

One of the military techs remembered that a Collins engineer by the name of Dennis Brothers had been helpful in solving problems for the government in the past. Dennis, who incidentally was one of the main designers of the KWM-2, had since retired from Collins, and currently operates Western Nebraska Electronics in Potter, NE. Dennis earns his living by keeping those old gray boxes talking.

The Military shipped 24 KWM-2As to Dennis for refurbishing ASAP. The

JEFFREY N. CLARINE
CENTRAL REGION SALES MANAGER

 **LDL COMMUNICATIONS INC.**

LDL COMMUNICATIONS, INC.
21844 EVANS TRAIL
FARIBAULT, MN 55021
TELEPHONE (507) 332-6703
FAX # (507) 332-6705

government still had a few stashed in warehouses that we treasure hunters hadn't yet found. Dennis tells that he has now been hired by the Defense Department to travel around to various bases to teach military personnel the care and feeding secrets of the KWM-2.

For years, scientists have warned about the effects of EMP - electromagnetic pulse - as a result of a nuclear explosion. EMP would almost certainly wipe out the front end of any solid state device. Again, the mighty Collins KWM-2 to the rescue. We have been laughing at the Russian military for years because they continued to use tube type equipment. Apparently, they have the last laugh in this case.

Red faced engineers from the designers and manufacturers of the bright, shiny, full-of-bells-and-whistles stuff promise a quick fix to the sand-wind static electricity problem in the Saudi desert. Meanwhile, the late Art Collins is

NEW PHONE #....

The Milwaukee Chapter 28 computer Bulletin Board has moved and is now available at a new number: (414) 873-7807.

THOSE FANCY BOXES....

The following is a reprint, with permission, of an article from the Badger State Smoke Signal. The author is Jim White, WONJB.

If you are among the few of us who still get a big kick out of seeing the soft glow of filaments and enjoy the warmth emanating from within the old gray boxes, move over! We have a new fan in our midst: the United States Military!

Saddam Hussein is not the only thing acting up in the mideast desert. Some

SPECTRUM TAX....

The battle appears to be renewing over a spectrum tax levied against Broadcasters to offset funding of new government programs. The NAB says this time it's the Treasury Department. Last year, the NAB had defeated a proposed spectrum fee by the Office of Management and Budget. It is expected that the spectrum fee will be part of Bush's State of the Union this month. The previously defeated plan called for 5% of a station's annual revenue as the levy. No numbers are yet surfacing in the Treasury Department's plan.

DIGITAL BANDWAGON....

Zenith Electronics Corp., of Glenview, IL, has become the third company to become an all digital transmission

RAM Professional Audio Products

RON A. MITCHELL
PRESIDENT

RAM BROADCAST SYSTEMS INC.
346 West Cofax St.
Palatine, Illinois 60067
Telephone 708-358-3330
Telefax 708-356-3577

system proponent. It is converting its Spectrum-Compatible HDTV system from an analog/digital hybrid to all digital. Thanks to all new digital compression techniques developed by AT&T Bell Labs and AT&T Microelectronics working with Zenith on HDTV development, the all digital system will fit in the existing 6MHz bandwidth now occupied by NTSC television. The all digital scheme will employ a 787.5 line / 59.94 field rate progressively scanned. The system is scheduled to be tested at the Advanced Television Test Center (ATTC) in Alexandria, VA in October of 1991. The two other all digital systems in contention are the General Instrument DigiCipher system and a system by the Advanced Television Research Consortium composed of NBC, Thomson Consumer Electronics, North American Phillips Corp., and the David Sarnoff Research Center.

KEEPING IN TOUCH....

Mark Timpany, is leaving Milwaukee. In fact, he's leaving the country! Mark and his wife Mary will be relocating to Djakarta, Indonesia, where Mary will be teaching English and Mark will be working with Harris in support of their

equipment in that area of the Pacific. Djakarta, Indonesia, is about 1250 miles due south of Saigon and about the same distance from the northwest coastline of Australia. The volcanic island of Krakatoa lies about 100 miles to the west of the city.

(Editors note: Mark is a past president of Chapter 28, Milwaukee. Some of you may know Mark. He worked in the Madison at WIBA before moving to Milwaukee.)

FROM CHAPTER 28, MILWAUKEE....

SMOKE AND MIRRORS, PART 1... In the latest issue of The Absolute Sound (TAS#68) there is a "preliminary" review of the "Magic Clock" and its effects on the sound of your stereo system. It

WISC 3 TV

seems this is a Radio Shack digital clock (retail about \$22.95) that has been "modified" by a company called Coherence Technology where it was "bombed" with some sort of electromagnetic field that makes coherent the random motion of the electrons in the clock's circuitry." Apparently, once made "coherent" the electrons stay that way. According to a company spokesman, if coherent electrons come in contact with random ones (by plugging this into your home electrical system) the effect is propagated into the other system; i.e., the clock, so treated, can make the electrons in your home's electrical system coherent when plugged into a wall socket. "This coherent behavior lowers the noise floor of the electricity, thus dramatically cleaning up the sound of your stereo." There is no additional circuitry in the treated clock when compared to one straight from Radio Shack, and correspondingly, the Radio Shack clock has no effect on the sound of the stereo... the treated one does! To make a long story short, several different listeners described not only an "improvement" of varying degree in the sound of several different stereo systems, but also in video and TV picture quality in the same houses. A

simple double-blind test with one reviewer found that he could identify when the clock was plugged in correctly 6 of the 7 times he was tested. They are trying to find a test that will measure what the actual effect is that the treated clock seems to be having on the sound of stereos when plugged into the electrical system, and plan to report further in future issues. So what's the catch? The price of course! The treated clock is \$399! --Frank White, via MediaNET Home Audio Conference

SMOKE AND MIRRORS, PART 2... A new signal processing technique called Q-Sound is being utilized in some new pop CD releases, including the latest Madonna album. Basically, the idea involves adding substantial amounts of out-of-phase signals to the main mix, thus widening the perceived sound stage

BURT YOUNG
Regional Sales Manager

HTS BROADCAST TELEVISION SYSTEMS, INC.
A Joint Company of Bosch and Philips

O'Hare Corporate Towers
10800 West Higgins Road
Suite 222
Rosemont, IL 60018

(708) 903-9000
TELEFAX: (708) 903-9627

and causing some rather unusual imaging effects from the normal stereo speakers. However, the system does not mix well to mono, as you might expect, thus diminishing its value in matrixed broadcast systems such as FM and TV. Actually, the effects of adding out of phase components to audio signals has been known for many years; just ask any FM station using stereo carts....

Word is that PBS will be putting together a "road show" to take HDTV to the public for demonstration purposes, using mobile HDTV vehicles for demonstrations at civic auditoriums and public TV stations. PBS hopes to begin the demos in the first quarter of 1991 at twenty cities, and continue the road show over the next two years...

CERT SESSION REPORT....

The following is a report on the Chapter 28 Profession Certification Session held last month taken from their January newsletter.

On Tuesday, December 11, 1990, Video Images hosted Chapter 28's Professional Certification meeting. Engineers from southeast Wisconsin with 20 years of

employment in broadcasting were invited to apply for certification at the level of "Professional Broadcast Engineer." Many local members already holding the PBE certification were present to write letters of reference and recommendation for the new applicants. Thirty-one qualified engineers attended the session, and several additional applications were submitted before the end of the month. The applications were reviewed by Certification Chair Rick Ryan for the local committee and by National Certification Chair Jim Mulliman, who also attended the meeting. All applications have been forwarded to the national SBE office for processing. Members have already begun being notified of acceptance.

--Rick Ryan, Chapter 28 Certification Chair

SUBCARRIER USE....

This article was submitted by Sustaining Member Jim Crooks/Broadcast Communications. You may contact him for more information.

With the installation of 911 in a community or county, it becomes necessary to alert the rural fire and EMS districts immediately upon receipt of an emergency call. Just how does a county Sheriff dispatch center alert an entire county in the event of an emergency?

One method you might consider would be

to lease one of your FM sub-carriers to the Sheriff so they could broadcast the alert throughout the county. Of course, the fire and EMS people would not be able to receive the broadcast. However, a sub-carrier receiver at each fire station could receive the alert and key the fire base at each location which would permit each agency to be alerted.

By installing a modem at each end and a printer at the fire department, the telephone number, address, and other pertinent information could be transmitted via the sub-carrier to provide a "hard copy" of the emergency call. The modem/printer concept could also be used to send other government information throughout the county.

Remember, the Public Safety agency must have 24 hour service. This requires a back-up transmitter and emergency power which many FM stations already have.

Don't forget the possibility of supporting Public Safety with your FM sub-carrier!!

EDITORS THANKS....

In the weeks/months ahead I will be transferring the editorial control of this newsletter to Deanna Morris. Deanna is an Engineer at Channel 27 here in Madison. You can be anticipating a new and better look as Deanna has software which will enable her to do more with the style of the newsletter. I wish to thank all who have helped me

make this publication Award Winning. hope that all of you will give Deanna the same support you have given me over the years.

Deanna is a frequent user of our SBE area on the Communications Exchange Bulletin Board. Any of you needing to get information into the newsletter may contact her there or at Channel 27.

SUSTAINING MEMBERS....

Welcome to a new Sustaining Member!!

CELLULAR ONE

Cindy Roth Account Executive

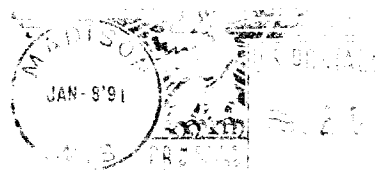
And thanks to two renewals:

WKOW TV 27

ROSCOR / Steve Peck

Ram Broadcast/Ron Mitchell
Scharch Electronics/Stam Scharch
WTSO / WZEE Radio
Maney Logic/Dan Maney
WMTV TV 15
Video Images/Jim Braun
Sony Broadcast Kevin Peckham
LDL Comm Inc./Jeffery Clarine
Broadcast Comm/Jim-John Crooks
Skyline Communications/Rich Wood
Emmons Associates/Keith Emmons
BTS/Burt Young
Panasonic Broadcast/Herb Van Driel
WISC TV 3

**SBE Chapter 24 Newsletter
5714 Modernaire Street
Madison, WI 53711**



Tom Weeden 1
6802 Putnam Road
Madison, WI 53711