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Edited by: Leonard Charles

Articles Welcome!! Send them to:  
Chapter 24 Newsletter  
5714 Modenaire St.  
Madison, WI 53711  
(608)-274-0041  
(608)-271-4321

((hard copy or text files on 360K disk))

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**MEETING ANNOUNCEMENT**

DATE: Dec 20, 1989  
ALEXANDERS of Madison  
5614 Schroeder Road  
Across from Vitense mini golf

LUNCH: NOON  
Meeting/Program: 12:30pm

Jim Engeseth of Dane County's emergency Management office will give us an update on the county communications RF web, EBS, and 911.

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**UPCOMING MEETING DATES**

Jan 18 - Thursday  
Feb 20 - Tuesday  
Mar 21 - Wednesday (Lunch)

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**YOUR OFFICERS....**

Chairman: Andy Murphy (WMSN TV)  
Vice Chair: Steve Zimmerman (WKOW TV)  
Secretary: Jim Hermanson (WTSO/WZEE)  
Treasurer: Dave Gerisch (WMTV TV)

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**FROM THE OFFICERS....**

The officers of Chapter 24 have been asked to develop a policy to deal with

non-educational issues involving the chapter membership information database. Specifically, with using the chapter mailing list and newsletter to advertise job openings. We have read the By-Laws of the SBE and we feel there is nothing contained in them stating how our membership list should or should not be used. Article IV, Section 11 states that: "records maintained by the Secretary shall be available for inspection by members in good standing at all reasonable times." Section 22 of the Cannons of Ethics states that: "He will endeavor to provide opportunity for the professional development and advancement of personnel in his employ." These are very broad statements, but we feel the "professional development and advancement" statement above is important. It is not our purpose to encourage engineers to look for other employment. The purpose of the chapter and the SBE in general according to the By-Laws is to:

1. Increase knowledge in broadcast engineering.
2. Establish standards of professional education, training and competence.
3. Stimulate interest in broadcast engineering and its allied fields.
4. Create a working alliance in all aspects allied to broadcasting.

If a broadcaster has a position open and is looking for a qualified person to fill the position, any SBE Chapter would be a logical place to make the vacancy known. All stations get applications from qualified and not so qualified persons. People apply at one station and not another. By publishing a job opening in our newsletter and sharing this information at meetings, we do not feel it is hurting the integrity of the organization and should be allowed.

In addressing the issue of making our membership list available to anyone, as stated above the list is available to any "member in good standing". It is not our intention for members to use the list commercially or as an advertising

vehicle for products in anyway. Maybe someone simply wants to send a Christmas card to all members.

What we would like to do is give each member an option of keeping his home address and telephone number confidential. A business address and telephone number would be easily available to anyone anyway. If you do not want home information given out, please contact the Membership Chairman, Tom Weeden or David Gerisch at WMTV, and your membership information will be updated immediately. If they do not hear from you, we will assume it is alright to make all information available to members.

We will have a vote on this position at our December 20th monthly meeting.

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**EDITORS NOTE....**

In an effort to streamline the process, we are seeking a distribution manager. The duties include taking the text or camera ready copy of the newsletter, duplicating, collating and applying mailing labels to it and forwarding it to be posted and mailed.

Payment is a great sense of being involved with the satisfaction of a job well done. Contact Leonard Charles at 274-0041 (H) or 271-4321 (W) if interested in helping out by accepting this position.

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**NOTES FROM NATIONAL....**

President Brad Dick says that effective communication is especially crucial in an organization such as the SBE. He says he intends to do all he can to help not only the membership but the entire broadcast industry know what the SBE is doing. To that end, Dick has announced three new newsletters in addition to the

SBE Signal in an effort to better communicate. First, A CONVENTION UPDATE, edited by Bob Goza of the Board will be sent to chapter chairmen and newsletter editors to provide information and plans for the 1990 National SBE Convention in St. Louis October 4 thru 7; Second, A CERTIFICATION UPDATE, edited by Ennes Foundation chairman Jim Wulliman, will be mailed to chapter certification chairmen; and Third, Brad Dick himself will be issuing, on a regular basis, The President's Newsletter, with current information on a variety of SBE topics.

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FCC NEWS....

info by Doug Smith

Ervin S. Duggan, a Washington communications consultant, has been nominated to the "Democratic seat" on the Commission. Duggan is a former journalist, and is active in several religious organizations.

Senator John Danforth (R-MO) has introduced a CATV reregulation bill. The bill would:

- 1) Restore municipal authority to regulate rates for basic cable.
- 2) Limit one firm to ownership of systems serving 15% of all U.S. subscribers.
- 3) Restore must-carry for most local broadcast signals.
- 4) Give broadcast stations certain channel-position rights.
- 5) Enable cities to revoke or refuse to renew franchises without liability.
- 6) Require cable programmers to offer their programming to all technologies. (cable, MMDS, and private dish owners)

The bill has the support of the NAB and INTV, and, of course, the opposition of the NCTA.

The FCC's re-introduced syndicated exclusivity rules have been upheld by the U.S. Court of Appeals in Washington.

No real surprises came out of the FCC's AM improvement hearing on Nov. 16th.

Commissioner James Quello has proposed granting LPTV stations primary rights to their channels. Currently, a LPTV station can be bumped from its channel by a mutually-exclusive full-power station. However, Quello cautioned that this is only an idea at this time, and that HDTV requirements for UHF spectrum

may make such a move impossible.

TFT's "Reciter" has been granted type acceptance. This device is a combination STL microwave receiver and FM exciter.

The Commission has affirmed the renewal of KOFY-TV, San Francisco. A San Francisco citizen's group had challenged the renewal, charging that KOFY had reneged on an agreement concerning programming on KOFY-FM; however, the FCC ruled that such agreements hinder a station's ability to operate in the public interest.

Yet another waiver to the one-to-a-market rules has been issued, for the purchase of KOKI-TV Tulsa by the owners of KAKC/KMOD radio.

New stations are now apparently automatically issued callsigns, in alphabetical order, upon approval of their construction permits. It's believed this is in preparation for computerization of the FCC callsign database.

AMATEUR RADIO NEWS....

by Tom Weeden, WJ9H

Amateur radio license fees have been deleted from the budget reconciliation legislation now under consideration in Congress. The conference committee report on H.R. 3299, released November 21, states that the conferees recognize that amateur licensees do not operate for profit and can play an important public safety role in time of disaster or emergency. There is little chance of the fees being reintroduced on the floor of either house of Congress.

Amateurs provided communications to the earthquake-stricken San Francisco area in the aftermath of the October disaster that caused widespread damage in northern California. American Radio Relay League officials in the affected areas report that local amateur emergency networks on the 2-meter and 220 MHz bands were in full swing, providing on-site emergency communication assistance. The extensive packet-radio network in the San Francisco area was dedicated to handling the heavy volume of health and welfare traffic.

A ham astronaut? Ron Parise, WA4SIR, is

on the crew for the space shuttle Columbia, scheduled to fly on April 26, 1990. Parise will be carrying a Motorola hand-held radio for FM voice communication with amateurs on Earth. He will also have a packet radio terminal-node controller on board for amateur computer-to-computer links. This setup will allow hams to connect to the SAREX (Shuttle Amateur Radio EXperiment) even if the crew is not available to engage in real-time conversations.

(Excerpts taken from December 1989 QST and Fall "10-10" Magazines.)

RADIO....

by Stan Scharch

Radio World reports that the FCC and the FAA are working to end a conflict over the FAA's role in denying permission to construct broadcast towers. According to FAA Spectrum Engineering Manager Jerry Markey, a station could ask the FAA before it chooses a site whether the signal could interfere with air-to-ground communications. Presently Many Broadcasters are being notified of FAA related interference only after a substantial investment in engineering and application for upgrades and facilities.

The NAB says that DENON has introduced an AM/FM consumer hi-fi tuner that conforms to the new NRSC deemphasis standard. It is not known for certain whether the unit will be produced as AM STEREO/FM STEREO or AM(MONO)/FM STEREO.

I contacted the Midwest sales office for DENON and they were unaware of the new model TU-660. The sales representative said it was likely that it would be "unveiled" at the Jan. 1990 Consumer Electronics Show.

SATELLITE NEWS....

by Phil Mikalofsky

On October 30th, 1989, PBS publicly announced that it will use one of the next AT&T communications satellites, TELSTAR 401, to distribute its public television programming starting in April, 1993. Currently, the PBS-Interconnection Service utilizes four transponders on the Hughes WESTAR 4 C-

band satellite at 99 deg W longitude. Westar 4 transponder service is expected to end sometime in 1991, when the satellite reaches the end of its useful lifetime by exhausting its station-keeping fuel supply. During the 1991 to 1993 interim, AT&T will secure C-band transponder services for PBS from GTE Spacenet Corporation.

PBS will either buy or lease space segment time on the dual-band TELSTAR 401 bird with a number and configuration of both C-band and Ku-band transponders that will be determined by the end of 1990. The added Ku-band transponders to the Interconnection System will make it easier for PBS affiliates to receive PBS transmissions with smaller Ku-band antennas. It will also enable PBS to feed programming events from fixed or transportable uplink sites using either C- or Ku-band satellite transmission hardware.

TELSTAR 401 is tentatively scheduled for launch in December of 1992 or earlier, depending on launch vehicle availability. The satellite has an FCC orbital assignment of 97 deg W longitude and will have the ability to "cross-strap" transponders on either uplink frequency band. In other words, a C-band transponder can downlink a transmission uplinked at Ku-band or vice-versa. This flexible feature of the TELSTAR 401 satellite would be utilized by the PBS Interconnection Service to provide network-wide access for stations with C- or Ku-band satellite transmission facilities.

(excerpts from PBS Press Release, 1990 World Satellite Almanac)

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**BIG TIME DOMINOES....**

from Gary Liebisch via CIS

Two 2000 foot Klien towers collapsed in Raleigh, NC. The towers, about a mile apart, apparently collapsed due to ice loading. The WPTF-TV tower, about 2 1/2 years old, collapsed first about 8:45 AM, then the WRAL-FM-TV tower collapsed about 30 minutes later. The latter tower also held most of the emergency and public service communications antennas for the Raleigh-Durham, NC market, and was about 12 years old. WPTF-TV will be able to return to its former site, which is still standing, but WRAL TV

has no alternate site.

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**DEA CLEARS ROOT....**

The Drug Enforcement Administration has cleared Thomas Root of any drug related charges. Root is the Sunrise Communications Attorney rescued from the Caribbean after a mysterious plane crash in July. The DEA investigation began after a plane Root owns was raided and found to contain 28 loaded firearms and a can of either, sometimes used to refine cocaine. Root is still not totally out of the water. Pending are the results of investigations by the FAA, the NTSB, the FBI, and a Washington Federal Grand Jury. Root is also being sued by Sunrise for embezzlement.

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**MCRISKS....**

Electronic Interference in Fast Food Automation

by Robert Horvitz from an article in "EMC Technology" written by Fernando M Esparza

It seems that when McDonalds decided to introduce McMuffin products, they had to install special toasters. Soon, many of their employee time-clocks inexplicably started to gain 2 to 4 hours each day, crediting workers with more hours than they had actually worked. After a lot of head-scratching (and testing), they discovered that the new toasters' voltage control circuits induced voltage spikes in the powerline during normal operation - sometimes as many as 120 per second. This disrupted the clocks on the same power circuit, since they monitored the alternating current's waveform for the purpose of time-keeping: the voltage spikes increased the number of "zero crossings," which were used as the metric. "By the time we were able to pin down the problem exactly, there were more than 5,000 toasters installed in the restaurants. Although the managers were understandably upset, none of the crew complained."

"Ghosts in the Drive-Thru" was another baffling problem, affecting the POS (point-of-sale) system of a McDonalds

in suburban Los Angeles: "The POS system is a collection of computerized cash registers that are networked together in a somewhat sophisticated and proprietary network,". The problem was that bogus food orders showed up randomly in the system. "The restaurant could distinguish ghost orders from real orders because the quantity of the items displayed was the same - 11 cokes, 11 fries, 11 hamburgers, etc. The items themselves were directly copied from the previous, actual order. These orders could not be cancelled but had to be cashiered out of the system, thereby rendering all product mix and sales information invalid and creating a potential security/theft problem, in addition to slowing customer service in the drive-thru." The restaurant's POS system and all of its software was replaced, but the problem continued. To make a long story short, this McDonalds happened to be near a cluster of radio and television transmission towers. The POS system's wiring acted as an antenna, capturing the signals, and corrupting some of the data that flowed thru the wires.

"The Cash Drawers that Opened by Themselves." Again making a long story short, Esparza discovered that the problem began soon after the local police department upgraded their communications system with higher power mobile radios. "Whenever they responded to a call while in the drive-thru, the cash drawers opened... An open cash drawer without a cashier to supervise it is...a large security liability."

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**FROM CHAPTER 28....**

Milwaukee, WI

Racine's WBZN A/F has been sold for \$3.5 million to Philadelphia media baron Ragan Henry, who owns or controls about 25 stations across the nation. (Henry, as a minority owner, is permitted to own up to 14 AM and 14 FM stations.) The light jazz/new age formatted stations are currently owned by Adams Communications of Clearwater, Florida .

Wisconsin Senator Herb Kohl is expected to sit for the hearing of the Antitrust Subcommittee as it tackles public interest aspects of sports programming on cable versus broadcast

television, but may have to absent himself from any voting on television sports legislation. Kohl, who owns the Milwaukee Bucks, is currently being courted by Prime Network and SportsChannel for his team's telecast rights .

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**FCC AM "EN BANC" . . . .**

Six panels of experts talked about the current state of AM broadcasting in the United States and ways to improve it.

On panel one, William R. Sanders, chairman of the NAB's Radio Board, urged the Commission to support H.R. 2714, "The Radio Broadcasting Improvement Act of 1989." That would require manufacturers to include AM stereo on any receiver which has FM stereo, limit the use of translators by FM stations, and allow "homesteading" in the AM expansion band. David Hicks, the Radio Board's vice chairman, urged the Commission to tighten its interference rules, and relax its station cross-ownership rules.

A second panel discussed receivers, and featured spokesmen from Delco, Motorola and Panasonic, plus Art Suberbielle of KANE in Louisiana, the chairman of the NAB's AM Improvement Panel. William Gilbert of Delco felt that reducing interference was more important than promoting stereo. He urged the Commission to use the expansion band to reduce adjacent channel splatter below 1605 kHz by selectively reassigning existing stations to the higher channels.

Frank Hilbert of Motorola pushed stereo, specifically C-QUAM, arguing that it made stations sound better as stations tend to upgrade their entire audio chain when they go stereo. The lack of an official stereo standard in the US is hurting AM, he said: only about 13% of US stations have gone stereo, while in Australia, which has an official standard, the figure is more like 50%.

The third panel focussed on use of the expansion band and was dominated by requests for set-asides for special interests. Three of the five panelists represented daytime-only stations and felt daytimers should

have priority in getting fulltime licenses in the expansion band. David Honig of the National Black Media Coalition argued that half of the new band should be reserved for minority broadcasters. Tom Kigin, representing KNOW-AM and KSJN-FM, public stations in Minnesota, thought 20% of the new band should be for noncommercial broadcasting.

On the panel on technical and assignment issues Wallace Johnson noted that the US still hasn't ratified the Final Acts of the Regional Administrative Radio Conference which expanded the AM band. FCC Chairman Alfred Sikes raised many an eyebrow when he asked if narrow-band FM (NBFM) should be allowed in the "AM". Apparently a request for experimental authorization has been received from a station that wants to try it.

The last two panels both looked at "AM Improvement and the Future." Richard Harris, the chairman of Group W, made a strong presentation, backed by his chain's conspicuous success. His proposals: require stereo broadcasting; require manufacturers to produce high-quality receivers; encourage local origination of programming and forbid AM/FM simulcasting; remove all limits on multiple AM station ownership, and allow firms to own two or more AM stations in the same market. He cited Los Angeles as an example--Group W has a station there whose news coverage is city-wide, even though its signal coverage isn't.

Richard Blackburn, a station broker, noted that the market value of an AM station, with coverage comparable to an FM station in the same market, is generally about 20% of the FM station's. The one positive suggestion he made was to allow stations that had to put up directional antennas, to protect another station from interference, to buy the other station and combine the coverages.

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**TOUNGE IN CHEEK . . . .**

from CHAP 56 NORTHEAST OKLAHOMA

**1990 PREDICTIONS**

The FCC will make a nebulous policy

statement.

Japanese companies will introduce two new and incompatible video tape formats.

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**HOTTEST RUMOR OF THE MONTH:** The FCC is reconsidering their procedure of issuing radiotelephone permits. Currently, anyone who mails in the application can receive the certificate. Some people feel that such an arrangement is too lax. A written examination may be required in the future. Here are a few sample questions that may appear on the new test:

1. How wide is one inch tape?
2. What type of equipment requires a camera lens?
3. Name one piece of equipment found in the transmitter building.

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**THE NICE THING ABOUT COMPACT CARS IS THAT THEY MAKE YOUR HOUSE LOOK BIGGER!**

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**CLASSIFIED . . . .**

WORT is looking for a transmitter maintenance person. This is a good opportunity for someone who enjoys working with transmitters to roll up his/her sleeves and earn a few bucks. We need someone who can do remote control calibration and preventive maintenance on the transmitter gear which has been well maintained and is in good condition. For further information, please call Kevin Ruppert at 271-4321 days or 273-1376 nights.

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**CHAPTER 24 SUSTAINING MEMBERS**

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## CHAPTER 24

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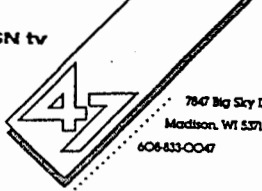
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