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CHAPTER 24 - MADISON

APRIL 1990

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

Contributors this month:
 Doug McDonell
 Doug Smith
 Tom Weeden
 Stan Scharch
 Denny Behr
 Chris Cain

MEETING ANNOUNCEMENT

DATE: April 19, 1990

ALEXANDERS

SCHROEDER ROAD
(Whitney Way at the Beltline)

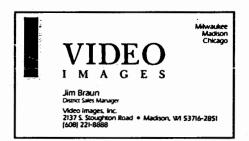
Dinner: 5:45pm Program: 7:15pm

The program this month will begin with the election of the next year's Chapter 24 officers. Your vote is needed to guide us on our way into the 90s. See the special ELECTION 90 section and absentee bellot in this newsletter.

The second part of the program will be a NAB summary by selected Chapter 24 members who were among the attendees at this years convention. Find out what's new in technology at this month's meeting.

UPCOMING MEETING DATES

Oct 4-7 - SBE National



YOUR OFFICERS....

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

Frequency Coor: Chris Cain (WISC TV)
Certification: Doug McDonell

CERTIFICATION....

The next round of SBE Certification Exams will be given between June 8-18, 1990. Applications for those exams must be in Indianapolis, SBE headquarters, by April 11, 1990.

Future Exam Dates: SBE Convention October 6th November 9-19



THE LEGALS....

info by Doug McDonell

WSSM-TV Inc. of Madison has been granted a CP for a TV STL on 776 MHZ to be used with W54BH.

The FM table has been amended effective May 14 by allotting channel 241A (96.1MHZ) to Lake Geneva as its first FM service. The filing window opens May 15 and closes June 14.

The FM table has been amended effective May 4 by allotting channel 293A (106.5MHZ) to Whitewater as its second FM service. The filing window opens May 7 and closes June 6.

FCC NEWS....

info by Doug Smith

Effective April 5, a freeze has been imposed on applications for new AM stations and modifications of existing licenses. This is in preparation for major changes in the AM technical regulations and the expansion of the band to 1700KHz. Modifications required by causes beyond the control of the applicant, responses to applications filed before April 5, and new applications filed in renewal challenges won't be affected.

It appears likely there will be a study into the possibility of restructuring government-owned international radio stations. Such a study has been proposed by Rep. Dante Fascell (D-Fla.), the Bush administration has expressed interest, and the Office of Management and Budget has also suggested a study. The federal government operates the Voice of America, Radio Free Europe (broadcasting to Eastern Europe), Radio Liberty (broadcasting to the USSR), and Radio Marti, broadcasting to Cuba. (as well as the military Armed Forces Radio

& Television Service, which broadcasts strictly to U.S. servicemen abroad)

The Senate has released a draft law that would reregulate cable TV. The main points include the establishment of a procedure for municipal regulation of rates, a requirement that cable programmers offer their fare to all technologies (DBS/MMDS/etc.), a limit on how many systems one operator may own, a prohibition against cable operators owning MMDS in their franchise area, and must-carry and channel-positioning rights for broadcasters.

Emerald Broadcasting has asked the FCC to change the city of license of class C1 WHMA-FM, Anniston, Ala., to Sandy Springs, Ga., a suburb of Atlanta.



WISC-TV 7025 RAYMOND ROAD MADISON, WI 53711 608-271-4321

(about 75-80 miles east of Anniston) They also propose allocating a class C3 frequency to Anniston, and a class A to nearby Lineville, Ala.. Existing Atlanta broadcasters are opposed to the move.

The Commission has rejected several "LPFM" proposals. These proposals would have permitted FM translators to be fed by microwave or satellite, or to originate their own programming. Further regulations have been proposed which would allow translators outside the primary stations coverage area only if the translator was owned by an independent party. The primary station would be prohibited from financially supporting the translator.

A \$10,500,000 increase in funding has been requested by the FCC in its fiscal 1991 budget. \$500,000 of this would be spent on attempts to set HDTV standards. Other money would be spent on a variety of measures, including salaries for five new employees to help clear the backlog of FM applications, 13 to assist in enforcement, and two Equal Employment Opportunity specialists.

In an unusual case, KMST(TV) Monterey,

Calif. has sued a Monterey newspaper for libel. The station claims that an article that "notes pointedly that KMST



6545 Cecilia Circle Mpls., MN 55435 612-941-0556 4613 Hamlet Place Madison,WI 53714 608-249-7080

is the lowest rated CBS affiliate in the entire country" is not true.

Environmentalists have asked Congress to halt the construction of a Voice of America relay station in Israel. U.S. and Israeli activists claim the station would affect the massive fall and spring migration of birds in the area.

TV Marti has begun operations, effective midnight on March 27. As promised, Cuba effectively jammed the programming on channel 13.

The FCC has refused to approve the sale of WAXA(TV) Anderson, S.C. to WLOS-TV Inc.. WLOS, owners of channel 13 in Asheville, N.C., intended to use WAXA as a satellite. The Commission cited satellite provisions in their contour overlap and duopoly rules.

Also, the duopoly rules have been waived



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for 18 months to allow the owner of KWIZ AM/FM Santa Ana, Calif. to purchase KRTH (AM) Los Angeles.

KGMI-AM, Blaine, Washington has applied for permission to operate a booster station on 102.3FM! No action yet from the Commission.

Among the revisions in the FCC fee schedule reported last month, stations will now be charged \$55 for call changes. Not a whole lot of money, but maybe it'll slow down the pace of call changes-which had been averaging around 25 a week on AM alone!

RADIO....

by Stan Scharch, N9HMA

Little support has been expressed for a 24 hour indecency ban proposed by the FCC. Comments from such media leaders as NAB, ABC, CBS, and NBC regarding docket 89-494 have been mostly against any further indecency regulation.

The much heralded laser turntable is finally available in the U.S. The price tag of \$32,000 is a little higher than the originally projected \$3,500. Finial

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Technology says that it's Model LT-1 turntable will playback even the most severely damaged 33 and 45 rpm records with significant noise reduction.

Successful testing of shorter EBS tones has taken place at 3 Lansing, Michigan radio stations. A petition for rulemaking is before the FCC that would shorten the present 20 second tone requirement to 8 seconds. According to the NAB, "Now that the public has become familiar with the tones, their length becomes a boredom factor. Many listeners assume that the tones mean another test and will punch out of a station before hearing the message following the tones." FCC engineer Frank Lucia has said that he expects the commission to file a notice of proposed rulemaking in a few months.

46 of the 149 FM class A stations that are eligible for upgrade to new C3 power levels (25,000w at 100m) have decided not to file for the upgrade. According to the FCC, if the stations don't respond to the year old C3 designation, they will be deleted from the C3 designation.

(Excerpts from Radio World)

AMATEUR RADIO NEWS.... by Tom Weeden, WJ9K

The two Space Shuttle flights carrying the Shuttle Amateur Radio Experiment (SAREX) have been delayed. STS-35. originally scheduled to be launched April 26, is now set for May 9. STS-37,



615 FORWARD DRIVE - MADISON, WISCONSIN 53711 g. 608-274-1515

scheduled for a June 4 launch, has been pushed back to November. SAREX is a program to connect teachers and students in schools to the shuttle via amateur radio and TV. Since the flights will be in low-inclination orbits, only hams in the far southern US will be able to directly contact the shuttle. However, terrestrial links will be set up to allow northern stations to participate.

The FCC has quite a few rulemaking proceedings in the hopper, the most noteworthy being the proposed "codeless" Communicator license. Others include a proposal to move the 80-meter Novice subband down 25 kHz to lessen interference from foreign stations, and a proposal to "clean up" the new Part 97 which became effective last September. Some of the changes being asked:

- + Easing restrictions on third-party traffic when operating under automatic control at VHF and above.
- + Reinstating the provision in the rules entitling an amateur to a hearing, rather than permitting a Field Operations Bureau to restrict operation in interference cases.
- + Removing the "amplifier ban" which restricts amateurs from buying linear amplifiers in the 24 and 28 MHz bands because of illegal CB use at 27 MHz.

SBE hams meet on the air the second Sunday of every month at 7 PM CDT. The frequency is 14.205 MHz, in the Advanced subband. If you're not a ham, find one and join the nationwide meeting. The next meeting will be on May 13.

(Excerpts from April "QST" Magazine.)

NAB 1990/ ATLANTA.... by Chris Cain, WISC TV

Please read the following at your own

I have been attending the NAB convention for twenty years and recall some really spectacular shows and some real bombs! In my view, the 1990 production lies somewhere between total success and disaster!

Who could ask for a more friendlier city than Atlanta to do anything in! The people LOVE everybody! No one screams or yells at each other, rather than that they play a lovingly playful game with each other twice each day as they sneak thru red lights and clog up entire intersections at a time! In the midst of this you see individuals helping each other out, guiding a bus through a impossible turn or intersection. Can you imagine the fingers or guns being pulled out in LA or the Big Apple! No,

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my friends, not in Atlanta! Southern hospitality reigns supreme. You can walk almost anywhere, anytime and totally enjoy the beauty of the city and the natives that you meet. I say BRAVO to the citizens of Atlanta! You are right friendly and hospitable folks.

THE WORLD CONFERENCE CENTER:

Oh no! Here is where we run into some problems with all that is beauty and light with Atlanta.

- 1). This is a facility wherein if you have any walking, breathing or heart deficiency you should check with the center first!
- a). The exhibit floors are several stories underground. After three (3) escalators you will find yourself deposited at one of the two exhibit

floors. (There are elevators available at considerable walking distance from the main entrance on International.)

b). The WCC "assist/ you are here" signs in 3 levels are totally useless! Fortunate for us that the NAB had plenty of direction signs for where to go. (You don't find these in Las Vegas or even Dallas, they're not needed!)

c.) The exhibition halls symmetrical! Get into a heavy conversation and loose track of your way, you are lost! I found myself and others tracking around the outer periphery of the hall to find the CONNECTOR hall or the exit. If I was an exhibitor and had been dealing with this for three or four days I would have had NO problems. (At least in Vegas or Dallas you can pop open a door and see the outside to help you regain your reference location.)

Here there was d). Sessions: virtually no problems, as long as you understood the 3 level locator maps. The TV sessions were in the West area level 2 & the Radio sessions were a floor down. Thanks to the sessions these areas became our point of This helped considerably throughout the show.

e). Shuttle Buses: Used to grabbing the 7 or 8 routes available in Vegas? Not so in Atlanta! I was on route 4 which ran fairly regular in the morning but totally quit after 9AM and started again after 4:30 PM. The only route that we could take was met with a representative saying: "Get on route one (1), sir" (always so polite! This really helped me from going totally berserk with these fine Southern folks.) Unfortunately the driver did not know my route or how to get to my hotel! Well, I walked several times to my hotel and used Taxi's more than anytime during the last twenty (20) years!

THE DEAD HEADS!

Ever heard of the Grateful Dead? This is a Rock group direct out of the Remember guys like Jerry sixties. Garcia? Come on now, I do! At any rate this group has a following that is quite unique. Thousands of fans follow the



group as the three kings followed the Bethlehem star. The Atlanta newspaper that stated the "Dead Heads meet the Talking Heads" in downtown Atlanta really hit the nail on the head! There they were, across the street from the WCC, in their tattered blue Jeans and Walking around, tie dyed shirts... holding 1 finger up if they wanted one ticket or two etc. Don't get me wrong here, these were not aggressive or violent people. They meshed with us "talking heads" slowing us down, but not resorting to any sort of confrontation. They were at peace with the world, but we were in each others way! understand, that the CNN Center shut it's doors at 10PM for the first time in a while over these crowds who follow the Grateful Dead but cannot afford to attend the concert! I mean these folks were knee deep in "Junk Food" containers and empty pop bottles by 9PM. (I saw itl) Atlanta took this all in stride and politely spent kilobucks in cleaning it up every morning! (Sunday, Monday & Tuesday! Hey, this was not one night, but three (3).)

THE EXHIBITS:

Once you found your way onto one of the main exhibit floors there was nothing but excellence to be found in true NAB tradition! There were several auxiliary exhibit areas that one could find Computer Programs, Abekas, EBU, Remote Trucks, Uplinks, and many others too numerous to mention here. From what we heard from the exhibitors, business was quite good at most booths. (The one exception was the Monday morning when the "Prez" came to the WCC!)

THE HIGHLIGHTS:

Where does one begin, and be fair about who's was bigger and better at NAB!? Considering the big booths, here's are my choices:

1). SONY:

Who else in one area offer ALL broadcasters the latest in technical



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- a). Nothing but CCD Cameras. No bulky tubes for the "S" company anymore!
- b). The MOST 4:2:2 digital gear of anyone on the Planet Earth!
- c). DASH/ DAT: You have it here. 24 track DASH recorders to DAT portable recorders the size of a Phillips cassette recorder of many years ago (Remember the TC- 110!)

2). DYNATECH:

Here is a conglomerate of organizations that offer one a WIDE spectrum of choices from Paint Boxes to your MC switcher!

- a). Utah Scientific: Anyone that has ever done business with these folks soon realize what a tradition and class they're dealing with. Who do you recall in the past decade offering you a 10 year warranty!?
- b). Colorgraphics: From HOT looking weather graphics to paint boxes, this is TOP SHELF stuff.
- c). NewStar: Automate your News Room with relative ease. A always informative show demonstration!

3). AMPEX

From the latest D-2 deck to Alternative



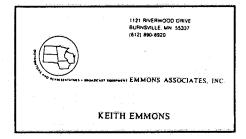
lighting scenarios, you saw top quality and good value!

- 4). HARRIS/ALLIED CORPORATION:
 Radio & TV RF Central! Who can possibly argue with the Gates/ Harris RF legend!
 See for yourself all the Solid State, more efficient RF boxes! The new high power UHF rig was on display.
- 5). CONTINENTAL ELECTRONICS/VARIAN: The "Grand- Daddy" of RF radio products. Solid state transmitters for all AM-FM uses.

6). BITS & BYTES:

a). The booth with the robotics/ DAT loader was great. One robotics arm loading, from 40 trays, several Sony DAT players!

- b). Audio proof in 7 seconds! We observed pre-programmed sweeps and printouts simulated.
- c). Hard disk storage for your current hits play list, automated diagnostics for your RF plant. Instant CD or Laserdiscs for local programming.
- d). Need to update fonts for your facility? Chyron has a number for you to call for downloads and they will bill



you later!

I wish that I had several hundred more kilobytes set aside for all that one could report about at the NAB exhibits!

HDTV:

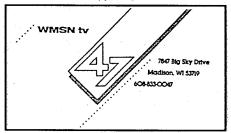
I would be guilty of many charges if I did not go out of my way to sing the praise for the NAB/ 1125 group who combined forces this year. To say the least, HDTV is here and you better start thinking about it! The FCC has stated it will identify a transmission standard for the U.S. in 1993. At the off site exhibit one could view 1/2 tape & Laserdisc/ home delivery formats. Also present were production hardware vendors. If you get a chance to view "Sony's Tiny Tale" from an attendee, please do so. Also, ask them about how the Production looked in REAL HDTV vs the Letterbox VHS tape they brought home!

SESSIONS:

This is the classic tale about how something so consistently excellent can be over looked. I will not do that! From Computers, Graphics, Digital audio, HDTV, UHF transmission, management seminars; this 1990 show had it all! Please buy the NAB Papers book or send in for cassettes of the sessions that your staff can be a part of NAB 1990.

Lét's wrap it up here and now:

NAB/ Atlanta was a GREAT SHOW! Moving about was a considerable problem for many of us. I heard many a seasoned attendee crying out in relief that next year we will congregate back in LasVegas. Truly, Vegas is the most



efficient home for the NAB convention!

Thank y'all in Atlanta! We will return someday. Please don't book us in parallel with the Grateful Dead, again!

NEW VIDEO TIMING METHOD DEVELOPED....

WISC-TV Engineering has developed a new method of video timing which offers control over a much wider range than previously available. This system does require several components which may not be familiar to most studio engineers, but we feel the advantages to be gained from its employment far outweigh the difficulties in training.

See the scale drawing (Figure 1) for reference. Note that one important component didn't fit on the diagram: if we were to put this part in the scale drawing, the top of your newsletter would be in Duluth.

The general idea is this: The video signal from the camera (any other genlockable video source can be used) is transmitted to the relay device. The "downlink" then receives this video signal and returns it, later in time, to the switcher.

The key component in this system is the "Control" unit. It works in conjunction with the relay device to provide precise control over the amount of delay in moving the camera signal to the switcher. This control is obtained by physically moving the relay device vertically relative to the "uplink" and "downlink" units. If the relay device is closer to these units, less delay is introduced; if it's further away, more delay is introduced.

We have found a few bugs in this system. At this time, the most important is that the minimum delay obtainable is about 500,000uS. This is, however, easily resolved by sending the switcher reference signal through another relay device and using the distance difference between the two relay devices to determine timing.

A second problem is large physical size of the equipment required to implement this system. At WISC-TV, this isn't a serious problem as we have plenty of land available, but facilities in crowded urban areas may need to use modified "shortwave" relay devices to fit everything into the space available.

The final problem is the finite lifetime of the relay device. After about 4

Camera U | Uplink | Dnlink | Sync | Controller | Switcher | lock |

FIGURE 1

years of timing adjustments, the relay device appears to freeze in place, making further adjustments impossible. At this time, we're still working on this problem...

(The preceeding is presented as an April Fool by Doug Smith of WISC TV)

SONY

Kevin Peckham Sales Engineer Broadcast Sales Division

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ELECTIONS 90....

(Editors Note: In order to assist you in choosing the officers to lead our Chapter in the coming year, here are short biographies provided by each candidate running in this month's elections)

STEVE ZIMMERMAN: (Chairman)

I have been involved in Broadcast Engineering in the Madison area since 1981. Up until 1988 I worked at WISC TV. In 1988, I changed channels to UHF channel 27 where I am the Chief Engineer. Prior to 1981, I worked for a station in South Carolina, WCBD-TV and with the US Navy.

I am proud to be involved with the Madison Chapter of the Society of Broadcast Engineers. We have an extremely dedicated and enthusiastic membership. The programs have been great and the Newsletter is outstanding. All the chairmen and committee members have made significant contributions to the success of the Madison chapter.

I would appreciate the opportunity to serve as your chapter chairman. The previous chapter chairman and committees have set an excellent course for our chapter. I would welcome the opportunity to continue these goals as well as take on a few new challenges.

JIM HERMANSON: (Vice Chairman)
Jim began his Broadcasting career in
1974 as an announcer at WBEV Radio in
Beaver Dam. Upon graduation from
M.A.T.C. with an Associate Degree in

Electronics Technology in 1976, Jim began work as a Resident Engineer at WBEV/WXRO Radio. In 1977, he accepted a position with Goetz Broadcasting Corporation as a Corporate Broadcast Engineer. With Goetz, responsibilities included Engineering work for as many as

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20 radio stations in South and Central Wisconsin. In 1981, Jim returned to school at U.W.-Madison, where he has been working part-time toward a degree in the Letters and Science department. In 1983, he began working part-time at WKOW-TV 27, and was promoted to full-time as 10PM News Technical Director in 1985. In late 1986, Jim accepted a position as Chief Engineer for WTSO/WZEE Radio, his current position. Jim resides in Madison and has been a member of our SBE chapter since 1986. He has served as the chapter's Membership Chairman in 1987, and as Secretary since 1988.

DAVIS GERISCH: (Vice Chairman) I started my Broadcasting career at WISM Radio in 1971. I was an "ON-Air" announcer until 1977. In 1977 I was named Program Director at their sister station WIZM AM-FM in La Crosse. I returned to Madison as Program Director and Asst. Chief Engineer for WWOM AM-FM in 1978 & 1979. In September of 1979 I accepted a position as a Maintenance Engineer with WMTV, Channel 15. In July of 1988 I was named Chief Engineer. Most recently in February of this year, I was named Operations Manager in charge of Production and Engineering with the station. I have served as Treasurer for two consecutive terms with Chapter 24 of the SBE. In January of 1987 I passed my certification exam for Broadcast Engineer with the SBE. I look forward to running for Vice-Chairman of Chapter 24 and keeping ours a strong active chapter in Broadcasting.

DOUG SMITH: (Secretary) I'm 30 years old, a native of suburban Milwaukee. I studied electrical engineering at the University of

Wisconsin for 3 years, leaving in early 1980. I've been working for WISC-TV for over 10 years, starting as a part-time weekend and vacation relief operator, and ending up full-time in the maintenance department. Currently, most of my work involves maintenance of the WISC computer network and video switchers. I also do some free-lance video work for local newsroom computer manufacturer Dynatech Newstar.

I've been an active radio amateur for over 17 years, and operate the local data-radio computer bulletin board. I'm also active on the SBE area of Dave Willow's Communication Exchange, and CompuServe's Broadcast Professionals' Forum. I've been a member of the SBE and Chapter 24 for over 3 years, and hold a FCC General Radiotelephone Operator's License. (formerly First Class)

TOM WEEDEN: (Secretary)

- Graduated from University of Wisconsin-Platteville, double major: Broadcast Engineering and Broadcast Production, 1979.
- Operations Engineer, WTVO/Rockford IL, 1979-1980.
- Chief Engineer, WSWW AM-FM/Platteville WI, 1980-1983.
- Master Control Operator, Austin CableVision, Austin TX, 1983-1986.
- Chief Engineer, KIXL/Austin TX, 1985-1986.
- Maintenance Engineer, WMTV/Madison WI, 1986-present.
- Licensed amateur radio operator since 1971, held Extra class since 1985.
- Held First Class Radiotelephone Operator permit from 1976 until its (sigh) demise in 1985.
- SBE member since 1986, certified as Broadcast Engineer (AM/FM) since 1986.

FRED SPERRY: (Treasurer)

Fred began his broadcast career in radio after receiving his associates degree in Communications Electronics from MATC in Fred's first job upon Milwaukee. graduation in 1984 was engineer/announcer for WTOQ/WKPL in Platteville. A year later he began working for Goetz Broadcasting where he was Chief Engineer for WFAW/WSJY in Fort Atkinson and WRDB/WNFM in Reedsburg. He made his move to television in 1986 by accepting an engineering position at Public TV Station WLEF in Park Falls, WI. In 1988 he was transferred to the TOC in Madison for Wisconsin Public Television. At that point he was involved in the initial construction of

the TOC. Fred continues to work as & Staff Engineer with the TOC into its operational phase. He has become quite involved with the engineering/operations

Glen Curry Sales Manager

area of the TOC. Fred has been a member of SBE Chapter 24 since his moving to Madison, in 1988. He is currently involved in helping to put together the SBE training manual being coordinated by our Chapter. Fred's hobbies include audio and stereo equipment, music, and model railroading.

DAVE WILLOW: (Treasurer)

I came to Madison in 1982 to study Computer Science and Electrical Engineering. I starting working in commercial radio in 1986 as an engineer at WMGN/WTDY. In October 1986, I was hired as Chief Engineer at WMAD Radio where I continue to work today. I have been a member of the SBE since 1986 and have operated a computer Bulletin Board (BBS) with special areas for broadcasters and SBE members for over two years.

I have benefited greatly by my association with Chapter 24 and would be happy to serve as an officer.

(Editors Note: If you do not anticipate attending the meeting of April 19. please fill out and send in the absentee ballot that follows. Remember, you must be a Chapter 24 member in good standing to take part in the election.)

CHAPTER 24 SUSTAINING MEMBERS

Thanks to our latest Renewals

Video Images

Emmons Associates, Inc.

Scharch Electronics Company
UKOW TV 27
Richardson Electronics, LTD
Wis School of Electronics
Sony Broadcast Products

Roscor Corporation WMSN TV 47

Allied Broadcast Equipment WISC TV 3

WMTV TV 15 RAM Broadcast Systems Inc.

Maney_Logic Todd Communications

WTSO/WZEE Radio

A B S E N T E E SBE CHAPTER 24 1990 BALLOT				
CHAIRMAN	VICE CHAIRMAN	SECETARY	TREASURER	
Steve Zimmerman	Dave Gerisch Jim Hermanson	Tom Weeden Doug Smith	Fred Sperry Dave Willow	
(write in)	(write in)	(write in)	(write in)	
· L		24 Membership Information Data "good standing", as a source fo		
	TES RESOLUTION #2-90 Should the Chapter 24	Newsletter advertise job openin	ngs?	
N	10			
	ou a current member of apter 24?	Must be received no la Mail to: Dennis Behr C.E T. Wis Public Television 3319 W. Beltline Hiway Madison, WI 53713	.o.c.	