
The TSRAC ARNB

The TSRAC Amateur Radio News Bulletin

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Issued Bi-Monthly - Never Missed an Issue

405th Edition

TSRAC'S GREATEST AMATEUR RADIO EXPERIMENTER EXPIRES IN JANUARY

The first primary weeks of January 2008 was a sad time for all TSRAC members. That was when TSRAC Hqs had to pass out the word over the air and now in the first printed issue since then that the Club's greatest Amateur Radio experimenter passed away in Summerfield, Florida with his loving wife at his side. His wife, Kathy- brought Don, WB8ZTV back from Florida to his home town and where all of his friends were and especially because of Don's past with the St. Mathews Lutheran Church on Boggs Run Road, Benwood, WV where the final services were held. DON WAS ONE OF THE FOUNDING FATHERS OF THAT CHURCH, YEARS AGO.!

The church was packed with Amateur Radio friends of Don's and his family the lady minister did her part nobly and then close friends of Don's said their part, especially including Amateur friends and including myself, K8AN representing the TSRAC Amateur Radio Club and all of its members, many who were there and also spoke on their personal behalf.

In lieu of flowers, K8AN made a cash donation to the family to make a cash donation to the Church on behalf of Don's close connections to the Church an all present. Representing the TSRAC organization, this reporter spoke amusingly of the time he had instructed all members that had handheld two meter rigs, to carry them with them the next day as Don and I were going to conduct an experiment with the Club Repeater. What he and I did, was to connect up on twenty meters with a personal friend of mine in England at our normal time of meeting on the air BUT this time Don had us all connected to two meters, operating through the Club Repeater. One member, standing on the corner of 12th Street in Wheeling, WV got to speak to our English based friend. Another member was mowing his grass, holding a two meter rig and took his turn talking to the English Amateur. Later we all laughed when he recounted that he almost fell off the lawn mower when he fully realized what was going on. Don and the TSRAC group later did joint experiments, at the request of an Amateur Radio Club in Arizona that had requested to work with the TSRAC organization on similar and other varied joint experiments.

This issue was to be especially dedicated ONLY to **Don, WB8ZTV** for using his special abilities to experiment on behalf of the Club since but then we really had to mention the request and our working with the Arizona Club on joint experiments. THEN we were hit by two more valuable members needing to be acknowledged, regrettably! THEY ARE AS FOLLOWS! **FRANK NEMETH, WK8T**. Bellaire, OH. Frank was a gifted machinist. In fact, he founded the Frank Nemeth Machinist Co, established in Benwood, WV. The other loss TSRAC had to face was **Carl W. Williams WC8V**, Shadyside, OH. Years ago, he and his wife were good TSRAC BNT assemblers!

A.R.R.L. NEWS

Submitted by Doug Douglas, N8SAQ – Columbia City, IN

Long Wavelength Array (LWA) in New Mexico conducted an additional lunar echo experiment on January 18-19. Interested radio amateurs were invited to participate in this experiment by listening for the lunar echoes and submitting reports. Participants on January 19, listened on 6.7925 MHz from 0500-0600z, and on 7.4075 MHz from 0600-0700z. On January 20, they were to listen on 6.7925 MHz from 0630-0730z and on 7.4075 MHz from 0730-0830z. Based on previous experiments, investigators believe it would have been possible to hear the lunar echoes with a standard communications receiver and a simple 40 meter dipole antenna. The format for the transmission followed a five second cycle beginning on the hour and repeating continuously.

The HAARP transmitter transmitted for the first two seconds. The next three seconds was to be quiet to listen for the lunar echo. Then HAARP transmitted again for two seconds, repeating the cycle for one hour. In the second hour, this five second repetitive cycle was repeated at a different frequency. All transmissions from HAARP were to be CW (no modulation). Depending on ionospheric conditions, it may or may not have been possible to hear the HAARP transmission directly via skywave propagation. Since HAARP was not using any modulation, you had to set your receiver on to CW mode to hear HAARP and the lunar echo. Investigators are interested in receiving signal reports from radio amateurs who may be able to detect -- or not detect-- the lunar echo or the transmitted skywave pulse from HAARP. Submit reports via e-mail to mbreport@haarp.alaska.edu and list your call sign and the type and location of your receiving equipment and antennas.

The grandson of ARRL co-founder Hiram Percy Maxim, W1AW, died at home in Lyme, Connecticut on Saturday, January 12 after a lengthy battle with prostate cancer. Hiram Percy Maxim II -- called HPM just like his grandfather -- was 72. Not a ham, Maxim told the Newington Amateur Radio League at an October 2002 meeting that he doesn't feel he shares the inventive talents of his grandfather and great-grandfather, who held many patents between them; Maxim's great-grandfather invented the machine gun. He told the club audience that his grandfather took on radio and filmmaking as diversions from inventing -- an endeavor he considered extremely hard work. He also thought of Amateur Radio as a means to "bring together" individuals from distant locations and believed that communication was a key to better understanding other people and cultures.

The elder Maxim -- often referred to as "The Old Man," or "TOM" -- was an amateur film buff, and a highlight of his grandson's 2002 presentation was a short 16 mm film that showed the elder Maxim and some of his friends working, relaxing and frolicking on the grounds of the family's summer home in Lyme, Connecticut, where HPM II lived until his death. His son, Merritt Maxim, told the ARRL, "Even though he didn't have an Amateur Radio license, he was aware of the importance of his family's role in founding the League. Through his father, my grandfather -- an active engineer -- he continued to maintain an interest in all things mechanical." A memorial service was held at the Lyme Public Hall at 11 AM on Monday, January 21. Burial was private. Memorial contributions may be made to the Lyme Public Hall Association, 249 Hamburg Rd, Lyme, CT 06371.

A second round of testing by US Air Force engineers has resulted in the identification of an additional seventy-five 70 cm repeaters in Northern California that must adjust their operations to eliminate harmful interference to the PAVE PAWS Updated Early Warning Radar (UEWR) located at Beale Air Force Base near Sacramento. As a result of these additions, new strategies for handling the situation are being put into place by the ARRL and the FCC. "While ARRL knew that there was the possibility of additional repeaters being added in the follow-up list of those requiring mitigation, we are surprised by the large number of additions to the list," said ARRL Regulatory Information Manager Dan Henderson, N1ND. "After our discussions with FCC officials, they are becoming actively involved in ensuring that the correct repeaters have been identified and that the mitigation being required is what is actually needed to resolve the ongoing problem in each case." Henderson continued: "From the discussions with the Air Force, it is clear that the PAVE PAWS issue is going to be a continuing process. The ARRL needs to be involved since there can be additional repeaters identified as the Department of Defense continues testing at their radar sites." To expedite any new mitigation actions needed due to the enlarged list, the FCC has now taken on the lead role of making initial contact with the owners of these newly identified repeaters. "The FCC has asked the ARRL to continue its work of aiding affected repeater owners with suggested mitigation actions," Henderson stated. "However, since any mandatory enforcement action would have to come from the FCC, it makes sense for them to take the lead at this point in time." The ARRL will continue to provide information to individual repeater owners on specific mitigation techniques as well as information to the general amateur population. "We are committed to continuing to work with the Department of Defense, FCC and the Amateur Radio community to meet the amateurs' responsibilities as secondary users. But we are not an enforcement agency. Our goal to ensure that the impact on amateurs in the 70 cm band is the least possible, consistent with those responsibilities," Henderson said. A teleconference was held between representatives of the DoD, FCC and ARRL on Thursday, January 17 to assess the status of the repeaters on the initial DoD list, as well as discuss the strategies for working with repeater owners on the new, second, follow-up DoD list as quickly as possible. During this conference call, Riley Hollingsworth of the FCC confirmed he had been in contact with repeater owners from the first DoD list who had not indicated their compliance with mitigation numbers provided by the ARRL in early Fall 2007. Hollingsworth reported he has had a positive response from each owner with whom he had spoken so far. There were several who had to be contacted via regular mail (instead of e-mail or telephone) who have not yet responded. Hollingsworth also planned to start making contact with the owners of repeaters on the second list and begin the process towards amateur compliance within a short period of time. "Once a repeater owner has been contacted, the ARRL is ready to

support their efforts in meeting the mitigation requirement," said Ed Hare, W1RFI, ARRL Laboratory Manager. ARRL General Counsel Chris Imlay, W3KD, pointed out that any specific enforcement action or shut-down order from the FCC involving amateurs also provides for due process in those proceedings. He emphasized that even though amateurs have a secondary allocation status in the band, the DoD has the burden of proving that specific repeaters are causing harmful interference on a case-by-case basis.

The ARRL Board of Directors held its Annual January meeting January 18-19 in Houston, Texas. One of the first items on the agenda was the election of ARRL officers and members of the Executive Committee. Members of the Administration and Finance Committee and Programs and Services Committee were selected Saturday morning. All officers were re-elected to another two-year term without opposition: Joel Harrison, W5ZN, ARRL President; Kay Craigie, N3KN, First Vice President; Rick Roderick, K5UR, Vice President; Rod Stafford, W6ROD, International Affairs Vice President; David Sumner, K1ZZ, Secretary, and James McCobb Jr, K1LU, Treasurer.

The deadline for ARRL Foundation scholarship applications is February 1, 2008. Applications must be postmarked on or before February 1 and must include the student's most recent transcript. The Foundation continues to grow every year as new awards are added -- four new scholarships have been added for 2008. This year, the Foundation expects to award up to 60 general scholarships ranging in amounts from \$500 to \$2500.

Do you want to be part of the international network of ground stations that help support Amateur Radio on the International Space Station (ARISS) operations? ARISS is looking to add numerous ground stations capable of relaying ISS Amateur Radio sessions with schools and also serve as back-up communications relays should they be needed. Locations all over the world will be considered, but the greatest need for stations is in Central America, South America, Falkland Islands, Western Australia, Canada and Alaska. The following are guidelines for stations wanting to be considered: Third Party agreement with United States or waiver from their telecom agency; ability to speak and understand English; minimal horizon obstructions; 24/7 access and availability of station; operator(s) willing to support scheduled contacts at various times; phone patch; AZ/EL tracking satellite system, preferably an auto tracking system with the capability for manual override; multi-element Yagis for 2 meters and 70 cm (circular polarization preferred); pre-amps and transmit output greater than 70 W. If you can specify your station's EIRP and receive sensitivity (thereby taking into account cable losses, pre-amps and antenna gain), it would be greatly appreciated. Stations that can support the following will be given special consideration, but these items are not required: Auto Doppler adjustment of frequencies; ability to speak and understand languages other than English; 1.2 and 2.4 GHz satellite hardware; Packet; SSTV; Digital ATV; redundant power system, and high-speed Internet. If you or your club would like to be considered for selection as one of the new ARISS ground stations, send an e-mail <ARISS-telebridge@amsat.org> to ARISS with details about your station and contact information. -- Information provided by Frank Bauer, KA3HDO, ARISS International Chairman

Launched in January 1990, AMSAT-OSCAR 16 (AO-16) -- a digital satellite -- has been unavailable for use while the command team dealt with a serious computer problem. The satellite has since been recovered, and is now a voice repeater, at least for an unspecified "test period" using FM voice on the uplink, but transmits DSB voice on the downlink (best received on SSB). Since AO-16 was recovered approximately six months ago, the command team -- Bruce Rahn, WB9ANQ, Jim White, WD0E, and Mark Hammond, N8MH -- attempted to reload the satellite software almost a dozen times without success. The team performed a series of memory tests that pointed toward a hardware failure that prevented the spacecraft software from restarting successfully. AMSAT Vice President of Operations Drew Glasbrenner, KO4MA, said, "After concluding that the spacecraft computer system was damaged, and as discussions about decommissioning were taking place, Jim recalled a series of low-level commands that Tom Clark, K3IO, included in the spacecraft design during construction. One of these commands allows an uplink receiver to be directly tied to a downlink transmitter. The twist is that the uplink is regular FM, but the downlink via the BPSK transmitter is DSB (Double Sideband). Mark placed the satellite in this mode early this week and did some testing." Glasbrenner said the satellite hears very well; the reduced bandwidth by using either USB or LSB on the ground station receiver "allows for a very robust downlink. Tuning the downlink is just like on a linear transponder, meaning it is tight and with fast Doppler. Uplink tuning is not required, just as with the FM mode V/U satellites. My personal observations include being able to access and hear the satellite within one degree of the horizon, much lower than any other current bird for my location [in Florida]. This should be an easy satellite with omni antennas and a 70 cm preamp." Glasbrenner said that he would like to open the satellite to general use for a test period. The uplink is 145.920 FM, and the downlink is 437.026 SSB +/- Doppler shift. He asks that users restrict their uplink power to a reasonable power level, and do not transmit without being able to hear the downlink; all general single-channel guidelines apply. Please submit reports via e-mail <ao16@amsat.org>. "Enjoy this bird's new life!" Glasbrenner said.

On January 15, Riley Hollingsworth, Special Counsel in the FCC's Enforcement Bureau, issued a Warning Notice to David O. Castle, ex-WA9KJI, of Evansville, Indiana. Castle's application to renew his Amateur Radio license was "denied with prejudice" by an Administrative Law Judge in August 2007. The current complaint states that "Monitoring information before the Commission indicates that you have been operating portable radio transmitting equipment on Two Meters in order to interfere with a local linked repeater system on 146.835/146.250, and that you have provided a portable unit for others to use in the same manner. You have no authority to operate Amateur radio transmitting equipment on any frequency. Such operation is a violation of Section 301 of the Communications Act of 1934, as amended, 47 U.S.C. Section 301, and carries criminal penalties including monetary forfeiture (fine) and prison. Monetary forfeitures normally range from \$7,500 to \$10,000."

Sixteen consecutive days with no visible sunspots and still counting. This is the way it is at solar cycle minimum. Enjoy it now, because there will be a time in the future when solar winds are constant and the geomagnetic field active; although we will have many sunspots, you may think back fondly on this time. Sunspot numbers for January 17 through 23 were 0, 0, 0, 0, 0, 0 and 0 with a mean of 0. One Sunspot with reversed polarity has been observed. After observing the first sunspot of Solar Cycle 24, we hope to see more and more of these, signaling the beginning of the next sunspot cycle and the end of Solar Cycle 23.

Not So Normal Communications

By: Raynard Merritt
KD8RAY

I was on hoot owl at work tonight and just hopped out of the car and strolled into the office for my first official duty, a fresh pot of coffee, hung my coat and sat at my desk. Absorbed the blue book of the day and brought myself up to date. I turned on my ht that I recently picked up at The Outdoor Store in Wheeling, a local hock-shoppe. I was actually looking for a cheap hand held broadcast scanner, but when I saw the impressive looking heavy leather case on what I thought was an amateur walkie talkie I began looking for a sales person. It was a Kenwood TR-2500 in pristine condition with two batteries and a charger. Unbelievable at \$110.00. I couldn't test it because I had just passed my novice exam and was nearing completion of evening technician classes taught at Belmont Career Center. So I informed the sales clerk if I purchased the radio I wanted to have a ham check it out and if it were kosher I'd keep the radio and if not I wanted the option to return it. The sales clerk agreed and I walked out the door with my first vhf transceiver. While the pot was still brewing I removed the coffee pot from under the carafe and placed my cup in its location getting my first cup of the deadly brew while I listen to hams talking as I rolled my office chair back to my desk. Before passing my novice exam I used to bring my Vintage Heathkit code oscillator to midnight shift and ditty dah dah as long as I wanted to if. If all the paper work is up to date, if fresh coffee is available, if calls are answered, and my assistance is not required, then I could practice my cw.

Tonight was virtually the same as any other night as I listened on the ht for a couple hours following my usual routine of checking the daily and weekly book for employees calling off, and other items I need to know about. I check the daily sheet back to the previous day shift, which is where my last midnight left off and pour myself my second cup of java. There are few people on the local vhf air waves after midnight. Telephone calls were random and around 03:00 the same bar would call for the same reason every night. I was watching a training film on the television when a call came over the radio "21-925", I answer "925-21" He replies with "21-925 I'll be out on Zebra Michael 2550 Henry Paul, Ohio" I write the number down and wait for his next call or if he takes longer than two or three minutes I'll call him back to check up on him. Soon he follows with "21-925 run the plate, get the social from it and run it too and I'll be back in the car". I run the plate and call "925-22" to which he replies "21 go ahead" I tell him "no wants, warrants, or priors" and he says "I'll be clear" and I return to the training film. A few minutes later Shadyside patrolman McNeil returns to the dispatch office pours a cup of coffee and asks what I'm watching and I tell him Hill Street Blues. A few more hours pass running an occasional license plate and before I know it Rosie has arrived to relieve me as day turn radio dispatcher. It is mid June and the weather has been dry very dry and it is a very warm morning as the cruiser picks me up out front of the P.D. for a ride home.

After arriving home I get my usual daddy hugs from Sara, Frank, and Tam. I flop into the easy chair and two cats hop into my lap for a greeting. Chico our African Grey whistles and I hear the scraping of toe-nails on the kitchen floor about 40 feet from me. Then Grizzly our eager beaver Sheppard Collie mutt (his name alone tells of his size) gets a grip on apparently slippery tile beneath him then darts into the dining room leaving dust behind him and the carpet at about eight feet from my location and lands in my lap with cats screeching and flying in different directions. I thought wow am I still here, checking to see if parts of me were missing? The dog looks happy. All is good I guess. I give Grizzly a hug or two. Everyone appears to have had their love and hugs I'm off to bed.

How's that go? Another day older and deeper in debt, I owe my soul to...it's another day anyway and I am on my way to pick up Lois Wallace N8MUC and off to Belmont Career Center for the last of Ralph's Technician class and boy was it clouding up. Not soon after arriving rain began pelting the roof of our class room and Ralph K8AN announced his wife did not like him being out during such storms. Class was henceforth cancelled and we got soaked to the bone during the short run back to the car. It was raining so hard I just could not see the high way and had to pull over to the shoulder three times. We returned to Bellaire unscathed and Lois said her husband Lawrence "Yogi" WD8JIK might be called out due to some of the effects of this rain. After dropping Lois off I proceeded to travel through South Bellaire. The water that was coming from the hillside was rushing at me so violently it literally pushed my car sideways into the other lane. I managed to float the vehicle the rest of the way to Shadyside pulling into the drive way and as soon as I walked into the combination radio/computer/darkroom in our basement I heard on the scanner that the Three K's (a local bar & restaurant) back wall had collapsed. I wondered what was going on so I called into the office and was informed that a flash flood has wiped out WeGee Creek and Pipe Creek and I was ordered in immediately. The dispatcher described it as a thirty foot wall of water rushing down the creek. It was about 9:00 pm and my shift did not start until midnight. I got my uniform, kissed my wife and told her I had to get to work early. I finished getting into my uniform in the car. As I walked into the Shadyside Police Department several

police and fire department officers were in the dispatch office, in addition a few people I did not recognize and there was John Green K8JRG (then WB8WRQ) with radio equipment set up behind the dispatcher's desk. Chief Carl Butler said he was glad I was there and told me to work with the afternoon dispatcher Frieda Hurley on the phones to call all available departments for additional help. It was taking us three to four minutes to just get a dial tone. The radios were humming. The entire fire and rescue department and the entire police department were called in with the exception of the other dispatchers. I turned to greet John and he introduced me to Jerry Arnold NQ8B, and Art Heininger WB8IIL (now sk). I asked John to take a list and use the auto-patch if he could to help call additional agencies for help. This was my introduction to "All normal communications cease to exist". Everyone in and around Shadyside were calling either to let people know they were ok, or all their relatives and friends were calling to see what was going on and if their loved ones were ok. The fire department radios are connected to the phone system which created more havoc. Upon my arrival there were over three hundred people missing. We split the emergencies numbers three ways. We gave John some, with Frieda continuing to work from the dispatcher's office and I took over the police chief's office. I would liberate Frieda from the radios occasionally throughout the morning to help keep her from going insane. Communicating over the police or fire radio was almost impossible. Every creek or stream in the area had a problem, so it was very difficult getting help from other agencies.

Yogi Wallace WD8JIK Belmont County ARES EC was set up down at the Shadyside Fire and EMS Department and he and John coordinated the hams that were beginning to show up to offer their help. Yogi called and asked if I had my HT and authorized me to use it in the emergency; although I was a wee bit busy at the time, but was grateful to be able to use another means of communication. I had passed my novice, but was waiting for my first call. So I felt a little extra special being able to use my HT with no call-sign.

A morgue was set up in the funeral home next to the police department for the bodies that were being recovered, because the number of deceased was rising. The disaster had made national news and network crews were coming into town setting up their satellite links. The National Guard was also called out to help with search and rescue and later clean up. I traded places with Frieda to give her a break from the hum of the radios and a call came over 22 - 925 "I have a horses running amuck in Green Acres". Later we'd find that Fernwood Dairy and the horse barn were destroyed by the wave of water rushing down Wegee Creek. That call came in again a little later about the horses and the Chief was noticeable upset and ordered me to inform the officer we have over 300 people missing and to forget about the horses. As the night wore on the numbers grew fewer and most people were either with someone else, were in town unaccounted for, or were not in town that night. Surrounding police departments were beginning to send some of their officers in our direction. I did find time to call a local lady with the ASPCA to see what could be done for the horses, cows, and other animals running around town.

The fire department was having a very difficult time with their radio equipment and saw the light and began to take a ham with an HT or mobile unit with many of the crews on search and rescue. Hams were reporting in and out with Yogi at the Fire Department. The search on the river, creeks and land were done in grid squares continued through the night and days that followed. We changed our code language to keep the press away when we found a body. Previously everyone knew that a code 99 was a non breather or a body. Thus we needed a quick change, and the new code was...

Sorry, you know the routine. If I told you I'd have to...

The frequencies used by almost all agencies in Belmont County Ohio and some of the surrounding counties such as Jefferson and Monroe were as follows:

Police	Fire & EMS	Disaster Services
39.520 Default	154.340	All plus many more
39.580 Alt	154.430	“ “

The top two were the frequencies we used 24/7 as was the same on June fourteenth nineteen hundred ninety as a wall of water remembered as a thirty-foot wall of water paving its way down Wegee and Pipe Creeks uprooting homes with families in them, moving an entire used auto/junk yard along it's bloodthirsty path bringing death and destruction to anyone caught in its violent rage. I can only imagine someone I know or knew who might have been:

- Walking along the creek
- Riding their bicycle
- Driving to the store, work
- In the front yard supervising toddlers while hanging clothes
- On the job
- Just hanging out with friends.

Imagine if you will two sometimes three or more counties of community Police and Fire/EMS are basically using two frequencies 39.520 and 154.430 and every town, village, or city that had some type of run or creek was having a problem and were all using the same frequencies. Remember one of those frequencies is also tied into the phone system which by the way is overloaded.

All normal communications ceased to exist We were using two frequencies until Shadyside took precedence with the arrival of D1 Richard Dick Quinlin KC8TRT coordinator of the Belmont County Emergency Management Agency. Dick wasn't a ham at that time, but was on his way to becoming one. I know he witnessed the value of ham radio to his department during the aftermath of a wall of water that obliterated everything in its path. In the end loss of life was totaled at 26 and several million dollars in property damage.

The following has a video clip of scenes of the disaster on June 14, 1990.

http://www.ohiohistory.org/etcetera/exhibits/swio/pages/content/1990_shadysideFlood.htm

I took a tour the next day of both creeks to observe the aftermath with officer McNeil and we not only witnessed the devastation, but we also saw many hams stationed by EC Yogi Wallace throughout key areas aiding search and rescue workers on the local repeaters and simplex frequencies. Hams responded from a tri-state area including but not limited to Ohio, West Virginia, and Pennsylvania. We continued to utilize radio amateurs for several weeks during the cleanup and reconstruction of both Wegee and Pipe Creeks, roadways and infrastructure. I count myself fortunate having the dual role as a new ham and a radio dispatcher during the natural disaster. I salute my heroes in the police and fire departments that came from all over the United States and I salute my fellow radio amateurs for their support during our time of need and grief. 73 de KD8RAY

In order to keep this edition to eight pages (First Class mailing), the other columns were dropped (Net Control Roster, etc.) Next issue will have more contributions from members like Doug and Ray. Join in by sending your stories, etc. to Club Headquarters! We also want to thank Ray, KD8RAY, for stepping up to the plate by accepting the Assistant Net Control Position for the Club's nets. Whenever the official net control isn't available, Ray will step in.

A SPECIAL "THANK YOU"

*To all the members who
have added a donation
beyond their membership
dues!*

*This really helps keep the
Club solvent!!*

FYI: There were 5420 words in this edition of the ARNB!

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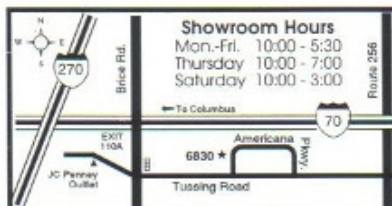


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