

ATCO NEWSLETTER

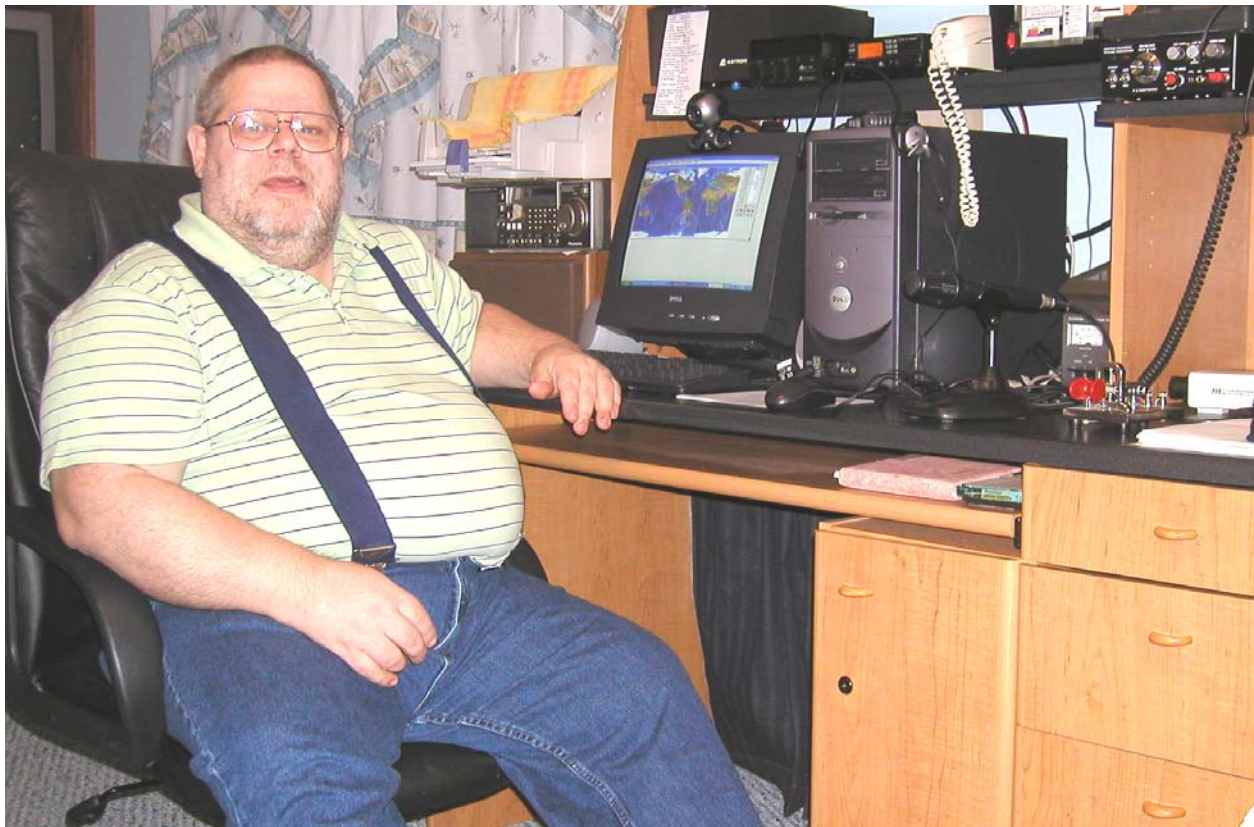
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ATCO HAM IN THE SPOTLIGHT

Garry, N8CXI is the one in the spotlight this time. Garry is fairly new to ATV. In fact, to get him started I gave him a TV so he could watch us on NET night. I knew very well that once I got him to receive a good picture and look at the ATV activity around here, I'd have him hooked. I told him that it was just a matter of time before he'd also be on the air transmitting pictures. He said, "No way" but now he has a camera and PC Electronics ATV transceiver and the ATV amplifier is en route at this time. We all saw weak pictures from him the other night but I know for sure it should be better. After all, he RECEIVES the repeater P5. So what comes in P5 should go out P5 if both power levels were the same. His 10 watt average signal is only 6dB below the repeater signal so everyone should see him P4. Keep plugging along, Garry. You'll get there.



ACTIVITIES ... from my "workbench"



Well, it looks like the cold weather is setting in and I still have not painted the tower or repaired that 2 meter antenna. Here's hoping that we still have some "Indian Summer" left so the task can, at least, be started. That will make me feel just a little bit better. I'm sure at this point it will require a vacation day to do it as the chances of a good day showing up on the weekend is becoming slimmer and slimmer. Last weekend would have been OK but...I was invited on a fishing trip on lake Erie to do some perch fishing. Let me think about it for a while...fishing or tower work, fishing or tower work, fishing, fishing. OK, done deal. The fishing won out. Oh by the way, for the record the fishing wasn't the best but the 6 of us caught about 200 perch that day. Now the Ham stuff.

Really, not too much is going on. I'm putting the finishing touches on a new power supply for the repeater. A single Astec switching supply in a 5.25" rack will replace a linear Astron 12v unit now in service for the 427 amp and a homemade 12v switcher for the 1250 amp. The new switcher has a 12v 20 amp output for the 1250 amp, a 12v 20 amp output for the existing Mirage 427 amp and a 24v 20 amp output for the future commercial Comark TV transmitter. The 12v 20 amp output will than be used for a higher power 2.4 GHz amp yet to be installed. The resulting power supply change also will free up some much needed rack space.

The existing 2.4 GHz amp has not been operational for the last couple of months. I was waiting till I got the new power supply installed to check it out so sooner or later I'll get to it. Work has been concentrated on the Jones road link controls instead. More on the Jones road work later in this Newsletter.

As many of you know, I am going to try delivering this Newsletter by Email only starting with the January 2007 issue. The reasons are numerous but most important is the fact that my work has been supporting the copying costs and I am planning to retire in the near future. At that time it would be unreasonable to expect them to let me come back to use their copy machine 4 times per year. Having the Newsletter this size printed at Kinkos or any other printing facility would run our financial reserves to the ground in no time so I have little choice as I don't want to ask to raise the membership fees if at all possible. In addition, a poll of the local ATCO members initially say it is perfectly fine to receive their copy by Email instead of US mail. I plan to discuss this matter at our Fall Event so we'll see.

If I DO send out this Newsletter by Email, I must have everyone's correct Email address. I will continue sending the Newsletter via US mail to those of us without Email facilities but I don't think there are very many, if any, of them. So look at your Email address in the membership listing at the end of the Newsletter and sent me a note if it is incorrect or missing. Also, let me know if your internet provider will not allow Email sizes of about 1 to 3 megs. I will take an alternative action in those cases like sending it in two parts or something like that. To help preserve the membership priveledges of the Newsletter, I plan to hold back the previous year of Newsletters instead of just the last issue. Otherwise there would be little incentitive to join ATCO if it was only the Newsletters you wanted. If you think of something else, let me know. **REMEMBER, CHECK YOUR EMAIL ADDRESSES AND SEND ME A NOTE IF INCORRECT OR ABSENT!!!**

At this time, I don't think ATCO should have a flea market space next year. It is a significant burden for Tom, WU8O, to bring his trailer all that way early and set up for the few of us that have taken advantage of the space to sell their goodies. I think maybe it has run its course. Besides, the ATCO costs for the flea market spaces has not helped that much. We probably should look into better ways of spending our money. Personally, I'd vote for more pizza parties in place of the Hamvention expenditures. Again, this will be a topic at the Fall event on Sunday October 29.

I have been noticing a significant dorp in ATV news items. This may be due to a number of factors but a lot of news has been devoted to digital television lately. Very little new has been showing up as analog designs. It's the sign of changing times for sure but for those of us still holding onto analog NTSC topics, it's drying up folks. I'm finding it much harder to find video topics of interest. If any of you find noteworthy items, please pass them my way as I'm sure our members would appreciate it. Also, if there is anything we can research and pass it on, let me know. In the meantime, I'll continue to feature digital topics where applicable.

Last but not least is the subject of next years Dayton Hamvention ATV forum. I will be the ATV forum moderator so I am looking for good speakers and subject material. If any of you would like to speak or have material suggestions, please let me know. Our time slot is Saturday from noon to 2PM in (I think) room 1. The room may change but our time slot is fixed. I'm going to try and make it very informative so I hope you will set aside the time to attend this important ATV meeting.

That's it for now.

73,
WA8RMC



THE WORLD'S SMALLEST AND LIGHTEST 1080 HDV CAMCORDER

OK, who's going to be the first on the block to own one of these goodies? Read the specs, it's almost too good to believe. I looked to check that it wasn't an April 1 issue. ED

August 4, 2006 If you're one of those people who bellyache all the time about having just purchased a widget for US\$1000 only to find that the next model will cost less and do twice as much, just remember that we're living through the most exciting period of technological progress in human history. Indeed, it's unlikely that there will ever be such a quantum leap in understanding, productivity and creativity again in history. What's brought on this soapboxing? Canon's HV10 HD Camcorder – that's what! It's a 500g camcorder capable of 1080 HD (high definition) video and it's roughly the size of a cigarette packet at 56x104x106mm. The HV10 HDV includes 10x optical zoom, Super Range Optical Image Stabilization, the DIGIC DV II image processor, and a Full HD resolution (1920x1080 video) CMOS sensor, similar to those found in Canon's Digital SLR cameras. Additionally, new "Instant AF" auto-focus technology, and the ability to take 3.1 megapixel photos, makes this one powerful device that fits comfortably in the palm of the hand. Scheduled to land in stores in September, the Canon HV10 HDV camcorder is a veritable "Best of" compilation of Canon technologies, and will sell for an estimated US\$1299.

"The Canon HV10 HDV camcorder gives consumers some of the same technologies that are used by demanding professionals in our EOS line of Digital SLR cameras and our best selling broadcast television lenses," said Yukiaki Hashimoto, senior vice president and general manager of the consumer imaging group at Canon U.S.A., Inc. "Consumers who enjoy the premium picture quality of their High Definition television sets can now capture their memories and play them back at that same high quality."

As the leading CMOS manufacturer, professional photographers have come to depend upon Canon for high resolution, great dynamic range, and low noise. For the first time, Canon has incorporated CMOS into its newest HDV camcorder to capture the high resolution needed for HD video with a single sensor. These sensors provide advantages over traditional CCD sensors in speed, versatility, and lower power consumption for longer battery life. Because of its proprietary noise reduction technology, Canon's CMOS sensors capture higher resolution HD video, and even in dimly lit scenes each pixel delivers the purest possible image. The 1/2.7" sensor incorporates an RGB primary color filter with Bayer placement to deliver a sharp HD image with vibrant and accurate color reproduction. This sensor supplies 1080 HD video to an HDV video tape, while 3.1 megapixel still images can be recorded to a Mini-SD card. Because Canon manufactures its own CMOS sensor, DIGIC DV II image processor and lenses, the company can maintain the utmost control of the image quality.

Canon's high quality HD lens, the keystone to acquiring crisp HD video, stems from the company's expertise as a professional grade photographic and broadcast lenses manufacturer. Behind the built-in automatic lens cover lies a 10X optical / 200X digital HD Canon zoom lens.

The HV10 HDV camcorder is the first consumer-level camcorder that features Canon's Super-Range Optical Image Stabilization to help deliver smooth, steady video, even at longer focal lengths. The system uses two detection methods (gyro and vector) to sense the widest range of vibrations from hand-held shake, to vibration from a moving vehicle. By using optical stabilization, it can compensate for a greater degree of camera shake and avoid any loss in image quality, unlike electronic image stabilizers.

The HV10 HDV camcorder also incorporates a new autofocus system that is the first of its kind on a consumer level camcorder. Since it is critical to achieve very sharp focus when shooting in High Definition, the camcorder features Canon's revolutionary new Instant AF focusing system. It offers a dramatic improvement in auto focus speed and accuracy (compared to traditional autofocus systems). The Instant AF feature uses an external sensor, in combination with Canon's autofocus system, to help significantly decrease the time it takes to find focus, even in low light conditions. This new system achieves focus almost instantaneously, reducing focus "hunting." Users can especially see the benefits of Instant AF in high brightness, and night shooting situations. Camera operators can capture fast, accurate focusing, even when following a moving subject.

Also found in the professional grade XL H1 HD camcorder, the Canon HV10 HDV camcorder features Canon's DIGIC DV II image processor, which is designed to handle the vast amount of information required for HD recording. DIGIC DV II helps to ensure low noise, a wide dynamic range, and accurate color reproduction for both video and photos.

The HV10 is also the world's smallest and lightest true HDV camcorder*, weighing in at a mere 0.97 pounds. Approximately 2" wide by 4" tall, the HV10 is a pocketable masterpiece that is designed for easy one-handed operation, with all of the controls at the



user's fingertips. Complimenting its small size, the two-toned Granite Black and metallic body is designed to be comfortable in the users' hands and exude a sophisticated appearance.

With the intent of giving the user the best-looking video possible to preserve their memories, the HV10 HDV camcorder has a wealth of features, including Smooth Zoom Control to help eliminate jerky zooms, Level Shot Control to help keep the framing straight, and a built-in video light to illuminate low-light situations. The HV10 HDV camcorder will also letterbox the 16:9 footage, for standard definition (SD) television viewers, to play on almost any TV or computer monitor.

As a digital still camera, the HV10 excels with all of Canon's best digital camera features. Users can frame their shots with nine-point autofocus on a 2.7" widescreen LCD, and then take 3.1 megapixel images to the Mini SD card, or two megapixel photos to the video tape, all while simultaneously recording HD video. To adapt to different shooting situations, the HV10 HDV camcorder has 11 shooting modes, including Continuous Shooting which allows users to shoot five (3.1 Megapixel) still images per second, as well as a built-in flash for low light situations. In addition, users can also connect a PictBridge compatible device to the camera for seamless still image transfer or printing. A histogram function is also included on the camcorder, to check exposure levels while shooting.

Pricing and Availability

Scheduled to land in stores in September, the Canon HV10 HDV camcorder will carry an estimated selling price of US\$1299

CENTRAL PENNSYLVANIA REPEATER ATV REPORT (CATS)

AUGUST 2006

The White Rock ATV Repeater on 3480 MHz has been working well. It has survived lightning storms and a severe heat wave. The NASA input has been reliable without any frozen video. In the past, consumer grade digital receivers would just lockup. NASA audio is also available over the 145.29 MHz CPRA voice repeater on Blue Mountain via IRLP. The production line for the 1.2 GHz transmitters from Videolynx may start up soon.

W3HMS procured a WIMO (DL) 23 cm 50 mw exciter as a possible ATV transmitter in the \$100 price class to be mated with a 2.5 or 30 watt amp. WA3CPO and W3HMS will soon evaluate its video and audio performance. W3HMS will plan to use it as a remote field operations transmitter. The Cumberland County EOC is now ready for the 3480 MHz receiving equipment. The county approved and paid for the installation. Now a certain person must be in town and not vacation for the installation to proceed. July did not have any live remotes. The month of June broke all records with four live remotes.

The Blue Mountain ATV Repeater on 3420 MHz has been stable since the exciter was replaced. We are anxious for a second try to test reception at Mt Penn in Reading, Pa. The elevation at Blue Mountain at the antenna is about 1330 feet amsl. At Mt Penn the elevation at the proposed receiving location is 1150 feet amsl. This path is 50 miles long without any obstructions. The path from Mt Penn to the Philadelphia ATV Repeater is 42 miles long and no obstructions.

The Scientific Atlanta 9660 Satellite receiver continues to be the best available receiver for ATV on 1.2, 3.4, & 10.4 GHz. with a video inverter installed for 3 GHz reception. KC3JG is attempting to obtain a commercial PC board to go with a kitted inverter. The 10 GHz Transmission system is being held up by poor delivery times for the base band modulator. We are trying an alternate procurement source.

OCTOBER 2006

Saturday, September 9, 2006 the CATS group met in Baltimore to receive an update on the Tabco Tower site in Towson, Md. The owner and management gave the go ahead for the group to use this location. Several different frequency plans were reviewed. Since this site is the best site that has ever been available to this group to cover the Baltimore area, members felt that the site should be secured but more information is needed on how to proceed.

Sunday, September 10, 2006, signal levels were checked at Mount Penn, Reading, Pa coming from WITF, Blue Mountain, Harrisburg, Pa, with Dave Stepnowoski, KC3AM, John Booker, KC3JG, and Gary Blacksmith, WA3CPO. North of the TV 51 site the levels were measured at greater than 21 dB C/N using a two foot dish at ground level. South of the fire tower, the tallest structure on the top that isn't a communications tower, the level was measured at 13 dB C/N. Eagles' Peak is an obstruction in the center of this 51 mile path. The further north along Skyline Drive the higher the signal levels become. The TV 51 site is excellent. The only problem is the tree line. A location on one of the towers needs to be above the foliage. The Berks County communications tower may also be suitable. Trees are not a problem but the tower is loaded. We need 19 dB C/N for broadcast quality (56 dB S/N). 12 dB C/N gives us a P5 picture with 48 dB S/N and no red streaking. 7 dB C/N also gives us a P5 picture with 43 dB S/N. The computer predicted maximal signal level was 28 dB C/N.

Monday, September 25, 2006, a receive dish was installed at the Cumberland County EOC. The dish was attached to the side of the building using an eight foot 1-1/4" galvanized pipe. The 200 ft tower next to the 100 ft tower at White Rock was just visible. About 150 ft of RG/6 was needed to connect the dish with the satellite receiver in the EOC. As predicted the signal level was greater than 21 dB C/N. With a 60 dB pad the signal level was still 19 dB C/N. That equates to a level of -72 dBm. The receiver is

designed to operate between -60 and -30 dBm. If we only insert a 30 dB pad then the level becomes -42 dBm. That level is within the receiver design specs. A modulator with an output on TV channel seven will distribute the signal in the Emergency Management Area of the EOC to three TVs.

Friday, September 29, 2006, a trip was made to Norristown to pick up more Scientific Atlanta receivers. Twenty receivers were brought back to Carlisle and thirty-five receivers went with Grady Ball, WB3JUV, back to Baltimore. John Booker, KC3JG, is making a small board to invert the video so these receivers can be used to receive 3 GHz. The least expensive way to proceed in Baltimore appears to use the backup 3 GHz transmitter on a temporary basis until Ravi has the new 3 GHz exciters available. A panel antenna can be used until an omni antenna can be purchased. Most of the ATVers in Baltimore are South of Towson. The 85 degree beamwidth should work just fine to cover almost all of the stations. In Central Pa we started in the beacon mode with NASA and we could do the same at Towson. This would give everyone an opportunity to set up their receive equipment. To receive 3 GHz, a two ft dish (\$45), a C-band LNBF (\$13), and a fabricated feed horn mount, is needed. To receive 1.2 GHz you would need a loop yagi (\$120) and a preamp (\$170). Three GHz is less expensive. Then the inputs could be added: BRATS (439.25 MHz), CATS (421.25 MHz), 434 MHz, and 1.2 GHz.

Saturday, October 14 is the date of a major training exercise that is on par with the TMI drills. This exercise will involve all the counties in central Pa. ATV will provide video from the Cumberland County 911 van/mobile command post at the Letterkenny Army Depot. This van has a camera on a twenty foot mast with pan and tilt. This video will be transmitted on 434 MHz at 20 watts into an omni, horizontally polarized antenna. It will be sent to the Franklin County EOC in Chambersburg (5 miles) and to Three Square Hollow (15 miles). From Three Square Hollow it will be relayed to White Rock on 1280 MHz. The Cumberland County EOC has had a 3480 MHz receiver for White Rock installed last week. This is a bit complicated but it should work well.

... WA3CPO, Gary Blacksmith

HAM OPERATOR DONATES TOWER TO LOCAL POLICE

Most newspaper articles about amateur radio towers describe the battles ham radio operators have to go through to erect or even maintain towers in their community. A ham radio tower story in the Milan News-Leader in Milan, Mich., offers a different theme.

The article, "'Towering' donation aids city police," [reports](#) the donation of a 64-foot radio tower purchased by ham radio operator Don Churchill in 1977 to the local police department. In the article, Milan Police Chief Jeff Lewis said, "I just have to give a big thank you to Mr. Churchill on behalf of the Milan Police Department. This technology will greatly enhance our ability to communicate with one another. It's terrific."

A fire department antenna extended the height of the tower to 84 feet. It will hold antennas for wireless Internet, fire department VHF paging, fire department 800 MHz communications, Monroe Sheriff 800 MHz communications, scanners and a Milan police backup radio. Fire paging coverage is expected to improve by about 50 percent.

Don Churchill, whose station call letters are WD8DTL, is no longer active in amateur radio. It is refreshing to read an article that recognizes towers are an important part of our communications infrastructure, not only for personal conveniences such as cell phones, but also for critical emergency services.

NEWS FLASH – WA8UZP AGAIN BUYS SOMETHING AT HAMFEST

Remember how shocked we were when Jim bought a Ham rig at the Franklin County Hamfest a couple of years back? Well, he did it again at the Aladdin Hamfest in August! Not quite as many \$\$\$ this time but never-the-less quite extraordinary so we needed to capture the moment. Sorry to make fun of you Jim but you're such a good natured guy I thought you wouldn't mind. Roger, WB8DZW is the monetary recipient.



FCC OPENS UP "WHITE SPACES" TO CONSUMER ELECTRONICS

The following does not directly affect our ATV bands but it's interesting to see how the FCC is shuffling the band allocations to favor big business. We the consumers are the ones who suffer. There, I said it. It's my opinion but the trend is disturbing. ED.

10/13/2006 9:46:26 AM, by [Nate Anderson](#) <http://arstechnica.com/news.ars/post/20061013-7979.html>

The FCC officially signed off on the plan to allow low-power wireless devices to operate in so-called "white spaces" in the television spectrum. The Commission [laid out a roadmap](#) for this plan last month, but only issued the "First Report and Order" that actually authorizes it yesterday.

Here's how the scheme will work: consumer electronics devices will be allowed to operate in the portion of the TV spectrum being vacated by broadcasters as they switch to digital broadcasts in 2009, with some restrictions. Channel 37 is out—it's used by radio astronomers. Channels 52-69 are also out, since they have been allocated for public safety use. Finally, channels 14-20 *might* be out (the Commission has asked for more information) because 13 US cities currently use parts of that spectrum for public safety communications.

While manufacturers can begin to design and certify their devices in the next few months, they cannot go on sale until February 18, 2009. Even though the spectrum in question should be available after that date, the FCC is still concerned that unlicensed devices in the band might generate interference that could affect the digital TV signals, and they plan to conduct extensive internal testing (and possibly adopt more rules) to ensure that this doesn't happen.

The Commission also mandated a dynamic frequency selection mechanism be built into every device, so that it does not interfere with other devices in the immediate vicinity. It may also decide to enforce the "geo-location" rules that we discussed in our earlier coverage, where a professional installer (or the devices themselves) would use GPS to check the installed location against a database in order to avoid potential interference.

Implications

This was a decision that was easy for the commissioners to like. Michael Copps, one of the two Democrats on the Commission, pointed out that the US is falling behind in broadband—the International Telecommunications Union ranks us at number 15. Copps believes that opening up a new chunk of spectrum will help pave the way for wireless broadband services like WiMAX that can help bring broadband to more Americans. "Make no mistake about it," he says, "it is a very grave situation. There's simply no way our country can remain in the forefront of the global economy without developing a broadband infrastructure that is up to the task."

But Copps worries about the fact that the FCC has not yet decided whether the devices will be licensed or unlicensed. While licensing might make it easier to cut down on interference issues, it also curtails the public's access to the spectrum. "With our recent [AWS auction](#) and the upcoming 700Mhz auction," he says, "we are opening up a huge swath of prime spectrum to licensed use—and it seems to me, on the present record, that the appropriate balance is to open up the TV white spaces to unlicensed use."

The approach that is ultimately chosen will have a huge effect on the uses that the spectrum is put to: Just think of the success of cordless phones and WiFi, two wildly successful wireless technologies that have taken advantage of unlicensed spectrum. On the other hand, think of the interference issues that result when your 2.4GHz cordless phone rings and disconnects your WiFi—welcome to the downside of unlicensed spectrum.

AT&T/BellSouth merger delay

Commissioner McDowell was also pleased by today's decision. McDowell, the newest member of the Commission, believes that the decision will start "a chain of events that will lead to an explosion of entrepreneurial brilliance." While McDowell voted in favor of the decision, he recused himself from the Commission's consideration of the merger between AT&T and BellSouth, which has apparently created some confusion/concerns/politicking at the FCC. In a terse announcement, the Commission announced that the merger decision was to be removed from yesterday's Commission meeting. Instead, an open meeting will be held tomorrow, with a vote to follow shortly thereafter.

LIMA REPEATER UPDATE from N8IJ

Please say Hi to all on the ATV net. We are facing forced relocation of our repeater here in Lima and do not have a new home for it yet. We hope to locate its antenna at about the 300 ft level on one of the local FM radio towers, but nothing for certain yet. Film at 11, as they say.

I was GREATLY saddened to hear of Ted's passing. Hope everyone else is still on this planet and doing well. I just had a little stay in the hospital, but it turned out to be a small matter instead of the stroke it looked like when I went into emergency. Thank Heavens! Will try to make it to the next event (fall?). Hope to see you there. Thanks again

...Dick Knowles, N8IJ.

SUITSAT-1 (AO-54), RE-ENTERS EARTH'S ATMOSPHERE

SuitSat-1 (AO-54) is history. The surplus Russian Orlan spacesuit turned satellite, which became one of the greatest public relations vehicles for Amateur Radio in years, re-entered and burned up in Earth's atmosphere Thursday, September 7, at 1600 UTC some 1400 km south-southwest of Western Australia. The announcement came September 8 from Amateur Radio on the International Space Station (ARISS) International Chairman Frank Bauer, KA3HDO. Bauer expressed thanks to "all who made SuitSat-1 the phenomenal event that it was." Launched February 3 during a spacewalk from the ISS, SuitSat-1's 2-meter signal was heard around the world, although at a much weaker signal strength than anticipated.

"Your hard work and dedication paid off," Bauer continued. "In just three weeks the SuitSat team developed and delivered a safe satellite system that has gained the confidence of the international space agencies." Bauer also noted the "unprecedented press coverage" that included more than 9 million hits on the SuitSat-1 Web site <http://www.suitsat.org> during February alone as well as several prominent mentions in the general news media.

"Students around the world had the opportunity to participate in a seven-month 'school spacewalk' with the artwork, pictures, signatures and voices onboard," Bauer pointed out. "And the 'super-sleuth' ham radio operator extraordinaire were able to pull a significant amount of data from the satellite, despite its low signal strength."

After SuitSat-1's VHF ham radio payload stopped transmitting earlier this year, AMSAT initiated a "Chicken Little Contest," for participants to guess when SuitSat-1 would deorbit. Winners and more information are on the AMSAT Web site <http://www.amsat.org/amsat-new/ariss/suitsatContest.php>.

Bauer said plans for a potential SuitSat-2 will be a discussion topic at the AMSAT/ARISS joint meeting in October <http://www.amsat.org/amsat-new/symposium/>.

Commented ARRL ARISS Liaison Rosalie White, K1STO: "This unique satellite lasted longer than anyone ever expected, making the ARISS team proud."

IP VIDEO KILLS THE TV STAR

NORTH SYDNEY, 18th Sept 2006 – IDC's (see note at end for IDC explanation) latest research into the overall Australian digital TV landscape finds that in light of the ever changing media landscape, competitive pressures will extend beyond traditional Free-to-Air (FTA) TV networks and pay-TV operators. This is due to IPTV entrants as well as Internet video services, given that consumers are turning to the Internet for video sources. Initially this is occurring from Peer-to-Peer (P2P) file sharing networks such as BitTorrent for premium studio content, to personal blogs on MySpace or Google Video and YouTube for user-generated content. Other sources are legitimate online video services such as ReelTime and possibly the Australian iTunes store in the future.

"Today, quite a significant portion of Internet video users watch full movies and TV shows, and almost 30% obtain sports content over the Internet, which is one of the major drivers to pay-TV service adoption. Those who do not watch Internet videos have indicated that they do not want to watch videos on the PC screen and this immediate advantage FTA TV and pay-TV operators have over current online offerings will soon diminish. This is due to broadband service providers (BSPs) introducing IP set-top boxes to deliver online video content directly to the TV, along with the adoption of multimedia networks that stream content from the PC to the TV," said Sophie Lo, IDC's Analyst for Consumer Digital Markets.

However, local BSPs should watch innovative players like Apple, who are addressing the barriers that are currently inhibiting digital home adoption. For example, Apple will launch iTV (still a codename), early next year in the U.S. iTV is a media adaptor / set-top box-like product that will access content from computers on the network for display on a TV. "By adding connectivity to their current service-device integration model, Apple is providing consumers a complete end-to-end solution. Going forward, the iTV could possibly disrupt BSPs' strategy in establishing the home gateway as the media hub," cautioned Ms Lo.

This study, titled "Australia Digital Terrestrial, Cable, Satellite and IPTV 2006-2010 Forecast and Analysis: Videos from the Pipe," is IDC's annual five-year forecast of the Australian digital TV market and presents the 2006-2010 forecast for digital-TV households and consumer spending on digital pay-TV services in Australia. A breakdown of digital terrestrial, digital cable, digital satellite, and IPTV is included.

The IDC study finds that:

Digital cable and satellite revenue growth rates will be higher than that of subscriber growth as the Average Revenue Per User (ARPU) will increase, thanks to the take-up of advanced services such as on-demand programming and digital-video recording.

IDC does not envisage another IPTV entrant until late 2007 or early 2008, as Telstra remains reluctant to enter the IPTV arena due to its equity in FOXTEL. Tier 2 and tier 3 BSPs lack a large broadband subscriber base, financial resources as well as experience in content acquisition and distribution.

Although local telcos have not yet entered the IPTV market, their global counterparts - such as France Telecom and PCCW - have already established IPTV business models. Thus IDC expects local telcos' initial IPTV offerings to be relatively advanced and reliable, as the solutions have already been implemented by telcos overseas, and business models are in place.

Current pay-TV operators are growing their subscriber bases by launching aggressive marketing campaigns that are targeted towards the mass market. A divide between high- and low-end users will emerge. Thus, IDC recommends that a two-pronged approach be used to satisfy the different demands of these users.

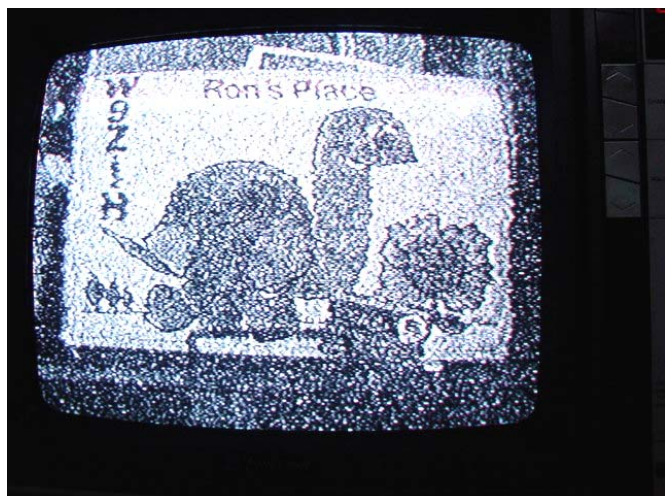
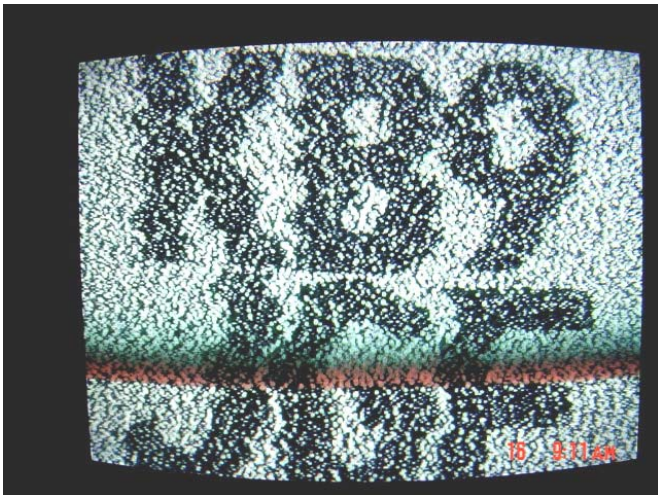
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ATV DX – Yes, someone is doing it!

The following are some screenshots I captured during the ATV contest this summer. My longest distance this year was P4/P4 contact with W9ZIH in Malta, IL at 317 miles. However, the most enjoyable contact was actually only about 47 miles to a field day station just north of Dayton. NO8I was being operated by W8ILC, Ron, at 5:30 UTC. He was P5 with only 10 watts and a 15ft antenna height. He could see me P3+ with only 750mw! Other states included MI and IN.

Poor conditions for this area produced a log that was my shortest in 3 years. I sure hope things improve next year. Maybe I'll add a few more preamps, hi.

...Tom WU8O Plain City, OH EN80ic



ATVER'S PHONE HOME!

I am trying to construct a list of phone numbers called an "ATV Phone tree" to share when the band is hot. This list of numbers can then be shared by all ATVer's for the purpose of establishing DX ATV contacts. As we all know, it takes at least two people to verify the band is open. Many times we sit in front of the TV knowing the band is open and waiting patiently for someone to send video. If everyone is in "receive mode" no contact will be made but with a list, a phone call is all it takes to initiate an ATV contact that would otherwise be missed altogether.

Make sure you give it some thought before including yourself for your wife could answer then clobber you for waking her up at 3:00 am. I am open for any suggestions. E-mail me your phone number(s) along with any details about your schedule such as calls on weekends only, week nights until 11:00, or anytime. I feel the band needs to be at least P3 at 300 miles to warrant a phone call in the middle of the night. The phone numbers will not be published on the internet and will be confidential to ATVer's only via Email. I also will not get it running until I have everyone's blessing and have all the bugs worked out. Give your location also. The band may be open but not in your area. Take care and Email me to let me know what you think. I'm in the members listing in this Newsletter.

...Dave NR8TV

Here's Bob' take on the same subject. I'm sure comments to him are also welcome. ED

After just seeing a guy looking for ATV activity in CT on the ATV logger I had a thought and I am curious as to know how many of you are actually active on the air with ATV? Seems like a lot of us are happy to have ATV gear and only use it for special occasions or emergency situations. Many of us seem to like to talk about it and experiment but seldom ever really use it. I like to work DX and all of the ATV around here is simplex so I am on every day calling CQ, watching for openings etc. If you are really active on ATV please take a moment and go to the ATV activity logger page at dxworld.com <http://dxworld.com/atvlog.html> Please type in your call sign and location and simply put (simplex) or (repeater) so that some of the other mode users will see how many people still use this mode. Who knows maybe you will meet someone that you never knew was out there. I have an idea that there won't be over 10 call signs on the logger before midnight! Prove me wrong...Please

73, Bob KA9UVY-TV Amateur Television Station Celebrating 12 years on ATV 1994-2006

Band Open?? Call 618-242-7063 anytime!!

TIDBITS FROM THE QRM NEWSLETTER

The following is not necessarily ATV related but interesting indeed. Their editors were kind enough to collect this information and share it with us. ED.

CELL AND INTERNET CHARGES TO INCREASE

Some cell phone and Internet phone service users will see higher bills later this year, because of a move by the Federal Communications Commission to ensure phone service for rural and disabled people. Specifically, the FCC has taken some interim steps to avoid a financial crisis in the Universal Service Fund that supports this service. To accomplish this, the Commission required providers of Internet phone service begin contributing to the fund. It also required cell phone companies and other wireless providers, who opt to pay a flat contribution, instead of one based on actual usage, assume 37.1 percent, instead of 28.5 percent of their revenue is subject to the impost. The Commission staff could not predict how many people would have to see an increase or how much more they would have to pay. The moves were designed to make up temporarily for the loss of revenue for the fund from the providers of high speed Internet service over phone lines or Digital Subscriber Lines. DSL providers were exempted by the FCC last August. FCC Commissioner Michael J. Copps has estimated the cost of this fund to be \$350 million annually.

AMSAT TO SUPPORT SDR PROJECT

The Amateur Satellite Corporation (AMSAT) will immediately begin support for the High Performance Software Defined Radio or HPSDR project. HSPDR is an independent team dedicated to bringing high performance software radio devices within the reach of amateurs in terms of success to the hardware and software at manageable prices. AMSAT describes the HPSDR as completely open software under GNU Public Licenses along with open hardware design. It has an extremely capable group of core designers, many of whom are key AMSAT design team members, who are supported by a cast of hundreds. Additional information, <http://amsat.org>.

SPY CAMERAS DRAW CONCERN

Civil liberties experts in the U.S. see a potential insidious abuse of security cameras. Currently, neither Congress, nor most states have rules on how, when or where, such cameras can be focuses. Davie Keene, chairman of the American Conservative Union (ACU), Alexandria, Virginia, a conservative lobbying organization, is so concerned that he has abandoned his usual enmity toward government regulation. Keene says he favors some sort of standard privacy protecting requirement and fears the absence of such rules may overshadow it as an anti-terror tool. (R&D July 2006)

TEN TEC OMNI VII

Ten Tec has released information they are adding an Omni VII transceiver to their line in the near future. The radio will cover HF through 6 meters and features full plug and play Ethernet remote capability, color screen, Collins mechanical filters and more. One

key feature will be the ability to hook it to a router directly and operate it remotely, which could solve homeowner association restricted antenna problems for some operators. You may mount the radio and router elsewhere and operate it from home via a computer. Price is reported to be in the range of \$2,000 to \$2,500. Additional information at www.n9vv.com/ten-tec-omni-vii.html.

SAMSUNG EXPLORES WORLDWIDE ANTENNA

South Korean electronics giant Samsung, is looking at the possibility of using the ionosphere as a medium for long distance communication, without the need for launching expensive satellites. Rather than bouncing signals off the ionosphere, as amateurs do, Samsung scientists are considering turning the ionosphere into a giant antenna. According to a recent patent filing, this could be achieved by launching UHF signals behind a 1GHz carrier signal to create an alternating current in the ionosphere. This alternating current could then be modulated at a particular frequency to create an antenna of global proportions. (Samsung)

ARRL ONLINE AUCTION UPDATE

The auction will run from Monday, October 23 through Friday, November 3. Individuals who wish to participate will need to register online approximately one week prior to the event. An announcement will appear on the ARRL Web site when the ARRL On-Line Auction site "goes live." (ARRL)

FREE 411 CALLS

Telephone companies often charge a dollar or more for 411 information calls, but there is an advertiser supported alternative, even you don't always hear the ads. The system works on home phones and cell phones. The number is 1-800-373-3411. You may remember the number easier as 1-800-FREE-411. (CGC)

CEA URGES FCC TO EXPAND NOAA RADIO

The Consumer Electronics Association (CEA) reinstated its belief that the FCC consider the full array of emergency outlets. NOAA weather radio has developed into an effective collection and distribution system. Estimates are that NOAA originates more than 94 percent of all emergency alarms and indicated it is one of the nation's most useful disaster prepared news tools.

SUITSAT ENDS ITS JOURNEY

When SuitSat 1 was launched from the International Space Station on February 1, those familiar with orbital mechanics predicted it would stay in orbit for 120 days. SuitSat 1 did not enter the Earth's atmosphere until September 7, 2006. The novel satellite was built in a surplus Russian Orlan spacesuit and operated for two weeks. Reasons for its weaker signal have never been disclosed.

LATEST TESTS OF AIRSHIPS AS COMMUNICATIONS PLATFORMS

Companies in California and Arizona are pressing ahead with plans to launch airships capable of providing high speed broadband and cellular service to huge swaths of the nation, including hard to reach unserved areas, such as the bottom of Grand Canyon Edwards Air Force Base figures prominently as a launch site in testing plans. Sanswire Networks LLC, based in Palmdale, California, is building a prototype airship designed to operate at an altitude of 65,000 feet, while Space Data of Arizona, will test the concept of using technology laden weather balloons, also at a high altitude. The advantage of earth based towers is that frequencies can be reused, as VHF and higher signals rapidly attenuate once they hit the radio horizon, meaning a given set of frequencies in market A can be reused in market B. That luxury will not be extended to super high elevated communications platforms, meaning spectrum assignments for those birds are going to be tricky. (CGC)

SPAR DECLARES OCTOBER TO BE KEY MONTH

The Society for the Preservation of Amateur Radio (SPAR), has approved sponsorship of two manual key CW activities open to all interested amateurs. Details can be found on the SPAR Web site at <http://www.spar-hams.org/index.php>, by selecting the "Key Month" link under "Activities/Contests." The proposed activities include a homebrew key competition and an operating championship. Key month will run from October 1 to 31. It will mark the first of what will become an annual event. (qrz.com)

RESEARCHER JAMES VAN ALLEN DIES

James Van Allen, the United States physicist who discovered the radiation belts surrounding the Earth, has died. In a career that stretched for over half a century, Van Allen designed scientific instruments for dozens of research flights. He first worked with small rockets and balloons and eventually with space probes that traveled to distant planets and beyond. Van Allen gained global attention in the late 1960's, when instruments he designed for the first U.S. satellite, Explorer 1, discovered the bands of intense radiation that surround the Earth. These bands were eventually named as the Van Allen belts, in his honor. He was 91 at the time of his death. (Southgate News)

TWO NASA PROBES TO WATCH FOR CME'S

NASA could watch the Sun's violent behavior when the star's magnetic field becomes unstable by shooting plasmas and high energy particles deep into space and affect radio propagation on Earth. According to Space.com, a pair of almost identical probes, called the Solar Terrestrial Radiation Observatory, were scheduled to be launched on August 31. The satellites are on a two year mission to provide three dimensional views of the Sun. The probes are expected to provide a better view of the origin, evolution and consequences of Coronal Mass Ejections or CME's. These are giant explosions on the Sun, caused by magnetic field lines annihilating one another. This causes the release of tremendous amounts of energy that can reach the earth. When CME's occur, they can cause disruptions in radio propagation on Earth, as well as produce electrical disturbances on space craft, such as geostationary and Low Earth Orbiting satellites. They can also affect power distribution systems on the ground.

VARIANCE DIFFRACTION GRATINGS MAY ENHANCE TV'S COLOR RANGE

Researchers in Switzerland are developing a new nano technology they claim will double the range of colors that future TV's can produce, displaying every hue the human eye can see. The technology, relying on millions of mini variable diffraction gratings, is still in its infancy and will probably require years to perfect. (CGC)

SENATE APPROVES WIRELESS EMERGENCY ALERT SYSTEM

In a memorandum passed on September 12, the Senate included language from a Commerce Committee approved bill to establish the Warning, Alert and Resource Network or WARN. This will be a national system of public safety alerts to include a variety of

communications technologies, including wireless devices, cellular phones, Blackberries, the Internet, digital and analog cable television, satellite television and satellite and terrestrial radio, as well as non-traditional means, such as sirens, are among the numerous public ting systems available. The legislation requires that alerts provide individuals with instructions about what to do in response to a threat. WARN would also establish a grant to help remote communities install sirens and other devices in areas where the telecommunications infrastructure is insufficient.

OHIO HAM TOLD TO PROVIDE RF SAFETY REPORT

The FCC has directed that a Cincinnati, Ohio, ham file what amounts to a mini environmental impact report with the agency. This, after a neighbor sends the regulatory agency photographs showing that the vertical antenna used by Thomas C. Love (WA0WSW) is located only a few feet from the complainant's window. The complaining party is identified as an electrical engineer. The FCC says that his submission raises questions regarding RF radiation from Love's station. In the letter to WA0WSW, the FCC directs that he furnish an RF environmental evaluation pursuant to Section 97.13c(1) of the Commission's rules. If the evaluation indicates RF levels are beyond those acceptable, you must describe what remedial action to mitigate the situation. Love was given the usual time from the date of August 4 letter to respond.

POWER AIR SHOWS ZERO EMISSION POWER BACK UP

California based Power Air Corporation announced it has developed a zero-emission back up power generator suitable for indoor and outdoor use powered by the company's Zinc Air Fuel Cell technology. Power Air says its system replaces batteries and mechanical engines, with fuel cells that can be quickly recharged by a simple exchange of electrolyte. Their technology was created by using low cost materials and conventional manufacturing techniques. Info on this system is available at www.poweraircorp.com.

SINGLE MOLECULE TRANSISTOR

university of Arizona physicists discovered how to turn a single molecule into working transistors and have applied for a patent on their device, called the Quantum Interference Effect Transistor. Nicknamed "QuIE,". Technology Report says the University of Arizona physicists propose making transistors as small as a single nanometer or one-billionth of a meter. They say this is likely the breakthrough needed to make the next generation of tiny, powerful computers that nano-technologists could only dream of a few years ago. (MEH Release)

RFI COMMENTS ON COMPACT FLUORESCENT LAMPS

Dave Foetenberry (NA6DF) reports on an interesting incident. I was building a new VHF repeater system in my workshop. All was working well until I connected the VHF antenna on my tower. Once connected, a tremendous amount of interference was coming in on the repeater input, as long as the transmitter was keyed. Using a portable receiver, I traced the interference to a 120VAC compact fluorescent lamp used in one of my aquariums. The 50 watts of VHF energy from 45 feet straight up was enough to cause the oscillator board in the lamp to go nuts. I might something similar could happen at a broadcast site or anywhere there might be substantial RF energy. I have since pitched all my compact fluorescent lamps in the trash and went back to standard old light bulbs.

SURVEY SAYS USA IS RADIO READY FOR EMERGENCIES

Nearly four out of five Americans say they have taken some precautions to prepare for an emergency in the year since hurricane Katrina devastated the Gulf Coast. A survey commissioned by American Media Service, found only 21 percent say they have not taken any precautions. The survey found 62 percent have purchased candles or flashlights, 64 percent have checked the batteries for their emergency equipment and 46 percent have stockpiled food and water. An amazing 43 percent have either bought or checked into a battery powered radio. In addition, 77 percent have a battery powered radio in their house and 82 percent have checked the batteries in the past year. More than four out of five say they are confident their local radio stations would provide the necessary information to get through the emergency and nearly two-thirds say they know which radio station to tune in an emergency.

Omnitel, Incorporated, conducted the telephone survey of 1,000 adults from August 11 to 13, 2006

FCC SEEKS ENGINEERS IN TRAINING

The FCC is seeking applications from engineering school graduates with strong academic credentials, an interest in communications engineering and IP network knowledge, for its Engineer-In-Training Program, to be held during the 2006-2007 fiscal year. The FCC will recruit engineering school graduates to the Commission and provide training in the field of communications. Engineers hired as part of the program will fill positions at FCC Headquarters, in Washington, DC, the agency's facility at Gettysburg, PA or one of their field offices. Applicants must specify locations for which they wish to be considered. More information on this subject at www.fcc.gov. (RW)

ARRL GRANTED EXPERIMENTAL LICENSE FOR 500MHZ RESEARCH BY RADIO AMATEURS

The FCC's Office of Engineering and Technology granted a Part 5 experimental license (WD2XSM) to the ARRL on behalf of a group of radio amateurs interested in investigating spectrum in the vicinity of 500 KHz. The two year authorization permits experimentation and research on 505 and 510 KHz (600 meters) using narrow band modes at power levels up to 20 watts effective radiated power (ERP). ARRL member Fritz Raab (W1FR), of Vermont, will serve as experimental projects manager for "The 500KC Experimental Group for Amateur Radio." The license was granted on September 13. (ARRL Letter)

NEW OFFERING ALLOWS VIEWERS ANYWHERE TO SEE U.S. TV

Colorado based Anywhere TV plans a trial offering of its new service that uses high speed connections to expose live and on-demand programming from U.S. providers around the world. As a business model, TV Anywhere will initially be subscriber driven, but will also seek advertising revenue. (CGC)

BROADBAND IN GAS PIPES COULD BE A 'BIG' BREAKTHROUGH

A San Diego company says it has found a way to send high speed broadband and TV programs through the gas pipes used to warm homes and cook dinners. Nethercomm predicts its "Broadband in Gas" or "BIG" technology, could aggressively compete with cable and phone companies, while reaching 62 percent of the nation's households and says field trials will begin next year. See:

<http://tinyurl.com/z94rd>.

VERIZON WIRELESS FLOATS A NEW PLAN FOR 700MHZ SPECTRUM

With Cyren Call and others promoting a nationwide, shared public/private broadband network on a slice of 700MHz spectrum currently scheduled for auction in 2008, Verizon Wireless is offering a competing proposal with one major difference. The Verizon plan envisions a network using half of the 14MHz spectrum already set aside for public safety as part of the transition to digital television.

JONES ROAD LINK TESTS SUCCESSFUL

We tested the transmit and receive capability of the Jones road ATV link in South Vienna on Saturday Oct 15. Everything worked OK. The controller still needs to be completed but at least the transmit and receive capability both to/from Dayton and to/from Columbus resulted in P5 pictures both directions. As many of you know the road to this point has been quite rocky which we won't go into here but many things had to be rebuilt, including a malfunctioning 1250 MHz antenna to make the test a success. I am completing the 2M receiver for function control and a touch tone decoder for function selection. WB8LGA has completed an "on screen IDer control which I plan to pick up later.

Below are a couple of pictures I recorded of W8RVH's signal going into the Dayton repeater and coming out our repeater via the Jones road link. Neat huh? The wavy lines in the picture are a result of TV scan rate, shutter speed and nearby florescent lights. The actual video looked much better. (Sorry Dock).



Also here's a picture of Troy, W4TLB, a friend of N8XYJ was there to lend a hand installing the new 1250 MHz antenna and 1 5/8" hardline donated by KA8ZNY. The 1250 MHz loop yagi is near the top of the tower while the 910 MHz loop yagi is shown just below it. Troy is heading down the tower attaching the hardline as he descends. The sidearm antenna beside Troy belongs to the 2M repeater group.



HD DVD and BLU-RAY DEBATE

The ongoing battle between HD DVD and Blu-ray got a full airing in a frank exchange of opinions during a panel discussion at the CEA Industry Forum on 10/23/06.

The panel, comprising members of the groups supporting the respective formats, answered questions from each other, industry watchers and the audience. It was moderated by Brian Cooley, editor at large with CNET, and featured Mark Knox, advisor of Toshiba's HD DVD Promotion Division, Andy Parsons, Pioneer's senior VP of product development and chairman of the Blu-ray Association's U.S. Promotion Committee, Chris Crotty, senior analyst of CE for iSuppli, Patrick Beaulieu, NVIDIA's Pure Video technology manager and the audience chiming in at various times.

To jump-start the conversation, Cooley released the results of a recent CEA/CNET Tech First Panel which showed that while awareness is high for the formats from early adopters, real familiarity of each is low, there is much confusion, and the so-called "format war" is turning off many from buying either technology.

For instance, the survey showed:

- 24 percent of those polled were not sure if either HD disc format was compatible with the existing DVD format;
- Less than one-third of "tech enthusiasts" or early adopters are interested in buying an HD disc format at this point; and
- 81 percent of those consumers interviewed are most concerned about the price of the hardware and the cost of updating their extensive DVD libraries with new software.

Knox said that with HD DVD the market now has a format that is "here, new, cool and well-priced." Parsons volleyed back saying that one of the strengths of Blu-ray is that it currently has backing from seven of the eight major studios and that consumers' "fear would be not having content."

Crotty's first comment of the panel was a double-edged sword towards both formats and their backers. "Both sides should be commended for coming up with these formats, but this is most pointless format war ever," he said.

Beaulieu said that NVIDIA's decoder works with both and he feels that "the PC is where the format war will be decided." And he added that it will "not necessarily be the quality of either format or the technology that will win" harking back to the days of other format wars where the best product did not necessarily win out.

Crotty complained that consumers have not been made aware of the benefits of either format, saying that while cable companies are flooding the airwaves with ads about digital cable, HDTV on their systems, et al, "Where are the ads for HD DVD and Blu-ray?"

Knox said that the HD DVD demonstration area at shows such as this month's DigitalLife in New York is one way to get the word out. "Consumers need to experience the technology." Later Knox lamented that unlike DVD's introduction "Many retailers don't do retail demonstrations like they used to in the late 1990s, where they demonstrated technologies and qualified consumers interested in the products."

Parsons partially answered the issue of education by saying that Blu-ray has been available for four months and that HD DVD has been out for six months and that during the first 18 months of the DVD launch "we were just getting the studios" to fully get behind the format. He added that even with the comparatively faster start of these two formats, it takes a while for even early adopters to embrace a new format.

Crotty agreed, but stressed, "This isn't 1997. Going from DVD to an HD disc is not as big a stretch as explaining to consumers about going from VHS to DVD."

Beaulieu brought up the point that acceptance of either format may not entirely revolve around CE products. "Xbox 360 and PlayStation 3 will sell millions and consumers will put these devices in their living rooms. They will have HD DVD or Blu-ray drives, so this could be a PC-based battle."

Parsons volunteered that CE companies have seemingly made a determination that the "game buyer is different than the home theater customer," and that the early adopter would turn to more of a stand-alone deck than a game system peripheral as the main HD disc player of the home.

Crotty noted that for the mainstream consumer there may not be a lot of time to educate the consumer since, "both sides are wasting time and money fighting each other. They should be fighting the common enemy, online HD downloads that will compete against them."

Parsons and Crotty then went back and forth as to when such downloads might become a problem. Parsons said bandwidth is still too narrow for it to be an immediate concern. "Today people still go to Best Buy to buy DVDs even though they could download movies," said Parsons.

Questions then came from the audience about hybrid disc or combo hardware. Parsons and Knox said that nothing in the licensing rules for either format would preclude such a product. It was acknowledged that unless a combo disk for the formats could be developed, like the one announced recently from two Warner Brothers engineers, retailers will still be stuck with carrying twice the inventory to support both formats.

Cooley asked the audience during the question and answer portion of the panel whether or not they would want an HD disc deck that acted like a regular DVD player and played movies or one that acted more like a PC and an overwhelming show of hands proved the former as the most popular choice. Cooley then quipped, "I think we may have saved millions in product development" for both formats.

Crotty commented about the whole issue of combo decks that "by the 2007 holiday season some manufacturer will be offering that product," no matter what the software concerns are by retailers.

At the end of the panel Bernie Appel, veteran RadioShack merchant, CE Hall of Famer and president of Appel Associates, placed the entire conversation into perspective. "You can go back to the 1960s with records. Many people don't remember records, but companies developed turntables for albums and singles. It's about standards. The consumer wanted that. The same held true with 8-track and audio cassettes, later on VHS and Beta and then DVD. The consumer always decides. What that means [talking directly to Knox and Parsons] is that eventually, one of you will be out of a job."

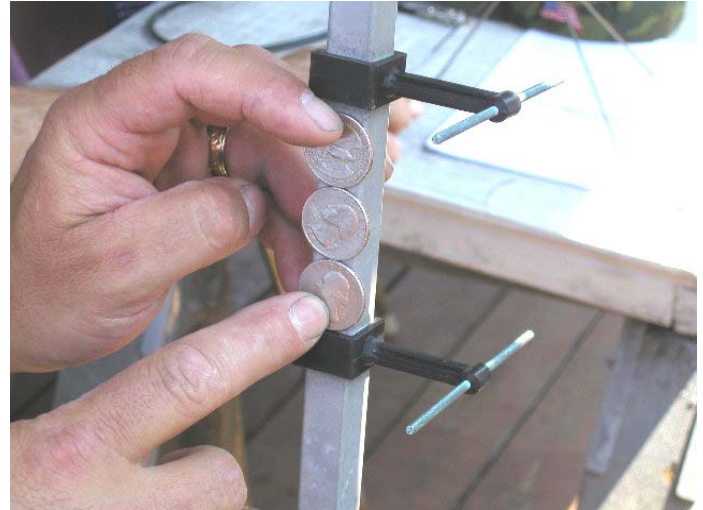
2006 ANTENNA PARTY

Our annual antenna party was held on Sunday August 13 in N8KQN's back yard. Ted's widow said was an honor to have us back again and said Ted would have wanted it that way. We appreciate that but still; it's just not quite the same without Ted. However, I am very sure Ted was watching us from above.

We all had a very good time talking about antennas and just about everything else. We didn't get to plot any antenna patterns this year because none of us could remember where the antenna controller was located. We searched Ted's outbuilding and hamshack and came up empty. I thought someone carted it home with them last year but to no avail. We were out of luck this year but we have time to build another one for next year.

Mike, KB8SSH, is demonstrating his portable/mobile ATV setup complete with the antenna arrangement shown below. The loop yagi worked great but the other one (I can't remember what kind it was) was far from optimum.

Here's a close-up of someone (I think it was W8DMR) checking the spacing between elements of his 1200MHz F9FT type yagi. He says it is very close to 3 quarters wavelength. Cute.



I didn't notice anyone behind Jim, WA8UZP, when I took the picture above. It seemed like a good group photo opportunity consisting of (left to right) Roger WB8DZW, Mel KA8LWR, Bob N8OCQ (behind Mel), Jay KB8YMQ and Jim WA8UZP. On further inspection I noticed Jim appears to be wearing a hat and he seemed to be sprouting "horns". A blowup of Jim revealed someone behind him...I wonder who that guy in the hat is ????

ATCO

2006 FALL EVENT

1:00 PM - SUNDAY

October 29, 2006

ABB PROCESS AUTOMATION
CAFETERIA

579 EXECUTIVE CAMPUS DRIVE
FOR MORE DETAILS, CONTACT
ART - WA8RMC 891-9273

LUNCH PROVIDED - DOOR PRIZES -
BRING A FRIEND AND SEE OLD BUDDIES
MINI HAMFEST - SHOW AND TELL

DIRECTIONS TO THE ATCO EVENT

From I-70 WEST Bound:

Take I-270 Northbound around and turning to the west to Cleveland Ave. Exit north onto Cleveland Ave and travel north about 2 miles to Executive Campus drive. (It's the next street past Westar Crossing Street). Turn left (west) to the ABB building at the end of the street.

From I-70 EAST Bound:

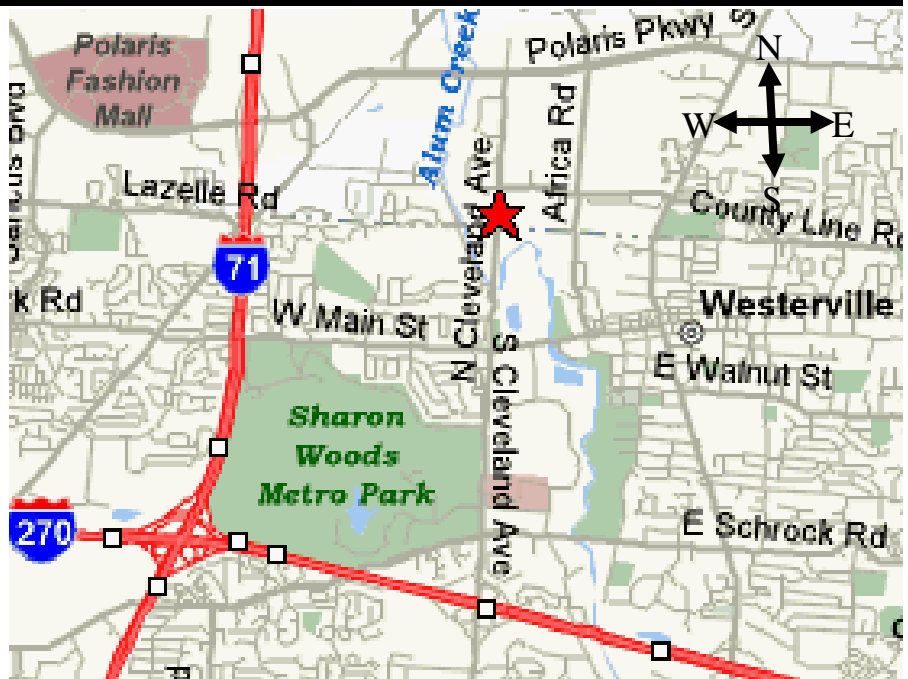
Take I-270 Northbound around and turning to the east past SR 315 and past I-71. Get off on the Cleveland Ave second exit and travel north (to Westerville). Continue north on Cleveland past Schrock road and then past Main Street. Continue north about ½ mile past Main Street to Executive Campus Drive. (It's the next street past Westar Crossing Street) Turn left (west) to the ABB building at the end of the street

From I-71 NORTH bound toward Columbus:

Drive through Columbus on I-71 to I-270 on the north side. Take I-270 east to the first exit, Cleveland Ave. Get off the Cleveland Ave second exit and travel north (to Westerville). Continue north past Schrock road and then past Main street. Continue north about ½ mile past Main Street to Executive Campus Drive. (It's the next street past Westar Crossing Street) Turn left (west) to the ABB building at the end of the street.

From I-71 traveling SOUTH bound toward Columbus (North of I-270):

Exit the Polaris Ave exit and travel east about 1 mile to Cleveland Ave. Turn right on Cleveland Ave to Executive Campus Drive. Turn right again on Executive Campus Drive. ABB is on the right side of the street about half way around the semi-circle.



NEW MEMBER(S)

Let's welcome the new members to our group! If any of you know anyone who might be interested, let one of us know so we can flood him or her with information. New members are our group's lifeblood. It's important that we actively recruit new faces aggressively.

WB2IRR Mike Anthony Brick, New Jersey
 N4AK Glen Farr Travelers Rest, South Carolina
 K2PMS Paul Schmitter Springville, New York
 AB5ZJ Tom Phillips North Richland Hills, Texas

...WA8RMC

LOCAL HAM CLUB LISTING

Club/Organization	Web Site	In Person Meetings See the Club's Web Site for Location	Nets	ARRL Affiliated ?
ARC OF OHIO STATE UNIVERSITY	http://arc.org.ohio-state.edu/	2nd Mon of the month at 18:00		Y
ATCO-AMATEUR TELEVISION IN CENTRAL OHIO	http://www.atco.tv/homepage/index.htm	Last Sun in October First Sun in May	Tue's at 21:00 on 147.450 with Repeat Audio on 446.350	
BUCKEYE BELLES-OHIO LADIES AMATEUR RADIO CLUB	http://geocities.com/kc4iyd		Mon's at 09:00 on 3.945 Mon's at 21:00 on 147.060 Tue's at 20:00 on 3.972 Tue's at 20:30 on 7.236	
CCRA-CAPITAL CITY REPEATER ASSN	http://www.qsl.net/ccra/	2nd Sat of the month at 19:30	Mon's at 20:30, the Swap'n'shop Net on 147.24; followed by a Discussion Net	
CENTRAL OHIO SLOW SCAN TV	http://www.qsl.net/n8tut/sstv/		1st Sun at 19:00 on 145.490	
COARES-CENTRAL OHIO ARES	http://www.coares.org/	3rd Wed of the month at 20:00	Wed's at 20:00 on 147.060 except the 3rd Wed of the month.	Y
COLUMBUS FOX HUNTERS	http://www.qsl.net/cfh/			
COOKEN-CENTRAL OHIO OPERATORS KLUB EXTRA TO NOVICE	http://www.cooken.org/	2nd Sat of the month at 12:00	Wed's at 20:30. See web site for details on freqs.	Y
CORC-CENTRAL OHIO RADIO CLUB	http://www.corc.us/	Check web site		
COSHOCTON COUNTY AMATEUR RADIO ASSOC.	http://www.w8cca.org/	1st Tue of the month at 19:00	Sun's at 21:00 on 147.045	
COSWN-CENTRAL OH SEVERE WEATHER NET	http://www.severe-weather.org/		Tue's at 19:30 on 146.76 PL of 123.0hz Spring & Summer; 3rd Tue's Fall & Winter	Y
COTN-CENTRAL OHIO TRAFFIC NET	http://www.technology-corner.com/cotn/		Daily at 19:15 on 147.240	
CQRP-COLUMBUS QRP CLUB	http://www.qsl.net/cqrp/	1st Sat of the month at 10:30		
CRES-ARC	http://www.qsl.net/w8zpf	Check web site	Sun's at 21:00 on 146.070	Y
DELARA-DELAWARE AMATEUR RADIO ASSOCIATION	http://www.k8es.org/Home.html	3rd Wed of the month at 19:30	Mon's at 20:00 on 145.17	Y
LANCASTER & FAIRFIELD CTY ARC	http://www.k8qjk.org/	1st Thu of the month at 19:30	Mon's at 21:00 on 147.030 Thu's at 18:30 on 147.030 is Radio Night.	Y
LICKING COUNTY ARES	http://www.licking-ares.org/		1st & 3rd Wed of the month at 21:00 on 146.88	
MOUNT VERNON ARC	http://mvarc.net/	2nd Mon of the month at 19:00		Y
NARA-NEWARK AMATEUR RADIO ASSOCIATION	http://nara.eqth.org/	2nd Sat of the month at 19:00	Tue's at 21:00 on 146.88	Y
OHIO NAVY-MARINE CORPS MARS	http://www.ohionavymars.org/			N/A
QCWA MID-OHIO CHAPTER	http://www.qcwa.org/qcwa212/	Check web site	Thu's at 20:30 on 146.76	
RUSTY ZIPPER HF & DX CONTEST CLUB	http://www.qsl.net/na8kd/			
SOUTH WEST COLUMBUS HAM RADIO CLUB	http://swchrc.com/		Fri's at 21:00 on 145.230 or 53.550	Y
VOICE OF ALADDIN ARC	http://www.qsl.net/w8fez/			Y
ZARC-ZANESVILLE AMATEUR RADIO CLUB	http://zarc.eqth.org/	1st Tue of the month at 19:00	Wed's at 21:00 on 146.610	Y

INTERNET ATV HOME PAGES (list verified 04/15/06)

If you have access to the INTERNET, you may be interested to know of some of the HAM related information that is available. Most addresses listed below are case sensitive, so type exactly as shown.

Domestic homepages

http://www.atco.tv	Ohio, Columbus, homepage (ATCO)
http://www.w8bi.org/atv/atvresources.html	Ohio, Dayton ATV group (DARA)
http://www.citynight.com/atv	California, San Francisco ATV
http://www.qsl.net/atn	California, Amateur Television Network in Central / Southern
http://members.tripod.com/silatvg	Illinois, Southern, Amateur Television group
http://www.ussc.com/~uarc/utah_atv/id_atv1.html	Idaho ATV
http://www.kcatv.org	Kansas, Kansas City Amateur TV Group (KCATVG)
www.bratsatv.org	Maryland, Baltimore Radio Amateur Television Soc. (BRATS)
http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=10991	Michigan, Detroit Amateur Television System (DATS)
http://www.qsl.net/kd2bd/atv.html	New Jersey, Brookdale ARC in Lincroft
http://www.ipass.net/~teara/menu3.html	North Carolina, Triangle Radio Club (TEARA)
http://www.oregonatv.org	Oregon, Portland OATVA Oregon Amateur TV Association
http://www.jones-clan.com/amateur_radio/klamath_amateur_television.htm	Oregon, Southern Oregon ATV
http://www.nettekservices.com/ATV/	Pennsylvania, Pittsburg Amateur Television
http://members.bellatlantic.net/~theoikat	Pennsylvania, Phila. Area ATV
http://www.hats.stevens.com	Texas, Houston ATV (HATS)
http://www.hotarc.org/atv.html	Texas, WACO Amateur TV Society (WATS)
http://www.ussc.com/~uarc/utah_atv/utah_atv.html	Utah ATV
http://www.qsl.net/w7twu	Washington, Western Washington Television Soc. (WWATS)
http://www.shopstop.net/bats/	Wisconsin, Badgerland Amateur Television Society (BATS)

Foreign homepages

http://lea.hamradio.si/~s51kq/	Slovenia ATV (BEST OF FOREIGN ATV HOMEPAGES)
http://www.batc.org.uk/index.htm	British ATV club (BATC)
http://www.cq-tv.com	British ATV Club and CQ-TV Magazine
http://oh3tr.ele.tut.fi/english/atvindex.html	Finland ATV, OH3TR repeater.
http://www.darc.de/distrikte/g/T_ATV/atv.htm	German ATV

TUESDAY NITE NET ON 147.45 MHz SIMPLEX

Every Tuesday night @ 9:00PM WA8RMC hosts a net for the purpose of ATV topic discussion. There is no need to belong to the club to participate, only a genuine interest in ATV. All are invited. For those who check in, the general rules are as follows: Out-of-town and video check-ins have priority. A list of available check-ins is taken first then a roundtable discussion is hosted by WA8RMC. After all participants have been heard, WA8RMC will give status and news if any. Then a second round follows with periodic checks for late check-ins. We rarely chat for more than an hour so please join us if you can.

ATCO TREASURER'S REPORT - de N8NT

OPENING BALANCE (07/20/06).....	\$ 1307.74
RECEIPTS(dues).....	\$ 120.00
Power supply sales.....	\$ 32.00
Club donation.....	\$ 30.00
July postage.....	\$ (50.40)
Antenna party food and misc purchase.....	\$ (113.84)
Paypal charges.....	\$ (3.52)
Website domain fees.....	\$ (49.94)
CLOSING BALANCE (10/25/06).....	\$ 1272.04

ATCO REPEATER TECHNICAL DATA SUMMARY

Location: Downtown Columbus, Ohio
Coordinates: 82 degrees 59 minutes 53 seconds (longitude) 39 degrees 57 minutes 45 seconds (latitude)
Elevation: 630 feet above average street level (1460 feet above sea level)
Transmitters: 427.25 MHz AM modulation, 1250 MHz FM modulation, 1260 MHz QPSK digital, 2433 MHz FM modulation and 10.350 GHz FM modulation

Interdigital filters in output line of 427.25, 1250 & 2433 transmitters
Output Power - 427.25 MHz :40 watts average 80 watts sync tip
1250 MHz: 50 watts continuous (Analog ATV)
1260 MHz 2 watts continuous (DVB-S digital ATV - 2 channels)
2433 MHz: 15 watts continuous
10.350 GHz 1 watt continuous

Link transmitter - 446.350 MHz 5 watts NBFM 5 kHz audio
Identification: 427, 1250, 1260, 2433, 10.35 GHz xmitters video identify every 30 min. with ATCO & WR8ATV on 4 different screens
1260 MHz - Continuous transmission of ATCO & WR8ATV with no input signal present

Transmit antennas: 427.25 MHz - Dual slot horizontally polarized "omni" 7 dBd gain major lobe east/west, 5dBd gain north/south
1250 MHz - Diamond vertically polarized 12 dBd gain omni (Analog ATV)
1260 MHz - Diamond vertically polarized 12 dBd gain omni (Digital DVB-S ATV)
2433 MHz - Comet Model GP24 vertically polarized 12 dBd gain omni
10.350 GHz - Commercial 40 slot waveguide horizontally polarized 16 dBd gain omni

Receivers: 147.45 MHz - F1 audio input control of touch tones
439.25 MHz - A5 video input with FM subcarrier audio (**lower sideband**)
1280 MHz - F5 video input or DTV-S digital (digital input fed direct to 1260 MHz digital output channel 2)
2398 MHz - F5 video input
10.350 GHz - F5 video input (future – not installed yet)

Receive antennas: 147.45 MHz - Vert. polar. Hi Gain 12 dBd dual band (also used for 446.350 MHz output)
439.25 MHz - Horiz. polar. dual slot 7 dBd gain major lobe west
915 MHz - Diamond vertically polarized 12 dBd gain omni (spare ant – not in use at this time)
1280 MHz - Diamond vertically polarized 13 dBd gain omni
2398 MHz - Comet Model GP24 vertically polarized 12 dBd gain omni
10.450 GHz - Commercial 40 slot waveguide horizontally polarized 16 dBd gain omni (not installed yet)

Input control:	<u>Touch Tone</u>	<u>Result (if third digit is * function turns ON, if it is # function turns OFF)</u>
	00#	turn transmitters off (exit manual mode and return to auto scan mode)
	00*	turn transmitters on (enter manual mode-keeps xmitters on till 00# sequence is pressed)
	264	Select Channel 4 Doppler radar. (Stays up for 5 minutes) Select # to shut down before timeout.
	697	Select Time Warner radar. (Stays up till turned off). Select # to shut down.

Manual mode functions:	00* then 1 Ch. 1	Select 439.25 receiver - manual mode (hit 00* then 1 to view 439.25 signal only)
	00* then 2 Ch. 2	Unused at this time
	00* then 3 Ch. 3	Select 1280 receiver - manual mode
	00* then 4 Ch. 4	Select 2411 receiver - manual mode
	00* then 5 Ch. 5	Select video ID - manual mode (the 4 identification screens)
	01* or 01#	Channel 1 439.25 MHz scan enable (hit 01* to scan this channel & 01# to disable it)
	02* or 02#	Channel 2 915 MHz scan enable
	03* or 03#	Channel 3 1280 MHz scan enable
	04* or 04#	Channel 4 2398 MHz & camera video scan enable
	A1* or A1#	Manual mode select of 439.25 receiver audio
	A2* or A2#	Unused channel at this time
	A3* or A3#	Manual mode select of 1280 receiver audio
	A4* or A4#	Manual mode select of 2398 receiver audio
	C0* or C0#	Beacon mode – transmit ID for twenty seconds every ten minutes
	C1* or C1#	1280 analog/ digital select. Hit C1* for digital. Hit C1# for analog.
	C2* or C2#	2433 transmitter for on/off. (C2* enables transmitter and C2# disables it)

Auto scan mode functions:	001	2398 receiver (normal mode - returns to auto scan)
	002	Roof camera (select 001 when finished viewing camera so repeater will shut down)
	003	Equipment. room camera (select 001 when finished so repeater will shut down)

ATCO MEMBERS AS OF OCTOBER 25, 2006

Call	Name	Address	City	St	Zip	Phone	URL
KD8ACU	Robert Vieth	3180 North Star Rd	Upper Arlington	OH	43221	614-457-9511	rfvieth@yahoo.com
K8AEH	Wilbur Wollerman	1672 Rosehill Road	Reynoldsburg	OH	43068	614-866-1399	wilburapilot@yahoo.com
N4AK	Glen Farr	10 Autumn View Ridge	Travelers Rest	SC	29690-8024		
KC8ASD	Bud Nichols	3200 Walker Rd	Hilliard	OH	43026	614-876-6135	kc8asd2@netzero.com
KC8ASF	Tom Pallone	3437 Dresden St.	Columbus	OH	43224	614-268-4873	
W6CDR	Wynn Rollert	1141 Pursell Ave	Dayton	OH	45420	937-256-1772	w6cdr@hotmail.com
WB8CJW	Dale & Sharon Elshoff	8904 Winoak Pl	Powell	OH	43065	614-210-0551	delshoff@columbus.rr.com
N8CXI	Garry Cotter	2367 Northglen Drive	Columbus	OH	43224		
WB8CXO	Mike Young	289 Gaylord Drive	Munroe Falls	OH	44682		
N3DC	William Thompson	6327 Kilmer St	Cheverly	MD	20785		
WA8DNI	John Busic	2700 Bixby Road	Groveport	OH	43125	614-491-8198	jabusic@yahoo.com
W8DMR	Bill Parker	2738 Florbunda Dr	Columbus	OH	43209		w8dmratv@copper.net
K8DW	Dave Wagner	2045 Maginnis Rd	Oregon	OH	42616	419-691-1625	
WA3DTO	Rick White	2771Keystone Dr.	Painsville	Oh	44077-8830		wa3dto@aol.com
WB8DZW	Roger McEldowney	5420 Madison St	Hilliard	OH	43026	614-876-6033	wb8dzw@aol.com
KC8EVR	Lester Broadie	108 N Burgess	Columbus	OH	43204		
KB8FLY	Rod Shaner	124 West Walnut St.	Lancaster	OH	43130-4344	740-654-5694	rshaner@copper.net
W8FZ	Fred Stutske	8737 Ashford Lane	Pickerington	OH	43147		w8fz@arrl.net
KB8GHW	Mike Amirault	11354 Reussner Dr SW	Pataskala	OH	43062	740-927-5005	kb8ghw@ee.net
W8GUC	Reuben Meeks	1345 Helke Rd	Vandalia	OH	45377	937-454-0968	rcmeeks2@hughes.net
WA8HFK,KC8HIP	Frank, Pat Amore	3630 Dayspring Dr	Hilliard	OH	43026	614-777-4621	famore@wowway.com
WG8I	Chris Vojsak Sr,	3536 W Henderson Rd	Columbus	OH	43220-2232		
WB2IIR	Michael Anthony	370 Georgia Drive	Brick	NJ	08723		
N8IJ	Dick Knowles	1440 Northbrook Dr	Lima	OH	45805		rgrant2001@yahoo.com
K8KDR,KC8NKB	Matt & Nancy Gilbert	5167 Drumcliff Ct.	Columbus	OH	43221-5207	614-771-7259	k8kdr@arrl.net
W8KHW	Kevin Walsh	2396 Anson St	Columbus	OH	43220		
N8KQN	Ted Post	1267 Richter Rd	Columbus	OH	43223	614-276-1820	n8kqn@copper.net
WA8KQQ	Dale Waymire	225 Riffle Ave	Greenville	OH	45331	937-548-2492	walkingcross@bright.net
N3KYR	Harry DeVerter Jr	303 Shultz Road	Lancaster	PA	17603-9563		n3kyr@comcast.net
N8LRG	Phillip Humphries	3226 Deerpath Drive	Grove City	OH	43123	614-871-0751	phumphries@columbus.rr.com
WB8LGA	Charles Beener	2540 State Route 61	Marengo	OH	43334		cbeener@columbus.rr.com
WB2LTS	Manny Diaz	74 Lincoln Rd	Meadow	NY	11763		wb2lts@optonline.net
KA8LWR	Mel Alberty	1645 Olentangy Road	Bucyrus	OH	44820	419-468-2971	ka8lwr@bright.net
W8MA	Phil Morrison	154 Llewellyn Ave	Westerville	OH	43081		
KA8MID	Bill Dean	2630 Green Ridge Rd	Peebles	OH	45660		ka8mid@qsl.net
WB8MMR	Mike Knies	1715 Winding Hollow Dr.	Columbus	OH	43223	614-875-4236	
K4NQV	Dean Maggard	1612 Benson Ave	Bowling Green	KY	42104		k4nqv@insightbb.com
N8NT	Bob Tournoux	3569 Oarlock Ct	Hilliard	OH	43026	614-876-2127	n8nt@atco.tv
WD8OBT	Tom Camm	63 Goings Lane	Reynoldsburg	OH	43068	740-964-6881	firefoxtom11@netzero.com
WU8O	Tom Walter	15704 St Rt 161 West	Plain City	OH	43064	614-733-0722	wu8o@emec.us
N8OCQ	Bob Hodge Sr.	3750 Dort Place	Columbus	OH	43227-2022		hodgerob@yahoo.com
KB8OFF	Jess Nicely	742 Carlisle Ave	Dayton	OH	45410		kb8off@sbcglobal.net
N8OPB	Chris Huhn	1667 Pickering Court	Reynoldsburg	OH	43068		cjhuhn@hotmail.com
W6ORG,WB6YSS	Tom & Maryann O'Hara	2522 Paxson Lane	Arcadia	CA	91007-8537	626-447-4565	tom6ORG@hamtv.com
KC8OZV	George Biundo	3675 Inverary Drive	Columbus	OH	43228	614-274-7261	kiLOWatt@biundo.org
K2PMS	Paul Schmitter	57 East Main Street	Springville	NY	14141		
KE8PN	James Easley	1507 Michigan Ave	Columbus	OH	43201	614-421-1492	jeasley11@hotmail.com
W8PGP,WD8BGG	Richard, Roger Burggraf	5701 Winchester So. Rd	Stoutsville	OH	43154	740-474-3884	rgburggraf@juno.com
WB8PJZ	Dave Morris	12025 Wapak-Buckland R	Wapakoneta	OH	45895		
AE6QU	Ron Phillips	10858 W. Kaibab Dr.	Sun City	AZ	85373	602-369-4242	AE6QU@arrl.net
WA8RMC	Art Towslee	180 Fairdale Ave	Westerville	OH	43081	614-891-9273	towslee1@ee.net
W8RRF	Paul Zangmeister	10365 Salem Church Rd	Canal Winchester	OH	43110		w8rrf@copper.net
W8RRJ	John Hull	580 E. Walnut St.	Westerville	OH	43081	614-882-6527	jhull@wcmi.org
W8RUT,N8KCB	Ken & Chris Morris	3181 Gerbert Rd	Columbus	OH	43224	614-261-8583	wa8rut@aol.com
W8RVH	Richard Goode	9391 Ballentine Rd	New Carlisle	OH	45334	937-964-1185	w8rvh@glasscity.net
W8RQI	Ray Zeh	2263 Heysler Rd	Toledo	OH	43617		zehrw@glasscity.net
KB8RVI	David Jenkins	1941 Red Forest Lane	Galloway	OH	43119	614-878-0575	kb8rvi@hotmail.com
W8RWR	Bob Rector	135 S. Algonquin Ave	Columbus	OH	43204-1904	614-276-1689	w8rwr@sbcglobal.net
W8RXX,KA8IWB	John & Laura Perone	3477 Africa Road	Galena	OH	43021	740-548-7707	
N8SFC	Larry Campbell	316 Eastcreek Dr	Galloway	OH	43119		
W8SJV, KA8LTG	John & Linda Beal	5001 State Rt. 37 East	Delaware	OH	43015	740-369-5856	w8sjv@nexgenaccess.com
N8SNG	Terry Rankin	414 Walnut Street	Findlay	OH	45840		
KB8SSH	Mike Cotts	3424 Homecroft Dr	Columbus	OH	43224	614-268-8497	mcotts@wideopenwest.com
W3SST	John Shaffer	1635 Haft Dr.	Reynoldsburg	OH	43068	614-751-0029	w3sst@juno.com
K8TPY, K8FRB	Jeff & Dianna Patton	3886 Agler Road	Columbus	OH	43219		cqck8tpy@yahoo.com
NR8TV	Dave Kibler	243 Dwyer Rd	Greenfield	OH	45123	937-981-4007	s.crew@dragonbbs.com
KB8UGH	Steve Caruso	6463 Blacks Rd. SW	Pataskala	OH	43062-7756		dae14@copper.net
WB8URI	William Heiden	5898 Township Rd #103	Mount Gilead	OH	43338	419-947-1121	
KB8UU	Bill Rose	9250 Roberts Road	West Jefferson	OH	43162	614-879-7482	
KB8UWI	Milton McFarland	115 N. Walnut St	New Castle	PA	16101		kb8uwi@yahoo.com
WA8UZP	James R. Reed	818 Northwest Blvd	Columbus	OH	43212	614-297-1328	wa8uzp@yahoo.com
KB8WBK	David Hunter	45 Sheppard Dr	Pataskala	OH	43062	740-927-3883	hramhunter@aol.com

Call	Name	Address	City	St	Zip	Phone	URL
KC8WRI	Tom Bloomer	PO Box 595	Grove City	OH	43123		ohiomec@aol.com
AA8XA	Stan Diggs	2825 Southridge Dr	Columbus	OH	43224-3011		sdiggs4590@aol.com
N8XYJ	Dan Baughman	4269 Hanging Rock Ct.	Gahanna	OH	43230		danohio@wowway.com
N5XZS	Tim Johnson	1629 Speakman Dr SE	Albuquerque	NM	87123		
KB8YMN	Mark Griggs	2160 Autumn Place	Columbus	OH	43223	614-272-8266	mmgriggs@aol.com
KB8YMQ	Jay Caldwell	4740 Timmons Dr	Plain City	OH	43064		kb8ymq@aol.com
KC8YPD	Joe Ebright	3497 Ontario St	Columbus	OH	43224		-----
N8YHY	Chris Scott	1145Rural Ave SE#5	Salem	OH	97302		
N8YZ	Dave Tkach	2063 Torchwood Loop S	Columbus	OH	43229	614-882-0771	
AB5ZJ	Tom Phillips	6712 Hickory Pl. Ct.	No. Richland Hills	TX	76180		
KA8ZNY,N80OY	Tom & Cheryl Taft	386 Cherry Street	Groveport	OH	43125	614-202-9042	ttaft@columbus.rr.com

ATCO MEMBERSHIP INFORMATION

Membership in ATCO (Amateur Television in Central Ohio) is open to any licensed radio amateur who has an interest in amateur television. The annual dues are \$10.00 per person payable on January 1 of each year. Additional members within an immediate family and at the same address are included at no extra cost.

ATCO publishes this newsletter quarterly in January, April, July, and October. It is sent to each member without additional cost.

The membership period is from January 1ST to December 31ST. New Members will receive all ATCO newsletters published during the current year prior to the date they join ATCO. For example, a new member joining in June will receive the January and April issues in addition to the July and October issues. As an option for those joining after mid July, they can elect to receive a complementary October issue with the membership commencing the following year. Your support of ATCO is welcomed and encouraged.

ATCO CLUB OFFICERS

President: Art Towslee WA8RMC	Repeater trustees: Art Towslee WA8RMC
V. President: Ken Morris W8RUT	Ken Morris W8RUT
Treasurer: Bob Tournoux N8NT	Dale Elshoff WB8CJW
Secretary: Frank Amore WA8HFK	Statutory agent: Frank Amore WA8HFK
Corporate trustees: Same as officers	Newsletter editor: Art Towslee WA8RMC

ATCO MEMBERSHIP APPLICATION

RENEWAL NEW MEMBER DATE _____

CALL _____

OK TO PUBLISH PHONE # IN NEWSLETTER YES NO

HOME PHONE _____

NAME _____

INTERNET Email ADDRESS _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____ - _____

FCC LICENSED OPERATORS IN THE IMMEDIATE FAMILY _____

COMMENTS _____

ANNUAL DUES PAYMENT OF \$10.00 ENCLOSED CHECK MONEY ORDER

Make check payable to ATCO or Bob Tournoux & mail to: Bob Tournoux N8NT 3569 Oarlock CT Hilliard, Ohio 43026. Or, if you prefer, pay dues via the Internet with your credit card. Go to www.atco.tv/paydues and fill out the form. Payment is made through "PayPal" but you DO NOT need to join PayPal to send your dues. Simply DO NOT fill out the password details and there will be no PayPal involvement.

ATCO Newsletter
c/o Art Towslee-WA8RMC
180 Fairdale Ave
Westerville, Ohio 43081

FIRST CLASS MAIL

**REMEMBER...CLUB DUES ARE NEEDED.
CHECK THE RIGHT CORNER OF THE MAILING LABEL FOR THE EXPIRATION DATE.
SEND N8NT A CHECK IF EXPIRED.**
