ATCO NEWSLETTER

VOLUME 10 NUMBER 2 **APRIL 1993**

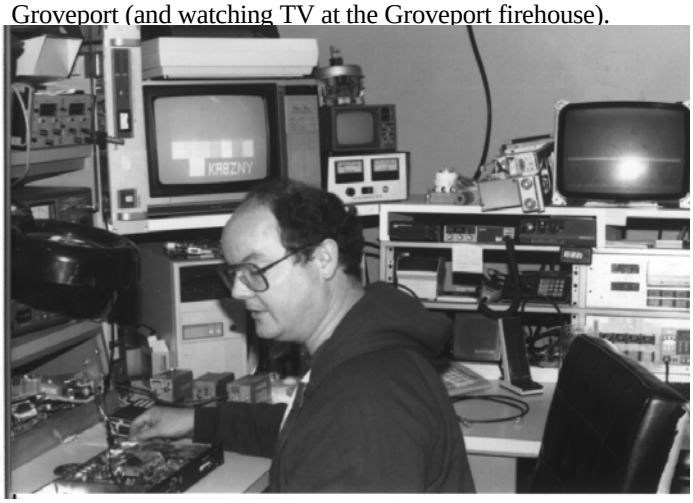
The ATCO newsletter is the official publication of a group of amateur television operators known as "AMATEUR TELEVISION IN CENTRAL OHIO" and is published quarterly (January, April, July, and October)

AN ATV REPEATER FOR COLUMBUS IS IN THE WORKS

It may be a long hard struggle to achieve, but eventually we will have an ATV repeater in Columbus. During a meeting at my house on January 17, 1993 the majority of us decided that a repeater was a very good idea. Since general activity is down significantly, this type of device will stir up new members, bring existing ones back to their rigs, promote new equipment construction and possibly establish more recognition to the ATV activity in this area. A basic feature for the repeater, in addition to the repeating of ATV signals, is to rebroadcast weather radar video from the National Weather Service at Port Columbus International airport. This not only helps the ATV group but serves as an important addition to the Severe Weather Net now operating on the 2 meter band. Further details of the repeater are located on the inside pages of this Newsletter.

ATCO HAM IN THE SPOTLIGHT

This new feature will appear in each issue. A randomly chosen ham will be selected to highlight the front cover so you'll not know in advance. (My wife said that this could be the only way to keep the shack cleaned up). This time the "roving cameraman" caught Tom Taft KA8ZNY. Tom manages to keep an active profile in ham TV even though he spends many hours fighting fires in Groveport (and watching TV at the Groveport firehouse).



Tom working on his ATV transmitter exciter module

Tom smiles for the camera - notice the clean shack?

JANUARY MEETING REPORT

We had an excellent turnout for the "ATV Repeater consideration" meeting. It was held at my house on Sunday January 17, 1993. I'm convinced that the free beer had a lot to do with it. In any case we were able to conduct a very orderly discussion about the pros and cons of a proposed ATV repeater. If my memory serves me correct, I believe that WB8URI was the only one opposed to it but the fact that he came and voiced his views is a very positive sign (We'll have to work with Bill to help convince him that this is not a typical CB activity that promotes laziness).

Although we did not take an official count of the attendance, I believe that I counted 16 heads which included:
Chuck WB8LGA, John N8MCQ, Chris N8OPB, Lee WD8EMS, Foster W8EHW, Dick W8RVH, Fred K8JGY,
Rick WA3DTO, Ken WA8RUT, Bill WB8URI and myself(WA8RMC). I'm sorry for the ones that I left out...We'll get you next time.

Tom KA8ZNY volunteered to supply us with the feed for NASA select video which rebroadcasts the space shuttle activity while in orbit. This would be a nice for the repeater in addition to weather radar.

We agreed to actively pursue the ATV repeater and Ken WA8RUT, Chuck WB8LGA and myself were appointed the technical coordinators. Well, now on to the hard stuff - construction with limited funds.

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, prorated at $1.00 per month for those members joining the club subsequent to January. Additional members within an immediate family are included at no extra cost.

ATCO publishes the ATCO newsletter quarterly in January, April, July, and October. The newsletter 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.

Your support of ATCO is welcomed and encouraged.

ATCO MEMBERSHIP APPLICATION

RENEWAL O NEW MEMBER O DATE _____
NAME _____ CALL _____
ADDRESS _____ HOME PHONE _____
CITY _____ STATE _____ ZIP _____
FCC LICENSED OPERATORS IN THE IMMEDIATE FAMILY_____
_____
_
COMMENTS
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_

ANNUAL DUES PAYMENT OF $10.00 ENCLOSED CHECK O CASH O
Make check payable to Martha Yost (for Fred Yost-ATCO treasurer) & mail to:

Fred Yost K8JGY

330 Dellfield Way
Gahanna,Ohio 43230

INFRARED DETECTION WITH A CCD CAMERA

Recently after reading something about CCD cameras receiving far into the infrared spectrum I decided to do some tinkering in that area. After hooking up the camera I began a series of experiments and sure enough this thing does receive infrared light otherwise invisible to the naked eye. Remote controls used for TV's VCR's etc. were first used in pitch darkness. They gave off enough light to light up the surrounding objects although the source was pulse modulated. It looked like a strobe light in the room! A hot soldering iron took on a ghostly hue. This has some remarkable applications for "night vision" or "seeing in the dark". A row of infrared LED's could produce enough 'infralight' energy to drive a remote control car in complete darkness. A spotlight with an infrared filter would make an ideal undetectable video security system. So if you own a CCD camera try it! You might be surprised by how much light energy lies outside the boundaries of visible light.
...By Dave KB2ARL

Editor note- Seems like this could be a good experiment to try. Remember however that the quality of the camera lens has a great deal to do with how much infrared is seen. Ordinary glass lenses don't pass very much infrared light. Industrial infrared cameras use quartz lenses but the cost runs up into thousands of dollars.

PIZZA PARTY NOTICE

Fred Yost has suggested that we get together sometime and have an eyeball with pizza (and beer). Everyone contacted said fine, so he arranged it. It will held at Domino's Pizza on Brice road at Livingston on Sunday April the 18TH 1993 from 2:00 to 4:00 PM. The place is a little hard to find if you haven't been there before so look for the building on the NE corner of the intersection in the back. We've reserved the room downstairs so there will be plenty of room without having to mix with the other customers. All are invited so come and have a good time. We will also try to bring everyone up to date on the repeater progress and any other informal business that we think of.
(I think Fred likes Anchovies on his Pizza...will he eat alone or are there others?)

ANTENNA PARTY PLANNED

Seems like a lot of notices, doesn't it? Well, I'm just trying to keep interest going and promote more members in ATCO. So here is something else to think about.

A few years ago we used to get together at Chuck Beener's place (WB8LGA) in mid summer to swap lies about who had the highest (and the lowest) gain antenna. It was a lot of fun to bring our home brew, modified commercial or unaltered antenna and test each one for true gain. The highest gain antenna and the lowest gain antenna usually earned a prize. Lets do this again!!!

Tentative plans are in the works for another antenna party at Chuck's in midsummer. Chuck lives far out in the country so we can set up a good antenna range where we put a test antenna on a pole, rotate the pole and plot the signal pattern on a recorder from a signal source on a similar pole about 1000 feet away. Plans are to have this party on a Sunday from about 1:00PM till 5:00PM and we'll try and make it potluck so there will be plenty to eat. There is plenty of time to finalize the date but we need to make everyone aware of it now. More next newsletter.

A NEW CONSTITUTION AND BYLAWS FOR ATCO

Because we are working on a repeater that will be placed on other owner's property, among other things, it has become time for us to incorporate as a non-profit organization. In order to do this, we must have a constitution and by laws formally registered. A proposed constitution and by laws are printed on the following page which I would like everyone to read, try to understand and comment on it pro or con. This is the first run attempt so many things may be missing or maybe too many things are included. You be the judge! In any case, please comment by writing to me, call on the phone (891-9273) or bring it up during our Tuesday night NET. We will then try to modify it accordingly in a timely manner. Remember that we may not necessarily follow each rule to the letter but we need rules drawn up so if a conflict should occur, we have a guideline to fall back upon. After all, this is supposed to be an informal group of Hams having a good time. We must not lose sight of that!!!

CONSTITUTION

PREAMBLE: We, the undersigned, wishing to secure for ourselves the pleasures and benefits of the association of persons commonly interested in Amateur Television, constitute ourselves the Amateur Television in Central Ohio Group (ATCO) and enact this Constitution as our governing law. It shall be our purpose to further the exchange of information and cooperation between members, to promote amateur television knowledge, fraternalism and individual operating excellence, and to so conduct programs and activities as to advance the general interest and welfare of Amateur Television in the Community.

MEMBERSHIP: **ARTICLE I**

Section 1. All persons interested in Amateur Television communications shall be eligible for membership. Membership shall be by application and election upon such terms as are prescribed in the By-Laws.

Section 2. At least seventy-five percent of the membership shall be comprised of licensed radio amateurs of Central Ohio and their families, resident contractors and assigned military personnel.

OFFICERS: **ARTICLE II**

Section 1. The officers of the Club shall be; President, Vice President, Secretary and Treasurer.

Section 2. The officers of the Club shall be elected for a term of one year by ballot of the members present, provided there by a quorum, at the last meeting of the calendar year.

Section 3. Vacancies occurring between elections must be filled by special elections at the first regular meeting following the withdrawal or resignation.

Section 4. Officers may be removed by a three-fourths membership vote.

DUTIES OF OFFICERS: **ARTICLE III**

Section 1. The President shall preside at all meetings of the Club, and shall conduct the same according to the rules adopted. He shall enforce due observance of this Constitution and By-Laws; decide all questions of order, sign all official documents that are adopted by the Club, and none other, and perform all other customary duties pertaining to the office of president.

Section 2. The Vice President shall assume all duties of the President in the absence of the latter.

Section 3. The Secretary shall keep a record of the proceedings of all meetings, keep a roll of members, submit applications for membership, carry on all correspondence, real communications at each meeting, and mail written meeting notices to each member. He shall, at the expiration of this term, turn over all Club property in his possession to his successor.

Section 4. The Treasurer shall receive and receipt for all monies paid to the Club; he shall keep accurate account of all monies received and expended. He shall pay no bills without proper authorization. At the end of each quarter, he shall submit an itemized statement of receipts and disbursements. He shall, at the expiration of his term, turn over all Club property in his possession to his successor.

EXECUTIVE BOARD: **ARTICLE IV**

Section 1. The business affairs of the Club shall be vested in an Executive Board comprised of the Officers and immediate past President of the Club and the Executive Board. Meetings of the Executive Board shall be at the call of and presided over by the President.

Section 2. The Executive Board shall, at its first meeting of the calendar year, develop the plans and programs for the year and a budget to support them. the plans and budget shall be submitted to the membership for its approval at the next regular meeting.

REPEATER TRUSTEE:

ARTICLE V

The President shall appoint a maximum of three Club Station Trustees who shall license the Club Station and/or repeaters, and be responsible for the maintenance of Station/Repeater equipment and records of Station operation.

MEETINGS:

ARTICLE VI

The By-Laws shall provide for regular and special meetings. At meetings, a minimum of twenty-five percent of the membership shall constitute a quorum for the transaction of business.

DUES:

ARTICLE VII

The Club, by majority vote of those present at any regular meeting, may levy upon the membership such dues or assessments as shall be deemed necessary for the business of the organization within the objectives set forth in the Preamble. Non-payment of such dues or assessments shall be cause for expulsion from the Club at the discretion of the membership.

RULES:

ARTICLE VIII

Robert's Rules of Order shall govern proceeding.

AMENDMENTS:

ARTICLE IX

This Constitution may be amended by a two-thirds vote of the members present at a regular meeting. Proposals for amendment shall be submitted in writing at a regular meeting and shall be voted on at the next regular meeting, provided all members have been notified in writing of the intent to amend the Constitution and have been provided with a copy of the proposed amendment at least one week prior to the meeting at which the vote will be taken.

ADOPTED BY A VOTE OF _____

AT THE REGULAR MEETING ON THIS _____ DAY OF _____, 1993.

_____

President

BY-LAWS

1. **SECRETARY.** It shall be the duty of the Secretary to keep the Constitution and By-Laws of the Club, and have same in his possession at every meeting. He shall cause all amendments, changes and additions to be voted thereon and shall permit the same to be consulted by members upon request.

2. **MEMBERSHIP.** Full membership shall be available to licensed Radio Amateurs. Associate membership shall be available to those having a sincere interest in Amateur Television. Full membership shall include all Club privileges including eligibility to hold office. Associate membership shall include all Club privileges except that Associate members shall not be eligible to hold office and shall not vote in elections for Club officers. Applications for membership shall be submitted at regular meetings.

3. **MEETINGS.** Regular meetings shall be held four times a year or more, approximately every three months at the location assigned by the Club. The location is to be published in the Club newsletter including the date, time and agenda. Special meetings may be called by the President upon written request of any three members. Notices shall be sent to the members concerning special meetings and the business to be transacted. Such notices shall be in the hands of the members no later than three days prior to the special meeting.

4. **DUES.** Regular annual dues of $10.00 per member is hereby assessed in accordance with Article VII of the Constitution for the purpose of providing funds for current expenses. Dues are payable on January 1 of each year, prorated at $1.00 per month for those members joining the Club subsequent to January.

5. **COMMITTEES.** The President shall appoint, from among the membership, such committees as are required to carry out the Club programs and activities approved by the membership. The President shall also appoint an audit committee at the first regular meeting of the year. The committee shall audit the Treasurer's records for the preceding year and inventory all Club property.

6. **REPEATER SITE KEYS.** Keys for the building at the Repeater Site will be made available to Full members who are appointed by the Club Trustees.

7. **AMENDMENTS.** These By-Laws may be amended by a two-thirds vote of the members present at a regular meeting.

ADOPTED BY A VOTE OF _____

AT THE REGULAR MEETING ON THIS_____ DAY OF _____, 1993.

_____
President

ATV REPEATER PROGRESS SUMMARY

Well, it's hard to clearly describe all of the possible directions that the repeater could take because of the variables that have not been defined at this point. Obviously, the single most important factor is **location.** However, even though a spot has been verbally promised us on top of the State Office Tower Building (this building is 42 stories high-an excellent spot) the usual flow of red tape must pass first. I recognize that other organizations want the spot also and they probably are willing to pay "big bucks" to get it! Our task is to convince the people in charge that a community service our system would provide could override the monetary benefits of someone else. For that reason it is very important that we be sincere in our efforts and demonstrate our ability to put our repeater where our mouth is. Additionally, the rebroadcast of weather radar is a powerful asset to the severe weather net so they support our effort. If we do secure this spot, we'll have to deal with the fact that there is so much RF floating around on the roof now that a simple diode detector there could potentially supply power to run the repeater. Mainly for that reason a split site repeater is planned. (the NOAA weather radio transmitter antenna @ 1500 watts and about 25 other antennas are located there)

A split site repeater simply means that the 439.25 MHz receiver/link transmitter is located at one site and the link receiver/421.25 MHz transmitter located at another site(on the State Office Tower Bldg.). If a link frequency is selected far enough away from the main repeater input/output, no interaction takes place. Also, the link frequency must be chosen to not interfere or be interfered with the other commercial frequencies at the transmitter site.

In light of the above conditions, let me summarize the repeater main criteria:

1. Main frequencies: Input=439.25 MHz Output = 421.25 MHz
2. Link frequency: 1255 MHz FM video & audio (primary) 1280 MHz (secondary)
3. Main freq. antenna: Horizontal polarized omni with 6DBD gain (we hope)
4. Link freq. antennas : Horizontal polarized yagi with 12 DBD gain (F9FT type)
5. Main freq. output power: 50 watts average
6. Expected coverage: 25 miles radius with P3 or better signals
7. Additional features: Weather radar live video from Port Columbus airport
   NASA Select Space Shuttle video when in orbit (future)
   Additional receive sites (future)

At this time, Ken (WA8RUT) and myself are trying to put together a workable system at minimum cost. While Ken was busy getting a beacon transmitter installed, I have been busy designing a fixed frequency receiver for 439.25 MHz. I now have it working and successfully coupled with a PC Electronics IF/detector strip to give us a receiver with about 1 microvolt input sensitivity and video/audio output. The combination outperforms my best preamp/varactor tuner/TV set arrangement. The receiver is my own design with a Gasfet RF amp, double balanced mixer, and Mosfet IF amp at 45.75 MHz. When complete, I'll share the design in a future issue. Next I'll look into designing an FM link transmitter for 1255 MHz with an output power of about 5 watts. At this time, I don't have a clue as to how to do this!! Anybody out there with design hints? Plessey makes a phase lock loop IC that works at 1255 MHz. I obtained 2 samples so I'll try to use these if I can.

In reality I expect work to slow down a bit during the warmer months because there are other duties to attend to. The Dayton hamfest is coming up later this month so I'll be on the lookout for parts and ideas. Our original goal was to have **something** on the air by mid June but at this point It's looking slim. A lot depends upon the formal acceptance of the repeater transmitter site. The next newsletter will most certainly contain more positive information.

The beacon transmitter mentioned above is operational at this time. Ken installed it on the roof where he works. It is a 50 watt 434.1 MHz transmitter feeding a omni mini wheel antenna located about 100 feet above average terrain in the OSU University area. It will power up for about 10 minutes when activated with a 4-3-9 touchtone sequence on 147.45 MHz. When activated, it will repeat 147.45 MHz audio on it's 4.5MHz subcarrier. It can be de-activated before timeout with a #-0 touchtone sequence. Nice work Ken, for keeping us interested in ATV while we work on the repeater. Later, if we desire, Ken said he could move the frequency down to 421.25 MHz to test anyone's 421 MHz receive ability.

That's all for now. Keep the interest up and solicit new members....the more the merrier. WA8RMC.

ATCO MEMBERS AS OF 01 APRIL 1993

AH2AR	David Pelaez	4872 Trailside Court	Huber Heights	Ohio	45424
KB2ARL	Dave DiGiuseppe	391-3A Directory Dr	Columbus	Ohio	43213
WB8BIY	Robert Shaw	82 Troy Court	Westerville	Ohio	43081
N8CYV	Blaire Standley	721 West North St	Springfield	Ohio	45504
WA3DTO	Rick White	5314 Grosbeak Glen	Orient	Ohio	43146
W8EHW	Foster Warren	124 East Clark St	North Hampton	Ohio	45349
WD8EMS	Lee Coyle	7495 Lithopolis Road	Groveport	Ohio	43125
WA8EOY	Jonh Schlaechter	3199 Lewis Rd	Columbus	Ohio	43207
KA8ERS	Rick Shepherd	3296 Karl Road	Columbus	Ohio	43224
NK8F	Rich Budd	734 Hager Court	Gahanna	Ohio	43230
N8FFO	Edward Hauff	2716 Columbus Ave	Columbus	Ohio	43209
KB9FO	Henry Ruh	1545 Lee St Suite 73	Des Plaines	Illinois	60018
KB8GZO	Jason Pelaez	4872 Trailside Court	Huber Heights	Ohio	45424
KA8GZQ	Warren Duemmel	3488 Darbyshire Dr	Hilliard	Ohio	43026
N0IKJ	Ruth Budd	734 Hager Court	Gahanna	Ohio	43230
K8JGY	Fred Yost	330 Dellfield Way	Gahanna	Ohio	43230
N8KCB	Chris Morris	3181 Gerbert Rd	Columbus	Ohio	43224
WA8KQQ	Dale Waymire	225 Riffle Ave	Greenville	Ohio	45331
WB8LGA	Chuck Beener	2548 State Route 61	Marengo	Ohio	43334
N8LRG	Phillip Humphries	1237 Summer Breeze Dr	Columbus	Ohio	43223
N8MCQ	John Unverzagt	159 Chapelfield Road	Gahanna	Ohio	43230
KB8MDE	Shaun Miller	3469 Oakcrest Rd	Columbus	Ohio	43232
N8OPB	Chris Huhn	146 South Hague Ave	Columbus	Ohio	43204
WB8OTH	Perry Yantis	1850 Lisle Ave	Obetz	Ohio	43207
KE8PN	James Easley	1507 Michigan Ave	Columbus	Ohio	43201
N8QLD	Rick Callebs	P.O. Box 266	Jackson	Ohio	45640
WA8RMC	Art Towslee	180 Fairdale Ave	Westerville	Ohio	43081
WA8RUT	Ken Morris	3181 Gerbert Rd	Columbus	Ohio	43224
W8RVH	Richard Goode	9391 Ballentine Rd	New Carlisle	Ohio	45334
N8TUU	Maxine Duemmel	3488 Darbyshire Dr	Hilliard	Ohio	43206
W8TV	Bob Dye	6118 Sedgwick Rd	Columbus	Ohio	43235
WB8URI	William Heiden	4435 Kaufman Rd	Plain City	Ohio	43064
KA8WGX	Martha Yost	330 Dellfield Way	Gahanna	Ohio	43230
KA8ZNY	Tom Taft	386 Cherry Street	Groveport	Ohio	43125

ATCO FINANCIAL STATEMENT

CASH BALANCE (as of 01/05/93).....	$426.46
RECEIPTS (dues).....	$240.00
EXPENDITURES (postage)..... .	$-13.05
BALANCE (as of 04/01/93).....	$653.41

TEST PATTERN DETAILS

In the last newsletter I inserted a test pattern on the next to last page. If you had looked very close, you'd have noticed that it wasn't finished and had a few errors!! It was a last minute decision to add it - forgive me. This time I finished it and included a brief description of the purpose of some of the components. If anyone would like a custom version of the pattern, or a more detailed copy, let me know (it looses resolution by the time the newsletter second generation copy is made).. It is drawn in a Wordperfect program called Drawperfect and is exportable in a variety of formats so if anyone wants to modify it themselves, I can supply a disk.

GENERAL
This resolution chart is designed to provide a standard reference for measuring the resolution of vidicon television cameras, television monitors and as an aid in determining streaking, interlace, scanning linearity, ringing, aspect ratio and gray scale reproduction of video circuits. It is arranged to allow resolution measurements up to about 1000 lines (if anyone has a camera that can read the 1000 line point, I'd like to know about it!!!) Note that most modern TV cameras with CCD pickup sensors do not possess linearity problems so non linearity observations are restricted to the monitor.

HORIZONTAL AND VERTICAL RESOLUTION
The center horizontal and vertical wedges are composed of four black lines separated by three equal widths of white lines. The numbers printed next to the wedges correspond to the total numbers of lines, black and white, of the indicated thickness which may be placed adjacent to one another in the height of the chart. You may read the resolution when scanning has been adjusted to an aspect ratio of 4 to 3 directly from the test pattern.

GRAY SCALE
The four ten-step gray scales cover a contrast range of approximately 30 to 1. These steps are arranged in logarithmically decreasing values of reflectance such that the difference in reflection density between adjacent steps is approximately 0.16. The gray scale reproduction achieved will depend on the amount of gamma correction employed, and the adjustment of the picture monitor.

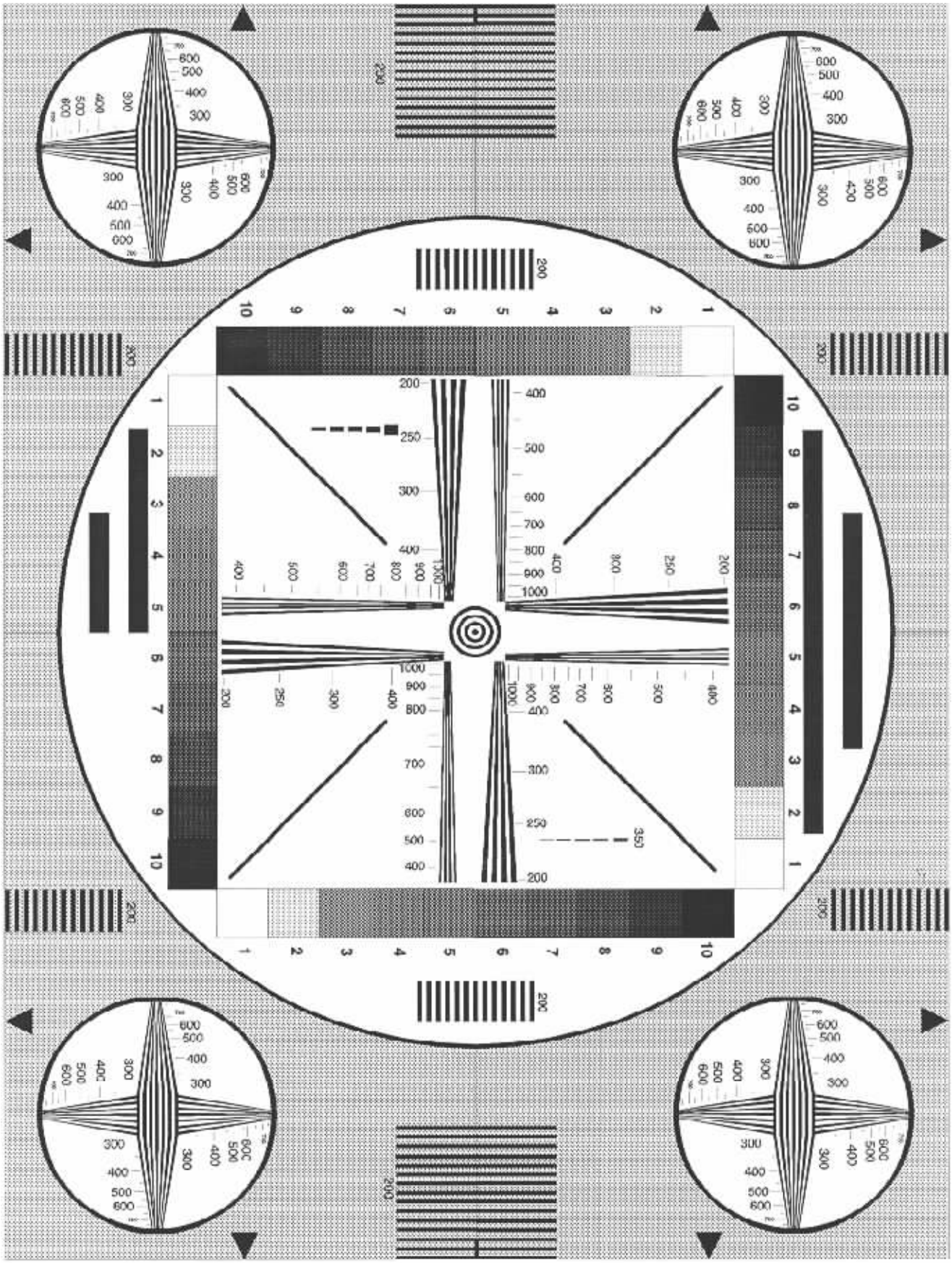
SHADING
Shading may be checked by visual inspection of the picture monitor to determine if the background is an even gray (and the same number of gray steps are discernible on all four gray scales.) A waveform monitor may also be used to determine if the average picture signal axis is parallel to the black level line in both line and field frequencies.

STREAKING
The horizontal black bars at the top and bottom of the large circle are a useful device to indicate low frequency phase shift or poor DC restoration. The bars are also useful for adjusting the high peaking circuits generally used to compensate for high frequency roll-off of the coupling network between the camera tube and the first video amplifier.

INTERLACE
The four diagonal black lines inside the square formed by the gray scales may be used to check for interlace. If these lines appear to be jagged partial paring is occurring of the interlaced lines. this is not a positive test when even and odd fields exactly overlap but the vertical resolution will be reduced to an extend that it will be immediately evident.

RINGING
The two portions of single line widths located in the upper right and lower left portions of the circle are used to check for ringing in the video amplifier circuitry. Since ringing may occur at a multiple of the vertical wedge spacing, these single lines have been included for this purpose.

OTHER CHECKING FEATURES OF THIS TEST PATTERN
Notice that the corner circles allow for resolution checking to 700 lines in the corners. Linearity may be checked in both the horizontal and vertical directions by noting the 200-line pairs of bars on the right and left hand side of the pattern together with the 200-line portion of the wedge, and the vertical 200-line bars at the top and bottom of the test pattern together with the 200-line portion of the horizontal wedge. If the spacing appears to be different in any section of these 200-line bars, linearity is not what it should be. Another feature of this pattern is that the edges of the test pattern are indicated by black arrows and are more easily seen than white arrows in most cases.



DAYTON BALLOON LAUNCH UPDATE

I have learned that there will be a balloon launch with an ATV beacon aboard. The ATV'ers in Dayton are organizing it and plan to launch it on Sunday April 10, 1993 at 7:00AM EDT. It will be launched in Franklin Indiana and is expected to drift west or northwest. On board will be a 52.525 MHz beacon with a vertically polarized antenna, a GPS transponder with FM modulated at 1200 baud data on 446.000 MHz and an ATV transmitter operating on 440.265 MHz. The ATV transmitter has a black and white camera with a color ID generator on board. the ATV antenna is a cone type vertically polarized. The peak ATV rf output is about 6 watts driven by a Wyman Research transmitter. Look for their signal on Sunday and let me know if you saw the signal. I expect communications about the lanch to be done on 147.45 or 144.34 MHz from Dayton.

There is supposed to be another balloon launch from Ashland Kentucky on April 18, 1993 at 9:00 EDT (April 18 rain date) with a 144.34 MHz beacon and an unknown 10 meter becon but no ATV planned.

RECEIVING HAM TV ON YOUR VCR

Here is how to receive ATV in the 70 cm band with many of the newer VCR'S without any modifications to the VCR. The basic procedure is to set the VCR for CATV and if there is a switch for "IRC-STD-HRC" set it to "STD" for standard cable. Then set the channel selector for channel 57, 58, 59, or 60. These numbers represent the cable channels and NOT UHF CHANNELS.

Next, install a UHF antenna on your roof, point it to an ATV repeater and hook it up to the cable input to your VCR. (Insome cases use the UHF input). On some VCR's, the ATV repeater has to be on the air for the VCR to auto-tune the channel. For example, some RCA tv's will auto tune and program in any active channels, but will skip the ATV channels unless you get a strong enough signal when the ATV is on the air. In some cases, a small preamp at the antenna will help. They are less than $20 if you do not intend to transmit using the same antenna. High quality coax such as Belden 9913 is recommended if you use a run of more than 50 feet to the antenna.

Channel 57 tunes 420-426 MHz, 58 tunes 426-432 MHz, 59 tunes 432-438 MHz(but not always used on ATV) and 60 tunes 438-444 MHz. Where the ATV is on 434 MHz you might try to change the IRC-STD-HRC setting to get the best picture on channel 58 or 59. If you have an older cable-ready VCR, the highest channel you can tune is cable channel 36, so ATV will not be possible by this method.

If you are looking for a new VCR, find out what the highest cable channel it is capable of receiving. Experiments with a newer JVC machine produced reception quality almost as good as using an ATV downconverter.

Reprinted from the WESTLINK REPORT # 6-45 by Fred Lehmann, WA0PBL.

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

29c
postage
here

FIRST CLASS MAIL

IF YOUR ATCO MEMBERSHIP HAS NOT BEEN RENEWED,
THIS IS YOUR LAST ISSUE. CHECK THE MEMBERSHIP LIST.
IF YOUR NAME ISN'T ON IT, PLEASE SEND $10.00 TO REACTIVATE.
