

# ATCO NEWSLETTER

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VOLUME 8 NUMBER 2

APRIL 1991

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## EDITORIAL

We did manage to publish an ATCO Newsletter this time, just barely made it though. We were lucky that three members did send in information to print. ATCO has over forty members, and it does seem reasonable to believe that we should get material from more than 7.5% of active hams. Contributions for the January 1991 issue did not fare much better.

This is your publication. If it is to continue, we must have articles from you. We know you enjoy getting the ATCO Newsletter four times each year, and your editor does enjoy preparing it. We think you want to share your opinions and experiences in amateur television.

The situation is critical. We appreciate the few members who have regularly contributed to our newsletter. We hope they continue their interest. We need first time contributors, too. Continuation of our ATCO Newsletter is now up to you. So won't you help by sending an article or two for future issues? We'll be keeping an eye on the mailbox.

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The ATCO Newsletter is the official publication of a group of television amateurs known as "AMATEUR TELEVISION IN CENTRAL OHIO" and is published in January, April, July, and October.

Membership in ATCO is open to any FCC licensed radio amateur who has an interest in amateur television.

Any publication of material printed in the ATCO Newsletter without the written consent of ATCO is prohibited.

## 1991 MARYSVILLE HAMFEST AND COMPUTER SHOW

Plans are being completed for this event which is to be held at the Union County Fairgrounds in Marysville on Sunday 25 August.

According to ATCO member Gene, WBBJN, the world famous HAMCAM VAN will be on display in the Merchants Building. There will be ATV forums, demonstrations, meetings, displays of radio controlled aircraft, and much more this year. Several commercial vendors have reserved space for the show. The Mid Ohio Radio Control Society will present a flying demonstration.

For more information, contact Gene at 614-261-8871 (daytime) or write to him at 13613 US 36, Marysville, Ohio 43040.

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### PHOTO CREDIT

Pictures of the ATCO 1990 Fall Event displayed on page 5 of the January 1991 ATCO Newsletter were taken by Bill, WBBURI. Thanks to Bill for making the photos available for printing in the newsletter.

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### VARICAP TUNING

This design is a circuit that will replace an expensive ten turn pot or the insensitive one turn pot. The circuit uses two pots, one 1k and one 10k. The 1k pot is wired with its arm and its clockwise end to ground or B-. Wire the CCW end to the CCW end of the 10k pot. Wire the CW end of the 10k pot to B+ and the arm to the varicap. The 1k pot is the fine tune pot, and the 10k pot is the coarse tune pot. If the 10k pot is set to the CCW position, the 1k pot will tune the ATV band with greater selectivity. (Submitted by John, WABEOY.)

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### EDITOR'S NOTE

Technical articles appearing in this issue of the ATCO Newsletter have not been edited for technical content. Readers having questions or comments concerning such articles should contact the authors. Please do not contact the ATCO Newsletter Editor.

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### CORRECTION

Please refer to the ATCO Financial Statement appearing on page 8 of the January 1991 ATCO Newsletter. Total receipts should read \$110.00.

## HAVE YOU HEARD?

(The following items of interest to ATVers were compiled from reports submitted by Dave, KB2ARL.)

ICE STORM HITS CENTRAL OHIO - During a recent ice storm several ATCO members sustained some kind of antenna damage. Everything was covered with layers of ice, and power flickered throughout the city. A few of the suburbs were without commercial power for a period of time. Some ATVers, including Tom, KABZNY, were forced to use emergency power.

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ATV TRANSMITTER KEYS LOCAL NARROW-BAND FM REPEATER IN-BAND LINK - ATV operators in the Columbus area have been noticing a local repeater being keyed up while transmitting on 439.25 MHz. Bill, W8BURI, provided a fast-scan signal for test purposes, and it was found to be caused by a narrow-band FM repeater link on 440.300 MHz, a frequency which is well within the ATV operating band.

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MANSFIELD HAMFEST A SUCCESS - The 1991 Mansfield Hamfest has been reported to be another winner. There was more of everything, and bargains were to be found everywhere.

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MINI FOX HUNT TRACKS DOWN INTERFERING CABLE BOX - A fox of unknown location was found to be blanking the screen near 434 MHz of one of our ATCO members. After a 15 minute coordinated search, the source was found to be a cable box transmitting on that frequency about a quarter of a mile away. Bill, W8DMR, demonstrated this as he pulled the plug on the device causing the interfering signal to disappear.

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KBJGY ERECTS NEW ATV ANTENNA - Fred reports putting up a new Rutland Array to replace his old antenna after a phone call was made to the manufacturer regarding some design measurements. He is now transmitting excellent signals and can be seen just about everywhere in the Columbus area with a P-5 signal.

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DAYTON HAMVENTION 26-28 APRIL - The HamVention starts on Friday and continues all day Saturday and Sunday at the HARA Arena and Exhibition Center. Admission is \$13 at the door.

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## NEW ATCO MEMBER

We welcome Martha, KABWGX.

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### HELP!

By John, WABEOD

While touring a flea market, I found an old communications receiver that was in fair shape, and I thought I would like to try my hand at its restoration. The project went quite well, and now the receiver works better than I had expected.

I would like to know the approximate year in which this set was manufactured. With the following information, maybe someone can tell me. The receiver is a "MEISSNER." The tubes are octal medium sized; also, there are some metal tubes. It receives the broadcast band and short-wave from 1.9 to 5.8 MHz. The dial has groups of frequencies which may have been ham frequencies. It also has a logging scale.

The following is a list of the groups of frequencies on the tuning scale:

- a. 19 meters - 14.6 to 15.5 MHz
- b. 25 meters - 10.6 to 12.3 MHz
- c. 31 meters - 9.0 to 10.0 MHz
- d. 38 meters - 7.3 to 8.4 MHz
- e. 49 meters - 5.8 to 6.3 MHz

The cabinet is steel and is 9.5" high, 14.5" wide, and 11.0" deep.

If you have any information on this receiver, please call me on the ATCO Tuesday Night Net or phone collect at 614-491-4470.

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### OUR CONTRIBUTORS

Thanks to the following for their contributions to this issue of the ATCO Newsletter:

Dave, KB2ARL; Gene, WBBJN; and John, WABEOD.

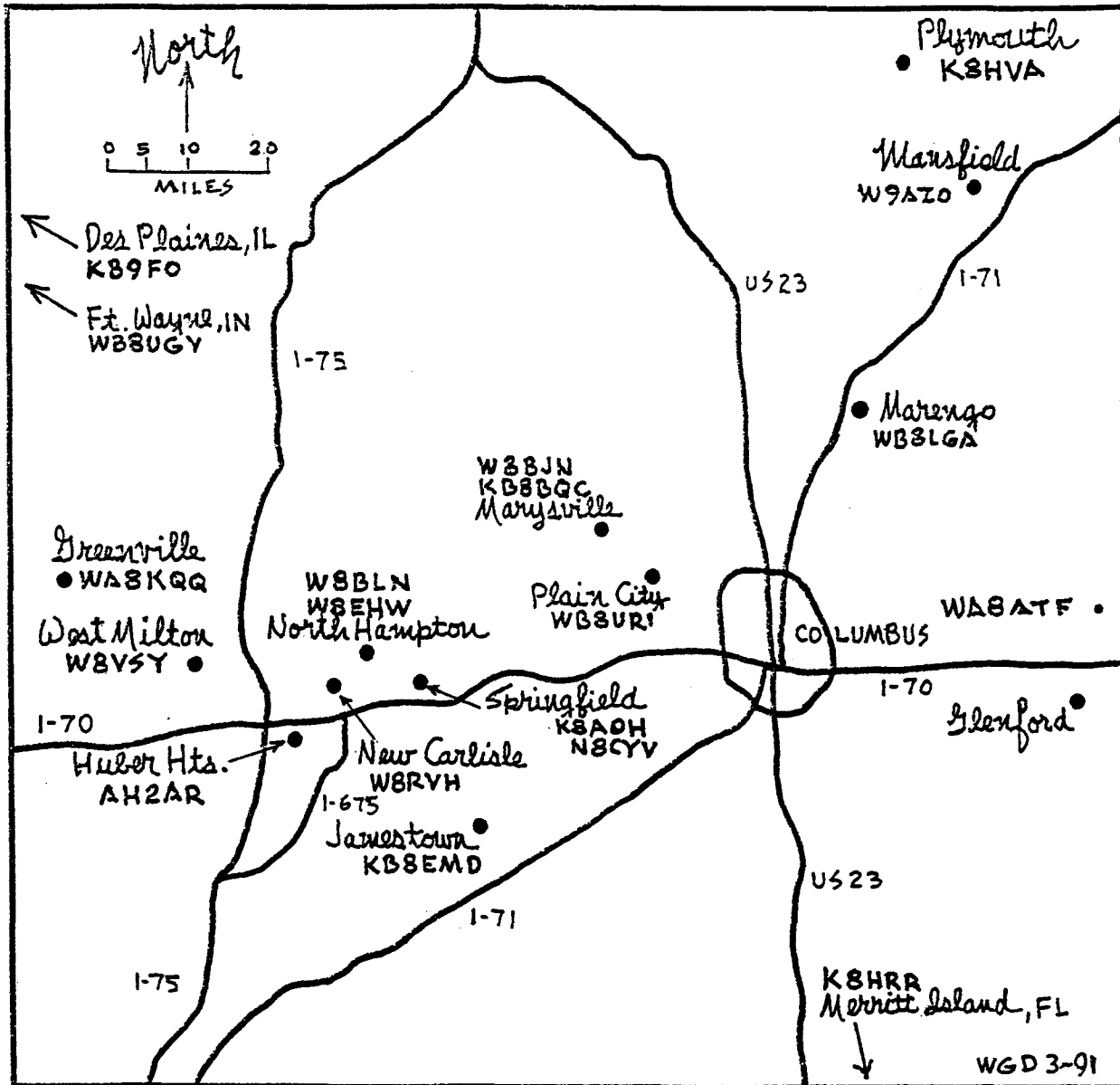
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### ATCO TUESDAY NIGHT NET

Tune in, check in, and listen to our regularly scheduled weekly net. It's a good way to keep in touch with other ATCO members and to keep up-to-date with what's going on. The net meets at 9:00 p.m. every Tuesday.

# ATCO ATV STATION MAP

STATIONS LOCATED OUTSIDE OF THE COLUMBUS AREA



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## ABOUT THE STATION MAPS

The above station map and the one on page 7 of this issue of the ATCO Newsletter have been prepared to assist you in locating stations in the ATCO viewing area. Locations of stations in the Columbus area are considered to be reasonably accurate but not precise. Post office locations were utilized for stations outside of the Columbus area.

## ATCO MEMBERS AS OF 31 MAR 1991

KBAEH	Wilbur Wollerman...	1672	Rosehill Rd.....	Reynoldsburg	43068
WBAER	David Sears.....	1678	Kaiser Dr.....	Reynoldsburg	43068
KBAOH	Charles Tucker.....	1316	Kenwood Ave.....	Springfield	45505
AH2AR	David Pelaez.....	4872	Trailside Court.....	Huber Heights	45424
KB2ARL	Dave DiGiuseppe.....	5685	B Hibernia Dr.....	Columbus	43232
WABATF	Emmett McDonald.....	14120	Flintridge Rd. SE...	Glenford	43739
W9AZO	Jim Walter.....	2662	St.Rt. 39 NW RD#3...	Mansfield	44903
KB8BIY	Bob Shaw.....	59	Parkview Ave.....	Westerville	43081
W8BJN	Gene Kirby.....	13613	U.S. 36.....	Marysville	43040
W8BLN	Bob Pfeiffer.....	135	S. Main P.O.Box 224.	North Hampton	45349
KB8BQC	Phil Boerger.....	15044	Scottslawn Rd.....	Marysville	43040
W8CCW	John Ferrell.....	3722	Wagner Court.....	Grove City	43123
W88CJW	Dale Elshoff.....	8904	Winoak Pl.....	Powell	43065
N8CYV	Blaire Standley.....	721	West North St.....	Springfield	45504
WA3DIO	Rick White.....	5314	Grosbeak Glen.....	Orient	43146
W8EHW	Foster Warren.....	124	East Clark St.....	North Hampton	45349
W8EODY	John Schlaechter...	3199	Lewis Rd.....	Columbus	43207
KB8ESR	Tommy Camm.....	1267	Arkwood Ave.....	Columbus	43227
N8FFO	Edward Hauff.....	2716	Columbus Ave.....	Columbus	43209
KB9FO	Henry Ruh.....	1545	Lee Street Suite 73.	Des Plaines,IL	60018
KB8GZO	Jason Pelaez.....	4872	Trailside Court.....	Huber Heights	45424
KABGZO	Warren Duemmel.....	3488	Darbyshire Dr.....	Hilliard	43026
K8HRR	Ira Bickham.....	260	Tiki Dr.....	Merritt Is.,FL	32953
K8HVA	Guy Cunningham, Jr...	31	Birchfield St.....	Plymouth	44865
KBISM	Steve Iacono.....	1075	Virginia Ave.....	Columbus	43212
K8JGY	Fred Yost.....	330	Dellfield Way.....	Gahanna	43230
N8KCB	Chris Morris.....	3181	Gerbert Rd.....	Columbus	43224
W8KQQ	Dale Waymire.....	225	Riffle Ave.....	Greenville	45331
W8BOBT	Tom Camm.....	1267	Arkwood Ave.....	Columbus	43227
W88OTH	Perry Yantis.....	1850	Lisle Ave.....	Obetz	43207
W8BP	Bob Mills.....	6834	Halligan Ave. East..	Worthington	43085
KE8PN	James Easley.....	1507	Michigan Ave.....	Columbus	43201
W8RMC	Arthur Towslee.....	180	Fairdale Ave.....	Westerville	43081
W8RUT	Ken Morris.....	3181	Gerbert Rd.....	Columbus	43224
W8RVH	Richard Goode.....	9391	Ballentine Rd.....	New Carlisle	45344
W8TTE	Phil Morrison.....	154	Llewellyn Ave.....	Westerville	43081
W8TV	Bob Dye.....	6118	Sedgwick Rd.....	Columbus	43235
W8UGV	Bruce Jaquish.....	4817	W. Arlington Park...	Fort Wayne,IN	46835
W8BURI	William Heiden.....	4435	Kaufman Rd.....	Plain City	43064
W8VSY	Jack Schmermund.....	401	North Main St.....	West Milton	45383
K8WEX	Philip Hardman.....	940	Oakwood Ave.....	Columbus	43206
K8WGX	Martha Yost.....	330	Dellfield Way.....	Gahanna	43230
K8ZPF	Johnny Camm.....	1267	Arkwood Ave.....	Columbus	43227

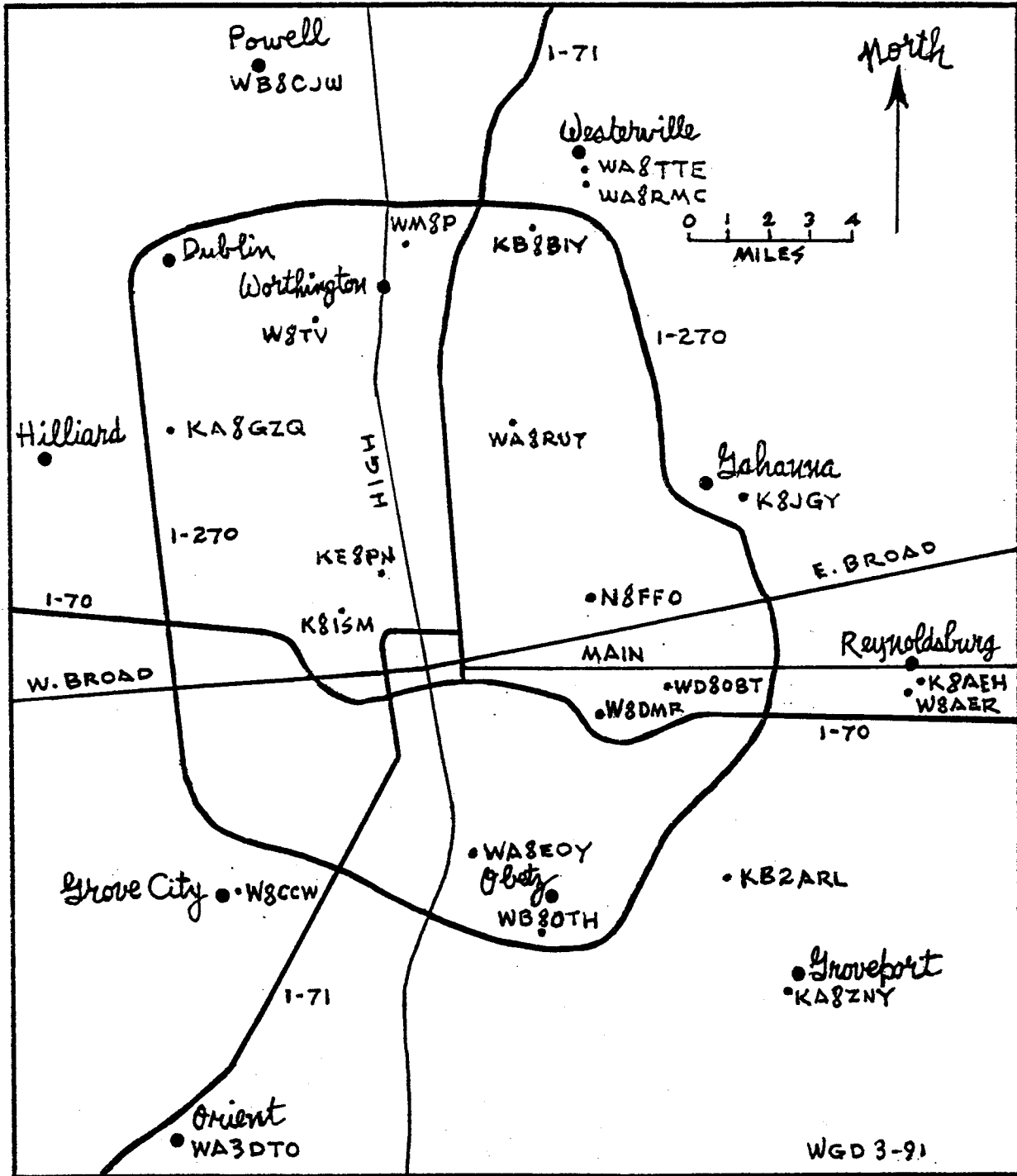
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### ATCO FINANCIAL STATEMENT

CASH BALANCE:	
As of 31 December 1990.....	\$381.15
RECEIPTS:	
Dues.....	\$280.00
Total receipts.....	\$280.00
EXPENDITURES:	
Printing charges for January 1991 ATCO Newsletter....	\$ 35.53
Postage for January 1991 ATCO Newsletter.....	10.75
Misc. costs incidental to publication of newsletter..	26.89
Total expenditures.....	\$ 73.17
SUMMARY:	
Cash Balance as of 31 December 1990.....	\$381.15
Receipts.....	280.00
Expenditures.....	- 73.17
Balance as of 31 March 1990.....	\$587.98

The above financial report was prepared as of 31 March 1991 by Warren G. Duemmel, KABGZO, ATCO Acting Treasurer.

ATCO ATV STATION MAP  
COLUMBUS AREA STATIONS



FIRST CLASS MAIL

ATCO NEWSLETTER  
c/o Warren G. Duemmel  
3488 Darbyshire Drive  
Hilliard, Ohio 43026

### 23 cm FM ATV COORDINATION from Tom O'Hara W6ORG

*When the 23 cm ARRL band plan was formulated in the early 80's, FM ATV was being experimented with by just a handful. It was determined that even though the occupied bandwidth would exceed the 10 MHz wideband experimental slot centered at 1265 by a little for FM ATV simplex (it would stay inside if 4.5 MHz sound subcarrier is used), there was not enough FM ATV activity at that time to warrant presenting two differing bandplans to allow for both ATV AM or FM repeaters.*

In all but the most populated areas of the county, the possibility of interference from non-coordinated FM ATV on the 23 cm band will not occur for many years. But now is the time to consider and discuss local standards to minimize future hassles.

If we use the modulation standards listed in Table 1, page 20-12 in the ARRL Handbook, the occupied bandwidth will be a little over 12 MHz (12.8 MHz if 6 MHz sound at 4 MHz deviation, 5.5 MHz sound subcarrier would put you just under 12 MHz). One FM ATV channel will replace two AM ATV channels. There is no room for a combined 12 MHz slot above 1270 given existing FM voice repeaters, but the two AM ATV channels below 1260 do make it possible if there are no existing links or digital systems in place, or so few that they are willing to move.

The question then becomes what are the practical frequencies to move the FM voice link and digital channels to. The links and digital systems use back to back synthesized mobile transceivers also, so there is no practical equipment degree of difficulty for a specific offset or frequency. There is one difficulty for a FM ATV repeater input, however, if the link transmitter is located at the same site it can capture the ATV receiver, and vice versa.

I suggest centering the FM ATV carrier at 1252 MHz. The links would then occupy 1240-1242 pairing with 1258-1260. Which would be the link input or output at a location would depend on whether the ATV system at 1252 was an input or output. The adjacent 1240-1242 would be the same in this case as the ATV system. Digital systems at 1242-1246 would also follow this input or output logic paired with 1297-1300. By keeping all receivers at a site regardless of mode close in frequency to each other, it allows the filters in the antenna lines to have the most rejection to the transmitters.

The frequency could just as easily be 1248 with the digital segment above the ATV segment, but 1252 is just closest to the British 1255 MHz frequency that many use now. Also the link segment at 1258-1260 is unchanged.

Each area will have to get together with their local Frequency Coordinator when the first 23 cm ATV repeater is about to be built to determine whether to stay with the ARRL band plan in this segment for 2 AM systems, or modify it for an FM system. Your feedback is requested.

Tom O'Hara, W6ORG  
ARRL Technical Advisor for  
ATV and Spectrum Management

.....Thanks to ATVQ Magazine