

DEVOTED SOLELY TO

AMATEUR RADIO



THE
NEWS

IN THIS ISSUE: "BRAIN-TEASERS"

EDITED AND PUBLISHED BY: BILL MCNATT, W9NFK, FRANKLIN PARK, ILLINOIS

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- *AURORA DX ON TWO CONTINUES. W3RUE WORKED W9ZHB, ZEARING, ILLINOIS, 500 MILES!
 * "420 MCS. OPERATION AT W2HAV" DESCRIBES RECEIVERS AND 37-MILE CONTACTS.
 * "THE FIRST TWO-METER MILEAGE CONTEST" STARTS ON APRIL 23, OPEN TO ALL.
 * TULSA, OKLAHOMA, GETS ON SIX-METER MAP. SEE W5DFU REPORT ON PAGE 14.
 * "THE U H F WORLD", BY W9PK, PRESENTS DISCUSSION OF 420 AND 220 MCS. GEAR.

TWO METERS, LAST MONTH . . .

W3RUE and W9ZHB seem to have copped the best DX on Two Meters during March with their contact on March 22 marking the 500-mile point. Ted, W3RUE, reports that he worked W9UCH on the 21st, heard W9JMS, Cory, and on March 22 his best contact was with Ed, ZHB. Ted says he heard a great number of verticals with his vertical-horizontal "right-angle" beam, but guessed that the boys on the east coast have not yet "wised-up" about Aurora DX on 2. Also, W3RUE says that he found out that cross-polarization does not work so good on Aurora-reflected signals. He heard W9UCH RST 557 on horizontal but couldn't hear a peep out of him on vertical. Then, he was right in there, again, when Ted went back to horizontal. He heard quite a number of fone signals on vertical, one an S7, but unreadable due to Aurora flutter; upon switching to horizontal, the signal dropped to S1 at W3RUE. So, fellows, as so many two-meter DX sharpshooters have pointed out, again and again: use c.w. (not m.c.w) when Aurora DX is on!

This is the month of "The First Two-Meter Mileage Contest on Two Meters" sponsored by The VHF Institute of New York. So, get your gear in shape for a busy weekend, April 23 - 24th. The contest is open to Two-Meter amateurs in every state and country, so let's show the New York boys some nice mileage scores. The horizontal gang can really pile up the miles on their long-haul contacts to offset the more frequent but short-haul

contacts on vertical in the urban areas. Send your report of contacts and total mileage accrued to Mr. Louis Perlumutter, Secretary, The VHF Institute of New York, 68-03 Beach Channel Drive, Arverne, New York.

The Two Meters and Down Club of Los Angeles is going strong. On April 6, the meeting was given a demonstration of microwave equipment and operation by the Bell System. Ed Luckey, W6MJ, has been acting as secretary in the absence of Warren Seeley, W6ZUX, who got snarled up in a night work-schedule. ZUX reports that W6KKG is the king-pin of power on Two in southern California with his kilowatt! W6 WWP, Bob Lopez, will soon resume his reports to "The VHF News". Thanks!

The Midwest VHF Club announces its Second Annual VHF Picnic will be held on July 31st. The affair was such a success, last year, with only very little publicity, that the midwest v.h.f. boys look forward to a fine v.h.f. convention, this year. You are invited to write to Mel Mendelsohn, W9OBW, now, for tickets. The Midwest VHF Club is requesting the call, W9 FCN, for its new station, in memory of Elmer Sweeney, v.h.f. pioneer, who passed away on November 10, 1947. The gang is working very enthusiastically on the station gear and hopes to have it ready for dedication, soon. Mrs. Sweeney and close amateur radio friends of Elmer will be invited.

Carl Stanfield, W9JPK, is taking a much-deserved rest from his reportorial duties. For the first time since

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SIX METERS IN MARCH

By: Don McCaskell, W9NJT

From the 50 Mc. gang to W9PK, Jack Woodruff: Many thanks for a splendid job in reporting Six Meter activities. It's going to be a hard job for us to fill Jack's shoes, gang, and we're depending on cooperation from all of you.

In order to maintain the column on the successful level it has had in the past, tell us: How many states and countries do you have on Six? What openings were you in on? We all like to read about the openings; the other fellows like to know what results you have been getting on the band! How about it?

Judging from information received here, it is possible, at this writing (March 29), that W9QUV, Ivan, now has the Third WAS on 50 Mc. We have not, as yet, been able to verify this, but will inform you as soon as we get an answer from Moline!

Openings observed during March were as follows: March 13, 18, 19, 20 and 21.

On March 13th, (Aurora) W9PK worked W9ALU W0KPK, W9MEL and W9NJT. Jack also heard W9IZQ, W8NQG, W2RLV and W9VZP. W9MEL reports hearing W9VZP and W8AVG.

On March 18th, W9PK worked W4UIJ for the only opening reported for this date.

March 19th brought an opening from W5 to W9 and W5 to W4. Leroy, W5AJG, reported working W4EID with strong signal reports from both ends, but Miles' was the only signal on from W4-land! W9PK worked W5JLY and W5FSC of the familiar Lone Star State. W9VZP worked W5ONS and W5UW, and reports that he heard W5FSC and W5JLY.

March 20th produced a slam-bang opening, with work being done from the southern part of the U.S. to South America and Mexico. We have no reports of any work in Latin America, as yet. HC20C and HC20T put Ecuador on the map, and a number of W4 and W5 stations are reported to have made the grade into XE1GE and XE2C! At the same time, W4 and W5 were greeting old friends in W9-land, to the enjoyment of all. The band opened early in the

morning and remained open until the late hours, around midnight, here in W9. W9PK worked W5IOP, W5SM, W5NKM, W5GNG, W4LNB, W4NEW, W4FEB and W5JTI. Jack reports hearing too many others to list. W5AJG reports working W8LHV, W4RKB, W9ZBK, W8NQG, W8UZ, W8WSE, W9AB, W9ZHL, W9FDD, W9IZQ, W9QUV and W0DZM. W9VZP worked W5LFP, W5HTZ, W4LNG, and picked up state #39! An interesting sidelight for you fellows: Tim, W5JTI - receiving HC20T, who had a beautiful signal - called the local gang in Jackson, Miss., and rebroadcast Steve's signal from Ecuador to them via landline! Even that didn't get them on the band! Tim, you have the sympathies of all of us! Well, at least you didn't have local QRM!

March 21st gave another Aurora opening, with W9VZP reporting that W8LHV, W0BJV, W9IZQ and W9ALU were worked during the period 1915 to 2205, CST. Boles also heard W9ZHL, W0HAQ, W0QIN, W0INI, W0NFM, W0KRZ, W0YSZ and VE3-ANY!

W9MEL reports in with 31 states and 2 countries on Six. 1949 should build that total up, Ken! It appears that many new signals are on the band with two legal residents of South Carolina representing that state. Watch the WAS list from now on! We expect to publish another "States Worked" table, soon; please send your up-to-date score to us, now, so we'll be up to date. Thanks!

W5AJG, Leroy, will appreciate any information regarding the remedying of frequency "jumping" in the VHF-152A when used on Two Meters. He has the RME cure, but it seems to last only a month. Can any of you fellows help him? Pass the dope along to Leroy, as he is anxious to set a new record on Two!

Out in Tulsa, Oklahoma, W5DFU and his gang have been having a time on Six; they caught the openings of March 19th and 20th; now, they're out in full force. See W5DFU's report!

Remember, fellows, your reports should be sent to: Don McCaskell, W9NJT, 516 Pearl Street, Watertown, Wisconsin. Reports should be mailed so as to reach me by the 25th of the month, at the latest. Thank you!

W8WRN REPORTS FROM COLUMBUS, OHIO.

Activity around Columbus is very much on the increase on "2". We have the Franklin County Two Meter Emergency Net going full force with official meeting nights on Monday and Saturday at 8 PM. However, you can always find some of the gang going 'round and 'round any night on one of the channels, or on their individual frequencies. Channels set aside for emergency work are: #1, 144.138; #2, 146.34; #3, 146.8, and #4, 147.78 Mc. #2 is used mostly by all for general operation, at present. All calling-in is done on this channel. The following stations are now fairly active:

tower and beam for 2. Hope to be able to raise our states-worked score another notch or two, soon! We keep the following schedules: W9UCH, nightly, except Mondays, 10:20PM; W8WSE, nightly, except Mondays, 9:45PM and at 11:30AM, Sundays. Night schedules haven't held up too good, but the Sunday schedule is very good, most of the time.

March 1: W8WO, VMY heard on about 144.9 Mcs., around 10 PM; not too loud. March 13: Aurora skip - W8SR AFU CYE the only fones that could be copied. Band full of signals from 10 to 10:45 PM. Heard a W1 on 144.6 at 10:02PM. Heard W8CYE QSO W8UKS, but could not copy W8UKS' phone; however, his sig-

CALL	STATION EQUIPMENT	ACTIVITY	
W8BAX	4-element, hor. 829B	6J6 preamp, 522	On about nightly
W8LQK	5-element, hor. 522	522 with preamp	2 or 3 nights a week
W8CPA	6-element, hor. 522	VHF-152A (6J6 coming)	Nightly
W8IVC	6-element, hor. 522	522	3 times weekly
W8WXM	Dipole, vertical 522	Xtal receiver on #2	2 or 3 times weekly
W8ABO	Dipole, vertical 522	522	Several times weekly
W8U2	6-element, hor. 829B	VHF-152, 6J6 pre-amp.	Twice weekly, Sun. A.M.
W8ZCD	Dipole, vertical 522	522 (6J6 coming)	Several times weekly
W8WXY/8	5-element, hor. 522	VHF-152A	Nightly
(QTH: Delaware, about 20 miles north of Columbus)			
W8HAM	About ready with a 522; a few more are getting ready in town with 3 or 4 down at Chillicothe, Ohio, about 50 miles north.		
W8WRN	16-element, hor. 24Gs	6J6 6AK5 955 and 6J4, 6AK5 6AK5 955	Nightly

W8CPA and W8WXM have radio teletypes about ready to go. W8CPA and W8IVC worked W8CYE, March 17, for their 1st DX contact, and the bug really bit W8CPA. He now plans an 8-element beam and an 829B outboard final. On March 23, W9UCH gave him an S5 report, but W8CPA couldn't copy W9UCH, due to QRN. For DX, CPA uses 145.9 Mc.

W8WXY/8, who is going to school in Delaware but who hails from Cleveland operates on channel #2 and, for DX, uses a frequency of 144.65. His signal is like that of a local. WXY is Pete Wolfe, a friend of W8WJC and UKS. He is thinking of building a 2-stage preamp using 6J4s. When Pete gets home for the summer, he will operate from Bay Village (Cleveland). We will miss him, down here, but feel that we will be able to work him.

W8WRN has been very busy building new converters for 2 and 6, and a new

nal was strong.

March 19: W4JDN was S7, all evening, but no QSO. His frequency, 145.7; his QTH is Erlanger, Ky., about 20 miles south of Cincinnati. He uses 2 5-element beams, stacked.

March 20: At 11AM, heard W8WSE, S3-4, in QSO with W8RWW, Detroit; but W8WRN had a very uneventful QSO with Mike, WSE, on our schedule. He was S7 on the call, but we lost him, afterward; how come UKS was peaking S4 at 12:15PM while working W8RWW?

March 22: More Aurora. WRN busy with locals and skeds, so missed most of this opening. Heard W3RUE S8-9 at 11 PM calling CQ DX. Heard W9ZHB calling W3RUE, S8. Because it was very hard to copy the c.w. signals, am not sure of the following: W9ZJL, ZHK and VE3 ON; couldn't copy any phone signals. Band seemed to go dead at 11:25PM.

(Continued, Col. 2, Next Page)

W0MNO REPORTS FROM KANSAS CITY, MO.

Lack of activity is beginning to show its effect in the Kansas City area, with consistent operation coming from only W0DVV and W0MZH, and the usual schedule at W0MNO. Possibly, we need a few band openings to get things started, again. W0DDX is still with us, but - with operation being limited by additional work.

W0AE HNJ JZN OZH and UWV, also, are still around and active several times a week. One new station has been added to the group. W0DEW took over W0QZA's two-meter equipment and is a welcome addition. During the month, one of the old timers, W0BYS, surprised us with a call. It has been a long time since Jay fired up the two-meter gear. But, then, he told us, he had been in Chicago for a while; we saw, in the last issue of "The VHF News", the information about his conversion of the 522. Jay operates his 2 meter rig into a twenty-meter beam, and it is surprising to observe the various lobes that such a radiator will put out on two meters.

W0RNC, Jim Adams, St. Louis, Mo., is active again and has been making regular contacts with the Kansas City gang during the past few weeks. Jim has a 16-element stacked array 60' in the air. The 522 is putting a consistent signal down this way. W0DSR, Greenleaf, Kansas, has broken thru to Kansas City one time this year, so far. Again, it was on a night when I was working, four 'til twelve, so no contact with Neil.

The Kansas City gang is keeping a watch for W5DFU, and is glad to learn of the increased v.h.f. activity in the Tulsa area. We hope for Missouri to Oklahoma contact, soon. Word has been passed along thru our station manager at Tulsa, W5WWZ, to look up this way. At W0MNO, the normal operating beam direction for local QSOs is also favorable for the Tulsa area.

Four-to-midnight shifts always come at the wrong time for W0MNO. During March, there were a couple of nights that looked favorable for Aurora openings, but - by the time I could get on the air - it was too late to operate. On March 22, about 130, I did

hear a c.w. signal, but it was so near the noise level it couldn't be copied. W0DVV reports that he also heard some weak carriers, earlier in the evening.

During the enforced layoff from the propagation observations, I have been trying my hand at construction of 2-meter gear. Finally got around to the long-planned coaxial line converter; so far, no success. Looks like I'll have to get some pointers from the W6 boys. Also have the W3GV beam up, now, but wind or rain has prevented making the polishing touches. The weather has also prevented the erection of 420 Mcs. beams, so nothing to report for that band. W0AE has found the APS-13 oscillator frequency is a function of the 6J6 tubes used; the original tubes loaded the circuit so it would tune up to only about 425 Mc. By selecting tubes, W0AE now has it tuning up to 450 Mcs. What would ordinarily be "slight" variations in tube capacitances are quite important at these frequencies. A question: Has anyone figured a way to tune the i.f. of the APS-13 after the ends of the tuning slugs have been clipped off?!

W8WRN REPORT (Continued) . . .

March 23: The band was very good; the direction of the beam was not at all critical, as indicated by arcalling W4JDN and having W8RLJ come back to me, S7. W9UCH was S5; he said I was peaking to S9, there. W9MEL was heard; W8ZFO was heard, S6, calling W8RLJ and later worked by W8WRN. W4JDN was S8-9, and W8EDX was S5-6, at WRN. W4JDN must go to bed early, as I looked for him after the W9UCH schedule and didn't hear him, nor W8EDX, Cincinnati, anymore. W8EDX is on about 145.65.

What has happened to W9ASM? No hear Al for a long, long time. Understand from the grapevine that W8WJC will be back, bigger and better than ever. W8WRN hopes to be able to hear the gang better, and to put a better signal to them when the new beam is raised to the 60-foot level, which is 20' higher than at present. Oh, for a nice hill-top in the country! Hope to have one, someday!

Tell your friends about "The VHF News"!



BRANDIN' TIME

W 5 C V W
 REPORTS
 FROM
 FT. WORTH

Comes the Spring! Pretty flowers, fruit trees in bloom.... the durned grass is growin' again, and Ma is already checkin' up on the mowin' machine! I think I'll check out (in very fine print, please!)

As I was saying, Spring has come, and the fall-planting of beam-seeds has sprouted, grown to full maturity and has been harvested. First, W5LHF and W5LU have nice, new 16-element Hoisington beams. Then, our greatest critic and soon-to-be-licensed friend Dr. Stout also has a new 16-element.

From over Dallas way, W5CAE begins to peg the S-meter with his 16-element array. I hear, via the grapevine, that W5AJG has a super beam about ready for the skyhook. W5CQU and W5MKO have joined the Two Meter gang. I suspect both of them have 8-caliber beams, judging from the signal they put out! With anything less than 8-elements, around here, you might as well just tie into the bedsprings for all the good it'll do ya! Also new on Two is W5KSX, who sounds like he had a full KW; from what I've seen Joe build in the past, I know he's got something purty over there.

A note from Leroy, W5AJG, tells us he has TVI on Two! Bet he went and got his modulators switched to the wrong transmitters! The big one to the little one, maybe. W5MKO, from Oaklawn in Dallas, is new on the band with an ARC-5 - 522 and a groundplane antenna. Come on in, Bill, the joint is getting crowded, but there's plenty to go 'round!

W5ABN is putting the finishing touches on a twin-five beam, which sounds fine to me. Hurry it up, and lessee what it can do. W5SH has, at last, joined us Cowtown Kids with a wallowing signal. Incidentally, Ed, your

signal was heard the best it ever has been, over Dallas way, the night you had W5AXN's beam up. Another thing, OM, if you don't quit lowering that groundplane antenna, you'll soon be out of this world; or, should I say, into a rut? W5LIG has been on, recently, with a swell signal. I hear that there are a number of new stations about to appear on 144 Mc. in the Dallas - Ft. Worth area.

Here's news from down Houston way: (Thanks to W5AJG for this.) There are 72 Houston stations on 144 Mc. The gang, there, has returned to vertical polarization. On Tuesdays, at 2000 CST, fifty stations turn their beams on Fort Worth and Dallas! One station has 800 watts into a 16-element beam. There is a bunch in the 150 - 200 watt class, so it looks like we should hear something from that gang, soon! How about some 0700 CST schedules? That seems to be the time for openings; just as the sun comes up!

Another new station, W5LIJ, from Weatherford, which may help us span the gap between Ft. Worth and Mineral Wells. W5HCH is still unheard, any where, as far as I know; we need that signal from Mineral Wells, too. Another newcomer, to the east, is W5PIR, Arlington. At present, the modulated oscillator isn't too good; a little crystal ahead of that 815 would make a big difference.

That I missed last month's report is something which I shall not allow to do again. The short month, plus a rather rough flight schedule, and a broken-down 10-meter beam sort-a threw me for a loss!

* * *
 KEEP PLUGGING!!

Thanks to you fellows whose efforts have brought new subscribers to us, and also for at least getting some inquiries from The National Co., Laboratory For Electronics and The U.H.F. Resonator Co. regarding advertising in "The VHF News". There hasn't been sufficient time in which to permit any definite arrangements, but we hope that all of these nice companies will like our gang enough to support it by taking space in these pages. We'll see. - Editor.

TWO-METERS AROUND PORTER, INDIANA.

By: Carrol Gustafson, W9CAW

The two-meter band, although in quite a lull through the winter, is beginning to show some bright spots.

The activity, around here, has been down to nothing at times; yet, some evenings, as many as a dozen signals could be heard. The following are on fairly consistently: W9DLI, (Gramps); W9HKQ, (Ivan); W9CAW, (Gus); W9RRL, (Bob); W9HDB, (Andy); W9GEO, (Warren); W9NHA, (John); W9JDQ, (Bob); W9MTL, (Willard); W9OFV, (John); W9AID, (Ernie) and W9CWA, (John). Sorry to report that there are many 522's idle around here, which calls for missionary work.

Warren Wright, W9GEO, is now back from Florida, and can be looked for again to be on two, consistently, from Valparaiso. HKQ and CAW are on almost every night. NHA plans to take a 522 with him to his cottage at Monticello, Indiana, and we can expect a signal from him on week-ends. HDB and CAW are planning multi-element beams.

During the past few weeks, some of the Michigan stations have been coming through, very well. The most consistent are W8RLJ and W8AKR. The activity seems to be stimulated somewhat and, by flower-picking time, the atmosphere will be occupied very much by two meter signals.

CAW has several prospective hams who promise to get on 2 as soon as they get past 13 w.p.m. Jack, W9CCA, is converting a 522 and will be heard, soon. Gus, CAW, has a YL who lives in Monticello, so his absence from the air on weekends is well explained!

To you fellows in northwestern Indiana: how about letting me know about your activities, so we can fill this column? Please send the dope to me before the 25th of the month, -- Carrol Gustafson, W9CAW, Box 185, (Lincoln St.) Porter, Indiana. Tnx!

* * *

MOVING?

When you change your address, please notify us so that your "VHF News" will continue to reach you. "The VHF News" is not forwarded to a new address unless you so notify your postmaster.

IN THE MAIL . . .

From L.B. Gilmer, W3HZF: "That was a good article, 'The UHF World', by W9PK. His suggestion for an activity night on 220 and 420 is a good one and should do much to boost activity; even on Two, it is discouraging to tune across a dead band. It takes contacts to arouse activity and interest.

"As for ducts, have purposely stormed in the past over the loose usage of the term in order to direct attention to the effects of superrefraction on v.h.f.-u.h.f. propagation.

"During the summer, 1948, I obtained daily radiosonde data from the Pittsburgh Weather Bureau. A portion of the data has been converted into M curves, and an attempt made to correlate these curves with the weather and v.h.f. activity for the period. Ducts may have a significant effect upon propagation at these frequencies. My questions are technical: 'How do overland ducts effect v.h.f. transmission in this geographical area?' Altho the investigation is not yet complete, surprising evidence of tremendous, elevated ducts over Pittsburgh came to light, promising to provide a plausible partial explanation of past interesting occurrences.

"Glad to see W9PK joining the ranks of the thoughtful few; haven't heard anything from your authority, W2DOG, of late, or from that extra-special sharp-brain of W3GKP. Has W9WFC stopped writing for you? And, where is W9LWE? What's happened to the little lady from Everett, W8BFQ? I think it was she who got me involved in that lunar nightmare that resulted in the now-famous name-calling episode. It was well worth it, and I just wish some of those high-class philosophers at the Bureau of Standards would devote some of their attention to gravitation.

"I always enjoy the refreshing comments of your faithful contributor, Marge Bowman. She's had me looking for a $\frac{1}{2}$ -pint thermos of special design, all over town! 'They' say this size is in great demand, as it has the dignified proportions for containing delayed-action Martinis for the Average American Family!"

EASTERN SURVEY ON POLARIZATION

By: Ed Tilton, WLHDQ

Here is, I hope, my last word on the polarization question!

I've just returned (March 20th) from a four-day trip during which I talked with hundreds of hams of New York, New Jersey, Pennsylvania and assorted other states. The area covered probably accounts for a good third of the present population of the 2-meter band. This has always been hot v.h.f. territory, and it is not likely to become less so in the immediate future, as the TVI situation is causing quite a few hams—who might not otherwise be interested in v.h.f.—to turn to this field because of the possibility of escaping some of the trouble experienced when operation on lower frequencies is attempted. Not that 2-meter work is a cure for TVI, but there are numerous borderline cases where fellows can work on 2, successfully, in localities where lower frequencies are out of the question for the man who wants to remain on good terms with his neighbors.

For them, and for almost all of us, eventually, the importance of TVI transcends all other considerations in the polarization picture. It goes without saying that, in the case of the 2-meter band, the use of vertical polarization gives a fellow something like a 20 db headstart in the avoiding of TVI*. To me, that clinches the argument for vertical. There is nothing on the horizontal side with anything like this weight.

Since I doubt that this will cause many of our horizontal friends in the

middle west to change to vertical, and because I would like to find out whether there is any difference in the effectiveness of the two polarizations when it comes to working between the east and middle west (and over other long paths), I will continue to advocate the experimental use of horizontal polarization by those in the east who have the facilities (and freedom from neighbor trouble) to handle it. I erected a horizontal array for 144 Mc., recently, and I intend to keep one in business, so long as an appreciable portion of the middle west sticks with horizontal. But, for the fellow indensely-settled areas of the east, or other sections of the country where television is used widely, it seems only logical to recommend vertical for general use. If it's a case of starting up in an area where standards are not already established, we'd say, "Better start vertical—you'll probably have the TVI problem, eventually."

All this comes from one whose personal preference is for horizontal, principally from structural and esthetic reasons. It represents a carefully considered opinion, after years of reviewing all the evidence on both sides. For years, more than 15 years in fact, we've looked for evidence which would clinch the argument, one way or another. Each polarization has its points, and I think they may be summarized as shown in the table. All but one of these (points) are minor considerations. To hundreds—thousands would be more correct—of urb-

(Continued, Col. 2, Next Page)

Vertical

General coverage with simple systems.
More effective mobile operation.
Dipole more effective in vertical position.
Stationary radiator may be used, rotating only parasitic elements.
Stacked colinear array builds up gain without directivity.
REDUCES TVI*

Horizontal

Simple parasitic arrays (not stacked) more effective when horizontal.
Lower response to most forms of man-made noise.
Generally simpler mechanically for same performance.
Looks better, especially when combined with lower-frequency arrays on same rotating structure.

*This applies only to cases where radiation at the fundamental frequency, as picked up by the TV antenna, is the source of interference, of course. It should not be construed that 2-meter operation and vertical polarization are TVI cure-alls. — E. P. T.

420 Mc. OPERATION AT W2BAV . . .

W2BAV, Rye, New York, is located at an elevation of less than 50 feet above sea level.

The transmitter is an APT-5, with about 90 watts input; about 30 watts output; about 15 to 20 watts input to the antenna, a 32-element beam. The frequency is 430 Mc.

The receiver is the unit on which plenty of work has been done, so far. At present, 3 lighthouse tubes (2C40) are used in grounded-grid r.f. stages which give plenty of amplification; they bring an S2 signal up to S8/9. The r.f. is fed into a trough-line, "series-tuned" 955 mixer, link-coupled 955 oscillator, tuning from 465 to 515 Mc., using a split-stator condenser in a parallel-tuned circuit, with a large dial. This is followed by 3 i.f. stages on 55 Mc., oscillator and mixer, and 2 i.f. stages on 15 Mc. Also used, especially lately, is a "narrow-band throat", as it was called in the war. It is a 3-stage, 15 Mc. amplifier using air-tuned, link coupled stages; 7 stages in all.

The bandwidth of the first i.f. unit is about 5 Mc., needed for the modulated oscillators used by most all to get on the band, to start with. The second assembly has a bandwidth of about 4 Mc., and is used for very-distant; it can also be used on modulated oscillators when m.c.w. is used.

The broad-band section of the receiver was used for the following contacts: several dozen QSO's with W2JND across the Sound, about 12 miles; several in Larchmont, including W2FAR and W2PHF; several with W1PEB, Stratford, Conn., about 33 miles.

The narrow-band section was used for the following contacts: from March 7th to March 9th, long contacts with W2NPJ and W2BLF, Elizabeth, N. J., 37 miles, and Newark, N. J., 32 miles. Both stations use 12 element beams, and 15 to 25 watts input to 316A oscillators.

The 32 element beam at W2BAV is about 45' in the air; 300-ohm tubular lead is used, with a regular-type relay, spaced a little over 1" between contacts, for switching. The signals

have to go through plenty of trees and houses, over hills 300 and 400 feet high, over Manhattan and the Palisades, and then into the two New Jersey stations, both located on flat land.

These contacts have proven to the writer that the 420 Mc. band may show up as good as the 2-meter band. This is a point on which I was not at all convinced, before. A regular schedule, from 7 to 8 PM, is carried on by the stations mentioned. Credit for starting this goes to W2JND.

W2BAV is ready for any tests or schedules on 420 Mc. A frequency of about 430 Mc. is used by most stations. All mentioned stations use vertical polarization, in accordance with 2-meter practice in the East. This may prove useful when the new u.h.f. TV band is opened, since the TV antenna polarization is horizontal. An announcement of the majority wishes, in this respect, is desired - but soon - from the amateur radio magazines. It is, of course, a very important matter, as it will not help to have the same situation develop on 420 as is now existing on 2-meters, due to lack of leadership by the amateur magazines.

One parting note: a 3 or 4-element parasitic beam, with a flashlight lamp matched across the radiator, is a handy little device for checking out your 420 Mc. beam.

* * *

"THE STATION OF THE MONTH"

Sorry, fellows, no "Station of the Month" page, this issue. It seems so many of you are hiding your light under a bushel-basket that we have to take extraordinary means to uncover all of you. It would surely be nice if you'd help us out by writing to W9PK; meantime, we're writing you!

* * *

Eastern Survey on Polarization (Cont'd) an amateurs who are battling for their very existence as active hams, only one of the arguments really counts. I feel that we would be doing Amateur Radio, generally, a dis-service if we failed to recognize the TVI angle as the clinching point in the whole polarization argument.

The U H F World

By: Jack Woodruff, W9PK

This column is only one month old, and we already have a challenge from Arnold Bucksbaum, W0WVZ, co-holder of the present Two-Meter DX Record, from Cedar Rapids, Iowa. Arnold asks, "Who is going to be on 220 and 420 Mc., this summer, with good equipment? Who will go all-out, with crystal-controlled transmitter which will operate on c.w., superhet receivers and 16-element beams?" Arnold is ready to start tests with stations in the Chicago area, with an eye on a new record. Any takers? The writer will be happy to hear from anyone interested, and will provide as much help as possible. Crystal control, on either band, is fairly simple. See "Crystal Control on 220 Mcs.", by Ed Tilton, WLHDQ, May, 1948, "QST", and "Tripling to 420", by Brannin, W6OVK, June, 1948, "QST". (Editor's Note: Also, see, "Citizens Band Field Tests", Samuelson, January; "Citizens Band Transceiver", Lurie, August; "Citizens Radio Antennas", Rowland, May; "Citizens Radio Service Receiver", Hollis, March; "Citizens Transmitter Power Amplifier", Hollis, December; all in "Electronics", 1948. These articles about our first cousin to 420 give information of considerable value to one new to 420 Mc.)

However, let us not lose faith in the simple gear that is the backbone of every new v.h.f. or u.h.f. band. We do have some information on the BC 788 and the APS-13, which are said to contain excellent receivers for 420. The BC-788 (SCR-178) is an altimeter and is described in the June, 1946, "Electronics". However, an excellent article on the conversion of this unit is given in "QST", July, 1948, entitled, "Fun on 420 with the BC-788", by Fred Clapp, W6DSZ. Two-way work in excess of 175 miles has been done with the BC-788. The APS-13 is a transmitter-receiver unit used for airborne radar service. Its frequency range covers the 420 Mc. band without alteration of the front-end. Its conversion is described in "Operating the APS-13 on 420 Mcs.", by Joe Addison, W0PKD. Joe is an oldtimer on

v.h.f., and is also quite active on 50 Mcs. It is believed that W9HXS and W9WWH have APS-13 units and will part with any additional information that might be needed. The transmitters in the APS-13 and BC-788 leave something to be desired, and it might be a good idea to consider "A Door Knob Oscillator for 420 Mcs.", by Tilton, January, 1949, "QST".

By far, the most popular of all equipment for 420 Mcs. is the BC-645A. The conversion of this unit is covered in "QST", February, 1947, "Operating the BC-645 on 420 Mcs." A word of warning to those who have these units: some have a dangerous TNT demolition unit in them. If you have a BC-645, write to ARRL, West Hartford, 7, Conn. for information on the removal of the hazard before starting any work on it.

Lew Smith, W9BDW, has his BC-645 converted and working nicely, and is looking for fellows to work on the band. On his receiver, Lew lengthened the oscillator lines by $3/8$ " to get coverage to 420 Mc., and uses the grid resistor (22K ohms) at the cold end of the lines. He drops his plate voltage through a 10K ohm resistor, to a safer value. On the transmitter, Lew has lengthened his lines effectively by making additional condensers using $1/8$ " wire. (How he do this? - Editor) He feeds the modulation to a new tap on the plate line through an Ohmite Z-460 choke from a modulation transformer. He obtains button current by placing the microphone in the cathode circuit of one half the 7F7 speech amplifier. For an antenna, he is using a $6\frac{1}{2}$ " semi-vertical which, he says, radiates both horizontal and vertical polarization. (Where's the beam, Lew?)

Here And There On 420

W9BDW is moving to Flossmore, Ill. W9TLB was not mentioned last month. He doesn't work on 2, but is doing a nice job on 420 with W9HXS. Our apologies, OM. Down in Texas, W5AJG, W5LAR and W5ABN are getting ready to link Ft. Worth and Dallas on 420. W5LAR is building a 16 element beam and is going to use the W6OVK tripler and crystal control. W5AJG has been set-up for over a year and uses an ASB-7 for a receiver. It uses 446 (light-

house) r.f., double-conversion, etc. For a transmitter, Leroy has an APT-5, rated at 30 watts output. He wants more information on the APT-5, and so do we; f'instance, on how to run the blower on 110 a.c. (See "The VHF News", February, 1948, p. 16, "Some Notes On The APT-5", Bowser, W9CEW. About the simplest way to get power for the blower motor is to use the 30 v.a.c. available on the tapped primary of the filament transformers, which are 60 cycle type, 110 v.a.c. Use a dry-disc rectifier with this source for the 24-28 v.d.c. required. 110 v.a.c. may be used directly if the motor is series connected by the user. After converting the motor, be sure to check its operation. If not satisfactory, change the series connection by reversing the rotor or (but not both) stator leads. - Editor.)

W9KJU has suggested that we make Friday night Activity Night on 420. W9 HXS and W9BDW prefer Saturday or Sunday. What say, fellows? It's up to you. Don't forget to read about W2-BAV's receiver for 420, described on another page in this issue. Don't forget that the $1\frac{1}{2}$ meter band is now 220-225 Mcs., and that the peak antenna power is 50 watts on the 420-450 Mc. band. Next month, we will cuss and discuss transmission lines for these frequencies. In the meantime, Good Luck! Let's hear from you! (Any photos of 420 gear floating around? Send them to W9PK! - Editor.)

Down Champaign, Ill., way, W9FKI reports that W9LIR pushes in a very nice 220 Mcs. signal over the 15-mile path to W9FKI. LIR's transmitter is a converted ARC-5 per "The VHF News" (See " $1\frac{1}{2}$ Meters The Easy Way", by Gordon Pettengill, W1OUN, p. 19, "The VHF News", September, 1948.) Horizontal 4-element beams are used at both ends. The receiver setup at LIR is an HFS receiver plus a cut-down version of the W2PAU-W2PFQ 6J6 preamplifier described by them in the May-August issue of the RCA "Ham Tips". The unit is a simple and very effective improvement for the HFS on both 144 and 220 Mcs. W9FKI is now attempting the construction of a converter for 220 so as to make the circuit 2-way.



"Audi alteram partem"
(Hear the other party; hear both sides.)

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CORNER REFLECTIONS . . .

Why we must always have an "editorial" is something that has mystified me for quite sometime. Is it that an "editorial" is the essential item of a publication that "makes" it? We are inclined to think not. Rather, it always seems to provide space for last-minute comments, or, sometimes, absolute preaching or apology on the part of the Editor, depending upon his conscience. At this time, we feel no need for "preaching" or "apology". Perhaps something of immense importance is expected from me. But, I think that our friends who report activity actually derive the "editorial" by virtue of their observations of v.h.f. activity. Our personal opinion of "editorials" in contemporary publications leaves us cold. If we must wave an Editorial "flag", let it be waved in the hope that activity on 6,2, and higher will surpass all previous records for v.h.f. unity. -W9NFK.

IN THE MAIL . . .

From Jerry Roberts, W8WJC: "All is well in the great city of Everett, and I expect to get back on 2 about June. No antenna since last October; the antenna mount just didn't take the wind, with all the stuff we had up there.

"Margaret (W8BFQ) passed her Class A, but has stayed on 10, where she has worked 97 countries. She will probably work 2, this summer, at least when I'm away.

"The states-worked listing, 14 states confirmed and VE3 is correct; 6 U.S. call areas, and 560 miles.

"Glad you dropped the poll; I didn't intend voting because I wouldn't comply if (as it was certain to be) the majority was for vertical. As you say, there has been no proof that horizontal is better in this terrain. And, while it is rather well-established that vertical is better over sea-water or paths of equal flatness and conductivity, also for distances of a few miles, there are no oceans near Everett, and I can work 'a few miles' with a piece of wet string!

"As to scientific proof that horizontal is better, here, there is none. But, the evidence would indicate that - under normal conditions and ignoring 'band-openings' - either:

- (a) Horizontal is better, or
- (b) The horizontal contingent builds better antennas, or uses better equipment - which seems very unlikely, or
- (c) The horizontals have uniformly better locations, which obviously isn't so, since some of the same paths which we couldn't crack on vertical were relatively consistent on horizontal.

"At any rate, I wouldn't argue that activity should be exclusively horizontal. For those refugees from the low frequencies who want only, by contrast, a QRM-free band as an expensive substitute for a country telephone line to yack and gripe about what they did or didn't on 20, or to discuss the gal they were out with last night, I heartily favor vertical, so long as I am using hor-

izontal. For those who are unfortunately restricted to a very small, fixed antenna by conditions beyond their control, vertical is unquestionably better since the normal working radius is restricted by antenna size, anyway. For those plagued by TVI, vertical may be an appreciable help. But, the few in this area who were so restricted, or who for some other reason chose to use vertical, could be worked cross-polarized by those with large arrays with no great difficulty. Thus the use of vertical in no wise reduced the number of local contacts possible.

"So, my personal view will remain as I expressed it in our first meeting: I have no particular desire to talk up horizontal exclusively; all I ask is one good active station using horizontal polarization in a given area, and let the chips fall where they may. And, I could add, now, that I definitely resent having vertical-exclusively advocated nationally.

"In spite of all this, the antenna here - when I get back on - will include a vertical, as has been the case most of the time in the past; and, as in the past, the gain will be within 3db of that of the horizontal array, if it turns out as calculated.

"Incidentally, would like to see that smoker of vile pipes, Sam Tarantur, let his hair down in a good article on h.f. front ends; does he really think the Wallman is better than a good grounded-grid stage, say a 6J4 working into a proper plate impedance? (What say, Sam? - Editor)

From Jim Kmosko, W2NLY: "Have been delayed in getting on the air, but now have tower and antennas up and expect to be on for the first time as of March 19th; the antenna was the big problem. After much thought, considering the erection of 2 W2NLY 24 element beams, stacked, we ended up with the original, single 24-element job with an improved feed system. The new tower also sports a 9-element horizontal, just under the 24-element."

From John Stacy, Winthrop, Mass: "Here is my check; start my subscription at once. 'The News' looks good!"

AROUND CHAMPAIGN COUNTY

By: Ken Billings, W9FKI

Although nothings spectacular occurred in this area this month, the amount of activity noted is very encouraging.

A look at the log of W9FVJ is practically a "Who's On" inspection of the Two Meter band. Therefore, this report will say a lot about what Sam has heard and worked. On the 11th of March, he heard or worked W0YKR, Lake Geneva, W0UYD, Crystal City, and W0KYF, VMY, IHD and all of the greater St. Louis area. Those fellows should provide Missouri contacts for lots of two meter stations, this year! Sam also heard W9CPI, Centralia, and worked W9NSF, Muncie, Ind. A brief return of Aurora, on Two, was noted on March 13th, when W9FVJ heard W8SFG calling W1HDQ, but, apparently, no contact was made. Later, the same evening, W9FVJ contacted W8SFG via Aurora. CW, and Beams North, were the order of the evening, although W8SFG is located at Hubbard, Ohio, on the Pennsylvania border. Things seemed to be a little above average on the 15th of March, when signals from 'way down south, in Centralia, and 'way up north in Chicago found the way to W9FVJ's ears. Centralia-area stations heard on this and other evenings were HNL, Centralia; FMY and DVR, Mt. Vernon; VZN, DuBois; PCI and BXR?, Centralia. Another upswing in conditions was noted on March 24th. During the morning, W9FVJ worked W8WRN, Columbus, Ohio, and W9MBL, New Castle, Ind. About 15 stations were worked before 9 PM. That doesn't sound so big to you fellows in metropolitan areas, but - down here - in the sticks, it ain't hay! (Sounds plenty good to us in Chicago! - Editor.)

Looking for Kentucky? W4LLR, Henderson, runs 100 watts to a pair of 24Gs, and an 8-element beam. A VHF-152A is the inhaler. The frequency is 146.5Mc. Yes, Junior, that is in the 2-meter band! W4LLR has been working W9UIA, Evansville, Ind. (146.3), W9PNE, Mt. Carmel, Ill. (145.7) and W9UNT, Evansville (144.2). W9FVJ worked W4LLR, heard W9UIA and PNE, and was heard by UNT, all on March 29th. Sam also heard W4FBJ, Sheperdsville,

Kentucky, and W4RKJ, Louisville, that evening. Other stations mentioned by W9FVJ are: W9LLA, W9ASM, both Indianapolis, W9SQH, Putnamville, Ind., W9EWO, near Indianapolis.

W9GLR, Champaign, got his ticket and showed up on the 2-meter band in short order with a BC-625 and a VHF-152A. W9LAW and CGZ were also heard from Champaign, during the month. W9LIR is on 2, nightly, and also puts out a nice signal on 220; see W9PK's column, "The U H F World", this issue.

W9EHX, McClean, has trouble keeping an antenna up, but manages to be on the band most evenings. W9BPV, Armington, has a square-corner reflector, but isn't satisfied with its performance. W9s MAL, LID, ALU, and RGH manage to keep up activity in the Peoria area. W9LMJ and CFV are active in Bloomington, and promise to keep that town on the Two-Meter Map! W9SUV called home his VHF-152 and VHF ARC-5, and celebrated the occasion by hooking them onto the longwire and working W9LIR, 30 miles to the north. Russ hopes to have a beam up, soon, and to be back on 2 in a big way.

(Editor's Note: If you're in southern Illinois, please keep Ken, W9FKI, informed of your activities. He's a good reporter, but - like all of us - he needs support from everyone in his area; everything south of LaSalle, Ill., W9JVC and W9PBY.)

* * * "BRAIN-TEASERS" * * *

NHNF

FXL $\sqrt{\text{SUFTUTG}}$

XGX

ULTU

UFEL

SSTT

XGX

SXTG

SXTG

This is what we call a "Brain-Teaser". If you don't feel like doing anything else, sometime, sit down and - by pure reasoning and logical thought process - derive the numerical equivalents

of the letters. The numbers are single, 0 through 9. This problem, as a starter, is very easy. We suggest you start by analyzing "G"; it's 0, isn't it? (Hint). The answer will be given in the next issue. Let us have your answer by April 30. If correct, we'll show your call. First?

W5DFU REPORTS FROM TULSA, OKLAHOMA.

There is no remaining doubt in the minds of the Six Meter gang that Oklahoma, particularly Tulsa, is dead serious in its pursuit of v.h.f. after the showing we made on the openings of March 19 and 20. Typical comment heard was, from W2RLV, "When do I get my 'W.A.T.' (Worked All Tulsa) certificate?" W5DFU gave him his 5th different Tulsa contact on the night of March 20.

An Illinois station commented, "I have heard two states, tonight: Louisiana and Tulsa!" Other Oklahoma towns active in the opening were: - Cromwell, W5HTZ; Sapulpa, W5APG; Enid, W5HLD; Hammon, W5ATJ; Shawnee and Oklahoma City. Unfortunately, I missed the opening of the 19th, when so many of the locals contacted Brownsville and San Antonio, Texas. The band opened, again, for a few minutes around noon, March 20; some W3's and W8's were landed.

The big opening came that night, when XE2C, Monterrey, Mexico, put through an "S-meter-pegging" signal on c.w. He could not use phone because of BCI. Immediately thereafter, practically all districts were hears. It made no difference, here, which way the beams were pointed; all of the signals were good. It seemed as though we low-power (20 w.) boys did better with Cubical Quads than did those fellows who were using the same power and 3 or 4-element beams. Due to its having been displaced that day by a 40-mile-an-hour wind, my Quad was shooting out "45°" polarization.

W500J worked all except WØ call areas, plus and XE and VE's. He used only 20 watts input and a Cubical Quad. Wayne was so excited over his first opening that it'll probably take a week for him to recover!

Active Tulsa stations were: W5NS OPI JNG LF OQJ LBI HKI DFU. W5DFU worked W5BAJ W9QKM W8LBH W2RLV W2AMJ W3RUE and VE3AZV. Stations heard were: XE2C W5KSW W9VZP W9ZHB W9PK W2QNA W2FLW and many others. I called W9ZHB and PK until I was hoarse, trying to get one of them to make a check on Two Meters. W3RUE and I had a swell chat about our respective activities on 2.

W2CLD REPORTS FROM NEW YORK

During the latter part of March, the 2-meter band activity in this area began to increase, with many new calls appearing, nightly. Most of them seem to be fugitives from TVI and the lower frequencies; the band is beginning to sound like 10 meters does on a weekend, hi!

On March 18, The Amateur VHF Institute of New York had the pleasure of seeing a demonstration of an entirely new 420 Mc. superhet receiver developed by Bill Hoisington, W2BAV. Details of the receiver will be forthcoming in an early issue. (Also, see "420 Mc. Operation at W2BAV", elsewhere in this issue. - Editor.)

W2ILB, Pete Tumulty, has had the misfortune to be stricken with paralysis of both legs, believed to be a temporary condition. Pete is on the air, however, since W2KU W2OCM W2QNZ K2AC W2AUF and W2CLD set up his two-meter rig so that he can operate from his bed. Pete said that this has given his morale a tremendous boost. He is a member of The VHF Institute. A note of good cheer from you to Pete will help him along, too. Write to Peter Tumulty, W2ILB, 66B 5th Walk, Canarsie, Brooklyn, New York.

Don't forget: "The First Two-Meter Mileage Contest" starts on April 23 and ends at midnight, April 24th. The contest is wide open to two-meter stations in the U.S. and other countries. If you desire further information, write - now - to W2CLD, Louis Perlmutter, 68-03 Beach Channel Drive, Arverne, New York.

As of April 1st, the meeting date of The VHF Institute of New York was changed to the first Friday of each month. The next meeting will, accordingly, be held on Friday, May 6th.

* * *
THE MIDWEST VHF CLUB . . .

The Midwest VHF Club meets on the Third Thursday of each month at its new location, "The New Boathouse", on the west side of Humboldt Park, Chicago. The location is, approximately, 3000 west and 1400 north. A great deal of progress is being made on the Club station.

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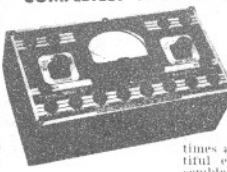
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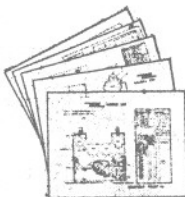
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AN ANNOUNCEMENT OF IMPORTANCE
TO ALL V.H.F. OPERATORS
FROM: THE NATIONAL AMATEUR RADIO COUNCIL

The management of the American Radio Relay League has placed a proposal before the Federal Communications Commission to set aside 100 kilocycles of the 50 Megacycle amateur radio band for exclusive c.w. operation!

This action was taken at the ARRL board meeting following a proposal by Harold C. Bird, director of the Great Lakes Division. About sixty days before this (March, 1948) mention of possible action was contained in an inconspicuous reference by Ed. Tilton in "The World Above 50 Mc.". Perhaps it escaped your notice.

Did YOU, as a member of ARRL, or as a licensed amateur radio operator, AUTHORIZE the management of the ARRL to make this proposal for you? Were you consulted as to your wants and needs by the Divisional Director of ARRL in your area?

There are persons of "amateur" standing in amateur radio today who say, "100 Kc. is only a small part of the Six Meter Band!" True enough. But have you heard a Six-Meter operator asking that a portion of his band be set aside for exclusive operation on phone or c.w.? We think not! The Six Meter men want the band to remain as they now have it! But, the management of the ARRL, dreaming of new things for the amateur, blissfully decided - for no justified reason, without consultation with the majority of ARRL member operators and without consultation with the majority of Six Meter operators - to just go ahead and tell the FCC to set aside 100kc. for exclusive c.w. operation on Six Meters.

WHY? WHY, Mr. Budlong? Why Mr. Tilton? WHY, Mr. Handy? WHY, Mr. Director? WHEN was the Six-Meter amateur POLLED on 50 Mc. c.w.? WHEN was the 80,000-odd total amateur radio operator fraternity POLLED on this proposal for 100 kc., exclusively CW in the 50 Mc. Band? WHEN? WHEN? WHEN?

The average age of the American amateur radio operator, according to recent FCC statistics, is 34 years. Is the amateur old enough to think for himself? Is he old enough to be consulted upon such matters, or must West Hartford "career men" decide what is good, and what is bad, for him? Upon what premise does the management of ARRL and the directorship decide the thinking, and the fate, of the 34 year old average amateur? When was it shown that you are incompetent, in need of a "brain"?

Large numbers of ARRL members, your brother amateurs, have banded together under the National Amateur Radio Council, Inc., for the purpose of strengthening the position of the American Amateur. NARC provides effective and accurate representation for the majority of its voting members. It is a vigilante organization, designed to restore a democratic way of life in Amateur Radio. Yes, it is a PRESSURE GROUP. It will let it be known to the proper authorities that the "career men" of West Hartford, in their high-handed manner, do not necessarily reflect the views, opinions or the preference of thousands of amateur radio operators.

Yes, NARC stands for the restoration of democratic principles in the management of amateur radio affairs in the U.S. Its members are dissatisfied completely with the misrepresentation of their wishes, as presented by ARRL. The National Amateur Radio Council employs attorneys in Washington, D. C. to represent, faithfully, the majority opinion of ALL amateurs who feel that THEY should be represented in the conduct OF THEIR OWN AFFAIRS.

National Amateur Radio Council stands for all branches of the hobby - c.w., phone, s.s.s.c., v.h.f., u.h.f. and the experimenter. NARC wants its v.h.f. members to know the state of amateur radio affairs; that's why this announcement appears in "The VHF News". The "welcome" mat is out for all V.H.F. men. The proposal to carve up the 50 Mc. Band, without adequate reason, carries sinister implications. This is the beginning of an all-inclusive movement which should be stopped, RIGHT NOW! We envision the effort being applied, next, to Two Meters, just because c.w. has been used for Aurora DX!

The membership of NARC includes many V.H.F. operators, who have asked us to bring the 50 Mc. situation to your attention. NARC opposes the proposals of the ARRL management to increase the Class A code speed to 16 w.p.m. NARC in fact objects to most of the discriminatory recommendations of ARRL now before the Federal Communications Commission.

What is your feeling about such matters? WHEN did an ARRL director last approach you to determine your wants and needs? What part have YOU had in the management of amateur radio affairs? In your answer you will find the reason why amateur radio is weak. Your destiny has been in the hands of a few, elected by a small number of amateurs. These few have not taken steps to find WHAT the majority of amateurs want, or need. Having no way of knowing - they guess - and do what THEY think best!

For the past twenty years, radio amateurs have been groping for a means of correcting the scheming at West Hartford. Through NARC, these amateurs can obtain accurate representation of their wishes TODAY. By expressing their views - and having them vigorously presented to the FCC through NARC, - our Government is being appraised of the facts, and the ARRL is slowly being forced to correct its star chamber policy-making and to return to the American way of doing business. NARC wants a strong ARRL - one which is not vulnerable to attack. NARC will fight to make amateur radio strong, and, when it succeeds, NARC will go into mothballs.

If you wish to aid, tell us if you desire that the NARC proposals to the FCC should include your objections to the 100 kc. exclusive c.w. grab in the 50 Mc. Band. Send your call, class of license and \$2.00 to NARC headquarters. Your brother amateurs on the lower frequency bands will back you to the limit. Let's do the job together.

THE NATIONAL AMATEUR RADIO COUNCIL

610 SOUTH STATE STREET

CHAMPAIGN, ILLINOIS.

TWO METERS, LAST MONTH (Continued) January, 1947, we have no report from W9JPK. Don't worry about it, Carl; you deserve the rest, many fold! Carl holds the record for the most faithful, consistent reporting to this 'lil ol' magazine!

Bill Hoisington tells us that he is putting up a "large" horizontal beam on his tower, and will run 800 watts input, to the west, only, two or three evenings per week until "something" happens. Knowing Bill, we know that "large" must mean about 32 elements and that "something" must mean a new record. He will operate on 144.1 Mcs., a very crowded spot in the band, and his elevation is 370 feet. In the receiving set-up, he'll use 3 stages of lighthouse tubes (2C40?) in front of the two-meter receiver. If something doesn't come of all this, during the next 6 months, we'll be surprised!

Al Magagna, WSRWW, joined the gang who reads "The VHF News". Ordinarily we don't report new subscribers, but this case is slightly different: it's the first Detroit letter we've had, to the best of our memory, and Al is one of the "lonesome few" on Two in that area. So, look for him, come the next opening. Maybe Al will let us know what's new on two in the Detroit area.

If you didn't read O. P. Ferrell's treatise on polarization, "V.H.F. - Horizontal vs. Vertical", in the April issue of "CQ", page 35, please do so as soon as you can. It reveals, or reflects, why we have had such a turmoil over polarization for so long; reminds us about the old fable regarding the blind men and the elephant, in practice. Personal preference rules in triumph! Perry did a good job.

A point of interest to those of you who are interested in grounded-grid pre-amplifiers, or converters, but who also react sharply to that \$4.00 to \$8.00 price on 6J4 tubes: for only 65¢ to \$1.10, depending upon your supplier, you can buy a 6AK5. Connect it as a triode, screen tied to plate, and it's better than a 6J4! Reference: "Microwave Receivers", Van Voorhis, Volume 23, "Radiation Laboratory Series", McGraw Hill, pages 133-135.

IN AND AROUND CHICAGO . . .

Congratulations to Mr. and Mrs. Howard Yates, the W9GUAs: On March 5th, the XYL, Irene, gave birth to Leo Thomas Yates, 5#, 15 oz.! What makes this event a little bit special is that Irene has suffered for months with a lacerated arm, a result of accidentally falling against a window. Howard has been the faithful father by washing dishes, clothes; bringing home the pay check; being active on CAP and 2 meters and - now - helping with formulas and diapers! Irene is participating as much as possible. Congratulations, folks!

Sam and Florence Tarantur, the W9 WFCs, are next in line! (Gee, I sound just like Winchell!) Sam has been busy rearranging the apartment to make a bit of room for the new "harmonic"; Florence has been busy supervising Sam! This has, of course, affected the amount of time Sam has been able to devote to ham radio, which means that his much-valued code practice has been interrupted.

The band has been spotty, for activity; some nights are excellent, others are poor. But, openings have been good and consistent. Active stations heard are: W9NW, NZ MGP JVC ZHB ODT PK CWP OYF PBY KFK FPO WFF FVD SKR ZYF TKL KCW VQS KJU VX IWE GJZ BDW RHL HDB HXS OBW CT UMD WFO EHO JBH BBR CAW ONO ZNJ DXK KPA ULP NLZ KKT MCZ PNV DRN IHR MDM AQP GFV EV DAO QYN GUA W2PBC/9 PENGDM AYM JIL NE HV NOW JTQ FBX LLK LXX UKS RTY AXF QJO CZR NFK BYG WCD PZS and MIV.

HXS still works nights. CAW has new Studebaker. ZNJ improved his antenna. DRN now operates horizontal. ONO finished painting kitchen. EDA, nice young man, married nice young lady! RHL fights TVI. MGP has new car. WCD back on! NW is new grandpa; hiya, Gramps! Congrats! CT will be his own landlord. PNV is busy with patents. EHO has "talk-to-transmit" circuit. KJU likes his W9BYG "grounded-grid". SKR, DRN try 420 schedules. KCW is plagued with TVI, but active. NFK is QRL lab overtime; hates to hear DX coming thru when typing the "News".

Chicago gang misses JPK, PZS, WWH, ESE, and other Wisconsinites.

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Signal Tracer Kit for AM, FM, TV.
For quick, easy, accurate trouble shooting & servicing. Versatile, sensitive and easy to operate. Only one connecting cable, no tuning controls. Has meter and speaker. Tube & resistor-capacitor network built in probe. High-gain amplifier. All parts assembled. $5\frac{1}{2} \times 6\frac{1}{2} \times 9\frac{1}{2}$ " 8 LBS.
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5" Oscilloscope Kit, with 5BP-1.

Tops for AM, FM, TV. Horizontal sweep 15 to 30,000 cycles. Uses 884. Response 50 cycles to 50 KC. All parts, tubes, CRT included. $8\frac{1}{2} \times 13 \times 17\frac{1}{2}$ " 40 LB.
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VIVM Kit, with $4\frac{1}{2}$ " square meter.

Needed on every shack & bench. Very accurate. DC & AC ranges; 0-5, 10, 100, 500, & 1000; Ohms: .2 to 1000 megohms; -20 to 55 DB; $9\frac{1}{2} \times 6 \times 5\frac{1}{2}$ " 10 LBS.
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For use with VIVM & Scope.
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BRAND NEW, cased, 8 LBS. each \$3.00



AN/CRW-2, VHF Receivers.

About 150 MC. Has 3 tubes, 24v. dynamotor, relays, etc. A secret remote control job, so no specs or schematic available. Used, good.
With covers, each \$6.50
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BC-306, Antenna Loading Coil for the BC-375 transmitter. Has 3 deck, 5 position, ceramic, RF switch; loading coil; variometer; velvet vernier; ceramic antenna posts; etc. Just the thing for loading a short antenna on the newly opened 160 meter band. Used, in excellent shape. Another RED HOT BARGAIN at \$2.00

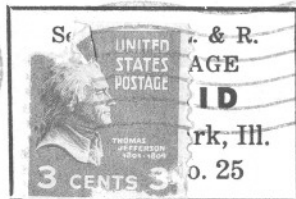


BC-451, Control Box for the 274-N series transmitters. Choice of any of 4 transmitters, of Tone, CW or MCW emission. Has test key & jacks. Used, in excellent shape, each .75



THE VHF NEWS

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