QUA-RAE

HERE IS NEWS OF.... THE RADIO ASSOCIATION OF ERIE, INC.

VOLUMN IV , Number 10

November 1973

Editor, Bud Hopkins

Typist, Carol R.

ERIE'S FINEST AMATEUR RADIO NEWSBULLETIN.... BY FAR !

RADIO ASS'N OF ERIE, INC.
P.O. BOX 844
ERIE, PA. 16512

NON-PROFIT ORG.
U.S. POSTAGE
- PAID -
ERIE, PA.
PERMIT NO. 266

THIRD CL[illegible]

The Radio Ass'n. of Erie, Inc.... Serving area "Hams" for over 27 years.

October 4, 1973

The meeting was called to order at 8:05 PM by K3QAY.
A round of introductions were held.
The September minutes were dispensed with since WA3HSR had forgotten them.
The treasurer's report indicated a balance of $302.94.
A motion to pay the new bills was heard and approved.

CORRESPONDENCE:

1) Several door prizes for the Hamquet.
2) Money from the sale of prize tickets.
3) Newsbulletins from CARS, BARRA, and Lake Rangers.
4) The following bills were turned in for disposition:

Fraternal Order of the Eagles	$25.00 hall rental
Powell Brown	20.00 cable clamps
Sanner Office Supply	2.77 typewriter ribbon

COMMITTEES

Qua-Rae - Hoppy reported that 251 mailings were made of the October issue, and that new supplies would soon have to be purchased for about $30.00. These include several replacement parts for the printing machine. It was also reported that new ads were being solicited for the newsbulletin and any help would be appreciated.

Repeater - K3QAY reported that in the past few weeks, several work parties have managed to partially erect the tower and that the receiver site shack was being readied to move to the CD farm. Brownie also reported that another work party was being planned soon to complete tower erection and double guying of the lower section.

ARRL - WA3HSR reported that since W3SW was no longer a club member and not representing the club with Director McConaghy, that a letter was sent to W3SW advising him that another candidate would be nominated for the post of assistant Director. After several nominations and subsequent declines, the matter was tabled until the November meeting.

Board of Directors - It was reported that some misunderstandings had followed the decision to install a private repeater on the club tower for testing purposes and that an agreement had been drawn up between the RAE and the other parties, WA3USH and WA3LSY. The Board had taken this action so as to prevent any future misunderstandings regarding the placement of the towers or antennas on the club's tower.

Hamfest - It was again reported that the club's hamquet was to be held this Saturday, October 6, at the Sara Coyne Restaurant beginning at 6:30 PM with dinner at 8:00 PM. The cost is $5.00 per person.

Activities - K3NAU announced that a tour of the Medical Electrical facilities at Hamot Medical Center would be conducted on the 18th by K3ATZ. November activities were also set as a discussion and demonstration entitled "Photography and the Radio Amateur" K3NAU and K3USC are to present. The activities for the December meeting is to be a Christmas party with K3QAY checking into this. It was announced that Gus Browning, W4BPD has made himself available again to the Erie area next spring and it was decided to try and set up a meeting during April.

RAE minutes con't from pg. 1

Chuck also read a report prepared on the August Picnic. Red figures totaled $18.05 which was due to K3NAU.

Nets.- K3NAU discussed the possibility of more traffic on the local nets on Sunday's. WA3HSR reported that all was ready for the Halloween Rat Patrol. The AREC drill would begin at 6:00 PM Wednesday, October 31, with mobile city-wide coverage on both ten and two meters. Assignments would be based on home location and first come basis.

OLD BUSINESS

It was pointed out that since September minutes were unavailable for printing in the QUA-RAE, the membership had received proper notification of the vote to be taken on the proposed dues increase to $3.00. The official voting was tabled until the November meeting. It was finally moved, "that in anticipation of the dues increase as recommended by the Board to $3.00, the RAE will accept 1974 dues beginning immediately with the option of refunding excess incurred if the proposed increase is defeated." The motion was carried.

The order for membershop payment and notification was again reviewed: All money and names go first to Chairman, Chuck Manross, WA3KAI - Chuck then turns all names and money to the secretary, WA3HSR - Mike Hall then turns the names and money to WA3EAY, the treasurer. It was hoped that adherence to this procedure would eliminate disagreements such as occurred last year.

NEW BUSINESS

K3NAU wished more discussion of the agreement between the RAE and tower users, WA3LSY and WA3USH. After much discussion over the matter, it was generally agreed that the action by the Board was proper and necessary, to insure proper use of the tower by any future private parties. It was emphasized that the tower is club property and that ultimate responsibility for the use and upkeep of the structure rests with the club and the Board of Directors.

WA3TRJ discussed the possibility of a six meter repeater with general comments favoring that those already on six meters should proceed with plans for the machine rather than sacrifice manpower on the two meter machine.

The meeting was adjourned at 9:55 PM.

Respectfully submitted,

Michael D. Hall WA3HSR
Secretary, RAE

Repeater Committee October 11, 1973

Meeting called to order at 8:00 PM by K3WTZ.
Minutes were read and approved.
Treasurer's reported a balance of $227.14.
There are presently 13 paid up members.

CON'T on pg. 3

OLD BUSINESS

The license for the repeater has been received. The call is WR3ACA and WA3KXD is assigned to the VHF link.

K3QHO reminded everyone present that the election of officers is normally held at the December meeting.

It was moved that the election of officers be held at the regular December meeting on December 13,1973. Only paid-up members can vote. Motion carried.

K3WTZ reported on the new RCVR site at the CD farm. The tower has been erected and the antennas put up. K3QAY has built an antenna similar to present XMTR site antenna for new RCVR site. The electrical service has been installed $18.40 was spent for electrical supplies and a $12.00 fee for inspection of wiring. K3WTZ donated a weatherproof 4 circuit switch box. A work party was held 10/3 to ready the RCVR shack for moving. Many thanks to all who helped in the above projects especially WA3LSY and WA3USH for their help in erecting the tower.

A work party is scheduled Oct. 21 at 3:00PM to move the RCVR site shack.

It was moved we pay bills of $18.40 & $12.00 by WA3TRJ. Motion carried.

WA3TRJ moved we pay K3QAY $12.64 for antenna supplies. Motion carried.

K3WTZ suggested that the club should pay for XTALs for the control stations.

WA3TRJ moved we buy XTALS for control stations. Motion carried.

Discussion of duplexers was held - K3WTZ reported that Phelps Dodge is going to discontinue the discount ot hams on November 1, 1973. Bob reported the Phelps Dodge salesman said that we could place an order before November 1 for a duplexer for delivery in mid-December and there would be no charge if we cancelled the order.

WA3MSR moved we place an order with Phelps Dodge for a Duplexer for delivery as late as possible with the understanding that there will be no charge if we cancel the order. motion carried.

K3WTZ volunteered to place the order tith Phelps Dodge

Methods were discussed to raise funds for the duplexer.
K3WTZ suggested that we start a fund drive to raise money to buy the duplexer.
Several people present volunteered a donate $15.00 each.

The meeting was adjourned at 22:00.

A discussion of the different types of duplexers was held after the meeting.

Respectfully submitted.

K3QHO

Nr. 441
FCC has issued an order automatically extending the licenses of repeaters and remotely-controlled stations licensed prior to October 17,1972. The extension applies to those stations which have made timely and sufficient application for renewal or modification to reflect the rules adopted in Docket 18803. Further, the Commission will consider as timely all applications received by it on or before August 30, 1973. The order, released August 30, was by the acting chief, Safety and Special Radio Services under delegated authority.

Nr. 442
The Montreal Amateur Radio Club invites all Canadian and United States amateurs to participate in the annual VE/W contest to be held 2300 GMT September 22 through 0200 GMT September 24. Full details on this popular operating activity sponsored to foster friendly relations between amateurs in both countries, appear on page 62 of August QST.

Nr. 443
September 20 remains the deadline for comments on proposed rulemaking which would take part of the amateur 220 MHz band for a new Class E Citizens Radio Service. Reply comments reacting to filings by others are acceptable until October 22. A League request for extension of these deadlines until February 20 and May 22,1974 respectively,wasy turned down by the Federal Communications Commission in an order dated September 12, despite support for the extension requested from the United States Citizens Radio Council Inc. FCC also reiterates that the main thrust of Docket 19759 is to determine the need for additional frequencies for the Citizens Radio Service, rather than an exploration of enforcement problems on the 27 MHz Class D band. Information on the proposal is on pages 9 & 88 for August QST, pages 9,70 & 76 of the Sept. issue.

Nr. 444
TO ALL RADIO AMATEURS FCC has extended the time for filing comments and replies in Docket 19759, Class E Citizens Band, for 30 days.

Nr. 445
Announcement is made of one deletion and two additions to the ARRL Countries List. The deletion is the present listing of Germany, the additions the Federal Republic of Germany and the German Democratic Republic, effective September 18, 1973. Contacts before that date will be credited to Germany. West Berlin would be credited toward the Federal Republic of Germany listing the East Berlin toward the German Democratic Republic. DXCC credit submission for the two new listings may be made starting December 1,1973. Submissions received for these two new listings prior to that date will be returned without credit.

Nr. 446
ARRL is pleased to announce a new ten meter contest to take place 1200 GMT December 15 to 2359 GMT December 16, 1973. As recommended by the ARRL Contest Advisory Committee, the Activity is open to, and contacts are permitted with, all amateurs would wide. DX may work DX. No time limit. Double points for QSO's with novices. A station may be worked once on cw and once on phone. Two points for each complete contact and the multiplier is the sum of states Canadian call areas, countries and ITU regions in the log of non-fixed based stations. Full rules will appear in the November issue of QST. Please help disseminate this information in an effort to improve activity of ten meters.

"73" Hank Schneider W3KPJ

For Sale

Heath HW-16, Johnson 122 VFO

Contact J. Wagner 418 W. 9th St. 16502
Phone 456-5431

SIDE-MOUNTED BASE STATION OMNIDIRECTIONAL ANTENNAS

In many installations it is impossible or impractical to mount the antenna on top of the supporting structure and side-mounting is frequently desired. The field strength curves shown on pages 64,65 and 66 illustrate the patterns which will result from side-mounting antennas at various distances from several size towers. In general, the number of lobes is equal to the number of quarter-wavelengths between the antenna and the tower. The width of the individual lobes increases with decreasing tower size.

Although the patterns of side-mounted antennas on the following pages indicates large variations in field strength, it must be kept in mind that a variation in field strength does not result in an equal variation in range. The range variation is approximately equal to the square root of the field strength variation. Thus, if the field strength decreases by 10 to 1, the range will decrease by approximately 3 to 1.

All dimensions on the following pages are expressed in wavelengths, therefore the chart below is provided as a quick reference. All dimensions greater than 10 ft. are rounded to the nearest inch.

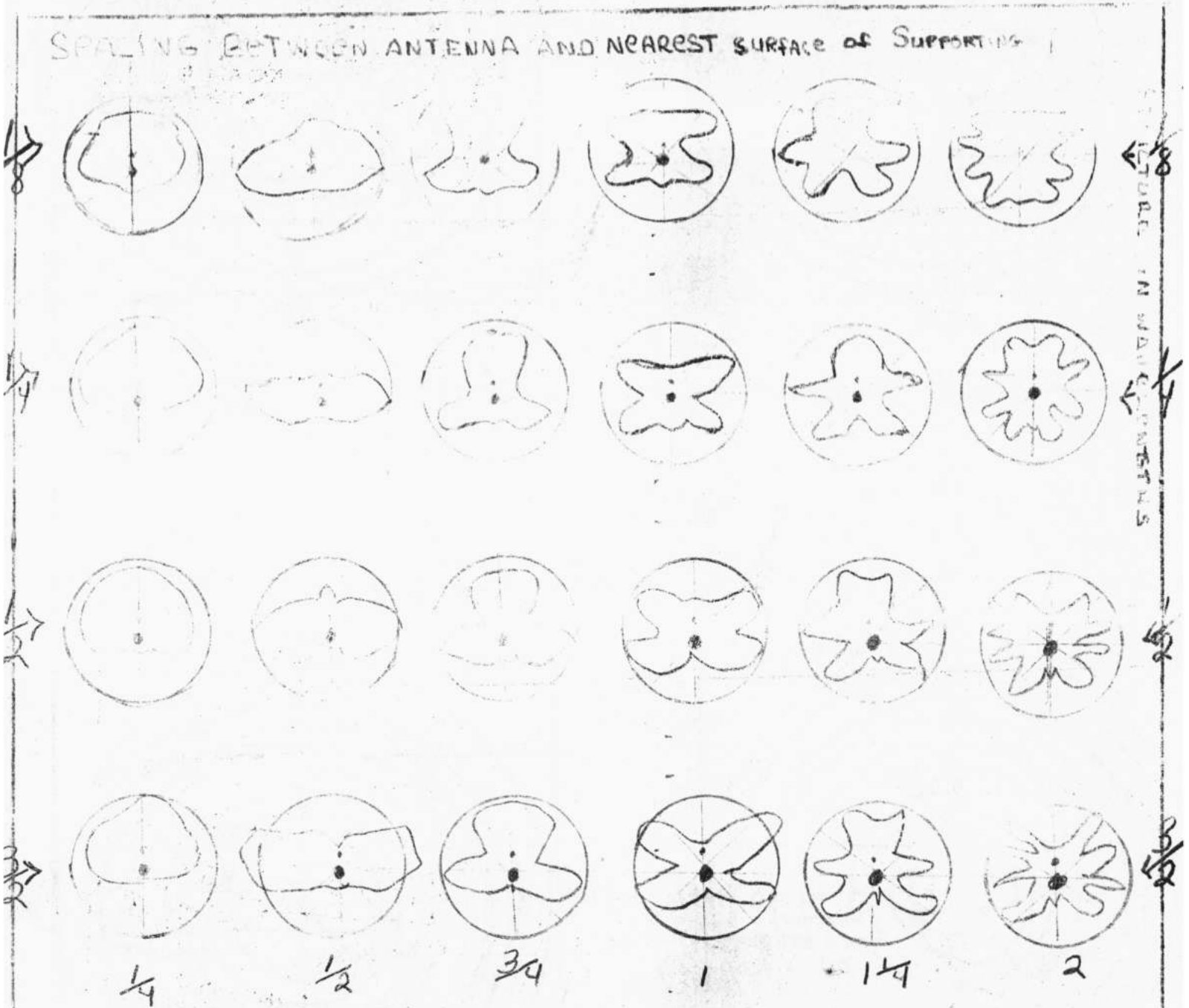
Frequency in Megahertz	WAVELENGTH INCREMENTS							
30	4'1 3/16"	8'2 3/8"	16' 5"	24' 7"	32' 10"	41' 2"	65' 8"	180' 7"
50	2'5 1/2"	4' 11"	9' 10"	14' 9"	19' 8'	24' 7"	39' 4"	108' 2"
160	9 7/32"	1'6 7/16"	3' 1"	4'7 3/8"	6' 2"	7' 8"	12' 4"	33'10"
460	3 7/32"	6 7/16"	1' 7/8"	1'7 5/16"	2' 1 3/4"	2' 8 3/16"	4'3	11'10"

TO OUR CUSTOMERS

Phelps Dodge Communication Company has been in the design and manufacture of Two Way Land Mobile Antennas for a long time. We think we have achieved a fair amount of expertise in this field.

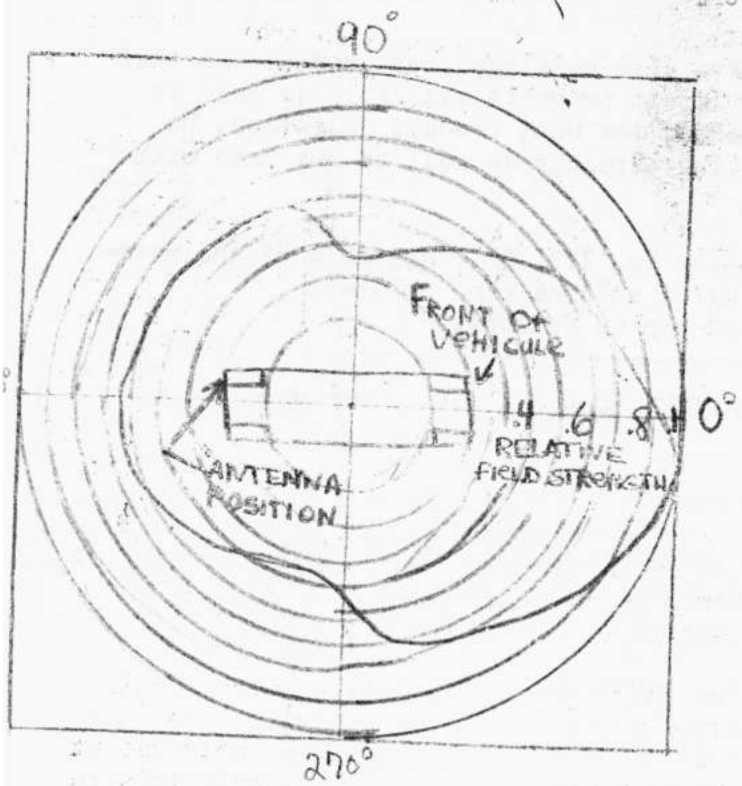
For as long as we have designed and produced, we have also cataloged our products so that you, our customers, would have ready access to the latest products available as well as have a source of technical information to aid in making the best product selection. We thought we had a fair amount of expertise in producing catalogs as well as antennas with each catalog being better than its predecessor.

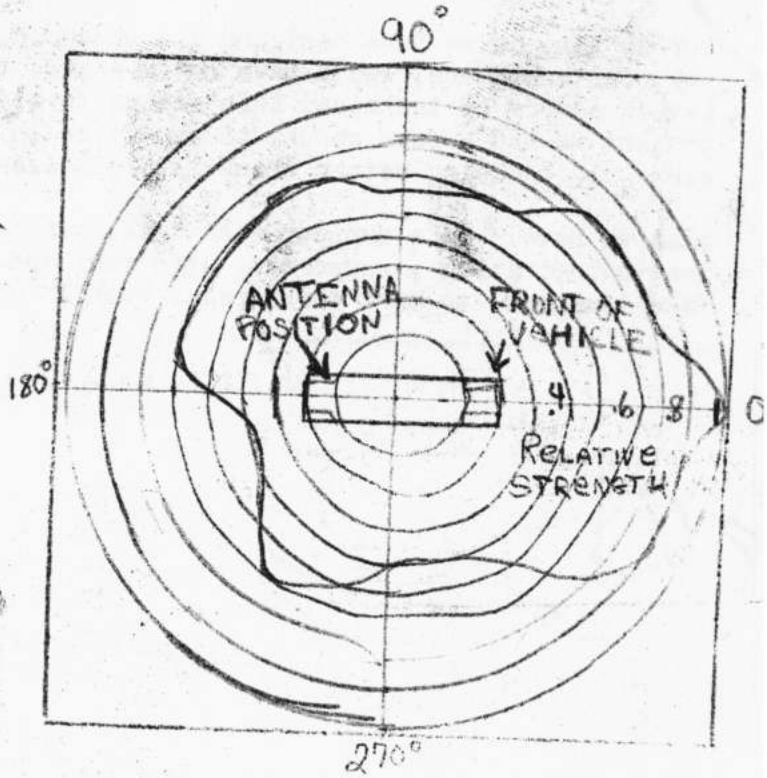
Alas we have come a croppper with this, our new Catalog No. 173. On Pages 64 & 65 the wavelength indication, supporting structure and spacing of antenna were omitted.
Take time now, to mark these pages with a ball point pen as follows.

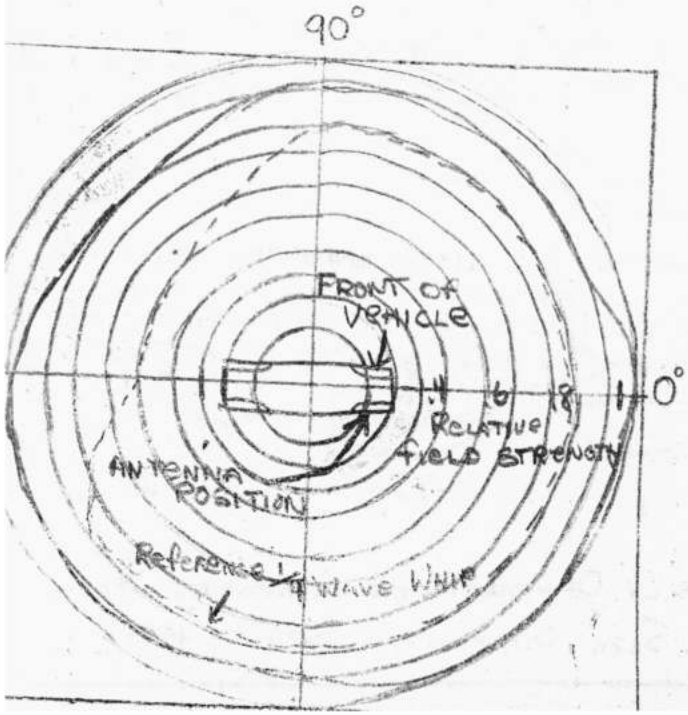


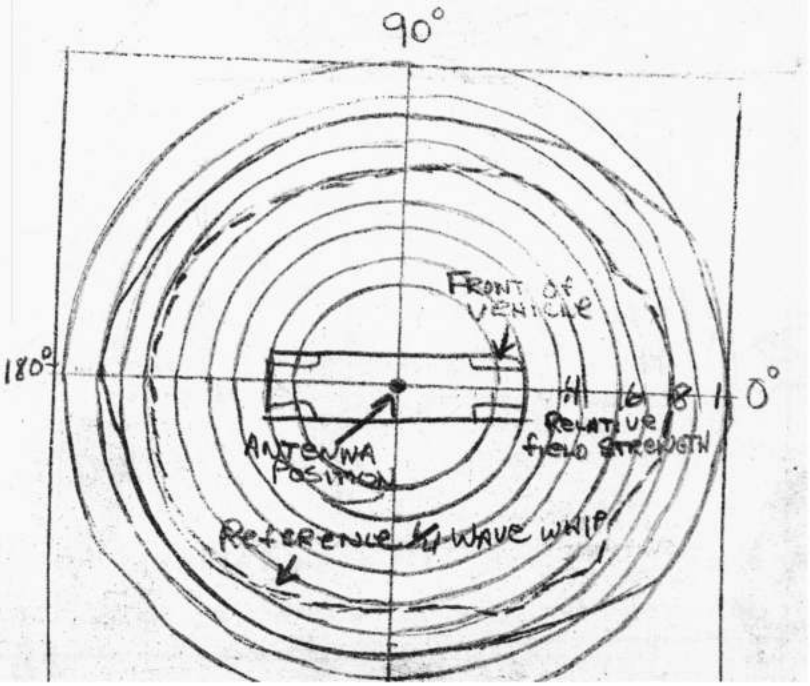
RELATIVE FIELD STRENGTH PATTERNS OF NORMALLY OMNIDIRECTIONAL ANTENNAS SIDE-MOUNTED AT VARIOUS DISTANCES FROM SEVERAL SIZE SUPPORTING STRUCTURES

Passenger Vehicles









President Caputo opened the meeting at 7:40 PM. Roll Call showed 8 members attending. The August 21st meeting minutes were approved as read. The Treasurers report showed $205.09 in the checking account.

Bob reported on the trip to the Hamburg Hamfest. He also gave a report on expense for the repeater. The bill for the telephone control line is expected to come to $80.76 per year. Bob asked how the club should handle this and other expenses the repeater incurs. Following a long discussion, a motion was made by K3HWL to postpone the charging of repeater user fees until our meeting in March 1974. Motion approved. Bob also moved to pay a bill for $[illegible] to Loefflers Flower Shop. Also approved

Mike and Bob gave a report on the monitoring of Illegal CB activities that interferred with our repeater. It was moved by Bob to inform the FCC of this activity. The motion was approved 7 to 1. Mike asked to go on record as opposing this move.

Mike gave a short summary of his letter to the FCC regarding the 220 MHZ docket

Bob reported on some equipment he had been asked to sell for a local party. This equipment includes: a Knight 150 XMTR,and ARC 80 & 40 RCVR w/PWR supply, an Eico keyer, a Vibroplex Key, and a VHF TV preamp. Contact K3HWL for more information.

Don turned in his resignation to take an outOof-town job.

Meeting adjourned at 9:05 PM.

PROPOSED AMENDMENTS TO CLUB BY-LAWS

It is proposed that the following section be added to the club By-laws in Article VII of the CARS Constitution.

For all purposes of voting, a Quarum shall consist of a minimum of Three club officers and three general members.

This month in the QUA-RAE there are four graphs that may meed a little more information to enable the layman to use the information given in the graphs. All four of the graphs are concerned with the amount of power delivered to the antenna via the transmission line.

Knowing the loss in db of the transmission line in use, which can be readily obtained from the manufactures specs, and the VSWR of the load, which can be measured, the first graph can be applyed to determine the additional loss caused by the USUR. The figure obtained from the graph is then added to the loss of the line to find the total loss in db of the system.

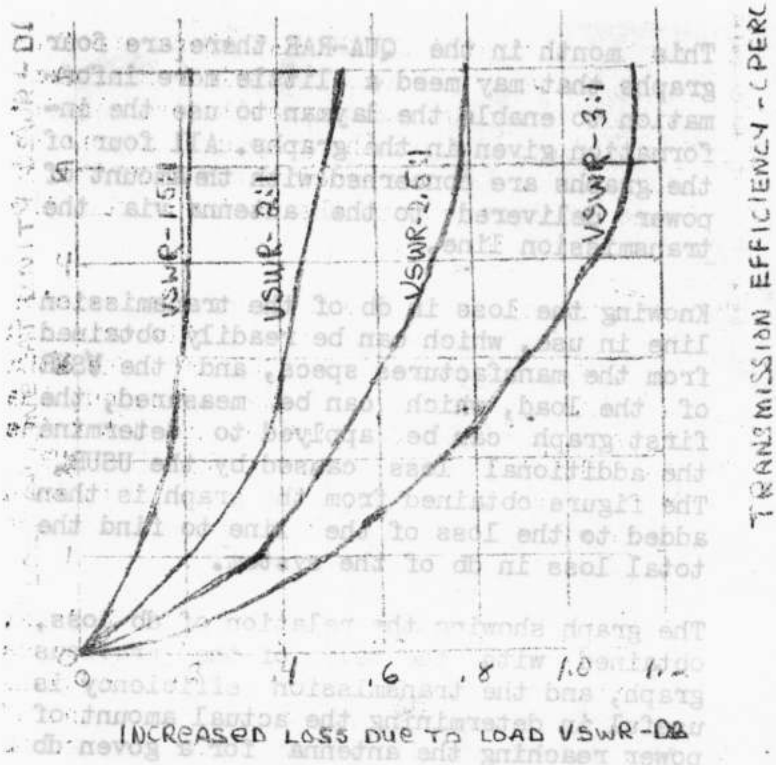
The graph showing the relation of db loss, obtained with the help of the previous graph, and the transmission efficiency is useful in determining the actual amount of power reaching the antenna for a goven db loss.

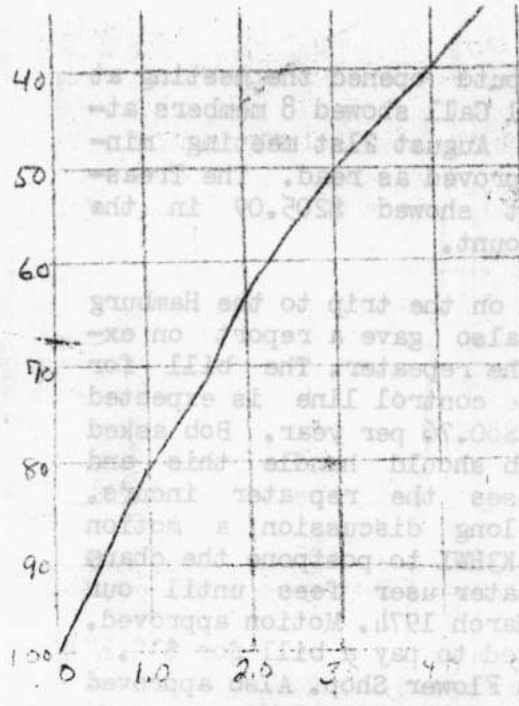
The third graph is a little more complicated and a little less easy to understand Most of us think of the VSWR measured at the transmitter as THE VSWR, but this is no the case in actuality as this graph illustrates. Due to the attenuation of the transmission line the USWR measured at the transmitter appears less than the actual USWR caused by the load, Measuring the USWR at the transmitter and being able to compute the transmission line loss from manufacturers specs and the actual USWR caused by the load can be simply determined by referring to the graph.

Most of our common SWR meters include a portion of the fourth graph. Usually they end at SWR of 3.0 and indicate 11 per-cent reflect power. With the aid of this graph, those of us with SWR's greater than 3.0 can determine how much of our power is being reflected back toward the rig.

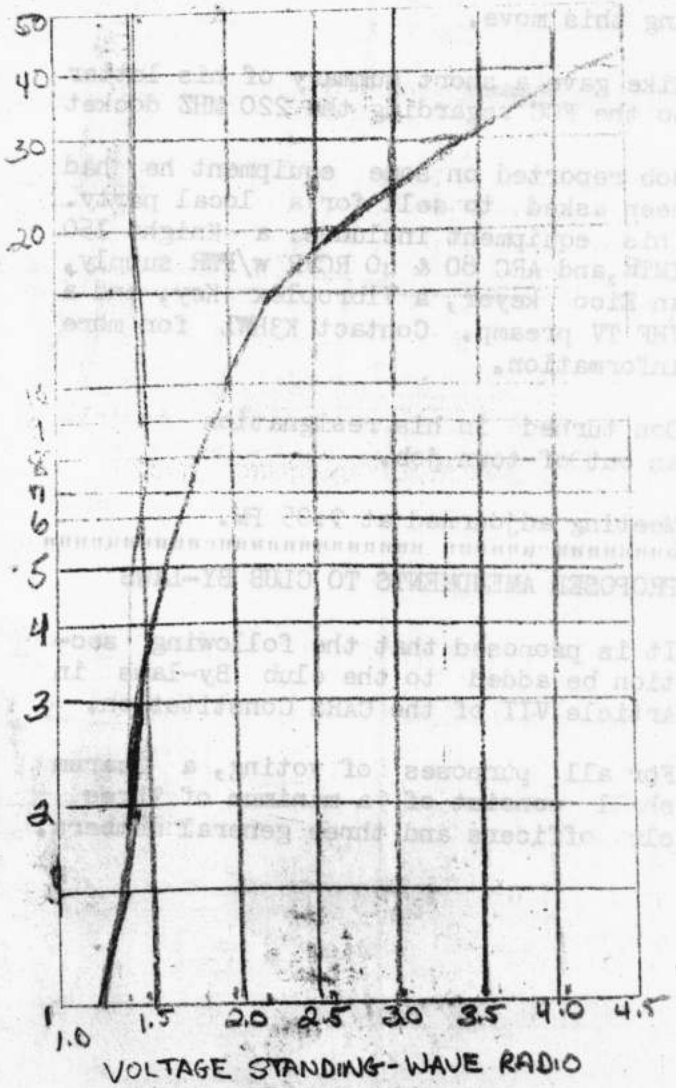
Perhaps with a little measuring the looking up of manufacturers specs we can all know a little bit better where we actually stand as far as putput power is concerned.

Anonymous

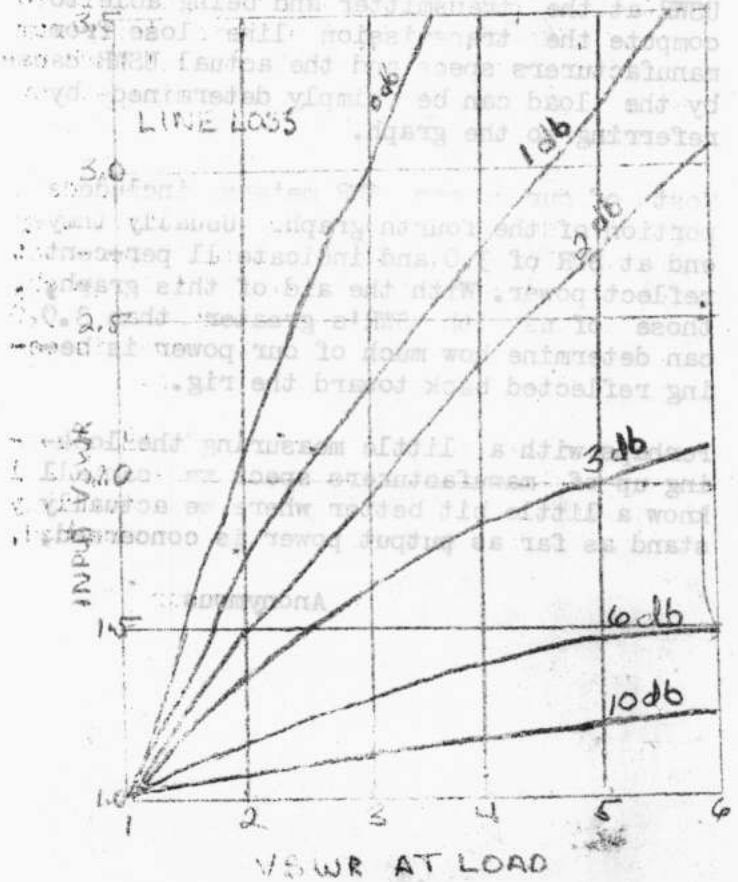




REFLECTED POWER vs
STANDING-WAVE RATIO



REDUCTION OF VSWR AS
A RESULT OF LINE ATTENUATION



FREQUENCY COUNTERS

The most essential element of any frequency counter is the decade counting assembly (DCA) which is a simple group of four cascaded binary stages. Four cascaded binaries count from zero through binary 15. Most DCA's have an interstage gating process which permits the accumulation of 9 counts (pulses) and reset to zero occurs on the tenth pulse. Thus, the input to one DCA is scaled by a factor of 10, i.e. - every ten pulses into a DCU will result in an output of one pulse.

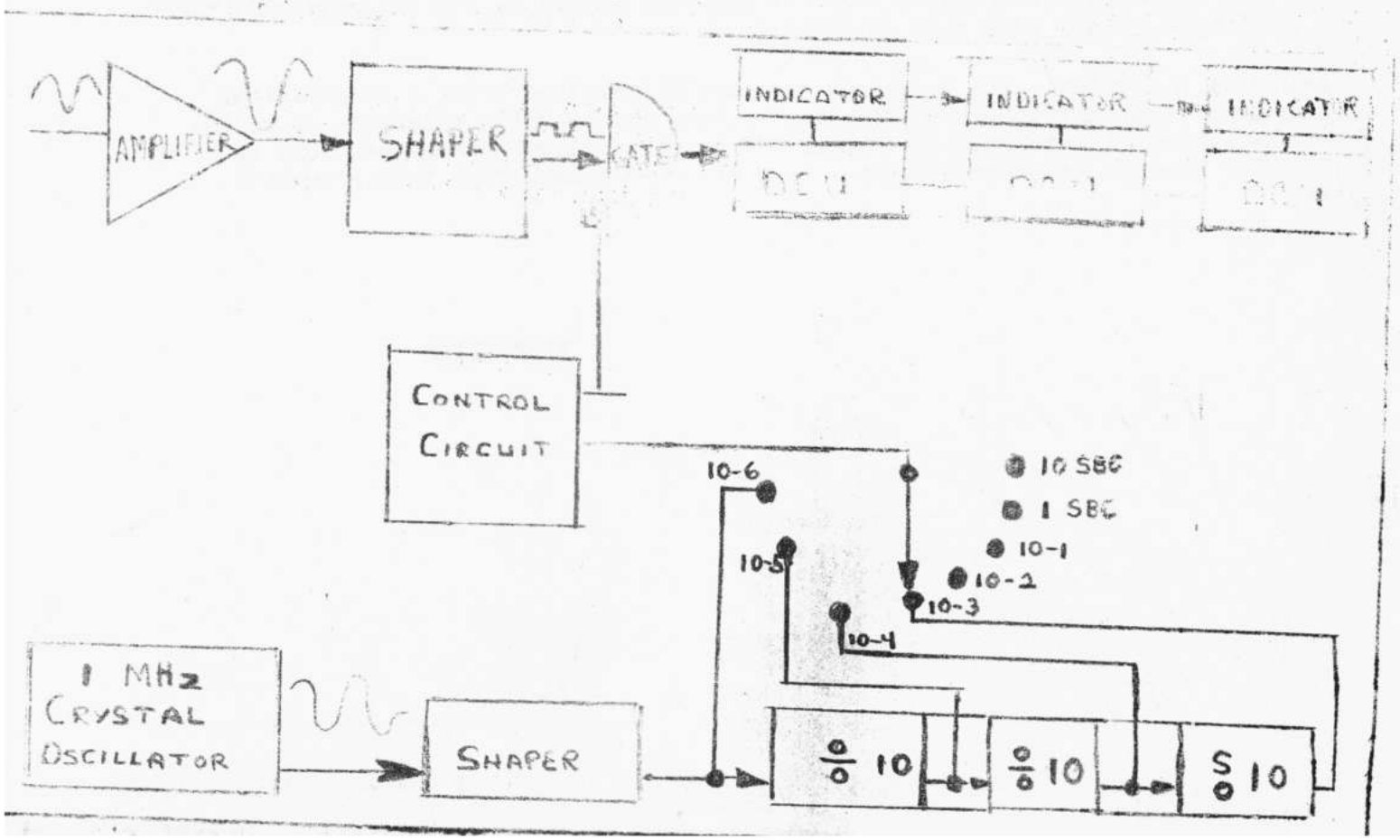
A series of n decades can be cascaded to provide scaling by a factor of 10n. This series of decades can accumulate, i.e., count, the number of pulses applied to the input. A frequency counter is simply an accumulator to which pulses are applied for precise time period yielding a readout in events/time which is frequency (see figure 1).

In fig. 1 the frequency to be measured is amplified and then shaped into pulses or square waves, and is subsequently applied to a gate circuit. Gate's output of this decade drives the second, and so on. The output of the crystal oscillator is shaped and divided in decade steps. Fig. 1 shows the time base switched to the 10^{-3} sec. position, thus opening the gate for one millisecond. If a frequency of one megahertz were applied to the input of the amplifier, the gate would open for one millisecond and during this period of time, 1000 counts would be accumulated. The decimal point and unit of measure are automatic and the counter would indicate 1.000 megahertz.

Because the frequency counter counts the number of cycles that have occurred during the gate opening, it will average out any FM (noise) present. Frequency counters using the direct counting technique are now available for measuring frequencies as high as 200 MHz from industry.

HIGH FREQUENCY MEASUREMENTS. Accurate microwave measurements can be made with counters by using frequency extension techniques above 200 MHz. This entails use of transfer oscillators, heterodyning, or automatic dividers. There are also automated versions the first two approaches.

CON'T next page.



Heterodying involves the generation of a comb of harmonics, based on an internal standard and mixed in a suitable cavity. Unique difference frequencies can be produced within the range of direct counting techniques. This technique measures the average value of CW signals (even when FM'd to a certain extent) and can have resolution down to 1Hz in 1 second of counter gate time.

Transfer Oscillators, can measure FM or pulsed signals as well as CW signals over a wide frequency range. Here the frequency is determined by measuring the frequency of a low-frequency oscillator whose output is harmonically related to the unknown input frequency. The harmonic number is then computed and then used to modify the time base of the counter to produce a direct-reading system. The transfer oscillator technique is generally conceded to be the most economic method of measuring pulsed signals.

Automatic Dividers, also known as prescalers, provide automatic measurement and direct readout of a wide range of CW frequencies and can furnish 1 kHz resolution in 1 second but cannot tolerate much FM. This technique is generally used to 500 MHz where the frequency to be measured in divided by a suitable factor (generally four or eight), to produce a signal that can be counted directly. The time base is expanded by the same factor, to provide a direct readout in frequency.

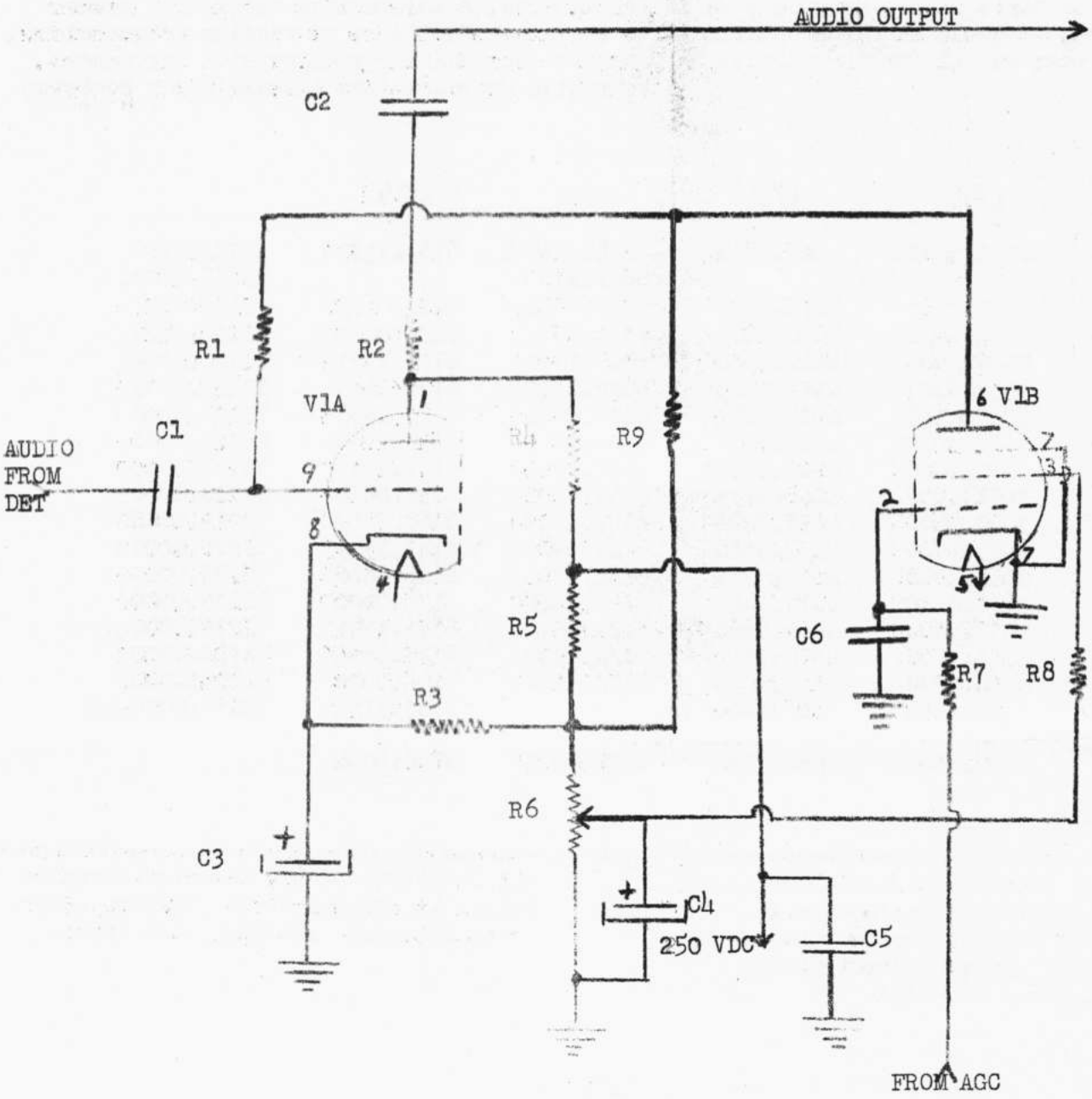
Automatic Transfer Oscillators are similar to the transfer oscillator method except the harmonic number is computed automatically, and the instrument's time base is modified to produce a direct readout. Approach requires phase-locking to the unknown input with resultant accuracy that of the basic counter.

Automatic Heterodyning is basically a search-and-lock receiver technique which scans in frequency from low to high. The coarse digits are taken from the local oscillator frequency via an A/D conversion of the YIG preselector filter which is used to select proper local oscillator comb. Difference frequency between the LO and the unknown input is counted and added to the coars frequency which has already been preset into the counter's display. This approach is best for handling signals produced by current microwave source, as it is FM tolerant.

Automatic Sampling takes a number of consecutive samples and reconstructs the waveform through storage techniques. This is the only technique for automatically measuring pulsed RF signals with good precision.

Selecting a Counter. The processes previously described offer a wide variety of measurement capability. However, if your application requires tolerance of residual FM, the automatic heterodyne technique offers distinctive advantages. This is particularly the case in telecommunications systems where transmitter deviation is a problem.

"73" K3WTZ



TUBE TYPE SQUELCH CIRCUIT

C1,C2	.022uf Cap.	R2,R8	100 Ohm Res.
C3	12uf 600VDC elec.	R3,R7	1.6K Res.
C4	20uf 600VDC elec.	R4,R9	56K Res.
C5	.33uf Cap.	R5	27K Res.
C6	.02uf Cap.	R6	25K Pot.
R1	560K Res.	V1	6EA8 Tube

THIS IS A LIST OF TRANSMITTING FREQUENCIES PREPARED BY A HEATH MODEL ELECTRONIC CALCULATOR.

Since there are so many receive if frequencies in the various types of 2 meter equipment, it would be rather difficult to prepare a full list of receive frequencies. Consult your manual for the correct information for figuring your receive frequency.

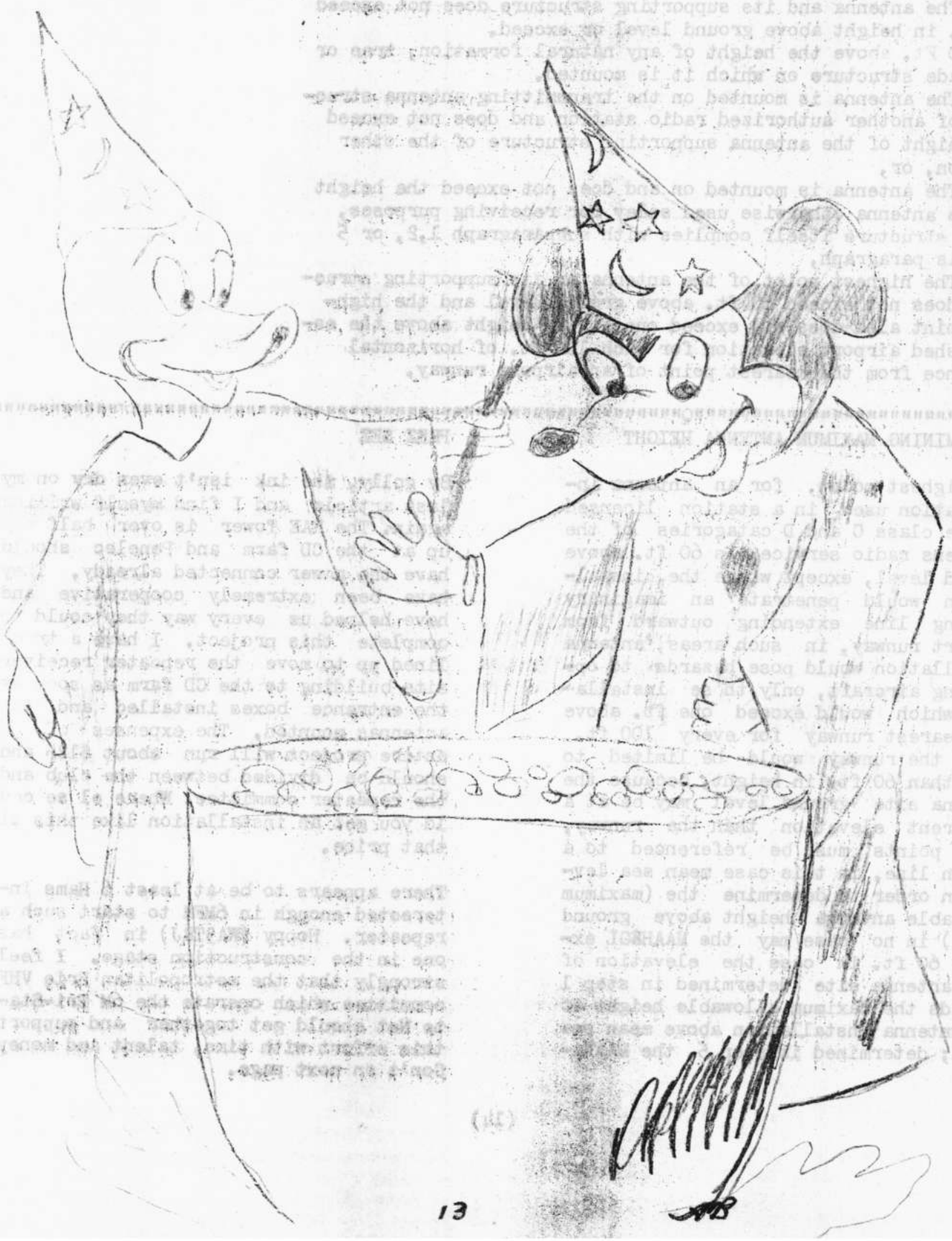
Reprinted from Crawford Amateur Radio Society

FREQ	f/48	f/36	f/24	f/18	
146.040	3042.5000	4066.6666	6085.0000	8113.3333	12170.0000
			6087.5000		12175.0000
146.100	3043.7500	4058.3333	6090.0000	8116.6606	12180.0000
146.160	3045.0000	4060.0000	6092.5000	8120.0000	12185.0000
146.220	3046.2500	4061.6666	6095.0000	8123.3333	12190.0000
146.280	3047.5000	4063.3333	6096.8750	8126.6666	12193.7500
146.325	3048.4375	4064.5833	6097.5000	8129.1666	12195.0000
146.340	3048.7500	4065.0000	6100.0000	8130.0000	12200.0000
146.400	3050.0000	4066.6666	6102.5000	8133.3333	12205.0000
146.460	3051.2500	4068.3333	6105.0000	8136.6666	12210.0000
146.520	3052.5000	4070.0000	6107.5000	8140.0000	12215.0000
146.580	3053.7500	4071.6666	6110.0000	8143.3333	12220.0000
146.640	3055.0000	4073.3333	6112,5000	8146.6666	12225.0000
146.700	3056.2500	4075.0000	6115,0000	8150.0000	12230.0000
146.760	3057.5000	4076.6666	6117.5000	8153.3333	12235.0000
146.820	3058.7500	4078.3333	6120.0000	8156.6666	12240.0000
146.880	3060.0000	4080.0000	6122.5000	8160.0000	12245.0000
146.940	3061.2500	4081.6666		8163.3333	12250.0000
147.000	3062.5000	4083.3333	6125.0000	8166.6666	

For Sale - Rohn ssvn - 60, 60' self-supporting tower presently in use at WR3ACA receiver site Commercial grade. Contact Chuck Bliley, Phone 866-1132

RAE Christmas party, Saturday December 8th at the SVedan House, Eastway Plaza route 20; time 7:00 pm, Dutch treat.

To Make This Brew Steam, And,
We Want To Wish You Happy Hollowen!



FCC PROPOSED NEW RULES INCREASING CB ANTENNA HEIGHT

. Section 95.37 is amended to read as follows:
Section 95.37 Limitations on antenna structures,

(C) A class C or D station operated at a fixed location shall employ a transmitting antenna which complies with at least one of the following,
(1) The antenna and its supporting structure does not exceed 20 ft. in height above ground level or exceed.
(2) 20 Ft. above the height of any natural formation, tree or man-made structure on which it is mounted.
(3) The antenna is mounted on the transmitting antenna structure of another authorized radio station and does not exceed the height of the antenna supporting structure of the other station, or,
(4) The antenna is mounted on and does not exceed the height of the antenna otherwise used soley for receiving purposes, which structure itself complies with subparagraph 1,2, or 5 of this paragraph,
(5) The highest point of the antenna or its supporting structure does not exceed 60 ft. above ground level and the highest point also does not exceed one ft. in height above the established airport elevation for each 100 ft. of horizontal distance from the nearest point of an airport runway.

DETERMINING MAXIMUM ANTENNA HEIGHT

The highest point, for an antenna installation used in a station licensed in the class C and D catagories of the Citizens radio service, is 60 ft. above ground level, except where the installation would penetrate an imaginary sloping line extending outward from airport runway, in such areas, antenna installation would pose hazards to operating aircraft, only those installation which would exceed one ft. above the nearest runway for every 100 ft. from the runway would be limited to less than 60 ft. in height, because the antenna site ground level may be at a different elevation than the runway, both points must be referenced to a common line, in this case mean sea level, in order to determine the (maximum allowable antenna height above ground level) in no case may the MAAH&GL exceed 60 ft. in case the elevation of the antenna site determined in step 1 exceeds the maximum allowable height of the antenna installation above mean sea level; determined in step 5, the MAAHA-GL

PREZ SEZ

By golly, the ink isn't even dry on my last article and I find myself writing again. The RAE Tower is over half way up at the CD farm and Penelec should have the power connected already. They have been extremely cooperative and have helped us every way they could to complete this project. I have a truck lined up to move the repeater receiver site building to the CD farm as soon as the entrance boxes installed and the antennas mounted. The expenses of the entire project will run about $125 and should be divided between the club and the repeater committee. Where el se could you get an installation like this at that price.

There appears to be at least 6 Hams interested enough in 6MFM to start such a repeater. Hoppy (WA3TRJ) in fact has one in the construction stage. I feel strongly that the metropolitan Erie VHF committee which operate the 6M Tri-State Net should get together and support this effort with time, talent and money

Con't on next page.

PREZ SEZ CON'T

the 6M emergency network and I should upgrade to 6MFM and enjoy the system every day of the week and not just Sunday at 9pm / Most of the 6M FM gear is easily convertible to FM transmit and the receiver can slope detect FM. A kit is available for about $30.00 for Consets and could be adopted to other rigs. All you really need on your receiver (whether it be for AM or FM) is the addition of a squelch circiut. This circuit can be copied from any CB set and wouldn't cost more than $5.00 and two hour work. The 6M group needs a project to get life on the band and retain the band. Why put up with that "rushing" noise while waiting for a call. At least squelch and monitor the frequency. For real enjoyment and a challenge go 6M FM See "Hoppy" (WA3TRJ) about this. The 2M repeater group has enough projects to keep it busy for over a year - so why not have the Metro Erie VHF group go modern and go FM. I am sure that the Directors would consider leasing and licensing the repeater equipment for club use and control if you 6M Hams get together and request it.

By the way -- what became of you low band hams? Can't you write something for the JA-RAG?

"73" Brownie K3QAY

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224 CB SHOT DOWN ?

Word has just come that Canada is opposed to the opening of the U.S. CB band (class D in the 224-225 MHZ band. The Department of Transport is reported to have officially opposed this EIA inspired FCC scheme to sell equipment.

Canada feels that even a 25 mile border limit would in many cases be all too little to protect Canadian users of the amateur band. In view of the record on 27 MHz, the Canadian fears would seem to be entirely justified. Certainly there is no indication that the FCC would be able to maintain any sort of order on this band and it is to be expected that an area of up to 50 miles or more within the Canadian border would be subject to light to severe interference throughout the new band.

The FCC would be on very delicate ground if it were to contravne the ITU frequency allocations which the U.S. signed and agreed to - and this precident could be the stone that could start an avalanche of similar acts of ignoring the ITU allocations throughout, the world. It was delicate enough without the official opposition of Canada - and there is good reason to expect that a similar reaction will come from Mexican telecommunications authorities. This could be the straw that will break the docket and force the FCC to adhere to the international rule.

How About RM - 1633?

It is possible that the manufacturers who were so eager to junk the 1633 proposal for a hobby class ham license on 220.5-224.5 MHz might now reconsider and figure that part of something is better than nothing. Since CBers seem to want to hobby almost exclusively, it is always possible that the hobby use of this band might be more successful in the long run than a Class E CB band, from a manufacturing viewpoint.

Should manufacturers (and possible even the EIA) decide to go in this direction, it may be possible to set up an amateur licensing system similar to that in Japan where clubs give license study courses and graduates get their Ham tickets. This element of study and familiarity with rules and regulations might bridge the gap between the lawless and essentially stupid 27 MHz CB band operations and a system of 220 MHz.

REPRINT 73 ACTION

NOTES FROM THE CYRYPT, OR TALES OF THE LIVING DEAD.
(a special halloween story)

While you listen to the rustling of leaves on a cool autumn night, in the security your living room with a fire lit in the old hearth, you begin to think of the long ting winter ahead like a ghost in the room; you feel a slight uneasiness in your stom- as the night wears on, and wonder why? All it is is your conscience playing on you your "I don't a it" attitude of the past naughing inside you, when suddenly you e and realize you aren't at home at all, that the warmth you feel is the fires of burning just below you as they eat away on your pine box which you thought was easychair, and the wind is a draft through the void in your head. "HELP ! HELP! !!!" is your cry, but no one is to hear you for it is too late.

Disturbing? It ought to be, for this is what I see the Erie area Radio amateurs , but for a few exceptions. How many meetings have I gone to to hear much complaining t the "Bitchers" in the background of the club, those on the membership list who to never be able to make a meeting or drop a line to the activities chairman to them know what they would like to see the club do in the future. Instead we may r from one or two of you when something that "concerns" you comes up and you feel your place to criticize what has already taken place. "Why didn't you do it this that." Is the Cry. The criticism is often after-the-fact and should have been brought- at one of the MEETINGS, PRIOR to the action! Sure you are a paying member of the lub, but you have been paying for less than half of the bills of the club, with the lance coming from the interest on some bonds that were donated to the club by some vic minded individuals of the past. Don't we atleast owe them the obligation to spend fruits of their generosity as wisely as possible? We could do a lot better job of if you would only come around to the meetings and voice your opinion and get involved. you are concerned about the club and can't come to the meetings, call one of the lub officers and let them know your problem and that you are behind them in their efforts. ead the minutes in the newsletter carefully and keep abreast of what is coming up.

I don't know that it has to be, but the active concerned members of this club e hitting their heads against the wall time and time again trying to figure out what u want. Your lack of moral and physical support is yearly costing the club the sup- port of it's best workers. Why not! Their doing three or four jobs that are making their "hobby" into a vocation because no one will fill the posts. By no means is any ne of these jobs difficult in itself if the rest of the membership does their part, the old saying goes, "many hands make light work."

Notice is here by given to "club Watchers", there is the same problem in PARC there is in the RAE, in this case the similarity is unquestionable. They are no tter off then us.

What are you going to do fellows? Are you going to standby idily and let what is eft crumble into ruin, or get out and do something this year. Show me that you can get yourselves together and make something of a mark in the community, and for amateur radio. That is if you have the guts enough to stand up and be counted. Think of the many long months you studied and struggled so you could call yourself a "Ham" and use the priviledges it gave you. That licensc gave you the priveledge to be a service to the ommunity through amateur radio, let's go out and prove th them we are men of our word.

"73" Charles A. Bliley K3NAU

TWO METER REPEATER/SIMPLEX BAND PLAN

REPEATER CHANNELS (27 Channels)

Lo		Hi	
Input	Output	Input	Output
146.01	146.61	147.69	147.09
146.04	146.64	147.72	147.12
146.07	146.67	147.75	147.15
146.10	146.70	147.78	147.18
146.13	146.73	147.81	147.21
146.16	146.76	147.84	147.24
146.19	146.79	147.87	147.27
146.22	146.82	147.90	147.30
146.25	146.85	147.93	147.33
146.28	146.88	147.96	147.36
146.31	146.91	147.99	147.39
146.34	146.93		
146.37	146.97		
146.40	147.00 *		
146.43	147.03 *		
146.46	147.06 *		

SIMPLEX CHANNELS (13 Channels)

Lo		Hi
146.49		147.51
		147.54
146.52	(Calling frequency: USA & CANADA)	147.57
		147.60
146.55		147.63
146.58		147.66
147.42		
147.45		
147.48		

* optional in Region

REPRINT ARRL

For Sale - Rohn ssvn - 60, 60' self-supporting tower presently in use at WR3ACA receiver site Commercial grade. Contact Chuck Bliley, Phone 866-1132

RAE Christmas party, Saturday December 8th at the Svedan House, Eastway Plaza Route 20; time 7:00 pm, Dutch treat.

THE SPECIAL NOTICE

THE NOVEMBER MEETING OF THE RADIO ASSOCIATION OF ERIE WILL FEATURE A SPECIAL MEMBERSHIP VOTE ON THE PROPOSED DUES INCREASE AS RECOMMENDED BY THE BOARD OF DIRECTORS. ALL MEMBERS OF THE CLUB ARE ELIGIBLE TO VOTE AT THIS MEETING, AND YOU SHOULD USE THIS OPPORTUNITY TO EXPRESS YOUR OPINION. THE INCREASE IS DESIGNED TO HELP DEFRAY THE MOUNTING COSTS OF RUNNING THE CLUB, PROVIDING MEMBERS WITH MORE AND BETTER ACTIVITIES, AND KEEP THE QUALITY AND REGULARITY OF THE QUA-RAE COMING TO THE MEMBERS. THIS HEARBY SERVES AS OFFICIAL NOTICE TO ALL MEMBERS OF THIS IMPORTANT VOTE AT THE NOVEMBER 1,1973 MEETING.

EC REPORT

Once again the Erie County AREC has conducted it annual Halloween Rat Patrol. This marks my third year of leadership and I would like to thank all those amateurs who participated in the drill. A full report will appear next month as November's deadline precedes the drill date.

AREC should receive a welcome boast with the installation and forthcoming use of the 100' tower on the CD farm by the club's repeater WR3ACA. It is hoped that the county-wide coverage can be obtained and this would prove most valuable during times of emergencies. Condradulation to the repeater group on their new call sign and fine work.

With the snow season approaching, phrases such as "Travelers Warning", "winter storm watch", and "heavy snow warnings" will become a part of our weather forecasts. As concerned and dedicated amateurs, we must realize the great number of mobiles travelling in passing through our area. When warnings are in effect, we should make it a point to monitor the local net frequencies and announce the monitoring the periodic announcements concerning the weather situation. The plight of a motorist may well depend on our willingness to do this. All mobiles should report road and traffic conditions so that they can be reayed to the other nets. Our observances of these simple procedures will help us devilap a meaning ful system of communications during emergencies.

With that, I'll close by apologizing for no report last month, but things were very hectic here.

"73" Mike WA3HSR

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