

QUA•RAE

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

VOLUME VIII, NUMBER IV (4)

May, 1977 A.D.

FINAL EDITION-ERIE

Dates to Remember---

---IN THIS ISSUE !!

P.A.E. Business Meeting -- May 5th, 1977
P.A.E. Repeater Meeting -- May 12th, 1977

* Insuring YOUR Mobile Rig
* Anyone for CQ
* MONEY!!

P.A.E. Activity Meeting -- May 19th, 1977
Airport Tour / Details Inside!!!

* Anyone for CQOS
* Squelch Tales
* How I Got Started (?)
* Switch...What Switch??

QUA•RAE Deadline (as always) -- May 15th, 1977

++ PLUS USUAL++

Printing was excellence - WA3ZNO/WA3LSV
Printing done by K3WIO
Circulation via WA3HSP
Calendar thanks to WA3JNY

* P.A.E. Minutes
* Repeater Minutes
* Activity Report(s)

ERIE'S FINEST AMATEUR RADIO NEWSBULLETIN BY FAR !

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

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THIRD CLASS

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

R.A.E. Meeting Minutes of April 7, 1977 -- QUA-RAE Featurette -- K3TDE, Bill

The regular meeting of the Radio Association of Erie was called to order at 8:05 P.M. E.S.T. (0105 UTC) (April 8, 1977 UTC) by the vice-president, WA3UNX Don Quiggle.

OFFICERS PRESENT: WA3UNX, WA3UCP, K3TDE.

DIRECTORS PRESENT: WA3HDK, WB3CXI.

The treasurer's report was given by WA3UCP, Bob, and were accepted as read. Copies of the report was given to WA3UNX and K3TDE.

Minutes of the last meeting were read by K3TDE. Three minor corrections were made to call signs and then the minutes were accepted.

WA3ZXO commented on the publication of the QUA-RAE. The deadline will still be the 15th of the month. Electrostatically produced masters will be tried.

WB3BNH, Dave, gave a report on the code and theory classes. He invited that some holdup was experienced in receiving tests for Novices.

WA3UCP, Bob, reported that plans are being made for a committee meeting for the 1977 Hamfest.

A motion was moved and seconded that WA3LSY, Rick, be reimbursed for 5 keys purchased for the EOC building, amounting to \$4.00. Motion carried.

K3OHQ, Jim, reported that WA3MAU, Joe, was appointed to fill a vacancy on the board of directors some time ago. Mentioned for information.

WA3HDK, Bob, that a committee would evaluate use of the EOC for various activities by the R.A.E. for: equipment housing, CW classes, general meetings, etc. The committee: WA3TYI, Dick -- WA3HDK, Bob -- W3WDK, Robbie, Chairman.

It was mentioned that the TA33 beam antenna that was bought from Myron Powers has never been picked up and should be referred to W3WDK, the equipment and maintenance chairman.

WA3TRJ, Hoppy, gave a report on the new repeater. Two beams have disappeared from the old repeater site. ARPL has been notified that the 34/94 repeater (WP3ACA) is an open repeater operating 24 hours per day. The repeater has been operating with 60 watts power since April 1, 1977.

Several motions were based from the floor from WA3LSY. They were:

- 1.) Moved that an agenda be made prior to the regular club meetings and published in the QUA-RAE. Seconded, discussed, carried.
- 2.) Moved that written comments be read by the R.A.E. at its regular business meetings providing that such comment were pertinent to the matters on the agenda and received prior to the meeting. Seconded, discussed and carried.

R.A.E. Minutes of 4/7/77 continued.....stay tuned.....don't touch that dial

3.) Moved that a list of all motions and resolutions passed by the R.A.E. but not acted upon be made by the secretary for the next business meeting, and reviewed. Seconded, discussed, and failed.

4.) Moved that all future motions that are taken into consideration by the R.A.E. have a time period stipulated as part of the motion to insure action within a reasonable time. Time period to be 90 days. Seconded, discussed, and carried.

5.) Moved that the secretary of the R.A.E. make a list of all matters that require action by the board of directors, attend the next director's meeting with list to see that action is taken, then report such actions at the next business meeting. Motion failed due to lack of a second.

6.) Moved that all regular board of directors meetings be open to the membership of the R.A.E. as well as interested parties outside the R.A.E. and that minutes or recommendations from such meetings be printed in the QUA-RAE. Motion failed for lack of a second.

A motion was heard from K3VLP, George, that any previous business that has not been in the process of, or acted upon within the last 90 days be considered null and void. Seconded by WA3TRI, Hoppy. Motion carried.

W3SN, Bart, has a film from ARRL in his possession entitled "Moving Up to Ham Radio." He requested help from someone who was a CB'er and is now a licensed amateur (or one who is "moving up," and also an experienced ham operator. Mr. Bill Schneider, who is moving up, and WA3TRI, Hoppy, who is an experienced operator, volunteered to assist. (Bill is a student from the code and theory classes, and was attending his first P.A.E. business meeting.)

Meeting was adjourned at 9:32 P.M. E.S.T. (0232 UTC) (April 8, 1977 UTC).

Coffee and doughnuts were served.

Respectfully submitted by K3TDE, Bill Rutledge, R.A.E. Secretary

QUA-RAE salutes K3TDE as R.A.E. Secretary of the Month. Nice job Bill !!!!!!!

Know Your Officers -- QUA-RAE Who's Who in YOUR Club Department -- as of now

PRESIDENT -- Frank Grace
W3NR

VICE-PRESIDENT -- Don Quiggle
WA3UNX

SECRETARY -- Bill Rutledge
K3TDE

TREASURER -- Bob "Uncle" Jackson
WA3UCP

REPEATER COMMITTEE: Chairman - Michael Greenfeld, N3SW
Vice-Chairman - Jim Fitzreiter, K3QHO
Secretary - Bill Weakland, WA3CDL
Treasurer - Marty Brown, WA3EAY

QUA-PAE Classifieds ---It pays to advertise in the QUA-PAE---

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For Sale: TR-22 1.5 watt portable/mobile/base 2 meter FM rig. Includes rubber duckie antenna, Ni-Cad battery pack, Recharging cord, carrying case, and crystals for .34/.94;.22/.82;.16/.76;.69/.09;.94/.94 and .52/.52

++++ \$125 +++++

Call Bob Jackson at 833 1478

REPEATER COMMITTEE MINUTES

April 14, 1977

The meeting was called to order at 8:05 PM at the Red Cross Building by N3SW, Chairman. Members present were W3NR, N3SW, K3QHO, WA3TRJ, WA3EAY and WA3CDL. WA3LSY attended as a guest. WA3EAY reported that the new treasury balance was \$86.51.

WA3LSY reported that the new repeater was put on the air April 1st. The new repeater experienced some receiver difficulties but they were corrected on April 2nd by retuning the receiver frequency. On the following Tuesday and Wednesday, WA3LSY and WA3ZX0 were able to get the power amplifier on to improve the signal strength of the new WR3ACA.

WA3TRJ reported that the National Fuel Gas has been very cooperative in preventing interference to the repeater and that few problems had occurred lately. WA3TRJ also reported receiving correspondence from the ARRL requesting information on the club's repeater and an order to the club of training tapes and materials.

N3SW reported that after talking with FCC personnel at Washington, D. C., an automatic repeater would be one with a tape recorder activated by the repeater's transmitter.

N3SW also reported having the controller at his home QTH and that he hoped to have work completed on it by about May 1st. The committee then entered into a discussion on decoders and what type should be used. Power supply requirements were also discussed. N3SW reported that he had not yet received the touch-tone pad and crystals to be used for control.

W3NR gave a brief report on Civilian Defense activities.

WA3TRJ requested that motions be made to obtain a new commercial grade antenna and hardline for the repeater, due to the difficulties with the present system. He also suggested that the old cable could be used for the control receiver.

WA3LSY and WA3ZX0 volunteered to check prices and possibly purchase the needed antenna, mount kit and hardline at the Dayton Hamvention. The committee then supplied WA3LSY with minimum specifications for the antenna

REPEATER COMMITTEE MINUTES (continued)

and hardline. The hardline to have a maximum loss of .9 DB per 100 feet and be copper shielded with plastic over shield, the antenna - minimum 6 DB gain low angle of radiation omnidirectional and commercial grade. The antenna mount to be adjustable from 1/4 to full wavelength. WA3TRJ moved that funds be supplied to WA3LSY and WA3ZXO to purchase these items at Dayton if they could be obtained at good prices. W3NR seconded the motion and the motion carried.

Bids were received by the committee from WA3HDK and WA3LSY for the sale of the P. F. Communications power amplifier and were opened. The committee moved to accept the bid from WA3LSY at \$36.00.

WA3TFJ moved to adjourn the meeting at 8:59 PM and WA3CDL seconded the motion. The motion carried.

Respectfully submitted,

WA3CDL, Secretary

There are nearly 100 members of The RADIO ASSOCIATION OF ERIE to date, nearly 20 percent of the members attend the meetings. This is your club, what services can the club provide you. The club is here to serve all the members, not just a few. Please address your comments and suggestions to the editors of the OUA-RAE: Rick Robishaw, 515 Wilshire Road, Erie PA 16509; Maurice Baker, 112 East 21st Street, Erie PA 16503. Only you can make it happen.

1977

APPLICATION FOR MEMBERSHIP RADIO ASSOCIATION OF ERIE

Name _____	Call _____
Address _____	Class of license _____
City _____ Zip _____	ARRL Member? yes no
Telephone _____ Home _____	Work _____
Comments _____	

Dues are \$3 a year. Membership runs from October 1, 1976 to December 31, 1977. Repeater Committee Dues are \$10 Additional for the 1977 Calendar year.
() Check here and enclose \$13 for combined membership.

Insuring your Mobile Rig (a QUA-RAE FEATURE article) by Bob Jackson, WA3UCP

With the recent popularity of CB radios, a vast market has opened up for pre-owned models which are generally obtained without the owner's permission. Literally thousands are stolen each month -- in one midwestern city, CB thefts were found to make up 15-20% of all reported burglaries, larcenies and robberies. Many amateur rigs are also stolen, probably due to the similarity of appearance to Citizen Band radios.

The only way to prevent the possibility of theft is to remove the rig from your vehicle whenever you leave it, and carry the radio unit with you. Installation of an auto alarm system is recommended, providing the alarm is loud enough and in close enough proximity to personnel who can be alerted by it. While staying overnight at a motel, the antenna should also be taken inside with the radio. Engraving your driver's license number in a concealed chassis location will aid identification of the radio by law enforcement authorities when and if it is recovered.

However, the chances for being "ripped-off" are still very great and it is best to get some insurance coverage to recover the value of any loss you might incur. Most automobile physical damage policies now exclude two-way mobile radios from coverage under theft clauses, or comprehensive provisions, on the basis that radio equipment is not "automobile equipment". Check your policy or ask your agent if your mobile radio is or is not covered for theft under your policy.

Generally you can "buy-back" the excluded coverage for an additional premium. The following table is a summary of the provisions of the four largest insurers in the Erie area, plus the standard provisions of bureau companies. State Farm's provisions are a little sketchy, and allow for a buy-back of coverage for permanently installed equipment. It would be best to check with the company or its agent to see whether this includes bracket-mounted equipment or free-standing equipment. All other companies listed exclude CB radios, two-way radios or telephones, and their antennas and accessories at a minimum.

Company Name	Deductible from loss	Coverage Limits		Yearly Premium
		Cost	New Basis	
Erie Insurance	\$25		\$750	\$15
Allstate	\$50	\$	0 - \$ 500	\$12
Nationwide	None.		No Limit.	\$20
State Farm	None.	\$	0 - \$ 200	\$ 8
		\$	201 & Up	\$20
Bureau Companies	None.	\$	0 - \$ 200	\$20
		\$	201 - \$ 500	\$40
		\$	501 - \$1000	\$68
		\$	1001 - \$2500	\$122
			Over \$2500	\$190

Insuring your Mobile Pig CONTINUED.....

Your amateur radio equipment including mobile rigs can be insured on an "all-risk" basis by purchasing a personal property floater policy. This type of policy protects for all hazards, not just theft or fire as included in the automobile policy. If you wish to obtain this protection, call your agent for prices and information. In fact, call around to a number of different companies to get the best price. Coverages should be quite similar.

Tell our advertisers you saw it in the NEW QUA-RAE, published monthly !!!!!!!

Anyone for CW (a QUA-RAE regular feature) by Don Quiggle, WA3UNX

Haven't had too many QSOs since last article. Not getting enough time to put the rig on the air, so we'll have to do something about that.

Right now listening to Virginia QSO party and picking up a few new counties. Do not get confirmations as it is too expensive.

Larry, WB3BKM, using a CB tuner with the HW-16 on 15 meters doing a FB job.

Managed a few new countries during DX contest. Finally caught up with that elusive JA1PIC/PZ in Surinam. Was in Paramaribo, Surinam during WW2 while sailing for Alcoa lines.

40 meters has been so active lately, it's tough & go to find a place to squeeze in.

Congratulations to Norma, WA3KKT now W3CC, on new two-letter call.

I'll be listening for you on the CW bands, 73s for now.

Know the phrase that says.....I listen to the NEW 3ACA, WR3ACA Erie 34/94

Field Day 1977 - June 25 & 26 by Don Quiggle, WA3UNX, R.A.E. Vice-President

We have been granted permission to use the UFO landing site at Lake City Community Park again this year. Last year all seemed to have a good time there. Let me know your choice of the band you would like to work. Let's have a good turnout and have W3CV heard all over the country.

QUA-PAE Classified Advertising -- Send your requests to one of the editors.

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SELL---Motorola 41V - 2 units. These are 2 meter 12 Volt FM transmitter-receivers. Both are single frequency units. One has crystals for 22/82, 34/94 and 94/94 and is in excellent condition. The other is operating 22/82. All for \$40; call Don, WB3BRE at 864-9834.

SELL---Heathkit Oscilloscope with 3" CRT. Fully assembled now & 100% working. Kit cost \$169.95. See Mike @ Sal's Arco Station & VW Repair, 21st and Parade Sts., N.E. Corner.

WANTED---YLS. Contact Pick & Murray c/o QUA-RAE.

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Activity News by Don Quiggle, WA3UNX, R.A.E. Activity Chairman

May 19th Activity will be a tour of the EPIE AIRPORT, thanks to Bill Jones, WA3PFL, of the Civil Air Patrol.

June 16 is tentatively set aside for a tour of WQLN TV/TH.

Alimony ... bounty on the Mutiny? Smile -- frown turned upside-down

QUA-RAE Free Enterprise Section ... Idea #001 by Hank Mroczkowski

MONEY! Now that I have your attention, how about an idea that can make some? This would need a little development by an individual with some experience in logic and commercial sign construction techniques. The end product would have a good market for the small retailer and plenty of cash for the maker of the message sign.

The basic design of the device would include a RAM (Random Access Memory) to store a short message and perhaps some brand name being "pushed" that week, a parallel-to-serial converter and decoder, an interface/driver package, and of course the display. Most of the electronics needed for control is already put together for you in the form of a new microcomputer developed by National Semiconductor called SC/MP, and its accompanying development system. The SC/MP can be purchased in the form of a small plug-in card with everything on it except the power supply, the input device (we have to have some way to put the message in the RAM), the driver, and the display.

QUA-RAE Free Enterprise Section CONTINUED.....

A word about the display; this is the most visible & important part of the system! It must be catchy to the eye, readable from at least 50 feet away, small and light enough to be mounted in the window of the small businessman's establishment, and fairly durable. A very good example of a similar but static type of sign is the ones seen in the Erie area a few years ago. They were about 2 feet by 3 feet, back-lighted, with a perimeter of red and yellow bulbs which flashed randomly. The center area was white and provided guides for mounting multi-colored letters which spelled the short message of the day.

The display we want should have a small area for the name of the place it's in, but, the center of attention will be a single alpha-numeric display. Similar to the common 7-segment LED type, this one could be constructed in a compartmented box, using small fluorescent tubes as the light source. Inexpensive transformers, SCRs, and photo-isolators would be mounted in the display box; provisions for Plexiglas filters would allow any color to be used, depending on the atmosphere the proprietor wants to convey.

Another line of thought may be a five-by-seven incandescent bulb display, giving higher definition and use of special symbols. Obviously a more expensive route; but, for the competitive retailer, well worth it. Both types of displays are easily implemented with minor software (program) changes.

Input to the system would have to be a keyboard of some type. To hold down the cost, a lease could be drawn up and the maker of the system could provide maintenance and message programming on the system. He could use the SC/MP portable terminal or bring an EPROM (erasable read-only-memory) which would be exchanged on a weekly basis. On the other hand, with a little practice, the small businessman could purchase the complete package, and program the message into the system himself, anytime he wants.

The cost of the system would be roughly \$300 to produce which would put it in the \$600 - \$1000 range. This is a paltry sum compared to the \$100-thousand plus spent on the big Holiday Inn signs. And still a small sum compared to the \$10 to \$30 thousand spent on the average four foot by fifteen foot over-the-window signs.

A fusion of your electronics talents and a sign manufacturing company's facilities may develop a hobby into a sizable income.

Ham Radio for the Blind & Physically Handicapped -- QUA-RAE Spread the Word Dept.

Handicapped amateurs & non-amateurs should contact the Courage HANDI-HAM System, 3915 Colden Valley Rd., Colden Valley, Minnesota 55422. Non-handicapped hams willing to help this fine cause are also needed to teach, tutor, install, and maintain equipment for members. I would imagine that there are at least a few people around Erie who could avail themselves of the HANDI-HAM program, and more than a few who could help it.

Anyone for CMOS? - a QUA-RAE FEATURE article - by M. R. Baker, WA3ZXO

Lately, I have become very interested in CMOS digital logic, and its amateur radio applications. I would like to share some of its characteristics with you; hopefully, this will be a beginning for a forum on such state-of-the-art techniques useful to the ham.

CMOS is a very-low-power family. Where 1 gate of Low-Power TTL (74L) draws about 1 milliwatt in the quiescent state (not doing anything), a typical CMOS gate will dissipate only 10-30 nanowatts! The advantage over standard 7400 TTL is even more striking. Since, I suspect, gates and other logic elements in typical amateur radio digital systems spend most of their time not actively performing a function, the system's operating time on batteries, solar power, thermal power, or the like would be increased several orders of magnitude. This would be a real asset in gear used in disaster-type situations, i.e., a repeater controller.

Another advantage of CMOS is its flexibility in supply voltage requirements. Whereas TTL requires a critically regulated & filtered +5.0 volt supply, CMOS chips are spec'd to operate consistently and reliably over a nominal range of 3 to 15 volts. Coupled with the low power consumption already described, this means smaller power supplies with less current capability and less stringent regulatory parameters. Thus, they would be less expensive to build and maintain, as well as easier to design.

CMOS ICs, although frequently thought of in a digital way, are also capable of many interesting, useful, and low-power linear applications. Digital logic level oscillators for clocking/pulsing, audio oscillators, and even crystal-controlled RF oscillators are all within the scope of CMOS. There is even a CMOS Phase-Locked-Loop, the CD4046A, which can be used in a synthesizer, or a super-reliable tone decoder unit. Although space does not allow drawing and describing many circuits here, I hope you have been sufficiently enticed to obtain CMOS information from National Semiconductor, 2900 Semiconductor Drive, Santa Clara, California 95051; and from RCA Solid State Division, Box 3200, Somerville, New Jersey 08876.

Here's hoping you enjoyed this brief article, and would like to see more along the same line. Your comments, suggestions and of course, criticisms, are always welcome.

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QUA-RAE needs low-band type articles (DXing, etc.) -- low pay but lots of thanks
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WA3MKT, Rich Cutter, has been keeping no secret of his solar powered 2 meter station. Rick is also keeping up with the times by getting involved with microprocessors.

N3SW, formerly WA3SHW, sporting 1st 2-letter "N" call in the area.

FOOD for THOUGHT, this month's FTT contributor is Henry "Hank" Mroczkowski

Last March, an important item was discovered missing from the basement workshop/communications room of the Red Cross building. After all possible alternatives were investigated, including the fact that it is useless to anyone not involved in 450 MHz, UHF communications, it is our conclusion that a "fellow" amateur absconded the article of equipment.

This may seem to be a rash statement, but, in view of the fact that nothing else was taken, including the new ACA and thousands of dollars of other parts and equipment, no other reasonable assumption can be deduced. It undoubtedly had to be somebody interested in only that item. This item is a set of duplexing "cans"....not an inexpensive piece of equipment.

Obviously this loss has caused a lot of personal grief, and not to mention a lot of suspicion in all directions. Unfortunately though, the deepest wound occurs to the ham community. It's that cruddy doubt of integrity each one of us gets when we QSO.

This feeling is relatively easy to get from CB as an awful lot of radio transceivers in that band turn up missing each day. How are we letting this same unwholesome activity penetrate our fraternity without challenge? Is it that as the number of transceivers and other pieces of equipment of all kinds are stolen we consider it commonplace and are thankful it didn't happen to me, or don't we care anymore? Is this the attitude affecting you?

If you can help get it back where it belongs, please do. If you know who has it, encourage him or her to return it. And, if you are the one who has it, whether you took it or not, return it. If the duplexer was easy enough to steal, it should be just as easy to return. Under those circumstances, no questions can be asked. This isn't the best way to alleviate the suspicions, though. We would most appreciate the person coming to us with the duplexer and an apology. The situation could then be cleared.

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The opinions expressed above by Mr. Mroczkowski are his alone, and may or may not represent the opinions of OUA-PAE management or the Radio Association of Erie. Responsible parties are invited to utilize this space in a responsible manner to comment on this or any other issue concerning amateur radio today.

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OUA-PAE thanks Bart, W3SN for bringing the following to our attention:

You think you have trouble communicating!!! The following sentences were excerpted from letters on file at the San Antonio Veterans Administration Office.

You changed my little boy to a girl. Does this matter?

In accordance with your instructions, I have given birth to twins in the enclosed envelope.

I am forwarding my marriage certificate & 2 children to you, one is a mistake as you can plainly see.

QUA-RAE Classifieds ... We need YOUR ad ... The price is right, they're FREE!!

GIVING AWAY---2 Archer Soldering Irons, 1 new/never used, other 1 is used but new tip already installed, will be given to first 2 deserving Novices to ask for them at the May, 1977 RAE meeting. See Michael "Mikey" Greenfeld, N3SW at afore-mentioned meeting.

MUST SELL---Spec Comm 2 meter repeater, all crvstalled up for 34/94, IDs DE WP3ACA ERIE, previous deal fell through. Contact Murray, WA3ZXO.

WANTED TO BUY---2 Crvstal Controlled CB rigs (Must NOT be synthesized), only need 3 or 6 channel versions...do not need to be "full deck" 23 chs. Preferably transistorized to be used on 10 meters. Talk to Rick, WA3LSY.

Murray's Mumblings --- Monthly QUA-RAE Editorial Spot --- by Murray, WA3ZXO

Well, here it is....the first big issue of the NEW QUA-RAE. Needless to say we are always looking for articles and material for the newsletter---the deadline is the 15th of each month, and material can be sent to M. R. Baker, WA3ZXO, 112 East 21st Street, Erie, 16503; or Rick Robishaw, 515 Wilshire Road, Erie, 16509. Articles will be printed as submitted, except for grammatical corrections not affecting the material content of the submission. The only time articles will be rejected are those considered by the editors to be libelous, or otherwise damaging to the QUA-RAE and/or amateur radio in general. Authors will be notified of their acception or rejection as soon as the item(s) are evaluated. Regular contributors will be provided with pre-addressed stamped envelopes upon request, as has been club policy in the past.

It is our opinion that the QUA-RAE does not have to be pro R.A.E. totally --- instead it should provide a forum and atmosphere for healthy and constructive debate and action on all issues concerning ham radio. As such, the R.A.E. should be pleased to play such a key role in its support. While the QUA-RAE does have a certain obligation to provide an outlet for R.A.E. activities (HAM-JAM, Field Day, etc.), as well as serving the R.A.E. by publishing its meeting minutes, agendas, committee reports, etc., its role should not be limited to such. I hope to include things above and beyond the scope of the club proper, much along the lines of this issue's article on developing & marketing the display signs, by Hank Mroczkowski. Investigative reporting concerning matters of interest to area hams; articles in a humorous vein, as well as technical projects and the like are well within our scope and will be included. To reiterate, the aim of the QUA-RAE for the remainder of our term of service will be for the hobby as a whole with emphasis on what concerns the Erie area --- in keeping with this, we will coincide with what I hope is the aim of the R.A.E., or should be. I invite your responses and views.

Thought for the Day---A friend is a gift you give to yourself.

QUA-RAE

SOVELCH TALES by Mike Greenfeld, N3SW

On April 1, the new WP3ACA was placed into operation. After some initial problems with desense were solved, operation started at full power. The change is obvious. In many places where coverage was noisy or there were problems with interference from Cleveland it is now full quieting, or close to it. Audio quality overall is improved. No longer does a wide input signal cause the output to overdeviate. There are still some problems. The high temperatures occasionally present at the site have caused some control problems. The repeater has sometimes reverted to low power operation. Some of these problems may be caused by the use of the old controls which were not part of the agreement under which WA3ZXO and WA3LSV rebuilt the main portion of the machine. Work on new controls is in progress. Rick and Murray have done an excellent job of moving the club towards the goal of having a repeater that it can be proud to own.

There have been a few cases of questionable use of the repeater. These are the use of the repeater to buy or sell equipment, and the use of profane language or telling jokes that might be considered obscene. If you have equipment to sell, use the telephone or advertise in QUA-RAE. If you have doubts about a joke or story, don't tell it. If someone is heard violating FCC regulations on the repeater, remind them of the rules. However, be polite and identify yourself. Remember, two wrongs don't make a right.

ACTIVITY REPORT by Activity Chairman Don Quiggle, WA3UNX

Approximately 20 members enjoyed the March activity presentation by Will Monola, W3NBA, on his Mini Products antennas.

By the time you read this, our April Get Acquainted Party will be over. Hoping for a larger group than the March activity.

May 19 we will have a tour of Erie International Airport, thanks to Bill Jones, WA3PFL, C. A. P. officer for making the arrangements.

A tour of WOLN is scheduled for June.

WA3UNX Don

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HOW I GOT STARTED? AS A HAM-QUA-RAE condensed book section by Bonny, WB3DFY

I found many incorrect ways to get involved with amateur radio. Two examples: Getting one's license should never be used to change the subject when arguing with one's fiancé, or spouse, or friend, or lover, or anyone else.

HOW I GOT STARTED? AS A HAM (continued)

Another no-no is practicing code on a beautiful spring day in front of large windows with inviting landscapes. These are not providers of good attitudes towards study.

The biggest no-no of them all, I found, the absolute sin of all sins, is that of putting things like study and practice off for a little while. You should not forget to listen to code practice for two or three days at a time, and expect to learn any code. This has a tendency to stretch into weeks and months, or even years. I started learning code in spring 1972. I got my novice license in the summer of 1976 (this was not due to delays by the FCC).

Once one's license is in hand, one should seek immediately to both use and upgrade it. Why leave all your learning as wasted effort, and deny yourself some well deserved fun? Do not disconnect your rig for three months at a time. If your forgetful spouse (mine is N3SW) "loses" your antenna, get on His/Her back to replace and don't let the other's sins add to your own. Otherwise, you'll be off the air, like me. After I finish this, I intend to get the rig going and get on the air. I'll probably finish this for next month's issue, if something doesn't get in the way. Maybe the month after.....

Bonny Greenfeld WB3DFY

Rick's Ramblings --- Monthly QUA-RAE Editorial spot --- by Rick, WA3LSY

Yes, to coin a phrase: here it is.....the first big issue of the NEW QUA-RAE. We are proud to bring some "young blood" to the RAE and the QUA-RAE. We hope to put some new life into the newsletter and make some changes for the better. Already, you may have noticed, some changes are taking place. Barring any unforeseen accidents the QUA-RAE as well as the minutes of the last RAE meeting will be in your hot little hands before the next meeting. A new typing format has been put into effect as well as a not so evident change in printing methods. This month's issue is the first ever to use the "Electrostatic" printing method. The advantages of this method include the ability to print the paper without first typing or drawing on special masters. The copy is typed, drawn, or pasted on normal paper and then a master is made from the paper, just like running it through a copying machine. Anything that would turn out on a copying machine can be printed in the newsletter.

Be sure to "stay tuned" for the big fun packed February issue, loads of fun and surprises for the entire family.

A special thanks goes out to all of those who contributed to this issue, I hope that all of the succeeding issues are as full of good articles as this one is.

"Switch...What Switch?" - a NEW QUA-RAE FEATURE article - by Hank Mroczkowski

"What's that switch for?" my wife asked me with obvious displeasure as I drove the family to my in-laws for a visit. It was less than a week old and I had already begun to add the necessary items we need. Although, it is a bit difficult to get the XVL to understand our rationalizations, anyone in electronics can easily justify their Rube Goldberg.

The first and foremost rationalization which comes to my mind is the price paid for those beautiful burdens between two bumpers. Most options offered by the dealer (who rarely "deals") can be duplicated in any amateur's workshop for one-tenth the cost! I proceeded to develop an easy, cheap-and-dirty slow-kick windshield wiper circuit.

Digging through my junk box, I had found the SCRs I needed. (I needed two because my cousin mentioned the same option available from Radio Shack for \$10. Ridiculously high!) The part number is the C-106 series, developed by G.E. It's an el-cheapo plastic power tab unit capable of 4 amps (RMS) and 20 amps surge; adequate for my purpose. The lowest available voltage is 15 volts with the most common ones rated at 200 volts. With a little luck, I would have 2 working units soon.

Well, as it is with the finicky things, SCRs never want to do what you want them to. Foolishly, I tried to trigger them without a unijunction transistor...just an RC arrangement. That doesn't work! Again, digging through my junk box, I found a plastic equivalent to the 2N2160. There is no number on them. But, that doesn't matter anyway. The "intrinsic standoff ratio" on almost any UJT is so wide, the EMTA could use it for a thoroughfare. The intrinsic standoff ratio is the % of voltage between the two bases (remember the three-legged fuses called transistors? ... they, particularly bipolar, have one base ... now you have two to worry about!) This is the point at which the UJT goes into conduction from its emitter to the bases. There is no collector.

First, to tame the SCR, I installed a bias resistor between the gate and the cathode. The value shouldn't be critical except that one should pick the lowest possible resistance and still be able to develop a pulse from the UJT to trigger the SCR ... 50 ohms through 10K ohms isn't uncommon. The biggest determining factor is the sensitivity of the SCR's gate. Experiment!

Next is the timing. Any low leakage, high value capacitor will do, preferably a tantalum in the 150 to 500 microfarad range at 20 volts or more. The positive end goes to the emitter of the UJT and the negative goes to the cathode of the SCR along with that bias resistor. One base goes to the gate of the SCR and the other base gets tied to the anode of the SCR. Confused? Look at the diagram!

The timing resistor is now added between the SCR anode and the top (positive) end of the capacitor. It is selected for the slow-kick delay. I didn't make mine, or my cousin's adjustable for the sake of simplicity. The value should be about 50K ohms for little or no delay to about 500K ohms for a very long delay. 390K should put you in the ball park for a 5 second delay.

"Switch...What Switch?" continued.....

Installation was easy. A SPST switch (remember it?) was added to the car, the ignition power line to the original off/on switch was cut, and the added circuit and switch were inserted in the line (in parallel), where the wire was cut.

Note the polarity that you connect to the circuit as the anode of the SCR should be on the positive wire. Mount the switch where the toggle won't snag the XYL's avlons, but will still be convenient. Maybe that's why she noticed it.

Instead of extolling the virtues of my labor, I quickly changed the subject and complimented her by saying that her in-laws were much nicer than mine.

The unit has been working well for about three weeks which isn't really long enough to thoroughly test it. Bout, foolheartedly, I expect no troubles, even in the summer heat. So I potted the circuit in GE silicone rubber and a plastic bag (OK Ron??). The unit in my cousin's car is working fine and also returns a favor I've owed him. I wonder how his wife accepted another switch?

Ed, Note---Perhaps someone who actually tries this circuit would comment on interference from 2 meter transmitters, low band transmitters, and the like to the UJT, which I've been told is RF sensitive. Hopefully we can address ourselves to this next issue. Tell us your results!!

*****Schematic is at bottom of this page. Thank You*****

Thanks to Red Cross for lettinp NEW QUA-PAE continue to use their comm. room!!!

STRAYS - We need YOUR stravs - Send them to an editor by mail or via 2 M FM now

NN3SI - WA3ZXO and N3SW visited this fine station at the Smithsonian Institution in Washington last month. It has Collins gear, a TS-520 by Kenwood, and a 2 meter rig as well as SSTV & RTTY gear. Well worth visiting -- free admission.

WA3HLN - John is giving low bands the old college try (proverbially sneaking) with Tempo One and new digital dial display.

K3EDZ - Porter was active again last month on 2 M FM via WR3s AER & ACA.

Diagram for Hank Mroczkowski's Slo-Kick Wiper Ctrl.

