



ALLIANCE

AMATEUR

RADIO CLUB



ZERO BEAT

JULY 1989

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 \* OFFICERS \*  
 \* \* \*  
 \* Pres. Dave Buckwalter KC3CL \*  
 \* V.Pres. Gary Grimes KB8GAB \*  
 \* Sec'y. Gladys Wilson KB8GIA \*  
 \* Treas. Patti Hillier KE8KH \*  
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 \* TRUSTEES \*  
 \* Larry Hillier N8EWV \*  
 \* Jim Ferguson N8DZA \*  
 \* Larry Ashburn KE8VE \*  
 \* Editors \*  
 \* D. & J. Barber KB8GCF/KB8GCE \*  
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AARC MEETING

Alliance City Hospital, Cafeteria  
 on July 6 th at 7:30 pm.  
 VISITORS are always WELCOME.

FIELD DAY

Dennis /KB8GCF

My first Field day. Even though I had to work, was a very enjoyable one. Janice, Damien & I spent the weekend camping, we arrived Friday evening. (Janice set up the tents earlier). Because of working, I did not get to help with the set-up and missed the first part of field day.

Janice was able to work the Novice station, working about 50 stations on 10 meter phone. She enjoyed the afternoon, getting to see some old friends and also putting a face to some calls & voices, for the first time. From her reports, it was a busy afternoon, with people coming and going all the time. Damien had a great time, it was his first time camping. He really enjoyed it and did not want to leave when the time came.

For myself, field day was a pretty quiet affair, I had to leave for work about 2:30 pm. We had a busy night at the restaurant, so I was pretty tired by the time I arrived back to the site around mid-night. I refreshed myself, took over a station working it from 1am to 6am, making about 30 contacts.

I enjoyed the experience and would not have missed it for the world, next time I will try & arrange for the weekend off.

With regrets, we packed up about 12 noon & left for home, I had to be at work for 2pm. The Field Day site was ideal, our thanks to Larry & Patti, they put many hours into getting the site ready for us all and it was well appreciated.

Despite the 40 days & 40 nights of rain, HI HI, before field day, we did not have to operate in an Ark. The location & excellent drainage took care of that. We had a nice & dry site to work at & the weather held good for the whole weekend.

Propagation was good & we all got a fair share of contacts and good fellowship. A popular, life saving station at night was the picnic table with coffee, and remnants of the nights food, which was visited many times. All in all, I feel it was a good weekend. Field day was a great success, and the spirit of Amateur Radio was served. Showing we were ready and could do the job we did it with pride & fellowship.

We would like to give a hearty TNX to everyone concerned with making Field Day 89 the great day it was. Roll on Field Day 1990, lets make that one even better.!!



## ROUND TABLE

Another month has slipped by and I am wondering where did it go ? And so swiftly too. As I am writing this article, its still raining. Hopefully by the time you read this the monsoon season will be over.

Gladys wishes to thank the club members for electing her to the secretary's position and is looking forward to the next year with excitement and enthusiasm. To the Officers who served last year congratulations on a job well done, and to the new Officers for this year congratulations and lots of luck.

For those of you who missed the last club meeting, I volunteered to keep the club scrapbook. If you have any photo's of past club activities and would like to donate some to the club contact me anytime. On the back side please write the names, call's, time, and place.

We thought the Goodyear hamfest was a good one. I found a few goodies at a good price, so I was satisfied. Got to talk to some old friends, and meet some Hams, that I only new by there calls, and got to put a face to the voice.

The weather couldn't have been any better for outside activities. The smell of the bar-B-Q's going, sure sharpened the appetite buds. So if you did not get to go you missed another great Hamfest.

From me personally I wish to thank a person for handling a situation on the N8DZA repeater one evening. Mike N8KNU, THANK YOU.

As I listen and talk to Hams in different places. The Topic seems to eventually turns to food. I think that most Hams enjoy eating almost as much as Ham radio, HI HI.

So, Gladys came up with the idea of putting a recipe of some kind in our articles. We will try to keep simple and inexpensive, for the most part. Occasionally, it might vary, like at the Holidays.

Gladys made this one for our kids when they were growing up & they liked it then and they still do. So give it a try sometime.

### POORMANS LASAGNA

- 1- 8 ounce box macaroni & cheese
- 1- can spaghetti sauce
- 1- package shredded cheese

Prepare macaroni & cheese, using the directions, put into buttered casserole dish or baking pan. Put alternate layers of macaroni and cheese, & sauce. Top with cheese. Bake 15-20 min. at 325 degrees.

In closing I thought I would let you in on the latest rumor. I hear the boomerrang's making a comeback

Jim & Gladys---KB8GHZ & KB8GIA

### FOR SALE

Heathkit HW 104  
SB 604 ext. speaker & power supply  
Heathkit Frequency Counter.  
Rig runs 1 watt QRP, 100 watts full power. A very nice rig, also a nice sounding radio, from reports. Put together by a Heathkit technician. Inside is very clean & neatly put together.

Covers 80, 40, 20, 15 & 10 meters.  
LSB/USB/CW. Full set of manuals & extra boards. \$425.

Linear Amplifier. Maverick 250  
Old 11 meter amplifier, works well on 10 meters. Low side 250 watts. High side needs some work(?), puts out 450 watts. Also, spare tubes. Around 12 to 25 watts to drive it. Good for low power rigs. \$50

Contact: Janice or Dennis KB8GCE/F  
at (216) 823-1458

### FOR SALE

Yaesu FT 101 transiever.  
Hand mike, ext speaker, ext VFO.  
Spectronics digital freq counter.  
Keyer and paddies, & code trainer.  
\$450.

For info contact: John Gafford, at  
(216) 821-6948

## CHECKING DIODES & TRANSISTORS

For diodes:

Put your meter to X 1000 OHMS scale. Hook meter leads across diode leads. Next, reverse the leads across the diode.

You should get a reading of low resistance in one direction and high resistance in the other direction.

If you get low or high resistance in both directions, this may indicate a bad diode. In which case you will want to recheck your readings by following the above steps again.

For transistors:

Put your meter to X 10 OHM scale. Hook the meter between the emitter and the collector leads of the transistor. Next reverse the connections.

You should get a high resistance in both directions.

If you get low or no resistance in one or both directions this indicates a bad transistor. In which case you will want to redo the test, following the above steps.

Next, hook the meter between the base and emitter leads. Then reverse the connections to the base and emitter.

You should get high resistance in one direction and low in the opposite direction.

If you get zero resistance it indicates a short, or infinite resistance, both directions indicates an open junction. If you get this you will want to repeat the test.

Next hook the meter between the base and collector leads. Then reverse the connections to the base & collector.

You should get high resistance one direction and low in the other.

If you get zero resistance, this means a short, infinite resistance in both directions means a open junction. If you get this you will want to repeat the test.

## NWSC IN THE NEWS

Alliance resident, Paul Bean, a driver for Consolidated Freightways, is one of 17 drivers in the company's eastern region recognized for reaching a driving safety milestone. He became a "million miler" for driving a million miles without a preventable accident. On average, it takes a full time driver about eight years to reach that mark. CF eastern operations has 130 terminals in 13 states and about 1,400 drivers.

TNX: the Alliance Review

## FIELD DAY in the NEWS

Amateur radio operators take part in international exercises

For 24 hours over the weekend, amateur radio operators throughout the world took part in special exercises to plan and prepare for emergencies.

Seen here are two members of the Alliance Amateur Radio Club who participated in the local portion of the event at Tri-City Airport east of Alliance. They are Allen Dicks, at left and Frank Robinson, above.

A "tent city" campout grew up at the airport, as antennas sprouted from trees and poles. Visitors came from several north eastern Ohio cities to observe and participate. Five stations on various bands and frequencies operated around the clock.

The event was sponsored by the American Radio Relay League. The Alliance club currently has 50 members.

TNX: The Alliance Review:

editors note:

This was a very nice article and I thought you would enjoy seeing it. Sorry, we could not reprint the pictures.



CALLS -WHEW! I didn't think I'd be able to get these in time, this month. It seems the FCC was running a little behind. The calls did not arrive from the FCC until June 20'th.

Anyway, 481 calls were issued in May. This is the third busiest month in the last two years. The top ten months in terms of number of calls issued are listed below.

<u>month-year</u>	<u># issued</u>	<u>month-year</u>	<u># issued</u>
1 July, 1987	702	6 May, 1989	406
2 June, 1987	541	7 April, 1988	366
3 June, 1989	481	8 May, 1987	325
4 Feb, 1989	411	9 Jan, 1988	320
5 June, 1988	410	10 Feb, 1987	310

I know, it's hardly the exciting Ham radio news that you expected, but you never know when this kind of thing comes up in trivial pursuit.

Here's the calls for the month of May. As usual, the numbers in parenthesis are the number of calls issued during the month of May.

Extra- WT6H(35) Advanced-KE8ZS(28) Tech/Gen.-WBKWU(114) Novice-KE8HDK(304)

With numbers like this, how can anyone say that Amateur Radio is not growing?

### BOOKS

DID YOU KNOW? that you can buy your ARRL license manuals, and FCC rule books, through the club? Just contact KD8KQ for more info, or catch him at one of the AARC club meetings.

AIR SHOW -Well, the aerobatic competition is history, and I'd like to personally thank everyone who took time out of their busy schedules, to come out and help. As a matter of fact, we actually had extra operators this year, thanks to a better than average response from our club members, and a flock of new amateurs coming out to get their feet wet in public service operating. Thanks to everyone who helped. (KD8KQ)

### EVENT CALENDAR

#### JULY

- 1-Canada Day Contest
- 1-2-Six Meter International Net Activity Day
- 5-Venezuelan Independence Day Contest, phone
- 6- **AARC MEETING**  
Alliance Community Hospital-Cafeteria
- 8-9-IARU HF World Championship
- 9-ARCI QRP Summer Homebrew Sprint
- 9-Bowling Green H-fest
- 13-EASTERN STARK CTY ARRS NET  
9:00 P.M. on 145.370
- 15-Wellington Hamfest-Lorain County Fairgrounds  
Talk-in:146.70
- 15-16-CQ WV WPX VHF Contest
- 15-16-Colombian Independence Day Contest
- 15-16-SEANET Contest, CW
- 16-Van Wert Hamfest-Talk-in:146.85
- 20-EASTERN STARK CTY ARRS NET  
9:00 P.M. on 145.370
- 22-23-QRP Summer Contest
- 27-EASTERN STARK CTY ARRS NET  
9:00 P.M. on 145.370
- 29-Goodyear exams-Bob Ducoty-688-9876
- 29-30-Venezuelan Independence day Contest, CW

annual meeting. An introductory member who is eligible for full membership may upgrade to full membership at any time by applying for a new membership as specified in this article.

#### Article V.

##### Dues and Membership

A. A current valid amateur license issued by the FCC must be held to hold full or sustaining membership. Only full and sustaining members will have voting privileges and be eligible to hold office.

B. Each member shall pay dues annually. All dues shall be due and payable upon acceptance into membership and must be paid in full before the annual meeting.

##### C. Membership Classes and Dues:

1. **SUSTAINING MEMBERSHIP** - Any licensed Radio Amateur, contributing \$15.00 or more annually to the Alliance Amateur Radio Club, Inc. will be placed on the Sustaining Membership Honor Roll, for their generous contribution to the club treasury. The Sustaining member has full club privileges which include voting rights, the newsletter and holding office.

2. **FULL MEMBERSHIP** - Any licensed Amateur Radio Operator, contributing \$10.00 annual dues, is entitled to all privileges as above except Honor Roll status.

3. **ASSOCIATE MEMBERSHIP** - Any person, with an interest in Amateur Radio, who does not hold a valid US amateur radio license that pay \$5.00 annual dues, will be entitled to the newsletter, can attend meetings and other club functions, but can not vote.

4. **FAMILY MEMBERSHIP** - Any family member, who holds a valid amateur radio license, living in the same household as the full or sustaining sponsoring member, for the payment of \$10.00 annual dues, will have the same privileges, except that only a minimum of one newsletter will be mailed to the address.

5. **INTRODUCTORY MEMBERSHIP** - Any person who receives his first amateur radio license as a result of completing an FCC sponsored license course is eligible for and shall receive a dues free introductory membership provided that the following procedure is followed. When the course participant receives his license, he shall notify the Board of his call sign, license class and the effective date of his license. His introductory membership becomes effective at this time. Introductory members have the same rights and privileges as associate members. If an introductory member wishes to continue as a member of the ARCC he must apply for a new membership as specified in this article prior to the next

7. **DUES** - Dues are to be pro-rated quarterly, as follows for new members (any one who has not been on the roster for at least one year):

Sustaining	- 1. \$15.00	2. \$11.25	3. \$7.50	4. \$3.75
Full	----- 1. \$10.00	2. \$ 7.50	3. \$5.00	4. \$2.50
Associate	--- 1. \$ 5.00	2. \$ 3.75	3. \$2.50	4. \$1.25
Family	----- 1. \$ 1.00	2. \$ .75	3. \$ .50	4. \$ .25

The fiscal year begins 01 April, quarters are:

1. April, May, June
2. July, August, September
3. October, November, December
4. January, February, March.

D. No member shall be free to make a commitment in the name of the club without a majority vote of the membership at a regular meeting.

#### Article VI.

##### Proposals

A. No proposals shall be considered at any regular or special meetings of the membership.

#### Article VII.

##### Amendments

A. These by-laws may be amended by a majority vote of the membership.

B. All proposals for amendments shall be signed by three full and or sustaining members, presented in writing at a regular meeting, and not discuss or voted on until the next regular meeting.

#### Article VIII.

ALLIANCE Amateur Radio Club

Draft Revision  
25 April 1989

We, the membership, wishing to secure for ourselves the pleasures of an association of persons commonly interested in Amateur Radio, constitute ourselves, the ALLIANCE AMATEUR RADIO CLUB and enact these by-laws for government. It shall be our purpose to further the exchange of information and cooperation between members, to promote radio knowledge, fraternalism and individual operating efficiency, and to so conduct club programs and activities as to advance the general interest and welfare of Amateur Radio in the community.

Article I.

Meetings of Membership

- A. The annual meeting of this club shall be held in the month of May, for election of officers and trustees immediately following the regular meeting in May.
- B. Regular meetings shall be held monthly as determined by the membership.
- C. The affairs of the ARAC shall be managed by a Board of Directors consisting of seven members elected in accordance with Articles II and VIII of the Bylaws
- D. Robert's Rules of Order shall govern all proceedings.

Article II.

Officers

- A. The officers of this club shall number four (4). They are to consist of a President, Vice-President, Secretary and Treasurer.
- B. The officers shall be elected for a term of one year by ballot of members present at the annual meeting. New officers will take over their duties at the next regular meeting.
- C. Vacancies occurring between elections must be filled by special elections at the first regular meeting following the withdrawal or resignation.
- D. Officers may be removed from office by a three-fourths vote of full and sustaining membership.

Article III.

Duties of Officers

- A. The President shall preside at all meetings of this club and conduct them according to Robert's Rules of Order. The President shall be responsible to ensure positions are filled to conduct business of the club. Examples of these positions are: Newsletter Editor, Equipment Chairman, Program Chairman, etc.
  - B. The Vice-President shall assume all duties of the President in his/her absence. He/she shall also organize club activities and programs not otherwise designated to a committee, or other member.
  - C. (1) The Secretary shall record minutes of all meetings, keep a roll of members and receive applications for membership.  
(2) The Treasurer shall receive and receipt all monies paid to the club, keep an accurate account of all monies received and expended, pay no bills without a majority vote at a regular meeting by the club, and shall make a brief financial report at each regular meeting.
  - D. All officers shall, within ten (10) days after the expiration of their terms, turn over to their successors all records and property of the club, that is in their possession, that is pertinent to the office vacated.
- Article IV.
- Club Funds
- A. All money received shall be under the supervision of the Board of Directors.
  - B. All money received shall be deposited within twenty (20) days of receipt, except not more than \$20.00 may be held in a petty cash fund for the purpose of making change, or for the payment of small bills.
  - C. A majority ruling by the Board of Directors may approve expenditures of normal club business up to a limit of \$50.00 without the vote of the membership.

Draft Revision  
25 April 1989

Draft Revision  
25 April 1989

### Trustees

- A. There shall be three (3) elected trustees, to be decided on by a vote of the membership.
- B. Trustees terms will be for three years. One trustee is to be elected annually to replace the out-going trustee.
- C. The trustees shall have the control and management of the property of the club, subject only to the action of the membership. audit the books of the corporation, conduct the annual meeting, and further duties as may be required of them by the members.
- D. The election of the trustees shall be held at the annual meeting, except that if the office of trustee shall become vacant for any reason at any other time, nominations and election shall be held at the next regular meeting following the vacancy.
- E. Trustees may be removed from office by a three-fourths vote of full and sustaining membership.

### Article IX.

#### Assets

- A. Should this organization ever dissolve for any reason, the material assets of the club must be sold within ninety (90) days and the monies realized from sale is to be added to the common treasury. The Board of Directors shall satisfy all debts incurred by the organization with funds from the treasury. Remaining funds shall be equally divided among the laid-up full and sustaining membership at the time of dissolution.
- B. Such action upon the monies and assets of the club will be the responsibility of the Board of Directors at the time of dissolution.

## TSRAC'S HANDI-HELPER INFORMATION PAGE!

### ANTENNA READINGS

A high SWR reading causes a power output loss, limiting the transmitters range. If the SWR is higher than 3:1 on a tube type transmitter and 2:1 on a solid state type transmitter, it may cause the transmitter to overheat and the possibility of damage to the final stages. A SWR of 3:1 is the amount of reflected power going back into the transmitter.

### SWR CHART

SWR	LOSS	SWR	LOSS
1:1	0%	3:1	25%
1.3	2%	4:1	38%
1.5	3%	5:1	48%
1.7	6%	6:1	55%
2:1	11%	10:1	70%

The tube type transmitter is a little more rugged and can take a little more punishment, but the new solid state type unit is more critical and more attention should be taken in keeping the SWR down to a minimum.

The radio's transmitting power can be concentrated along the horizon by use of a gain antenna. Although you may be transmitting with 50 watts of power, your ERP (Effective Radiated Power) will be greatly increased by the use of the gain type antenna.

Antenna db Gain	Multiply Watts by
0	1.0
1	1.2
2	1.6
3	2.1
4	2.5
5	3.2
6	4.0
7	5.1
8	6.3
9	8.0
10	10.2
11	12.6
12	15.9
13	20.0
14	25.1
15	31.6
20	100

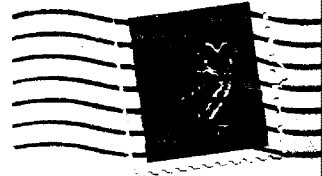
Example: You have an antenna with 7db gain and you are transmitting with 50 watts of output, your ERP will be 255 watts at the antenna, not bad, ha? Also a good grounding system is very important for both your antenna as well as your transmitter.

TNX: TRIPLE STATES RAC BNT

for the 1989-1990 fiscal year.  
dues are as follows:

Sustaining Member	\$15.00	full membership privileges plus honor roll status.
Full Member	\$10.00	voting, office--holding & news letter privileges.
Associate Member	\$ 5.00	non-licensed, non-voting, non-office holding members, interested in support with newsletter.
Family Member	\$ 1.00	Licensed family member living in the same household as paid-up full or sustaining member, to receive full privileges, one newsletter per residence will be mailed.

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★  
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