

August, 1995

# Parkersburg Amateur Radio Klub

## Di-Dah-Dit

Official Newsletter of the  
Parkersburg Amateur Radio Klub  
P. O. Box 2112 Parkersburg, WV 26101

### JULY 1995 P.A.R.K. (KB8ZVY) MEETING

THE MEETING WAS CALLED TO ORDER AT 7:15 P.M.  
INTRODUCTIONS WERE GIVEN WITH 35 MEMBERS AND  
GUESTS IN ATTENDANCE.

THE MINUTES FROM THE JUNE 1995 MEETING AND  
TREASURES REPORT

### COMMITTEE REPORTS

CURT (K8UC) GAVE A FIELD DAY REPORT. HE ALSO  
READ A LETTER HE HAD WRITTEN TO MR. LYONS  
REGARDING THE FIELD DAY SITE. CURT (K8UC) PRE-  
SENTED JOHN (N8NBL) A LETTER THANKING HIM FOR  
THE USE OF THE TENT AT THE FIELD DAY SITE. ROY  
(N8YYS) THANKED CURT (K8UC) FOR WRITING THE  
LETTERS.

OLD BUSINESS NONE

### NEW BUSINESS

JOHN (N8NBL) ASKED IF THE KLUB WANTED TO RENT  
CHAIRS AT THIS YEAR'S HOME COMING. JERRY  
(KA8NJW) WILL PUT TOGETHER A SCHEDULE FOR  
CHAIR RENTALS. JERRY (KA8NJW) ANNOUNCED THE  
AUGUST NEWSLETTER WILL BE THE LAST ONE HE  
WILL BE PUBLISHING. LARRY (KF8NW) WILL BE CHAIR-  
MAN OF THE NOMINATING COMMITTEE TO NOMINATE  
KLUB OFFICERS. RANDY (KB8WHL) WAS APPOINTED  
TO SET UP A PICNIC IN SEPTEMBER.

JOHN (WD8LKT) MADE A MOTION TO ADJURN. JANE  
(N8MOW) SECONDED THE MOTION. THE MEETING

Subject: Motorola & GE Manuals To: bowen@oe.Buff

For Motorola service manuals, call Motorola Parts-ID at  
708 538-0021 with the part number of your radio. Parts-ID  
will be able to give you the part number for the service  
manual. (Motorola has an excellent Parts-ID service,  
although they recently lost cross reference data for some  
of the 20 and 30 year old models). You can then call 800  
422-4210 to order the service manual based on its part  
number. Although they sometimes waive this rule, there is a  
\$25 minimum for credit cards. Manuals are generally less  
than \$25.

For GE service manuals, call 800 528-7711 from a  
touch-tone phone and follow the prompts. The procedure  
is much the same as that for Motorola, but you do not  
have to go through Parts-ID first. Have the part number of  
the radio ready, and go directly to the "Order Service  
Manuals" option. Cost for GE manuals is often under the  
minimum for which you will receive a bill. (In other words,  
they are often free).

In both cases, the procedure is much the same for  
ordering replacement parts.

-Adam (N2DHH)

### Klub Officers for 1995

President -	Roy Maul N8YYS
1st. VP	Ray Bodie N8TWV
2nd. VP	John McGuffey N8NBL
3rd. VP	Earl Hulce KB8HRG
Sec.	Larry Deems N8TGI
Tres.	Jane McGuffey N8MOW
Sarg/arms	Bob Lyens KB8EFB
NL Ed.	Jerry Wharton KA8NJW
Production	Mary Britton KB8BOA

## ARM 70 WORKED ALL STATES AWARD RULES

1. The WAS (Worked All States) award is available to all amateurs worldwide who submit proof with written confirmation of having contacted each of the 50 states of the United States of America. The WAS awards program includes 10 different and separately numbered awards as listed below. In addition, ENDORSEMENT stickers are available as listed below.

2. Two-way communications must be established on amateur bands with each state. Specialty awards and endorsements must be two-way (2X) on that band and/or mode. There is no minimum signal report required. Any or all bands may be used for general WAS. The District of Columbia may be counted for Maryland.

3. Contacts must all be made from the same location, or from locations no two of which are more than 50 miles apart which is affirmed by signature of the applicant on the application. Club station applicants, please include clearly the club name and callsign of the club station (or trustee).

4. Contacts may be made over any period or years. Contacts must be confirmed in writing, preferably in the form of QSL cards. Written confirmations must be submitted (no photocopies). Confirmations must show your call and indicate that two-way communications was established. Applications for SPECIALTY awards or ENDORSEMENTS must submit confirmations that clearly confirm two-way contact on the specialty mode/band. Contacts made with Alaska must be dated January 3, 1959 or later and with Hawaii date August 21, 1959, or after.

6. Specialty awards (numbered separately) are available for OSCAR satellite, SSTV, RTTY, 432 MHz, 220 MHz, 144 MHz, 50 MHz, and 160-meters. In addition, the "75-Meter, 2-letter Extra Class" award is available to any Extra Class amateur who has worked all states consisting of 1X2, 2X1, or 2X2 callsigns on the Extra Class portion of 75-meters. Acceptable callsigns for the "75-Meter 2-letter Extra Class" specialty award include one of the following:

a. All 1X2s b. All 2X1s c. 2X2s with AA through AL prefixes only in all districts (including AH6 and AL7 in Alaska and Hawaii) d. 2X2s with KH6 and KL7 prefixes only

ENDORSEMENT stickers for the basic mixed mode/band award and any of the SPECIALTY awards are available for SSB, CW, Novices, QRP, Packet, EME, and any Single Band. The Novice endorsement is available for the applicant who has worked all states as a Novice licensee. QRP is defined as 10 watts input (or 5 watts output) of the applicant only and is affirmed by signature of the applicant on the application.

6. Contacts made through "repeater" devices or any other power relay method cannot be used for WAS confirmation. A separate WAS is available for OSCAR contacts. All stations contacted must be "land stations." Contact with ships, anchored or otherwise, and aircraft, cannot be counted.

7. A W/VE applicant must be an ARRL member to participate in the WAS program. DX stations are exempt from this requirement.

8. Hq. reserves the right to spot call for inspection of cards (at ARRL expense) of applications verified by an HF Awards Manager. The purpose of this is not to call into question the integrity of any individual, but rather to ensure the overall integrity of the program. More difficult-to-attain specialty awards (such as 220 MHz WAS for example) are more likely to be so called. Failure of the applicant to respond to such spot check will result in non-issuance of the WAS certificate.

9. DISQUALIFICATION. False statements on this application or submission of forged or altered cards may result in disqualification. ARRL does not submit any marked over cards. The decision of the ARRL Awards Committee in such cases is final.

10. APPLICATION PROCEDURE (Please follow carefully):  
(a) Confirmations (QSLs) and applications for (MCS-217) may be submitted to an approved ARRL Special Service Club HF Awards Manager. ARRL Special Service Clubs appoint HF Awards Managers whose names are on file at Hq. If you do not know of HF Awards Managers in your local area, call a club officer to see if one has been appointed. If you can have your application so verified locally, you need not submit your cards to Hq., as indicated on the application form. (b) Be sure that when cards are presented for verification (either locally or to Hq.) sort them alphabetically by state, as listed on the back of the application form, MCS-217. (c) All QSL cards sent to Hq. must be accompanied by sufficient postage for their safe return (postage guidelines attached).

MCS-264 (587)

Subject: EQUIPMENT [Category: TEC]

**RUBBER DUCK ANTENNAS** Rubber duck antennas on hand-held radios are a severe compromise on efficiency. On the plus side is their short size and flexible forgiveness to brutish handling. On the negative side is their terrible radiation inefficiency, probably worse than many of you expected. When did you last replace your helical spring antenna we call the rubber duck? On testing a hundred or so portable radios that had been out on the fire lines for a few weeks we found a typical 60 percent failure rate. Most of the antennas looked fine. The only way you can detect an invisible rubber duck failure is by measuring the microvolts per meter with a calibrated receiver over a measured range under controlled conditions, such as done routinely by the Boise Interagency Fire Center. Since this is difficult for most to do, it might not be a bad idea to replace rubber ducks as a matter of course when they show signs of wear or if they are a year old. You might want to consider using a telescopic antenna under non-violent conditions to vastly improve the range of your hand-held. The National Bureau of Standards ran some tests that proved what we had long suspected.

The efficiency of a hand-held is dependent upon how much antenna it has and how good the ground plane. Most portables have very poor ground planes; the more metal the better. Also the more antenna the better. Hence the rubber duck is a woeful but often necessary compromise. But if a portable is not going to be subjected to the abuse of fireground or street cop utility, you should consider the telescopic quarter-wave antenna if range is important. Compare the figures and discussion that follows. Be aware that the telescopic antenna is nowhere as rugged as the rubber duck but it will talk circles around it. You might say that the quarter wave whip is to the rubber duck what a 106 inch CB quarter wave whip is to a 36 inch whip on a base loaded coil to compromise range for low garages. Our reference antenna in the Public Safety high band and 2-meter Amateur radio measurements below is a quarter-wave telescopic antenna, extended, and held at face level: One-quarter wavelength extended and at face level = 0 dB One-quarter wavelength collapsed and worn at belt level = -40dB Rubber duck held at face level = -5dB Rubber duck worn at belt level = -20dB Translated, this means that a 5-watt hand-held with a rubber duck worn on the belt has an effective radiated power not of 5 watts but only .05

watt. Held at face level the radio has an ERP of 1.6 watt. 15dB is quite a difference!

In the previous two messages we gave you facts and figures of the quarter-wave telescopic versus the rubber duck for Public Safety VHF Highband and 2-Meter Amateur handhelds. The 40 dB down for the nested telescopic relates to those commercial models where the telescopic disappears within the radio. Such an antenna won't break when it's nested but it won't receive worth a whoop either. In those radios where the collapsed quarter wave is external to the radio they break very easily. For that reason we recommend the style that has a spring at the base. The spring makes it very forgiving of elbows and other bum raps. We have not researched or measured five-eighth wave antennas because they are too long for most public safety use and because they typically require too many telescopic sections. The more sections the more chance of troubles. Few people take the time to correctly telescope any hand-held antenna. They should never be whacked down with the palm of the hand on top and push. They should be pulled down with the thumb and first two fingers. If you are interested in the figures for 450 MHz, using the table in the last message, they are respectively 0dB, 30dB, 5dB, and 30dB. One more reference for the technically inclined--the loss of a telescopic antenna compared to half-wave dipole: VHF -5dBd and UHF -20 dBd. Telescopic antennas should be changed at least annually and whenever they become the slightest bit loose. Any looseness can mean a poor RF connection inside the antenna where you can't see it or fix it. Simply change it. RB 86 -23/25.

"Mike and Key) RB 27-88

**PHOTOCOPIERS** A photocopiers bright light contains ultraviolet rays which can damage the eyes retinas and perhaps cause cataracts. Also the rays may produce ozone, a lung irritant. Solution: keep the copier in a large, well-ventilated area. Close the radiation-proof cover when you use the copier. Shut your eyes and look away if the item you are copying is too big for the cover to close over it. (SGD) WILLIAM MURRAY, Radiation Section Chief, National Institute of Occupational Safety and Health, Cincinnati, Ohio. RB 86-36

## WORKED ALL CONTINENTS (WAC)

In recognition of international two-way amateur radio communication, the International Amateur Radio Union (IARU) issues Worked-All-Continents certificates to amateur radio stations of the world.

Qualification for the WAC award is based on an examination by the International Secretariat, or a member-society, of the IARU of QSL cards that the applicant has received from other amateur stations in each of the six continental areas of the world. All contacts must be made from the same country or separate territory within the same continental area of the world. All QSL cards (no photocopies) must show the mode and/or band for any endorsement applied for.

Contacts made on 10/18/24 MHz or via satellites are void for the 5-band certificate and 6-band sticker. All contacts for the QRP sticker must be made on or after January 1, 1985 while running a maximum power of 5 watts output or 10 watts input.

The following information should be helpful in determining the continental area of a station located adjacent to a continental boundary. North America includes Greenland (OX) and Panama (HP). South America includes Trinidad & Tobago (9Y), Aruba (P4), Curacao & Bonaire (PJ2-4) and Easter Island (CE0). Oceania includes Minami Tori-shima (JD1), Philippines (DU), East Malaysia (9M6-8) and Indonesia (YB). Asia includes Ogasawara Islands (JD1), Maldives

(6Q), Socotra Island (7O), Abu Ali Island (J2/A), Cyprus (5B, ZC4), Eastern Turkey (TA2-8) and Georgia (UF). Europe includes the fourth and sixth call areas of RSFSR (UA4-6), Istanbul (TA1), all Italian Islands (I) and Azores (CU). Africa includes Ceuta & Melilla (EA9), Madeira (CT3), Gan Island (VS9M), French Austral Territory (FT) and Heard Island (VK0).

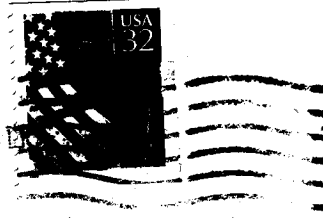
For amateurs in the United States or countries without IARU representation, applications, using the form on the back side of this sheet, should be directed to the below address. After verification, the cards will be returned and the award sent soon afterward. There is no application fee. However, sufficient return postage for the cards, in the form of a self-addressed stamped envelope, or IRCs, is required. US amateurs must have current ARRL membership.

(For other amateurs) - Applicants must be members of their national amateur radio societies affiliated with IARU, apply through the society.

International Amateur Radio Union P.O. Box AAA Newington, CT 06111 U.S.A.

Parkersburg Amateur Radio Klub  
P. O. Box 2112  
Parkersburg, WV 26101

CLARKSBURG P&DF



95  
K8NJW Jerry Wharton  
1722 20th St.  
Parkersburg WV 26101





# Parkersburg Amateur Radio Klub Jacket and T-Shirt sale ORDER FORM

Now is the time to order your new Klub Jacket or T-Shirt.

All Jackets have the above logo on the back and your first name and call sign on the front.

You may order the jacket in any of the colors below the ink will be black on all choices.

## Jackets Knitted cuff

Columbia Blue (light) \*  
 Kelly Green (dark) \*  
 Scarlet \*  
 White \*

## Jackets Elastic cuff

Gold \*  
 Orange \*  
 Silver \*  
 Tan \*

SIZE S M L XL  
 SIZE XXL add \$2.00  
 SIZE XXXL ADD \$4.00  
 SIZE XXXXL ADD \$6.00

@ \$34.45  
 Subtotal \_\_\_\_\_  
 add 6% \_\_\_\_\_  
 TOTAL \_\_\_\_\_

FIRST NAME ( print } \_\_\_\_\_  
 CALL SIGN \_\_\_\_\_

## T -SHIRTS @ \$5.50 PARK logo in front NO name or Call

Red \_\_\_\_\_ Orange \_\_\_\_\_ Gold \_\_\_\_\_ White \_\_\_\_\_  
 Birch \_\_\_\_\_ Columbia Blue \_\_\_\_\_ Teal \_\_\_\_\_ Pink \_\_\_\_\_  
 Calif. Blue (brighter) \_\_\_\_\_ Kelly Green \_\_\_\_\_ Oxford Gray \_\_\_\_\_

SIZE S M L XL @ \$5.50  
 SIZE XXL ADD \$1.00 XXXL ADD \$2.00 XXXXL ADD \$3.00

Subtotal \_\_\_\_\_  
 add 6% tax \_\_\_\_\_  
 TOTAL \_\_\_\_\_

SEND Payments to Lynn Palmer ( N8IIM ) @ 1905 Parkwood Dr., Parkersburg, WV. 26104

Phone 422-7363