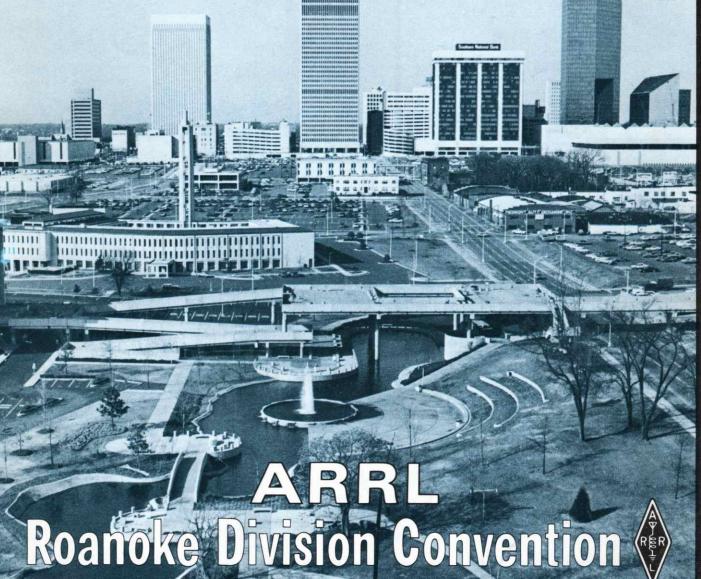
10 - Warne Setzer - 73 - Roy Viel

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### RTTY Can Be Easy!

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Have You Thought . . . About Finding Out but Didn't Know Who to Ask?











#### **ASK THE GUYS AT HAL!**

Our sales and service staff will be happy to assist you in your choice of RTTY equipment, answer questions about RTTY, and provide assistance if problems do arise. In addition, all HAL amateur RTTY equipment manuals can be purchased for \$10.00 each for an advance look (applicable to future purchase of that unit).

Answers to common RTTY questions are featured in the center-fold of our new amateur radio catalog. Such questions as "What do I need?", "How do I hook it up?", and "What frequencies do I use?" are discussed. Technical points concerning RTTY pulses, FSK and AFSK, and high-tones vs low-tones are covered.

Write today for HAL'S new catalog and RTTY guide and discover how much fun RTTY can be.



HAL COMMUNICATIONS CORP. Box 365 Urbana, Illinois 61801 217-367-7373 For our European customers see HAL equipment at:

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#### Metrolina Hamfest

#### WELCOME!

The Mecklenburg Amateur Radio Society [W4BFB] and the American Radio Relay League welcomes you to the 1978 Metrolina Hamfest and ARRL Roanoke Division Convention. We have tried hard to make this a week-end you will enjoy and remember. Please let us know what you think about our efforts.

W4BFB Club members may be identified by the large Metrolina Hamfest badge they are wearing. Ask them for any assistance you need. Dealers, manufacturers and exhibitors are also wearing large Metrolina Hamfest badges with an appropriate ribbon. Many of them have come a long way to be here with you. Let them know you are glad they are here. And don't be afraid to buy things from them.

Welcome, and have a good time!

#### REGISTRATION AND ADMISSION

Registration for the Hamfest/Convention will take place in the lobby of the Civic Center. No preregistration is available. Admission is \$3.00 per person. Children under 12 years of age are admitted free when accompanied by a paid admission. For each \$3.00 admission you will receive:

(a) one admission ticket good for the entire week-end (b) one prize ticket with stub good for all prizes

(c) additional admission tickets (not prize tickets)

for your children under 12 years old.

Your admission ticket will serve as your name tag and MUST BE WORN at all times while attending the Hamfest/Convention. You may leave and re-enter as you please as long as you wear your admission ticket in plain view.

A barrel will be available at the registration table for you to deposit your prize ticket stub. Additional prize tickets at \$3.00 each may be purchased at the registration table or at the W4BFB Club Booth. All prize ticket stubs must be deposited in the barrel by 5:00 PM Saturday to be eligible for the Saturday main prize and the grand prizes. No prize ticket stubs will be accepted after these times.

Meal tickets for the catered lunches on Saturday and Sunday may be purchased when you register. Only a limited number of meal tickets will be available and they will ONLY be sold at the registration table. Banquet tickets for the Saturday evening banquet which have not been sold prior to the convention may also be purchased at the registration table.

#### SCHEDULE OF EVENTS

Hamfest/Convention hours will be 9AM - 6PM Saturday, April 1; and 8AM - 5PM Sunday April 2. Dealers and manufacturers ONLY will be admitted for set-up beginning at 4PM Friday, March 31. Following is a schedule of convention activities:

SATURDAY

SUNDAY 8:00 AM Doors open 9:00 AM Doors open

> FCC Exams Begin 11:00 AM FCC Forum Catered lunch

11:00 AM Catered lunch

1:00 PM Bingo

5:00 PM Sat. Prize Drawing

6:00 PM Doors close

8:00 PM Banquet

Bingo 3:00 PM Main Prize Drawing 5:00 PM Doors close

1:00 PM ARRL Forum

Forum topics, times and locations on pages 18 and 19.

#### DOOR PRIZE DRAWINGS

For each admission ticket you purchase you will receive one prize ticket. You may purchase additional admission tickets to receive additional prize tickets. All winning prize tickets will be drawn from the same barrel. All prizes will be awarded. Your ticket stub must be presented to claim your prize. This year we have two Grand Prizes and BOTH will be given away. You do NOT have to be present to win any of the following main prizes:

(a) Complete amateur station

(b) Electric car

(c) Swan 700 CX

(d) KDK FM2015R

Additional door prizes will be given away every hour throughout the day, both Saturday and Sunday. Winners will be announced over the P.A. system and posted at the W4BFB Club Booth and at the main entrance. Winners will have two hours to claim these hourly prizes. Any unclaimed hourly prizes remaining at the end of each day will be given away at the main prize drawing for that day.

All ticket stubs drawn for prizes will be returned to the drum and will be eligible for all future drawings. However, two winning tickets for the two Grand Prizes (complete station and electric car) will be

drawn from the drum simultaneously.

Members of the Mecklenburg Amateur Radio Society [W4BFB] are eligible to purchase prize tickets and are eligible for ALL prize drawings. Please note, however, that during the last five years of the Metrolina Hamfest no W4BFB club members have ever won any prize.

For a complete description of all prizes to be given away please turn to pages 12 and 13 of this program.

#### FCC EXAMS

The FCC will be at the Civic Center on Saturday, April 1, to give all classes of amateur [no commercial] exams. The exams will be given beginning at 9:00 AM and will continue for as long as needed Saturday until all exams have been given. Pre-registration is NOT required; however you may pre-register for an exam by sending a completed Form 610 to W4BFB, 2425 Park Road, Charlotte, NC 28203. Additional 610 forms will be available at the FCC tables in the lobby of the Civic Center. When you give your 610 form to the FCC you will be issued a number. You may then enjoy the rest of the convention until your number is announced over the P.A. system. All FCC exams are free; you do not have to purchase an admission ticket to the convention in order to take an FCC exam. We are grateful to the Norfolk office of the FCC for coming to the 1978 Metrolina Hamfest/Convention. We wish you good luck on your exams.

#### INFORMATION/MESSAGES

The W4BFB Club Booth will serve as an information center while the convention is in progress. Messages may be left there for display on a bulletin board or for announcement over the P.A. system. During other times the information desk at the Radisson Hotel will be used. Simplex 146.52 may also be used during the day to QSO with the talk-in station, which will be able to communicate with other Hamfest/Convention areas.

# 73's from Such

the leading fashion department store in the Carolinas

You're invited to visit Ivey's Uptown store on the corner of Tryon and Fifth Streets... just a 5 minute walk from the Charlotte Civic Center.

Enjoy lunch in Ivey's Terrace Restaurant, fourth floor. It's a delightful atmosphere with delicious food at popular prices and a charming view overlooking an historic section of Charlotte.

PRESENT THIS COUPON FOR A COMPLIMENTARY DESSERT Have lunch at Ivey's Terrace Restaurant while you're in Charlotte and be our guest for a complimentary dessert.

coupon expires April 3rd, 1978

#### Metrolina Hamrest

#### TALK-IN

W4MHF, the Metrolina Ham Fest talk-in station, will be on the air from the Civic Center to help you find your way. The primary frequency will be 146.34/146.94 [WR4AEU]. Simplex 146.52 will be monitored for the downtown area only. The talk-in station will be on the air during the following periods:

In addition to the above times several local stations will be informally monitoring 34/94 at other times to assist you in finding your way around Charlotte during your stay in the Queen City.

#### DEALERS, MANUFACTURERS AND EXHIBITORS

This year we have an outstanding list of dealers, manufacturers, and other exhibitors to offer you. All of them have made a special effort to be at the convention. Please take time to visit each booth and let them know you are glad they came. A list of dealers and manufacturers attending this year's convention along with a floor layout showing the location of their booths, may be found on page 11 of this program.

#### **FLEA MARKET**

A large indoor flea market area will be available to individuals [no dealers please] wishing to sell their personal equipment. Your admission ticket to the Hamfest/Convention entitles you to up to one free table in the flea market area. Additional table space may be purchased for \$5.00 per table. To insure enough tables for everyone, please share a table with someone else if you do not need a full table for yourself.

If you have a large amount of equipment you wish to bring to the flea market, you may enter at the freight door on College Street and someone will direct you to the flea market area. Hand carts will be available to help you move your equipment from the unloading area to your flea market table. Admission tickets to the Hamfest/Convention will also be sold at this entrance to the flea market.

The flea market is intended for individuals selling their personal equipment. Dealers, whether established or individuals, wishing to sell any items must purchase a booth in the dealer area.

#### MEALS AND REFRESHMENTS

A catered lunch will be served both Saturday and Sunday from 11:00 AM until 1:00 PM. The lunch will consist of southern fried chicken, fresh Bar-B-Q pork, potato salad, coleslaw and beverage. Tickets for the lunches are \$3.50 per person per meal and may only be purchased at the registration table. Only 1000 lunches will be available each day.

In addition to the lunches two concession areas are available at the Civic Center serving hot dogs, hamburgers, sandwiches, snacks and drinks. Both areas will be open during most of the day both Saturday and Sunday.

#### BANQUET

A banquet has been planned for Saturday evening, April 1st, at Slug's Tower Suite on the 30th floor of the Jefferson First Union Tower, just two blocks away from the Radisson Hotel and the Civic Center. The guest speaker will be Roy Neal, [K6DUE] the well known NBC news correspondent, who will speak on "Amateur Radio: past, present and future." Mr. Neal is especially known for his coverage of the U.S. space program.

Only a limited number of banquet tickets will be available. For additional banquet information write to: Bob Darke %W4BFB, 2425 Park Road, Charlotte NC 28203.

#### BINGO

To help the non-hams in your family enjoy the week-end, Bingo will be played in Forum Room 4 on Saturday from 1PM-3:30PM and on Sunday from 1PM-3PM. A person may play only one card at a time. Children may also play provided they are old enough to play their card by themselves. All Bingo prizes have been donated by members of the Mecklenburg Amateur Radio Society to help you enjoy your week-end at the Convention.

#### **FORUMS**

A variety of forums will be given continuously throughout the day on Saturday and Sunday. Forum topics will cover almost every aspect of amateur radio. Many nationally known figures, including Roy Neal [K6DUE] of NBC News, will be participating, along with representatives from several leading amateur radio manufacturers including Drake, Icom and others. ARRL forums include traffic handling, Emergency Preparedness, DXAC, QSL Bureau operations, and the League's new equipment insurance program, Charles Durst, WA4WTX, member of the VRAC, will discuss the operation of a repeater association. A special ARRL guest will be Jerry Hall, KITD Technical Editor of QST, who will lead one forum on microprocessors and another on antennas for DXing. A schedule of forum times and locations and a complete list of all forum topics may be found on pages 18 and 19 of this program.

#### ARRL BOOTH

ARRL officials will be on hand at the League's booth throughout the Convention. Vic Clark [W4KFC], ARRL First Vice President; Phil Wicker [W4ACY], ARRL Roanoke Division Director; and many other elected officials will be available to answer your questions and receive your suggestions. They will have a complete inventory of all League publications on hand and will be happy to accept your new membership application or renew your present membership in the ARRL. Part of the ARRL booth will be devoted to the W4/K4/N4 ARRL QSL Bureau. Pay a visit to the League booth and support the ARRL!!

OUR SIGNAL IS...
R5 S9 T9
IN OVER
25 COUNTIES

1110VBT WBT-FM STEREO 108

CHARLOTTE

1.110 MHz AM 107.9 MHz FM

"WE'VE BEEN IN RADIO

**SINCE 1922"** 

See us in booth 89

## City of Charlotte, North Carolina Proclamation,

WHEREAS, the Mecklenburg Amateur Radio Society each year sponsors a Hamfest which draws amateur radio enthusiasts from a five state area; and

WHEREAS, The Mecklenburg Amateur Radio Society, Inc. located in the American Red Cross Building is sponsoring the Metrolina Hamfest 78 and The American Radio Relay Leagues Roanoke Division Convention at the Charlotte Civic Center; and

WHEREAS, this year the Hamfest will be held in the Charlotte Civic Center and special display booths will feature exhibits by the Greater Charlotte Chamber of Commerce, U. S. Air Force, JARS, WBT, Southern Bell, Charlotte Model Radio Control Club, Red Cross Disaster Service, Charlotte Police Department, and many others; and

WHEREAS, The Federal Communications Commission will be administering Amateur Radio Exams and thousands of hams world-wide will be hearing short wave transmissions from the Charlotte Civic Center; and

WHEREAS, there are approximately 900 licensed ham radio operators in Mecklenburg County and 280,000 in the United States alone:

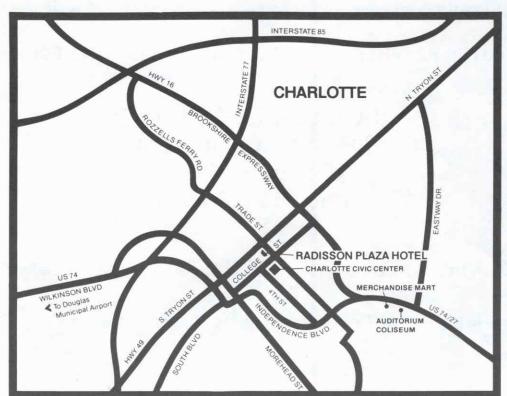
NOW, THEREFORE, I, Kenneth R. Harris, Mayor of Charlotte, do hereby proclaim the week-end of April 1-2, 1978 as

"AMATEUR RADIO WEEKEND IN CHARLOTTE"

WITNESS MY HAND and the official seal of the City of Charlotte this 16th day of February, 1978.

Kenneth R. Harris Mayor





See us in booths 69A and 70A



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#### COMPANY

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BARKER AND WILLIAMSON

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For the Best Deal in dependable names in ham radio: Contact Bill Slep (704) 524-7519

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AMATEUR MILITARY

INDUSTRIAL COMMERCIAL

COMPUTER PERPHERALS - ELECTRONIC PARTS - TEST EQUIPMENT

SURPLUS ELECTRONICS 2033 South Boulevard Charlotte, N. C. Phone: 332-6555

Open House ALL DAY Saturday and Sunday during the Hamfest

Bring this ad by the store and sign up for a free drawing



#### A Bit of the PAST

THE MASTER KEY TO THE AIR

YOU WILL KNOW IT'S A

Stromberg-Carlson

WHEN YOU HEAR IT.

THE MURRAY SALES CO.

DISPLAY ROOM IDI IST. NAT. BANK BLDG.. PHONE JAC-7340 OFFICE 31 S. TRYON ST., PHONE HEMLOCK 429

ATWATER KENT RADIO

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SECOND ANNUAL

NORTH CAROLINA

A-R-R-L

CONVENTION

CHARLOTTE, N.C.



UNDER THE AUSPICES OF

THE CHARLOTTE AMATEUR RADIO ASS'N.

Thanks to: DON MORRIS W8JM-SCM W. VA. for furnishing us with these superb items.

# 

# METROLINA HAMFEST 73's FROM: See us in booth 93

DAVE UHRICH, Station Mgr. –WD40KH

JACK BARR, Chief Eng. -WD4JW0

JIM PATTERSON Production Mgr. -K9DXL/4

ED FOX, Transmitter Eng. - WA4JKL

PAUL REYNOLDS, Engineer -WB4MCI

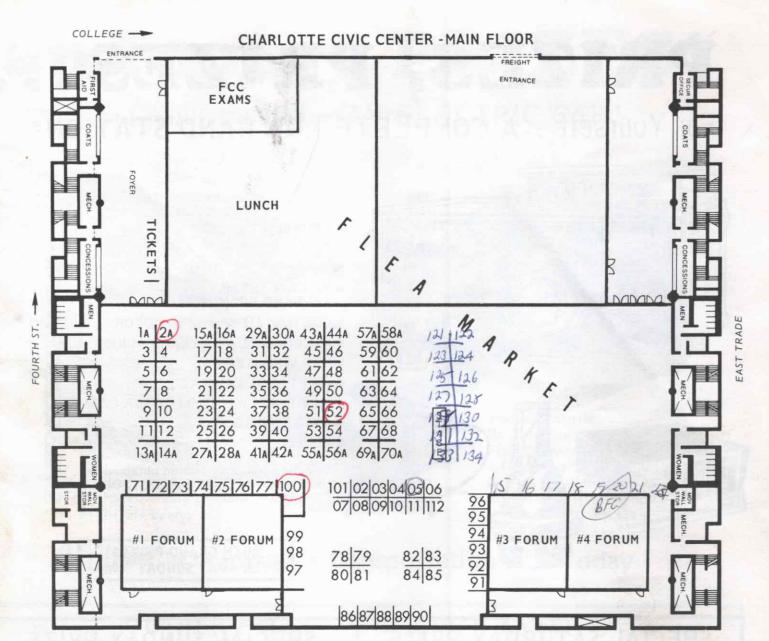
**BUCK ESCOTT, Engineer - WB40TP** 

ROBERT RENFRO, Engineer -K40F



TV 36-Home of Fine Family Entertainment -the future home of the 146.34/146.94 REPEATER.





AIR FORCE 90 ALDA COMMUNICATIONS, INC. 67 AMCOMM 53 ARRL 97, 98, 99 A. R. S. O. N., INC. 108, 109, 110, 111 BOB'S AMATEUR RADIO CENTER 46, 48 **GUS BROWNING 88 BULLET ELECTRONICS 43A, 44 A** CAROLINA - VIRGINIA REPEATER ASSOC. 96 CQ MAGAZINE 59 THE COMPUTER ROOM 19, 21, 23 COMPUTERS TO GO 522 /02 D. S. I. 20, 22, 24 R. L. DRAKE COMPANY 64, 66, 68 E. M. E., INC. 54 FRECK RADIO & SUPPLY 71, 72 GISMO COMMUNICATIONS 39, 40, 41A, 42A HAL COMMUNICATIONS 75, 76 HAM RADIO PUBLISHING CO. 31, 33, 35, 37 **HAMTRONICS** 61, 63, 65 HELP RADIO 18 HOMETRONICS 55A, 56A ICOM EAST, INC. 45 JAARS 86 LONGS ELECTRONICS 1A, 3, 5, 7, 9, 11, 13A MARLIN P. JONES 106, 112

M. W. McMAHAN K4GMT 32 MECKLENBURG AMATEUR RADIO SOCIETY 2A, 100 MOSLEY ELECTRONICS 4, 6 NATIONAL POLICE SUPPLY COMPANY 57A, 58A OPTO ELECTRONICS, INC. 29A, 30A PALOMAR ENGINEERS 77 PROFESSIONAL ENGRAVING 74 RADIO COMMUNICATIONS CO., INC. 51 RADIO SHACK 73 RADIO WHOLESALE 17 RED CROSS 91 RUSH ELECTRONICS 15A, 16A S. D. SALES COMPANY 47, 49 SLEP ELECTRONICS COMPANY 69A, 70A SOUTHERN BELL 94 SWAN ELECTRONICS 8, 10, 12, 14A TELCOM COMPANY 25, 26, 27A, 28A VICKERS 60, 62 WBT/WBTV (Ch. 3) 89 WCCB (Ch. 18) 87 G. R. WHITEHOUSE & COMPANY 79, 81 WRET (Ch. 36) 93 WSOC/WSOC-TV (Ch. 9) 95 ZZZ ELECTRONICS 78, 80 10-X 92

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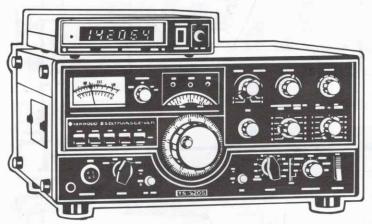
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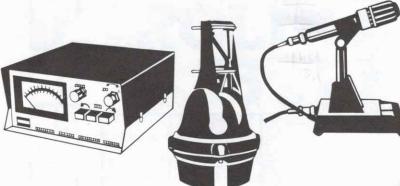
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## PRIZES, PRIZES..

For Yourself - A COMPLETE LOW BAND STATION!





- KENWOOD TS520S w/Digital Readout
- 30 FT. ROHN 25 G TOWER
- HI GAIN TH3 MK3 TRI-BAND BEAM ANTENNA
- CDE HAM III ANTENNA ROTOR
- KENWOOD MC-50 DYNAMIC MIKE
- NYE VIKING KEY
- 100 FT. COAXIAL CABLE
- 100 FT. 8 CONDUCTOR ROTOR CABLE

- ARRL LOG BOOK
- PENCIL

Complete low band station obtained in cooperation w/LONG'S ELECTRONICS Birmingham, Alabama

BOTH GRAND PRIZES
GIVEN AWAY SUNDAY 3:00pm

#### SPECIAL SATURDAY PRIZE

KDK FM2015R 2 METER TRANSCEIVER



Prize obtained in cooperation with

HOME - TRONICS

Charlotte, N. C.

Drawing - Saturday 5:00 pm

#### SPECIAL SUNDAY PRIZE

SWAN 700CX TRANSCEIVER



Prize obtained in cooperation with GISMO COMMUNICATIONS Rock Hill, S. C.

Drawing - Sunday 3:00pm

### and more PRIZES!

For Your Family - AN ELECTRIC CAR!



CitiCar® Tomorrow's transportation here today.

#### OTHER PRIZES TO BE GIVEN AWAY!

- HAL ST5000 RTTY DEMODULATOR
   "Newest of Hal's line of RTTY Equipment"
   Compliments of Hal Communications Corp. Urbana, III.
- SAY ELECTRONICS
   12 v 20 amp. CONTINUOUS DUTY POWER SUPPLY
   Courtesy of Vickers Electronics, Durham, N. C.
- CDE HAM III ROTOR
   -Compliments of Cornell-Dubilier through Millar Electronics Raleigh, N. C.
- W2AU BALUNS
- AND MANY MORE PRIZES GIVEN AWAY SATURDAY & SUNDAY

GRAND PRIZE WINNER
"Metrolina Hamfest 1977"



WA4BVW Asheville, N. C.

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# DON'T BE DISAPPOINTED! Order now for the Hamfest.

This year when you come to the Metrolina Hamfest you can pick up your order at the Long's Electronics booth. We'll bring it to you free of charge! So don't wait until the Hamfest — order now, on your VISA, Master Charge or C.O.D. — and we'll bring it to you. Call today Toll Free: 1-800-633-3410 and you won't be disappointed. If possible, order before March 27th, 1978.

When you visit our booth be sure to register for our SPECIAL DRAWING for a Yaesu FT-227R "Memorizer". This drawing is open to anyone; no purchase required. See you there!

# Call Toll Free: 1-800-633-6461

Order by phone 9:00 AM til 5:30 PM CST, Monday thru Friday In Alabama call: 1-800-292-8668

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See us in booths I

# ectronics



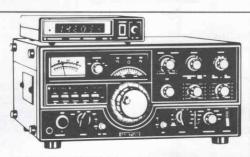
DDRESS: 2808 7TH AVENUE SOUTH BIRMINGHAM, ALABAMA 35233



#### W transceiver

ge: 80 thru 10 meters • 300W SB, 260W on CW & AM • 500 filter • RIT • Wide-range AGC • Solid-state VFO carrier CW • VOX or PTT impedance is adjustable mi-break-in • Transceive or PTO.

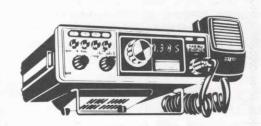
list price. Call for quote.



#### KENWOOD TS-520S transceiver

Features: • 160-10 meter coverage • Optional DG-5 digital frequency display • New speech processor q/audio compression amplifier • AC power supply (DC optional) • RF attenuator, front-panel activated • Provisions for sep. receive antenna & phone patch • 200W PEP input.

739.00 list price. Call for quote.

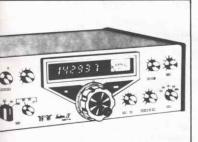


#### THE NEW YAESU FT-227R "Memorizer"

Features: • One knob channel selection to select 800 channels • Memory circuit allows instant return to any frequency between 144-148 MHz • 4-digit LED readout • Selectable 10 watt/1 watt, plus much more.

319.00

Call Toll Free for yours today.



#### EC 544 transceiver

ate • Instant band change
3.5 to 30 MHz • 200W input
nds • RX sensitivity: p.3 mV
rystal IF filter • LED readout
t 10 & 15 MHz • Separate
capability • S-meter and
ge. Offset receiver tuning.

list price. Call for quote.



#### DENTRON MT-2000A antenna tuner

An economical, full power tuner designed to handle virtually any type of antenna. Features: • Continuous tuning 1.8 to 30 MHZ • Handles a full 3 KW PEP • Front panel coax bypass switching • Built-in 3-core balun • Front panel grounding switch.

199.50 list price. Call for quote.

#### ANTLER A-280 2m mobile antenna

The A-280 features:
• Precision tuned coil

- 47" tapered 17-7 stainless steel whip
- VSWR: less than 1.3
  Certified 3 dB gain
- Magnetic mount has roof-top stability to withstand winds up to 100 MPH.

39.95 list price. Call for quote.



3, 5, 7, 9, 11, 13A

### EATALINA motor Lodge

#### WELCOME HAMS!

We hope your visit to Charlotte is most enjoyable and the annual Metrolina Hamfest is an outstanding success!

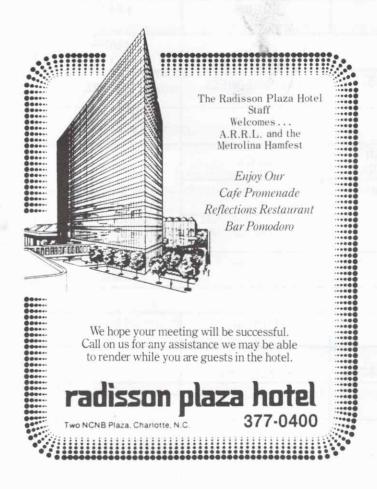
The Catalina is offering a special "Ham" rate:

ONE BED (TWO PERSONS) - - - \$15.00

TWO BEDS (FOUR PERSONS) - \$20.00

We offer outstanding service and one of Charlotte's best restaurants -- Staley's!

Drop in for an "eyeball" QSO and allow us the opportunity to serve you!

73's THE CATALINA 

#### **ACCOMODATIONS**

The Radisson Plaza Hotel, adjacent to the Civic Center, is the headquarters hotel for this year's convention. A block of rooms will be held especially for guests and attendees to the 1978 Metrolina Hamfest/Convention until March 18. Room rates (excluding tax) are \$26.00 for one double bed and \$32.00 for two double beds, per night. No roll-away beds are available. Be sure to mention the Metrolina Hamfest/Convention when making reservations or checking in to receive these special rates.

Special accomodations have also been arranged at the Catalina Motor Lodge, 2403 Wilkinson Blvd. a short drive away from the Civic Center. See their advertisement on page 16 for more information. Several other motels offering a variety of accomodations and prices are available within a short drive from the Civic Center. Please make your reservations as early as possible to insure receiving the accomodations you require.

#### PARKING

Ample parking is available at the many privately operated parking lots around the Civic Center, including covered parking underneath the Civic Center. The Radisson Hotel furnishes free parking to its guests.

#### SECURITY

The Mecklenburg Amateur Radio Society cannot be responsible for any of your equipment or belongings while you are attending the convention. However we will provide as much security as we can for your protection. The convention area will be cleared of all people promptly at 6:00 PM Saturday and no one will be allowed to re-enter the area until 8:00 AM Sunday. Security personnel will be present throughout the night Saturday, for the protection of any flea market and dealer equipment remaining in the convention area.

#### W4BFB CLUB BOOTH

Your host for the 1978 Metrolina Hamfest/ARRL Roanoke Division Convention is the Mecklenburg Amateur Radio Society, W4BFB. We invite you to pay a visit to the Club Booth and learn about our other activities. We will have posters and pictures showing our members in action. Information for prospective members as well as membership applications will be available. This year, as a public service, we will have a special area at the booth equipped with a power supply, dummy load, wattmeter and two-meter antenna which you may use to test that piece of used gear you are thinking about buying. The main Hamfest/Convention prizes will be on display at the Club Booth and you may also purchase additional prize tickets there at \$3.00 each.



Have You
Joined?

#### Metrolina Hamrest

| SATURDAY FORUM 1 |                     | FORUM<br>2                | FORUM<br>3   | FORUM<br>4          |  |
|------------------|---------------------|---------------------------|--------------|---------------------|--|
| 10 - 11          | - h                 |                           | A.R.R.L.     | MARS<br>AIR - FORCE |  |
| 11 - 12          | OSCAR               | ANTENNAS & DXING          | PREPAREDNESS | TEN TEC             |  |
| 12 - 1           | ROYNEAL             |                           |              |                     |  |
| 1 - 2            | CVRA                | QSL BUREAU<br>CQ MAGAZINE | ALDA         |                     |  |
| 2 - 3            | AMCOMM              | DX FORUM<br>N4 - ZC       |              | BINGO               |  |
| 3 - 4            | A.R.R.L.<br>TRAFFIC | ANTENNA<br>FACTS          | DRAKE        |                     |  |
| 4 - 5            | HANDLING            | 10 - 10 NET               |              | SERVICE SEMINAR     |  |

| SUNDAY  | FORUM<br>1              | FORUM 2                    | FORUM<br>3   | FORUM<br>4      |
|---------|-------------------------|----------------------------|--|-----------------|
| 9 - 10  | DXAC                    | * BASIC<br>MICROPROCESSORS | VHF<br>REPEATERS   | SWAN            |
| 10 - 11 | DX - FORUM<br>K4 - SMX  | ICOM                       | emin arelo   | nnezilis-       |
| 11 - 12 | FCC                     |                            |  | Annorus         |
| 12 - 1  |                         | m Oly 12 m in              |  |                 |
| 1 - 2   | ARRL                    | Color                      | els or anesoster (migh   | and Supering St |
| 2 - 3   | ARRL EQPT.<br>Insurance |                            | Control of the contro | BINGO           |

#### **FORUM TOPICS**

OSCAR: When, Why, Where and How to communicate with orbiting amateur satellites. Harold Benson G8NF. Moderator: Ken Boyd, WA4UNZ.

SPACE COMMUNICATIONS: The future of amateur radio in space communications. Roy Neal, K6DUE. Moderator: Mike King, WA4ASA.

AMATEUR ANTENNAS AND DXING: Discussion of HF antennas and the best suited for DX QSOs by Jerry Hall, K1TD. Moderator: Jim Fisher, WB4AMU.

ANTENNAS — FACTS AND FALLACIES: Discussion of antennas in general; Gain, SWR, Front to Back. Jerry Hall, K1TD. Moderator: Addison Brenizer, WA4BEC.

\* BASIC MICROPROCESSORS: Concepts of Microprocessors by Jerry Hall, K1TD. Moderator: Wayne Setzer, WB4BXW.

**EMERGENCY PREPAREDNESS**: Reports from all SECs in the Roanoke Division regarding activities within the past year and emphasis on the 1978 Simulated Emergency Test. Moderator: Bill Finch, W4EHF, SEC, N.C.

#### Metrolina Hamrest

AIR FORCE MARS: Amateurs interested in Mars Operation. Barry Mulvaney, WB4WHJ.

QSL BUREAU: Operation of W4/K4/N4 DX QSL Bureau. John Kanode, N4MM/W4WSF. Moderator: Paul Wade, K4BF.

MANUFACTURERS FORUM — ALDA: Discussion including questions and answers about the new ALDA 103 Solid State Transceiver. Les Earnshaw, Ex. ZL1-AAK, (Technical Director) Moderator: Bob Hinnant, W4PUA.

MANUFACTURERS FORUM — DRAKE: Discussion including questions and answers about the new Drake UV-3 VHF Transceiver. (144-220-440 MHz.) Moderator: Jim Keene, WA4ICM.

VHF REPEATERS: Discussion of repeater construction, antenna installation and operation. Francis Nakamura WB4ETF Moderator: Mac Wood, W4PVT.

DX FORUM: Slides and talk about recent DXpedition to Kure and Midway Island. Rodger Burt, N4ZC; Moderator: Gary Dixon, K4MQG.

FCC FORUM: Jerry Freeman, W4JJ, Engineer in charge, FCC Radio District 5, will be on hand to discuss recent actions within the commission. Q & A session. Moderator: Buck Workman, W4CYB.

CVRA FORUM: Operation of a repeater association and frequency coordination. Charles Durst, WA4WTX Moderator: John Helms, K4RVW.

ARRL EQUIPMENT INSURANCE: Discussion of new equipment insurance plan by Bonn A. Gilbert, Jr. of G & H Insurance Administrators, Inc. Moderator: Bob Hinnant, W4PUA.

ARRL FORUM: Membership updating by ARRL officials. ARRL First Vice President, Vic Clark, W4KFC; Roanoke Division Director, Phil Wicker, W4ACY; many SCM'S and Leaders. Moderator: Bill Parris, K4GHR, SCM N.C.

AMCOMM: Discussion and review of new AMCOMM Synthesized 2 Meter Transceiver. AMCOMM, Ft. Lauderdale, Fla. Moderator: Ron Hearn, WB4KJC.

DX FORUM: Slides and talk about 1977 DXpedition to Kingman Reef and Palmyra Island in the Pacific. Stew Woodward K4SMX; Moderator: Frank Down, K4BVQ.

ICOM: Discussion and review of the new ICOM 1C-701 VHF Transceiver by Tom Gentry W5RG, Moderator: Gene Neal, W4NZV.

10-10 INTERNATIONAL NET: Amateurs interested in ten meter operation and 10 - 10 net activities. Clinton Paine, K4EKX; Moderator: Bill Jenkins, W4YPY.

SERVICE SEMINAR: Technical discussion about DRAKE, ICOM, and TEN-TEC product lines. Don Tyrrell, W8AD. Tom Gentry W5RG, Dan Tomcik.

DX ADVISORY COMMITTEE: Discussion of latest DXCC rulings and recommendations by the DXAC. John Kanode, W4WSF. Moderator: Paul Wade, K4BF.

MANUFACTURERS FORUM — TEN TEC: Discussion of TEN-TEC product line followed by Q & A. Dan Tomcik.

TRAFFIC HANDLING: Discussion of traffic handling and report on activities around the division. Herb Lacy, N4UE.

CQ MAGAZINE: The evolution of CQ Magazine, The Amateur Radio Journal, and Amateur Radio. Alan Dorhoffer, K2EEK, CQ Editor and Jack Gutzeit W2AZX, CQ Advertising Manager. Moderator: Frank Wilson, WA4JXC.

SWAN ELECTRONICS: Antennas - Facts and Figures about SWR and GAIN. Tyler Bryant, K4NLM/6, Sales Manager. Moderator: Bill Parris, K4GHR.



The TS-520S . . . still the most popular transceiver in the world, is a solid foundation for an expanding series designed to please any ham ... from Novice to Extra.

The TS-520S provides full coverage on all amateur bands from 1.8 to 29.7 MHz. It provides 160 meter capability, WWV on 15.0 MHz and an auxiliary band position for maximum flexibility. With the addition of the DG-5, you have an easy to read, accurate readout of your operating frequency while transmitting and receiving. The TS-520S is solid state except for the driver and the two final tubes. It also incorporates a 3SK35 dual gate MOSFET for outstanding cross modulation and spurious response characteristics.

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ALDA 103, the trim little powerhouse with incredible performance for the price! ALDA 103 provides a full 250 watts PEP input for SSB operation, and 250 watts DC input for CW. And when it comes to performance, ALDA 103 is the hottest little transceiver going - all solid state, totally broadbanded and super-stable VFO

Ideal first transceiver for brand new novices! You'll want a full-capability CW/USB/LSB unit with all the power and performance you can use. ALDA 103 gives you 250 watts DC input for CW, the maximum allowable power for your novice license. When you upgrade to technician, you've got 2 bands for CW operation. And with your general license, just plug in your mic and use the ALDA 103's full 250 watts PEP on SSB!

Perfect second or mobile unit for seasoned hams! If you're looking for a super-sharp, compact unit to use in your car or boat, ALDA 103 will live up to your expectations. Absolute worst case sensitivity 0.5 uV for 10 dB S+N/N — a must for mobile operation. Receiver audio output of 3 watts minimum – another must. Also, very low receiver power drain of only 5.5 watts - that's 0.4 amps at nominal 13.8 VDC including power for dial and meter lamps!

including microphone and mobile mount, too.

#### **OPTIONS & ACCESSORIES**

| Noise Dialikei — Moderno. Fo 701   | 5.55 |
|--|------|
| 100 kHz and 25 kHz Dual Crystal Calibrator — Model No. PC 801 \$1  | 4.95 |
| Portable Power Supply — Model No. ALDA PS 115: average duty 15 an unregulated; input — 115/230 VAC, 50/60 Hz; output — | np   |
| 13.8 V nominal at 15 amps \$7  | 9.95 |
| Heavy Duty Power Supply — Model No. ALDA PS 130; output — regular 30 amp at 13 8 VDC; input — 115/230 VAC 50/60 Hz     | ated |

alda communications, inc. 215 Via El Centro Oceanside, CA 92054 (714) 433-6123



#### GENERAL SPECIFICATIONS

Semiconductors: **Power Requirements:** 

39 diodes, 23 transistors; 11 integrated circuits Nominal 13.8 VDC input at 15 amps, negative

ground only

Power Consumption: Receive - 5.5 watts (includes dial and meter lamps);

Transmit - 260 watts

3-1/4" high x 9" wide x 12-1/2" deep **Dimensions:** 

(82.55 mm x 228.6 mm x 317.5 mm)

Weight: 8-1/4 lbs. (3.66 kg)

#### PERFORMANCE SPECIFICATIONS

Frequency Range: 80 meter band — 3.5 to 4.0 MHz

40 meter band - 7.0 to 7.5 MHz 20 meter band - 14.0 to 14.5 MHz

CW: USB: LSB Modes:

RF Input Power: SSB - 250 watts PEP nominal CW - 250 watts DC maximum (adjustable)

Transmitter:

Antenna Impedance: 50 ohm, unbalanced Carrier Suppression: Better than -45 dB

Side-Band Suppression: Better than -55 dB at 1000 Hz

Better than -26 dB Distortion Products: AF Response: 500 to 2500 Hz

Spurious Radiation: Harmonics better than -45 dB below 30 MHz; better than -60 dB above 30 MHz

Frequency Stability: Less than 100 Hz drift per hour (from a cold start at

room temperature)

Microphone: High impedance 3000 ohm

Better than 0.5 watts audio output for 0.5 µV input Sensitivity:

Signal-to-Noise Ratio: Better than 10 dB S+N/N for 0.5 µV input

Image Ratio: Better than -60 dB

(typical with respect to 0.5  $\mu$ V input: 80 meters — -130 dB; 40 meters — -100 dB; 20 meters — -75 dB)

IF Rejection: Better than -70 dB

(typical with respect to 0.5  $\mu$ V input: 80 meters - 110 dB; 40 meters - 80 dB;

20 meters - 75 dB).

Intermodulation Intercept Point: Better than 10 dBM Selectivity:

2.5 kHz - 6 dB; 5.0 kHz - 60 dB Audio Output Power: More than 3 watts

Audio Distortion: Less than 5% at 3 watts

ALDA 103 is completely manufactured in the U.S.A.

See us in booth 67

\$20 05

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| M           | 5    | UC F          | M    | 10   | 3        | See u | s in booth 95 |
|             |      |               |      |      |          |       |               |
|             |      |               | 77.7 |      |          |       |               |



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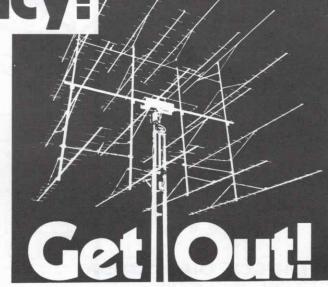
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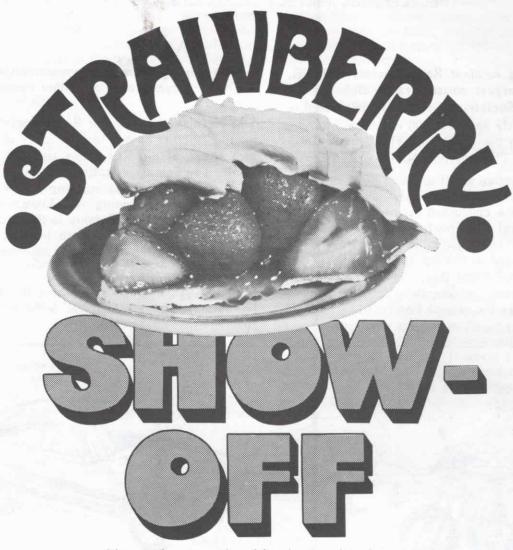
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