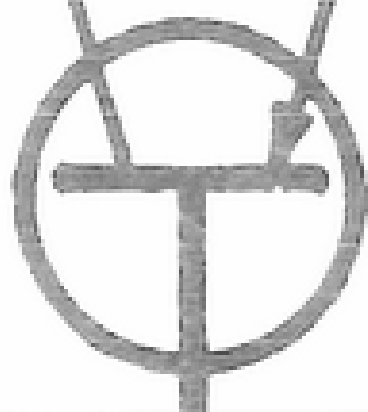


Central Oklahoma Radio Amateurs

COLLECTOR

EMITTER

AND



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25¢

AN INFORMATIVE MAGAZINE
PUBLISHED MONTHLY BY AND
FOR OKLAHOMA RADIO
AMATEURS

AND ANYONE INTERESTED IN
LEARNING ABOUT IT

Volume 4

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Number 43



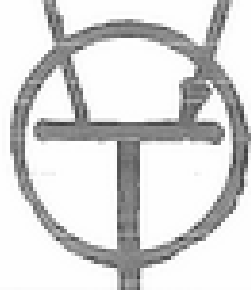
Photo By Don Jones, K5UKP

FIELD DAY AT THE BICENTENNIAL RADIO CLUB (76ERS) SITE BROUGHT OUT AN OM/YL*TEAM, MARK NORTHCUTT, WD5DYI / KAY NORTHCUTT, WD5DYJ TO HELP DON DUCK, WB5UAP MAKE ALL OF THOSE CONTACTS WHICH ARE REPORTED IN THE CLUB SECTION. THE ABOVE PICTURE WASN'T POSED, THEY REALLY WORKED AT THE JOB (FUN). FROM THE "T" SHIRT IT APPEARS THAT THE CLUB PRESIDENT, KEN BURDICK, K5UAB IS STANDING BY AS A RELIEF OPERATOR, OR SOMETHING.

* She's still a YL, not EX. Look it up in the dictionary.

Central Oklahoma Radio Amateurs

COLLECTOR AND EMITTER



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Central Oklahoma Radio Amateurs, Inc. (CORA) is a not-for profit association of radio amateurs, founded for the promotion of interest in amateur radio communication and experimentation, for the advancement of the radio art and of the public welfare and operates to enhance the cooperation of member clubs in sponsoring activities of mutual interest to the clubs and all radio amateurs.

President	Bob Ashby	W5HXL	942-5375
Vice President	Frank Arnold	W5PDH	737-2582
Treasurer	Ken Burdick	K5UAB	681-0281
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ALTUS	Janice Simms	WB5WMN	477-0921	MORI	(Need One)		
OUARC	Nathan Kirby	KB5BF	364-7979				

PARTICIPATING CLUBS FOR CORA COLLECTOR & EMITTER:

AERONAUTICAL CENTER AMATEUR RADIO CLUB
Postal station 18, Okla City OK 73169
MEETS: 8:00PM First Friday each month
Flight Standards Bldg, FAA Aero Center

Pres Robert Graham WB5NSV 677-8685
V-P Robert Runyon W5JES 373-1818
Sec/Tr Bill Oliver K5KRD 329-6333
Assist Paul Asplin WA5HTL 685-6590

MID-OKLAHOMA REPEATOR
MEETS: 8:00 PM Tuesday, first full week
in month. Okla City EOC, 4600 N Eastern

Pres John Huckaby K5QDR 672-4706
V-P Bill Rogers WA5RAQ 632-4375
Sec/Tr Richard Zanni WB6FYL 691-1809
Dues: Sid Gerber, 829 Bouse, MWC 73110

OKLAHOMA UNIVERSITY AMATEUR RADIO CLUB
MEETS: 1st & 3rd Tuesday, 8:00 PM
Student Union, Room 161

Pres Kenny Hutchison WB5RXZ
V-P Kirk Kirkland WB5MJM
Sec Nathan Kirby KB5BF 364-7979
Treas Linda Kirby 364-7979

BICENTENNIAL AMATEUR RADIO CLUB [76'ers]
MEETS: 3rd Tuesday each month, 7:00 PM
Air National Guard, Will Rogers Airport

Pres Ken Burdick K5AUB 681-0281
V-P Dick Baker WB5TMW 685-2867
Sec Mark Northcutt WD5DYI 842-1086
Treas Joe Ramage WB5TDW 685-4814

OKLAHOMA CENTRAL AMATEUR RADIO CLUB
323 NW 10th, Okla City OK 73103
MEETS: 8:00 PM third Friday each month.
American Red Cross Bldg, 10th & Hudson

Pres Ken Ford WB5KHU 528-8770
V-P Al Prince WB5KCU
Sec Joe Buswell K5JB 732-0676
Treas Ellard Foster W5KE 789-6702

OKLAHOMA CITY AUTOPATCH ASSOCIATION
MEETS: 7:30 PM 3rd Tuesday, Monthly
Oklahoma Military Academy 36yh & Grand

Pres Frank McCollom N5FM 751-3577
V-P Henry Israel N5IH 722-3848
Sec/Tr Hobe Burgan WB5MLN 751-1646

CENTRAL OKLAHOMA RADIO AMATEURS
MEETS: 7:30 PM, 4th Wednesday, Red Cross
Bldg., 10th & Hudson. Alley entrance.

Officers are listed above.

ALTUS AREA AMATEUR RADIO ASSOCIATION
MEETS: 2nd Thursday, 7:30 PM
North Main Fire Station [CD]

Pres Bob Bratton WD5BBW 782-3073
V-P
Sec/Tr Janice Simms WB5WMN 477-0921





JULY MEETING HIGHLIGHTS

A fine turnout was enjoyed at our July 18, 1978 meeting. Following completion of normal business, President Denman called upon Chuck Sullivan - WB5YLG, chairman of the nominating committee to present the committee's recommended slate of officers for the coming year. Placed in nomination were the following:

President: Frank McCollom - N5FM
Vice-President: Henry Israel - N5IH
Secretary-Treasurer: Hobe Burgan - WB5MLN

With no other nominees proposed from the floor, this slate was approved by acclamation and will take office August 1, 1978. Congratulations and our best wishes to these outstanding individuals.

Frank - N5FM announced that a new ID was introduced into our 6-Meter machine in keeping with the new FCC regulations. The new call sign is adapted from Trustee Jay Liebman's call and will be K5JL/R. Shortly, this sign will also apply to our other repeater equipment as well.

Speaking of the 6-Meter mode, HR Report reveals that a 6-Meter beacon has been put on the air on 50.055 MHz 35 miles northwest of Chicago by SPESM (Society for the Preservation and Encouragement of Six Meters), Box 768, South Elgin, Ill. 60177 Any reports will be acknowledged. Thanks to WD9CVP

Hobe - WB5MLN introduced the following new members in OKCAP:

Don Latham - WD5GWH	Haven Mankin - KA5ASJ
Bill Sims - WD5DFS	Bill Rodgers - WD5FPO
Ray Dawson - KB5AC	Ken Stepp - AD5HXK
Dee Mize - WD5HFR	

Did you notice those sophisticated new call-signs? If you haven't met these fine people, make it a point to extend your personal welcome at the next meeting.

Congratulations to the following who upgraded their amateur license status:

Freddie Demerson - WD5IDA, General	Paul Devalt - K5CAZ, Extra
Don Latham - WD5GWH, Technician	

* * * * *

MANY THANKS

As the retiring Vice-President and C & E Editor for OKCAP, I take this means to thank the members for their support during the past year. For your patience and understanding I will always be grateful. I only ask that we join together to support our new officers and do our little bit to make ours a club to be envied.

JOE - WA5ZNNQ

HR REPORT: A 50.114 MHz signal in your 6-meter receiver isn't a new VHF beacon but just a harmonic of a 3579.545 KHz TV color-burst oscillator crystal, now often found in electronic clocks and other goodies requiring an accurate (but cheap) time base. Some such devices may even radiate enough signal to open a 146.76 MHz receiver squelch (the 41st harmonic of 3579.545 is 146.76134). Thanks to W2AXU in Pack Rats' Cheese Bits.

NEED A PART TIME JOB AT A RADIO STATION? Jerry Munday, KNOR, Norman needs an electronics, minor maintenance, type. 1st Class ticker helpful but not necessary. Call him at 321-1400.



NEW PRESIDENT'S MESSAGE

Beginning August 1, 1978, some changes will become effective in the technical committees responsible for the operation of the Club's repeaters. I hasten to add, however, that these changes result through the requests of the currently assigned committee chairmen. Bob Williams - K5PJU has been in charge of the 2-Meter equipment since the inception of the Oklahoma City Autopatch Association and has asked to be relieved of this responsibility. Gary McCormick - WA5ETV, who has "pushed" through the 450 MHz machine to its current efficient state, has also requested to be relieved. Gary has also been involved with the 2-Meter gear for several years.

Since both of the 2-Meter machines and the 450 MHz equipment are located and controlled on the Channel 9 tower, it seems advisable to assign one person the responsibility for this equipment. Mark Adams - WA5REC, having been helpful with all of this equipment, has accepted the chairmanship of both committees for the coming year. Questions relating to this equipment should now be directed to Mark.

The 6-Meter equipment has, from the beginning, been worked on by all of the people using it. Actually, it has served as a classroom device for learning repeater operation. Perry McWhorter - K5URJ has volunteered to chair the 6-Meter committee for the next year.

I have asked Chuck Sullivan - WB5YLG to head the Program Committee and am happy to announce that he accepted the position. His program plans and ideas are still in the planning stages but I am certain that the 6 meetings (including the weather program) scheduled for the next year will really be worthwhile. Of course, on alternate months, we still plan to hold our flea-market get-togethers. The meeting place will be the same: Oklahoma Military Academy and the hours will be from 7:30 PM to 9:30 PM (unless adjourned sooner), with the meeting night being the third Tuesday of the month, the only exception being the February Severe Net meeting at Channel 9.

Bob May - N5RC will be the club Emergency Coordinator and, as such, will be Net Control for the Severe Weather Net. Hobe Burgan - WB5MLN will continue as our representative in the radar room with Lloyd Wright - WB5ZOI radar support.

Shortly, we expect to have our permit to construct our building to house our equipment at the base of the Channel 9 tower and while you are reading this portion, I will have appointed a building committee chairman.

My fellow amateurs, we're certainly lucky to have dedicated people who will devote much of their spare time and effort so that many might reap the benefits. May I ask that whenever you are called upon for help, be generous with your time and efforts.

Finally, to those leaving office and those who have been maintaining our facilities, only you know of the time, sweat and tears that was required. With hat in hand we thank you most sincerely for a job well done.

FRANK - N5FM

We understand that one of our members, Zack Zachery - WB5QPI has been confined to the hospital, after a mishap at home. Our prayers and best wishes are with him.

Just a reminder that our club has several pieces of test gear available for use by our active members. For its use, contact Bob - K5PJU.

SEVERE WEATHER NET PRAISED

NOW AND THEN A WORD OR TWO OF APPRECIATION IS RECEIVED FROM PERSONS OUTSIDE THE AMATEUR RADIO COMMUNITY DIRECTED TO THOSE WHOSE EFFORTS WERE EXPENDED FOR THE BENEFIT OF THE COMMUNITY AS A WHOLE. SUCH IS THE CASE WITH OUR SEVERE WEATHER NET. HOBE BURGAN - WB5MLN RECEIVED MANY LETTERS WHICH EXPLAIN THE WRITERS' FEELINGS ABOUT THIS FINE SERVICE. YOUR OKCAP EDITOR HAS EXTRACTED SMALL PORTIONS FROM SOME OF THESE LETTERS:

"...WE DEPEND SOLELY ON THIS FOR UP-TO-DATE INFORMATION.....APPRECIATE THE EFFORTS OF THE HAMS OF THE WEATHER NET AND CHANNEL 9." R.E. MAY, OK CITY

"MY WIFE AND I TURN ON OUR SCANNER WHEN THE WEATHER GETS SEVERE BECAUSE YOU GIVE US AN EDGE OF WARNING OF WHERE THE STORMS ARE BEFORE THE TV OR RADIO DOES....." R. L. COLVIN, OK CITY

"...THE CENTRAL SEVERE STORMS NETWORK IS A GREAT IDEA. KEEP UP THE GOOD WORK. I LISTEN TO THE NET ON A SCANNER." LARRY TOLLE, OK CITY

"...WHEN WEATHER IS THREATENING, I AM GLUED TO MY RADIO....YOU ARE DOING A FANTASTIC JOB....THANK YOU AND YOUR SPOTTERS FOR A GREAT JOB. IT MUST TAKE A LOT OF COURAGE FOR THEM TO LEAVE THEIR FAMILIES AT A TIME LIKE THIS. I ADMIRE THEM." MS LYDIA WALKER, EDMOND

"I HAVE BEEN MONITORING YOUR WEATHER NET, IT SOUNDS PROFESSIONAL TO ME."
- EXPLORER SCOUT PRESIDENT GREG GRAY, OK CITY

"...I THINK THE SERVICE IS EXCELLENT. IT IS DOING A FINE PUBLIC SERVICE.... UNDOUBTEDLY MANY LIVES HAVE BEEN SAVED THROUGH THIS SERVICE AND A BIG THANK YOU SHOULD BE GIVEN TO ALL THE AMATEUR OPERATORS...." E.R. PATTERSON, OK CITY

"...LET YOU KNOW WHAT A 'FANTASTIC' JOB NET CONTROL, THE AMATEUR OPERATORS & RADAR ARE DOING....WE LISTEN BY SCANNER....WHEN THE TORNADOES HIT AROUND RICHMOND AND NW 150 AND MUSTANG ROAD WE WERE WATCHING AND LISTENING VERY CLOSELY....IS THERE ANY WE CAN HELP?" SANDI MAPEL, YUKON

"...THE WARR ACRES POLICE DEPARTMENT FIND YOUR WEATHER NETWORK MOST HELPFUL AND REASSURING. WITH THIS SERVICE OUR PATROL UNITS AND HEADQUARTERS ARE MORE ABREAST OF SEVERE CONDITIONS....DURING THE RICHLAND, PIEDMONT TORNADO TWO OF OUR UNITS WERE IN THE AREA ASSISTING AND RELYING SOLELY ON YOUR SPOTTERS.....I WAS IN ONE OF THESE UNITS...." SGT. R. E. VERNON, WARR ACRES



HR REPORT EXCERPTS

A 10-METER BEACON IN NORTH HOLLYWOOD HAS BEEN AUTHORIZED FOR W6IRT BY THE FCC FOR A SIX-MONTH TRIAL. NORM WILL NEED DETAILED REPORTS OF RECEPTION OF HIS 28.888 MHZ CW SIGNAL FOR THE REPORT REQUIRED AT THE END OF THE TRIAL PERIOD.

AMATEURS WHO'VE CONVERTED CB RADIOS TO 10 METERS MAY BE INTERESTED IN AN ACCESSORY VCO NOW BEING CLOSED OUT BY PAL FOR SALE TO AMATEURS ONLY. THE UNITS, WHICH COST \$39.95, COME WITH A CHOICE OF 15 DIFFERENT FREQUENCY RANGES, COMPATIBLE WITH MOST 23-CHANNEL CB SETS, PROVIDING 28.5-28.9 MHZ COVERAGE IN 1 KHZ STEPS. WRITE PAL, 2614 E. ADAMS, PHOENIX, ARIZONA 85034 FOR PARTICULARS.

"INCERT" - INDIANA CITIZEN RESPONSE TEAMS - IS A NEW PROGRAM JUST ESTABLISHED BY THE INDIANA STATE POLICE THAT WILL COORDINATE VARIOUS STATE VOLUNTEER SERVICE ORGANIZATIONS. SINCE THE TROOPER IN CHARGE IS HIMSELF AN AMATEUR, IT'S EXPECTED THAT AMATEURS AND REPEATERS WILL PLAY AN IMPORTANT ROLE.

CREDIT FOR PASSING THE CW EXAM CAN NOW BE RETAINED BY AN FCC LICENSE APPLICANT EVEN THOUGH HE FAILED THE WRITTEN TEST. IN A DECISION REACHED WEDNESDAY (5-31) THE COMMISSIONERS AGREED TO ALLOW AN APPLICANT SUCH CREDIT FOR UP TO ONE YEAR AFTER HE TAKES AN EXAM. TO RECEIVE THE CW CREDIT, THE APPLICANT WILL BE GIVEN AN FCC FORM 845 BY THE FIELD OFFICE AT THE TIME OF THE EXAM. HE TURNS IT IN WHEN HE RETURNS FOR ANOTHER TRY AND RECEIVES CREDIT FOR THE CW PORTION OF THE EXAM.

FORM 845 WILL BE HONORED ONLY BY THE FIELD OFFICE THAT ISSUED IT. THE FORMS AND INSTRUCTIONS FOR THEIR USE HAVE GONE TO ALL FCC FIELD OFFICES, AND THE RULES CHANGE BECOMES EFFECTIVE IMMEDIATELY. HOWEVER, TO BE ON THE SAFE SIDE, IT WOULD BE WISE TO CHECK WITH YOUR LOCAL FIELD OFFICE TO SEE IF THEY'VE IMPLEMENTED THE NEW PROCEDURE BEFORE GOING IN FOR AN EXAM.

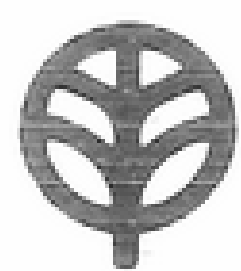
A MEDICAL EMERGENCY GENERATED MORE GOOD AMATEUR RADIO PUBLICITY THE WEEK OF JUNE 26TH AFTER K2GMV, VACATIONING IN FRENCH OCEANA AS FO0PJM, FOUND HIS NINE-YEAR OLD DAUGHTER SUFFERING A VIOLENT REACTION FROM A BEE STING. ACCORDING TO AP HE RAISED ANOTHER AMATEUR (UNNAMED) IN MAINE WHO PUT HIM IN TOUCH WITH A LOCAL HOSPITAL. HOSPITAL PERSONNEL THEN GAVE HIM ADVICE THAT RELIEVED THE GIRL'S BREATHING DIFFICULTIES. THE STORY MADE NEWSPAPERS AND SOME TV NEWSCASTS. K2GHV IS BETTER KNOWN TO DXERS AS ZVMM.

.

CHECK YOUR LICENSE EXPIRATION DATE

HEADQUARTERS

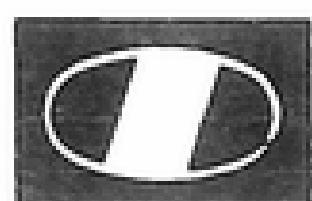
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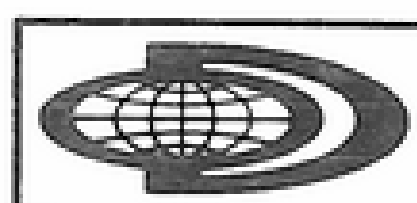
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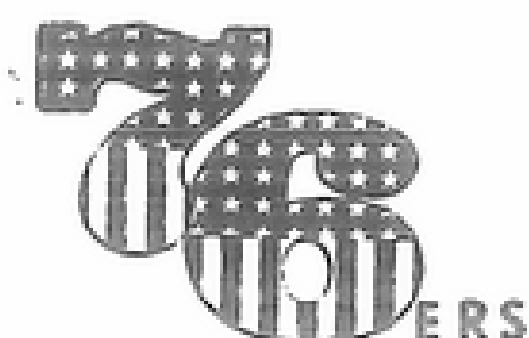
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HAM'S SPIRIT



THE BICENTENNIAL AMATEUR RADIO CLUB



BICENTENNIAL AMATEUR RADIO CLUB '76ers MINUTES OF THE JULY 20, 1978 MEETING

1. Meeting was called to order at 7:02 P.M. by president, Ken Burdick, K5UAB.
2. Self-introductions and comments on recent activities followed.
3. Minutes of the June meeting were read by secretary, Mark Northcutt, WD5DYI.
4. Repeater Technical Committee Report by Charles Kennemer, WA4PLG.
5. Ham Holiday Ladies Program Committee report by Don Duck, WB5UAP.
6. Fall classes will be held, and volunteers were requested for instructors' jobs. Many expressed interest, with more discussion next meeting. Motion by Bill Riddles, N5WM; seconded by Paul, WA5HTL, to drop all fees on license classes for the Fall, 1978 Term. Motion carried with three opposing votes.
7. General comments on Field Day from the members.
8. The following are results from Field Day:

<u>BAND</u>	<u>CW</u>	<u>PHONE</u>	<u>NOVICE</u>
80	--	---	25
40	210	85	22
20	386	112	--
15	164	59	11
10	--	58	1
6	--	11	--
TOTAL	760	325	59
AVERAGE CONTACTS/HR	31.6	13.5	2.4
TOTAL CONTACTS:	1144	CLASS:	2A
COMBINED AVERAGE:	49.6/hr.		

9. Club treasurer's report by Joe Ramage, WB5TDW.
10. Note to all members: all memberships expire October 1, 1978, which includes Collector and Emitter subscription.
11. Motion by KA5AFA; seconded by WB5TMW that the initial Repeater Support Fees (voluntary ten dollar per year per family) be pro-rated for each month (or part thereof) left in the fiscal year (October to September) at a rate of one dollar per month, then coinciding with the yearly membership dues. Motion passed by majority.
12. Report from Reuben, WD5FKF, on recent violation regarding antenna height restrictions. Reuben's home is zoned "A" Residential. A building permit is required for structures above 35 feet. Reuben will have an upcoming article in Collector and Emitter with more details.
13. Report from guest, Joe Harding, WA5ZNF, Editor of CORA Collector and Emitter, announcing business card-type advertising is still available for the publication. Interested parties contact Joe.
14. Program presented by Charles, WA4PLG, on the recently-acquired club repeater. Repeater call is WR5ANG (Air National Guard) and frequencies are 146.16/.76 ('76ers).
15. Meeting adjourned at 9:30 P.M.

Mark, WD5DYI, Secretary

FOR SALE: Yaesu FV101B Remote VFO, Heathkit SB610 Monitorscope, National NC98 Receiver, 20-40m Pre-amp, Autek Memory Keyer, Tentec paddles. Call Dave Dierker, WB5RLR, 842-0097.



MEETINGS

The O. U. Amateurs have not been meeting this summer. Most of the students are working out of town or traveling. With classes starting again in late August, it should be interesting how club activity goes for the 78-79 school year.

SCARS FIELD DAY

The South Canadian Amateur Radio Society (SCARS) had a successful Field Day on June 24th and 25th. They amassed some 800 contacts after the dust of duplicate contacts was cleared. SCARS held their Field Day in Andrews Park. Carl Horowitz, WB5QNK, President of SCARS wishes to thank all of the Hams who helped operate and set up the antennas and equipment. There were too many to mention by name in this column but Carl was especially appreciative of the XYL's who helped make the operation go smoothly. The portable power and the food and drinks held up giving the SCARS Field Day a delightful blend of operating and fellowship.

O.U. ARC FIELD DAY

The O. U. Amateur Radio Club under the direction of President Kenny Hutchinson, WB5RXZ assembled several club members for a spartan Field Day effort in Reeves Park south-east of the university. The club had its Hygain TH3 beam hooked up. Kenny even brought his new 30 foot tower and Hygain TH6 beam and Ham II rotor out. Believe it, the most interesting part of O.U. Field Day was installing and removing the antennas. The TH6 beam actually bent the gin pole as the Tri-bander was being hoisted! The extra work paid off as the first contact was a 5W1 in British Samoa. The O.U. club totaled 450 contacts of which 250 were on CW for double points. The final score for the O.U. Field Day was 1600 points for tops in Norman.

TUESDAY TALL TALES AND COFFEE

All amateurs in Norman and OKC are invited to the Commons Restaurant every Tuesday morning at 0930 for coffee and good times. This fellowship is somewhat a tradition around Norman, and usually has well over a dozen hams. The Commons Restaurant is on the south part of the University of Oklahoma campus.

SATURDAY TALL TALES AND COFFEE

Another coffee session where good fellowship abounds is held every Saturday morning in Norman. This tall tales and coffee session is sponsored by SCARS. Location is always the same: The Red Cross Building located just off Robinson Street at the University Airport (North Campus). Because of my limited troubleshooting skills, Mike Salem has been trying to restore a motorola HT-200 handie talkie for me. These are better known as "Bricks". Two of my "Friends", John N5ABC and Kirk WB5MJM, decided I lacked proper skills on using handie talkies especially HT-200. They decided I needed a training aid to properly develop my skills using bricks. Well, Saturday morning, John and Kirk presented me my training aid. All I can say is my training aid is "Brick" red, has a rough texture, measures 7 3/4" X 3 3/4" X 2 1/4", has a quarter wave antenna and bears a striking resemblance to those little objects used to build buildings. One good thing about the brick - its all solid state (very solid). Thank you Kirk and John, but please hurry Mike before my pants fall off carrying my HT-200 "training aid".

REPEATER UPDATE

The 146.28/88 micro processor fund has reached about 75% of its goal. Since Linda (my XYL) and I are keeping the records on the repeater, all repeater and micro processor donations should be sent to our address at 1214 Barkley Avenue, Norman, OK 73071. Linda, who hopes to become a ham someday, is presently organizing an accounting system to keep track of all repeater financing. We are taking an inventory of all hams in the Norman area. If you know of any ham not on the emergency call-up list, let one of us know right away. We are especially interested in contacting



Novices. They are sometimes forgotten by all of us because we don't hear them on 2 meters. Call us at 236-5641 Ext. 281 or 364-7979. Mike will still be the trustee of WR5AFW. Linda and I will just do the record keeping for WR5AFW and O.U. ARC.

UPGRADES

John Stehr - N5ABC (Ex-WD5HKL) Technician to General to Advanced to Extra
 David Gibson - WB5CRX - Advanced to Extra
 Roger Stephens - K5VRX - Advanced to Extra
 Nathan Kirby - KB5BF (Ex-WD5GWG) Technician to General to Advanced
 Howard McElhany - W5FIH - General to Advanced
 Bob Schlegel - WD5CJB - Novice to General to Advanced
 Laverne Hoag - WD5GJG - Novice to General to Advanced
 Bob Fields - WD5CSG - Technician to General
 Bob Morris - WD5BDJ - Technician to General
 Andy Magid - WD5EDK - Novice to Technician

O.U. ARC and SCARS are proud of the above Norman hams who upgraded. CONGRATULATIONS!

Nathan Kirby KB5BF



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MICROPROCESSOR SLUSH FUND--NORMAN STYLE

When we last left our intrepid computer builders in Norman, the new Intel 8085 chip set, including the 8755 ROM and 8155 RAM, were winging their way to Norman via UPS. WA5JXX had wangled a Printed Circuit card layout from the Intel manuals and a couple of cards had been produced on line and prepared for construction. JXX also, in the midst of a heavy work load, had produced most of the flow charts to emulate the present repeater system and the planning had begun to produce an audio board for eventual replacement of the present autopatch.

Well, we are glad to report that the Chip set has arrived and the flow charts are well on their way to completion and coding in machine language. For those of you who are interested in the technical aspects of this project, you might attend the Ham Holiday Micro-computer Program where Roger will make a brief presentation of Hardware and Software.

I have gotten a few questions about what the new system will do and why we have decided to do it now. The answer is simple and has several facets. First, a microprocessor is simpler and has an almost unlimited capacity for change. The 8085 is a single chip processor that along with the 8755 ROM and 8155 RAM form a complete computer with approximately 40 combination I/O lines for control. The 8155 is a 256 bytes RAM with I/O lines and the 8755 is a 2K ROM with I/O lines similiar to the 8155. The system will offer considerable versitility in updating and changing the control methodology of the repeater.

The present control system was constructed over several years by hardware design which was then reduced to printed circuit cards. Changes were slowly made over a period of years as autopatch and other control functions were evolved and added. Part of the control circuitry in the Auto Patch (which is on loan to the Club) has been disabled and there are as many as 25 different wires running between the patch and the control system. The equipment is effective and has been operating well, but changes and repairs are too difficult to effect. With a microprocessor, changes will be accomplished primarily in the software with hardware added as needed. The system will initially emulate the present autopatch with added functions, including redialing and abbreviated calling plus other goodies added as suggestions and time permits. This will be an evolutionary project that hopefully will grow as the system usage increases.

For those of you who are interested in the financial aspects, we have received donations that total about 70% of the cost of the hardware for the system. The chips costs \$106 and have been paid for. Any excess donations received will be applied to the purchase of a new RAP-2 Autopatch so our present loaner can be returned. Direct any donations to Assistant Treasurer Linda Kirby, 1214 Barkley Avenue, Norman, Oklahoma 73071. Donations have typically been running anywhere from \$5.00 to \$25.00. The response has been very gratifying.

Micheal Salem N5MS

A HELPING HAND FOR THE OU RADIO CLUB




Radio club financing on occassion becomes big business and a lot of work. For several years, I have conducted the club business for the OU Radio Club on a very loose leaf business. Club sponsor W.T. Cronenwett has been very forgiving about an occassional unpaid bill and deposits made generally about once every month or so, but I usually don't have much problem. The OU Club is different from most clubs in that all money must be deposited with the University

and accounted for through their Bursar's office. This is no problem except that it typically takes over a week to get from disbursement slip to check after obtaining all the necessary signatures and check. Add in my usual one to two week built in delay and with just a little help, club business can grind to a slowdown quickly.

Which is why I welcome the assistance of Linda Kirby, the XYL of Nathan KB5BF. Linda works for an accounting department for a large oil company and has graciously agreed to establish a set of books for the club and take care of disbursements and receivables. Club records previously were the accounting sheets provided by the University.

The additional help will also be a boon to the repeater financing situation. I generally find that most people are willing and in many instances insistent about donating to keep the repeater and patch on the air. I, however, was unwilling to get into the morass of record keeping necessary to remind people of club dues and donations on a periodic basis. I just people give when they felt they should. The generosity of many of the Norman amateurs and a few of the OKC crowd was very good and the repeater has never had any problems meeting the costs of phone lines and other fixed monthly expenses. However, the system is now in a period of growth and increased usage. It is necessary to purchase items to increase the system's versatility and reliability. A standby transmitter needs to be completed (our present 22 watt unit is a loaner from WB5ISN). A new autopatch needs to be purchased. A duplexer to convert the system to single site for increased transmitter coverage is down the road, but a possibility. The point is that a few items are needed to make the repeater a permanent public service facility serving South OKC and Norman. We have no financial resource other than club members who are willing to help and more organization is needed to marshall those resources. A university club suffers more than normal from lack of organization because its normal constituents, the students, are only present in any great number only nine months out of the year. So we will try to be more businesslike in our approach to the club and its finances. For those of you who want to correspond about club business and financial transactions, contact Linda at 1214 Barkley Circle, Norman, Oklahoma 73071. Keeps those cards and letters coming in (to Linda).

Michael Salem, N5MS

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ALTUS AREA
AMATEUR RADIO
ASSOCIATION

President - Bob Bratton, WD5BBW

Sec/Tres. - Janice Simms, WB5WMN

The ALTUS AREA AMATEUR RADIO ASSOCIATION held its monthly meeting on Thursday, July 13, 7:30 PM at the North Main Fire Station. 13 were present.

Chuck Smith, WB5MJS, and Mike Schenkel, W5VXU, reported that so far only one of the students of the recent Ham class had heard any results from the written part of the test.

Loren Simms, WA5CBF, reported from the Repeater Society that plans were being made to install an air conditioner in the repeater building on the mountain.

The main topic of discussion was the recent Field Day '78 held June 24-25. Steve Morris, W5KI, made this report - - -

June has come and gone, Field Day '78 is history, and Murphy is alive and well in Jackson County. Matter of fact, he got so healthy at the Altus Field Day site on Otter Creek (WB5LTU's farm), he may never disappear! Still, our group didn't lose "much" operating time and had no "unsurmountable" rig damage. At this first (of hopefully many) attempt to balance good times, good participation and good scores, those who took part were happy. With dipoles on 80-10, three rigs, and with six of ten operators totally new to contest-style operation, we finished 24 hours of operation with 1039 QSO's: 596 on CW, and 443 on SSB. We also worked 71 of 75 ARRL sections, missing KL7, VE8, KZ5 and NDAK. But so much for what we will soon forget, on with what we will always remember: What Murphy did at our site.

Since emergency power is what it's all about, we field-tested two 10kw generators kept in standby for storm emergencies and a truck-installed unit for our back-up. 10kw unit no. 1 never made it off of the starting blocks. The fuel pump was out before the kickoff. Twenty minutes into the pile-ups, the governor on 10kw unit no. 2 started spraying oil. Switching to the third (and last) generator, three of us took up a self study course in generator repair. One hour later, no. 2 had the governor from no. 1 and we had grease and grime from both. firing up no. 2, we found oil leaking again from the replacement governor. A snappy group decision was made that the leak wasn't "that" bad, so we just left well enough alone. With that solved, and a quick power cord change, we settled in for the next 22 hours. WRONG! Later in the afternoon, one of the attachments to the new governor became unattached. It's amazing what 150 volts with the frequency "somewhere" between DC and 50 cycles will do to liven up a Field Day operation. One rig blew its fuse, another's final tubes and driver self-destructed, and the others lived through it. Murphy -2, K5KI/5 -1. But since the good guys usually win, a quick generator fix, a new fuse and a Drake B-line brought in from the bull-pen, got us on the air again in short order.

Weatherwise, the night was perfect, the wind just enough to blow paper and bugs away, and the temperature Saturday afternoon only 110° in the tent. The only other loss was some Bermuda grass. It seems that Jerry, WB5LTU, noticed that the faster KØJPX, and myself (W5KI) turned up the keyers, the faster we shuffled our feet under the table. He may have to re-seed those spots.

All in all, the bottom line on Field Day is not whether you win or lose, or even how you played the game, but what you learned about emergency operations. We learned of some accessories we will need next time, that generators need periodic check-outs, that dipoles don't create pile-ups, and we all gained invaluable experience. We learned a great deal but we'll probably try this next year, just in case we did not learn it all! Hi! (more)

In my 15 years of hamming, this was the best Field Day I've been on. Due mainly to the likes of the crew at W5KI/5: - WB5LTU, KØJPX, N5MF, WB6MJS, WA5OGC, WA5MIC, WA5WHV, WD5BTT and others. All of us and everyone that couldn't make it out this year, will be back next year, so "WATCH OUT CENTRAL OKLAHOMA." 73! ! - Steve, W5KI.

Welcome to new member - C. C. Holsey, K5KQC, from Indianahoma.
Congratulations to Mike Schenkler on receiving his new call, W5VXU.
Dues for August include: WB5MJS, WB5UMH and WB5SOH.

Next club meeting is August 10, same time, same place.
Hope you can attend Janice, WB5WMN

(NOTE: Had a super technical article by Bob Howland, WB5JVV, but could not get it re-typed in the short time I had. Will run it next month so look forward to it. Joe, WA5ZNF)

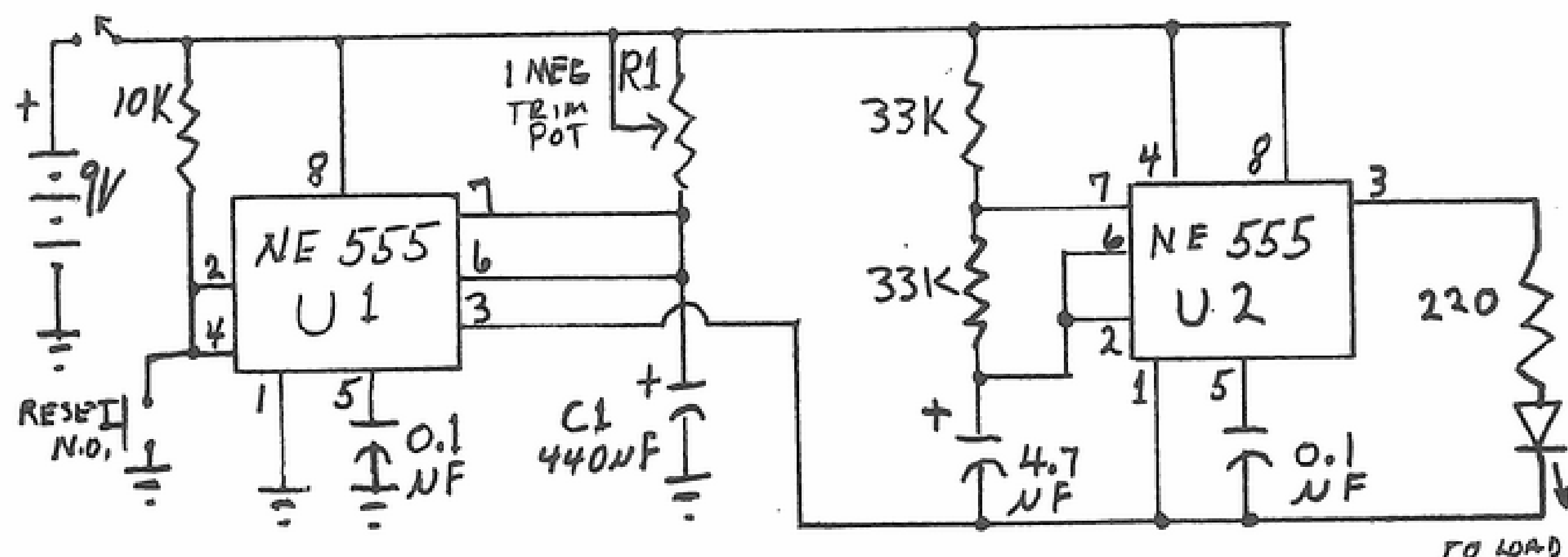
I D REMINDER

One of the regulations we must abide by is to identify our station at least every 10 minutes, and the nice thing about FM is that the RPTR will help you to ID, but what about other modes? It sur is easy to get into an interesting conversation and both stations forget to ID. You hear it all too frequently on HF bands.

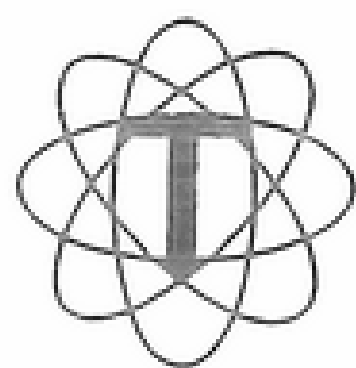
Here is a circuit U have used from the first day I became acquainted with the IC 555:

The voltage can be 4.5 to 9, the unit draws 6 ma while timing and 40 ma when timed out, with 9 volts. With C1, 440 uf and R1, 975 k the time out period will be about 550 seconds - 50 seconds of advance warning, (of course this will depend on the cap C1.) Check it to be sure. Use the largest LED you can get for an indicator (the LED will flash about 4 times a second). If you use a battery don't leave the unit in a timed out condition for very long, you'll soon zap the battery. Also check for RF upsetting the timing. To use, just apply power, hit reset switch and when the LED flashes on, you ID and press the reset switch again to start the next count down.

The unit was constructed on perf board with point-to-point wiring. (I used sockets for the IC's). Ben, K5IRO



ALL MEN HAVE THEIR FRAILTIES; AND WHOEVER LOOKS FOR A FRIEND
WITHOUT IMPERFECTIONS, WILL NEVER FIND WHAT HE SEEKS. WE LOVE
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C O R A S P E A K S

T O C L U B P R E S I D E N T S

SEPTEMBER MEETING IS CRITICAL

By the CORA constitution, election of new CORA officers is at the September 27 meeting, 7:30 PM at the Red Cross. It is very important that each club appoint their three directors to serve through the next year, *and have them at this meeting*. These should be responsible people that you would feel confident to represent your club at CORA.

A decision on HAM HOLIDAY '79 should be made at this meeting so that the critical details can be finalized for an earlier start than last year.

Each club should poll its members prior to the September meeting of CORA on the following questions:

- | | | |
|--|-----|----|
| 1. Shall we have a HAM HOLIDAY '79? | YES | NO |
| 2. Bigger at Lincoln Plaza? | YES | NO |
| 3. Smaller at southgate or equivalent? | YES | NO |

Thanks for your support during the past year and HAM HOLIDAY '78!

Bob, W5HXL

ONE YEAR AGO TODAY DEPARTMENT -

One year ago, we didn't know what Ham Holiday was all about. We had recently received our Novice calls, and we hardly knew any of the Oklahoma Amateur Fraternity. We pre-registered with a bit of apprehension, hearing how great it was going to be from the "Big Guys" on the 2-meter scanner. It was an enjoyable and rewarding experience for us, and we wanted more.

This year, Ham Holiday was closer to home for us. We had the demanding job of Publicity and Registration for the '78 session. It took much of our time, but was very rewarding, and here's why:

C.O.R.A. seems to be a unique system in amateur radio. To paraphrase what was heard from WA5CZN, C.O.R.A. is akin to government, with each club sending representatives to a common forum, in which the whole group benefits. It seems we don't realize what a system like this can do until something like Ham Holiday.

The different committees responsible for Ham Holiday were from the different clubs, but with the common interest of making it a success. Some of the people we had never met--others were good friends. But we're all closer now.

We would like to take this opportunity to thank the C.O.R.A. Board of Directors and committee members for Ham Holiday for our chance to help in the success of Ham Holiday '78. Through the actions of C.O.R.A. we were able to publicize the event as never before by sending the Collector and Emitter to every A.R.R.L. Member in the State.

In particular, we thank Bob Ashby, W5HXL, for his leadership and helpful hints and also Joe Harding, WA5ZNF, Editor of Collector and Emitter, for his overwhelming assistance in printing and planning the logistics of publicity and registration. We appreciate everything you've done, Joe, and want the readers to know what a true unsung hero you are.

Our experience came all at once, and we're grateful for it. Maybe someone out there will want the experience for themselves. Next time there is a chance to serve on a project as worthwhile to amateurs as Ham Holiday, jump in--you'll never regret it!!

Mark, WD5DYI
Kay, WD5DYJ

DIAGNOSIS, DEFT & DIRECT

(Editor's Note: A. K. "Kenny" Guthrie is WA4JXY and works for General Electric as the Manager of Product Information and Technical Training. Kenny also wears another hat as the Communications Editor for the Newsletter of the Vehicular Technology Group of the Institute of Electrical and Electronics Engineers, Inc. For the past few years, I have been entertained and enlightened by his practical and useful articles on a variety of subject relating to two way mobile communications. The following article appeared in the February 1978 issue of the IEEE / VTS Newsletter and reprinted with permission.

Micheal Salem N5MS

This isn't a "What to do 'till the doctor comes" article. Instead, we assume that you are the "doctor" and that you are already face to face with a "patient"--a "sick" two-way radio. Your task is to move from symptom, to proximate cause, to "treatment" and then to "cure"--with directness which befits a professional practitioner of the part. This image is enhanced when you focus quickly on the portion of the radio which needs fixing, and avoid fouling up the portions which don't need your ministrations!

There is a systematic approach to troubleshooting which fits any transmitter or receiver which ever worked properly--be it big or little and whether its normal habitat is on land, on wheels or on feet. It's built on standard performance tests plus a few observations of fact, done in an order which yields valuable information fast and minimizes test equipment manipulations. The procedures are detailed in the troubleshooting charts on the following pages (the charts and a whole raft of information are available in Kenny's Test and Troubleshooting Handbook, available postpaid for \$2.50 to GE Marketing Communications, Box 4197, Lynchburg, Virginia 24502).

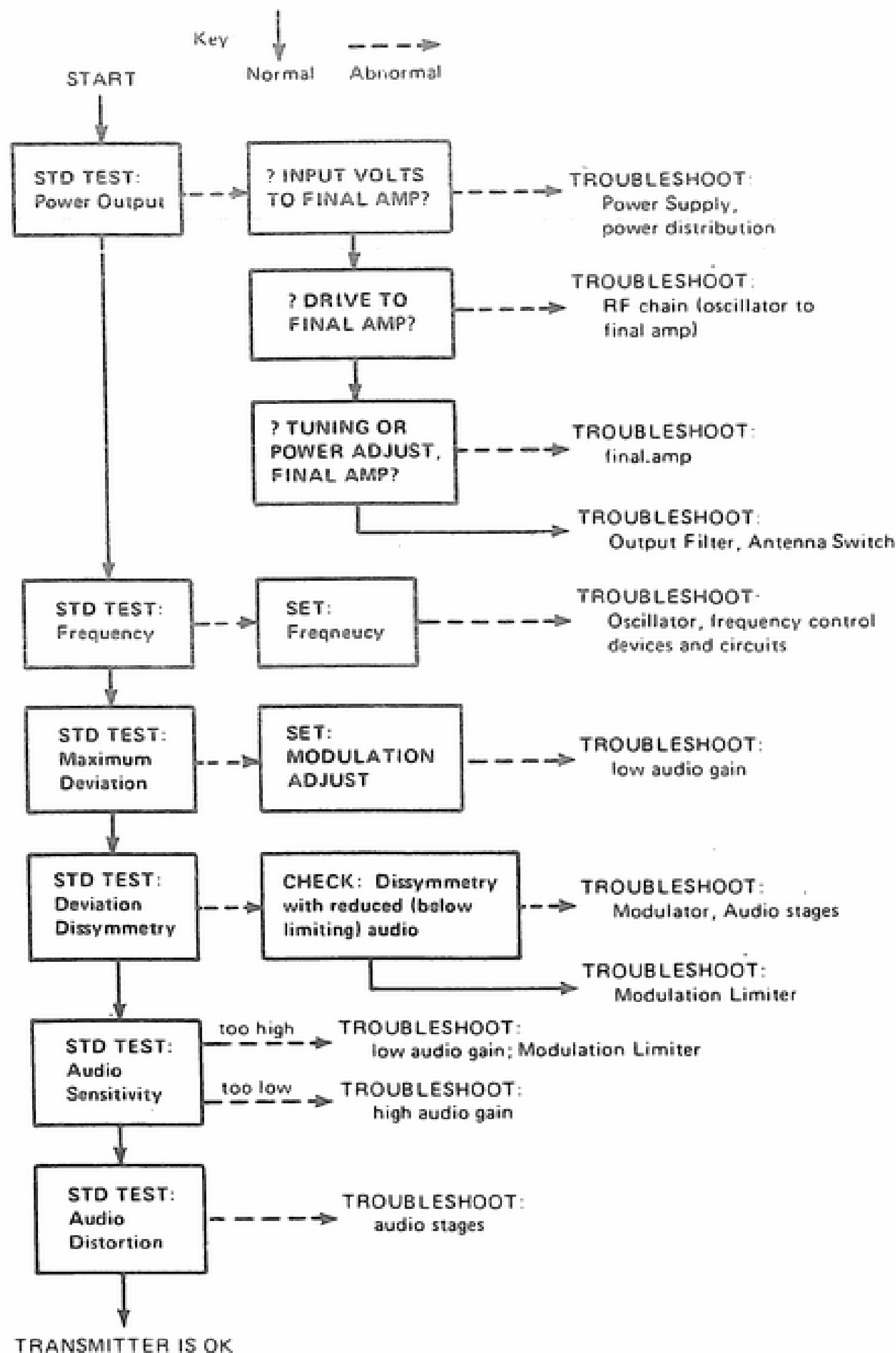
You enter each chart at the upper left and make the first test or observation. If the results are "normal" you move down. If they are "abnormal" you move to the right. When you reach a "TROUBLESHOOT" entry, you're in the broad area--the next step is up to you. Find and fix the specific problem, and get back on the track. When you reach the bottom, the job is done.

For transmitters, the first jump is the big one. Normal power output is prima facie evidence that everything in the chain from oscillator to antenna changeover switch is in "apple pie" order. Move down to the next step. If power output is abnormal (including zero) you know something is wrong but little more. Start at one end of the chain and work toward the other, using the test indicators in the unit and procedures in its maintenance manual.

Inability to set to the proper frequency points toward the crystal, oscillator circuit or compensating circuit.

When the transmitter passes the maximum deviation deviation test, you know that the entire audio chain (from input to modulator) is alive. If you can't adjust maximum deviation high enough, look for low audio gain or modulator trouble. When deviation dissymmetry (in hard limiting) is unacceptable, recheck with audio input well below limiting. If output becomes symmetrical, the modulation limiter is suspect. If output remains non-symmetrical, look for modulator trouble or gross audio distortion. With a major portion of the audio/modulator circuitry checked out, failure to display normal audio sensitivity usually points to audio gain problems. Excess distortion of audio, when found at this point in the sequence, leads you to the audio stages.

TRANSMITTER TROUBLESHOOTING

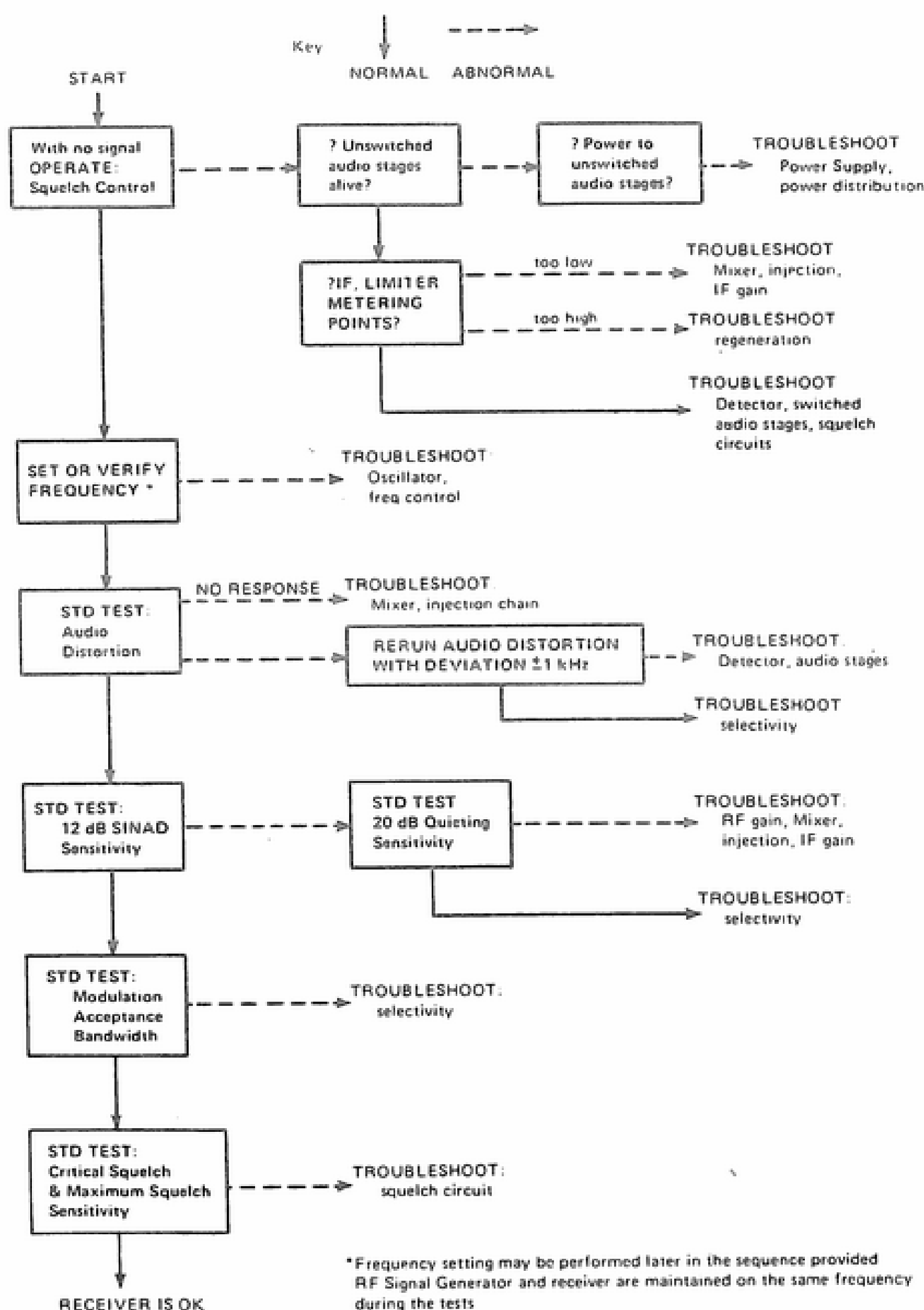


RECEIVER TROUBLESHOOTING

The first "test" requires no test equipment! With no signal applied and the Channel Guard ('scuze me . . . I mean "tone squelch") decoder disabled, rotate the squelch control over its full range. If the receiver squelches and unsquelches normally, you know that a whole lot of things are right . . . noise is being produced in the mixer(s), there is enough IF gain to drive the detector, there is enough detector output to drive the squelch circuits, the audio amplifiers amplify, the squelch circuits do their things, and the switched amplifiers do switch. About all which remains in major doubt is the pre-mixer RF gain and the status of the injection chain! If the receiver won't unsquelch and make noise, the chart leads you in the right direction.

Audio Distortion, which is taken with a "rock crushing" signal, verifies that the injection chain is alive, given you a chance to set or verify frequency, confirms that you can develop rated audio power, and confirms the distortion performance. No response points to the oscillator/injection circuits. If distortion is too high, recheck distortion with greatly reduced modulation deviation. If the distortion remains, look for trouble in the detector or audio stages. If it clears, look for IF selectivity problems.

RECEIVER TROUBLESHOOTING



Failure to pass 12 db SINAD Sensitivity implies lack of gain or improper selectivity (gross audio distortion having been ruled out). If 20 db quieting sensitivity, run next, is failed, you have a gain problem. If passed, you have a selectivity problem.

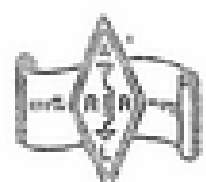
If results from the modulation acceptance bandwidth are sub-standard, look for IF selectivity trouble. And if Critical & Maximum Squelch numbers can't be met, having gone this far successfully, you do have squelch trouble.

CHECKOUT PAYS OFF

The troubleshooting sequence minimizes the test equipment manipulations, making the ideal order for equipment checkout. Given a well arranged bench with Service Monitor, direct-reading SINAD meter and a dedicated distortion analyzer, the entire sequence, transmitter and receiver, can be run in less than 2 minutes! That's not much effort to swap for the assurance that the radio is right!

(Editor's Note: Many of tests Kenny recommend require some exotic goodies, but almost all can be duplicated with simple equipment, ala K5JB. Now, you have the methodology!)

Michael Salem, N5MS



AERONAUTICAL CENTER AMATEUR RADIO CLUB, INC.



W5PAA

RANDOM WORDS FROM THE PRESIDENT

We had a fine turnout at our July meeting of the Aeronautical Center Club. I would like to thank Zack Zackery, WB5QPI, for presenting one of the latest ARRL films on Amateur Radio. Zack pointed out that he was looking for non-amateur groups to show this film as an introduction to amateur radio. Thanks Zack for both the program and the fine efforts.

Field Day '78 was a big success as far as the Oklahoma Central and Aeronautical Center Amateur Radio Clubs were concerned. Things got off to a good start Friday night with the picnic and "planning" session. Saturday morning things got started with the raising of antennae and setting up of tents, etc., followed by a discussion as to which call our portable station should use. Among those discussed were W5PAA, W5LOW, and AA000000. Well, as you may know, we decided to stick with W5PAA. We might have used AA00, but we were afraid that Robby's call might change before Sunday (Hi Hi). Seriously as was brought up in our July meeting, I haven't heard of a single person that came out for Field Day, that didn't have a really good time. Special thanks to Charlie, WA5JGU, and Bob, W5HXL, for keeping the hamburgers coming, and to Bill, WA5FWD, and his wife for sharing their blanket with Sandy and I at the picnic. I would also like to thank the Oklahoma County Civil Defense for the use of their new communications van, it made operating portable a real pleasure. Again thanks to everyone involved with our Field Day efforts, I am sorry that I can't name all of them here.

As we announced in our July meeting, the August meeting of the ACARC will be deferred until the 3rd Friday, when we will have a joint watermelon feed with the Oklahoma Central Club. Everyone should have a nice time, so come on out and spit a seed or two with us.

As a final note, the ".25-.85" repeater is still on the air, but the call has changed from W5PAA/R to WR5AVM. If this seems backwards to you, blame it on the FCC. It seems that they have decided to renew our "WR" call even though there is still discussion within the FCC of eventually doing away with the type of license. Hopefully, by the time that you read this, the repeater will have all of its circuitry installed, and no voice repeater ID will be necessary. Please feel free to use the ".25-.85" repeater, but if it isn't identifying itself, please identify it for us with WR5AVM.

By the time you read this Ham Holiday '78 will be history. A full report will follow next month.

73 Bob Graham, WB5NSV



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WD5FKG

Manager



Minutes of the Aeronautical Center Amateur Radio Club - July, 1978

A round of self-introductions started the meeting. There were 35 members and guests present.

Bob reported that the repeater license was renewed, so the repeater call is WR5AVM - until the automatic identifier is installed users should identify for the repeater.

Charlie, WA5JGU, and Robby, AAØØ, gave a report on Field Day. Since the regular meeting for August immediately follows Ham Holiday, the August meeting will be deferred until the third Friday, and this will be a joint meeting and watermelon feed with the Oklahoma Central Amateur Radio Club.

The bids were opened for the Telrex rotor-- the high bid was Ray Lynch, K5YII, for \$126.50.

Paul, WA5HTL, gave out forms for those needing them to order special call plates (Oklahoma state vehicle).

Zack Zackery, WB5QPI, showed the ARRL film on Amateur Radio. This is a good film. If anyone knows of a group that would be interested in a program of this kind (Lions, Boy Scouts, etc.) then call Zack Zackery, WB5QPI. He hangs out on the .22-.32 repeater. Very good - thanks much Zack. Meeting adjourned at 9:00 P.M.

Respectfully submitted

Bill Oliver K5KDR sec. & tres.

REMEMBER MURPHY'S LAW?

All radio amateurs are familiar with Murphy's Law: if anything can go wrong--it will. There are others, too. ZL2LE compiled some for Break-In; Radio Communication republished them, and here they are for a new set of readers.

Cahn's Axion: When all else fails, read the instructions.

Horner's Five-Thumb Postulate: Experience varies directly with equipment ruined.

Gumperson's Law: The probability of a given event occurring is inversely proportional to its desirability.

Skinner's Constant: The quantity which, when multiplied by, divided by, added to, or subtracted from your answer gives the answer you should have got. (Also known as Flannegan's Finangling Factor.)

Rule of Accuracy: When working towards the solution of a problem, it always helps if you know the answer. (Also known as Skinner's Corollary.)

Chilsolm's Law of Human Interaction: Any time things appear to be going better, something has been overlooked.

W5JJ

TWO MULTI-BAND ANTENNAS

The April 1978 issue of Amateur Radio presents two articles on multi-band antennas. One is a 10,15, and 20 Yagi-style beam without traps. It's a bit larger than the common variety but should perform better. The other combines both traps and multi-wire techniques to cover 15,20,40,80, and 160-m. Each of these two designs require only a single coax feedline. Full details are given, so you can try your hand at building.

Haming is not near as dangerous as trying to ride a bicycle, if you don't believe that, ask Ray Peters, WB5BIT. His 10-speeder got away from him. You can visit him and his broken leg at Midwest City Hosp.

A G C AND WEAK SIGNAL DETECTION

My rig is a RT-101E with a CW XTAL FILTER and RC ACTIVE AUDIO FILTER. I spend about 95% of my operating time on CW.

Not long ago I was having a real enjoyable conversation with a JA6--- on 10 mtrs, when a W7-- fired up a few Hz away, (the W7-- was 3 S-units stronger than the JA6---). I noticed that the W7-- was really hanging up the S-mtr. About the only time I could copy the JA-- was between W7-- words. It was obvious something had to be done to copy the weak ones.

PROBLEM: The FT-101 has a FIXED SLOW AGC.

SOLUTION: Short out the AGC, Then manually control the gain with the RF gain control.

I installed a small aluminum bracket under the lid, inside the rig with a switch on it, one side of the switch to ground, the other side to the base of the AGC, amp, transistor (Q4 on FT-101).

Now with the AGC shorted out the receiver will recover immediately after receiving a strong signal. Of course you will have to dig for it but at least you have a better chance of receiving solid copy. (Man you don't hear a lot of strong DX.)

Fortunately most of the newer rigs have AGC control, of course many don't, also most of the older ones don't, but it isn't any problem to fix one to your liking.

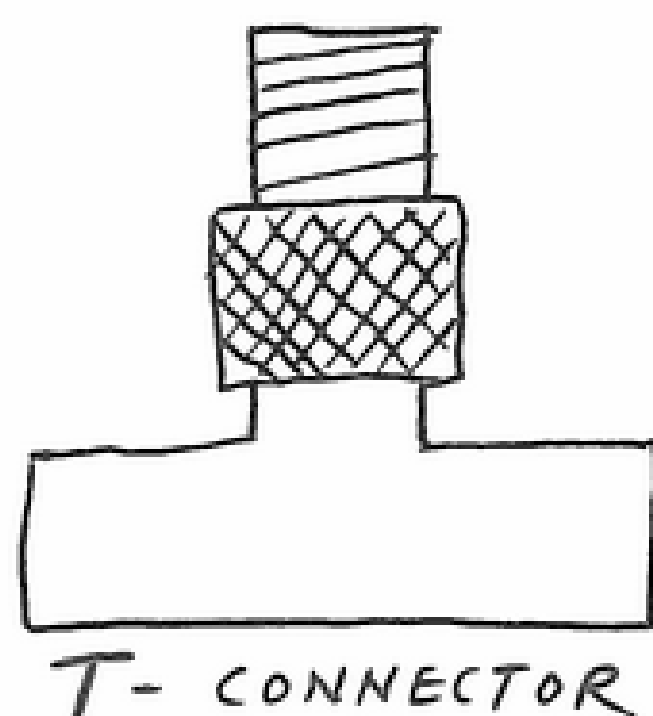
I have noticed that when the ambient noise is S-9 I can short out the AGC and copy signals that I couldn't before. (The AGC works on noise also.) Have made this mod on three units for local Novices with equal success, so you can see it is not a brilliant modification, but it does work. Try it, u'll like it. Ben, K5IRO

— + — * — + —

FRIENDSHIPS ARE FRAGILE THINGS, AND REQUIRE AS MUCH CARE IN HANDLING AS ANY OTHER FRAGILE AND PRECIOUS THING. - Bourne

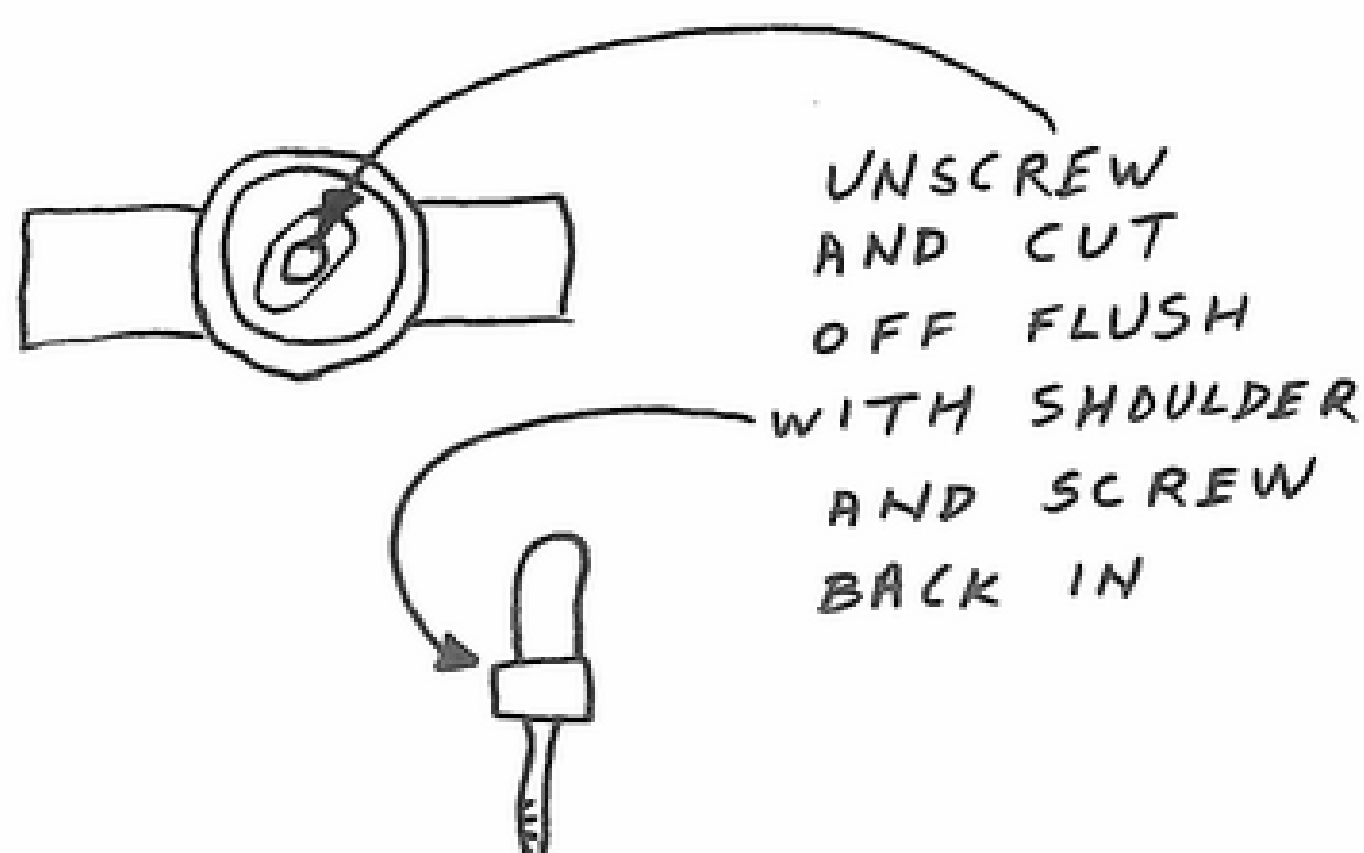
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90 D.B. ATTENUATOR



W5PDH

REDRAWN BY WA5RAQ





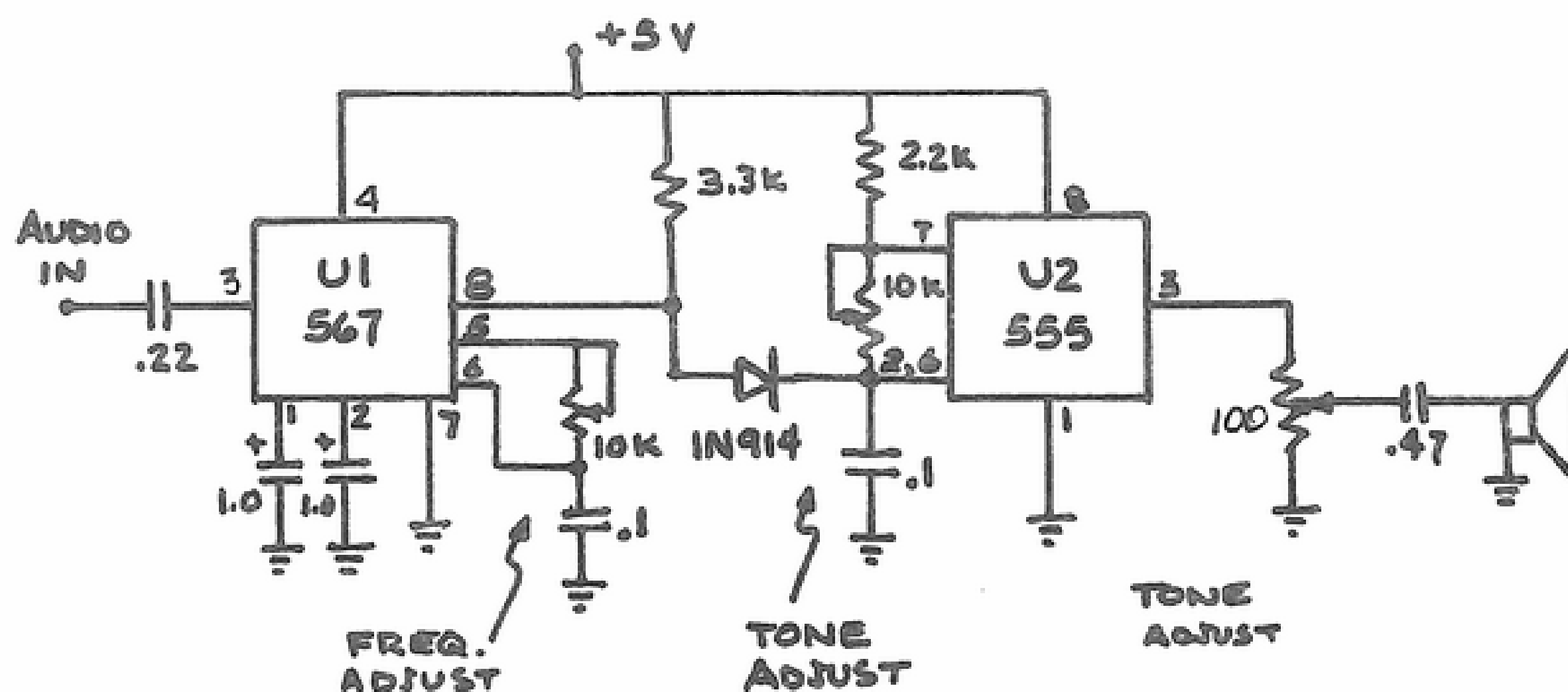
W S L O W
The Elmer Goodler Memorial
Station

...THERE WASN'T ONE BECAUSE OF THE PROXIMITY TO HAM HOLIDAY.

THE AUGUST MEETING WILL TAKE PLACE AT WILL ROGERS PARK, AT THE SOUTH SHELTER AND IT WILL BE A WATERMELON FEED. DATE AND TIME ARE 6:30 TO 10:30 PM, AUGUST 18. SEE YA THERE! JOE, K5JB, SEC'Y

...OR JUST PLAIN ORDINARY HO HUMS? THERE IS ABSOLUTELY NO FRESH MATERIAL COMING TO MY ATTENTION FOR THE COLLECTOR AND EMITTER. I HAD A COUPLE OF IDEAS BUT BETWEEN INVOLVEMENT IN HAM HOLIDAY AND JOB COMMITMENTS, I JUST DIDN'T HAVE TIME TO WRITE ANYTHING. THE ARTICLE BELOW WAS FORTUNATELY OVERLOOKED AT THE TIME IT WAS PREPARED OR OUR CLUB WOULDN'T HAVE HAD EVEN A FULL PAGE THIS MONTH! THANKS, LLOYD, FOR THE ARTICLE. NEXT TIME I WON'T HOLD YOUR MATERIAL SO LONG. WRITE US ANOTHER ONE. JOE, K5J3

YOU HAVE HEARD ABOUT PHASE LOCK LOOPS AND, IF YOU WORK 2M FM, YOU PROBABLY KNOW HOW PLL'S ARE USED FOR TONE DECODING FOR CONTROL PURPOSES. WELL, IF YOU WOULD LIKE TO MESS AROUND WITH A 567 PLL INTEGRATED CIRCUIT BUT CAN'T THINK OF ANYTHING TO CONTROL IT WITH, YOU MIGHT WANT TO TRY THIS CIRCUIT.



WHEN TUNING CW SIGNALS ON THE HF BANDS, YOU MIGHT LIKE TO SEPARATE ONE SIGNAL FROM SEVERAL OR FILTER OUT A BUNCH OF NOISE. THE 567 IN THIS CIRCUIT IS ADJUSTED TO A FREQUENCY THAT IS WITHIN THE AUDIO RANGE OF YOUR RECEIVER. WHEN THE AUDIO FROM YOUR RECEIVER IS FED TO THE 567 AND THE FREQUENCY OF THE DESIRED SIGNAL FALLS WITHIN THE LOCK-IN RANGE OF THE 567, IT WILL LOCK WITH THE AUDIO TONE AND THE VOLTAGE ON PIN 8 WILL GO TO LOGIC LOW.

THIS LOGIC SIGNAL CAN BE USED TO KEY AN OSCILLATOR WHICH IN TURN CAN DRIVE A LOUD-SPEAKER AT ANY TONE FREQUENCY YOU LIKE. U2 IS A 555 INTEGRATED CIRCUIT WIRED AS AN OSCILLATOR.

TO USE IT, FEED THE RECEIVER AUDIO TO THE REPRODUCER. A DUMMY LOAD SHOULD BE PLACED ACROSS THE RECEIVER AUDIO IF THE SPEAKER IS DISCONNECTED. TUNE THE RECEIVER AND LISTEN TO THE SIGNALS POP UP WITHOUT ANY BACKGROUND NOISE. ONE DRAWBACK IS THAT THE DEVICE WON'T FAITHFULLY REPRODUCE A SIGNAL WITH CHIRP. OH WELL, WHO WANTS TO LISTEN TO A CHIRPY SIGNAL ANYWAY?

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AUGUST HAM HAPPENINGS						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
		MORI				
6	7	8	9	10	11	12
		AUTOPATCH			VHF	
13	14	15 76ers	16	17	ACARC	WATERMELON
	EDIT C&E				18	19
20	21	22	23	24	25	26
	AUTOPATCH MAILS C&E					
27	28	29	30	31		

See page 2 and/or individual club sections for details

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