

President: Ken Newman, W2FBF
Vice President: Bill Frambes, WB2FJE
Rec. Secretary: Harry McCormick, WA2SEA
Corr. Secretary: Della Parker, W2AFZ
Treasurer: John Stull, WB2JZX
Directors: Bill Shaw, WB2PVI
George Stuart, K2SOL
John Kull, WB2GKH
Jack Bowen, WB2WKV
Bill Bachman, WA2VEE
Phil Mattison, WA2WOD
Trustees: Bill Bills, W2CDZ
Wayne Wood, W2SUA
Doug Gehring, WA2NPD

UR X-TALK STAFF

Editor (new one), Doug Gehring, WA2NPD;
YL Page (LES BELLES), Rose Ellen Bills, WA2FGS
Technical, Bob Spain, WB2RVE
ARRL Bulletins, Della Parker, W2AFZ
Other Contributors are welcome anytime
Typesetter, John Stull's XYL, Joan
Printer, Bill Frambes, WB2FJE
Circulation, Bill Shaw, WB2PVI

NO REGULAR JULY MEETING!! JULY IS CLUB PICNIC MONTH!!

(READ ON - -)

President's Smoke Signals

By the time you read this, most of you will be aware that we have a new Crosstalk editor at the helm. We are very pleased to announce that Doug Gehring, WA2NPD, always a regular contributor to Crosstalk, and it's substitute editor, has agreed to take over as full-time editor. We are certain that Doug will do an outstanding job as Crosstalk editor, just as with all the other things he has done for the club through the years, and there have been many, many. Much thanks, Doug, and we are delighted you could take over the job.

We do regret the circumstances which caused the resignation of our long-time faithful editor Wally, W2PLD. His letter of resignation indicates that he felt he could not produce the results he desired for the paper due to a shortage of contributors. We can only hope that our new editor will receive more material, so let's get behind him and let him know what we are doing.

Many thanks, Wally, for your long and devoted service to Crosstalk. You took over and got the paper going again when nobody else would step forward, and we thank you for all your work.

What in the world does the club own in the way of equipment, and where in heck is it all? These burning questions have gone unanswered since January 31, 1967, when the last inventory was taken. For the benefit of our newer members, the club has quite a lot of equipment which is, of course, available for use by the membership if only we knew we had it, and where it is. The following is a list of property, whereabouts unknown, with last known location, which I would like some help locating. If you know where any of the items are, 'fess up and let's get them back on the record. Just let me know so I can complete the inventory before turning over the responsibility to some eager club member. Any volunteers?

1. Antenna, 40 mtr - Club
2. Clock, 24 hr. - Club
3. Code osc. (1 of 2)- Club
4. Feedline, open - Club
wire
5. Key, Sideswiper - Club

Next month we hope to publish a complete list of club property and location.

73

Ken, W2FBF

Scuttlebutt

Sri Gang, look for Scuttlebutt in next month's issue. Time (or lack of it) usurped this month's gossip-beat.

FIELD DAY

Where? See map on next page

When? Set-up - 10 A.M. June 27
2 P.M. (27th) till 4 P.M. (28th)

Who? ALL GCARC (Licensed) Members

How Much? Free (Chow too!)

Why? Read UR QST; Have fun!! 807's, etc.

How? Like this



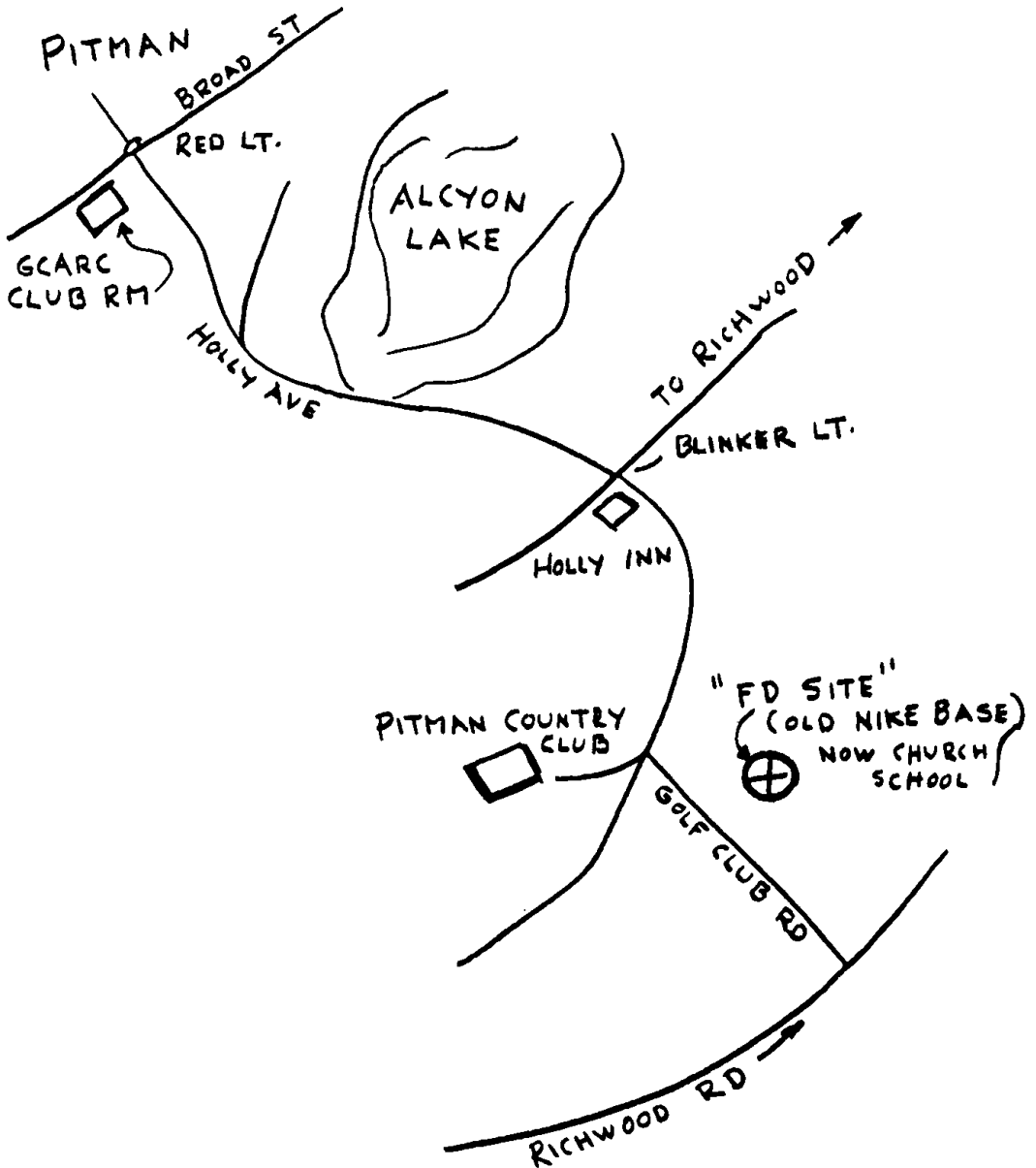
General 1970 Chairman: John Stull, WB2JZX

Band Chairman:

80 M: Bill Frambes, WB2FJE
40 M: Ken Newman, W2FBF
20 M: Ron Blakeslee, WA2EOB
6 M: Bob Spain, WB2RVE
Novice: Rick & Howard Carter (calls-on-the-way)
XYL's: In charge of chow

FIELD DAY SITE MAP

(Set-up, 10 A.M., June 27th)



Field Day, 1970

Each year, about this time, Hams from all over the U.S.A. and Canada trek off to the wilds of forest, field, and stream (and rain) in order to test out their skills and equipment which may be called upon in event of a real emergency or disaster situation. And at the same time, a contest is held between various clubs to see who can acquire the most contacts in the given time period. An elaborate point system is used, which includes such things as number of transmitters, power, publicity, etc., to tally-up the final club score. The ARRL heads-up the whole show. Traditionally, GCARC competes in this event with all systems GO!! This is perhaps the biggest event of the year for our club and the one activity in which every club member is expected to perform in some way, shape, or form. If your CW is rusty, then take a turn at the mike; if you can only be at the site for a short time, you can help set-up antennas, run the generators, help set-up the rigs, tents, guy wires, swat flies off the ops heads, and/or drink 807's. Get the picture? In other words, there AIN'T NO SUCH THING AS THERE IS NO SPOT FOR ME OUT THERE! Why, this year, we even have a NOVICE station! And six meters for the technicians in our club! In short, there is something this year for everybody! So, be sure and put in an appearance, get in touch with the band chairman of your choice, and let him sign you on for a shift at the key or mike. If you don't know how to do it, c'mon out and learn how. That's what the trial is for, to get everyone trained in event of an actual emergency. Let's make John's job as easy as possible this year by all pitching in and doing something. Incidentally, if you can't get there until late Sunday P.M., all the stuff has to be taken down too.

EXTRA FEATURE: Get out early and see the big fight over who gets to put up whose antenna on the helium-filled WX balloon (28' dia.). Yes, that's right, we are planning to string up an inverted V just as high as the balloon will carry it or until the feed line runs out (whichever comes first). Who knows, the lucky band chairman may get to take a direct lightning hit on the balloon! This would be catastrophic for the rig, but think of the great publicity!! Ed's note: Be sure and get a picture (somebody) of the balloon, this would be a sure bet for the QST feature!

SLOGAN FOR THIS YEAR'S FD: If you can't bring, or haven't been asked to bring along any equipment, bring along a 6-pack.

SEE YOU ALL THERE!!

CLUB PICNIC

Perennial, competent, systematic, reliable: these are the terms which describe our club picnic chairman, John Kull, WB2GKH, serving as chairman for about the 4th or 5th year in a row (who else, John??). (Fortunately, this year, John has a very capable assistant in Howard Carter. Real FB Howard!) As usual, the picnic will be held at Lake Garrison (about 6 miles below Glassboro) with Bill Shaw (summer QTH on the Lake) serving as host (is that right Bill?), (sure hope he's there this time). Plan to arrive between 10 A.M. and Noon; bring lunch, supper, or both and prepare to go swimming or boating or both. The whole family is expected to be there. Also, any friends. Only a hurricane (or reasonable facsimile thereof) will cancel the event, for there are adequate pavilions in which to run-for-cover in case of heavy rain. There will be games and goodies for all the kiddies, a swap and shop for the hams, and, naturally, there will be the usual drawing for prizes for the XYL's and HAMS.

Some great prizes are already being lined-up! I understand, for example, that the Twonship of Deptford is planning to donate a 34 ft. metal tower complete with tribander Quad!! (They claim some guy wouldn't cough-up his building permit fee) Unfortunately, Chairman John informs us that the air show (radio controlled planes) will be cancelled this year because the guy hasn't yet fixed-up his plane after the spectacular crash suffered at last year's show.

REMEMBER THE DATE: JULY 18th, AT LAKE GARRISON

PRICE PER FAMILY: \$1.00 (John and Howard will distribute the tickets to each of you.)

NEW CLUB MEMBERS

Welcome back Henry Feltman, WB2MSH!!! Sure good to have Henry back in the fold after his 4 year absence serving his country in the Navy. Also, we are glad to have recent code class graduate Harry Walker (call-on-the-way) join our fraternity. We hope both of you guys will be around GCARC for at least 40 more years. Congratulations to Jim and Karl Klupar who are now WN2OER and WN2OEQ respectively. See U 2 guys at FD.

JUNE PROGRAM

All would agree that the movie Ham's Wide World, courtesy of ARRL Regional Director Connie Mack, via Van, W2KE (arrangements via WB2FJE), was a great success. We had about 50 hams and guests in attendance (on a stormy night yet) and very favorable comments were voiced by all. We even had some of the PJYL Club members all the way from Pa. in attendance (buddies of Rose Ellen's) and some old familiar faces as well. Rick Carter did a professional job running the projector. Connie told us a sequel to this film will be made. Don't miss the next one if you missed this one. This film will be shown on many TV stations during the year, so perhaps you can see it on channel 3, 6, or 10 in the near future.

X-Talk Editor Resigns - New Editor Appointed

It was with regret that the Club accepted the resignation of Wally Martin, W2PLD, as editor of this epistle. Wally, for over 2 years, faithfully and diligently got-out the paper in a highly professional manner. His literary style will be missed but, we have asked him to continue to contribute articles whenever time is available. Your new editor is Doug Gehring, WA2NPD (yours truly) who will carry-on and attempt to fill the shoes of my predecessor (which will be no easy task). My policy will be stated thusly; I don't intend to brow-beat or arm-twist any member to supply me with ideas or articles. But, remember this, if you want your ideas or articles in print, if you want your call and/or exploits written-up, and if you have some juicy gossip or items for swap and shop, please see that I get the necessary dope! Don't worry about beating any deadline, if you miss this month's issue, we'll get you next month. Don't hesitate to offer any constructive criticism or ideas you may have for the improvement of our (your) paper. I welcome all ideas and suggestions!

AMENNNNNnnnnnnnnnn

WA2FGS IS CLUB YL EDITOR

We especially welcome a monthly blurb, column, page, etc. from Rose Ellen, WA2FGS, which is written especially for the YL's (all 2 of them) and the XYL's of the Hams. You guys don't have to read Rose Ellen's YL rhetoric, but please show her column to ur XYL's! Who knows, maybe a good recipe, dress design, literary note, gossip, etc. may turn-up each month, and, who knows -- maybe the XYL's someday will become more avid readers of X-Talk than the Hams! (What better way to interest the XYL in our hobby?). WA2FGS is editor of the PJYL QRV and we are fortunate to have her join the team.

"LES BELLES" - by WA2FGS

We're starting out a new face
Right here in this space
About all the lovely belles
Including all YLs and XYLs.

First to crawl, then to walk
Making use of our CROSSTALK
Can I have an interview
For some news of just you?

This is not just a bribe
Of any activity to describe
Rather just another pursuit
To write about those so cute.

I'll be looking just for you
At the Club Sept. Bar-be-que
You might not be able to attend
Contact me, my dear friend.

From you to me it is just '73
That's best wishes from me to thee
I'll do the best that I can
If only you will lend your hand.

NOTES FM DELLA, W2AFZ

OFFICIAL BULLETIN NR 274 FROM ARRL HEADQUARTERS
NEWINGTON CONN MAY 28 1970 TO ALL RADIO AMATEURS

If you're planning portable or mobile operation this summer, a special ARRL form can be used to insure that you give all of the required information to the proper FCC office. Send your addressed stamped envelope to ARRL, 225 Main Street, Newington, Connecticut 06111 requesting Form S43A. Please indicate how many FCC districts you will be operating within. If planning to visit ARRL and WLAW during the summer months, note that regular hours are 8 thirty to four EDST, Monday through Friday without appointment. Other times can be covered by writing and arranging for a tour. Printed directions are available without charge.

OFFICIAL BULLETIN NR275 FROM ARRL HEADQUARTERS
NEWINGTON CONN JUNE 4 1970 TO ALL RADIO AMATEURS

At the May 1970 ARRL Board Meeting, a motion was adopted that the ARRL Communications Department initiate a 160 meter band contest oriented to promote activity in this band of frequencies. Top band enthusiasts are urged to forward their ideas on dates as well as format for such a contest to the ARRL Contest Advisory Committee, as an aid to dormulation of rules for this event. CAC addresses appear on page 62 of February QST.

4 - SALE

Tower, -34 ft., complete with 3-band Quad. Antenna. Real Cheap! First good offer takes all! Contact Deptford Township Sheriff's Office, Dept. of Delinquent Building Permit Fees.

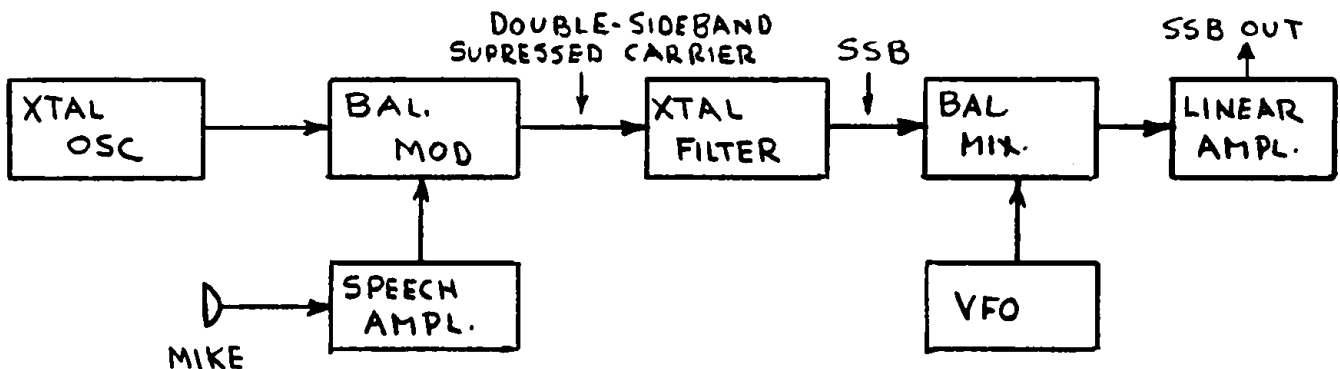
SINGLE SIDEBAND by Bob Spain, WB2RVE

As hams most of us have worked a SSB station at one time or another. But how many really know how SSB is generated?

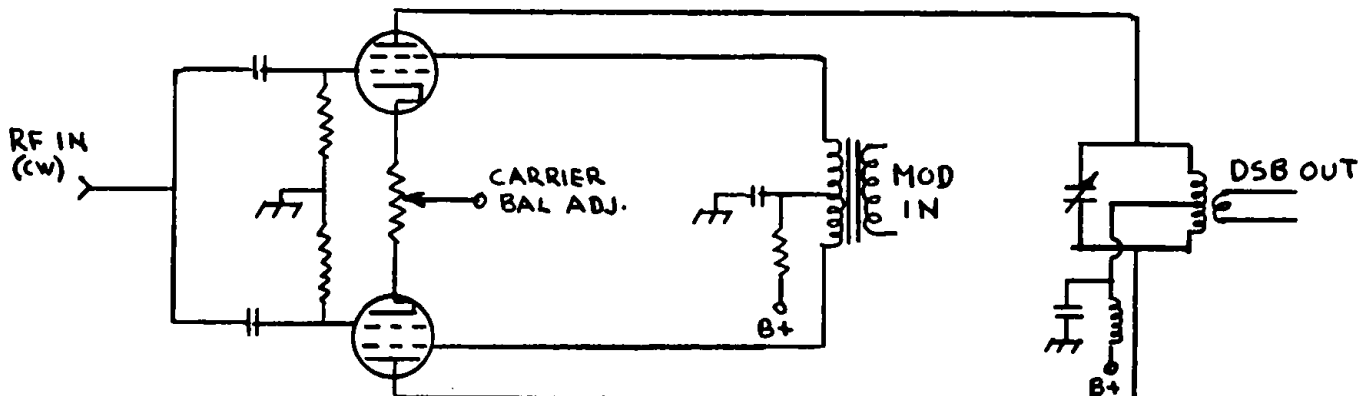
Let's start with the basics. A full carrier AM signal is composed of a carrier, with modulation sidebands above and below the carrier frequency. The carrier serves no useful purpose in transmission, and may be removed by suitable means. We now have a double-sideband, suppressed carrier signal.

Since we only need one modulation sideband to establish communication, we may filter out the unwanted sideband, thus conserving frequency spectrum and power. We now are the proud owners of a single-sideband, suppressed carrier signal. In actual practice, the modulation would be applied and the carrier suppressed in the same step or stage.

The approach described above is known as the filter method of producing SSB. A block diagram of a filter SSB exciter is shown below.

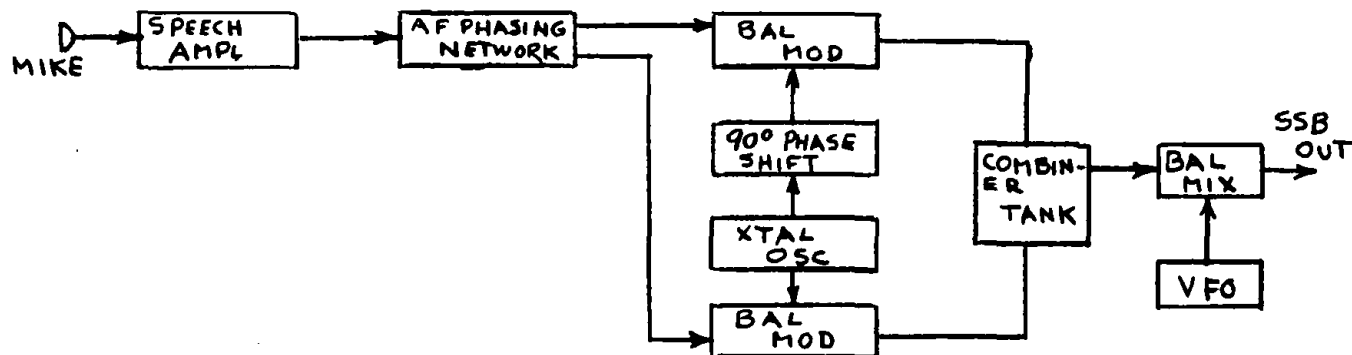


The balanced modulator is simply a mixer/amplifier, which appears as a push-pull circuit to the incoming audio, and a push-push circuit to the incoming RF. A simplified version of a balanced modulator is shown below.

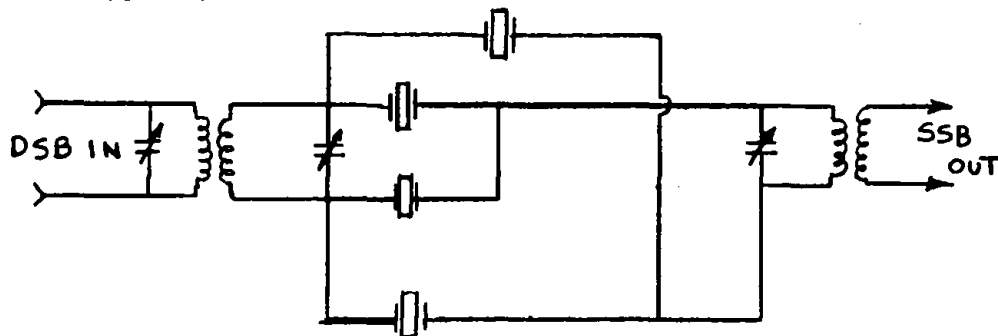


SCREEN-GRID BALANCED MODULATOR

Single-sideband signals may also be generated by the phasing method. Of the two techniques, the filter method is used most often. Shown below is a block diagram of a phasing SSB exciter. The two audio signals coming out of the AF PHASING NETWORK are 90 degrees out of phase with each other.



The types of unwanted sideband filters used in filter-type SSB exciters are many and varied. If the frequency being used is very low, (in the neighborhood of 100 kc.) a mechanical filter may be used. As we progress higher in frequency, mechanical filters become impractical due to design and manufacturing problems, and are replaced by crystal filters. Since a single quartz crystal would have a very high Q and thus a narrow bandpass, a lattice network must be used. A simple single full crystal lattice filter is shown below.



Note - Series and shunt XTAL. Filters tuned 1.5 - 2.5 kc apart.