THE PRESIDENT'S SMOKE SIGNALS

Well, another month has gone by and the time is really whizzing by also. I really don't have a lot to say this month, but I thought that something had to be put in this month's Crosstalk.

One sad note is that the editor's mother passed away last month and that is the one reason for the short edition. Wally didn't have enough time to think of Crosstalk.

At the last meeting, I handed out various colored tags to be attached on the club buttons of each officer and director in the club so that anyone wanting to divulge information to these people can do so without tying the regular meeting up with such information. A lot of ideas are brought before the floor at the regular meeting that require the attention of the Board of Directors to have approval. This information or idea can now be approved or disapproved at the regular meeting without taking up valuable time in discussion.

Below is a list of all officers and directors in the club for your information. Please use the list as your ideas for bettering the club come up.

PRESIDENT	WA2VEE	William R. Bachman
VICE PRES.	WB2PVI	William J. Shaw
REC. SEC.	WB2WAK	Paul Callaghan
CORR. SEC.	W2AFZ	Della Parker
TREASURER	W2FBF	Ken Newman

DIRECTOR	WA2TZG	Fred Bergmann
DIRECTOR	WB2GHK	John Kull
DIRECTOR	WA2DNL	Jim Mauro
DIRECTOR	WA2NPD	Doug Gehring
DIRECTOR	K2SOL	George Stuart
DIRECTOR	WA2TSZ	Preston Weil

73's

WA2VEE

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THE FM PRIMER

INTRODUCTION

For point to point communications, FM is the now mode. And the reasons are many and varied. Band noise - one of the most undesirable characteristics of AM radio---is virtually nonexistent with FM. Efficient squelch circuits are standard equipment on FM receivers. They keep all audio from the speaker until an intelligent signal appears on the channel. FM receivers are typically more sensitive than their AM counterparts, too. This fact, coupled with the inherently lower noise of FM, means greater range for a given operating power. Reliability is another key advantage. FM units are built to withstand the adverse environments of vibration, dust and dirt, heat, and shock.

Unlike AM, FM operation employs the "channel" concept. Transmitters and receivers are crystal-controlled to operate on one frequency. So there is never a need to "tune in" a station or zero-beat a carrier. Since FM channels are standardized on the amateur bands, new operators need but to crystal up on one of the popular FM channels, and their "tuning" days are over.

FREQUENCY

There are 31 standard FM channels on two meters. The first, channel 1, is 146.04 MHz. These channels are spaced 60 KHz apart, and continue up through channel 31, which is 147.84MHz. Not all FM channels are active yet, but a growing number of them are. In the greater Los Angeles area the most popular channels are 13 (146.76), 14 (146.82), and 16 (146.94). Nationally, the most popular channels are 6 (146.34), 12 (146.70), 13, 14, and 16. Across the country, channel 16 is the most common and is referred to as the "calling" frequency. Amateurs use it for point-to-point communications as well as repeater operation.

REPEATERS

Many metropolitan areas (L.A. is an exception) are active around two-meter repeaters. The standard repeater input is channel 6; output is channel 16. This idea was adopted so that an FM'er, operating through a repeater in his own area, could travel to other states and retain the usefulness of his equipment. Since not all cities have repeaters, an FM'er who wants to get the most out of his gear will select an FM unit with two-channel transmitting capability. He'll select, say, channel 16 as his basic transmit and receive frequency, and use channel 6 as an alternate transmit frequency. In this way, he'll be able to use existing repeaters or operate straight simplex (point-to-point). Unfortunately, as mentioned earlier, Los Angeles is one of the few cities without an open repeater. So if you plan to operate strictly in this general area, be sure to crystal up on one or more of the three basic channels in use there: 13, 14, and 16.

DEVIATION

In FM circles, the term deviation is roughly comparable to modulation level of AM. Deviation, however, is a function of frequency variation rather than audio amplitude. The standard deviation level for amateur operation is 12KHz. A transmitter set up for anything much greater may be so broad as to be undetectable by other stations. Less deviation will decrease the apparent audio level. At 12KHz, a fully modulated signal should just fill the passband of a standard FM receiver. The result is optimum audio quality and level, and minimum distortion. You probably won't need any special test equipment to adjust deviation. This can be done while you're on the air.

EQUIPMENT

The most popular makes of FM equipment are Motorola and GE. Handbooks and schematics are readily available and the units are well engineered----which makes them serviceable.

(Reprinted from copy on file at W6ORW's.)
------de WA2VEE

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INVITING FCC VIOLATIONS

The chance to make a buck is not only an incentive for many to help themselves; it also can encourage the sale of devices that are designed to violate the law. We would like to comment this month on transmitter equipment which is obviously designed to violate the regulations of the FCC limiting power.

Many hams who have enjoyed receiving radio parts catalogs from a large Milwaukee mail order supply house were surprised this year when they received two catalogs----one for ham equipment, and one for CB equipment. Curiosity being what it is, probably every ham looked over the CB gear shown in this second catalog. Having in mind the 5 watt limitation on input applicable to all CB equipment but the "business band" gear, we were not a little surprised to see linear amplifier after linear amplifier offered for sale. Here are a few: Courier ML-100 (200 watts P.E.P.); Sonar BR-21 (150 watts P.E.P. "input"); Shoebox linear (150 watts P.E.P.input); Skyhook II Linear (150 watts P.E.P. input); Contax Apollo linear---(up to 100 watts output); and finally the Contex 500 linear, ("approximately 500 watts P.E.P. input").

Along with the power input (or output) claims, are these little notations, tucked into the specs: "Not legal for use on the Citizen Band in the U.S.; Illegal for use on 11 meters"; and finally, this bib plug for the Shoebox and Skyhook:

"Put more PUNCH in your signal with a LINEAR AMPLIFIER. Never go barefoot again.....Get a SHOEBOX or SKYHOOK II Linear Amplifier, and really STOMP OUT!.....

This is the monster that the FCC spawned when the Commission took hams out of 11 meters, and gave the frequencies there to CB use! How FCC must wish the Citizen's Band had never been born!

Not that the vendors of ham equipment are always modest. The instruction manual for the Henry 2-K Linear that we looked at a year ago or so had alternate methods of tune-up. After describing one method which would obviously produce more than the legal input, the manual stated blandly that this could only be done with a dummy load, since such tune-up would result in input over the legal limit. Reminds one of articles by certain militant groups on how to make Molotov cocktails!

If anyone has any simple solution to this problem, the FCC would probably be delighted to know what it is. We can't see any easy way out, except that possibly an FCC regulation might state that possession of equipment with more power capability than permitted by one's license class---making allowance for tune-up variations above the limit----would constitute prima facie evidence of operation with excess power. So far as we know, FCC field engineers are presently saddled with the requirements of proving that excess power was actually used at a given time. This isn't easy!

W8AP

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CQ, The Radio Amateur's Journal, 14 Vanderventer Ave., Port Washington, N. Y. 11050, U.S.A. offers to all amateurs and s.w.l.s this county award - "USA-CA." The basic award is issued for having confirmations from 500 or more U.S. counties (do not send QSLs). There is no time limit, nor band or mode restrictions. Your first application must be made using a "USA-CA Record Book" obtainable direct from CQ for $1.25. Completed Record Books should be sent to USA-CA Custodian: Ed. Hopper, W2GT.
New Jersey 07662, U.S.A. Cost is $1.00 or 10 IRCs. Gold Seals & Ribbons for each additional 500 counties 25¢ or 3 IRCs.

Read "The Awards Program" each month in CQ.

The Independent County Hunters Net meets at 14.336; 1300 G.M.T. until band folds. Other frequencies are, 3.930-3.943 at nighttime, 7.263 for QSY purposes. County Hunter Reply QSL Cards are available from WA2AMM, 500 cards for $3.50 postpaid. Add 25¢ if you are west of the Mississippi River.

Address all orders to John J. Brenner (Jack), These cards are an absolute necessity for the serious County Hunter. Be sure to also send a self-addressed stamped envelope to all mobile stations worked.

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QSL CREDITS OF WA4BMC

INDEPENDENT COUNTY HUNTERS NET 14.336
MEETS DAILY...1400 GMT UNTIL BAND FOLDS
USA-CA 2976 COUNTIES CONFIRMED
USA-CA 2988 COUNTIES WORKED
THERE ARE 3079 COUNTIES IN USA
SEE ANY ISSUE "CQ"
"USA-CA" COLUMN BY W2GT

NATIONAL AWARDS HUNTERS CLUB #25
200 SEALS..PA...MASS...FLA...CALIF...NY...TEX CHAPTERS

AMATEUR RADIO ACHIEVEMENT CLUB...CHARTER MEMBER #3
ULTIMATE ACHIEVEMENT AWARD...2ND IN WORLD TO GET THIS

ISSB #31...(KNA + 15 SEALS) (NORTH STAR)

RESIGNED MEMBER OF CHC #683

ARRL...RCC...A1...OP - CP-15...BPL 75+
VHF-PAM E. FLA. ORS (RTTY & CW) OPS. OBS. OVS.
ASSISTANT EC PALM BEACH COUNTY ...ARPSC...RACES...

FLORIDORA...GRANDMOTHERS CLUB...FLORIDA COWBELLE
OGS #166...MOONWATCHER #67...SLAVE #97...ROHO #704
SCREWBALL #113...SMART #119...JUNKHUNTER #68
MRCC OF MICH...YOGI BEAR #66...CONFEDERATE REBEL #616
ARNS #61...AREA #204...PROFESSIONAL LOAFERS CLUB #282

SOUTH JERSEY RADIO ASSOCIATION
GLOUCESTER COUNTY N. J. ARC.
WEST PALM BEACH ARC...SAILFISH NET
SOUTHERN SECTION OF COUNTRY COUSINS
FLORIDA RTTY SOCIETY...FLORIDA SIDEBANDERS ASSOC.
KNIGHTS OF THE KILOCYCLES #317

PALM BEACH COUNTY, FLORIDA

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Scuttlebutt

Congratulations to Ron Blakeslee, WA2EOB, for having worked the Amateur station associated with the Apollo 11 moon-shot. For this achievement, Ron, along with anyone else having worked this station, will receive a handsome Apollo 11 certificate. (I thought WA2VEE was also going to work that station??).

Well, John Stull, WB2JZX, can retire now from Ham radio; --what is there left to do?? Seeing is believing, and, believe it or not, hanging up in John's shack in a quite prominent position is a QSL from VR6 land. Yes, that's right, Pitcairn Island!!! There is only one licensed ham on that island according to the latest Call Book. Guess John actually worked him (or else he did a great job fabricating that card) and that strikes me as the ultimate in DX accomplishment. Real FB John.

Also, many congratulations to Jeff Ehrenkrantz, one of our newest Club members, for just having passed his Novice Exam. It will be several weeks before he receives his call, but he will be listening for you on 40 or 80,Jeff.

WA2NPD took it upon himself to try and find out why Harry, WA2VXT, Maxfield's rig (HW 100) wouldn't fire-up in a recent moment of weakness. Doug spent about 5 hours checking voltagees, etc., and still no workee. He took the rig in a car-ride over to WB2JZX's QTH in order to follow rf using John's signal generator. Low and behold, when the rig was plugged in at John's shack, it worked perfectly!! Apparently, all it needed was a short breath of fresh air or, more likely, a few bumps and jolts in the back seat. The moral of the story is, always smack and bounce around the faulty rig a few minutes before making any serious effort to pinpoint trouble. You may save many hours of effort (and also perhaps re-ground a poor ground and make rf appear again).

Recently, our prexy, WA2VEE, set up a sked on 15 M with a Denver ham in order to talk to former Club member Don Thomson, WA2TSG, who is in the Denver Vet hospital awaiting a kidney transplant operation. At the designated time it seemed as if half of GCARC was on freq (an excellent response). Unfortunately, 15 was deader than a January mosquito, and no contact was made beyond the Delaware river. Good try, Bill, and hope you (we) shall make another attempt. Nothing would cheer Don up more, I think.

All of us are hoping that Harold Carter will make a 100% recovery from his recent illness. Don't hurry it Harold, take your time, the 40 meter band will wait. It's been there for many years.

I (WA2NPD) just worked a Washington station, W7RM, on 10 a few hours ago (about 7 P.M. EDST) with a 40 over 9 signal--really pinning the meter on 5-element stacked yagis (i.e., 20 parasitic elements altogether), the highest beam at 85 feet, and Henry 2K linear----all on 10 meters! This guy is located on a peninsula sticking out into the Pacific about 30 miles NW of Seattle. Sez he is getting ready to work some contests. Boy, with that set-up he could be put to better use blanking out foreign BCI. Of course, the band was just right too.

About all for now, CU at the meeting on the first.

de WA2NPD