The Southeastern VHF Society & East Coast 70 cm NET

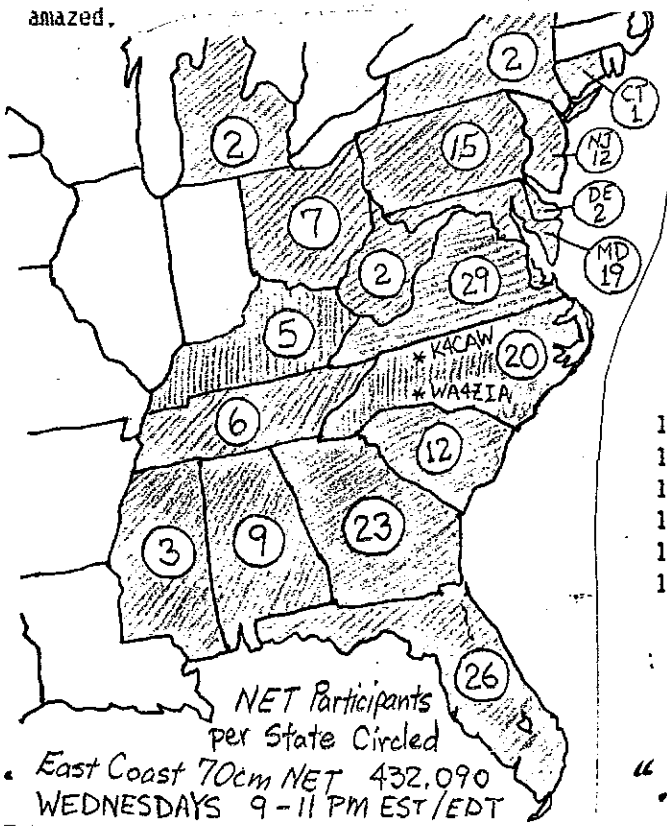
February 1983 Newsletter

Welcome to the Southeastern VHF Society. As of early February 1983 our group is approaching the 100 member in over twenty states mark. Given that we are barely one year old I'm very pleased with the response.

The basic goals of the society are the encouragement of experimental efforts on our VHF/UHF/SHF bands. Our motto: "Meeting the technological challenge."

What you as an individual can do for the society is to offer us any neat tips or VHF trivia that you've run into in the past few months. Very often I'll get letters saying how timely an idea or article I've written turned out for someone. So please pass along what you've learned so we each won't reinvent the wheel again and again.

Send articles or info to WD4MBK at the address on the membership form on the last page. We also encourage swapping help via our East Coast 70cm NET on 432.090 each Wednesday evening at 9-11 PM EST/EDT. The NET is to our knowledge the largest 432 SSB/CW NET in existance covering a 1000 mile diametre radius around the Net Control stations WA4ZIA (near Charlotte NC) and K4CAW (Greensboro NC). Average Nets last year were 32 checkins in 12 states with a best night of 46 checkins in 17 states. Join in, you'll be amazed.



NET Participants per State Circled

East Coast 70cm NET 432.090
WEDNESDAYS 9-11 PM EST/EDT

NEWS on VHF/UHF

* Single Band Contests

Preliminary word has it that several new ARRL VHF Contests will appear this spring. They are tentatively scheduled on the activity nights running from 6PM-Midnight local time:

April	18 (Monday)	2 meter	contest
"	26 (Tuesday)	220 mHz	"
May	4 (Wednesday)	432 mHz	"
"	12 (Thursday)	1296 mHz	"
"	21 (Saturday)	6 meter	"

Exchanges will probably include grid squares to evaluate their acceptance on the various bands in a contest.

* While on the grid square subject I must push the ARRL's VUCC awards. The League has appointed me (WD4MBK) as a VHF Awards Manager here in the southeast for verification of the awards entries. Further details are being formulated at this time so watch QST closely. We arrived at the difficulty levels for the VUCC awards as something within reach yet very impressive when viewed against the typical propagation on each band (100 grids on 6 and 2 m, 50 grids on 432 or 220, and 25 grids for 1296). Try it you'll like it. At least now we have an award based on VHF type goals. Previous WAS & DXCC were attainable only via EME above 2m; VUCC is more reasonable.

* K2RIW-W5UKQ SKEDs 432.085 7AM-7:06 weekdays RIW Xmits 2nd 4th 6th minutes, UKQ 1st 3rd 5th. Both have 16 19el RIW yagis. W5UKQ John is in Wakefield Louisiana. K2RIW Dick is on Long Island New York. Both are 1/4 megawatt ERP stations so if near the path you may hear them.

* WB3ESS Allentown PA will be beaming toward SC GA area on 432.100 during the Wed nite NET from 9:30-11:00 looking for stations.

UHF Directory Completed

Well the first cut of our Directory is finished. Paid Southeastern VHF Society Members received a copy with this newsletter.

Please send us any corrections or additions as soon as possible since its on computer and can be updated as new printings require.

177	KD4GP	ALA	183	W8HWB	OH	189	WB3JMA	MD
178	WD5IKD	MIS	184	W3QIZ	PA	190	W2TC	NJ
179	WB8ART	OH	185	WB3ESS	PA	191	WB8BKC	MICH
180	K3MD	PA	186	WA4DVW	VA	192	GW3NJY	GA
181	W4LHR	ALA	187	WD4GXN	VA	193	WA4PFN	NJ
182	W8TKV	OH	188	K0RI	VA	194	WA4SXZ	FLA

New stations on the 70cm NET since November Newsletter.

"...meeting the technological challenge."

* Looks like we'll be seeing some really large stations on OSCAR Phase IIIB. I've heard that several of the stations worldwide that are active on 1296/432 EME are optimizing their simulataneous capabilities with the satellite in mind. Seems like the logical thing to do with arrays carrying celestial tracking capabilities already. Several of these stations are capable of easy SSB EME on 1296 [WB5LUA, VE7BBG]. Please don't fry the satellite guys!

* Phase IIIB unofficially scheduled for launch on 23 May '83. [Info from: Amateur Satellite Report published every 2 weeks by AMSAT. "Satellite Report", 221 Long Swamp Rd, Wolcott, CT 06716. $18 per year].

* For those of you who often ask which antenna to buy, here is the WD4MBK unofficial ranking of 432 mHz antennas in order of preference:

19 element RIW, by RIW Products
NEW Cushcraft 432 Boomer (NBS design)
16 element KLM
21 element F9FT
16 element Quagi
8 " "

It is recommended that you avoid the old Cushcraft 11 element yagis at all cost. They absolutely do NOT work. I have seen stations improve their signals over 6 dB just by changing to an 8 element Quagi from these CC dummy loads.

Also compromising the station by buying combination vertical/horizontal yagis (such as the CC 147-20T) is not a good idea. Seperate antennas for each usage are much better.

* Packrats have a new NET on 220.125 SSB/CW at 8:45 Monday nights. WA2DPU is NCS. They also have a 432 NET at 9 PM Mondays. I believe its on 432.110 even though their newsletter has said for the last few years that its on 432.1.

* Another 432 Net is called Wed nite out of Houston by K5JRH. He passed along a list of twenty or thirty checkins but no frequency or time. Its bound to be 432.1 +/- 10 kHz though.

* As our Net grows we stretch out the total time longer and longer with good and bad effects. The good effect is that it puts us into the Central time zone about 9PM their time. The bad effect is that it puts us into NewEnsland after 10PM EDT/EST losing some of the early to bed crowd. Present schedule:

FLA	9:15-9:25
Atlanta	9:40
Chatanooga	9:50
Kentucky	10:00
Ohio	10:10
West PA	10:15
EPA, NJ	10:20
NY,CT,VA	10:25
backtrack	10:30
Net closes	11:00

Remember
432.090 at 9PM EST/EDT
WEDNESDAY
Do your part for 432 on NET night and anytime.

* No Code License gaining ground ! The FCC is looking at possibly dropping the code requirement from the current Technician class license in an effort to put the no code license into place as cheaply and easily as possible. Other possibilities are a new class of VHF license for Experimental modes such as digital. This has less appeal due to the failure of the Canadian equivalent of this class as well as its added administrative costs in a time of severe budget and manpower cuts.

Officials at the FCC are under pressure from manufacturers who stand to cash in dramatically on any expansions of their markets of VHF/UHF equipment. This pressure has resulted in very clear rejection of any ideas of restrictive subbands for the new no-code licensees.

[Ed: My personal opinion, like many of yours, is that the FCC wants increased numbers of amateurs and hasn't any comprehension of the effects it will have on our once orderly self policed bands. Essentially I'm sure if implemented in the form discussed that the FCC plan will wreak havoc on 2 meters to an extent that they are not prepared to deal with. They will likely then throw up their hands and give up much as they did on CB. These illconceived ideas crucified the CB industry taking a great many good American businesses with it. Let's pray we don't repeat this in the amateur market.

Comments regarding the no code license concept should be clearly worded and stear away from inferring that "I went thru CW, and so should they" type approach which is what they think is the root of amateur disention on this issue. It would be much better to point out the points of conviction and respect for the results of honest effort. If memorizing the answers to a few questions gets one a license, one is not likely going to respect it and its ideals nearly as much as the current band inhabitants do.]

No Code is Docket 83-28. Please get a copy of this before writing comments to FCC. All comments should be typed or neatly written on 8.5 x 11" paper refering to the docket number.

* The 902-928 mHz amateur band may have a CB like service directly adjacent to it on the 928+ side. Hopefully the FCC won't try to make this a "shared" band from 902+ instead. Sharing a portion of the band would likely be good move however since it would expose the CB types to the order and politeness of amateur operations, as well as perhaps exposing them to the intriguing experimental side of amateur radio.

* New VHF group formed in the southeast. Pooling the resources of WB4NMA, WD4IIS, WD4MBK, WD4JQV, WA4OYH, AA4GA, N3AHI, and others in Georgia. The group called : The Four Land VHF Group is organizing on a formal basis to put forth a powerful presence in VHF contesting out of the southeast.

Dayton Hamvention '83
VHF Conference Planned

This year's Dayton Hamvention is shaping up to be a truly fantastic VHF/UHF event. April 29, 30, and May 1 are the dates of this three day affair. If you haven't been to Dayton before you truly owe it to yourself to go at lest once. Last year attendance was 23,000 making it the largest amateur gathering in the world !

Best get your reservations in as soon as possible. Call Amy at the Convention Housing Bureau (513)223-2612. Jim Stitt, WA8ONQ, (513)863-0820, deserves much of the credit for the organization of this VHF extravaganza.

Tentative schedule:

FRI. 4/29/83

1 PM EME Forum, K1WHS, W4WD, K2UYH, WB5LUA
2:30 AAOL: Optimizing Receiving Systems
3 PM VHF/UHF Contesting, N6NB, K1KA, W3HQT
4 PM G4ANB, W1XX on Grid square system, VUCC
5 PM UHF equipment design W0PW (ex W0EYE)
7 PM Noise Figure Competition and receiver dynamic range measuring clinic. W1JR, WA3OJX, WB0TEM, K9KFR, WB5LUA, N4HSM, WD4MBK, at Imperial House North.

SAT. 4/30/83

2 PM W6JKV 6 meter DXpeditions
3 PM K6MYC Antenna design forum
4 PM WA4MVI Propagation

SUN. 5/1/83

9 AM Antenna Gain Standard/Measurement contest W6HPH, WA8OGS, (prizes)

WA4PGI Beacon on 432.075 near Roanoke Virginia

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Gene Wood of Covington VA was ready and waiting for the FCC to legalize the new unattended beacons. On Jan 3, '83 his beacon went on the air on 432.075.

With 4 watts ERP to an omni antenna the beacon has been heard over 150 miles away under fairly normal conditions.

The beacon sends Gene's call then about a minute of carrier. The carrier part is very useful since its constant power allows path loss variations and daily signal strength comparisons to mean something. Even a chart recorder could be connected to ones receiver and take slow unattended data all day while you're not there.

Initially the beacon was on a mountain near Covington VA. As a precaution, Gene reported the beacon to Greenbank. They had no objections, simply noting his phone number in the event of any problems. A military establishment in the area was not so liberal, requesting an ERP of less than 0.01 watt. Gene has since moved the beacon to Poor Mtn near Roanoke VA.

A report from K4CAW in Greensboro NC indicates that the new location is 28 dB better in signal strength. The signal is more than 30 dB above the noise at Al's QTH. WA4ZIA near Charlotte NC reports hearing it occassionally.

[WA8ONQ Beacons: 432.075, 220.060, 144.060...]

Any other beacons in the eastern US ? I have not heard of any but will be glad to run details here. I solicit your reports.

I hope you like the new printer we are using this month. It's a Florida Data high speed printer set for 15 characters per inch and double strike. It moves the print needles slightly on restrike to simulate more dots per character. Much more readable than the Decwriter we were using (see November issue to compare).

Next issue will be out in May same as last year's schedule. Then August and November. Circulation is up to 200+ and we really can't exceed that so if you are a paid member please duplicate your copy for friends who may not get one every time. Dues this year should go up to $5 to cover a projected rise in printing cost later this year. Remember, NO SASE or stamps they just complicate an already messy system.

Has anyone had trouble getting newsletters. I haven't heard of any problems but with our great post office system who knows. For example; I got a dues check and listing of station equipment from Bill Daniel K4RAH who lives about 20 miles from me. The letter was grease stained and wadded up bearing a postmark and check date seperated by 3 months! Wasn't the pony express faster in its day?

VHF Tips

* RFI Coating for Computers and Equipment

Miller-Stephenson Chemical Co.,Inc.,George Washington Highway, Danbury, CT 06810 has a spray on shielding material called MS-480(clear) and MS-485(black) RFI Coating. Sample prices were recently $5 per 16oz aerosol can but check before ordering (203)743-4447. This looks like a good way to make the home computer and ham radio equipment best friends again.

* High Voltage Dielectric Compound for heliax connectors may be available at your local NAPA. WD4JQV reports that a silicon grease for electronic ignition systems appears to be the same type thing often packed with heliax connectors to exclude water. NAPA ML3 is its name. Similar to Dow Corning's DC4 I think.

* Bunky, K4EJQ, reports that a good replacement varactor diode for many of the Microwave Module triplers is available from MHZ Electronics in Arizona. The device is the MV 1805C priced at $15. This should give 10-15 watts out on 1296 with 20-30 watts of 432 drive in a good design. MMTs replacement is several times this price.

1296 10 Watt Solid State Linear Amplifier

The following is a very easy to build three stage 60 mw in for 10 watt out linear amplifier for 1296. The design is by Jim Mitzlaff, WB9SNR, [1616 Marlboro Cir, Carpentersville, IL 60110] Jim is a prolific builder and proponent of use of the 23 cm (1296) band. This design comes from handouts and notes taken at his excellent lecture at the '82 Central States VHF Society conference in Baton Rouge.

Of real importance here is the use of the last two stages to get from the 1 watt level common in so many transverters today to the 10 watt level all solid state. These two stages can be built for aprox $60. Compare this to the 10watt Microwave Module amp for $300 + and you see why I was anxious to get this in the builder's hands. Follow this amp when necessary with a one or two tube 7289 or 3CX100A5 or 2C39 type amp and you'll be in the 100-125 watt elite 23cm class of ops. Water cool the tubes with distilled water and you have a very quiet powerful setup indeed.

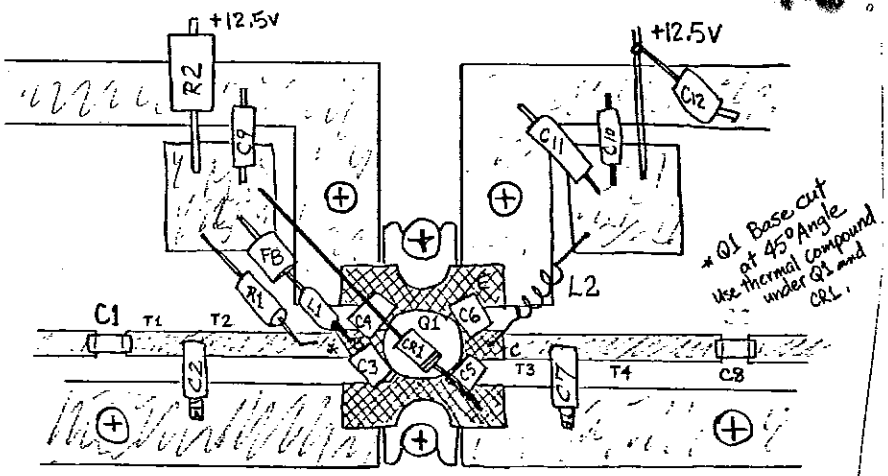
Parts Common to all power levels:

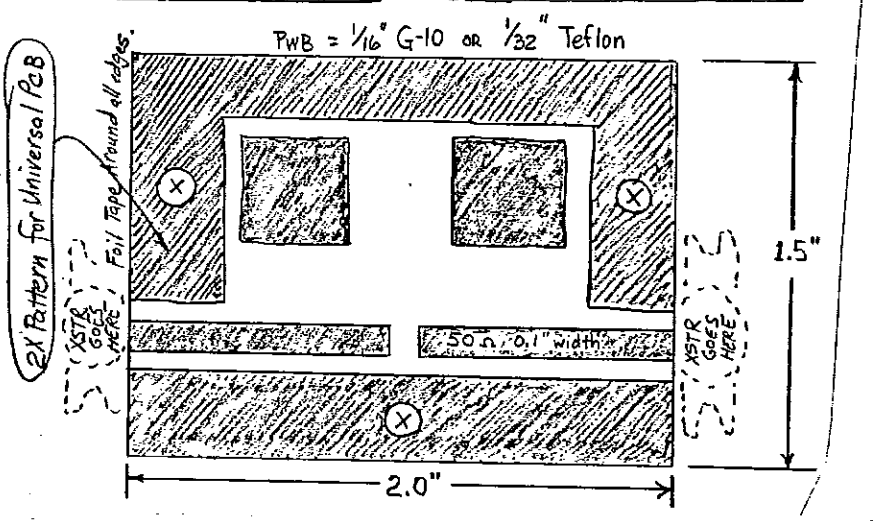
C1 C8 C9 C10 = 3,3 pf NPO 500v disc or
10 pf RF chip cap (90 x 110 mil)
C2 C7 = 0,5-3,0 pf piston trimmer
C11 = 0,1 uf disc
C12 = 10-25 uf electrolytic
CR1 = 150 mA rectifier (1N914, ect)
L1 = 0,15 uH choke (1/4 w resistor size)
L2 = 3,5 turns # 22, 0,125"id x 0,375" L
T1 - T4 all 0,1" wide microstrip. Lengths below are aprox for use w/ ,063" thick G10 pc board

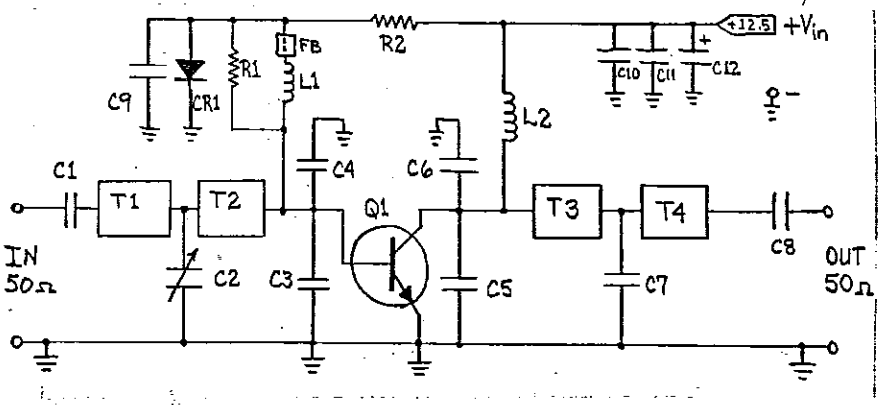
10 Watt Stage [Q1 = NEC NE081090 ($19,50)]
C3 C4 C5 C6 = 6,8 pf RF chip cap
R1 = 27 ohm, 1/4w, 0,25" leads R2 = 100, 2W
T1 = 0,17" L T2 = 0,73" L
T3 = 0,32" L T4 = 0,58" L
Gain = 6 dB at 0,82A idling current, 1,83A peak

4 Watt Stage [Q1 = NEC NE080490 ($16,25)]
C3 C4 C5 C6 = 4,7 pf RF chip cap
R1 = 47 ohm, 1/4w, 0,375" leads R2 = 180, 1W
T1 = 0" T2 = 0,90"
T3 = 0,33" T4 = 0,57"
Gain = 6+ dB @ 0,44A idling, 0,91A peak

1 Watt Stage [Q1 = NEC NE080190 ($ 12,25)]
C3 C4 = 3,3 pf RF chip cap (C5 C6 not used)
R1 not used R2 = 1,2k ohm, 1/2W
T1 = 0,85"L T2 = 0,05" L
T3 = 0,38"L T4 = 0,52" L
Gain = 11 dB @ 10 mA idling, 320 mA peak







* Additional information on the 45 element 1296 loop yagi in the November newsletter. In a Jan. 24 '83 revision of his loop yagi design Joe W1JR reccomends using .25" wide element strips for the whole antenna and not going any thicker than .032" element material. He is using a 3/4" dia. boom to achieve a gain of about 19.5-20 dBi, probably more realistic than the 22dBi I stated in Nov.

Beamwidth 18-20 degrees. On the 3/4" boom use circumferences 0.6 % smaller than for 1" boom. Dir24-35 may be 0,1" smaller circumference and Dir36-42 may be 0,2" shorter for best gain.

Stacking distances reccomended: 23" vert or 26" horizontal. Remember to keep pipes and large reflective objects away from the antennas.

Lightning Static Charges = Preamp Killer

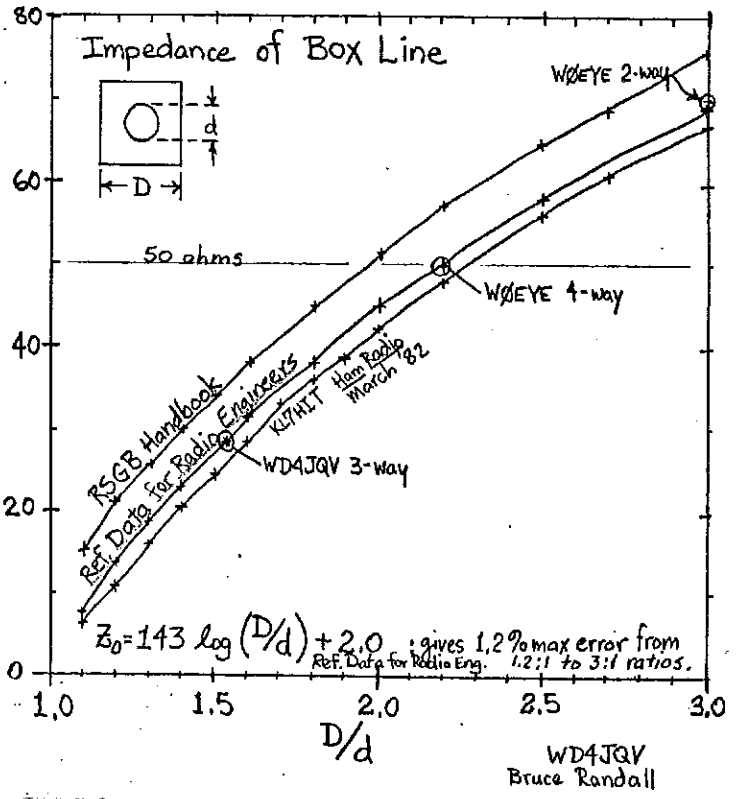
I experienced a rather disconcerting happening during a recent thunderstorm. Outside winds were gusting to 55 mph and no rain or lightning was audible or visible nearby. I walked into my station and began hearing a periodic high voltage snap arc. Thinking my high voltage supplies might be on I disconnected all line power. Still the arcing noise persisted. Careful listening lead me to an unused 1/2" heliax line which connected to a HyGain 270 fiberglass vertical for 2m FM at the apex of my tower. That puts the tip at 90'. I had assumed that the chromed mount was ground for the antenna, however it apparrently floats above ground potential. I found that I could draw a 1/4" arc from the heliax connector. Grounding it totally would stop the arc for about 20 seconds till the static builds up again.

Needless to say I'm glad all my GaAsFETs were grounded protecting them fron the 5000 volt + potentials. This says a lot for the grounded input preamp when unattended idea.

* Another GaAsFET killer can be relay transients from powering the preamp and tower mounted TR relay from the same supply. Many of my readers have mentioned losing preamps to this trick. The best idea I think is to power the preamp at its output center conductor using a voltage source in the transverter. That requires seperate transmit and receive feedlines. Also be sure to remember that removing the preamp and connecting direct to the Antenna will blow the decoupling inductor in the transverter once this mod is made since most antennas are DC grounded. A current limited 30 mA power supply in the transverter would be the ideal way to get around these problems. The seperate RCV feedline can be RG8 which as a side effect shields your preamp power supply line from other local transients such as lightening and rotor brakes.

* 1296 transverter project moving along (made contact with W4VHH 3 miles away using just a few milliwatts from the mixer in Jan contest). Present work schedule allows precious little time, but am working on an NEC NE021 ($1.50 ea) buffer amp to get from mixer output level ½-10dBm up to +18dBm for driving the 3 stages in this month's issue to 10 WATTS output. Either NE021 devices or MRF901 may be used due to low cost and ready availability. I want to keep the stage count down so the optimization continues.

* Is anyone out there on Coherent CW (CCW)? That could be the mode of the future for long haul VHF, especially meteor scatter.



Bruce Randall, WD4JQV, passes along this graph of square coaxial line impedances used in power dividers. He found that some of the materials in, for instance, the RSGB Handbook conflicts with info in other portions of the same book. He arrived at a sqare line impedance formula that works well between about 12 and 75 ohms:

Zo = 143 log (D/d) + 2.0

The formula comes from Reference Data for Radio Engineers. This closely follows early W0EYE power divider designs and is reasonibly close to design data from KL7HIT (March '82 HR). RSGB data appears to be the farthest off from other curves.

Incredible Japanese 120 GHz Dish

Many of us are aquainted with the challenges of building efficient accurrate microwave antennas. I was reading an article in the November '82 issue of Microwave Systems News when it dawned on me what a monumental challenge the new 45 METER 120 GHz Nobeyama Radio Observatory dish was up against. Can you imagine the structural design required to hold a specified surface accurracy of .008" across the surface of a 147 foot diameter dish. WOW !

The dish is instrumented from 1 - 120 GHz with cryogenically cooled mixers and paramp front end. The IF is believe it or not 22-24 GHz! How many systems have you heard of with cryogenically cooled IF amplifiers?

My hat is off to the amazing Japanese for this achievement. Heard of something more impressive?

NEWCOMERS CORNER

If you are new to the world above 220 mhz read on and we'll attempt to shed some light on the makup of these strange bands.

First and probably the most striking difference between above and below 220 mhz is the type person who inhabit these bands. Generally speaking people above 220 are the experimentally oriented types. This holds true to a surprising extent even on the FM repeater segments of the 221-224 and 440-450 mhz bands. Many times you'll find the talent behind the local 2m "machine" really spends his discussion time on the next band up with others of similar expertise. To an extent this is the result of less crowding and more freedom to just "talk-shop" without fourteen locals breaking to call their wives to say they are coming in the driveway.

Notice carefully the band plans below. There are well defined areas where FM is highly discouraged. Most bands even have areas where even SSB/CW is frowned upon if not off the moon. All these modes and facets of the hobby have their place and reason for being there. Generally speaking weak signal frequencies are not for ragchewing. (EME freq's)

Probably the best advice we can give is to just stop and listen before you jump in with both feet. Calling CQ on 432.1 on FM will not likely net you a contact, quite the opposite, it may cost you a few that you'll never even realize. Remember many more people listen than ever talk on 220 and up. I for instance scan 432.070 to 432.110 anytime I'm home. I seldom miss anything unless I'm looking the wrong way. Just play the game like a local and at least you'll fit in. Calling CQ on FM on the 435 mhz satellite uplink frequencies will never get you an answer on 435 but boy will you be famous in a bad way.

28.885	6m crossband DX info freq
50.110	International DX use only
50.200	SSB/CW North American calling freq
144.000-144.050	EME ONLY
144.200	National Calling Freq SSB/CW
144.5-148 FM	145.8 - 146.0 Satellite ↑↓ only
220.1	National Calling Freq SSB/CW
223.5	National Calling Freq FM Simplex
221-225	FM
432.000-432.055	EME ONLY
432.070-432.080	Unattended Beacons
432.090	East Coast 70cm NET
432.100	National Calling Freq SSB/CW
435-437	Satellite Up/Downlink
440-450	FM
902.1	N'tnl Calling Freq SSB/CW (proposed)
1296.000	EME
1296.1	National Calling Freq
2304.0	EME/SSB/CW Calling Freq
10,368 GHz (becoming std freq in some countrys) for 10ghz SSB/CW 1296x8	

For the newcomer interested in what can be done with 10 watts on 220 SSB or 432 SSB, you'll be surprised at what you find. 10 watts on 432.090 during the East Coast 70cm NET (Wednesdays at 9PM) will generally get you into the net from 175 + miles out. Typical range with a good antenna at 50'+ will be 100 miles to other similarly equipped stations.

On the Feb 17 432 Net I worked W4ODW mobile in SC and NC, hearing him at 175+ miles. He even made a 1296 mobile contact with WA4ZIA while passing thru the Charlotte NC area. This was in all likelyhood the first 1296 mobile contact ever made in NC.

Tropo can be the most fun to a newcomer since it takes almost no power to work hundreds of miles. [I once worked WB5LUA in Dallas from a contest site in Virginia. He could hear me even with no preamps and a Bic pen stuck in his mixer BNC input for an antenna!!] Tropo is typically best in late summer when stagnant air masses cause huge inversions.

Another neat VHF propagation mode is aurora. This mode is caused when flares on the sun release huge amounts of charged particles. These particles take about 36 hours from the time of the actual flare (usually causes an HF blackout) until the are pulled into the geomagnetic poles. The signals reflecting from these charged particle streamers peak slightly east of north. When intense enough the auroral curtain may be visible even in the southern states as a moving glowing light in the sky. Propagation takes on a whispery distortion and even some doppler shift due to the speed of the particle movements. CW is the most effective mode here and even that takes practice since the signal is often copied somewhat as a negative image of the original, ie absence of hiss means signal.

Other modes include lightning scatter, airplane scatter, troposcatter, moonbounce, meteor scatter, field aligned irregularities (FAI), transequatorial (TE), and on 220 SSB even the extremely brief and rare occurrance of E layer skip [Some are skeptical that it gets to 220 mhz but having been a TV-DXer I feel very sure it does.] are possible on VHF/UHF/SHF.

For a good tutorial on these modes I suggest reading Jim Stewart (WA4MVI)'s book "VHF Propagation Handbook" available thru the Lunar Letter via K17D and WB6TOC [312 12th Ave So, Nampa, ID 83651, ph(208)466-6727 $5.45].

Remember on VHF/UHF : use long CQs with your call and location given often. Those items are far more important than incessant CQ CQ CQ ... We all know your calling CQ. The location for beam pointing is the most important weak signal piece of info.

Southeastern VHF Society & East Coast 70cm NET

A little history lesson for those of you new to UHF. In September 1979 the East Coast 70cm NET was started by myself, WD4MBK, at North Carolina State University under the club's call W4ATC. Then when I graduated and interest and equipment were lacking at NCSU WA4ZIA Dexter McIntyre near Charlotte NC teamed with our alternate Net Control station K4CAW Al Ross of Greensboro NC to keep the worth while activity alive. They were more successful than I'd have ever hoped bringing the NET participants list up to its present 193 stations from a mere 60 in 1981.

Seeing activity vary dramatically, more so than propagation could ever change, caused me to begin the Newsletter as a reminder and update on NET activity, times, and procedures. It worked well and before long people were suggesting we form a southeastern US group to encourage VHF/UHF activity in a part of the country that had always lacked it before. We first began publicizing the idea in the May 1982 Newsletter issue and turned up many new 432 ops we had no idea were even capable of operating after a fashion on 70cm.

Both the Society and the NET are doing well as of Feb 10 when this is being written. In fact by the time most of you receive the Newsletter we may have our 200th station join in on the NET. Last night we got #192 GW3NJY and #193 WA4SXZ.

NET participation is down a lot more right now than it should be. Usually that's why I put out the Newsletter when I do, to prod people into remembering our UHF bands. If you'll remember from the graphs in the November Newsletter, activity for an unknown reason seems to peak around April Fools Day. Here we are working our way into the fourth year of the NET. I look forward to a possible repeat of the April first phenomena. Contributions have been the real surprises, with many donating several times the $4 first year dues we arrived at. Thanks to all for the support and confidence.

Keep those cards and letters coming however as we need articles or just notes of interest to fellow hams on items pertinent to UHF experimenters. Its these little tidbits that set us a world apart from other publications.

73
CU on 70cm
Charles Osborne
WD4MBK

********* MEMBERSHIP APLICATION : Southeastern VHF Society **********
Dues $5 per year made payable to Charles Osborne, WD4MBK, 131 Saratoga Dr, Lawrenceville GA 30245
ph (404)923-6938 home or (404)449-2614 office (Scientific Atlanta SATCOM R & D) - Feb '83 ed-

Name _____ Callsign _____

Address _____ State _____ ZIP _____

Phone (optional) _____ Hobbies, Interests _____

Gride square or locator code _____ _____ (Latitude/Longitude)

Station Description:

Comments: (use seperate letter if neccessary)