



## *Presidents Message*

First off, I thank W2YC, W0MHK, and WA2LET for the good looking Award (Number 1 Honor Roll) presented to me at the last club meeting. For those of you expecting a program on LoTW update, W2YC will present this program at a not too distant future date.

From all reports, the Saturday after the Club General Meeting session at the Club Trailer was very successful thanks to John, AA2WN, and Al, KB2AYU. Although the group was small, the report was that the session was very worthwhile. Our newer Club members are encouraged to take advantage of the experience here with regard to learning the operation of the Club equipment, information to assist with upgrading your license, and learning through building some less-complicated projects, etc. It can also be a great opportunity to gain on-the-air experience. It normally takes awhile for a new ham to put-together his or her station. One problem is trying to decide wherein does the interest really lie; i.e. HF, VHF, UHF, Digital, DX, traffic handling, net operations, rag-chewing, CW, etc. By learning to operate from our Club Station transceivers, the experience gained often will assist one in deciding the area(s) of greatest interest. Also, as Harry, K2ATX, pointed out over lunch the other day, many guys now live in Condos and Apartments, which are not conducive to ample antenna farms, etc. and the Club station for them is an ideal place to operate. So, take advantage of the Club Station and the Instructors, that's what it's for.

I am delighted to report that Cory, WA3UVV, is our new Club Publicity Chairman and that, except for the Awards and Field Day Chairmanships, all other Committee slots are now filled. Hopefully, these last two positions will be filled within the next month, or so. Also, we have just received our contract from the 4H for our Hamfest next September. By the time you read this, our Treasurer will have returned the signed contract with our retainer check and (hopefully) we will be locked into our designated date. Also, we learned that a Rabbit Show has been scheduled for the Saturday before our Sunday, hence, the pre clean-up should be easier compared to a horse show, for example (HI). Thanks to Ken, N2CQ, for handling this most critical aspect of our annual Hamfest. At the February 6<sup>th</sup> Club General Meeting we will vote on whether or not to start the meetings at 7:30 PM and we will have a very fine business program presented by John, AA2BN. I hope to see all see you all there.

73 de Doug, WA2NPD

## February General Meeting Program

The February General Meeting topic will be Winlink and our presenter will be, John Zaruba, Jr., AA2BN. John was first licensed in 1977 as WB2VOH in the same year he joined GCARC. He has been the Franklin Township ARES/RACES Officer from 1996 to 2004 and joined Gloucester County ARES/RACES in 2006. He is also GCARC's ARES/RACES Chairman. When John is not pursuing his many radio interests in homebrewing, satellites, APRS, and Winlink, he works as a Control Systems Programmer at Rowan's Facilities Operations.

So what's "Winlink?" You need to come to our February 6th meeting to find out.

# Down Jersey Dxing

By Bill Grim, W0MHK

Old Sol finally came through with the "anxiously" awaited beginning of the Solar Cycle 24 on January 4, 2008! In traditional solar fashion, the sun is taking its time producing sunspots in this new cycle. High frequency conditions have not seen any great improvement. Hopefully, the rapidity of emerging sunspots should increase as the cycle begins producing its oppositely polarized blotches. Solar Flux is staying in the low 70s for the most part, but we'll take a look at that number from time to time to gauge improved DX propagation. Guess we still need a bit more patience on this matter, but at least we have turned the corner!

Hope you had an opportunity to work an all-time new one or a new band or mode DXCC entity with the two DXpeditions to St. Barts (FJ/OH2AM and TO5FJ) and the very successful J5C DXpedition to West Africa which netted that group over 50,000 QSOs. Plenty of openings were available on many bands and modes for all three of these operations. But 10 Meter and 12 Meter contacts with stateside stations were few and far between. The low band possibilities especially for J5C were numerous with a darn good signal on 160M CW!

Best DX bets for the coming month are listed below. But I would pay particular attention to the Pacific in February, especially if we can get some reasonable conditions going for us as DXers visit some warmer QTHs. There are a number of stations that could be added to your DX confirmed list that will be on from that area of the world during the next few cold weeks here. Among them are E51WWA-South Cook, T88-Palau, T32-East Kiribati, JD1-Ogasawara, KH2-Guam and VP6DX-Ducie. Some of these operations are more extensive than others, but the Ducie Island operation will include seven complete stations if all goes as planned! That should increase chances of working a new one for those looking for that relatively new DXCC entity.

Lastly, a special "hats off" to Doug Gehring, WA2NPD, for receiving the DXCC Number One Honor Roll Plaque for working all active DXCC entities! Doug's perseverance and dedication to DXing paid off a few months ago when he worked BS7H-Scarborough Reef, for his very last requirement. Congratulations on the accomplishment and hope some of your DX skill and luck rubs off on some of us still trying for that achievement!

STATIONS	DATES	FREQ/MODES	RARITY	ENTITY
KG4	1/29-2/12	All Bands	1	Gitmo
PJ4	1/31-2/8	All Bands	1	Neth. Antilles
S21XJ	2/1-2/21	SSB/Digital	4	Bangladesh
TI9K	2/4-2/16	160-6M	3	Cocos Is.
VP6DX	2/11-2/22	All B & M	3	Ducie Is.
JD1	2/13-2/28	All B & M	3	Ogasawara Is.
8R1PW	2/22/2/29	160-10	2	Guyana

Credits: NG3K ADXO, [The Daily DX](#)



W0MHK and WA2LET Present Number 1 Honor Roll Award to WA2NPD at January Meeting

# Build Your Own HF Rig For Less Than Thirty Dollars?

By Cory Sickles, WA3UVV

Ok, it won't be a "full gallon" multimode transceiver with roofing filters and a cappuccino dispenser, but it will be fun. As part of our Technical Interest Exchange, John, AA2BN, Al KB2AYU, and I are planning a group-build party with the Small Wonder Labs' Rock Mite as the project. We'll have tools, soldering and test equipment available for you as well.

This is a QRP transceiver that fits into an Altoids tin and will give you a half-watt signal on the QRP watering hole frequencies on 80, 40, 30 or 20 meters. Collect them all! It even includes a built-in keyer. Full information is available at [www.smallwonderlabs.com](http://www.smallwonderlabs.com). Rock Mites sell for \$29, but discounts start after we order more than 5. The order is being coordinated by John, AA2BN.

We are planning the party in April. There is high demand for these kits and there is a significant lead time. So, like the man says on the TV, "you must act now". Contact John to place your order. There is also a connector kit available, so you may want to get it, too.

Even if you don't have much experience with a soldering iron, fear not. That is one of the things that this is all about. It's a nice, simple kit and we will be there to help you learn and have fun. If you don't think you can do much with half a watt, you should know that there are folks who have earned Worked All States with these rigs. A half watt is only a few S-Units lower than 100 watts. Most of my Novice contacts were at 20 watts or less. It takes a little more patience, but the sense of accomplishment is all that much greater. When I first put one of my Rock Mites on the air, it brought back some of the magic we often talk about. If you don't think your code proficiency is up to par, here too is a great way to increase your ability. No one will laugh at you for being slow or making mistakes (at least you won't hear them...) because all of us did that at one time or another. There's a special place in heaven for the hams that were my first few contacts as I nervously pounded away on 7116 KHz at 5 WPM. This project could be just the incentive to get you to learn CW or increase your skills. Trust me, if you don't know CW, you're missing out on a lot of the enjoyment this hobby has to offer. One last thing, this project is open to the "vastly experienced" ham, as well. If life with your "FT-IC-TS Wunderboxx 3000" has become boring, you're welcome to come to the party, too!

Join us for some fun. I'm bringing the donuts.

## TVI, RFI and the Modern Ham

By Cory Sickles, WA3UVV

Ever since the end of World War II, ham radio and television have been joined in an interesting dance. The reintroduction of privileges for us and the growth of regular broadcasting has meant that our allocation at 5 meters became 6 meters (ever wonder what happened to Channel 1 on the dial?) and early TV IF sections at 21 MHz turned out to be a bad idea.

Many of us know stories about video images with herringbone patterns and just how valuable low-pass filters can be. Of course, even when you aren't causing interference, delusional people can still be convinced you are. Many of us have initially taken the heat for some CB operator in the neighborhood with a poorly-designed, not-so-linear amplifier wreaking havoc on the "Mod Squad" or "St. Elsewhere".

However, the television industry has changed drastically over the years. Fewer and fewer people watch TV over the air (OTA). Satellite dish antennas and cable bring most of our programming into the home. In February of next year, the most significant change yet will occur when full-power OTA broadcasters drop their analog signals and go exclusively digital. In fact, the introduction of digital technologies in communications has radically changed our lives. This has typically been a good thing, but not always. In fact, a number of changes has put hams in the unenviable position of being the victim of interference from countless sources.

Please see "TVI" on page 4.

“TVI” continued from page 3.

Let’s back up a bit to see how this happened. When cable (CATV) first came on the scene, the idea was to put up a set of antennas at a high point to bring quality signals down into a valley or otherwise poor reception area. Then someone decided to do some local content programming, added channels from outlying areas and maybe even had a local weather channel. This was typically a camera panning back and forth across a set of gauges showing temperature, humidity wind speed and direction, with a stick on letter board with today’s forecast. When HBO first went up and cable companies had unique and desirable content things really changed.

In order for cable to work, they needed spectrum. Unfortunately, all of the “good” spectrum was already being used. So, the deal was cable companies could re-use the space between 54 MHz and eventually 800 MHz for television as long as they kept their signal inside their system. Signals escaping (egress) from cable systems can cause interference with other services. Cable channel 14 can interfere with the emergency locator signals for downed aircraft. Other channels overlay emergency services, FM broadcasting and more. For a nice list potential problems check out <http://www.jneuhaus.com/fccindex/cablech.html>.

As you might now suspect, our VHF allocations are affected by this as well. From 6 Meters up to 450 MHz, we can fall victim to a lack of shielding on channels 2, 18, 24 and 57~62. It’s a 2-way street. If RF can come out then RF can also go in. Remember, TV represents a very wide signal, so you don’t have to be exactly on a carrier frequency to be caught up in the problem. If you are wondering about finding egress in your area, just put your 2 Meter rig on 145.25 and see if you start hearing analog video. If so, Comcast has an egress problem. The good news is that by FCC regulation they must fix it in a timely fashion.

Now 125 channels may seem like a lot to you and me, but once content providers like Discovery, ESPN, CNN, Food Network, HBO, Showtime and Current (yes, Al Gore invented cable TV, too.) started showing up, there just wasn’t enough room to accommodate everyone. So, the industry turned to our old friend Digital. Now, cable systems can accommodate hundreds of channels plus streams like On Demand. That’s the good news, the bad news is that shielding problems can now allow external RF to wipe out many data streams at once. The other bad news is about compression and image quality, but that’s for another time.

To access this world of wonder we now need a digital converter. Additionally, the digital world allows system owners to earn money in many new ways, now they can get money from the public for digital telephone or Voice Over Internet Protocol (VOIP) service and high-speed access to the Internet. Yes Virginia, we can put a grinding halt to all of that, too just because of a bad connection or some neighbor using cheap cable to hook up a second TV.

If you happen to interfere with cable or digital OTA signals, there won’t be that familiar modulated herring bone pattern. There will be breakup in the picture and the last frame will be held in a buffer until the receiver can re-acquire the stream. Because the technology is new, folks will be more willing to blame the station/network/manufacturer than to think of you.

Now let’s consider the evil that has become Part 15 and all of the digital devices covered by it. I had a digital converter that laid down a lot of noise on 17 Meters. I’ve also had noise from a poorly-shielded DSL modem. If your neighbors buy a plasma screen TV, expect it to increase the noise floor on HF. Our allocations on 902 MHz and 2.4 GHz are secondary and are chock-full of part 15 devices. I like being able to walk around while talking on my 2.4 GHz spread-spectrum cordless phone and really enjoy being able to surf the internet with my iPod Touch’s Wi-Fi connection, but I can’t do both at the same time. Oh sure, they “should” work together, but they don’t. It’s the phone’s fault and short of replacing it, I can’t do anything practical about it. About once a month, my wireless doorbell freaks out because of a CB operator talking while driving by. The FCC rules have not kept up with the devices now being used in ways that were never conceived of back when the rules were written. One early digital TV on the market caused interference with aircraft and other communications until it was recalled. Cell phone chargers with switching supplies and other wall-warts also cause hash. The best answer is to unplug them when not in use as they’re wasting power and your money.

Please see “TVI” on page 5.

“TVI” continued from page 4.

Now would be a good time for you to become very familiar with the analog to digital transition and the technologies involved. Helping your friends and neighbors will end up helping you. The information out there is confusing to many and someone like you to help guide them would no doubt be welcomed.

Be proactive about eliminating the TVI and RFI potential near you. Learn all you can (quickly) and offer to help out your neighbors make “good” choices in upgrading their electronics. In most cases the sales clerks for these things are so ignorant they don’t even know when they’re lying. Help them navigate through the confusion of converters, what they need and don’t need and show them how to save money. It will benefit you in many ways.

One last thought, don’t think you need to know “everything”. What’s important is that you know more than everyone else around you. As I’ve often quoted “In the land of the blind, the one-eyed man is king.” It’s good to be the king.

## ARES/RACES February

By John Zaruba Jr., AA2BN

On Sunday, January 27<sup>th</sup>, I attended a meeting of the South Counties Mutual Aid group hosted by Cape May ARES/RACES at their EOC in Cape May Courthouse. They have a very impressive facility and 10 or 12 very active members pushing their program forward. Cape May County ARES/RACES operates 2 meter and 70 cm repeaters with Echolink, an APRS station, an HF station, as well as a Winlink Telpac station. They run a tight ship and are providing a high level of service to their county. There was a guest speaker from Middlesex County ARES/RACES giving a talk and demonstration of D-Star for both digital voice and data. One point I hadn't really thought about in favor of the transition to digital voice technologies is the improvement in spectrum efficiency. A typical analog FM voice signal is about 12.5 KHz wide, a D-Star digital voice signal is only 6.25 KHz wide. Currently 2 meter analog voice repeater pairs are assigned with 15 KHz spacing (12.5 KHz + guard band), D-star repeater pairs could be grouped at 10 kHz intervals (6.25 KHz + guard band) yielding a theoretical capacity increase of 50%. There are some frequency coordinating bodies in the western US that are assigning D-Star repeaters to interstitial assignments (between existing analog repeater pairs). I'm waiting to hear some operational experiences with this plan to see how well it works in practice...stay tuned!

I've been following an e-mail discussion started by Bob Bruninga, WB4APR, the creator of APRS, concerning the reasons that the Automatic Packet Reporting System has not evolved to it's full potential. In Bob's view, one of the causes of the stagnation has been cheap, abundant GPS equipment. Operators have gotten so involved with GPS tracking and map displays that they have missed out on using APRS as a situational awareness tool rather than just a vehicle tracking system. Bob has been the champion of several ideas to help APRS be more useful, and a number of them have been adopted in our area. Someone traveling through the county with an APRS enabled radio will see an object beacon showing the location, frequency, and tone information for our repeater. This object will appear right on the front panel of a Kenwood APRS radio, and the operator can tune to the repeater with a push of the QSY button. Short message services and bulletins are available along with weather data, storm warnings and traffic jam information. When my truck is in the parking lot of the club site or at the general membership meeting it's broadcasting the location and time of the meeting for anyone who's interested. When I drive down the road, I'm beaconing the frequency data of whatever repeater I happen to be monitoring so anyone who sees it knows where to find me for a QSO. There are so many cool things to do with APRS beyond vehicle position information that if you thought "so everyone knows where my car is, big deal!" I urge you to have another look at APRS and some of the fun things that can be done with the technology.



**FEBRUARY**                      **CONDUCTED BY N2SS**                      **2008**

**WARC BANDS**

<u>30 Meters</u>	<u>17 Meters</u>	<u>12 Meters</u>
<b>W2YC. 308</b>	<b>N2SS ...325</b>	<b>WØMHK310</b>
N2SS.....295	WØMHK..322	N2SS.....303
WØMHK ..279	W2YC .....312	W2YC.....278
WA2NPD ..216	WA2NPD .221	N2CQ.....99
AA2WN....171	AA2WN ...122	WA2NPD...96
AB2E .....146	AB2E.....121	AB2E .....92
N2CQ.....111	N2CQ .....115	AA2WN.....20

When the same call heads all 3 WARC bands we will have that elusive, undisputed **KING OF WARC**

**MOBILE DX**

<b>W2YC .....276</b>	WØMHK .... 141
N2SS.....234	AA2WN ..... 131

Looks like Dave and I have spent entirely too much time behind the wheel!

**6 METER DXCC**

<b>WØMHK.....106</b>	W2YC.....29
N2SS .....55	AA2WN.....15

**1.5K Club**

<b>W2YC .....1584</b>	AA2WN .... 1369
<b>N2SS.....1540</b>	AB2E ..... 1185
WØMHK ....1478	N2CQ..... 1135
WA2NPD ...1453	

**GRID SQUARES**

<b>WØMHK.....540</b>	.....
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**160 Meters**

<b>W2YC..... 201</b>	N2SS ..... 79
WØMHK .... 152	AA2WN ..... 36
AB2E ..... 100	N2CQ ..... 9
WA2NPD..... 96	

W2YC continues as our undisputed Top of Top Band.

**Islands On The Air**

<b>N2SS.....843</b>	AB2E ..... 205
W2YC.....656	N2CQ..... 159
WØMHK .....381	

**Rules for GCARC Honor Roll Listings**  
Provide me with your total IOTAs worked, or countries (including deleted) worked for: WARC Bands, 160 Meters, Digital modes, Mobile, 6 Meters or your total for 80,40,20, 15 and 10 for 1.5K Club. Final category is Grid Squares – just send me your total worked. Lastly, you do not have to participate in every category to be listed; just send me your totals for any of the categories listed.

**R T T Y** **DIGITAL**

<b>W2YC..... 276</b>	N2SS .....53
AA2WN..... 187	WA2JSG ..... 10
N2CQ..... 151	

**CURRENT OFFICIAL ARRL DXCC STATISTICS**

Active Count.....	337
Deleted Count.....	58
Last Addition.....	KH8/S
Last Deletion.....	STØ

## February Birthdays

Congratulations to these members celebrating birthdays in February:

Chuck Colabrese, WA2TML  
Geoffrey Ochs  
Herb Schuler, K2HPV



## Crosstalk Submissions

This is your Club newsletter. Make use of it. Feel free to contribute general interest articles and ideas for articles.

All submissions, queries, comments and editorials should be addressed to Gene Schoeberlein at [aa2yo@arrl.net](mailto:aa2yo@arrl.net).

Submission deadline for March issue:  
2/22/2008

## Club Web-Site

<http://users.tellurian.com/freddie/w2mmd/>

President-Doug, WA2NPD  
Vice President-Wayne Wilson, WA2LET  
Treasurer-Ken Newman, N2CQ

Chuck Colabrese, WA2TML  
Darrell Neron, AB2E  
Bill Blakeley, WA2ADB

Cory, WA3UVV  
Steve, W2TDS

### GCARC Officers

Recording Secretary-Al Arrison, KB2AYU  
Corresponding Secretary-Al Arrison, KB2AYU

### Board of Directors

Harry Bryant, AA2WN  
Gene Schoeberlein, AA2YO  
William Grimm, W0MHK

### Trustees

Ray, WB2NBJ  
Mike, N2SRO

### Committees

ARES/RACES-John, AA2BN  
Awards-Open  
Budget-Steve, W2TDS  
Clubhouse Site-Al, KB2AYU  
Club License Trustee-Darrell, AB2E  
Constitution-As needed  
Crosstalk-Gene, AA2YO  
Database-Ray, W2RM  
DX-Bill, W0MHK  
Field Day-Open  
Hamfest-Harry, K2ATX

Hospitality-Ray, WB2NBJ  
Membership-Ray, W2RM  
Nominations-Doug, WA2NPD  
Programs-Dave, WB3JOY  
Publicity-Cory, WA3UVV  
Repeaters-Al, KB2AYU  
Scholarships-Greg, WN2T  
Special Services, Darrell, AB2N  
Sunshine-Ray, W2RM  
Technical/TVI-Cory, WA3UVV  
VEC Testing-Ray, W2RM

**The W2MMD Repeaters**

147.78/18 Mhz-Pitman  
(CTCSS 131.8Hz)

223.06/224.66 Mhz-Sewell

447.1/442.1 Mhz-Pitman  
(CTCSS 167.9Hz)

1272.4/1284.4 MHz-Pitman

**GCARC Meetings**

**General Membership**

8 pm 1st Wednesday every month  
Pfeiffer Community Center  
Williamstown, NJ

**Board of Directors**

8 pm 3rd Wednesday every month  
GCARC Club site  
Harrison Twp. 4H Grounds  
1 mile south of Mullica Hill on RT77

**Nets**

**ARES/RACES**  
Sunday 20:00 Hrs  
(147.78/18 and  
223.06/224.66  
repeaters)

10 Meter- Sunday  
following the  
ARES/RACES Net  
(28.350 Mhz)

**February Meeting**

Winlink  
John Zaruba, Jr., AA2BN

Gloucester County Amateur Radio Club  
P. O. Box 370  
Pitman, NJ 08071

