



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 29 - No. 8 • August 2014



President's Message

Hello again YARC members:

July has been a busy month for this club. Beginning with Field Day and the Granite Mountain Hotshots memorial operations (both actually in June, but continuing yet with QSLs and field day logs, etc.) and then the Williams hamfest.

We are still working on the log reporting for field day to ARRL, and QSL requests are continuing to come in slowly for the N7GMH memorial operation. Doug, KV8TD, reported elsewhere that the results were about 260 contacts, with less than great band conditions. In all, I think the operation was a success and we should be pleased with the responses from people we spoke with and who contacted us for certificates.

Next came the preparations for the ARCA-Williams hamfest. Following a call for help hauling stuff to Williams, Jim Jackson NS2K volunteered to bring the donations held at my house and tables in his motorhome. What a great offer that was. Jim had planned to stay at the fair grounds for the event, and I offered for him to utilize the club space, which worked out really well. I think he had little room left for him and his dog after loading, but he managed. Thanks Jim! Ralph W7HAM and Tom WN7E both carried quantities of donations and consignments to Williams, as well. We had a large space that all visitors to the hamfest had to pass in their coming and going, and the traffic was brisk at times.

We had no idea how well we would do, or how well attended the event would be, but I think we did very well. Totals for sales will be reported at the August meeting, but I would say it was a good event for YARC.

We have been telling the members for a couple of months now that we need nominees for club officers and board members. We have received one confirmed nomination for the board, and a couple of possible. Most necessary are peo-

ple to step into the President's position and the Treasurer. Please seriously consider doing what many have done in the past. Support your club by serving it. None of these positions are difficult. They take a little extra time and some work, but I think they are rewarding.

Please consider the opportunity.
See you at the meeting on August 7th.

Don, WB7TPH

August Program:

Rex Mauldin, N7NGM, will be presenting his vision for the future of the club which he was unable to do in June due to a technical glitch.



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*Minutes of June 26, 2014
Board of Directors Meeting
at JB's Restaurant, Prescott, Arizona*



Meeting was called to order by WB7TPH at 18:47 hours.

Members Present: WB7TPH, WH6EAL, W7HAM, AD7YR, W7BJ, WB7RRQ, and WN7E.

Old Business:

- Field Day: review of preparations for field day by WN7E.
- Hotshots Memorial: review of preparations for the operation by WB7TPH.
- Williams Hamfest: review of hamfest booth preparations by W7HAM.

New Business:

- Field day: Discussion about preparations for field day included; AD7YR will look up whether or not a station needs to identify the individual operator once per hour during field day operations. WB7TPH will compose scripts for field day operators. YARC will operate two stations simultaneously. We are seeking EOC permission to operate as an emergency communications center, operating as 2F.
- Club station on wheels: The club will postpone the option put forth by K6VVR (accept the step van offer) until after the Williams hamfest. A decision was made to form a standing committee dedicated to the manufacture and maintenance of the proposed mobile (portable) station. Board believes it prudent to proceed slowly, possibly acquiring necessary equipment in go-kit fashion.
- Repeater(s): Board decision to leave the 146.88 MHz repeater where it is currently located and to proceed with installation of the clubs unused 450 MHz repeater atop Mt. Union. Once the repeater is in place, establishing the site, club may pursue additional options such as moving or linking the 2M repeater and inviting the AATV group to establish an ATV repeater on site.

- New club officers: Nominations are needed for President, Treasurer and three board members. Club members need to promote these positions to newer members to ensure broader participation by new members.

Adjournment: WB7TPH adjourned the meeting at 19:28 hours.

Respectfully submitted by,
Forrest Murdoch, WH6EAL
YARC Secretary

Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated Special Service Club. The club participates in many activities in the tri-city area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00/year (Full-time students \$15). The YARC meets at 7:00 p.m. local time on the first Thursday of every month in the Technology Room 404, at the Granite Mountain Middle School, 1800 Williamson Valley Road in Prescott. It is about ½ mile north of Iron Springs road, and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting.

The weekly Net is held every Wednesday at 7:00 p.m. local time on 146.880- repeater. All amateurs are invited to participate, and visitors are always welcome.

The Yavapai County ARES/RACES Net is held on Monday nights approximately at 7:00 p.m. local time on the 145.290- repeater on Mingus Mountain. A PL of 127.3 is required.

Club Repeater

The YARC 146.880- repeater is located on the hill above Willow Creek road and requires a PL of 100.0 Hz. Our deepest gratitude to Bill Kafka, W2YAV, (SK) for allowing us to acquire the original club repeater. ■

Minutes of July 3, 2014

General Meeting

at Granite Mountain Middle School, Prescott, Arizona

Meeting was called to order by WB7TPH at 19:01 hours, and the Pledge of Allegiance to the Flag was recited by all present.

Introductions: All present introduced themselves with their callsigns spelled phonetically.

Visitors: No visitors were present.

Minutes: WB7TPH asked for a motion to approve the minutes of the June 5th, 2014 general meeting as published in the "Yavapai Signal". Motion was made by WB9VGJ, and seconded by W1DLG. The motion was approved.

Treasurer's Report: WB7TPH asked for a motion to approve the Treasurer's report for the June 5th, 2014 general meeting as published in the "Yavapai Signal". Motion was made by K6VVR, and seconded by W7HAM. The motion was approved.

New Licensees: No newly licensed individuals were present.

New Members: The following people were voted into membership by the club:

James Minton, KL7JIJ, Raymond Shaver, KD6OBC, Peter Mc Geoghehan, KD5PIM, Karen Mc Geoghehan, KA5REN.

Committee Reports:

Newsletter: AC6AA - Keep photos and letters coming.

Patches and Badges: W7BJ- Badges \$7 patches \$3.

Shirts: K6VVR - Shirts are available \$24 with name and call sign; \$20 without name and call sign.

Repeater: K6VVR - Arrangements are being made to set up a 450MHz repeater atop Mt. Union.

Fox hunt: K6VVR - Fox hunt starts at 13:00 Sunday June 8th; WB9VGJ and WB7RFY are hiding the

transmitter.

Elmers: N7CW- Everything is wonderful.

K7GMG: KB7TRE - School is out, no activity.

Licensing: VE, August 8th test scheduled; so far is quite small.

ARCA: WB7RFY - Williams Hamfest July 18-19th; if anyone can haul gear please contact WB7TPH.

Old Business:

Field Day: WB7TPH reported twenty people showed up to participate in field day and the event went well.

N7GMH: KV8TD reported the band conditions were terrible during the memorial, however including the participation with the Yuma Amateur Radio Club, about 260 QSOs were made with 968 lookups on QRZ. KV8TD would like to extend much thanks to those who helped and participated.

Mobile/Portable club station: The board has decided to postpone any business regarding the mobile station until after the Williams hamfest.

New Business:

Tower: An e-mail was received from KC5DKN regarding the possibility of donating a 40ft tower to the club. WB7TPH will look into it.

Nominations: WB7TPH reported that nominations are open for three board members, president, and treasurer.

New Repeater: WB7TPH asked for a floor motion to discuss the possibilities of a 450 MHz repeater atop Mt. Union; the motion was made by WB9VGJ and seconded by K6VVR. While the decision to pursue the Mt. Union site was made by the board, WB7TPH asked for the membership to ratify the plan. Membership voted in favor.

Adjournment: WB7TPH adjourned the meeting at 19:42 hours.

50/50 Drawing: The winning ticket No. 532323, WB9VGJ won \$43Dollars. The drawing of the ARRL Satellite hand book was won by WB7RRQ with the ticket No. 532348.

Program: Rocket Science 101 An Introduction to Elementary Orbital Mechanics for OSCAR's by Richard Tejera, K7TEJ. Richard's presentation was outlined by topics including, Help me I'm Falling – Newton's Cannonball, Orbital maneuvering- Conservation of Energy at Work, Terminology – Defining the Orbit, Types of Orbits, and Keplerian Elements Decoded.

Respectfully submitted by,
Forrest Murdoch, WH6EAL
YARC Secretary

Club contacts - At a Glance

President - WB7TPH	president@w7yrc.org
Vice President - N7NGM	vice.president@w7yrc.org
Secretary - WH6EAL	secretary@w7yrc.org
Treasurer - W7BJ	treasurer@w7yrc.org
Board Member - AD7YR	cgrobeck@gmail.com
Board Member - W7HAM	smokey7@cableone.net
Board Member - WB7RRQ	rosevear520@cableone.net
Board Member - WN7E	mrgriz@cableone.net
Arizona WAC Administrator	az.wac@w7yrc.org
Ask Elmer for Help	ask.elmer@w7yrc.org
Badges	badges@w7yrc.org
Field Day Chairman	field.day@w7yrc.org
Fox Hunts	fox.hunt@w7yrc.org
License Classes	classes@w7yrc.org
Mail List	yarc_mail@w7yrc.org
Membership Application	membership@w7yrc.org
Net Manager	net.manager@w7yrc.org
Newsletter Editor	newsletter@w7yrc.org
Program Inputs	programs@w7yrc.org
Public Information Officer	pio@w7yrc.org
Public Service - DEC	public.service@w7yrc.org
Repeater Trustee	repeater@w7yrc.org
Special Events	special.event@w7yrc.org
VE Test Liaison	testing@w7yrc.org
YARC Party Coordinator	yarc.party@w7yrc.org
Information	info@w7yrc.org
Webmaster	yarc@w7yrc.org
Webmaster	w7yrc@w7yrc.org

July 2014 Foxhunt

By John Broughton, WB9VGJ

The monthly foxhunt was held Sunday, July 6th. The foxes were Jeff, WB7RFY, and I.



There were three teams of hunters this month:

1. Forrest, WH7EAL.
2. Pete, K6VVR, Diane, KE7ODP, and Patrick, KG7EWD.
3. Bob, WB6ODR, and Linda, KD7EEO.

The transmitters were hidden near the Adult Center of Prescott on Rosser Street.

The hunt got off to a somewhat slow start as the hunters could not hear the primary transmitter from its first location, in a shrub on the ground in the parking lot. We moved it to an evergreen tree about five feet off the ground and put on a twin lead J-pole antenna. The hunters could still not hear the transmitter. We tried another antenna with no luck. So, we moved it to a tree about a block away on a hilltop. That was successful and the hunters could all hear it at the starting point.

It was a successful hunt, with all the hunters basically finding the transmitter at the same time. The winning team was K6VVR, KE7ODP and KG7EWD. They won by a margin of four minutes. The other two teams tied for second as they left the start point at the same time, just four minutes before the winning team. Congratulations to Pete, Diane and Patrick!

We had our usual after-hunt get-together at JB's Restaurant; the social aspects of the hunts are as enjoyable as the actual hunts.

You can see pictures of the hunt at:

<http://tinyurl.com/YARCFoxhuntJuly2014>

We would encourage more folks to get involved in the hidden transmitter hunts. They are really fun and help develop direction-finding skills.

73, John, WB9VGJ



Yavapai Amateur Radio Club
 PO Box 11994
 Prescott, AZ 86304-1994

TREASURER'S REPORT
June 2014

General Fund **Repeater Fund**

BEGINNING CASH BALANCE - May 31, 2014 **9,631.50** **2,326.75**

Dues - Donald Davis	KF7RXW	new	13.50	1.50
Dues - Kyle Bryant	K6QQQ	new	18.00	2.00
Dues - Alfred Muense	AF6ZR	new	18.00	2.00
Dues - Rob Redford	KG7LMI	new	18.00	2.00
Dues - Lisa Ferguson	KK6AFC	new	13.50	1.50
Dues - Patricia Perkins	KF7PQY		18.00	2.00
Dues - Steven Stock	WA0A		18.00	2.00
Dues - Don Martin	KF7MMQ		18.00	2.00
Dues - Dan Durocher	KF7PQV		18.00	2.00
Dues - Tom Azlin	W7SUA		36.00	4.00
Dues - Richard Myers	AD7UR		18.00	2.00
Dues - Mike Scibilia	KG7BGV		18.00	2.00
Donation - Kyle Bryant	K6QQQ			5.00
Donation - Chino Grinder Bike Race			175.00	
50/50 Raffle			84.00	
50/50 Raffle - Rick Cofone	K2CRC		(42.00)	
Interest Income				0.09

TOTAL INCOME **442.00** **30.09**

David Passell - Coffee, Cookies	1200	39.18
Erica Simpson - Student Badge	1201	7.00
Don Bauer - 3 Tarps & Ties	1202	22.60
Stone Ridge Grill - Deposit 1-10-15	1203	50.00

TOTAL EXPENSES **118.78** **0.00**

ENDING CASH BALANCE - June 30, 2014 **9,954.72** **2,356.84**

Signature: 
 David B Hanson, W7BJ, Treasurer

Date: 7/3/2014

YARC Field Day 2014:

By Don Bauer, WB7TPH

Another “ARRL Field Day” has come and gone. Several of our members chose to go to the mountain to join comrades from other groups. That’s fine. I understand they had a good event. As for the past couple of years the stalwarts of YARC decided to carry on in the club station at the Granite Mountain Middle School. We were a small but active bunch. Last year we operated three transmitters and logged 30 some contacts as an E3 venue, running emergency generator power all day Saturday. This year we received permission from the county to operate as an emergency communications facility and went on the air as an F2, concentration on the two positions in the club facility.

We officially logged 131 contacts on the 40, 20 and 15 meter bands. At times we were quite busy, but overall a casual event. Because the holder of the keys to the building had Sunday morning commitments, we shut down on Saturday evening, when everyone said that they were “talked out”.

One transmitter was operated from the multi-band vertical antenna on the roof of the building, providing 40-10 meter capability. However 10M seemed pretty dead. The other transmitter was hooked up to the three element beam giving us directional coverage on 20-15 and 10M. We experienced the same lack of signals on 10M as on the vertical.

Overall, we had a good time, and though we were no powerhouse station, we made a good showing for ourselves. On to next year.



Thanks to Mike Belanger, W1DGL for photos. For additional photos go to: <http://tinyurl.com/old8zrr>.

App Chat

By Rex Mauldin, N7NGM

Back from an unscheduled vacation, App Chat will continue this month with a look at applications that allow you to use Morse code. There are two apps in particular that I will cover in this month's edition which are MorseKey and Morse-It. Fig. 1 shows the opening page of MorseKey. This is a simple app that allows you to press the image of a key and send code.

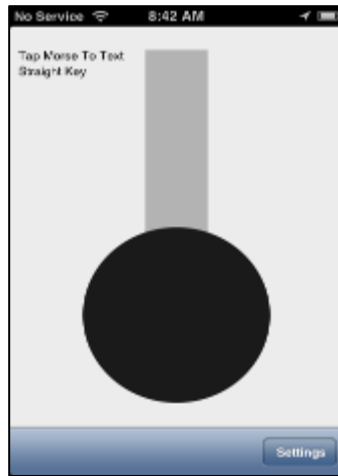


Figure 1



Figure 2

character in order to type good day in German, just to show that special characters can be included, provided you remember them. This in a way makes this program into a game of sorts. I have not been able to find out how to change the character speed. While practicing typing the message, which I had to do several times in order to get it just right, I noticed that if I slightly

Fig. 2 shows the settings that can be changed. Rather straight forward. The sensitivity is not bad at all, unlike the other program, Morse-It, that I found to be rather touchy which caused me to make several mistakes while trying it out.

In Figure 3 you can see a sample message that I tapped out using a special



Figure 3

pressed the iPhone screen, it would react. I found this to be annoying, unlike the MorseKey program which did not give me the problems I encountered with Morse-It.

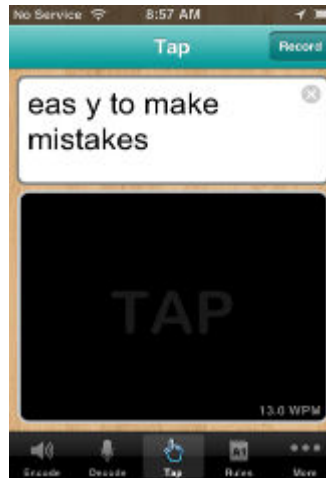


Figure 4

ming the radio.

But enough of that, on to the special characters of Morse-It. As Figure 5 will show, there are special characters that are included with this app of which only a portion are shown in this example. There are characters for different languages which I demonstrated for the umlaut for German. As Figure 6 will show, my typed out message is in the

Morse-It was mentioned to me by Mike, W1DGL during one of our many meetings while he helped me program my Baofeng UV-5R hand held radio. Although there is no app for the Baofeng for me to include in this series, I am thinking of writing an article on the problems I encountered and share them with others. I gather I am the only one who has had trouble program-

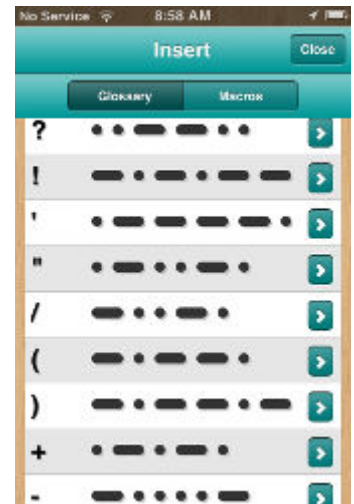


Figure 5

process of being sent in code. I can also decode code from a station and it will show up on the screen and allow me to read what the other station is sending.

With the character set that is available, it makes sense that the makers of this app would include a list of such characters so that foreign stations can be copied. This program cost about \$4.99 and proved to be an



Figure 6

excellent program to have. I would encourage having both however. I would use MorseKey for sending and Morse-It for copying other stations.



Figure 7

Fig. 7 shows how you can email a message to someone, although it does not send CW to the person, just the typed message as you see here.



Figure 8

Fig. 8 Shows various parameters that can be changed

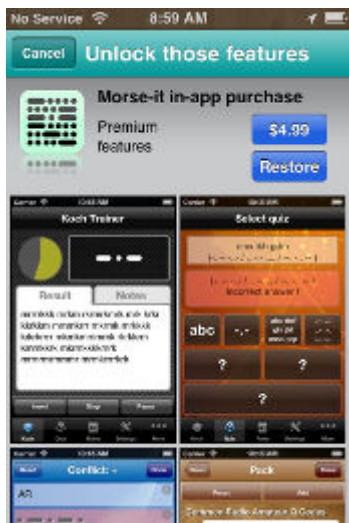


Figure 9

Fig. 9 Shows other parts of the program that can be unlocked upon purchase. ■

EVENT COMMUNICATIONS.....

By Lloyd, WA6ZZJ



Put these dates on your calendar. Let's see some more "1st timers" out there in the upcoming events. Some of them are relatively small events and a good place to gain operating experience.

Signup sheets will be available at the August YARC meeting for the September communications events.

The upcoming YARC Event Communications schedule as of this date is:

Saturday, September 6, 2014 will be the March of Dimes March for Babies. This is a small event using only 10 operators. Being a smaller event, this an excellent event for first time communicators. As always, if it is one of your first events you will be assigned with a veteran communicator.

Sunday, September 21, 2014 is the Skull Valley Loop Challenge. Another smaller event using 10 to 12 operators. Like the March of Dimes, this is another excellent event for first time communicators and, again, if it is one of your first events you will be assigned with a veteran communicator.

Saturday, September 27, 2014 is the Groom Creek Classic 1/2 Marathon, 10K, 5K, 2 mile. **Patti, KD7VBG, will be coordinating this event.** 15 operators are needed for this event with two having quad mobiles.

Friday and Saturday , October 3rd and 4th is the Prescott Road Rally. Go to www.prescott rally.com and click on "Volunteers" to go to the sign up form. If you have a preference as to where you would like to work, please add a comment in the box at the bottom of the page just above the "Submit" button. Be sure to check the boxes in the form for when you will be available.

Saturday, October 18, 2014 is the Walk for Diabetes. This is another good event for first time communicators. **John, WB9VGJ, will be coordinating this event.**

SOME WAYS TO OPTIMIZE YOUR EFFECTIVENESS IN PUBLIC SERVICE EVENTS.....

1) **Make sure your radio is in top operating condition.** Small problems (such as loose antenna connections, bad microphones, intermittent operation, etc.) may be just annoying during casual operation, but WILL cause major grief under the continuous/severe service of net/emergency operation.

2) **Don't operate your handheld with it hanging on your belt.** Using the radio while it's strapped to your waist reduces your effective radiated power by more than 10 dB. That's a 90% reduction in power. Hold the radio in your hand, with the antenna in the clear.

3) **Regarding antennas,** those 3" rubber dummy loads may be cute, but you're throwing away 3-6 dB of power when using one. (If you're *really* into math, compute the loss of a 3" rubber dummy load used on a belt clip). A telescoping half-wave has a gain of as much as 10 dB over a 3" rubber duck and a quarter-wave provides a 4-6 dB improvement. Even using a 12-15" rubber duck will boost your signal by 3-6 dB over the 3" ones. Remember that one dB can mean the difference in whether or not a critical message gets through.

4) **Have charged batteries and spare battery packs!** If you also have a dry cell battery case, fill it with alkaline batteries. Make sure you have enough batteries with you to carry you through, even on high power.

5) **Use headphones or an earphone** rather than a speaker/mike. Most earphones will plug directly into your HT. Low cost stereo headphones are widely available and will work perfectly with your HT using a mono to stereo adapter. The headphones also have the advantage of concentrating the communications in your ears, while partially shutting out the outside noise. Headphones will also prolong battery life by allowing the radio to operate at lower audio output. A speaker/mike is sometimes the worst thing you can use --- it doesn't cut the outside noise, it doesn't save batteries, and where is that HT while you're using the speaker/mike?? (Hint --- see #2!)

6) **Speak slowly and clearly** when transmitting! You make take pride in your ability to run your words together and mumble, but the station on the other end may be in a noisy environment and may not receive your message.

7) **Check out your ability to use simplex.** Even if the operation is being conducted on a repeater, there may be "dead spots," the repeater may go down, or, sad to say, there may be jamming. Even if you can only work the two or three stations closest to you, a message can still be relayed. To maximize your simplex range, please reread #2 and #3.

8) **Listen to net control** and direct all communication through him/her. Identify your station when calling net control and keep all communications direct and to the point.

9) **If you must leave the radio** or the area to which you have been assigned, first seek permission and acknowledgement from the net control station, make your "time off" as short as possible, and check back in with NCS immediately upon your return.

10) **PROJECT A GOOD IMAGE** to the non-hams around you that are part of the event. This means conducting yourself in a professional manner and giving a good impression of Amateur Radio. Remember, although we may be amateurs, that only means we aren't getting paid for our services which can be on a professional level....

11) **HAVE FUN!!!** ■

IDIOT SIGHTING:



When my husband and I arrived at an automobile dealership to pick up our car, we were told the keys had been locked in it. We went to the service department and found a mechanic working feverishly to unlock the driver's side door. As I watched from the passenger side, I instinctively tried the door handle and discovered that it! was unlocked. "Hey," I announced to the technician, "it's open!" To which he replied, "I know -- I already got that side."

(This was at the Ford dealership in Canton, Mississippi!)

N7GMH - The Granite Mountain Hotshots Memorial Special Event

By Doug Freeman, KV8TD

YARC, operating as the Granite Mountain Hotshots Memorial Radio Club, N7GMH, had a Special Event operation on June 30 as a memorial to the Yarnell 19, who lost their lives one year earlier in the Yarnell Hill Fire. Taking advantage of the station setup from Field Day, we came back to life in the club station at GMMS as N7GMH.

Locally, we operated from the W7GMG station at Granite Mountain Middle School from 0700 to 1700, supplemented by K7POF and KV8TD from their home stations as well.

In addition, YACS from Yuma contributed several hours and more than 60 contacts. KF7KVV in Snowflake, KG7DDK in Tempe, N7NTM in Glendale each contributed multiple hours on various bands. Contacts were made on 40, 20, 17 and 15 meters. So far, we have sent out about 40 QSL certificates requested by operators who responded to our CQs. One nice thing is that the requests have been filtering in one or two at a time, instead of all at once. Gives us time to match them up to our logs and prepare them. Don WB7TPH learned today that sending the certificate to a ham in Canada now requires a trip to the Post Office for a Customs declaration.

Unfortunately, a combination of less than great band conditions, probably coupled with Ham Radio fatigue the day after Field day, worked to limit our contacts. At this writing we have not completed the combining of logs from all the operators, but the total is around 260 contacts. In an interesting side-note, at the end of the day there had been 960 hits on the QRZ listing.

Many of our contacts were familiar with the Yarnell 19, were appreciative of our operation, and happy to have made the contact recognizing the Granite Mountain Hotshots.

We also established a minimal 2 meter operation downtown from the Palace, but unfortunately personal schedules limited the effectiveness of that part of the event. But, between our local operation and Yuma's we logged several VHF contacts, a few of which were with new or prospective hams.

YARC operators included WB7TPH, KV8TD, WB9VGJ, KI6AHH, K6VVR, W7PVA, WN7E, KG7GLH, W1DEL, and KG7LMB. If I have missed anyone, I apologize. ■



Doug, KV8TD, Tracy Wiederaenders, KG7GLH and Don, WB7TPH

DIGITAL MODES

By N2JCS-Gary Dudley

Reprinted from the "On Your MARC" newsletter

If your new to amateur radio then you may or may not have heard what digital modes are.

Even if you're not new to the hobby you may not know what this mode is or how to get started in it. When I started this hobby I researched a little bit about digital modes and I thought that it was not something I would ever be interested in. I was wrong! I really enjoy digital modes a lot. In this article I'll explain the basics of getting started with the setup to be able to enjoy and new mode in this hobby.

How Digital works is by interfacing a personal computer with your transceiver using dedicated software on the computer in which a series of tones or beeps are generated and then broadcast over the air through your transceiver. On the receiving end of your transmitted signal another station also has a computer with dedicated software that will decode your transmission into text or pictures (depending on what was sent) on their computer monitor. They would then send you one in response and there is your QSO on digital modes.

There are many digital modes and more are being developed everyday. What is a lot of fun for me is that when you want to try something new there is another mode within the digital realm out there you can try today, and tomorrow there will be another. It also lets you really find the one you will like the most and may become your new favorite. Mine at the moment is PSK31, although I like all the modes, I tend to gravitate back to PSK31 most of the time. Some different Digital modes include, PSK31, JT65, RTTY, Olivia, SSTV, Digital HDSSTV, Digital Voice (new!), and there are many more. You can find a long list on the web of the many out there and what they look like on the waterfall. The waterfall is where on the screen you can see the transmitted or received signal in the dedicated software your using.

There also are many different types of software out there. My personal favorite is DM780 by HRD but I encourage you to try them all because you will learn a lot and you will find your own favorite. I use multiple programs all the time. It is fun to switch it up from time to time, and I learn a lot about each one all the time.

What is needed for this to happen as far as hardware are-

- 1: Computer (PC, Mac, Linux etc...)
- 2: Transceiver
- 3: Sound-card interface (Signalink USB, Rig-blaster) roughly around \$100.
- 4: Software for digital modes (DM780 HRD, MultiPSK, Fldigi, MMSTV, Easy-pal, etc.)

Equipment needed can depend entirely on what type of transceiver or receiver you are using. Some rigs already have the necessary components built into the rig which really makes set up very simple. For my personal setup I am using a Yaesu 857D mobile rig as a base station with a Signalink USB sound-card interface from Tigertronix and a Gateway PC computer using both Ham Radio Deluxe DM780 and also Fldigi software for PSK31. My rig requires an external sound-card or a pc sound-card to operate digital. Some rigs like the Kenwood TS 590 already have a sound-card built into the rig which is a great feature to have if your wanting to do digital modes.



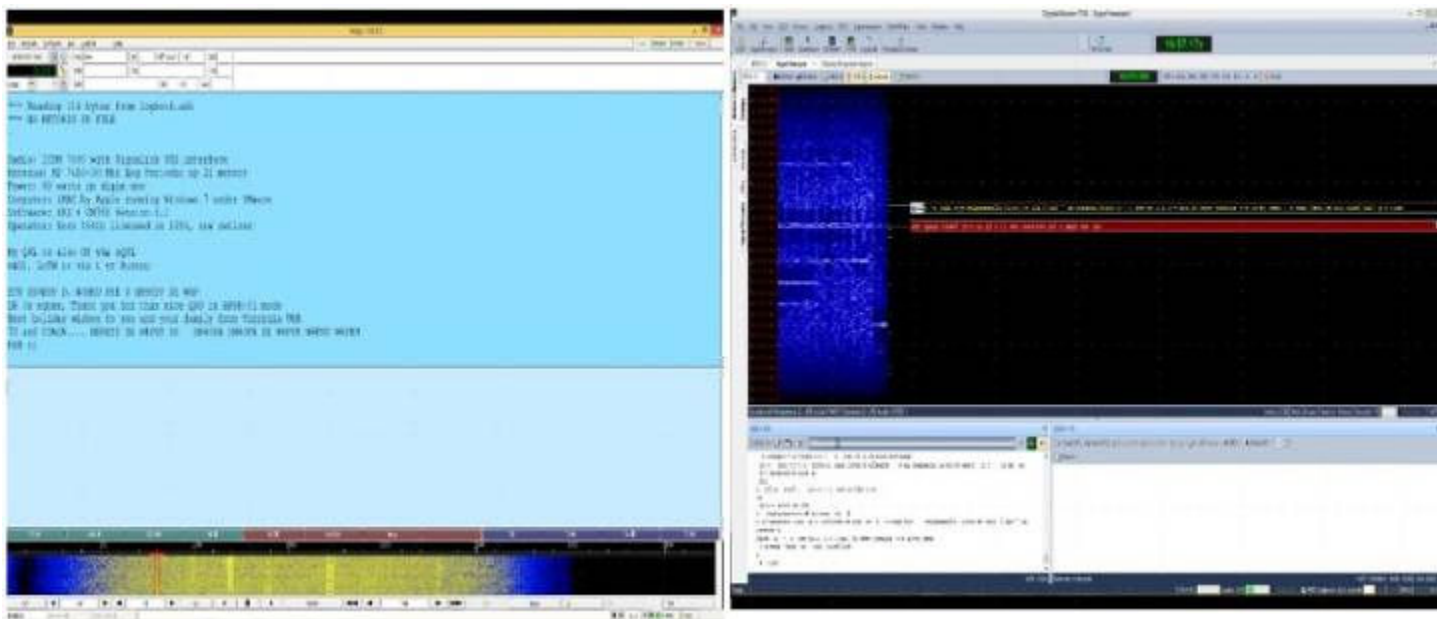
Signalink USB



RigBlaster

(Continued on Page 12)

Below is a screen-shot of two programs Fldigi on the left and Dm780 on the right showing PSK31 decoding in the waterfall to text on the screen.



Here is a SSTV picture sent to me by W9EXP, and in the lower left corner of the picture is the one he received from me and sent it back inside his picture so I could see how it turned out on his end.



As you can see there is a lot you can do in the Digi-modes portion of this hobby and you can have a lot of fun doing it. There is something for everyone, and if you get time, check it out and you may like it or you may find it is not for you. I thought it wasn't for me before I tried it, but I was wrong and I operate Digi-modes all the time now! If you have any questions about setting up there is usually someone on the club repeater that would be glad to help.

73 everyone and hope to see you on the waterfall sometime!

N2JCS-Gary Dudley

“S” METERS AND OTHER INFO

By Harry Dannals, W2HD

*Reprinted from Albemarle Amateur Radio Club's
“AARC Bulletin”*

It was many decades ago when I first looked at an “S” meter on my Dad’s receiver and learned that the reading was an indication of the strength of the other station’s signal at our location. It was years later that I learned that an S-9 signal was the reading when a signal was 50 micro-volts at 50 ohms receiver input impedance. This was not a mandated standard, but a standard that was accepted by many of the receiver manufacturers at that time. In fact, a Collins receiver S-Meter (and the Collins name was related to really true excellence in those days) as shown in a Web picture was indeed meeting that accepted standard. S-9 was at the center of the meter scale. Other manufacturers of quality equipment in the early ‘50’s also displayed the same status.

Further research into the history of the non-mandated standard shows that in 1981 the International Amateur Radio Union (IARU) of Region I (Europe and Africa) agreed on a technical recommendation for S-Meter calibration of transceivers supporting the earlier S-9 recommendation. This same report also confirmed the idea that an “S” unit on such meters should represent 6 decibels (dB) which is equivalent to a power ratio of 4 times. Also included was a statement that signals stronger than S-9 should be shown as an additional 10 decibels and stated verbally as S-9 plus 10dB or more if the signal is very, very strong. There are transceivers manufactured today by reliable companies which show such figures.

The above is really a background description of a little history for information purposes. The reason for its inclusion is to express some points on relative strength of our radio signals as received at the other stations we contact.

You will hear some interesting comments on the air about increasing signal strength and methods for

achieving this improvement. There is a prominent manufacturer of transceivers who sells a unit which has the ability to go from 100 watts to 200 watts output. Wow, isn’t that great! However, simple math shows that twice the power is only an increase of 3 dB. Is that worth the half “S” unit change at your receiver. Well, it could be under some conditions, but is seldom worth giving up some other feature in the transceiver.

Four times the power provides a worthwhile improvement resulting in one “S” unit increase and that represents a point to be considered. However, an amplifier to give that increase is probably a 500-watt unit and costs a bit more than you may wish to spend.

Going a bit further with improving that “S” meter reading, a really big improvement is looking into the antenna system. A lightweight multi-band beam is not as expensive as the amplifier and can produce results which exceed the amplifier performance and give you an added improvement in reception by putting your signal into the position for 360 degree effectiveness! Of course there are band considerations because beams for the lower HF bands become a bit more difficult to accommodate.

Incidentally, I run a KW and a beam which gives me almost two “S” units in power alone, but I use that power on one band only. Most of the time, my needs are met with 100 watts or less and QRP operation is still one of my favorite operational practices. In New York, all 48 States were worked with 3 watts, and after moving to Virginia all 50 States were worked with the same power and Worked all States was then 50.

One final word about POWER... Don’t go to that extent until you have looked into other options. It costs more in equipment investment and the cost on your electric bill. You can still have lots of fun with lower power and the feeling of accomplishment under those conditions.

73 /s/ Harry, W2HD

Did I read that sign right?



Something Went Wrong in Jet Crash,
Expert Says
Really? Ya think?

Police Begin Campaign to Run Down Jaywalkers
Now that's taking things a bit far!

Panda Mating Fails; Veterinarian Takes Over
What a guy!

Miners Refuse to Work after Death
Good-for-nothing' lazy so-and-so's!

Juvenile Court to Try Shooting Defendant
See if that works any better than a fair trial!

War Dims Hope for Peace
I can see where it might have that effect!

If Strike Isn't Settled Quickly, It May Last Awhile
Ya think?!

Cold Wave Linked to Temperatures
Who would have thought!

Enfield (London) Couple Slain; Police Suspect Homicide
They may be onto something!

Red Tape Holds Up New Bridges
You mean there's something stronger than duct tape?

Man Struck By Lightning Faces Battery Charge
He probably IS the battery charge!

New Study of Obesity Looks for Larger Test Group
Weren't they fat enough?!

Astronaut Takes Blame for Gas in Spacecraft
That's what he gets for eating those beans!

Kids Make Nutritious Snacks
Do they taste like chicken?

Local High School Dropouts Cut in Half
Chainsaw Massacre all over again!

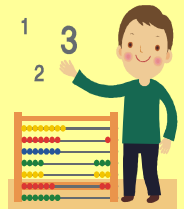
Hospitals are Sued by 7 Foot Doctors
Boy, are they tall!

And the winner is....

Typhoon Rips Through Cemetery; Hundreds Dead
Did I read that right? ■

Membership Count:

1st Thurs. in June.....	195
Gain/Loss.....	+1
1st Thurs. in July	196



YARC Officers for 2014

President

Don Bauer, WB7TPH
president@w7yrc.org

Vice President

Rex Mauldin, N7NGM
vice.president@w7yrc.org

Secretary

Forrest Murdock, WH6EAL
secretary@w7yrc.org

Treasurer

David Hanson, W7BJ
treasurer@w7yrc.org

Board of Directors (includes Club Officers)

Creighton Grotbeck -- AD7YR

Ralph Gendron -- W7HAM

Bob Rosevear -- WB7RRQ

Tom Griswold -- WN7E

Newsletter Editor: Joe Oliver, AC6AA
newsletter@w7yrc.org

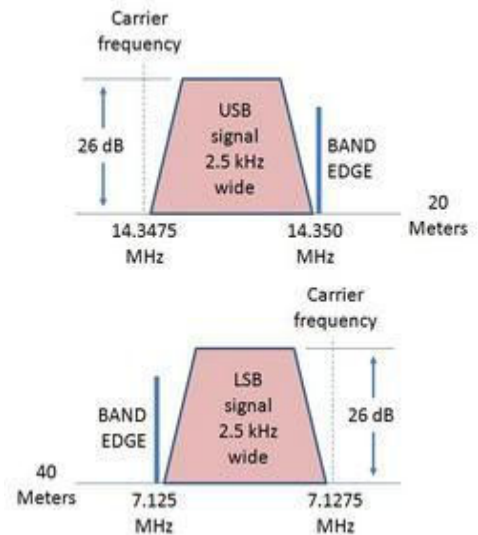
Word to the Wise

Band segments - guess what, the US phone band on 40 meters stops at 7125 kHz but you can't set your radio's displayed frequency there! Why not? On LSB, your sidebands extend below the carrier frequency shown by your radio and you have to keep them above the segment's edge, as well.

With a well-adjusted rig, you can probably operate as low as 7127.5 kHz but don't push it! And remember to double-check your transmit frequency when calling a station operating split outside the U.S. phone band. That practice is quite common on the crowded 40 meter band: there may be a QSO in progress on that frequency and some U.S. hams have been known to forget and call DX stations on their transmit frequency. Oopsie!

Do you know where your sidebands are? Make sure you keep all of your signal inside the band and inside the band segment for phone!

From the ARRL Contest Update



Upcoming Events

- **August 8, 2014** - VE Testing
- **September 6, 2014** - March of Dimes, March for Babies.
- **September 21, 2014** - Skull Valley Loop Challenge.
- **September 27, 2014** - Groom Creek Classic 1/2 Marathon, 10K, 5K, 2 mile.
- **October 3rd and 4th 2014** - Prescott Road Rally.

Need Cards Checked for ARRL Operating Awards?

Jim Zimmerman, N6KZ can check your QSL cards for DXCC, WAS, VUCC, WAC, etc.

For information contact Jim at: (928) 713-0542.

Jim's QTH is at: 778 Grapevine Lane,
Prescott, AZ 86305.

VE Testing

By Don Bauer, WB7TPH

The next chance to upgrade or get that new ham license will be the evening after our August meeting. Friday, August 8th, at 6:00 PM at the Jeep Posse Building.



Need a Hand?

If you need assistance, we want to help you. If you are just starting out in ham radio, or simply have run across something that you could use a hand with... technical assistance or answers to questions about the Yavapai Amateur Radio Club, are available from knowledgeable club members.



Don't Hesitate to Ask for Help!!

CALL:

Bud Semon, N7CW at: (928) 771- 8267

or

Jim Zimmerman, N6KZ at (928) 713- 0542

BALLOON LAUNCH 7- 19- 2014 WILLIAMS



E.R.A.U. does this several times a year.. Students build the payload and recover them when they land.. Great fun for the kids and the old HAMS !!

More pictures of the Balloon Launch (courtesy of Bob Rosevear, WB7RRQ) can be found at: <http://tinyurl.com/kblvtm4>

2014 ARCA/ WILLIAMS HAMFEST



Photos showing the YARC Booth.

More photos of the Hamfest can be found (courtesy of Bob, Rosevear, WB7RRQ) at:

<http://tinyurl.com/nghf8m5>



Area Repeaters

Weekly Breakfasts

Wed. Morning Breakfast:
7:00 a.m. at Iron Horse Restaurant (Hwy 89 in Chino Valley)
 * (N 34°43'56.5" W 112°27'15.4")
informal – all are invited

Breakfast at Masonic Lodge:
3rd Saturday of each Month
at 9:00 a.m.

(1280 Willow Creek Road, 2nd Floor; above Bank of America)
informal – all are invited

* Location data (per WGS84) provided by Fred Zimmermann, N7PJJ

Area Packet Node Station Frequencies.

See http://www.k7yca.org/packet_radio.htm for a list of Winlink nodes and gateways "

Y.A.R.C. IRLP NODE
Node Number 3182
146.100 MHz No PL Tone

Freq.	PL	Location	Owner/ Club	Auto-Patch	Links	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			IRLP	Node 3301
144.390	Simplex						APRS- www.aprs.fi
145.290-	127.3	Mingus Mtn.	K7YCA				ARES/RACES
145.350-	162.2	Wildflower	W7QHC				Dawn
146.620-	162.2	Yarnell Hill	N7YKT				H.A.R.K.
146.760-	131.8	Hayden Peak	N7SKO				WECOM INC
146.780-	91.5	Bill Williams Mtn.	K7NAZ			IRLP	BWMRC LITZ, 3178
146.880-	100.0	Prescott Heights	W7YRC				YARC
146.920-	162.2	Mount Ord	W7MDY				ARA
146.980-	162.2	Mt. Elden	W7ARA				ARA
147.000+	162.2	Mingus Mt.	K7MRG				MMRG
147.140+	162.2	Mt. Elden	W7ARA				ARA
147.220+	162.2	Mingus Mtn	W7EI				VVARA LITZ
147.260+	103.5	Mt. Union	K7YCA				ARES/RACES
147.260+	127.3	Mt. Francis	K7YCA				ARES/RACES
147.360+	162.2	Mt. Ord	W7MDY				ARA
442.150+	100.0	Mingus Mtn	K7MRG				MMRG
446.025	Simplex		N7NGM			Echo	
448.475-	100	Mt. Elden	W7ARA				ARA
448.875-	100.0	Mt. Elden	W7ARA				ARA
449.250-	192.8	Chino Valley	K7POF				
449.7250-	107.2	Mingus Mtn	K6DLP				
927.0875-	151.4	Mingus Mtn	WB7BYV				
927.3875-	151.4	Prescott	WB7BYV			Echo	ARA



T-Hunt Frequencies:
Primary - 145.100 MHz
Secondary - 146.565 MHz

For more Repeater Information & Listings refer to: ● www.w7ara.org/Web/
 ● www.azrepeaters.net

YAVAPAI AMATEUR RADIO CLUB

P.O. BOX 11994

PRESCOTT, AZ 86304

Visit us on the web at <http://www.w7yrc.org>

Many thanks to Dick Hughes, W6CCD, our Webmaster

