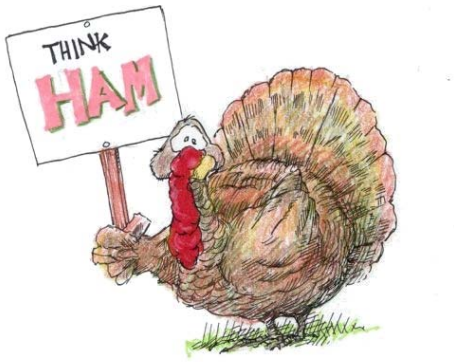
Happy Thanksgiving!



L.A.R.A. Newsletter November 2016

Newsletter Editor: Ron, KF5OMH, rfavcon@verizon.net, 972-742-7839
Membership items: Sharon, KE5JUI, ke5jui@arrl.net, 972-900-2899

From the Prez

Wow it's already November and there is a lot to look forward to. The end of the Technician class was on Nov. 6 and the test on Saturday Nov. 12 at 11:00 am at Central Fire Station.

I would like to wish Bob Burkett, K5DCZ, the best in his move to be closer to family but, he will be missed as the teacher of our classes and as our VEC. Thanks Bob for all that you have done for the club and the mentoring of new hams.

I would like to see more of our members come out to some of the events; it seems to be the same folks at all the events and I would like to thank all of those folk who are always there.

We have a great event coming up Dec.3 Holiday at the Hall and the Holiday Stroll where we will have a club booth throughout the day then at 5:30 pm we'll turn it into a place for the kiddos to talk to Santa. It will be loads of fun.

On Dec.10 will be having our Christmas Party at Landmark Grill. 73' Len

Holiday Happenings

Holiday at the Hall/ Holiday Stroll

December 3, 1000 – 1730 Info/PIO booth. Need willing hands to man the booth throughout the day. Sign up HERE.

Talk with Santa

December 3, 1730 – 1930 at the Info/PIO booth. Need some Santa's helpers and a 2M rig to help the kiddos talk to "The Man" Sign up HERE.

Christmas Party

December 10, 1800 hrs. at Landmark Grill, 1297 Justin Rd (407). Sign up HERE

IN THIS ISSUE

L.A.R.A. Newsletter
Is published each month for the purpose of informing L.A.R.A. members of current events and issues of interest to the membership. Articles and suggestions are always welcome. Articles that appear in this publication may be reproduced provided credit is given to *L.A.R.A. Newsletter* and to the original source.

JOTA Wrap Up

By: Ron, KF5OMH

If you were not able to make the Boy Scout Jamboree-on-the-Air (LARA business meeting) you missed out on a fun day. Even though we only had five scouts attend they all had the opportunity to get on the air and we all had a great time.

The story of the day was a young man named Robbie who was extremely shy and didn't want to leave his dad's side. Eventually with the encouragement of Steve, W5JK Robbie moved into the operator's chair and was talking on the air to a group of scouts in Virginia. He had a little difficulty getting used to using the club call sign phonetically but once he got his mind wrapped around it he put a "sing-song" twist on it that made us all smile big time.

The other four boys made contacts in Little Elm, Tucson, and Utah. They all appeared to have a good time and we may even have a couple of new students in the next Technician class (maybe boys and parents).

Special thanks to the following members:
Steve, W5JK for having the patience of Job while working with the boys.
Jim, WB8YWA for setting up the "Horton Electric Company" to provide power to stations in the shelter area and for being the scribe for Steve's operations.
Jim, K5VZ for providing the delicious pulled pork for lunch.
Dan, KE5CIR and Sharon, KE5JUI for bringing out the RAT RIG, setting it up, and manning the PIO station.
Dale, WA5WNI for being prepared to work with boys on the Radio merit badge. Sorry we didn't have any takers though.
John, KF5FOX for being the official greeter and working with each of the boys on the phonetic alphabet.

Thanks to the following members for being available to help when help was needed on numerous other tasks:
Len, KC5MPX; Brian, KC5MPY; Mike, W5EVT; Tim, WZ5TM; and Bryan, KD5LDK. My apologies if I missed anyone.

Finally, many thanks to those who provided various equipment such as radios, power supplies, antennas, etc. It takes a lot of time and effort to transport, set up, and take down all of that equipment.

A final VERY SPECIAL thanks to the Lewisville Parks and Leisure Services Department and City Council for waiving the user's fee on the shelter for the day; and to the Lewisville Fire Department for allowing us to use the Mobile Command Vehicle for the day.

DIY Antenna

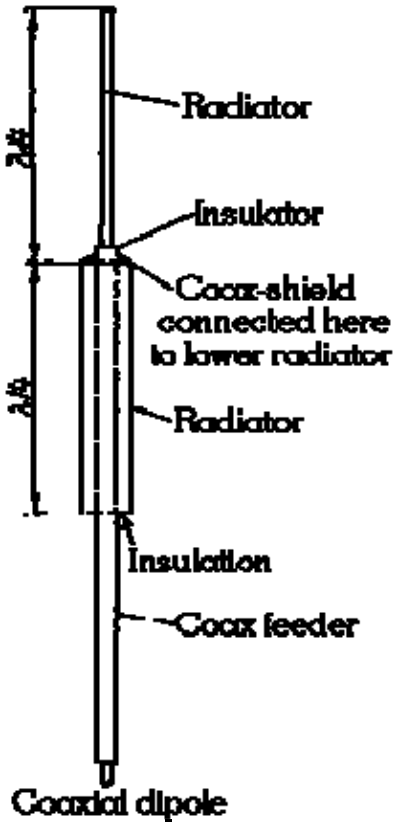
By: Jim, WB8YWA

Easy, Fast, and Fun Antenna Project

Here is a very simple antenna you can make to get on the air fast.

It can be made out of RG8, RG8x or RG58 coax. NOTE: It sound be of the plastic inter type and not the form type.

For the length of center conductor and folded back shield use this calculation -- 234/F MHz



So to make a coaxial dipole for our repeater you would take; 234 / 144.570 (transmit freq.) = 1.61859 feet (1.61859 X 12 = 19.423 inches). This gives you the ¼ wave length.

Here are a couple of tricks –

1st increase size 20% - when folding shield back since it is over outer black insulation it will take more length. You can also add a piece of wire to bottom of shield to obtain create length.

2nd you will need top section a little longer to form a small loop to hold antenna in the air with rope or hook.

3rd You should seal the joint where center and shield come apart to keep water from going down into coax. Any water proof seal will work.

4th I covered complete shield just above this joint with heat shrink tubing to protect shield but is not needed.

5th Install a PL-259 on the other end and you have a new antenna.

6th Adjust top section for length to obtain lowest SWR. Note: SWR will be lowest lower in frequency because of extra 20% length. You do not need to adjust the shield as long as it is at least the ¼ wave length.

You can make this antenna for any ham band but becomes too expensive for antennas of greater length. Coax cost more the THHN wire you can obtain at Box Stores. (Lowes / Home Depot)

Works great for 10 meters and up. Go have fun.

ARES Reminder

Just a friendly reminder for those of you who recently joined Denton County ARES. In order to keep your membership current you must attend a SKYWARN training session and complete the FEMA IS-100 and IS-700 training courses within the first year of your membership.

SKYWARN training is conducted by the National Weather Service during the first few months of the year or you can take an online course anytime. Links to the required training are in the Training section of the Newsletter.

In reviewing the membership roster there are several of our members who appear to require the basic training. Want to know the status of your required training? Click here.

Upcoming Events

Go to the L.A.R.A. web site – click here
Scroll down on the home page to reach the Upcoming Events calendar.

L.A.R.A On-Line

Web site – click here

By-Laws -- By-Laws

SOP --SOP

CROSSWORD PUZZLE

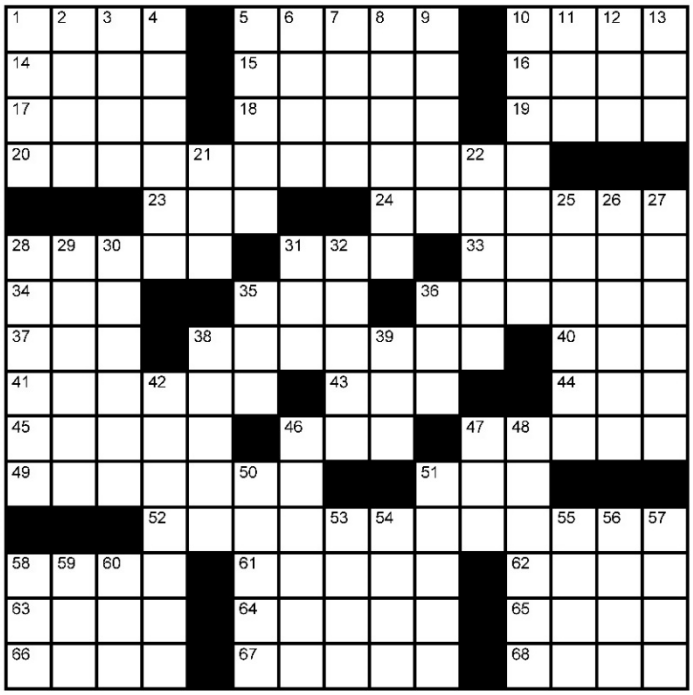
Special thanks to Steve, W5JK for this great idea.

A new monthly feature of the Newsletter will be a Ham Radio related crossword puzzle. Look elsewhere in this Newsletter for the answer key.

All puzzles are published with the permission of the author.

by Chris Codella, W2PA 7/15/2009

Ham Humor, Part 1



Across

1. Four after A
5. High frequency prefix
10. Two is one
14. Dubai designator
15. Best condition for contesting, or tower climbing, say
16. ZS neighbor's prefix
17. AI language
18. Diminish
19. FET type
20. With 41 and 52 across, society highlighted in 36 across and founded by 31 down
23. VE2 way
24. They make some displays play
28. Skedaddles
31. Buzzer (non-RF)
33. 5N dough
34. Mint alt., on eBay, e.g.
35. "Excuse me", low in the band
36. QST department
37. React. plus res.
38. Hams love them
40. Bird word
41. See 20 across
43. Owns
44. Coffee maker
45. "Sesame Street" regular
46. Cut 100
47. Salad green
49. Kane's word
51. "QRZ?"
52. See 20 across
58. N.Y.C. part
61. 4W, was CR8 during the time of 31 down writing 36 across
62. Tuvalu
63. Houston university
64. 31 down's prefix
65. She sheep
66. Rotating rings for towers
67. "Yes, Sen. Kennedy", familiarly
68. Zero

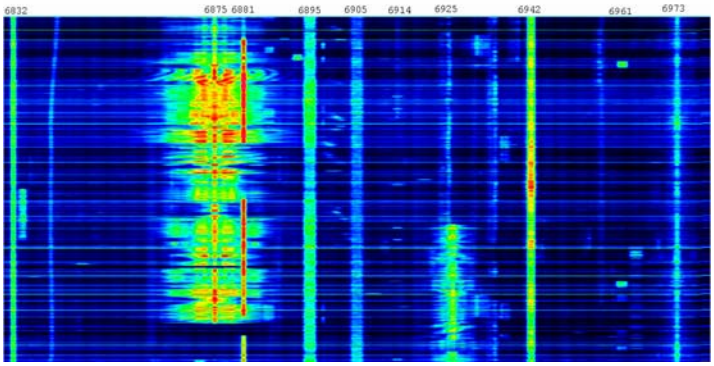
Down

1. Unadorned
2. Nassau prefix
3. EME antenna
4. IC-7800, say, in JA
5. Grammar topic
6. Radiation pattern feature
7. Ski lift
8. Respond again, on RTTY, say
9. "He's ___ nowhere man"
10. Tool for reducing spectrum width?
11. 20's dispenser
12. JA transceiver maker middle
13. Don'ts partner
21. Famous DXpedioner, when 31 down wrote 36 across, familiarly
22. Trillions of zeptos
25. Goof
26. Passions
27. 5th century G-land settlers
28. Last second on-line bidder
29. D6 place
30. Poplars, in W0, say
31. Callsign suffix of one time 36 across writer and creator of 20 across.
32. Zero zulu in two-land June
35. Articulate
36. Very popular examples of 38 across
38. Early radio maker
39. Fast no more
42. Decorates 60's-style
46. "...like taking _____ from a fire hose." (information overload)
47. Half a Latin dance
48. T.O.M.'s series of articles
50. Where the DX might be listening
51. Kit alternative
53. Radiate
54. UHF antenna type, with dis-
55. Prefix in Lombardia
56. First astronaut ham, familiarly
57. Well known DXer KH6IJ when 31 down ran 36 across
58. Disp. device before LCD, LED
59. Early first century year
60. Inter-area NTS org

Digital Communications

By: Erick, KO0M

Let's just jump right in with a picture to make your head start spinning…better run and get your duct tape….



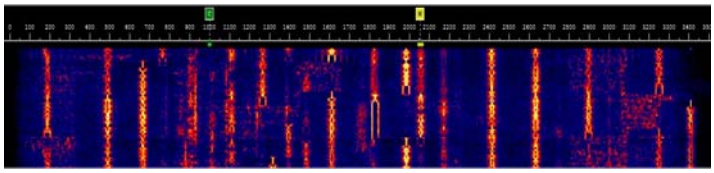
You're asking yourself what the sam devil is that mess…Well, by the end of my several articles I hope to help you out of the bramble patch and on the path of digital communication…..let's begin.

The above picture is what is known as a 'waterfall' in my opinion kind of a weird name as I don't know many waterfalls that go backwards…but that's their name and we will just go with it here as well. Each of the green items in the picture is a signal type of some kind. Either a carrier or carrier with encoded and or encrypted data, you have to be able to tell what the data is. What you say, how do I do that…well, we will examine how in the next round. I really don't want to get into the why and how or all the arguments against digital as a method we use in Ham radio. It's here, we are using it successfully and in my opinion it's a way to get out farther with less spectrum and less power…in other words more people can use the channels without walking over the top of each other. Why is that? Well, digital can use a smaller portion of the band and can have several things going on at the same time. I said **can** as some digital modes are HOGS of the spectrum and thus chew up a lot of space, with that said let's get to the brass tacks.

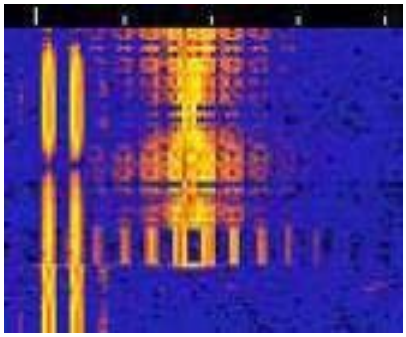
Signal Identification…Does not come easy and is full of pitfalls, as it, depending on your station and where your antenna points or does not point. You can get a false picture of the signal and thus it tricks you into picking the wrong signal pattern decode method.

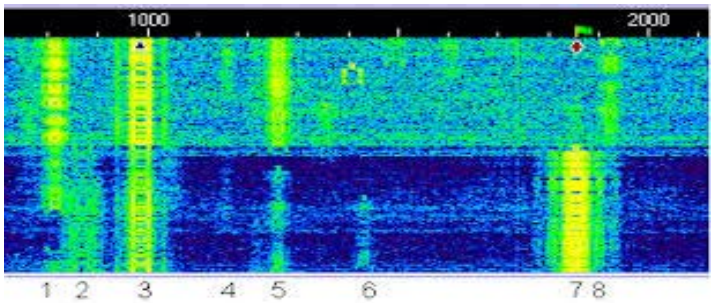
Let's go through some signal identification…

PSK31 – (Phase Shift Keying) I think is the most popular of the newer digital modes. Because PSK31 has a bandwidth of only 31Hz, many signals can fit into the same bandwidth that would be occupied by an SSB signal (2.4 kHz approx.). It is quite common to see 15 or more signals on a 2.5 kHz waterfall display and is why it can trick you as to what it identifies as.



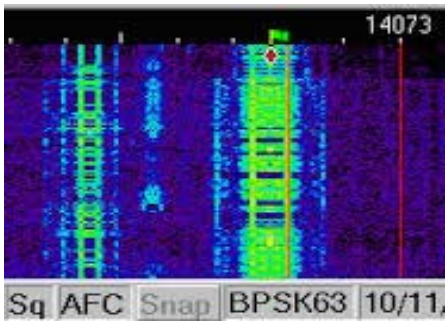
This is what a clean signal waterfall looks like for PSK31…note the Matrix like look it has…I changed my screen to green and it's really scary how close it looks….oooohhh.





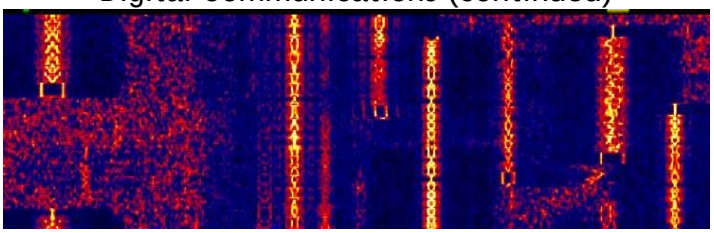
These PSK signals are very distorted and are drifting badly, probably due to atmospheric conditions or possibly equipment that is having an issue of some kind. Note the malformed little symbols compared to the one above…in other words the Blurry Matrix.

PSK63 – This is what I call the PSK of the Fat Boy Club as data is sent and received at twice the rate of normal PSK31, great for chatting and contest exchanges. Well, like all fat boys it takes up more room (bandwidth) and more power to maintain its ability to be copied.



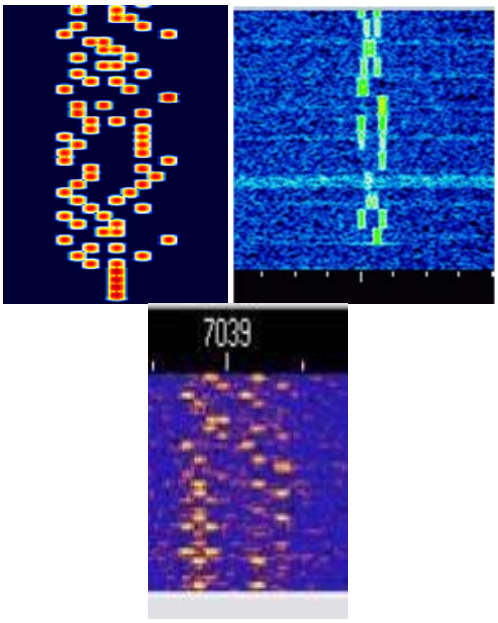
Continued on next page

Digital Communications (continued)



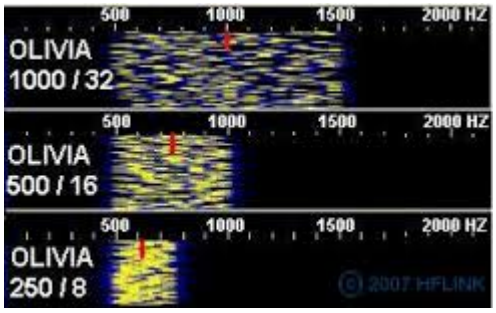
As you can see here the Extended PSK signal is fatter than the PSK31 thus it contains more data and info; more error checking to make sure it gets to the other side intact.

THROB – Is another signal type that uses a pair of tones; kind of like the old computer modems we used to have. It uses a method of what is called 'the decode of tone pairs'. The speed of communication with this method is slower than other modes but, there is much work being done to improve the sending and receiving of this method. I mention this mode as I have seen it on several occasions and I find it difficult to process and translate.

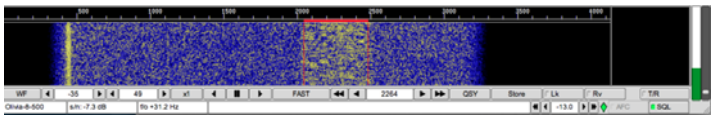


As you can see it's very blocky looking signal; very easy to identify. The one on the left is a very clean image for pattern recognition; the others are what you are going to see on your waterfall.

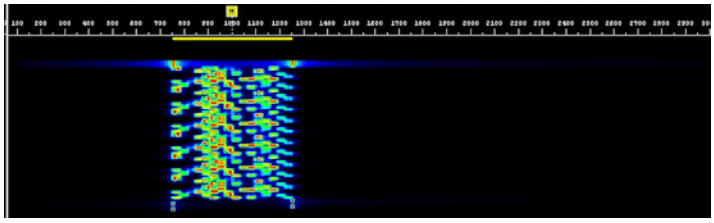
Olivia – is another mode that has found its place in that it is very resistant to fading and QRM. You can get a copy on signals that look like nothing more than static on your waterfall display. As we will find together there are also several variants of this mode as well, each having different tones or frequencies it uses. The bad thing about Olivia is that it can be VERY SLLLLLOOOOOWWWW. Take a look at the pictures below to get a better idea of what it looks like.



A brief example of some of the modes.



One of the modes in the ocean of noise on the planet.



Another view of the signal with it cleaned up and noise eliminated…looks kind of like THROB does it not?

Hopefully that little bit got your appetite going for getting on digital and at least seeing what you can find out there. All you have to do is get a waterfall program installed on a laptop and then you will need some kind of audio conversion box like a SignalLink or a RigBlaster. These all hook up differently to each and every radio known to man so covering it here would be like writing a novel the size of "War and Peace". If you have problems, I or other Hams into digital will be more than happy to help you out.

We are fast approaching the Thanksgiving holiday season, a time to spend with family and friends. Don't forget those around you who may not be able to travel or who do not have family close, give them a call, or drop by to see them…I'm sure they and you will benefit from the visit. The Biggest thing enjoy yourselves, don't eat too much (ha ha) and may peace walk with you every day. I look forward to our next visit and will see you somewhere in the Bits and Bytes of the world we live in….73.

October Meeting Minutes

Recorded by Jim, K5VZ

LARA Meeting Minutes 10/15/16

President Len Shipp KC5MPX, called the meeting to order at 0808.

Officers in Attendance:
President: Len Shipp KC5MPX
Vice President: Jim Lavin K5VZ
Secretary: Allyssa Shipp KG5DAS
Treasurer: Sharon Howard KE5JUI

Attendance:
Members:
Ron Ford KF5OMH
Mike Reitz W5EVT
John Lundy KF5FOX
Dale Chatham WA5WNZ
Brian Ulmer KC5MPY
Steve Kline W5JK
Kent Moore KG5MFJ
Jim Horton WB5YWA
Clark Highsmith K5LGX
Dan Howard KE5CIR
Tim Monk WZ5TM
Guests:
None

New Members Joined:
None

Meeting Minutes from last meeting:
Past meeting minutes were approved as posted on the website.
Motioned by: Dale Chatham WA5WNZ
Seconded by: Jim Horton WB5YWA
Approved by the members

Treasurer's Report was given by Sharon Howard KE5JUI:
Balance of $2069.83
Motioned by: Allyssa Shipp KG5DAS
Seconded by: Brian Ulmer KC5MPY
Approved by the Members

Technical Report as given by Len Shipp KC5MPX:
222 repeater. 224.08 -1.6
Motioned by: Allyssa Shipp KG5DAS
Seconded by: Mike Reitz W5EVT
Approved by the Members

New Business:
Junk Box needs restocking - Jim Horton
Event T-Shirts - $25
Eddie Bauer shirts $45 with club logo and call sign
Christmas Party Suggestions
Landmark Grill
Motioned by: Jim Horton WB5YWA
Seconded by: Dale Chatham WA5WNZ
Approved by the Members

Old Business:
JOTA - happens right after meeting
Our Seva - Oct 22
SOP - Meeting place and time:
3rd Saturday of the month at Central Fire Station or as directed. Officers meetings will be as needed and will immediately follow the regular meeting
Motioned by: Allyssa Shipp KG5DAS
Seconded by: Dale Chatham WA5WNZ
Approved by the members

Motion to close meeting made by: Mike Reitz W5EVT
Seconded by: Allyssa Shipp KG5DAS
All members approved
Meeting closed at 08:25

L.A.R.A. Officers

Position	Name	Email
President	Len Shipp	kc5mpx@gmail.com
Vice President	Jim Lavin	jlavin@jimlavin.net
Secretary	Allyssa Shipp	allyssashipp@gmail.com
Treasurer	Sharon Howard	ke5jui@arrl.net
Technical Officer	Erick Guzowsky	zaphod1@swbell.net

HOT NEWS

Just a reminder from the October Newsletter. The Amateur Radio Parity Act HR1301 passed the US House and is headed to the Senate for vote. This is exciting news for amateurs in restricted areas for antennas. It's gaining momentum now, so please go to the ARRL website to draft a letter to both our Senators to urge the passing.
Interested in learning about how repeaters work?

Repeaters?

As we build our 220 repeater, you have an opportunity to learn how repeaters are built and work. We are looking for members who want to learn to manage and repair the repeater. If you are interested send an email to Jim Lavin, K5VZ at jlavin@jimlavin.net.

Training

Skywarn Training

Storm spotter classes are conducted by the National Weather Service and are required biennially.

An online course is also available if you missed the local class.

FEMA - IS-100.b Introduction to ICS

FEMA - IS-700.a National Incident Management System (NIMS), An Introduction

West Gulf Division - ARES Standardized Training Plan Task Book

W1AW Winter Schedule

Source ARRL Bulletin 40, ARRL Headquarters, via Steve, W5JK

W1AW 2016/2017 Winter Operating Schedule, 11/7/16

Morning Schedule:

Time	Mode	Days
1400 UTC (8 AM CST)	CWs	Wed, Fri
1400 UTC (8 AM CST)	CWf	Tue, Thu

Afternoon/Evening Schedule:

Time	Mode	Days
2100 UTC (3 PM CST)	CWf	Mon, Wed, Fri
2100 UTC (3 PM CST)	CWs	Tue, Thu
2200 UTC (4 PM CST	CWb	Daily
2300 UTC (5 PM CST)	Digital	Daily
0000 UTC (6 PM CST)	CWs	Mon, Wed, Fri
0000 UTC (6 PM CST)	CWf	Tue, Thu
0100 UTC (7 PM CST)	CWb	Daily
0200 UTC (8 PM CST)	Digital	Daily
0245 UTC (8:45 PM CST)	Voice	Daily
0300 UTC (9 PM CST)	CWf	Mon, Wed, Fri
0300 UTC (9 PM CST)	CWs	Tue, Thu
0400 UTC (10 PM CST)	CWb	Daily

Frequencies (MHz)
CW: 1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 147.555
DIGITAL: 3.5975, 7.095, 14.095, 18.1025, 21.095, 28.095, 147.555
VOICE: 1.855, 3.990, 7.290, 14.290, 18.160, 21.390, 28.590, 147.555

Notes:
CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM
CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM
CWb = Morse Code Bulletins = 18 WPM
CW frequencies include code practices, Qualifying Runs and CW bulletins.

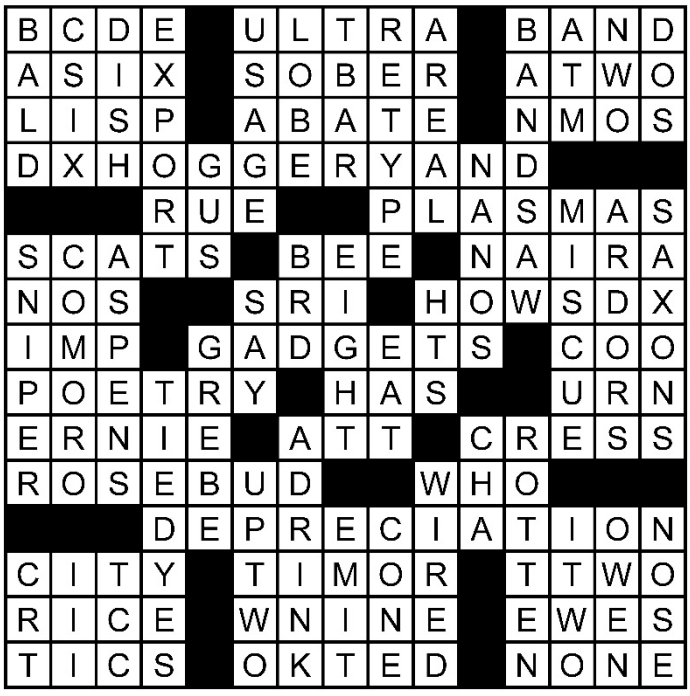
DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Beginning in January 2017, the voice mode used for W1AW's 40 meter voice bulletins will be full-carrier, double-sideband AM.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (5:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (7 PM CST) Thursdays and 0100 UTC (7 PM CST) Fridays.



Area Repeaters

Courtesy: DCARA *EXCITER* Newsletter

Freq.	Shift	PL	Call	Name
145.1700	-.600	110.9	W5FKN	DCARA-Denton County EOC
145.2100	-.600	110.9	N5MJQ	Metrocrest ARA-Carrollton
145.4000	-.600	110.9	NETARC	Grapevine
145.4900	-.600	85.4	WD5U	Rosston Tower
146.9200	-.600	110.9	W5NGU	DCARA - Denton
147.300	+.600	114.8	N5ERS	Flower Mound
147.3800	+.600	110.9	K5LRK	LAARK - The Colony
224.000	-1.6	110.9		LAARK - The Colony
224.920	-1.6	110.9	AF5RS	AF5RS
441.3250	+5.0	88.5	W5NGU	Portable DCARA repeater
442.7500	+5.0	110.9	KA5R	Trophy Club
444.5125	+5.0	123	KE5UT	Celina
442.1750	+5.0	110.9	NETARC	Southlake
442.6500	+5.0	110.9	N5MJQ	Metrocrest ARA-Carrollton
443.3000	+5.0	110.9	K5LRK	LAARK-C4FM on*ly*
443.5250	+5.0	118.8	WA5LIE	DCARA - Denton
443.7375	+5.0	141.3	N6LXX	Rosston Tower
443.8750	+5.0	110.9	NETARC	DFW Airport
444.0500	+5.0	110.9	W5NGU	DCARA-Denton County EOC
444.2250	+5.0	110.9	K5CFD	Coppell
444.7000	+5.0	110.9	NETARC	Southlake
444.8500	+5.0	110.9	N5ERS	Flower Mound
927.025	-25.0	D532	N5ERS	Flower Mound
927.4125	-25.0	432	N5LS	Denton
927.6125	-25.0	110.9	W5NGU	DCARA-Denton County EOC
927.1375	-25.0	131.8	W5FKN	Decatur
1253.6000	none	none	W5NGU-G	DCARA - EOC - D*Star "G"
1293.4000	-20.0	none	W5NGU-A	DCARA - EOC - D*Star "A"
442.9250	+5.0	none	W5NGU-B	DCARA - EOC - D*Star "B"
147.4500	-1.0	none	W5NGU-C	DCARA - EOC - D*Star "C"
1259.2000	none	none	KE5YAP-G	DCARA-Rosston- D*Star "G"
1293.2000	-20.0	none	KE5YAP-A	DCARA-Rosston- D*Star "A"
440.7125	+5.0	none	KE5YAP-B	DCARA-Rosston- D*Star "B"
147.4900	-1.0	none	KE5YAP-C	DCARA-Rosston- D*Star "C"
DIGITAL	====	====	==========	==========
144.9100	none	none	W5NGU-4	DCARA Digipeater-Denton
147.970	none	none	K5YX-10	WinLink Gateway
144.990	none	none	KC5GOI	DCARA Digipeater-Rosston
144.990	none	none	KD5EOC-10	DCARA WL Gateway