



L.A.R.A. Newsletter January 2017

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From the Prez

Happy New Year!!!

Hope everyone had a Merry Christmas and a Happy New Year. If you missed out on the Christmas Party it was great evening and all there had fun. Thanks Jim, Dan, Sharon, and Allyssa for all the help with the party.

I'm really excited about the Winter Field Day at Lake Park. I'm hoping to see all of you guys and gals come out and operate and have fun and enjoy hanging out with fellow hams. Bring a friend, make contacts, and have fun; did I say have fun.

I have to say thanks to K5VZ for all of his hard work on the 220 repeater. Jim has put many hours and late nights to get the repeater back up and on the air. Yes, 224.080 is back up and on the air. Try it out sometime. See the repeater list elsewhere in the Newsletter for PL tone and offset info.

73' see you on the air.
Len, KC5MPX

Winter Field Day

From: winterfieldday.com

Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer but with some additional unique operational concerns.

We believe as do those entities of ARRL Organizations like ARES & RACES that maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFDA is open to all licensed amateur radio operators worldwide.

Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall, and winter.

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Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.

LARA will participate in this event from 1400 hrs. Saturday January 28 through 1400 hrs. Sunday the 29th. We'll be located at the pavilion on the north end of the camp ground at Lake Park. Contact Len, KC5MPX with questions and/or comments.

Information and Tips for adjusting SWR on your Antennas

By: Jim, WB8YWA

Things to know:

1. The lower in Frequency the longer the antenna length.
2. The higher in Frequency the shorter the antenna length.
3. Lower frequency antennas have narrower bandwidth. Meaning SWR will be low only in a narrow window of the band. Higher in frequency the antenna will have a larger bandwidth.
 - a. 160 or 80 meters might only have 30 to 50 KHz bandwidth, if that. (This is the reason we have antenna tuners for these bands.)
 - b. Whereas 2 meters can have 2 MHz or more bandwidth.
 - c. Think about that, 2 MHz is 10 times the frequency of all of the 160 meter band.
4. The larger the diameter of the antenna, the larger the bandwidth of the antenna will be.
5. Cutting ¼" off of a two meter antenna can change the resonant (low SWR) frequency by many KHz, whereas; on 160/80/40 it takes inches or feet.
6. A trick I learned is when you get the antenna close but it still needs trimming, just trim one side of the dipole. Unknown reason to me, but I can obtain lower SWR by this method than trimming each side in exact equal lengths; maybe because it is close to the ground.

Things to do:

1. When building an antenna always make first cut longer then needed for these reasons:
 - a. Need extra length of wire to connect insulators and balun.
 - b. Easy to cut wire; harder to add.
 - c. You can fold extra wire back on itself instead of cutting when shortening. Then when antenna length is found you can make your cut.
 - d. On a dipole antenna always install a 1:1 balun.
 - e. Either purchase one or;
 - f. By wrapping 6 to 8 turns of coax at the feed point the size of a coffee can makes a perfect 1:1.
 - g. Reason for balun is to stop current on the outside of the coax from coming back into the shack.

NOTE: The reason more hams do not use coax balun and use a purchased one is the fact of extra weight at the feed point and not having a hook to secure the dipole to a mast or tree limb.

- h. Always seal all of your connections.

Key Formulas to know:

1. Frequency divided into 234 equals 1/4 wave length.
2. Frequency divided into 468 equals 1/2 wave length.
3. Frequency divided into 936 equals 1 wave length.

How to measure and adjust your SWR:

4. Using a watt meter / SWR Bridge:
 - a. Go to frequency you cut antenna for and measure SWR, write it down.
 - b. If low, you are done but I would be surprised if it was.
 - c. Now go up or down in frequency a good bit (40 meters say 50 KHz) (2 meters say 500 KHz). Measure SWR and write it down.
 - d. Now go to the opposite side of resonant and measure SWR there.
 - e. If SWR was higher when you went higher in frequency, you will need to shorten.
 - f. If SWR was higher when you went lower in frequency, you will need to lengthen.
 - g. By moving up and down in frequency you can find the frequency where antenna is closest to resonant.
 - h. It will take you a while using this method.
5. Using an Antenna Analyzer:
 - a. Set band and adjust frequency to find lowest SWR (resonant frequency).
 - b. As above if SWR was higher when you went higher in Frequency, you will need to shorten.
 - c. If SWR was higher when you went lower in Frequency, you will need to lengthen.

Many factors come into play with antennas, conductivity of your ground, how high above ground antenna is. Metal objects in area, tower, poles, roofs etc. You will always have some standing wave on your antennas. Trick is to make it as low as possible and have fun.

There is a lot more to this topic than what I touched on here. If you want to dive deeper go to Google and search for SWR and VSWR but, for us hams wanting to adjust, build, or change our antennas this should give some insight.

L.A.R.A On-Line

Web site – [click here](#)

By-Laws -- [By-Laws](#)

SOP -- [SOP](#)

DX Corner

CQ CQ DX de "Whiskey Five Juliet Kilo"

There is a lot of DX activity happening in the month of January, from "Islands-On-The-Air" (IOTA) to "Summits-On-the-Air" (SOTA), to rare remote locations, all operating SSB, CW, and various digital modes. Don't forget digital modes are typically low power, efficient, and don't require large antenna arrays to put a new one in the log. Check out the packet clusters or casually and slowly tune across the 10M thru 40M bands every other day or so and keep notes of who you're hearing, mode, location and time-of-day. You won't typically find DX up around the daily rag chewers. You'll be surprised at what you find and hear, especially if you become proficient in the art of weak signal DX'ing. Speaking of digital modes, don't forget the oldest one of all "Continuous Wave" – CW. This digital mode can communicate around the world easily on 100 watts, resonant wire antenna, and fair propagation.

If anyone is interested in reading a very cool DX'ing book, check out "*The Complete DX'er*", written by Bob Locher, W9KNI. Bob relates and spins a narrative around DX'ing stories, tricks, call techniques, the "big catch", and maybe a few tales too, hi hi, that will keep you reading long into the night. I have a copy (3rd edition) that I'll loan out to anyone interested in delving into the world of DX. From beginner to expert, you'll find the reading captivating, humorous, and very informative.

January DX Operations QRV (Active): Many, many more too numerous to list all:

SENEGAL, 6W. Peter, HA3AUI plans to operate as 6W2SC and J5UAP from January 20 to March 5, 2017. He will be QRV on 20 to 10 meters using CW. QSL via HA3AUI (d), LoTW.

EAST TIMOR, 4W. Tack, JE1CKA is planning to celebrate the 15th Anniversary of East Timor's Independence with an operation in the May-June 2017 time frame.

ANTARCTICA, CE9/KC4. 8J1RL and 8J60JARE (op Yath, JG2MLI), will be QRV until January 20, 2018. He will be on CW, SSB and digital modes on 40 to 10 meters. QSL direct to JG2MLI or through Japan's JARL bureau.

MAURITIUS, 3B8. Johnny, SM6JBC is now active as 3B8JB. His length of stay is unknown. Activity is on 40 to 10 meters using RTTY, PSK, and some SSB. QSL via his home call sign, direct or by the Bureau.

NIGERIA, 5N/5N40. Look for Tom, PA3TG (5N/PA3TG), to be active using the special call sign 5N40TG from Lagos starting January 1, 2017. Activity will be on 20 meters using CW and SSB. QSL via home call.

CHINA, BG2. Miao, BG2AUE from Harbin, has been very active on 80 meters around 1200z on 3521.5 kHz. QSL via LoTW or direct.

PHILIPPINES, DU. Robert, DU7ET is QRV as 4F7OC from Negros Island, IOTA OC-129, until January 15, 2017. QSL direct to home call.

MINAMI TORISHIMA, JD1. Take, JG8NQJ will be QRV as JG8NQJ/JD1 from Marcus Island, IOTA OC-073, from December 19 to March 15, 2017 while on work assignment. Activity will be in his spare time on 20 to 6 meters using CW and RTTY. QSL to home call.

ANTARCTICA. Alex, RD1AV is QRV as RI1ANC from Base Vostok, IOTA AN-016, until February 15, 2017. Activity is in his spare time on the HF bands using CW, SSB and various digital modes. QSL via RN1ON.

INDIA, VU. Special event station 8T1VWN is QRV until the end of 2017 to honor the memory of K. R. Vasantha Kumar, VU2VWN. QSL via VU2ACC.

ROMANIA, YO. Horia, YO3IMD will be QRV with special call sign YP2017HNY from December 20 to January 20, 2017. QSL via YO3KPA.

NORTH COOK ISLANDS, E5. Warwick, E51WL is QRV from Penrhyn Atoll, IOTA OC-082, and has been active using JT65 on 80, 40, 30, 20 and 15 meters between 1200 to 1600z and then from 0000 to 0800z. QSL via operator's instructions.

MALDIVES, 8Q. Rolf, DL8AZ will be QRV as 8Q7AZ from Meerufenfushi Island, IOTA AS-013, from January 2 to 11. Activity will be holiday style on 40 to 10 meters using SSB. QSL to home call.

WEST MALAYSIA, 9M2. Victor, R6AF is QRV as 9M2/R6AF/p from Pulau Babi Tengah Island, IOTA AS-046. Activity of late has been on 40, 20, and 17 meters. His length of stay is unknown. QSL to home call.

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. 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.

Cross Word Puzzle of the Month

All puzzles are published with the permission of the author.

by Chris Codella, W2PA

4/6/2009

Handles

Across

1. New year's eve party
 4. 32-down companion
 10. Yagi, for one
 14. What a keeper may keep
 15. Throat ornaments
 16. 1960s kit maker
 17. Roman WARC band?
 18. Demodulate
 19. Horn sound
 20. Top report, for short
 21. Bigger than mins.
 22. Coke flavor source
 24. Superman player
 26. Alternate G-land prefix
 27. 86, 87 and 89 source
 28. VU place
 31. Pilot's prediction
 33. ___ jacket
 36. Venetian royal
 38. 10m does it, with spots
 42. This puzzle's subtheme
 45. Uruguay prefix
 46. Unpopular spots
 47. Final (amp) resting place?
 48. Elephant grp.
 50. "Oh no!"
 52. Sporadic E band
 55. Zero
 57. ARES's cousin
 61. With anger
 63. Bygone airline
 65. Average name
 66. Audio characteristics
 67. Chicken
 69. PQ leaders
 70. "No ifs, ___ ..."
 71. Epic name for SV folks

72. Gray
 73. What crank-up sections do
 74. 25-down variety
 75. Gate type

Down

1. Benton Harbor lunchbox
 2. Pet prefix?
 3. Possible Indy prefix
 4. Toledo team member
 5. Say K
 6. Grass shacks
 7. Draft pick
 8. Nutcase
 9. Chemical class
 10. Kind of test
 11. Irish prefix
 12. Inverter label

13. "Of, by and for the radio amateur", e.g.
 23. Allow to be known
 25. Leif Ericson's rig?
 26. Like the Mystery Tour
 29. Drill wielder: Abbr.
 30. Zero place
 32. Cochise's rig?
 33. Eastern contest club
 34. W6 airport
 35. Brouhaha
 37. IT9 erupter
 39. W1 sect.
 40. Batt. term.
 41. ZP dir. from W2
 43. Austrian prefix
 44. Part of H.M.S.
 49. Deep space object

51. Professor's aide
 52. Big rig?
 53. Moldovan prefix
 54. Not 70-across
 56. Spandex brand
 58. Madison Avenue worker
 59. 9Q-land
 60. Benton Harbor lunchbox
 62. Radiosport, for short
 63. Math subj.
 64. "Houston, ___ had a problem"
 68. "?"

1	2	3		4	5	6	7	8	9		10	11	12	13
14				15							16			
17				18							19			
20				21				22		23				
24			25				26					27		
			28		29	30			31		32			
33	34	35			36			37		38		39	40	41
42				43					44					
45						46					47			
			48		49		50			51				
52	53	54		55		56				57		58	59	60
61			62					63	64			65		
66					67		68					69		
70					71							72		
73					74							75		

W1AW Winter Schedule

Source ARRL Bulletin, ARRL Headquarters, via Steve, W5JK

W1AW 2017 Winter Operating Schedule

Morning Schedule:

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

Daily Visitor Operating Hours:

1500 UTC to 1700 UTC - (9 AM to 11 AM CST)

1800 UTC to 2045 UTC - (12 PM to 2:45 PM CST)

(Station closed 100 to 1800 UTC (11 AM to 12 PM CST))

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.



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10 percent discount to LARA members



Technical Director's Corner

By: Erick, KO0M

Let's Visit about Your Digital Setup

Welcome to 2017 and with that more Ham Radio fun and enjoyment for you and the club to share in. Keep a watchful eye on the website and the newsletter in your hand or on your screen for more upcoming details. With that said, let's dive right in to the nuts and bolts of things.

We are going to visit about HOW to use the waterfall and some of the suggestions and maybe best practices of setting it up. I say it like that, as each person's station is different and will exhibit different sorts of issues that someone else might not have.

I recommend starting with finding the center of the frequency range you want to scan and using your best method to get your SWR and receive set. I use an in-line SWR meter and also check the incoming noise floor to what power I can produce to see if the frequency is worth working. What I mean by "worth working" is that if the noise floor is too high even digital will be scrambled or obliterated by the noise floor. This testing should also show you that your signal will drop as much as 20% on either end of the range. This is worth noting if you're trying to get that contact who is on the edge of the band and the bands noise floor is almost right on top of you.

Let's now move to the sound card, if you're using an internal one you need to make sure that you check what kind of noise you're making. Noise, what do you mean? There is a program you can get that will show you what kind of noise you're making from your computer. The program I would recommend is called [Spectrogram](#); it will allow you to see what your noise level is with your radio off. This will show you how clean or dirty your signal is. Many articles will show you the problems with built-in sound cards; most have a very lousy signal to noise ratio. So if you're going to use an internal sound card look for one with a good signal-to-noise ratio. The ARRL article by J.Taylor K1RFD, [Computer Sound Cards for Amateur Radio](#), QST, May 2007. I personally use an external sound card to deal with that issue and make it easier to adjust my input into the radio. (This does not take into account any external noise in your own station like wall warts or noisy computers). This is where you need an Elmer or someone with a specialized receiver that can scan those bands usually responsible for RF noise and locate them.

You need to have the control to limit the noise into the waterfall as you don't want to overdrive the input into the waterfall. This is one case where more is not better but, just right is. Balance is what is best to display a great signal on your waterfall screen. You must have balance to get the background noise and the trace of the signal on your waterfall well defined. Remember what it looks like doesn't affect the decoding, but it's really hard to find signals

if you cannot find/see them cause your display is all blown out because your overdriving the sound card.

I have tried different settings to keep the signals from destroying the waterfall display, and have found some that work for me depending on the band I'm on. I would recommend you to enable your RF attenuation and increase the volume on the sound card (if possible). You're looking at about 20 dB and dropping the noise level will bring in signals better. I also use AGC with caution, if not at all as it does not help at all with anything but, loud signals; just remember that.

I also control my use of upper case characters as they contain fewer bits to transmit than lower case ones do. And just like texting, upper case is yelling, so no yelling I can hear you just fine. With fewer bits when you're transmitting the more likely that you will get through to the contact your trying to get when the bands are having issues. With the sun acting as it has been lately contacts are getting where you have to work a bit harder to get them. What I do to help me work them and make it easier to see them through the noise I use dual to triple monitor setups. One is only for the waterfall, why you say, because (1. I have old eyes, 2. I have old eyes, 3. I want to see each of the parameters as clear as I can enlarged really big.) In other words when you can make the waterfall really big you can see stuff you cannot see on a really small screen.

I would recommend that you watch what mode your using, as digital is much different than voice when you're using or requesting information. Some of the duty cycles in the transmit mode are 80% or better, so the contact you make, may or may not have the ability to send for very long. In other words keep your questions short and sweet, be respectful if they give you yes/no answers, as they or you can burn up your radio with higher duty cycles. When making contacts do not be surprised if you only get a signal report as you would normally get on voice and then the contact moving on to other contacts.

In closing let me give you a place to go to start out and you might find me there. 30 meters is a good place for PSK type transmissions, just remember the rules for this band and you should be fine. What I mean by that is that CW and Digital are only allowed there and your privileges will also come into light when you want to work that band.

My new year's wish is that everyone has more time with their hobby, shares in new things learned and discovered of our hobby and spreads its enjoyment with new found friends and that all your resolutions are completed and/or come true.

Happy New Year Erick - KO0M

November Meeting Minutes

Recorded by Allyssa, KG5DAS

LARA Meeting Minutes 12/17/16

President Len Shipp KC5MPX, called the meeting to order at 0805

Officers in Attendance:

President: Len Shipp KC5MPX

Vice President: Jim Lavin K5VZ

Secretary: Allyssa Shipp KG5DAS

Attendance:

Members:

Ron Ford KF5OMH

Walter Logan AG5CF

Brian Ulmer KC5MPY

Clark Highsmith K5LGX

Marty Wells KM5OI

Jim Horton WB8YWA

Steve Kline W5JK

Mike Beck KG5QIY

Tim Monk WZ5TM

Mike Reitz W5EVT

Bob Burkett K5DCZ

Meeting Minutes from Last Meeting: Past meeting minutes were approved as posted on the website.

Motioned by: Ron Ford KF5OMH

Seconded by: Jim Lavin K5VZ

Approved by the Members

Treasurer's Report was given by Allyssa Shipp KG5DAS:

Beginning balance \$2069.83. No Activity

Motioned by: Jim Horton WB8YWA

Seconded by: Clark Highsmith K5LGX

Approved by the Members

Technical Report as given by Len Shipp KC5MPX: 145.17 working good.

W5LVC 220 Repeater is down

Motioned by: Jim Lavin K5VZ

Seconded by: Ron Ford KF5OMH

Approved by the Members

New Business:

Motion to spend some money to fix a radio:

Made by: Jim Horton WB8YWA

Second: Ron Ford KF5OMH

All members approved

Winter Field Day

Old Business:

Junk Box Pass Off - Mike Beck KG5QIY

Event T-Shirts

Christmas Party

Presentation on: The True Meaning of Ham Radio by Len Shipp KC5MPX

Motion to Close Meeting Made by: Allyssa Shipp KG5DAS

Seconded by: Mike Reitz W5EVT

All Members Approved

Meeting Closed at: 8:54

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



Have you been cleaning out your shack and have some items you would like to sell? Post them here and give other club members the opportunity to enjoy your goodies. Send the description, price and contact info to rfavcon@verizon.net.

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	K5LRK	LAARK - The Colony
224.080	-1.6	110.9	W5LVC	LARA
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 only
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