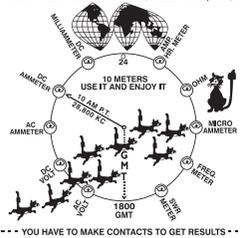


TEN-TEN INTERNATIONAL NET, INC.



TEN-TEN INTERNATIONAL

# NEWS

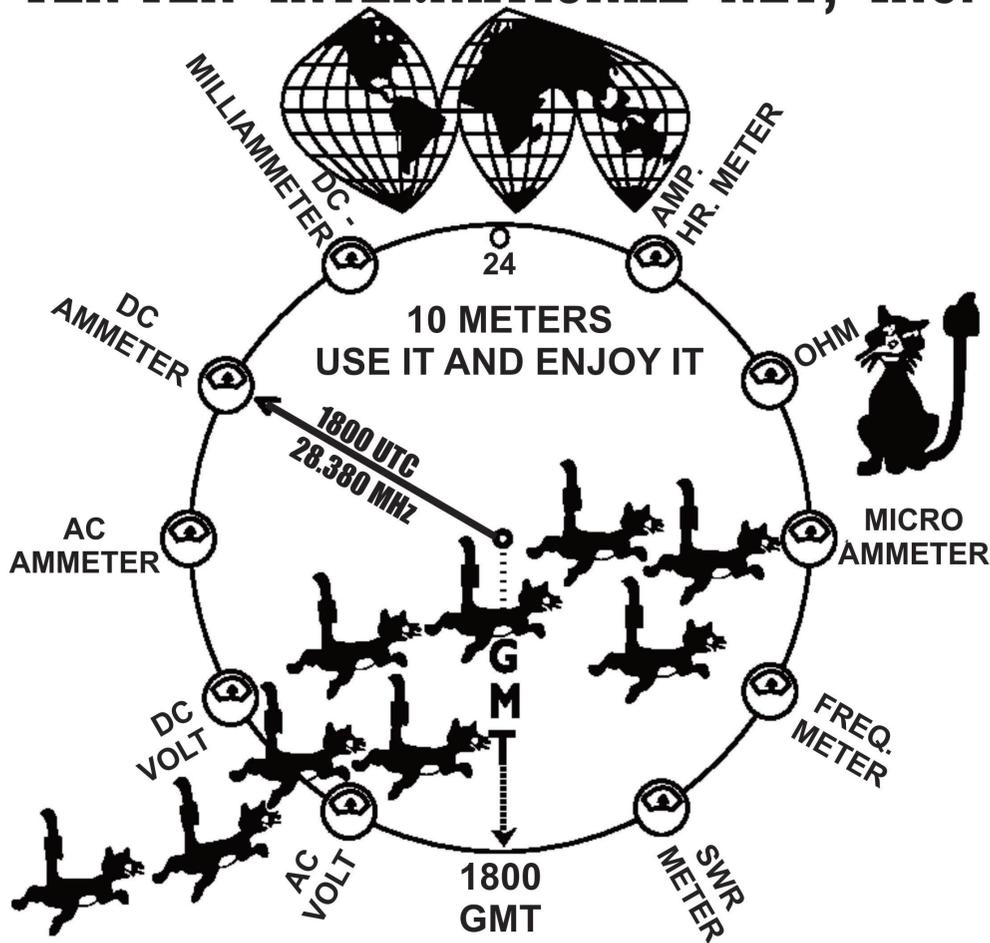


Member  
AMATEUR RADIO  
NEWS SERVICE

Volume 63 Issue 2

April 2025 (Spring)

## TEN-TEN INTERNATIONAL NET, INC.



--- YOU HAVE TO MAKE CONTACTS TO GET RESULTS ---

The Ten-Ten International News

Is published four times annually by the TEN-TEN INTERNATIONAL NET, INC. Publication dates are approximately mid January, April, July and October.

Each paid-up member will receive a copy. This publication is the property of Ten-Ten International Net and the contributors therein. Permission to reprint is hereby granted, providing suitable credit is shown.

News items should be sent to the Editor. Technical articles and information on all 10 meter activities or news are welcome and solicited. All copy submitted must be typed, and sent on computer disk or E-mail. Suitable formats will be provided upon request.

Photographs are encouraged. Black and White or Color are acceptable. Include complete information on the back of each photo. Attach a label or other suitable paper to the back of the photo and write all information on the label, not the photo. If sending digital images, high resolution of a minimum 300 dpi must be used. Please do not send newspaper or digitally printed photos as they cannot be used.

DEADLINE FOR NEXT ISSUE: 1 June 2025

PLEASE MAIL ALL ARTICLES AND PHOTOS TO:

EDITOR Ten-Ten News

E-mail: editor@ten-ten.org

10-10 CHAPTER ACTIVITY REPORTS: Should be sent to the Chapter Coordinator  
 ADDRESS CHANGES: All members should send address changes to the Data Manager  
 NOTE: 10-10 IS NOT RESPONSIBLE FOR POSTAL SERVICE DIFFICULTIES

CONTENTS

[Net Officials..... 3](#)  
[From the Editor..... 3](#)  
[From the President..... 4](#)  
[New Life Members..... 4](#)  
[Chapter Coordinator..... 5](#)  
[10-Meter Beacons..... 5](#)  
[Ten-Ten Net Guide..... 6](#)  
[DX News..... 7-9](#)  
[Net Report..... 10-11](#)  
[Meet the Volunteers..... 11](#)  
[QSO Parties..... 12-16](#)  
[Ten-Ten 2025 QSO Party Schedule..... 16](#)  
[10-10 Scholarship Foundation Supporters..... 17](#)  
[Ten-Ten Awards..... 18](#)  
[Award Managers..... 18](#)  
[The Four Elements of Communications..... 19-20](#)  
[An Introduction to the nanoVNA - Part 2..... 20-30](#)  
[Silent Keys..... 31](#)  
[Membership Services and Information..... 32](#)  
[QSO Party Rules..... 33-34](#)  
[QSO Party Cover Sheet..... 35](#)

OFFICERS AND DIRECTORS

President

Dave Ruch, NF0J #19553 (2026)  
 PO Box 1110, Elephant Butte, NM 87935  
 (575) 495-9236 ..... [dave@nf0j.com](mailto:dave@nf0j.com)

Past President

Mel Sojka, KD5DE #33513  
 353 Atlantic Ave., Shreveport, LA 71150-2909  
 (318) 286-2963 ..... [kd5de@ten-ten.org](mailto:kd5de@ten-ten.org)

Vice President/Secretary

Larry Berger, WA2SUH #00407 (2028)  
 9 Nancy Blvd, Merrick, NY 01156-3119  
 (516) 223-4611 ..... [wa2suh@aol.com](mailto:wa2suh@aol.com)

Treasurer

Keith Schlottman, KR7RK #63324  
 6206 E. Pima St., Suite #2, Tucson, AZ 85712  
 (520) 298-8488 ..... [keithschlottman@gmail.com](mailto:keithschlottman@gmail.com)

Directors

Stephen W Wagner, W7WHB #77836 (2028) - Daily Nets  
 338 N Nevada Way, Gilbert, AZ 85298  
 (480) 857-6518 ..... [w7whb@arrl.net](mailto:w7whb@arrl.net)

Martin Jordan, KB1MJ #67175 (2028) - QSO Parties  
 146 Juniper Trace Parrish, FL 34219  
 (941) 981 2687 ..... [KB1MJ@outlook.com](mailto:KB1MJ@outlook.com)

Mark Steele, KD2NOM #77569 (2028) - Publicity-  
 1 Karen Court, Monroe Township, NJ 08831-4037  
 (732) 213-0159 ..... [kd2nom@gmail.com](mailto:kd2nom@gmail.com)

Marcus Lieberman, KM5EH #71103 (2026) - Awards  
 2300 Hurley Dr. NW, Albuquerque, NM 87120-1013  
 (505) 836-1724 ..... [buckml@lobo.net](mailto:buckml@lobo.net)

George Davenport, KM4ODS #77504 (2026) - Publications  
 201 Whitechapel Lane, Rockfish, NC 28376  
 (910) 774-0444 ..... [km4ods@gmail.com](mailto:km4ods@gmail.com)

Chuck Dockery, N7UQ #72774 (2026) - Chapters  
 112 S Rolling Meadows Dr. Wylie, TX 75098-5163  
 (469) 829-5462 ..... [chuck@n7uq.com](mailto:chuck@n7uq.com)

General Counsel

Hugo Holland, KJ5SZ #77741  
 10008 Bedlington Court, Shreveport, LA 71118  
 No Phone ..... [dahugobrit@gmail.com](mailto:dahugobrit@gmail.com)

## NET OFFICIALS

**Chapter Coordinator**

Chuck Dockery, N7UQ #72774  
112 S Rolling Meadows Dr. Wylie, TX 75098-5163  
(469) 829-5462 ..... [chuck@n7uq.com](mailto:chuck@n7uq.com)

**Data Manager / Supplies**

David Smith, K6RDK #65812  
1349 Vernon Terrace, San Mateo CA 94402-3331  
(650) 504-4962 ..... [membership@ten-ten.org](mailto:membership@ten-ten.org)

**Editor 10-10 International News**

Randy Mather, AJ7B #7675  
9625 101st Ave NE  
Arlington, WA 98223 ..... [editor@ten-ten.org](mailto:editor@ten-ten.org)

**Historian**

Phyllis Martin, K5PLH #77878  
1855 Shady Lane Dr  
Shreveport, LA 71118 ..... [Phillism06@gmail.com](mailto:Phillism06@gmail.com)

**Net Manager**

Stephen W Wagner, W7WHB #77836  
338 N Nevada Way, Gilbert, AZ 85298  
(480) 857-6518 ..... [w7whb@arrl.net](mailto:w7whb@arrl.net)

**QSO Party Manager/Certificate Manager**

Dan Morris, KZ3T #41015  
3162 Covington Way, Lenoir, NC 28645  
(828) 728-5049 ..... [dbmorris315@gmail.com](mailto:dbmorris315@gmail.com)

**IT Manager**

Jeff Steinkamp, N7YG #65084  
6765 E. Rosewood Cir., Tucson, AZ 85710  
(520) 546-2290 ..... [n7yg@n7yg.com](mailto:n7yg@n7yg.com)

**Scholarship Manager**

Larry Berger, WA2SUH #00407  
9 Nancy Blvd., Merrick, NY 11566-3119  
(516) 223-4611 ..... [wa2suh@aol.com](mailto:wa2suh@aol.com)

**SK Manager/Social Media Manager**

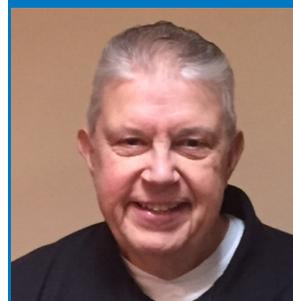
Mark Steele, KD2NOM #77596  
1 Karen Court, Monroe Township, NJ 08831-4037  
(732) 213-0159 ..... [kd2nom@gmail.com](mailto:kd2nom@gmail.com)

**Supplies Manager**

Mel Sojka, KD5DE #33513  
353 Atlantic Ave., Shreveport, LA 71150-2909  
(318) 286-2963 ..... [kd5de@ten-ten.org](mailto:kd5de@ten-ten.org)

**W6OI Station Trustee**

Dave Ruch, NF0J #19553 (2026)  
PO Box 1110, Elephant Butte, NM 87935  
(575) 495-9236 ..... [dave@nf0j.com](mailto:dave@nf0j.com)



## From the Editor

Randy Mather, AJ7B  
(#7675)

Hello again from the Pacific Northwest. A very wet Pacific Northwest. I should thank my lucky stars that mother nature only gave me some windy rainstorms to deal with. The news from around the world revealed some events that were a lot more challenging than any storm here. The storms here did cause some personal issues for me, in that trees came down on my horizontal loop antenna. I am still working on getting that one back up.

I have been trying to get a check-in on the 10-10 net, but propagation has not been in my favor very much during the last quarter. A lot of the time I can hear the net control station but cannot seem to get the attention of the net control operator. The propagation gods just are not blessing me with a nice clean path for a check-in. I will keep trying.

In this issue, Rob (KE0MIZ) has an article on the elements of communications. He breaks down the elements of successful communications and how to employ them to make solid contacts. These elements are key to all communications whether you are communicating via voice or digital. Thank you Rob, for sharing your understanding of these elements.

Also in this issue, Jeff (N7YG) completes his explanation of the nanoVNA. Part 1 was in the Winter issue of this newsletter. Jeff put a lot of time and effort in giving us a look at the features of the Analyzer and how to use it on circuits that we as hams use in our radio work. Thanks Jeff.

Rob's and Jeff's articles are exactly what I would like to see more of for this newsletter. I am sure there are a lot of you who have interesting stories to share with 10-10 members. Just drop me an email and let me know about your experience and I will work with you to get your story in this newsletter.

If you do not feel up to creating an article, then maybe you have some time to volunteer and help keep this organization going. Anyone board member would be happy to talk with you about using whatever skill you have to further the Ten-Ten International Net.

Randy – AJ7B



# From the President

David Ruch NF0J  
#19553

Greetings from Elephant Butte in the high desert of southern New Mexico.

As I write this, I am just starting to get over the worst case of the flu I've ever had. It is also the first flu I've had in over 40 years. I hope you don't get this one. It is bad.

I get many emails each month asking questions about Ten-Ten membership (what's my number, is my number still valid, etc.) Often, the question is simply this: What benefit do I get from being a member? That is a great question that deserves an answer, and the answer is: It depends.

The basic premise for Ten-Ten International is to promote activity and good operating practice on the ten-meter amateur band. If that is outside your area of interest, then move on. There is no good reason for you becoming a member. If, however, you love the 10-meter band with all its quirks and peculiarities, read on.

Joining Ten-Ten International offers an opportunity to join a community of other operators who share a passion for the 10-meter amateur band. It's a great way to connect with like-minded individuals and make new friends.

Ten-Ten International also sponsors various activities, contests, and QSO parties, which can be both fun and challenging. These events provide opportunities to improve operating skills and earn awards. They are run using various operating modes throughout the year, so there is something for every operator. Speaking of operators, new hams have HF privileges on ten. This is a great way to get started "talking" to other hams around the world. The organization offers support and mentorship to new and experienced operators alike. It's a great way to learn from others and share knowledge.

If you enjoy helping, there are many volunteer opportunities available. The entire organization is volunteer-driven.

So, if you're passionate about amateur radio and the 10-meter band, Ten-Ten International could be a great fit for you. You can find more information at [ten-ten.org](http://ten-ten.org).

Since the early 1990s, Ten-Ten International has awarded college

scholarships to amateurs around the world via the 10-10 Scholarship Foundation. I encourage you to consider donating to the foundation. Small donations are welcome, and I especially encourage those with lifetime memberships to get on board! Details about the 10-10 Scholarship Foundation and making donations are found in each issue of Ten-Ten International News. A history of the scholarship program by Larry Berger, WA2SUH, can be found in the October 2021 issue on page 10.

Stay well & CU on the air!

73

Dave NF0J #19553

## NEW LIFE MEMBERS

57128	KB5LJR	David S Harden	MS
66797	N2ONA	Thomas A Ricard	FL
69959	AC4XS	Michael D Eilers	OH
71735	KE6FVN	James E Brackett	CA
74713	KBØZUN	Jane L Mehaffey	NE
75335	N5ZGT	Brian P Milesosky	NM
76430	W7HG	Katherine L Weddle	AZ
77787	N6OZG	Jeffrey Jones	CA





## Chapter Coordinator

Chuck Dockery, N7UQ  
(#72774)

### GENERAL INFORMATION:

**Information: CH's and/or CM's** I would like to hear from y'all about your chapters. How are your chapters going, are you still seeing folks excited about paper chasing, are you getting new members, etc. Are we doing anything special to promote Ten-Ten International Net? I would like to put some news about the chapters in this newsletter, so if you are a chapter head or manager, please send me some news to be placed here for others to see. We seem to be slowing down even more in the chapter category even though ten meters has been hot for quite some time.

**Chapter Reports:** I now copy all reports and other correspondence received from chapters to the chapter folders on the FTP site. If anyone needs access or copies of files you can ask Jeff N7YG for assistance or ask me for a copy. Main point is I am no longer keeping hard copies of anything related to chapters. As chapter heads and coordinators, you should be utilizing the FTP site to store your information that can be accessed by an official should the need arise.

**Important:** Chapters request changes, I update the information to the website, please remember to purge your browser cache for you to see the updates. As updates happen, I may make an announcement and post it to the website so be sure and check there before contacting me.

**Reminder:** Please double check the TEN-TEN Net Guide to be sure your net(s) are listed correctly. If there are changes, be sure to let me know so I can update the list. Also, as I receive updates to your chapters I update the list on the website to reflect the latest correspondence. If you do not see the website updated after a couple days, be sure and wipe your cache in your browser so you have a clean updated page before visiting ten-ten.org.

**Reporting:** [www.ten-ten.org/index.php/resources/ten-ten-documents/ten-ten-forms](http://www.ten-ten.org/index.php/resources/ten-ten-documents/ten-ten-forms) for a form to download or [www.ten-ten.org/chapters/quarterly-report](http://www.ten-ten.org/chapters/quarterly-report) to fill out and submit electronically. Be sure to notify IT Manager Jeff, N7YG, before using this easy-to-use form so he can add you to the Chapter Management Group. If you do not have internet access, let me know and I will send you a blank form that you can copy and submit. A responsible chapter official must report to the Chapter Coordinator. This is done quarterly. If there are

no changes to the previous report, then the chapter can go on for up to a year without reporting. A report must then be made even though no changes have been made. These reports may be made via the U.S. Postal Service or via email. One of the reasons listed for termination of the chapter is failure to report four consecutive quarters (1 year).

### CHAPTER NEWS:

**Branding Iron:** I have removed this chapter from active list and placed in QRT. If I do not receive something from either of these two chapters, they will be placed in QRT as of next newsletter they are, Route 66 CH/CM KA9ADD Larry (last report 07/2023). Speedway CH/CM W7CAR Dave, (Last report 10/23).

**Chapters at Risk of Termination:** (no report in a year or more): Bauxite CH WB5ARI Jackie CM K5BKT Peggy (Last report 01/2024). Cincinnati Area Ten Tuners CH K1KIM Andrew (last report 01/2024). Louisiana Pelican N5MT Mike (last report 01/2024). Red River Valley KD5ME Mel (last report 01/2024). Up the Crick CMAF7LB Matt (last report 02/2024). If anyone has contact with any of these chapter heads or coordinators, please let them know we would like to see these chapters continue.

**All chapters are asked to plan for succession of leadership.** I can't stress this enough, we have lost a few great chapters that cannot continue due to the record keeping not being shared. PLEASE, To aid in such planning, IT Manager, Jeff, N7YG, has been setting up FTP accounts on the 10-10 server where chapters can save their data. **All CH:** contact Jeff for the details if you wish to take advantage of this opportunity. This is a good idea even for the redundancy of record keeping and in the event of a tragedy. I know there is redundancy in this message, but it really needs to be stressed if you wish the chapters to continue.

If any chapters accept email upgrades, please let me know so I can create a new list. Thanks.

[chuck@n7uq.com](mailto:chuck@n7uq.com)

Chuck Dockery, N7UQ, #72774  
112 S Rolling Meadows Dr,  
Wylie, TX 75098-5163

## 10 Meter Beacons

As 10 meter operators one should be aware that propagation beacon frequencies are coordinated.

I would appreciate a message from anyone with thoughts of activating a beacon. [wi5v.be@gmail.com](mailto:wi5v.be@gmail.com)

73 Dennis Stice WI5V #35806

IARU Region 2 HF Beacon Coordinator

<https://wi5v.net/author/wi5v>

## TEN-TEN NET GUIDE

As of March 1, 2025

DAY	ZSUM	ZWIN	Chapter Name	Location	Freq	DAY	ZSUM	ZWIN	Chapter Name	Location	Freq
SUN	1300	1400	Arlington	Arlington, VA	29200	WED	0100	0200	Cincinnati Area Ten Tuners	Cincinnati, OH	28430
SUN	1400	1500	Neanderthal	Euskirchen, DL	28355	WED	0100	0200	Houston SHOT	Houston, TX	28488
SUN	1900	2000	Oregon Trail	Dallas, OR	28330	WED	0200	0300	10-Bar-X	El Paso, TX	28445
SUN	1930	1930	North Georgia	Atlanta, GA	28415	WED	1600	1600	Mississippi 10 Meter Society	Palahatchie, MS	28410
MON	0100	0100	Arizona Desert	Phoenix, AZ	28445	WED	1930	1930	Route-66	Apopka, FL	28370
MON	0100	0100	Lonestar	Arlington, TX	28460	THU	0100	0100	Cow Town	Arlington, TX	28460
MON	0100	0200	Milwaukee	Milwaukee, WI	28365	THU	0100	0200	Gateway	St. Louis, MO	28650
MON	0130	0230	Bauxite	Benton, AR	28470	THU	0100	0200	Milwaukee	Milwaukee, WI	28365
TUE	0001	0100	Ft McHenry/Cornerstone/ Yodar Kritch	Arbutus, MD	28370	THU	0230	0230	Windfarms	Livermore, Ca	28485
TUE	0100	0200	CO Centennial/CO Frontier Gang	Lakewood, CO	28340	THU	0230	0330	Up the Crick	Eugene, OR	28450
TUE	0100	0200	City of Lights	Aurora, IL	28150 CW	THU	1930	1930	Speedway	Rainer, OR	28350
TUE	0130	0230	Bauxite	Benton, AR	28470	FRI	0001	0100	Ft McHenry/Cornerstone/ Yodar Kritch	Arbutus, MD	28370
TUE	0130	0230	City of Lights	Aurora, IL	28720	FRI	0001	0100	Possum Trot	Raeford, NC	28345
TUE	0300	0400	Bay Area	Hayward, CA	28475	FRI	0001	0100	Steamboat Plus	Shreveport, LA	28430
TUE	0430	0430	Aloha	Hilo, HA	28490	SAT	1510	1610	Louisiana Pelican	Baton Rouge, LA	28450
TUE	1500	1600	New Mexico Mud Ducks	Albuquerque, NM	28835	SAT	1730	1730	Tango	Buenos Aires, LU	28650

THE AMATEURS CODE  
by Paul M. Segal, W9EEA (1928)

The Radio Amateur is:

CONSIDERATE..... never knowingly operating in such a way as to lessen the pleasure of others.

LOYAL..... offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE..... with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.

FRIENDLY..... with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED..... Radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC..... with station and skill always ready for service to country and community.



## DX News

Mike Davidson, N5MT  
(#24949)

Welcome to the Spring DX season of the 10-10 News. Solar Cycle 25 has produced lots of sun spots resulting in good solar flux levels. The highest flux so far in 2024 was Feb 8th at 336. On Feb 17th of 2023, it was 343, which could be the record high for Cycle 25. The high for the previous quarter was in Dec 24th at 260 and a low of 161 on Dec 12th. We may have a twin solar peak in Cycle 25.

During some QSO parties and contest last year, the higher solar flux produced poor propagation on some weekends. The sun unleashed an X2 class flare on February 24th that produced radio blackouts over parts of the Pacific Ocean.

The big event for today March 1st, is the ARRL DX SSB Contest that runs for 48 hours. It's not a 10-10 event but there is always a lot of DX that you can add to your log. There are twenty-two DX reports below that you can read and see if you worked a new member in your log and four future DX events for you to look forward to working.

In 2024 the ARRL website was hacked and required professional help to restore some computer systems. The DXCC awards function was broken but LoTW was soon back on-line and the data was all ok. The processing of DXCC did not begin until October and now all of the DXCC award processing is back to normal except for the 46-day turnaround time it took to get the award in February!

The winter season was the best time for the USA to hear into Europe and the Pacific areas to work DX. <http://hamgallery.com/W1JR/>. The ARRL 10 Meter contest in December is the most popular contest. I found only a few 10-10 friends during the 10 Meter contest last year. So propagation for my station during the 10 Meter contest was the same for the last two years. In the Winter SSB QSO Party was a noisy event due to a big solar flare before the contest. Congratulations to Henry DL8YBM #36109 for his first-place score in the QSO Party. During the QSO Party, I logged 23 new 10-10 members with 156 QSO's for sixth place in the top ten. Thanks to Dan KZ3T #41015 for scoring the contest and sending the certificates for the QSO Parties. Note, this year is the 63rd anniversary for 10-10, so log members with a 63 in their 10-10 this year.

The winter months have been above average for Ten-meter skip. You should have a goal of finding new members on Ten and logging them. Each week I read DX articles and look for 10-10 members going places. But the past months, I have seen fewer members going DXing. I have found only a few 10-10 members at DX sites, so watch for them on the dates given and try to work the new DX. In the last winter DX season, I talked with a few old 10-10 members on the air. <https://cqww.com/rules.htm>. Finding new members is now harder for me to find here in Louisiana since my vertical antenna is not as good as the old beam antenna I had in Texas.

I received news that a good friend that had given me several new 10-10 countries, had died. Dennis K7BV #5414 became a silent key at his home on January 9, 2025 at the age of 76. He had several medical problems over the past years. He got his ham ticket in 1962 as a teenager and by the time I met him in Houston, he could send 50 WPM on CW. We were both members of the Texas DX Society. When I knew he was going DXing, I made sure he knew I needed him in my log for a new one at places like KP5, OJ0, and 4W. He moved from Houston and worked as ARRL Sales and Marketing Mgr, editor of NCJ magazine and then with Yaesu as a VP of their Sales Division and hamfest. Dennis had accumulated 8 US callsigns over the years and operated from 41 countries, but he was in 17 more countries where he could not talk for various reasons. His ham lifeblood was always a fast rate on CW! RIP my friend.

**This Day in History Feb 20th:** In 1962 I was fifteen years old when 10-10 was organized. NASA launched an American astronaut John Glenn into space to orbit around the earth three times and become a NASA hero on landing. But the Russians had already put two men into space before Glenn got there and 10-10 became an organization on Ten.

**Countries Awards and 10-10 History:** There were no Countries Award applications submitted this past quarter.

### GENERAL 10-10 DX REPORTED IN THE PAST QUARTER:

**3D2 Fiji.** Al K7AR #2736 and a friend, were again DXing as 3D2NB from December 1-2nd mostly CW. They have used this call in 2006, 2009 and 2013.

**4U United Nations NY.** The UN station 4U1UN #55555, in New York city, was heard only once on digi January 27th. The UN is the closest DX country for USA hams to work and the beacon is on 28200 MHZ.

**4U Geneva.** The UN in Geneva Switzerland, 4U1ITU #11111 was using digi on 10 Meters in December 2024.

**I Italy.** Elvira IV3FSG #54292 was on digi in December but she was DXing from the Central Africa Republic in November and returned home in mid December to Italy.

**5A Libya. Abubaker 5A1A** #69222 was using his new call 5A1AL for Libya on FT8 this past quarter. He can give his old 1010 number for 5A1A which is assigned to him.

**6Y Jamaica.** Negril **VE4GV** #8852 was using callsign VE4GV/6Y from February 8-23rd. Both modes and digi.

**C6 Bahamas Isl.** John **K4SGR** #46403 and a friend, were in the Bahamas from February 12-16th using call C6ADA. Mostly SSB and CW with some FT8.

**ET Ethiopia.** Ken **K4ZW** #18573 was back in country in January. The club call ET3AA is not a member. So you must find Ken K4ZW when he visits back at the club. You can not assume it is Ken operating from the club.

**K USA.** The museum ship Battleship Iowa **NI6BB** #77115 was worked on February 22nd and is docked in S. California. The ship does not operate very often so this member is hard to find and put in your log, so good luck.

**KH0 Mariana Isl.** Tom **KC0W** #67688 has used his new call KH0W from the island where he has been for several years. Most of his operating in 2024 was on CW.

**LA Norway.** Several ops using call LN8W in the CQWW contests and Tom **LA9GX** #25949 was the only member. CW reports for LN8W on Ten Meter contest in December.

**J6 St. Lucia.** Several ops were at club J62K on Ten from January thru March 4th on SSB and CW. The 10-10 members: Bill **K9HZ** #2618, Dan **W0CN** #27026, Kyle **WA4PGM** #50763, and Steve **W0ZB** #37921. LoTW. Bill **K9HZ** does plan to operate from J62K this Spring with several youth operators.

**OA Peru.** Ed **OA4SS** #10802 was last on Ten in May 2024 when he was on CW. I know his QSL manager George **KB6J** #12337 is now an SK. If you have an update on Ed, please send it to me by email.

**P4 Aruba.** John **W2GD** #14109 was back in Santa Cruz at P44W from February 10-18th, and his favorite mode CW.

**TL Central Africa Republic.** A DXpedition into Africa by Elvira **IV3FSG** #54292 started on November 26th for 14 days using call TL8ES. No 10-10 members live in this country, so consider this a **rare** 10-10 country! LoTW.

**V5 Namibia.** Mike **V51MA** #64688, continues to help the 10-10 daily net when he has propagation from Africa on 28380 MHZ at 1800 UTC, except Sunday's.

**VK9C Cocos Keeling Isl.** Larry **W5EIT** #13658 was on from Cocos from February 11-18th using VK9/W5EIT.

**VP2E Anguilla.** Chuck **KG9N** #17038 was using call VP2ECV on CW in early February until the 18th.

**VP6 Pitcairn Island.** Miralda **VP6MW** #50434, was active this past fall on FT4

28180 and some SSB around 28555.

**VP9 Bermuda.** Les **N1SV** #71546 is using call VP9/N1SV from February 27th to March 3rd but in contest he is VP9I.

**Z6 Kosovo.** Rene **DL2JRM** #69623 used calls Z68XX and Z66BCC last year and he now has many country credits.

**ZL7 Chatham Islands.** Holger **ZL3IO** #22401, worked a lot at the ZL7DX Chatham site which is 550 miles east of New Zealand. Holger's daughter Xenia **ZL4YL** #77857, joined him on Chatham using her call for a contest. In the past, the only Chatham 10-10 activity was in 1990 by Miki **ZL0ADN** #39935 who is now SK. This site is a rare 10-10 location, as there is not a 10-10 member living on Chatham!

#### UPCOMING DX & NEW 10-10 ACTIVITY:

**6Y Jamaica.** Declan **EI9HQ** #71019 and Thos **EI9JD** #73610 will be with a group from March 12-24th. Declan may use 6Y/EI9HQ as a POTO station in Jamaica.

**D6 Comoros Isl.** Elvira **IV3FSG** #54292 is expected to be back on the DX trail as D68Z from March 3-18th both modes and digi FT4/8 and all bands. LoTW.

**FJ St. Barthelemy.** Phil **K2LIO** #7746 is now using call FJ4WEB but he has been on/off the island for a few months. **Remember, Phil is the only 10-10 member on St. Bart.**

**KH0 Mariana Isl.** Tom **KC0W** #67688 will be using a new call **KH0W** in 2025 for DX contests. His amp will give him one KW into his new hexbeam antenna.

#### MISCELLANEOUS ITEMS & NOTES:

Ten-Ten Website: <http://www.Ten-Ten.org> .

Propagation forecast: <http://www.solen.info/solar/> ,  
[www.SolarHam.net](http://www.SolarHam.net) and <http://ARRL.org/Propagation> .

More propagation: <http://dx.qsl.net/propagation/> .

DX Calendar: <http://www.dxwatch.com/> .

DX: <http://www.youtube.com/watch?v=k4dJcK-WVRw>. <https://Secure.Clublog.org/mostwanted.php><http://ebarc.org/pdf/dx-entity-history.pdf>

Ham Lookup various ways:

<https://Haminfo.tetranz.com/map> .

Ham LoTW users: <http://www.hb9bza.net/lotw-users-list> .

NEW: **WM7D Solar Values:**

<https://www.wm7d.net/hamradio/solar/> .

## FT8 Fox/Hound Video:

<https://www.YouTube.com/watch?v=GcbtTKSRkus> .

**Propagation: I expect the solar flux to range from about 130-235 this Spring.** The March 20th Vernal Equinox will be your Spring event in three weeks. Days are getting longer for us in the northern hemisphere. Cycle 25 eleven-year cycle started five years ago on November 17, 2019 and sunspots are counted by looking at the Sun but the solar flux is measured by radio at 2.8 GHz.

The monthly **max** solar flux was: Jan 196, Feb 208, Mar 209, April 227, May 233, June 203, July 242 and August 336, Sept 262, Oct 312, Nov 260, Dec 260, Jan2025 234 and Feb 230. **Average 244.**

The monthly **min** solar flux was: Jan 126, Feb 137, Mar 127, April 112, May 135, June 165, July 164 and August 204, Sept 154, Oct 162, Nov 140, Dec 161, Jan2025 156 and Feb 153. **Average 150.**

**On March 1st, the solar flux was 155, the A index 32 and K index 3.** Cycle 25 hit a high flux value of 343 on February 17, 2023 and the previous solar peaks were in 2014, 2001, 1989 & 1979. The USAF forecast for March 1st to April 14th has a range of 155-210 with average flux 178, which is down 32 points from the last quarter and 79 points the past half year. The flux graph is showing no growth in the curve, which indicates the peak of cycle 25 has past.

**My Prediction:** Over the next months, the best propagation on Ten could be on: March 22-26th, April 18-22nd, May 14-20th & June 10-14th. In the USA expect a 50-85% chance of DX to Europe, Asia, S. America or Pacific areas. Use the beacons on 28.175-28.300 MHZ to tell if the band is open. If the band is closed for SSB, try FT8 on 28074 for a QSO.

**There were four new DX members who joined in Dec to February:** Gordon **VE7KEG** #78382, Oliver **F5PKR** #78390, Burnie **VE1IAD** #78397 & Matt **VA3UMM** #78404 they are the last four DX members that joined. Steven **K3GGR** #78415 was the last USA member to join.

Thanks to the Daily DX by Bernie W3UR #25731 and the ARRL DX Bulletins. This 10-10 DX News edition is my number 134th of DXing reports for the past 33 years!

DX news to: Mike Davidson, 26274 Whispering Pines Ave, Denham Springs LA 70726 USA Email: [N5MT@aol.com](mailto:N5MT@aol.com).

**DX IS!** 73 Mike Davidson N5MT #24949

Copyright © 2025 by N5MT



Licensed at least 25 years ago and licensed today?

Then you should join the

**Quarter Century Wireless Association, Inc.**

**To Join or Renew visit:**

<http://www.qcwa.org/join-renew.php>

For more information please contact  
[om@qcwa.org](mailto:om@qcwa.org)



# Net Report

Steve Wagner, W7WHB  
 (#77836)

The first quarter of this year has been a rollercoaster type of condition. The band is up and then it is down. It is there and then it is gone. But through it all we have had a pretty good number of check-ins each week which have made our Net activity well worthwhile.

During this past quarter a couple of our Net Control Stations have endured difficulties preventing them from getting on their Nets:

The first is Augustine, WA4GQJ, in Florida. Augustine and his wife have been dealing with a personal hardship that has prevented his net activities. Hopefully in the next few weeks we can hear his voice calling our Saturday nets.

Next is Doc, WB6OJB, in California. Doc lived in Pacific Palisades that was hit directly by the fires sweeping through the northwest Los Angeles areas. Doc's home survived. However, Doc is unable to live in his home because the entire city is without gas, electricity, and water due to the fire. In the meantime, he has a temporary home to live in and is working hard to come up with a decent antenna system that will allow him to get back to calling his nets on Mondays.

And then with sadness it is hard to announce that Ray, K7CWS, our Net Control station for many years on the Ten-Ten International net out of Arizona has become an SK. Ray loved Ten-Ten and would hardly ever miss his time to call his nets. Ray was a close friend of our previous Net Director, Bob, N6OPR. Together they would attend all the Hamfests in the Arizona area and promote Ten-Ten. Both of them were Ten-Ten in the eyes of many. Our thoughts and prayers go to Ray's family.

As we enter the downside of Solar cycle 25, be advised that the numbers of check-ins and the propagation itself may start to dwindle on the 10m band. There may be times when some may hear nothing and wonder if the "Net" is being called at all. Rest assured. Our nets will continue as they always do everyday at 1800 UTC except on Sundays. Someone will be calling the net. With this in mind, right now is the best time to make contacts for your awards or just for your pleasure. As they say, "get em while they're hot."

We are still in need of additional volunteers that would like to become Net Control Stations. If you are interested, please send an email to Steve, W7WHB@arrl.net with a phone number that you can be contacted directly.

Lastly. It is reminded of everyone that if you are checked into one of our Nets and you are asked to "RELAY," please remember that the information you attain for "Net Control" is 1. Call sign 2. First name 3 QTH 4 Ten-Ten number. However, when actually relaying the information to Net control you DO NOT repeat the Ten-Ten number. What you will tell the Net Control is "With" or "Without" Ten-Ten number. Just remember that Ten-Ten numbers are NEVER EVER relayed.

## Net Report for 4th Quarter 2024

Monday Nets			Tuesday Nets		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
7-Oct	13	3	1-Oct	14	2
14-Oct	34	6	8-Oct	21	1
21-Oct	46	6	15-Oct	13	2
28-Oct	29	6	22-Oct	23	2
4-Nov	41	10	29-Oct	17	1
11-Nov	45	9	5-Nov	13	5
18-Nov	50	17	12-Nov	37	8
25-Nov	35	7	19-Nov	30	9
2-Dec	34	9	26-Nov	26	9
9-Dec	34	3	3-Dec	19	4
16-Dec	XX	0	10-Dec	34	12
23-Dec	26	4	17-Dec	29	9
30-Dec	12	2	24-Dec	27	5
			31-Dec	26	7

Wednesday Nets			Thursday Nets		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
2-Oct	18	4	3-Oct	21	4
9-Oct	31	12	10-Oct	25	4
16-Oct	27	5	17-Oct	33	9
23-Oct	20	2	24-Oct	30	5
30-Oct	21	3	31-Oct	28	5
6-Nov	11	3	7-Nov	XX	0
13-Nov	11	3	14-Nov	46	15
20-Nov	16	2	21-Nov	27	6
27-Nov	21	3	28-Nov	27	15
4-Dec	12	3	5-Dec	23	8
11-Dec	5	1	12-Dec	13	0
18-Dec	22	3	19-Dec	19	4
25-Dec	12	2	26-Dec	21	3

Friday Nets			Saturday Nets		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
4-Oct	29	8	5-Oct	19	3
11-Oct	33	10	12-Oct	15	4
18-Oct	31	3	19-Oct	24	3
25-Oct	34	7	26-Oct	15	2
1-Nov	34	8	2-Nov	18	4
8-Nov	32	4	9-Nov	26	6
15-Nov	36	7	16-Nov	31	7
22-Nov	25	4	23-Nov	36	15
29-Nov	30	6	30-Nov	29	6
6-Dec	31	5	7-Dec	23	15
13-Dec	26	5	14-Dec	25	8
20-Dec	34	10	21-Dec	22	8
27-Dec	29	9	28-Dec	23	4

XX NO NET CALLED

**10-10 NET CONTROL STATIONS**

ALL NETS BEGIN AT 1800Z

Monday	Doc, WB6OJB	#70675	CA
Tuesday	OPEN		
Wednesday	Harlan, W0HLO	#19595	CO
Thursday	Mke, V51MA	#64688	NAMiBIA
Friday	Steve, W7WHB	#77836	AZ
Saturday	Augustine, WA4GQJ	#78026	FL
Alternate	OPEN		
Sunday	<b>NEVER ON SUNDAY</b>		

**10-10 Has One Official Daily Net**  
**28.380 MHz**  
**Net Starts At 1800z**  
**Every Day Except Sunday**  
**Listen And If You Can Hear Us Join IN!!!**

# Meet The Volunteers

A year-long event to find and make contact with all of the people who devote time to keep 10-10 an active organization!

The goal? Make contact with each of the following volunteers during 2025

AJ7B, Randy.....	Editor	N3GTY, Bill .....	Committee Member
G4BLH, Mike .....	Awards - GB	N5MT, Mike.....	Awards - DX
K5BKT, Peg .....	Committee Member	N7UQ, Chuck, .....	Awards - VP WAS
K5PLH, Phyllis.....	Historian	N7YG, Jeff.....	IT Manager
K6RDK, Dave .....	Data/ Membership Manager	NF0J, Dave .....	President, W6OI Trustee
KB1MJ, Martin.....	Director	NP2MR, David.....	Committee Member
KC4HIT, Mark .....	Awards - Counties	NS6X, John .....	Committee Member
KD2NOM, Mark .....	Director	NZ1I, Kevin.....	Awards – WAC
KD5DE, Mel.....	Past President / Supplies Mgr	VA7GY, Garry .....	Committee Member
KE0MIZ, Rob.....	Awards - 1000+	V51MA, Mike .....	Net Control
KG5RJ, Greg.....	Committee Member	W0FLZ, Paige .....	Award - Mobile
KI5ELV, Thomas .....	Awards - VP Bars	W0HLO, Harlan.....	Net Control
KI6OY, Lee .....	Awards-CW	W5DJT , David .....	Committee Member
KJ5SZ, Hugo .....	General Counsel	W7WHB, Steve.....	Director
KM4ODS, George .....	Director	WA2SUH, Larry .....	Vice President / Secretary
KM5EH, Marcus .....	Director	WA4GQJ, Augustine.....	Net Control
KM5FF, Ed.....	Awards-WPX	WA4KUP, Brad .....	Committee Member
KR7RK, Keith, .....	Treasurer	WB0CON, Eva .....	Awards – WAS
KZ3T, Dan.....	QSO Party Manager	WB6OJB, Arnold.....	Net Control
N1API, Al .....	Committee Member		

RULES FOR THIS EVENT AVAILABLE AT [WWW.TEN-TEN.ORG](http://WWW.TEN-TEN.ORG) IN THE QSO PARTY HANDBOOK



# QSO Parties

Dan Morris, KZ3T  
(#41015)

## 2025 Winter Phone QSO Party

February 1 - 2

### TOP TEN

CALL	10-10#	CTX W	CTX WO	TOTAL
1. DL8YBM	36109	58	449	565
2. KB2FMH	77506	74	139	287
3. W6QX	71843	95	82	272
4. K8DEL	2978	57	145	259
5. V51MA	64688	63	114	240
6. N5MT	24949	77	79	233
7. KB0ARZ	48754	70	84	224
8. N1API	25468	68	50	186
9. K7QXG	5956	62	28	152
10. KD5ILA	77652	51	49	151

### CALL AREA ORDER

#### CALL AREA 0

CALL	10-10#	CTX W	CTX WO	TOTAL
KB0ARZ	48754	70	84	224
KE0MIZ	77647	24	18	66
KA0HZP	31562	17	28	62
W0RTV	13962	11	9	31
WB0YYE	72166	10	4	24
K0GOB	69079	4	0	8
KC0VDY	72580	2	0	4

#### CALL AREA 1

CALL	10-10#	CTX W	CTX WO	TOTAL
N1API	25468	68	50	186
NY1U	70147	30	34	94
AA1CX	46677	32	25	89
WA1LAD	67155	31	19	81
AB1EP	78304	6	1	13
N1WVQ	73256	2	0	4

#### CALL AREA 2

CALL	10-10#	CTX W	CTX WO	TOTAL
KB2FMH	77506	74	139	287
N2LDV	59445	26	34	86
WA2CNV	65510	24	23	71
WA2SUH	407	24	1	49
AC2ZZ	78198	10	14	34
W2VTV	71275	12	1	25
KA2YDW	41937	4	6	14
NC2M	38720	6	1	13
KE2I	70471	6	0	12
KB2JES	78227	2	1	5
KX1W	77163	2	1	5
WA3AFS	5662	1	0	2

#### CALL AREA 3

CALL	10-10#	CTX W	CTX WO	TOTAL
K3TC	33876	25	85	135
N3DUE	41066	13	1	27
KA3UIH	55744	4	1	9

#### CALL AREA 4

CALL	10-10#	CTX W	CTX WO	TOTAL
KM4ODS	77504	17	43	77
WB4WXE	7010	15	23	53
KK4AMR	76031	7	24	38
K4ZMA	78392	17	1	35
KM4AEM	77309	9	16	34

**CALL AREA 4 (Cont.)**

CALL	10-10#	CTX W	CTX WO	TOTAL
AK4YS	75328	12	6	30
KA5VZG	46596	13	3	29
WA4JA	72743	3	12	18
K3SV	37473	6	0	12
K1HG	65447	3	1	7
KR4EE	77307	3	0	6
KM4VI	51453	1	3	5

**CALL AREA 5**

CALL	10-10#	CTX W	CTX WO	TOTAL
N5MT	24949	77	79	233
KD5ILA	77652	51	49	151
WW5L	78280	36	33	105
KG5ZMQ	77628	21	3	45
NF0J	19553	18	0	36
KI5KOI	77853	9	15	33
KD5DE	33513	14	1	29
W5GUZ	69508	4	7	15
KI6KGC	74983	6	2	14
W5SUM	2019	7	0	14
K5PLH	77878	3	0	6
W5RIR	78286	2	0	4

**CALL AREA 6**

CALL	10-10#	CTX W	CTX WO	TOTAL
W6QX	71843	95	82	272
KD6HOF	78284	37	24	98
N7WLC	63782	8	5	21
WZ6ZZ	78093	6	0	12

**CALL AREA 7**

CALL	10-10#	CTX W	CTX WO	TOTAL
K7QXG	5956	62	28	152
N7QOZ	62599	20	18	58
N7AME	27859	15	14	44

**CALL AREA 7 (Cont.)**

CALL	10-10#	CTX W	CTX WO	TOTAL
N7QHC	59244	6	10	22
AI7OZ	78111	7	1	15
KA7RRA	74459	2	1	5
WT8P	78099	2	0	4

**CALL AREA 8**

CALL	10-10#	CTX W	CTX WO	TOTAL
K8DEL	2978	57	145	259
KF8UZ	63621	12	2	26
KE8TZD	78144	5	5	15
W8TOM	74496	7	1	15

**CALL AREA 9**

CALL	10-10#	CTX W	CTX WO	TOTAL
KA9JCP	50609	14	28	56
KC9TQU	77157	12	7	31
W9EMM	78288	7	10	24
KC9EOQ	74609	3	3	9

**QRP**

CALL	10-10#	CTX W	CTX WO	TOTAL
AK4YS	75328	12	6	30

**ALASKA**

CALL	10-10#	CTX W	CTX WO	TOTAL
KL1JP	77233	6	2	14

**ARGENTINA**

CALL	10-10#	CTX W	CTX WO	TOTAL
LU1BJW	39329	10	29	49

**CANADA**

CALL	10-10#	CTX W	CTX WO	TOTAL
VE2GT	71022	6	0	12
VE3EXW	32999	4	0	8

**ENGLAND**

CALL	10-10#	CTX W	CTX WO	TOTAL
G4BLH	18446	2	0	4

**FRANCE**

CALL	10-10#	CTX W	CTX WO	TOTAL
F5PKR	78390	9	11	29

**GERMANY**

CALL	10-10#	CTX W	CTX WO	TOTAL
DL8YBM	36109	58	449	565
DH1PAL	69212	20	59	99
DF3TE	69610	18	0	36

**IRELAND**

CALL	10-10#	CTX W	CTX WO	TOTAL
EI9HQ	71019	38	55	131

**NAMIBIA**

CALL	10-10#	CTX W	CTX WO	TOTAL
V51MA	64688	63	114	240

**LOW POWER**

CALL	10-10#	CTX W	CTX WO	TOTAL
KB2FMH	77506	74	139	287
W6QX	71843	95	82	272
V51MA	64688	63	114	240
KB0ARZ	48754	70	84	224
N1API	25468	68	50	186
K7QXG	5956	62	28	152
KD5ILA	77652	51	49	151
K3TC	33876	25	85	135
DH1PAL	69212	20	59	99
KD6HOF	78284	37	24	98
AA1CX	46677	32	25	89
N2LDV	59445	26	34	86
WA1LAD	67155	31	19	81
KM4ODS	77504	17	43	77
WA2CNV	65510	24	23	71
KE0MIZ	77647	24	18	66
KA0HZP	31562	17	28	62
N7QOZ	62599	20	18	58

**LOW POWER (Cont.)**

CALL	10-10#	CTX W	CTX WO	TOTAL
KA9JCP	50609	14	28	56
LU1BJW	39329	10	29	49
WA2SUH	407	24	1	49
KG5ZMQ	77628	21	3	45
N7AME	27859	15	14	44
KK4AMR	76031	7	24	38
DF3TE	69610	18	0	36
AC2ZZ	78198	10	14	34
KM4AEM	77309	9	16	34
KI5KOI	77853	9	15	33
KC9TQU	77157	12	7	31
W0RTV	13962	11	9	31
F5PKR	78390	9	11	29
KA5VZG	46596	13	3	29
KD5DE	33513	14	1	29
KF8UZ	63621	12	2	26
W2VTV	71275	12	1	25
W9EMM	78288	7	10	24
WB0YYE	72166	10	4	24
N7QHC	59244	6	10	22
N7WLC	63782	8	5	21
WA4JA	72743	3	12	18
AI7OZ	78111	7	1	15
KE8TZD	78144	5	5	15
W5GUZ	69508	4	7	15
W8TOM	74496	7	1	15
KA2YDW	41937	4	6	14
KI6KGC	74983	6	2	14
KL1JP	77233	6	2	14
W5SUM	2019	7	0	14
AB1EP	78304	6	1	13
NC2M	38720	6	1	13

**LOW POWER (Cont.)**

CALL	10-10#	CTX W	CTX WO	TOTAL
K3SV	37473	6	0	12
KE2I	70471	6	0	12
WZ6ZZ	78093	6	0	12
KA3UIH	55744	4	1	9
K0GOB	69079	4	0	8
VE3EXW	32999	4	0	8
K1HG	65447	3	1	7
K5PLH	77878	3	0	6
KR4EE	77307	3	0	6
KB2JES	78227	2	1	5
KM4VI	51453	1	3	5
KX1W	77163	2	1	5
G4BLH	18446	2	0	4
KC0VDY	72580	2	0	4
N1WVQ	73256	2	0	4

**HIGH POWER**

CALL	10-10#	CTX W	CTX WO	TOTAL
DL8YBM	36109	58	449	565
K8DEL	2978	57	145	259
N5MT	24949	77	79	233
EI9HQ	71019	38	55	131
WW5L	78280	36	33	105
NY1U	70147	30	34	94
WB4WXE	7010	15	23	53
NF0J	19553	18	0	36
K4ZMA	78392	17	1	35
N3DUE	41066	13	1	27
VE2GT	71022	6	0	12
KC9EOQ	74609	3	3	9
KA7RRA	74459	2	1	5
W5RIR	78286	2	0	4
WT8P	78099	2	0	4
WA3AFS	5662	1	0	2

**CHAPTER ENTRIES**

CHAPTER	LOGS	PTS
NEANDERTHAL	7	1373
HOUSTON SHOT	2	466
CASTLE CRAIG	3	465
CATT	1	259
POSSUM TROT	4	222
STEAMBOAT	7	170
OREGON TRAIL	1	152
GATEWAY	4	132
MILWAUKEE	1	56
TANGO	1	49
CHIEF SEATTLE	1	22
CITY OF LIGHTS	1	9

**CLUB ENTRIES**

CALL	10-10#	CTX W	CTX WO	TOTAL	OPS
DF0IA	68914	58	449	565	DL8YBM
NM5H	68588	77	79	233	N5MT
W1NRG	29650	68	49	185	N1API
K4MN	24874	17	43	77	KM4ODS
DK0DWK	73418	18	0	36	DH1PAL
DK0HHC	73417	18	0	36	DH1PAL
DL0KAC	73416	18	0	36	DF3TE
W5RRV	42114	14	1	29	KD5DE
WN5AIA	77623	7	0	14	W5SUM

**CHECK LOGS**

CALL	10-10#	CTX W	CTX WO	TOTAL	OPS
VE6TL	10871	112	94	318	0
W0IZ	0	95	109	299	0
W0MB	29826	51	55	157	0
N7DSX	77707	27	18	72	0
N4ILE	36454	25	1	51	0

**CHECK LOGS (Cont.)**

CALL	10-10#	CTX W	CTX WO	TOTAL
VA3UMM 0	10	20	40	0
K0XM 0	16	1	33	0
VE3RVZ 77949	12	5	29	0
W6OI 109	12	0	24	0
WA2JQK 20118	6	1	13	0
VE6CR 0	6	0	12	0
JK8PBO 0	4	2	10	0
K0ARZ 0	4	1	9	0
KI5EWG 0	3	1	7	0
JF2FIU 0	2	0	4	0
KD2REH 0	1	0	2	0

**Meet the Volunteers**

**Jan 1 - Dec 31 2024**

CALL	10-10#	CTX
1. KZ3T	41015	13
2. N5MT	24949	8
3. N1API	25468	5

**62nd Anniversary Results**

**Jan 1 - Dec 31 2024**

**TOP TEN**

CALL	10-10#	CTX
1. KZ3T	41015	4
2. N5MT	24949	4
3. N1API	25468	5

**2025 Ten-Ten QSO Party Schedule**

Event	Dates	Postmark
Spring Digital	April 26-27	May 5
Spring CW	May 3-4	May 13
Open Season	June 7-8	June 16
Weak Signal	July 12-13	July 21
Summer Phone	Aug. 2-3	Aug. 11
Sprint	Oct. 10	Oct 18
Fall CW	Oct. 18-19	Oct. 27
Fall Digital	Nov. 8-9	Nov. 17
Anniversary (63)	Jan 1 - Dec 31	Jan 8, 2025
Meet the Volunteers	Jan 1 - Dec 31	Jan 8, 2025



## 10-10 Scholarship Foundation Supporters

We encourage all of our members to support the 10-10 International Net Scholarship Foundation. Our goal has always been to fund our scholarships entirely through member donations. At the Scholarship Foundation meeting last June, the Foundation Board voted to guarantee funding for three \$2000 scholarships. The Foundation was created in 2001 and is a qualified 501(c) (3) tax exempt organization and contributions are tax deductible. Why not consider a donation as a Chapter or an individual in memory of a fellow ham or loved one? This quarter I donated in the memory of Andy Kirschenbaum, WA2CDL, #3087. If you have an employer matching program, please let us know. Taras Sochan, K2ERN, #74082 made a donation which was matched by his employer. With the discontinuation of the Up the Crick Chapter, Ron Vincent, WJ7R, #76492 arranged to have the chapter treasury donated to 10-10. If you haven't donated before, we want you to know that all donations are appreciated, and they do add up. At the time you make a donation to your favorite charity, please consider a donation to the 10-10 Scholarship Foundation

If you make a donation of \$25 or more, you are eligible to receive one of the historic 10-10 pins. As more and more members have told me not to send a pin and want the maximum amount of their donation to go to the students, if you have made a qualifying donation and would like a pin, please contact me at wa2suh@aol.com. To pay by credit card see payment information on our website or send your check to me or the Data Manager. Our addresses can be found on Page 32.

The members listed below became 10-10 Scholarship Foundation Supporters during the months of December, January and February and we appreciate their support.

### Gold (\$500 to \$999)

K2ERD.....	Taras Sochan* .....	74082
WJ7R.....	Ron Vincent** .....	76492

### Silver (\$100 to \$499)

WA2SUH .....	Larry Berger.....	00407
N8QXC .....	Joseph Mizik III.....	76140

### Bronze (Up to \$99)

KA2YDW .....	Barry Sohm.....	41937
--------------	-----------------	-------

\* Including employer match

\*\* On behalf of the Up the Crick Chapter

## 10-10 SCHOLARSHIP APPLICANT INFORMATION

Beginning this year, the 10-10 International Scholarship Foundation program will be administered on our behalf by the ARRL Scholarship Foundation. Since 1988, at the inception of our scholarship program, the Foundation for Amateur Radio (FAR) has served in this role. FAR has decided to discontinue their scholarship program. We are thankful for the relationship we have had with them all these years. We look forward to our new working relationship with the ARRL on the scholarship program. Details for applications can be found on the ARRL website, and the 2025 scholarship winners will be announced this summer. You can also find information on the 10-10 Website. Look for the Miscellaneous Tab and then Scholarships. Applicants must be licensed amateurs. There is no restriction on the course of study, but applicants must intend to seek at least an Associate Degree from a college or university. Non-U.S. amateurs and those seeking graduate degrees are also eligible, as well as students who study outside the United States. It is suggested that every 10-10 member encourage qualified college-bound amateur radio operators to take advantage of this opportunity. **Over the past 36 years, 10-10 has funded 133 scholarships valued at \$177,000.**

### ARTICLES

There is always a need for articles in the News. There have been a couple requests for Do-It-Yourself articles. If you have something you would like to see in print please feel free to submit it. The most popular articles seem to be those relating to antennas, DIY projects, and kit building. Send your submissions to editor@ten-ten.org.



# TEN-TEN AWARDS

To apply for any 10-10 Award, paid-up membership is mandatory. You are not required to send in proof as the Awards Manager has the current membership database. All contacts made for any award must be legal 10-10 contacts (a full exchange of Call, Name, QTH and 10-10 number from BOTH members). An application listing the rules for each award is available from the appropriate Awards Manager listed at the end of the award listings. Please send your request with a #10 (business size) envelope, self addressed and stamped with one unit of first class postage (or enclose one IRC for GB Award), to the Award Manager for the Award you are interested in obtaining. Please no phone calls to Award Managers for an application or list of rules. Contact requirements and rules for all Awards are available on the 10-10 website at [www.ten-ten.org](http://www.ten-ten.org)

## TOP TEN HONOR ROLL

No.	CONTACTS	CALL	10-10#
1.	24600	WA5JDU	3017
2.	11700	K0PV	9902
2.	11700	N5XZ	4530
4.	11400	DL8YBM	36109
5.	10800	N1API	25468
6.	9800	N5DAS	35877
7.	8800	AC6FU	10937
8.	8200	K5FBS	48461
9.	8100	WB3FGU	16728
10.	6500	LU1BJW	39329

On the 10-10 website under the Activity tab, you will find Historic bar award achievements of our silent keys,

## TOP TEN CLUB

No.	CONTACTS	CALL	10-10#
1.	4400	K6MQ	71487
2.	3700	DL0X	75555
3.	2100	W8PGW	74726
4.	2100	VE4WSC	50470
5.	2000	W1NRG	29650
6.	1300	WB2HIW	38770
7.	1200	NM5MD	72385
8.	1200	W4MNM	75450

## CW AWARDS

### 50 CONTACTS

NO.	CALL	10-10#
59	NC2M	38729

## AWARDS MANAGERS

BAR 100-900..	Dan Morris, KZ3T #41015	3162 Covington Way, Lenoir NC 28645	(828) 728-5049	<a href="mailto:dbmorris315@gmail.com">dbmorris315@gmail.com</a>
Bar 1000+ . . . .	Rob Cromer, KE0MIZ #77647	12932 Palamino Place, Wellington, CO 80549	(970) 692-4421	<a href="mailto:rdcromer@rccomps.net">rdcromer@rccomps.net</a>
VP Bar . . . . .	Thomas Cole, KI5ELV #77743	3238 Wagner St., Shreveport, LA 71108	(318) 617-0562	<a href="mailto:ki5elv@yahoo.com">ki5elv@yahoo.com</a>
VP WAS. . . . .	Charles (Chuck) Dockery, N7UQ #72774	112 S. Rolling Meadows Dr. Wylie, TX 75098	(469) 829-5462	<a href="mailto:chuck@n7uq.com">chuck@n7uq.com</a>
VP Lucky 13 . .	Dan Morris KZ3T #41015	3162 Covington Way, Lenoir NC 28645	(828) 728-5049	<a href="mailto:dbmorris315@gmail.com">dbmorris315@gmail.com</a>
WAC . . . . .	Kevin Gilot, NZ1I, #72759	50 Cindy Lane Mystic, CT 06355-1404	(860) 572-6086	<a href="mailto:kevinemtid@tvconnect.net">kevinemtid@tvconnect.net</a>
Counties . . . .	Mark Tatlor Murphy, KC4HIT #57488	PO Box 936, Conover, NC 28613-0936	(336) 561-3630	<a href="mailto:kc4hit@gmail.com">kc4hit@gmail.com</a>
Countries . . . .	Mike Davidson, N5MT #24949	26274 Whispering Pines Ave, Denham Springs, LA 70726	(713) 417-4727	<a href="mailto:N5MT@aol.com">N5MT@aol.com</a>
CW. . . . .	Lee Zalaznik, KI6OY #50948	334 Olivina Ave., Livermore, CA 94551-6137	(925) 455-0361	<a href="mailto:lee.zalaznik@sbcglobal.net">lee.zalaznik@sbcglobal.net</a>
Digital. . . . .	Jeff Steinkamp, N7YG #65084	6765 E. Rosewood Cir., Tucson, AZ 85710	(520) 546-2290	<a href="mailto:n7yg@n7yg.com">n7yg@n7yg.com</a>
Mobile . . . . .	Paige Butler, W0FLZ #48658	21922 36th Ave NW, Stanwood, WA 98292	(425) 308-5561	<a href="mailto:w0flz62@gmail.com">w0flz62@gmail.com</a>
OM/XYL . . . . .	Marcus Lieberman, KM5EH #71103	2300 Hurley Drive NW, Albuquerque, NM 87120-1013	(505) 836-1724	<a href="mailto:buckml@lobo.net">buckml@lobo.net</a>
WAS . . . . .	Eva Donaldson, WB0CON #53964	12933 W Montana Drive, Lakewood, CO 80228-4244	(303) 989-0475	<a href="mailto:wb0con@comcast.net">wb0con@comcast.net</a>
WPX . . . . .	Ed Bryant, KM5FF, #50356	9001 Sunbow Ave SW, Albuquerque, NM 87121-8851	(505) 934-2100	<a href="mailto:elbble@gmail.com">elbble@gmail.com</a>
GB Counties . .	Mike Crawshaw, G4BLH #18446	35 Edward Drive, Clitheroe, Lancashire, England BB7 1EF	No Phone	<a href="mailto:g4blh@zen.co.uk">g4blh@zen.co.uk</a>

## The Four Elements of Communications

Communication is a fascinating dance of four key elements. They are the sender, the message, the receiver, and feedback. These elements are the backbone of all communication, whether you're chatting with a friend, presenting at a meeting, or even sending a text or answering a call for CQ. This also includes digital communications. Let's break this process down a bit more.

1. **Sender:** This is the person or entity that initiates the communication. The sender has an idea or information they want to share.
2. **Message:** This is the content of the communication. It can be verbal, written, or non-verbal (like body language or facial expressions). The message is what the sender wants to convey.
3. **Receiver:** This is the person or entity for whom the message is intended. The receiver interprets and understands the message.
4. **Feedback:** This is the response from the receiver back to the sender. Feedback can be verbal or non-verbal and helps the sender know if the message was understood correctly.

These elements are interconnected and essential for effective communication. If any one of these elements is missing, communication breaks down. For example, without feedback, the sender won't know if the message was received and understood. Without a receiver, there's no one to interpret the message. Without a message, there's nothing to communicate. And without a sender, there's no one to initiate the communication. We can associate all these things with our communications as amateur radio operators when there are doubles. You can't communicate when two senders are sending at the same time.

In essence, all four elements must be present for communication to occur. It's a dynamic process that requires active participation from both the sender and the receiver. As this occurs, the sender sends the information, the receiver receives the information then becomes the sender to say that the message was received. And the process continues until the exchange is completed.

We can apply the communication process to the transfer of data between two or more computers. I'll describe this process as follows: The sender initiates the transfer of the data with a command such as "listen". The receiver will respond with something like "listening". Like a call for CQ when someone answers the call. The communication has now begun. Now the sender sends the message, and the receiver answers.

To verify that the information was received, there are a few ways to do this. The following covers how digital data is transmitted. While the receiver is receiving the message it will count the bits being transmitted. The counting could be something like a check sum. A checksum is a value used to verify the integrity of data. It's a simple way to ensure that data has not been altered or corrupted

during transmission or storage. Here's how it works:

1. **Data Generation:** When data is created or transmitted, a checksum value is calculated based on the contents of the data. This is done using a specific algorithm, such as CRC (Cyclic Redundancy Check) or MD5 (Message Digest Algorithm 5).
2. **Checksum Transmission:** The checksum value is sent along with the data. This can be done in various ways, such as appending the checksum to the end of the data or sending it in a separate message.
3. **Data Reception:** When the data is received, the same algorithm is used to calculate a new checksum value based on the received data.
4. **Checksum Comparison:** The newly calculated checksum is compared to the original checksum that was sent with the data. If the two checksums match, it means the data has not been altered or corrupted. If they don't match, it indicates that the data has been tampered with or corrupted during transmission. Checksums are widely used in various applications, such as file transfers, data storage, and network communications, to ensure data integrity and detect errors.

Errors in digital communications can occur due to various reasons, such as noise, interference, or signal degradation. When an error occurs, it can lead to incorrect or corrupted data being received. Here are some common methods used to detect and correct errors in digital communications:

1. **Error Detection:** Techniques like checksums, parity bits, and cyclic redundancy checks (CRC) are used to detect errors in the transmitted data. These methods add extra bits to the data, which are used to verify the integrity of the data received.
2. **Error Correction:** Once an error is detected, error correction techniques can be used to fix the errors. Some common error correction methods include:
  - **Automatic Repeat Request (ARQ):** When an error is detected, the receiver requests the sender to retransmit the data. This process continues until the data is received correctly, or has timed out. Then the communication will end.
  - **Forward Error Correction (FEC):** This method involves adding redundant data to the original message, allowing the receiver to detect and correct errors without needing a retransmission.
3. **Retransmission:** If the error cannot be corrected, the receiver may request the sender to retransmit the data. This ensures that the correct data is eventually received.
4. **Error Concealment:** In some cases, especially in multimedia communications, error concealment techniques are used to mask the errors

and minimize their impact on the quality of the received data. These methods help ensure that digital communications remain reliable and accurate, even in the presence of errors. One way to do this is known as a BIT Error rate. There is a threshold of acceptable errors. If this threshold is exceeded, the receiver will request that the sender retransmit the data until the data is received correctly.

In summary, the dancing of these 4 elements are a requirement for any type of communication. Without any one element, communication will not occur.

Rob, KE0MIZ #77647

## An Introduction to the nanoVNA - Part 2

Jeff Steinkamp, N7YG, 65084

In part 1 of this discussion, we covered the basics of the nanoVNA. In this part we'll delve into some advance topics – Firmware Updates, External computer software, testing components such as inductors and capacitors and evaluating and tuning a band pass filter.

One of the neat things about these devices, it is almost impossible to screw these up and brick them due to a corrupt firmware upload. But, before we get into updating the firmware, we need to make sure we have a copy of the device's current firmware so you can always revert back to a known-good firmware. I had a situation where I updated the firmware and while it appeared that everything was working correctly, it would not read anything at S11 or S21. Despite what the website said, that version of the firmware was not compatible with my hardware. Since I had a copy of the original firmware, it was a simple matter to push that back to the device and I was back to normal again.

All of these devices, 2.8 inch and 4.3 inch may look the same, internally they are different, sometimes based on their hardware version. This is especially true if you have a nanoVNA-F device. The nanoVNA project is open source so there are many manufacturers that are using the open-source software, modifying for their use and selling a product. In order to determine who is supporting your device and your firmware revision number, you will need to look at the Version page from the Menu. From the top menu, click on CONFIG then VERSION (H model) or ABOUT (F model). You will get a screen such as the following:



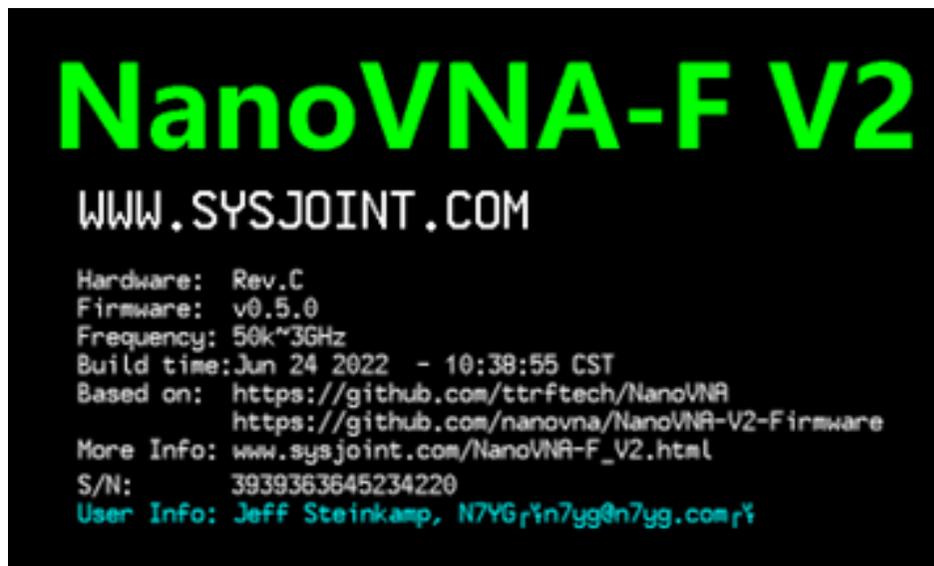
```

NanoVNA
2019-2024 Copyright @DiSlord (based on @edy555 source)
Licensed under GPL.
https://github.com/DiSlord/NanoVNA-D
Donate support:
WebMoney: Z313822869119
Version: 1.2.40 [p:101, IF:12k, ADC:192k, Lcd:320x240]
Build Time: Sep 6 2024 - 17:10:27
Architecture: ARMv6-M Core Variant: Cortex-M0
Platform: STM32F072xB Entry Level Medium Density devices
SN: 00440045-4E565103-20353634
TCXO = 26.000 000 MHz

Time: 2024/12/06 09:47:11 (LSE)
Batt: 4.160V
In memory of Maya

```

Figure 1. NanoVNA-F Screen



```

NanoVNA-F V2
WWW.SYSJOINT.COM

Hardware: Rev.C
Firmware: v0.5.0
Frequency: 50k~3GHz
Build time: Jun 24 2022 - 10:38:55 CST
Based on: https://github.com/trrftech/NanoVNA
https://github.com/nanovna/NanoVNA-V2-Firmware
More Info: www.sysjoint.com/NanoVNA-F_V2.html
S/N: 3939363645234220
User Info: Jeff Steinkamp, N7YG yn7yg@n7yg.com y

```

Figure 2. NanoVNA-H Screen

These pages show you the website to visit for this particular device, the version of the firmware, and in the case of the F device, the hardware version. Go to the website and locate the releases and find the Firmware version you are currently running. From there, you can get the file you need to safely store on

your desktop computer. If you have an F device, you will need the .bin file. For the H models, you will need the .dfu file.

If you have the H device and have not yet installed the program DfuSeDemo, then follow the instruction in the “Beginners Guide to the nanoVNA” that I linked to in Part 1. The installer of this program does not drop a shortcut on the desktop, nor does it provide a Start menu item. You may find it in the recently added list. The program will reside in the following folder:

C:\Program Files (x86)\STMicroelectronics\Software\DfuSe v3.0.6\Bin

Find the file, DfuSeDemo.exe, right click it and select Show More Options. In that menu click Send To.. and click on Desktop (Create Shortcut).

To get the H Device into DFU mode you can press and hold the Jog wheel while turning the device on and get a blank screen, or from the menu, select Config → Expert Settings → DFU → Reset and Enter DFU.

Open the DfuSe Demo program and you will see the dialog in Figure 3.

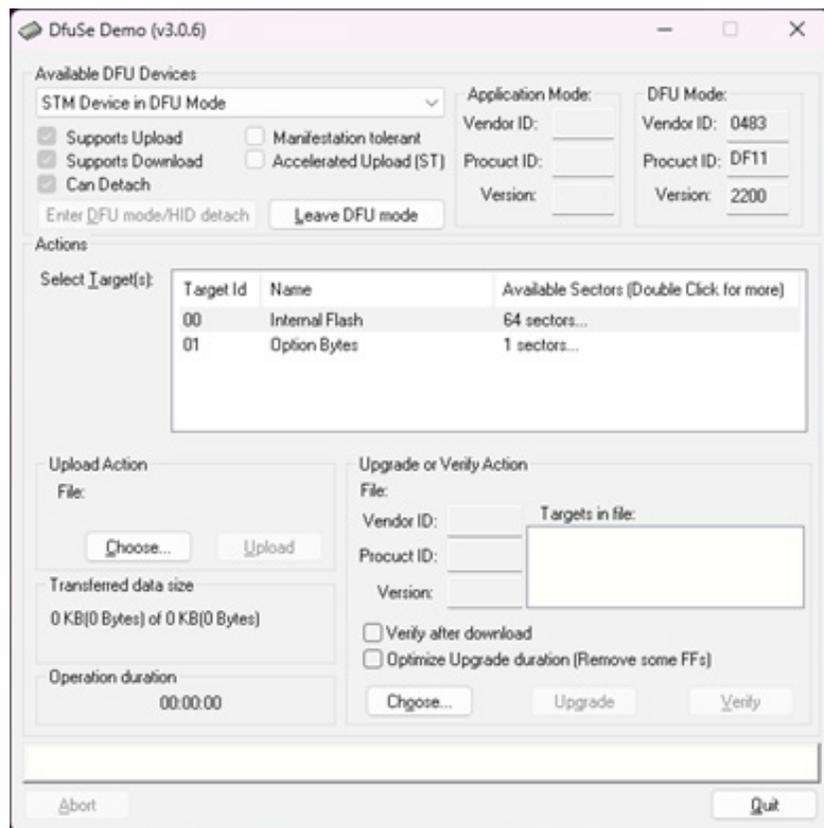


Figure 3. DfuSe Demo Screen

If the Available DFU Devices is not populated and there is nothing in the drop-down box to select, then the driver is not correctly installed, and you may have to manually install the driver. The instructions for doing that are located in the previously mentioned nanoVNA document that was linked to in Part 1.

To perform the update, in the Panel labeled Upgrade or Verify Action, Click on Verify after download button and click on Choose.

Browse to wherever you have saved the .dfu file and select it. You should get a message that says File Correctly Loaded.

Click on Upgrade. It will go through a verification process than upload the new firmware to your device. Click Quit and then cycle the power to the device, and it should power up with the current firmware. Keep all these firmware files so you can revert back to a previous version if you discover something is not right with the current version.

Updating the F device is much easier in that it creates a USB drive where you can drop in the new version .bin file. Power the device off and back on again and it will automatically load the new update during the power up cycle.

With the unit powered off, press the center button if you have a 3-button device, or hold the jog button in and power the device on. It will display the boot loader screen with the instructions. Using the file manager, browse to the new USB drive that was created and open it. You may find a file in that folder called callsign.txt. You can modify/create this file to personalize the device.

From the location you downloaded the ZIP file that contains the firmware update, extract the update.bin file and copy that file into the folder of the USB drive that was created. Power down the device, then power it back up and the update will be loaded during the power up cycle. You can verify the update by calling up the Version Page.

## DESKTOP COMPUTER SOFTWARE

There are a number of desktop computer programs that will interface to the nanoVNA to make things easier. Many of these are special purpose programs for just a couple of select functions and only work on select devices. But there are two that are the most common.

NanoVNA Saver – Look for the Release area on the right side of the page. The current version, as of this writing, is 0.6.5.

NanoVNA-APP – Look for the Release area on the right side of the page. The current version is 1.1.209. Versions after .206 do not appear to work correctly with the -F devices, at least the one I have. It is fully functional with any of the H devices.

For the remainder of this discussion, we will be using NanoVNA Saver as it works with all nanoVNA devices. Figure 4 shows the main screen, hooked to a

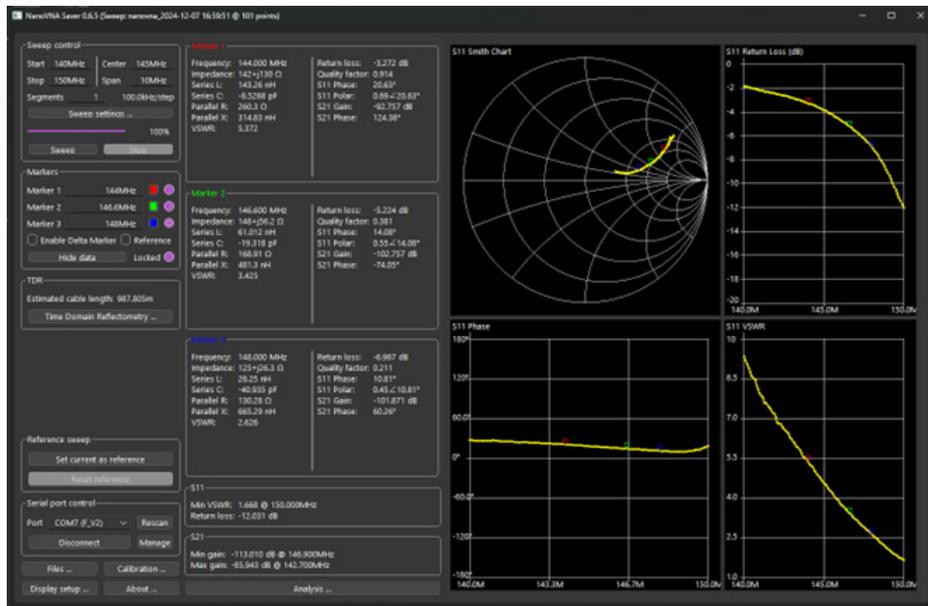


Figure 4. nanoVNA Main Screen

VNA with a stock Dual Band Baofeng antenna attached to the S11 port.

While this is not a good way to test this antenna, it does provide a look at how the program works. The program will always use the VNA's internal calibration unless you elect to create your own calibration files for the program. This is an advanced topic that I will not cover in this discussion.

In the sweep control box, you can set the start and stop frequencies for the sweep. Any change you make here will be reflected back to the VNA. Just make sure that you remain within the limits for the calibration you have selected. A single sweep is the default, but in the sweep settings, you can change that to continuous or average. Click the Sweep button will initiate a default sweep. If you have selected a continuous or average sweep, the Stop button will be enabled to allow you to stop sweeping at any time.

The program will allow you to display up to a maximum of 6 charts. To change those charts, click on the Display Setup button to show the Display Settings dialog.

To add, remove or change the order of a chart, select it from the Drop-down selections in the Displayed Charts group box. The display options are pretty much self-explanatory.

You can pop-out any of the charts displayed to a separate dialog by right clicking on a chart and selecting the pop-out option. You can then size the chart to meet your requirements. If you right, click the chart again, you can save that

chart to an image file.

If you want a screen shot of the device, click on the Manage button in the Serial Port control group and click on Screenshot. If your right, click that image you can resize it and save that image to a file.

This software is really great if you have a 2.8-inch device, or like me, your eyesight is not as good as it was 50 years ago.

If you have an unknown length of coax, or you want to test the coax for open and shorts, The program TDR function will be of great benefit. You will need to know the velocity factor of the cable. Connect the know cable to the S11 port and leave the other end of the cable open. Run a single sweep. In the TDR group box, it will give you the estimated cable length. Click on the TDR button and from there you can select the type of cable or select Custom to input your own velocity factor.

The cable I have attached is an approximate 3-foot length of RG-58 with SMA connectors on each end.

The manufacture of this cable indicates the velocity factor of the cable is 0.77 or 77%.

With that velocity factor entered as a custom value, the approximate length is 0.906 meters or 35.66 inches which is about as close to 3 feet as we are going to get. See Figure 5.



Figure 5. TDR Sweep Display

If you end up with some length value that is less, that would indicate a problem with the cable.

Unfortunately, there is not a good basic user manual for this software that is available for download. The author assumes you are somewhat literate with the operation of a VNA. I'm still learning how to use this software tool. There are a number of YouTube videos out there explaining how to use this software to interface with the VNA and how to make the most of the software.

The VNA will allow you to measure discreet components like capacitors and inductors and evaluate them at specific frequencies. Capacitors are normally marked with their value, but such is not the case with an inductor, especially one you have wound yourself.

There are devices on the market that will measure capacitors and inductors built into digital volt meters or even specific L/C meters. But these devices evaluate the component in the audio frequency range. Capacitors will not normally deviate from their design value over a specific frequency domain, however inductors will. A 150 nH inductor measured at an audio frequency of 30 kHz many not read 150 nH at 30 Mhz.

Therefore, when rolling you own inductors, or even purchasing a pre-made one from a vendor, you will still need to "tune" that inductor, so it is inside the tolerance specified for the circuit. This is especially important when working with RF filters.

The most important part of making these measurements is to acquire a good calibration. To facilitate proper testing of components, you will need to fabricate some type of test fixture to connect the components to the VNA. The simple way to accomplish this is to purchase a 36-inch SMA coax jumper, cut it in half, and then attach some alligator clips to the open end of the coax.



Figure 6. 36-inch Coax attached to Port

With this setup, you will not be able to use the provided calibration devices to perform the necessary calibration.

For the open, just leave the clips disconnected from anything.

For the short, a short piece of wire will be sufficient.

The load will need to be a non-inductive resistance of 50 ohms +/- 1%. I ordered a package of 50-ohm 1/8 watt 1% resistors, but if you have a number of 100-ohm resistors, you can find two that are close to 100 ohm and place them in parallel for 50 ohms. The bottom line is to get this load as close to 50 Ohms as possible.

We will be using the nanoVNA Saver program to perform these evaluations. Make sure you have calibrated the VNA at the alligator clip end of this pigtail.

We will be evaluating these components at 30 MHz, so you will want to initially set the sweep excursion in the software to cover 20 – 40 MHz with the center at 30 MHz.

With the segments set at 1, that will be a measurement of 200 kHz per step. We can make that a little finer by increasing the segment count to 8 and that will give us approximately 25 kHz steps. The more segment you have, the longer it will take to complete a sweep.

In the Markers box, set those to 20, 30 and 40 MHz. They will adjust to a frequency that is on a segment. In this case 30 Mhz comes out to somewhere between 29.9 and 30.1 MHz.

Perform the calibration on the device. Leave the load connected and reset the markers if necessary. Run a sweep and when it has finished, check the Impedance for Marker 2. In my case it is 50 + j7.9m ohms, pretty close to 50 ohms. This is just a sanity check to make sure the calibration succeeded. And the Smith chart shows all three markers on the 50-ohm intersection.

First, we will measure a capacitor. I have a 27 pF Silver Mica 5% capacitor to evaluate. Simply connect it across the alligator clips and click the sweep button.

At 30 MHz, the Series C is 27.815 pF which is well inside the 5% tolerance. On the device with the Smith Chart displayed, at the 30 MHz maker, it shows the capacitance at 28.0 pF. So, this capacitor will work just fine in the 10 Meter bandpass filter I will be building.

Evaluating inductors is basically the same as the capacitor, but we will be looking at the Series L value for the inductance.

Rolling your own inductors will require some additional tools to assist in determining the number of turns required for the type of inductor you plan on using.

You can fetch all the formulas you need from the internet or just about any



Figure 7. Display after sweep of 27 pF capacitor

electronics publication that has sections on inductor properties.

The is a really nifty program called Mini Ring Core Calculator, and the current version is 1.3.3. There is also version 1.2 that many seem to prefer because the display is bigger. This program has been around for quite some time and is no longer supported or developed as the original author has passed away.

The figures 8 and 9 show the difference between the two. I prefer version 1.2 because of the size as opposed to 1.3.3. I have hyperlinked the download for Version 1.2. A simple Google Search will provide the links for 1.33.

The great thing about this program is it rounds off the number of turns to a full turn and gives you the length in inches. You will need to add some extra for the



Figure 8. Mini Ring Core Calculator V 1.2



Figure 9. Mini Ring Core Calculator V 1.3.3

connections. The downside to version 1.2 is the help files. They use the old Windows Help system which has been deprecated for almost 15 years and if you are using Windows 10 or greater, then clicking on Help is going to direct you to an error page. Version 1.3.3 has those help files in PDF format.

I took a random length of some #14 solid wire I had and wrapped it around a piece of PVC pipe I had in the garage and was able to get roughly 2.5 turns around that form. The natural diameter of the coil turned out to be 1.75 inches and I spread the turns out, so the length was approximately 0.5 inches.

The air coil portion of the mini-Ring Calculator came up with 378.493 nH. With the coil attached to the VNA, it was reading 394 nH at the 30 MHz marker. In the nanoVNA Saver software it showed the following:

20 Mhz 393.83nH  
 30 MHz 393.64nH  
 40 MHz 391.55nH



Figure 10. Mini Ring Calculation

Spreading the coil out to approximately 1 inch in length brought that inductance down to 296 nH. If I crush it down to where there was no space between the winding's, the inductance rose to around 465 nH. This is how you tune the inductor. The same principle will apply if you are using round ferrites or iron



Figure 11. Sweep Screen

cores.

In this last section we will be tuning a band-pass filter that I built, from a kit I received from the folks at TacticalRadioGear.com. They were kind enough to send me a kit with the parts and circuits board for a 10-meter BFP that actually is good for both 10 and 12 meters and will handle 200 watts PEP.

The filter topology appears to be a bit strange in that it is really only a single pole BPF, designed at 500 ohms with a simple LC matching network on each end to allow it to work in a 50-ohm system.



Figure 12. nanoVNA conected to Air Coil

I modeled it using Elsie and the response is quite good for a filter that covers both 10 and 12 meters. Figures 13 and 14 are the schematic and the response plot from Elsie.

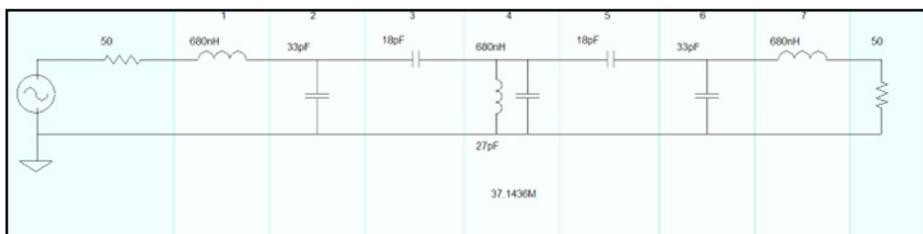


Figure 13. Band-Pass Filter Schematic

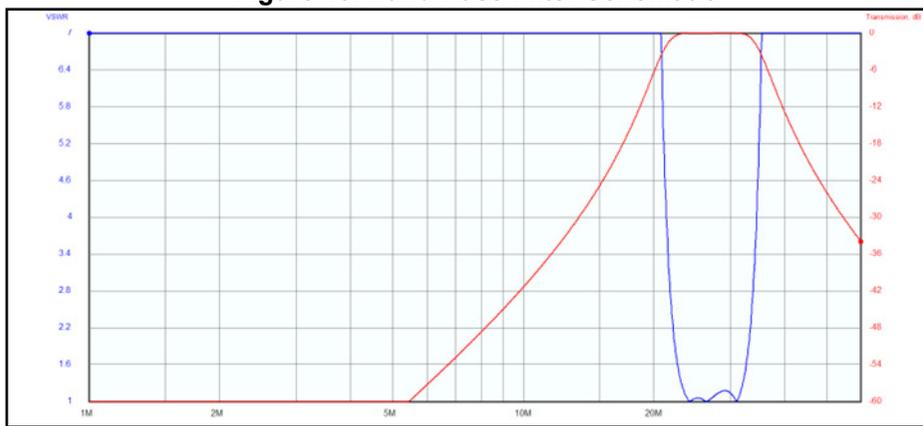


Figure 14. Band-Pass Filter ELSIE Response Plot

The 680nH inductor and 33 pF capacitor are the impedance matching components, and the rest comprises the filter. This filter is a bit wide in that it does cover 12 meters, but the 3db cutoff is right in the 15-meter band, so using this in a contest setup, you would not want to be in close proximity to the 15-meter transmitting antenna.

The kit of parts included everything one needs to build and house the filter including a top-quality printed circuit board. I was supplied 3x T80-2 cores along with #18 enamel wire. For the 10-meter filter it requires inductors with an inductance of 680 nH (0.68 uH). This is where I ran into some issues. The instructions called for 6 turns of wire, while the coil calculators called out 12 turns, which is actually 705 nH. But this is where the nanoVNA came in quite handy.

We can measure the inductance in exactly the same manner as we did with capacitors. I cut the wire to the length I figured I needed, but I was only able to get 10 turns. So that was the starting point. Hooked it up to the VNA and I was reading 1.1uH. I suspected the cores permeability (AL) was not the specified 5.2 for a T80-2. The miniRing calculator allows you to determine AL based on



Figure 15. Initial Reading



Figure 16. Final Reading

turns and inductance and using that value of 1.1uH, I determined an AL value of 10.5. Using that AL value I came up with 8 turns which was close to 680 nH, 672 nH to be exact. I removed a few turns and got to eight and measured it again. This time we were at 750 nH, as read on the VNA with a marker at 38.2 MHz.

If you compress the turns around the ring, that will increase the inductance value. Spreading the turns out will decrease the inductance value. This is a very tedious process to get the exact value. The final value that I arrived at was 687 nH, which is well inside a 1% tolerance. If your VNA has a small 2-inch screen, you can set the software to do a continuous sweep in the sweep settings, but make sure you set the segments to 1. These are rough adjustments and may require some additional adjustment once we get it mounted to the circuit board

and the rest of the components installed. So, do not apply any coil dope to secure the turns until we have completed the final adjustments.

Figure 18 shows the finished product and Figure 19 is the first sweep. I did recalibrate the VNA for 10 – 60 Mhz and set it up to display S11-SWR and S21-LogMag. This filter is specified to cover 10 and 12 meters, and we can see from

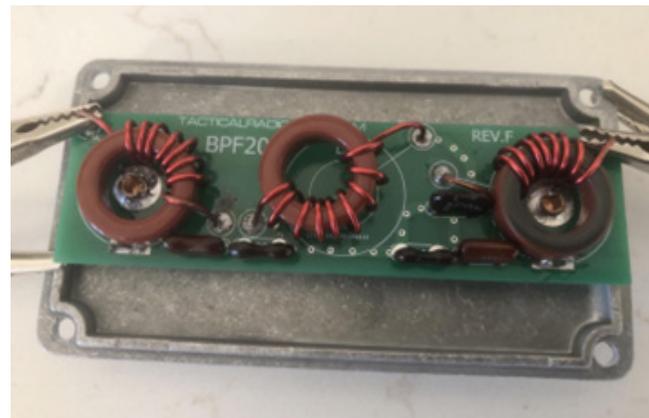


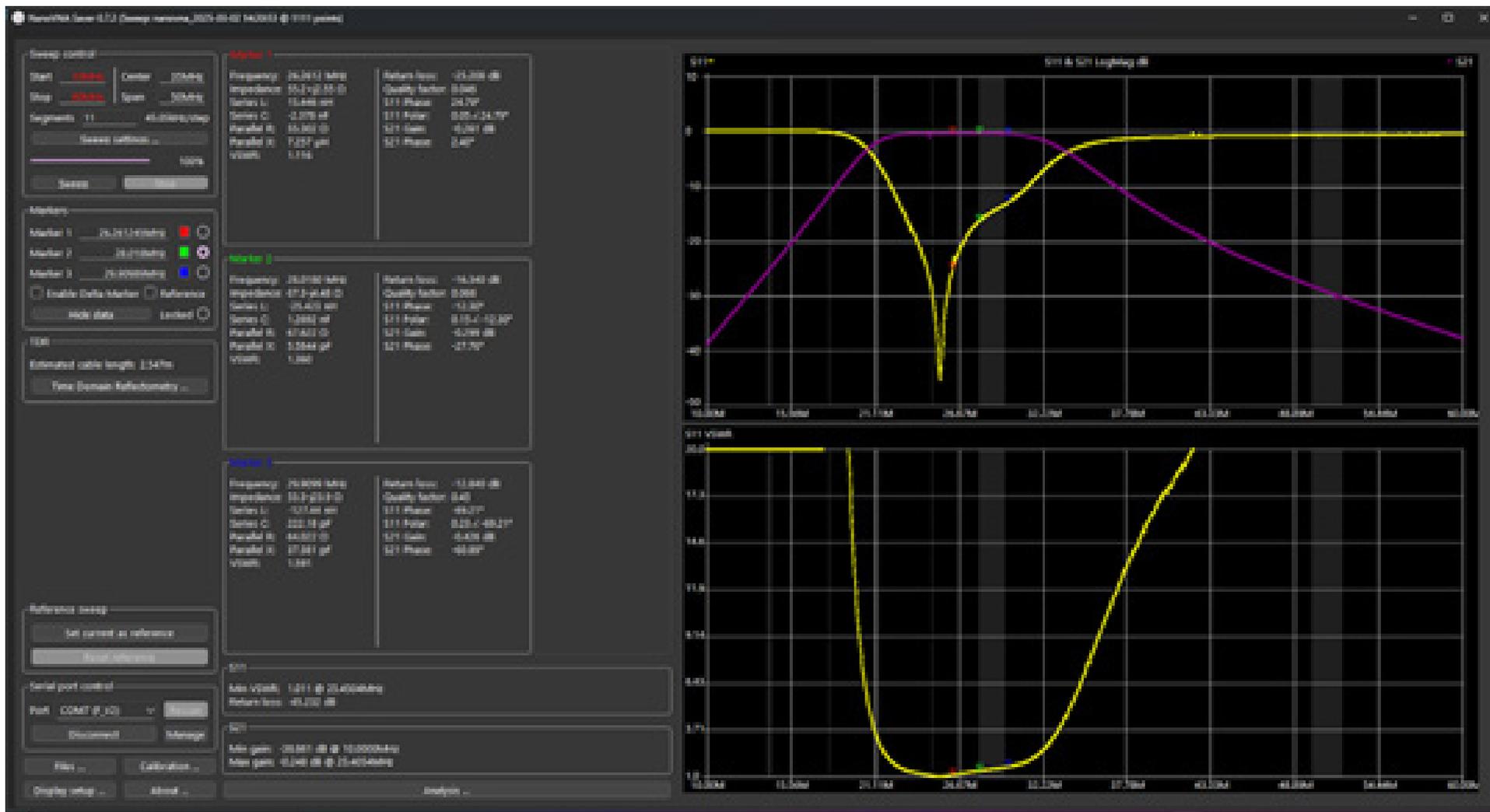
Figure 17. Finished Filter



Figure 18. First Sweep

the SWR pot, the center frequency is around 25.5 Mhz. This could be used as is. Figure 20 is a screen shot of the filter in the software.

The 10 meters band is well inside the filter's bandwidth, but the SWR falls between 1.36 and 1.6. If you wanted to use this filter for both 10 and 12 meters, I would leave it the way it is currently.



**Figure 19. Over-All Frequency Response**

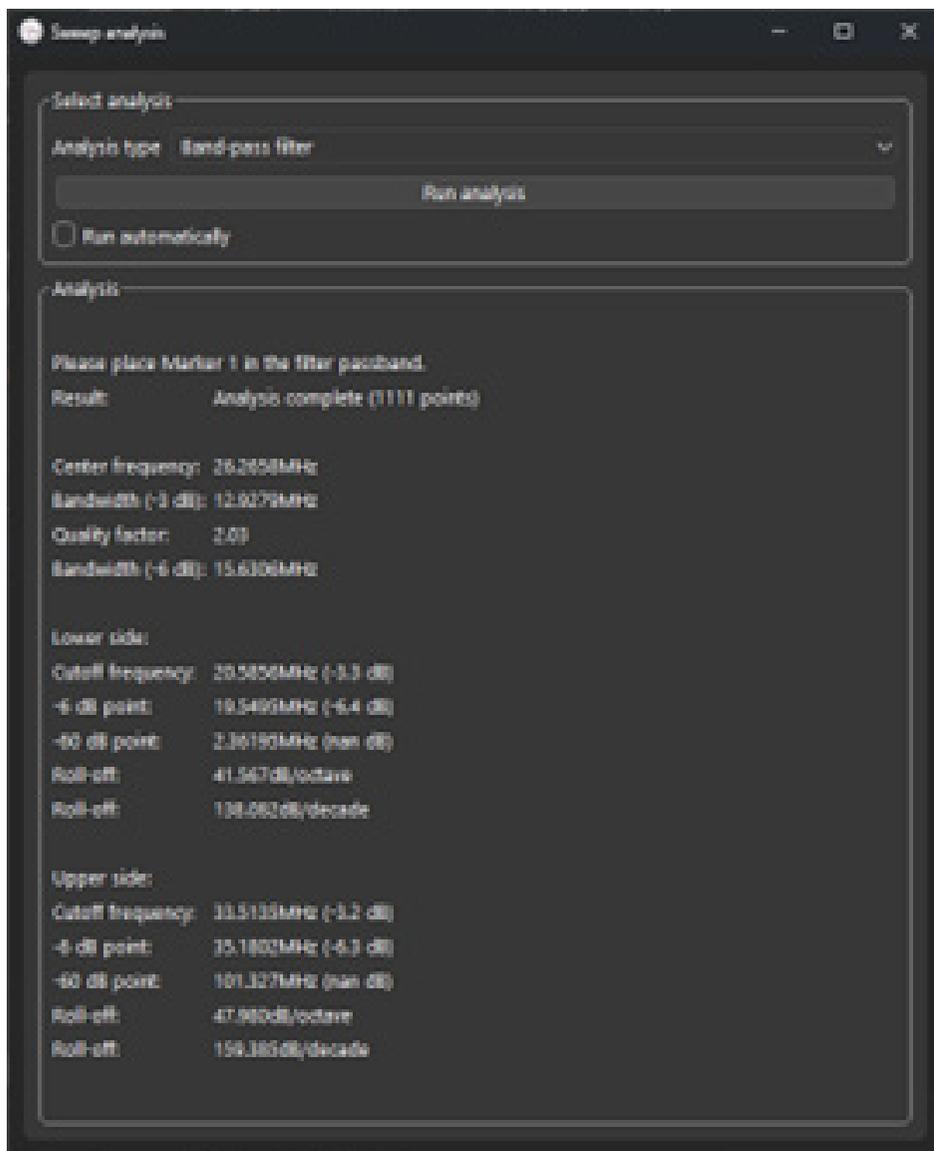
We can also run an analysis of a band pass filter by clicking on the Analysis button at the bottom of the program.

Based on this analysis the center frequency is 26.265 MHz, with a -3dB bandwidth of approximately 13 MHz.

However, since I really want to use this exclusively for 10 meters, we can improve on this and move that center frequency up to somewhere between 28.5 and 29.Mhz.

The process to do that can be a bit labor intensive as it will require us to adjust the turns on each of the coils to slide that center frequency up to place it inside the bandpass of 10 meters, while still maintaining the 50-ohm impedance match.

This will best be accomplished using the real time update on the VNA, but by selecting 1 or 2 segments in the VNA software and setting the sweep up for continuous, you will be able to see the trace move as you make adjustments on each of the inductors.



**Figure 20. Filter Analysis**

We will start with the center inductor, L2, as this is the element of the circuit that will move the center frequency. I was unable to get more than 250 kHz of adjustment out of the center inductor, so I ended up removing 2 turns from each inductor, for a total of 6 turns as that was what was specified in the instructions.

That brought the center frequency and the SWR dip much closer to 29 MHz. I spent about 20 minutes playing with all three inductors compressing and

expanding until I was able to get the SWR dip at 29 MHz and the band edges less than 1.4:1.

The center of the filter is at 29 MHz and the SWR is 1.1:1. The band edges are at 1.35:1 at 28 MHz and 1.2:1 at 30 MHz. The 3dB cutoff points are 25.3 MHz and 39.8 MHz.

In order to use this filter effectively on 12 meters, we'd have to add those 2 turns we removed to bring that center frequency back down to 25 MHz.

While the kit of parts which includes everything you need to build this filter to include a nice metal case is great, the 14.5 MHz bandwidth is extremely wide for this filter to be used in a multi-transmitter contest type of operation. If I was to do this over, I would use a 3 pole Butterworth filter. You can research the ARRL Archives for "Band-Pass Filters of HF Transceivers" by Lew Gordon, K4VX, which appears in the September 1988 edition.

The only minor problem I had with this kit was the screw holes in the box where not threaded correctly and I had to run a thread chaser down the holes to get the thread correct.

There are a multitude of functions you can accomplish with a VNA and we just brushed the surface with these two parts that I have published. For the price of this device, it is worth its weight in gold, even if you only use it for antenna testing. Figures 22 and 23 are the finished product and the last sweep after the circuit board is installed inside the enclosure.

**Figures 21, 22, and 23 can be found on the following page.**

#### ARTICLES

If you have a Ten-Ten related adventure/experience you think would be good to share with the other members of the Ten-Ten International organization, please send your story to [editor@ten-ten.org](mailto:editor@ten-ten.org).

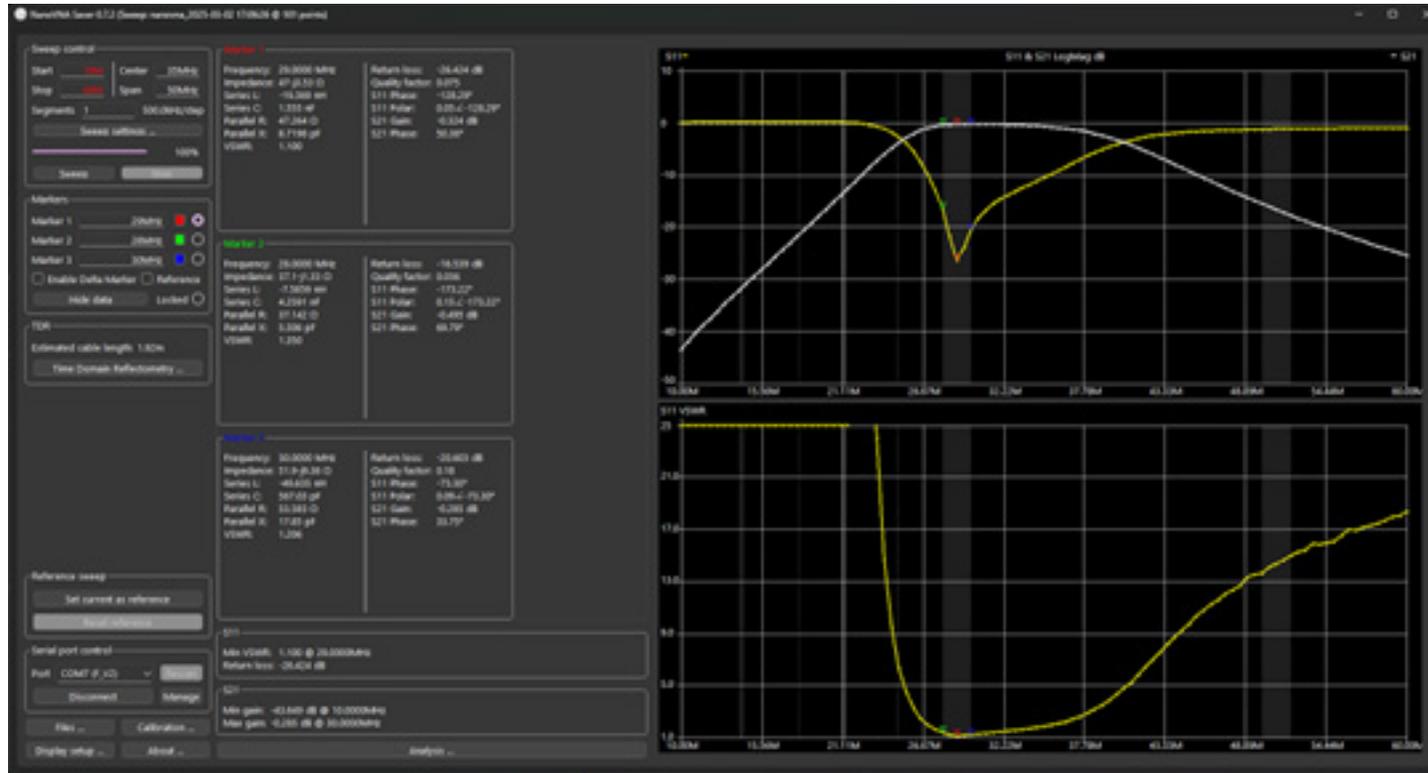


Figure 21. Sweep after Adjustment



Figure 22. Finished Product



Figure 23. Final Sweep



# Silent Keys

Mark Steele, KD2NOM  
 (#77596)

It is with sorrow that we note the following Ten-Ten members who are now Silent Keys. We extend our sincere condolences to the families and friends of those SK members whose calls and Ten-Ten numbers will forever be kept in the records of the Ten-Ten Net.

10-10#	Call	Name - City, State
01100	WA0UDD	Robert E. Wilkins - Dallas, TX
02306	K5RMY	Henry E. Ripple, Jr. - Taylor, TX
02719	WA0PFV	James R. McChesney, Jr. - Roseville, MN
03767	N5RL	John R. Lavender - San Antonio, TX
04772	KC0IV	Clinton L. Moore - Kansas City, MO
04920	WB4LJP	James E. McQueen - Eufaula, AL
05414	K7BV	Dennis R. Motschenbacher - Carson City, NV
05509	W1IL	Albert J. Gregoritsch, Jr. - South Burlington, VT
06835	W6DEN	Dennis A. Polito - Auburn, CA
07705	K8NYM	Wesley A. Ferrell - Kent, OH
08974	W5OV	Robert E. Naumann - Garland, TX
11558	W4CHU	James M. Bruton - Winter Garden, FL
11905	W6LMJ	Terrence R. Redding, Sr. - Deland, FL
12849	W9OC	David L. Johnson - Wakefield, MI
13362	WB7CXA	Norman H. Johnston - Anacortes, WA
15479	WB4VEJ	Luther G. Cuthrell - Wallburg, NC
15634	N5WB	Weldon J. Blair, Jr. - Plano, TX
15706	K4BR	John R. MacDonald - Waynesboro, GA
17023	W9JL	James R. Lauterbach, Sr. - New Lenox, IL
17927	K1AAS	Neil G. Gordes - Rocky Hill, CT
18123	AA0T	David S. Sieger - Rembert, SC
18178	W2OD	Robert G. Buus - Holmdel, NJ
18483	WD9BCP	Glen R. Roth - Wakukessa, WI
18784	W4DJA	David Rose - Shelby, NC
19550	WB0CFF	Carl R. Gansen - Belle Plaine, MN
21134	N3EKZ	Melvin J. Morenz - Glen Burnie, MD
25120	WD0HDW	Ivan E. Joynt - Holstein, NE
26004	W4KFA	Richard K. Peterson - Ormond Beach, FL
28212	W0WQ	Charles F. Richards - Virginia, MN
28243	KZ9Q	Robert H. Cawley - Milan, IL
28385	WB4JQP	Aubrey C. Burroghs - Jamestown, NC
28401	W5KNE	Robert B. Winn - Frisco, TX
28447	KA5EJX	Rodney D. Huckabay - Lubbock, TX
28527	KJ8C	Robert W. Boyink - Mission, TX
31161	N9BMN	Carl P. Kennedy - Harvard, IL
31625	W6SUE	Sue Elsemore - Anderson, CA
32102	N3CHO	Edward W. Grabousky - Myrtle Beach, SC

10-10#	Call	Name - City, State
33735	WD6EQQ	Walter M. Loose - North Highlands, CA
34887	KA2NTB	Willie T. Carroll, Jr. - Woodbury, NJ
35251	KT4TN	Randy C. Bean - Franklin, TN
36389	N2LS	Lawrence J. Stein - Manahawkin, NJ
37369	K4FLG	James A. Jordan - Dalton, GA
38128	WU8P	Phillip J Mikula - Rockford, MI
38771	K2SST	Ronald W. Parham - Hendersonville, NC
39411	W4CMC	James A. Yelton - Hollywood, FL
39872	KD9KO	Duane A. Plant - Sandwich, IL
40478	K1RI	Robert A. Elliot - North Scituate, RI
41126	W4FM	John R. Skinner, Jr. - Parkland, FL
41545	K6XJ	Parry A. Foster - Clovis, CA
43419	NY0T	Philip B. Urqiola - Hallsville, MO
43923	KE2JJ	Gerald R. Crawmer - Clifton Park, NY
44979	N7GTG	Robert Antonini - Las Vegas, NV
46592	KA5CSI	John J. Wehrer, Sr. - Harvest, AL
47852	AC4HG	Benjamin R. Timmerman - Chattanooga, TN
50288	K7CWS	Raymond E. Roberts - Scottsdale, AZ
50865	AC7JT	Jeffrey C. Tingey - Logan, UT
51859	W6UKW	Jack L. Cutting - Livermore, CA
52372	N3GBM	George Jerry Newman - Philadelphia, PA
52923	WB0PWJ	Tom D. Carlson - Grand Island, NE
53593	WA9LYC	James I. Davis - Lafayette, IN
54107	KA8YTS	John A. Orndorff - Hubbard, OH
56892	KC3XO	Paul W. Glunt - Tyrone, PA
57364	K9KR	Lynn C. Tamblyn - Waterford, WI
62726	N2NGW	Robert J. Anderson - Wildwood, NJ
62932	AA9JJ	Frank L. Yohe, Jr. - Sierra Vista, AZ
63758	KB7OUU	Elliott C. Byrd - Draper, UT
64553	WK3Q	Joseph P. Ross - Stephens, PA
64983	AK7YT	Glenn D. Blanke - Stockton, CA
68329	KT4IK	Robert T. Edmisten - Vilas, NC
68444	WB4JJJ	Alan A. Wheeler - Fairfax, VA
68614	K3TEN	Roy Connors - Cocoa, FL
70495	NJ5O	James R. Osborne - Castle Rock, CO
70889	WI9TOM	Thomas R. Liebe - West Allis, WI
71798	KA9RYP	Alan R. Lacquement - Highland, IL
72011	K3OLE	John A. Hawkinson - Easton, MD
72328	N8VUA	Edward Jordon, Jr. - Cleveland, OH
73231	N4ESS	Richard E. Kennedy - Zephyrhills, FL
74099	K9PLX	E. Charles Hopper - Lombard, IL
74524	AD5WB	Leslie L. Bartosh - League City, TX
75688	K4JUJ	Dennis S. Chapman - Hookerton, NC
76136	WV6Y	Warren H. Wright - Oro Valley, AZ
76753	W4LDD	Larry Howard - Charlotte, NC
77024	KE5LXE	Dewayne Campbell - Keatchie, LA
77513	KV5F	Jimmie W. Frye - Gravette, AR

Thanks to Lee - K2HAT - #76138 for his efforts in helping me keep the sk column as up to date as possible.

Mark 73, KD2NOM #77596

## WOULD YOU LIKE TO JOIN 10-10?

### *Here is what you need:*

1. You must hold a valid amateur operator license.
2. Your valid amateur operator license MUST authorize or qualify you for unsupervised transmitting operations in the ten meter amateur band under your own personal call sign.
3. You must make contact with ten members of 10-10 and submit a log listing all contacts, their 10-10 number, call sign, name/handle (as received on the air), date of contact, and QTH (state/province/country). The contact form and membership application is provided on the page that follows.
4. You must remit dues for one or more year's full membership. Fee schedule and payment information can be found in Section 2 of the page that follows.

## TYPES OF MEMBERSHIPS

To become a member either fill out the form on the following page and mail to the Data Manager at the indicated address or go on-line to the 10-10 web page, [www.ten-ten.org](http://www.ten-ten.org) and follow the links from 'membership' to 'application' and select membership category.

### *Primary Membership*

Primary membership is available with yearly dues, although there is a special incentive available when you pay for three years at once.

### *Family Membership*

Family membership consists of a primary member and one or more family members who qualify as a 10-10 member (has made the necessary 10 contacts) and who reside at the same location and postal address. Family memberships run concurrently with that of the primary member. Add \$5.00 for each additional family member for each year. Only the primary member will receive a copy of the 10-10 News.

### *Life Membership*

Life membership is available and may be paid in one lump sum or spread across two or three years. For information refer to the "Life Membership Application" form on the web or contact the 10-10 Data Manager.

### *Senior Life Membership*

Senior life membership is available to anyone who is currently 65 years of age or older. Payment can be made as one lump sum or within a one year period. For information refer to the "Life Membership Application" form on the web or contact the 10-10 Data Manager.

*Family Life Membership* is no longer available

### *Club Membership*

Club membership is available to any Amateur Radio Organization which holds a valid Amateur Radio License. Application must be made by the club trustee. Dues are the same as the Primary member. No family or life memberships are available. Clubs have all the same rights and privileges as primary members except the right to vote in elections.

### *Electronic Membership*

Electronic Membership is available to anyone who qualifies for any of the types of membership listed previously. Electronic membership means that all communications, including the 10-10 NEWS, from 10-10 to the qualifying member will be conducted via email distribution. The exception to this policy is when a member qualifies for a certificate from either one of the various QSO Parties or from one of the Awards programs.

## MEMBERSHIP RENEWALS

Either fill out on the following page the top half of Section 1, including your 10-10 number and Section 2 and mail to the Data Manager at the indicated address or go on-line to the 10-10 web page [www.ten-ten.org](http://www.ten-ten.org) and follow the links from 'membership' to 'renewals' and select the membership category.

## DATA MANAGER SERVICES

### *Call/Name/Address Changes*

All changes are to be sent to the 10-10 Data Manager. Please include your address label (or a copy) with necessary corrections. This also can be accomplished at [www.ten-ten.org](http://www.ten-ten.org) using the membership/update link.

All payments may be made by Check, or Money Order. Due to banking regulations Credit Cards cannot be accepted for merchandise. Membership Services and Scholarship Donations can be made via credit card using the secure shopping cart at [www.ten-ten.org](http://www.ten-ten.org)

Mail to:

**Data Manager, 10-10 International Net, Inc.  
1349 Vernon Terrace  
San Mateo, CA 94402-3331**

### *SCHOLARSHIP DONATIONS*

Donations to the 10-10 Scholarship Foundation are encouraged by our members to help fund three \$2,000 10-10 Scholarships to be awarded. For donations of \$25 or more you are eligible to receive a current year's lapel pin as a thank you gift. To pay by credit card, see the payment information on our website. Your check should be made payable to the 10-10 Scholarship Foundation and sent to the Data Manager (address shown above) or the Scholarship Manager:

**Larry Berger, WA2SUH  
10-10 Scholarship Manager  
9 Nancy Blvd.  
Merrick, NY 11566-3119**

## TEN-TEN QSO PARTY RULES

**5.2 10-10 QSO PARTIES**

10-10 QSO Parties are events that are held for fun and to meet old, new and prospective members around the world. The rules listed here are for all general QSO parties. The Spirit of 76 and Open Season QSO Parties are specialty events and do have additional rules. The Anniversary and Meet the Volunteers are year long contact events.

**5.2.1 WHO IS ELIGIBLE?**

QSO Parties are open to all amateurs with operating privileges on the 10 meter band, however, logs will be accepted only from active members as of the date of the event with the following exception: Open Season event logs will be accepted from all amateurs. Other logs received will be handled as check logs. Check logs are used to validate (check) other logs, but do not qualify the sender for any awards. A QSO Party contact log submitted by an Amateur that intentionally submits erroneous contact information to cause errors on membership applications and awards will be considered an invalid log. Ten-Ten will not accept any log of contacts from an Amateur who had his or her membership/1010 number revoked.

**5.2.2 WHEN ARE THE QSO PARTIES?**

There are currently nine QSO Parties held throughout the calendar year:

**Winter Phone** - held on the first full weekend in February  
0001 UTC Saturday through 2359 UTC Sunday.

**Spring Digital** - held on the last full weekend in April.  
0001 UTC Saturday through 2359 UTC Sunday.

**Spring CW** - held on the first full weekend in May.  
0001 UTC Saturday through 2359 UTC Sunday.

**Open Season (PSK)** - held on the first full weekend in June  
0001 UTC Saturday through 2359 UTC Sunday.

**Weak Signal** - held on the second full weekend in July - 0001 UTC Saturday through 2359 UTC Sunday.

**Summer Phone** - held on the first full weekend in August.  
0001 UTC Saturday through 2359 UTC Sunday.

**Sprint** - a 24 hour event held on October 10th (10-10).  
0001 UTC through 2359 UTC.

**Fall CW** - held on the third full weekend in October.  
0001 UTC Saturday through 2359 UTC Sunday.

**Fall Digital** - held on the second full weekend in November.  
0001 UTC Saturday through 2359 UTC Sunday.

**5.2.3 FREQUENCY AND MODES**

Direct unassisted contacts only are permitted. Repeater, Satellite, IRLP, Echolink, or any other similar type of assisted contacts are NOT allowed. Based on the appropriate band plan for the country of operator, CW QSO Parties should be operated in the CW area of the 10-meter band and operated using CW only. Digital QSO Parties should be operated in the digital area of the 10-meter band and operated using Digital modes only (RTTY, PSK, etc). Phone QSO Parties must be operated in the PHONE area of the 10-meter band and may be operated using any approved method (SSB, FM, AM). The SPRINT utilizes all operating modes in the 10-meter band.

**5.2.4 ENTRY CLASSIFICATION**

Entrants may submit a log in ANY of the following classifications:

**QRP:** Includes single station operators and can also include OM/XYL teams or any families or groups of people using individual call signs and 10-10 numbers. CW/Digital/RTTY operations max 5 watts and Phone operations max 10 watts during the entire event.

**LOW POWER:** Same as QRP listed above except that output power for CW/Phone/Digital/RTTY operations is max 150 watts during the entire event.

**HIGH POWER:** Same as QRP listed above except that output power for CW/Phone/Digital/RTTY operations is greater than 150 watts during the event.

**CLUB:** A Club must have a valid club station license issued by their National Licensing Authority and must have an active 10-10 membership. Club entries must list the call, name and 10-10 number (if any) for all operators using the club call. Club operations will take place at one location using one set of equipment. Operators entering under a club entry may also enter an individual log for contacts made using their own call sign.

**MOBILE:** A mobile applies to car, truck, RV, motorcycle, boat, airplane or other mode of transportation. Use of a base station antenna, amplifier or commercial power is not permitted. Operation while your vehicle is parked across a county line, occupying two counties, counts as two counties and two contacts. Marine and aeronautical mobiles must be able to establish counties of operation. Safety is paramount while operating mobile. If you are unable to park near multiple county lines due to safety issues (i.e. on a bridge, on a freeway, etc.), please move to the closest area which would provide the best operating conditions and still be able to give out multiple counties. Duplicate entries are allowed when working in multiple counties. In addition to the normal log information provided the County Worked from and County worked must also be included. Mobile stations will receive awards within their own category and will not be included in the individual sections or Top Ten in the World. **Mobile entries will only be accepted for Winter & Summer Phone and 10-10 Sprint QSO Parties.**

**5.2.5 TRANSMITTER INFORMATION**

An operator may operate mobile, portable or fixed. If they change their exchange QTH during the QSO Party, the operator must show same in their log. The operator may enter a log from one call district, province, or DX country. Multi-transmitters (two or more transmitters operating simultaneously, sharing one call sign) are NOT permitted in any QSO Party. No matter your physical location, your QTH is the location of the transmitting antenna.

**5.2.6 EXCHANGE**

10-10 members send call sign, name, 10-10# and QTH (State, Province or Country). If received exchange does not have a 10-10#, then record a zero (0) in the log.

**5.2.7 QSO POINTS**

Two (2) points are awarded for contacts WITH a 10-10 number. One (1) point is awarded for contacts WITHOUT a 10-10 number. Duplicate entries should be retained in log and show a zero (0) for points. Any log showing 10% or more errors may be handled as a check log. A station may be counted only once regardless of mode except during certain specialty events.

**5.2.8 CHAPTER SCORE ASSIGNMENT**

Any entrant who is a chapter member may assign his/her score to that chapter. QSO Party chapter scores for the Sprint and Open Season may not be assigned.

## TEN-TEN QSO PARTY RULES

**5.2.9 QSO PARTY ENTRIES**

Logs shall be forwarded to the QSO Party Manager as identified in the 10-10 NEWS or on the 10-10 web site. It is strongly suggested that logs be sent as soon as possible after the close of the event. It is also recommended that DX logs should be sent AIR Mail to insure they are received in good time. Any logs received with a postmark date AFTER the deadline date will be handled as a check log. Any logs received more than 8 days after the entry deadline, regardless of postmark, will be discarded. LOGS MAY BE SENT VIA Email to [tentencontest@ten-ten.org](mailto:tentencontest@ten-ten.org). Q95 files are not a proper format nor are they readable, therefore, they will not be accepted.

**5.2.9.1 ENTRY DESCRIPTION**

Entries must contain a Cover Sheet, Log and Dupe Sheet as described here: COVER SHEET will list the Event Entered, Entry Classification, US Call Area (W0-W9 or DX Country), Chapter Score Assignment (if any), number of contacts and points with 10-10#, number of contacts and points without 10-10#, and total contacts and points claimed. LOGS must be listed in date/time order and list UTC Date, UTC Time, Call, Name, 10-10# (zero (0) if none), QTH and Contact Point Value. A DUPE SHEET is required for any logs exceeding 50 contacts. It may be either a list of all calls contacted in call sign order or hand entered on a dupe sheet grid.

**5.2.9.2 ENTRY DEADLINES**

Entries for all QSO Parties listed EXCEPT the Sprint shall be postmarked no later than 8 calendar days (this will always be a Monday) after the close of the event. Entries for the Sprint (held on 10/10) shall be postmarked no later than October 18th, unless that day falls on a Sunday or holiday, than the postmark deadline shall be October 19th.

**5.2.10 QSO PARTY RESULTS AND AWARDS**

QSO Party results will be posted on the 10-10 web site about 15 days after the closing deadline for the event and also printed in the 10-10 NEWS in the appropriate issue. Awards will be issued by the certificate manager for Top Ten Individual scorers in the World, the top individual scorer in each US Call Area (W0-W9), each DX Country, and for top QRP, LOW POWER, HIGH POWER, CLUB, MOBILE and CHAPTER. Electronic certificates will be sent to the 2nd and 3rd place scorers in these categories.

**5.2.11 ANNIVERSARY and MEET THE VOLUNTEERS EVENTS**

These events run from January 1 0001 UTC to December 31 2359 UTC. In the Anniversary event, entrants may submit a log of contacts with members that have the anniversary year contained in their membership number. Example: 2025 is the 63rd anniversary year of 10-10 International Net, Inc. Contact with members containing a "63" in their membership number (i.e., 72063, 69635,66354, 63136, 00637) would count toward the event. Each year the anniversary number changes, making a new group of members the focus of the event and promoting the use of the 10-meter band. All general rules are applicable with the following exceptions: During the calendar year (January 1 through December 31) make legal 10-10 contacts with 10-10 Number, Date, Call Sign, QTH with members containing the anniversary year in their membership number as described above.

In the MEET THE VOLUNTEERS event, entrants may submit a log of contacts with members listed in the 10-10 NEWS as being a 10-10 volunteer. One contact per volunteer is permitted, regardless of mode of contact. In both events, contacts must be made on the 10-meter band with any legal mode (AM, SSB, FM, PSK, CW, etc.). All submitted logs

must contain only one entry for each 10-10 number contacted. Contacts MUST be listed in 10-10 number order and each entry must list the 10-10 Number, Date, Call, Name, QTH and Mode, in that order. These events are for Individual entries as described in section 5.2.4 and certificates will be awarded for the TOP Ten, however all entrants will be listed in the 10-10 NEWS.

Logs MUST be postmarked no later than January 8th of the year following both the Anniversary and Meet the Volunteers events. Only members in good standing (with dues paid) are allowed to submit logs.

**5.2.12 WEAK SIGNAL QSO PARTY (WSQP)**

This event was added to help promote digital activity on the ten-meter band. The event in no way affects or modifies the policies for other scheduled Ten-Ten events. All weak signal modes for this event include: FT/JT/JS8/JS8CALL and any future weak signal mode. No repeater, cross-mode or cross-band contacts allowed.

FT4 (28.180)	FT8 (28.074)
JT65 (28.076)	JS8/JS8CALL (28.078)

Entry categories: QRP – Maximum 10 watts output.

Low Power – Maximum 150 watts output.

Exchange: 10-10 members should send call sign, name, 10-10# and QTH (ST/Prov/Country). Received exchange should include normal exchange for FT/JT/JS8/JS8CALL modes and for extra points name, QTH and 10-10#. Scoring will be 1 point for contacts without a 10-10 number and three (3) points for contacts with a valid 10-10# exchange. NO MULTIPLIERS! All other normal rules apply. Logs shall be forwarded to the QSO Party Manager.

**5.2.13 10-10 SPRINT (October 10) QSO PARTY**

An award will be issued for working all 10 USA Call Districts.

**5.2.14 W6OI SPECIAL EVENT**

This event has been CANCELED.

**5.2.15 FOR MORE INFORMATION**

Current information about 10-10 and upcoming 10-10 QSO Parties and events are always available on the 10-10 web site. Cover sheets, logging forms and dupe sheets are also available for downloading or printing at <http://www.ten-ten.org>. Any unanswered questions regarding the QSO Party rules may be forwarded to the QSO Party Manager.

# 10-10 QSO PARTY COVER SHEET

## QSO Party *(select one):*

- WINTER PHONE       SPRING CW       SPRING DIGITAL       10-10 SPRINT  
 SUMMER PHONE       FALL CW       FALL DIGITAL       WEAK SIGNAL

## Contest Exchange:

Callsign: \_\_\_\_\_ Name: \_\_\_\_\_ 10-10#: \_\_\_\_\_ QTH\*: \_\_\_\_\_  
*\* if operating FROM mobile, enter number of counties operated from in QTH field - counties must show in log*

## Entry Information:

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

State/Province/County: \_\_\_\_\_

Your e-mail address *(for contest questions only)*: \_\_\_\_\_

Call Area (W0-W9) or ARRL DX Country you operated from: \_\_\_\_\_

Chapter Assignment, if any *(not valid in Sprint)*: \_\_\_\_\_

## Entry Type *(check one only):*

- LOW POWER       HIGH POWER       QRP       MOBILE  
 CLUB *(if Club station, please list all operators below this line)*

## Claimed Score:

Contacts WITH 10-10 number: \_\_\_\_\_ X2 = \_\_\_\_\_

Contact WITHOUT 10-10 number: \_\_\_\_\_ X1 = \_\_\_\_\_

Total Contacts: \_\_\_\_\_ Total Pts: \_\_\_\_\_

## Submitting Logs:

**MAILED ENTRIES:** All submissions must contain this cover sheet (or reasonable facsimile), the log in UTC Date/Time order, and a dupe sheet in callsign order or in grid format (if more than 50 contacts).

**Mail to Dan Morris, KZ3T, 3162 Covington Way, Lenoir NC 28654, USA**

**EMAILED ENTRIES:** All submissions can be in most formats and must additionally include all information from this cover sheet either in separate summary or as summary at head of log. Many contest programs do this for you. Dupe sheets are **NOT** required with an e-mail entry. **Q95** formats **ARE NOT** acceptable.

**EMAIL to: [tentencontest@ten-ten.org](mailto:tentencontest@ten-ten.org).**

© Copyright 2025 10-10 International