

TEN-TEN INTERNATIONAL **NEWS**



Member
AMATEUR RADIO
NEWS SERVICE

Volume 55 Issue 1

January 2017 (Winter)

Newly Elected Members of the Board



Terry Webb - N0TW #36547
President



Josh Long - W9HT #72151
Vice President



Kevin Gilot - NZ1I #72759
Secretary



Greg Malone - WA3GM #46927
Director



Paul Hemby - WN4AMO #73825
Director



Bob Farrow - N9OPR #45715
Director

Check Page 2 for complete list of Board Members and Officers of the 10-10 International Net

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, 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 March 2017

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 Manger

NOTE: 10-10 IS NOT RESPONSIBLE FOR POSTAL SERVICE DIFFICULTIES

CONTENTS

<u>Net Officials.....</u>	<u>3</u>
<u>From the Editor.....</u>	<u>3</u>
<u>From the President.....</u>	<u>4</u>
<u>Chapter Coordinator Column.....</u>	<u>5-6</u>
<u>10 Meter Beacons.....</u>	<u>6</u>
<u>New Life Members.....</u>	<u>6</u>
<u>10-10 Top Operator Awards.....</u>	<u>6</u>
<u>Ten-Ten Net Guide.....</u>	<u>7</u>
<u>DX News.....</u>	<u>8-10</u>
<u>W6OI #109 On the Air.....</u>	<u>10</u>
<u>Net Report.....</u>	<u>11</u>
<u>10-10 Net Control Stations.....</u>	<u>12</u>
<u>QSO Parties.....</u>	<u>13-16</u>
<u>10-10 Scholarship Foundation Supporters.....</u>	<u>16</u>
<u>COAX: The Short Story - Part I.....</u>	<u>17-18</u>
<u>Fans and Bow-Ties.....</u>	<u>18-20</u>
<u>QSL Bureau News.....</u>	<u>20</u>
<u>Meet the Volunteers.....</u>	<u>21</u>
<u>Ten-Ten Awards.....</u>	<u>22</u>
<u>Award Managers.....</u>	<u>23</u>
<u>Multiban vs. 10-Meter Dipoles.....</u>	<u>23-25</u>
<u>10-10 International Net Pins Available.....</u>	<u>25</u>
<u>Silent Keys.....</u>	<u>26-27</u>
<u>The Poor Old ZL Special.....</u>	<u>28-29</u>
<u>Member Information and Services.....</u>	<u>30</u>
<u>QSO Party Rules and Schedule.....</u>	<u>31</u>
<u>QSO Party Cover Sheet.....</u>	<u>33</u>

OFFICERS AND DIRECTORS

President

Terry Webb, N0TW, #36547 (2018)

1103 Fulford Road, Monticello, FL 32344-4352

(614) 216-5334 n0twterry@yahoo.com

Past President

Mel Sojka, KD5DE #33513

353 Atlantic Ave., Shreveport, LA 71150-2909

(318) 861-7012 kd5de@ten-ten.org

Vice President

Josh Long, W9HT #72151 (2018)

8725 Edwardsberg Pl, New Haven, IN 46774

(260) 749-9851 drioshlong@gmail.com

Secretary

Kevin Gilot, NZ1I #72759 (2018)

56 Cindy Lane, Mystic CT 06355-1404

(860) 572-6086 kevinemt@sbcglobal.net

Treasurer

Keith Schlottman, KR7RK #63324

6206 E. Pima St., Suite #2, Tucson, AZ 85712

(520) 290-5883 keith@schlottmancpa.com

Directors

Robert L. Farrow, N6OPR #45715 (2020) - Daily Nets

23417 S 180th Street, Gilbert, AZ 85298

(562) 631-1393 n6opr@msn.com

Gregory Malone, WA3GM, #46927 (2020) - QSO Parties

PO Box 82, Cheltenham, PA 19012

(267) 249-0135 wa3gm@yahoo.com

Paul Hemby, WN4AMO #73825 (2020) - Publicity

40601 Thomas Boat Landing Road, Umatilla, FL 32784-9702

(386) 837-6101 pheby@hotmail.com

Marcus Lieberman, KM5EH #71103 (2018) - Awards

2300 Hurley Dr. NW, Albuquerque, NM 87120-1013

(505) 836-1724 buckml@lobo.net

Roger Olson, AD4RX #67754 (2018) - Publications

1032 Anclote Dr., Tarpon Springs, FL 34689-2015

(727) 934-5243 ad4rx@ten-ten.org

Jim Fox, KA0ZPP #43428 (2018) - Chapters

PO Box 135, Mayhill, NM 8839-0135

(575) 687-2448 ka0zpp10ten@gmail.com

NET OFFICIALS

Certificate Manager

Ruth Bartholomew, N0KDB #48715
 1043 Franklin Court, Sullivan, MO 63080-5502
 (573) 468-2898 or (314) 479-5474 n0kdb@fidnet.com

Chapter Coordinator

Jim Fox, KA0ZPP #43428
 PO Box 135, Mayhill, NM 8839-0135
 (575) 687-2448 ka0zpp10ten@gmail.com

Data Manager / Supplies

David Smith, K6RDK #65812
 1349 Vernon Terrace, San Mateo CA 94402-3331
 (telephone no. not available) membership@ten-ten.org

Editor 10-10 International News

Randy Mather, AJ7B #7675
 9625 101st Ave NE
 Arlington, WA 98223 editor@ten-ten.org

Net Manager

Robert L. Farrow, N6OPR #45715
 23417 S 180th Street, Gilbert, AZ 85298
 (562) 631-1393 N6OPR@msn.com

QSL Bureau Manager

Jim Steber, WI9X, #49635
 8829 Bermuda Ave., Caseyville, IL 62232
 (618) 560-7098 wi9x1989@yahoo.com

QSO Party Manager

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

IT Manager

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

Scholarship Manager

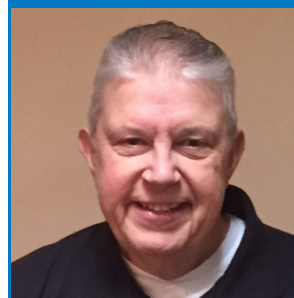
Larry Berger, WA2SUH #00407
 9 Nancy Blvd., Merrick, NY 11566-3119
 (516) 223-4611 wa2suh@aol.com

SK Manager

Ruth Bartholomew, N0KDB #48715
 1043 Franklin Court, Sullivan, MO 63080-5502
 (573) 468-2898 or (314) 479-5474 n0kdb@fidnet.com

W6OI Station Trustee

Jerry Kopstein N9AC #61453
 8041 W Lakeshore Drive Burlington, WI 53105
 (262) 661-9094 treismine2@yahoo.com



From the Editor

Randy Mather, AJ7B
 (#7675)

Well, here we are starting another new year together. Sure the 10-meter band hasn't been very friendly for awhile and its not looking too great for this year either. We just need to bite the bullet and take the openings as they come. Hearing 10-10 net sessions from up here in the northwest has been pretty infrequent, and I check just about every day. There have been openings though. During the Fall CW contest, there was a fairly decent opening that made the contest a little exciting. We just need to be patient and call as well as listen.

As the cover indicates, we start this new year with a number of new board members. Take a look at page 18 where the election results are shown and the carry over members from last year are listed as well. I look forward to hearing from our new board of directors and sharing their ideas with you through this newsletter.

There was very little input to this newsletter issue, beyond the standard columns that appear in each issue. As a result, I have had to fill the pages with four articles by L. B. Cebik, W4RNL (SK) that appeared previously in this newsletter. Although some of the information will be a bit dated, there is still a lot of good information that is relevant/applicable to today's hobby. I am sure you will find information in these articles that you didn't know before. I know I learn something new each time I retype one of Cebik's articles. And I have been in amateur radio for over 50 years. So, I suggest you read an article or two and learn something new.

So to all 10-10 International Net members, I wish you a happy new year and great DX. I hope to hear you on 10 meters.

73

Randy - AJ7B



From the President

Terry Webb N0TW
#36547

Wow! There is an old saying that "Time flies when you're having fun". Well, I must be having a ball because here it is 2017 already and I am now the President of 10-10.

My compliments and thanks goes out to our previous Presidents and Directors for all their dedication and hard work. It is unbelievable that many of our officers, managers, net controllers, and trustees do so on a purely voluntary basis. Many of these folks have been volunteering and have held their positions for many years. So, if you get the chance, give them a good "Thank You" next time you check into a net or see them at a ham fest.

A big 10-10 welcome to WA3GM, Greg, who is our newest elected Director. Greg will be taking over my slot as QSO Party Director. And welcome to Jim, WI9X, who took over the QSL Bureau Manager slot. We also have a new Vice President, W9HT, Josh. Returning Directors include N6OPR and WN4AMO. So we start the next couple of years with some new blood as well as welcoming back some old timers.

I would also like to thank our members who hold the positions of Data Manager, Scholarships Manager, Award Manager, W6OI Trustee, Net Manager, Editor, Treasurer, SK Manager, Certificate Manager, Chapter Coordinator, and Information Technology Manager. These folks spend a lot of time processing applications, putting together the newsletter, and making sure that our website is up to date and functioning well. We truly are blessed to have them in their positions making sure that our organization maintains its place for our members.

We have a year-long on-the-air event called, "Meet The Volunteers". This gives members a chance to track all of the volunteers that they have a QSO with on the 10 meter band. There are 50 or so volunteers, so it becomes quite a challenge to work a large number of them. But, many of the volunteers are active and are on-the-air, so it is possible to work them. Meet The Volunteer is considered a QSO Party event – a list is published in the newsletter showing all entries and the quantity of volunteers that they have worked.

Who knows what to expect on 10 meters during the next few years? I know that 6 meters is known as the "Magic Band", but 10 meters comes close to

that because you never know who you will be able to work. During the Sprint Contest, I was able to work Pitcairn Island, Ceuta, and Namibia. So, the old saying that 10 meters is open to somewhere in the world on some days certainly holds true.

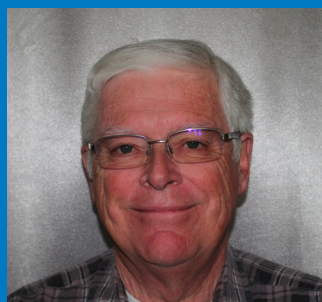
I have been a ham for over 55 years and have seen lots of changes occur. To save money, the 10-10 Board of Directors now meets electronically over the internet. Who could even have dreamed of being able to do this activity 20 years ago? And with all the advances being made in the digital and satellite worlds of ham radio, who knows where our hobby will be in the next 20 years? Ham radio is a very interesting hobby because of all the different aspects that it brings to its participants. Change in the ham radio world is inevitable.

An idea has been presented to me, and it makes good sense, to have radio stations set up at ham fests to allow potential 10-10 members to get a few numbers as a start towards getting their own 10-10 number. We can have applications made out with a few of the numbers filled in and give the applications to future members. Our goal is to increase membership and this is an excellent tool to accomplish this task.

Many hams that I talk to on 10 meters do not remember their 10-10 numbers or that there is a 10-10 website. They are very appreciative when I remind them of their number and promise to begin handing it out again when having a QSO with other 10-10 members. Some hams do not remember that their number was issued for a lifetime. 10-10 numbers are available on the 10-10 website.

There are several areas that I would like to encourage our members to participate. The first is in submitting articles and photos for the newsletter. Hams love variety. So if you have a technical article, funny experience with ham radio, or just a story that you would like to share with other hams, give writing an article for the newsletter a try. Our newsletter editor is as close as: editor@ten-ten.org. The second item concerns scholarships. 10-10 gives away five \$2,000 scholarships a year. The only way this happens is with donations from members. I know that you all can appreciate the expenses that college students are faced with in today's economy. So, think about contributing some money to this worthwhile cause. The last item that I would like to share with you all is the fun element of our hobby. Remember the fun you all had when you first got started with ham radio? It may have been on VHF or on the cw novice bands. Getting a license was magic and it held such fun for all of us when we first got started in the hobby. Well, we have lots of new hams that you can currently meet on the air and encourage the fun aspect of our hobby. While you are at it, tell them all about 10-10 and our activities.

I hope to be able to keep 10-10 alive and well and to keep membership growing. --.../...--



Chapter Coordinator

Jim Fox, KA0ZPP
(#43428)

GENERAL NEWS

- 1) Cliff, K5FBS, is still forwarding to me Chapter Reports that are being sent to him. **All CH/CM** that send in paper copies of your Quarterly Report, please be certain that your reports are sent directly to me: Jim Fox, PO Box 135, Mayhill, NM 88339, or use the on-line reporting form to send them electronically. Thanks, and I am sure Cliff will appreciate it, too.
- 2) **All CH/CM**: 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.
- 3) If your chapter is planning a special during the months of April, May or June, please let me know so I can include the details in the March newsletter.
- 4) Reminder of Quarterly Reports Due: Past Due (no report received during third or fourth quarters when due): Milwaukee, Minuteman/Old Ironsides, Up the Crick. Reports received after November 15 (date of this report) are not included here and will be acknowledged in the Chapters section of the 10-10 website.

Chapter Reports Due during first quarter: Channel Islands, Cincinnati Area Ten Tuners, City of Lights, Colorado Frontier Gang/Centennial, Fort McHenry/Cornerstone/Yodar Kritch, Speedway. Note that Quarterly Chapter Reports may be sent any time. The months indicated here are the dates in 2016 in which the last report was received.

CHAPTER NEWS

- 1) As a result of no reported activity, as detailed in my October column, **the following chapters have been declared Unaffiliated: Kentucky Cardinal, Keystone, Keystone Stars, Maine-iacs, Oklahoma Route 66, Steel City, Branding Iron 2 and Trail Drivers** have been taken QRT by CH/CM.
- 2) **Restoration Project** is running a special during the commemoration of the 100th Anniversary of the Battle of Vimy Ridge in April, 1917. While several stations across Canada will operate as VE100VIMY from January to April, you can work Restoration Project members and use their call signs

(prefix or suffix) to spell VIMY RIDGE 100TH ANNIVERSARY. Example: work ZL1AFU and use the 1 for the 1 in 100TH, or A for the A in Anniversary, but not both. Bonus: Work VE100VIMY/7 from Port Alberni and receive 200 point bonus. Operating times and frequencies will be posted on both 10-10 lists. For additional details, contact Gary, VE7SSJ@shaw.ca

- 3) **Santa Fe Trail** runs specials almost every month. Watch for posts on the TenMeters email list from CM Larry, KA9PCU, for details.
 - 4) **Cradle of the Confederacy** will have a special event, 13 February 001Z to 19 February 2400Z, to celebrate the inauguration of Jefferson Davis. Details will be posted on both 10-10 lists or contact Ed, KK4LYI, edbandman46@aol.com
 - 5) **Hanse Chapter** has revised their rules for accumulating points. Contact Juergen, juergenradtke.d@t-online.de, for a full list of their point allocations and seals. (It is too long to publish here.)
 - 6) **Gateway Chapter** celebrated its 44th year anniversary in June with eight check-ins to their net.
 - 7) Chapters that accept email upgrades as of November 15. All the listed chapters generally need previous, new and total points and seals claimed. Any transaction with the CM that requires that a certificate be issued, and most worksheet specials, should still be handled via US Mail. Also, it is good practice to keep a detailed listing of the upgrade in the event that the CM should require verification. Requirements peculiar to a particular chapter are noted.
- (** indicates change)
- Alii** – CM WH6S, wh6s@outlook.com. Use form available from the CM.
- Bauxite** – CM K5BKT, k5bkt@nwla.com. Bauxite and Arkansas Visitor numbers only.
- Bay Area** – CM K6RDK, k6rdk@arri.net
- Branding Iron** – CM DL6DK, bic-cm@voits.de
- Castle Craig** – CM N1API, n1api@cox.net
- Chesapeake Bay** – CM N3TGB, n3tgb@aol.com
- City of Roses** – CM K7PRZ, k7prz@isp.com
- Colorado Centennial/Colorado Frontier Gang** – CM WB0CON, wb0con@comcast.net
- Cradle of the Confederacy** – CM K4PO, k4po@charter.net
- Down Under** – CM ZL1AFU, zl1afu@nzart.org.nz
- Fort McHenry/Cornerstone/Yodar Kritch** – CM K3TUIJ, k3tuij@juno.com
- Gold City** – CM K4QHH, rabisch@hotmail.com

Hanse – CM DL5HAN, dl5han@t-online.de

Houston S.H.O.T – CM N5MT, n5mt@aol.com

Major League Baseball – CM N6OPR, n6opr@msn.com

Minuteman/Old Ironsides – CM WA1ENO, wa1eno@hotmail.com

New Mexico Mud Ducks – CM KM5EH, buckml@lobo.net

New Waterkant – CM DK7LA, dk7la@t-online.de

North Georgia – CM W4GKF, 10X@chazcone.com

Oregon Trail/Portland 500 – CM W7HO, w7ho@w7ho.com or w7ho@arri.net

Restoration Project – CM VA7GY, ve7ssj@shaw.ca

Santa Fe Trail – CM KA9PCU, ka9pcu@centurylink.net

Sky Blue Waters/Tin Lizzie – CM KA0ZIA, sbwtl1010@gmail.com

Space Coast – CM K5FBS, k5fbs@yahoo.com

Speedway – CM W7CAR, w7car@arri.net

Steamboat Plus – CM KD5DE, kd5de@nwla.com

Twin Cities – CM K0DBK, kzerodbk@gmail.com

If any chapter not listed accepts email upgrades or if the email listed has changed, please let me know so I can update the list. Thanks.

Jim Fox, KA0ZPP, PO Box 135 Mayhill NM 88339, email: ka0zpp10ten@gmail.com

10 Meter Beacons

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

I would appreciate a message from anyone with thoughts of activating a beacon. wj5o@amsat.org

73 Bill WJ5O

IARU Region 2 HF Beacon Coordinator

<http://www.qsl.net/wj5o/bcn.htm>

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.

NEW LIFE MEMBERS

20508	AB3TD	Harry P McKasson Jr	MD
37561	WI3R	Roger A Johnson	PA
65027	KK5DO	Bruce A Paige	TX
72937	NS5N	J Edgar McDermott	IL
76047	KBØVVD	Roger W Grant	NE
77118	W9YU	Roger L Bara	IL
77523	N7QVU	Jerry A Wyatt	AZ



Ten-Ten Top Operator Award

This award is based upon the number of times a member's call appears on new applications. Quarterly winners are awarded a certificate. The overall winner for the year will be awarded a plaque. There are two categories; one for Net Control station and one for the current members at large.

The Top Operator and Net Control for Q4 are:

Operator - **N5MT Mike Davidson #24949**

Net Control - **K7CWS Ray Roberts #50288**

The Top Operator and Net Control for 2016 are:

Operator - **W6WQA Tim Watkins #6987**

Net Control - **N6OPR Bob Farrow #45715**

The Top Relay Station for 2016

Relay Operator - **W6WQA Tim Watkins #6987**

TEN-TEN NET GUIDE

As of November 1, 2015

DAY	ZSUM	ZWIN	Chapter Name	Location	Freq	DAY	ZSUM	ZWIN	Chapter Name	Location	Freq
SUN	0001	0100	Chesapeake Bay	Chestertown, MD	28345**	WED	1700	1800	Channel Islands	Oxnard, CA	28340
SUN	0300	0400	Chief Seattle	Seattle, WA	28430	WED	1930	1930	Route-66	Boonville, IN	28370
SUN	1300	1400	Arlington	Arlington, VA	29200	WED	1930	1930	Windfarms	Livermore, CA	28485
SUN	1400	1500	Neanderthal	Leichlingen, DL	28355	THU	0001	0100	Cradle of the Confederacy	Pike Road, AL	28350
SUN	1630	1730	Possum Trot	Raeford, NC	28345	THU	0100	0200	Gateway	St. Louis, MO	28650
SUN	1700	1700	Major League Baseball	Gilbert, AZ	28380**	THU	0001	0100	Cow Town	Arlington, TX	28460
SUN	1800	1900	Portland 500	Portland, OR	28350	THU	0100	0200	Milwaukee	Milwaukee, WI	28365
SUN	1900	2000	Oregon Trail	Dallas, OR	28330	THU	0100	0200	Channel Islands	Oxnard, CA	28340
SUN	1930	1930	North Georgia	Atlanta, GA	28610	THU	0230	0330	Windfarms	Livermore, CA	28485
SUN	2030	2030	Santa Fe Trail	Galesburg, IL	28345	THU	0230	0330	Up The Crick	Eugene, OR	28450
SUN	2100	2200	Possum Trot	Raeford, NC	28150 CW	THU	0300	0400	Chief Seattle	Seattle, WA	28430
MON	0100	0100	Arizona Desert	Phoenix, AZ	28445	THU	1930	1930	Speedway	Rainier, OR	28350
MON	0100	0200	Milwaukee	Milwaukee, WI	28365	FRI	0001	0100	Fort McHenry/ Cornerstone/Yodar Kritch	Arbutus, MD	28370
MON	0100	0100	Lonestar	Arlington, TX	28460	FRI	0300	0400	Chief Seattle	Seattle, WA	28430
MON	0130	0230	Bauxite	Benton, AR	28470	FRI	1400	1400	New Waterkant	Boerm, DL	28355
MON	1630	1730	Chief Seattle	Seattle, WA	28430**	FRI	2230	2130	Down Under	Aukland, ZL	28530
MON	2330	2330	Sky BI Wtr/ Tn Lzz/Twn Ct	Inver Grove Heights, MN	28380				(Summer in NZ is winter in US)		
TUE	0001	0100	Ft McHenry/ Cornerstone/Yodar Kritch	Arbutus, MD	28370	SAT	0300	0400	Chief Seattle	Seattle, WA	28430
TUE	0100	0200	CO Centennial/ CO Frontier Gang	Lakewood, CO	28340	SAT	1430	1530	Steamboat Plus	Shreveport, LA	28430
TUE	0100	0200	City of Lights	St Charles, IL	28150 CW	SAT	1400	1400	Hanse	Hamburg, DL	28355
TUE	0130	0230	City of Lights	St Charles, IL	28720	SAT	1510	1610	Louisiana Pelican	Livingston, LA	28450
TUE	0130	0230	Bauxite	Benton, AR	28470	SAT	1600	1700	City of Roses/ Portland Bridges	Ridgefield, WA	28835
TUE	0300	0400	Bay Area	Hayward, CA	28475	SAT	1730	1730	Tango	Buenos Aires, LU	28650
TUE	0430	0430	Aloha	Hilo, HI	28490	SAT	1800	1800	Keystone/ Keystone Stars	Brea, CA	28765
TUE	1500	1600	New Mexico	Albuquerque, NM	28835	SAT	2000	2000	Restoration Project/ Feline Friends	Port Alberni, BC	28750
T/W	2330	0030	Mud Ducks			SAT	2200	2200	Alii	Lihue, HI	28730
T/W	2330	0030	Minuteman/ Old Ironsides	Saugus, MA	28409						
WED	0001	0100	Castle Craig	Meriden, CT	28375						
WED	0001	0100	Cincinnati Area Ten Tuners	Milan, IN	28800						
WED	0100	0200	Houston SHOT	Houston, TX	28488						
WED	0200	0300	10 Bar X	El Paso, TX	28445						
WED	1400	1500	EU DX/Branding Iron	Bergamen, DL	28355						
WED	1700	1700	Gold City	Rutherfordton, NC	28425						

** Indicates a change since the last published list.

All changes to the above times and/or frequencies should be referred to the Chapter Coordinator if you desire your net information to be accurate. Chapter Coordinator: KA0ZPP, Jim Fox, PO Box 135, Mayhill, NM 8839-0135. E-mail: ka0zpp10ten@gmail.com.



DX News

Mike Davidson, N5MT
(#24949)

Well I hope some of you have started the Fall DX season by working all of the DX contest during October and November. In the USA, we can hear the European stations if the solar flux gets up high enough for Ten Meters to open to our east. The CQ DX contests are over for this year but the big and most popular ARRL Ten Meter Contest is just nine days away on the second weekend of December 2016. I expect the solar flux will be around 76 for the 2016 Ten Meter contest this year. The peak cycle of the sun has been erratic during this late part of the solar cycle and the peak each month has been taking about 35-37 days to repeat the next high period instead of the usual 26-27 days. I was hoping the next peak would be on the same weekend as the Ten Meter contest so that the US east coast might talk into Europe. But stations on the west coast and in the central US, may not be able to have a QSO across the Atlantic. Likewise from Africa, there will be fewer signals and they will be weaker and hard to find. I expect a 15-20 percent drop in contacts during the ARRL 10 Meter contest than what you worked last year. I hope you will still submit a score for the Ten Meter contest and try to find a few 10-10 members as you log the Ten Meter contest. Be sure to submit your log to the LoTW system and to load LoTW at least each quarter if you a DX'er!

You should be using a spotting network to watch which countries are active during the Ten Meter contest. Open you Internet browser and go to: www.DXSummit.FI. You can set a filter to only watch Ten meters by clicking on a filter tab and saving the filter. Likewise, you can filter SSB, CW or a digital mode. With the DX archive database that is saved on DXSummit, you can go back in time looking for a particular Prefix or call sign. Do that before the contest, so you can look for that special station that you need for DXCC or 10-10 Countries.

In my last DX article, I told you there was a new 10-10 DX country, but I made a mistake because there are two islands that count for the same country. In early 2016, the DXpedition to Juan de Nova was a new one for many, but it is the same island group as Europa which was a new 10-10 country in 2003. A video of the FT4JA Juan de Nova Dxpediton in March/April 2016 was a good movie showing the beauty and majesty of the island while they operated FT4JA. So go to the, website at: <https://www.youtube.com/watch?v=g2LeKWMYlIk>.

Fewer 10-10 members have operated from DX countries this year. Looking at the planned events for this winter and 2017, shows a below average DX season coming up. Expect weaker signals for the next three years as Solar Cycle 24 comes to an end in 2019.

Countries Award: There were no upgrades issued and no Basic Countries Awards this quarter. If you apply for any 10-10 award, please check the website for a complete list of the rules and forms to use!

I am posting this to the 10-10 website on December 1st.

GENERAL 10-10 DX REPORTED IN THE PAST QUARTER:

6Y Jamaica. Tom **VE3CX** #11671, Dennis **VE3JAQ** #25514 and friends, were operating 6Y3T during the CQ WW CW contest in November.

8P Barbados. Dean **8P6SH** #45815, was on in the CQWW SSB contest at the end of October with a special call sign 8P50B, celebrating 50 years of independence.

C8 Mozambique. Doc Arnold **WB6OJB** #70675 was in Mozambique in early September for eight days using call sign C81AK. Doc's radio was a Kenwood TS-2000 with various antennas. LoTW.

CN Morocco. Dmitri **KP2P/RA9USU** #54234, was with friends using call CN2AA during the CW DX SSB contest in October. This was a multi-op setup so hope you found Dmitri. They used call CN2PM before the contest. LoTW.

CY9 St Paul Island. On August 20th, a group of ops flew to St Paul Island and started using call sign CY9C. Randy **N0TG** #12990 and Will **AA4NC** #15774, were the only 10-10 members in the group and they started operating on Ten on Aug 22nd and they left on August 29th. Website: <http://CY9DXpedition.com>. Logs have been uploaded to LoTW already.

D4 Cape Verde Island. Ralf **DK8FA/D44TUJ** #42020, canceled his trip to Cape Verde in September.

DU Philippines. Larry **N0QM/DU3LA** #30784 and friends, were in the CQ WW RTTY contest in September.

FM Martinique. Mac **WT4BT** #76242, was on Martinique from Oct 29th to November 4th. Call unknown.

FO/A Austral Islands. Al **K7AR** #2736, was on the Austral Islands from November 21-28th. His radio was a K3 with an amp and a vertical antenna running CW, SSB and digi. Call unknown but LoTW when he returns home.

FO/TO St. Pierre & Miquelon. Lee **F5MUX** #42039, was active as TO5FP from September 11-20th.

GD Isle of Man. Kay **WA0WOF** #23802, was active the last day of September into October 2 as GT6IA. Kay went to Ireland to operate EI7HQ from October 10-14th.

J6 St. Lucia. A small group of ops went to St. Lucia in early November 2016. The two 10-10 members in the group: Ev **W6ABM/J68ABM** #60945 and Rex **J6/NX8G** #75322. Look at qrz.com for info. LoTW and Club Log.

JT Mongolia. Ken **K4ZW** #18573, was in the CQ DX SSB contest in October with call JT5DX. Ken used call JT1ZW outside of the contest. LoTW.

HR Honduras. Mike **AJ9C/HR2** #41205, was there from November 22-30th for the CQ WW CW Contest. He used call HR2J in the contest. LoTW.

KG4 Guantanamo Bay. Stu **K4MIL** #66937 was at Gitmo from September 13-26th using call KG4SS and he was active during the CQ WW DX RTTY Contest.

KP2 US Virgin Islands. Tony **N2TK** #22425 and friends, were back on St. Croix for the CQ WW SSB contest in October. Call sign probably KP2M.

P4 Aruba. John **W2GD** #14109, was in Aruba for the CQ WW SSB contest at the end of October using call P40W. He returned in November to operate for a week during the CQ WW CW contest. LoTW.

PJ4 Bonaire. A group with David **NA2AA** #40574, used call PJ4X during the DX SSB contest in October and used call PJ4/NA2AA at other times. Another group with Scott **W4PA** #40521, used call PJ4DX during the DX SSB contest in October. Scott also used call PJ4NX during the DX CW contest in November.

PJ6 Saba Island. Bill **K2HVN** #14073, using call PJ6M, mostly CW from November 11-18th. He moved to St. Barthelemy from November 18-25th using TO2EE.

PJ7 St. Maarten. Phil **K0CD** #42627, was operating PJ7/K0CD at the end of November 2016. He was using low power QRP on 10-40 Meters. Ed **WA1ZAM** #25435, was on St. Maarten from October 22nd to November 5th. He planned to be in the CQ WW SSB contest the last weekend in October on low power. From June 14-28th, 2017, John **PJ7/W9KXQ** #20018, will operate with friends on all modes from St. Maarten.

PY0F Fernando de Noronha. Will **AA4NC** #15774, was operating portable PY0F/AA4NC from October 17-27th 2016, especially in the CQ DX SSB contest.

PZ Suriname. Ned **AA7A** #11185, Bud **N7CW** #10375 and Lee **KY7M** #38585, were with friends in the CQ WW SSB contest in October using call PZ5V. Website: <http://voodoocontestgroup.com/suriname-2016>.

VP6 Pitcairn Island. Nob **JF2MBF** #66003 and a friend, arrived on Pitcairn in August and went back home about September 3rd after many Q's with call VP6J.

VP9 Bermuda. Jeff **VA3QSL** #73406 arrived in Bermuda on August 31st and went home September 8th. His call sign was VA3QSL/VP9 on all modes.

VU India. Dennis **W1UE** #10948, was using call VU3XDE at the end of October and in the CQ DX SSB contest. Dennis was going to HS Thailand after India in November. During the CQ CW DX contest he hoped to be in 4X Israel. No info as to his next operation.

T2 Tuvalu. Tom **KC0W/T2COW** #67688, was on from July 19th to August 18th on CW only.

T30 Western Kiribati. Tom **KC0W** #67688 was using T30COW from September 24th to October on CW. Tom unfortunately had all his possessions stolen and was not able to continue his ham radio activities. After getting money wired to him, he bought clothes and a plane ticket home to the USA. He has since bought another radio and other items to keep going with his DX activities. Tom is now in the Philippines using call 4I7COW until the end of November.

TK Corsica. Lionel **F5HNQ** #49138 and friends were on Corsica from October 28th to November 10th. They were in the CQ WW DX SSB Contest so good luck in finding Lionel on Ten. The call sign used was TK2A.

V6 Micronesia. Sho **JA7HMZ/V63DX** was in Pohnpei, Micronesia at the end of November operating the CQ WW CW contest with call V6A.

YN Nicaragua. Scott **K7ZO** #55678, was in Nicaragua for the CQ WW SSB contest in October using call YN5Z. His radio was a TS-590 and amp to a spiderbeam. He returned home the day after the contest.

ZL7 Chatham Island. Justin **G4TSH** #42972, operated with a group on Chatham from October 27th to November 10th using call ZL7G. Haru **JA1XGI** #55571, arrived on Chatham on November 24th to December 1st.

UPCOMING DX & NEW 10-10 ACTIVITY:

3C0/3C Annobon and Eq. Guinea. Great News! Tom **KC0W** #67688, is planning a DXpedition in January 2017 to Africa. Annobon has only been worked by one member so these are very rare 10-10 countries!

CE9 Antarctica. Felix **DL5XL** #55519, will again operate CW and digi as DP1POL from the German Antarctic base, from November to February 2017. LoTW. Web site is: <https://www.facebook.com/DL5XL?fref=ts>.

HK0 San Andres & Providencia. Will **AA4NC** #15774 will be on the island from February 13th to March 7th with a 5K0 call sign. This is also a rare 10-10 country.

J6 St. Lucia. Bill **K9HZ** #2618, will be in J6 from December 17th to January 2, 2017. CW, SSB and RTTY. Bill has a K3 radio into a beam. LoTW.

PJ7 St. Maarten. John **PJ7/W9KXQ** #20018, will operate with friends from St. Maarten from June 14-28th, 2017. All modes and bands.

T31 Central Kiribati. A twelve day DXpedition is being planned for October 2017 to Kanton Island using call sign T31W. Members are: Arnie **N6HC** #29959, and Gene **K5GS** #15119. Website: www.T31W.com.

MISCELLANEOUS ITEMS & NOTES:

Propagation forecast: <http://www.solen.info/solar/> 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>.

Propagation: I expect the solar flux to range from 68-104 during December and into the first quarter of 2017. The Winter Solstice is on December 21st, when HF propagation will shift to more east/west propagation paths. We may hear Europe and Africa a few times this winter on Ten if the solar flux can get over 100. The peak solar flux of this cycle was in February 2014 with a value of 170.3.

The **maximum solar flux** for each month of 2016 was: Jan 115, Feb 125, March 101, April 115, May 116, June 95, July 112 August 99 Sept 100, Oct 106 and Nov a 81.

The **minimum solar flux** was: Jan 94, Feb 88, March 82, April 76, May 83, June 73, July 70, August 72, Sept 79, Oct 74 and Nov a 75.

On December 1st, the solar flux was 84, the A index was 3 and K index 0.

The sun has been quiet for several weeks. The solar flux high for November was on the 16th and that value was 44 points lower than the February 4th max of 125. Good luck with working stuff on Ten when the solar flux is less than 99! Use the DX spotting sites to find stations that you need and good DX!

My Prediction: Over the next four months, look for the best conditions on: December 1-4th & 28-31st; 2017 January 24-28th, February 20-24th and March 19-20th. For USA stations, expect a 10% chance of DX to Europe or Asia with a 50% chance of DX to S. America and the S. Pacific, later in the day. Listen to the beacons from 28.175-28.300 so you will know where the DX is coming from.

New 10-10 DX members' Sept. to Nov. 2016: Sept: 77518 HP1DCP Rene; Oct.: None; Nov.: None.

Thanks to the QRZ-DX, The Daily DX by W3UR #25731 and the Ohio/Penn DX Bulletins. Info to Mike Davidson, 3518 Bellefontaine, Houston, TX 77025 USA Email: N5MT@aol.com.

DX IS! 73 Mike Davidson N5MT #24949

W6OI #109 ON THE AIR

REPORT FOR THE 10-10 INTERNATIONAL CLUB STATION W6OI

W6OI continues to be on the air for all 10-10 QSO parties. Band is spotty at best. Hopefully the band will open a bit to permit more stateside and European contacts this winter. To make contacts you must do lots of calling and of course listening!

October Fall CW party only garnered 3 contacts! Band was mostly dead as you all know. I do make some PSK31 contacts occasionally on 28120.15. Will try to send out a notice on the ten-ten.org email list service so folks know to turn on their rigs! If you are not subscribed to the ten-ten.org email list notification services, go to the ten-ten.org website to sign up. Just click on the drop down menu "Forum/Misc", and then click on the menu item "Ten-Ten List" where you can get all the details for this free service. If you are not subscribed to this service you are missing out on a whole lot of good material that is shared with the members.

Continue to watch the propagation forecasts but don't stop there. The best way is to just listen to the noise and you can tell the difference between just a regular hiss and that noise which has some static along in the background. Then just check the beacons to see if your hearing is on track! Then back to calling anywhere from 28345 on up to about 28500. Good luck.

As noted in a previous Newsletter, the W6OI special event has been canceled until further notice. Hope propagation improves so activity increases for this and other yearly events.

The 10-10 Club Station, W6OI, is available for operation to any current (dues paid) member or chapter for use as a special event station. AND, also available if any member would like to operate W6OI during any of the 10-10 QSO Parties. Just send your request along with copy of license and paid up membership to the following or via email (treismine2@yahoo.com):

Jerry Kopstein N9AC
8041 W. Lakeshore Drive
Burlington, WI 53105

W6OI is one of three official 10-10 club stations, the others being VE9TEN (trustee Rob, VE9KM) and DL0X (trustee Henry, DL8YBM). W6OI is operated on CW by Brad, K0DBK who makes available FISTS and SKCC numbers. W6VY, Bob operates on Geratol nets to give out W6OI Geratol number and promote 10-10.

Louise, N6ELK continues to operate W6OI on the 10-10 daily nets, which meet at 1800Z on 28.380 and 28.800. Bob, N6OPR also gives out W6OI details on the daily nets if Louise is not available.

Paper chasers working W6OI can request list from Jerry, N9AC. It is available in ML format or just plain text. Listen for W6OI!

73's Jerry, N9AC



Net Report

Bob Farrow, N6OPR
(#45715)

NET Reports for 3rd Quarter of 2016

MONDAY NETS

28.38 MHz			28.80 MHz		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
4-Jul	8	2	4-Jul	8	0
11-Jul	2	0	11-Jul	10	0
18-Jul	2	0	18-Jul	10	0
25-Jul	7	0	25-Jul	10	0
1-Aug	2	0	1-Aug	10	0
8-Aug	2	0	8-Aug	12	1
15-Aug	2	0	15-Aug	13	1
22-Aug	2	0	22-Aug	11	0
29-Aug	2	0	29-Aug	9	0
5-Sep	2	0	5-Sep	7	0
12-Sep	2	0	12-Sep	8	0
19-Sep	2	0	19-Sep	11	0
26-Sep	7	0	26-Sep	11	0

TUESDAY NETS

28.38 MHz			28.80 MHz		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
5-Jul	8	2	5-Jul	8	0
12-Jul	13	3	12-Jul	7	0
19-Jul	8	2	19-Jul	5	0
26-Jul	6	0	26-Jul	0	0
2-Aug	5	0	2-Aug	9	0
9-Aug	7	0	9-Aug	7	0
16-Aug	6	0	16-Aug	9	0
23-Aug	2	0	23-Aug	8	0
30-Aug	4	0	30-Aug	9	0
6-Sep	4	0	6-Sep	5	0
13-Sep	4	0	13-Sep	6	0
20-Sep	4	0	20-Sep	7	0
27-Sep	5	0	27-Sep	5	0

WEDNESDAY NETS

28.38 MHz			28.80 MHz		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
6-Jul	2	0	6-Jul	10	0
13-Jul	25	4	13-Jul	5	0
20-Jul	28	6	20-Jul	8	0
27-Jul	2	0	27-Jul	4	0
3-Aug	3	0	3-Aug	7	0
10-Aug	11	5	10-Aug	2	0
17-Aug	3	0	17-Aug	7	0
24-Aug	2	0	24-Aug	4	0
31-Aug	2	0	31-Aug	5	0
7-Sep	0	0	7-Sep	7	0
14-Sep	0	0	14-Sep	7	0
21-Sep	2	0	21-Sep	7	0
28-Sep	2	0	28-Sep	6	0

THURSDAY NETS

28.38 MHz			28.80 MHz		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
7-Jul	4	2	7-Jul	6	1
14-Jul	0	0	14-Jul	3	0
21-Jul	35	13	21-Jul	5	0
28-Jul	3	0	28-Jul	4	0
4-Aug	0	0	4-Aug	4	0
11-Aug	3	0	11-Aug	6	0
18-Aug	4	0	18-Aug	3	0
25-Aug	2	0	25-Aug	2	0
1-Sep	9	1	1-Sep	6	1
8-Sep	4	0	8-Sep	7	0
15-Sep	4	0	15-Sep	5	1
22-Sep	6	0	22-Sep	8	1
29-Sep	33	12	29-Sep	6	0

FRIDAY NETS

28.38 MHz			28.80 MHz		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
1-Jul	5	0	1-Jul	8	0
8-Jul	4	0	8-Jul	11	0
15-Jul	7	1	15-Jul	10	0
22-Jul	0	0	22-Jul	0	0
29-Jul	0	0	29-Jul	10	0
5-Aug	13	1	5-Aug	12	1
12-Aug	23	10	12-Aug	9	0
19-Aug	2	0	19-Aug	8	1
26-Aug	2	0	26-Aug	9	0
2-Sep	0	0	2-Sep	6	0

FRIDAY NETS (Cont.)

----- 28.38 MHz -----			----- 28.80 MHz -----		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
9-Sep	0	0	9-Sep	4	0
16-Sep	2	0	16-Sep	6	0
23-Sep	2	0	23-Sep	5	0

SATURDAY NETS

----- 28.38 MHz -----			----- 28.80 MHz -----		
DATE	TOTAL	NO 10X#	DATE	TOTAL	NO 10X#
2-Jul	7	1	2-Jul	0	0
9-Jul	3	0	9-Jul	0	0
16-Jul	0	0	16-Jul	0	0
23-Jul	11	1	23-Jul	0	0
30-Jul	11	3	30-Jul	0	3
6-Aug	0	0	6-Aug	0	0
13-Aug	13	2	13-Aug	0	0
20-Aug	2	0	20-Aug	0	0
27-Aug	6	0	27-Aug	0	0
3-Sep	20	0	3-Sep	0	0
10-Sep	3	0	10-Sep	2	0
17-Sep	5	0	17-Sep	2	0
24-Sep	4	1	24-Sep	2	0

10-10 NET CONTROL STATIONS

ALL NETS BEGIN AT 1800Z

Mon (28.380)	Alan, WB9WZI	#76209	IL
Mon (28.800)	Doc, WB6OJB	#70675	CA
Tues (28.380)	Ray, K7CWS	#50288	AZ
Tues (28.800)	Open. Contact N6OPR for info		
Wed (28.380)	Marilyn, WM2W	#76400	FL
Wed (28.800)	Louise, N6ELK	#36654	CA
Thu (28.380)	Bob, N6OPR	#45715	AZ
Thu (28.800)	Robert, KQ4PK	#63201	NC
Fri (28.380)	Terry N0TW	#36547	FL
Fri (28.800)	Bob, K6DNR	#75386	CA
Sat (28.380)	Dan KC8IM	#31959	MI
Sat (28.800)	Open. Contact N6OPR for info		

Sunday **NEVER ON SUNDAY**

NET CONTROL STATIONS NEEDED

Needed: Net Control Station for the 28.380 and 28.800 MHz Nets at 18:00 UTC Monday-Saturday. If interested contact N6OPR via e-mail: N6OPR@msn.com.

10-10 Has Two Official Daily Nets
28.380 and 28.800
Both Run At 1800z
Every Day Except Sunday
Listen And If You Can Hear Us Join IN!!!



Licensed at least 25 years ago and licensed today?

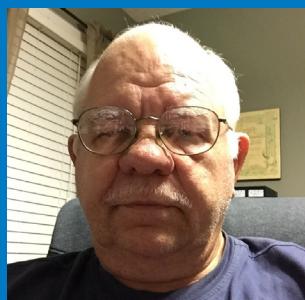
Then you should join the

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



QSO Parties

Dan Morris, KZ3T
(#41015)

2016 SPRINT QSO PARTY

October 10

TOP TEN

CALL	10-10#	CTX W	CTX WO	TOTAL
1. K8DEL	2978	7	31	45
2. WB6OJB	70675	11	10	32
3. AB6QM	63114	3	17	23
4. NV5E	74261	9	0	18
5. KZ3T	41015	2	13	17
5. KB5UNX	64337	8	1	17
6. KD4BVG	64773	2	10	14
7. KM5FF	50356	3	6	12
8. KA9JCP	50609	2	7	11
9. NM1W	41721	1	7	9
10. AJ7B	7675	1	6	8

CALL AREA ORDER

CALL AREA 0

CALL	10-10#	CTX W	CTX WO	TOTAL
W0RTV	13962	1	1	3

CALL AREA 1

CALL	10-10#	CTX W	CTX WO	TOTAL
NM1W	41721	1	7	9
N1YKH	70147	0	3	3

CALL AREA 2

CALL	10-10#	CTX W	CTX WO	TOTAL
WA2SUH	407	1	1	3

CALL AREA 4

CALL	10-10#	CTX W	CTX WO	TOTAL
KZ3T	41015	2	13	17
KD4BVG	64773	2	10	14
KN4Y	17757	0	2	2
N3GTY	50585	1	0	2

CALL AREA 5

CALL	10-10#	CTX W	CTX WO	TOTAL
NV5E	74261	9	0	18
KB5UNX	64337	8	1	17
KM5FF	50356	3	6	12
K5CC	50708	1	0	2

CALL AREA 6

CALL	10-10#	CTX W	CTX WO	TOTAL
WB6OJB	70675	11	10	32
AB6QM	63114	3	17	23

CALL AREA 7

CALL	10-10#	CTX W	CTX WO	TOTAL
AJ7B	7675	1	6	8

CALL AREA 8

CALL	10-10#	CTX W	CTX WO	TOTAL
K8DEL	2978	7	31	45
K8IZK	73889	1	3	5

CALL AREA 9

CALL	10-10#	CTX W	CTX WO	TOTAL
KA9JCP	50609	2	7	11

QRP

CALL	10-10#	CTX W	CTX WO	TOTAL
N3GTY	50585	1	0	2

2016 FALL CW QSO PARTY**October 15 - 16****TOP TEN**

CALL	10-10#	CTX W	CTX WO	TOTAL
1. HP1RIS	75617	17	18	52
2. AJ7B	7675	17	12	46
3. KN4Y	17757	14	10	38
4. N4ERM	34524	17	1	35
5. KJ4RV	37776	13	2	28
6. KZ3T	41015	9	9	27
7. KU4W	20986	11	3	25
8. N4ZCG	56067	9	1	19
9. WA3GM	46927	5	6	16
10. N5AF	1919	5	2	12

CALL AREA ORDER**CALL AREA 0**

CALL	10-10#	CTX W	CTX WO	TOTAL
W0RTV	13962	1	0	2

CALL AREA 1

CALL	10-10#	CTX W	CTX WO	TOTAL
NM1W	41721	2	0	4

CALL AREA 3

CALL	10-10#	CTX W	CTX WO	TOTAL
WA3GM	46927	5	6	16

CALL AREA 4

CALL	10-10#	CTX W	CTX WO	TOTAL
KN4Y	17757	14	10	38
N4ERM	34524	17	1	35
KJ4RV	37776	13	2	28
KZ3T	41015	9	9	27
KU4W	20986	11	3	25
N4ZCG	56067	9	1	19

KI4EZL	74359	5	0	10
AK4YS	75328	4	0	8
KI4EZK	77510	2	0	4

CALL AREA 5

CALL	10-10#	CTX W	CTX WO	TOTAL
N5AF	1919	5	2	12
KD5DE	33513	2	0	4
K5CC	50708	2	0	4

CALL AREA 7

CALL	10-10#	CTX W	CTX WO	TOTAL
AJ7B	7675	17	12	46
KR7RK	63324	5	1	11
N7ELB	72952	3	4	10

QRP

CALL	10-10#	CTX W	CTX WO	TOTAL
KI4EZL	74359	5	0	10
KI4EZK	77510	2	0	4

COUNTRY ENTRIES**PANAMA**

CALL	10-10#	CTX W	CTX WO	TOTAL
HP1RIS	75617	17	18	52

CHAPTER ENTRIES

CHAPTER	LOGS	PTS
POSSUM TROT	8	156
STEAMBOAT	1	4
GATEWAY	1	2

CHECK LOGS

CALL	10-10#	CTX W	CTX WO	TOTAL	OPS
HP1AC	10107	24	3	51	0
HP1RCP	35070	24	3	51	0
NC6Q	75839	9	1	19	0

2016 FALL DIG QSO PARTY**November 12 - 13****TOP TEN**

CALL	10-10#	CTX W	CTX WO	TOTAL
1. HP1RIS	75617	13	9	35
2. N4ZCG	56067	11	4	26
3. KJ4RV	37776	12	1	25
4. K4SHF	73837	10	2	22
4. AK4YS	75328	11	0	22
5. N3GTY	50585	9	1	19
5. K3IRV	69236	9	1	19
6. KA7IVB	36769	7	1	15
7. W2VTV	71275	2	9	13
8. KU4W	20986	5	0	10
9. KM5FF	50356	3	2	0
10. AJ7B	7675	1	5	0
10. WA3GM	46927	2	3	0

CALL AREA ORDER**CALL AREA 0**

CALL	10-10#	CTX W	CTX WO	TOTAL
W0RTV	13962	1	0	2

CALL AREA 2

CALL	10-10#	CTX W	CTX WO	TOTAL
			CTX	
CALL	10-10#	CTX W	WO	0
W2VTV	71275	2	9	13

CALL AREA 3

CALL	10-10#	CTX W	CTX WO	TOTAL
WA3GM	46927	2	3	7

CALL AREA 4

CALL	10-10#	CTX W	CTX WO	TOTAL
N4ZCG	56067	11	4	26
KJ4RV	37776	12	1	25
K4SHF	73837	10	2	22
AK4YS	75328	11	0	22
N3GTY	50585	9	1	19
K3IRV	69236	9	1	19
KU4W	20986	5	0	10
KE4DEV	64796	2	0	4
KZ3T	41015	1	0	2
KI4EZL	74359	1	0	2
KI4EZK	77510	1	0	2

CALL AREA 5

CALL	10-10#	CTX W	CTX WO	TOTAL
KM5FF	50356	3	2	8
K5CC	50708	1	0	2

CALL AREA 7

CALL	10-10#	CTX W	CTX WO	TOTAL
KA7IVB	36769	7	1	15
AJ7B	7675	1	5	7
KR7RK	63324	1	2	4

QRP

CALL	10-10#	CTX W	CTX WO	TOTAL
KJ4RV	37776	12	1	25
N3GTY	50585	9	1	19
KI4EZL	74359	1	0	2
KI4EZK	77510	1	0	2

COUNTRY ENTRIES**PANAMA**

CALL	10-10#	CTX W	CTX WO	TOTAL
HP1RIS	75617	13	9	35
HP1DCP	77518	3	0	6

CHAPTER ENTRIES

CHAPTER	LOGS	PTS
POSSUM TROT	11	153
NM MUD DUCKS	1	8
GATEWAY	1	2

2016 ELECTION RESULTS

The ballots have been received and tabulated. The 10-10 International Net Board of Directors for 2017 thru 2018 are:

NEWLY ELECTED MEMBERS:

President – Terry Webb N0TW #36547 in Monticello Florida.

Vice President – Josh Long W9HT #72151 in New Haven Indiana.

Secretary – Kevin Gilot NZ1I #72759 in Mystic Lane Connecticut.

Director – Robert Farrow N6OPR #45715 in Gilbert Arizona.

Director – Gregory Malone WA3GM #46927 in Cheltenham Pennsylvania.

Director – Paul Hemby WN4AMO #73825 in Umatilla Florida.

MEMBERS FROM PREVIOUS ELECTIONS

Treasurer – Keith Schlottman KR7RK #63324 in Tucson Arizona.

Director - Marcus Lieberman KM5EH #71103 in Albuquerque New Mexico.

Director – Roger Olson AD4RX #67754 in Tarpon Springs Florida.

Director – Jim Fax KA0ZPP #43428 in Mayhill New Mexico.

Past President– Mel Sojka KD5DE #33513 in Shreveport Louisiana.

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 in June, the Foundation Board voted to guarantee the funding for five \$2000

scholarships to be awarded in 2017. 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? 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 have an employer matching program, please let us know.

If you make a donation of \$15 or more you are eligible to receive the current year pin. For a donation of \$25 or more we can also send you one of the older 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 Page 31 or send your check to me or the Data Manager. Our addresses can be found on Page 30.

The members listed below became 10-10 Scholarship Foundation Supporters during the months of September, October and November and we appreciate their support.

Platinum (\$1000 or more)

None

Gold (\$500 to \$999)

None

Silver (\$100 to \$499)

N0TW	Terry Webb	36547
K4QYC	Joe Sport	51459

Bronze (Up to \$99)

KC0ET	William Hecker, Jr.	12463
KB7NKP	Gary Arko	62591
WA3HGT	Herbert Raemsch	63062
W1DYJ	Lawrence Banks	65485
W9HT	Joshua Long	72151
NH7FY	Barbara Darling	73968
KB0VVD	Roger Grant	76047
AF7MM	Michael McGrath, Jr.	76407

Each year the 10-10 International Net, through our non-profit corporation, the 10-10 Scholarship Foundation, funds five \$2000 scholarships, which are administered on our behalf by the Foundation for Amateur Radio (FAR). It is suggested that every 10-10 member encourage qualified college-bound amateur radio operators to take advantage of this opportunity. The five most recent

winners were featured in the Fall issue of the 10-10 News and on the 10-10 website. Over the past 29 years, 10-10 has funded 108 scholarships valued at \$127,000.

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. Completed applications must be received by FAR prior to April 15th of each year. Download an application from FAR's website: <http://www.farweb.org> or request an application from:

FAR Scholarships
P.O. Box 911
Columbia, MD 21044-0911

COAX: THE SHORT STORY - PART I

Editor's note: This article is a reprint of an article done by L.B. Cebik, W4RNL (SK), #41159 in a previous issue of this newsletter.

One good way to think about antennas is as a system: the antenna system. The antenna system consists of all components that get power from the rig (or, on reception, to the rig) into the transducer (that is the antenna proper) that converts the electrical energy (the energy that shocks) into electro-magnetic radiation (the energy form that lets your signal bounce off the ionosphere to all that good DX). Some of these components are inside your rig: the filtering and impedance matching components that establish a 50-ohm impedance at the coax connector.

The remainder of the components are external: the antenna proper, the transmission line, the transmatch or antenna tuning unit (2 names for the same item, and it may also be in your rig's case), and any matching components at the antenna terminals (such as a beta or gamma match for a Yagi). All of these have to be working well to ensure maximum efficiency of energy conversion into RF radiation.

The weak link in the system is often the transmission line, and just because it is a simple, no-adjustment component. It does not start off as the weak link: it just gets that way because we ignore it. Most 10-10ers use coax to feed their antennas, so let's confine our discussion to coaxial cables as transmission lines.

SOME COAX BASICS

Everyone knows what coax looks like. There is a center wire, which may be solid or stranded. Surrounding the center wire is some insulating material: it may be a solid translucent plastic or a white softer foam. Around the insulation is a layer of conductors: these may be a mesh or braid of copper, or in recent cables, the conductor may consist of a foil with a mesh around it. Over these layers is a

coating – usually a black jacket on ham wires, but sometimes gray or even white for special purpose cables.

For the moment, forget the outer cover. The center wire, the insulating material, and the wire mesh that determine the characteristics of the cable as a transmission line. We can be a little more precise by remembering that alternating currents at HF frequencies travel at the surface of the wires. Hence, we are concerned with the outer surface of the center wire and the inner surface of the wire mesh: these two surfaces determine what the characteristic impedance of the cable will be. Of course, most of us use 50-ohm cables. Since getting 50-ohm impedance depends on the ratio of the diameter of the center wire and the circle made by the wire mesh, we can make many different sizes of 50-ohm coax.

Here is a table of the most common 50-ohm coaxial cables we hams use:

Cable #	Outer Diameter*	50 MHz Loss**	Maximum Voltage***	Velocity Factor****
RG-174	0.1"	5.7 dB	1100	0.66
RG-58	0.195"	3.1 dB	1400	0.66
RG-58 Foam	0.195"	3.3dB	1400	0.79
RG-8X Foam	0.242	2.1 dB	2000	0.75
RG-213	0.405	1.3 dB	3700	0.66
*	Outer diameter includes insulating jacket			
**	Losses at 10 meters will be about 2/3rds this figure; losses are approximate and			
	vary somewhat from one listing to another.			
***	Maximum operating voltage (rms) also vary from one list to another.			
****	Velocity factors on foam cables vary from one listing to another.			

What can we learn from the table? Actually, several things.

1. The fatter the cable, the lower the losses in the cable. So, use the fattest cable you can afford and handle in your situation.
2. The fatter the cable, the higher the power handling capability (as roughly indicated by the operating voltage).
3. The outer diameter of the cable determines what coax connectors to use. RG-213 requires regular PL-259 plugs. RG-8X, being the same size as RG-59 (a 70-ohm cable) requires UG-176 adapters. RG-58 requires a UG-175 adapter. DO NOT forget the adapters for the smaller cables: they relieve stress on the wires for longer-lasting connections.

4. The velocity factors tell us how long a cable wavelength is relative to that same wavelength in free space. The cables with solid insulation will be an electrical wavelength long at only 2/3rds the length of the wave in free space. Notice that the foam insulations have higher velocity factors than the solid insulation types. For all foam and for cables with new numbers, be sure to check the velocity factor just in case you have to make up a cable that is a specific fraction of a

wavelength long.

In addition to these basic cables, there are a number of new cables. Belden and others make a very low-loss version of RG-213 under company stock numbers. It is for VHF or for very long (100' +) runs of coax. And it costs more. There are also marine cables with jackets that resist sun, salt water, acids in the air, and almost any other contaminant. They also cost more.

FANS AND BOW TIES

Editor's note: This article is a reprint of an article done by L.B. Cebik, W4RNL (SK), #41159 in a previous issue of this newsletter.

Can you use a simple antenna that has an SWR of less than 1.5:1 all the way from 28.0 MHz up to 29.7 MHz? Then you need something stylish in the way of a fan or a bow tie.

Fanning the ends of a dipole or spreading them into a bow about the middle of each side of the element is an old trick for increasing the SWR bandwidth of a dipole. The fatter the element, the broader the bandwidth of the antenna

without any significant loss of performance. Ten-meter fans have been around a long time, but folks have almost forgotten them. Let's restore the memory. Remember that there is a good bit of activity at the upper end of 10, what with satellites, repeaters, HF packet and the like. An antenna that will let you work both the repeaters and the CW end of the band is worth remembering.

Figure 1 captures the essence and the dimensions of a fan dipole for 10 meters. It is a resonant dipole for 10 with a feedpoint impedance of just about 50 ohms resistive at resonance (about 28.75 MHz). A fan can be built with or without the center bar across the middle. However, if the middle bar is removed,

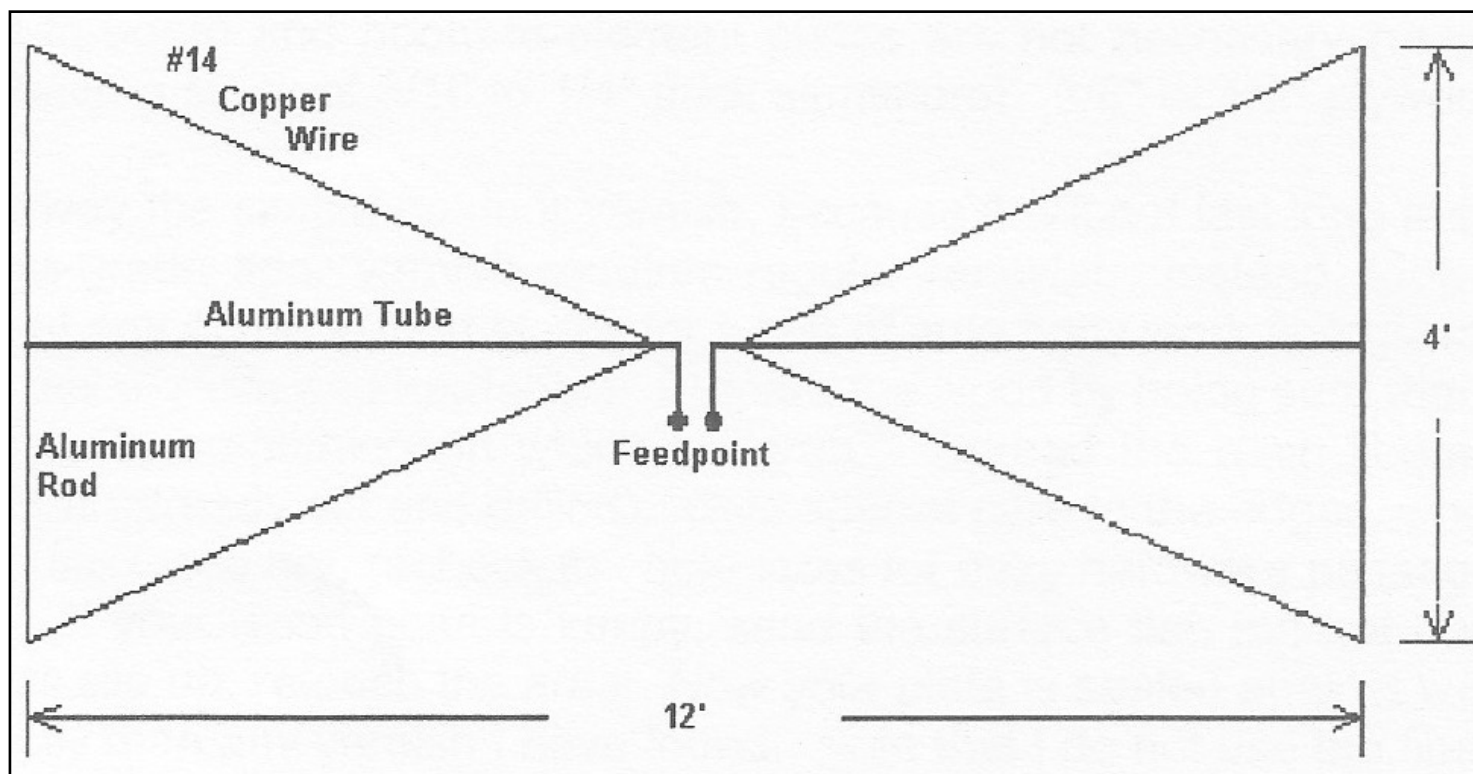


Figure 1. Fan Dipole

the resonant point actually goes down in frequency to about 28.5 MHz with the dimensions given. So some shortening of the structure is in order.

The bandwidth of the antenna increases almost linearly as the vertical dimension is increased. Four feet is a good compromise between performance and ease of building the antenna. At this size, the gain is about the same as a wire or tube dipole having a narrower bandwidth. With the right construction, the antenna will slip the wind easily and be a very long-lasting antenna. It may even look odd enough to fool your neighbors into thinking it is not a ham antenna.

Building the fan begins with a center plate: plywood with a coating of the epoxy used for fiberglass repairs works fine. Make the horizontal element 0.75" diameter aluminum from the hardware store. While you are there, pick up an 8' section of aluminum rod or tubing about 0.375" (3/8") diameter and cut it in two. These are the end verticals. You can drill a 3/8" hole in the end of the tube or use some other clamping system. I just slid the rod into the hole and locked its

position with two tiny hose clamps, one above and one below the tube. A pair of bolts, with nuts on either side of the tube wall, press on the rod for electrical contact. Be sure to use lock washers on the bolts for a good bite into the aluminum tube.

#14 stranded wire runs from the rod ends to the center of the dipole. Another set of hose clamps locks the wire in place at each end. Mount the plate on a mast, turn it by motor or hand, and the job is complete.

Be sure to use stainless steel hose clamps and hardware. A little conductive "butter" helps preserve contacts, especially where the metals are dissimilar.

An alternative to the fan dipole is the bow tie. Instead of spreading the antenna at the ends, we spread it in the middle of each half of the dipole. For the same bandwidth, we must have a longer antenna, spread a bit wider at maximum. However, the ends come back to the center tube, which makes construction a bit simple for some folks. The same principles apply. However, notice that no vertical element is showing in the diagram. Use something non-conductive for

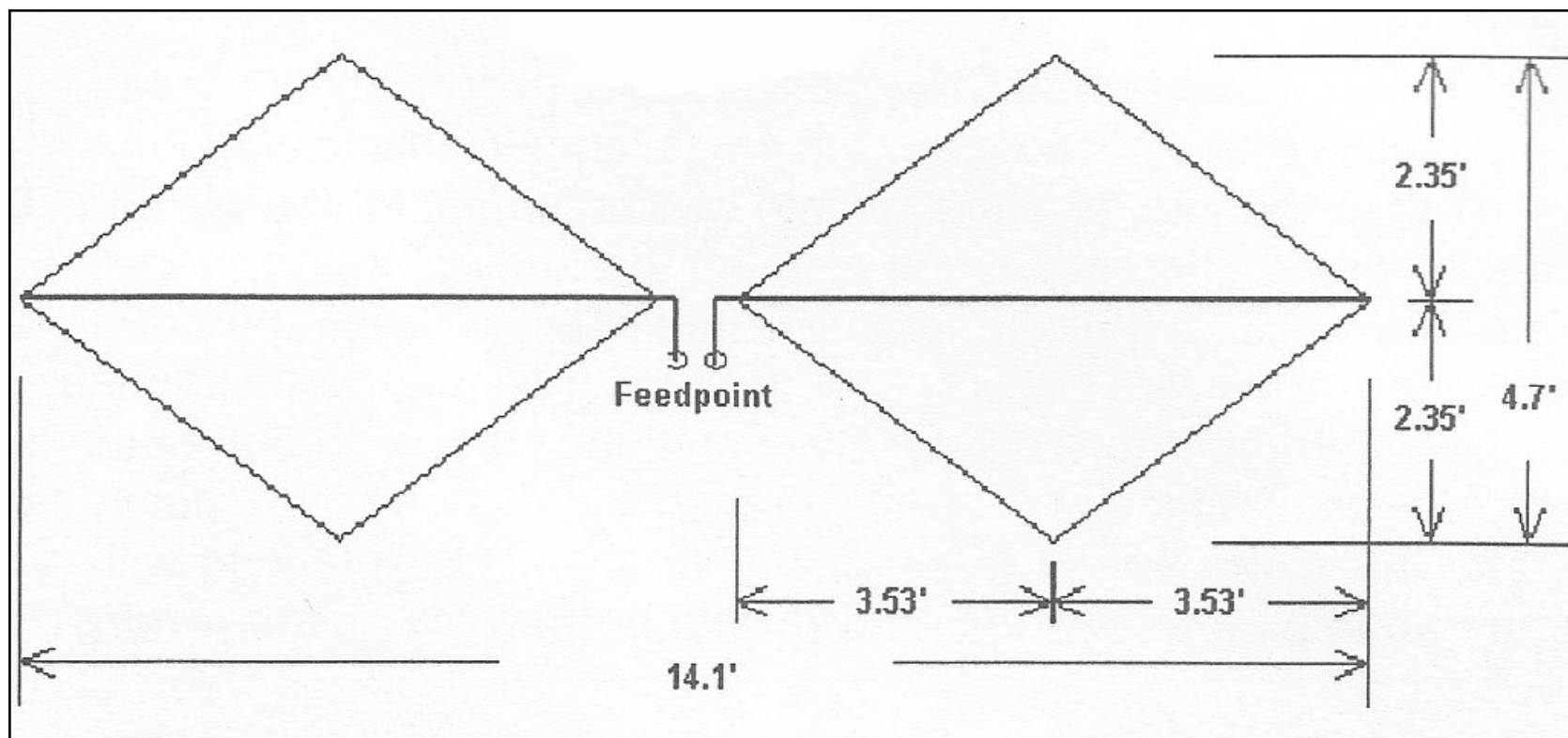


Figure 2. The Bow-Tie Dipole

this spreader. A length of Schedule 315 PVC (thinner wall) may do the job. The wire tension will keep the tubing from bowing, and a simple set of brackets will hold it to the center tube.

The SWR bandwidth of the bow tie is just as good as it is with the fan. If you think you can hear the differences made by $1/10^{\text{th}}$ of a dB gain, then computer models say the bow tie is that much better than the fan. (Before you get caught up in the idea, forget trying to hear a 0.1 dB difference in anything; you cannot do it.) So the difference comes down to this: which antenna is easier for you to build.

Fans and bow ties used to be built from bent tubing, getting rid of the center horizontal tube. Personally, I do not recommend this construction. Even if you are an expert tubing bender and do not weaken the tubing by crimping it, the wind will transform your fan or bow tie into a crumpled scarf in very little time. Some modification of the suggested construction method, adapted to what you have in your shop, makes the strongest assembly.

Fans and bow ties, especially fans, lend themselves to 2-element beams quite readily. Ask the folks at Butternut, where they make a multi-band beam from 2 fans slightly larger than the dipole described above. They call it a "Butterfly" beam, so if you make a beam from two bow ties, you can call it a dragonfly beam.

Actually, a mono-band beam for ten is not too difficult to build. With the basic fan dipole as a guide, you will have to lengthen the back element by about 5% or load it with a coil at the center. The driven element will be long, just about long enough to add the right inductive reactance for creating a beta match with a capacitor across the feedpoint terminals. You can experiment with variable capacitor and then replace it with a fixed capacitor of the right value. About an eight wavelength of spacing (about 4.3') will give the same performance as a "full size" 2-element Yagi, such as the "simplest" Yagi described in an earlier column.

When 10 is marginal for everyday activity, I suppose I will not break any taboos by mentioning the fact that you can apply the same fan principle to wire antenna for the lower bands. With all the variables that go into wire antennas for 80, 40, and 30 meters, it likely makes no great difference if you connect the ends of the fan together or leave them separate. If you add a fan wire to an existing antenna, be prepared to shorten the antenna, since the spread wire will act like a thickening agent. Some hams have strung wires cut for the low end of the 80-meter CW band, the Novice portion of the band, and for 75 meters, all with one feed. However, 80 is so wide a band (as a percentage of the frequency), that these wires tend to act like 3 independent antennas with a common feed. So you can expect to see ups and downs in the SWR pattern rather than one single low point.

The fan and the bow tie are distant relatives to the cage antenna, a series of wires spaced apart along their entire length by special non-conductive spacers. The original theory was that the radiation from each added up, but actually, the only benefit was getting the equivalent of a fat wire from thin ones. You do not have to go that complex route to get a wide-band for 10. The fan and the bow tie will do the job, and they are much easier to rotate the 90 degrees it takes to put a maximum face on the station you want to work.

QSL Bureau News

With the arrival of Terry Webb, N0TW, as our new 10-10 President, that left a vacancy in the QSL Bureau. The position was offered graciously offered to me by outgoing President Mel Sojka, KD5DE, a position I am happy to take.

I am slowly going through our unclaimed cards, and will begin looking at the envelopes once that is complete. In an effort to clear some of the unclaimed cards out, I am taking some of the old postage that was in with everything and getting them in the mail to their rightful owners. Some of them are indeed years old, but I couldn't dispose of them in good conscience as the website bureau maintains will happen if they are left unattended. It is my hope there that maybe we will generate more interest in 10-10, or at least remind people that 10-10 has a QSL Bureau.

As to envelopes and postage, I hope to implement a new policy, assuming I meet no objection. In an effort to streamline things here for me, people using the 10-10 Bureau can do this in one of following ways:

1. Have envelopes with postage already included. I am partial to 6 3/4 or #10 envelopes; they fit nicer in the bins.
2. Have me supply the envelopes and postage for you, but offer a donation to either myself or the organization to cover the expenses of envelopes and postage. Wal-mart is just right up the road, and the local post office is not even a 5 minute drive.

Look forward to hearing you all on 10!

73,

Jim Stoeber, w9x
8829 Bermuda Ave.
Caseyville, IL 62232
10-10 #49635
w9x1989@yahoo.com

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 2017

AD4RX.....	Director/Publications Manager	N0KDB.....	SK Manager
AJ7B.....	Newsletter Editor	N0TW.....	President
G4BLH.....	Awards - GB	N5MT.....	Awards - DX
K0DBK.....	Awards - Counties	N6ELK.....	Net Control
K4QHH.....	Award Manager-Mobile & VP	N6OPR.....	Director/Net Manager
K5BKT.....	Committee Member	N7YG.....	IT Manager
K5ERJ.....	Committee Member	N9AC.....	W6OI Trustee
K6DNR.....	Net Control	NP2MR.....	Committee Member
K6RDK.....	Data/ Membership Manager	NZ1I.....	Secretary, Awards WAC
KA0ZPP.....	Director/Chapter Coordinator	VA7SJ.....	Committee Member
KA5VVD.....	Committee Member	VE3MEW.....	Committee Member
KC1BTA.....	Scout Award Managerv	W4MAA.....	Committee Member
KC8IM.....	Net Control	W5DJT.....	Committee Member
KD5DE.....	Past President	W9HT.....	Vice President
KD6FEC.....	Scout Certificage Manger	WA2SUH.....	Scholarship Manager
KE1HG.....	Committee Member	WA3GM.....	Director
KI6OY.....	Awards-CW	WB0CON.....	Awards - WAS
KM5EH.....	Director/Awards Manager	WB6OJB.....	Net Control
KM5FF.....	Awards-WPX	WB9WZI.....	Net Control
KQ4PK.....	Net Control	WI9X.....	QSL Bureau Manager
KR7RK.....	Treasurer	WM2W.....	Awards – 1000+ Bars
KZ3T.....	QSO Party & Awards Manager	WN4AMO.....	Director/Publicity

RULES FOR THIS EVENT AVAILABLE AT WWW.TEN-TEN.ORG IN THE QSO PARTY HANDBOOK

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.

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 - www.ten-ten.org

TOP TEN HONOR ROLL

No.	CONTACTS	CALL	10-10#
1.	24600	WA5JDU	3017
2.	11700	K0PV	9902
3.	11700	N5XZ	4530
4.	11200	DL8YBM	36109
5.	10500	N1API	25468
6.	10000	K6PZE	1341
7.	9800	N5DAS	35877
8.	8800	AC6FU	10937
9.	8200	K5FBS	48461
10.	8100	WB3FGU	16728

TOP TEN CLUB

No.	CONTACTS	CALL	10-10#
1.	10100	WD0SFT	37933
2.	4400	K6MQ	K6MQ
3.	3300	DL0X	DL0X
4.	2100	W8PGW	W8PGW
5.	1800	W1NRG	W1NRG
6.	1200	NM5MD	NM5MD
7.	1100	W4MNM	W4MNM

1000+ MILESTONE BARS

2000 BAR

NO.	CALL	10-10#
473	DK7LA	66048

WPX AWARD

BASIC AWARD

NO.	CALL	10-10#
386	K4YEH	24777

Number BAR

NO.	CALL	10-10#
226	K4YEH	24777

Number BAR

NO.	CALL	10-10#
225	K4YEH	24777

Number BAR

NO.	CALL	10-10#
130	K4YEH	24777



AWARDS MANAGERS

BAR 100-900..	Dan Morris, KZ3T #41015	3162 Covington Way, Lenoir NC 28645	(828) 728-5049	dbmorris315@gmail.com
Bar 1000+ . . .	Marilyn Webb, WM2W, #76400	1103 Fulford Rd. Monticello, FL 32344-4352	(614) 216-5334	wm2w10@yahoo.com
VP Bar	Bob Bishchoff K4QHH #26040	180 Persimmon, Rutherfordton, NC 28139-9319	(000) 000-0000	rabisch@hotmail.com
VP WAS.	Bob Bishchoff K4QHH #26040	180 Persimmon, Rutherfordton, NC 28139-9319	(000) 000-0000	rabisch@hotmail.com
VP Lucky 13 ..	Dan Morris KZ3T #41015	3162 Covington Way, Lenoir NC 28645	(828) 728-5049	dbmorris315@gmail.com
WAC	Kevin Gilot, NZ1I, #72759	50 Cindy Lane Mystic, CT 06355-1404	(860) 572-6086	kevinemtid@tvconnect.net
Counties	Brad Kimble, K0DBK #55192	3855 66th St. E., Inver Grove Hts, MN 55076-2222	(651) 450-1173	kzerodbk@gmail.com
Countries	Mike Davidson, N5MT #24949	3518 Bellefontaine St. Houston, TX 77025-1310	(713) 668-8408	N5MT@aol.com
CW.	Lee Zalaznik, KI6OY #50948	334 Olivina Ave., Livermore, CA 94551-6137	(925) 455-0361	lee.zalaznik@sbcglobal.net
Digital.	Mel Sojka, KD5DE #33513	353 Atlantic Ave., Shreveport, LA 71105-2909	(318) 861-7012	kd5de@nwia.com
Mobile	Bob Bishchoff K4QHH #26040	180 Persimmon, Rutherfordton, NC 28139-9319	(000) 000-0000	rabisch@hotmail.com
OM/XYL.	Marcus Lieberman, KM5EH #71103	2300 Hurley Drive NW, Albuquerque, NM 87120-1013	(505) 836-1724	buckml@lobo.net
WAS	Eva Donaldson, WB0CON #53964	12933 W Montana Drive, Lakewood, CO 80228-4244	(303) 989-0475	wb0con@comcast.net
WPX	Ed Bryant, KM5FF, #50356	9001 Sunbow Ave SW, Albuquerque, NM 87121-8851	(505) 934-2100	elbble@gmail.com
GB Counties ..	Mike Crawshaw, G4BLH #18446	Moved - New address coming.	No Phone	g4blh@zen.co.uk
Scouts	Rex Landreth, KD6FEC #77131	30 Alida Road, Braintree, MA 02184	No Phone	kd6fec@gmail.com

MULTIBAND VS. 10-METER DIPOLES

Editor's note: This article is a reprint of an article done by L.B. Cebik, W4RNL (SK), #41159 in a previous issue of this newsletter.

If we had unlimited money and space, we could ask the following question sensibly: What is the best 10-meter antenna? The answer might be about 4 stacked long-boom, many-element Yagis from about 70' feet on up on a rotatable tower on a one-hill island surrounded by ocean. Even that answer might get an argument. However, for most of us, the simple question of what the best 10-meter antenna might be is an exercise in irrelevancy.

A more sensible question is usually this one: which of two alternatives is the better antenna? Each alternative might fit your yard and bank account. However, no general answer is possible. Even if one antenna does outperform another, there are always a number of other factors that affect the final decision. Can you maintain this antenna? What will your neighbors say when they see it? Is it compatible with the rose garden?

With those qualifications in mind, let's compare two antennas on performance alone just because people have asked a certain question: which is better: a multiband wire antenna like a G5RV or a center-fed Zepp on the one hand, or a dipole cut for 10 meters on the other hand? And let's presume you have the room and supports for both antennas to make this a real comparison.

If you like to work all of the HF ham bands and are limited to a single antenna, then the multiband wire is certainly an antenna to consider. An "80-meter" 135' center-fed Zepp (also simply called a "doublet"), a G5RV 102' dipole, and a "40-meter" 67' center-fed Zepp (or doublet) are all long doublets, center-fed with

parallel transmission lines and differ only in length. All require an antenna tuner, although some antennas show a low impedance on some bands. The 135' Zepp obviously works better on 80, although the 102' center-fed antenna does quite well there, and all three antennas can show respectable performance from 40-10. The key to their good performance on the lower HF bands is height – the higher, the better. However 30-40 feet up is usually plenty high enough for good 10-meter performance.

In fact, some folks praise these longer antennas because they show some gain over a 10-meter dipole on 10-10's favorite band. Unfortunately, that kind of claim is like preferring \$10 bills over \$5 dollar bills. I'll take the \$5 if you give me enough more of them than the \$10s. The bill size is not relevant until you know how many of each are at stake.

When comparing any of the longer multiband wires with a 10-meter dipole, the extra gain is not relevant until we answer the question of where it goes and, equally, where it does not go. A lot of variables go into the answer to the "where" question, but we can give a glimpse into the answer with Figure 1, 2, and 3. Each shows the azimuth pattern of 3 antennas (2 dipoles and one multiband antenna) modeled at a height of 35' (a typical amateur backyard installation) over real ground at a 14-degree angle of maximum radiation at 28.5 MHz.

Think of these patterns as looking down on the antenna from overhead. The dipoles are the simple figure-8 double loops. For the loops reaching out to 0 and 180 degrees, the antenna runs up and down the page through the center of the diagram. For the loops reaching maximum at the top and bottom of

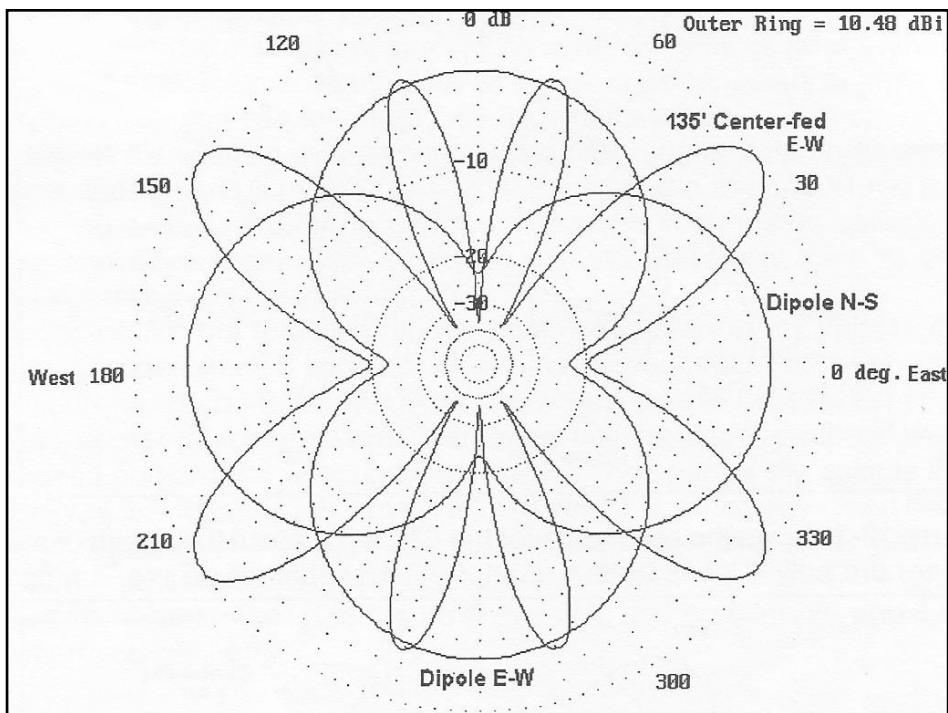


Figure 1. Radiation patterns of two dipoles and a Multiband Wire Antenna the diagram, the antenna runs left and right across the page. Each multiband antenna also runs left and right across the page.

Figure 1 shows the 135' Zepp. It has four lobes that exceed the dipole limit by a good bit. However, notice how narrow they are. Notice also the nulls in the pattern. With some careful planning and some good luck in where your yard trees happen to be located, you might align the antenna so that one or more of the lobes points right where you find the stations you like to work most. Then again, you might end up aligning the antenna so that nulls point at your second and third favorite spots. The key thing to notice is that on 10-meters, the nulls of the 135' doublet occupy far more of the pattern than do the lobes – and the lobes represent the good possibilities for communications.

Figure 2 shows the N-S and E-W dipoles with a G5RV that is set in the E-W direction. Again, the G5RV or 102' doublet shows higher-gain narrow lobes, but aimed more at the 45-degree point in the pattern. The shorter antenna creates fewer lobes. Again, you might use this information to hit one or more of your targets, and possibly miss a few desirable targets. Still, the area covered by nulls occupies more of the overall horizon than does the area occupied by lobes.

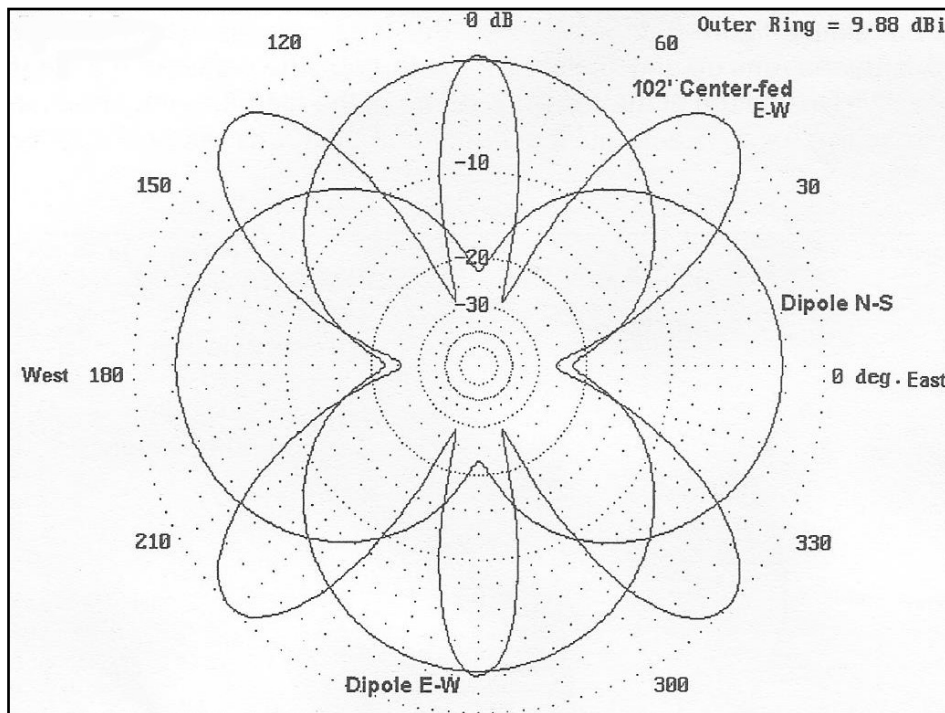


Figure 2. Radiation Patterns of G5RV and Dipole Antennas

Figure 3 shows the same data for the 67' Zepp, about the length of a 40-meter dipole. There are only 4 lobes for this shorter antenna, but, of course, 4 nulls as well.

Each of these antennas has its place in some ham's yard, especially for working the lower HF bands (and each antenna will show a different pattern on each band). But is any really significantly better than a dipole on 10 meters? Gain is nice, but those nulls can drive you crazy.

Well, the dipole also has nulls off each side, so it too is limited. However, with an overall length of between 16' and 16.5' (depending on the element diameter), it is not too difficult to put up a rotatable dipole. You can hand-rotate the antenna mast or use a TV rotator. Then the nulls disappear. More correctly, they go where you put them, as you broadside the antenna to the desired signal. Hence, you only have to rotate a dipole less than 180 degrees to get full 360-degree coverage.

A stack of TV masting with a house clamp only roughly tight or guys in guy rings would permit you to hand turn the mast. You can attach a short level rod to the mast to make turning easier. Except in odd late afternoon shorter skip conditions, where signals seem to come from every direction, you will likely only

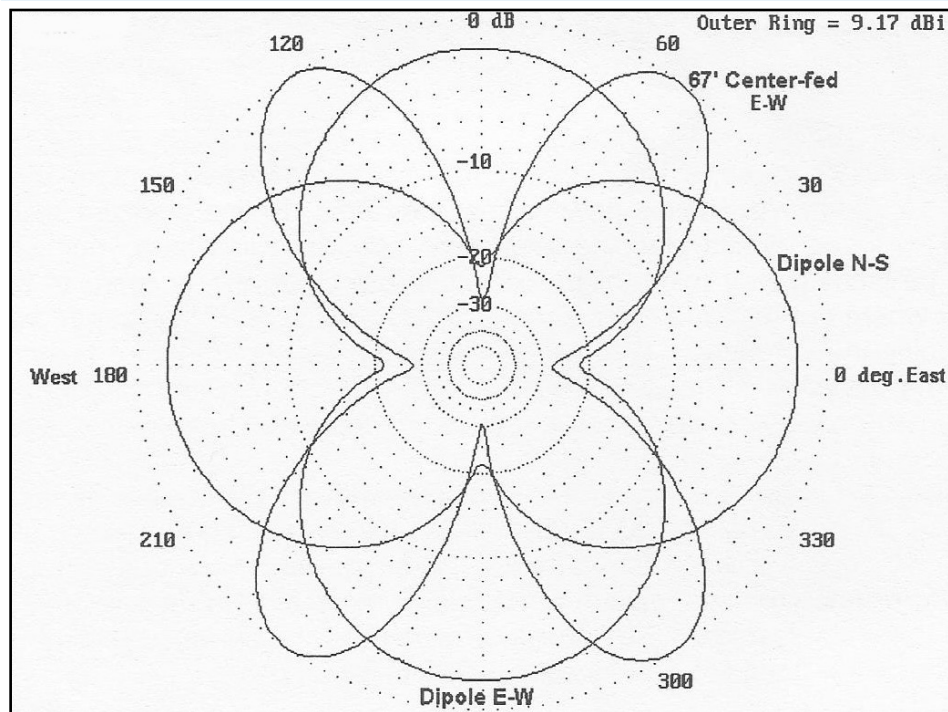


Figure 3. Center-Fed 67 foot Zepp and Dipole Antenna Radiation Patterns have to change the antenna's orientation every few hours.

Am I "pushing" the rotatable dipole? Not really. Part of my point is that gain is not everything, especially if it does not point anywhere useful. Part of my point is that pointing is more simply done on 10 meters than many people believe, especially if they only look at monster 20-meter beams. Part of my point is that a multiband wire antenna is a very useful antenna for working all bands. And part of my point is that, with a little ingenuity, a 10-meter dipole can do a lot of useful work for us without being unduly noticeable or expensive. Even if you already have that long wire, you might also consider adding a rotatable dipole to the antenna "farm." If it is simple enough, you might even take it apart, toss it in the truck or trunk, and go portable with it – and put it back up when you get home.

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.

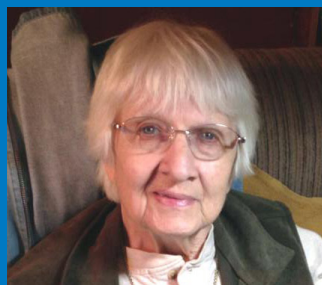
TEN-TEN INTERNATIONAL NET PINS AVAILABLE



There are several spare 10-10 pins available for purchase at \$2 each. Note that the pins displayed are the only years available. If you would like to purchase pins, please send funds to cover the cost of the pins plus \$2 postage. List the years of the pins that you wish to purchase.

Send to:

Terry Webb, NØTW
1103 Fulford Rd
Monticello, FL 32344



Silent Keys

Ruth Bartholomew, N0KDB
#48715

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
1151	W0OCS	Charles J Hayes - Arvada, CO
1721	W1FJL	Carl H Gylfphe Jr - Melrose, MA
2287	W0IUB	Roy T Harmon - Wichita, KS
3903	K5DY	Thomas J Eavenson Jr - Covina, CA
4914	K3TEZ	Michael S Huhn - Annapolis, MD
4967	K0LUW	Russell P Halbert - Omaha, NE
5360	WB4TFW	Richard L Morefield - Albany, GA
5436	WY0R	Paul T Norman - Arvada, CO
5606	W1NU	Victor D Politi - Fairfield, CT
5830	WB8KQJ	Kenneth R Buser - Hinckley, OH
6169	K6CIL	Kenneth E Allinson - Maysville, NC
6906	W6BIN	Richard J Wolstenholm - Chico, CA
7129	W5MRB	Mike R Bruck - Morrilton, AR
7283	KB9FL	Kenneth D Cool - Auburn, IN
7468	WB9KMD	William T Butler - Homer, IL
8117	W9NW	Carl F Searing - Eau Claire, WI
8573	NJ3S	Paul M Crawn - Le Raysville, PA
9174	KK4WM	Joel W Abercrombie - Hamilton, AL
9225	KB5JW	Hugh C Bryant Jr - Azle, TX
10368	WA7WLT	William J Baczuk - Vero Beach, FL
10789	WA1KUL	Kenneth B Gordon - Framingham, MA
11774	WA5MWA	Vernon L Jones - San Angelo, TX
11787	KO5K	Herschel M Glasgow - Friendswood, TX
12080	K1RQ	Dana G Cobb - Ellenton, FL
12820	W9NJB	John W Nienhaus - Oak Lawn, IL
13044	WB6JBM	Richard D Powell - Orlando, FL
13625	W5BL	Douglas A Loughmiller - McKinney, TX
13858	K6ARE	Richard W Randall - Livermore, CA
14194	K5YKC	Rodney A Baden - Lorena, TX
14438	WB3DQV	Frank J Hodan Jr - Coraopolis, PA
14475	N3JD	Joseph E D' Andrea - Weatherly, PA
14570	K8CFY	Jerome V Mc Ginn - Clinton Township, MI
14904	W9DIP	Donald F Fleischhauer - Anderson, IN
15362	KC1KD	William R Greene - Milford, MA
15505	WA4SRD	Edith P Mc Dade - Arden, NC
17430	WA7RWJ	Andrew Yaniv Sr - Eugene, OR

10-10#	Call	Name - City, State
17437	W7OTM	Robert J Fisher - Eugene, OR
17520	WA4BZY	Quentin E Nelson - Richwood, KY
19659	K6JQE	Peter R Heid - Solana Beach, CA
21143	VE6MV	Zdenek Halmo - Calagry AB, CAN
21263	WA6MMH	Mark C Lingard - San Diego, CA
23756	KA2K	Richard L Tornatore - Canastota, NY
24510	K3BVC	Allan K Plimack - Baltimore, MD
24663	VE3EBN	William A Nelson - Stevensville ON, CAN
24835	N4SZ	Stephen J Foster Sr - Anderson, SC
24921	WB5TRX	James R Eaves - Merryville, LA
24953	W4ISI	David L Hoad - Yorktown, VA
25265	WA2OGV	Kent W Moshier - Howell, NJ
26225	W4XC	Edgar F Sanders - Chapel Hill, NC
26954	W7ATX	Ronald G Holscher - Portland, OR
27434	W8ACQ	Frank A Hvizdos - North Royalton, OH
28440	W5JX	Dean C Cole - Deming, NM
28463	W5JBP	Jim D Haynie - Dallas, TX
29828	K0RWS	Roger W Sprague - North Platte, NE
30029	WB7ECQ	Terry A Smith - Klamath Falls, OR
30143	WA4KLN	Robert E Boyd - Benton, KY
30893	KC2LE	Thomas A Mullen - Newark Valley, NY
31415	KB7WP	Russell B Love - Tuscon, AZ
31542	N0ANX	Ernest A Lappa - Virginia, MN
32080	W4YWY	William V Williams Jr - Brunswick, GA
32581	KA1BPJ	Donald H Ward - Plaistow, NH
33114	W9HTI	Jon P Gentry - Tallula, IL
33313	KC2LD	Elaine M Donnell - Penns Grove, NJ
33596	W5SOE	Paul I Kaufman - Houston, TX
33827	N3AGM	Orville C Bowersox - Frederick, MD
34347	K5PFP	Paul F Paulsen III - Hideaway, TX
34824	KA2DOC	John V Fabiyan - New Brunswick, NJ
36393	KD2AQ	Benjamin Fainberg - Teaneck, NJ
36401	KA4LKK	R Garland Clinton - Portsmouth, VA
36483	ND4K	Theodore R Jefferies - Inglis, FL
36757	KZ7T	Randolph A Stimson - Beaverton, OR
37084	KA9MWWK	Robert J Tennant - Columbia City, IN
37142	W1URV	Robert P Bernard - Medway, MA
37779	WD4BLG	Robert H Christ - Lake Wylie, SC
38615	K2XM	Peter C Thomas - Gorham, ME
38714	KA2GXS	John R Waterhouse - East Aurora, NY
38735	N2ERR	William E Gorman Jr - Whippany, NJ
39481	AA4PR	Joseph B Evans Sr - Saint Pauls, NC
40007	W9RET	Ray E Taylor - Carmel, IN
40727	KI4CT	Owen L Godwin Jr - Lutz, FL
41351	NV8F	Alex Wooten Jr - Fairfield, OH
41429	W5DRH	Donald R Hice - Plano, TX
41514	WB6SMV	Claud A Jordan Jr - French Camp, CA

10-10#	Call	Name - City, State
41868	W4WUQ	J Dalton Mc Crary - Murfreesboro, TN
41962	N2FIT	Paul V Robinson - Minoa, NY
42461	WB3IWY	Gerald E Engman - Winchester, VA
42694	N0HCV	Donald L Brown - Rochester, MN
43541	KD6FW	Charles F Reiring Sr - Madera, CA
43971	WB2LJG	Natale G Minosh - Wolcott, NY
44076	KB8AYZ	Randall H Mace - Athens, OH
44094	WB8JDV	George J Martini - Columbus, OH
44437	KA9MNR	Lloyd M Spencer Sr - Pineville, NC
44772	KB4ATT	Wendell E Buck - Murfreesboro, TN
45238	N1WWD	Benjamin F Potter Jr - Holiday, FL
45278	K1HLP	Marc Cadof - Norwell, MA
45564	N7FK	Frederick E Krick Jr - Golden Valley, AZ
46648	N1FIO	Richard M Daniel Jr - Boxford, MA
46896	NT4D	Jamey C Brookover - Cary, NC
48580	W6LRT	Roy W Blankenship - Rhoadesville, VA
49595	KW4BC	Bill C Lynn - Tullahoma, TN
50028	KA1SIT	Neil R Ostiguy - Northfield, VT
50338	AA5IA	William R Scarborough Sr - Clarksville, AR
52180	KB5DRZ	Wallace B Garner - Big Spring, TX
52327	K3TKV	William E Yelk - Gordonville, PA
52396	N3HTA	James T Ridgley - Frederick, MD
53290	WA5KKY	Walter L Winfield - El Paso, TX
53444	N3HMQ	Herman D Parsons Jr - Selbyville, DE
53914	KA0TTB	Dorothy E Friant - Marshfield, WI
54412	N4WJC	William J Crandall - Gainesville, VA
54441	WB4JPM	James E Sterling Jr - Gloucester, VA
54498	W4TZG	Ray Burns - La Follette, TN
54592	N1JX	Arnold J Knadle - Roseland, NJ
54666	W7LQU	Keith B Anderson - Rigby, ID
55028	N1FIT	Alice M Miner - Mansfield Center, CT
55869	N5PK	Jackie H Lemons - Las Cruces, NM
58159	WB2OJR	Richard I Oasen - Manahawkin, NJ
58990	DK3KD	Wolfgang Daub - Langenfeld, GER
59077	W6VIB	Byron D Lott - Livermore, CA
59106	W1RAI	Raymond W Rancourt - Arlington, VA
59372	KG0DK	Raymond D Voss - Edina, MN
59853	KB8EHJ	Carl R Aikin Sr - Branchland, WV
60777	W4JB	Matthew J Burchfield Jr - Brooks, GA
61368	K5VC	Bob A Austin - Brownville, TX
61776	KB2OFY	Julius T Freeman - Spring Garden, NY
62116	N5WYR	John H Soliday - Euless, TX
62577	N7OW	Lloyd 'Burt' Rooke - Goldendale, OR
62808	K8NLW	Russell E Stipanovich - Amherst, OH
63118	KD6HCV	Don W O Neal - Lake Isabella, CA
65411	KA1MLC	Charles J mc Carthy - Atkinson, NH
65503	KG2BG	Stanley R Gordon - Scotia, NY

10-10#	Call	Name - City, State
65954	KB8SHS	John R England - Blue Rock, OH
66320	N0WNT	Terry L Mc Donald - Topeka, KS
66627	N4DOM	Richard T Turk Sr - Rutledge, GA
67306	AC6LE	Donald Meehan - Napa, CA
67609	W8BNT	Richard L Petscher - Rocky River, OH
68270	KA4WRR	Herman T Cornett - Hamilton, OH
68735	N3FWC	Allan C Tillander - Harmony, PA
68785	W1ERF	Anthony E Simeone - Pittsfield, MA
68952	AA8WP	Larry J Helzer - Mount Vernon, OH
70241	K5ZZM	Leon A Cheney - Waco, TX
70262	N2VYJ	Dennis R Hanvey - Spring Hill, FL
70530	N9WH	Kent J Christiansen - Cedarburg, WI
70788	AA4HP	Robert H'Hank' Phillips - Titusville, FL
71174	K1RAD	C Keith Johnson - Eden, VT
71880	KC8OVZ	William A Casper - Niles, MI
72123	VE3ELM	Thomas C Bartello - Almonte ON, CAN
73323	W8RVD	Robert C Van Dyke - Baltimore, OH
73554	WA1ZDV	Jack J Barbera Jr - Holderness, NH
74129	KC8QED	Andrew L Hollibaugh - Leroy, MI
74349	W3QH	John T Siemon Sr - Pittsburgh, PA
75138	AI4TN	William C Finch Jr - Greenville, NC
75204	K3CB	Owen Wormser - Royal Oak, MD
76044	W4FRA	John L Zavadil - Rocky Mount, NC
76389	N5WNF	Bob D Foard - Van Buren, MO
76461	N0NEL	Phillip T Hopkins - Atchison, KS
77050	KJ6VXD	Donald E Hunt - Redlands, CA

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

Ruth 73/88, N0KDB #48715



THE POOR OLD ZL SPECIAL

Editor's note: This article is a reprint of an article done by L.B. Cebik, W4RNL (SK), #41159 in a previous issue of this newsletter.

Because the ZL special is such a mechanically simple and cheap antenna, it has spent its nearly half century of life misunderstood. Rightly understood, it has a place in the 10-10 inventory of antennas. It will not cure the blues on a rainy day or make DX in the absence of sunspots, but it may make a very useful attic or field antenna.

ZL3MH (later ZL2OQ and recently a silent key) brought the antenna to ham attention in 1949, giving credit to W5LHI and W0GZR for basic information on the design. G2BCX, who has developed variations on the design from the earliest days to the present, dubbed it the "ZL Special," and the name stuck.

The basic idea is deceptively simple: take a driven element and a slightly longer reflector and space them between a tenth and an eighth wavelength apart. Next, connect the elements with an eighth wavelength of transmission line (adjusted for velocity factor of the line) with a half twist, and feed the former driven element with ladder line to an antenna tuner. The result is a 135-degree phase array. In the early 1950s when hams had difficulty building Yagis at home, the antenna seemed to outperform 3-element Yagis and give almost miraculous front-to-back ratios. The claims are almost embarrassing today.

First, the ZL special, in any form, will have the gain of a 2-element Yagi at best. In fact, most decent designs show about 1.6 dBi forward gain in free space, about the same as the broadband Yagi described in the last column and about 4 dB better than a similar sized and placed dipole.

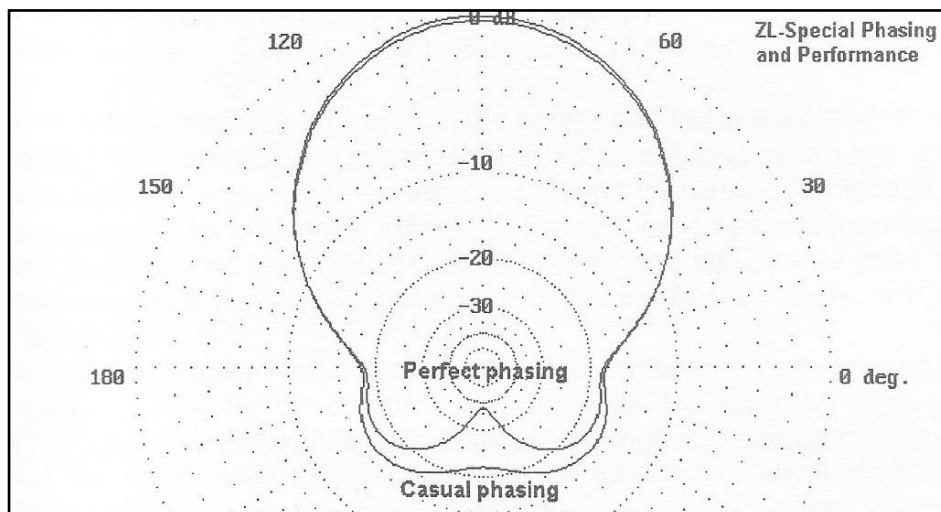


Figure 1. Two Radiation Patterns of ZL Special Antenna

Second, the front-to-back ratio can range from great to mediocre depending upon design care, luck, and Murphy. Figure 1 shows two patterns of the version we shall physically describe below. They are taken over real medium earth at a height of 20' (for reasons we shall also note below). Casual building can achieve the broader pattern, while extensive design and experimental work might approach the "perfect" pattern.

The perfect pattern might not be more especially useful than the casual pattern, since it is so pinched. Any rear QRM just off center line will not feel the effects of the high front-to-back ratio, since it will fall within the off-center lobes. The casual pattern is only slightly worse than the lobes of the perfect pattern. Looking at the entire rear section of an azimuth pattern is something called analyzing the "front-to-rear" ratio.

The casual pattern is still useful for certain kinds of applications. It provides a better than 15 dB front-to-rear ratio across the entire backside. If the mechanical features of the antenna fit your building needs, then it may pay to try a ZL Special.

Most of ZL3MH's designs used unequal elements. A few years back, W7EL published a Field day Special version of the antenna using equal length elements. Hence, I tend to call unequal element versions ZL Specials and equal element versions FD Specials. W7EL's antenna is made (like some predecessors) from 300-ohm good quality TV feedline. The general configuration appears in Figure 2, scaled for 10-meter use.

The elements are folded dipoles 16'2" long. The 300-ohm phasing section is 4'3" long with a half twist between the front and rear elements. The phase line here is designed to be the same length as the distance between elements, this

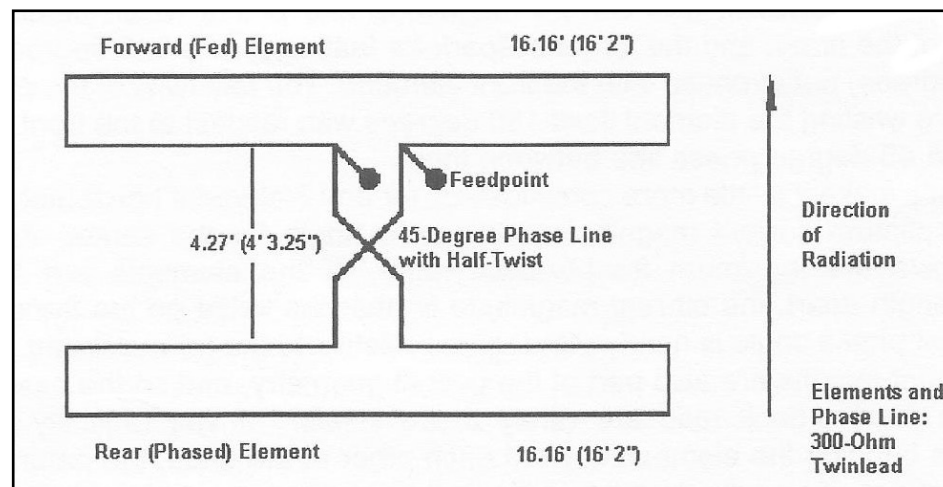


Figure 2. - Scaled Version of ZL Special for 10 Meters

producing a taut assembly.

You can feed the antenna in two basic ways. One way is to place capacitors in series with each feedpoint to compensate for some remaining inductive reactance at the feedpoint. The 1:1 choke balun links the feedpoint to regular coaxial cable. If finding the right amount of capacity to place at the feedpoint is a bit too much trouble, then feed the antenna with more 300-ohm ribbon brought to an antenna tuner. The feedpoint compensation will have a bearing on the basic properties of the antenna.

Heavy plastic squares with stress-relief slots and small machine screws as tie-point anchors should make easy work of the mechanical connections, front and rear. You can tape the antenna to bamboo and simulate a Yagi, but that is probably not the best use of the antenna. Better applications are as an attic antenna or an antenna strung between trees on Field Day and similar operations. A spacer bar at each end of the antenna and some rope ties will hold the antenna in place. These applications prompted the 20' height patterns, since they rarely permit very high antennas.

W7EL also noted a convenience: he attached half-wavelength sections of twin lead dangling from both the front and rear junctions. One just dangles (without touching the ground) while the other is connected either to the antenna tuner or the coax feedline. Swapping leads reverses the direction of the array. The dangling open-end half-wavelength line acts like a very high impedance, which affects antenna performance very little, if at all. Adjust these lines for the velocity factor of the ribbon cable, about .9 for most common 300-ohm twinlead.

Sounds simple, doesn't it? Mechanically, it is simple, but electronically, things get a little more complex. Some call the ZL Special a 135-degree phased array because they think of the rear element at 180 degrees minus the 45 degree twisted phase line out of phase with the front element. This is true with respect to impedance values found at each element. However, it is current magnitude and phase which determine the performance of the array, and the target ballpark for the current is 315 degrees (which is also -45 degrees) out of phase with the front element. The half twist of the phase line is equivalent to twisting the element itself 180 degrees with respect to the front element, with an added 45-degree phase line between them.

Now let's make it a little more complicated: for any 2-element horizontal antenna, there is an optimum current magnitude and phase angle for the center of the rear element to give the maximum front-to-back ration are rarely these ideals. If you radically alter the geometry, like bending the elements toward each other at the ends, the natural values (or parasitic values, if you like to think in Yagi terms) change considerably from those found with straight elements at the same spacing.

Finding the exact dimensions for a perfectly phased ZL Special can be daunting

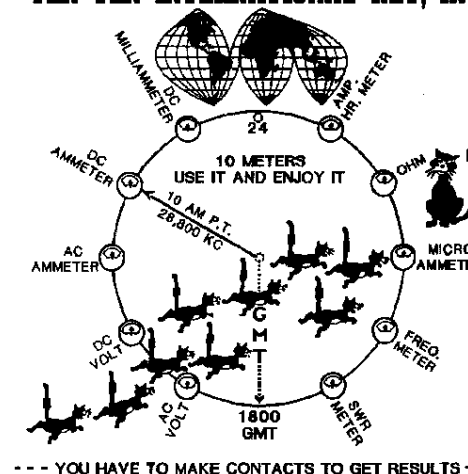
and unrewarding, especially since the values also change with the antenna height above ground. (The "perfect" pattern in Figure 1 required a modeled rear element current of 1.01 times the current on the forward element and a phase angle of -40.8 degrees and those values differ from the free space model values.) ZL1LE has developed a "lumped constant" matching network that permits him to tune his antenna to the deepest rear nulls as he feeds both junction points with half-wavelength feedlines.

However, there is a big difference between a usable antenna and a perfect antenna. Most ZL Special designs will show little loss in gain and at least 15 dB front-to-back ratio up to 5% above or below the optimal current level and up to 8 or 10 degrees off optimal phasing. Hence, even casual ZL Special designs get the job done, even if they are not perfect. That is why most antenna analysts (who are usually perfectionists) tend to hate the ZL Special, while many a poverty-level or teenage ham has learned to love the antenna.

Like the hams of the 50s, I prefer to use an antenna tuner with the ZL Special because I do not have to recompensate for the feedpoint reactance every time I move the antenna. And tuning one up to acceptable performance is a matter of adjusting the length of the phasing lines, usually making it longer and a bit more saggy than most of the magazine designs show. Twin lead is cheap enough to experiment with almost endlessly—or at least until the sunspots return.

If your needs fit the mechanics of this antenna, try one. If you love it, you will love even more for the savings. If you hate it, at least you won't be out much money, and the twinlead is reusable.

TEN-TEN INTERNATIONAL NET, INC.



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 (as received off 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 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 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 using the membership/update link.

All payments may be made by Check, Money Order or IRC's (\$1USD per IRC). 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

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 five \$2000 10-10 Scholarships that will be awarded next year. For donations of \$15 you will receive a current year's lapel pin as a thank you gift, and for \$25 or more a second pin from a previous year will be sent. To pay by credit card, see the payment information on page 31. 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.

Spirit of 76 - 7 day, 6 mode event around 4 July each year

0001 UTC Monday 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. NOTE: A QUIET ZONE between 28.490 and 28.510 shall be in effect during QSO Parties using the Phone portion of the 10 meter band to allow for others to use the band.

5.2.4 ENTRY CLASSIFICATION

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

INDIVIDUAL: 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.

QRP: same as an individual as listed above except that output power does not exceed 5 watts with CW/Digital operations and/or 10 watts with Phone operations during the entire 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. If a single transmitter becomes inoperable, it is permissible to change to a replacement transmitter.

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 and whose operating location is within 150 miles of the primary net location of that charter, may assign the entrant's score to that chapter. QSO Party scores for the Sprint may not be assigned.

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 15 days after the entry deadline, regardless of postmark, will be discarded. All logs may be sent via Email. Logs (if cabrillo, adif, or text) may also be uploaded at www.hamclubs.info/scorer/. Please no .Q95 files.

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 15 calendar days (this will always be a Monday) after the close of the event. Mailed entries for the Sprint (held on 10/10) shall be postmarked no later than October 25th, unless that day falls on a Sunday, then the postmark deadline shall be October 26th.

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, 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: 2010 is the 48th anniversary year of 10-10 International Net, Inc. Contact with members containing a "48" in their membership number (i.e., 72048, 69485, 64854, 48126, 00487) 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 15th 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 SPIRIT OF 76 (7 Days, 6 Modes) QSO PARTY

This event will run for 7 days and be around July 4th of each year. Make as many contacts as you can during the week using 6 modes. The modes that will be used are as follows as well as the suggested frequencies to monitor:

1. USB (28.345) 2. RTTY (28.086) 3. CW (28.050)
4. FM (29.600) 5. PSK (28.120) 6. AM (29.000)

Scoring will be as normal for QSO Parties, 2 points for members and 1 point for non-members. Dupes will be allowed once for each mode. It will be possible to work the same call 6 times in each of the various modes for a maximum total of 12 points per call. 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/VE9TEN/DL0X SPECIAL EVENT

This event is held during the 3rd weekend of November each year from 0001 UTC Saturday through 2359 UTC Sunday. This special event operation is where volunteers operate the 10-10 official club stations (W6OI/VE9TEN/DL0X) seeking to work anyone anywhere. Any mode of operation is permitted. Many operators will be authorized to operate W6OI from most US states and VE9TEN from various Provinces/Territories simultaneously. DL0X is operated by Henry, DL8YBM. The purpose is to have fun promoting 10-meter activity making contacts with 10-10 members and of course, non-members. This is a great way to increase membership! Exchange is similar to any 10-10 party event - name, call, QTH, 10-10 number if one is available. As contacts are made, provide info on 10-10 organization and where to find our website - www.ten-ten.org. If anyone wants to volunteer to operate W6OI during this event contact Jerry, N9AC. Members in Canada should contact Rob, VE9KM for permission to operate VE9TEN.

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.

2017 10-10 QSO PARTY COVER SHEET

Event	Dates	Postmark	Event	Dates	Postmark
Winter Phone	Feb. 4-5	Feb. 20	Summer Phone	Aug. 5-6	Aug. 21
Spring Digital	April 29-30	May 15	Sprint	Oct. 10	Oct. 25
Spring CW	May 6-7	May 22	Fall CW	Oct. 21-22	Nov. 6
Open Season	June 3-4	June 19	Fall Digital	Nov. 11-12	Nov 27
Spirit Of 76	July 3-9	July 24	Anniversary (55)	Jan. 1 - Dec 31	Jan. 15
			Meet the Volunteers	Jan. 1 - Dec. 31	Jan. 15

Name _____ Call _____ 10-10# _____

Address _____

City _____ State/Province/Country _____ Zip _____

Your e-mail address (for contest questions only) _____

PLEASE LIST CONTEST EXCHANGE

Call _____ Name _____ 10-10# _____ QTH _____

ENTRY TYPE

- ☐ **INDIVIDUAL**
- ☐ **QRP** 10 watts or less Phone,
5 watts or less CW/ Digital
- ☐ **MOBILE** See QSO Party rules.
- ☐ **CLUB** Only for those operating
as a Club Station. If Operating under
a Club call, please list all operators and
their 10-10 numbers (if any) on the log.

**US Call Area (W0-W9)
Or ARRL DX Country
You operated from**

**Chapter Assignment
(Not valid for Sprint)**

Claimed Score

Contacts WITH
10-10 Number: _____ x2= _____

Contacts WITHOUT
10-10 Number: _____ x1= _____

Total
Contacts: _____ Total Pts _____

All submissions must contain this cover sheet (or a reasonable facsimile), the log in UTC Date/Time order,
And a Dupe Sheet (if more than 50 contacts) in call sign order or in grid format.

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

Logs may be emailed to tentencontest@ten-ten.org. Members are encouraged to upload logs at the KJ4IZW con-
test scoring web site: www.hamclubs.info/scorer.