

# IN-SERVICE

Fall

Volume 78

November 2001

## ASCRA Calling Frequencies

Do you ever run in to another ASCRA station on the HF bands? Not often, probably. Would you like to increase your likelihood of QSOing with another ASCRA station? If so, when you go to a band listen first on the ASCRA calling frequency for that band. If you call CQ, call on a vacant spot near the ASCRA calling frequency.

We all have our favorite frequencies and usually use them to meet our friends. We don't expect you to change your habits or avoid your present friends. However, if you want to find an ASCRA station try the ASCRA calling frequency. Once in a while you may even find an ASCRA QSO in progress on that frequency.

In a recent article in the IN-SERVICE Terry Redding W6LMJ reported hearing Fred Naylor VK3AQN calling him on 20M one night. He didn't say so but I expect it took place near 14.287 MHz. We can increase the probability of these random meetings by looking first on the ASCRA calling frequency.

Don't treat this as just a calling frequency. There is no need to QSY after contact is made. Stay on frequency and perhaps other ASCRA stations will join you.

Until better suggestions come along I will listen first on the following HF frequencies:

1.987 Mhz  
3.987 Mhz  
7.287 Mhz  
14.287 Mhz  
21.387 Mhz  
28.387 Mhz

We can add the WARC bands if the idea catches on. In any case use a frequency ending in 87 KHz since 287 is the 20 M net frequency and is easy to remember.

Post this list near your operating position. Please let me know if you meet another ASCRA station so we can get some feedback on whether this idea helps get us together.

73, Hale W6RWH  
[w6rwh@arrl.net](mailto:w6rwh@arrl.net)

### Correction

Last issue I referred to Fred Troeh's call several times with the prefix "W". The correct call is NØELM. Sorry Fred, I lapsed back to the "good old days." Editor

## CHECKING INTO THE ASCRA NET FROM WØSHQ

Tom Thatcher  
W2TFT

This summer, as in the last six years, I planned to attend the Annual Conference of the Hymn Society in the United States and Canada. There was special interest in doing so this year as it was being held in Independence, MO for the first time, at the Community of Christ Temple. Though the Conference was held July 15-19, I planned to arrive early and leave later, on July 12 and 23, respectively, in order to visit relatives and friends in Independence or nearby.

I thought it would be nice if, on July 15<sup>th</sup> and 22<sup>nd</sup> I could continue my Sunday afternoon ASCRA network participation from WØSHQ, the ASCRA headquarters station at the Auditorium. I contacted Gene Chadwick, KBØBKZ, by E-Mail and he forwarded my inquiry to Michael Hahn, KGØXU, ASCRA Executive Director. We corresponded by E-Mail and arranged a meeting time.

On Friday afternoon, July 13, I went to Michael's office in the Temple and we walked over to the WØSHQ operating room on the 6<sup>th</sup> level of the Auditorium near the southeast corner. Michael showed me the HF transceiver, amplifier and antenna rotator controls and described their operating procedures. He seemed to be satisfied as to my capability of operating and not destroying the equipment for he gave me keys to the two access doors that normally are locked. He also gave me a device by which I could enter one door of the Auditorium, in case the building was closed for the day, and the procedure for using it. Fortunately I did not have to go through that procedure. We also discussed how I could return the door keys and access device.

Some years ago Ernie Miles mentioned he talked to Finis Easter from time to time encouraging him to investigate amateur radio. I had met Finis at reunion and region activities when I lived in the east, he worked for RCA in Southern New Jersey and he and his wife lived there. I invited Finis to join me at WØSHQ both Sunday afternoons. On the 15<sup>th</sup> however, he was rehearsing with the choir, which was part of that evening's opening Hymn Festival. Finis did join me at the station on the 22<sup>nd</sup>. One of the photographs shows him at the operating position. Finis is in charge of the Chaplains in the Temple. After the ASCRA Network session on the 22<sup>nd</sup> I gave him the keys and entry device to return to Michael Hahn since the offices of both are in the Temple.

As I recall, both ASCRA sessions went well and I was able to relay some information from California to the net on the 15<sup>th</sup>. I recall being told by Michael that the antenna should not be pointed to the northwest, for a good reason.

In that direction the antenna faces the dome of the Auditorium. The copper roof on the dome acts much more like a dispersing reflector than a transparent medium. There is other equipment at the WØSHQ station. I noticed but did not touch the computer, packet facilities and two-meter VHF equipment.

The Hymn Society Conference went very well, with the second-highest attendance ever (322). People came from 41 US States plus the District of Columbia; three provinces of Canada; Australia; England and New Zealand. The Opening Hymn Festival was planned by the Community of Christ Worship Office and was outstanding. Jack Ergo directed the Choir and Orchestra, Jan Kraybill was organist and between hymns (from our Hymns of the Saints and Sing for Peace hymnals) there were twelve scripture and other appropriate readings. The next three Hymn Society Conferences will be: 2002 - Winston Salem, NC, 2003 - Halifax, Nova Scotia, Canada and 2004 - Collegetown, MN, (west of St. Cloud).

It is my understanding that other ASCRA members visiting Independence can make arrangements to operate the WØSHQ station. Michael Hahn may be contacted by phone (1-800-825-2806, Ext. 2284), by E-Mail: <mhahn@CofChrist.org>, or US Postal Service: Stewardship Ministries, Planned Giving, 1001 West Walnut Street, Independence, MO 64050-3562. I am sure that making such arrangements well in advance would be much appreciated.

Thomas W. Thatcher, W2TFT  
twthatch@frontiernet.net

#### IN-SERVICE

Publication of the Association of Saints Church Radio Amateurs  
Comments, suggestions or material for future issues

send to:

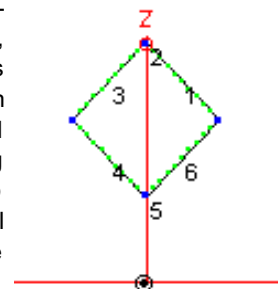
Editor: Hale Collins W6RWH  
Route 1 Box 228  
Lamoni IA 50140  
e-mail w6rwh@arrl.net  
Phone 641 784 6007

# Quad Loop Antenna

Ernie Miles WB2UJL

This is a description of the 20M quad loop I used while in Houston in 1998. It worked well enough that I worked Fred in Australia several times during the 16 weeks of our visit.

The quad loop is a full-wave length wire loop on 20M, about a 71.5 foot loop. It was shaped as a diamond rather than a square, due to the way I mounted it on a 36' telescoping TV mast purchased from Radio Shack. The diamond had equal sides and the corners were approximately 90 degrees. When I compare it to a dipole, the top half of the diamond has the same dimensions of the classic drooping dipole. The bottom half of the diamond also resembled another dipole which could be seen as a mirror image of the top half. Articles I found said the gain was slightly less than twice the gain of a dipole in performance.



As the plan was to use a balun to drive it from RG-8 coax I found the clamp at the top of the center mast is ideal for connecting to the balun with either a pulley to hoist it or just attach it and push it up when I expanded the mast. The loop impedance is between 100-150 ohms. I used a 1:1 balun but a 2:1 balun is a better match for the quad loop. My Kenwood has a built in tuner that was protected from the high SWR by the attenuation of 100 feet of coax. I measured a SWR of 1.6:1 at the end of the coax which could be tolerated by the auto tuner.

I clamped the bottom 10' section of the mast under the rain gutter on the garage and sat the mast on a board with a metal stake thru it which I inserted into the bottom of the mast. This was to keep the bottom of the mast from sinking into the grass or kicking out while expanding it if there was some wind before the guy ropes can take effect. I had to stand on a step ladder next to the gutter to draw up the center section first, then pin and clamp it before extending the next of the 4 sections. The top was only 36' off the lawn.

The diamond is vertical and hangs down next to the mast at the bottom about 13' from the ground. I insulated it from the mast with some plastic tubing with drain holes.

I mentioned it being in a diamond shape. The nylon guy ropes were attached at the 1/4 wave point, holding the loop open. The bottom was not tied down as the plastic tubing was enough weight to keep it from blowing very much. I used a heavy piece of plastic at the corners running the wire through several holes drilled fairly close to one another to prevent the insulator from sliding around the loop. I learned the insulator would slide around the loop when a thunderstorm bent the mast slightly when the guy ropes slipped. I also ran 2 guy ropes front and back (perpendicular to the loop) which provided support for the mast in all four directions. The high wooden fence around the yard worked great for anchoring the guy ropes.

I cut and tuned the loop before I left NY where I hoisted the balun and loop on a pulley to get it well above the wooden picnic table. With the loop soldered to the balun I attached a coax to the balun and connected the other end to a cantenna dummy load. This allowed me to look at the whole resonant system when I dipped it. I wound a single turn of the loop around the inductor on my grid dipper. The thumb wheel was so coarse that I would tune the dipper to resonance and go down in the shack and listen to the frequency of the grid dipper. I dipped it several times to get an average for the resonant frequency before trimming. The 70 foot coil of copperclad was really 71 feet and I was really frustrated when resonance turned out to be 14.330MHZ. It seemed a crime to have to solder an additional 5.25 inches of wire on the loop to bring it to 14.287.

The guys off the corners of the loop were pointed to the NW and SE giving the best performance off both sides to the NE and SW as it is bi-directional. The poorest performance (like the dipole) is off ends or the sides of the diamond. There in Houston this allowed me to work Fred in Australia to the Southwest, Independence to the North and West Palm Beach to the East with a fairly strong signal. I left the amplifier at home and was running less than 100W with my Kenwood TS850S.

After several months, I did get in trouble with the group that looks after the deed restrictions on antennas so I had to take it down. Guess there were no understanding hams on the committee.

73's, Ernie WB2UJL  
ErnieMiles@aol.com

#### Editor's note:

I have analyzed the Quad Loop using the antenna analysis program EZNEC v3.0 by Roy Lewallen. I used the parameters specified by Ernie e.g. Frequency, height, size of loop, feed point etc. Assumptions approximating real earth conductivity were included. The computer results are as follows:

The azimuth pattern and gain of the Quad Loop is very close to that of a horizontal dipole, measured at the vertical elevation of maximum radiation. The Loop's vertical angle of maximum radiation above the horizon is 35 degrees while the dipole at a height of 36 feet has its maximum at 27 degrees. The Loop's vertical radiation pattern starting at 90 degrees (straight up) is only one "s" unit below the maximum, and going down toward the horizon goes through the maximum (at 35 degrees) and drops to one "s" unit below its maximum at 16 degrees above the horizon. This provides good radiation over a wide range of vertical angles and consequently a wide range of communication distances.

The calculations say that the input impedance at the design frequency will be approximately 155 ohms. With a 200 ohm 4/1 balun this would result in a 1.3/1 SWR.

The Quad Loop has the advantage of requiring less horizontal space than a dipole. Its horizontal space requirement is the same as a 90 degree "inverted V." It can be suspended from one point so only one tower is required. To provide horizontal polarization it can be fed at the top (point 2 in the figure) or with essentially equal results it can be fed at the bottom (point 5).

Editor w6rwh@arrl.net

## Silent Keys

Ed Elmer KA7DJC Grants Pass OR  
Darold Sewing KØTTP Council Bluffs IA

## Hospital visits

Barbara Redding, W5HKY, fell breaking her right foot and left leg September 12, 2001. She sustained a compound fracture of the left leg which required emergency reconstructive surgery that night.

Barbara was in the hospital overnight and for most of the next day. She is unable to walk and confined to a wheel chair. It will be at least another five weeks before she will be able to walk without the wheel chair.

Barbara's address is 2470 Gabriel Lane, West Palm Beach FL 33406-5247. E-mail: [terry@oltraining.com](mailto:terry@oltraining.com).

We pray for a speedy recovery Barbara.

\* \* \* \* \*

Doug Shaw had a prostate procedure as an out-patient using micro-waves to reduce benign prostatic hyperplasia which he has been dealing with for about seven years. Ask him about it. It's a new procedure and quite interesting. His address is <Doug.G.Shaw@juno.com>.

#### 20 Meter Net

14.287 MHz 1530 Central Time Sunday  
Net Control Ernie Miles WB2UJL

The following names and call signs checked into the 20M net from 7/17/01 to 9/30/01. Sorry if I left out anyone. 73, Ernie

WDØARL, Ed Gordon	KD5CKP, Tim Billingsley
KØBKZ, Gene Chadwick	N5ECP, Jeff Salmons
WØDZX, Dave Atkins	N5LCL, David Gates
NØELM, Fred Troeh	N5QDD, James Frame
WØEXX, Darius Hofer	W5QPT, Ellis Thatcher
WAØFGW, Randy Bronson	KE6CVH, Mike Kendall
WØFTD, Bud Resch	KF6HDJ, Brent Hendricks
WAØIBS, Andy Ferrara	W6LMJ, Terry Redding
NØIYD, John Chapman	KB6OJT, Alton Jennings
KAØPGQ, Philip Schweitzer	KQ6RU, Ilie (Nick) Nicolae
WAØPTG, Melvin Francis	W6RWH, Hale Collins
WØSHQ, Tom Thatcher	W7FDL, Floyd Lehman
KGØTQ, Steve Fagan	K7HR, Sam Zuidema
KGØXU, Michael Hahn	WB7PFP, George Kendall
N1HV, Andy LeDeay	KA7VMA, Dick Wynes
KD1R, Ralph Stetson	KC7VQC, Don Swanson
W2TFT, Tom Thatcher	WD8DOM, Harold Thomas
WB2UJL, Ernie Miles	W8QK, Muirl Robinson
W4DGO, Merle Wright	KB9JLC, Ken Collard
KA4JLW/AG, Keith Dean	K9QPM, Lawrence Lauffer
AE4UG, Dennis Rothermel	KB9SOE, Scott Taylor
KN4YW, Dick O'Neill	K9YV, Steve Fagan
N4WTW, Mike Glowaski	WA9YWK, Keith Peterson
WB5BRD, Ray Hooper	

## Hams Provide Communication for Salvation Army Relief Efforts

The disaster relief support operation in New York City, Salvation Army Team Emergency Response Network (SATERN), volunteers are holding up well. SATERN Amateur Radio Liaison Officer Jeff Schneller, N2HPO, says the operation could run for several more weeks.

"Our current team of Amateur Radio operators is doing a fantastic job," Schneller said. "The operation is going great!"

SATERN is now "making do" with at least six Amateur Radio volunteers per day, from about 9 AM until 11 PM, primarily to support the Salvation Army World Trade Center canteen operations, although Schneller said an even dozen for the two daily shifts would be ideal. SATERN last week eliminated its overnight shift of radio operator volunteers. Operators have come from all over, including New Hampshire, Ohio, North Carolina, Florida and Missouri. Schneller said he even had offers of help from England and Canada.

One operator, Janet Stonecipher, KCØIET, arrived on her own from Missouri three weeks ago. "Janet seems to want to stay for the duration but is overdue for rotation out," Schneller said. Another Missourian, Anna Balmer, arrived with a REACT team and stayed on. "She is here working with us under extreme circumstances," Schneller explained. "Her brother was killed in the Pentagon attack." He said two local groups--the Broadcast Employees Amateur Radio Society (BEARS) and the Electchester VHF Club have been providing exclusive use of their repeaters since Day One.

"Thanks to all the Amateur Radio operators who have come to assist and made this a successful operation," Schneller said, adding that he also appreciated the many other offers to help. SATERN now is limiting its fresh volunteers to those available from the Greater New York City area.

Schneller strongly advised all Amateur Radio operators to prepare for the future by first getting acquainted with and joining their local ARES or SATERN teams, then by taking the ARRL Amateur Radio Emergency Communications Course <<http://www.arrl.org/cce>>. More information about SATERN is available on the SATERN Web site <<http://www.satern.org>>.

*From the ARRL Letter Vol. 20, No. 41 October 12, 2001*

### ASCRA SETI SCOREBOARD as of 10/29/01

Call/name	Data Units Completed
1) wb6otg	1732
2) Hale Collins	895
3) kg0ii	777
4) Rod Schall	586
5) phonehome - n0oxk	303
6) joe AD6VD	268
7) W6LMJ	247
8) ka0vtb	247
9) Ralph T Stetson III	246
10) Ernie	49
11) K0BKZ	21

<http://setiathome.ssl.berkeley.edu>

## WØSHQ Joins International Scout JAMBOREE-ON-THE-AIR

Doug Shaw, WAØEMX, a long time Eagle Scout and Scouter put WØSHQ on the air for several hours Saturday and Sunday, October 20th and 21st for the 44th annual Jamboree-On-The-Air, sponsored by the World Organization of the Scout Movement. Thousands of amateur radio stations and nearly half a million Scouts and Guides participated around the world. He worked several scout units in several locations including Michigan, Indiana, Texas and Ontario, Canada. Very short skip was in on both days so no long DX contacts were made this year. The WØSHQ rig worked great using the refurbished tri-bander both barefoot and with the AMP!

Sunday Doug was joined by Marc Dickensheets, Troop 334 Scoutmaster, sponsored by the Ridgewood Congregation. The troop had been on a work day at Ridgewood all day Saturday, so Marc was their lone participant. (Marc's dad, Ray, was one of Doug's roommates at Graceland and his mom, Francie, is a benefits specialist at the church HQs. Marc is also engaged to Doug's youngest daughter, Amber.)

Most of the day's activity was spent with the 20 Meter ASCRA net. A memorable contact was also made with K1G, a Coast Guard special event station in Raymond, Maine.

The station log shows it has been on the air only 3 times since 28 April, until the JOTA weekend. (One of these occasions is the time Tom Thatcher operated the station, reported elsewhere in this newsletter.) Doug plans to put the station on more often in the future. Executive Director Michael Hahn invites others to contact him if they want to put WØSHQ on the air.

Reported by Doug Shaw, WAØEMX, Sec'y ASCRA Troop 334 Committeeman and Merit Badge Counselor, Three Trails District

\* \* \* \*

**If you are changing addresses or have upgraded your license please let us know. Send to:**

**Hale Collins  
IN-SERVICE Editor  
Route 1 Box 228  
Lamoni IA 50140  
e-mail <[w6rwh@arrl.net](mailto:w6rwh@arrl.net)>**

**FAX 641 784 4663**

Got an idea for an article ?  
Send that in too, preferably with a picture

Association of Saints Church Radio Amateurs, Inc.  
Request for Nominations to the ASCRA Board of Directors for the  
2002-2004 term.

You may make up to six nominations. More than six will invalidate all your nominations. **Please verify with your nominees that they accept nomination.** Only one nomination is required to place a name on the ballot.

The following current board members serving until April 2003 are **NOT ELIGIBLE** to be nominated:

Robin Cross, WØFEN; Bob Farnham, KGØII; Melvin Francis, WAØPTG; Michael Hahn, KGØXU; Ernie Miles, WB2UJL; Doug Shaw, WAØEMX.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

6 \_\_\_\_\_

**Send your nominations to be received no later than Saturday, 29 DEC 2001 to:**

Doug Shaw, WAØEMX, Secretary, ASCRA, Inc.

P.O. Box 73, Independence, MO 64050

or preferably to:

11312 East 55th Terrace, Raytown, MO 64133

If you run out of time you may send your nominations by E-mail to:

wa0emx@arrl.net (routes to: d.shaw1@juno.com).

Thanks also for joining last year's 23 contributors by including your generous tax deductible donation to help support ASCRA operating expenses including the IN SERVICE newsletter. If you do nominate by E-mail, don't forget to mail in your (voluntary) donation.

Doug Shaw, ASCRA Secretary