



Signals from SARA

WØJH	©2019 The Stillwater Amateur Radio Association An ARRL Affiliate & Special Service Club www.radioham.org	February 2019
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SARA White Elephant Exchange Party (SWEEP) now on Saturday, February 9

Following the 2019 Election of Officers, we'll hold the popular, always fun White Elephant gift exchange.

As if you need a reason to participate, consider these benefits:

1. Clean your shack of something(s) you no longer need or want!
2. Go home with something more useful/desirable than you started with!
3. Have FUN with guaranteed SURPRISES!



Details & Rules:

:: Each participant brings at least one wrapped "White Elephant" gift.

This could be something you have lying around your Ham Shack that you don't use or no longer need. If you don't have a "White Elephant" you're willing to part with, then buy something with a maximum value of ~\$10. (Maybe a trip to Ax-man Surplus is appropriate?!)

:: Numbers are put into a hat, equal to the number of gifts brought by members. (Members may bring a maximum of 3 gifts each.)

:: Each participant draws a number. (Those bringing more than one gift can draw as many numbers as the gifts they bring.)

Continued on next page

Proud affiliate of the **Courage Kenny Handiham Program**

handiham.org
Ham radio for people with disabilities

Announcements

Monthly Meeting:
Feb. 9, 2019
Meeting: 09:00
[Boutwells Landing](#)
Gables Wing
Auditorium A
(Lower Level)

Program: SWEEP

Pre-meeting:
~07:15 - 08:45
Breakfast & Coffee
[Perkins Restaurant](#)
2050 Frontage Rd W
Stillwater, MN

SARA On the Air

SARA Phone Roundtables:
Daily @ 20:00 Local:
(*except* Tuesday & Thursday)
1.966 MHz LSB +/- QRM
(alternates: 21.316 MHz or 50.166 MHz USB +/- QRM)

Monday @ 09:00 Local:
3.856 MHz LSB +/- QRM

Tuesday @ 20:00 Local:
160m & 2m ~~unicast~~ - TBA
(1.966 MHz & SARA Repeater)



SARA Weekly Nets:
Wednesday @ 21:00 Local:
SARA 2m Repeater
147.060+ MHz (Positive offset)
DCS/DTCS 026(Normal)

Digital Net
Sunday @ 19:00 Local:
3.58415 MHz USB
(500-1000 Hz) on waterfall
Mode announced via email

Can't Find Us On the Air?
... Monitor SARA Repeater!

:: The person with number "1" goes first.

:: The first person chooses a wrapped gifts and opens it.

:: The gift is described; as best as possible. (The person bringing the gift can assist.)

:: The person with number "2" is next and has a choice. This person can either select the unwrapped gift from the first person ... or can choose to open one of the wrapped gifts.

:: If anyone has the gift they selected and unwrapped taken away from them (chosen by a subsequent participant), they can choose an unwrapped gift that someone else has (except the one taken from them) or choose one of the wrapped gifts.

:: A person cannot choose/select a gift from the person who just took it from that person.

:: Gifts may not be transferred/chosen more than 3 times. (It stays put after 3 transfers.)

:: The "round" continues until each person who had a gift – has a gift; exchanged or opened.

:: The person holding the next sequential number begins the next round.



Mary (NØDXH) ends up with the Flying Pig last year!

:: The exchange continues until all participants have at least one gift and all gifts are opened.

:: The person with number "1" has the final chance to transfer/choose any gift. (If this person takes a gift, it results in an exchange with the other person and "Game Over!")

:: SWEEP concludes, but members may willingly exchange gifts and barter as they wish.

Notes:

Don't spend a lot of time/energy on wrapping. You can use a paper or plastic grocery bag – or even a garbage bag for large, odd shaped items.

We encourage you to look thru your shack for an item you no longer want or need.

As a last resort, you can let your spouse/XYL select a gift from your shack! You may NOT want to go this route!!

Election of SARA Officers for 2019

Nominations for the officers of the Stillwater Amateur Radio Association were made during the December 8 meeting of the Association.

The following is the slate of officers nominated:

President:	Joe Heitzinger, KCØOIO
Vice President:	Bob Jensen, WØGAF
Secretary:	Collin O'Connor, KEØIYN
Treasurer:	Rich Smith, ADØSN
Director 2019-2020:	Dan Stubbs, KEØIYF

Director Doug Farrell, N9TOW is midway through his 2-year term.

The office of Trustee is appointed by the Board of Directors at the next scheduled Board meeting.

Elections will be held during the February meeting of the Association.



Bandwidth from the President

Greetings from my shack, de Joe KCØIO.



Due to a health safety situation at Boutwells Landing we had to cancel the January monthly meeting, including election of officers. Word is that the quarantine has been lifted at Boutwells and we'll be able to meet there as planned in February. I commend the Boutwells Landing staff for their efforts to limit exposure and spread of an illness beyond their walls.

With the cancellation of the meeting, we have moved our schedule of meeting activities back one month. We will have the annual Election of Officers at the February meeting. The SARA White Elephant Exchange Party will also be held at this meeting, so gather up those White Elephant items in your shack and bring them along.

We have been developing the monthly program schedule for 2019. In March, we hold an Operating Roundtable. We'll discuss all sorts of operating do's and don'ts, tips and tricks, and goofs and gaffs. Come to the meeting and share your experiences, suggestions, and questions. For April, Bob WØGAF and Collin KEØIYN will be putting together a program on Logging Programs for non-Windows Users. Come May, we will have Dave WØOXB share the basics of Baluns, Ununs, and RF Chokes. I've arranged for a return of Bill AEØEE for the September meeting to present his program "Contesting 101." The Sept 14 date coincides with the Sept ARRL VHF Contest that starts later that day. In October, Collin KEØIYN is joined by Doug N9TOW to share information on SDR Dongles & Receivers and associated software.

Our Field Day efforts will have a renewed focus for 2019. Bob Jensen WØGAF has volunteered to serve as General Chair. Bob has stated that he will be reaching out to more of our members to assist in organizing and executing our efforts this year. There was discussion at the January Board meeting regarding operating the full 24 hours and it was decided that we will reach out to the City of Oak Park Heights to secure permission to do such at Autumn Hills Park this June. I'm excited to see what develops for this year's Field Day.

Not much new in the digital modes to share this month.

The SARA HF Digital net will run into this Spring. Thor-16 continues to be a viable mode in the current band conditions. Olivia 16/500 was tried recently. It is slower than Thor-16, but perhaps a little more robust. 80 meters has been challenging in recent weeks. I've had difficulty getting any copy from stations that normally come through great. I'm thinking we'll be trying out other bands such as 160 meters and 12 meters or even 6 meters to see how those bands perform. Read the weekly reminder e-mail closely each Sunday for net details.

For our February 9th meeting, the SARA White Elephant Exchange Party returns. Full details are on the front page of this issue. Don't forget the pre-meeting Breakfast will be at Perkins Restaurant 2050 W Frontage Rd (Hwy 36 & Washington) in Stillwater at 7:30 AM. The breakfast gang hopes to see you there!

73 es CUL, de Joe (KCØOIO)



HF Remote Base Report

All the remotes, WAØTDA, WØZSW, and WØEQO are up and running. Earlier this month the IC-7200 at WØZSW was replaced with a Kenwood TS-590S so that the IC-7200 could be sent in for repair of the encoder and a couple of other issues. The software interface changes slightly when radios are switched, so pay attention to the RCForb software layout on your PC screen. The TS-590 at WØZSW is in a testing phase as I write this and I hope to have it ready to use in a day or two. Feel free to try it anyway, and send bug reports and questions to wa0tda@arrl.net.

A benefit of the TS-590S (as well as the Kenwood TS-480SAT at WØEQO) is that the "Test" button is available to turn the radio into a VoIP talk around system that allows all users connected to that radio to talk to and hear each other without sending out any signal on the air. This can be used as a training tool for newbies or to make comments between connected users without having to disturb an ongoing on the air QSO.

Unfortunately this feature is not available for Icom radios due to a bug in the software that causes the host radio's input to be switched from USB to MIC when the Test button is toggled. Once the audio source is switched to MIC, an administrator has to travel to the physical location of the radio and switch it back to USB manually. Thus, we do not make the Test button available when the radio is an Icom. (This problem is not unique to the IC-7200 - it has shown up on the IC-7300 when used as a host as well.)

If you have at least a General Class license and wish to have access to any of these radios, please email me, Pat, at wa0tda@arrl.net.

Skywarn Class Saturday, February 23



SKYWARN

As in the past, SARA is sponsoring one of the earliest Skywarn classes in the Twin Cities. Scheduled Feb. 23 from 10:30 am to 3:30 pm (with lunch break), class will be at the Stillwater Public Library (224 Third Street North).

If you've attended in previous years, you know the library's Margaret Rivers Room is an excellent location to watch the informative photos and videos that will be presented to illustrate weather phenomena.

If you haven't taken Skywarn training recently, remember you must re-certify every two years in order to remain current. Never been to a Skywarn class?! You really owe it to yourself to attend – even if you don't plan to be an active spotter. The information in Skywarn training is valuable and can be lifesaving!

Although Skywarn severe weather net reporting requires an Amateur Radio license, the class is open to the public and is accredited for members of the police and other public safety departments. Anyone with serious interest in weather who takes this class, quickly learns the important role ham radio plays in Skywarn. It's no coincident; we start free Technician License classes the following week.



Technician License Class & Extra Study Group Starting Thursday, February 28

Technician License classes will be held at the Stillwater Public Library (224 Third Street N.). There are eight Thursday classes plus a final exam session. Class time is 6:00 to 8:00 pm. The VE session location will be announced.

Here's a perfect time to get SOMEONE you know started in Amateur Radio. According to Bob (WØGAF), our Education and Training Coordinator, "There may never be an easier, better opportunity for virtually anyone to earn their license!"

Bob continued, "For those who might be interested in teaching in one of our licensing classes, please don't be shy. We're always looking for new instructors, and we promise to break you in easy. It's a great way to share your knowledge and to pay it forward to the ham community."

If you have questions, or would like to find out more about teaching ham classes, call Bob (WØGAF): 612.802.2269

Thinking about upgrading to Amateur Extra; consider joining our Extra Study Group.

This is intended to be a self-led discussion group, with a participant serving as facilitator to guide the discussion topic each week. This will not be a classroom environment with a teacher out front, but rather a group of people talking through theories, concepts or discussing any questions that participants may have. Extra Class Licensees who wish to share in discussions based on their areas of expertise or experience are welcome to attend any sessions.

Help drum-up interest in Amateur Radio by promoting the Skywarn and Technician classes to your family and friends.

Ice Station WØJH Special Event on Frozen Lake Elmo (Feb. 16-18)

Event co-chairs Bob (WØGAF) and Dave (WØOXB) are coordinating the logistics including, but not limited to, organizing shelter, power, hooking-up radio equipment and scheduling operators/loggers. We'll be setting up and operating from a portable ice fishing, tent-type shelter with a portable heater. The shelter will be located on the east side of the lake. A multi-band HF antenna (center-fed Zepp; surprise!) will be supported by trees on the shore. The shelter and all gear will be taken down and stowed each evening following operation. The QTH of Dave (KEØAIF) begins at the lake shore, and continues on the other side of Lake Elmo Ave. N. He is offering free parking. Dave also is hosting the very important after-hours critiquing/networking sessions. There's no word yet on mincemeat pie and adult beverages.



Unfortunately this event is not for everyone. There is no public access to this portion of the lake; our station will not be handicap-accessible (terrain to the lake is very steep). Mobile/portable station operation is permitted and encouraged from the parking area at AIF Dave's QTH. John (N5JLZ) already has first "dibs" on a 50' windmill tower for a portable, end-fed antenna.

Dates / Times / Schedule:

February 16, 17, 18, 2019 (Presidents' Day weekend)

- Saturday, 2/16: 10:00 am Setup, Operating until ~4:00 pm**
- Sunday, 2/17: 10:00 am – ~4:00 pm**
- Monday, 2/18: 10:00 am – ~4:00 pm (~4:00 – 5:00 Dismantling)**
- Frequencies: 3.860, 7.260, 14.260, 21.360, 28.360 MHz**
 - :: Tune +/- 20 kHz if QRM**
 - :: SSB mode; digital operation may be used by those interested**

QSL certificates will be available when requested via email address:
IceStationW0JH2019@radioham.org

Event announcement is already posted on the ARRL web site (Special Events) and is published in the February issue of QST.

If this sounds like your kinda fun – don't wait; contact Bob or Dave and reserve your spot! (If you can't join us there; be sure to join us on the air!)

Visitors are welcome but for liability insurance reasons, all scheduled OPs must be SARA members.

Preventing Grounding Issues

By Mike Paskeuric, NØODK



Like me, when you're either working in an industrial production field or a hobby like Ham Radio, you will sometime encounter electrical noise or other issues which may affect your equipment and cause it to not work correctly or make noise in your audio.

The new SDRs, higher end radios, computers, electronic devices, and speakers, may have extra accessories and other features that make them vulnerable to such issues. At work I have encountered problems in Circle Chart Recorders, VFDs, PLCs, touch screens, sensors, and sometimes speakers and computer systems. I was troubleshooting some equipment at work the other day and found myself using the same techniques that I had used the week earlier with my ham radio station. As I was working on the problems, I came up with several points to look at in either home or at work. In this article I will address the ham radio side more though it can be used for both.

Start out with ground rod driven into the ground outside, close to where your radio set up will be. From there a single, uncut large wire should feed into your setup area and the end will be a central connecting point ground for your individual connections. Each piece of radio and gear will have a screw or post for a wire to connect to; then that

goes to your central point ground. One thing you **do not** want to do is "daisy chain" your equipment ground wire by connecting them in series. Each equipment ground should go to the central point, not to other equipment. Also note that you should not connect to house/building electrical ground. Keep your radio station on a separate ground system.

Next is to make sure all electrical connections, screws, ground connections, and all other connections are tight or soldered and sealed/shielded from water and moisture. On data cables or other cables, there is foil and an outside ground wire running outside of the wire harness to shield wires on the inside. Make sure the outer ground shield is connected to ground one end only to prevent ground loops. Some cables or jumpers are sealed and you don't need to worry about it in that case. I always buy data cables that are already shielded and some have a ferrite bead on one end.

Always keep your antenna and data cables away from higher voltage lines like 120 volt extension cords, computer 120 volt cords, or other high voltage lines.

In my ham station, I had issues with my digital setup not working very well on FT8. I could make most contacts and could run all bands but one, 17 meters. Some contacts would not complete or some of the data was broken up. I use a ferrite snap on bead (or toroid core) and wrap data cables around it two or three times. Some of the ferrites look like donuts and some are split with a plastic cage. The ferrite acts like a filter on outer shields and breaks down the electrical noise riding on long runs of wire. I used a snap on ferrite choke on a data cable wrapped three times, and I used a couple snap on ferrites on my LMR400 antenna cable coming out of the radio. This cured my problem on FT8 and now I'm enjoying making lot of contacts on all bands.

I use ferrite mix number 31 for ham radio use. I buy the DX Engineering Snap On Bead Mix 31 that are 0.5" diameter so they can be used throughout the radio setup. They come in packs of five, and I used an extra snap on ferrite choke around my speaker wires coming from the computer and it eliminated the hum when transmitting on 80 meters.

I hope this article helps you improve your ham station and gives you a starting point on troubleshooting. I personally think that if you use snap on ferrite chokes or toroid cores around antenna and data cables, a lot of common issues won't even show up in the first place!

73 and good DX to you.
See you on the bands.
Mike, NØODK

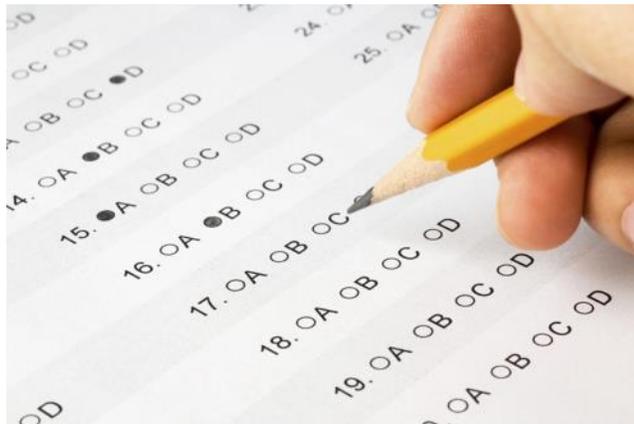


Membership

Knowing that several 2018 members were intending to renew membership for 2019 at the January meeting and due to the cancellation of that meeting, I delayed removing expired members from emails until the February 9th meeting.

In addition to Mark Bayuk and Rudy Rodriguez who currently do not have ham licenses, the following are current 2019 members as of January 30th, when this is being written: AAØU, AD6QT, ADØCK, ADØSN, AGØH, KAØHYR, KAØNKU, KAØOBI, KB9MMT, KB9WTB, KC9GEJ, KCØOIO, KCØWAS, KD3VIN, KD9IVH, KDØDEO, KDØEAP, KDØJTG, KDØLPY, KDØOTB, KDØPKY, KDØSVO, KDØVKB, KDØWGH, KDØYST, KDØZWM, KEØGOM, KEØGON, KEØIYF, KEØIYN, KEØLMX, KEØN, KEØOGI, KEØOVH, KEØQBE, KEØQQM, KEØQQN, KEØROH, KEØROJ, KEØRZZ, KEØSCA, KEØTPZ, KIØB, KØAIF, KØGCP, KØGW, KØHAS, KØJWI, KØSON, KØZZT, KT9C, N5JLZ, N5LB, N9EZX, N9ILW, N9JNQ, N9TOW, NØBJE, NØCIC, NØCQ, NØCRT, NØDRX, NØDXH, NØDZQ, NØGRK, NØMR, NØODK, NØUHR, VE3MXJ, VE3XT, W2YNT, W3QLC, W9LHG, WAØTDA, WB9OKQ, WBØMOA, WDØAKZ, WØDIK, WØGAF, WØOXB, WØWTP, WØZPT

Shel NØDRX
Trustee@radioham.org



VE Exam Session

Shel NØDRX

A SARA ARRL-sponsored Volunteer Examiner testing session, following conclusion of the upcoming SARA classes, has been scheduled with the ARRL for April 25th.

Exams are scheduled to begin at 6pm at Boutwells Landing. If you are a SARA VE and would like to participate in this session, let me know. Early volunteers will have priority in event the VE list gets too long and I limit the number.



**Association of Emergency Radio Org.
AERO Training Opportunities**

Enhancing Emergency Communications

The First Classes of 2019, Newly Updated from Last Year!

AERO 101 Class:

Saturday, February 16th, , 8-noon.

Ramsey County Sheriff's Office,

1411 Paul Kirkwold Dr, Arden Hills, MN 55112 Marsden room

Saturday, August 17th, , 8-noon.

Maple Grove, Maple Grove Fire Station 2, 13450 Maple Knoll Way, Maple Grove, MN 55369

AERO 102 Class;

Saturday, March 16th, 8:00 am-Noon

RCEMHS: 90 Plato Blvd W, St Paul, MN 55107 PLATO BLVD- CONFERENCE CENTER

Saturday, September 21st, , 8-noon.

Maple Grove, Maple Grove Fire Station 2, 13450 Maple Knoll Way, Maple Grove, MN 55369

AERO 200 Class;

Saturday, April 27th, 8:00 am-Noon

Cottage Grove City Hall, 2800 Ravine Pkwy S, Cottage Grove, MN 55016

Saturday, October 5th, 8:00 am-Noon

Bloomington Civic Plaza, 800 W Old Shakopee Rd, Bloomington, MN 55431

AERO 101 Class:

Saturday, February 16th, , 8-noon.

Ramsey County Sheriff's Office,
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Saturday, March 16th, 8:00 am-Noon

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Saturday, September 21st, , 8-noon.

Maple Grove, Maple Grove Fire Station 2, 13450 Maple Knoll Way, Maple Grove, MN 55369

AERO 200 Class;

Saturday, April 27th, 8:00 am-Noon

Cottage Grove City Hall, 2800 Ravine Pkwy S, Cottage Grove, MN 55016

Saturday, October 5th, 8:00 am-Noon

Bloomington Civic Plaza, 800 W Old Shakopee Rd, Bloomington, MN 55431

AERO 201 Class;

Saturday, May 25th, 8:00 am-Noon

Cottage Grove City Hall, 2800 Ravine Pkwy S, Cottage Grove, MN 55016

Saturday, November 2nd, 8:00 am-Noon

Bloomington Civic Plaza, 800 W Old Shakopee Rd, Bloomington, MN 55431

AERO 201 Class;

Saturday, May 25th, 8:00 am-Noon

Cottage Grove City Hall, 2800 Ravine Pkwy S, Cottage Grove, MN 55016

Saturday, November 2nd, 8:00 am-Noon

Bloomington Civic Plaza, 800 W Old Shakopee Rd, Bloomington, MN 55431

AERO 202 Class;

Saturday, December 7th, 8:00 am-Noon

Bloomington Civic Plaza, 800 W Old Shakopee Rd, Bloomington, MN 55431

If you haven't registered at AEROMN.or, sign up for classes: <http://www.aeromn.org/index.php/27-how-to-get-involved-in-training>

If you are registered, just log in. You can also reset your log in information if you lost it.

More About AERO:

For more information on how to join an AERO training class, please go to <http://www.aeromn.org/index.php/27-how-to-get-involved-in-training>

Board of Directors

Michael Ostlund NØANP - Chair; David Johnson NØKBD - Vice Chair, Marketing Chair; Brian Esmay ADØMJ; Joe Sherohman ACØYR; Matt Holden NØBBC; Kim Wilker KEØANR; Ann Foster KØANN; Monte Thue KBØD; Dan Anderson KDØASX.

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Ryc Lyden KDØZWM - Chair; Dale Morgan KCØTAP; Clay Bartholow WØLED; Ralph Bierbaum NØAWN; Mike Ostlund NØANP; John Regan KAØHYR; Tom Simota KDØDFG; Kim Wilker KEØANR.

Washington County ARES Nets & Activities Summary



Nets

Please post this by your radio and/or kitchen table and try to check in once or twice per month and enjoy the topic. John (KAØHYR) has the schedule for NCS and topics laid out for the year; he has left several open for “any available NCS”, so contact John jere-gan3@gmail.com and get some practice as a Net Control Station. This is the most valuable ham position at a real disaster activation, so get your skills up now while practice time is available; The script for the NCS is also available. You will be surprised at how quickly your skills rise to the top or are renewed and it becomes second nature.



Washington County ARES (WASHCOARES) 3rd Wednesday of Each Month; 6:30 PM; 146.985⁻

HF Nets in MN (some ARES, some Section nets, some Club nets):

- :: SARA FLDigi Digital Net: 7 PM Sunday; 3.584.15 MHz
- :: ARRL MN Phone Net; 12 noon, 5:30 PM Daily; 3.860 MHz
- :: ARRL MN Section (CW) Net; 6:30 PM, 9:50 PM Daily; 3.568 MHz
- :: MN ARES FLDigi Digital Net: Thursday, 8 PM, 3.583.5 MHz USB, Olivia 8-500

HF Nets with Neighboring States:

- :: North Dakota: 6:30 PM Daily; 3.937 MHz
- :: South Dakota: 6 PM Daily; 3.870 MHz
- :: Wisconsin: 5:30 PM Daily, 3.985 MHz
- :: Iowa: 12:30 PM, 5:30 PM Daily, 3.970 MHz
- :: Michigan Digital Traffic Net (MIDTN), Thur. 7 PM, 3.583.50 kHz, USB, Olivia 8-500

VHF Digital Nets:

- :: SEMARC FL Digi Net: Every Wed. Sept.-May; Voice check In 146.985; digital check-in 144.950
- :: Scott County ARES Net, Monday, 7 PM; 147.165R; also 146.535 S

TNX es 73,
John (KAØHYR)
Washington County EC

Upcoming Meetings & Events

- Feb. 9: Monthly meeting; Boutwells Landing, Oak Park Heights
- Feb. 16-18: Ice Station WØJH Special Event, Lake Elmo
- Feb. 23: Skywarn Training; Stillwater Library, Stillwater
- Feb. 28: Technician Class - First Session; Stillwater Library, Stillwater
- March 9: Monthly meeting; Boutwells Landing, Oak Park Heights
- April 13: Monthly meeting; Boutwells Landing, Oak Park Heights
- April 25: VE Exam; Boutwells Landing, Oak Park Heights

2019

February							March							April						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
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17	18	19	20	21	22	23	17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28			24	25	26	27	28	29	30	28	29	30				

SARA Needs YOU!

Get involved ...
 Make a difference ...
 Have fun!



www.radioham.org

Facebook: SARA - Stillwater Amateur Radio Association

