



# Mike Shy

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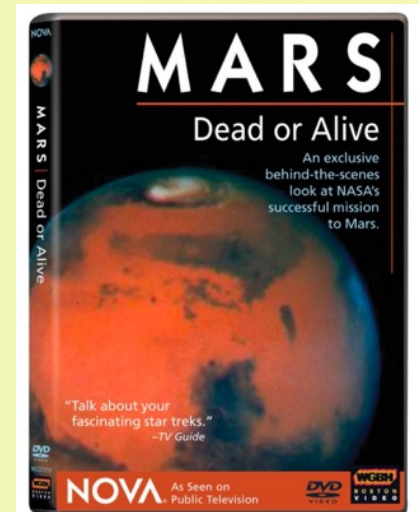
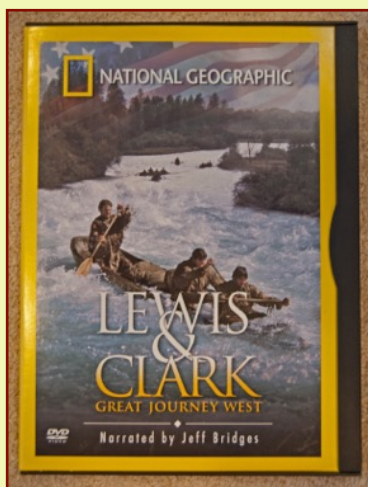
August 2019

## SRO Meeting Tues Aug 13th Salvation Army - Norridge

The meeting will be Aug 13th (Tues) at the Salvation Army - Foster & Cumberland. A short business meeting will start at 7:30PM and the program will follow.

We will let the members choose the program.

1. National Geographic - Lewis and Clark - Great Journey West
2. Laugh Your Troubles Away - The complete History of Riverview Park
3. Mars - Dead or Alive - Exclusive behind the scenes from NASA



## President's Message

You will notice that the meeting next week will be held on Tuesday the 13<sup>th</sup>.

There was a booking conflict with Wednesday at the Salvation Army. Our October meeting will not be held at the Salvation Army as they do not have any open rooms that month. Mike WA9FTS is looking into an alternate site to hold our meeting. More information will come as it is obtained.

Finding presentations for our meeting has been a little difficult no one has responded to our request for what presentations they would like to see. Please give us (the board) some ideas as to what you would like to see or hear. This month's presentation will be one of three videos which will be mentioned elsewhere in this Mike Shy.

You have probably already heard of the T-Mobile / Sprint merger. Part of the agreement is T-Mobile will give Dish (the satellite video streaming company) towers, channels and subscribers to start a cell phone division, bringing to 4 the numbers of carriers. Speaking of cell phones, Apple has announced they will have 5G phones sometime next year. They have settled their disagreement with Qualcomm, who holds the patents on the modem technology.

You may not have heard that home routers are coming out with 6G! (Not related to cell 5g) the IEEE designation is 802.11ax. Here is an excerpt from the book 802.11ax for dummies to explain how they do it.

### 1024-QAM

Although the primary goal of 802.11ax is better efficiency, more speed isn't a bad thing. And better efficiency and more speed aren't mutually exclusive goals. *Quadrature amplitude modulation (QAM)* uses both the phase and amplitude of an RF signal to represent data bits. 802.11ax will support 1024-QAM and new modulation and coding schemes (MCSs) that define higher data rates.

For comparison, 256-QAM (introduced in 802.11ac) modulates 8 bits per symbol, whereas 1024-QAM modulates 10 bits per symbol — a potential 20 percent increase in data throughput. This throughput is achieved using more efficient packaging of data for the same spectrum — analogous to using a double-decker bus to make the best use of a bus lane.

802.11ax also introduces two new MCSs: MCS-10 and MCS-11, which will most likely be optional. 1024-QAM can only be used with 242-subcarrier resource units (RUs) or larger. This means that at least a full 20 MHz channel will be needed for 1024-QAM.

They also will use beam forming; using multiple antennas they can direct data to different computers in their area using the same channels in different directions simultaneously. You can get a router at Office Max for \$330. Personally, I don't type that fast so I don't need one...yet!

That's all I have for now. See you on the 13<sup>th</sup>

Mike  
WA9EVF.

SRO Notes for June 12, 2019 (*Or: Here Comes the Sun; It's All Right*)

By Jim Hawes AA9DT



TONIGHT'S MEETING opens as the moondial registers 7:38 p.m. (After correcting for the moon's phase). Grand Vizier Mike Leibovitz WA9EVF rings the bell. Our town crier calls

the meeting to order: "Oyez, oyez, oyez!" We cease our yammering jibber jabber. We squelch our techno-jargon. And we quench our social niceties. Time to listen up!

SRO WELCOMES new member Ed Dohnal WB9AXH. SRO is a fabulous ham club. Thanks for joining!

TREASURER'S REPORT. Beans have we: According to our exalted Chancellor of the Exchequer Mike Brost WA9FTS. Details are private, but will be available to members at the next general meeting.

TONIGHT'S PROGRAM. Danny Kafka KD9HIL shares her DVD about viewing the night sky. The host for this presentation is Alex Filippenko, Professor of Astronomy at University of California, Berkeley. His lecture is part of a series on observable celestial phenomena. Here are some ideas from the lecture...

STRUCTURE OF THE SUN. The sun, which is a star, has no hard surface. Instead, the body of our nearest star is gas plasma. The sun has a photosphere, which is where emissions can escape toward Earth. Before coming out, these emissions bounce around inside sun for 100,000 years.

VIEWING THE SUN could be a perilous proposition. (Blindness could be staring you in the face.) To view the sun safely, one must use glasses with the extreme reduction factor of 100 thousand. NEVER attempt to look at the sun through a photographic negative. Instead, shade the eyes with a number 14 welder's glass. Or look through a neutral density (ND) filter that blocks all but 1/100K of solar light.

ALTERNATIVES to an ND filter or welder's #14 glass: Eclipse glasses. Be sure that they're new and undamaged! Alternative #2: A sun scope. The scope projects an image of the sun that you may safely watch. You can buy or easily make a sun scope. (A fun ham radio project.) Plans are available online. The project isn't hard, and requires no uncommon parts. I built a very good one when I was 12.

THE SUN AND CAMERAS. Never point a camera at the sun, and never look at the sun through a camera viewfinder. If you do, you'll endanger both your eyes and the camera.

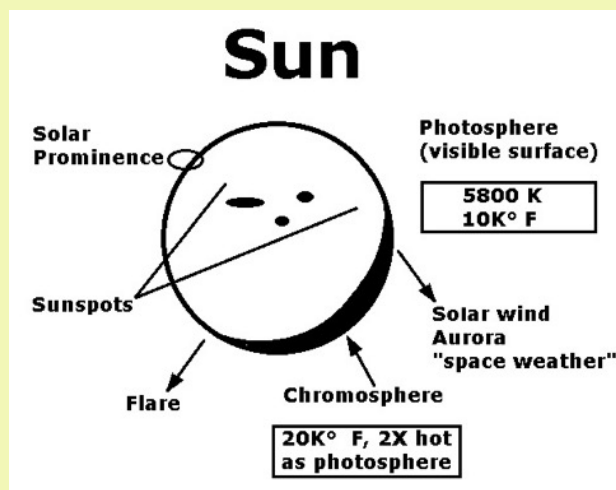
A SCIENTIFIC SATELLITE is now studying the sun. The nickname for this satellite is SoHo. SoHo is short for Solar and Heliospheric. This space telescope is a cooperative venture between NASA and ESA (the European Space Agency). In 1995, the satellite launched from Spaceport Florida, Launch Complex 36, Cape Canaveral. Brief SoHo video: <https://www.youtube.com/watch?v=LJAcrorHx8I>

SOLAR FLARES and mass ejection events are hazardous to life on Earth. The Earth's magnetic field can't repel such storms. Solar activity affects radio reception and transmission. Extreme geomagnetic storms can even

blow up power transformers. For example, the 1989 Canadian disaster. The largest mass ejection event (the Carrington Event) occurred on September 1 and 2, 1859. This colossal solar storm disrupted telegraph communications. At the time, telegraphy was the extent of electronic high tech. Today, such a storm could be cataclysmic for electronics and communications.

SUNSPOTS are cooler than rest of the sun. Some sunspots are larger than Planet Earth. (One example is 109 times as large!) As the sun rotates, sun spots cross the sun. A sunspot forms at a high solar latitude and moves downward. There's a rhythm to sunspot behavior. That is, sunspots occur in periodic cycles: Solar max, the period of the most sunspots, occurs every 11 years. (The last solar max was back in 2013.) These max periods coincide with another curious effect: The solar polarity also flips every 11 years. That is, the sun's north and south poles reverse. Astronomers don't know why.

NORTHERN LIGHTS. The Van Allen Belts around the earth ingest solar particles and produce Auroras, what we know as the northern lights. Auroras are more common at high latitudes. Due to the tilt of Earth, more Auroras affect Canada than Europe. More Auroras occur in the southern hemisphere too, typically over the ocean.



## Meeting



Regular Meeting  
Salvation Army - Norridge  
June 12, 2019

Mike WA9FTS  
Mike WA9EVF  
Jim AA9DT  
Jean KB9FXL  
Danny KD9HIL  
Pete WV9P



If you move, let the Editor know your new mailing and email addresses. It is our way of getting Mike Shy to you each time.



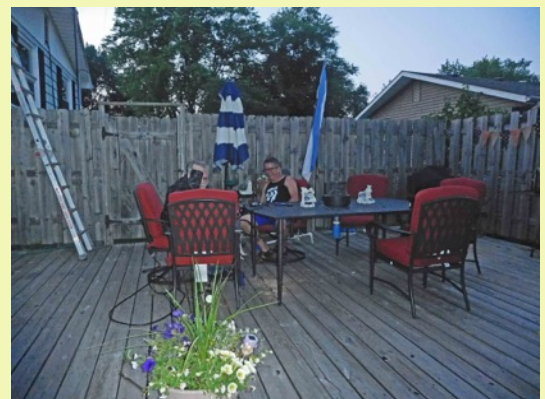
## Foxhunt Report



CFAR 2M Foxhunt - July 6th, 2019 by  
Mike WA9FTS - Fox N9CBA

At first we could not hear Tom. He upped his power and the four hunt teams were on their way to the west on North Ave. Pete and John were spotted by John EXW's team several times off North Ave west of Gary. We drove past Tom. On one transmission, John hears David KD9MAM in the background. Was Tom at David's house? Pete and John got back to Gary Av and were seen by us several times. What side of Klein Creek was Tom hiding at? If the fox in a residential area, we had to look for the bullseye. Finally on Seminole Ln we spotted it. John and I got out and headed for the back yard. Success! Tom and David were at a table on David's deck. I was surprised to get the 1st place ticket. We got out quickly and headed for Carol's Garden to set up the table for all of us. Shortly, the rest of the hunters and Tom and David arrived. Pete and John got 2nd and shortly after, Don beat out Marty for third. At Carol's Tom told us he started out with 0.2W and a half watt allowed everyone to hear. The antenna was a Comet dual-bander up around 35ft. Results:

1. John WD9EXW, Janet, Mike WA9FTS
2. Pete K9PW, John K9JK
3. Don W9RA
4. Marty N9LTE



# Foxhunt Report



CFAR 2M Foxhunt -

Aug 3rd, 2019

by Mike WA9FTS - Fox WD9EXW &  
WA9FTS

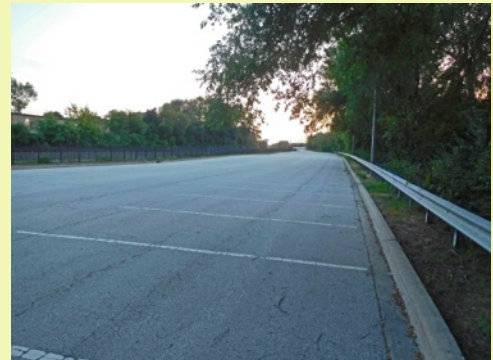
Don W9RA got back from Canada so we had 3 hunt teams. For some reason, Don went to the 2nd Sat starting point. This was ok with the other two hunters. We had a signal that all the hunters could use and the hunt started at 8:05PM. The hiding spot was off Ogden Av and access was around the Lisle Village Hall.

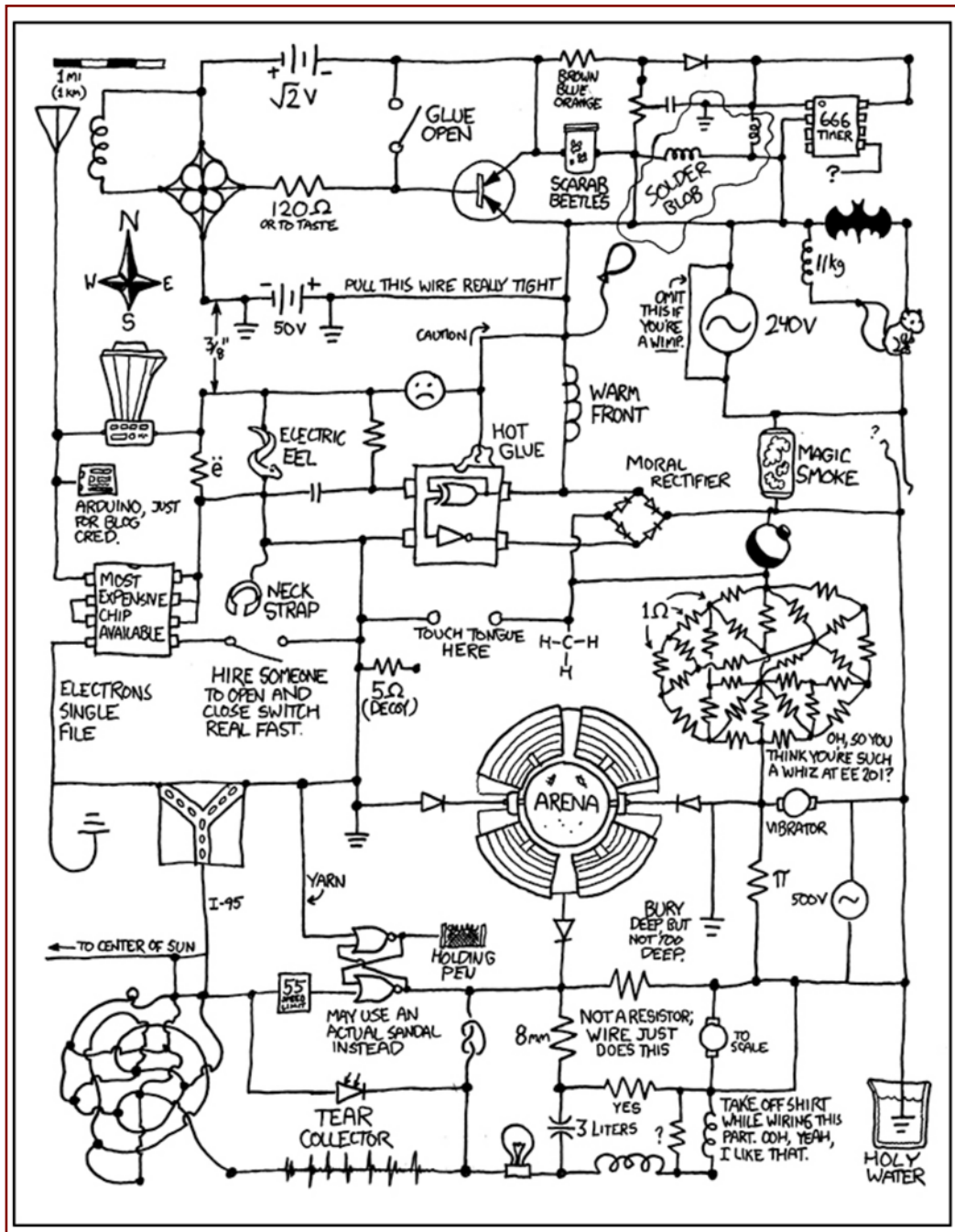
Continuing to the south and east was a parking lot just north the RR tracks for people to park and walk over to the train station to the west.

John and I hid off the parking lot by the trees behind a short metal fence. Janet drove off to park near the Village Hall. We hid the vertical antenna with leafy branches. It took longer for the first hunter to arrive. We spotted a flashlight on the other side of the tracks.

Slowly it moved to the west and then toward us across the tracks and the fence separating the RR tracks from the parking lot. It was Matt as he teased to us for the win. Shortly Patty arrived with Jacob and Mac. We announce that Culver's east of 53 on Ogden would be the meeting place. Janet came back and parked at the end of the parking lot. Don, who started About 30 minutes later, Tom and David drove up to Janet and got out heading east - during a transmission! Maybe there was a reflection giving them a bad reading. Eventually, Tom came back to find us. We headed for Culver's. Results:

1. Matt KC9SEM, Patty N9PLS, Jacob.Mac - 8:48PM
2. Tom N9CBA, David KD9MAM - 9:06PM  
DNF Don W9RA - 8:57PM







### SRO Officers

President  
Mike Leibovitz - WA9EVF  
Vice President  
Jean Pressel - KB9FXL  
Secretary  
Jim Hawes - AA9DT  
Treasurer  
Mike Brost - WA9FTS

### SRO Directors

Wally Klinger - W9BEA  
Jon Tammen - K9IQF  
Jean Pressel - KB9FXL

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708-457-0966 Voice

Mike Shy is published 6 times a year by the Society Radio Operators. Deadline is 2 weeks before the meeting. Contributions are welcome & should be sent to the Editor.

### Regular Meeting Place

Salvation Army every even month at 7:30 PM unless other-wise indicated in Mike Shy and SRO web site. Check for exact date & time.

### Standing Committees

Membership - WA9FTS  
Program - AA9DT  
Meeting Refresh. - KB9FXL  
Foxhunting - WA9FTS  
Repeater - K9IQF  
Field Day - WA9EVF  
Education - WA9EVF  
Mike Shy - WA9FTS  
Picnic - WA9FTS  
Christmas / Hanukkah Party - WA9EVF  
Webmaster - WA9FTS

### SRO Web Site

[www.w9sro.org](http://www.w9sro.org)  
Mike Brost - WA9FTS

### SRO Repeaters

	In	Out
CFAR (107.2) PL	147.750	147.150
TOOFAR (110.2) PL	223.260	224.860

### Repeater Personnel

Trustee - WA9EVF  
CFAR Chairman - K9IQF  
Site Maintenance  
K9IQF, W9RA & W9BEA  
Control Operators  
K9IQF, TBD  
NW Maintenance  
W9JEM  
Northeast Maintenance  
K9IQF & TBD  
Lisle Maintenance  
W9AEK

**Regular meetings** - Salvation Army  
- 8354 W Foster Av, Norridge

**Board Meetings** - Usually every 5th Thursday

## Mike Shy

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First Class Mail



SRO Meeting  
Tues Aug 13th  
Salvation Army -  
Norridge

