



Ham Radio
in the 21st Century



Science
Technology
Experimentation
We Do That!
...with Amateur
Radio





W4RSC "RADIO SILVER COMET"
ARRL SPECIAL SERVICE CLUB

SILVERCOMET SKYWAVE

Silver Comet ARS, INC NEWS
PO BOX 1873 Hiram Ga. 30141 501 (C) (3) Not for Profit
May 2020 Vol 7 Number 5

May 5th CLUB MEETING IS CANCELLED!



Out of abundance of caution, and in the interest of protecting the well-being of our members, the leaders of the Silver Comet ARS have cancelled the physical meeting at the Chamber building. Check your Groups.IO emails for information on a Virtual online or radio check-in meeting.

In This Issue

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W4RSC "Radio Silver Comet"

The Silver Comet ARS Inc. a 501 (c) (3) Not for Profit Organization



Editor's Notes:

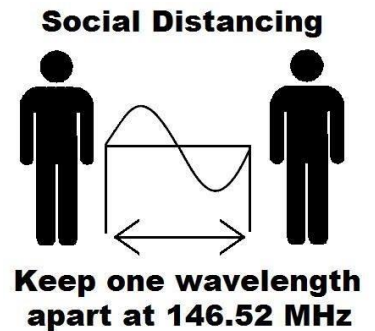


Copies of past SKYWAVE newsletters can be found at the club website <http://www.silvercometars.com/newsletter.php>. Please submit your member bios and articles prior to the 25th of the month.

Chuck K4CGA, Editor

Monday – “SCARS Night Out” Net!

Check-in begins at 7:30PM. It's fun and informative. On the 1st Monday of each month, a new technical subject will be introduced for discussion. Suggestions for Topics of discussion are always solicited. You don't have to dress up, it's very informal.



SCARS Community Food Drive!



COVID-19 has resulted in an unusually high demand for products from our local food bank, Paulding County Helping Hands. In these trying times, if you can afford to do so, please bring an non-perishable item or two to our monthly meetings.

Your donations are greatly appreciated by the recipients and you will feel better. PLEASE HELP ! It all adds up.

Mark your Calendar!



Check For Event Cancellations Due To COVID-19

For more Hamfest schedules:

<http://www.mcminnarc.com/festcalendar.html>

<http://www.arrl.org/hamfests.html>

http://www.cq-amateur-radio.com/cq_hamfest_events.html

Coming Soon! (we hope)



ARRL 2020 Field Day is always held on the 4th full weekend in June. June 27-28, 2020. Field Day is the most popular on-the-air event held annually in the US and Canada.

Field Day is ham radio's open house. Every June, more than 40,000 hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Field Day has been an annual event since 1933, and remains the most popular event in ham radio.

Field Day is not a contest:

- no logs are required
- dupe sheets must be submitted
- no certificates are awarded
- full results appear in December QST



Bands: 160, 80, 40, 20, 15 and 10 Meter HF bands, as well as all bands 50 MHz and above using all modes including digital.

What can you do? Remember to reserve the last full weekend in June for Field Day. FD 2020 is still on schedule provided the COVID-19 restrictions are lifted. Should this crisis continue to affect our ability to hold gatherings, optional operating instructions will be posted by ARRL and our leadership.

Tommy, K4VTE is this year's FD committee chairman and is looking for volunteers and operators. Please contact Tommy to volunteer and assist him with planning, advertising, setup, teardown, equipment, antennas, cables, lights, food, drinks, or anything else that may be necessary to carry out another successful SCARS FD event.



Are You Ready?



Severe weather can happen anytime and any place just as it did in our area on April 12th. It can include hazardous conditions produced by thunderstorms, including damaging winds, tornadoes, large hail, flooding and flash flooding, and winter storms associated with freezing rain, sleet, snow and strong winds.

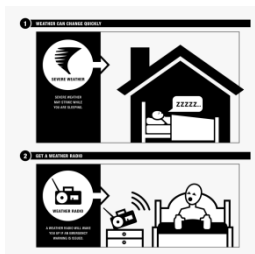
Do you know what to do? Here are some suggestions from:

<https://www.ready.gov/severe-weather>

Know your Risk

Understand the type of hazardous weather that affects you and your family where you live:

- [Tornadoes](#)
- [Floods](#)
- [Thunderstorms & Lightning](#)



Take Action

Develop an emergency plan based on your local weather hazards and practice your plan.

- [Make a family emergency plan](#)
- [Be informed about emergency alerts](#)

Welcome To Amateur Radio!

Meet Robert W. Oliver II, K04DDO, who recently passed both his Technician and General Class exams in one sitting. If you hear him on the air, please extend a hearty welcome from the Silvercomet ARS to him. [You can get some bio stuff here.](#) K04DDO is the oldest son of club member Robert, KN4RTJ.

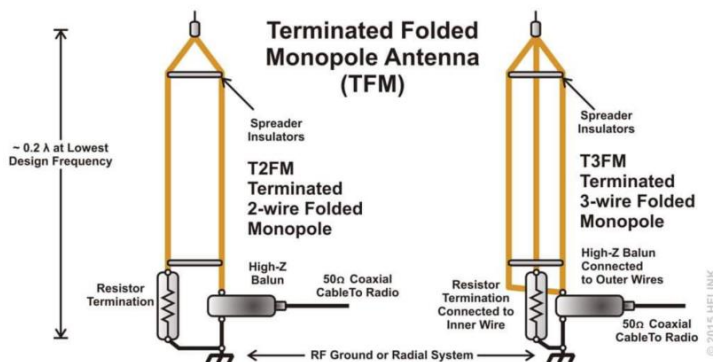


This quarantine made me realize I have no real hobbies besides going out to eat and spending money.

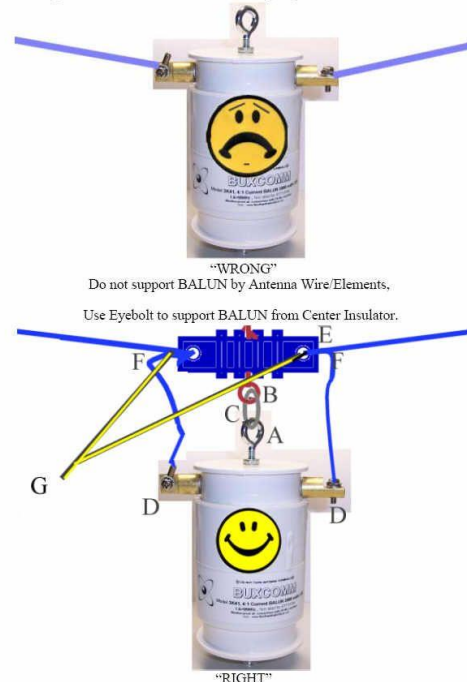
Useful Antenna Information

Terminated Folded Monopole Antenna TFM T2FM T3FM

The Terminated Folded Monopole (TFM) is a derivation of the TFD, and it is usually implemented as a vertical antenna over an RF ground plane or a radial system. Like the TFD, the TFM can be designed as a multi-wire or cage antenna. T2FM, T3FM, T4FM, T5FM, etc. The TFM has the same broadband qualities as the TFD, but offers a lower footprint configuration and more omnidirectional pattern for different applications.

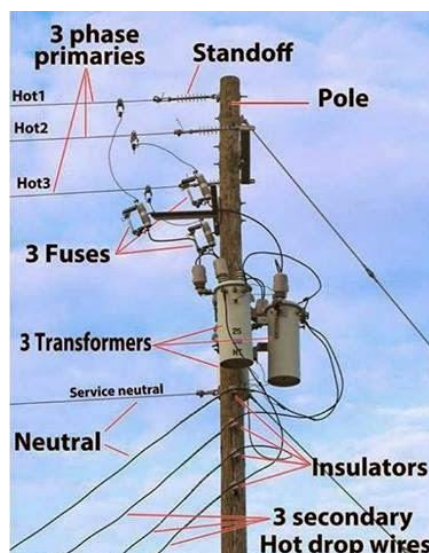


How to hang a BALUN without damaging BALUN Antenna terminals.



A= BALUN Support Eyebolt,
B= Center Insulator Eyebolt Support
C= Support Link between Center Insulator and BALUN Eyebolt
D= Antenna Terminals/BALUN Connectors
E= Center Insulator
F/F= Loop antenna wire element(s) through insulator holes
G= Fold back wire element onto itself, secure with Ty-Wrap and cover with tape.
Visit: www.HamRadioExpress.com

What's All That Stuff On The Pole?



Getting Antenna Wires Into Trees

The April issue of Skywave provided an example of how to build an Air Cannon to get antenna wires into trees or over other objects. Here are some novel items to accomplish the same thing.



HyperPet Mini-Ball Launcher



Bazooka K-9 Tennis
Ball Launcher



K-9 Kannon Mini-
Ball Launcher

Attach a Zebco 202 fishing reel, attach the line to the ball and let it fly! Average distance is 50 to 75+ feet. Enough distance to safely get the line into a tree without breaking anything. Cost? Less than \$20 at most pet supply stores or on-line.

Need Antenna Wire?

Wire Type: Copper weld

Size: #14

Description: Steel with a layer of copper bonded to the surface of the steel wire.

Advantages:

- ✓ Much stronger than bare copper
- ✓ Much lighter than bare copper
- ✓ Conductivity comparable to bare copper especially for RF applications (skin effect).
- ✓ Can be used for wire antennas that act as guy wires simultaneously!

Dave Walk K4BBH is offering this wire at an incredible price of only 10¢/Foot. This is almost half of what you would pay for #18 gauge equivalent! Interested? Contact Dave on the 146.955 repeater or at dtwalk@mail.com

Full Wave Loop Performance – GU3WHN

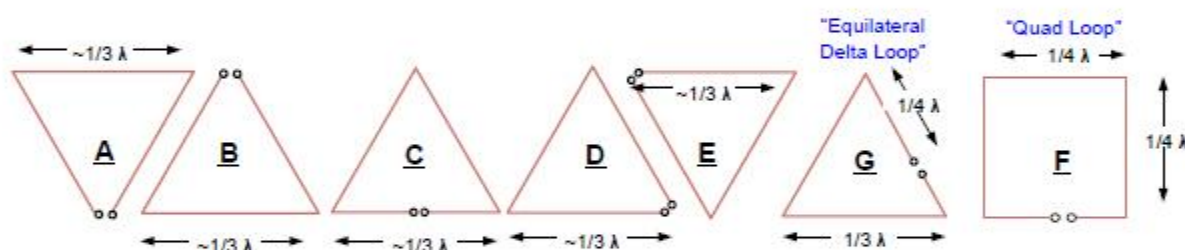
Full Wave Loops Performance

The larger dimensions of the loop compared to the half-wave dipole increases the radiation efficiency.

The feedpoint impedance of a full-wave loop in free space is approximately 100-120 Ω with a gain over a dipole of 1.35 dB. However when installed close to ground the feedpoint impedance can vary from 50-240 Ω depending on configuration, orientation, and choice of feedpoint. Hence in practice some type of feedpoint matching system is required.

The loop can be arranged as square(quad) or diamond, equilateral triangle with apex up or down, feedpoint on the bottom, side and corner. Each variation changes the characteristics slightly regarding the impedance, gain, polarization, pattern, and from the DX point of view the take-off angles. The horizontal radiation pattern looks like a "figure-8" and is perpendicular to the plane of the loop.

The variety of one wave length loop shapes that can be deployed to suit the QTH.



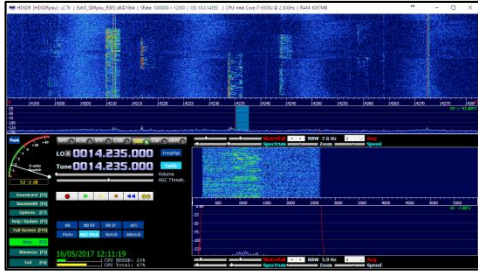
Note:- Loops A - E have sides approximately (\sim) $1/3$ wavelength but overall circumference delta loop is the same as an equivalent quad on the same frequency, i.e. $1005 / F(\text{MHz})$ feet or $306.31 / F(\text{MHz})$ metres.

Loop	Polarisation	Far Field Radiation Angle	degrees
A	Horizontal	Moderately High	47
B	Horizontal	High	80
C	Horizontal	High	80
D	Vertical	Low	27
E	Vertical	Low	20
F	Vertical	Low	27
G	Horizontal	High	80

Loops "B,C,G" are very good for short skip communications and loop "A" for the first skip of 400 miles (650kms). Another point to note is that if height is a restriction then the loops will work if they are sloping, but it is best to keep the bottom of loop at least 2m off the ground.

For full information: <https://rsars.files.wordpress.com/2013/01/40m-10m-delta-loop-antenna-gu3whn-iss-1-3.pdf>

SDR Panadapter for the IC-7100!



Want to see if there are any openings on the band without scanning around. Just look at your Panadapter. Oh, you don't have one! Here are some instructions on how to modify your IC-7100 to add a SDR Panadapter to your rig. They are really useful.

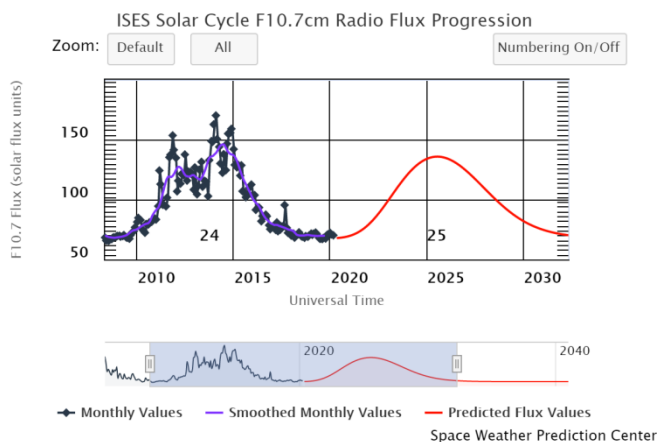
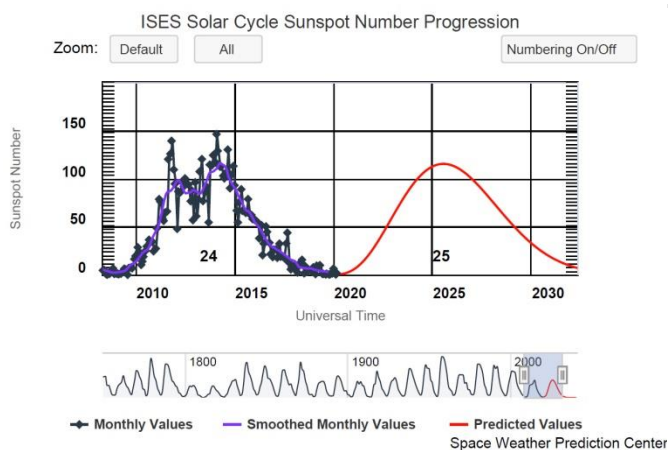
<https://g6gei.site123.me/my-projects/panadapter-to-ic-7100>

Extra! Extra!

Have you checked your bank account for your US Treasury Stimulus Check? Now is a good time to upgrade your radio, buy a new antenna or replace that old coax cable. Help stimulate the economy and help keep our ham radio vendors in business. Many vendors are having great sales right now. Check them out.



Solar Cycle Progression



For more information: <https://www.swpc.noaa.gov/products/solar-cycle-progression>

Interesting Links to visit!

9 Songs With Hidden Morse Code

[https://www.ultimate-guitar.com/news/community/feed/9 songs that have hidden morse code.html](https://www.ultimate-guitar.com/news/community/feed/9%20songs%20that%20have%20hidden%20morse%20code.html)

New Ubuntu Release

<https://www.omgubuntu.co.uk/2019/10/ubuntu-20-04-release-features>

Outpost v3.3 c081 available

<https://www.outpostpm.org/>.

Dayton Hamvention QSO Party

<https://wwrof.org/hamvention-qso-party/>

fldigi 4.1.11.14 posted

<http://www.w1hkj.com/alpha/fldigi/>

[Icom7100] new CT-17 CI-V hub design

<https://www.youtube.com/watch?v=s9VK6s632n0>

IC-7300 Clock Battery Replacement

<http://radioaficion.com/news/ic-7300-clock-battery-replacement/>

ARRL Clubs - SILVER COMET AMATEUR RADIO SOCIETY, INC.

<http://www.arrl.org/Groups/view/silver-comet-amateur-radio-society-inc>

Silver Comet ARS YouTube Channel

https://www.youtube.com/channel/UCaL7UG0gkRjxV7lnTj_P3IQ/videos

Silver Comet ARS Website

<http://www.silvercometars.com/index.php>

Silver Comet ARS – ARRL Clubs

<http://www.arrl.org/Groups/view/silver-comet-amateur-radio-society-inc/type:club>

Silvercometars@groups.io/HOME

<https://groups.io/g/silvercometars>

Breakfast @.....

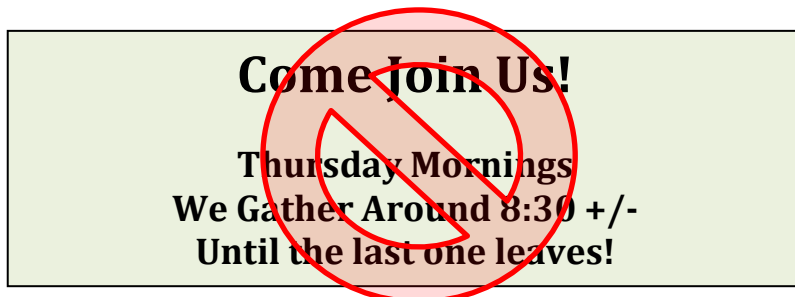
Cancelled until further notice due to Covid-19 safety concerns!
Join us on the 146.955 repeater on Thursdays @ 8:30am.

Have you joined us for casual conversation, informal Q&A, problem solving and occasional humiliation?

We meet at the McDonalds  in Hiram (in front of WalMart).

It has a variety of food, is reasonably quick, has decent prices, and is convenient to the majority of the club members.

Members of other clubs, visitors, spouses and friends are welcomed.



Do You Know...?

Who "**James..the healer**" is? How did he earn that title? Hmmm. Guess you will just have to ask around or wait until June's Skywave issue to get the fascinating story.

1. Why do they put bells on Cows? *Because their horns don't work!*
2. This is the story of four people named **Everybody**, **Somebody**, **Anybody** and **Nobody**. There was important job to be done and **Everybody** was asked to do it. **Anybody** could have done it, but **Nobody** did it. **Somebody** got angry about that, because it was **Everybody's** job. **Everybody** thought **Anybody** could do it, but **Nobody** realized that **Everybody** wouldn't do it. Consequently, it wound up that **Nobody** told **Anybody**, so **Everybody** blamed **Somebody**.

Just For Fun!



Can you name all the McD characters in this picture? Answer in next month's issue!



**eat
sleep
HAM
RADIO**



Know your hurricane categories, be safe!

What does SOS really mean?

In 1904, the Marconi Company suggested the use of “**CQD**” for a distress signal from ships at sea. Although generally accepted to mean, “***Come Quick Danger***”, that is not the case. It is a *general call*, “**CQ**,” followed by “**D**,” meaning distress. A strict interpretation would be “*All stations, Distress*”.

Several years later, the signal “**SOS**” was chosen and adopted because its unmistakable Morse code sequence (...---...) was easy to remember and recognize even through interference indicating a distress or emergency situation.

Stations receiving this “**SOS**” distress call were (and still are) required by international agreements to immediately cease transmitting and handling traffic until the emergency was over. They were also bound by those agreements to answer the distress signal.

Contrary to popular belief, “SOS” was not chosen for its interpretation of “Save Our Ship” or “Save Our Souls”.

The use of “SOS” is not limited to ships at sea. It has been used by hikers, climbers, and others requesting aid. “SOS” can be transmitted by long and short bursts of light or sounds, such as mirrors, flashlights horns or whistles or many other visible or audible methods.

The international voice or radiotelephony equivalent to “SOS” is “Mayday” and is primarily used by aviator and mariners.

[https://en.wikipedia.org/wiki/SOS_\(disambiguation\)](https://en.wikipedia.org/wiki/SOS_(disambiguation))

<https://www.boatsafe.com/meaning-sos/>

<https://www.onallbands.com/the-meaning-and-history-of-sos/>



Lee, WB4Q0J sending an “SOS” from his mobile radio after running out of gas!

Recent SCARS Website Updates:



<http://www.silvercometars.com/index.php>

- No Updates

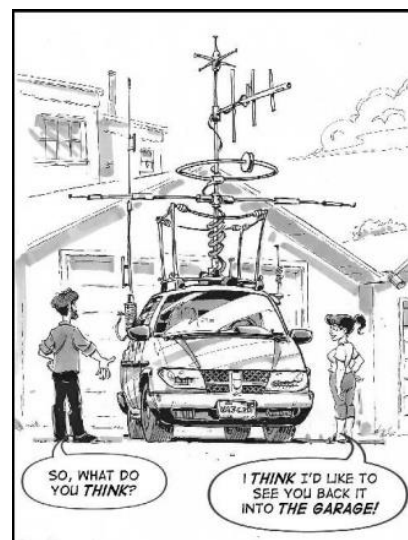
Send SCARS website corrections, comments, or suggestions to K4LDC (Larry) at K4LDC@arrl.net

GA QSO Party Contest Club Results

Silver Comet A R S Contest Report -- GA QSO Party Total Score = 60,294

Current status: 04/13 00:55 UTC

Call	Score	QSOs	20 Min	60 Min	Frequency
K4BBH	21,600	400	0	0	
K4SHW	16,368	372	9	12	7.23100
K4ELI	9,036	251	69	30	
KM4VTE	8,246	217	0	0	
K4CGA	4,658	137	0	0	0.000000
WB3ILX	242	22	15	7	3.74729
KM4IKO	135	45	0	0	
K4LDC	5	5	9	5	28.46000
KN4CQJ	4	2	0	1	7.17490



Upcoming Special Events

Please look for K4ELI's weekly email notices regarding contest and special events on the SCARS Group.io reflector or visit the ARRL website at:

http://www.arrl.org/special_events/search/page:2/Date.start:2016-09-14/Date.end:2016-12-31/model:Event

Contest & Special Events

2020 ARRL Contest Dates

January 2020 1 Straight Key Night 4 Kids Day 4-5 RTTY Roundup 18-20 January VHF	February 2020 10-14 School Club Roundup 15-16 International DX – CW
March 2020 7-8 International DX- Phone	April 2020 19 Rookie Roundup – Phone
June 2020 13-15 June VHF 20 Kids Day 27-28 Field Day	July 2020 11-12 IARU HF World Championship
August 2020 1-2 222 MHz and Up Distance Contest 15-16 10 GHz & Up – Round 1 16 Rookie Roundup – RTTY	September 2020 12-14 September VHF 19-20 10 GHz & Up - Round 2 12-13 EME - 2.3 GHz & Up
October 2020 19-23 School Club Roundup 10-11 EME - 50 to 1296 MHz -	November 2020 7-9 Nov. Sweepstakes – CW 21-23 Nov. Sweepstakes – Phone 28-29 EME - 50 to 1296 MHz
December 2020 4-6 160 Meter 12-13 10 Meter 20 Rookie Roundup-CW	

Additional Contest Calendars

<http://www.contestcalendar.com//index.html>

http://www.cq-amateur-radio.com/cq_contests/cq_annual_contest_calendar/cq_annual_contest_calendar.html

<http://ncjwecom/>

SCARS V.E. ACTIVITIES

SCARS/BHBC Test Session (aka East)

K4ELI and the VE Team will be testing at 7pm at Burnt Hickory Baptist Church, 5145 Due West Road, Powder Springs, on the following dates:

2020 Schedule

Due to Covid-19 concerns and restrictions, the May 7th session is Cancelled.

Jun 4(?) Jul 9 Aug 6 Sep 3 Oct 1 Nov 5 Dec 3

Please check the ARRL website for changes or corrections.

For more information, contact Steve Walls, K4ELI: swalls46@att.net

All classes of license exams will be available.

SCARS/Paulding CoC Test Session (aka West)

W4TXA and the VE Team will be testing at 6:30pm at the Paulding County Chamber of Commerce, 455 Jimmy Campbell Pkwy (Hwy 278), Dallas, on the following dates:

2020 Schedule

Due to Covid-19 concerns and restrictions, the May 12th session is Cancelled.

Contact John W4TXA or visit ARRL website for special session info.

Jun 09 (?) Jul 14 Aug 11 Sep 08 Oct 13 Nov 10 Dec 08

For more information, contact John Reynolds, W4TXA: w4txa.john@gmail.com

All classes of license exams will be available.

BRING:

- Original and copy of existing license.
- Copy of FRN # if you have a GMRS license or some other license.
- \$15 cash----exact change
- Photo ID



See the following web sites for more details:

SCARS http://www.silvercometars.com/about.php#TEST_SESSION

ARRL <http://www.arrl.org/licensing-education-training>



Silver Comet Amateur Radio Society

2020 Calendar

** Don't forget our club breakfast every Thursday morning around 8:30am **

	January	February	March	April	May	June
Meeting 1st Tuesday Date/Time:	01-07-2020 7pm	02-04-2020 7pm	03-03-2020 7pm	04-07-2020 7pm	05-05-2020 7pm	06-02-2020 7pm
Meeting Location	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	"On The Air" 146.955- 77Hz Roll Call	"On The Air" 146.955- 77Hz Roll Call	Paulding Chamber of Commerce Bldg
Meeting Activity	Ham Radio Estate Planning (Steve K4ELI)	Ham Tower Engineering (Corey - KN4ULL)	6m Operation & Antennas (Mike - K4PI)	Weather (Postponed)	Spark Gap Transmitter (Postponed)	Field Day Prep Field Day Team
Additional Activities	TBA	TBA	TBA	GA QSOP	Family Night Dinner	Field Day
Hamfest & Conventions	Lawrenceville TechFest	Dalton, GA Orlando, FL (HamCation)	Birmingham, AL Ellijay, GA	Mobile, AL Calhoun, GA	Dayton, OH	Atlanta, GA

This calendar is "Subject to change". Submit change request to K4ELI Steve

V2020.05

Silver Comet Amateur Radio Society

2020 Calendar

** Don't forget our club breakfast every Thursday morning around 8:30am **

	July	August	September	October	November	December
Meeting 1st Tuesday Date/Time:	07-07-2020 7pm	08-04-2020 7pm	09-01-2020 7pm	10-06-2020 7pm	11-03-2020 7pm	12-01-2020 7pm
Meeting Location	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg	Paulding Chamber of Commerce Bldg
Meeting Activity	VE Recognition Night	"Last Man Standing" TV (John - WD4QDX)	Grits Bike Ride	TBA	PWR Supplies Dummy Loads Testing	TBA
Additional Activities	TBD	TBD	Club Fall Picnic (TBD)	AM DX Contest	Club Elections SCARS OTA Reunion	Christmas Dinner
Hamfest & Conventions	Cullman, AL	Huntsville, AL	SEDEC DX	La Grange, GA Chattanooga, TN Rome, GA	Lawrenceville GA Montgomery, AL	

This calendar is "Subject to change". Submit change request to K4ELI Steve

V2020.02



W4RSC

Paulding County, GA - EM73 - ITU Zone: 8

Silver Comet Amateur Radio Society, Inc.

PO Box 1873

Hiram, GA 30141

www.silvercometars.com





STATION	Confirming QSO				Pse QSL <input type="checkbox"/> Tnx QSL <input type="checkbox"/>		
	DAY	MONTH	YEAR	UTC	MHz	RST	MODE

SILVER COMET AMATEUR
RADIO SOCIETY, INC.

CONTACT US:

Groups.io Request:
SilvercometARS
www.silvercometars.com
146.955 (-) (77hz)

Contact: *Club President*
John Reynolds, W4TXA

Email:
w4txa.john@gmail.com

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