



The Prez Sez

As I look in the A.R.R.L. notices, I have a certain amount of pride as I see OUR club mentioned in the Special Events section. And... it is pride that all of us should share. Our club is on the move doing many things. Some new, and some old. As I attend other various club's meetings, some are somewhat stagnate. They will talk about the same two or three items, month after month, and nothing ever gets done. Last month at the February Silver Comet meeting, we had a GREAT presentation on C.W. This upcoming meeting will have Ron West (WB3ILX), and Dan Ozment (W4TDO) give another presentation on some more digital "stuff". Next month, we will have Dave Fuller (K4DMF) give another spectacular presentation on the weather. In May, Steve Walls will give us some information on logging... and of course, in June we have our Field Day. So we have much to look forward to. But... we are always looking for new ideas, so if any of you have any thoughts about what you would like to see, let one of the Officers know. After all, this is your club.

John Reynolds - W4TXA

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W4RSC "Radio Silver Comet"

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



Editor's Note!

In this issue I am starting a new section called “*Meet Our Members*” which will feature a self-written biography of one of our members selected at random.

This issue will feature Mike Blackwell, KF4OUS from the Douglasville area. I would like to thank Mike for accepting the opportunity to be the first member to participate and for his contribution to the newsletter. All you others, start getting your biography together as you may be next.

As editor of the newsletter, I try to include topics and articles of interest to address all levels of experience from wannabe's to extra class. Fortunately, our hobby provides for lots of material from a variety of sources to fill my pages.

However, I want to hear from you, the reader (if you read this), as to what you would like to see in the newsletter. More of something, less of something, areas of interest, and so-forth. If you don't see me in person, please email me with your suggestions at K4CGA@ARRL.NET. Please email me your pictures and articles of anything that may be of interest to the other club members.

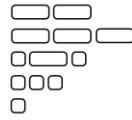
Special Event Committee Update!

Our Silver Comet Trail celebration – “W4T” special event for May 23rd to June 3rd is rolling right along. We have added Lee WB4QOJ to the committee to enlist his help in publicity and whatever else is needed. The rest of the committee members welcome you Lee and say thank you.

Please review the email sent to you through Yahoo! groups for announcements, rules and information. These are already posted on the club's website.

The design & review of the special event QSL card and the ARRL QST announcement is just about complete and will be published to the club members soon.

CW Presentation!



The CW Academy presentation by Vaden NN4K, during our 6 Feb 2018 meeting was well attended by our club members and visitors. Vaden, President of the CW Operators Club was very entertaining and gave an excellent presentation on CW and how to enjoy it. Many of our club members decided that CW may not be so bad after all and are considering signing up. The CW Academy has a very unique and proven approach to teaching the code and improving code speed and skills. Please visit www.silvercometars.com for a link to the SCARS YouTube channel to view Vaden's great presentation.

Steve K4ELI, topped off the evening's presentation by displaying his interesting collection of antique and modern CW keys and keyers.



Club Shirts!

Don't forget to order your SCARS logo'd shirts. See Rick KM4ZMW for order forms.



Useful Links!

www.hamcrafters.com Build it yourself ham radio CW kits.

<http://dxing.today> Weekly Amateur Radio **DX News** Bulletin

<http://www.g4ifb.com/FT8> Hinson tips for HF DXers.pdf

<https://swling.com/blog/2016/01/how-to-decode-maritime-broadcasts-in-rtty-sitor-b-and-navtex/>

<http://www.k9ya.org/> Nice CW newsletter



<https://youkits.com/collections/all> Antenna Analyzer

[http://f5ad.free.fr/Liens coupes ANT/G/K3MT%20Antenne%20gazon.htm](http://f5ad.free.fr/Liens%20coupes%20ANT/G/K3MT%20Antenne%20gazon.htm)

The GRASSWIRE another approach to hidden HF antennas

<https://www.mtechnologies.com/>
"Everything for the Morse Enthusiast!"



Meet Our Members!

MIKE BLACKWELL – KF4UOS

I became interested in Ham Radio when I was a teenager. My Physics teacher at that time influenced me to the extent I purchased a HEATHKIT Receiver Kit. After weeks of study and fumbling through the build, I finally completed the task. To my surprise it even worked. Wish I knew what happened to that receiver. Well, as many of us experience, life takes over. You know, school, marriage, job, kids etc. it was many years later that I seriously approached Ham Radio.

In 2007, after working in the Telecommunications field for many years, the radio bug was rekindled. I took a class with one of the radio clubs in Northeast Atlanta and proceeded to secure a TECH License.

After passing the test I immediately went out and purchased a HT (Icom 92AD) in hopes of practicing my newly achieved skills... Well, after getting home and going through the manual I looked up and said I think I need some additional help getting started. Searching for help, I attended several different local club meetings looking for an ELMER. It seemed that at these meetings I was invisible, even after asking questions. Being frustrated I took another “vacation” from ham radio.

It wasn't until 2015, after I retired, that I pursued the quest again. I started my search for a good organization that is knowledgeable and willing to work with folks to promote the field. I was very fortunate and found The Silver Comet Amateur Radio Society. All of the members were very helpful in helping me move forward and get on the air. After a few months I was studying for my General and in September of 2015 I passed the test. Now HF was available. With the continued support and help from club members I worked toward the EXTRA class. In August of 2017 I achieved my goal...

Today I like to work with SSB on the 40M and 20M bands. While I am not a big contester, I like to call CQ and maybe have a short conversation with someone on the other side of the country. I also work FT8, having fun with that as well. Once a month I work as a VE (Volunteer Examiner) with several club members to help bring in new blood into the hobby.

My shack is a modest one, I still have my Icom 92AD, and Yaesu FT8900 R for 2m 440. My HF rig is an ICOM 746Pro, in conjunction with the LDG 600 tuner, it works very

Meet Our Members! *continued*

well. As for antennas, I had a fan dipole until a tree limb took it out. Haven't rebuilt it yet. Also have a Diamond X300 for 2m/440 along with a GAP vertical for HF. The gap has suffered a little bit of damage with the snow we had, it now has about a 5 degree bend toward the top, it still works very well. And yes, that is also on the "to Fix" list. As most hams I am always trying to find new ways to improve my signal, to that, I am now working on assembling a Hexbeam from K1O technology. This is one of those things I bought then told my wife about it.

I am enjoying this great hobby, and I continue to learn new things on a regular basis.

Welcome New Members

The Carroll's



Janet – KN4JNC & Mike – K4ZEC

CONGRATULATIONS!

Tyler Fredricks, 2-22-2018



Kaitlin & Brian - KN4BNZ

SCARS Ham Shack of the Month – NA4JW



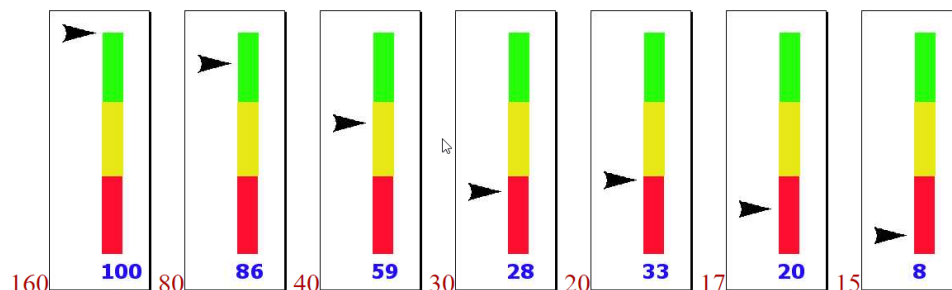
Thank you Bill for sharing your shack pics with us this month. That is the cleanest and most organized shack we have seen so far. You win the prize whatever it is.

Another good site for almost real time band conditions.

<http://www.bandconditions.com>

CONUS HF BAND CONDX

3/2/18 --- 01:24:30 GMT --- REPORT # 169



BAND STABILITY LAST : 10 MINS HOUR 24 HRS

YESTERDAYS BANDCONDX : 160 80 40 30 20 17 15 UPDATED @ 00:00:00 GMT

Antarctica WSPR Beacon!

Permanent WSPR beacon in Antarctica Now on the Air



See if your signal is making it to Antarctica. Beacon that monitors 160-6 meters. You may be surprised at what propagation is to that part of the world. As K4LDC Larry showed us in his presentation at a club meeting propagation will and can change quickly on HF, short path and long path as well.

73 Lee WB4QOJ

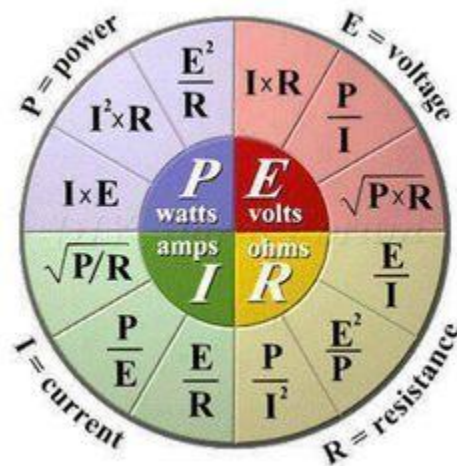
http://qrznow.com/wp-content/uploads/2018/01/19_neumayer_iii_station_m.mueller.jpg

Submitted by Lee WB4QOJ

Nifty Calculator!

Can't remember how to calculate power, voltage, current or resistance? Maybe this will help!

Editor



Filters, Filters, Filters and More Filters.....

But what are filters? We use oil filters, coffee filters, air filters, Butterworth filters, and furnace filters. Whoa, Butterworth filters??? Where did that come from and what does it filter?

Well, believe it or not, most amateurs probably have one (or two). Butterworth filters are just one of numerous electronic filters used in digital processing. If you have a modern radio (post spark gap) with multiple filter buttons or menu selections, you most likely have digital filters in it somewhere. Even some software programs have the option to select digital filtering to decode RTTY, PSK and other protocols.

This article will gloss over some filter info that might be enlightening or at least peak your interest. I don't have enough hard drive space or time left in my life to cover all the filters in depth nor did I go to Georgia Tech or MIT. Wikipedia is my best friend. So let's get started.

Electronic filters are circuits which perform [signal processing](#) functions, specifically to remove unwanted frequency components from the signal, to enhance wanted ones, or both. Electronic [filters](#) can be:

- [passive](#) or [active](#)
- [analog](#) or [digital](#)
- [high-pass](#), [low-pass](#), [band-pass](#), [band-stop](#) (band-rejection; notch), or [all-pass](#).
- [discrete-time](#) (sampled) or [continuous-time](#)
- [linear](#) or [non-linear](#)
- [infinite impulse response](#) (IIR type) or [finite impulse response](#) (FIR type)

Some terms used to describe and classify linear filters:

- The frequency response can be classified into a number of different bandforms describing which frequency [bands](#) the filter passes (the [passband](#)) and which it rejects (the [stopband](#)):
 - [Low-pass filter](#) – low frequencies are passed, high frequencies are attenuated.
 - [High-pass filter](#) – high frequencies are passed, low frequencies are attenuated.
 - [Band-pass filter](#) – only frequencies in a frequency band are passed.
 - [Band-stop filter](#) or band-reject filter – only frequencies in a frequency band are attenuated.
 - [Notch filter](#) – rejects just one specific frequency - an extreme band-stop filter.

- Comb filter – has multiple regularly spaced narrow passbands giving the bandform the appearance of a comb.
- All-pass filter – all frequencies are passed, but the phase of the output is modified.
- Cutoff frequency is the frequency beyond which the filter will not pass signals. It is usually measured at a specific attenuation such as 3 dB.
- Roll-off is the rate at which attenuation increases beyond the cut-off frequency.
- Transition band, the (usually narrow) band of frequencies between a passband and stopband.
- Ripple is the variation of the filter's insertion loss in the passband.
- The order of a filter is the degree of the approximating polynomial and in passive filters corresponds to the number of elements required to build it. Increasing order increases roll-off and brings the filter closer to the ideal response.

Filters can be built in a number of different technologies.

- Electronic filters were originally entirely passive consisting of resistance, inductance and capacitance. Active technology makes design easier and opens up new possibilities in filter specifications.
- Digital filters operate on signals represented in digital form. The essence of a digital filter is that it directly implements a mathematical algorithm, corresponding to the desired filter transfer function, in its programming or microcode.
- Mechanical filters are built out of mechanical components. In the vast majority of cases they are used to process an electronic signal and transducers are provided to convert this to and from a mechanical vibration. However, examples do exist of filters that have been designed for operation entirely in the mechanical domain.
- Crystal filters use quartz crystals as resonators, or some other piezoelectric material.

This is just a brief overview of some filters used in some of our amateur products. If you are interested in learning more or want to brush up on your engineering practices, a good place to start is:

[https://en.wikipedia.org/wiki/Filter_\(signal_processing\)](https://en.wikipedia.org/wiki/Filter_(signal_processing))

Murphy's Law of Ham Radio!

Yuri Baltin, YL2DX

1. All DX you hear upon installation of a fixed antenna will be coming from the opposite direction.

2. Great propagation normally occurs two days prior and one day after the contest.

Exception: Absolutely the best propagation occurs on the days when you have to go on a business trip or your rig goes up in smoke!

3. All DXpeditions tend to operate on the lower bands when it is daytime at your QTH and on the higher bands when it is night.

First amendment: Since all DXpeditions operate according to the best propagation and common sense, see exception to the rule #2.

Second amendment: Since most expeditions also operate when the European QRM are minimal, see the rule #3 itself.

Remark to the amendment #1: Who says that expeditions must operate according to the common sense?

4. After the test most testers boast they weren't prepared for it.

5. Contest winner always compliments the competition, especially their antennas and equipment.

6. A DXer who missed a rare expedition invariably says it was the country he didn't need.

7. Effectiveness of any station (QRV-factor) is constant: When you install a new effective antenna, your amplifier will blow up. When you fix it, all bands will be 'clogged' by wide-band QRM of unknown nature. When QRM disappears, you rejoice briefly only to find out that someone had cut your antenna coax.

8. Axiom of QSL exchange: Confirmed are only those QSO's that you are not sure of.

Murphy's Law of Ham Radio! *continued*

9. Axiom of diploma chasing: As soon as you receive all the cards for particular award, you find out that its requirements became more complex just about a week ago. If you managed to send in an application for award you shall soon find out that it was eliminated two years ago.
10. If while tuning antenna the SWR becomes 1:1, you're connected to a dummy load.
11. The best antenna you've ever had was the one blown down by the wind last week.
12. He who knows frequencies of all DXpeditions never works more than a 150 countries in his lifetime.
13. When you don't have time to send in a contest log, everyone's scores will be lower. If you send it in as a 'check log' you are going to find out about it the day after.
14. If the new antenna works better, you are connected to the old antenna.
15. Personal qualities of one's correspondents are in direct relation with the power of one's transmitter: if you cannot get through, they are 'lids', if you can – 'best friends'.

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Published in
YCCC Scuttlebutt No.78, December, 1988
The DX Magazine, March, 1989

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Quotable?

Morse Code is a mode for folks that don't have a lot to say but want to take a long time to say it; so why rush?

Remember the golden rule. It's better to send good code than receive.

Richard - AA4OO

<http://www.hamradiogrp.com/p/learn-morse-code.html>

What is a Lightning Surge Protector?

The energy in a lightning strike is typically in the range of 1 to 10 billion joules, the energy dissipated as heat when an electric current of one ampere passes through a resistance of one ohm for one second. A lightning strike is an electric discharge between the atmosphere and an object on earth.

A power surge results when a short-term increase in voltage (or voltage spike) occurs due to lightning strikes or unusual EMF conditions appear. A lightning surge protector, sometimes referred to as a lightning arrestor, attempt to limit that voltage by either blocking or shorting it to ground.

A lightning surge protector/arrestor may be a physical spark gap, but most modern varieties are filled with a precision gas mixture or contain a replaceable gas filled cartridge. Some gas filled protectors have a small amount of radioactive material to encourage the gas to ionize when the voltage across the gap reaches a specified level.



Altelix Coaxial PL259 UHF Lightning Surge Protector



Broad Bandwidth DC-3 GHz with Low Loss and VSWR
Replaceable Gas Tube Element with High Surge Power Capability High Surge Power Capability

Available on Amazon for \$19.99
Compliments of your editor who bought 4 of them when they were \$16.99

History of Coaxial Cable

Introduction

Radio amateurs today use coaxial cable to connect the equipment to an antenna. Prior to its invention the common transmission line was an open-wire balanced feeder made from wire and insulating spacers. The history of coaxial cable is an interesting topic.



First recorded patent for coaxial line

The first known patent granted for coaxial transmission line was a British patent in 1880 to Oliver Heaviside, a self taught British electrical engineer. Those astute in history will recognise the name as the one due to the Kennelly-Heaviside layer; we now call the ionosphere, which Heaviside in conjunction with Kennelly discovered the reflecting medium high above Earth. Heaviside was the nephew of the British inventor Sir Charles Wheatstone, the co-inventor of the British telegraph system and known for his invention of the Wheatstone Bridge to measure resistance.

Oliver Heaviside

Heaviside's coaxial cable was a copper tube, which formed the outer of the line. The inner concentric (coaxial) conductor was a copper wire which was supported by insulating discs to keep the central wire a constant distance from the inner of the copper tube. The major dielectric was air, giving low loss to signals travelling along it.

The use of the word "*cable*" as we know it today for coaxial lines implies a flexible type of conductor. In the old days the word cable meant anything that contained wires, such as mains cable, or telephone cable with multiple pairs. Similarly transatlantic cables could be multiple pairs or coaxial lines or a mixture of both types, today we also have fibre optic cable, but the "*conductors*" are strands of glass or plastic to act as a waveguide for a light source.

Heaviside was a prolific experimenter and he coined the names of several items used today. He invented the word impedance, admittance, conductance, permeability, inductance, reactance, reluctance and permittance, which we still use today. (He seemed to like the use of the letters ANCE at the end of the item). He also solved Maxwell's equations and invented differential equations in order to perform this work.

Heaviside's coaxial transmission lines found many uses; not the least was the transatlantic cables used to carry telegraph and later telephone traffic over vast distances. The first transatlantic telegraph cable was a normal wire cable laid in the late 1800s and was a disaster. The inventor was Lord Kelvin, earlier Sir William Thompson. He however did not know about distributed capacitance, inductance and impedance, the signal loading on this cable was so high it limited the signaling speed to about 5wpm. Unfortunately the cable failed about 2 weeks after it was laid and was never re-established. It was a financial disaster for the sponsors.

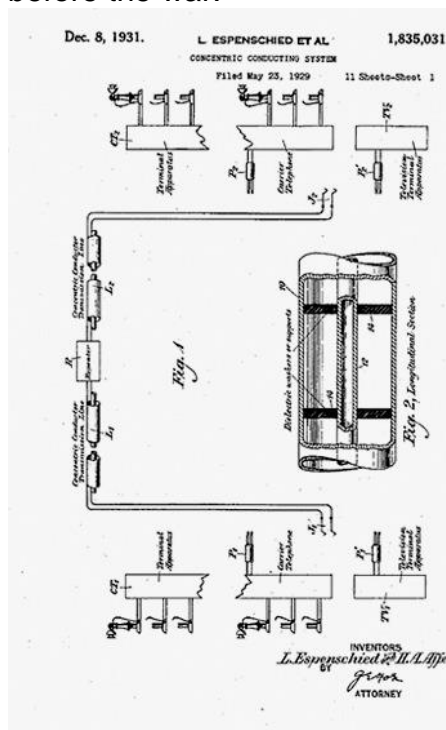
A German patent in 1884 was granted to Ernst Werner von Siemens for a concentric coaxial transmission line similar to Heaviside's design, but little detail is known about this patent or whether the cable was ever put into service.

US patent for coaxial cable

The next known patent for coaxial cable was granted to two American engineers. This patent granted in 1931 was almost the same as Heaviside's original design but had a subtle difference. It was semi-flexible and could be coiled more easily. The patent diagram clearly shows a similar construction to Heaviside's design with an outer copper jacket and inner wire supported by insulating discs.

U.S. Patent No. 1,835,031 for a "*concentric conducting system*" was awarded to Lloyd Espenschied of Kew Gardens, New York, and Herman A. Affel of Ridgewood, New Jersey, and assigned to the American Telephone & Telegraph Co (today AT&T). This although similar to Heaviside's patent allowed more bending to occur and the cable could be coiled on a large diameter drum for laying at sea. They also showed the use of repeater stations along the line to boost the signal level.

Lloyd Espenschied in 1904 became an amateur radio operator and later a telegraph operator with a maritime station. He also later determined experimentally the optimum impedance to use for high power, high voltage and minimum attenuation at 10GHz in the 1940s, these being 30-ohm, 60-ohm and 77-ohm respectively. Significantly the Germans standardised on 60-ohm before the war.



The next significant use of coaxial cables occurred in 1936.

The first experimental carrier telephone system was laid between London and Birmingham with a cable made by Standard Telephones and Cables (STC) which consisted of 4-coaxial cables carrying up to 4-channels per coax. The cable was sheathed in lead as per the normal telephone cables to protect the inner conductors. This revolutionised telephony as many separate telephone channels could be carried on a single cable. The system used SSB suppressed carrier transmissions spaced 15kHz apart.

US patent diagram for coaxial line, which clearly shows the outer tube, inner tube and insulating discs as used by Heaviside.

The second significant event in 1936 was the televising of the Berlin Summer Olympic Games. The transmission was carried by a coaxial cable between Berlin and Leipzig where the main German television transmitter was located. The cable used was very similar to the British Post Office type and laid in sections about 50km in length with repeater stations to boost the signal level, no doubt gleaned from the US patent paper.

Lloyd Espenschied and Herman A. Affel with a section of their original coaxial cable taken on the 20 anniversary of the patent.



The 1936 Berlin Summer Olympics was a massive propaganda event for Hitler where the entire German team were only members of the Aryan race. Hitler wanted to demonstrate to the world their superior race and its technological advances. Hitler however was greatly displeased when an American-African athlete, Jesse Owens, claimed 4 gold medals in the field events.

All of these coaxial cables were either rigid or semi-rigid in form. The next significant step was the invention of flexible coaxial cable as we know them today. Prior to this, during the run up to the Second World War, a committee was set up in the USA to ponder on the ideal impedance for coaxial cable. This was still rigid line made from copper tubing.

The impedance battle

As the war in Europe was inevitable the allied scientists and engineers needed to define the common impedance so that coaxial cable could be manufactured in high volume to suit the various users and to introduce some standards. Some factions of this committee favoured 75-ohm cable and they demonstrated that this was the ideal impedance to feed half wave dipole antennas and they also showed that 75-ohms had the lowest attenuation per unit length. This committee had many engineers and scientists and the arguments went back and forth as to which was the ideal impedance to adopt. During all this wrangling a Canadian engineer had little to say but finally spoke. He told the committee he had been studying the US copper water pipe tables and proposed that 52-ohm be the preferred impedance, although this hadn't been tabled previously. He showed that 52-ohm impedance could be made in any required diameter as the standard US water pipe tables had all the necessary size tubes. Hence, no extra tooling was needed and so 52-ohm became the standard for a practical reason.

Chain Home Radar

During the run up to WW2 the British realised that a radio direction finding system (later called RADAR) was necessary and embarked on a design called Chain Home in 1935. The transmitter developed very high peak power and the need was to convey this signal from the transmitter to the base of the transmitting tower with the minimum loss. On the prototype system ordinary GPO telephone poles and insulators were used with 200-pound per mile copper wire as a balanced feeder arrangement, although this worked the danger of damage from enemy bombing led to a later change to a buried feeder system. A scheme was devised using two copper tubes laid in parallel with central wires and insulating discs, similar to the telephone coaxial cables and Heaviside's original patent. This formed a balanced shielded line that connected to the 600-ohm balanced feeder wires that ran up the tower and fed the multiple antenna arrays. In the final installations the STC telephone coaxial cable was utilised to feed the transmitter and receiver antenna arrays.

Flexible coaxial lines

The next saga is the invention of what we know today as "*flexible coaxial lines*". Edward (Taffy) Bowen was a Welsh engineer working on the Chain Home radar system but left in late 1936 to take up the challenge of developing airborne radar for the allied night fighters. Bowen had been the transmitter designer for Chain Home but friction within the team and the overall supervisor Watson-Watt led Bowen to ask for a transfer to AI work (airborne intercept).

During this development in 1937 he needed a flexible coaxial transmission line. Bowen originally tried balanced wire feeders but this presented problems, the wing mounted dipole arrays were susceptible to damage, as were the feed lines. Where the lines passed through the aircraft skin arcing occurred at high altitude because of the high peak power required. Next Bowen tried rigid coaxial line but this suffered from fatigue fractures under the high vibration experienced in fighter aircraft.

Bowen had recently learnt of a new insulating material developed by Imperial Chemical Industries (ICI) which was called *polyethylene*. He asked the scientists at ICI whether it was possible to extrude a tubular layer of polyethylene with a constant diameter onto a stranded wire conductor. They replied it was possible and made a short length for Bowen. He then encased this with a sheath of copper braided wire bound on tightly with electrical insulating tape to form a concentric flexible coaxial line. Flexible coax cable was born!

Later in the war the British took to America with the Tizard Mission many secret devices to assist the Americans in making equipment vital to the war effort. Amongst these were the cavity magnetron, Bowen's coaxial cable and others as a bargaining tool in the final "*Lend- Lease*" agreement between Britain and America.

Connectors for this new type of coaxial cable did not exist and Burndep, a British company, came up with a suitable connector that was widely used on allied equipment. We find this connector on the WS-19, C-11, C-13 and many others. The American company Amphenol in the mean time invented the PL-259 connector which at the time was designated the "*UHF connector*" as at that time VHF was regarded to start at 30 MHz and UHF was regarded to start at 100 MHz, the connector was rated up to 300 MHz. Although this connector was not "*constant impedance*" it was used in many 400 MHz radar systems during the war and only later did Paul Neill of Bell Labs invent the "*N-type*", which is named after him, it being a constant impedance connector rated up to at least 11 GHz. The N-type connector, unlike the PL-259, was inherently waterproof and rapidly became the preferred connector. Even the Russians used the N-type towards the end of the war, although they had a different name for it

Submitted by Lee WB4QOJ

Recent SCARS Website Updates:



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

- [Home](#) page updated with:
 - SCARS **Special Event Station** announcement.
- [SCARS YouTube channel](#) updated with:
 - **CW Academy** presentation video from Feb 2018 meeting.
- [Contest Calendar](#) page *Grid Chase* section updated with a link to:
 - **WG7J's GridMapper** website.
- [DX Corner](#) page updated with a link under *DXing RESOURCES* section to:
 - **DXMAPS 3.0** website.
- [Digital Modes](#) page updated with links under the *Packet, Weak Signal, and other Digital Modes* section for:
 - **JT Alert** add-on for WSJT-X software.
 - **Olivia Weak Signal frequencies** document.
- [Morse Code / CW](#) page updated with links to:
 - **MORSE Express** website.
 - **CW Operators' Club** website.
 - **Morse Runner** software website.
- [Software](#) page updated with links to:
 - **Mac Ham Radio** (MAC ham radio software for the non-Windows ~~suffers~~ users ☺).
 - **DX Atlas** (Assorted Ham software).
- [Links](#) page updated with links to:
 - **GRASSWIRE hidden HF antennas** in the *Antennas* section.
 - **Dipole Antenna Length Chart** document in the *Antennas* section
 - **HAM NATION** videos on TWiT Network in the *Interesting reading/viewing section*.
 - **History of Coaxial cable** document in the *Interesting reading/viewing section*.

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

Bouvet DX Update!

It's over! On February 3, 2018, the captain of the vessel declared it unsafe to continue with the project and aborted the DXpedition due to a ships engine problem and failing weather. They have now returned safely to Cape Town SA. View the many great documentary photos and read all about it at:

<http://www.bouvetdx.org/news-and-updates/>



Editor: Visit this extremely informative and well designed website. It is educational and exciting.

Breakfast @.....



The "Official" Breakfast Joint of

The Silver Comet Amateur Radio Society

Come Join Us!

Thursday mornings

Around 9am +/-

Until ??????

**Located on Hwy 278 in Hiram between
the Goodwill and Racetrack across from
the Home Depot.**

**Say Hi! To Kyle, the manager and show
your Greystone Connections Card for a
discount.**

Contest & Special Events

2018 ARRL Contest Dates - Ver 1.0 - 30 June 2017

January 2018 1 Straight Key Night 6 Kids Day 6-7 RTTY Roundup 20-22 January VHF	February 2018 12-16 School Club Roundup 17-18 International DX – CW
March 2018 3-4 International DX– Phone	April 2018 15 Rookie Roundup – Phone
June 2018 9-11 June VHF 16 Kids Day 23-24 Field Day	July 2018 14-15 IARU HF World Championship
August 2018 4-5 222 MHz and Up Distance Contest 18-19 10 GHz & Up – Round 1 19 Rookie Roundup – RTTY	September 2018 8-10 September VHF 15-16 10 GHz & Up - Round 2 29-30 EME - 2.3 GHz & Up
October 2018 15-19 School Club Roundup 27-28 EME - 50 to 1296 MHz	November 2018 3-5 Nov. Sweepstakes – CW 17-19 Nov. Sweepstakes – Phone 24-25 EME - 50 to 1296 MHz 11/30-12/2 160 Meter
December 2018 11/30-12/2 160 Meter 8-9 10 Meter 16 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://ncjweb.com/>

Upcoming Special Events

http://www.arrl.org/special_events/search/page:4/model:Event

➤ 03/01/2018 | Bersaglier Running Steps - 66th Bersaglieri National Rally

- **Mar 1-May 31, 0000Z-0000Z, I11B**, Venice, ITALY. Italian Amateur Radio Association, San Donà di Piave Chapter. 10 15 20 40 and 80 meters; SSB CW PSK31 and RTTY (in accordance with the IARU band plan). QSL. Via bureau IQ3SD, or direct to QSL Manager Laudis Maurizio Casarotto, IZ3LES, Via Magnadola, 15 - 31040, Chiarano (TV), ITALY. For QSL, if sending direct, please include \$6 US for card. Special event is part of a contest. See website for contest rules and more information. www.qrz.com/db/I13B

➤ 03/08/2018 | Southern California Linux Expo (SCaLE 16x)

- **Mar 8-Mar 12, 0800Z-0659Z, N6S**, Pasadena, CA. Ventura County Amateur Radio Society (VCARS). 28.400 21.320 14.255 7.260. QSL. Vern Potter, P.O. Box 523, Newbury Park, CA 91319. SCaLE (16X) is the 16th annual Southern California Linux Expo. The event takes place on March 8-11, 2018, at the Pasadena Convention Center. As the first-of-the-year Linux and Open-source software exposition in North America, SCaLE (16X) expects to host over 150 exhibitors this year, along with nearly 130 sessions, tutorials and special events SCaLE is the largest community-run open-source and free software conference in North America. It is held annually in the Los Angeles area. This year's event includes a VE testing session, Ham MeshNet exhibit, and a live (N6S) HF station. Amateur Radio sessions and presentations focus on open-source and Linux support for Amateur Radio, emergency services and more. (for QSLs: submit SASE to address indicated) <https://www.socallinuxexpo.org/scale/16x>

➤ 03/10/2018 | Battle of Picacho Peak Commemoration

- **Mar 10, 1600Z-2300Z, K7T**, Tucson, AZ. Oro Valley ARC. CW: 7.040 14.040; PSK: 7.070 14.070; FT8: 7.074 14.074; SSB: 7.200 14.250. QSL. For QSL, email , , hfsig@tucsonhamradio.org. No paper QSL please. Email for QSL to hfsig@tucsonhamradio.org www.tucsonhamradio.org

➤ 03/10/2018 | The American Legion 99th Birthday Commemoration

- **Mar 10, 1800Z-2359Z, K9TAL**, Indianapolis, IN. The American Legion Amateur Radio Club. 14.275 7.225; IRLP Reflector 9735; EchoLink *CROSSRDS* Conf Node. Certificate & QSL. The American Legion Amateur Radio Club, P.O. Box 1055, Indianapolis, IN 46206. www.legion.org/hamradio

➤ 03/10/2018 | The Battleship Texas - Her 104th Birthday

- **Mar 10-Mar 14, 0000Z-0000Z, W5T**, Cleburne, TX. Menasco Amateur Radio Club, KC5NX. 14.045 14.324 7.045 7.185. QSL. Club KC5NX, 9200 Summit Court West, Cleburne, TX 76033. The ship was launched on 18 May 1912, and commissioned on 12 March 1914. kc5nx.radio.club@gmail.com or www.qrz.com/db/kc5nx

➤ 03/10/2018 | USS Midway Museum Ship Special Event: Launching of USS Midway

- **Mar 10, 1700Z-2300Z, N16IW**, San Diego, CA. USS Midway (CV-41) Museum Ship. 14.320 7.250; 14.070 (PSK31); D-STAR on REF001C. QSL. USS Midway (CV-41) COMEDTRA, 910 N Harbor Drive, San Diego, CA 92101.

➤ 03/11/2018 | Pennsylvania Charter Day

- **Mar 11, 1500Z-2300Z, WM3PEN**, Philadelphia, PA. Holmesburg Amateur Radio Club. 14.280 7.230. QSL. Holmesburg ARC, 3341 Sheffield St, Philadelphia, PA 19136. www.harcnet.org

Upcoming Special Events

➤ 03/17/2018 | Cherry Blossom Festival

- **Mar 17, 1400Z-2000Z, W4BKM**, Macon, GA. Macon Amateur Radio Club. 14.240 7.225 145.37. Certificate. Macon Amateur Radio Club, P.O. Box 4862, Macon, GA 31208. www.w4bkm.org

➤ 03/23/2018 | Bataan Memorial Death March

- **Mar 23-Mar 26, 1800Z-1800Z, K5B**, Las Cruces, NM. Mesilla Valley Radio Club. 146.55 simplex Race activity not calling 146.64 -(100) Calling inform 146.58 Alternate on site use. QSL. Mesilla Valley Radio Club, N5BL, P.O. Box 1443, Las Cruces, NM 88004. Frequencies are local use for race. HF frequencies for contacts on most bands are not currently established. www.N5BL.org

➤ 03/24/2018 | Battle of Horseshoe Bend

- **Mar 24, 1500Z-2300Z, N4H**, Alexander City, AL. Lake Martin Amateur Radio Club. 14.200 7.250. Certificate & QSL. Michael Courtney, 96 Alabama Drive, Alexander City, AL 35010. Battle of Horseshoe Bend Special Event, N4H. celebrates the 203rd anniversary of the historical battle between Andrew Jackson's forces and the Creek Indian nation on the Tallapoosa River. SSB operations on 20 and 40 meters is planned on March 24, 2018 from 9:00 to 4:00 CST (1500Z to 2300Z). QSL cards/ certificates will be available by SASE to 96 Alabama Drive, Alexander City, Alabama 35010. KK4AUP@arrl.net

➤ 03/24/2018 | SE Kansas Mining Special Event Series 1 of 7

- **Mar 24-Mar 25, 1400Z-2300Z, K0SEK**, Pittsburg, KS. Southeast Kansas Amateur Radio Club. 18.140 14.250 7.242. Certificate & QSL. K0SEK Attn: Chancey, 409 W. Quincy St., Pittsburg, KS 66762. Crawford County Historical Museum is the 1st of 7 Special Events recognizing the mining history in SE Kansas !! See web page for details including QSL and Certificate info. www.sekarc.net/p/sek-mining.html

➤ 03/27/2018 | The Buckingham Army Airfield

- **Mar 27-Mar 29, 1400Z-2100Z, W4LX**, Fort Myers, FL. Fort Myers Amateur Radio Club. 14.240 21.240 2m FM 40m. Certificate & QSL. W4LX, PO Box 061183, Fort Myers, FL 33906. 9AM to 4PM local time. www.fmarc.net

➤ 04/01/2018 | 100th Anniversary of the Foundation of the UK Royal Air Force

- **Apr 1-Apr 8, 0001Z-2359Z, K2R**, Pocono Lake, PA. Royal Air Force Amateur Radio Society. 14.195 7.145. QSL. Michael Goodwin, 136 Ski Trail, Pocono Lake, PA 18347. ke2eh@mail.com

➤ 04/01/2018 | Special Event Station EI100MCV - Marine Radio Day; Anzac Day; International Marconi Day

- **Apr 1-Dec 31, 0800Z-2359Z, EI100MCV**, Dublin, IRELAND. National Maritime Museum of Ireland Radio Club. All bands, all modes; operating on or close to frequencies ending in 18. QSL. Via bureau, Clublog, or direct to Dave O'Conner, EI6AL, Silver Howe, Sydenham Mews, Corrig Avenue, Dun Laoghaire, Co. Dublin A96 RF99, IRELAND. This is part of a year-long event commemorating the sinking of Royal Mail Ship (RMS) Leinster. April events include Marine Radio Day on Apr. 14 and 15; Anzac Day on April 28, and International Marconi Day on Apr. 28. Full details on website. www.qrz.com/db/ei100mcv

➤ 04/05/2018 | 70th Anniversary of the Shenandoah Valley Amateur Radio Club

- **Apr 5-Apr 14, 0000Z-0000Z, W4R**, Stephens City, VA. Shenandoah Valley Amateur Radio Club. 14.230 7.250 3.820 . QSL. Shenandoah Valley ARC, P.O. Box 2273, Winchester, VA 22604. QSL via LOTW, EQSL or Direct with SASE . w4rk@yahoo.com or svarc.us

SCARS V.E. ACTIVITIES

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:

2018 Schedule

Jan 11	Feb 1	Mar 1	Apr 5	May 3	Jun 7
Jul 12	Aug 2	Sep 6	Oct 4	Nov 1	Dec 6

All classes of licenses will be available.

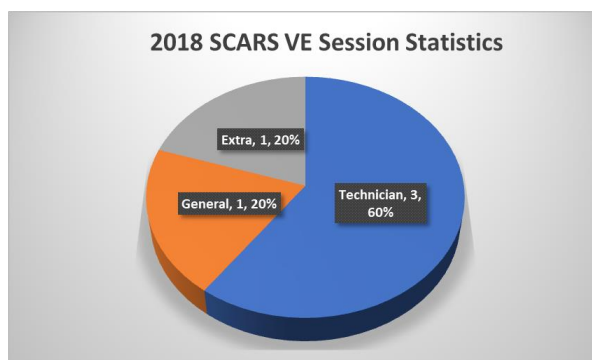
BRING:

- **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 ARRL or SCARS web sites for more details.

SCARS V.E. ACTIVITIES *(YTD as of 1February 2018)*

Call	Date	Name	City	State	Class
KN4ILS	10-Jan-2018	Kevin Zgonc	Powder Springs	GA	Gen
KN4IXX	11-Jan-2018	Gerald B. Jones, Jr.	Dallas	GA	Tech
KN4JLV	1-Feb-2018	Andrew D. Rockwell, Jr	Dallas	GA	Tech
Pending	1-Feb-2018	Alvin G. Shepherd	Austell	GA	Tech
N1SEA	1-Feb-2018	Daniel Ramaswami	Milton	GA	Extra



Silver Comet Amateur Radio Society

2018 Calendar

**** Don't forget "BABJ" [Breakfast At BoJangles] every Thursday morning at 9am. ****

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>
Meeting 1st Tuesday Date/Time:	01-02-2018 7pm	02-06-2018 7pm	03-06-2018 7pm	04-03-2018 7pm	05-01-2018 7pm	06-05-2018 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	Digital (WB3ILX)	CW Training	Digital (WB3ILX)	Severe WX Presentation (K4DMF)	Digital (WB3ILX)	Logging Techniques (K4ELI)
Additional Activities	TBD	TBD	Fox Hunt Date TBA	GA QSOP.	Family Night Dinner Date TB	Field Day 23 rd & 24th
Hamfest Schedule	Lawrenceville TechFest	Dalton, GA	Birmingham, AL Elijay, GA	Mobile, AL Calhoun, GA	Dayton, OH	Atlanta, GA

	<i>July</i>	<i>August</i>	<i>September</i>	<i>October</i>	<i>November</i>	<i>December</i>
Meeting 1st Tuesday Date/Time:	07-03-2018 7pm	08-07-2018 7pm	09-04-2018 7pm	10-02-2018 7pm	11-06-2018 7pm	12-04-2018 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	Digital (WB3ILX)	QSL Cards (K4ELI)	Cheap Antennas (K4CGA)	Clusters & Nodes (WB4QOJ)	Station Grounding (W4TXA)	TBD
Additional Activities	TBD	TBD	Club Fall Picnic	AM DX Contest	TBD	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 W4TXA John.

V2018.01

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:

Yahoo Group Request:

SilvercometARS

www.silvercometars.com

146.955 (-) (77hz)

Contact: *Club President*

John Reynolds, W4TXA

Email:

John-W4TXA@comcast.net

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