



The Centurion



The 3905 Century Club Monthly Newsletter

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Welcome!

Hello and welcome to the January, 2024 issue of the 3905 Century Club Centurion Newsletter.

The Centurion staff wishes everyone a Happy New Year!

We are always looking for article ideas and contributions. As **Kirk AA1NA** would say—"The Centurion would not be the same without your articles"!

Please send articles or suggestion for articles to:

k7qhu@outlook.com.



Voting for the candidates in the Club's 2024 Elections have commenced! See the list of candidates on the following page.



It's never too early to start planning for the Annual Orlando HamCation! HamCation 2024 will be held at the Central Florida Fairgrounds and Expo Park, February 9th - 11th 2024. For more information check out the HamCation website at [HamCation](http://HamCation.com).



Election 2024 Update



Voting will begin January 1, 2024 and close January 15, 2024. 3905 Century Club Members may vote in one of four ways: 1.) On-Line, 2.) Email, 3.) USPS mail, or 4.) On the Air. On-Line voting is encouraged. Details on how to accomplish casting your ballot can be found on the club website <http://www.3905ccn.org/elections>.

Candidates are:

President: Dean Davis, KL7OR or Joe Bevier, KF7HNC

2nd Area Director: Peter Summers, N2XTT or Rich Walbert, AC2MT

4th Area Director: Gary Slagle, K9GWS or Buddy Spiegel, W3BS

6th Area Director: Wayne Harris, WY6N

8th Area Director: Gene Marsh, W8NET

10th Area Director: Eric Johnson, AA0HF

Club members may vote for an Area Director candidate corresponding to the call area of the member's address as listed in the FCC database. Members in even-numbered call areas may cast their ballot for club President as well as Area Director. Members in odd-numbered call areas will vote only for the club President this year.

Ballots may be cast by club members in one of four ways: 1.) On-Line on the club website, 2.) USPS mail to both Election Monitors, 3.) Email to both Election Monitors, or 4.) On the Air on the 40M early or late SSB or the 75M early or late SSB nets on January 15, 2024 UTC. Please remember, all dates and times concerning the Elections are UTC which is the same as Zulu time.

Detailed, step by step procedures for casting your ballot by each of the four options available to all members on the club website. This information can be found at <https://www.3905ccn.org/electionInfo.php>

While four ways are available to members to cast their ballot, On-Line Voting is preferred for several reasons. Results will be more quickly and reliably processed. USPS mail and email can be unreliable. On the Air Voting is at the mercy of propagation, goes through several 'hands' and takes time away from the nets. But all four methods are an acceptable way to cast your ballot.

Results will be announced on the club website and the 3905chatgp reflector the next day, January 16, 2024 UTC. The candidates are appreciated as well as each member's

Participation in Election 2024.

Questions concerning the election may be emailed to the Election Monitors at electionmonitors@3905ccn.org

Your Election Monitors for Election 2024 are:

Paul Lourd, W1IP and Kirk Frazier, AA1NA

Dean's Column

Notes from the President

By Dean Davis, N7XG

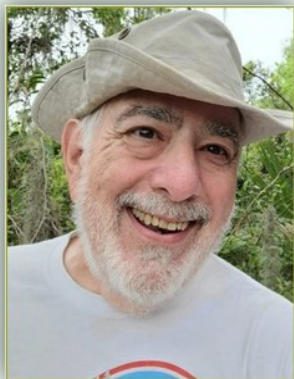


Dean is currently on holiday and his column will resume next month.

BEN'S COLUMN

Notes from the Awards Secretary

By [Ben Goldfarb](#), AE4NT



Here's hoping that all my readers are enjoying a wonderful holiday season in the best of health and happiness!

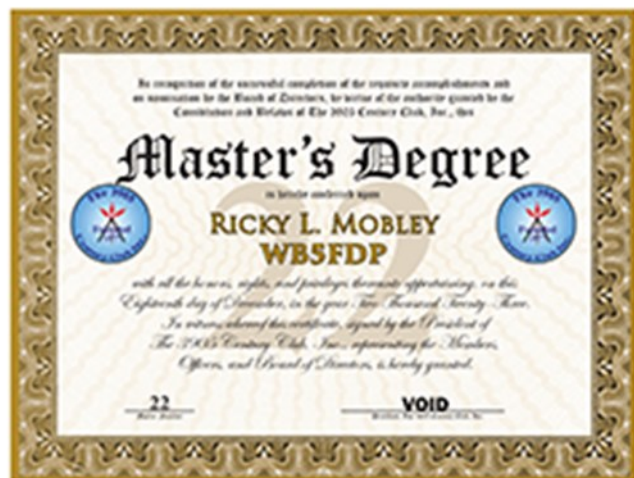
Lots of good award activity this month, including some new Masters, so I have lots to talk about. In this issue, I will tell you about them as well as some others who are on the brink of earning our most prestigious award. In addition, I will announce the latest member to earn the huge NCS Summa Cum Laude Award. This month's closing topic will give you details about our newest award, the **AULD LANG SYNE AWARD**, which is

aply named for the New Year.



Master's Degree News

Two new Masters were added to the club's pantheon in December and several additional members are getting close. Before introducing them to you, the following is an overview of the award and its benefits.



THE MASTER'S DEGREE is the Club's apex award. To apply, a member needs to not only complete an extensive collection of prescribed prerequisite awards but also must demonstrate significant participation outside the nets, as well as dedication, service, and courtesy. The required awards include 2,000-Point progressives and DX awards on the chosen primary and secondary bands among many others. Once the awards requirements

are met and certified by the Awards Secretary, the applicant is brought before the Board of Directors for confirmation that the potential Master, through his or her service to the club and constructive demeanor, qualifies overall. Thus, holders of the Master's Degree are upstanding individuals who represent high ideals in both radio operation and service to the club.

Please see the Master's Degree application on the Club website for more information about requirements.

Once confirmed by the Board, newly crowned Masters may immediately exercise their privileges on the nets and can include their Master number on QSL cards to be used as a Super Wild Card. On the nets, Masters are privileged to check in before all others if they choose, and a Master's Degree also qualifies its holder to potentially serve on the Presidential Advisory Committee.

Besides the certificate pictured above, which is printed on 65# ivory parchment stock, Masters will receive a handsome 8 x 10 plaque to commemorate their achievement. The plaque, designed by yours truly and adopted by the Board this past October, is a laser-etched metal plate bearing the club's logo on a polished rosewood piano-finish base showing the Master's name, Master number, the date, and the name of the Club president at the time the award was achieved – a beautiful highlight addition to the accomplished ham's awards wall!

The 3905 Century Club now boasts seventy-seven Masters. The two most recent awardees, [Rich Walbert, AC2MT](#), and [Rob Lunsford, KB8UEY](#), were confirmed at the special Board meeting on December 18. Although these gentlemen are well known to most 3905 Century Club members, I will briefly introduce them to you below.

Rich Walbert, AC2MT, Master #76

Rich has been a member since early 2018, which means that he earned our top award in less than six years. Currently Second Area Assistant Director, he has served the Club in the past as Net Coordinator for 20M and 160M SSB Nets. Rich has volunteered as an unofficial Eyeball photographer for the past couple of years and is currently running for Second Area Director. Congratulations and good luck in the election, Rich!

Rob Lunsford, KB8UEY, Master #77

Most serious members of the Club regularly deal with the QSL Bureau, which has been ably run by Rob and his sidekick, [Rob Gibbs, K8GIB](#), since 2015. UEY's story with the club began in September 2007, when he started working toward the Master's Degree. It has been a long haul, but the quest finally bore fruit on December 18. Aside from Rob's highly visible service as Bureau Manager for the past eight years, he has also been Awards Secretary and Member of the Awards Committee (2011), as well as Eighth Area Assistant Director and Acting Director (2016). Good show, Rob, and we hope that the USPS now begins to realize who they're messing with!

On the Brink

We might be crowning yet more Masters soon. I'm told that [AA0BH](#), [AG5T](#), [K4JEL](#), [KL7OR](#), [N1ABY](#), and [W3BS](#) might be getting very close. Good luck and good DX to those overachievers!

Check Your Master's Status

Some of us might not realize just how close we are to qualifying for the Master's Degree. Our diligent webmaster, [Matt Taylor, K2YS](#), has provided a tool on the Club website to resolve that quandary. You must be logged in with your membership number and password to access the query, which is in a protected section of the website. Just

select **AWARDS>MASTERS CHECK**, enter your call sign, and let 'er rip. You'll find out which awards you lack so you can focus on pursuing them. You can also use the tool to snoop on others' progress on the Master's Degree so you can give them encouragement and assistance. Working together toward the big objective benefits all concerned parties and the Club as a whole. Lots of luck to all!

Summa Cum Laude NCS: VE3CMB

Our highest recognition award for Net Controllers is the **SUMMA CUM LAUDE NCS AWARD**, which requires 3,000 net points. At four points per complete net, that breaks down to 750 nets – a boatload! The latest member to reach the rarified air of that lofty plateau is **Craig McLoughlin, VE3CMB**, Master #57. He joins a distinguished list: **WB5FDP (SK)**, **WN1F**, **W9ROG**, **KI7PM**, **KL7OR**, **K9GWS**, **AA1NA**, and **KB0EL**. Craig is also DX Area Director and DX Area Awards Manager and currently serves as 20M PSK and RTTY Net Coordinator. Congratulations to Craig and many thanks for running all those nets!

Auld Lang Syne Award

The Board approved our latest award at the December 9 Board meeting, so on or after January 1, 2024, you may start to work on earning the Auld Lang Syne Award. This award was created to give members another twist on earning awards by making contacts within the Club with holders of the Old-Timers Award and to provide an additional benefit to those members who have been with us for thirty years or more. We currently have forty-two Old-Timers; this new award rewards contacts with them per the requirements below.



Award Requirements

The Auld Lang Syne Award is a simple award to comprehend. Just contact twenty-five unique holders of the 3905 Century Club Old-Timers Award on any band/mode combination on or after January 1, 2024, and you will have met the initial requirement. Then, you may endorse the award upward in increments of fifteen additional unique Old-Timers. That's it! Easy-peasy.

Giving credit where due, the award and its name were the brainchild of **Johnny Allen, KI4WCQ**, Master #52, who will soon join the Awards Committee.

Its certificate is pictured here, another **AE4NT** design somehow miraculously approved by the Awards Committee. It is a whimsical departure from most of our current conservatively formal offerings, but we can all use a little more humor in these increasingly maniacal times. It includes a cartoonish representation Father Time, the symbol of the outgoing year, saying 22... 22... rifle shot... (our official Club net mantra).

Holders of the Old-Timers award should include their Old-Timers number on QSL cards to make life easier for their club contacts and their Area Awards Managers. The payoff is that they'll be getting lots more calls on the nets!

So, lay back, chill out, and give one of our forty-two Old-Timers a call. As treasure troves of Club history, they are great to chat with, so you will be rewarded with so much more than a certificate!

Who will be the first to earn the Auld Lang Syne Award? To find out, keep an eye on *Awards News*, my weekly update on awards issued. If you are not yet subscribed, send an empty email to 3905AwdTalk+subscribe@groups.io.

Update to the Pick 30 Award

Along with establishing the Auld Lang Syne Award, the Board decided to update the Original Charter Signer requirement on the Pick 30 Award to allow substitution of an Old-Timer. Otherwise, with only one sporadically active OCS known to check in occasionally, the award would have become obsolete. This move by the Board will enable a new generation of 3905ers to earn the venerable Pick 30 Award, one of the popular awards created to commemorate our Club's thirtieth anniversary back in 2007.

Awards Committee Changes

As of January 1, 2024, [Johnny Allen, KI4WCQ \(Master #52\)](#), will replace [David Feeney, WN1F \(Master #73\)](#), on the Awards Committee.

David is retiring after three years of excellent service to the Committee, and we wish him well in his post-AC ventures. We all know and love the booming voice from Down East on the nets. So, this is not a farewell, but instead, a big thanks for David's contributions to the Club over the years. We'll certainly miss his no-nonsense opinions on the Committee.

We expect great things from Johnny, who is also active on the Presidential Advisory Committee, the Audit Committee, and the Bylaws Review Committee. He not only has a keen eye for detail and a logical mind, but also a demonstrated ability to get to the heart of the matter. He'll keep us on course. It is our pleasure to welcome Johnny!

We've maintained the balance on the committee, with four Masters and this big ol' Masters wannabe.

Last, but Not Least, All the Best of 2024!

Please remember to vote in the Club elections in January! It is your club, and your voice counts.

I want to wish all our members a very healthy, happy, and prosperous New Year, and Good DX!

73 de AE4NT

Awards Secretary

Mike, KU1V's Spring 2023 National Parks Trip Concludes

KU1V's last stop on his Spring 2023 NP Expedition.

March 16, 2023

KU1V continues parks tours from Sidney, Vancouver Island, BC, Canada to North Cascades NP, State of Washington.

I arise early from a great night's rest and leave the motel heading to Swartz Bay for passage on the vessel "Spirit of British Columbia" to the Tsawwassen Ferry Terminal, just south of Vancouver, BC.

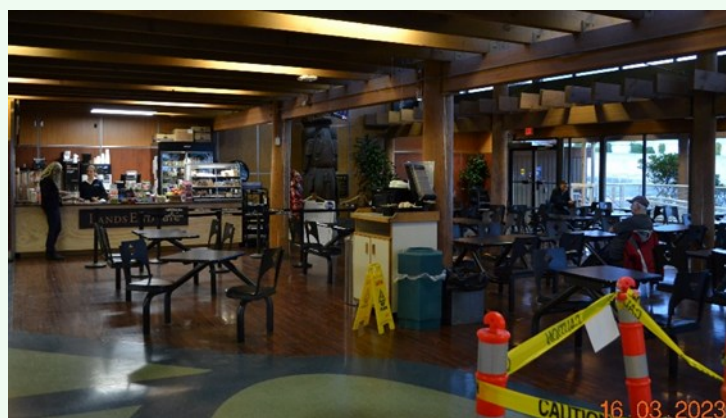
From the Tsawwassen Ferry Terminal back to the USA is an easy drive except for a traffic delay at the US / Canada border crossing point. The routes are 17 and 99, which becomes I-5 at the US/Canadian border. I continue on I-5 to Burlington, WA, then via route 20 east to North Cascades NP.



First things first; no free passage, but a great value.



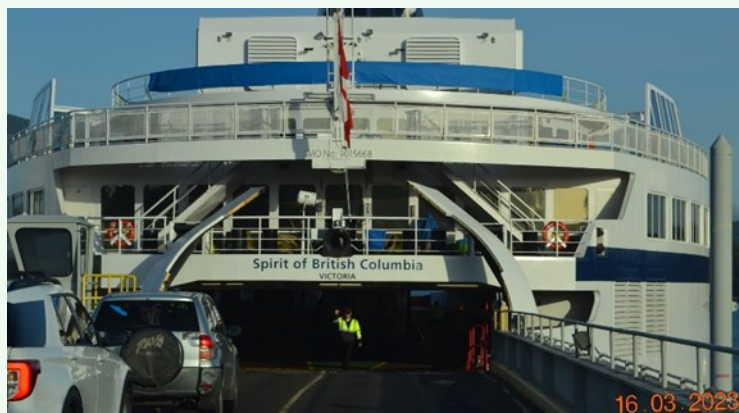
Lands End Cafe' entrance. Swartz Bay terminal



Great little snack bar for coffee prior to boarding



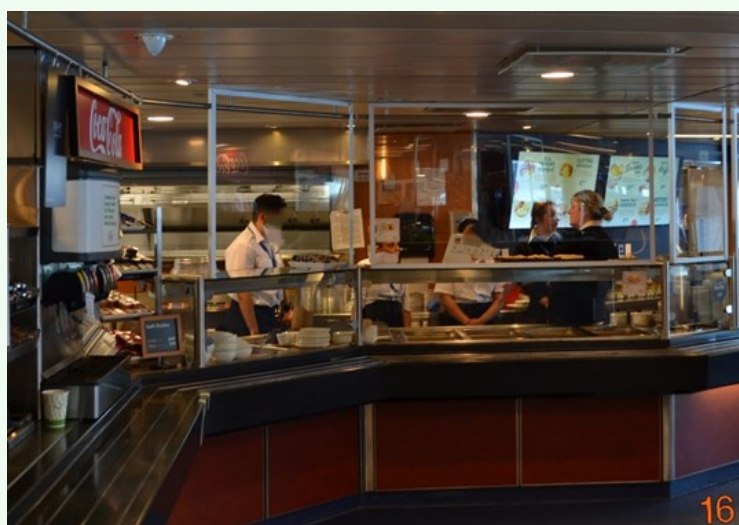
"Spirit of British Columbia", Swartz Bay



Boarding "Spirit of British Columbia"



View leaving Swartz Bay



**Galley "Spirit of British Columbia"--more
coffee please!**



Approaching Ferry Terminal Tsawwassen



Preparing to disembark



Near the US and British Columbia boarder, I-5



KU1V Park entrance

North Cascades NP is a rugged looking area and appears to rank number one on the national parks list for injuries/deaths. This seems due to the ruggedness that mountain climbing activities present. Note the link below.

<https://www.nationalparkstraveler.org/2021/02/deadliest-national-park-would-you-believe-north-cascades-national-park>





Why signage stating “Seattle City Lights?”

Skagit River hydroelectric produces 40% of Seattle’s power.

I attempted to remain in the Newhalem park area. However, being close to the Gorge power generating station, I was instructed to leave this area at night for security reasons.



Baldwin engine circa 1922

<https://www.scenicusa.net/122410.html>



Gorge Power generating plant

Driving up the valley, or upriver, to the Diablo Dam



Gorge Dam Construction started in 1921



**Diablo Dam construction started in 1927--
driving across dam**



Diablo Dam

This is a very historic area. Many great pictures are available with a google search.

<https://hydroreform.org/resource/skagit-river-project/>

Also try searching--Skagit River hydroelectric project.

https://en.wikipedia.org/wiki/Skagit_River_Hydroelectric_Project

Due to winter snow and road closures through the NP, I had to backtrack to I-5 and then south to Seattle to join I-90, which generally took me back to New Hampshire, about 3,400 miles.

What a blast going to all these National Parks, both in Canada and the USA. We are lucky to have had the forethought of some government leaders to have established the National Parks system. I am short four US NPs, excluding AK, and these reaming four will be an added challenge due to transportation.

Many of the NPs, both Canadian and US, had electric vehicle charging stations. Although the following picture was not taken in a NP, it still looks to me like these charging stations are a very social and friendly place to stop, perhaps even if you do not own an electric vehicle.



Hope to see you soon from another National Park!

Best 73, Mike KU1V

Thanks Mike for taking us along on your National Park Trip out west! The Centurion appreciates you taking the time and effort to document the trip for the club's membership. Across the series of articles, you had shared some awesome photos and great commentary on the travel from park to park and the park themselves.

Looking forward to your next trip!

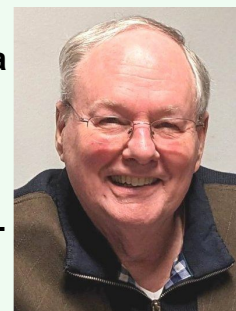
The Centurion Staff

Tech Notes

Gene, W8NET shared this Tech Note with the Centurion. It is written by Jim, AC8NT and appeared in the December 2023 issue of the PCARS The Radiogram. Thanks Gene!

Why 50 Ohm Coax?

This is another question asked by an engineering student. It is also a piece of information that hams should know. She asked why most RF systems are designed using a 50-ohm impedance? For an engineer the answer involves a lot of math involving the TE11 and TE10 transmission modes in RF carrying circuits. This is one of the toughest areas of RF engineering to study. But we can demonstrate the answer using the graph below. This plot was first printed in late 50's in an IEEE journal. I found it again used in an article edited by Barry Mishkind. The plot was calculated for frequencies in the MF and HF bands.



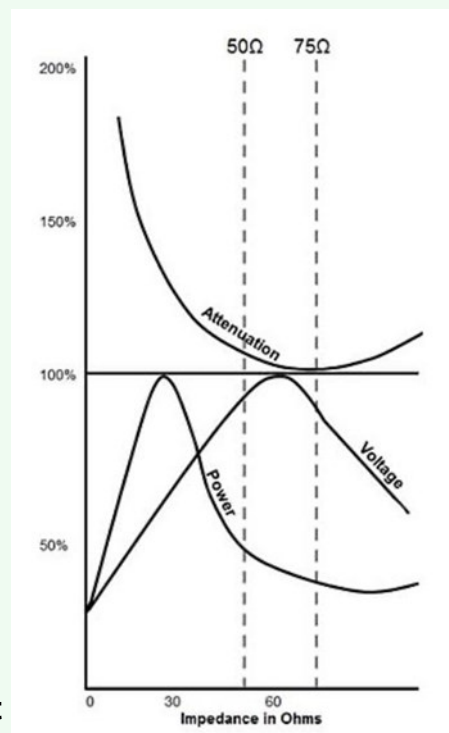
Jim, AC8NT

This plot shows the efficiency of a transmission line for power and voltage versus impedance. It also shows the attenuation of the signal versus impedance. Let's look at what it tells us. Remember we need to use our coax for both receiving and transmitting signals.

If you were interested in just transmission of signals, the graph shows the most efficient impedance would be about 30 ohms for power. It also shows the lowest attenuation, best for receiving, is at about 75 ohms. We need both for efficient transmission. A compromise between best for transmission and receiving is 50 ohms. If we were interested in only receiving signals the most efficient impedance would be 75 ohms.

A few interesting points:

1. Ladder line has less loss than coax. However, it is more susceptible to interference than coax. Remember the twin lead 300-ohm feed line used for early TV antennas. It was a reason that ham radio could easily interfere with early TVs. Also, you need to be careful not to run ladder line close to conductors that can reduce signals. That is why you use standoffs in ladder line installation on towers. Coax prevents the interference issue, and the installation does not require standoffs.
2. Modern TV antenna systems use 75-ohm cable for the same reason hams use coax over ladder line, less interference from other transmissions. Also, most modern TV antennas have built-in preamps to overcome transmission losses.

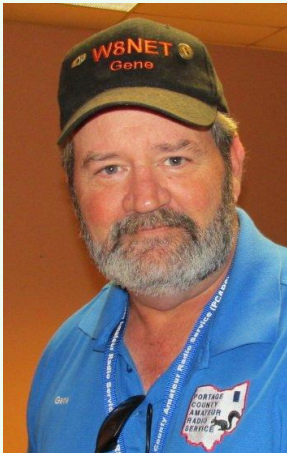


3. Early hard lines were made of common components including .75-inch rods for the center conductor and 2-inch water pipes for the outer conductor (early 2" water pipes had an ID of 1.75 inches). With dry air in the pipes, this combination results in an impedance of about 51.5 ohms. Lines built of these materials could easily carry megawatts of signal. Practicality meets theory.
4. With the use of polyethylene with a dielectric of 2.3 the required center conductor and outer conductor were reduced to .1 and .4. Much less copper which reduced costs drastically. However, power handling was also significantly reduced.
5. I should point that there are changes in these plots when considering frequencies in the UHF and microwave bands.

Now you know why we use 50-ohm coax.

Member News!

Gene, W8NET, one of our very own 3905 Century Club Masters, has been appointed as a PCARS (Portage Amateur Radio Group) SIG (Special Interest Group) Coordinator. Congratulations Gene! Below is the article from the PCARS The Radiogram Newsletter announcing Gene's new SIG.



Gene, W8NET
HF WAS & DX Nets
SIG Coordinator

Next SIG meeting will be Tuesday, February 6th at 7:00 PM

I'm pleased to announce the creation of the HF WAS & DX Nets SIG for PCARS! This SIG will be held every other month – every EVEN month – on the first Tuesday. The ODD first Tuesday will be the Digital SIG, hosted by Rick, K8CAV. This is the schedule for 2024 HF WAS & DX Nets SIG (with tentative topics):

February 6	Introduction/Logging QSO's OMISS
April 2	3905 Century Club/Focus on MOBILE!
June 4	HHH/Focus on DX!
August 6	YLISSB/Remote Operation (and YOU can do that!)
October 1	SPECIAL event (more details later)!
December 3	TBD

Each SIG meeting will be held at 7:00 PM at PCARS club site in Ravenna. For the first 45 minutes we will discuss a net, how to confirm contacts, what “tools” you can use, what kind of awards the net has, and many other topics. After discussion, on most meetings we will check in to a net – in person or at home on Zoom!

HF nets are a great way to meet fantastic people all over the world on the air, work to achieve your “Worked All States” certificate, and contact many DX entities. Some examples the nets are: 3905 Century Club, OMISS, YLISSB, NATA Traffic Net, HHH Net, and others. Most have websites that explain their schedules, procedures, etc. I will send more information before each meeting. Hope you will join us for BIG FUN!

January 2024 USPS Rate Increase



The U.S. Postal Service has announced new prices for 2024. The new postage rates are scheduled to go into effect on January 21, 2024, resulting in a roughly 2% increase in mailing services product prices.

Product	Current Prices	Planned Price	Increase
Letters - 1 oz.	\$0.66	\$0.68	\$0.02
Letters - metered 1 oz.	\$0.63	\$0.64	\$0.01
Domestic Postcards	\$0.51	\$0.53	\$0.02
International Postcards	\$1.50	\$1.55	\$0.05
International Letter (1 oz.)	\$1.50	\$1.55	\$0.05

January 2024 Club Events

Note: Regular Board Meetings are always held on the second Saturday of each month, local time at 9PM Eastern, 8PM Central, 7PM Mountain, 6PM Pacific.

A purple rectangular graphic with the words "SPECIAL EVENTS" in white, bold, sans-serif capital letters.

- **3905CCN Board Meeting: Saturday, January 13, 2024**

Did you know that videos of all Board Meetings are posted on the Club's YouTube channel? Courtesy of the Board and produced by Sammy KB1XP, you can view them at: [\(11\) 3905 Century Club - YouTube](#)

The Zoom logo in blue, lowercase letters.

Weekly Zoom Meeting on Wednesdays at 01:30pm Pacific Time. Check your email for the Zoom log-in information.

Road Trips!

No Road Trips have been submitted to the Centurion for January.

CLASSIFIED ADS

This section is for members who would like to sell, swap, or purchase ham gear. If you would like to list your equipment here, please send the information to k7qhu@outlook.com. The deadline for ads is the 30th of the month.





NET CONTROLLERS WANTED!

The Club runs CW nets on the 160m, 80m, 40m, and 20m bands. If you have ever thought you might like to try your hand at running a CW net, now would be a great time to volunteer. If you think you might be interested, check out the “CW Nets 101” page on the club website at: [The 3905 Century Club - CW Nets 101 \(3905ccn.org\)](http://The 3905 Century Club - CW Nets 101 (3905ccn.org)) .

We currently have 3 CW Net Control Stations running the 160m, 80m, 40, and 20m CW nets. Any additional volunteers would be welcome!

If you are interested in giving CW NCS'ing a go, please contact the CW Net Coordinator, Steve Davis, K7QHU (k7qhu@outlook.com) for more information.

By the way, the Club is always looking for Net Controllers for all nets and modes. If CW is not your thing, then please consider volunteering as an NCS for any of the other Modes. If you volunteer, you receive free NCS training and all the associated NCS benefits offered by the club!

Fun Facts About Our Nets In December, 2023

584 unique U.S. Stations checked into our nets during the month of December, 2023.

AA0BH	K2YS	KA1RJQ	KC8DDQ	KE8YSJ	KK1NGR	KQ4KQZ	N9BFI	W4LUP	WA4TW
AA0HF	K3FLH	KA1ZLL	KC8IKW	KE8ZFF	KK2M	KQ4KRD	N9PWM	W4MAB	WA4ZYN
AA0RS	K3JOE	KA2QIK	KC8NPU	KE8ZKL	KK6HPB	KQ4LLM	N9UUX	W4MJJ	WA6IQL
AA0ZP	K3VTS	KA2YDS	KC8ODP	KF0EAO	KK6RDB	KQ4MVG	NC8F	W4MTJ	WA8RM
AA1NA	K3Z	KA2YEG	KC8ORP	KF0KPA	KK7AVH	KR3G	NC8N	W4OSZ	WA9UIR
AA4NE	K4AMF	KA3IVN	KC8SDL	KF0LHS	KK7CZD	KS9WI	NF0T	W4RDO	WB0CSF
AB1R	K4BWN	KA3ZYX	KC9GAS	KF0LHY	KK7HSO	KU1V	NH7DX	W4SET	WB3JFR
AB3TW	K4CUP	KA4CDN	KC9LFD	KF0LKG	KK7MQG	KU8RLY	NI0A	W4SNT	WB8FCC
AB3VK	K4EGL	KA4JAZ	KC9MHG	KF0NEH	KK7NKV	KW5DRE	NI4BK	W4VHL	WB9UHL
AB4PP	K4GCD	KA5KRV	KC9UZR	KF1D	KL7CCN	KY1KY	NJ2LH	W4ZDP	WD4AMC
AB5SJ	K4HI	KA5LYL	KC9VFI	KF2GQ	KL7JR	KY4FF	NK0X	W5EWL	WD4HMA
AB6GH	K4HIS	KA5PXE	KC9YY	KF4DDJ	KL7OR	N0IWQ	NK4T	W5FBS	WD6BNR
AB6ME	K4ISG	KA5USN	KD0AYN	KF4TPY	KL7RST	N0JAM	NN0PE	W5GFM	WD9DWD
AB8PS	K4JEL	KA9QWV	KD0GIX	KF5CCN	KM4P	N0PF	NN9T	W5HWZ	WD9ISQ
AB8YZ	K4KPD	KB0BK	KD0LHK	KF5EK	KM4QAV	N0PUI	NO2CC	W5IAY	WE4FUN
AC0HF	K4KRK	KB0EL	KD0QIX	KF5FDA	KM4VIK	N0RWJ	NO7GX	W5JH	WE4GUN
AC1NV	K4LFK	KB0FJB	KD0TTG	KF5FWR	KM4VQT	N0XGI	NR9Q	W5KAC	WE5B
AC1OC	K4LO	KB0HV	KD2BEN	KF5GPQ	KM5ZO	N1ABY	NT4OM	W5LPZ	WE6M
AC1UB	K4PVK	KB1ODO	KD2HCE	KF5TEX	KM6KXY	N1ARO	NU3Y	W5MKC	WF4ROG
AC2MT	K4VSK	KB1OPS	KD2HPQ	KF7GNV	KM7SAD	N1FGN	NW4JG	W5MOF	WG0I
AC6DX	K4ZEE	KB1XP	KD2YWQ	KF7HNC	KM9U	N1KMX	NY0K	W5NA	WG1I
AC6IN	K4ZZR	KB2ENF	KD2ZJK	KG2RV	KN4CQB	N1MRK	NZ7P	W5UOT	WH6NL
AD0WW	K5GEB	KB2JM	KD2ZSA	KG4AUI	KN4DDA	N1NQ	VE3QDX	W5WAD	WI2I
AD8MP	K5PAR	KB2TC	KD4FOV	KG4GTR	KN4IXC	N1T	VE6YPY	W5WJN	WJ0B
AE0QG	K5TRM	KB3HEM	KD4HCU	KG4RWO	KN4LFE	N1YXE	VE8AU	W6PNY	WK1J
AE0S	K5WFD	KB3LKM	KD4LRU	KG4TNO	KN4LGM	N2IGW	VE8RST	W7PML	WK3Y
AE0WD	K6AAI	KB3MBP	KD5KKL	KG4ZOD	KN4TOZ	N2KED	VY0RST	W7SCD	WN1F
AE4BB	K6ODI	KB3UWC	KD5KTB	KG5GOG	KN4YYB	N2OWD	VY1RST	W8BI	WO0KY
AE5AI	K6PPT	KB3VAY	KD7OUY	KG7BYJ	KN6MGZ	N2TCO	W0DAA	W8CPT	WQ6L
AE5OV	K6REJ	KB3YPY	KD7PNR	KG8WL	KN6MS	N2XTT	W0JKT	W8DDS	WQ7V
AE5PP	K6YEK	KB4BYH	KD7QBB	KH6KW	KN6RSX	N2ZEA	W0NEU	W8DJB	WR5E
AE6EG	K7BNY	KB4CWG	KD8NOI	KI0HA	KN6UDK	N3GOD	W1CSA	W8GMF	WR8WM
AE7BM	K7IUQ	KB4TBF	KD8SAV	KI0Y	KN6WYV	N3NJ	W1HQL	W8JCS	WT3B
AF8GO	K7MI	KB6KB	KD8WYL	KI2X	KN8E	N3UEA	W1IP	W8NET	WU2T
AG5T	K7MKA	KB7BIB	KD9BDW	KI4FSZ	KO4AQF	N3VEJ	W1JPP	W8SOB	WV8M
AG5Z	K7NHC	KB7QKB	KD9ICT	KI4KGK	KO4FBM	N3YHM	W1OO	W8YA	WW3K
AG7FQ	K7OPQ	KB7ROV	KD9ISO	KI4NBE	KO4FHB	N4HNO	W1PEF	W9BU	WW4RR
AI4FA	K7PGL	KB8UEY	KD9KPU	KI4QMB	KO4KWI	N4HWK	W1USB	W9BUM	WW5DD
AI4K	K7QHU	KB9FPY	KD9MGZ	KI4WCQ	KO4LEM	N4MXP	W1WWA	W9DXX	WW9X
AI7B	K7RCN	KB9WLF	KD9RNI	KI4YAH	KO4MEX	N4SJC	W2ALJ	W9KMH	WX2BGM
AI8O	K7RFC	KB9YYM	KD9UTJ	KI5AIV	KO4MWD	N4UPX	W2BJI	W9MWI	WX9MKX
AI8W	K7TSW	KC0DVV	KE0AHM	KI5IYX	KO4NZB	N4YDQ	W2BOC	W9OQ	WY0MNG
AJ0KE	K7WIV	KC0WEA	KE0HEW	KI5JRB	KO4SOW	N5DY	W2CSI	W9RDJ	WY6N
AJ4AC	K8ACF	KC0ZIC	KE0NHL	KI5JZK	KO4SQY	N5JDT	W2FEC	W9ROG	WZ9O
AJ6ZN	K8GIB	KC1HGP	KE0RAJ	KI5SPA	KO4TRA	N5KUC	W2JLD	W9WWG	
AK1SS	K8ICE	KC1QIA	KE0RM	KI5UXC	KP2JR	N5LAP	W2MM	WA0JOE	
AK4AT	K8MSF	KC1YL	KE0SAW	KI5WZA	KP4AK	N5NPM	W2QJ	WA0ROH	
AK4SZ	K8SSN	KC2DAQ	KE2CAN	KI6DTC	KQ0EEE	N5OHL	W2RCH	WA1EEJ	
K0BIU	K8WEE	KC3IXQ	KE3UY	KI6KTI	KQ0Q	N5RTN	W2RON	WA1FFT	
K0KLB	K8ZOZ	KC3PTC	KE5TKP	KI6MUH	KQ4BPZ	N5WGA	W2TI	WA1ITU	
K0LTL	K9DBB	KC3QYE	KE7RG	KI7DYM	KQ4BRG	N6SGX	W2TIM	WA2BTC	
K0SSD	K9DJH	KC3TIU	KE8ADV	KI7PM	KQ4FIP	N6TCO	W3BS	WA2JIM	
K1AOS	K9DLM	KC3YEV	KE8FK	KJ3C	KQ4FNU	N7HRI	W3DOV	WA2OOO	
K1CCN	K9EAJ	KC3YFD	KE8HBY	KJ4RM	KQ4GIR	N7HRR	W3FN	WA2VQW	
K1UU	K9GWS	KC4ZZI	KE8HIF	KJ4WLG	KQ4GUM	N7YTF	W3LAB	WA3AEP	
K2AES	K9TDO	KC5AAV	KE8LGC	KJ5AIV	KQ4HLZ	N8BF	W3QD	WA3CUC	
K2ENF	KA0BMX	KC5GKM	KE8RRG	KJ5CGJ	KQ4HMT	N8HLH	W3YE	WA4ARB	
K2GQ	KA0MR	KC5IVT	KE8RYW	KJ6EEP	KQ4HQZ	N8QOO	W4ADI	WA4BKL	
K2PB	KA0VNM	KC5THR	KE8TKY	KJ6ZFS	KQ4IVB	N8WB	W4BDN	WA4FQZ	
K2SFS	KA1FLH	KC8BRT	KE8YGW	KJ7RAD	KQ4KHR	N8ZZF	W4JPS	WA4NID	

Unique Check-Ins By State and SSB Net December 2023

State	20M SSB	40M SSB EARLY	40M SSB LATE	40M SSB DX	75M SSB EARLY	75M SSB LATE	75M SSB DX	160M SSB EARLY	160M SSB LATE	160M SSB LATE LATE
Alabama	1	4	4	0	1	1	0	0	2	0
Alaska	0	0	0	0	0	0	0	0	0	0
Arkansas	0	5	0	0	3	1	0	0	1	0
Arizona	0	2	2	1	0	0	0	0	0	0
California	0	10	11	6	2	6	1	0	2	0
Colorado	0	6	6	2	0	2	0	0	1	0
Connecticut	2	5	1	1	7	3	1	0	2	1
Delaware	3	5	1	0	2	0	0	0	0	0
Florida	15	31	9	3	7	4	0	0	1	0
Georgia	6	14	4	2	8	4	0	0	3	2
Hawaii	0	1	2	1	1	0	0	0	0	0
Iowa	1	5	1	0	2	1	0	0	1	1
Idaho	3	8	5	2	7	5	3	1	1	1
Illinois	1	6	2	0	2	0	1	0	1	2
Indiana	5	10	4	2	3	3	2	1	2	2
Kansas	2	7	2	0	5	2	1	2	5	2
Kentucky	1	7	1	1	3	4	0	0	2	0
Louisiana	1	2	1	0	1	0	1	0	0	0
Massachusetts	3	1	0	1	1	1	0	0	0	0
Maryland	0	1	0	0	0	0	0	0	0	0
Maine	2	4	4	2	5	2	1	0	3	0
Michigan	8	12	3	1	6	6	0	0	3	0
Minnesota	9	4	7	1	6	2	1	1	3	0
Missouri	2	11	3	3	7	4	0	1	2	1
Mississippi	1	3	2	1	5	3	0	0	1	0
Montana	0	1	1	0	1	0	0	0	0	0
North Carolina	9	14	7	3	14	9	2	3	9	0
North Dakota	3	2	1	1	2	1	1	0	1	0
Nebraska	1	6	1	0	1	0	0	0	0	0
New Hamp-	0	3	3	0	1	2	1	0	2	0
New Jersey	0	9	9	0	9	0	0	0	3	0
New Mexico	1	2	0	1	3	1	0	1	1	1
Nevada	1	2	2	0	2	1	0	0	1	0
New York	6	18	5	5	7	4	1	1	5	0
Ohio	9	18	5	3	9	2	5	1	7	2
Oklahoma	4	4	5	0	3	1	0	0	1	0
Oregon	2	5	5	3	2	4	1	0	2	1
Pennsylvania	6	8	2	1	2	1	1	0	0	0
Rhode Island	0	2	1	0	0	0	0	0	1	0

State	20M SSB	40M SSB EARLY	40M SSB LATE	40M SSB DX	75M SSB EARLY	75M SSB LATE	75M SSB DX	160M SSB EARLY	160M SSB LATE	160M SSB LATE LATE
South Carolina	11	19	11	2	10	7	0	0	1	0
South Dakota	1	6	1	0	0	0	0	0	0	0
Tennessee	7	14	4	3	7	3	3	0	0	0
Texas	11	16	8	4	6	4	0	0	0	0
Utah	0	4	1	3	1	2	0	0	0	1
Virginia	3	7	2	1	2	3	0	0	0	1
Vermont	1	1	1	0	0	0	1	0	0	1
Washington	1	1	1	1	0	2	1	0	0	2
Wisconsin	2	7	2	0	4	1	0	0	0	0
West Virginia	1	6	2	0	4	0	0	0	0	0
Wyoming	1	2	3	0	2	1	0	0	0	0

DX STATIONS DECEMBER 2023

Call	Country	Net	Date		Call	Country	Net	Date
6Y5CB	Jamaica	20m SSB	Mon 12/25/2023		IW3IBK	Italy	40m SSB L	Thu 12/14/2023
8P5AA	Barbados	40m SSB E	Tue 12/12/2023		IW6DRH	Italy	40m SSB L	Thu 12/14/2023
9Y4HP	Trinidad	40m SSB L	Wed 12/06/2023		IZ5MJS	Italy	40m SSB L	Wed 12/13/2023
9Z4YOC	Trinidad	20m SSB	Mon 12/25/2023		J69X	St Lucia	75m SSB E	Tue 12/05/2023
AA0HF	Croatia	75m SSB L	Sun 12/10/2023		J73GCG	Dominica	40m SSB E	Tue 12/12/2023
AA0HF	Croatia	40m SSB DX	Sat 12/09/2023		J73IMS	Dominica	40m SSB E	Thu 12/28/2023
CD3PHX	Chile	40m SSB E	Tue 12/12/2023		KG4NE	Guantanamo	75m SSB E	Tue 12/19/2023
CX2CB	Uruguay	40m SSB E	Tue 12/12/2023		KG4NE	Guantanamo	40m SSB E	Sun 12/31/2023
DC3TI	Fed	40m SSB L	Wed 12/13/2023		MI6NCG	N. Ireland	20m SSB	Sun 12/10/2023
EA8DMF	Canary	75m SSB L	Sun 12/03/2023		ON3YNL	Belgium	40m SSB E	Tue 12/12/2023
F5AKY	France	40m SSB L	Tue 12/05/2023		SM5FWW	Sweden	40m SSB L	Thu 12/21/2023
F8CFU	France	40m SSB L	Wed 12/27/2023		TI2SD	Costa Rica	75m SSB E	Sun 12/24/2023
HB9FHV	Switzerland	40m SSB L	Wed 12/06/2023		UY2VM	Ukraine	40m SSB L	Sun 12/31/2023
HB9FHV	Switzerland	40m SSB L	Thu 12/28/2023		UY2VM	Ukraine	40m SSB L	Wed 12/13/2023
HP3EFS	Panama	40m SSB L	Thu 12/14/2023		W3BS	Haiti	75m SSB L	Tue 12/12/2023
HP3EFS	Panama	40m SSB DX	Sat 12/30/2023					

CANADIAN DX STATIONS DECEMBER 2023

Call	Province		Call	Province		Call	Province
VA1SEA	NS		VA6UV	AB		VE3SIQ	ON
VA1SNL	NS		VA7RMM	BC		VE3WVX	ON
VA3JBU	ON		VE1RSG	NS		VE3YWN	ON
VA3SLO	ON		VE3CMB	ON		VE6CKY	AB
VA3TUV	ON		VE3HMK	ON		VE7PDS	BC
VA3YKT	ON		VE3KUZ	ON		VE9CZ	NB
VA4ADM	MB		VE3OHC	ON		VE9SRC	NB

Exit with a Smile!

Does a 5 watt transceiver at \$288 make sense?



You be the judge.

It opens a whole new world of excitement and fun in Amateur Radio. We think you will find QRP a welcome change from high power in these days of push-button operation.

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The Argonaut will be a faithful companion for many years to come. This \$288 may be your best investment in Ham Radio in a long time—perhaps ever!

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KR 5 Electronic Keyer	34.95

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