



WWII poster Battle of the Atlantic keeping Convoys safe

The Silent Signaling Service - Navy Signalers.

by Ken Lloyd

Ships at sea are Canada's eyes and ears across the oceans. Whether in World War Two, the Korean War or in today's anti-terrorism deployments, our ships depend on Communicators using the latest technology. 70 years ago, Naval Communicators were the 'Silent Service', where ships keep radio silence while protecting convoys. How different are the Signalling skills needed today on board a Halifax Class Frigate on anti-terrorism patrol compared to a Tribal Class Destroyer in the Korean War?



We ask Leading Seaman (LS) Andrew Barber, Naval Visual Signaller who served on HMCS Quebec (1952); HMCS LaHulloise; and HMCS Haida.



We ask Master Sailor (MS) Steven Ardley, a Naval Communicators' Instructor at the Naval Fleet School (Atlantic) who has served onboard HMCS Charlottetown in 2016 and HMCS Halifax in 2019.



LS Andy Barber and MS Steven Ardley were asked 11 questions on their service as Naval Communicators. Andy answered first and then Steven.

1. What was your role in the Royal Canadian Navy?

Andrew Barber

My role in the Royal Canadian Navy was as a Leading Seaman in Visual Communications.

Steven Ardley

A modern-day Naval Communicator at the rank of Sailor First Class (S1) is expected to perform a variety of different roles, which take place in mainly 2 different areas of an HMC Ship. First is the Communications Control Room (CCR).

Our job is to build and establish external communications by several different means, including HF, VHF, UHF, and of course, satellite communications (SATCOM). Secondly, we operate on the bridge as the position of “signals” to support the officer of the watch (OOW) who has control of the ship, and the overall team. This process includes the Nav Comms to speak over UHF and VHF radios to use our tactical signals and convey a clear tactical picture to the OOW.

2. Why did they need people to do your position when there are so many other ways of messaging?

Andrew Barber

Visual signalling was called the “silent communication” and was used in a war zone aboard a ship. Radio transmission was not permitted in a war zone as it could be picked up by the enemy and that could cause both your ship and others with you in the fleet or squadron some serious damage. The only time breaking radio silence was allowed was for 15 minutes or so during hostilities when entering a friendly port to identify yourself as an ally and not an enemy.

The enemy submarines and small fishing vessels had tried on several occasions to enter Halifax, St John’s Newfoundland, and other allied ports to wreak havoc in those harbours. That is why visual communication was so important when we were at sea in a war zone. Any other means of electronic communication could be discovered by the enemy and could cause serious consequences.

Steven Ardley



S1 Steven Ardley on board ship

There are numerous ways of messaging such as the ones listed above, however, the naval communicator section are the subject matter experts of all communications entering and leaving an HMC Ship.

Daily routine for a Naval Communicator while at sea has a large variety of tasks that will be performed.

If we are in company (other ships) that means the section will be responsible for supplying someone to the bridge to use our voice tactical signals over typically a UHF circuit, which come from a NATO Unclassified publication ATP 1 Vol.2 (This pub is our bread and butter on the bridge). If we could only have 1 item on the bridge it would be this.

As well as having someone on the bridge, the Communications Control Room is going to have at least 1 person in it at all times while at sea to maintain our networks and ensure all message traffic via email is being sent to other sections on the ship, always keeping an eye out for a “flash” message.

3. What did the ships you served on do? How versatile were they for their job?

Andrew Barber

I was fortunate enough to serve on 3 ships of very different sizes at sea.

The first one was HMCS Quebec which was a heavy cruiser obtained from the British Navy when it was named HMS Uganda. Its purpose was to attack surface ships and shore installations as they had very large guns with a large firing range.



HMCS HAIDA moored in Hamilton. On 26 May 2018, Haida was designated flagship of the Royal Canadian Navy. Haida is the last remaining Second World War Tribal-class destroyer in the world.

The second ship was a smaller frigate named HMCS LaHulloise.

It was used for escort and anti-submarine duties and sank a German sub during WWII. I had the pleasure of attending the Queen's Coronation aboard that ship as we were part of the Commonwealth's Spithead Review.

The third ship was HMCS Haida. This ship was a deadly and fast gun platform that quite often punched above her weight. It was used for surface-to-surface warfare, as well as convoy duty for large convoys setting sail from Great Britain to Russia and other

locations in the Northern archipelago.

It was used for bombardment of communist shore batteries and "train busting" during the Korean War. Also patrols to the more than three thousand islands in the Korean Peninsula. This was to ensure that there was no build of enemy forces and supplies after the armistice agreement had been signed. I also served in Naval shore installations named HMCS Stadacona and HMCS Shearwater and HMCS Donnacona.



HMCS Halifax 330. First of her class to enter service, and the first warship built in Canada since 1971, HMCS Halifax was commissioned on June 29, 1992 and continues in service.

Steven Ardley

I have served onboard the Halifax class ships during my time thus far. I have done 2 different Operation Reassurance deployments onboard the HMCS Charlottetown in 2016 and HMCS Halifax in 2019.

The Halifax class is Canada's frigates which are very versatile.

During deployments we were able to support NATO in the Mediterranean Sea, and do major exercises with our allied nations.

4. What was your training like, both on board and on land?

Andrew Barber



Typex Mk22 cipher machine. (Photo from Jerry Proc via Bletchley Park and Wikipedia)

The training to become a Visual Communicator usually took around 7 to 8 months on land at the communication school in HMCS Cornwallis in Digby N.S. This encompassed many facets of visual communication such as;

- Using the morse code with signal lights.
- Semaphore with semaphore flags. The position of the arms spelled out words using the alphabet.
- Using Yardarm flags for signalling which consisted of flags with the letters of the alphabet, as well as special command pennants such as the "Turn" pennant etc.
- Operating the Typex coding machines for coding top secret messages.

e. Maintenance and repair of visual communication equipment.

We constantly trained using the duties above aboard ship under the watchful eye of a senior visual communicator such as a petty officer or a leading seaman. Any weaknesses were immediately identified and brought up to standard.

Steven Ardley

Initial training to become a Naval Communicator was done on the West Coast in Esquimalt, B.C, which is where I did my training. Now we teach the Qualification Level 3, in Halifax, N.S as well. This course is roughly a little over 3 months long and will train a new member at the rank of Sailor Third Class (S3) to perform basic tasks in the fleet.

Once that training is complete the member will get their first posting which usually will be an HMC Ship. While onboard the member is to complete a package known as their Qualification Level 4 (QL4).

The member will have roughly a year to complete this package which includes doing the practical side of the learning which was taught during QL3. Some of the common tasks are, learning how to draft basic military formatted messages, physically setting up any required net or circuit, and encoding/decoding tactical signals on the bridge.

5. How did you repair your equipment?

Andrew Barber

The signal lights were easily repaired by replacing the light bulbs, cleaning the glass lenses, and greasing or oiling the handles and gears for smoother use. The large signal lamps required the insertion of two 6" carbon rods as well as the aforementioned cleaning and greasing.



We also had to be expert in splicing the flag clips onto the rope halyards. We also occasionally had to crawl up and out onto the end of the yardarms to lubricate the pulleys.

This was usually done in harbour but needed to be done at sea from time to time.

Another function was to splice the signal flags onto a main wire for "dressing ship". This had to be done in a random sequence so as to not give the impression that a signal was being sent. Dress ship was usually done for special events such as the Queen's birthday or whenever high ranked politicians were coming aboard in foreign ports.

The Typex coding machine was quite durable and very seldom needed repair. However, we had to replace the rotors and tape machine occasionally. This was done by using the back-up equipment that we had aboard.

Steven Ardley

As a Naval Communicator we are considered the operators of the equipment we use. Most large faults we run across will require the Communication Technicians, which belong to the Combat Systems Engineering department. That being said, a lot of the time an experienced Nav Comm may be able to fix some issues before Comm Tech's are required.

As far as our communication equipment if we have deficiencies with our equipment in the CCR our communication technician section which is the Communication System Engineering department (CSE) will typically be the ones to rectify the issues. Some of the time if it is basic trouble shooting, we will initiate the fault finding and move it up to the appropriate authorities to help expedite the process.

6. What did you think about being in communication?

Andrew Barber



WWII Morse Code training

At first, I found it arduous and perplexing trying to memorize the morse code and the different flags etc. However, I was soon taught how to absorb all of this information by means of association. It then became a second nature to me and very spontaneous. Almost like breathing and talking.

Once I had become proficient in my trade, it was a joy and gave me a feeling of someone that was needed as part of the crew.

Steven Ardley

Being in the communication section in the Navy is great and a lot of fun. The reason for this is because it never gets old or stale. Every day you are required to do something new which not a lot of trades in the Navy can't say. One day you could be dealing with IT issues by logging into the ship's servers and troubleshooting, and the very next moment you could be told that there is a flag exercise about to happen and we have to prepare the flag deck.

As I mentioned earlier every means of communications happens through the Nav Comms and that doesn't exclude visual signals via flag or even Morse code on the rare occasion still.

7. What was the best and the worst of the job?

Andrew Barber

The best and worst is a twin edged sword. The best was being on the bridge and upper deck in nice weather as I plied my trade. The worst was the opposite when the weather was cold and rainy, snowy and in typhoon situations, and I had to keep a sharp eye out for any incoming signals.

There was also the constant pressure of being ready in an instant to communicate with other ships in the squadron. This was only exacerbated when we had to go to action stations or partake in a fire drill or man overboard drill.

My favourite task was working in the coding room. My least favourite was mess duties

where I had to pick up and dish out the meals as well as the clean up afterwards. There were normally two of us and we were usually assigned to do this one day a week.

Steven Ardley



HMCS Halifax antenna array and identification signal on flag hoist

One of my favorite parts of the job is the knowledge and training I get about IT and SATCOM.

I feel this will be very transferable moving forward in a technological world.

Hopefully when the time does come to retire, I will be able to find a job somewhere in one of those fields. I personally enjoy because I feel I am moving forward in life IT knowledge will be greatly useful, and will help with future employment post military career.

The job doesn't have a downside in my opinion; however, I will mention that it isn't for the faint of heart. As stated earlier it is a very busy job, especially when alongside in home port.

8. When and where did you do your courses?

Andrew Barber

I joined the Navy in September 1951 and finished basic training (boot school) by December of that year. I went home on leave and then started my communication training at HMCS Cornwallis in January 1952 when I returned.

I was drafted aboard HMCS Quebec in October 1952 which by that time she was a training ship. Shortly after being aboard, we sailed for NATO Exercises off Norway.

Steven Ardley

I started my Nav Comm training in Esquimalt B.C. in 2015 where I attended my QL3 training. After that I had my first posting to HMCS Iroquois which was in Halifax, N.S. I didn't stay there though as I was soon deployed on HMCS Charlottetown where I did my QL4 package training.

In 2017 I attended and completed my QL5A course which was held in CFB Halifax. Currently I am awaiting my QL5B course which is where we learn a lot about our IT and networking.

9. What do you think are the differences between your job and how it's done today?

Andrew Barber

The job as I knew it does not exist today. Very few members of today's communicators use visual signalling. They are lumped into one group and have the most modern and up to date electronic and social media equipment available. However, I do see signal lights on both sides of the modern-day ships which leads me to believe that they may still practice some sort of visual communications.

They also "dress ship" but this may not be handled by the communication's group as in the past.



Andy Barber demonstrates sending morse code on board HMCS HAIDA.

A few years ago, we wanted to welcome HMCS Quebec to Hamilton using the 10" signal lamp aboard HMCS Haida. Unfortunately, they arrived late and the Haida was closed when they came alongside.

I eventually met and asked the chief yeoman what would have happened, and he said aside from himself they would have all freaked out as they didn't know the morse code. I have since visited and participated in webinars and zoom meetings where visual communication is hardly mentioned if at all

Steven Ardley



Morse Code has recently been removed from part of the Naval Communicator job requirements. Up until very recent years it was part of our initial trades training, and on rare occasion we are on signal lamps on each bridge wing to do Morse code exercises by light with our allies. Most communications come by either voice or data via our satellite communications.

Dressing ship with flags is not part of our trade anymore, it now has fallen as a responsibility of the Boatswain trade which is in the Deck Department.

10. How did you do your job routine both ordinary and secure?

Andrew Barber

Visual signalling at that time was very regimented and important. As mentioned, we were well trained and could substitute for any of our other VS mates at any time.

We were sworn to secrecy and had to sign an official "Secrets Act" document as part of our trade. Any documentation that was confidential must be stored securely. This was especially true of our coding books. They were kept in a heavily weighted canvas bag for quick disposal should the ship sink.

Steven Ardley

Our IT is a vast majority of the job for a Naval Communicator now. A brand-new sailor S3 coming onboard is expected to perform small IT tasks right away, such as learning how to create user accounts, install printers and troubleshooting whenever a member on board is having any issues. As the member gets higher in ranks, they will perform much larger duties involved in IT such as maintain and provide services to all of the networks that lie onboard any HMC Ship.

Our basic networks are Unclassified (Ship-LAN, aka DWAN), and CSNI (Consolidated Secret Network Infrastructure) which is our classified side. Any other networks that may be installed dependant on the operation, such as NSWAN (NATO Secret) and many more. Our main focus while on watch would be to maintain SATCOM, ensure message handling is being done with appropriate timings, both incoming and outgoing, and helping users onboard with any IT issues.

Weighted bags are stored away in the communications control room and on the bridge in case of emergency. They are not the preferred way; however, they are a method of destruction.

11. In Army Signals there is a phrase, "The message must get through" often its shortened to "Through". Is there anything similar in Navy Signals?

Andrew Barber

I don't recall anything other than the word "Roger" or 'R' when receiving and sending a message.

We also used the term "Please confirm" for any very important messages.

Steven Ardley

I have never heard of a comms specific quote in that sense during my time, however a commonly used phrase in the Navy is "Never pass a fault". The way we interpret that in our Communication Control Center workspace is that we are not to lay blame on an issue, but to troubleshoot and rectify whatever our comms issue may be at that particular time.

Navy Communicators are essential multipliers to the effectiveness of our ships at sea. Our especial thanks for generously sharing their thoughts and experiences go to: Leading Seaman Andrew Barber retired Naval Visual Signaler RCN; and Master Sailor Steven Ardley, Naval Communicators Instructor at the Naval Fleet School (Atlantic) RCN.

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HMCS HAIDA is moored alongside HMCS STAR in Hamilton, Ontario. Parks Canada with The Friends of HMCS HAIDA care for HMCS HAIDA. Volunteers from the Friends of HMCS HAIDA and the Vintage Signals Team provide experiential presentations and displays on the history of Signals, Codes and Ciphers. If you would like to know more, please contact our Web Sites or email info@hmcshaida.com or vintagesignalsyeam@gmail.com