This is the Second Section of the manuscript "Radio Stations Common? Not This Kind" by Spurgeon G. Roscoe Radioman Special Royal Canadian Navy 1956-1961 Graduate Radio College of Canada, Toronto Graduate National Radio Institute, Washington First Class Certificate of Proficiency in Radio # 6-108 Coast Guard Radiotelegraph Operators Certificate # 054 Amateur Radio Station VE1BC

THE DUKE OF KENT'S SIGNAL STATIONS

Prince Edward, the Duke of Kent, fourth son of King George III, and father of Queen Victoria, certainly left his mark on Eastern Canada. The province of Prince Edward Island and the town of Kentville, Nova Scotia, (my birth-place and home town) are both named in his honour. We, in communications, remember the Duke of Kent mainly for his Signal Stations. He had been residing in Halifax since the spring of 1794, was in command of the garrison there and was appointed commander-in-chief of the forces in British North America in 1799. He was a virtual ball of energy and as soon as he was appointed commander-in-chief went about changing and improving the military installations around Halifax and throughout the area. The expense involved in carrying out his ambitions was to earn him disfavour from his father and the British government in general. But except for small sailing vessels running around the many miles of coast and the various footpaths across the surrounding country, his Signal Stations were the first means of communication from one point to another in this area.

The Duke of Kent wanted to run these visual signal stations from Halifax a distance of 130 miles to the historic town of Annapolis, with a branch line taking off across the Bay of Fundy to Saint John and on to Fredericton, New Brunswick. Exactly how far these stations progressed is not known. It is known that the line from Halifax to Annapolis was in operation in 1800. Several hills bear the name Telegraph Hill in New Brunswick, so it is assumed some of the stations were completed the full distance to Fredericton.



This is a drawing by Ronald Finnigan, Kamloops, British Columbia

The installation of these stations was a tremendous undertaking. When you consider there were no roads and nothing but manpower to carry the materials necessary through the dense woods, swamps, and so on, to construct each station and set it up for operation then leave a crew of ten to man same with their necessary equipment. Lack of manpower was the one thing that makes it highly unlikely that the line on the New Brunswick side of the Bay of Fundy was ever in service. The Army stationed in New Brunswick at that time would have had to terminate all other duties in order to keep these stations manned. The crossing of the Bay of Fundy was to take place using Isle Haute and this would mean a total break in communication due to the ever-present fog, especially during the summer months. It would appear that this magnificent undertaking lacked a good deal, mainly common sense.

If one could consider one of these stations, which were known as the Duke of Kent's Signal Stations, more important than another it would definitely be the station located on a hill named Camperdown overlooking the approaches to Halifax harbour. This hill is in the village of Portuguese Cove just inside Chebucto Head. It was given the name of Camperdown in honour of Admiral Duncan's famous victory over the Dutch in October 1797. The news of this victory could not have reached Halifax much before the New Year of 1798. This sea battle with the Dutch was just off the Dutch fishing village of Kamperduijn – or Camperdown, as anglicized by the Royal Navy. This Camperdown Signal Station was to remain in service until April 4th, 1926, when it was moved over to the Chebucto Head Lighthouse. It was to return again to Camperdown in 1935 and remained there until it eventually closed in 1953.

These first signal stations consisted of a barrack room with a signal observation platform mounted on the roof. They were constructed on hills in such a way that they were visible from one station to another. It took five people, a Director and four men, to operate a signal at a station. Neither the Director nor any of the other four signalmen knew the contents of the messages they were relaying along these lines of stations. The Director was allowed to know the meaning of five signals only, which translated as follows:

- 1 I am going to use the Alphabet.
- 2 I have finished my present communications.
- 3 I cannot take or repeat your signals.
- 4 You have repeated wrong. I will therefore make my signal over again.
- 5 Annuls the meaning of my last signal.

Although these stations were constructed with the idea of being about twenty miles from each other, in actual practice the majority had to be around seven miles apart, because of the low terrain and poor visibility involved from one to another. At that they must have been put out of commission a good deal of the time because of the weather prevalent in this area.



This is the Duke of Kent's Signal Station, Camperdown, as it looked in 1922.

This Camperdown station became important because it was capable of communicating with ships located in the approaches to Halifax. This not only gave the citizens of the Halifax area warning of ships approaching, but now that the station handled actual messages, any message imaginable could be passed to or from these ships. Passengers and crews on ships years ago, because of the deplorable living conditions found in their ships were quite susceptible to illness of various kinds and descriptions. If a vessel approached with sickness on board this could be made known, thereby protecting the city somewhat. Requests for a pilot to guide the vessel into the harbour would be another of the important messages handled. Although the practice was for all pilots to proceed towards an approaching vessel, the one to first reach the vessel was normally the one to get the job of piloting the vessel into Halifax. This station played an important part in first alerting these pilots of the approach of an apparent customer.

After the Duke of Kent was recalled to England and then sent on to command the military interests at Gibraltar, these stations in Nova Scotia remained for a time under the orders that he left. But there is little known of the activity connected with these stations and it appears as though, because of the high cost of operation and maintenance, they slowly disappeared with little or nothing on record after 1802. Actually very few of the original sites of these stations are known. They were a military project and possibly some of the old British military artifacts might reveal some detail on them.

Iris V. Shea, Historian Mainland South Heritage Society wrote that there were four soldiers stationed at the Camperdown site in 1804. She also states there were four soldiers stationed on Sambro Island in 1804. John Howe recorded this detail in 1804. John Howe was the father of Joseph Howe a journalist and politician in the Nova Scotia government of his day. Iris wrote this detail in Discovering Our Past, page 4, Chebucto News, Vol. 6, No. 10, January 2005.

The Camperdown station is our main interest and over the years it has played a part in much of the history of marine communications and in the navigational aids designed to assist ships in their day-to-day operations. Naturally it has been involved in all the marine incidents for this Halifax area.

When the Signal Book for Camperdown in 1802 was in use, it consisted of two parts. The first or foremost part was a book for general use and was titled Plan for Naval and Military Signals. It consisted of a number of general instructions, included an alphabet, and numerical code, and showed the proper procedure for making these signals from a ship. These signals were made by hoisting any objects which could be best seen, such as flags, wicker balls or baskets, lanterns, large pieces of wood, and so forth. The positioning of each of these objects was given a number and meant that number two, six, and eight, for instance, were being flown and not two hundred sixty-eight, eight hundred sixty-two, or any other such meaning.

The most interesting aspect of this, for us today, is that the ship had to use the signal system in use at the coast station. Whereas there was ample room to maneuver ashore and one would assume the coastal station would merely communicate with the ship via the Ship's Code, Home Popham's Code at this time. Not so, and this must have made it most inconvenient for the ship. It is understandable that when these telegraphs, especially the one at Camperdown, were placed in service and the benefit of this service was realized, that it was not long before these signal stations opened at other ports around the area. For example the station placed in service at much the same time at St. John's, Newfoundland used this same type of station, but the actual workings were different. The reason for this is the second Signal Book needed to operate these stations. These second books or parts pertained to the general area for the telegraphs in use. There was one book for the St. John's area, one for the Gibraltar area, and so on around the world for each and every telegraph owned and operated by the vast British military organization. Therefore Camperdown's Second Signal Book, titled "Signal Orders and Instructions", was a small book complete with its leather carrying pouch, but was only for the Halifax area or the communication circuit containing the Camperdown Station. Whether or not the telegraphs running out to Annapolis were in service at this time is not known. This Camperdown book does not provide this information.

The first known code to signify the Camperdown station was 43, and today these codes are known as call signs. It is interesting to note the various stations, their call codes making-up this communications circuit and they appear here as recorded in the Signal Book:

- 31 Head Quarters
- 32 Government House
- 33 The Lodge
- 34 Fort Sackville
- 35 The Dock Yard
- 36 The Black Rock Battery
- 37 The Narrows
- 38 Dartmouth
- 39 The Eastern Passage
- 40 Fort Clarence
- 41 M'Nab's Island

- 42 Mauger's Beach
- 43 Camperdown
- 44 Catch Harbour
- 45 The Light-House
- 46 Sambro Harbour
- 47 Prospect Harbour
- 48 Margaret's Bay
- 49 Herring Cove
- 50 York Tower
- 51 Kavanaugh's Island
- 52 North West Arm
- 53 The Prince's Tower
- 54 Point Pleasant
- 55 Fort Ogilivie
- 56 Fort Massey
- 57 The Citadel
- 58 The Grand Battery
- 59 Fort Charlotte
- 60 The King's Wharf
- 61 The Ordinance Wharf
- 62 Lumber Yard

This makes a total of 31 stations within this communications circuit. With a minimum staff of ten per station this circuit would take 300 men to operate. There are no stations other than above listed. There are a number of codes meaning various places a ship would be bound to or from. For example: 78 Philadelphia, 68 Scotland, and so on. The only towns to the western end of the province of Nova Scotia listed are 73 Annapolis, and 74 Windsor. There is no mention of Cornwallis or Horton districts and therefore no way of addressing either of these areas. You could use code 75 some part of the Bay of Fundy not described by signal, or 88 A Nova Scotia Harbour to the Westward of Halifax. Or you could use plain language that involved sending a number of numbers to make up each letter of the alphabet.

Therefore both those sending and receiving a signal had to use the signal book, and since none of those involved in transmitting these signals knew the meaning of the signals, they merely copied the various signals and gave them to a higher authority. Likewise, they merely signaled various signals in transmitting a message. In other words, there was no way one signalman could chat with a "Good-Buddy" down the line.





The transmission of the alphabet which of course involved the transmission of various numbered positions of the objects as flown, were as follows:

A - 2, 3, 0 B - 1, 4, 0 C - 2, 4, 0 D -E - 1, 3 F - 1, 4 G - 1, 5 H - 2 I -J - there was no J in the alphabet in use. They treated the little used J as the letter I. K - 2, 4 L - 2, 5 M - 2, 0 N - 3 O - 3, 5 P - 3, 0 Q - 4 R - 4, 5 S - 4, 0 T - 2, 3 $\begin{array}{c} U-1,\,3,\,5\\ V-2,\,3,\,5\\ W-1,\,4,\,5\\ X-2,\,4,\,5\\ Y-1,\,3,\,0\\ Z-\end{array}$

There are 24 letters for the alphabet and that is as near as I can make them out. It is hand written and I am not sure the ones I have listed are correct.

The Numerary Signals are printed and much easier to read. They are:

1 – 1 2 - 23 - 34 - 45 - 56-6 7 - 78 - 89 – 9 10 - 011 – 1, 3 12-1,4 13-1,5 14 - 1, 015 - 2, 316 - 2, 417 – 2, 5 18 - 2, 019 – 3, 5 20 - 3, 021 - 4, 522 - 4, 023 - 1, 3, 524 - 1, 4, 525 - 1, 3, 026 - 1, 4, 027 - 2, 3, 528 - 2, 4529 - 2, 3, 030-2, 4, 031 - 1, 2 32-1, 2, 3 33-1, 2, 4 34 - 1, 2, 535 - 1, 2, 036 - 3, 437 - 1, 3, 438 - 2, 3, 439-3, 4, 5 40 - 3, 4, 041 – 5, 1 42 - 1, 5, 043 - 2, 5, 044 - 3, 5, 0 45 - 4, 5, 046-6,3 47 - 6, 448-6,5 49 - 6, 050-6, 3, 5 51-6, 4, 5 52-6, 3, 0 53 - 6, 4, 054 - 1, 7 55 – 2, 7 56-7,5 57 - 7, 0 58-1, 7, 5 59-2,7,5 60 - 1, 7, 061 - 2, 7, 062 – 1, 8 63 - 2, 864 - 3, 865 - 4, 866 - 1, 3, 867 – 2, 3, 8 68-1, 4, 8 69-2, 4, 870-1,9 71 - 2, 972 – 3, 9 73 – 4, 9 74 – 9, 5 75 – 9, 0 76-1, 3, 9 77-1, 4, 9 78-2, 3, 9 79 - 2, 4, 980 - 1, 9, 582-2, 9, 5 83 - 2, 9, 084 – 9, 3, 5 85-9,4,5 86-9, 3, 0 87 - 9, 4, 088-1, 2, 3, 5 89-2, 4, 5 90-1, 2, 3, 0 91 - 1, 2, 4, 092 - 1, 3, 4, 5 93-2, 3, 4, 5 94 - 1, 3, 4, 095 – 2, 3, 0 96-1, 3, 5, 097-2, 3, 5, 0 98-1, 4, 5, 099-2, 4, 5, 0 "A Flag at the Mast-head adds 100, A Flag half staff adds 200, A Flag at the East Yard Arm adds 300, & a Flag at the West Yard Arm adds 400 to the Numerary Signal hoisted with them."

The code 95 is interesting. They must have left the third digit blank in the hoist or if it were a misprint in the Signal Book someone should have hand corrected the entry.

Code 499 must have been felt the limit, at least there is no provision to go higher.

In the Signal Book "Plan for Naval and Military Signals" one finds the exact same system in use except the codes are different and are as follow:

A - 1B – 2 C – 3 D-4E – 5 F - 1.3G – 1, 4 H – 1, 5 I – 1, 6 J – there is no letter J as described above. K - 2, 3L - 2, 4M - 2, 5N - 2, 6O - 3, 5P - 3, 6Q - 4, 5R – 4, 6 S - 1, 3, 5T - 1, 4, 5U – 1, 3, 6 V - 1, 4, 6W - 2, 3, 5X - 2, 4, 5Y - 2, 3, 6Z - 2, 4, 6

Code 6 alone divided one word from another. Note the positioning of the letters U and V in the alphabet are as we use them today.

The Numerary Table is also different and is as follows:

 $\begin{array}{c} 1 - 1 \\ 2 - 2 \\ 3 - 3 \\ 4 - 4 \\ 5 - 5 \\ 6 - 6 \\ 7 - 7 \\ 8 - 8 \\ 9 - 9 \\ 10 - 0 \\ 11 - 1, 2 \\ 12 - 1, 3 \\ 13 - 1, 4 \end{array}$

$\begin{array}{r} 14 - \\ 15 - \\ 16 - \\ 17 - \\ 19 - \\ 20 - \\ 21 - \\ 22 - \\ 23 - \\ 23 - \\ 25 - \\ 26 - \\ 27 - \\ 26 - \\ 27 - \\ 30 - \\ 30 - \\ 31 - \\ 32 - \\ 33 - \\ 33 - \\ 34 - \\ 35 - \\ 36 - \\ 37 - \\ 38 - \\ 39 - \\ 40 - \\ 41 - \\ 42 - \end{array}$	1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 3, 4, 4, 4, 4, 5, 7, 7, 7, 8, 8, 0,	56890345689045690569063456565
12		6
43 – 44 –	0, 1.	6 2.3
44 – 45 – 46 –	0, 1.	6 2,3 2,4 2,5
44 - 45 - 46 - 47 -	0, 1, 1, 1, 1, 1,	6 2,3 2,4 2,5 2,6 3,4
44 - 45 - 46 - 47 - 48 - 49 -	0, 1, 1, 1, 1, 1, 1,	6 2,3 2,4 2,5 2,6 3,4 3,5
44 - 45 - 46 - 47 - 48 - 49 - 50 -	0, 1, 1, 1, 1, 1, 1, 1, 1,	6 2,3 2,4 2,5 2,6 3,4 3,5 4,5
44 - 45 - 46 - 47 - 48 - 49 -	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6 \\ 2, 3 \\ 2, 4 \\ 2, 5 \\ 2, 6 \\ 3, 4 \\ 3, 5 \\ 4, 5 \\ 3, 6 \end{array}$
44 45 46 47 48 49 50 51 52 53	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6 \\ 2, 3 \\ 2, 4 \\ 2, 5 \\ 2, 6 \\ 3, 4 \\ 3, 5 \\ 4, 5 \\ 3, 6 \\ 4, 6 \\ 5, 6 \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 49 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 54 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 54 - \\ 55 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 53 - \\ 55 - \\ 56 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9 \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 49 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 54 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 54 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 53 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 49 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 62 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ 3,4\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 49 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 62 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 54 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 62 - \\ 63 - \\ 64 - \\ 65 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,6\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 63 - \\ 64 - \\ 65 - \\ 66 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 62 - \\ 63 - \\ 66 - \\ 66 - \\ 67 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 8,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 3,4\\ 5,6\\ 3,4\\ 5,6\\ 3,4\\ 5,6\\ 1,6\\ 5,6\\ \end{array}$
$\begin{array}{r} 44 - \\ 45 - \\ 46 - \\ 47 - \\ 48 - \\ 50 - \\ 51 - \\ 52 - \\ 53 - \\ 55 - \\ 55 - \\ 56 - \\ 57 - \\ 58 - \\ 59 - \\ 60 - \\ 61 - \\ 63 - \\ 64 - \\ 65 - \\ 66 - \end{array}$	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	$\begin{array}{c} 6\\ 2,3\\ 2,4\\ 2,5\\ 2,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ 5,6\\ 8,5\\ 3,9\\ 4,9\\ 3,0\\ 4,0\\ 0,5\\ 0,6\\ 3,4\\ 3,5\\ 4,5\\ 3,6\\ 4,6\\ \end{array}$

70 - 2, 3, 971 - 2, 4, 972 - 2, 3, 073 - 2, 4, 074 - 2, 0, 575 - 2, 0, 676 - 3, 4, 577 - 3, 4, 678-3, 5, 6 79 - 4, 5, 680 - 7, 3, 581 - 7, 4, 582 - 7, 3, 683 - 7, 4, 684 - 0, 3, 585 - 0, 4, 586 - 0, 3, 687 - 0, 4, 688 - 1, 2, 3, 589 - 1, 2, 4, 590 - 1, 2, 3, 691 - 1, 2, 4, 692 - 1, 3, 4, 593 - 1, 3, 4, 694 - 1.3.5.695 - 1, 4, 5, 696 - 2, 3, 4, 597 - 2, 4, 698 - 2, 3, 5, 699 - 2, 4, 5, 6

Note, 97 missing a digit or has a blank spot in its hoist. Rather interesting but I have no idea the reason behind the missing digit in the 95 Camperdown code and this 97 code.

As can be seen it took a lot of time to do any transmitting. How the Admiralty (British Navy) ever considered this a spelling code is beyond me. The simple fact that you could spell something on it must have been their only line of thinking, because none of those actually operating the equipment knew how to spell anything on it. It would take several hours for a message, especially one of any length, to go any distance. But, and I quote the Signal Book: "To save time in using the alphabet, a ball hoisted where best seen, will be a sufficient acknowledgement for one letter, and lowered in answer to a second". So much for speed. A flag was used for the hundreds and it denoted 100 when flown from the masthead or top of the mast. 200 was just above the yard or crosspiece. 300 was when flown from the tip of the east yardarm. 400 was when flown from the tip of the west yardarm. I do believe whoever created the book felt 499 was the limit because there was no arrangement made for 500 and above in either signal system.

Your station is within the stations listed with Camperdown, and you have lost your boat and an adjacent station wants to tell you all about it, mainly "Your Boat cannot Return" which is code 219. He, the adjacent station, flies his 200 flag, a large flag of any type which can be clearly seen from just above the yard or crosspiece, along with code three and code five flag, ball, basket or whatever, to signal the figures for 19 per the Numary table. All three placed in position at the same time. Therefore, you then knew your boat could not return. All this of course takes three men to hoist the three placed characters the Army seems to operate best, his orders to these signalmen carried nearly as far as the adjacent station. This signal, of course, tells you nothing more than "Your Boat cannot Return.". If you want to know why or if the originator of this signal wants to tell you why, you or he has to revert to plain language – there being no other code appropriate.

According to the multitude of instructions given in this Signal Book, the mast was to be 50 feet high and the topmast 40 feet, which would make it a total of 90 feet above ground. The yard was to be 40 feet, so it would make for an imposing piece of ingenuity to say the least. It would also have to be well anchored or the high winds quite common to the area would soon put it out of commission, with pieces well scattered or broken.

During this time, 1802, my Great Grandparents, including Great (four times) Grandfather Josiah Rusco, who arrived from Connecticut, United States, about 1776, would be going about their day to day routine in the Cornwallis district. These people must have realized a good deal of amusement, and no doubt could tell some interesting stories from the one or two of those stations within their visual range. A message from Halifax to Annapolis in six hours is really quite fast. There was the case of Annapolis being advised in only fifteen minutes of the arrival of the Duke of Kent in Halifax but this signal would have been prearranged in order for the message to be transmitted in such a short time.

Great (eight times) Grandfather William Rusco was from Essex, England. He was a follower of Rev. Thomas Hooker who arrived in Boston in September 1633 in the GRIFFIN. William Rusco and family came over in the INCREASE in 1635. This listing for William Rusco and family is dated April 13, 1635. The vessel's master was Robert E. Lea. On March 31st, 1636, Rev. Hooker and his entire congregation, including William Rusco and family, left what came to be Harvard College Yard and walked some 90 miles through the woods and settled in what has become the city of Hartford, Connecticut. They drove 160 cattle and fed on their milk along the way. William became Surveyor of Highways in 1641 and the jailer in 1649-50. William moved to Jamaica, New York.

Our forefathers spelled our name with many variations because of the inefficiency mentioned, but it became Roscoe with my Great (three times) Grandfather James who resided at Halls Harbour, Nova Scotia. He lived from 1786 until 1860. The majority of my forefathers were farmers like so many years ago. Those before Josiah settled in Connecticut and New York and those after in Kings County, Nova Scotia.

Great Grandfather Spicer and family, living in the village of Spencer's Island, which is a village on the mainland of Nova Scotia facing Spencer's Island, would not have been in visual range of the station on Isle Haute. It is unlikely that they could see one of these stations from their home, but they, like all the others of that generation would have known of them. There is little that can be said or written about shipping in Nova Scotia without mentioning their descendants, who took to the water like ducks. Not only did they build ships but they sailed them all over the world and at least one of these ships was named for them. Therefore many of the most interesting incidents connected with these early sailing ships, involved a Spicer in one way or another. These descendants likely acquired this ambition naturally. Great (three times) Grandfather Robert Spicer had been a coachman to the father of the Lady Priscilla Cholmondelay, a Welsh Lady. While he was employed in this capacity, he and Lady Priscilla developed an affair of the heart that ended in her eloping with him. This, quite understandably, considering the date, time, and place, created quite a commotion to the point that Lady Cholmondelay was disinherited, meaning she had no dowry for this marriage and was literally kicked out of her family. It is believed that they took a ship from Plymouth Sound for America, but be that as it was, they were found in America and remained loyal to the British side during the American Revolution.

After the American Revolution or war of Independence, Colonel Elisha Lawrence petitioned for a grant of land for a number of discharged soldiers and their dependants of whom Lieutenant Robert Spicer was one. He came to Halifax partly disabled and he and the small children were carried ashore by two black men who came with them. From there he and his family, Priscilla and three children, went on to Spencer's Island claiming his grant of 500 acres that was dated 1785. Like so many of these people which were known as "The Loyalists", they started out in a log cabin; this one overlooked beautiful Greville Bay.

Soldiers returning to England, after the War of Independence, told Priscilla's parents that their daughter had married a brave man who had been awarded his commission in the field, and that she and her family were living in their log cabin. Priscilla's Mother stated that in that case, she must now have the dowry denied her when she eloped with Robert. A small sailing vessel was sent over with this dowry, which contained an

assortment of furniture, materials, and gold. A frame house was then built to house the family and these articles. They did not want for anything after that and Robert lived until 1810 and Priscilla until 1820. Priscilla's Mother had also sent along Daffodil bulbs and Peony root, with this dowry, which became spread hither and yon around the area, because each new bride in the family took some for her own personal flower bed.

Getting back to the Duke of Kent's Signal Stations, it was possible to operate these stations at night, as mentioned, by the use of lanterns in place of the wicker balls, flags, pennants, and such. Some stations remained open around the clock, while others operated only during normal working hours. The long hours which made up a normal day at that time, meant these day stations would be open from practically sunrise to sunset especially during the shorter hours of daylight in the winter months. A great deal of emphasis was placed on punishment then. Apparently the main way of controlling the working class of citizen was to threaten him with a flogging or worse, hanging, if he did not produce the way the upper class expected. The Duke of Kent often sent orders over the telegraph to flog defaulters. Many of the codes in the Camperdown Signal Book cover this subject.

The efficiency of a telegraph was controlled via the director. It took four men and a director to operate these stations because all flags, balls, and whatever was being used, had to be hoisted and lowered at the same time. As written instructions within this Signal Book state:

"The Director has additional pay, Viz 1/ per day where there is both day and night duty and 9 for day duty only) which is forfieted for inaccuracy, or for not answering a Signal within five minutes from the time it is hoisted."

It would have required a minimum of nine stations between Halifax and Windsor. Each was permitted five minutes to answer, so it could take as long as forty-five minutes to answer the one signal along the route. Therefore the signal advising of the Duke of Kent's arrival in Halifax, which made the circuit to Annapolis in fifteen minutes, was very good indeed.

This 1802 Signal Book, containing the signals for the communications circuit involving Camperdown, gives us some insight into the first Thrum Cap Station installed in 1762. This insight, written as it appears in the Signal Book, is in the form of "Description Signals at the Mast Head of the Halifax Telegrafe". This is the remnant of this first station and is as follows:

A Union, A Flag Ship. Ditto with Red Pendant over, A two decker. Ditto with Blue Pendant over, A frigate. Ditto with White Pendant over, A Small armed Vessel. A Red Flag pierced White, A Packet. A Blue Pendant, A Ship. A Red Pendant, A brig. A White Pendant, A topsail sloop, or schooner. A Red Flag, A neutral armed vessel. Ditto with Blue Pendant under, A neutral ship. Ditto with Red Pendant under, A neutral brig. Ditto with White Pendant under, A neutral sloop or schooner. A French Jack, An enemy's fleet. A Blue Pendant under French Pendant, An Enemy's ship. A Red Pendant under ditto, An Enemy's brig. A White Pendant under ditto, An Enemy's sloop or schooner. A Union Jack over either of the Enemy's signals, means that the vessels are in our possession. When a vessel requires assistance, a ball will be hoisted at the mast-head with the descriptive colours.

N.B The only mixed colours used to describe Vessels are a Red Pierced White, a French Jack, and French Pendant; therefore when any other mixed colours are flying on the Citadel Hill, the signals have a private meaning, and are not for vessels.

Explanation of Signals made on the Ensign Staff on Citadel Hill:-

The Royal Standard or Large Union, for Rejoicing Days-during Salutes-and when Kings' Ships leave the Harbour.

A Red Flag, When a vessel comes from Europe. A White Flag, When a vessel comes from Newfoundland. A Blue Flag, When a vessel comes from the West-Indies. A Red Pendant, When a vessel comes from the States. A Blue Pendant, When a vessel comes from some part of the world not mentioned above. A White Pendant over either of the above, means that the vessel coming in, has left port, at the same time or before a vessel already arrived.

SIGNALS for Desertion on the Ensign Staff:

A Ball, For each Man of the Royal Nova Scotia Regt. Ditto with a Flag over, For Men of Engineers or Artillery. Ditto with a Flag under, For Men of Royal Fusilier Regt. Ditto with Pendant over, For Men of Newfoundland Regt. Ditto with Pendant under, For Men of Surry Ranger Regt.

SIGNALS for Desertion by Night:

Four Lights under each other, For Men of Nova Scotia Regt. Ditto with one over, For Men of the Surry Ranger Regt. Ditto with one to the Eastward, For Men of Engineers or Artillery. Ditto with one to the Westward, For Men of the Royal Fusilier Regt. (note) As the Night Signal for Desertion does not express Numbers, it will be lowered and hoisted for each man, after it has been answered.

This is the detail of 1802. I have been unable to locate this detail for 1762. Possibly there were changes in exactly forty years of service but the overall operation would have varied little from the above.

THE SHANNON AND THE CHESAPEAKE

The United States Navy has retained a number of the statements made by their famous and former commanders as part of their tradition. These are seen in print often, especially in recruiting advertisements. One of these statements, "Don't give up the ship", was made by Captain James Lawrence of the USS CHESAPEAKE. He made this during a battle on June 1st, 1813, fought off Boston, between the CHESAPEAKE and the HMS SHANNON. The SHANNON defeated the CHESAPEAKE in this duel and then escorted the CHESAPEAKE back to Halifax. They entered Halifax on Sunday, June 6th, 1813, another of the many famous incidents to have taken place in this area. Captain Lawrence died from wounds received in this battle while CHESAPEAKE was in sight of the Lighthouse on Sambro Island. This involved the newly formed United States of America and the former mother country of Great Britain during the war of 1812. It was one of the few naval engagements during this brief war. Anyone interested in the detail involved in this duel could find nothing lacking in the excellent book "The SHANNON and the CHESAPEAKE" by Admiral H. F. Pullen.

According to an entry in her logbook the SHANNON exchanged signals with a shore station while awaiting the fog to lift off the approaches to Halifax harbour. It is believed that this brief communication was with station 45 The Lighthouse, which was the lighthouse on Sambro Island. Because of the fog station 43 Camperdown is not known to have communicated with SHANNON. Station 57, The Citadel has been

credited with advising Halifax town of the approach of SHANNON and CHESAPEAKE, and this would have involved one or more of the many stations surrounding the area, but not likely old 43 – Camperdown.