





Prince Rupert Harbour Defences

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-  Anti-Submarine Barrier

Prince Rupert History

Prince Rupert was incorporated in 1910 and developed after 1914 as the terminus of the Grand Trunk Pacific Railway (later the Canadian National Railway). The principal attraction was a large deep water harbour and a shorter transit to Asiatic ports. Mr. Charles M. Hays, President of the railway, led the incorporation and early development of the town. Unfortunately he had gone to the UK to raise investment capital, but was lost on the return trip when the Titanic, on which he was travelling, sank. The town did continue to develop, albeit more slowly, until the outbreak of World War Two.

When the war broke out, there was little in the way of harbour defences in place as the threat was seen to be primarily on the Atlantic coast. However, as relations with Japan deteriorated increased attention was paid to the needs of the Pacific coast, including Prince Rupert. After Pearl Harbour, and in conjunction with the US military, Prince Rupert was activated as a sub-port of the Seattle Port of Embarkation.

This led to a large influx of American military and civilian staff to expand the capacity of the port and assist in its operations. The sub-port was built to handle a capacity of 50,000 cubic tonnes of freight per month. Dock space was doubled, a US warehouse with more than 400,000 square feet of storage was erected as was a US HQ/administration building with 43,776 square feet of floor space. Numerous docks, marine repair shops, and cargo sheds were also installed. Accommodation and support services were built on Acropolis Hill for the approximately 3,500 US service members and civilians.



US Army Overseas Stock Terminal (OSST)



US Army HQ Building



US Army Camp Acropolis Hill



Railyard, with Ocean Dock, 2 Freighters,
Warehouse, OSST

In nearby Port Edward, a staging area was developed to house and equip transiting US Army personnel with the facilities required by, up to, a U.S. Army Corps. Port Edward also contained a major ammunition and bomb storage facility as these items were trans-shipped to Alaska. It is estimated that 73,000 people passed through Prince Rupert and Port Edward between 1942 and 1945, and that 100,000 tonnes of high-explosive ammunition were transshipped to Alaska through Port Edward.



Port Edward Dock



Port Edward moving Ammunition



US Army Hospital Port Edward

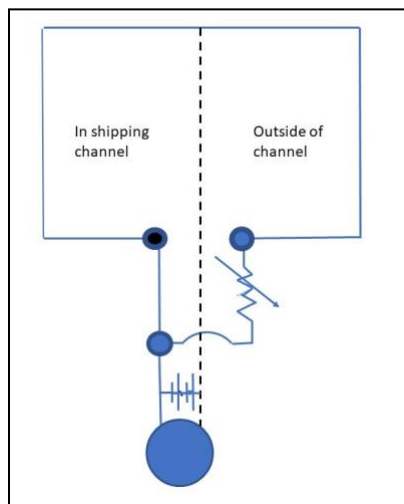
Harbour Defences: Navy

In September 1939 all Canadian seaports came under the authority of the RCN and Public Traffic Regulations came into effect. Accordingly, the Naval Officer in Charge (NOIC) of each port controlled all shipping and all ship movements within the harbour. The port war signal station (PWSS) was on East Kinahan Island on the Southern approaches to Prince Rupert.

Unfortunately, the resources available on the west coast were limited as the Battle of the Atlantic took up most of the available and more capable naval units. As part of pre-war planning it had been laid down that the port of Prince Rupert should be developed to support eighteen warships however, there was fierce competition for labour resources with the American building program.

Until early 1943 there were few capable ships for conducting off shore patrols, hence a heavy reliance was placed on the Fishermen's Reserve. In 1943 an average of 3 Bangor class minesweepers were available for coastal patrols on a continuing basis.

As part of the harbour defences the navy operated 3 *Indicator Loop* vessel detection systems. The monitoring station was located on Ridley Island and was staffed by 43 sailors. The operation of this system is explained below.



Each of these loops would be laid across a shipping channel (actual locations unknown) and when a larger steel hulled vessel (including submarines) passed over the loop it would create a magnetic field. This would be detected at the Monitoring Station. It would be possible to detect the direction of travel by the vessel by noting which loop was triggered first.

It is likely that at least one loop would be in the main channel into Prince Rupert, but south of the ASW Barrier at Casey Point, and another would be south of Ridley Island, near the entrance to Port Edward. The third Loop was laid within the harbour.

The principal naval facilities are shown in black on the adjacent sketch. It appears that they were concentrated off of First Avenue between McBride and Second Street. The solid black facilities were all used by the navy.

HMCS Chatham, a naval reserve division, was established at 51 McBride St. An Operational HQ was located in the Fisheries Experimental Station linked with a naval communications centre at Montreal Circle.



A naval fuel depot as completed in the autumn of 1944 had a capacity of 93,408 barrels. Situated at Morse Creek, just west of the city, the depot comprised three tanks set in the ground, but uncovered, together with the necessary pumping and heating equipment. The oil-fuel lines were laid on the large dock of the Dominion Government's grain elevator. This remained until 1970 when the fuel was removed by the navy and the tanks purchased by the city.

There were 8 Bangor class minesweepers available for patrol duties on the west coast. They operated out of Esquimalt and Prince Rupert. Those available for the northern patrol duties at Prince Rupert were:

| Date | Jan 43 | Jul 43 | Jan 44 | Jul 44 | Jan 45 | Jul 45 |
|--------------|--------|--------|--------|--------|--------|--------|
| Minesweepers | 5 | 3 | 2 | 2 | 3 | 3 |



Bangor Class Minesweeper



Fishermen's Reserve Boat

The Fishermen's Reserve job was to patrol Canada's Pacific coast. There were none better than the fishermen with their first-hand knowledge of the coast and its tricky waters. Their small craft were capable of penetrating the small bays and inlets along the B.C. coast. When war was declared, the Reserve was immediately called up for their war duties. They were armed with depth charges and light anti-aircraft guns, and many were also equipped for inshore minesweeping. As the war entered its fourth year, the Reserve boasted 50 vessels with a complement of almost 1,000 officers and men.

The hurried departure of Japanese forces from the Aleutian Islands in the summer of 1943, the completion of United States projects in Alaska, and the steady westward movement of the Pacific battle-zone, greatly diminished the strategic importance of Prince Rupert, hence the decreasing demand on maritime resources.

Army

As noted above, Prince Rupert was not a priority for coastal defence weapons. There was also a shortage of suitable weapons to be had, both from within the Empire and from the US. However, plans were made as to where the weapons would be located when available and some work undertaken to prepare the sites. The major site was to be established at Barrett Point and the main harbour entrance.

Army units assigned to Prince Rupert:

- 17th (North British Columbia) Coast Regiment, RCA
- 29th Anti-Aircraft Regiment, RCA
- 34th Anti-Aircraft Regiment, RCA (at Annette Island, Alaska)
- One battery of the 22nd Field Regiment, RCA
- The Midland Regiment (Northumberland and Durham)
- The Winnipeg Grenadiers
- Two companies of the King's Own Rifles of Canada

These may have changed over time but most of these units were located in Prince Rupert for the duration. The unit at Annette Island was there for air defence with two RCAF squadrons operating from that airfield.

Barrett Point Battery

Barrett Point Battery was a Canadian reinforced concrete 6" inch coastal gun battery. It was initially armed with **three** 6-inch Mk 12 naval guns on temporary mountings. Installation of these guns, begun in 1938, proved a difficult task however, before the end of September 1939, proof rounds had been successfully fired. These guns were replaced by **three** 6-inch MK24 guns in the spring of 1944. A 6-pounder Hotchkiss gun was also here, to counter small and fast vessels, as well as **two** 40mm Bofors AA guns and **two** searchlight positions. The guns of this battery and the others were controlled by a director station behind and above the centre gun position.

Ammunition was stored in an underground magazine accessed by an electrical hoist for **each** gun. Behind the main battery protected by the hill was a hardened generator room and other support buildings. Two searchlight towers fronted the battery along the shoreline. Bearings from these lights would be fed to the director station for fire control.

The guns were manned by the Northern British Columbia heavy battery, Royal Canadian Artillery, later designated the 102nd Coast Battery of the 17th North British Columbia Coast Regiment.



6 inch Gun (x3)



40 mm Anti-aircraft Gun (x2)

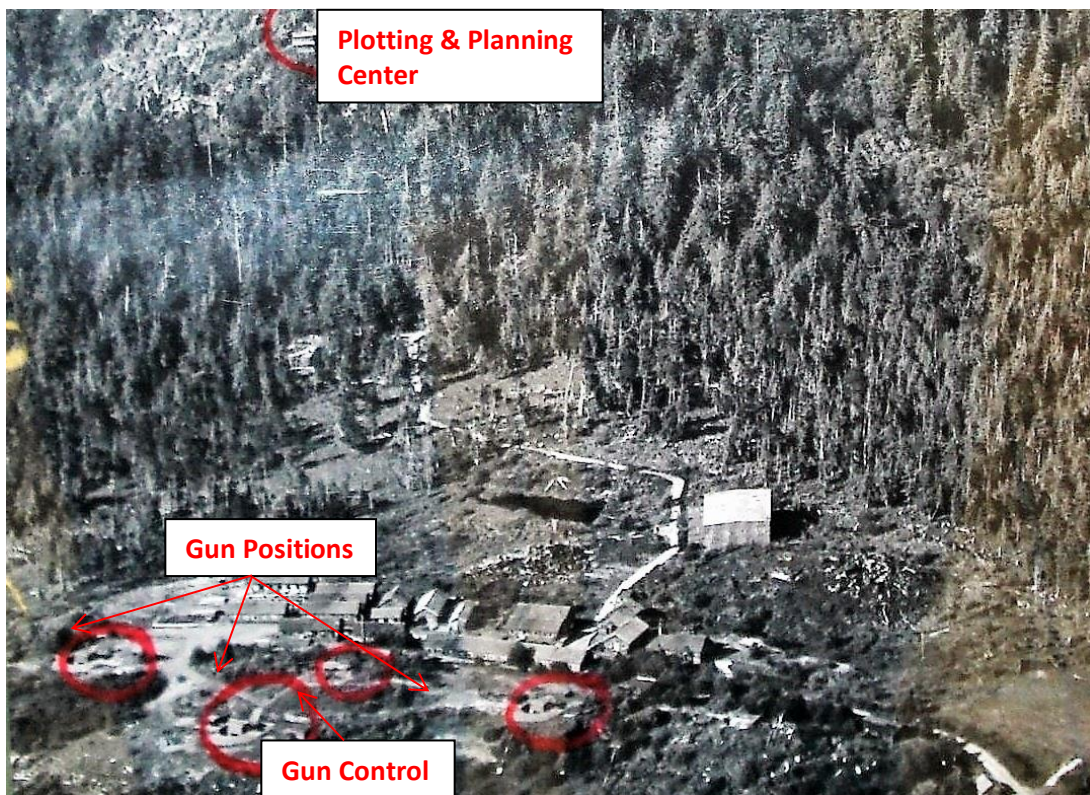


6 Pound Hotchkiss



Searchlight Bunker (x2)

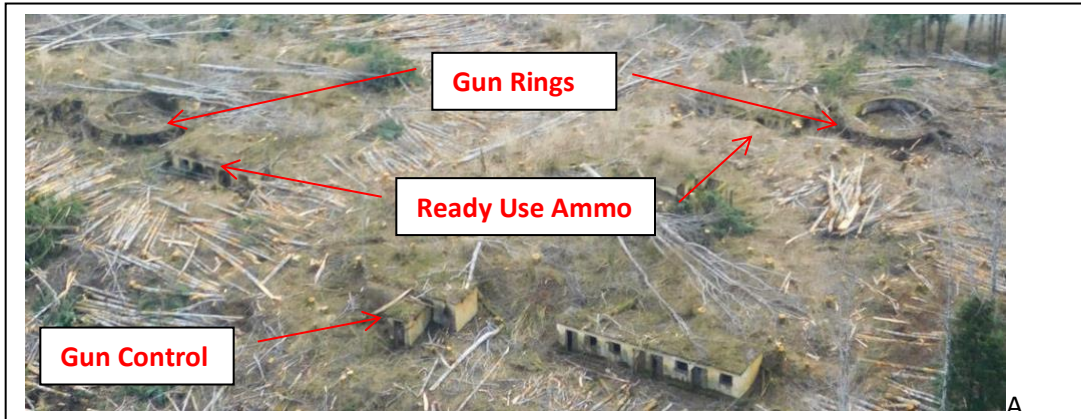
As noted, the Hotchkiss gun (57 mm) was there to prevent small and fast vessels from getting past the battery. This was the largest and most heavily equipped of the harbour defence batteries. The photo below was taken during the war and shows the general layout of the site.



Once the war was over the weapons were returned to storage, the temporary buildings removed and the concrete structures and area left fallow. The gunnery area now looks like the photo:

Frederick Point Battery

Frederick Point Battery was on the Digby Island, across from Barrett Battery, on the west side of the channel leading to the main port harbour area. The battery included Two 12-pounder MK1 quick-firing guns. Two searchlight bunker positions were nearby.



12 Pounder Mo



Searchlight B



Troops at Frederick Point Battery

Casey Point Battery

Casey Point Battery was a Canadian reinforced concrete twin 6 pounder coastal Anti Motor Torpedo Boat (AMTB) gun battery and one searchlight. There were also two 25 Pounder artillery pieces assigned to the battery.

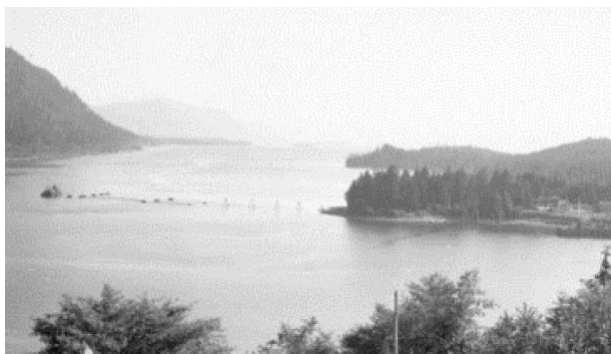


Twin 6 pounder Guns



25 Pound Artillery Piece (x2)

Casey Point was also the eastern terminus for the anti-submarine net and boom defence that went across the harbour narrows. The western terminus was Charles Point on Digby Island. The boom is pictured below



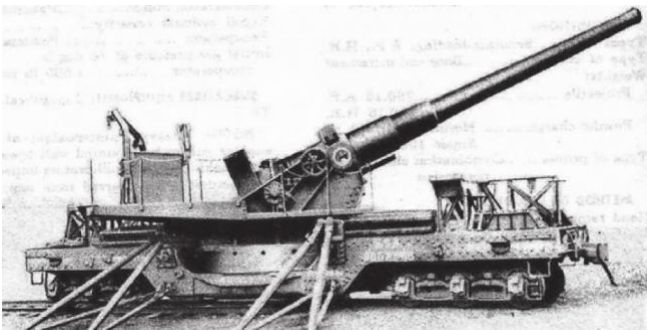
ASW Barrier seen from Digby Island



ASW Barrier form Harbour Side

Fairview Point Battery

Two American 8-inch M1888 M1 guns, which were mounted on M1918 M1 rail cars, were loaned to Canada to provide a longer reach by the harbour defences. They were situated on spurs built from the main CNR line and were solidly braced in positions under which vast quantities of rock had been sunk into the muskeg to provide a solid footing. The guns were left mounted on the railway cars and had 360 deg arcs of fire. Both guns were ready for action in early June 1942. Independent fire-control stations for this battery were located on the west side of Digby Island and on Mount Hayes. One 20mm LAA and 2 40mm LAA guns were co-located with the battery for air defence.



8 inch Rail Gun with Ammo car



40 mm Anti-aircraft Gun (x2)

Dundas Point Battery

A Canadian reinforced concrete 75mm coastal gun battery was located at Dundas Point on Digby Island guarding the Venn Passage spiked boom net defense, which did not have the steel net barrier as the passage was fairly shallow. Two 60" searchlights were also emplaced to illuminate the passage. Two permanent installations for 25 pounders were established on Verney Island in June 1942.



75mm AMTB Gun



25 Pound Artillery Piece (x2)

Anti-Aircraft Sites

There were three permanent anti-aircraft sites established to provide the city and military positions with protection against air attack. These were at Seal Cove, Toby Point (on Digby Island) and Pillsbury Cove (on the south end of the Tsimpsean Peninsula). Each battery was equipped with 4 x 3.7-inch anti-aircraft guns. Additionally, there were 12 x 40mm Bofors LAA guns available to protect the Ocean Dock and rail yard districts.



3.7 inch AA Gun



40mm Bofors Light AA Gun

The Army formations came under the command of the 8th Division, which was responsible for the defence of Northern British Columbia. Prince Rupert could also call upon the 14th Infantry Brigade, stationed at Terrace, in the event o

RCAF

These included bomber/reconnaissance squadrons located at Prince Rupert and Alliford Bay in Haida Gwaii. Operationally two RCAF Squadrons (6 and 7) provided the airborne defence of Prince Rupert and the surrounding areas.

6 Squadron relocated to Alliford Bay on 15 May 1940, and during the year received at least three Noorduyt Norseman floatplane utility aircraft. After receiving Supermarine Stranraer flying boats in November 1941, it gave up its Sharks and Norsemans in December of that year. The squadron then came under the control of the newly formed No. 4 Group RCAF on 16 June 1942 and reverted to Western Air Command on 1 April 1944 when the latter was abolished. The Stranraers were replaced by the Consolidated Canso A between April and May 1943. In September of that year, it received Consolidated Catalina IB and IIAs, giving up its Cansos in November. The squadron again received Cansos in March 1944, operating these and the Catalinas for the rest of its existence. The squadron was relocated to Coal Harbour on 23 April 1944.



Blackburn Shark



Stranraer



Canso

7 Squadron It was formed at RCAF Station Prince Rupert on 8 December 1941 and was primarily used in an anti-submarine role with RCAF Western Air Command. The squadron flew the Blackburn Shark, Supermarine Stranraer, Consolidated Canso and Consolidated Catalina before disbanding on 25 July 1945.

There were two RCAF Squadrons stationed on Annette Island (60 miles north of Prince Rupert) in the southern Alaska Panhandle, which provided support to the Alaska Air Command and offshore defence to Prince Rupert. 115 Squadron flew the Bristol Bolingbroke (a light bomber) and 118 Squadron flew the Curtiss Kittyhawk (fighter). Airfield defence was provided by the 34th Anti-Aircraft Regiment, RCA equipped with 40mm Bofors LAA Guns.



Bristol Bolingbroke



P-40 Kittyhawk at Annette Island

Control Sites

As noted on the map there was a principal battery control site near the top of Mount Hayes. This would provide target coordination between the sites and set priorities for the individual batteries. As a main battery, Barrett had its own control centre set back from the gun line. Below are some of the remaining sites:



Fortress Command Post



Casey Pt Observation & Control



Barrett Battery Control