* * * * *

CDSG Tour to the Coastal Defenses of Helsinki and St. Petersburg July 11-19, 2007

Stephen Cannon-Brookes

Introduction

The Coast Defense Study Group (CDSG) organized a tour to the defenses of Helsinki, Hanko, and Saint Petersburg from July 11 to 19, 2007. The tour group of 25 gathered in Helsinki, Finland, and traveled St. Petersburg, Russia, for several days, then returned to conclude its tour in Finland.

Background

Maintaining access to the Baltic via the Gulf of Finland became a vital concern to Russia following Peter the Great's transfer of his capital from Moscow to what is now St. Petersburg at the beginning of the 18th century. This move also signaled the start of Sweden's decline as the Baltic power, and the fortifications around the Gulf of Finland reflect the changes in political geography up to and including today, as the Finns still have active coastal artillery. St. Petersburg is at the eastern end of the Gulf of Finland, approximately 450 miles long and barely 40 miles wide for much of its length. The gulf's northern coast is dotted with rocky islands; the southern coast is sandier. In winter the gulf freezes, adding to Russia's difficulties in maintaining its links with the rest of Europe, particularly when both sides of the gulf were in hostile hands. From the beginning of the 19th century, Russia has, at times, controlled one or both sides of the Gulf and thus many of the coastal defenses seen during the tour were built by Russia but are now in Finland.

Historical Overview

Russia finally acquired a permanent presence in the Baltic at the end of the 17th century and St. Petersburg was founded in 1703 at the mouth of the River Neva. Sweden's Baltic hegemony met its nadir in 1709 with Charles XII's defeat at Poltava, ending a century of expansion based on sustained military success. During the 18th century, Sweden speedily developed the fixed defenses of Helsinki, whilst Russia sought to cement its hold on the eastern end of the Gulf by constructing the Peter and Paul Fortress in St. Petersburg and a fortress and port city on the island of Kotlin, which dominates its the seaward approach. This fortress was named Kronstadt (before 1723 it was known as Kronslot). Sweden's military decline in the 18th century was paralleled by Russia's rise. Russia established dominance of the southern coast of the Gulf in 1721 and twice captured Helsinki (Helsingfors), in 1713 and 1742. In the Peace Treaty of 1743, Sweden lost large areas in the east of Finland, including all its border fortifications. This resulted in the building of new ones such as Sveaborg (today Suomenlinna) near Helsinki. The Russian border moved steadily westwards and Sweden eventually ceded the whole of Finland to Russia in 1809. During Swedish rule, from the 12th to the 19th century, Finland had maintained its semi-autonomy and this was substantially preserved when Russia finally captured Helsinki, when Finland became a Russian grand duchy. The defenses of the gulf next attracted hostile attention in the Crimean War, when French and British forces destroyed the major Russia fortress of Bomarsund in 1854, later bombarding Sveaborg without capturing the fortress. Between the 1870s and World War I, Russia updated Sveaborg's antiquated defenses and greatly extended the Finland's seaward defences. The ruins of Bomarsund were not updated but abandoned.

When Finland gained its independence in 1917, it inherited and modernized many Russian coastal forts; the only new forts built were on Lake Ladoga. Finland soon found itself co-operating with newly independent Estonia in plans for closing the Gulf to hostile forces. The Soviet Union attacked Finland in 1939 and despite its heroic resistance, Finland had to concede territory in the southeast and to agree to a major Soviet base at Hanko commanding the western entry to the gulf. In the so-called "Continuation War," Soviet forces were ejected from Hanko and Finland collaborated with Germany to close the Gulf during the siege of Leningrad. This placed it in a weak position in the post-war period, and once again Finland had to accept a major Soviet base on its territory, this time at Porkkala, within artillery range of Helsinki. Russia abandoned the base in 1956 and Finland continued to maintain a strong coastal defense against attacks from the east for the next four decades.

The Tour

The tour was locally organized by Pekka Silvast, M.A. Pol. Sci. and researcher/author on Finnish military and political history, as well as a retired Finnish Coastal Artillery Reserve officer. The tour started in Helsinki with a visit to a major private ordnance collection, acquired over several generations of one family. This provided an opportunity to become familiar with the artillery Finland has employed, its wide variety often due to limited

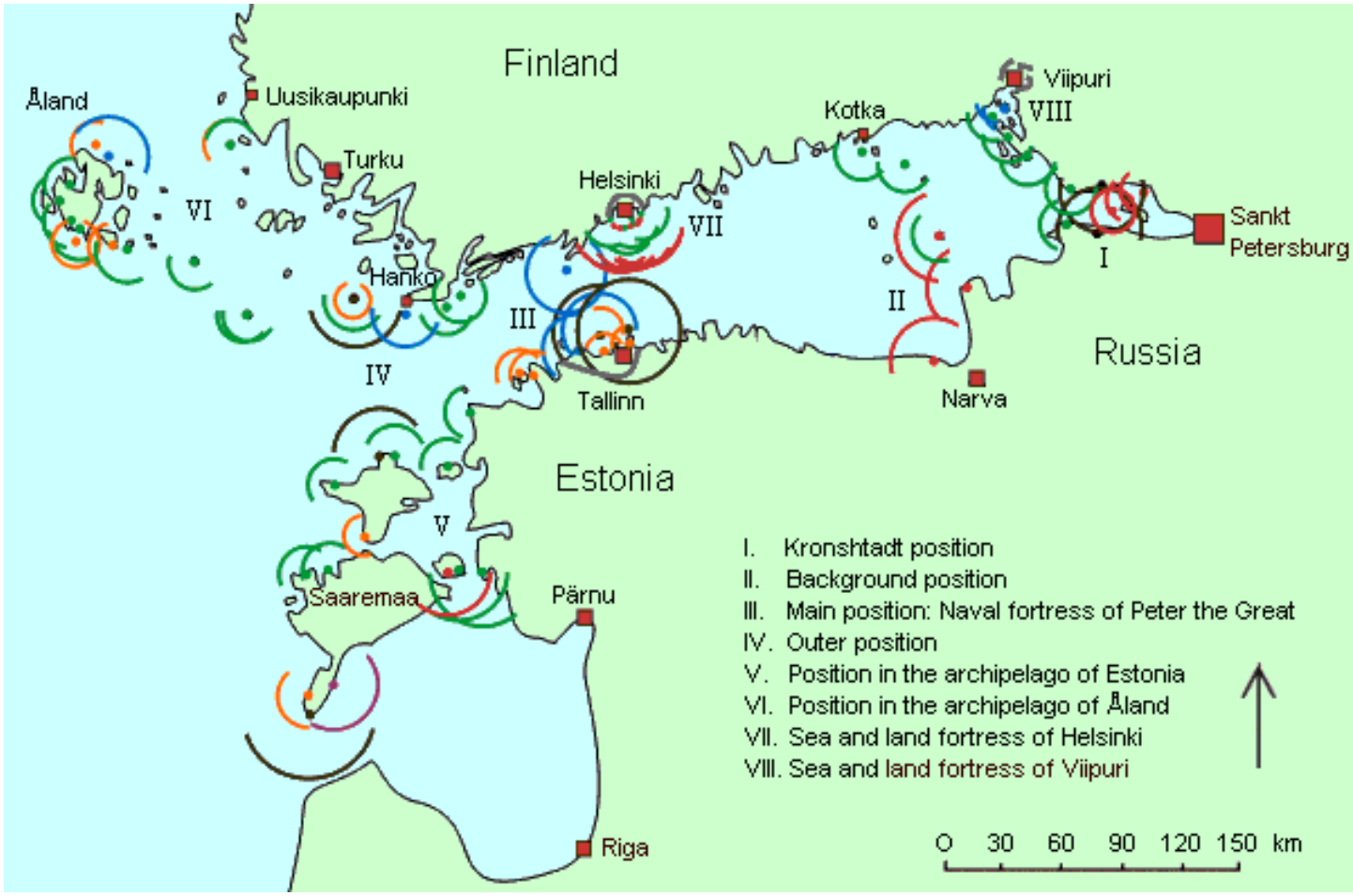
resources and opportunist buying. On a private farm, we were treated to a vast collection of small arms and all types of artillery. Following this visit, we took the not-so-express train from nearby Lahti to St. Petersburg. Following in the footsteps of V.I. Lenin,

Pekka Silvast

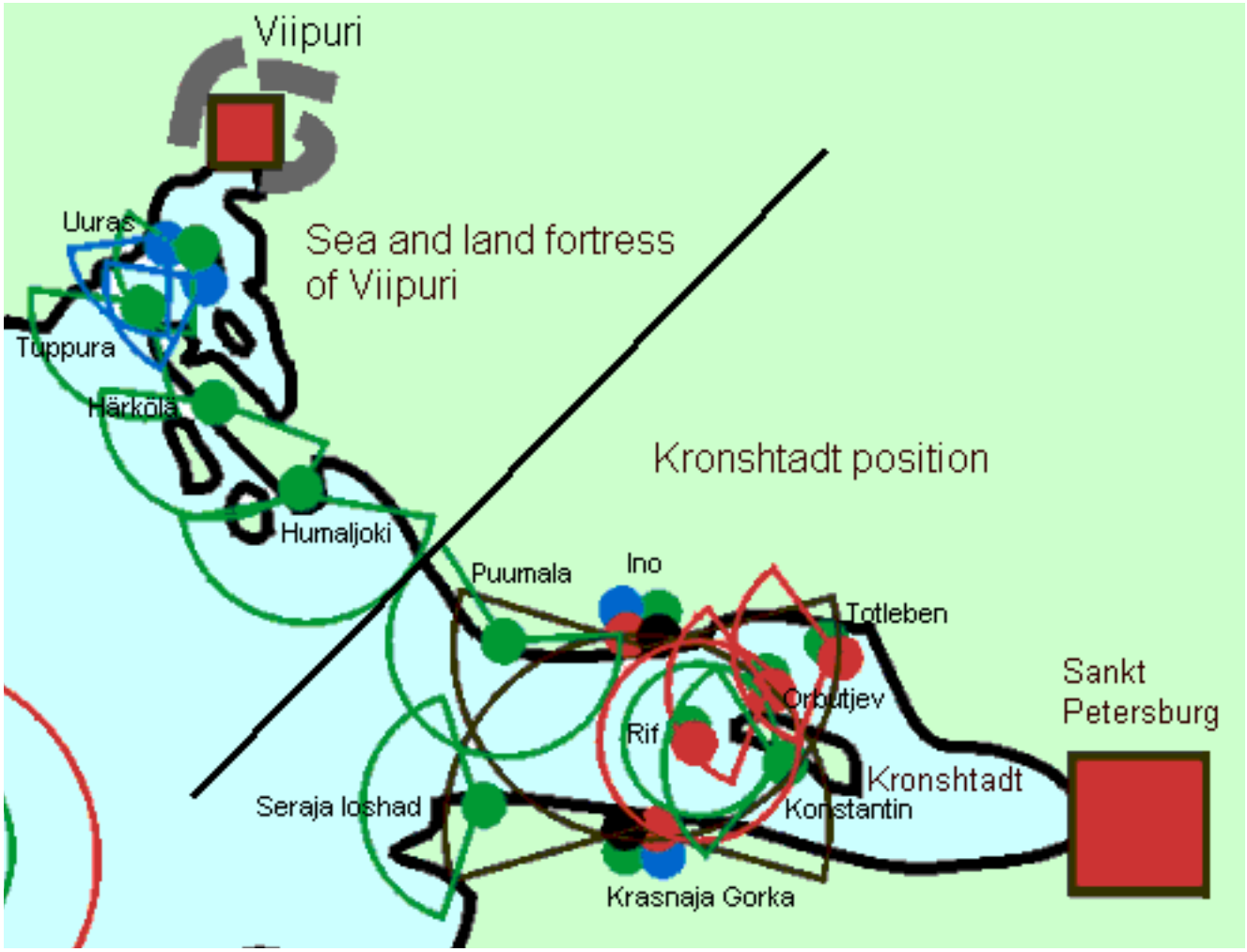
the group arrived at Finland Station and were greeted by Alex Goss, creator of the Northern Fortress web site, who played a key role in guiding us to the coastal defenses around St. Petersburg. We stayed three nights at the Okhtinskaja Hotel.

Kronstadt, the fortress in the narrow eastern end of the Gulf of Finland, is no longer an island as it is now connected to the northern shore by a dam. A similar work is shortly due to link it to the southern shore. This makes a visit relatively simple, but at the cost of substantial damage to a number of the forts on what used to be islands. The Kronstadt fortress occupies the eastern end of slender Kotlin Island, which is orientated east-west, dividing the north and south sides of the gulf. To the south of the island lies the ship channel to St. Petersburg and a series of fortified artificial islands created to exclude hostile ships. There were nine artificial-island forts north of Kotlin and eight similar island forts to the south, plus two forts on Kotlin itself. There were 19 forts in all, plus several detached batteries on Kotlin Island. Our local guides for the day were V.F. Kljusnikov, a retired Russian Navy captain, and Tatyana Arseneva, the deputy manager of the Kronstadt Museum.

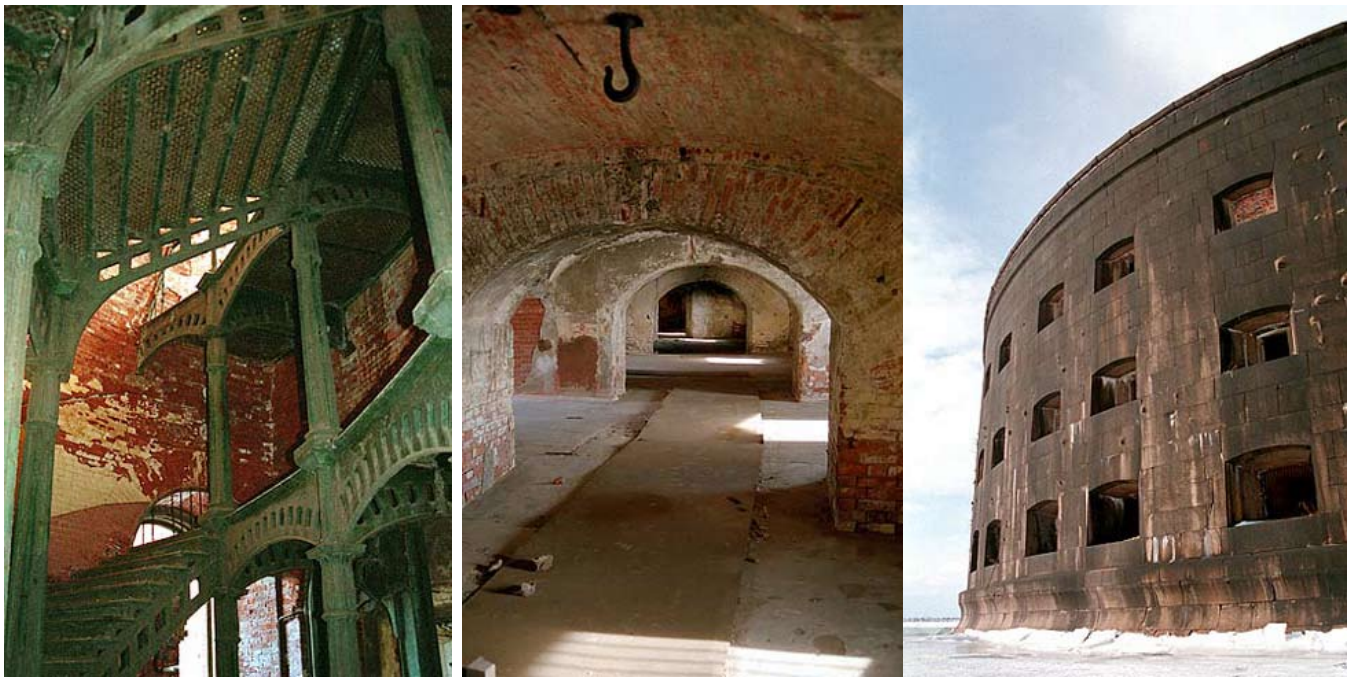
We started our boat tour in the middle harbor, one of a chain of fortified basins lining the channel, and headed westwards, passing the truncated remains of Battery Menshikov (only one of its three granite-faced casemate tiers survives). This part of the Baltic has virtually no tide and on a calm day, the water is surprisingly still. Distant views of Forts Kronslot and Peter the



Russian coastal fortresses in the Gulf of Finland and Northern Baltic, 1917
dots are batteries and arcs are approximate firing sectors (Krepost Sveaborg www.novision.fi/viapori/eavaus.htm)



From Krepost Sveaborg (www.novision.fi/viapori/eavaus.htm)



Fort Alexander, Kronstadt

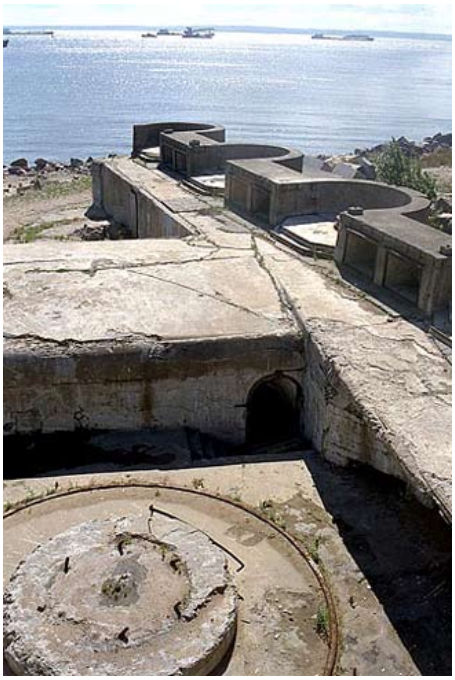
Great revealed that most of the mid-19th century forts received additions to provide accommodations for the garrison by the end of the 19th century, when the primary defenses were pushed westwards and the channel did not require such close defense. In profile, Fort Alexander exhibits the textbook characteristics of a Montalembert tower, three floors of casemates with fourth, barbette, level and room for 103 cannon. The structure is in reasonably good condition and a notable survival is the pair of cast-iron staircases. There was no sign of modernization in the gun positions. The fort was later used as a laboratory for manufacturing plague vaccines; today a fabric roof covers the courtyard and rave concerts are held regularly.

Heading south, our other island stop was Fort No. 3 (Fort Milutin). The current work was started in 1865 and completed in 1878. Totleben was closely involved in its design and originally planned to mount 280 mm (11-inch) guns in steam-powered turrets. These were replaced in 1914 with a series of concrete emplacements for six 152 mm (6-inch) guns. Elaborate search-light mountings were a feature of Russian forts of this period, and there is a shaft with its original iron "cap" at Fort Milutin. Around the seaward side of the island are a number of small batteries, fire control buildings, and pillboxes, in various states due to erosion. The return to the harbor allowed viewing the forts from different directions before we disembarked, including the scant remains of Fort Paul, one of the largest forts, which was blown up in 1919 and again in 1923.

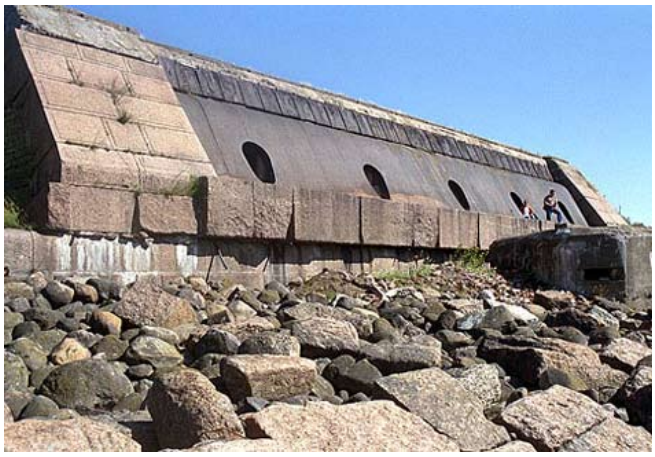
Fort #3 South (Fort Milutin)

The town of Kronstadt itself was defended by a mid 19th century curtain wall and ditches. Its interior is divided by canals leading directly from the sea - possible due to limited tides. Late-18th century warehouses, most in poor condition, line some of the canals; barracks, workshops, and accommodations for dockworkers fill the rest of the town. A visit to the Kronstadt Museum in a converted pumping station revealed more of its history as well as a not too accurate model of the island and its surrounding forts. There is also a museum dedicated to the fleet in the enormous former cathedral.

The next visit was to Fort Constantine (also spelled Konstantin), which is now firmly connected to the main island by the new dam and the vast excavations for the access tunnels under the ship channel. It appears this work has caused substantial damage to the late-19th century (1863) iron-shielded battery, the most notable feature of the fort. In plan, Fort Constantine is a group of three batteries. The northernmost was built in concrete for eight 280 mm guns (c. 1890), the middle, built at the same time as Fort Milutin (1860-70s), was modernized in 1901 for eight 152 mm guns in barbette positions. In the center of the position is an iron-shielded battery or "armored breastwork," built 1862-64. The two other such batteries at Fort Konstantin have been removed. At the north end of the central battery is a pair of large gun pits built during World War II for 85 mm (3.3-inch) AA guns, and further on is an emplacement for two 120 mm (4.7-inch) guns. The southern battery is a mélange of covered casemates integrated with an earlier brick battery that mounted



13.5-inch gun emplacement (foreground) and rapid-fire emplacement (background), Fort Constantine



Middle Battery, Fort Constantine

Armored casemate battery for five 11-inch guns
Fort Constantine

Casemate for mobile artillery, Fort #3 North

steam-powered guns. Similar to Battery Potter at Sandy Hook, this battery for two 280 mm disappearing guns of the Pauker System built in 1879 is next to emplacements for two 343 mm (13.5-inch) experimental guns. Also tacked on are concrete mountings for QF guns. Even with our guide, it was difficult to pin down exactly what was in each mounting.

At our next stop, Fort Schantz stretched across the island close to its western tip (Fort Rif) and appears to have been an open-backed rampart lined with gun pits. The first phase of construction was from 1854-56 and the later concrete positions were finished 1890, when 152 mm guns were mounted. As with other Russian positions, the number of guns was substantial. In the past five years the fort has deteriorated quickly, is now quite overgrown, and since the author last visited, most of the metal-work, including two steel observation cupolas, have been stolen. The long midsummer day allowed a final visit after dinner in the former officer's club in town. Fort No. 3 is in poor condition, as some of its earth ramparts have been removed and the casemates have been stripped and systematically vandalized. These forts replaced earlier 19th century works and were intended to prevent shallow-draft craft passing Kronstadt on the northern side of the island. As with the other small island forts, the ordnance was in open positions between the bombproof casemates. Two more major island forts, Totleben and Obrychev (1903-13), were built to the northwest and coordinated with new land batteries. Visits to these forts require long boat rides, so they were dropped from our schedule due to time pressures.

Fort Schantz

The increasing range of guns at the end of the 19th century allowed the Russians to consider defending Kronstadt and St. Petersburg from both sides of the Gulf and sites for major new batteries were selected slightly to the west at Fort Krasnaya Gorka on the southern coast and Fort Ino on the northern side. As the Finns and Russians had blown up Fort Ino several times, the focus on the following day was the accessible parts of Fort Krasnaya Gorka and its adjacent batteries. Krasnaya Gorka (Red Hill), in a "border region," requires permission to visit and despite the works being either damaged or obsolete most of the fort is in a restricted military area. Anna Arseneva of the Norden organization was vital in gaining permission for us to visit sites in the St. Petersburg area, especially Krasnaya Gorka. There has been a major controversy recently over the two railway guns [305 mm (12-inch) and 180 mm (7-inch)] at the site and these are now behind barbed wire, protected by armed guards and an encampment of activists with the self-imposed task of preventing their removal. Both guns played an important role in the defense of Krasnaya Gorka, which was not taken by the Germans in World War II despite being cut off from Leningrad. Although rusty, they are in reasonable condition and as an extra bonus, a 130 mm (5.1-inch) gun on a naval mount was found lurking behind an adjacent tree.

305 mm Russian RY gun at Krasnaya Gorka

180 mm Russian RY gun at Krasnaya Gorka

The fort (1909-15) itself is a long line of gun pits behind an earth bank, protected from behind by earthworks. Starting at the easternmost point there were pits for eight 280 mm guns, though only four were emplaced and 130 mm guns later occupied the other four pits. The long central battery was a line of eight 254 mm (10-inch) guns with six 152 mm guns to their left. The westernmost battery was composed of four open positions with 305 mm guns and finally two twin 305 mm turrets. All the fixed guns were removed in a scrap metal drive in the 1960s and a substantial part of the 152 mm and 254 mm batteries was destroyed in 1918 in now what appears to have been a calculated attempt to disable the fort during the Civil War. The presence of unexploded munitions was given as the principal reason that access is currently denied and when we approached the 305 mm batteries, a pair of armed female guards told us to leave. The only surviving building seen outside the barbed wire was the reserve magazine adjacent to the railway entry to the fort, which has concrete sides designed to be easily used as a barrier.

Our bus took us west of Krasnaya Gorka to visit another group of batteries close to Cape Seraya Loshad (Grey Horse). The emplacements for the 120 mm Vickers guns and 152 mm Canet guns are similar, shallow gun pits on top of earth-covered concrete bunkers containing magazines and accommodation. The only distinguishing features are the observation cupolas, one concrete and the other steel, but so low the slits could not have afforded a good view. The magazines are in relatively good condition and in both batteries there are ring passages around the gun pits that step down to the magazine entries. Given their location only slightly above sea level, both batteries appear to have been constructed on flat ground and then covered with sand to mask their appearance from the sea.

These batteries and those at Krasnaya Gorka shared a substantial fire control position to the east side of Cape Seraya Loshad. Most of the five-story building is buried in a mound, and a concrete observation floor was added to the abandoned range finder housing. The interior has been stripped of equipment and is decaying relatively quickly. For those immune to rain and seriously large mosquitoes, the final odyssey into the woods was to

Fire control station, (exterior-right, interior-middle) Seraya Loshad

Battery Gora Valdai- turret shaft

Shafts for two twin 203 mm gun turrets (right) and observation station (left) at Battery Gora Valdai

152 mm gun position Seraya Lofya

made find the remains of a twin-turreted 203 mm (8-inch) battery about 2 km west of Cape Seraya Loshad. This battery, known as "Gora-Valdai," was constructed in the 1930s with turrets from the battleship Republick or Imperor Pavel I. Both turrets have been removed; the metal barbettes remain but the positions are in poor condition. We briefly visited a powerplant bunker linked via a service tunnel between the two gun positions. Nearby was a separate command-post bunker for the battery.

Before leaving St. Petersburg, we toured the city, including the cruiser *Aurora* and the railway museum. The latter contains another 305 mm railway gun, in rather better condition, a couple of armored cars, and an ICBM on a railway carriage. Dominating the center of the city is the Peter and Paul Fortress, started by the Peter the Great. The current fortress is a late-18th century brick structure with granite walls facing the river Neva. The walls and interior casemates have a complex history of changes and more recent restoration. A variety of guns are on display, but there has been no attempt to present an integrated interpretation of the work. From its earliest inception, there has been an elaborate crownwork to the north of the fortress. The center of this work was filled with a substantial horseshoe-shaped barracks/arsenal building that today houses the Artillery Museum. The courtyard is crowded with examples of 20th century Russian ordnance, principally field artillery and other weapon systems. Most of the substantial earlier collections are displayed inside and there are examples of late-19th century fortress guns. The displays are extensive and cover a wide range of military topics; one gallery has sectional models of emplacements for guns and concealed bunkers. These provided much food for thought during the long train journey back to Helsinki.

Long-time CDSG member Cmdr. Ove Enqvist (Ret.) was our guide for the three days looking at surviving coastal artillery in Finland. The first day focused on the Islands of Isosaari and Kuivasaari in the outer archipelago south of Helsinki. Both islands were initially fortified by the Russians at the beginning of the 20th century and were part of a ring of forts forming an outer circle of seaward defenses for the city. This was necessary due to the substantially increased range of artillery. The primary armament at each fort was 254 mm barbette guns on Durlacher carriages, with 152 mm guns in a secondary role on Isosaari only. All the guns were abandoned by the Russians in 1918 when Finland achieved independence from Russia and the new Finnish Army took over these defenses.

Isosaari

The Russian cruiser Aurora

Fire control station at Isosaari

The seafront of Krepost Sveaborg (Krepost Sveaborg www.novision.fi/fi/viapori/eavaus.htm)

In the 1930s and 1940s, the Finns embarked on a coast artillery construction program that included 305 mm turrets, using barrels left behind by the Russians and other barrels from France. Depending on the outcome of Finland's various wars with Russia, these Finnish-designed batteries have been moved or placed in storage over the years, with some of these turrets still emplaced as late as the 1970s. All have been superseded by 130 mm and 100 mm (3.9-inch) guns, most of which are still in service (as are mobile anti-ship missiles, which were not included in the tour). Isosaari's one 305 mm turret was fully accessible to the group; the second 305 mm turret was scrapped in early 1980s. We were also given access to one of the 130 mm gun turrets, designed for Soviet barrels but in the end equipped with Finnish Tampella-made barrels. The turrets are comparatively new (1984-90) and reflect a contemporary sense of economy in their simple and compact design. Loading is nearly fully automated and requires only eight personnel for normal operation. Apparently, these guns can fire up to 10 rounds a minute, but this rate is unlikely to be employed for both economic and practical reasons. Quite a number of camouflaged tank turrets were in evidence, including some decoys. All have covers to give the appearance of rocks and apparently, the decoys contain heaters to help their simulation of the real guns. The 100 mm turrets were designed for Soviet T55 tanks.

Dinner at the officer's club at Suomenlinna

305 mm turret (left) and 130 mm turret (right) at Isosaari

305 mm turret at Isosaari

305 mm turret at Isosaari

305 mm turret at Isosaari

Finnish Military boat at Isosaari

Lunch at mess hall on Isosaari

Russian 10-inch emplacement at Isosaari

Russian 10-inch emplacement at Isosaari

The visit also included the Russian 254 mm and 152 mm open positions. These are in excellent condition and provided quite a contrast to the battered remains of those nearer St. Petersburg. Isosaari had three four-gun batteries: two 254 mm and one 152 mm. In the latter there is a Finnish addition called the 152 mm Tampella, which pairs a 152 mm Canet barrel on a locally made carriage with a simple dish shield and a light machine gun post to the rear. The magazines for this position were rebuilt and the

152 mm Russian gun in a Finnish Turret, Kuivassari

152 mm Russian gun, Kuivassari

fill in the earlier gun pit is granite blocks rather than concrete. The rest of the visit included a monument to a British sailor killed in the Crimean War, a memorial to the "Red" internees and prisoners who died on the island, and a variety of discarded ordnance. We joined the conscripts in their canteen for lunch.

After lunch, we had a short but bumpy boat ride to Kuivasaari. Although not open to the public, the island is now a Finnish coastal artillery museum operated by the Suomenlinna Coastal Artillery Guild. Before we visited the main battery, Ove showed the group the command block. This has plotting rooms from two different periods, the first, from the late 1930s, required more than 25 men to calculate aiming information for the four guns. Next door is the prototype computer system introduced in 1968.

305 mm twin gun turret at Kuivassari

Interior 305 mm twin gun turret at Kuivassari

Power room of 305 mm twin gun turret at Kuivassari

100 mm gun in a tank turret at Kuivassari

Russian 76 mm AA at Kuivassari

The generator was started up and we were led along a tunnel to beneath the Russian 254 mm barbette battery. One gun pit was converted to mount a twin 305 mm turret and the magazines now display the range equipment that would have been found when the guns were in use, as well as other related equipment and samples of other-size projectiles. Brass slides from the magazines led into the base of the turret itself and trolleys on concentric tracks fed shells and cartridges into the bottom of the shell hoists. The guild has fully restored the turret, and treated us to a loading demonstration as well as elevation of the barrels. The turret was only emplaced in the 1930s and had to be dismantled following WWII. It was reinstalled in 1960s.

Russian 10-inch gun battery at Kuivassari

The Russian battery is now a museum of Finnish coastal defense artillery, as one gun pit contains a 254 mm gun on a Durlacher carriage (from another battery). There is also a 152 mm Canet gun on a high pedestal and finally another 152 mm Tampella with the domed shield seen on Isosaari. We visited the battery command tower and a 100 mm tank turret position. There was also time to view the large collection of smaller coast artillery guns arranged along the main route along the island. At the southwestern end, there were several German 88 mm (3.4-inch) dual-purpose guns, also used by coastal artillery, another 100 mm turret emplacement, several pillboxes, and the remains of the Russian range finding position.

Santahamina lies southeast of Helsinki, the largest of a chain of islands that screens the city's harbor. Although it did not receive any fortifications until the Crimean War, afterwards it became a substantial Russian base and is still occupied by the Finnish military. It was once home to the Coastal Artillery School (the CA School was amalgamated with the Naval Academy at Suomenlinna in 1998) and we were given an intensive tour and demonstration of 130 mm and 100 mm training turrets. These are perched somewhat incongruously on top of a timber-clad building and during the visit Ove related some of the details surrounding the choice and use of these guns including the development of an anti-ship projectile, a sample of which was in the adjacent training building. The latter contained a simulator

100 mm gun in tank turret at Santahamina

100 mm gun in tank turret at Santahamina

Ove Enqvist in 100 mm gun turret at Santahamina

Training facility at Santahamina


Fire control equipment at Santahamina


WW II-era plotting room, Santahamina

for range finding, rarely used now since radar and computers have largely superseded it.

We made a short visit to the earliest fortifications on the island, the Russian batteries overlooking the ship channel separating Santahamina from Kuninkaansaari. The remains of three earthen batteries with granite-lined gun positions were visible, as were concrete emplacements for 88 mm dual-purpose guns in the woods behind. The garrison canteen provided lunch; we noted that the recruits received rather better treatment on Isosaari. We were off by midday, taking a boat across to Suomenlinna, as Sveaborg is now called. Once called the "Gibraltar of the North," the fortress and its constituent parts cover a group of islands directly south of Helsinki, many of which are now connected.

As well as defending Helsinki, the fortress was also planned as a naval harbor. A dry dock for galleys was created in the 18th century between the central islands, and its defense was the focus of the overall design for the fortress. The dockyard was surrounded by a series of curtain walls and independent forts, initially planned by Ehrensvard, who was placed in command in 1748. He employed traditional bastion traces, while striving to make the profile of the fortress as low as possible. The work was largely complete by the end of 18th century, but its raison d'être, to protect Sweden's interests in Finland, disappeared when it was surrendered to Russia in 1808. With few immediate threats, no substantial changes were undertaken until after the Franco-British attack in August 1855, during which many of the garrison buildings were damaged. The most notable Russian addition was the chain of new gun positions along the seaward side of the fortress islands and most of the 229 mm (9-inch) and 280 mm guns survive on their carriages in their original emplacements.


Russian 229 mm gun, Suomenlinna


Russian 280 mm gun, Suomenlinna

Ove's tour focused on the guns of Suomenlinna, for which there is even a special guide book, and we started by the King's Gate on the southernmost island, Kustaanmiekka. Above the landing place is a row of guns - two 152 mm, a 229 mm, and a 280 mm, mostly on fortress carriages. Dominating the approach to the main channel are six 229 mm model 1867 guns and three 280 mm model 1877 guns. Those desiring a photo without people needed great patience, as a steady succession of small children clambered over every piece. The guns are in reasonable condition but would benefit from maintenance, which would also demonstrate their value to less-knowledgeable visitors. The Coastal Artillery Museum has been closed and part of its display is now in the island's military museum in the former riding school on Iso Mustaari (the main Finnish military museum is in downtown Helsinki). The route there included a pair of 152 mm 1879 mortars on field carriages and the tomb of Ehrensvärd, outside the old commandant's house. The more energetic crossed bridges to Länsi Mustasaari to see a further pair of 280 mm model 1867 guns and the adjacent antiaircraft battery. The fortress is enormous and further description is beyond the scope of this report. Dinner in the officers' mess provided a fitting conclusion to the day.

The final day was devoted to a visit to the southwest corner of Finland, centered on the port of Hanko. The port at the mouth of the gulf played a strategic role, noted earlier. We made a brief stop at the former boundary of the Soviet base (1940-41) to look at a tank and field gun memorial to the fighting between Finns and Russians in 1941. Plans to visit Örö Island with its


9.2 inch Bethlehem gun, Russarö


9.2 inch gun turret, Russarö


305 mm turret at Örö


Interior of 9.2 inch gun turret, Russarö

Russian SL power house with 100 mm gun turret behind, Russarö

100 mm gun turret, Russarö

76 mm AA gun, Russarö

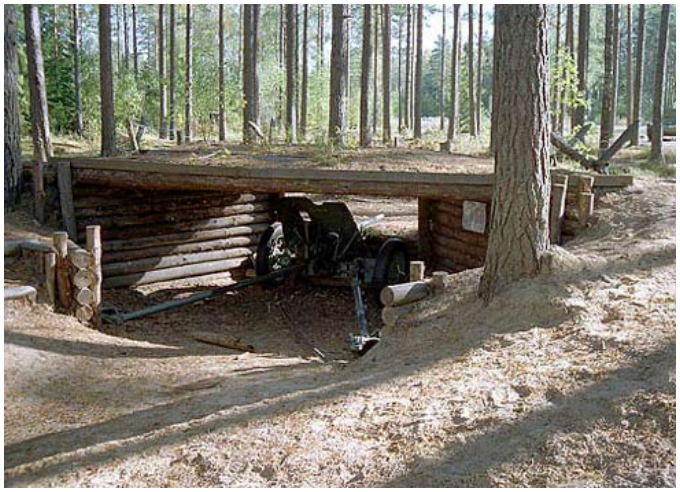
two single-gun 305 mm turrets were confounded by the strong westerly wind and 40 km of open water. We were encouraged to don survival suits for the short boat ride to Russarö Island, where we were guided by Maj. Kaarle Lange (Ret.), one of the former battery commanders, who had been in charge of the last test firing of the 234 mm (9.2-inch) guns in 1975. The two survivors of the original six guns have an interesting history. They were manufactured in the US for Chile by Bethlehem Steel but were eventually sold to Russia, who left them behind in 1918. They were restored by the Finns and successfully used against the Soviets in 1939. Finland evacuated all six pieces in March 1940, when Hanko became a Russian naval base. When the Continuation War broke out and the Soviet Union was forced to leave Hanko, three of the guns were re-installed on Fort Russarö in 1941-42. In 1960-62, the remaining three guns were re-installed. The battery was decommissioned in the late 1970s, and in 1983 was scrapped except for two guns left as museum pieces in single turrets. The interiors are largely complete, but would benefit from attention to prevent their deteriorating.

The island is still an active military base (130 mm and 100 mm turrets), if only occupied occasionally, and the only other part visited was the area around the lighthouse. This has a range finding position built into its base and we could also see the remains of a Russian searchlight position linked to a power bunker by a channel cut into the rock with a narrow gauge railway line. Other adjacent positions were cut into the granite, leaving one to speculate on the effort required! The area is littered with pillboxes, 88 mm guns in position, and a large number of firing positions for infantry as well as more up-to-date 100 mm turret emplacements. A brief boating excursion along this side of the island provided an opportunity to photograph the seaward view and experience the uncomfortable wave pattern that we would have had to endure for a visit to Örö. On the way back to Hanko, we made a brief visit to the ruined Swedish fort on Gustavsvärn,

Emplacement for Russian dual purpose 45 mm gun Hanko

Emplacement for 305 mm Russian RY gun, Hanko

Russian tank and field artillery, Hanko



Reconstructed Russian field artillery position, Hanko

blown up by the Russians following the Crimean War on the orders of the British and French.

Pekka's program for the afternoon focused on the Russian World War II positions around Hanko. One of the positions for the 305 mm railway guns, recently seen in St. Petersburg and Krasnaya Gorka, it is now a protected site, but encroached upon by new housing. Our route took us past the Russian war memorial to the airfield created during the war. On the north side of the town there is a position for four 45 mm (1.8-inch) dual-purpose AA and coastal defense guns. The pieces were set on round granite plinths, about 2 meters high with low parapets. Similar positions with pillboxes can also be found on the southern side of the peninsula, by the old spa casino. After we visited the last site on the tour, a pillbox in a forest glade, Pekka organized a barbeque in a nearby restaurant. It was an opportunity for the group to express its thanks to Pekka and his two assistants, Harri Koykkala and Markku Leminen, as well as to Terry McGovern for all their hard work in organizing the tour.

The tour group returned to Helsinki by bus and stayed overnight at the Seurahuone Hotel in the center of Helsinki. The next morning tour members made their way back to their home countries. Attending the tour was Alan Bailey, Charles Blackwood, Chris Bristow, Stephen Cannon-Brookes, Christian Casatelli, Martin Egger, Pam and Mike Fiorini, Terry Gander, Tom Kavanagh, Mike Kea, Terry McGovern, Gary Paliwoda, Karl Schmidt, Phil Sims, Michael van Best, Dieter Wernet, Glen Williford, and Larry Wing.

Tour group at 305 mm gun turret at Isosaari