

and the army's later use of Artillery Hill as a radar site. Any items concerning military activities at Fort Worden after the coast artillery era would be greatly appreciated.

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(Albany, NY, Wednesday, September 18, 2002....) "New York State Office of Parks, Recreation and Historic Preservation Commissioner Bernadette Castro today opened New York's 755-acre Camp Hero State Park in Montauk, Long Island. The 415-acre military area, with a history dating back to the Revolutionary War, will now offer greater public access to the spectacular shorefront property for recreational and educational activities. The adjacent 340-acre sanctuary area will preserve the natural environment." See http://nysparks.state.ny.us/press/2002/Sept_18.htm

Several structures were demolished there a couple of years ago: Camp Hero & Montauk Air Force Station - Preservation <http://www.fortunecity.com/marina/seafarer/665/pres-01.html>

* * *

Comments on Adaptive Re-Use of Batteries

John Martini

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On the topic of batteries being demolished and/or damaged, I just got a call that might represent the other end of the spectrum. It seems the Presidio Trust is considering leasing out Battery McKinnon-Stotsenburg (16 x 12 in M1890 mortars) at Fort Scott to a firm that wants to convert its magazines into a long-term storage facility. The Trust contacted me last week and asked me to inspect the structure and identify significant features that should be preserved/protected when refurbishing the battery.

If you remember, about a year ago the Trust's workers filled three of the mortar pits with wood chips and we raised a tremendous stink about it, as did the Council on America's Military Past (CAMP). The chips were eventually removed. Seems the Trust heard us loud and clear, and now they want to use the CDSG's expertise before implementing any re-uses of batteries.

As I understand the project at McKinnon-Stotsenburg, this storage firm will offer high-security rental spaces for valuable objects ranging from artworks to vintage wine! The magazines' massive construction and constant interior temperature make it perfect for this type of storage. The proposal involves restoring historic utility systems, repairing interior and exterior doors, repainting in historic colors, vegetation clean-up, installation of alarm systems, and on-site security 24/7. Controlled visitation would also be allowed in some form. (The battery is currently closed to the public.)

All of these proposals will have to go through historic compliance review.

The downside to this proposal is that it does involve altering a historic structure. The upside is that the battery will get more protection as a storage facility than in its current use as a outsized gardeners' shed, with fertilizer sacks in the powder magazines and lawnmowers parked in the projectile galleries.

* *

More Comments on Adaptive Re-Use

Alicia M. Bjornson

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Adaptive re-use is a great idea. One consideration is to install a prefab structure within the fortification. Electric/ HVAC can be placed on the exterior of the prefabricated unit since it is protected by the battery.

I believe Fort Pulaski created an archival storage space using this method. The bonus was that it was very cheap to install, interior stabilization could occur so that it was safe to place the structure inside, and there was enough space to walk around the structure to service both new and old places. It sounds like a good use of space that may get grant funding if someone likes the idea.

The Delaware State emergency response team had their office in the mortar battery at Fort DuPont.

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CDSG Tour to the Vladivostok Fortress September 14-24, 2002

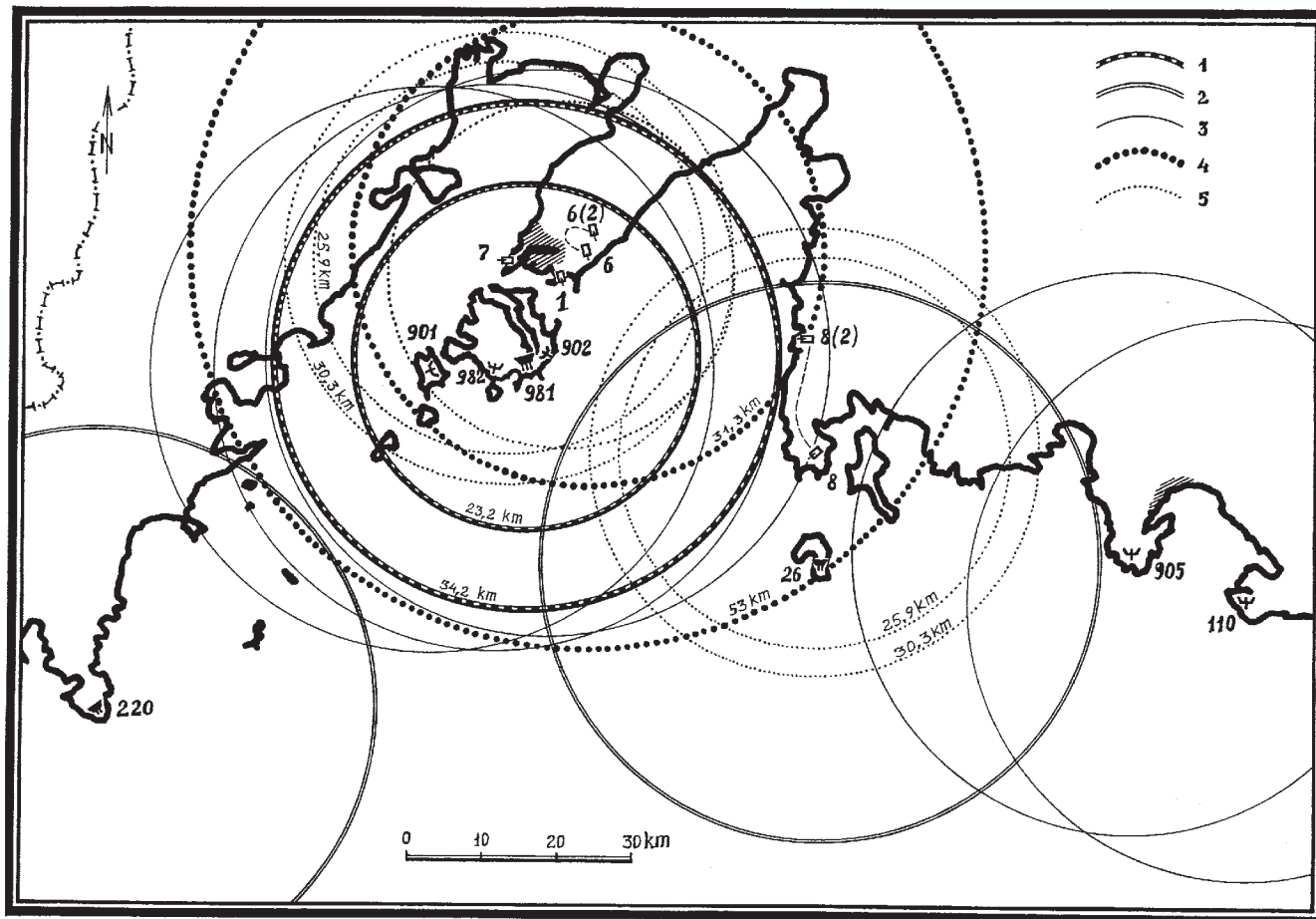
Terrance McGovern



Group photograph in front of Turret No. 2, three 305 mm guns, at Battery No. 981 (Voroshilov Battery). (M. Egger)

Ten members of the Coast Defense Study Group (CDSG) had the pleasure to attend the CDSG's first special tour to foreign fortifications with no connections to American coast defenses. Arranging to visit these fortifications and even reaching Vladivostok in the Far East region of Russia was not easy. Transportation, housing, governmental approvals, and even language barriers made this a difficult tour to organize. Many of these problems were overcome due to the efforts of our Vladivostok CDSG member, Vladimir Kalinin. Vladimir, a Vladivostok native, invited us, developed the tour program, selected a local tour company, and guided us each day on the tour. Without Vladimir's efforts over the last two years there would have been no CDSG tour to the historic Vladivostok Fortress. Many thanks, Vladimir!

Vladivostok has an important fortification history due to its status as Russia's key Pacific naval harbor. Its defense works can be grouped into three periods: the pre-Russo-Japanese-War constructions of 1880 to 1904, the post-Russo-Japanese-War defenses of 1906 to 1917, and the World War II-era works from 1932 to 1945. Some batteries were rearmed or relocated between 1971-1973 due to series of border conflicts between Russia and China. All told, Vladivostok was one of the most heavily defended ports



Field of Fire for heavy coast artillery batteries in the Defenses of the Main Naval Base of the Soviet Pacific Fleet in 1941. Hatching pattern shows Vladivostok on the Muravyev Peninsula with Amursky Gulf on the left and Ussuriysky Gulf on the right. (Fortress Vladivostok book, see note at end of article)

in the world, with hundreds of defensive sites to visit. But, we were only able to visit a small portion of these sites during our tour. Photographs of many of these works are available on the internet at www.dvgu.ru/eng/region/culture/fort.

For most of our group, the tour began with airline flights on September 12, 2002 to the new Incheon International Airport in South Korea via Tokyo, Japan. As this travel took us over the International Date Line we lost a day, and therefore arrived in Korea on September 13. Due to the timing of the only twice-a-week flight to Vladivostok on Korean Air, we had to stay overnight at Incheon to catch the flight on September 14. Nine of our tour members gathered at the new Hotel Hub Herb (we wondered if Herb Hart was somehow responsible for this name). Our group was made up of Bob Burt, Al Chiswell, Martin Egger, Tom Kavanagh, Mike Kea, Terry McGovern, Gary Paliwoda, Karl Schmidt, and Glen Williford.

Saturday, Sept. 14, 2002

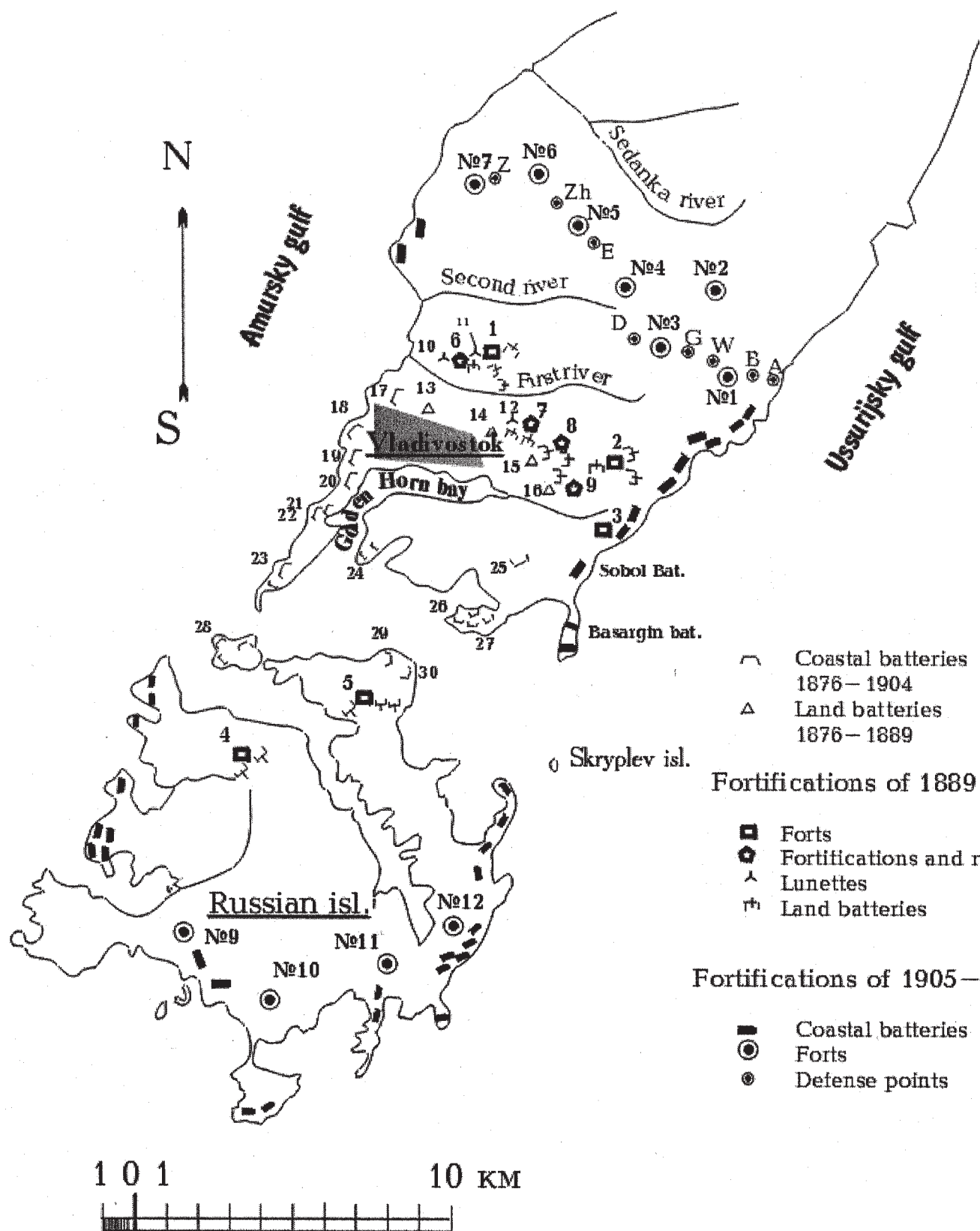
The tour officially started with our departure from Seoul on Korean Air #981 at 0955 for a 2 hr 15 min flight to Vladivostok on an MD-80 aircraft. This full flight contained a cross section of Russians, Koreans, Chinese, Europeans, and Americans. It was a beautiful day so we had a good view of the Primorsky Region of the Russian Far East as we came in to land at Artem, the site of Vladivostok's main airport. The airport is located at the base

of the rugged Muravyev Peninsula with Ussuriysky Gulf on one side and Amursky Gulf on the other. The city of Vladivostok (population 750,000) lies at the end of this peninsula, on the hills around the Golden Horn Bay. This bay is filled with both naval and commercial ships and their supporting maritime infrastructure. Southwest of this bay are numerous islands stretching into the Sea of Japan.

Due to the change in time zones we reached the airport terminal at 1415 and passed through passport control, immigration, and customs to meet the staff of Breeze Tour and Vladimir Kalinin for the first time. Heading up Breeze Tour Co. Ltd. is



View of Golden Horn Bay from the window of the Hotel Vladivostok. (T. McGovern)



director-general Tatyana Borovikova, or as we called her "Big Tatyana." She would drop in from time to time to make sure that the tour was on track, or called on her cell phone for an update on our activities. Our tour guide was Svetlana Strokatova or "Sveta" for short, who made sure that we got from site to site and that we were on time. Our English language interpreter was Tatyana Kabanova, or "Little Tatyana," a recent college graduate who bravely followed us around to all the fortification sites even though she thought we were "crazy." We loaded up our gear into a small Japanese bus driven by Vladimir Bukin, who would take us down some very rough roads in the coming days. A 40-minute drive into the city took us to the Hotel Vladivostok, a large 1970s-era hotel with 415 rooms. The hotel was quite busy, especially with tour groups from China. Once we figured out what rooms we each were staying in, we gathered in a hotel meeting room to officially greet our tour staff and view a short video film about the Vladivostok Fortress. The video that featured Vladimir Kalinin was dubbed in English and offered an introduction to fortifications in the area. The each member in our group was then presented with a copy of Vladimir's excellent new book (see ordering details at the end of this article) on the Vladivostok Fortress. We gave Vladimir copies of photographs of Vladivostok's defenses taken by American troops during the occupation of Vladivostok in years following the end of World War I. The group then experienced its first Russian-style meal six courses at a restaurant attached to the hotel. This "family" style meal, which was the format for all the restaurant meals we had during the tour, would be the first of many excellent meals that our group had during the tour. The night concluded with Little

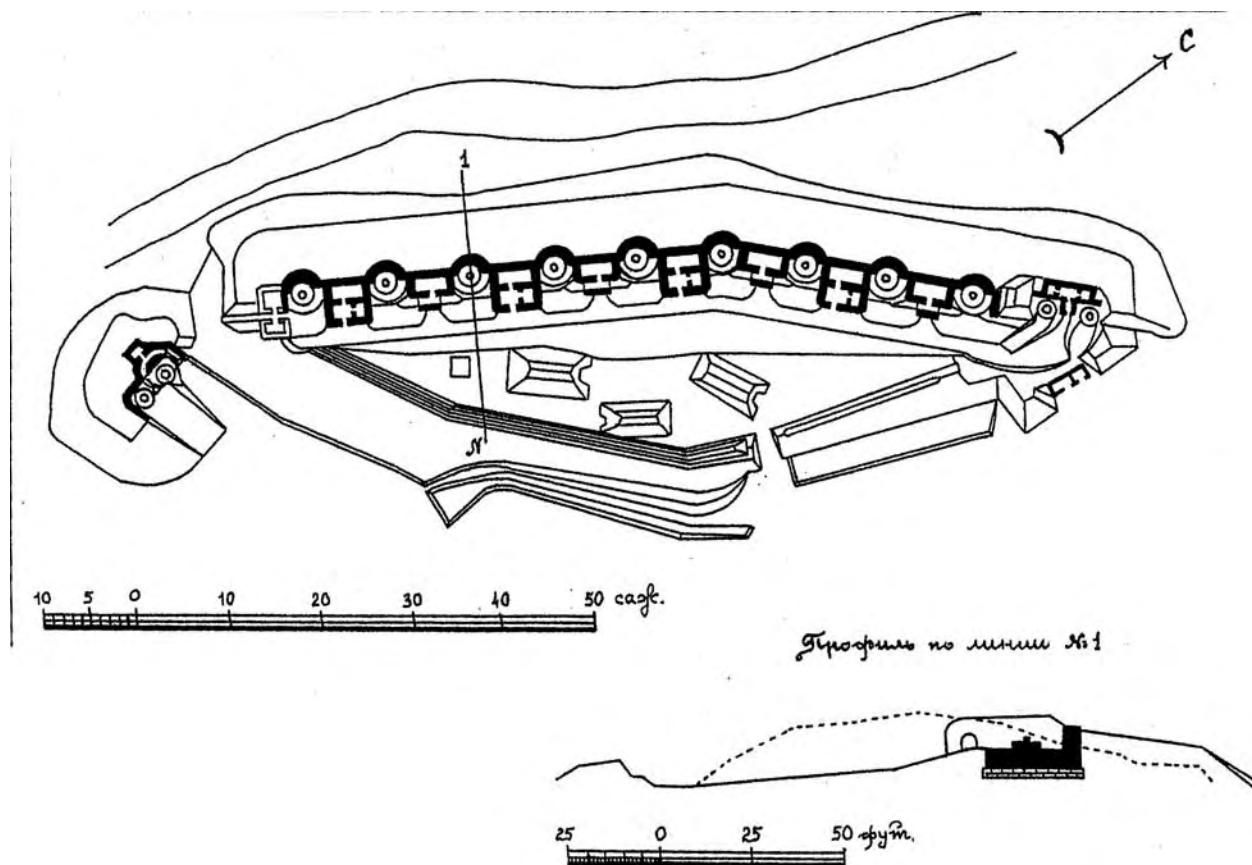


Museum of the Vladivostok Fortress, located in former Battery Bezymiannaya No. XI. (T. McGovern)

Tatyana passing out breakfast tickets and giving strict orders to report at 0800 to the hotel cafe for breakfast, the site of all our breakfasts in Vladivostok.

Sunday, Sept. 15, 2002

By 0900 we were on our mini-bus heading for Nazimov Peninsula and the older batteries of the inner coastal defenses of Vladivostok. Our first stop was Battery Petropavlovskaya Mortar No. XVIII (10-9" M1877 mortars in 5 dual pits, built in 1895). This long-abandoned battery was of a simple design of dual emplacements with traverse magazines between emplacements. Please note: unless specifically stated all ordnance has been removed from the defensive works that we visited during this tour. Later uses of this battery were for anti-aircraft guns and today a



Plan for Battery Bezymiannaya No. XI, nine 9-inch M1867 guns and 4-57 mm Nordenfel guns. (Fortress Vladivostok book)



Central power plant block for Fort No. 7, an infantry fort built 1910-1915. (T. McGovern)

dog cemetery. The group then hiked down closer to the shoreline to visit Battery Petropavlovskaya Gun No. XVII (4-9" M1867 guns and 2-57 mm Nordenfelt guns, built in 1897). This very overgrown battery was also of a simple design. Vladimir, with help from Yuri Ivanov, a Vladivostok native and photographer of many of area's fortifications, led our group cross-country along the steep cliffs to Battery Nazimovskaya No. XIX (6-11" M1867 guns and 2-57 mm Nordenfeldt guns, built in 1898). This abandoned battery was located at the end of Cape Nazimov overlooking the eastern entrance to the Bosphor Vostochny. Returning from the cape, we visited reserve powder magazine P1, a large, square, one-story concrete structure with a curved roof and protected entrance. Next, we traveled by bus down to the shoreline to visit Artillery Flanking Casemate No. 07. This concrete and stone casemate was built in the 1941 for two 76 mm guns (M1927 regimental guns or M1909 mountain guns) that would provide flanking fire across the entrance. Showing our dedication, we removed the remains of a small wrecked car from the front of the casemate so that photographs would not be marred by this intrusion. The casemate itself was gutted and used as a dumping ground.

We traveled back into the city for lunch. Nearby was our next stop Battery Bezymiannaya No. XI (9-9" M1867 guns and 4-57 mm Nordenfelt guns, built in 1900). Today, this battery is home of the Museum of the Vladivostok Fortress. Each of the battery's emplacements is now equipped with 130 mm, 100 mm, or 85 mm guns with light shields. The magazines have been converted in museum displays that tell the story of Vladivostok's fortifications from the 1860s to today. These displays had great photographs and artifacts detailing the various land and coastal defense works. Surrounding the battery were numerous pieces of ordnance from muzzle-loading cannon to missiles. Of special interest was a 130 mm SM-4-1 1955 gun on a mobile mount that was used for coast defense, similar to the U.S. use of 155 mm guns. After several hours at the museum, Vladimir directed us through the city to Stronghold No.1, an 1899 infantry defense work. The work, now abandoned and surrounded by apartments and factories, was once part of the city's land defense line that was built before the Russo-Japanese War. Surrounded by a ditch, the work contained protected barracks and shelters

for field guns. When under attack, the infantry would man the earthworks, and the field guns would be moved into prepared positions. Located along the line of approach was a casemate for observers, which also include a postern that connected with a counter-scarp caponier. This caponier offered us a rare view of four 107 mm guns still embedded in the walls. These simple breech-loading cannons were used in an anti-personnel role, firing canister down the dry ditch. Back on the mini-bus we headed to dinner and then back to the hotel.

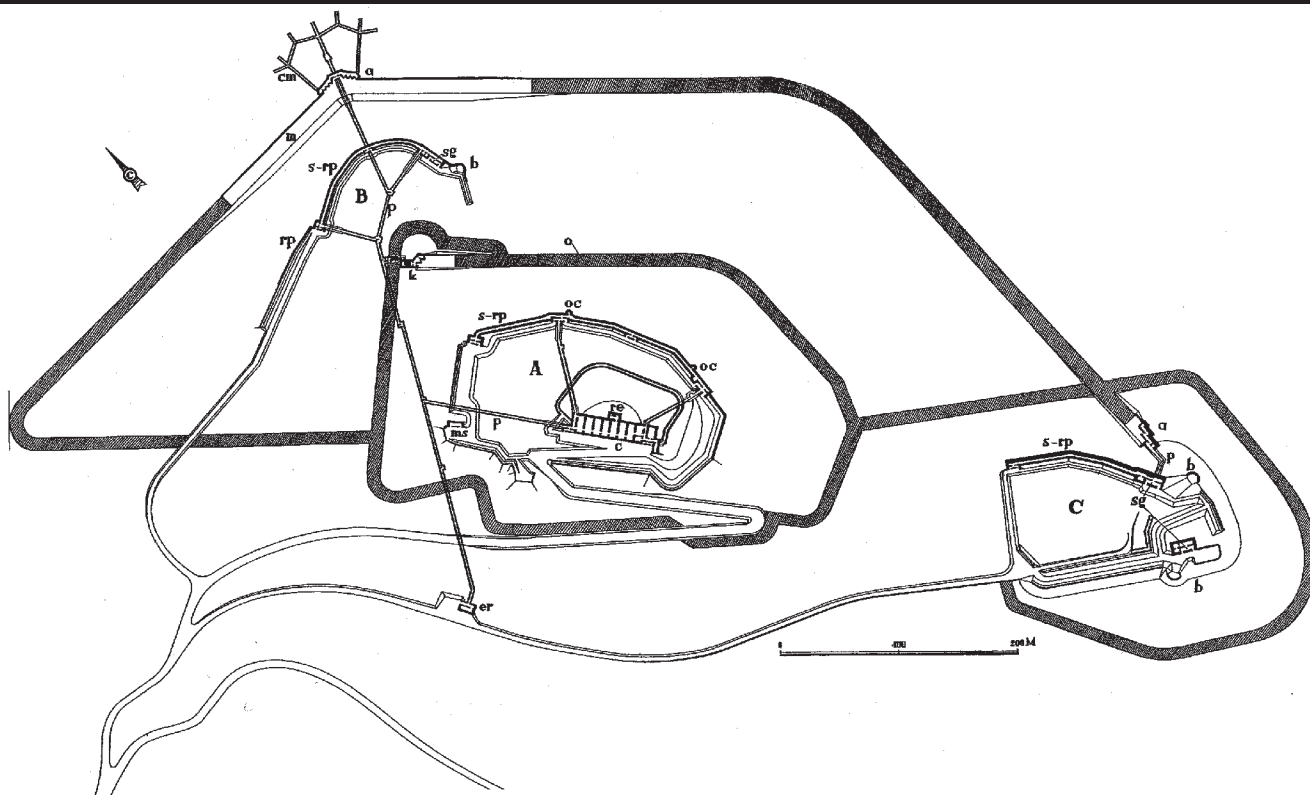
Monday, Sept. 16, 2002

Our bus took us to the outskirts of the city, where we headed up a dirt road to a series of large hills that ran across the peninsula. On top of each hill was a land-defense work dating from the 1910 to 1915 period, now overgrown and abandoned. We stopped in the saddle between two hilltops and hiked up to the left lunette of Fort No. 3, an infantry fort built 1910-15. This work consists of a large concrete rifle parapet in a half moon shape. Every 10 feet were small niches in the parapet wall to shelter one soldier. Running under the parapet are underground galleries that provided more shelter to troops while allowing connections with the main fort and counter-scarp caponier. The group climbed over the parapet and slid down to the ditch to visit the caponier. Returning to the lunette, we entered the galleries that took us to the center of the lunette and then down to the interior of the counter-scarp caponier. This two-level caponier had firing ports on the upper level and the lower level had access to a web of counter-mining tunnels. Completing our inspection, we traveled back up the gallery and then to the right flank of the lunette. Emerging from the concrete structure via the field gun shelter, we visited the open barbette emplacement where the field guns would have been moved for firing. Back into the gallery, we moved uphill toward the main fort, observing large open manholes in the gallery's floor. The manholes were for explosive charges to block the gallery if the lunette was captured. We turned off into a caponier which covered the inner ditch and barbed wire defenses. This caponier once mounted 57 mm Nordenfelt guns that provided flanking fire across the approaches to the main rifle parapet line. Hiking overland we reached the main



Concrete rifle parapet at Fort No. 7. Note the niches along the firing platform for rifleman shelters, and the doorway below for entry into galleries running under the parapet.

(T. McGovern)



Plan of Fort No. 3, an infantry fort built 1910-1915. Main items are: (A) central stronghold (B) left lunette (C) right redoubt. (Fortress Vladivostok book)

parapet. Walking on top of the rifle parapet we came across the open concrete emplacements for two armored observation cupolas (the cupolas were missing). Across the valley we spotted Fort No. 2 on a even higher hill, to our right we could see Fort No. 1, and to our left Fort No. 4 in the distance. Reaching the top of hill, we saw the remains of the caserne protected behind the hill's crest. This area had been heavily damaged by the later use of this position for a mobile surface-to-air missile (SAM) battery. The bus then took us around the hill to right redoubt. Traveling down the road, we came upon the remains of the foundations for the cableway that was used to construct these works. Reaching the redoubt we examined the concrete shelters for the mobile artillery and the open barbette position for these guns. Entering the gallery under the rifle parapet we quickly realized that this construction was incomplete, so we could see a cross-section of parapet. Walking down the ditch we reached the redoubt's large concrete caponier with round gun ports.

After lunch in the city, we went back out to the 1910 defense line and Fort No. 7, an infantry fort built 1910-15, which has recently been opened as a fortification museum. We met Sergey Popov, who proceeded to turn on the newly installed lights and guide us through the fort. We entered the fort through a large concrete structure, which formerly contained the central power plant and kitchen. Here we viewed some artifacts that were found while cleaning up the fort. Proceeding through the underground galleries we made our way under the rifle parapets to the postern, which took us to the double-level counter-scarp caponier and the counter-mining tunnels. Returning back up the postern we entered the very large caserne tunnel (about four times bigger than the galleries we were just in) with the interesting addition

of modern red track lighting. Connected to the caserne tunnel was a large entrance block that had six flights of stairs up to the top of the fort. Climbing outside we were able to view Amursky Gulf to the left and Fort No. 6 on the far hilltop to the right. The supporting Stronghold Z was not visible because of brush covering the parapet of the stronghold. Directly in front of us was an empty well for the armored observation cupola. The group then visited the rifle parapet and mobile gun positions before visiting the stone-lined ditch, the site of prisoner executions during the Soviet period.

Tuesday, Sept. 17, 2002

We traveled up the peninsula by minibus to the World War II land defenses of Vladivostok in the Artemovskiy Sector, near the international airport. Our first stop was Battery No. 389 (4-130 mm guns, built 1943-44), which was disarmed in 1945 once the Japanese threat disappeared, but was later rearmed in 1971-73 to defend against possible Chinese attacks. We hiked down a little-used dirt road for about 15 minutes before reaching an underground central magazine of a simple concrete design. Continuing up the dirt road we soon reached the first gun position. It consisted of a below-grade (about 5 feet) gun platform surrounded by a trench protected by a concrete ledge. Two service tunnels accessed the trench on opposing sides of the position. These tunnels contained storage for ammunition and crew protection before emerging in the woods. Continuing on we reached the battery commander complex consisting of a range finder position, observation station, and plotting room, all connected by underground trenches. We stopped by the other gun positions on the way back to the mini-bus. Unfortunately

the ordnance for this battery was scrapped in 1999-2000, along with all its support equipment.

We drove on to Battery No. 390 (2-130 mm guns, built 1943-44), located in an overgrown but less forested position and very similar to Battery No. 389. During lunch we were fascinated to watch Yuri make field repairs to his camera lens by building a fire and heating the lens housing so the bare metal would become blackened. This would dampen any reflection from within the lens casing as he had built the lens only the night before at his workplace. This is one camera technique that the rest of group would never have tried.

Passing through Artem, we stopped and visited a remaining concrete machine-gun bunker that guards a WW II anti-tank ditch. We drove into the foothills and walked the few hundred yards to Battery No. 878 (2-100 mm guns, built 1943-44), which was rearmed during the early 1970s with 85 mm guns. The emplacement design was similar to Battery No. 389 and 390, but smaller. We also were able to locate the temporary wooden emplacements for the 130 mm guns installed there in 1941 before the 100 mm guns. We traveled by minibus on through the forest to the edge of the Ussuriysky Gulf to Battery No. 875 (4-130 mm guns, built 1943-44). The first two gun positions were standard circular below-grade emplacements without ordnance, but the next two positions still had their 130 mm B-13-3s guns. As we scrambled around to take photographs, we noticed that they could still be traversed. We were quick to take advantage of this feature by having our Russian friends point the guns in the best poses for our photography.

Wednesday, Sept. 18, 2002

We had an early morning start, as we needed to check out of the hotel and take the ferry to Russian Island. Russian Island is the principal island south of the Muravyev Peninsula. This large, rugged island forms the southern side of the Bosphor Vostochny, which leads to the entrance to Vladivostok's Golden Horn Bay. The primary occupant of this island is the Russian military, so access is restricted and we needed special permission to visit. We boarded a small car ferry at the seaport terminal in the main harbor for the 40-minute voyage. The ferry traveled down the Golden Horn, through Bosphor Vostochny, and out into Amursky Gulf. One of the dominant features of Russian Island is Novik Bay, a large inlet that almost cuts the island in half and the location of the ferry landing. The first defense work that we reached on the eastern arm of the island was Fort Pospelova; also known as Stronghold No. 4 (a land defense work, built in 1900-03). This fort was part of the pre-Russo-Japanese-War line of defense and similar to Stronghold No. 1. We crossed over a very interesting gorge caponier that also served as a bridge into the fort. We toured the fort's large caserne before visiting the mobile artillery shelters and barbette positions on top of the parapet. Before leaving, we entered the postern, which took us down to the counter-scarp caponier. Back on the bus we drove to Battery Novosiltsevskaia No. XXI (6-6" Canet guns and 2-57 mm Nordenfelt guns, built in 1901). The battery sits high on a bluff that overlooks the eastern entrance to the Bosphor Vostochny. This battery is similar in size and function to an Endicott-Period six-inch barbette battery. After exploring a searchlight position

on the cliff below, our group made its way down to the shoreline behind the battery to Artillery Flanking Casemate No. 04 (2-76 mm, either M1927 regimental or M1909 mountai guns, built in 1941). This enclosed concrete gun position would have provided flanking fire on warships once they passed the headlands. We continued down the beach to Battery Pospelovskaya No. XX (4-57 mm Nordenfelt guns, built in 1900). This rapid-fire battery was a simple design, not unlike the three-inch rapid-fire batteries of the Endicott Period. The site had been converted to ammunition storage for the Russian Navy, so it was surrounded by fencing, earthen berms, and guard towers.

Vladimir met the "owner" of Fort No. 11, a large infantry fort, built 1910-12, by chance on our ferryboat ride over to Russian Island. The owner invited us to visit the fort that afternoon, so we hiked up the dirt road to the fort, where the owner met us. Passing over the ditch we noticed the incomplete counter-scarp caponier to our left and a large caserne in front. The fort was overgrown, so making our way to the concrete rifle parapet took some effort. Once on top of the parapet, the group traveled from the right side of the fort to the left, taking photographs of the open barbette positions and the gun shelters. Once we reached the end of the rifle parapet we hiked back through the center of the fort.

The next stop was Battery No. 981, also known as the Voroshilov Battery, 6-305 mm guns in two turrets, built 1932-34, as Vladivostok's primary coast artillery battery previous to World War II. Using two naval turrets (MB-3-12) from former Russian battleship *Poltava* (built 1909-14) and six 305 mm/52 caliber guns (with six spare barrels), the Russian Navy built two separate concrete blocks for these turrets. The turret blocks and the central power plant are connected by underground galleries. The battery site is inland from the coast, actually in a valley, and is surrounded by machine-gun bunkers, while the battery's command post is located on heights directly in front of the battery, overlooking the sea. These turrets could send 12-inch shells about 20 miles in a 360-degree field of fire, which allowed them to fire on targets located both in Ussuriysky Gulf and Amursky Gulf. This impressive battery remained active until the late 1990s, when it was deactivated and retained as a naval museum.

We drove past turret block #2 and parked next to the entrance to turret block #1. We had to wait until the curators of the battery could ready the site for our visit. Finally, we entered the back of turret block #1 through a large open-top trench into a hallway



Turret No. 2, three 305 mm guns, at Battery No. 981.
(T. McGovern)

that led to the turret and main ammunition-handling room. Along the hallway were rooms for support activities, such as air filtration, workshops, etc. The concrete space around the turret well has several museum displays. We climbed down to the powder store and handling rooms on the level below. Climbing down another level we were able to visit the shell store and handling rooms. While we had unlimited time to explore these spaces we were not allowed to visit the turret's power rooms or enter the connecting gallery to the central power plant or to turret block #2. Retracing our steps back to the entrance of the block, we then visited the gun turret itself through a back hatch. This allowed us to see the thickness of the turret's armor. Inside we were able to view the three 305 mm guns, each in their own partitioned gunroom, and we were able to examine the breech mechanism. Outside, we examined the outside of the turret and made our way to turret #2. We walked on the rails for the large traveling gantry crane that was used to install and service the two turrets. Along the way we looked at six 305 mm barrels that were on-hand as spares. We explored the outside of turret #2, but were unable to go inside the turret or its emplacement. While we were visiting the battery, Oleg Stratievsky, a former naval officer and local historian on Russian Island, and his family were busy preparing an excellent dinner for us in field conditions. Using an outdoor grill and picnic area they served us a five-course meal.



One of six spare 305 mm barrels at Battery No. 981.
(T. McGovern)

We returned back up the eastern arm of Russian Island to a newly-opened Hotel Renaissance. This excellent hotel, the only one on the island, actually had nicer rooms and friendlier service than our hotel in Vladivostok.

Thursday, Sept. 19, 2002

After checking out of the hotel, we headed south by minibus on the eastern arm of Russian Island we passed Trud Bay, a side arm of Novik Bay, which contains a fleet of about 20 abandoned Russian naval vessels ranging from submarines to destroyers, which are in the process of being scrapped. We continued on to the Zhytkov Peninsula to visit Battery No. XIII, also known as No. 922 during the Soviet period (4-10" M1895 guns, built in 1912). This coast artillery battery had its protecting earthen



Group photo at a 130 mm gun emplacement at
Battery No. 389, built 1943-1944. (M. Egger)

berm removed in front, and the rear of the battery was overgrown. Vladimir pointed out how the battery's emplacement had been converted from 10-inch guns to 6-inch Canet guns and then to 130 mm B-13 guns during the Soviet period.

The next stop was Battery No. 902 (4-180 mm guns, built 1932-34) which we would have not found without Vladimir's direction. The gun blocks were dispersed in a generally linear pattern. These concrete structures were almost completely buried, with the 180 mm gun position atop of the magazine, and lifts, support rooms, etc. below. A fifth structure was a central power and heating plant. These positions have been vandalized and several have been burned out. Martin Egger fell into a service trench and broke the lens off his camera, showing the need to watch your step in these dark and vandalized underground structures.

Next we visited the nearby Fort No. 12, a large infantry fort built 1910-15, where we explored the underground galleries, concrete rifle parapets, barbette gun positions for mobile guns, and a caponier. Our cook from the previous night's dinner arrived in his car and prepared an excellent lunch for us. After lunch, we visited Battery Velikokniazheskaya No. XVII (4-10" M1895 guns, built 1909-12), also known as the Great Prince Battery. This work was built to a standard post-Russo-Japanese-War design for coastal batteries. A long gallery runs under the parapet connecting each of the four emplacements. Off this corridor are shell and powder rooms with adjunct lifts. The ordnance for this battery was dismantled during World War I and never replaced. Nearby, we were able to visit the massive excavation and underground galleries for the incomplete twin turret Battery No. 367, or No. XIX (4-305 mm guns, constructed 1914-1917). We first visited a large quarry-like site where the access tunnels were blasted out of rock. Most of the tunnels were closed with fallen rock, but one was still open. After walking in several yards we retreated as the tunnels were never completed with concrete lining and we were worried about soundness of the bare rock. We drove around to the front of the battery where we could view the gaping holes that went down several stories for the turret blocks and even further down for the ammunition lifts. It was interesting to note that these turrets would have been visible from the sea, while the turrets of Battery No. 981 are located in a valley and are not visible from the sea. Our next stop was the command post of Battery No. 981 atop the ridgeline between the battery and sea. The command post consisted of three separate structures

connected by underground passageways. The main block has three underground levels with the top level having two armored observation cupolas piercing the surface. The other blocks, one for an armored range finder and the other for a radar station, have only one level.

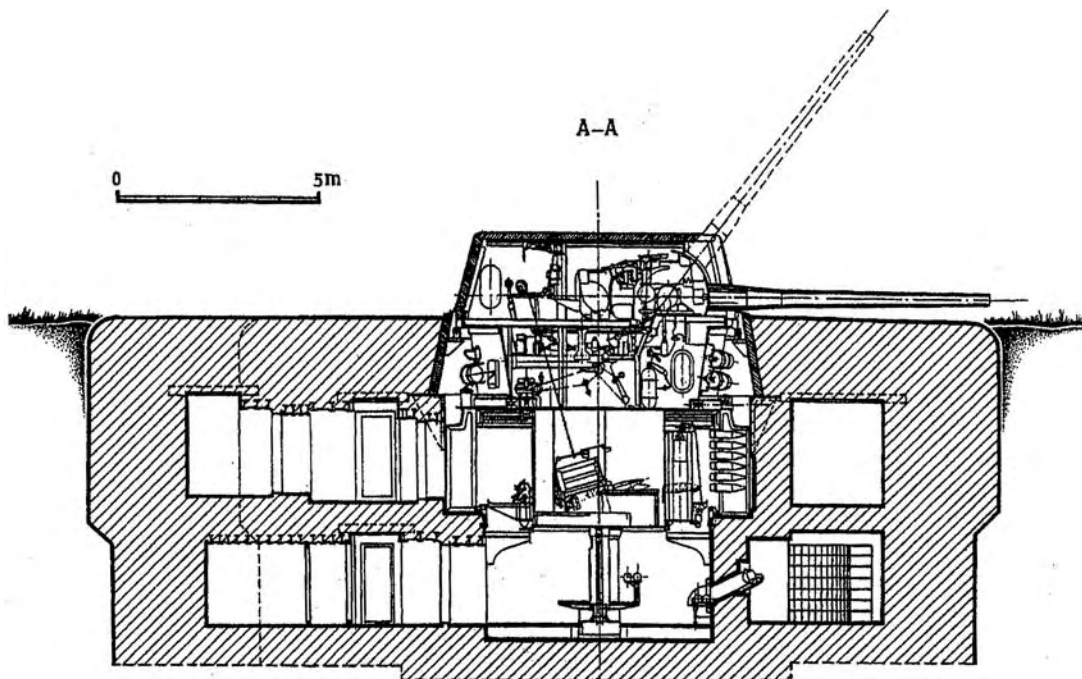
Traveling by minibus down at the water's edge was a three-loop-hole machine-gun bunker named "Priboj" built in 1938 for beach defense. We also visited Coast Caponier No. 6 (4-3" M1902 mobile guns, built in 1910) on the headland of the Viatlin peninsula. Driving around to the Tobizin peninsula we visited another three-loop-hole machine-gun bunker named "Volna" built in 1938, and on the headland was Coast Caponier No. 7 (4-3" M1902 mobile guns, built in 1910). After feeding a local bulldog our leftover lunches, the mini-bus took us the western side of the island to a very deserted ferry landing. Along the way we spotted a surviving 6-inch Canet gun being used as a monument, but we were unable to stop. We watched the sun set, and out of the growing darkness a small car ferry appeared to take us back to the city and the Hotel Vladivostok.

Friday, Sept. 20, 2002

We used a small vessel, which appeared to be a former Russian naval cutter, to take us from the Vladivostok ferry terminal to Elena Island. Elena Island was once part of Russian Island, but to speed communications between Russian Island and Vladivostok a narrow channel was cut through the cape, forming the island. Heading out of Golden Horn we got another great view of naval and merchant ships in the harbor. We crossed over the Bosphor Vostochny, and using the man-made channel we reached the landing on Elena Island. Given the isolated nature of the island only a few families live there. We hiked up the main road until we located the former narrow-gauge rail right-of-way. Walking through a forest we reached Battery Larionovskaya Northern No. III (8-8" M1867 guns, built in 1887). This battery was of earthen construction with only the ammunition niches being

made from cement, which has allowed nature to reclaim much of the battery. Continuing on the former right-of-way we reached the remains of the large concrete central magazine for the two 8-inch batteries. Looking up, we could see Battery Larionovskaya at Peak No. II (6-6" Canet guns, built in 1901) above us. Upon reaching the top, we were treated to a spectacular view of Elena Island, Russian Island, Bosphor Vostochny, Golden Horn Bay, Vladivostok, and Amursky Gulf. Part of the battery has been turned into a local residence with some very aggressive dogs, so we were happy for the fence between them and us. We explored four of the battery's concrete emplacements. None of the battery's Canet guns remain, and the magazines themselves have been stripped of all material. Vladimir now led us over the front of the battery and down the steep cliff to an iron-roofed station for a stereoscopic range finder. Sliding down the rocky trail, we were not sure where we would end up next. Upon reaching the shoreline, we came upon a gun shelter for two 3-inch M1902 guns on movable mounts. The trail then took us to a camping area on beach where the local Russians found us to be a curious bunch of foreigners. One group of Russian ladies commented to LittleTatanya that she was a "lucky" to have so many men. I'm not sure that Tatanya saw it that way.

Upon entering the forest we saw an emplacement for two 57 mm Nordenfelt guns. Walking uphill we rejoined the railway right-of-way and entered Battery Larionovskaya Southern No. I (8-8" guns M1867 guns, built in 1887). The earthworks of these batteries are now covered with trees and bushes—except for the cement ammunition niches you would not notice the battery. Reaching a small peak we rested at the remains of a fire control station. Moving downhill we quick viewed another emplacement for two 57 mm Nordenfelt guns. We now headed back to the cutter that has been waiting for us at the island's ferry landing. Just before we reached the landing, we visited a large powder magazine P5 (built in 1897) that is now a home. Surrounded by a beautiful garden, the residents were kind enough to invite us to



Plan of turret block for Battery No. 220, two 180 mm turrets, built 1940-1942. (Fortress Vladivostok book)

view the interior of their home/magazine. Back onboard the cutter, we headed for Shkot Island on the far side of Russian Island. Before entering the Amursky Gulf we drifted in a beautiful cove while eating our box lunches. Motoring around Russian Island we spotted several batteries and flanking artillery casemates.

Shkot Island is a small island almost attached to Russian Island by a long spit of land on the southeast side of Russian Island. It is abandoned today, but it once had several batteries and a large cantonment area. Our cutter ran its bow into the spit and a boarding ramp was rigged for us to climb down. Cutting across the spit we visited Artillery Flanking Casemate "Storm" (2-76 mm M1932 guns, built in 1934). While the guns and mounts are gone, we were able to see the remains of the armored shields for these guns. In the hillside behind the casemate was an underground magazine and concrete trenches. At this point our group split up, with one group relaxing on the beach and enjoying the sunshine, while the other group climbed up to the top of Shkot Island to visit Battery No. 904 (4-152 mm Canet guns, built in 1932-33). Passing through the abandoned cantonment area where just brick shells of buildings remain, we by-passed the road to the battery for a more direct route. Battery No. 904 consisted of two separate concrete structures, each supporting two guns. Above ground are simple open gun emplacements for the 152 mm guns with low parapets about 200 feet apart. Underground is one structure with separate magazines and shell rooms for each gun, along with a heating plant and crew shelter. Still in place are the shell and powder hoists. We also visited the battery command post with a reinforced concrete observation cupola and empty range finder position. Looking back toward Russian Island we were able to see Fort No. 10, an infantry fort built in 1910-12, and Battery No. 982 (4-180 mm guns, built in 1933-34). Battery No. 982 still retains its four 180 mm guns and its armored range finder. Several large earthen bems were adjacent to Battery No. 904 indicating that a mobile SAM battery was once located here. Taking the overgrown road down to the beach our two groups were reunited and the cutter backed off the beach, headed around Shkot Island, and entered Ussuriysky Gulf. Entering the Bosphor Vostochny, the strait between the Russian Island and Muraviev Peninsula, we located some more coast defense batteries on the headlands. The cutter motored through the Golden Horn and back to the ferry terminal.

Saturday, Sept. 21, 2002

We boarded the mini-bus with our gear for a two-night visit to Gamov Cape, about 95 km southwest of Vladivostok. We had the day to visit military-related sites around the city before boarding a high-speed passenger ferry for the 40 km voyage to Slavianska across Amursky Gulf from Vladivostok. Traveling only a few blocks in Vladivostok we drove up to Battery Sapernaya No. IX (4-10" M1867 guns and 2-57 mm Nordenfelt guns, built in 1899). Over the years the city has grown around the battery, apartment buildings now tower over the site. In the 1970s the 57 mm battery was rearmed with two 130 mm guns as a memorial to Russian sailors. Today, the site is derelict, but the two 130 mm guns remain.

Our next stop was WW II Soviet submarine S-56 on display in the center of Vladivostok. The interior of the submarine has

been turned into a museum and tells the story of Russian Navy in the Far East and the successful missions the S-56 undertook at the end of World War II. Outside is a war memorial to the soldiers of World War II, which includes a 102 mm/60 naval gun and T-34 tank turret. We then rode a few more blocks to Museum of the Pacific Fleet, which has been closed for several years undergoing renovations. Arranged around the back of the museum is collection of artillery and other artifacts. These range from a torpedo boat to an army tank. Of most interest to our group was the artillery, including guns that were used in the battle for Port Arthur in 1905-06, a British anti-tank gun from the Korean War, a 57 mm Nordenfelt gun on a coast artillery mount, a 3-inch M1900 mobile gun for fortress use, a 9-inch M1867 howitzer, and other rare items.

Our mini-bus driver offered to drive us up to Fort Count Muraviev-Amursky, a large infantry fort built 1899, also known as Fort No. I or Fort North Western. The fort was the center of the 1899 defense line as it was built on top of the highest peak in the chain of hills. The fort has two interesting flanking gun casemates outside the main fort. One of these provided flanking fire on the First River Valley while the other casemate covered the defenses of the western part of the line. We were unable to visit the interior of the main fort because it is still in use as a radar and SAM installation. Due the importance of this high ground several detached batteries were also located around the summit. The most interesting of these was a battery of four 130 mm guns with shields that were installed during 1971-73. To our delight these 130 mm B-13-3 guns were still in place. Complete with their breech blocks, some of the guns could still be operated, which was surprising given their abandoned condition and close proximity to the city. This battery site also allowed us a wonderful view of the entire city, Russian Island, and the two gulfs. Upon leaving the site, our driver took us by one of the earlier land defense batteries, earthen emplacements with concrete ammunition storage. Driving down the hill we were able to view one of the large central reserve magazines. These magazines consisted of several long tunnels drilled into the hillside with protective concrete doors.

We drove across town and out to the Egersheld Peninsula to visit Battery Tokarevskaya Down No. IV (2-57 mm Nordenfelt guns, built in 1902) on Tokarevsky Cape. This small battery overlooks the western entrance to Vladivostok. Driving back to the city center, we stopped briefly to visit a large powder magazine P4 (built in 1899). We located a large storage tunnel



130 mm B-13-3 guns installed 1971-1973 near Fort Count Muraviev-Amursky. (T. McGovern)

in the cliff behind the magazine. Given the racks and rails in the floor we guessed this was an abandoned storage magazine for naval torpedoes.

At the now familiar ferry terminal where we boarded a 1970s-era hydrofoil. We departed at 1800 and one hour later we were in Slavianska. Waiting for us was a “cur,”—a large truck with a passenger cab on its back. Our two and a half-hour drive to Vitiaz Bay gave us an appreciation for rough Russian roads contrasted with the beauty of the Russian Far East. It took all our efforts to just to stay in our seats. Those in the back of the cur got even more dramatic ride. Al Chiswell discovered just how high you could be bounced when he traveled the foot and a half into the ceiling and cut the top of his head on the cur’s roof. When we reached the Vitiaz Bay guesthouse we were happy to disembark.

Sunday, Sept. 22, 2002

As we made the rough trip to Cape Gamov, working our way up the back of the ridgeline, we drove through the former barracks area for Battery No. 220 (2-twin 180 mm guns in turrets, built in 1940-42). Reaching top of the ridge, we arrived at two abandoned gun turrets. Two covered access ways led to the battery proper. Passing through a protective door, we were on the upper level of the work. Surrounding the turret well were the shell rooms and power rooms. The lower level contained the powder rooms and other support areas. We could see signs of scrapping, but generally the turret and its guns were in great shape. One drawback was the lack of light, which restricted your vision to your flashlight beam. While walking to the other turret we examined the underground central power plant. The second turret was in better condition than the first. When we emerged from the turret sites, we were covered with grease and dirt. Exploring the



Turret No. 2, two 180 mm guns, at Battery No. 220, Cape Gamov. (T. McGovern)

perimeter of the turret site we located defensive trench lines, machine-gun bunkers, an antiaircraft magazine, and other support structures. The next ridgeline over contained the command post, but this area was still in use by the Russian Navy and therefore had restricted access. After about four hours at the site, we drove down to Gamov Cape lighthouse—the lighthouse keepers were happy to have visitors and showed us around the site. They had a small café, so we enjoyed some excellent Russian beer.

Monday, Sept 23, 2002

We drove to the entrance to of Vitiaz Bay to visit Battery No. 254 (4-130 mm guns, built 1938-43). An oceanographic institute now uses the battery site and we had to get their permission to visit. We hiked over the headland to the battery site on Shults Cape. The battery consisted of four circular below-grade gun emplacements connected by covered trenches. We were able to locate the temporary gun sites and visit the command post on the next headland. We hiked back to the cur, and went around to the far side of Vitiaz Bay to visit a “fortified house” built by a descendant of Polish nobleman Jan Jankowski in 1918.



Group photo at farewell banquet held for the tour by Breeze Tours at the Vladivostok Railway Station.
(T. McGovern)

Returning that afternoon to Vladivostok, we put on our best clothes for Breeze Tour’s farewell banquet at the famous Vladivostok train station—the end of the Trans-Siberian railway. We knew we were in for a rough night when we saw that we being served champagne, beer, and vodka all at the same time! We exchanged toasts and gifts with our hosts and thanked them for a great tour. As the toasts continued some of us tried to substitute water for vodka in our shot glasses, but our lady hosts would not allow us to get away with this substitution and poured out the water, replacing it with vodka. It quickly became apparent that we were no match to our hosts when it came to drinking. After a fine meal, we tried our hand at dancing (another skill that our group did not possess).

Tuesday, Sept 24, 2002

We were tired from our late night the day before, but our schedule for the day was light. We had requested a day to visit some standard tourist sites and to go shopping, including a stop at a Russian military post exchange. We stopped at an outdoor restaurant for lunch, joined by Mr. Vladimir Saprykin, Vice-Major of Vladivostok responsible for tourism and international contacts. At the international airport were we said farewell to Vladimir and the staff of Breeze Tour. We returned to Korea and the tour officially ended.

Heartfelt thanks to CDSG member Vladimir Kalinin and Breeze Tour for arranging our tour. Given the difficult of reaching the various fortification sites, we were very impressed that we did not miss any scheduled sites and were able to visit several additional sites on an add hoc basis.