



1930-2020  
*Naval Academy*



# Finnish Naval Academy 90 Years



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## MESSAGE FROM THE PRESIDENT OF THE REPUBLIC OF FINLAND

This year the Finnish Naval Academy celebrates its 90th anniversary. The Academy has an honourable past and there is reason to remember it with pride.

The Naval Academy has lived through a lot of history and managed to adapt to changes. It has sustained high performance in training and research. The Academy has great significance in naval and national defence. We need a capable Navy that is ready to act in the ever-changing circumstances also in the future.

During the past year, the entire world has encountered a new threat in the form of a viral pandemic. This has also been seen in the life of the Naval Academy. The virus is still present and affects our society. However, I do not doubt that we will survive this as well. I commend the Naval Academy for the perseverance and good work that has been done and express my warm congratulations on the Academy's 90th anniversary.

A handwritten signature in black ink, which reads "Sauli Niinistö".

Sauli Niinistö  
President of the Republic of Finland



Dear Reader!

The Naval Academy celebrates its 90th anniversary under exceptional circumstances. The COVID-19 pandemic that erupted at the beginning of 2020 has made it impossible to carry out things the way we are used to. Nevertheless, the Navy and the Naval Academy managed to develop their activities accordingly. One of the consequences of the pandemic has been the requirement for dynamic planning, made apparent, for example, in the changes made to the traditional training expedition. The Naval Academy proved that in hard times it could fulfill its mission with the help of professional and motivated personnel.

The Navy is an integrated whole, including modern and sufficient materiel, a comprehensive situational picture, and an effective doctrine and leadership. The way our service faced the changes of the world shows that the professional soldiers trained by the Naval Academy are able to maneuver their way through extraneous obstacles - the 90-year old service academy is modern and able to adapt to all circumstances!

The Navy is currently undergoing many changes. We are developing our capability in a way that will enable us to operate in the future operational environment. The next decade will bring us new capabilities in almost all our branches. It must be remembered, though, that capability is not made up of technical systems alone. In their center there is always a capable professional. The Naval Academy plays a key role in ascertaining that the Navy has capable professionals also in the future. There is still work to be done, but I trust the Naval Academy's capability to train and educate professional and motivated personnel for the service.

I wish the Naval Academy a happy 90th anniversary and fair winds and following seas on the way to future challenges and opportunities. Looking at the experiences of the past year, I am convinced that the Naval Academy will provide high-quality training also in the future!

Commander of the Finnish Navy  
Rear Admiral

Jori Harju



Dear Friend of the Naval Academy,

The British poet and cleric John Donne (1572 - 1631) wrote in his Meditation "No man is an island". The quote is famous and its message timeless: we all depend on one another. Also the Naval Academy, a school of naval warfare on an island, operates in close contact with the surrounding society, as do all the branches of the Navy and the Defence Forces. As an example of this interaction, I want to mention the numerous foundations that in many ways support the work of the Defence Forces and the reservist organizations. The Naval Academy also has a foundation to help in reaching goals that cannot be covered by the state's budgetary resources.

The Naval Academy Foundation was established in 1988 and the starting funds came from the Naval Academy Scholarship and Gift Fund. The purpose of the Foundation is to promote naval training, education and research and to support the Naval Academy's publications. To this end, the Foundation grants scholarships and awards grants. We also channel scholarships donated by other foundations, facilitating the work of the donators, such as the Urlus Foundation, Vaka Foundation, National Defence Foundation - and the Academy. This book to celebrate the Naval Academy 90th anniversary is published by the Naval Academy Foundation.

Our contribution encourages and helps the students and researchers of the Naval Academy. Just like the Academy, we have a long-term commitment. With the help of various donations, the scope of our contribution has grown; there is good reason to express a sincere thank you to all our donators.

On behalf of the Naval Academy Foundation, I congratulate the Naval Academy on its 90th anniversary. The Navy needs your professional training and education and the Foundation supports your objectives. Wishing the Naval Academy favorable winds and smooth sailing for the future!

Chairman of the Naval Academy Foundation  
M.A., Lieutenant Commander (Ret.)

Robin Elfving



Dear Reader,

As we planned the Naval Academy's 90th anniversary celebrations, somebody suggested an anniversary book that would tell about current issues and viewpoints from the Naval Academy. Thus, this book does not aspire to be a complete historical account of life at the Naval Academy. It is rather a general description of history and today and maybe tells such things about the Academy, its sailor training, and Pikku-Musta Island that have not received much attention earlier.

We have planned and celebrated our 90th anniversary in the shadow of the COVID-19 pandemic. We have had to change and even cancel many planned events. Despite the pandemic, we have managed to celebrate the work of the earlier generations as well as highlight our own work. During this year, the Naval Academy has actively presented its operation in the social media. Every month a historical account of one decade in the life of the Naval Academy was posted and received a lot of positive attention in Facebook and in Twitter.

Large projects like this anniversary publication take a lot of effort. The editors were naturally responsible for editing the book, but the whole school participated in its writing. In addition, we received assistance from professionals outside the school. I want to thank all who contributed to the contents of his book. Making the texts and pictures ready for publishing was a great job. The Naval Academy librarian Hanna-Kaisa Hokkanen and public information official Inka Jousmaa formed the editing team, supported by author Johanna Pakola and by the Naval Command's Soile Timonen who did the desktop publishing. The team's work is greatly appreciated.

This book would not have been possible without financial assistance. I especially want to mention the proactive work of the Chairman of the Naval Academy Foundation, Robin Elfving. We asked contributions from a few Finnish companies to cover the publication costs of this book. Despite the uncertain times, we got several, in fact so many that after the publication the nest egg of the Foundation grew a little.

On behalf of the editors, I wish the readers pleasant moments with this anniversary publication. I hope we have been up to the task and this book will become a sign of its time that will be read by many generations to come.

Commandant of the Naval Academy  
Captain (N)

A handwritten signature in blue ink, appearing to read 'Juhapekka Rautava'. The signature is stylized and cursive.

Juhapekka Rautava



# History



## Independence

In 1917, as Finland gained independence in the aftermath of World War I, Finland was one of the poorest countries in Europe. The scanty resources also affected the Defence Forces and military training. This was especially true of the Navy.

The Navy equipment of the time consisted of vessels that the Russian military had left behind, and the quite capable Coastal Artillery. The first personnel in the Defence Forces consisted of soldiers that had fought in the ranks of the White Army and - of course - of conscripts. Military training in Finland began right after the War of Independence ended.

Naval training in independent Finland began in 1918. For example, in 1918 - 1919, German troops that had remained in the country trained Navy Officers, Petty Officers, Midshipmen and Seamen in Santahamina and in the Katajanokka Naval Barracks.





## 1920s

In the 1920s, the Finnish Defence Forces, including the training system of sailors, was taking shape.

Officers that had served in the Tsar's Navy and officers and ratings from the Merchant Marine formed the Navy personnel. Coastal Artillery personnel came from equally different backgrounds. There was a great need to standardize the military training of Navy troops.

The first time independent Finland trained Navy personnel by its own national efforts was in the fall of 1920, when the Katajanokka Naval Barracks started to train Midshipmen. Two years later, the training of Midshipmen took place in the Finnish Cadet School. The school was located in what is today known as the Zoological Museum, in central Helsinki. In 1923, the school was relocated to Munkkiniemi. The Katajanokka Naval Barracks was also used in Midshipman training and eventually, in 1926, because of the difficult commute between the two locations, the training of Midshipmen was moved to the Katajanokka Naval Barracks altogether.

In the early years of independence, the Cadet School provided the training of Coastal Artillery officers. In 1927, the Coastal Artillery and Navy staffs were merged under one roof - the Naval Defence Staff and, following this, the training of Coastal Artillery and Navy officers came together under one roof as well.

As many as 40 percent of the Midshipmen dropped out before graduating as Navy officers. Most often, the reason was that the training had not been what the students had expected.

The training of reserve officers for the Navy and Coastal Artillery ranks took place in the Reserve Officer School. In the Coastal Artillery, it was a prerequisite to pass the Reserve Officer Course to be considered for active-duty officer training. As to the Navy, only a few students were ordered to take the Reserve Officer Course, mostly those who aspired to become Midshipmen and those who had already been trained for the Merchant Marine.

Petty Officers received training on the Länsi-Musta Island in Suomenlinna, where in 1922 the Coastal Artillery Petty Officer School started its operation. Despite the name, training was given to Petty Officers from both the Navy and the Coastal Artillery. In 1927, as the Navy and Coastal Artillery were merged, the school changed its name to Naval Defence Petty Officer School.



## 1930s

In the 1920s, all personnel significant to the naval defence of Finland were being trained and in 1930, the separate schools for the training of Reserve Officers, Midshipmen and Petty Officers came together under the newly established Finnish Naval Academy.

The Academy was located in Suomenlinna and its first Commandant was Lieutenant Commander Ragnar Hakola. The personnel consisted of nine officers, one military official, ten career Petty Officers, and kitchen staff.

The same year the Finnish Navy procured its first training vessel, Suomen Joutsen (Swan of Finland). Her first training expedition began in December 1931. There were in total eight long training expeditions before the outbreak of the Winter War. Suomen Joutsen sailed as far as Cape Town and Cape Horn. In addition to sailors who trained their seamanship and navigation skills, people whose job it was to promote Finnish export industry embarked on some of these voyages. Service aboard was physically demanding, even dangerous. In the event of death, the deceased were given a sea burial.

The new Naval Academy had a staff and Midshipman, Reserve Officer and Petty Officer Sections. The Academy was first situated on two locations, Katajanokka, downtown Helsinki, and Länsi-Musta Island, Suomenlinna, but in 1935 all training was moved to Länsi-Musta. Since the buildings on Länsi-Musta were crowded and in poor condition, the

Academy was moved to Building D13 on the adjacent Pikku-Musta Island. The staff and mess hall remained on Länsi-Musta.

As new vessels were procured, more trained sailors were needed. At the end of the 1930s, the career Petty Officer courses lasted six months, and the Reserve Officer Course four months. The Midshipmen and the Coastal Artillery officers were trained separately until the mid-1930s, when their training was combined in a three-year training program. To apply to the program, one had to pass the Reserve Officer Course first.

The Naval Academy's anniversary was celebrated on January 28 - the day when the War of Independence started and the Cadet School of independent Finland was established. The Academy's first Color was that of the Cadet School, but in 1933 the Academy got its own Color. In 1957, as the Defence Forces traditions were reformed, October 18 became the Academy's anniversary and the honorary march of the Academy, the Athenians' Song composed by Jean Sibelius, was changed into the Song of the Sea by Väinö Haapalainen.

Before the start of the Winter War, the Naval Academy had established an efficient system of training. Hundreds of sailors had passed the Academy's courses and were now staffing positions in the Coastal Artillery and aboard Navy ships.



## 1940s

At the start of the Winter War in fall 1939, the Navy ordered extra refresher training exercises and raised readiness. Training in the Naval Academy was suspended as the personnel and students joined their wartime units. The Commandant, Commander Akseli Raninen, became the CO of the armored ship Vainämöinen. The Deputy Commandant, Major Petäjaniemi, with his staff of one Petty Officer and a few civil employees, was in charge of the Academy until training resumed.

The 10th Navy Reserve Officer Course that started on January 19, 1940, could be called 'a course of war and peace'. The Student Corps could not adhere to all course traditions; for example, all festivities and celebrations were cancelled. Instead, the course donated 12 470 Finnish Marks to the fighter plane fund.

The Midshipman Section suffered heavy casualties in the Winter War. Instructor, Lieutenant Veikko Opas, English Teacher, Reserve Officer Waldemar Helin, and Midshipmen Alpo Salokorpi and Tauno Ukkola were killed in action. Midshipman Milan Backman died of after the war.

During the dismal time of the Interim Peace, there were, however, a few positive things: Mining Counsellor Anders Kramer donated the Academy a magnificent 6-meter yacht, Klara Stjärna, for sailboat training, and Commercial Counsellor Eino Heinonen donated funds to establish the Midshipman Honorary Sword Foundation.

The Midshipman Corps donated a memorial plaque on which the names of the students and personnel who died for their country in the Winter War are engraved. The plaque was unveiled in a commemorative ceremony on May 25, 1941.

As the Continuation War approached, the Academy's Commandant, Commander Raninen was ordered to join the Navy Command and, gradually also the rest of the staff left the Academy for other units. Courses were again suspended and the students joined their wartime units. Major Petäjaniemi was, once again, the only officer to stay at the Academy. The training activities of the Naval Academy were resumed at the end of 1941.

In the summer of 1944, a battalion composed of the Naval Academy and Nyland Brigade fought in the Viborg Bay and in the heavy battles for Teikari Island.

The memorial plaques in the hallway of the Naval Academy tell the story of the great sacrifice that the men of the Academy made. After the war, the Commander-in-Chief awarded the Naval Academy the Cross of Liberty. Six men - former students and instructors - were also awarded the Mannerheim Cross.

In the five years following the war, the Naval Academy organized most of the Navy's minesweeper training as well as courses that paved the way for peacetime operations.



## Suomen Joutsen in Sveaborg in 1943

- Visa Auvinen, General Staff Officer and maritime author

In 1943, the Finnish Navy procured 14 motor torpedo boats. The Turku Shipyard built six Taisto-class boats; four Hurja-class boats came from Italy, and four Jymy-class boats from Tallinn. The Motor Torpedo Boat Flotilla already had two V-class boats.

The Motor Torpedo Boat Flotilla operated in the Eastern Gulf of Finland. They mostly engaged the enemy's sea transports to Lavansaari Island. The Flotilla's Depot Ship von Döbeln proved too small a platform for the task and Suomen Joutsen was chosen as the new Depot Ship. The Hurja and V-classes were to be supported by Suomen Joutsen.

Suomen Joutsen was re-equipped. Her ballast was removed, a torpedo hold was installed, the rigging was taken down and her hull was painted dark. A part of this work was done in Turku, the rest in the Sveaborg Shipyard. Because of the air threat, and because the terrain did not provide proper cover and concealment, Suomen Joutsen was not moved to the theater. Instead, she was to remain in Sveaborg.

In 1942, a detachment of four MAS-motor torpedo boats of the Italian Navy were deployed in Lake Ladoga. The following year they were deemed redundant and the boats were transferred to Tallinn where the Finnish Navy bought them. The boats were transferred to Helsinki, where they were supported by Suomen Joutsen before their deployment to the Viborg area.

The motor torpedo boats were maintained in their area of deployment but for any larger overhaul, they were moved to Helsinki and supported by Joutsen. For example, on August 19, 1943, four boats, and on September 6, eight boats were under repair in Helsinki.

Suomen Joutsen was anchored north of the bridge between Iso-Musta and Pikku-Musta Islands. She was anchored by its bower anchor and her stern was moored to a mooring ring that you can still see on the quay on Pikku-Musta. This made it possible for vessels to moor alongside on both sides of Suomen Joutsen.

Historians learnt about the berth through an interview; the person interviewed was quite certain that Joutsen had been berthed at this particular spot. The Governing Body of Suomenlinna (Sveaborg) told they had no photographs depicting Suomen Joutsen moored in this location - they only had pictures of an old barge. The barge turned out to be Suomen Joutsen.

The ship in the picture on the previous page does not look like the full-rigged, white training vessel from the 1930s. There is no rigging, the white side looks black, and the freeboard is high.

At the time, Suomen Joutsen had no anti-aircraft weapons, as it did in the Winter War and after 1943. The air defense over Helsinki and the Sveaborg fortress walls were considered to suffice. As you can see in the picture, a strafing attack against Joutsen was not likely. The nearest anti-aircraft battery was but 500 meters away on Länsi-Musta.

The task of Suomen Joutsen as the Depot Ship of the motor torpedo boats ended in September. The submarine mother ship, Sisu, hit an influence mine on September 13, 1943 and it had to be docked. The submarines needed a new mother ship, and the best choice was Suomen Joutsen, who had served in this task before. Only two days later, on September 15, the Navy Command assigned Suomen Joutsen to this mission. The motor torpedo boats were moved to the Katajanokka Naval Barracks.



## 1950s

In the early 1950s, the number of applicants to naval officer training, and accordingly, the number of Navy officers, decreased. Therefore, a 3-month naval officer training program was established.

In the organization reform of 1952, the Coastal Artillery became an Army service and the Naval Academy was attached to the Defence Command. This arrangement lasted till the end of the decade.

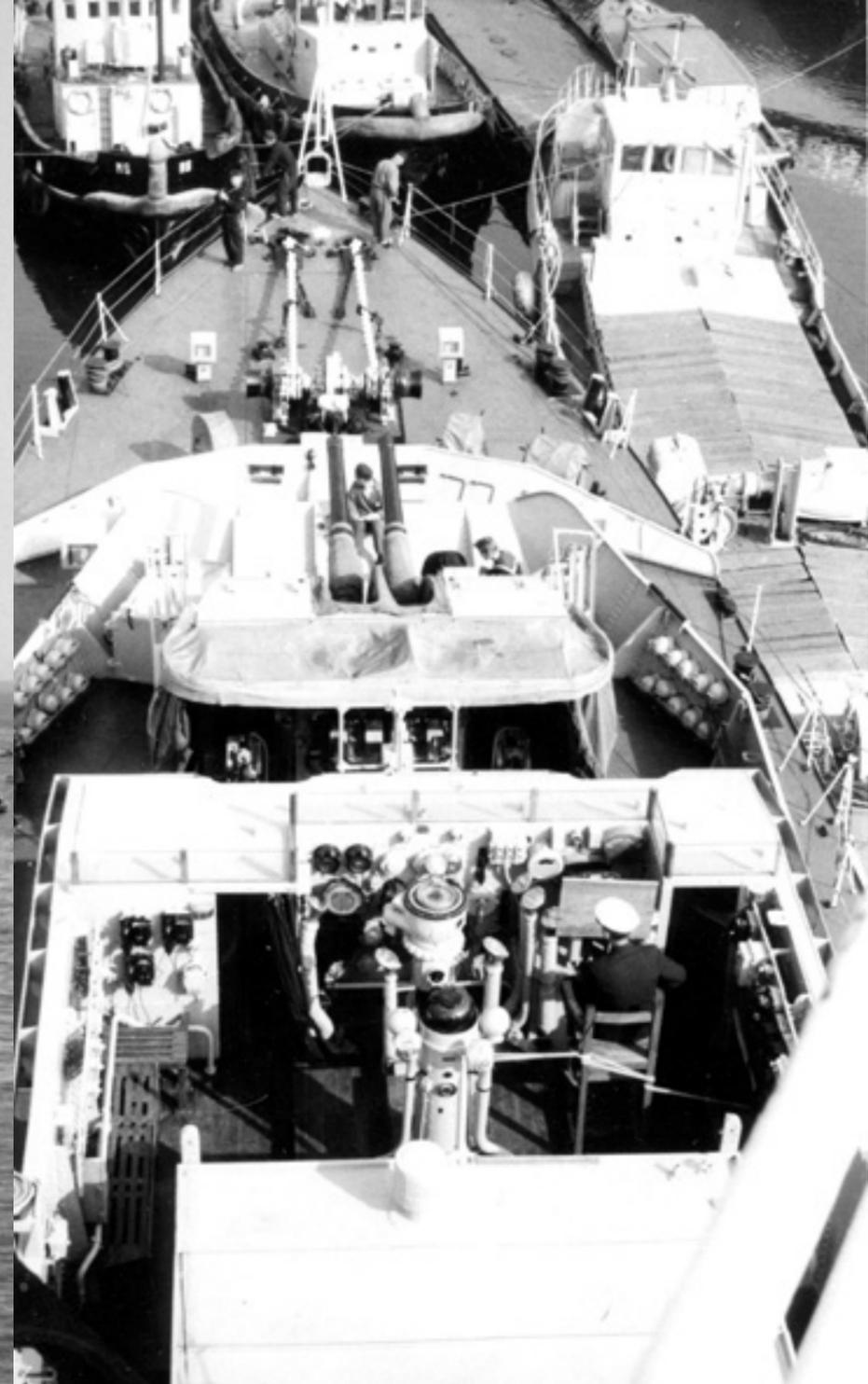
The training of Midshipmen was also reformed. Beginning from the 26th Midshipman Course of 1953 - 1955, the first year Coastal Artillery students studied with Army Cadets in Santahamina. The rest of the studies were conducted in the Naval Academy in Suomenlinna, and in summer months, in practical training in fortresses and aboard training vessels. This arrangement was not successful. Since all studies were crammed into a period of two years, learning objectives were not met. The time spent at the Cadet School was not meaningful and therefore the 27th Midshipman Course that graduated at the end of the 1950s had to earn 15 more credits in an Ensign Course of Naval Defence.

In the mid-1950s, the training and education of Midshipmen was developed so that it could be equated with academic studies. The Matriculation Examination became a prerequisite to the Cadet School.

The training of Petty Officers changed in 1954 as well. In the early 1950s, the two-phase training program had lasted 11 months. The first phase was now conducted in the Petty Officer School in Lappeenranta, and the second, the Midshipman training phase, was relocated from Pansio to the Naval Academy. At the end of the decade, it was noticed that most career Petty Officer students had a middle-school education. Thus, higher standards could be set for the training of Petty Officers.

History of the 152-mm Canet gun pictured on the previous page:

1918	Kungsö Fortress, Åland Islands, moved to a depot in Helsinki
1937 - 1940	Kaarnajoki Fortress, Karelian Isthmus, evacuated in 1940
1941	Hamnskär Fortress
Sep 1942	Suomenlinna



## 1960s

At the beginning of the 1960s, the Naval Academy needed a training vessel. Since Suomen Joutsen retired after the Soviet-Finnish Wars, navigation training was given on icebreakers, Purunpää-class minesweepers and on minelayers Ruotsinsalmi and Keihässalmi. However, they were not suited for training purposes.

The plans to build a training vessel were scrapped and a frigate - Porlock Bay - was bought from Great Britain in 1962. The frigate was built in 1946. She enabled navigation, weapons and marine engineering training in archipelagic and ice conditions and on the high seas, as well as the training of several courses at the same time. Porlock Bay had an LOA of 94 meters and a draft of 4.3 meters. Her displacement was 1 580 tons and her maximum speed 17 knots. She was renamed FNS Matti Kurki. Even though her equipment did not equal the equipment of vessels in active service, Porlock Bay sailed 86 620,9 nautical miles in Europe and in North America in the 1960s.

During the 1960s, there were doubts as to whether the best place for the Naval Academy was Suomenlinna; the old premises did not provide the best surroundings for training and education. Nevertheless, there were Midshipman courses for Navy and Coastal Artillery students as well as naval artillery, torpedo, sea mine, anti-submarine warfare, and coastal artillery courses for Petty Officers in Suomenlinna. The Academy also offered courses in naval defense and organized instruction for Staff Officers and Reserve Officers.

Instruction was also given in the Upinniemi Navy Base, Turku Navy School, aboard the new training vessel, and on the fortresses - the most popular being Miessaari, where almost all training exercises took place.

In 1969, a Coastal Artillery School was established in Santahamina. Since 1963, Coastal Artillery training had been given in the Military Academy and the Artillery School. But now both the Officers and Petty Officers of the branch could be trained in their own school. Even though the Coastal Artillery was now separated from the Navy, the Coastal Artillery soldiers received training in Navy skills and vice versa.



7.8. 2000 (-1)

## 1970s

In the 1970s, the proposition to move the Naval Academy to another location resurfaced. The suggested relocations were the Upinniemi Navy Base and the town of Vaasa. Eventually, when the Ministry of Defence heard the Academy's point of view, it was decided that the Naval Academy stay on Pikku-Musta Island in Suomenlinna.

The newly established Coastal Artillery School continued its operation in Santahamina in quite modern facilities. For example, the school had a fire control simulator and a four-gun anti-aircraft-gun battery for exercise purposes. This was, however, dismantled when the residents near the school complained about the noise.

The 1970s saw many reforms. The training of career Petty Officers was discontinued and replaced by the training of Warrant Officers, who could advance to the rank of Lieutenant, Senior Grade. In 1978, general military and civilian studies as well as joint courses were added to the Midshipman curriculum; and the duration of their studies was extended to three years.

Reserve Officer training was renewed in 1979. The new curriculum emphasized leadership training instead of branch-specific training.

After FNS Matti Kurki made her last training expedition, the Naval Academy used other Navy vessels to carry out practical training aboard. Meanwhile, a new training vessel was already on the drawing board. The sea trials of the new training ship, minelayer Pohjanmaa, began in 1979. FNS Pohjanmaa was much better than her predecessors - most importantly, she was designed to be a training vessel. Moreover, she could sail on the high seas and there was plenty of room for resupplies and accommodation as well as the training of various skills. FNS Pohjanmaa was also a full-fledged combat vessel whose weapon and combat management systems were modern and compatible with other Navy vessels. Already in the 1970s, FNS Pohjanmaa conducted an introductory training expedition in the Baltic Sea and in the North Sea. By 2013 when she was decommissioned, FNS Pohjanmaa had sailed 38 training expeditions outside the Baltic Sea.

In the 1970s, the training of sailors experienced many changes. Especially the renewed training facilities are worth mentioning. Some of them are still in use today.

JUUTINRAUMA: 1.8. 0800-1200...2400  
ISOBELT : 9.8. 1200 - 10.8. 1200



## 1980s

The new training vessel, FNS Pohjanmaa, made her first official training expedition in 1980. She departed from Helsinki on July 12 and sailed the route Rostock–Cherbourg–London– Karlskrona.

Captain (Navy) Erik Wihtol started as Commandant in 1980 as the Naval Academy celebrated its 50th anniversary. Prestigious guests were invited to the occasion, the most senior of whom was the wartime Commander of the Finnish Navy, Lieutenant General Väinö Valve.

The Naval Academy of the 1980s trained Midshipmen, Warrant Officers, and Reserve Officers. In addition, officers could participate in further training courses at the Academy. FNS Pohjanmaa sailed as the Academy's training vessel throughout the 1980s. In 1983, three conscript contingents per year started military service in the Navy. At the same time Reserve Officer training and the admissions policy to Midshipman training changed.

At the end of the decade, the Naval Academy received four upgraded and remodeled H-class vessels to conduct navigation training. Earlier the Academy had also received two R-class patrol boats, FNS Rihntniemi (hull number 51) and FNS Rymättylä (hull number 52). Today only one of the H-class vessels serves in naval defense, the training vessel of the Helsinki Naval Guild, m/s Kilstar.

The Naval Academy also focuses on research. In the 1980s, actual research was conducted under the Defence Forces Research Centre, which operated in various locations in the metropolitan area and in the old Ylöjärvi Quarry. Development was, however, conducted in the Defence Command and all the services. The development effort of the Navy concentrated on the deployment of the new anti-ship missile on the new vessel class and in the mobile Coastal Artillery units. The Navy Command was responsible for the former, the Defence Command's Coastal Artillery Office and Coastal Artillery School for the latter.

From the 1970s, missiles gradually replaced the heavy torpedoes launched from the Nuoli-class motor gunboats in long-range surface engagement. The new missiles needed a new platform that was fast and had a shallow draft. The increased speed meant semi-planing hulls, which again called for less weight. Aluminum hulls was the answer. These requirements resulted in the Finnish Navy's first missile boat -class. It was named Helsinki-class after the first boat built in 1981 (hull number 60).

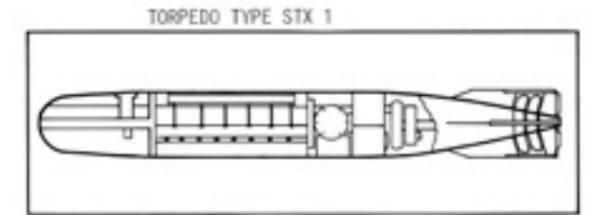


In fall 1987, the first anti-ship missile battery of the Coastal Artillery was established in the Coastal Artillery School. In the 1980s, weapons management and maritime surveillance were joined under the same coastal fire control system, and Swedish frequency hopping radars with a Finnish user interface and display were added to the system.

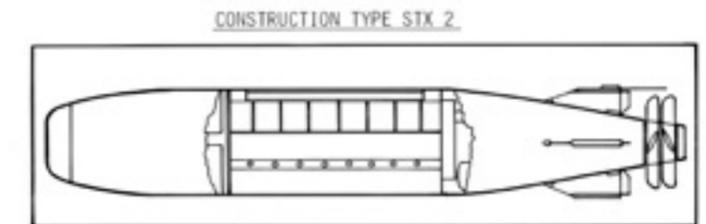
Finland had planned to build torpedoes since the 1930s and the development of a Finnish electric torpedo began at the end of the 1950s. Innovations in battery technology and electrical propulsion facilitated the development. However, Finland did not have sufficient resources to finalize such a big venture and Finnish industry was not interested because the number of torpedoes to be manufactured would be quite small, raising the cost further.

One of the most important participants in the torpedo effort was the Navy Senior Engineer, Esko Huhta-Koivisto.

The development of the Finnish electric torpedo ended in the 1980s.



diameter 450 mm  
 length 4300 mm  
 weight 730 kg  
 speed over 35 kt  
 range over 12 km  
 warhead 90 kgs  
 propulsion electric (chromic-acid battery)  
 control wire



diameter 534 mm  
 length 3400 mm  
 weight 800 kg  
 speed over 30 kt  
 range over 20 km  
 warhead 105 kg  
 propulsion electric (chromic-acid battery)





## 1990s

In the 1990s, the Naval Academy experienced many changes.

The training of Warrant Officers was divided into the Basic Course and the Continuation Course. The training of Petty Officers started in 1996 with three-month courses for contractual soldiers in the engineering and navigation branches. The training of other branches started somewhat later.

In the 1990s, Estonian Midshipmen studied at the Naval Academy. When the National Defence University was established, the Staff Officer courses moved to Santahamina. The Reserve Officer course lasted 15 weeks. The first female students were admitted in 1996, and since then there have been female reserve officer students in every course. The Naval Academy training vessel FNS Pohjanmaa was attached to the Gulf of Finland Navy Command. However, she continued as a training vessel for Midshipmen and Warrant Officers. The severe economic recession of the 1990s reduced the duration of the training expeditions, the shortest being the four-week expedition to the North Sea. In 1993, FNS Pohjanmaa participated in the BALTOPS exercise for the first time. The exercise remains a part of the training expedition even today. Navigation skills were also trained on the H-, R-, A- as well as Lokki- and Valas-class vessels, on a Pansio-class minelayer, and in 1991 - 1997, on patrol boat, FNS Hurja. The sailboat training of Midshipmen was carried out on Finnish schooners as well as on HMS Gladan and HMS Falken.

In July 1998, the Coastal Artillery School merged with the Naval Academy - excluding Coastal Artillery research and development, which was to be conducted in the Naval Research Centre. The number of personnel grew from 74 to 109. The new organization of the Navy was reflected in the updated curricula; the training and education had to serve the new tasks and duties in the Navy.

The Academy buildings in Suomenlinna were renovated in the 1990s. Two auditoriums, a dedicated navigation classroom, and a modern gym were built. The former Commandant's house, Building D11, became office space for the staff in the Centre of Naval Warfare Studies. The renovation of the Sauna Building made it possible to accommodate all Naval Academy students on campus. In addition, the Academy got some of the Coastal Artillery School's premises; the old Coastal Artillery training hall is still in use today.

The first decade of the Naval Research Centre (established in 1994) was active. The Centre designed a Light Mine Hunting System and developed methods to sweep influence mines. The PM/83 influence mine was upgraded, and the research, development and tests of the anti-ship missile M85 continued, especially the imminent upgrading of the system required a lot of planning and research. In 1998, a TSIM simulator system was procured. The system could simulate the launch of one or several missiles either by surface combatants or by the Coastal Artillery. The Centre also did R&D on maritime and underwater surveillance, ASW, the coastal radar and C2 systems.



## 2000s

At the beginning of the new millennium, the Naval Academy experienced many changes in training and organization. The early 2000s saw the last Warrant Officers' Basic Course. The Continuing Education Section was established to be in charge of the increased number of the new further training courses to hired personnel. The provisional Training Centre of 2003 was merged with the Centre of Naval Warfare Studies in 2005. The Chief of Education was appointed head of the new Centre.

The reform of officer education started in 2001. From 2002, the graduating officers were given fixed-term contracts. The duration, objectives and names of the awarded degrees now corresponded to those of civilian universities: Officer's Basic Studies (60 study weeks), the Bachelor of Military Sciences Degree (120 study weeks), and the Master of Military Sciences Degree (180 study weeks). (The Finnish 'study week' equals 40 hours of work for the student.) After the Master's degree and 6 - 10 years of active service, an officer applied to the Staff Officer Course, and after this, the General Staff Officer Course or the Unit Chief Course. The 71st Midshipman Course was the first course to study according to the reformed education system. Two new branches - C4IS and marine engineering - were also added to the curriculum. The Bachelors graduated as Lieutenants and the Masters as Lieutenants, Junior Grade.

The officers' degrees were soon to undergo another reform. The National Defence University took the lead in organizing officer studies in accordance with the Bologna Process. The Midshipmen would first get the Bachelor of Military Sciences degree and graduate as Lieutenants. After working for 4 - 5 years, they would come back for the two-year Master's degree program. The European Credit Transfer System (ECTS) replaced the Finnish study weeks. The first course to study according to the new system was the 76th Midshipman Course in 2006.

The training of navigation developed throughout the 2000s. The new study books, Seamanship Skills and Coastal Waters Navigation, were introduced at the beginning of the millennium. They are still used. A simulator was procured in collaboration with the Maritime Safety Training Centre in 2003. FNS Pohjanmaa was the dedicated vessel on training expeditions. The Lokki and Valas -class vessels continued as training vessels but the use of the H-class transport vessels in navigation training was discontinued in 2006. They were replaced by three Fabian Wrede -class vessels, the last of which was commissioned in 2007. In navigation training, the IMO STCW-standard of training and education was introduced in 2006. The Naval Academy navigation training adheres to this standard even today.



## The 2010s

The three-year Bachelor of Military Sciences program established its position during the 2010s. Midshipmen start their studies in the National Defence University in Santahamina and transfer to the Naval Academy in the fall of their second year of studies. The goal is to train branch officers, platoon leaders and branch leaders for the reserve Petty Officer courses. The studies focus on leadership and instructor skills, art of war, action competence, and more recently, on research skills. The sea exercise that started in the Coastal Artillery School developed into a coastal warfare exercise in which all the branches involved in the coastal theater participate. Since 2017, it has been one of the Finnish Navy's main military exercises, led by the Navy Command.

The Warrant Officer Basic Courses ended in 2003 with the graduation of Course 58. The Warrant Officer Continuation Courses continued until 2013.

The training and education of Petty Officers was renewed in 2016, under the auspices of the Defence Command. The biggest change was that the Petty Officers of all the three services now started their studies at the Army Academy where they have a six-credit joint training period. The old courses for contractual soldiers became basic, intermediate and advanced courses for Petty Officers.

In 2010, it was decided that the Naval Academy's Reserve Officer Section would train Midshipman and Coastal Defence branches, the latter of which was further divided into the Sea Surveillance and Naval Reconnaissance branches. The training of Navy C4IS reserve officers was also considered but due to the small number of prospective students, this branch was allocated to the Army Academy.

The use of simulators increased in the 2010s. They are used for navigation, fire control and sea surveillance training purposes. The Naval Academy also has a simulator to learn underwater surveillance and anti-submarine warfare.



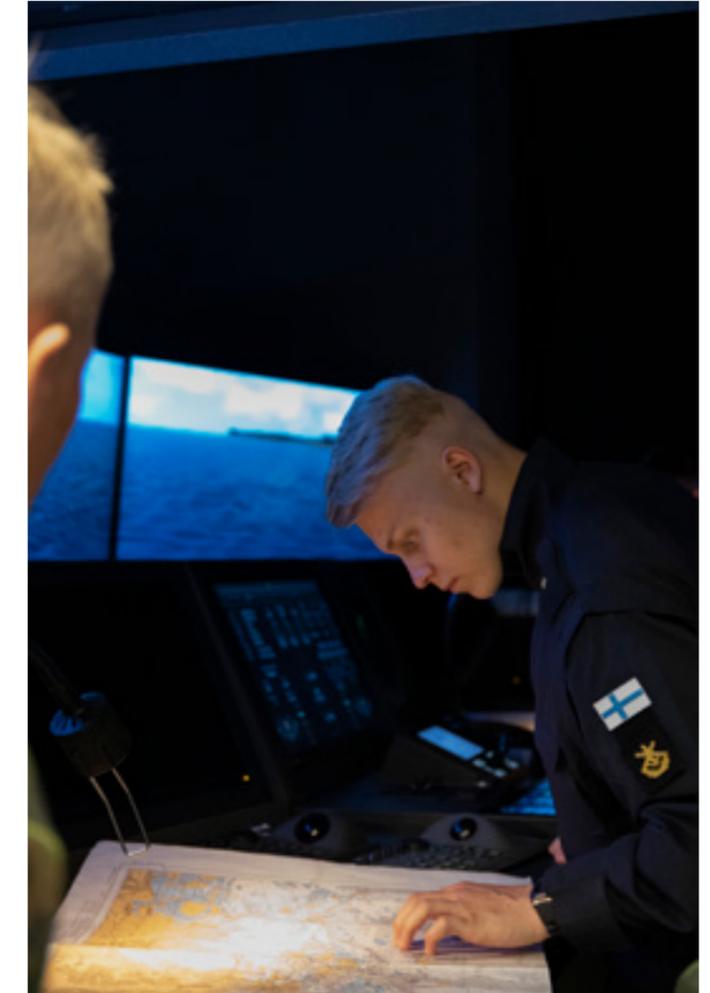


In the Defence Forces Reform in the mid-2010s, it was decided that in addition to training and education, research should be an integral part of the Naval Academy. The fastest and most effective way to make use of research results was to have researchers teach as well.

Before 2013, naval research was the responsibility of the Naval Research Centre in Espoo and Turku. After this, joint fields of research, such as surface-to-surface weapons and surveillance, were concentrated under the new Finnish Defence Research Agency. Navy-specific research, such as naval architecture, underwater warfare and measurements and sea trials, was organized under the new Naval Academy Research Centre. At the same time, the Navy Combat Centre was established in the Naval Academy. Its task was to research the principles of naval warfare. The researchers worked in Espoo, Turku and Suomenlinna. In 2016, the Espoo research contingent was discontinued and its operation moved to Suomenlinna.

At the beginning of 2019, the Navy Combat Centre and Research Centre merged under the name Navy Combat Centre. In addition to R&D, it researches, tests and develops Navy operative concepts and capabilities.

The objective of the organizational change was to integrate the research of sciences and Navy capabilities, to improve the quality of R&D and to secure its operation in wartime conditions.





## 2020s and Future

The Naval Academy's instruction and research will change in accordance with the new Navy capabilities. The new learning and research environments presuppose personnel's commitment to lifelong learning. Despite the simulators and distance learning, it is important to lead people on the battlefield. Therefore, training and live-fire exercises in real surroundings will continue in the future.

One of the most significant changes in the Naval Academy in the 2020s will be the new educational technologies. The advanced simulators and Virtual, Augmented and Mixed Reality environments will enable the greatly enhanced and versatile use of training facilities and instruction methods. In Augmented Reality the viewer sees simulated objects in a real environment. In a Mixed Reality simulation, real-life and virtual objects are interactively combined.

The curricula of the Bachelor's and Master's degrees are developed to answer the needs of the Navy. The new capabilities are included in the curricula long before they become operational.

The Naval Academy will continue to enjoy the expertise of its instructors and the high quality of its instructional materials.

The students will benefit from state-of-the-art instruction in the fields of Navy tactics, art of war and military technology. The Bachelors of Military Sciences will graduate with the skills and knowledge they need in their first commissions, as well as with an inclination to lifelong learning.

Midshipmen will continue to focus on STCW-audited and Navy-specific navigation training in the Naval Academy. The training platforms must be modern and well equipped to meet the training objectives.

The students in the Coastal Defence branch learn the basic skills and tactics used by an infantry officer deployed in the difficult littoral environment. They will earn the certificates and permits to lead and supervise live-fire exercises.

The Naval Academy will work in co-operation with the National Defence University and the Navy Command to actively recruit students to the Bachelor's degree program.

The training of Petty Officers will evolve and play an even bigger role in the future of the Naval Academy. The advances in military technology will result in more and longer courses for Petty Officers, as well as the requirement for lifelong learning.



The Training 2020 Programme will reform the instruction of conscripts. The quality of Reserve Officer training will improve along with the improvements in leadership training. Branch-specific training is increased and field and live-fire exercises are developed while observing service safety.

The refresher and voluntary training exercises for committed and motivated reservists will enhance the Naval Academy's wartime readiness. Co-operation with the National Defence Training Association is developed accordingly.

In the future battlefield, autonomous sensors and weapon systems, digitalization, Artificial Intelligence and cyber technology play a major role. Researchers do not work in solitary chambers but are well networked. They must be able to find the essential and relevant information in large masses of data. Therefore, the Naval Warfare Centre continues to develop its research facilities and the competencies of its personnel.

In the future, researchers will have access to a common database. They are able to effortlessly link and handle data originating from different sources. Enhanced cyber security will enable communication and data exchange between various research organizations. Data will transfer from the troops to researchers in real time.

An individual commander does not have to base his decisions on his own estimate of the situation; he will get support from research and analyzed data. The planning support provided by the Naval Warfare Centre will be an essential part of naval operations. The plans are tested before implementation by war games and other analytical methods.

The battle of sensors, weapons and platforms can be modelled by various simulations. The use of weapons and sensors is always optimized to produce minimum waste. The data gathered from weapons and sensors is analyzed and, if need be, the troops' courses of action can be quickly altered accordingly. The effect that maritime operations have on the objectives of the Defence Forces as a whole can also be measured.







## Commandants of the Naval Academy

Lieutenant Commander Ragnar Hakola	Dec 4, 1930-May 9, 1933	Captain (N) Erik Helenius	Dec 10, 1971–Nov 1, 1977
Commander Svante Sundman	May 9, 1933 -Mar 19, 1935	Captain (N) Jorma Haapkylä	Nov 2, 1977–Apr 30, 1978
Commander Arvo Virta	Mar 19, 1935–Apr 30, 1936	Captain (N) Jukka Pajala	May 1, 1978–Sep 25, 1980
Colonel Armas Enkainen	Apr 30, 1936–May 25, 1937	Captain (N) Erik Wihtol	Sep 26, 1980–Nov 30, 1983
Lieutenant Commander Väinö Kopio	May 25, 1937–Aug 2, 1938	Captain (N) Kalle Rantanen	Dec 1, 1983–Oct 31, 1987
Lieutenant Colonel Norman Simonen	Aug 2, 1938 – Jan 16, 1939	Captain (N) Aarno Koivisto	Nov 1, 1987–Jan 31, 1991
Commander Akseli Raninen	Jan 16, 1939 – Jan 27, 1942	Captain (N) Jukka Pajala	Feb 1, 1991–Sep 30, 1997
Lieutenant Colonel Aarne Petäjaniemi	Jan 27, 1942 – Jan 8, 1944	Captain (N) Risto Rasku	Oct 1, 1997–Oct 31, 2002
Colonel Viljo Valtanen	Dec 3, 1944–Dec 7, 1946	Captain (N) Kai Varsio	Nov 1, 2002–Mar 31, 2006
Commander Sulo Enkiö	Jan 8, 1944–Dec 3, 1944 and Dec 7,1946–Jan 7, 1947	Captain (N) Kimmo Kotilainen	Apr 1, 2006– July 31, 2008
Colonel Toivo Reponen	Jan 7, 1947–June 12, 1953	Captain (N) Henrik Nystén	Aug 1, 2008–Dec 31, 2010
Colonel John Kiveliö	June 12, 1953– Apr 6, 1955	Captain (N) Veijo Taipalus	Jan 1, 2011–Aug 31, 2011
Colonel Reino Aaltonen	Apr 16, 1955–Mar 3, 1960	Captain (N) Sakari Martimo	Sep 1, 2011–Dec 31, 2014
Captain (N) Kalervo Kijanen	Mar 3, 1960–Apr 18, 1963	Captain (N) Pasi Pajunen	Jan 1, 2015–July 31, 2017
Captain (N) Kauko Pekkanen	Apr 18, 1963–Jan 6, 1969	Captain (N) Tuomas Tiilikainen	Aug 1, 2017–Dec 31, 2018
Captain (N) Olavi Haikala	Jan 6, 1969–Dec 10, 1971	Captain (N) Juhapekka Rautava	Jan 1, 2019–



Today



## Naval Academy in 2020

The Naval Academy is an independent brigade-level unit under the Navy Commander. Annually we train 350 multi-skilled, professional soldiers to operate in the challenging maritime and coastal environments.

Almost 90 employees work in the Academy staff. One sixth of them work in administration, about half as teachers and the rest as researchers. The Naval Academy personnel consists of highly educated, internationally networked experts who employ the most recent teaching, training and research methods.

We are a service, branch and sector school. Our main tasks are to provide service-specific training and education in the Bachelor and Master of Military Sciences Degree Programs to Midshipmen and Coastal Forces Cadets, to give further training to Navy personnel, to train Reserve Petty Officers and to train conscripts for duties in the reserve. The Naval Academy training ensures that our trainees commit to the goals of national defence and to ethical performance as soldiers.

We research and develop naval warfare according to orders and guidance given by the Navy Command and the National Defence University. With the help of our research, we are able to provide up-to-date education in tactics and techniques of naval warfare.

The Naval Academy keeps up readiness and trains reservists in refresher and voluntary training exercises and supports the National Defence Training Association's courses.

Today the Staff, Centre for Naval Warfare Studies, Naval Warfare Centre, and the Academic Studies, Continuing Training and Reserve Officer Sections make up the Naval Academy.

We actively develop our learning environments and teaching methods – both on the modern and traditional platforms, training vessels and in the field.

In 2020, The Naval Academy is getting ready for a challenging decade, as the Navy capabilities are renewed and upgraded.





## Staff

The Naval Academy Staff has 16 employees and it is led by the Deputy Commandant.

The staff is responsible for planning, preparing and coordinating ordered tasks, and for the upkeep and development of the Academy's operating conditions, resources and systems.

The staff is divided into Personnel, Plans and Logistics Offices.

The Personnel Office is responsible for human resources, internal and external communications, ecclesiastical work, judicial matters, occupational health and safety, and general administrative matters.

The Plans Office is responsible for plans, operational activity, readiness, security, information technology and financial management, and reservist training exercises.

The Logistics Office is responsible for logistics administration, procurement, real estate management, provisioning, health care, material administration and maintenance, and environmental issues.

## Staff Building D23

The Staff is located in a two-story red brick Building (D13) on Pikku-Musta Island. This infectious diseases hospital was built in 1916 on a landfill outside the actual Pikku-Musta fortress. At the time of the Red Guards' Prison Camp, the building housed a hospital for internal medicine, and as Finland gained independence, it was the garrison hospital for the Uusimaa Regiment and Coastal Artillery. The Naval Academy Staff worked on the upper floor. In 1972, the entire building was renovated and adopted by the Naval Academy staff.





## Centre for Naval Warfare Studies

The Naval Academy and Coastal Artillery School merged on July 1, 1998. The change mainly affected the Staff. Soon after this, the Academy received new tasks and responsibilities: the development of the instruction of naval tactics and techniques and the drafting and updating of tactical instructions and regulations. All this required the reallocation of teaching resources, the renewal of curricula and the implementation of quality management. This is why the Department of Naval Warfare Studies was established on Dec 1, 1999.

The Department was led by the Chief of Education and consisted of teaching staff and the Secretariat of the Regulations Board. The teachers were responsible for the instruction of their subjects as well as the development of teaching materials. At first the Department operated as a company-level unit under the Commandant of the Academy. In 2003 - 2005, the Naval Academy's Centre for Naval Warfare studies led by the Chief of Education was established. All departments that gave instruction came under this Centre. On June 6, 2005, the role of the Centre changed again: it became an independent unit which now also included the Navigation Training Unit.

On Jan 1, 2019, the Naval Academy's Centre for Naval Warfare Studies became the Centre for Naval Warfare Studies. It operates under the Commandant and is led by the Chief of Education. It comprises 32 employees who are divided into the Student Affairs Office and the Instruction Teams of Tactics, Technology, Navigation and Leadership and Military Pedagogy.

The Centre upholds the traditions of the Coastal Artillery School and naval instruction. The annual Tradition Day of the Centre is november 1 - the Anniversary of the Coastal Artillery School and the day the Naval Academy was established. The unofficial symbol of the Centre is the heraldic compass designed in 2008 by artist Erik Bruun.

Despite the changes in organization, the basic mission and the principals of providing high-standard education remain the same: the instruction must be modern, respectful of the students, and based on the latest knowledge and research. Simulators, whenever possible, must be used to support practical learning.





## Tactics Instruction Team

The Tactics Instruction team is composed of the Head Instructor and four teachers. They are responsible for the Naval Academy's instruction of the art of war to all courses. The teachers' previous work experience facilitates the instruction of the tactics and techniques of all Navy Task Units.

In addition, the Tactics Instruction Team guides the tactics theses of the Bachelor's and Master's Degree students, contributes to the Academy's research, plans and implements war games in the Academy's and Navy's exercises and make plans for exceptional circumstances.

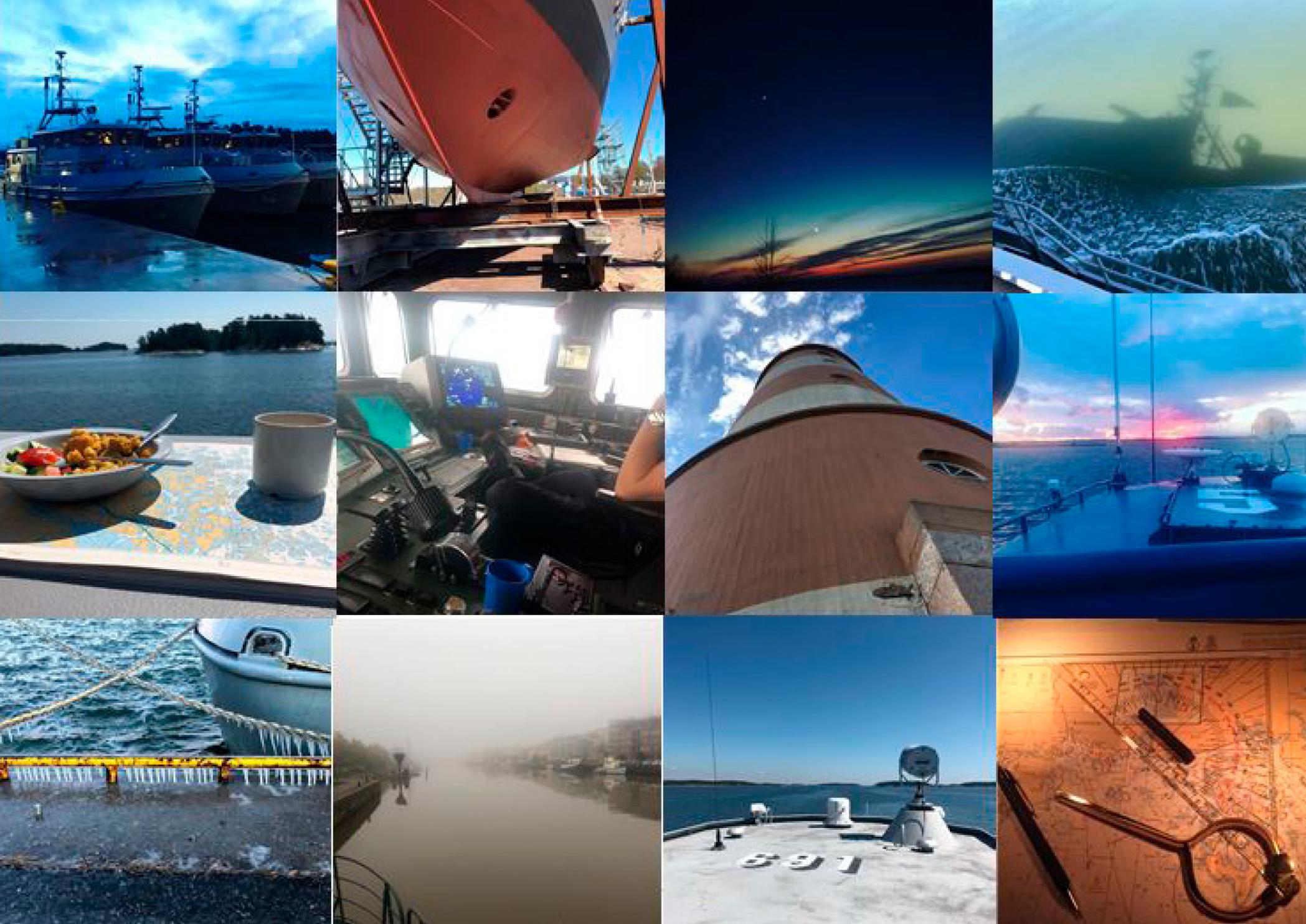
The Team mainly teaches the Bachelor and Master's degree students but the number of tactics classes given to career Petty Officer students has also increased. The Midshipmen and Petty Officers discuss company-level tactics; the Master's Degree students task unit level tactics. The instruction consists of lectures, exercises and seminars.

Tactics instruction takes into account the Navy's new capabilities as well as the capabilities of the Border Guard and other authorities, crises short of war and joint operations and endeavors to instill the right attitude in the students.

The most important partner is the National Defence University's Department of Warfare and its teachers of naval tactics with whom co-operation is both active and successful.

The COVID-19 pandemic caused restrictions which affected the instruction of tactics as well. The tactics team came up with innovative new teaching methods to fulfill the curriculum requirements. To mention a few examples: the graduating Midshipman course was able to complete its weapon systems training in the Naval Academy's simulator since the training expedition did not enable this, and the Master's Degree Navy Branch students carried out a staff exercise in the Academy's Mine Classroom. The students made up a Task Unit Staff that conducted planning simultaneously with the General Staff Officer Course students located in Santahamina.





## Navigation Instruction Team

The Navigation Instruction Team is responsible for providing STCW-audited navigation and marine engineering training in the Naval Academy. The Team also organizes the annual Shallow Waters Navigation Course taught to foreign Navy navigators. The course includes theory of shallow and confined waters navigation and practical training on the Naval Academy training vessels.

The Navigation Instruction Team is composed of the Head Instructor, the Leader of the Navigation Training Division, the Naval Academy's Chief Engineer, an electrical engineering instructor, two training vessel COs and two Chief Engineers. The officers who are in charge of organizing individual courses also participate in practical training at sea.

The basic navigation skill level in the Navy is the boat driver's certificate, which the Midshipmen acquire in their first year of training. For Midshipmen and Coast Guard Students, practical training at sea is the most time-consuming part of the Bachelor's Degree studies - 36 weeks in all. This training gives the qualification to work as an Officer of the Watch (OOV) Apprentice on a combatant vessel.

In addition to teaching basic navigation skills, the Navigation Instruction Team plans and prepares the annual training expedition.

The training expedition is the Naval Academy's main training event. The idea is to teach the youngest Midshipman course basic seamanship and ship combat skills. The oldest Midshipman course, as well as the Petty Officers who specialise in navigation, practise in international waters, especially in challenging areas where traffic is heavy, such as the Danish Straits and the English Channel, even in the Strait of Gibraltar. In recent years, the training has culminated in the BALTOPS exercise in the Baltic Sea, whose Pre-Sail Conference and TACEX have been the defining moment for the graduating Midshipman course.

The Navigation Instruction Team works in close co-operation with other navigation schools; e.g. some of the Academy's training is given by these schools. The Team represents the Navy and the Naval Academy in the national STCW Training Committee. This committee works in close co-operation with Traficom who oversees training and qualifications.

The Naval Academy's navigation training is modern and progressive to enable the graduating navigators to handle the various challenges of the future Navy. Also, the need for new training vessels has been recognized, and they are already in the planning phase.





## Technology Instruction Team

The Technology Instruction Team provides teaching and training in sciences, general technology (electrical engineering, radars) and military technology (C4IS systems, weapons and combat management) to all courses in the Naval Academy. The Team is also responsible for the upkeep of the services and teaching facilities used in the training.

The Technology Instruction Team consists of the Head Instructor, three technology teachers, and one researcher. In addition to contributing to the Naval Academy's own research effort, the researcher co-operates with the National Defence University, other service academies and the science community at large.

The Technology Instruction Team supports the training given by the other Naval Academy instruction teams, contributes to exercise planning and gives technical support on the use of C4IS systems. The team participates in Navy exercises and conducts training in other Navy units. It also participates in the education in the Doctor of Military Sciences -program.

The Team's instructors are annually trained in the use of current and state-of-the-art technology. This guarantees the high level of education and expertise of the teachers and enables the Naval Academy to adopt the training responsibility for new technical solutions.

The COVID-19 pandemic has presented challenges to the Technology Instruction Team. Some of the instruction had to be cancelled or postponed, but modern technology also enabled distance and online learning.





## Leadership and Military Pedagogy Instruction Team

The Leadership and Military Pedagogy Instruction Team is responsible for providing instruction in the fields of Leadership and Military Pedagogy, languages (English and Swedish) and Physical Education (PE) to all courses in the Naval Academy.

In addition, the Team's duties include interaction-management training, thesis guidance, and research.

The Team consists of the Head Instructor of Leadership, two instructors, a language teacher and a PE teacher. The Team works in co-operation with the head instructors of various subjects to provide the appropriate instruction. A good example is the planning and implementation of the traditional live-fire exercise after Midsummer and in December in the Syndalen live-fire range. The exercises involve several study groups and cover many teaching objectives.

On a national level, the Team has actively participated in refresher training and voluntary national defence exercises.

The Team participates in training in all operational environments. Just to give a few examples: language teaching and PE have been taken aboard training vessels and into field exercises. There is also active co-operation with other Nordic Naval Academies in the fields of language teaching (with Sweden), leadership, and the development of comprehensive soldier fitness (with Norway).

The Team contributes to the development of teaching, training and R&D in the Naval Academy. The best way to achieve this is for each instructor to challenge himself in his everyday duties and boldly experiment with new methods and ideas.





## Student Affairs Office — Service and Support to Teachers and Students

The Student Affairs Office assists in the planning, development and organization of training events in the Naval Academy, develops and maintains the Academy's learning environments and takes care of student administration. In addition, the Office is in close contact with the Air Force and Army Academies.

The Student Affairs Office employs six persons. The Office Chief is responsible for the implementation and co-ordination of all service and support activities. The Specialist in Competence-Based Qualifications is responsible for the degrees, licenses and certificates granted by the Academy as well as those granted on the basis of previous training or studies. The Naval Academy students receive approximately 600 licences and certificates each year.

The Course Secretary assists in student administration and keeps a record of all degrees and certificates issued by the Academy. The Secretary also organizes student transportation and accommodation.

The Naval Academy's Library is an integral part of the Student Affairs Office. The Library has a large selection of books to support teachers, students and conscripts in their work. The Library gives guidance on how to use online materials and find up-to-date sea charts. The Naval Academy's library is also the Finnish Navy's Central Library and co-operates actively with all other Navy units.

The Education Coordinator supports both students and staff. The expertise of the advisor plays a crucial role when writing and inspecting curricula and pedagogical scripts. The Coordinator co-operates with the Office Chief and other Navy units to publish the annual Navy Training Calendar.

It is the responsibility of the Student Affairs Office to manage and develop the Naval Academy's learning environments. The Office has an officer in charge of simulators, who - with the help of two conscripts - also maintains the Academy's other learning and teaching facilities and gives technical support.





## Developing Learning Environments

The Naval Academy began the active development of learning environments in 2019 by making a five-year plan for 2020 - 2025. In 2020, this plan received a Defence Forces Award for Outstanding Achievement in Training.

The plan has four key elements: modular learning spaces, wargaming center, training hall, and support to self-study. The idea is to gradually improve the usability and functionality of the learning environments by the year 2025.

The first goal is to turn three regular classrooms into modular learning spaces and to supply the instructors with guidance on how to use them.

The construction of the Navy Wargaming Centre has already started. The objective is to be able to play simulator-assisted wargames in the Navy and Defence Forces exercises. The Centre will also be utilized for the purposes of operational analysis and in the daily training of the Naval Academy and other Navy units.

The Coastal Artillery School's training facility from the 1980's - a large hall building in Santahamina - will be thoroughly renovated and upgraded to meet the needs of modern military training.

Self-study plays an ever-increasing role in modern training and education, and the Naval Academy wants to provide quality solutions for self-study environments.

Students from many branches and backgrounds study in the Naval Academy, making the development of learning environments that are suitable to all a challenging task. Today's Naval Academy learning environments include the library, sports facilities, C4IS instruction facilities, simulators and, of course, traditional classrooms.





## Academic Studies Section

The Academic Studies Section is responsible for the training and education of the Bachelors and Masters of Military Sciences in the Naval Academy. The Section plans and develops the respective curricula under the advisement of the National Defence University.

The personnel consists of the Section Chief, the leader of the Master of Military Sciences (M.Mil.Sc.) Course, the leaders of three Midshipman courses and the leader of the Coastal Defence Branch.

The Course Leaders guide the students on their path to becoming leaders and professionals and see to it that all instruction is conducted according to curricula. Their work is complemented by Midshipman Officers.

Midshipmen receive training and education in the C4IS, Coastal Defence, Coast Guard and Navy Branches. About 25 Midshipmen and 10 Master's Degree students are admitted each year. Beginning in 2021, a number of Coastal Defence Branch students will be admitted every year whereas the C4IS Branch will be integrated into the Navy Branch.

The Academic Studies Section continues to develop the curricula to meet the demands set by the new capabilities of the Finnish Navy. In addition, new pedagogical thinking and learning environments are utilized to educate respected professionals and highly motivated Navy Officers for the future.



## Training Expedition

The training expedition is the main training event of the Naval Academy. The approximately six-week expedition begins in early May and the seasoned force returns to Finland in mid-June. Until 2013, FNS Pohjanmaa was the training vessel of choice. Since 2014, the Hämeenmaa-class vessels FNS Hämeenmaa and FNS Uusimaa alternated as the expedition's training vessel. Both vessels had already sailed as expedition training vessels in the mid-1990s during FNS Pohjanmaa's MLU.

The Midshipmen of the freshman and senior classes as well as the Petty Officers who study navigation and engineering take part in the expedition. The Petty Officers and senior Midshipmen stand watch in various duties whereas the freshmen study and practice seamanship and sailor skills.

The training expedition takes the students out of the safety of the classroom to learn from future colleagues and professional crewmembers.

The long legs test the students' mental and physical stamina. For many the journey is the first long period away from home. Each leg lasts about 6 - 11 days. Every so often, the vessel moors for ship maintenance and some R&R for the crew, the ship and her crew representing Finland at each port of call.

The training expedition of 2020 was to take place from May 4 to June 14 with Valencia, London and Kiel as ports of call. Kiel was to be the location of the Pre-Sail Conference for the BALTOPS 20 Exercise. However, due to COVID-19, the expedition was cancelled.

The instructors and the Academic Studies Section came up with a plan that, nevertheless, made it possible to meet the expedition's learning objectives. The plan consisted of distance studies and - despite the corona virus - contact lessons in simulators and classrooms on campus.

The Senior Midshipman Corse and the Navigation Petty Officers concentrated on open sea navigation. Celestial navigation was studied in the Planetarium and on the shores of Länsi-Mustasaari Island. The freshmen studied seamanship and weapons skills on land in the Santahamina Training Hall. The instructors were recruited from the Naval Academy and FNS Uusimaa.

The dire situation had an unseen benefit: the Navigation Instruction Team came up with an entirely new concept for the training expedition, combining the best experiences from the past with new and innovative ideas. The new concept was accepted and is now being developed further.

## Routes and Vessels from 2006 to 2020\*

May 9 – June 15, 2006 MLC POHJANMAA

May 17 – May 20 Cádiz, Spain; May 24 – May 28 Naples, Italy; June 4 – June 7 Ponta Delgada, the Azores, Portugal

May 15 – June 20, 2007 MLC POHJANMAA

May 25 – May 28 Gdynia, Poland; June 8 – June 12 Porto, Portugal

April 29 – June 26, 2008 MLC POHJANMAA

May 8 – May 12 Hamburg, Germany; May 22 – May 26 Casablanca, Morocco; May 30 – June 2 Portsmouth, Great Britain

April 28 – June 10, 2009 MLC POHJANMAA

May 5 – May 8 La Coruña, Spain; May 15 – May 19 Málaga, Spain; May 29 – June 1 Reykjavík, Iceland

May 4 – June 10, 2010 MLC POHJANMAA

May 11 – May 14 Bordeaux, France; May 21 – May 24 Ajaccio, Corsica, France; June 3 – June 6 Portsmouth, Great Britain

May 3 – June 18, 2012 MLC POHJANMAA

May 8 – May 11 Falmouth, Great Britain; May 23 – May 27 New York, USA; June 4 – June 6 Ponta Delgada, Portugal

May 2 – June 14, 2013 MLC POHJANMAA

May 13 – May 15 Alicante, Spain; May 21 – May 24 Split, Croatia; May 29 Málaga, Spain; June 6 – June 10 Ventspils, Latvia

May 5 – June 16, 2014 MLC UUSIMAA

May 9 – May 12 Oslo, Norway; May 23 – May 26 Barcelona, Spain; June 5 – June 9 Karlskrona, Sweden

May 3 – June 15, 2015 MLC HÄMEENMAA

May 13 – May 16 Santa Cruz de Tenerife, Spain; May 22 – May 25 Livorno, Italy; June 5 – June 8 Gdynia, Poland

May 3 – June 11, 2016 MLC UUSIMAA

May 13 – May 16 Edinburgh/Leith, Great Britain; May 23 – May 26 Porto/Leixoes, Portugal; June 3 – June 5 Tallinn, Estonia

May 3 – June 11, 2017 MLC HÄMEENMAA

May 14 – May 17 Funchal, Madeira, Portugal; May 24 – May 27 Dublin, Ireland; June 1 – June 4 Szczecin, Poland

April 29 – June 10, 2018 MLC UUSIMAA

May 9 – May 12 Hamburg, Germany; May 19 – May 22 Malaga, Spain; May 31 – June 3 Klaipeda, Lithuania

May 6 – June 16, 2019 MLC HÄMEENMAA

May 17 – May 21 Las Palmas, Gran Canarias, Spain; May 29 – June 1 Cherbourg, France; June 5 – June 9 Kiel, Germany

May 4 – June 14, 2020 MLC SIMUMAA/MLC UUSIMAA

Training in Sveaborg and Santahamina May 4 – May 22 and June 1 – June 4; at sea May 25 – May 29 and June 5 – June 12

The training expeditions before 2006 have been presented in the previous jubilee editions.







## Continuing Education Section

The Continuing Education Section is a training organization directly under the Commandant of the Naval Academy. It plans and implements the training and education of Petty Officers on basic, intermediate and advanced level courses.

In addition, the Continuing Education Section is responsible for organizing professional development education, such as courses in training skills, C4 Systems and Intelligence, just to mention a few.

The Continuing Education Section consists of the Section Chief, two Course Leaders and four Branch Leaders. The Course and Branch Leaders not only plan and supervise the training and education of their courses and branches but they are also active instructors. The Section Chief is in charge of administrative matters and co-operates with the Commandant and the Navy Command's Training Section, which supervises further training in the Navy.

About 25 - 30 Petty Officers participate annually in the Basic Course of Navy-Specific Studies. The students are at the start of their Navy careers. They usually enroll in the course after they have worked in a temporary position in the Navy for a year. The students come from different backgrounds: some have just finished conscription whereas others have worked a longer period in the civilian sector or have already studied for another profession.

After having accumulated about 5 years of work experience in the Navy, Petty Officers may enroll in the Branch Courses and in the Intermediate Course of Navy-Specific Studies. About 6 - 12 students per course are admitted, depending on the need of the Navy. Experienced Petty Officers conduct Advanced Studies after 20 years of work experience in the Navy. Petty Officers may be admitted in the Advanced Studies Course only if there are Senior Petty Officer positions available and they have finished all the training and education required by the Defence Forces. As they graduate, they are elite workers at the very top of their expertise. This must be taken into account when planning the curriculum of the Advanced Studies Course.

All in all, the main task of the Continuing Education Section is to train and offer chances for the professional development of Petty Officers in the naval environment.





## Petty Officer Education Reform

The training and education of Petty Officers was reformed in 2020. The previous reforms were made in 2015 and 2018. The objective of the latest reform is to stress an individual Petty Officer's role in his own professional development; it is now the Petty Officer's (and his unit's) duty to make sure that he has all the skills and knowledge needed in the job. In addition, the new system ensures that a Petty Officer is not away from his unit for long periods at a time. According to the principles of life-long learning, knowledge and expertise will increase over the length of the career.

The new training and education system is implemented in 2021. Before a Petty Officer can be admitted into the Intermediate or Advanced Courses of Navy-Specific Studies, he has to accumulate 15 credits. The credits can be earned in the civilian sector, in leisure time (if applicable), in Finland, or abroad. The credit system was adopted in 2018; one credit equals 27 hours of work for the student.

The objective is to not only reform the system, but the teaching methods and pedagogic approach as well. It is to this end that the Naval Academy's learning environments have undergone a great change in the past few years. Simulators have already been widely used in the training of navigation skills, and a virtual learning environment and C2 simulator in the training of the coastal troops. The training and education of Petty Officers will also benefit from the fact that Midshipman and Petty Officer Courses have been integrated to streamline the education effort.

As the Navy-Specific Courses become shorter and the Branch-Specific Courses are discontinued, the Petty Officer studies will be scattered in both place and time. Therefore it is important that future Petty Officers learn to cherish the values and traditions of their profession. Petty Officers, with their special occupational skills and expertise, form the backbone of the Finnish Navy in the future international operational environment.







## Reserve Officer Section

The Reserve Officer Section as seen through the eyes of a professional soldier

The Reserve Officer Section has a large number of conscripts but a very small staff. All conscripts serving in the Naval Academy belong to the Reserve Officer Section. The Section mainly trains Navy Reserve Officers but lately the number of other conscripts has increased.

Working in the Reserve Officer Section is interesting; all the staff - be it the Section Chief or a contractual soldier - have several duties to carry out. They range from administration to planning and instruction. Maybe the most rewarding thing is to be in contact with so many different persons and personalities: Reserve Officer Students who serve on the coast or aboard vessels, MPs, ship cooks, and many other conscripts who have various occupational specialties. They are all proud to serve in the Naval Academy.

## Reserve Officer Section as seen through the eyes of a conscript

The Navy's Reserve Officer Course is a unique experience. The first thing to catch your eye as you enter the Academy premises are the impres-

sive old buildings and fortress walls. The historical premises and good location make the Naval Academy an ideal place to do military service. The thick building walls and their long corridors filled with ship models and other memorabilia make a lasting impression.

The students attend practical training exercises and lectures every day. The Naval Academy offers services from supply storage to a canteen and sauna right on campus. Moreover, the nearby City of Helsinki has many opportunities for leave and recreation - a significant experience during the Reserve Officer Course. Nevertheless, you spend most of your time at sea or in field exercises. And since the infrastructure is so well organized, Reserve Officer Students can fully concentrate on their studies.

A long line of Reserve Officers has attended the Naval Academy's Reserve Officer Course. The long traditions inspire pride and will to defend the country. This is hard to put into words - only a person who has attended the course can understand it.





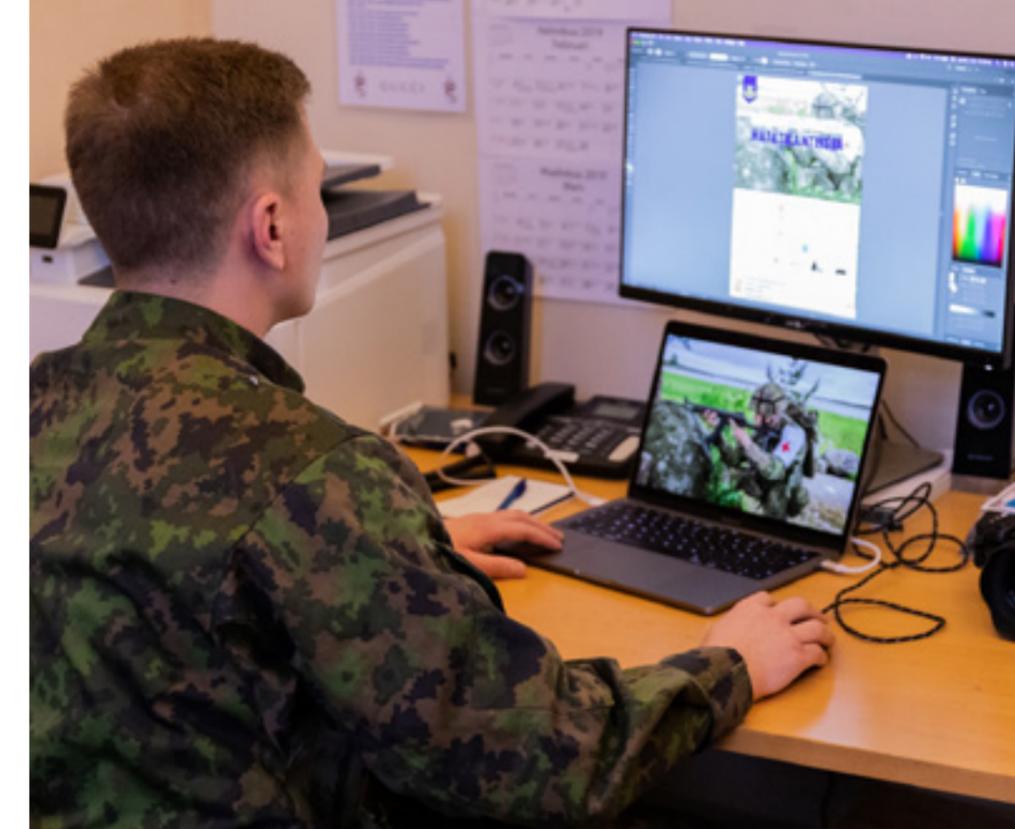
## Command Post and Military Police Conscripts

From a conscript's point of view, the Naval Academy offers many alternatives to carry out military service. The Command Post Squad consists of ship cooks and special duties soldiers. The special duties that are carried out in the Defence Command may, for example, include work in intelligence or as the Secretary General of the Conscript Committees. The graphic artist takes photographs and video footage and processes them. Research assistants serve in the Naval Warfare Centre. They have previous education or knowhow related to their specific duties. The ship cooks serve on the Naval Academy's training vessels.

The Naval Academy's MP Platoon is recruited from the Coastal Brigade conscripts and it guards the historical Naval Academy campus. In addition to guard duties, they practice FIBUA - Fighting In Built-Up Areas. The scenery as you raise and lower the flag from the rooftop of the Main Building and the Kustaanmiekka Strait is a part of an unforgettable service.

Regardless of their special duties, the conscripts participate in weapons, combat, march and PE training organized by the Reserve Officer Section.

The old buildings and the naval scenery on the Naval Academy campus and Suomenlinna create a unique environment to conduct military service. It is an atypical but memorable place of service.







## International Training and Education

The international training and education at the Naval Academy consists of active teacher and student exchange, participation in international exercises and many other forms of cooperation. The primary partner in the field of training and education is the Swedish Naval Academy but the Naval Academies of Norway and Germany as well as the United States Navy are also worth mentioning. The Naval Academy organizes courses for foreign students, e.g. the annual international Shallow Waters Navigation Course in late fall. During the training expedition, the Naval Academy students participate in the BALTOPS naval exercise in the Baltic Sea where the students are trained in the international operational environment and exercise procedure.

The most important forms of cooperation with the Swedish Naval Academy are the annual naval logistics exercise and the prospective Combat Information Centre (CIC) -training. There has also been frequent teacher exchange. In the future, it is also possible that standardized equipment enable students from both Suomenlinna and Karlskrona to participate in simulator exercises simultaneously. The forms of cooperation have been agreed upon in the Finnish-Swedish military cooperation consultations.

The existing cooperation is evaluated and new forms of cooperation are developed annually.

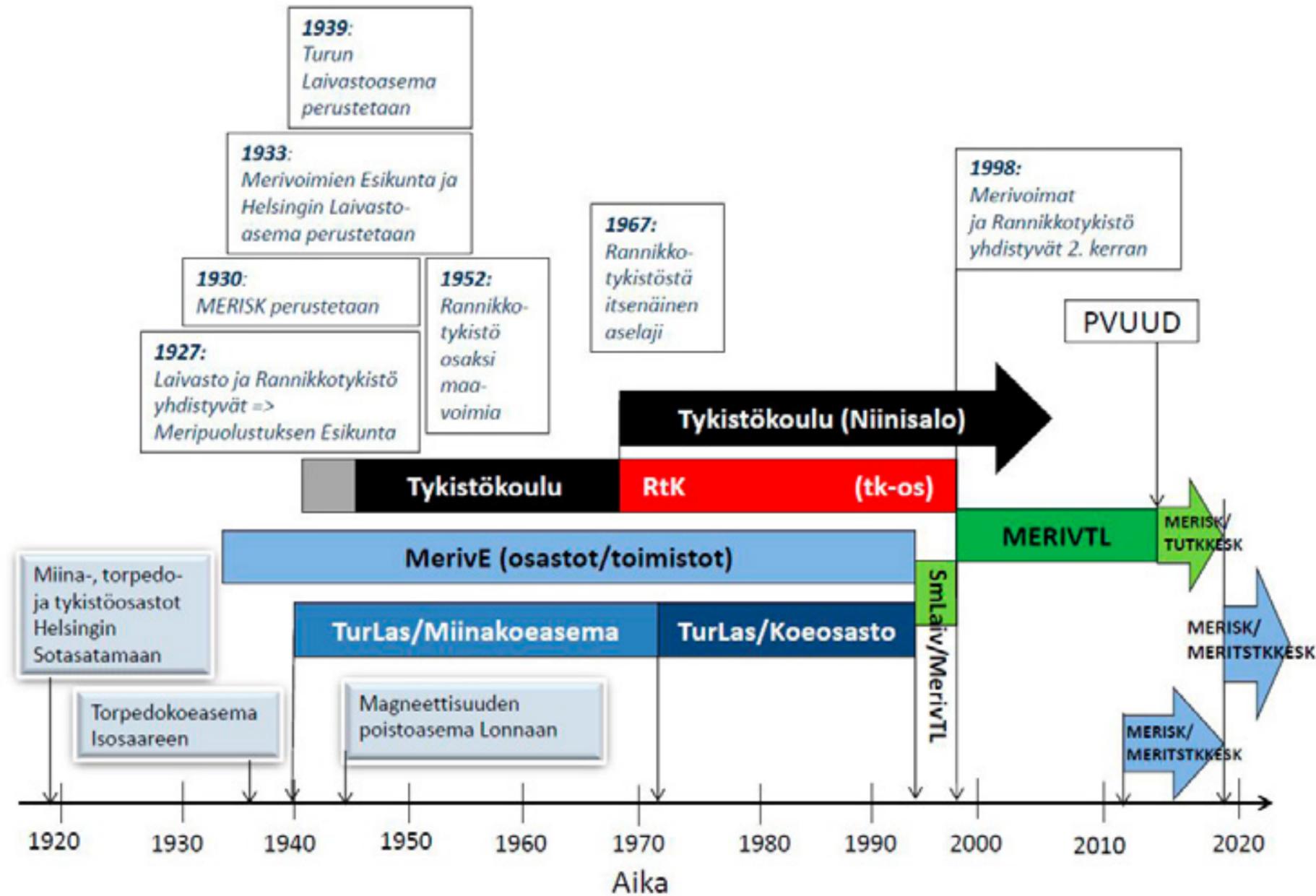
The Finnish Naval Academy is expanding its participation in the Operation Sea Warrior exercise. It is a particularly demanding exercise - both physically and mentally - organized by the Norwegian Naval Academy.

Naval Academy students participate in numerous visits and sports events abroad every year. Finnish Midshipmen are invited to the anniversary celebrations of the Royal Naval Academies and their students, reciprocally, to the Naval Academy's Midshipman Ball every spring.

The Midshipmen also participate in the annual Nordic Cadet Meeting (NOCA). NOCA is a Midshipmen's naval visit that contains sports, seminars and many social events. The objective is to create good relations between Nordic Midshipmen and Nordic Naval Academies. There have been NOCA events since 1948 and Finland has participated since 1967. Finland has also hosted NOCA events several times; the latest was in Turku in 2018. COVID-19 cancelled the NOCA 2020 event in Bergen, Norway. NOCA 2021 is also to take place in Norway.







## Research

Research and development in the Naval Academy date back to the early 1920s (see the picture on the previous page).

Until 2013 research was the responsibility of the Naval Research Centre. It was discontinued due to the Defence Forces Reform. Joint fields of research (e.g. surface weapons and surveillance) were organized under the new Finnish Defence Research Agency (FDRA).

The Navy's own technical research (naval architecture, underwater warfare, measurements and sea trials) was organized under the new Naval Academy Research Centre. At the beginning of 2012, also a Navy Combat Center was established in the Naval Academy. It was responsible for the research of the tactical use of naval weapon systems, modelling naval environments and combat analysis of above water warfare. The Navy Combat Centre's fields of research were surface warfare, Navy air defence and underwater warfare. In addition to research, both centres taught courses in operational forces and in courses organized by the Navy and the National Defence University. The centres also guided theses for students in studying in Defence Forces schools.

At first, the researchers worked in three locations: Espoo, Turku and Helsinki. However, as the renovation of the Classroom Building on the Naval Academy campus was finished, the Espoo contingent was moved to Sveaborg in January 2016.

In February 2015, the Naval Academy started a review of its R&D organization as ordained by the Defence Forces Reform in 2015. The functionality, processes, structure and duties of the organization came under scrutiny. It was deemed that the best organization would be achieved by merging the Research and Combat Centres.





## Naval Warfare Centre

The change was completed on Jan 1, 2019, when the Research and Combat Centres were integrated under the new Naval Warfare Centre.

The new organization enables continued research when raising readiness from peacetime conditions to wartime conditions. As readiness is raised, the regular staff helps enhance the operational efficiency of the Centre. Later the organization is reinforced with selected reservists and retired Navy personnel.

The change has improved the readiness of the Naval Academy's R&D organization and made it better prepared for wartime conditions. The new organization guarantees continued research even as seasoned researchers retire. In addition, the researchers are able to concentrate fully on their research as administration has been reorganized. Since the research organization is small and the research objectives are many, the continued support of other Defence Forces research organizations as well as those of the national and foreign research communities will be needed as the Navy develops its activities and capabilities in the future.

The Naval Academy's Naval Warfare Centre operates in Suomenlinna, Helsinki and in Pansio, Turku. The centre employs both soldiers and civilians, most of whom have research training.

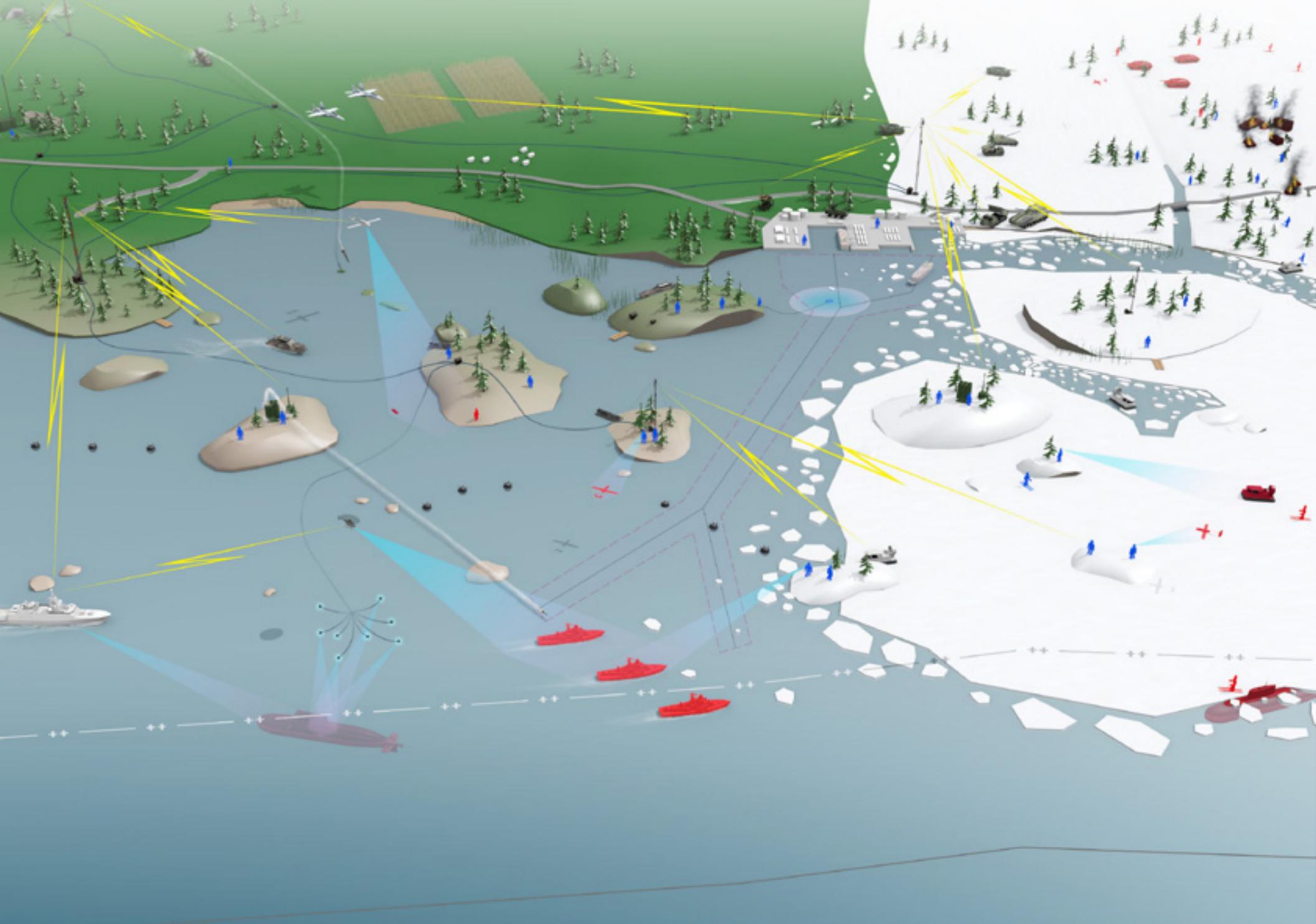
The duties of the Naval Warfare Centre include research and development and project support. The R&D focuses both on sciences and on research into the operational principles of Navy units. The Plans Division of the Navy Command supervises the Centre's research.

The Naval Warfare Centre supports projects aimed at developing the Navy, such as the upgrading of the Hamina-class missile boats, the Squadron 2020 as well as surface warfare, mine countermeasures, mine clearance and underwater surveillance projects. The Naval Warfare Centre's state-of-the-art combat analysis gives detailed feedback to Navy operational troops.

The Naval Warfare Centre also develops tools and methods for planning and evaluation, which support the planning and execution of naval operations.

The Naval Warfare Centre consists of the Centre Commander, Research Director and four research branches.

The Centre Commander is responsible for management, allocation of resources and planning and readiness for peacetime and wartime conditions. The Research Director is in charge of research planning and coordination, research methods and contacts to other research organizations.



The Analysis Branch produces combat analyses and reports for both Navy and coastal forces. In addition, the branch contributes to project support and R&D projects.

The Above Water Warfare and Air Defense Research Branches do research and provide project support in the fields of surface warfare, air defense and amphibious warfare. Moreover, the branch has overall responsibility for Maritime Environment Modelling & Simulation in the Navy. The branch is also responsible for the maintenance and development of the research equipment and facilities of the Naval Warfare Centre.

The Naval Architecture Research Branch researches and supports vessel, especially vessel procurement, projects. In addition, the branch supports the Coastal Fleet in the measurement and analysis of ship influences.

The Underwater Warfare Research Branch is responsible for research and project support conducted in the fields of underwater sensors and weapon systems. The research focuses on mines, mine countermeasures, torpedoes and the principles of their use.

In the future, the Naval Warfare Centre develops into a well-networked center of excellence that works in close cooperation with the FDRA and the research centers of other services.

#### International Cooperation

The international cooperation in Navy R&D has concentrated on the acquisition of new capabilities. The knowhow to build the new mine countermeasures vessels was acquired in close cooperation with the United States Navy and the research organizations of the German Defense Forces in the early 2010s.

Calculation models and common sea trials helped to develop evaluation methods for the surface combatants' combat endurance. These models were tested in shock trials using decommissioned Helsinki-class missile boats. The results were used in the sea trials of the new mine countermeasures vessels.

Underwater warfare R&D cooperation is conducted with the Swedish Defence Research Agency and the Norwegian Defence Research Establishment. The Navy researchers also participate in the European Defence Agency's various research projects, the most important of which for the Finnish Navy have been the research of sea mine clearance techniques and the development of underwater communications.







# Buildings & Monuments



## Main Building D13

The Main Building (D13) of the Finnish Naval Academy, completed in 1852, was originally a hospital. A hundred years earlier, here stood a gun workshop and a kitchen building. The hospital has a similar floor plan to Building D12, also a hospital, but the facades look quite different.

In 1860, a part of the hospital was renovated to accommodate a Sapper (Engineer) Battalion. In the 1860's a single-story annex was built to connect Buildings D12 and D13. Eight detention rooms were added in 1866. In the 1870s a kitchen, dining hall and porridge kitchen were built on the ground floor. A small renovation effort was again required after a fire in 1886, and in 1889 the worn-out timber flooring was replaced by asphalt. In the early 1900s the building housed a kitchen, dining hall, tea room and office spaces for the clerk, Duty Officer and other personnel.

In 1918–1919 the building served as a prison barracks and a hospital for venereal diseases. The bureau of the custodian for enemy property was also located in Building D13.

In the 1920s D13 served as a sanitary warehouse. The Naval Academy moved to Pikku-Musta Island in 1935. The ground floor gained facilities for the Duty Officer, classrooms, dormitories and detention rooms. The instructors had offices on the second floor and the chapel on the third floor became a gym and ballroom.





## Fallen Heroes Wall

The names of the 195 Naval Academy students who were killed in action during World War II are engraved on brass plaques in the entrance hall of the Main Building. The plaques were designed by Jonas Cederc-reutz. Also, the Coastal Artillery's Pro Patria plaques as well as three separate memorial plaques (e.g. one containing the names of the 16 Petty Officers killed in action in the Battle of Teikari) are displayed in the hall.

The students who graduate the Naval Academy lay a wreath in front of the memorial wall to honor the courage and sacrifices of the previous generations.

## Veteran Paintings

On the ground floor of the Main Building, you can see three of the Academy's so called "veteran paintings". They were painted by the Finnish marine painter Håkan Sjöström. The large paintings honor the memory of the Finnish veterans who fought on the submarines, armored ships and minelayers of WW2. The paintings were donated by the Naval Academy Heritage Committee.

## Armored Ship Ilmarinen

You can also see a model of the Armored Ship Ilmarinen on the ground floor of the entrance hall. FNS Ilmarinen sank on Sep 13, 1941, in Operation Nordwind. Her task was to deceive the Russians by sailing south from Utö Island. The ship was probably sunk by a contact mine stuck in the paravane (mine sweeping device). It has been estimated that the paravane broke as the vessel turned, bent alongship, and the mine exploded. Of the 403 sailors, 271 were killed.



CONSTANTEM DECORAT HONOR

JOS HALUAT HALLITA TOISIA,  
OPI HALLITSEMAAN ITSEÄSI

KANSAKUNNAN TULEE LUOTTAA  
AINOASTAAN ITSEENSÄ  
J V SNELLMAN

## Aphorisms

Interesting aphorisms and quotations have been painted on the walls of the second and third floor of the Main Building.

All the seven aphorisms or quotations were chosen by Colonel Viljo Volter Valtanen, who became the Commandant of the Naval Academy in 1945. They were painted between December 1945 and May 1946 and reflect the values of the post-war period.

The most memorable quotations are written by two well-known 19th century Finnish writers.

**"Here whining and regret avail not, only work and toil"** –Aleksis Kivi  
**"A nation must rely only on herself"** –J.V. Snellman

The Reserve Officer students slap Kivi's quote as they walk under the text above a doorway on the second floor. This, as several other school traditions, have to do with honoring and making a connection to the people who walked these corridors before. The quote is from Kivi's novel Seven Brothers. It is spoken by Aapo as the brothers contemplate starting school with the parish clerk.

J.V. Snellman's quote is from the text **"War or Peace for Finland"**, published in May 1863. This famous quote stands on a wall on the third floor. On the same floor, above the gym and ballroom doorway, stands the motto of the Finnish Officers: **"Constantem decorat honor"**.

On the second floor, above the doorway to the Continuing Education Section, you can read this aphorism: **"If you want to rule others, learn to rule yourself"**.

More aphorisms are painted on the walls of the second floor: **"Courage is not the absence of fear, but the mastery of fear"**; and **"The tougher the school, the better the schooling"**.

There used to be detention rooms, or cells, on the ground floor. The following text has been painted on their walls: **"Some men do not know the difference between opportunity and temptation"**.

TÄÄLLÄ EI AUTA VALITUS JA  
MURHE, VAAN TYÖ JA TOIMI  
ALEKSIS KIVI

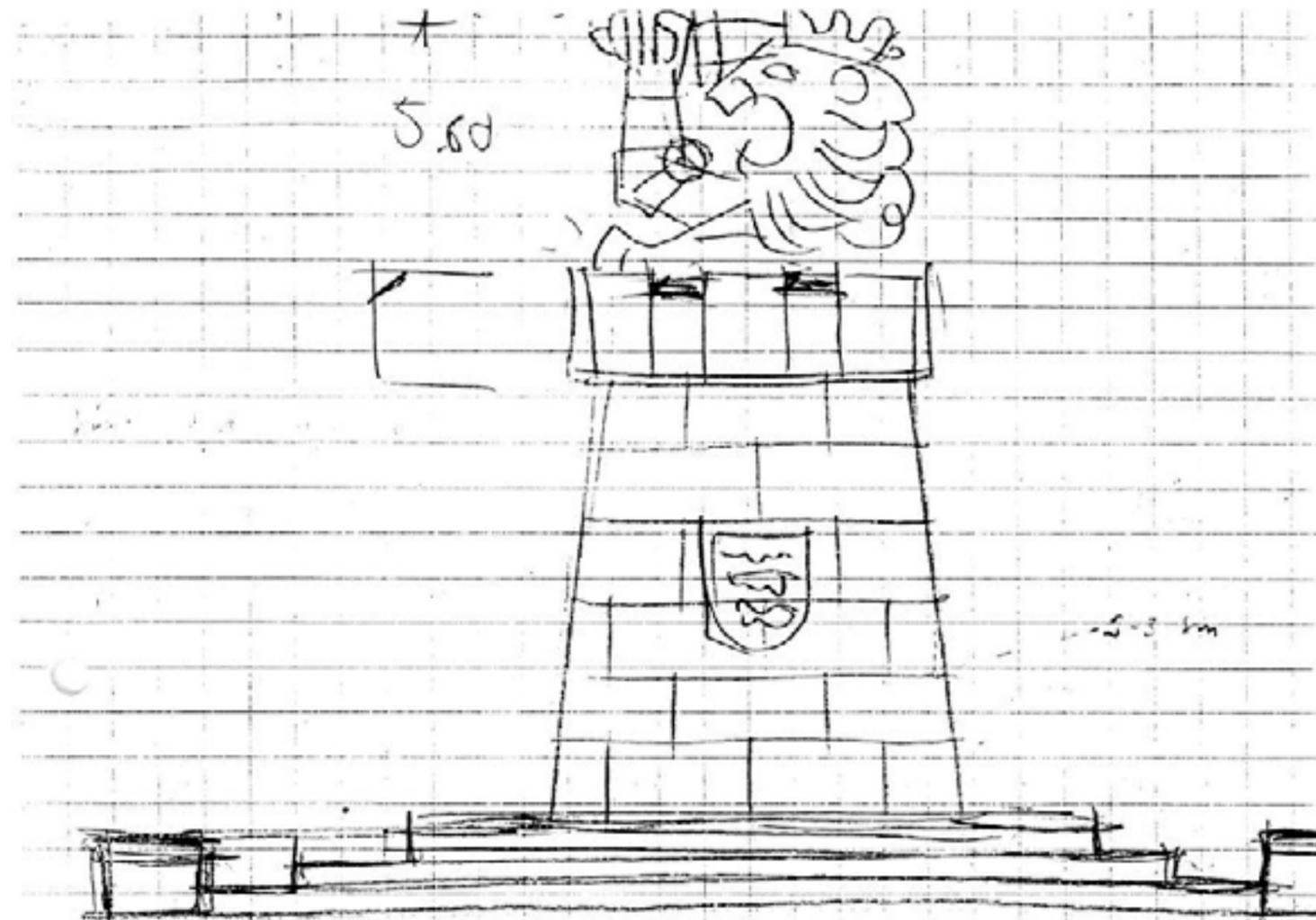
JOTA KOULU KOVEMPI  
SITÄ OPPI SELKEÄMPI

URHOOLLINEN EI OLE SE, JOKA EI TUNNE PELKOA  
VAAN SE, JOKA PELKONSA TAHDONVOIMALLA TUKAHDUTTAA

MUUTAMAT... HET EI

TILAISUUDEN JA K





(Wirkkala on oma piirros)

## History of the Naval Academy's Lion Statue

Written by Captain Pentti Myyryläinen, Oct 30, 1948

"In the spring of 1942, as Colonel A.E. Lyytinen was the CO of the Äänisjärvi Coastal Brigade, a competition was launched to design a memorial statue for those killed in action on the shores and islands of Lake Ääninen. The competition was won by Lieutenant Tapio Virkkala, one of the most famous of our young sculptors. Gunner (sculptor) Oiva Helenius won the second prize. In late summer 1942, Virkkala was relieved of his duties as the Commander of the Puhtosaari Base and ordered to make the statue. He was urged to choose help to complete the job.

At first Virkkala made a plaster cast of the statue. Together with Sergeant (artist) Sulo Jutila he chose a stone from the quarry in Soksu, where e.g. the stones of Napoleon's sarcophagus and those of the Red Square in Moscow come from. The stone is dark red sandstone (it used to be called red granite). It is almost twice as hard as granite. In a test using pieces of stone in the size of 5x5x20, the granite withstood the weight of 900 kg, but red granite could withstand 1600 kg.

Corporals Laihonen and Aaltonen from Lokalahti and Corporal Hasselberg from Tammisaari were chosen as stonecutters, Corporal Tanskanen providing assistance as needed. The stones were transported from Soksu by a barge. This was a great effort since the narrow railways leading to Soksu had been dismantled and the statue stone alone weighed approximately 7 tons. The rails that were found were placed in front of each other in succession until the transport reached the shore. As the stone was being loaded aboard, the winch gave out, and the barge was almost capsized. At the other end of the voyage, there were immense difficulties in getting the stone ashore. The rough stonecutting - performed by Jutila and the aforementioned corporals - took place in a transport company's shed in Uusiselkä. The job proved very difficult because the rock was extremely hard, and the men had only the drills they had found in Soksu.

Corporal Aaltonen, who was good with his hands, tried his skills as a blacksmith and learned how to harden the drill bits. No Finnish or Swedish stone drills were available. Colonel Lyytinen came often to see the work in the winter of 1942-43. It took 6 months to complete the statue. It was done entirely, and extremely carefully, by hand in order not to break the stone.

The statue was to be placed on the south side of Äänislinna, on a high open hill where the Murmansk railway runs. The idea was to raise the statue as soon as it was finished, but Lieutenant General Hägglund decided that the statue was to be raised after the war was over. Thus, the statue was put in storage.

The base of the statue was a tower, slightly narrowing upward. It was built by seven layers of stone - each 50 cm high. On top of the tower, there was a somewhat higher and broader base for the lion. On the ground, on both sides of the tower, there were three steps made of red stones. Pillars that reached a little lower than the highest step stood in the corners. The plan was to mount a red stone plaque on either side of the tower. A verse from A. Oksanen's patriotic poem was inscribed on one plaque.

No document has remained of the text in the other plaque, but it is believed to have read:

This statue was raised by the Ääninen Coastal Brigade to honor the fallen who conquered the shores of Lake Ääninen and safeguarded the freedom of Greater Finland in 1941 -

The overall height of the statue was approximately 560 cm.





*There was not enough transport equipment to evacuate all Finnish troops and materiel from East Karelia. In this situation, the evacuation of a statue was a lesser worry. However, thanks to Captain Haartman, the lion statue and plaques were recovered. The story goes that during the very last days of train traffic from the Äänislinna Railway Station he forced - a pistol in hand - the statue back on the train where it had already been unloaded from.*

*The other parts of the monument remained in storage, and the plaster cast in the Coastal Brigade Officers' Club in Äänislinna. The lion statue finally reached Pansio, but Colonel Valtanen, as the Commandant of the Naval Academy, managed to have it transferred to Sveaborg in 1945. During transportation, a few smaller pieces were chipped off the statue. They were restored, but the seams of the repair remain visible. The statue was placed in the downstairs entrance hall on a wooden pedestal specifically designed for the purpose. In 1947, Major T. Knuutila designed a new pedestal using grey stone and the statue was placed in front of the Main Building. The plaques, whose texts were partly covered by clay, were placed under the statue.*

*It should be mentioned that the town clerk of Savonlinna, Captain E. Häyrinen, tried to have the statue removed to his home town. It was men from Savonlinna (including Captain Häyrinen) who were deployed longest on the shores of Lake Ääninen. Häyrinen even suggested that there should be negotiations with the Russians in order to get back the parts of the monument that were left in Äänislinna. This idea, sensitive as it was, was soon abandoned."*

*In the spring of 1994, the statue was removed from its pedestal and the fractures it had suffered during transportation were repaired. The stone plaques were removed and cleaned. On Oct 18, 1994, on the anniversary of the Naval Academy, the plaques were mounted on their current places on the landing between the second and third floor of the Main Building.*



AS EVELLILLE  
JOTKA VERELLÄN  
TUUVASTVAT SUOMELLE  
ÄÄNISEN RANNAT  
V. 1941 - 1944  
ÄÄNISJÄRVEN  
KÄSINIKKO NIKAATI.

ÄÄNISJÄRVI, POHJANLAHTI  
AURANRANNAT, VIENANSUU  
SIN ON SUOMALAINEN  
MAHTI, JOK EI OO  
KENENKÄÄN MUUNI!



## Guns on the Naval Academy Campus

There are five historical guns on the Academy campus. The oldest two - ship guns from the 1700s - stand in front of the Main Building. There are three more guns on the shore where the old Milk Quay used to be: the deck gun of the submarine Vetehinen and two guns from the gunboat Karjala.

### The Swedish Era Guns in front of the Main Building

Two guns guard the entrance to the Main Building. They date from the Swedish era; the Finnish Squadron of the Swedish Archipelago Fleet was established in Suomenlinna in 1756.

Today the guns are an integral part of school festivities and traditions. Students pose between the guns to take graduation and group photos. One of the traditions is the Farewell Shooting Ceremony for the graduating Midshipman class. Every Midshipman is called out in turn and he stand between the guns. A salute is shot as the Midshipmen throw their officer caps in the air. Today the shots are fired by small confetti cannons.

On the northern extremity of Pikku-Musta Island, where the Milk Quay used to lie, there are three guns that have played a part in Finnish wars.

### The Deck Gun of Vetehinen

Three submarines comprised the Finnish Navy's Vetehinen Class: FNS Vetehinen, FNS Vesihäisi and FNS Iku-Turso. They operated in the Gulf of Finland during the Continuation War.

FNS Vetehinen was constructed in the early 1930s. On the fore deck stood a Swedish 76/48 deck gun, model 1928, barrel number 1.

Vetehinen fought a Russian Hauki-class submarine (Hull Number 305) in the Ahvenanmaa Archipelago on Nov 5, 1942. She fired a torpedo and six grenades at the enemy submarine: four grenades - one of which hit the sail - struck the target. Finally Vetehinen sank the Russian submarine by pushing it to the deep. She was found off the Swedish Grisslehamn in 2006.

### Two Guns from FNS Karjala

The multipurpose guns of FNS Karjala were used in the Continuation War. The same model was also used on the minelayers Ruotsinsalmi and Turunmaa.

In 1919, on the shore of Pikku-Musta Island, 75/50 Obuhov gun mounts were installed on Karjala, where they remained till the end of the Continuation War. After the war, new barrels were installed. Barrel number 873 originated from the minesweeper Altair. She was the Lead Ship of a 1920s Mine Search Squadron. The Squadron got logistics support from Länsi-Musta Island in Suomenlinna.

Volunteers renovated and repainted the guns on the Milk Quay (the deck gun of Vetehinen got back its wartime black color) in the summer of 2020 in a National Defence Training Association course.





## Planetarium D15

The Naval Academy Planetarium is one of the oldest planetariums still in service in Finland. The building dates from 1820 and it was originally a Guardhouse with rooms for officers, soldiers and detainees. During the Civil War this square plastered stone building housed a kitchen and a dining hall of the Red Guards' Prison Camp. Thereafter it was used as a map archive and a prison. In 1981, it became a planetarium where Midshipmen and Navigation Petty Officers receive instruction in astronomical navigation. Their skills are tested during the annual Naval Academy Training Expedition.

Using only one light bulb the Northern Celestial Hemisphere depicting more than 6 000 stars is projected in the plastic dome mounted on the ceiling. The equipment - ZKP-1 (Zeiss Kleinplanetarium) - was manufactured by Carl Zeiss in 1977. The prize at the time was 91 000 Finnish marks, equivalent to a quality German family car or a small house.

If you have the Nautical Almanac of date of your birth, you can adjust the sky accordingly and see under which stars you were born!



## Classroom Building D12

The building that is known today as the Naval Academy Classroom Building was originally a hospital. The building - believed to be designed by Carl Ludvig Engel - was built in the 1930's. The hospital has had several names: first it served as the Viapori Convalescent Hospital and in 1870 it became the Regimental Hospital. The building also provided accommodation for e.g. the Correctional Company and the Army Surgeon Trainees. In 1919–1965, the Helsinki Military Hospital Dermatology Ward was located here.

The building has been renovated several times. In the 1860's, buildings D12 and D13 were joined by an annex. Under the Finnish Defence Forces the middle section of the building was raised by adding a third floor, the staircase was remodeled and windows enlarged.

Since the late 1940's, as the school kitchen and supply storage were moved from Länsi-Musta Island, D12 has served the Naval Academy.

During the years the building has been renovated to accommodate school facilities. In winter 1993–1994, the third floor was converted into an auditorium. There are also classrooms, a modern navigation and bridge simulator, and a virtual learning space in the building.

The Academic Studies Section, Naval Warfare Centre, mess hall, canteen and gym also operate in D12.



## Matti Kurki Mess

The frigate Matti Kurki served as a Finnish Navy training vessel in 1962–1974. The vessel was decommissioned in 1975 and a part of its furnishings was moved to the Naval Academy in Suomenlinna. The set of furniture from her mess is still used in the Matti Kurki Mess at the Academy.

The port side propeller of Matti Kurki was placed as a memorial in front of the Upinniemi Garrison Club from where it was moved to the north yard of Building D12 in 2019. You can see the propeller from the Mess window.

The frigate was built in Bristol, Great Britain, in 1946. The propellers, however, were manufactured in Owen Sound, Canada, by the Kennedy and Sons Shipyard. The two propellers gave Matti Kurki the maximum speed of about 19 knots. You can still read the serial number, date of manufacture (Dec 14, 1943) and the Lloyd's certificate on the propeller. There is also information about the propeller diameter, pitch and rotation. In Finland, the propeller was naturally given the Tower-logo.

In the Matti Kurki Mess Lobby you can also see the models of FNS Hämeenmaa and FNS Uusimaa.

The Hämeenmaa Class minelayers were completed in 1993 and modernized in 2007–2008 in Rauma. Since 2014 they have taken turns as the training vessel of the Academy's Training Expedition. They are an integral part of the Finnish Navy's capability till the end of the 2020s when they are replaced by the four multipurpose corvettes of the Pohjanmaa Class.

The model of FNS Hämeenmaa has the original camouflage paint whereas FNS Uusimaa has been painted grey. The models are not, however, identical with the actual vessels - you can compare when you see the ships sail by.





## Suomen Joutsen -Hall D12

On the second floor of the Classroom Building, there are two halls: Suomen Joutsen Hall and Hall of Traditions. Suomen Joutsen Hall got its name after Håkan Sjöström's painting of the full-rigged frigate Suomen Joutsen (Swan of Finland) that hangs on the wall. Portraits of the Naval Academy Commandants as well as those of the Coastal Artillery School also adorn the Hall walls.

Suomen Joutsen was built in France in 1902. Before she became a Finnish Navy training vessel, she sailed as a cargo ship under the French and German flags and was named Laënnec and Oldenburg respectively. Suomen Joutsen took part in eight Training Expeditions in 1931–1939. The longest expedition - from Oct 9, 1935 to July 2, 1936 - took nine months. Joutsen sailed the following route: Helsinki – Lisbon (Portugal) – La Guaira (Venezuela) – Cartagena (Columbia) – Colón (Panama) – the Panama Canal – Balboa (Panama) – Callao (Peru) – Valparaíso (Chile) – Cap Horn – Buenos Aires (Argentina) – Rio de Janeiro (Brasilia) – Ponta Delgada (the Azores, Portugal) – Helsinki. She carried an exhibition of Finnish industrial export goods. Today Suomen Joutsen is a museum ship, berthed on River Aura in Turku.

FNS Matti Kurki (formerly HMS Porlock Bay) was a frigate built in Great Britain in 1946 for the purpose of convoy protection in WW2. In 1962–1974 she conducted 15 training expeditions as the training vessel of the Finnish Navy. Because of her large accommodation space, she was well suited for this role. The longest voyages were made to Sevastopol (8 weeks in 1963) and Halifax, Canada (12 weeks in 1967).

### FNS Pohjanmaa

The only vessel in the Pohjanmaa-class, Minelayer Pohjanmaa, was built in the Wärtsilä Shipyard in Helsinki in 1979. She was the training

vessel of 31 training expeditions from 1979 to 2013.

The longest voyage (April 16 to June 20, 1988) took nine and a half weeks. She sailed the route Helsinki – Falmouth (England) – Philadelphia (USA) – Kingston (Jamaica) – Ponta Delgada (Portugal) – Bruges (Belgium) – Helsinki.

In 2011, Pohjanmaa took part in the Atalanta-operation in the Indian Ocean. Today Pohjanmaa is called Pohjanmeri and she belongs to Arctia Ltd., a company engaged in marine survey and fairway maintenance.







## Hall of Traditions – Paintings and the Figure-head of Suomen Joutsen

Hall of Traditions is decorated with artwork and memorabilia related to Navy traditions and events.

The Naval Academy owns five so called veteran paintings by marine artist Håkan Sjöström. Three of these striking paintings are displayed here in Hall of Traditions. It must be noted that in the painting depicting gunboats, a motor torpedo boat Tuuli 116 (Taisto-class), takes center stage. The former Chairman of the Naval Academy Heritage Committee, Kaarlo Kyröhonka, who commissioned these paintings, was the CO of Tuuli in 1943 and 1944. Thus the center stage. In the other painting honoring motor torpedo boat veterans, you can see e.g. FNS Vinha with the ace of clubs symbol.

As you enter Hall of Traditions from Suomen Joutsen Hall, you can see the portraits of the seven Navy fighters who received the Mannerheim Cross: Lieutenant Commander Jouko Arho, Lieutenant Senior Grade Osmo Kivilinna, Master Chief Petty Officer Toimi Ovaskainen, Lieutenant Senior Grade Jouko Pirhonen, Lieutenant Colonel Martti Miettinen, Petty Officer Third Class Viljo Vyyryläinen and Lieutenant Senior Grade Kaarlo Kajatsalo. The veterans who served on the Finnish Navy's minelayers and motor torpedo boats donated these portraits painted by artist Sonja Jäämeri in 1970. The set of portraits is complemented by the painting 'Mannerheim in Naval Environment' which was commissioned by the Naval Academy Heritage Committee in the late 1970s and also painted by Sonja Jäämeri. The swords and decorations of the Commanders of the Finnish Defence Forces who are Naval Academy graduates - General Jaakko Valtanen and Admirals Jan Klenberg and Juhani Kaskeala - are also displayed in Hall of Traditions.

Suomen Joutsen was adorned with brass swans on both sides of the ship's bow. They replaced the original figurehead that was lost as the ship was remodeled in 1943.

The brass swans were designed by artist Mauno Porrasvaara. When the ship was transferred to Turku in late 1959, the brass swans were taken down and placed in the Upinniemi Naval Base, one in the Garrison Club and the other on the exterior wall of the Canteen. Suomen Joutsen received new swan figureheads when she served as a school ship in Turku. They were crafted according to the original model.

The swan of the Upinniemi Garrison Club was placed in the Naval Academy's Hall of Traditions when the Club was discontinued in 2019. The other swan still decorates the Canteen wall.

The original purpose of a ship's figurehead was to tell illiterate people the ship's name. The brass swans follow this 16th century tradition, but their original purpose was decorative.



## Mesola Building D11

The building for the Centre of Naval Warfare Studies (Mesola is the Finnish abbreviation of the Centre's name) is by some accounts the oldest stone building in Helsinki: the first floor, built in 1756 as a guardhouse on the bastion Stiernroos, is a year older than the Sederholm House by the Senate Square.

During the Russian era Pikku-Musta was a hospital island and D11 a naval administration pharmacy. In 1850, a second floor was added. In the 1860s this floor was used as a physician's residence.

In the early 1900s the building housed the senior physician's and apothecary's apartments, the hospital office and instruments store.

In 1918–1919, during the Red Guards' Prison Camp period, the building also housed a pharmacy whereas in the 1920s it was back in residential use only. The upstairs served as an officer's - later the Commandant's - apartment. The ground floor was divided into several smaller apartments with common cooking and sanitary spaces. These were lodgings for the unmarried staff of the Naval Academy. The last residents moved out in August 1998.

In 1998 - 2000 D11 was renovated and it became offices for the teachers of the Centre of Naval Warfare Studies.

In 2020, the Head of the Centre of Naval Warfare Studies and other staff, mainly teachers, work in the building.



## Sauna Building D26

A large sauna was built on Pikku-Musta Island in 1904. It was constructed partly on a landfill, partly on an islet. The original idea was to provide the sauna and laundry with a state-of-the-art steam generator. On the upper floor there were to be machines for rinsing out the laundry, spin dryers and a laundry drying room. However, due to the high cost, the plans for the steam generator and machinery were discarded and replaced by washbasins (40 on each floor) and washerwomen.

The saunas, however, were built as planned. Large saunas for the rank and file, smaller saunas for officers as well as washing facilities and dressing rooms were built both on the upper and ground floor. At first the sauna rooms had no stoves; heat was generated by steam in the pipes that ran under the sauna benches. In 1929, the upper floor was made into apartments and the saunas were remodeled. The laundry room became a sauna and the steam heating was replaced by a 2,5-meter wood stove.

Today the upper floor has accommodation and common areas for Naval Academy students. In addition to lodgings and a family sauna, the pride of the Naval Academy - the big sauna - is found on the ground floor. Even though the sauna has changed, a lot of the old remains, e.g. the stove is still heated by logs of wood. It takes one third of a cubic meter of these one-meter long pieces of wood to heat the sauna.

The stove is cylindrical and the sauna is almost like a chimneyless sauna, i.e. the flames and smoke directly heat the stones on top of the stove. There are a lot of stove stones - 2,5 tons in all. They are changed once a year. The big sauna is heated twice a week for Naval Academy students, staff and, by special request, other Navy and Defence Forces personnel as well as the representatives of the most important interest groups such as national defence organizations and guilds. The sauna is not rented out to outsiders. The big sauna has room for more than 80 people, and the small sauna that has an electric heater has room for six people. During the Viaporin Tuoppi Regatta, an event for wooden sailboats arranged by the Suomenlinna Yacht Club, more than 100 people enjoyed a sauna bath simultaneously in the big sauna.

The students of the Haaga-Helia University of Applied Sciences broke the official Guinness World Record on Nov 14, 2019: people from 101 nationalities enjoyed a traditional Finnish sauna bath in the big sauna. An official Guinness World Records Judge monitored the event. The students of the Haaga-Helia University of Applied Sciences made it into the Guinness Book of World Records already in 2009 when 76 different nationalities had a sauna bath in the Naval Academy's big sauna. The record was broken by China (a sauna in Beijing, 99 nationalities) but was thus returned to Finland.



## Naval Academy's 90th Anniversary Exhibition

To celebrate the Naval Academy's 90th anniversary, a small exhibition was organized. The Academy has many traditions and - much in the same way - exhibitions tend to be traditional: word, sound and form are always a good combination. There is a lot of history in 90 years, but an exhibition board fits only 200 words. To meet this challenge, the content of the boards was limited to the Naval Academy and the training of sailors and Navy officers in Suomenlinna.

The training of Navy soldiers in Sveaborg has served the needs of three countries: Sweden, Russia and Finland. The exhibition manages but to scratch the surface of this magnificent task. You could write several books on the training expeditions alone. The environment where the Academy operates is not only a UNESCO World Heritage site but also a milieu of great architectural value.

When the Naval Academy was established in 1930, the training of sailors and officers began in earnest. In the 1920s the training had been desultory and scattered around different locations in Suomenlinna and Helsinki.

It was not until the end of WW2 that all the activities of the Naval Academy were located in one place, Pikku-Musta Island. The boards tell about the history of the various buildings on Pikku-Musta, a Midshipman speaks about his life in the 1930s, and a few more recent stories are included in the exhibition as well. There is also a timeline that, beginning from the 1700s, comprises some of the most important events in the 90-year long, eventful history of the Naval Academy.

This exhibition will be a part of a larger public exhibition that presents the history of Suomenlinna: for ninety years, the training of naval soldiers and Naval Academy has been a visible part of everyday life in Suomenlinna.







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