GERMAN NAVY

The German Navy Navigation Plan

Deter the adversary.
Defend freedom at sea.

BUNDESWEHR

Editorial Information

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Last amended
16. September 2025

Printed by
Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services (BAIUDBw) DL I 4, Central Printing Office

Photo credits
Cover image: thyssenkrupp Marine Systems; p. 4: Bundeswehr/Tom Kistenmacher; p. 7: Image source: www.voanews.com; p. 8: Bundeswehr/Kristina Kolodin; p. 10: US Navy/Andrew Schneider; p. 12: Image source: www.dw.com; p. 14: thyssenkrupp Marine Systems; p. 17: Bundeswehr/Persicke; p. 18: Boeing; p. 21: Bundeswehr/Christoph Bär; p. 22: Bundeswehr/Marcel Kröncke; p. 25: IAI Elta; p. 26: Bundeswehr/Nico Theska; p. 29: Bundeswehr/Volker Muth; p. 30: Bundeswehr/Marcel Kröncke; p. 33: Bundeswehr/Julia Kelm; p. 35: Bundeswehr/Tom Kistenmacher; p. 37: Bundeswehr/Nico Theska

Cover image
Reference design of a Type F127 frigate

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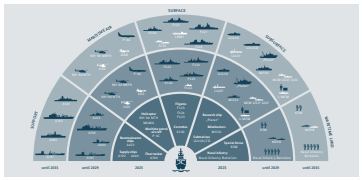


Presence at sea –
Keeping an eye on the adversary.

A Russian Kilo class submarine in the Baltic Sea,
observed by frigate MECKLENBURG-VORPOMMERN.

The Maritime Picture 2025

The threat is increasing. The German Navy is prepared.

The Navy protects Germany's security, its people and its allies at sea. This task has remained unchanged over time – but *how* we undertake it is defined by the respective security situation prevailing in Europe's strategic environment. Russia's war of aggression against Ukraine, in violation of international law, has led to a realignment of the German naval forces. This process is still ongoing.

At sea, the situation has deteriorated as the threat posed by a military resurgent Russia has increased significantly over the past years. Henceforth, the German Navy as integral part of the Alliance will have to increase its efforts – in order to deter the adversary, conduct combat operations at sea if necessary, and protect German maritime interests worldwide.

After more than three years of the Russian war of aggression against Ukraine, specific conclusions can be drawn for the own forces. The German Navy Navigation Plan reflects them: it highlights how a future combat-capable fleet must look like, and how the Navy will accomplish its rebuilding process in a phase of ever-increasing threats and tasks.

Adversaries are already carrying out hybrid attacks and acts of sabotage at sea, particularly in the Baltic Sea. Critical maritime infrastructure of Germany and its allies is increasingly being spied on and sabotaged. These provocations and aggressions below the threshold of armed conflict are calling for a response on a national level, and collectively on both NATO and EU level. Immediate measures to strengthen the naval forces are necessary to stop the high number of hybrid actions.

Measured against the real danger, however, the tense situation in the Baltic Sea is only a secondary arena of confrontation. Behind hybrid aggressions, an *existential* conventional threat has been building up. Russia has committed its industry to war production and is resolutely pursuing an armament programme. By 2029 at the latest, this will enable it to act against the Alliance across the full spectrum of military operations – regardless of the course of events in the war against Ukraine.

The German Navy is therefore focusing its capabilities on national and collective defence. Its forces are needed on NATO's northern flank: the North Atlantic with the Norwegian Sea, the North Sea, and the Baltic Sea. In all these areas, mainly underwater and air threats are prevailing. ▶

In the North Atlantic, Russian submarines are challenging the Alliance. They threaten civilian and military shipping and thus the sea lines of communication between North America and Europe. Above all, their ability to employ ballistic nuclear missiles poses a strategic threat to the Alliance.

In the Baltic Sea, the threat is becoming more substantiated. In case of a conflict, Russia could try to force NATO out of the Baltic Sea by conventional means initially, to establish maritime and air superiority. With bases in the regions of Kaliningrad and Saint Petersburg, the adversary has extensive air, land and sea-based anti-access/area denial (A2/AD) capabilities at its disposal. Via modern weapon systems, Russia is able to disrupt the vital maritime supply routes of the Allies to the Baltic states and Scandinavia. It could isolate their territories in the Baltic Sea area and, in the worst case, occupy them.

NATO's response to this is an operational planning that aims to defend the freedom at sea and to keep open the supply route from the North American Atlantic coast to the eastern Baltic Sea.

On a strategic level, the Alliance reacted to the rapidly growing threat by revising its defence planning in 2023. In a next step, NATO's Regional Plans will be synchronized with the long-term build-up of its members' armed forces. Military capabilities will thus be strictly adapted to the threat. As a result, all nations must increase their efforts. More specifically, NATO needs significantly more forces with a high level of readiness to respond quickly when it is challenged.

For the Navy, this means more units, more personnel, and a higher pace. Like the Alliance, Germany has made a strategic adjustment and issued the *Operationsplan Deutschland*, a national plan for the overall defence of the Federal Republic of Germany. This plan calls for a new level of operational and materiel readiness and specifies the tasks of the four services in the state of defence.

In such a situation, the task is clear: Use deterrence to prevent a full-scale war. If necessary, the Navy, as part of the Bundeswehr, will defend Germany and its allies. This task is the guiding principle for its structure, operational deployment, and training. It forms the core of our self-conception: We must be able to prevail in combat. The mindset of each and every one in the Navy is the key to success. ■

Launch of a cruise missile during a Russian exercise. With images such as this one, Russia demonstrates its military capabilities in terms of employing long-range weapons and visualizes the threat against NATO.

Train as you fight:
The mission as guiding principle for all action.

Machine gunner aboard a corvette. With these weapons,
the ship's crew counters threats in the immediate vicinity.

Deterrence and Defence - The German Navy's Main Task

The naval forces are performing their most important task – while in the midst of a rebuilding process.

The naval forces are focussing on their core mission. After the Russian attack on Ukraine in 2014 and the return to national and collective defence, the Navy shifted its main effort to increasing the operational readiness to ensure credible deterrence and effective defence.

This approach has been pursued consistently since the Russian invasion of Ukraine in February 2022. The improvement of weapon systems' combat efficiency has been initiated, and the comprehensive modernization of the fleet is underway. The organizational structure is being optimized for the tactical command and control of naval forces: The Navy is in the middle of a historic rebuilding process. Now, the initiated modernization of the fleet is being accelerated. The Navy's order of battle must face new demands: Russia has grown stronger, NATO's defence planning has been revised and the *Operationsplan Deutschland* has been developed.

Two timelines are relevant in this context: *Long-term* plans to provide a modern and combat-capable fleet over the course of the 2030s, accompanied by *short-term* measures in the here and now. They will enable the Navy to keep up with the ever-growing demands.

In addition to responding to the threat posed by Russia, European navies must be able to monitor and protect the freedom of navigation worldwide. The actions of the adversary are not arbitrary. Rather, they follow a destructive strategy with global reach. From a German perspective, especially the Arctic and the Indo-Pacific are of great strategic importance. In this context, China's naval build-up and its operations against partner states remain a matter of concern. This is part of the reasons why the USA shifted the focus of their security policy to the Pacific region. Simultaneously, they are expecting Europe to assume more military responsibility on its own continent. Therefore, the Navy is increasingly called upon to defend Europe's security at sea and along the coast, in cooperation with other European forces. Additionally, the Navy will continue to protect German interests worldwide, alongside regional partners.

In the past decades, intervening across regions and continents as an instrument of security policy has been a necessary task of the Navy, most recently demonstrated by the crises and conflicts in the Middle East. International crisis management, defence diplomacy as well as national risk and crisis management will continue to demand German naval presence globally, in addition to its defence tasks on the northern flank. ■

The threat to NATO's northern flank

NATO's sea lines of communication run from North America via the North Atlantic to the Baltic Sea. The GIUK gap, which comprises the sea areas between Greenland, Iceland and the United Kingdom, is of strategic importance. After passing the gap, Russia could directly threaten Allied supply routes. For this reason the Navy, as part of NATO's naval forces, operates to ensure the safety and freedom of navigation in this area as well.

Frigate HAMBURG as part of a carrier group of the US Navy. Their task is to fight against enemies from long distances, which is relevant in operations against A2/AD weapon systems.


Legend
NATO's deployment and supply routes
(Sea lines of communication)
Important North American
and European ports
GIUK
GIUK gap
(Greenland – Iceland – United Kingdom)
Standing NATO Maritime Groups
Naval bases of the Russian Navy's Northern
Fleet and Baltic Fleet
Anti-access / area denial threat (A2/AD) in
the Baltic Sea area
Possible directions of attack
Schematic representation
© Bundeswehr
Barents Sea
Norwegian
Sea
GIUK
GIUK
Baltic Sea
North Sea
Northern Atlantic
Ocean
Mediterranean
Sea

Moving quickly from innovation to operation: State-of-the-art war fighting

A Ukrainian unmanned surface vehicle is approaching a warship of the Russian Black Sea Fleet. Video footage from August 2023.

Future Naval Warfare

Automation and artificial intelligence are decisive to win the war at sea.

With increasing speed, technological innovations are changing the conditions in the maritime domain. Advances in sensor technology as well as in sea-, land-, air-, and space-based reconnaissance are making the theatre of operation increasingly transparent for both friendly and opposing forces. Maritime drone technology is developing rapidly and its use by state and non-state actors has become the new normal in armed conflicts.

The warfare we are observing in Ukraine and in the Black Sea, as well as in the Red Sea and the Gulf of Aden, is a cautioning example: innovation cycles of only a few months require continuous development and rapid adaptation of one's own capabilities. Armed forces that do not internalize this pace will be defeated in battle. The Navy must be at the forefront of development at all times.

It is guided in particular by consistent automation of weapon systems and the use of artificial intelligence, while maintaining human decision-making responsibilities. They all are a prerequisite for maritime forces to prevail on the battlefield and remain superior to an adversary.

Modern technology does not stand alone but is the basis for multi-domain operations. These combine the available measures, actions and effects in all domains (i.e. air, land, sea, space, cyber and information) to create a targeted operation. The integration of mass data analysis and artificial intelligence increases the operational speed of military actions – and speed is what dominates the fight in multidomain operations.

In the future, all units of the Navy will operate in even closer cooperation with the other services, in combination with unmanned units. It is crucial that we rapidly integrate minimally-manned and unmanned systems; the aim is to establish a drone fleet. In the near future, this will significantly strengthen the Navy's combat effectiveness above water, under water, in the air and on land.

Nevertheless, major combat ships will remain a central element on the naval battlefield of the future. They can remain at sea and operate under demanding conditions for longer periods of time and further away from their home bases. Notably, these characteristics are required for tasks in the North Atlantic. ■

The strategic view into the future requires action today.

A reference design of the Type F127 frigate. These vessels will make an important contribution to integrated air defence.

Fight tonight. Fight tomorrow.

In order to prevail in combat, we must set a new course.

The need for a swift expansion of deterrence requires a significantly greater number of responsive forces. The Navy has already opted for this path and must now pick up speed. The necessary increase in assets by 2029 cannot be achieved through procuring naval vessels or aircraft via existing processes. Immediate measures to increase the deterrence potential will thus focus on the existing fleet and its operation. The Navy will maximise effects with its current set of ships, boats, aircraft, and land-based systems.

Wherever possible, the fleet will be complemented by selected systems that can be procured at short notice. Leasing or other innovative operator models are further being used to achieve immediate effects. In this context, the general rule is speed before perfection. The Navy will guarantee short-term deterrence: “Fight tonight!”

Looking at the situation from a strategic perspective, the Russian threat will be re-established in full by the end of the decade. And Russia will not stop there, but continue to enhance its capabilities. At the same time, current trouble spots in other regions may develop into full-blown conflicts and demand decisive action.

The classic military planning timelines for the Navy extend toward the 2030s and into the early 2040s. They will be characterized by the introduction of new weapon systems that interact across all domains. The aim of the Navy is to always stay abreast of technological and geopolitical developments, continuously providing the government with the option to employ it anywhere in the world. The Navy must always be one step ahead of the adversary: “Fight tomorrow!”

These are great demands on the organisation and its core asset: its people. The Navy takes this responsibility with determination and will adapt to the new challenges that arise across the entire spectrum of naval warfare, in the short and long term. ▶

1. Presence is deterrence

The presence of naval units reassures our allies and partners. It is an expression of political will, solidarity within the Alliance, and readiness to defend. Presence creates a detailed maritime picture which is crucial, especially in the challenging geography of the Baltic Sea. Presence enables quick responses and sends clear signals of one's own determination to an adversary.

Combined with multilateral exercises, presence can be used for the training of own forces and further demonstrates close cooperation amongst the Alliance. It is of utmost importance to prevent hybrid attacks in the North and Baltic Seas.

To address this, the Navy needs:

In the short term, a fleet that is considerably more present in areas where its core mission of defence requires it. Given the available assets, the Navy will be at sea and on task for significantly longer periods of time. This means that the ships, aircraft, and infantry must remain available for high-intensity operations. This includes technical aspects as well as training, so that the assigned tasks can be performed immediately without further preparation.

In the long term, to grow in size, consisting of a large number of manned and unmanned platforms. The fleet will be capable of showing presence in all areas of operations permanently and resiliently, able to respond to escalating situations: mass matters. The focus lies on sustainability and flexibility in force deployment. ▶

Visible readiness in the theatres of operation creates deterrence.
Here: minehunters in the Baltic Sea.

The biggest combat aircraft of the German Armed Forces:
the maritime patrol aircraft P-8A will join the German fleet in 2025.

2. A powerful surface fleet

Above water warfare comprises the fight against surface and air targets. The ability to fight surface targets is the core business of naval forces. It is a prerequisite for sea control and sea denial. The Navy must master this task in order to maintain the sea lines of communication across the Atlantic and into the Baltic Sea. Furthermore, it has to be capable to disrupt the adversary's maritime supply routes.

To address this, the Navy needs:

In the short term, a more combat-capable fleet. The ships, boats, and aircraft available today require a higher number of effectors – powerful weapon systems covering longer ranges. A land-based component, able to engage sea targets even at greater distances, will be introduced. More ammunition will be provided for all weapon systems. Operational improvements must also be implemented quickly in the fields of reconnaissance technology and self-protection. In electromagnetic warfare, higher performance in offensive and defensive measures is required, always in line with the latest technological developments.

In the long term, a suitable mix of numerous small and few large platforms. The ship design will be based on modularity and automation. The fleet will contribute to integrated air defence as part of multi-domain operations. In the largely automated naval air warfare of the future, it is essential to counter missiles, very small targets, and drone swarms at the same time. The defence against simultaneous attacks places high demands on the systems' target acquisition capabilities and the crews' vigilance. In above water warfare, high capacities in terms of weapon mix and ammunition remain the foundation for superiority. ▶

3. A powerful underwater fleet

Attacks on civilian and military targets in the subsurface domain are difficult to trace. Underwater, an adversary can use a large number of sensors for reconnaissance purposes. The covert placement of weapon systems such as sea mines and the employment of underwater vehicles may take place even in the earliest phases of conflict.

Such activities of an adversary restrict the own freedom of manoeuvre and must therefore be tracked continuously in order to attribute them. A real-time underwater picture, provided by a wide range of own systems, protects against sabotage and supports peacetime defence preparations.

To address this, the Navy needs:

In the short term, capabilities to quickly enhance its lethality across the spectrum and a better protection against underwater threats. This will be achieved through a large number of state-of-the-art effectors and detailed reconnaissance of the adversary's actions.

In the long term, the ability to counter multiple threats simultaneously. For long-range detection, the Navy will employ stationary and mobile systems, providing interconnected underwater pictures via secure data transmission. This will enable the coordinated use of submarines, unmanned underwater vehicles, vessels and aircraft. A combination of land- and sea-based systems is intended for the area of mine countermeasures. ▶

Submarine U 35 on patrol. Type 212A submarines are specialized in anti-submarine warfare and covert operations along NATO's northern flank.

Corvette OLDENBURG firing an RBS15 Mk3 missile.
This type of guided missile is deployed against targets at sea and land.

4. Maritime strike - attacks against inland targets

Maritime strike is the sea-based, long-range engagement of targets ashore. It is directed against the adversary's inland military structures, reducing their freedom of maneuver and limiting possible courses of action.

In the Baltic Sea, the Navy will use maritime strike to make significant contributions to multi-domain operations in support of a joint effort. In the state of defence, the Navy will be ready to eliminate adversaries' long-range weapon stations (A2/D2 threat) ashore.

To address this, the Navy needs:

In the short term, the enhancement of the strike capability of all suitable units, especially the submarines. This enables the Navy to employ this capability covertly. It includes the integration of modular, containerized weapon systems on existing ships and boats. A timely, significant increase in ammunition stock is crucial.

In the long term, vessels with means for maritime strike over large and largest distances. They will be supplemented by fast manned and unmanned surface and subsurface platforms difficult to detect. Thus, the target can be engaged from short and medium distances, and the adversary's response time can be significantly reduced. Such platforms must be available in large numbers and standardised as much as possible. ▶

5. A fleet of unmanned systems in all domains

The transformation of the Navy into a hybrid service comprising manned and unmanned systems is being accelerated. Based on modern weapon technology, unmanned systems enable the Navy to increase its deterrence potential significantly, especially in the Baltic Sea.

This includes loitering munition, i.e. unmanned systems with built-in warheads. They are placed in the area of operations for a longer period of time and, when necessary, assigned a target. These systems will also bring to bear their effect in above- and underwater naval combat.

The employment of unmanned systems must become standard. The aim is to rapidly develop the necessary structures and expertise in all naval formations, across the entire spectrum of operations.

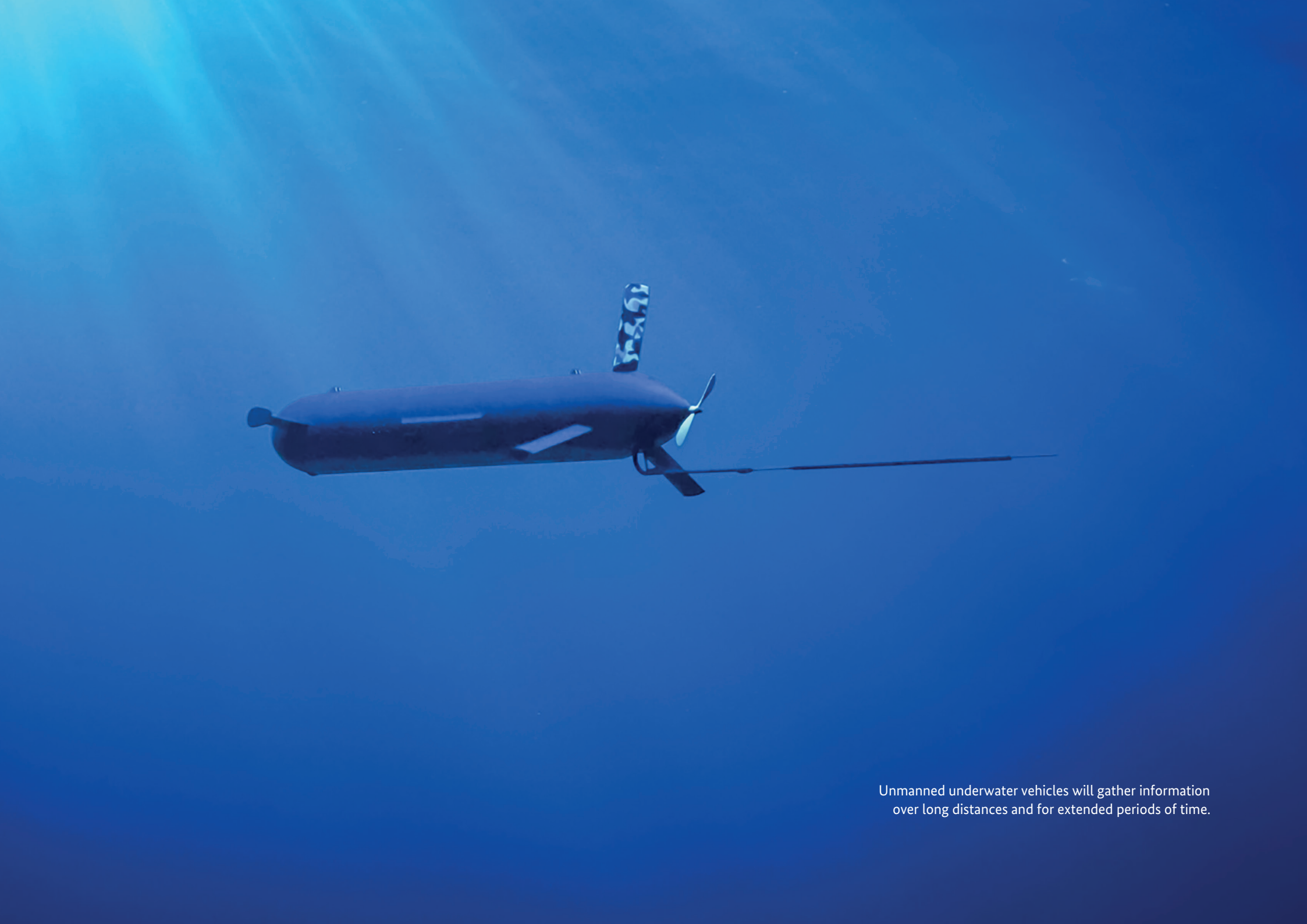
To address this, the Navy needs:

In the short term, a new understanding of the interoperability between manned and unmanned systems. All ships, boats, aircraft, and land-based systems will be enabled to use drones: *Every unit a drone carrier!* Unmanned systems are to be integrated into existing units jointly operated by a common command and control system. In the process of becoming a hybrid service, the Navy will gain experience in the use of entirely unmanned systems through employing minimally-manned units initially.

In the long term, for all operational concepts in the fleet to consider the joint use of manned and unmanned systems. The common command and control system will enable different systems to be integrated into a drone swarm network.

With the *future combat surface system (FCSS)*, the procurement of a system designed to combine swarm and strike capabilities has been initiated. It is intended to complement and link the existing surface units.

Further unmanned systems will be tested by means of *operational experimentation (OPEX)*: The armed forces test new technologies under operating conditions prior to procurement. Thus, existing capabilities of the Navy will be complemented by modern, commercially-available systems. Unbureaucratic procurement and rapid integration will accelerate the first steps towards state-of-the-art technologies whilst gaining experience along the way. ▶



Unmanned underwater vehicles will gather information over long distances and for extended periods of time.

The Naval Infantry Battalion in an exercise in Norway. The naval infantry will be specialized in maritime combat patrol in coastal areas.

6. Coastal defence

Russia's geographical proximity necessitates the capability to seize and hold positions or areas of military importance located within the adversary's reach. Coastal areas are of special relevance for sea surveillance, military effects from land to sea, and the deployment of allied forces. Beyond aerial threats, the principal danger stems from the adversary's employment of special or amphibious forces.

Accordingly, capabilities for sea-borne littoral operations in contested coastal areas will be reinforced. The naval infantry is undergoing reorientation, transitioning from a reactive approach with a focus on protective and security tasks in the homeland towards an offensive way of maneuver in the Baltic Sea region.

To address this, the Navy needs:

In the short term, rapidly-deployable infantry forces to seize and control relevant coastal areas from both sea and shore. They must be able to engage maritime targets from the coastline. To this end, new capabilities for the use of effectors from both combat crafts and positions ashore must be created. The naval infantry will thus be better integrated into the fleet's naval warfare. Suitable reconnaissance assets and effectors will likewise ensure the capability to counter hybrid threats, including those posed by an adversary's amphibious or special forces.

The naval infantry will be equipped to operate both ashore and afloat, and enabled to carry out combat patrol operations. This requires urgent procurement of tactical maritime means of transport – particularly assault crafts – that will allow operations from the sea against coasts, islands, and ports.

In the long term, the availability of these additional capabilities under extreme climatic conditions, including subarctic climate. This makes the naval infantry more flexible geographically. The infantry forces must be integrated into the Navy's digital combat networks and be capable of operating together with unmanned systems and Navy ships, boats and aircraft. ▶

7. A resilient command and control component aided by a comprehensive maritime picture

The command and control capability is the primary target of adversaries' activities in military operations and must thus be resilient. From a stationary headquarters, the Navy will lead naval forces tactically at the national level. In addition, it contributes to NATO's command and control of naval forces in the Baltic Sea by providing the headquarters of the Commander Task Force Baltic.

Assessing current developments depends on a comprehensive maritime situational picture across all domains and the electromagnetic spectrum. Only with such a picture can appropriate responses and courses of action be shaped and adapted.

To address this, the Navy needs:

In the short term, the infrastructure required to exercise command and control at the upper tactical level from a static headquarters. An alternative headquarters, structurally hardened and supplemented by decentralized command and control elements, will create redundancy. For mobile command and control from the sea, structures with cold-start capability will be kept on stand-by permanently.

Continuous data collection requires own military sensor systems, including seagoing assets for obtaining information in conflict hotspots. A resilient network serves to exchange data with other military and civilian actors, including international partners. To be able to fully unfold its beneficial effects, this network must be supplemented with technology for mass sensor data evaluation. Human assessment and decision-making competence will be assisted by artificial intelligence.

In the long term, resilient structures adapted to the threat. They must be designed to accommodate ongoing technological development. ▶

The combat information center on board corvette OLDENBURG. This is where operators correlate relevant information to form a situational picture and make tactical decisions within seconds.

The combat support ship BERLIN is refuelling frigate HAMBURG in an exercise.
Robust logistics from the depot to the ship at sea ensures combat power during operations.

8. Flexible operational logistics at home and abroad

The Navy must be capable of supplying the fleet on the high seas and in coastal waters, enabling operational sustainability and combat power. Particularly the Baltic Sea area of operations with its infrastructure located close to the adversary requires highly flexible and robust logistics at sea, on land and in the air. Prepositioning of materiel and ammunition in the territory of allied states is an instrument for increasing combat power in the Alliance and creating credible deterrence.

Naval bases, shipyards, ammunition depots and arsenals make an indispensable contribution to the operation of the fleet during all stages of conflict. Thus, they are within the adversary's target spectrum. Their sustainability, also ensured through decentralization, must reflect this.

To address this, the Navy needs:

In the short term, manned and unmanned sea-going and land-based support units in large numbers and with large capacity. A depot organisation is also required in Germany, supplemented by prepositioning materiel — in particular ammunition and spare parts — in potential areas of operation.

The organisation and infrastructure of bases and facilities must be prepared for all stages of conflict. This includes increasing capacities in the existing facilities in addition to the planned build-up of the fleet. Additional sources of support, whether at home or abroad, must be reliably available.

In the long term, intensified multinational cooperation with the naval forces of allies and partners. Partnerships and logistic cooperation outside NATO territory are considered in order to safeguard maritime interests worldwide, with particular focus on the Indo-Pacific region. Wherever partners, especially from the EU, have already prepositioned forces, the Navy can rely on dependable structures. ▶

9. Combatting hybrid threats

The Navy must be able to adequately counter an adversary who acts covertly prior to the outbreak of open hostilities. Resilience in the sense of a considerably improved robustness is a necessity for this task. It ensures the ability to act, rendering the adversary's attacks ineffective or
preventing them by taking countermeasures. It comprises the decentralization of tasks and responsibilities, preparing for a failure of central systems. It strengthens the individual's confidence of action and competence to recognize and resist hostile information activities.

In order to counter hybrid warfare at sea, effective coordination of national security authorities is required. All maritime operational forces must be able to recognize, attribute and ward off attacks against infrastructure at any time, irrespective of their location and origin.

The Navy must be authorized to operate within the German territorial waters, Germany's exclusive economic zone and on the high seas. This is of particular relevance if an attack can only be countered by military means. To enable the early detection of threats and attacks, information from all security authorities and civilian operators must be consolidated in a maritime situational picture around-the-clock and be evaluated centrally.

To address this, the Navy needs:

In the short term, landward and seaward protection for the units at their home bases, the associated entrance points as well as for shipyards, ammunition depots and arsenals. This requires robust structural measures as well as technical and human surveillance. To this end, the units of the naval infantry reserve will be qualified to provide force protection to respective maritime installations. Furthermore, additional guard and security units will be established.

Besides, the fleet needs effective self-protection measures, beginning at port. The threat posed by reconnaissance, intelligence, and sabotage, at times difficult to attribute, must be considered.

To counter hybrid threats at sea effectively, a clear legal framework is required. It must allow for information sharing and immediate cooperation among all authorities. The Navy, with its existing command and control assets and experience, offers to assume responsibility for providing a cross-ministerial and cross-authority maritime situational picture.

In the long term, for civil-military cooperation to be strengthened and embedded in the Navy's structures , in order to maintain security at sea. In particular, promoting support throughout all phases of a conflict requires a clearer understanding of cooperation.

Wilhelmshaven naval base. Bases like this are the fleet's haven and must be protected against sabotage and espionage.

Prerequisites for Success

Freedom at sea is everyone's responsibility

Improving the naval defence capabilites as outlined in this Navigation Plan will only be successful if sufficient resources, including the necessary funding, are available. A vigorous course correction is essential for more personnel, units ready to respond at any time, and a technically operational fleet. Quick and unbureaucratic procurement, even in unforeseen cases, will decide on success or failure. Ultimately, success hinges on the individuals and their unwavering focus on the mission.

Innovation

Innovation capability is a prerequisite for military superiority. Creating a framework for this is the daily responsibility of military leaders at all levels. The growing threat environment and short innovation cycles call for breaking up structures that still far too often prevent projects from quickly being put into practice.

In order to advance this change in thinking, the Navy has established an authority responsible for transformation, innovation and methods. It will combine skills for working with artificial intelligence, wargaming, OPEX and agile methods of work. In cooperation with the Bundeswehr Innovation Centre and by actively including industry and the scientific community, ideas put forward by military and civilian personnel are intended to be put into practice quickly. The Navy will actively contribute to this process and provide maritime expertise to ensure that innovation will reach the fleet in a timely manner.

Personnel

Enhancing the fleet and its deterrence and defence capabilities requires a long-term commitment of people to the Navy. The intended materiel build-up demands more and highly qualified personnel. The Navy will utilize the new military service model of the armed forces to meet the heightened threat with a crisis-resistant workforce. It also intends to accelerate reserve build-up and encourage new recruits to continue their careers within the Navy, while ensuring a viable career pathway for all personnel. ▶

The Navy must be able to prevail in combat.

Frigate MECKLENBURG-VORPOMMERN during live firing.

Operational readiness

Operational readiness concerns the qualification of the crews and, in particular, the capability of the Navy's ships and boats to perform their tasks. Traditionally, it follows a rhythm where one third of the fleet is in full combat readiness, one third in graded states of readiness and another third is undergoing maintenance. Previously, operations conducted as part of NATO commitments or for international crisis management operations primarily drew on units in full combat readiness.

In the future, the growing number of tasks will require that two thirds of the fleet are continuously kept available in high or full operational readiness. This requires clear priorities to be set – not all missions call for the highest degree of readiness. In order to achieve the full operational capability of the crews faster, the required training capacities must be established quickly.

Maintenance and armaments

The Navy will only be able to keep two thirds of the fleet operationally available if it can rely upon more immediately available maintenance capacities. It requires maintenance flexibility so that operational readiness can immediately be restored in the event of technical failures. Maintenance phases must be kept as short as possible.

In order for the build-up of the fleet to be successful and the systems to remain state of the art, the Navy depends on a defence industry that reliably keeps production capacities available. As the acquisition of the Warnow Shipyard as naval arsenal in 2024 demonstrates, the Navy’s own capacities can be rapidly expanded where necessary.

At the same time, unconventional thinking and procurement are required. The cross-functional integration of existing Bundeswehr weapon systems on Navy ships, boats, and aircraft is a way of achieving two outcomes: obtaining tried and tested systems while deriving benefits from synergetic effects, and enhancing the combat effectiveness of the fleet creatively and rapidly.

Short-term maintenance, long-term armament and cross-functionality require an adaptation of the regulatory framework in technical management – as a joint task of the Bundeswehr.

Mindset

Everyone in the Navy must be aware that peacetime operations belong to the past. We must be able to prevail in combat. We will only succeed by treating the operational readiness of our organization as a shared responsibility – the guiding principle for every individual action.
Ships don't fight, people do! ■

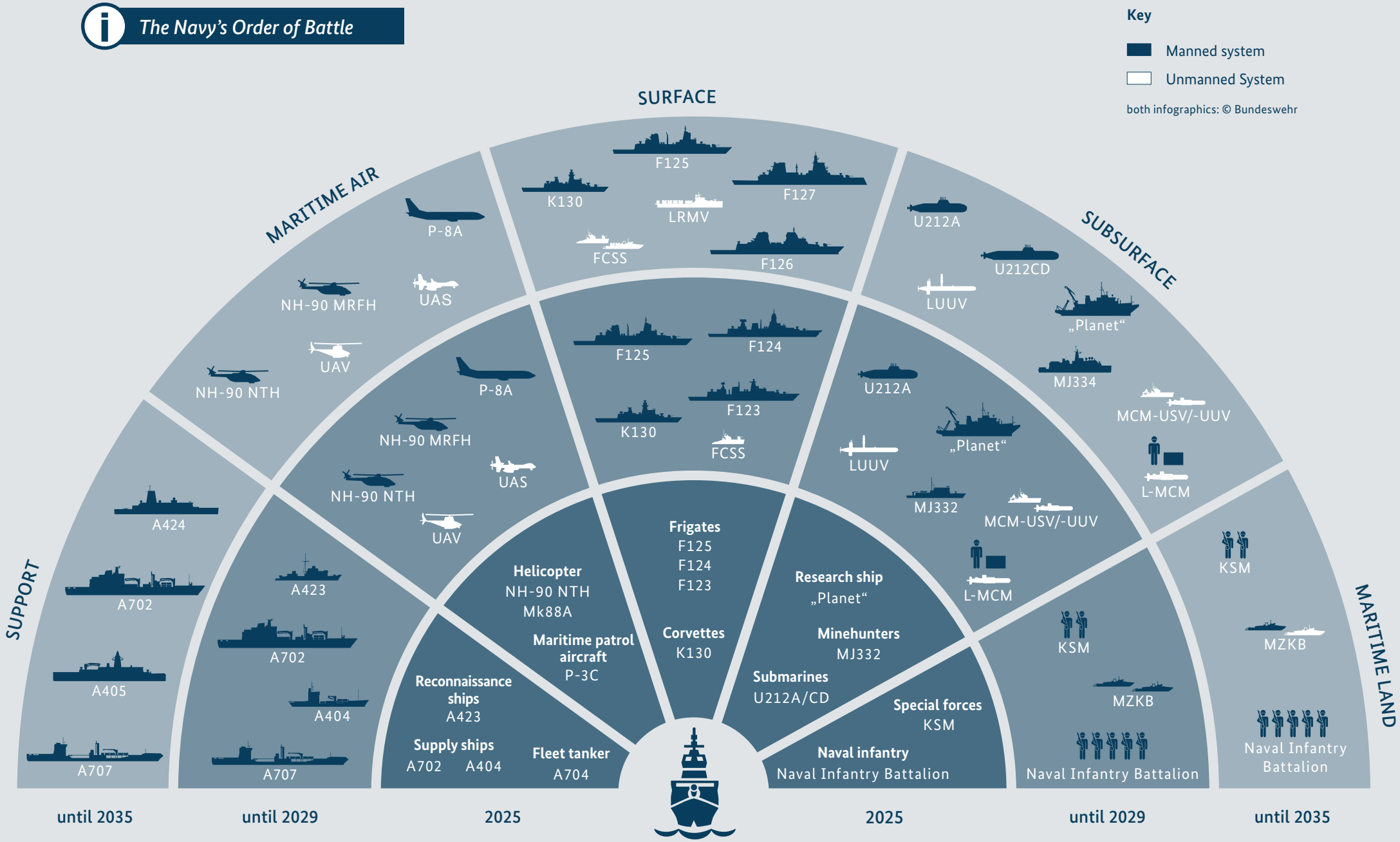
The gravity of the situation has reached a new level.
Our attitude determines our combat readiness.

Parade formation at the commissioning of a warship in 2024.

The Naval Inventory from 2035

SYSTEM		QUANTITY	MAIN TASKS
Type **F127** frigate		6	Air defence & maritime strike
Large remote missile vessels (**LRMV**; complement frigates)		3	Air defence & maritime strike
Type **F126** frigates (NIEDERSACHSEN class)		6	Antisubmarine warfare & maritime strike
Type **F125** frigates (BADEN-WÜRTTEMBERG class)		3 - 4	Above water warfare (AWW) & maritime strike
Corvettes **K130** (BRAUNSCHWEIG class)		6 - 9	AWW & maritime strike in marginal seas
Future Combat Surface System (**FCSS**; complement the corvettes)		18 +	AWW & maritime strike in marginal seas
Multi-purpose combat craft (**MZKB**)		40 +	Naval infantry & maritime combat patrol operations
Type **MJ334** minehunters		12 +	Mine warfare
Unmanned systems for mine countermeasures **(MCM USV/UUV)**		18 +	Mine warfare & underwater reconnaissance
Land-based mine countermeasure systems **(L-MCM)**		6 +	Mine warfare
Type **U212A/CD** submarines		9 - 12	Anti-submarine warfare (ASW), underwater warfare (UWW) and maritime strike
Large unmanned underwater vehicles (**LUUV**; complement the submarines)		12 +	Reconnaissance & above water warfare
Type A424 reconnaissance ship (OSTE class)		3	Reconnaissance
Combat support ship **A702**		3	Replenishment at sea
Fleet tanker **A707**		3	Fuel replenishment
Support ships **A405**		6	Operational support & replenishment at sea
Maritime patrol and reconnaissance aircraft (MPRA) **P-8A** Poseidon		8 - 12	Reconnaissance & UWW
Unmanned aerial system (**UAS**; complement the MPRA)		8 - 12	Reconnaissance & UWW
NH-90 MRFH Sea Tiger shipboard helicopter		31	Reconnaissance & AWW/UWW (deployable from units at sea)
Unmanned aerial vehicles **(UAV)**		22 +	Reconnaissance & AWW/UWW (deployable from units at sea)
NH90 NTH Sea Lion multi-role helicopter		17	Transport, reconnaissance and SAR

The Navy's Order of Battle



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