



**MINISTÈRE
DES ARMÉES**

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MINISTERIAL STRATEGY FOR SEABED WARFARE



EXECUTIVE SUMMARY

WITH THE «FRANCE 2030» INVESTMENT PLAN CONSOLIDATING THE NATION'S AMBITION FOR THE SEABED, THE SEABED WARFARE STRATEGY OF THE FRENCH MINISTRY FOR THE ARMED FORCES IS A RESPONSE TO THE CHALLENGES INHERENT IN THE EXTENSION OF CONFLICTS INTO THIS INCREASINGLY COVETED REALM.

1. The seabed: a complex and potentially disputed environment

The seabed is a discontinuous and complex environment that is hostile to man and difficult to reach. It therefore remains largely unknown; less than one fifth of the topography of the sea floor is determined with precision and more than three quarters of the seabed are located at depths of more than 3,000 metres, where the pressure is more than 300 times the atmospheric pressure. Similarly, according to the classifications established by the United Nations Convention on the Law of the Sea (UNCLOS), the legal status of the seabed is not uniform and a particular place is reserved for the International Seabed Area – the «Area» – defined as common heritage of mankind. Lastly, being the scene of both civil and military activities, this area also appears propitious for deploying hybrid strategies, with difficulties detecting and attributing actions.

2. State and economic activities developing on the seabed

Government and private activities are developing on the seabed, be it oil and gas extraction, the submarine cables market, or deep-sea exploration for the exploitation of mineral resources. These multiform activities come with increasingly advanced technological innovations, with a booming submarine drone and robot market. At the same time, major strategic competitors are stepping up their ambitions in this area.

3. The protection of our strategic interests and freedom of action of our armed forces could be in jeopardy

With logics of might emerging alongside fait accompli policies and the desire to capture resources, the protection of our interests could henceforth be under threat: security of communication cables supplying French mainland and overseas territories, energy transmission installations and even potential resources located in the depths of our Exclusive Economic Zone (EEZ). There are risks for the

freedom of action of our armed forces in our maritime approaches and in areas of deployment of French defence assets. Three trends emerge: the increase in exploration and exploitation by States and private companies; the trivialization of fait accompli with the undeclared appropriation of common or sovereign areas; and the multiplication of actions to circumvent the law.

4. Ensure freedom of action for our armed forces by extending control of the maritime area to the seabed

Faced with diverse, evolving and dual modes of action, guaranteeing freedom of action for our armed forces above all, means extending control of the maritime space to the seabed. We must demonstrate our determination to develop knowledge, monitor and take action. These three activities will primarily be pursued in the territorial waters, the French Exclusive Economic Zone (EEZ) and any area of operational relevance. Within this framework, it will be necessary to increase our capabilities for surveillance and action down to a depth of 6,000 metres. Efforts should particularly focus on improving our knowledge of the undersea environment, and on expanding our information and action capabilities to deep waters and disputed environments. Lastly, our strategy should be consolidated by a legal position aligned with international law, in keeping with the cross-cutting, French-led theme of Europe's free access to strategic common areas, while adapting the domestic legal framework to future issues

5. Consolidate our strategic autonomy by seizing opportunities arising in this competitive arena

Controlling the seabed should also allow us to consolidate our strategic autonomy by seizing technological, industrial and cooperation opportunities that arise in this new field. In this respect, advantage must be taken of technological breakthroughs in autonomous underwater and remotely operated vehicles. This focus will be supported by actions designed to encourage and guide the development of a French Defence Technological and Industrial Base (DTIB) capable of meeting the needs. Likewise, targeted cooperation initiatives with some of our closest partners will bolster our ability to rise to these strategic challenges.

6. Integrate seabed warfare into our defence strategy

It is important to fully integrate the seabed topic into our defence strategy, which implies clarifying the nature of the related operations. Defined as all operations conducted towards, from and on the seabed and involving systems capable of operating on their own or in a network, seabed warfare operations will be structured around three functions: developing knowledge, monitoring and taking action, with a range of uses including hydro-oceanographic operations, undersea action, and surveillance missions. In this regard, the doctrine will be clarified as the process of integrating seabed warfare into the current corpus is pursued. Similarly, the intelligence services of the French Armed Forces Ministry will provide support in anticipating and analysing threats to France's national interests and the armed forces' freedom of action, according to specific policies.

7. Define governance of the response

Overall management will be overseen by the working group created to draft this Ministerial strategy. Organised around key stakeholders in this field, such as the Defence Staff (EMA), Naval Staff (EMM), Directorate General for International Affairs and Strategy (DGRIS), defence procurement agency (DGA), Directorate for Legal Affairs (DAJ), Defence Innovation Agency (AID), Directorate for the Protection of Defence Installations, Means and Activities (DPID) and the intelligence services, this committee will lead several working groups focusing on the six pillars of DOTMPF¹ that define a capability. The French navy (Marine) will set up a dedicated structure under a coordinating authority to meet both visibility and coherence objectives. Entities and organisations outside the Ministry could be involved depending on the subject. The results of this work will be presented annually at ministerial level.

8. Prepare the capabilities needed to pursue the stated ambitions

In keeping with existing or future arms programmes and operations contributing to seabed warfare (CHOF [Hydrographic and Oceanographic Capabilities of the Future] and SLAMF [Maritime Mine Counter Measures of the Future]), a capability development process will be conducted along two lines, starting with obtaining an exploratory capability, followed by incremental capability building with a view to implementing by 2025, the first Autonomous Underwater Vehicle (AUV) and Remotely Operated Underwater Vehicle (ROV) that can operate down to 6,000 metres.

9. Consolidate expertise in seabed warfare

It will be necessary to identify the necessary human resources for seabed warfare, generate specialists through appropriate training and career pathways, and foster the emergence of an ecosystem conducive to synergy between experts and operational staff through chosen partnerships. The creation of a seabed pole of excellence will contribute to this objective, through cross-fertilisation of expertise and know-how in a dual military and civil field geared to innovation.

10. Integrate this strategy into the interagency process

This strategy of the French Ministry for the Armed Forces supports the ambition to invest in the seabed, in line with the interagency process already initiated with the 2020 national strategy for the exploration and exploitation of seabed mineral resources and objective 10 of the France 2030 investment plan presented in October 2021 by the French President. It contributes directly to the promotion and protection of sovereignty right down to the ocean floors by making a decisive contribution to the nation's resilience.

¹ Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities.