

MARITIME STRATEGIC EVALUATION FOR ISRAEL 2020/21

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Key Naval Fleets – Trends and Changes

Shaul Chorev

The following is a review of the changes and trends within the world's largest war fleets, compared to the previous report from 2019, focusing upon arenas of action, operation strategy and force establishment plan of each. The review of each fleet will devote a mission-related for its activity within the East Mediterranean, a region constituting the main focus of the Maritime Policy and Strategy Research Center (HMS).

The United States Fleet

Prior to reviewing the trends and changes within the world's largest, strongest fleet, it is necessary to address the United States' political and security-related objectives, as phrased by the Secretary of Defense Dr. Mark T. Esper.

The United States' Political-Security-related Objectives: Dr. Mark T. Esper, the 27th Secretary of Defense of the United States published the ten emphases he views within the American Ministry of Defense's activity, including, among other things, the following objectives; re-inquiry and approval of all force establishment plans and the operational response against China and Russia; obtaining a higher degree of sustainable preparedness; development of a customized plan for enhancing allies and establishment of partnerships; focusing upon China as the United States' rival; modernization of the force and expanding investment in game-changing technologies; determining joint war games, drills and joint train plans with United States' allies.¹

In August 2019, the Americans established SPACECOM (The American Space Command), and in December that year, the U.S. Space Force which is, in fact the new combat command, and the first new force of the United States Army since 1947. Their goals are to maintain the freedom of use, trade and navigation in space. Those goals express the acknowledgement of the growing importance of space as a new warfare sphere. In March 2020, a communication satellite was launched as the American Space Force's first national security mission. The United States placed thousands of American soldiers in Saudi Arabia in summer 2019, so as to calm the Saudi people following Iran's attack on their petroleum facilities in September 2019. Simultaneously, the United States reduced its military forces in Afghanistan to 8,600 soldiers, attempting to promote a political solution between the Taliban and the existing government.

1 US Department of Defense, Implementing the National Defense Strategy: A Year of Successes, July 2020. <https://media.defense.gov/2020/Jul/17/2002459291/-1/-1/1/NDS-FIRST-YEAR-ACCOMPLISHMENTS-FINAL.pdf> [Accessed September 20, 2020].

The European Command (EUCOM) attempted a change by placing more than 9,500 American soldiers who were placed on German grounds, by expanding deployment of United States forces to Europe for drills and training. Those actions indicate president Trump's policy for reducing American presence on European grounds, minimizing the budget-related obligation deriving from this presence.

The United States resumed its obligation to maintain freedom of sailing through Freedom of Navigation Operations in conflict areas, including the Persian Gulf, Gulf of Oman and the South China Sea. As all may recall, an international force consisting of several state was established in September 2019, in order to deter threats on the global trade in the Gulf of Arabia and Gulf of Oman by Iranian marine provocations. It is important to bear in mind that Iran does not acknowledge the Transit Passage in any part of its territorial waters or through the Strait of Hormuz, casting restriction on Innocent Passage in the area as well, one motive being to oppose the United States.²

Ending North Korea's Nuclear Plan: A second summit meeting of Trump and Kim Jong Un, which took place in February 2019 in Vietnam, abruptly ended, yielding no deal.³ Nuclear arms manufacturing by North Korea continued in spite of the aggressive sanctions. A report by the United Nations' experts team, which has not yet been officially published indicates that Pyongyang has probably developed the ability to manufacture smaller nuclear apparels, which may fit its ballistic missiles, also intensifying its nuclear material manufacturing.⁴ Furthermore, North Korea continued engaging in ballistic missiles with submarine head launching experiments. An institute specifying in researches addressing North Korea's nuclear arms recently analyzed up-to-date satellite photographs of Sinpo shipyard, presenting the experiments raft, serving for underwater experiments of submarine arms development. According to the report, the raft's location at Sinpo shipyard "might signify an approaching underwater experiment, though such launching at a time of typhoon storms seems unlikely". It is estimated that a missile launched from the raft will be limited to a 185-310 mile range, which will not pose any direct threat on the continent of the United States.⁵

2 Farzin Nadimi, Clarifying Freedom of Navigation in the Gulf, The Washington Institute, PolicyWatch 3154, July 24, 2019. <https://bit.ly/3huMdyY>

3 North Korea nuclear summit ends abruptly with no deal, NCB News, February 28, 2019. <https://bit.ly/3rx6QPn>

4 Julia Masterson, UN Experts See North Korean Nuclear Gains, Arms Control Today, Arms Control Association, September 2020. <https://bit.ly/3mUHCAn>

5 Hyung-Jin Kim, Seoul: North Korea may conduct underwater-launched missile test, *The Associated Press*, September 17, 2020. <https://bit.ly/38DwSIml>

The United States allocates the world's largest budget to its military forces. Consequently, the American fleet has still possessed the greatest power. The 2021 fleet budget is 207.1 billions of dollars, which reflects no substantial change, compared to the 2020 budget.

The Operational Response

Figure 1 presents, in a bird's eye, the operational response, based upon a planned order of forces consisting of 306 vessels, out of which 101 vessels in active field duty by the various worldwide operational arenas.

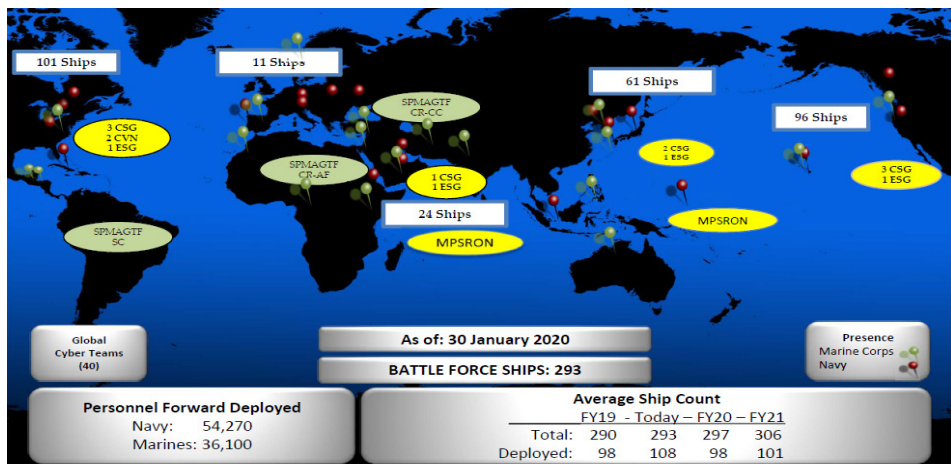


Figure 1: The United States Fleet Operational Response, 2021⁶

The emphasis for 2021 – All Domain Dominance:

- Prioritization, reinforcement and renewal of nuclear deterrence, so as to assure timely supply of next generation's submarines, Columbia model.
- Continued enhancement of military preparedness to provide the United States with a well-prepared, trained force.
- Lethal force supply, through a greater extent of investment in navy modernization and crucial technologies.
- Focusing upon enablers and dominance in all conflict spheres; sea, air, land, cyber, secure communication, awareness of combat arena within space and establishment of an integrated fire force.

6 Department of the Navy FY 2021 President's Budget. https://www.secnav.navy.mil/fmc/fmb/Documents/21pres/DON_Press_Brief.pdf [Accessed September 21, 2020].

- Prioritization of more "capable" platforms over less capable legacy platforms, rapidly responding to the changing threat.
- Adapting the response to the national defense strategy (NDS), geared at great power competition.

In the United States' navy's force establishment (Table 1), the number of new vessels entering the ordered force (8) is smaller than it was in previous years (12 in 2020 and 2019). Based upon this force establishment plan, apparently the navy will face difficulties while attempting to reach the goal it established in terms of vessels number (355). Plus, in order to withstand this objective, the navy will be required to include the unmanned vessels, which will be integrated into operational service within the following years. In the 2021 budget year, the navy plans on extending its vessels ordered force from 297 to 306, out of which, 101 will be operationally deployed.

Table 1: American Navy's Force Establishment Plan

Battle Force Ships (SCN)	FY20			
	FY19	PB20	Enacted	PB21
Columbia Class Submarine (SSBN 826)	AP	AP	AP	1
Ford Class Aircraft Carrier (CVN 78)	0	1	1	0
Virginia Class Submarine (SSN 774)	2	3	2	1
Arleigh Burke Class Destroyer (DDG 51)	3	3	3	2
Freedom/Independence Class Littoral Combat Ship (LCS 1/2)	3	0	0	0
Guided Missile Frigate (FFG (X))	0	1	1	1
America Class Amphibious Assault Ship (LHA 6)	AP	0	*	0
San Antonio Class Amphibious Transport Dock (LPD 17) (Flight II)	AP	AP	*	1
Lewis B. Puller Class Expeditionary Sea Base (ESB 3)	1	0	0	0
Spearhead Class Expeditionary Fast Transport (EPF 1)	1	0	1	0
John Lewis Class Fleet Replenishment Oiler (T-AO 205)	2	2	2	0
Navajo Class Towing, Salvage, and Rescue Ship (T-ATS 6)	1	2	2	2
New Construction Total	13	12	12	8

Table 2: Plan of Research, Development, Experiments and Operational Assessment for Unmanned Vessels

Unmanned (RDTE,N)	FY20			
	FY19	PB20	Enacted	PB21
Medium Unmanned Surface Vehicle	1	0	0	0
Large Unmanned Surface Vessel	0	2	2	2
Extra Large Unmanned Undersea Vehicle (XLUUV)	5	0	0	0
Unmanned Total	6	2	2	2

The Corona pandemic might also affect the pace of American order of battle. A report submitted to the Congress indicates that all American Navy's vessel construction plans, including those of the coast guard's may be affected by the Corona pandemic.

The report specifically indicates the Columbia SSBN (ballistic missile submarine, due to the plan's high priority (namely, navy's top priority). The plan's tight schedule for the planning and construction of the first submarine in the series implies the threat on the submarine's first operationality date, which is due in 2031. According to the report, any postponement in the initial operationality will bear severe ramification on United States' Strategic Nuclear Deterrence Posture.⁷

The Corona pandemic also resulted in American Navy's battleships' haul deployment records. According to American Navy's message to the press, the USS Stout deployed at sea 208 consecutive days, breaking San Jacinto patrol vessel's deployment haul time, as well as USS Dwight D. Eisenhower's haul time.⁸

The Navy's Operation in the East Mediterranean

Since President Obama's 2012 declaration of "Pivot to Asia Policy", the American Navy's operation in the East Mediterranean has considerably reduced. It is also noteworthy that since the United States decreased its dependence upon petroleum coming from the Middle East area, the area's geo-economic and geo-political significance has been substantially declined in the eyes of the United States. This is well demonstrated by the United States' lack of military-marine involvement in the tension between Turkey and Greece in summer 2020. United States did nothing but sending the logistic vessel USS Hershel Woody Williams, which arrived at the Gulf of Souda, Crete, an activity erroneously perceived by the media as a mission aimed at watching over the worsening tension between NATO ally members, Greece and Turkey, because of energy right in the East Mediterranean. The Sixth fleet spokesman rushed to amend the interpretation given, stating: "The vessel arrived to provide pre-planned logistic support, and on the 18th of August joined pre-planned trainings with regional forces."⁹ This declaration implies that the United States, through the Sixth Fleet, bears no pretensions to serve as an influential party within the events occurring in the East Mediterranean. In this sense, President Trump's policy is not different than that of his predecessor Obama. Rather, in some senses, its trend have even been intensified.

7 Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress, COVID-19, Impact on Shipbuilding Programs, September 17, 2020, pp. 26-27. <https://crsreports.congress.gov/product/pdf/RL/RL32665>

8 Mallory Shelbourne, Destroyers USS Stout, USS Kidd Wrap Up Long-Haul Deployments, *USNI News*, September 29, 2020. <https://bit.ly/2KLx13V>

9 Megan Eckstein, USS Hershel 'Woody' Williams In Eastern Mediterranean for Training as Greece-Turkey Tensions Continue, *USNI News*, August 20, 2020. <https://bit.ly/37ypdeP>

The leaving commander of the United States marine forces in the Mediterranean Sea and North Africa, Admiral James Foggo, who terminated his position early in September 2020, made the following statement at an Internet conference: "The East Mediterranean has become one of the world's most kinetic regions", further stating: "We must come up with a new strategy which will facilitate our progress within this geo-strategic scene, which is becoming all the more complex".¹⁰ This is undoubtedly an accurate observation, but apparently will not influence the decision makers in Washington. For instance, the Sixth Fleet, which traditionally operated in the Mediterranean area, was assigned for new missions this year. In May 2020, for the first time since the 1980's, had operated at the Sea of Barents, west to the coast of Norway.¹¹

Although the United States does not employ the political dimension of the maritime strategy in the East Mediterranean (employing marine forces for political purposes), she does employ other political tools so as to maintain its standing as a super-power in the East Mediterranean. For example, the United States lifted for one year the embargo she cast on Cyprus in 1987, aimed at preventing an arming campaign, which will delay the United Nations' efforts toward merging Cyprus. As a matter of fact, the embargo was cast on the southern, Cypriot-Greek part of the island, the abode of the international government commonly recognized in Cyprus. So as not to upset the Turkish, Washington announced the lifting of the embargo for one year, with a renewal option, to allow Cyprus purchase non-lethal equipment. United States ambassador to Cyprus announced that the United States would continue encouraging the Cypriot governmental authorities to rebuke fueling services provided to the Russian navy in Cyprus, viewing the position inducing non-stability in the region.¹²

People Liberation Army Navy – PLAN (The Chinese Navy)

The growing importance of the Chinese marine interests, which have already been reported in the previous assessments, has caused the Chinese navy to keep on increasing the frequency of its operations, their duration and their distance from

10 Lenny Weston, Russia turning eastern Mediterranean into a militarized hot spot, Navy's Foggo says, Stars and Stripes, June 24, 2020.

11 Thomas Nilsen, U. S. Sixth Fleet enters the Barents Sea with missile defense destroyer, The Barents Observer, May 4, 2020. <https://thebarentsobserver.com/en-security/2020/05/us-sixth-fleet-enters-barents-sea>

12 Diego Cupolo, US officials say partial lift of Cyprus arms embargo not related to Turkish-Greek tensions, AI Monitor, September 2, 2020. <https://bit.ly/3hlg2lr>

China.¹³ This activity corresponds to the emphasis put on sea by the White Paper, the strategic document published by China in May 2015, titled "Defense at the Open Sea".¹⁴

In another document, published in July 2019, China presents the role of her armed forces as follows: "In defending important waters, islands and reefs within the eastern Sea of China, southern Sea of China and the Yellow Sea. The forces have acquired full situation awareness of the nearby waters, perform actions to defend common rights and law enforcement, properly handle marine and air situations and respond with resolution to security threats, violations and provocations at sea".¹⁵

As stated, China does not provide data related to its defense budget, including the Chinese navy empowerment budget (Table 5 whose origin is SPIRI Institute indicating a 261 billion dollars). As for maintaining China's interests overseas, the document indicates as follows:

Maintaining Chinese interests beyond its boundaries, constitutes an important part of China's national interests. One of the missions faced by China's armed forces is to efficiently defend the safety and legitimate rights and interests of Chinese citizens, as well as Chinese organizations and institutes overseas. For that purpose, China establishes marine forces, develops logistic facilities overseas and enhances its capability in performing various military tasks.¹⁶

The report for the American Congress from August 2020, titled China Naval Modernization: Implications for U.S. Navy Capabilities), addresses several topics related to the Chinese navy's gaining power and its operational strategy:¹⁷

- The effort has been going on over 25 years, since the beginning of the mid-1990's, turning the Chinese navy into a much more modern force, possessing new capabilities.

13 Ronald O'Rourke, China Naval Modernization: Implications for U. S. Navy Capabilities – Background and Issues for Congress, Congressional Research Service (CRS), August.

<https://fas.org/sgp/crs/row/RL33453.pdf>

14 Blasko, J. Dennis, "The 2015 Chinese Defense, White Paper on Strategy in Perspective: Maritime Missions Require a Change in the PLA Mindset. The Jamestown Foundation, May 29, 2015.

<https://www.refworld.org/docid/556c27634.html>

15 Andrew S. Erickson, Full Text of 2019 Defense White Paper: "China's National Defense in the New Era" (English & Chinese Versions), The State Council Information Office of the People's Republic of China, First Edition 2019, July 2019 July 24, 2019. <https://bit.ly/2KXk6fF>

16 Ibid.

17 China Naval Modernization: Implications for U. S. Navy Capabilities – Background and Issues for Congress Updated, October 2, 2019, Congressional Research Service. <https://crsreports.congress.gov/product/pdf/RL/RL33153/227>.

- The navy has conducted a growing number of operations in farther waters, including wider water regions of the western Pacific Ocean, the Indian Ocean and nearby waters, on the way to Europe. The Chinese navy is undoubtedly the largest of all Asian countries' navies. Plus, in recent years, the number of its battleship exceeds that of the American navy's.
- Several American observers express concern with the vessel construction rate at the Chinese navy, particularly with the construction of larger vessels, which may result in interruption of the balance between the Chinese navy's relative size and the United States navy.
- The Office Net Assessment, a branch of the American Ministry of Defense states that by late 2020, China will have possessed a battle marine force of 360 vessels, compared to an estimated total of 297 vessels for the American navy at the same time. Plus, this rate will have increased to 400 vessels by 2025 and 425 by 2030.
- The Chinese navy's vessels, planes and its arms systems are growing more modern, possessing greater capabilities compared to those they possessed in the early 1990. Now, they are similar in capabilities of many other western navies.
- China's maritime modernization effort encompasses a wide variety of plans to purchase platform and arms, including ASMB (anti-ship ballistic missiles), ACSM (anti-ship cruise missiles), submarines, field vessels, airplanes, unmanned vessels and command and support of command and control, communication, computer, intelligence, monitoring and patrol systems.
- China's marine modernization effort also includes enhancement in maintenance and logistics, doctrine, manpower quality, education, training and drills. In many cases, the material quality is comparable to that of the American navy's. China quickly catches up in all aspects.¹⁸
- The Chinese navy is considered a great challenge for the American navy's capability, since the Chinese navy's goal was to attain control and maintain it during war at "blue waters" regions in the western Pacific Ocean, an unprecedented challenge for the American navy since the end of the Cold War at the end of the 20th century. China's navy poses the greatest challenge at present for the United States' long-standing position as a leading military power in the western Pacific Ocean.

18 Unclassified ONI information paper prepared for Senate Armed Services Committee, subject "UPDATED China: Naval Construction Trends vis-à-vis U. S. Navy Shipbuilding Plans, 2020-2030m" February 2020, p. 3. Provided by Senate Armed Services Committee to CRS and CBO on March 4, 2020, and used in this CRS report with the committee's permission.

- China's military modernization effort is also aimed at developing military capacities for a prospective military war campaign against Taiwan, when necessary, in order to attain a greater degree of control on China's near marine area, particularly southern Sea of China, as well as in order to impose China's view stating the latter has the right to arrange foreign military operations in its EEZ (Exclusive Economic Zone), laying up to 200 miles from its coasts;¹⁹ for China's defense through SLOC (Sea Lines of Communication), particularly those connecting China to the Persian Gulf; for annulling United States' influence in the western Pacific Ocean, and to clarify China's standing as a leading regional power and a global center of power.²⁰
- China is interested in her navy's becoming part of operations aiming at area denial/anti-access, capable of deterring the United States' intervention in a conflict in the near sea area of China, surrounding Taiwan, or any other similar outline (Figure 2). Other missions for China's navy include maritime security operation against piracy, evacuation of Chinese citizens from foreign countries if necessary and humanitarian assistance (HA) or disaster response (DR) operations.
- Until recently, China's maritime modernization effort has appeared to be less focused upon expanding the general platform size (namely, vessels and aircraft), but more focused upon increasing the number of quality vessels. However, apparently it seems as though emphasis has been put upon the Chinese navy's order of force's size, its composition, quantity and quality of the manpower serving it.
- Although China's marine modernization effort has considerably enhanced China's capabilities in recent years, the present navy is estimated as possessing limitations and weaknesses in certain aspects, including joint operations with others. There is no doubt that the Chinese navy vessels are still inferior in terms of their capabilities, compared to those possessed by the United States navy, but over time, this gap drawing nearer and nearer to a close.
- The main gaps identified in the Chinese navy are' anti-submarine warfare (ASW), long-term focus, limited ability for reverse logistics at sea for battleships operating away from their home ports;²¹ the capability of training a multitude

19 For additional discussion, see CRS Report R42784, U. S. – China Strategic Competition in South and East China Seas: Background and Issues for Congress, by Ronald O'Rourke.

20 Roderick Lee, "The PLA Navy's ZHANLAN Training Series: Supporting Offensive Strike on the High Seas," China Brief, April 13, 2020.

21 Will Mackenzie, Commentary: It is the Logistics, China, National Defense, June 10, 2020.

of crew members for the new vessels;²² lack of recent combat experience. China is acting toward minimizing or overcoming such limitations and weaknesses, but there should be no room for misbelief that the navy in its current state is capable of carrying out missions that are of interests to the leaders of China. The more its capabilities improve, so will the variety of missions the navy is capable of carrying out.

Aside from the Chinese navy's modernization, China has substantially expanded its coasts guard which is, undoubtedly the largest of all coast guards in Eastern Asian countries. China also operates a prominent marine militia, consisting of a multitude of fishing boats. China mainly relies upon its marine militia and coasts guard in order to lay its marine claims at its nearest sea and defend them, while the navy operates beyond the horizon, as a potential backup force.

Table 3: Number of Chinese Navy's Battleships in the Years 2000-2030²³

Figures include both less-capable older units and more-capable newer units

	2000	2005	2010	2015	2020	2025	2030
Ballistic missile submarines	1	1	3	4	4	6	8
Nuclear-powered attack submarines	5	4	5	6	7	10	13
Diesel attack submarines	56	56	48	53	55	55	55
Aircraft carriers, cruisers, destroyers	19	25	25	26	43	55	65
Frigates, corvettes	38	43	50	74	102	120	135
Total China navy battle force ships, including types not shown above	110	220	220	255	360	400	425
Total U.S. Navy battle force ships	318	282	288	271	297	<i>n/a</i>	<i>n/a</i>

Source: Table prepared by CRS. Source for China's navy: Unclassified ONI information paper prepared for Senate Armed Services Committee, subject "UPDATED China: Naval Construction Trends vis-à-vis U.S. Navy Shipbuilding Plans, 2020-2030," February 2020, 4 pp. Provided by Senate Armed Services Committee to CRS and CBO on March 4, 2020, and used in this CRS report with the committee's permission. Figures are for end of calendar year. Source for figures for U.S. Navy: U.S. Navy data; figures are for end of fiscal year.

Note: n/a means not available.

In 2019, China recognized the need of its armed force to fulfill a more active role in *promoting its foreign policy*, emphasizing the global nature, growing more prominent, attributed by Beijing to its military force.²⁴ In recent years. The Chinese

22 Minnie Chan, China's Navy Goes Back to Work on Big Ambitions but Long-Terms Gaps Remain, *South China Morning post*, August 22, 2020

23 China Naval Modernization: Implications for U. S. Navy Capabilities – Background and Issues for Congress, Congressional Research Service, Updated September, 2020, P.31. <http://crsreports.congress.gov/product/pdf/RL/RL33153/243>

24 *Ibid* v

Communist party leaders instructed the Chinese army to enhance its operational preparedness level. The latter instruction was manifested by expanding the scope of army drills and their complexity.²⁵ One example for that may be found in the Chinese navy's operation in late 2019 in the Gulf of Oman and Sea of Arabia area. The marine maneuvering, shared by China's, Russia's and Iran's navies which was conducted in late 2019 in the Gulf of Oman took place at a time when the United States was attempting to escalate the sanctions against Iran, constituting a significant affront against the former.²⁶

China demonstrates a multi-layered defense approach regarding its coasts, including diverse means, from continental ballistic missiles, cruise missiles, attack aircraft, to various vessels operating in subordination to three theaters; north, center and south (Figure 2). This view greatly depends upon a command, control and monitoring system to gather the data for the three regional theaters. In the other half of the 2000's, China executed an information revolution associated with this challenge. In the opinion of Erickson & Chase, who inquired this matter in 2011, China's leaders perceive their state as facing with a strategic setting where "the military competition is based upon intensifying informatization". The navy strives for increased automation and linking of data between a large number of new space systems for navigation, sensation and communication, as well as anti-satellite capabilities. This system faces two main dilemmas:²⁷

1. Balancing attack-defense within information warfare.
2. Centralization vs. decentralization

Erickson and Chase indicate that the experience from other fleets suggests that when the connectivity increases, the centralization will increase more concretely. The question being raised is, will the Chinese navy employ its enhanced C4ISR capabilities in order to move the information down, to lower ranks, thereby empower junior commanders to make decisions? Or, alternatively, attempt to leverage new ISR

25 Ibid viii

26 For further reference on the matter see Ido Gilad's article at the Maritime Policy and Strategy Research Center, 'The Increasing Presence of Foreign Fleets at the Arabian Sea', 21st March 2020, p. 4. <https://hms.haifa.ac.il/index.php/he/component/content/article/24-2018-10-29-11-11-06/190-ido-gilad-incasing-the-presence-of-foreign-fleets-in-the-arabian-sea?Itemid=108>

27 Andrew S. Erickson and Michael S. Chase Informatization and the Chinese People's Liberation Army Navy, in Phillip C. Saunders, Christopher Yung, Michael Swaine, and Andrew Nien-dzu Yang, eds., *The Chinese Navy: Expanding Capabilities, Evolving Roles* (Washington, CD: Center for the Study of Chinese Military Affairs, Institute for National Strategic Studies, National Defense University, 2011, Chapter 10. http://www.andrewerickson.com/wp-content/uploads/2012/01/Erickson-Chase_PLAN-Informatization_NDU_2011.pdf

capabilities and an increasingly growing communication capability, thereby further enhancing centralized C2 in the higher ranks? Apparently, the latter possibility is more fitting to the Chinese army's present approach. Such approach may serve well area denial operation, but not "blue water" far away from China, where commanders are required to possess an ability to construct an independent maritime picture and independent thinking.

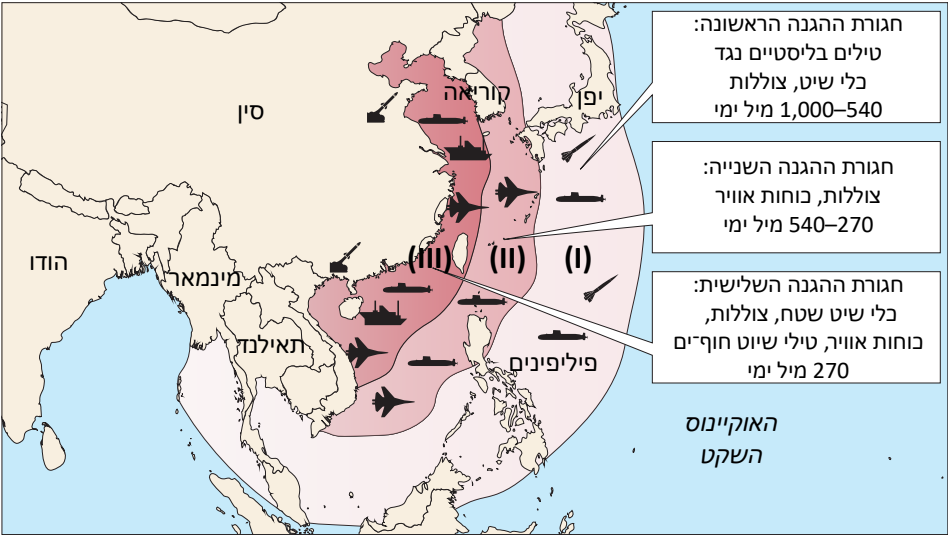


Figure 2: The Chinese Navy's Set of Forces and Means for Fulfilling the Strategy of Anti-access/area denial in the south China Sea

China's Operation in the East Mediterranean Sea: In the past decade, China has intensified its involvement in the Middle East and in the East Mediterranean Sea, using its so-called full wallet, so as to guarantee influence on key allies in the region as a means to promote its global aspirations. In early 2020, Egypt's Minister of Foreign Affairs Sameh Shoukry announced that Cairo would continue its collaboration within the Belt & Road Initiative (BRI), emphasizing China's economic grant as a key factor to the Egyptian interest in enhancing the mutual collaboration. By then, the Greek port of Piraeus had become the main gate to central and southeastern Europe. The investment by Chinese maritime company COSCO in the Piraeus port had increased the port's container output to 4.9 million TEU in 2018. Consequently, Piraeus became the second largest port in the Mediterranean Sea, and the 36th in the world in terms of size. This port's performance allowed COSCO company attain a 51% ownership at first, and later on, expand its port ownership to 100%. COSCO company has continued purchasing shares in the Zeebrugge (85%) and Valencia *51%) port

terminals, as well as over 35% of the Bilboa and Vado Ligure, Italy facilities. In light of the above described situation, United States' ambassador to Greece, Geoffrey Pyatt warned the Greek government that he hoped the planned privatization of the Alexandroupoli port would attract American or European investors, rather than Chinese or Russian ones. In spite of the intensifying activity and the Chinese influence in the East Mediterranean region, no deployments or drills by the Chinese fleet took place in the region in 2020.



Figure 3: Division of Chinese Navy's battleships for the defense of China by the various theaters²⁸

The Indian Fleet

In the past two decades, the strategic significance of the Indo-Pacific region has consistently increased, because of the global economic activity's expansion. A matter

²⁸ Benjamin Brimelow, What newly released pentagon maps reveal about China's growing military reach, Business Insider India, September 13, 2020. <https://www.businessinsider.com/new-pentagon-maps-show-chinas-increasing-military-power-and-reach-2020-9>

manifesting itself also by the economic center of gravity migrating eastward, and the social mobility occurring therein. This situation is a consequence of widespread trade in the region, and a growing need for providing the countries in the region and its citizens with maritime security. The region is becoming the global trade and energy supply center. Two-thirds of the global container trade passes through this region; both rising economies, India and China, as well as Japan's highly developed economy are dependent upon the sea routes in the Indo-Pacific region for purposes of trade and energy supply. Aside from the piracy threat, the security within those sea routes is important, since both important choke points, namely Bab-Al-Mandab and Malacca Strait are located on both ends of the region. Plus, this region is the home of more than 50% of the world's population, and is known to be rich in marine resources and minerals.

The region's significance does not rule out various viewpoints relating thereto. India views the region as a comprehensive, open, integrated and balanced sphere. It constantly emphasizes strategic relationships, as well as common challenges and opportunities between the Indian Ocean and the Pacific Oceans. The United States, on the other hand, views this area a place which must be free and open, emphasizing the importance of rules or behavioral norms in the region, thereby attempting to contain China's role within the region. The Association of Southeast Asian Nations – Asean – perceives the region as a political system which was established through collaboration of various social groups, particularly consociations, based upon common power, thereby bringing China into the area, not only to fulfill certain interests, but also seeking ways for collaboration with it in the region.

Table 4: Indian Fleet's Modernization Budget (70.5 rupee = 1 dollar)

Modernisation Head	2019-20 (BE) (Rs in Crore)	2019-20 (RE) (Rs in Crore)	2020-21 (BE) (Rs in Crore)	% Increase in 2020-21 (BE) over 2019-20 (BE)
Aircraft & Aero-Engine	2,400	1,150	4,640	93.3
Heavy & Medium Vehicles	45	25	30	-33.3
Other Equipment	3,500	3,600	3,000	-14.3
Joint Staff	929	929	1,022	10.0
Naval Fleet	12,182	15,434	12,746	4.6
Naval Dockyard/Projects	3,050	4,017	4,182	37.1
Total	22,106	25,155	25,620	15.9

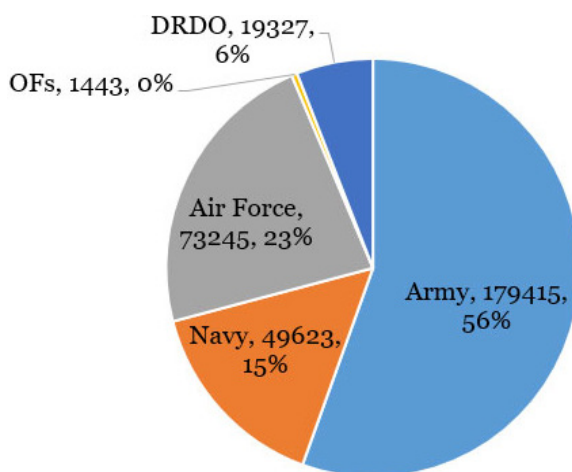


Figure 4: The Indian Fleet Budget 2020-2021. Division of the Indian defense budget between the fleet branches and the fleet's development party; the Indian fleet's part constituting 15% of the overall Indian defense budget (70.5 rupee = 1 dollar)²⁹

The Indian Battle Fleet: Size and Composition

Development of "blue waters" fleet capabilities: Considering the challenges faced by the Indian fleet in the Indian Ocean, it is highly important India develops a fleet capable of long-term operation in the Indo-Pacific region. Aside from developing the ordinary marine capability, the Indian fleet commanding parties have emphasized in recent years the need to be equipped with an ordered force of three aircraft carriers, one for each branch within the Indian Ocean (western, southern and eastern).

The current ordered force includes approximately 150 field ships and submarines. As of July 2020, the Indian fleet operates one aircraft carrier, another aircraft carrier is under construction, and amphibious transport dock, 8 landing ships, 10 battleships, 13 frigates, one nuclear activated attack submarine, two ballistic missiles submarines, 15 conventional attack submarines, 23 corvettes, 10 large marine patrol vessels, 4 fleet tankers, various auxiliary ships and small patrol ships.

One of the main objectives within the Indian fleet modernization's framework is *enhancing India's deterrence capabilities against its neighbor from north, Pakistan*. This is manifested by increasing the number of aircraft carriers, nuclear and conventional submarines, cruise missiles, ballistic missiles, construction of battleships

²⁹ Laxman Kumar Behera, India's Defence Budget, 2020-21 The Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), February 04, 2020.
<https://idsa.in/issuebrief/india-def-budget-2020-21-lkbenera-040220>

and attack and patrol aircraft. India intends to purchase a wide variety of advanced weapons for its marine arsenal, including advanced anti-ship missiles, torpedo and aircrafts for field warfare and anti-submarines. During President Trump's first official visit to India in February 2020, an arms deal was agreed between both states, of a three billion dollars worth, including, among other things, the supplying of 24 MH-60R Seahawk helicopters for the Indian fleet, in order to enhance the capabilities of warfare against the submarine and the field. The helicopters to be provided to the Indian fleet will be equipped with secure communication, allowing them to become integrating into future operations with American vessels and aircrafts, or with other western fleets, possessing those capabilities.

In 15th of April 2020, the American government announced it had responded to India's request to provide it with ten AGM-84L missiles Harpon Block II, as well as 16 torpedoes for launching from aircraft, all worth 155 million dollars. Purchasing such advanced marine arms systems may, therefore, undermine the deterrence framework's stability existing in southern Asia. It may encourage India to consider facing the various marine capabilities possessed by Pakistan.

Due to its economic limitations, Pakistan, India's traditional, long-standing rival, is incapable of competing with India in terms of the Pakistani fleet's scope of equipment and modernization. Accordingly, it faces two options; a long-term option, to purchase similar arms systems, albeit expensive from the international market, such as from Russia, China or from both, in return to which, Pakistan may be in a political token for those purchases. The second option, is to develop, even if within a limited framework, its existing capabilities, based upon the fleet in being doctrine, which is capable of harming the Indian fleet, should a conflict arouse, through means of anti-field vessels and submarines means of warfare.³⁰

Indian Fleets Operation

The Indian navy's operation occurs in the shadow of China, its neighbor from north, as well as in light of border conflicts in the Ladakh region. In 2020, the India-China continental border conflicts aroused again. Additionally, another focus of tension had remained between the two countries in the Indian Ocean, where China rather substantially expanded its presence. One aspect to the tension is manifested by a military aspect, where Chinese submarines are cruising that region, and military vessels occasionally patrol. Yet the other dimensions is the development projects,

30 Haris Bilal Malik, Pakistan's Befitting Response to India's Offensive Naval Buildup, Modern diplomacy, May 10, 2020. <https://moderndiplomacy.eu/2020/05/10/pakistans-befitting-response-to-indias-offensive-naval-buildup>

and mainly the ports China is building in countries like Sri-Lanka, Bangladesh and the Maldives Islands, considered as India's so-called backyard, and its traditional area of influence. Thus, China constitutes a threat on the Indian interests within the Indian Ocean; China possesses a hold of the Hambantota port (Sri-Lanka), which is only a few hundreds of kilometers from Indian coasts. China provides military equipment to India's neighbors, that is, submarines to Myanmar, frigates to Sri-Lanka, equipment to Bangladesh and Thailand. Thus, in a way, it attempts to establish foothold and some control over this region.³¹

The Indian fleet has been in a high alert state since the India-China military conflicts began in the Ladakh region, and some of the vessels have been deployed in the Indian Ocean. In a sharp message to China, due to the growing tension in the Ladakh region border, battleships of the Indian navy and a strike force of the American navy, led by aircraft carrier USS Nimitz conducted a passex in mid-July 2020, in the Indian Ocean region (ICR). The passex involved four battleships of the Indian fleet and four battleships of the United States fleet. This passex was preceded by a comprehensive exercise and the Andaman and Nicobar Islands, dominating the marine trade routes of the Chinese ships. Additionally, the Indian navy and the Japan Maritime Self Defense Force conducted a similar exercise in June 2020.

Because of the growing tension, the Indian fleet's senior commanders held a three-day conference in mid-August 2020, which was designated to convey a political message to China. A senior Indian officer addressed the gathering on the media, stating: 'the conference becomes even more important in light of the recent incidents on our northern borders, along with the unprecedented challenges posed by the Corona pandemic, which will provide the higher marine leadership a broader forum to discuss the conduct in terms of operations, livelihood and holding assets and purchase.'³²

As part of establishing an anti-China coalition of countries, India has considered the Australian navy's invitation to join the annual marine exercise titled Malabar Naval Exercise. This exercise should also involve the navies of Japan and the United States. If the Indian proposal is approved by the Australian government, all the

31 The Big Picture – Indo-Pacific: Strategic Importance, Drishti, September 7, 2019. <https://www.dishtiiias.com/loksabha-rajasabha-discussions/the-big-pictures-indo-pacific-strategic-importance>

32 Pawan Bali, Amid tensions with China, Indian Navy begins three-day Naval Commanders Conference, Deccan Chronicle, August 20, 2020. <https://www.deccanchronicle.com/nation/current-affairs/190820/amid-tensions-with-china-indian-navy-begins-three-day-naval-commander.html>

The Quadrilateral Security Dialogue (Quad) members will participate in the marine exercise to be held in the Gulf of Bengal, so as to cue China that aggression at sea will not be overlooked.³³

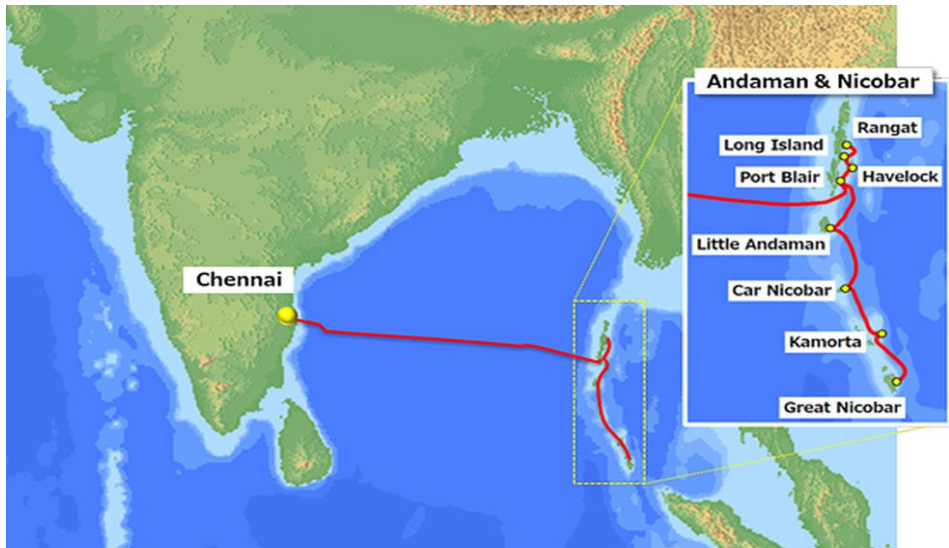


Figure 5: Gulf of Bengal – Andaman and Nicobar Islands

Following the marine incidents which occurred in Straits of Hormuz and at the Gulf of Oman in May 2019, where several tankers were attacked, and because of the Indian economy's dependence upon the petroleum coming from that region, in mid-June 2019, the Indian navy launched Operation Sankalp in the Persian Gulf and Gulf of Oman region, in order to secure tankers sailing the region while flying the Indian flag. The mission was executed by two battleships owned by the Indian fleet (INS Chennai). Additionally, patrol airplanes of the Indian fleet conducted patrol flight in the region.³⁴ It is noteworthy that India is involved in the civil operation of the Iranian Chabahar port. This Indian grasp implies the importance the region holds for India, as a rising foreign marine power, but also as a neighboring country close thereto. India possesses a multitude of interests, mostly economic and energetic

33 Pawan Bali, Indian, US navies carry out passage exercise in Indian Ocean amid China tensions, Deccan Chronicle, July 20, 2020. <https://www.deccanchronicle.com/nation/current-affairs/210720/indian-us-navies-carry-out-passage-exercise-in-indian-ocean-amid-china.html>

34 Indian Navy launches Operation Sankalp in Gulf of Oman, *Business Standard*, June 20, 2019. <https://bit.ly/34sO5IR>

ones, being a consumer of petroleum and its products produced at the Persian Gulf basin, transported by the marine sailing route in the region.³⁵

To sum up, India and the Indian fleets fulfill a role of a marine power located at a strategically important region in terms of the rivalry developing between the United States and China. The rivalry build in the China-India relationship causes India to draw closer to the United States. This latter step has been taken after many years when she was one of the leading countries in the non-identifying countries block. The Indian fleet is undergoing impressive construction processes, positioning it as a "regional blue waters fleet" within the Indian Ocean-Pacific Ocean arena of action.

The Russian navy

From the beginning of the last wave of reform of the Russian armed forces in 2009, the Russian leadership has been sending the message that the Russian navy has survived its crisis, returned to its former glory, and capable of fulfilling missions commensurate with a superpower's navy. This has been expressed in two prominent events:

1. **The annexation of Crimea** and Russian control of the port of Sevastopol, which is also the home port of the Russian navy on the Black Sea, close by to which are the navy's shipyards, and which play an important role in its maintenance.
2. **Expansion of the navy's missions** in its six operational zones (the Atlantic Ocean, the Arctic, Antarctica, Indian Ocean, Pacific Ocean and Caspian Sea), while giving preference to a permanent presence by the Russian navy in the Mediterranean Sea, and increasing its strength in the Arctic and Atlantic Oceans.

The strengthening of the Russian army and the orders of priority detailed in the 10-year plans, called "State Armament Plans" (GPVs). 2020 is included in the 10-year plan for the years 2011–2020, which put budget priority on the Russian navy and its aerospace arm. The latest strength building plan, GPV 2027 (which covers the years 2018–2020), put the priority on Russia's ground forces and rapid response forces (including maritime rapid response forces).

The Russian navy has more than 280 sailing vessels (about 69 submarines and 217 surface vessels) of various kinds, but there is a contradictory assessment regarding the operational fitness of some of these vessels.

35 See Ido Gilad's article "Increasing the Presence of Foreign Fleets in the Arabian Sea, 21st March 2020, The Maritime Policy and Strategy Research Center, Haifa University. <https://hms.haifa.ac.il/index.php/he/component/content/article/24-2018-10-29-11-11-06/190-ido-gilad-increasing-the-presence-of-foreign-fleets-in-the-arabian-sea?itemid=108>

The Russian navy is organized in fleets: The Northern Fleet, the Pacific Ocean Fleet, the Black Sea Fleet and the Baltic Fleet, and one flotilla in the Caspian Sea. Their main objectives are: sea area denial to an enemy and defense of Russia based on nuclear deterrence via the Russian submarine fleet.

Due to resource constraints that affect the navy's size, the Russian navy focuses on defending the country's coastline, given that it has limited power to operate expeditionary forces far away across the ocean. The Northern Fleet includes Russia's nuclear submarines and is also responsible for the Arctic Ocean and the North Sea. Following Russia's occupation of the Crimean Peninsula, the Black Sea Fleet developed, grew and began operating many ships that had previously operated in the eastern Mediterranean Sea, and especially in the area of the Syrian coast. The Russian navy is responsible for the artillery corps protecting Russia's coastline and ports, and it is armed with shore-to-see missiles and anti-ship missiles.

The rising importance of the Arctic Ocean: The Russian navy continues to build nuclear-powered icebreakers that will enable them to lead convoys in areas where there is danger from ice bergs. Russia's present icebreaker fleet includes 40 ships, of which 11 are new ships that are either in the planning stage or whose construction has been completed. Of these 40 ships, about 27 operate in the ocean and some are nuclear powered. In September 2017, the Russian navy launched the "Sibir" icebreaker, the second in a series of three icebreakers that, according to the Russians, are the strongest and largest icebreakers in the world. Sibir is 173 m long and is capable of carving a path through 2.8 m thick ice. The icebreakers are being constructed for operation in the Arctic Ocean and the Yenisei River estuary according to the design of the Rosatomflot nuclear agency.

The Russian army strengthening program for 2020 contains a budget allocation of almost 120 billion Euro, approx. 22% of the entire budget, for modernization of the navy. As part of this program, the Black Sea fleet is meant to receive 15 new ships (nine surface ships and six conventional submarines) by 2020. The first new ships were to have entered active service in 2014.³⁶ President Putin tasked the military and defense industries with acting to supply and manufacture ships, with the priority on installing the 3M22 "Zircon" anti-ship hypersonic cruise missile. According to the Russian minister of defense, in December 2019, he noted that these missiles will be integrated into five new ships whose accelerated construction is anticipated in 2020, as well as, as part of the systems upgrading planned to be carried out on existing

36 Dmitri Boltenkov, Reform of the Russian Navy, in Mikhail Barabanov (Ed.), *Russia's New Army*, Moscow, Center for Analysis of Strategies and Technologies, 2011, p. 83.

platforms in the navy. An inherent and continuing problem of the Russian navy is the level of logistical support on Russian ships, which hurts their level of combat operational preparedness in their various action zones. Whereas the Syrian port of Tartus has remained the single support base in the Mediterranean Sea for Russian ships, its military importance has nonetheless stayed marginal. As part of its 2011–2020 armament plan, Russia planned to develop infrastructure for the Russian navy in the port of Latakia also. Moreover, the Russian minister of defense, Sergey Shoygu, noted the possibility that the future expeditionary force will also use the logistical support of ports in Crete, Greece and Montenegro. We can say that the lessons learned by the Russian navy from its involvement in the Syrian civil war justify the expensive strengthening and modernization program of the Russian navy that began in 2011, and that, when completed, will allow it to deploy a modern Mediterranean Sea naval task force.³⁷

In June 2020, Russia, for the first time, made public its nuclear deterrence policy, and through which announcement it wished to broadcast the type of threats and conditions under which it might use nuclear weapons, as well as its nuclear deterrence strategy. Russia clarified that it will view any launching of a ballistic missile against it as a missile carrying a nuclear warhead, given the inability to know in advance what payload the missile will carry (conventional or nuclear).³⁸ Western analysts address this policy with skepticism and assert that, today, conventional weapons play an important role in Russia's concept of deterrence, despite the prevailing agreement within the Russian army about conventional abilities being deficient when talking about deterrence. Accordingly, some analysts believe that Russia maintains an "escalate to deescalate" strategy—where Russia might threaten, at an early stage in a military conflict, to use nuclear weapons so as not to risk losing.

As already noted in the Maritime Policy & Strategy Research Center (HMS) reports, in July 26, 2015, President Putin approved the **New Maritime Doctrine of the Russian Federation**, which details the Russian navy's strategy (Morskaja Strategija), its mission and the program for building up its strength. This doctrine replaces the one approved in 2001. In addition, it determines that the Russian navy will focus on the following **three objectives**: Nuclear strike capability through its underwater branch,

37 Igor Delanoë, Russian Naval Ambitions in the Mediterranean, Focus, Foreign Policy/Defense, "Russian Naval Ambitions in the Mediterranean", Russia 2014, Editions du Cherche Midi, French-Russian Observatory Yearbook 2014, publication from the French-Russian Observatory, April 2014, pp. 383–384. (commissioned)

38 Russian Armed Forces: Military Doctrine and Strategy, *Strategic Deterrence and Escalation Management*, August 20, 2020. <https://fas.org/sgp/crs/row/IF11625.pdf>

integration of the navy in its land strike capability through cruise missiles (as seen in the attacks of targets in Syria) and protection of the motherland's shores (including areas held by Russia in the eastern Mediterranean Sea) and ensuring anti-access/area-denial (A2/AD) to other navies in these regions. The latter two missions can be accomplished smoothly both by submarines and by small surface vessels such as frigates and corvets. We can thus see that in the present Russian maritime strategy, the mission of the large surface vessels described above is very limited.

As part of Navy Day 2020, on July 28th, a flotilla was held in St. Petersburg, during which President Putin declared that Russia will add new ships, vessels and armaments to the navy to demonstrate its growing strength. He further stated that Russia needs a strong navy to protect its interests and to this end, during 2020, another 40 ships of various models will be added to operational service, and he noted that recently the construction of six additional ships had begun in Russia's leading shipyards.³⁹

According to a report from the US Congress, the ability of the Russian defense industry to develop and manufacture new advanced technology systems is limited, and budget constraints may lead to decisions about purchase of less expensive but proven systems.⁴⁰ Despite the low oil prices and the negative economic forecast, it is reasonable to assume that Russia will fund the strengthening program (GVP 2027) with 330 billion dollars (about 3%–4% of its gross national product), which is in practice a more limited-in-scale program than GVP 2020. The economic pressure may, in the future, reduce its scope further. To date, the Russian navy enjoyed relatively high funding compared to other combat force arms, which fact enabled it to build new surface vessels and submarines, and to develop precision armaments after many years of limited budgets. In the construction of surface ships, the Russian navy preferred to develop "small" warships, having high and accurate firing power, which can be retooled modularly for various tasks thus enabling flexibility in using fire power. The Russian navy focused on developing long-range weapons with precision strike capability.

A large number of the Russian navy's ships are over thirty years old and require assorted repairs to extend their service lifetime. The Russian shipyards have problems building ships larger than 7,000 tons. As a consequence, Russia is depending more and more on frigates armed with different types of weapons, with anti-ship

39 Michael Daventry, Putin reveals plan to expand Russia's navy with 40 new vessels, *Euro News*, July 26, 2020. <https://www.euronews.com/2020/07/26/putin-reveals-plan-to-expand-russia-s-navy-with-40-new-vessels>

40 Russian Armed Forces: Military Modernization and Reforms, *Congressional Research Service, In Focus*, July 20, 2020. <https://crsreports.congress.gov/product/pdf/IF/IF11603>

vertical launch systems (hypersonic missiles, cruise missiles and anti-submarine torpedoes). Nevertheless, the missile development program, and especially cruise missile development, is experiencing a number of difficulties because Russia has always based its engine production on Ukrainian manufacturers, which stopped in 2014. Despite the budget supplements transferred in the past decade to the Russian shipyards, they are still not able to meet the strengthening program objectives, and are falling behind by years in their supply in comparison with the projected dates.⁴¹

As already described in the previous report, analysis of the future combat arena conducted by the Russian navy led to the understanding that littoral warfare will comprise a larger and larger part of the navy's operations in the coming years. Accordingly, the Russian navy decided to abandon the construction of large warships (aircraft carriers and cruisers), and through radical operational thinking to characterize, plan and build smaller ships (on the scale of frigates and conventional submarines), armed with advanced combat systems, which will have an advantage over those of the enemy on the strategic, operational and tactical levels.

In the 2019 report, we described the advances made in development of the new Russian torpedo, the "Poseidon", which is the largest torpedo ever developed by any country whatsoever. The torpedo, with a diameter of 2 m (6.5 feet) and longer than 20 m (65 feet), is three times bigger than a regular torpedo. President Putin announced that a test launch was supposed to have happened in spring 2019 from a Russian submarine.⁴² The torpedo, alleged to be able to carry a nuclear head and a conventional head, is expected to enter service in 2027 and be launched from the Oscar II submarine, or from the new Belgorod model submarines (K-329). Because of the torpedo's size, the precise shape of the six "Poseidon" torpedo tubes on the submarine is still unclear, and one expert has speculated that they will be installed in a type of circular launcher in order to minimize the quantity and size of launch doors, and enable easier loading of the torpedo onto the submarine. The project itself is especially grandiose, although from the perspective of strategic response, it offers a mediated outlet (an underwater one) that is the most invulnerable of all existing defense systems to anti-ballistic missiles (ABM). The method it uses to hit power targets (cities) is still unclear, and in particular, the torpedo's final track is unknown.

41 Russian Armed Forces: Capabilities, Navy, Congressional Research Service (CSR), July 20, 2020, p. 2. <https://fas.org/sgp/crs/row/IF11589.pdf>

42 H. I. Sutton, Russian Poseidon Intercontinental Nuclear-Powered Nuclear-Armed Autonomous Torpedo, *Covert Shores*, February 22, 2019. http://www.hisutton.com/Poseidon_Torpedo.html [Accessed September 25, 2020]

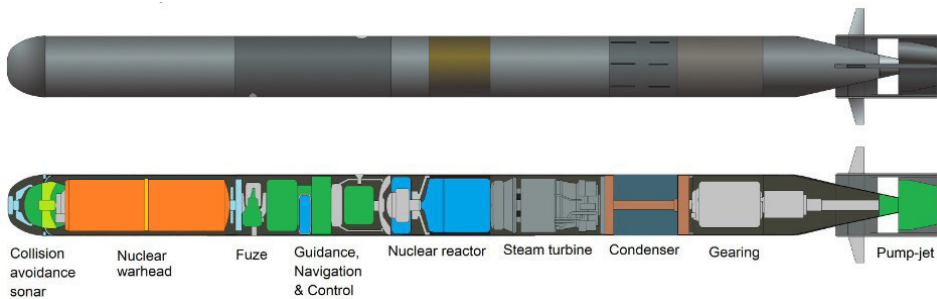


Figure 6: A Kanyon Status-6 Russian torpedo with a nuclear head

The marine part of the Russian nuclear triad has also been upgraded, both in terms of submarines and in terms of their launching abilities. The new Borei class nuclear ballistic submarine, which in 2000 began its sea trials, is two years behind schedule and when it enters active operational service, it will be armed with Bulava SS-N-32 ballistic missiles.⁴³ To maintain the existing order of force, the old Delta IV class submarines were simultaneously upgraded and equipped with SS-N-23 ballistic missiles, which are intercontinental missiles with a range of 8,200 km, running on liquid fuel and able to carry a nuclear payload with warheads that split upon impact.⁴⁴

The maritime aspect of the conflict with Ukraine: On November 25, 2018, a serious international incident took place when the Russian defense services' federal coast guard (FSB) fired on and seized three ships belonging to the Ukrainian navy, which had been trying to sail from the Black Sea to the Sea of Azov through the Kerch Strait on their way to Mariupol port. The Kerch Strait is the waterway between Russia and the Crimean Peninsula, which Russia annexed from Ukraine in 2014. The strait serves as a gateway to the Sea of Azov, which borders on Russia and Ukraine (see Figure 7). A bilateral convention gives both countries the right to use the waterway. It is also the location of a new bridge, 19 km long, built by Russia as a showpiece, costing an estimated 4 billion dollars. Since the annexation of the Crimean Peninsula, Russia

43 Maxim Strachak, The Borei-A SSBN: How Effective Is Russia's New Nuclear Submarine? The Jamestown Foundation, Eurasia Daily Monitor, June 16, 2020. <https://jamestown.org/program/the-borei-a-ssbn-how-effective-is-russias-new-nuclear-submarine>

44 SS-N-23 "Skiff", CSIS Missile Defense Project. <https://missilethreat.csis.org/missile/ss-n-23> [Accessed September 25, 2020]; Julian Cooper, How much does Russia spend on nuclear weapons? SIPRI, October 1, 2018. <https://sipri.org/commentary/topical-background/2018/how-much-does-russia-spend-nuclear-weapons>

significantly raised its military presence in the area.⁴⁵ The Kerch Strait has become a military friction point and where 24 Ukrainian servicemen were captured, along with their three ships, and taken into Russian custody. The sailors and the ships were returned to Ukraine in fall 2020, after many months of being held in jail by Russia.

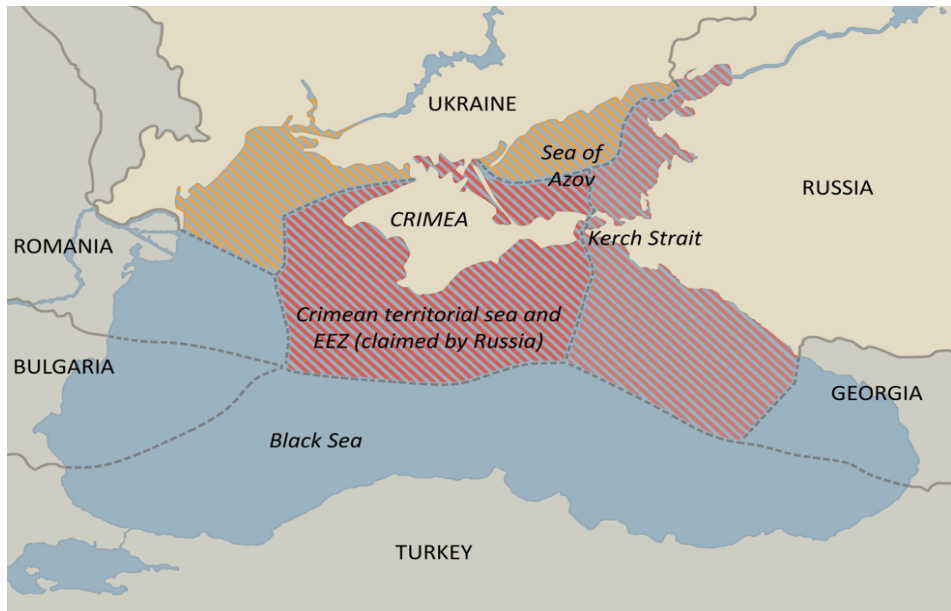


Figure 7: Kerch Strait – Sea area and sovereignty

During the incident itself, NATO forces and the US Sixth Fleet abstained from helping the Ukrainians, but in the past year, the US has stepped up its support to Ukraine's maritime forces. In June 2020, the US Foreign Office announced that it was authorizing the sale of 16 Mark VI patrol boats to Ukraine. These patrol boats are equipped with optical sighting machine guns that are used by the US navy for combat in rivers and constrained water areas. The transaction will cost 600 million dollars, of which 250 million dollars are being given to the Ukrainians as foreign aid. The US navy is also helping Ukraine develop its intelligence capabilities in order to

45 Andrew Roth, Kerch strait confrontation: what happened and why does it matter? *The Guardian*, November 27, 2018. <https://www.theguardian.com/world/2018/nov/27/kerchstrait-confrontation-what-happened-ukrainian-russia-crimea>

improve its abilities to conduct patrols and build a maritime and aerial picture of the Black Sea and the Sea of Azov.⁴⁶

In 2020 NATO accorded Ukraine the status of an "enhanced opportunities partner", which countries such as Sweden, Finland, Georgia, Austria and Jordan already hold. The significance of this act is that Ukraine will have enhanced access to joint programs and exercises and other information collaborations, including conclusions published at the end of exercises. It must be emphasized that the US navy and NATO, from time to time, conduct patrols in the Black Sea as part of the freedom of navigation activities in the region.

The creation of **cooperation and coalition building with the Chinese navy**: Since 2014, Russia and China have been strategic partners, including the sale of advanced military equipment and more detailed plans of bilateral and multilateral military exercises. Economic and diplomatic cooperation between the two countries has also tightened, albeit not to the same extent. It is reasonable to assume that the bilateral cooperation will not advance to the level of a full treaty because of the differences in geopolitical interests and the asymmetry of the countries' power, and that Russia will continue to refuse to recognize completely China's rise as a geopolitical power.⁴⁷ US actions to put pressure on both Russia and China have had the effect of bringing the latter closer. The joint naval exercises that they conduct usually have a confrontational message for the US, and their complexity is continually increasing. Nevertheless, the over "conventionality" and bad coordination of the exercises has been criticized, as was the continuing lack of a joint command structure.⁴⁸ A confrontational message of this type was sent to the US in late December 2019 during a broad naval exercise held in the Gulf of Oman, whose objective was coordinated with the cooperation described above, and in which, besides from ships from the Russian and Chinese navies, ships from the Iranian navy also participated.⁴⁹ The objective of the joint

46 David B. Larter, After a Kerch Strait confrontation, the US beefs up Ukraine's maritime forces, *Defense News*, July 2, 2020. <https://www.defensenews.com/naval/2020/07/02/afterthe-kerch-strait-confrontation-the-us-moves-to-beef-up-ukraines-maritime-forces>

47 Dmitry Gorenburgn, An Emerging Strategic Partnership: Trends in Russia-China Military Cooperation, *George C. Marshall, European Center for Security Studies*, April 2020, Number 054. <https://www.marshallcenter.org/en/publications/security-insights/emerging-strategic-partnership-trends-russia-china-military-cooperation-0>

48 Andrej Krickovic, The Symbiotic China-Russia Partnership: Cautious Riser and Desperate Challenger, *Chinese Journal of International Politics*, Vol. 10, No. 3, 2017, pp. 299–329.

49 Ben Westcott and Hamdi Alkshali, China, Russia and Iran hold joint naval drills in Gulf of Oman, *CNN Digital Expansion 2017*, December 27, 2019. <https://edition.cnn.com/2019/12/27/asia/china-russia-iran-military-drills-intl-hnk/index.html>

exercise was the demonstration of the presence and strength of Russia and China in the face of the coalition led by the US against Iran.

In the area of export of maritime weapons systems, Russian still supplies ships and advanced weapons to many navies, including the Indian navy, which despite its closeness to the US navy, continues to maintain a special relationship with the Russian navy. Naval systems constitute 8% of all export of weapons systems by the Russian armament industry, which in 2019 made a total of 13 billion dollars in sales.⁵⁰ These sales are very important for the Russian economy, whose performance is not very good.

The activities of the Russian navy in the eastern Mediterranean Sea: As already noted in last year's annual report, Russia's strategy in the Mediterranean Sea focuses on three main objectives: exploitation of the geographic position of the Mediterranean Sea to improve Russia's security, use of Russia's standing in the Mediterranean Sea to increase its standing as an alternative world power to the US, and support of the Syrian government of President Assad.

A central feature of this strategy is the placement of a trustworthy military force in the Mediterranean Sea. A permanent force in the region is important for several Russian objectives, including protecting Russian access and reducing Russia's vulnerability to surprises.⁵¹ To reach this objective, Russia intervened very heavily in the Syrian civil war, and was instrumental in helping save Assad's government. This was also seen in the nuclear negotiations with Iran when sometimes it supported pressure on Iran and sometimes defended Iran in the UN. Russia succeeded in formulating a new contract with five countries on the Caspian Sea, including determining their littoral rights,⁵² and negotiating an end to the Syrian civil war.

In return for its crucial military support of Assad's government, Russia gained access to and control of upgraded military bases ("warm-water bases"), in Syria—the Tartus naval base and the Khmeimim air base.⁵³ From these bases, Russia can project power

50 Russia makes \$13 billion worth of arms sales in 2019, *Defence.AZ*, December 17, 2019.

[http://defence.az/ru/news/140079/russia-makes-\\$13-billion-worth-of-arms-sales-in-2019](http://defence.az/ru/news/140079/russia-makes-$13-billion-worth-of-arms-sales-in-2019)

51 Dmitry Gorenburg, Russia's Naval Strategy in the Mediterranean, *Davis Center for Russian and Eurasian Studies*, Harvard University, September 18, 2019.

52 Andrew E. Kramer, "Russia and 4 Other Nations Settle Decades-long Dispute Over Caspian Sea," *The New York Times*, August 12, 2018.

53 Yuliya Talmazan, "Russia establishing permanent presence at its Syrian bases: Minister of defense," *NBC News*, December 26, 2017 ("Putin added ... that while Russia might be drawing down much of its forces, its military presence in Syria was a permanent one and that it would retain enough firepower to destroy any Islamic State comeback.").

to the Middle East, the Balkan and throughout the eastern basin of the Mediterranean Sea. If, in the future, a maritime conflict transpires, Russia, positioned in the region, can conduct an area denial strategy against the US.

The Russian navy in the eastern Mediterranean Sea is based mainly on the Black Sea navy, and its size ranges from 8–15 assorted types of ships. The Russians are diligent about conducting navy exercises in the eastern Mediterranean Sea at least once a year in September. In 2020, too, the Russians announced the closure of areas on behalf of a two-stage firing exercise to be conducted by it in September 2020 (see Figure 8). The two areas, apparently overlap the areas in which Turkey was conducting seismic searches for gas deposits, and which are disputed by Cyprus and Greek. The website of the Turkish navy related to closure of the areas in advance of the exercise and noted that Turkey entreated Russia not to interfere with the seismic studies of the Turkish ships being conducted south of the Greek island of Kastellorizo and east of Cyprus. Unofficial sources in Russia, however, responded that the exercises were a show of strength on the part of Russia against NATO, and not an attempt to back Turkey in its quarrel with Greece and Cyprus regarding economic waters in the region.⁵⁴



Figure 8: The areas that were closed because of Russia's naval exercise in the eastern Mediterranean Sea in September 2020

54 Selcan Hacaoglu and Henry Meyer, Russia to Hold Naval Exercise in Mediterranean Amid Tensions, *Bloomberg*, September 3, 2020. <https://www.bloomberg.com/news/articles/2020-09-03/russia-will-hold-naval-exercise-in-mediterranean-turkey-says>; Boyko Nikolov, what is Putin preparing in the Mediterranean? Russia began exercises, but against whom? *BulgarianMilitary.Com*, August 24, 2020? <https://bulgarianmilitary.com/2020/08/24/what-is-putin-preparing-in-the-mediterranean-russia-began-exercises-but-against-whom>

During 2020, Syria served as a launch pad for Russian **operations in Libya**, where civil war still rages, including aircraft deployment to support the Wagner PMC Group. The Wagner PMC Group is a Russian military organization that is sometimes described as a private military company. The group operates as a 'contractor' for projects having a military aspect around the globe, including being involved in battles in conflict areas. The Wagner PMC Group has been fighting for months in the western Libyan region to support the Khalifa Haftar and against the Turkish forces that back the Government of National Accord (GNA), its enemy. During the fighting, these groups used covert tactics and Russian air power. The Washington Institute calculates that "*[a] though Moscow would face many challenges if it tries to establish permanent offensive and AZAD capabilities in Libya like it has in Syria, its covert actions thus far show a commitment to playing the long game against NATO in the East Mediterranean*".⁵⁵ Nevertheless, it is worth remembering that adopting the A2AD strategy in Libya will not be such a simple strategy, and Russia's position in Libya is not the same as its position in Syria. In other words, in contrast to Assad's government, the world-recognized government of Libya did not invite Russia to enter the country, which, therefore, forced Putin to take more covert actions. Moscow is also confronting more serious resistance in Libya, given that the Turkish support in Libya, which is at odds with that of Russia, has changed the balance of power for the benefit of the GNA, and Russia's activities against Turkey will require a different sort of effort from Russia. Nevertheless, in the past, Russia successfully thwarted the actions of Turkish president Recep Tayyip Erdoğan against the Kurds in northern Syria by using the threat of additional Syrian refugees from Idlib moving toward Turkey. At the end of the day, however, neither Putin nor Erdoğan want a direct clash, and instead, they continue to cooperate whenever possible and conduct business ad hoc. Moscow is not committed to opposition leader Haftar as it is to Assad, and accordingly, it is liable to abandon him if pressure from Turkey or other players in the region grows too strong.

To summarize, the Mediterranean Sea will continue to play a key role in the strategy of the Russian navy because of its strategic importance as a place allowing access to southern Europe, the Middle East and North Africa. From Russia's perspective, the Mediterranean Sea symbolizes the increased competition between Moscow and Washington. By building its naval forces, Russia hopes to prevent NATO from having access to the region, to protect the southern regions of Russia, and to assist

55 Anna Borshchevskaya, Russia's Military Activity in the East Mediterranean Echoes, Its Approach to Syria, *The Washington Institute, Policy Watch 3334*, June 17, 2020. <https://www.washingtoninstitute.org/policy-analysis/russias-military-activity-east-mediterranean-echoes-its-approach-syria>

as a benefactor of the states it presently and potentially has under its patronage in the region. Nevertheless, maintaining the forces it has in the Mediterranean Sea is less preferable to the Russian strategy than defending the motherland. Sustaining a maritime presence in the Mediterranean Sea is a more efficient strategy for the Russian navy than competing with the US navy in the open sea ("blue waters"), since Russia does not have the resources or global aspirations to challenge the US superiority around the world, and compete with the US navy in traditional power projection missions and expeditionary forces in the Mediterranean Sea. Russia's traditional navy of Soviet era surface ships will continue to focus on status projection, visiting ports and similar operations designed to exude the image of a superpower. Moscow's focus on developing and enlarging the Mediterranean Sea flotilla is, therefore, a limited target to reach, yet one that aligns well with Russia's foreign policy in the region.⁵⁶ Russia has its own agenda for the eastern Mediterranean Sea, and it is not interested in increasing Turkish influence in this region, because this would mean that it is liable to lose traditional clients and naval control of waterways to and from the Suez Canal.

The North Atlantic Treaty Organization's (NATO) naval forces

In 2020, NATO conducted operational activities in Afghanistan, Kosovo and the Mediterranean Sea. At the beginning of 2020, the EU states rejected the US request that Europe also leave the nuclear agreement with Iran (in effect, this was directed at France and Germany who are parties to the agreement). The EU foreign minister, Josep Borrell, even declared that the EU will aspire to maintain the agreement with Iran as long as Iran adheres to its commitments.

Policy and strategy: The meeting of the NATO defense ministers, which was held on May 14, 2020, was the first online meeting ever held by the NATO defense ministers in all its 71 years. The meeting was dedicated to the alliance's response to the CORONA pandemic and operations in Afghanistan and Iraq. In June 2020, a second online meeting was held in which NATO's readiness to deal with the second wave of the pandemic was reviewed. Likewise, during the meeting the security implications of Russia's growing missile stockpile, including dual use conventional-nuclear missiles, were discussed. During the meeting, the member states adopted an essential and balanced package of political and military steps to meet these challenges. To prepare a multiyear program for the next decade, and especially given the political aspects of

56 Dmitry Gorenburg, *Russia's Naval Strategy in the Mediterranean*, *Davis Center for Russian and Eurasian Studies*, Harvard University, September 18, 2019.

<https://russiamil.wordpress.com/2019/09/18/russias-naval-strategy-in-the-mediterranean>

a program such as this, the secretary general of NATO appointed a team of experts from ten different states to prepare the program, which, clearly, after being approved by the NATO members will constitute the alliance's new strategic concept.⁵⁷

The **three core missions of NATO that were defined in the 2010 strategic concept** are: Collective defense, crisis management and collaborative security. The **collective defense** mission had primacy during the Cold War. **Crisis management** was a response to terror and other threats that emerged from the chaotic Middle East and North Africa. **Collaborative security** focused on strengthening the alliance to reduce the instability among NATO members. A decade has passed since these missions were defined, and in the opinion of experts dealing with this topic, NATO would do well to delineate an additional mission for itself—**preserving stability** that is not limited to Europe itself, but also to other wider regions around the globe. This mission could include, among others, maintaining freedom of the seas and unimpeded passage through chokepoints; restraining military activities in space and the North Pole; and countering cyber operations that undermine the stability of countries. International norms exist for a significant part of the global challenges, and NATO's job, according to these experts, is to unite and strengthen these norms.⁵⁸

Several events that affected NATO in general, over the past year, and its naval forces in particular:

- A tenuous relationship between the alliance's member states and the US during the presidency of Donald Trump (greater than at any period since the end of WWII). Even if the US and the EU are not in direct conflict, President Trump's unpredictable and unilateral policies created challenges for the EU (including his announcement about the withdrawal of US troops stationed on German soil).
- Dealing, in eastern Europe, with a more and more aggressive Russia hoping to exploit the rift within the EU and NATO, and enlarge it through nurturing rightwing populist movements and the use of disinformation networks as well as increasing its military strength. Further, there is the ambiguity in the Black Sea and its surroundings regarding the possible additional steps that Russia will take in the entire region, and especially in Ukraine.
- Problems inside the EU states such as the rise in xenophobia, terror and multinational crime as well as new challenges from cyberspace.

57 Secretary General appoints group as part of NATO reflection process, *NATO News*, 31 Mar 2020. https://www.nato.int/cps/en/natohq/news_174756.htm

58 Hans Binnendijk and Timo S. Koster, NATO needs a new core task, *Defense News*, July 22, 2020. <https://www.defensenews.com/opinion/commentary/2020/07/22/nato-needs-a-new-core-task>

- The impact of Britain's exit from the EU while remaining in NATO. It is worth remembering that Britain has the highest defense budget among NATO members, after the US, that it is a permanent member of the UN Security Council, and that its naval forces have a range of capabilities (including independent nuclear deterrence capability). With Britain's exit from the EU, 80% of the alliance's defense budget will be coming from non-EU members.
- Deteriorating relations with Turkey, which is also diverting its operations to the East and is interested in purchasing Russian weapons systems alongside Turkey's conflict with Greece and Cyprus related to the demarcation of the border of its economic waters.
- In southern Europe, the Syrian and Libyan civil wars have created a situation of instability and contributed to friction between NATO members (e.g., France and Italy) regarding the way to handle these crises.

The operational naval response: The European Maritime Force (EuroMarFor – EMF) is a standing military force whose mission is to conduct naval, aerial and amphibious operations. The force is on standby to go into action within five days after getting the order. It was set up in 1995 to fill missions defined in the Petersburg Declaration, i.e., control of the sea, humanitarian missions, peacekeeping operations, crisis response actions, and peace enforcement. NATO acts according to its naval strategy, which also delineates NATO's naval activity parameters (collective defense, crisis management, joint security and naval security). NATO maintains permanent naval forces that are meant to provide it with the ability for immediate naval response. NATO's naval command headquarters (MARCOM) is located at Northwood, Middlesex, Britain, and its commander is also the force's naval commander (COM MARCOM) as well as NATO's naval expert responsible for consulting on matters of the sea to the strategic level, which is at NATO headquarters in Mons, Belgium.

In line with this and the recent events noted above, NATO is meant to deal in the near future with a series of **security challenges**:

- The challenges created by Russia and their intricacy, even if not as an enemy, at least as a bitter opponent.
- The complex challenges of the civil wars in Syria and Libya and the tensions in the eastern basin of the Mediterranean Sea.
- The deepening instability of the southern coast of the Mediterranean Sea including the situation in Libya.
- In the north – The rise in importance of the North Sea and the Baltic Sea and their significance for the security of NATO.

Even though **Britain's exit from the EU** is not yet complete, it is now clear that its active participation in NATO will continue. Nevertheless, at this point already, issues that will have to be dealt with are arising, such as preserving Britain's sole responsibility, after it leaves the Union, for patrolling its exclusive economic zone (EEZ), and not share this mission with other EU members. In the framework of the existing agreements of all the EU countries, free access to the territorial waters of member states, more than 12 miles from shore, is granted. After leaving the EU, Britain will need to renegotiate its free access to territorial waters.⁵⁹

Lack of NATO involvement in the Syrian civil war: The completion of the withdrawal of the last US troops remaining in the Kurdish enclave in northeast Syria in October 2019, and its agreement to let Turkey intervene in the region to create a buffer zone between Turkey and Syria, has left the strategic processes in the region, in particular, to Russia' attention together with Turkey and Iran. Among NATO members, there is no consensus about how to solve the crisis between Turkey and other NATO members. For example, Norway, Germany and Holland declared that they will stop arms sales to Turkey. Erdoğan has threatened that he is "liable to open the gates, and send 3.6 million refugees into Europe," and the head of the Greek government, Kyriako Mitsotakis, Turkey's neighbor who is likely to be the first to be hurt from such a step, called for NATO to prepare for this to happen and to increase navy patrols in the Aegean Sea.⁶⁰

NATO operations also in the Black Sea: Since Russia annexed Ukrainian territories in the Crimean Peninsula in 2014, NATO has increased its presence in the Black Sea. In 2020, and despite the CORONA pandemic, NATO's ships continued to patrol the Black Sea. Standing NATO Maritime Group 2 (SNMG2) and Standing NATO Mine Countermeasures Group 2 (SNMCMG2) entered the Black Sea in July 2020 to conduct additional routine operations and participate in two regional exercises organized by the Bulgarian and Ukrainian navies. The commander of the SNMG2 declared that "[t]his visit to the Black Sea is yet another example of NATO's ongoing regional commitments with our Allies and partners".⁶¹ It is likely that these patrols contribute to heightening the maritime awareness of NATO forces in everything related to the region of the Black Sea, but by themselves, they cannot influence Russia's policy

59 UK Won't Be Able to Protect Its Waters After Brexit, Former Navy Chief Says, *Sputnik*, September 2, 2018.

60 Turkey's relationship with NATO tested over Syria operation, *BioReports*, October 14, 2019. <https://bioreports.net/turkeys-relationship-with-nato-tested-over-syria-operation>

61 Public Affairs Office at MARCOM, NATO forces return to the Black Sea, *NATO News*, July 14, 2020. <https://mc.nato.int/media-centre/news/2020/nato-forces-return-to-black-sea>

toward Ukraine in the area, as it was expressed recently in the clash between the Russian and Ukrainian navies in the Kerch Strait, and discussed in the section on the Russian navy.

Operation Sea Guardian: Following the Warsaw Conference in 2016, it was decided to stop Operation Active Endeavour and replace it with Operation Sea Guardian, ally with the EU's Operation Sophia, and coordinate operations with the operations of the Italian coastguard. The operation was intended to provide NATO with the ability to immediately respond in the force's region of activity in the Mediterranean Sea. The task was assigned to Standing NATO Maritime Group 2 (SNMG2), which usually comprises from 4–6 ships, frigate–battleship size, and which, starting from May 10, 2020, has been conducting operations of this sort in the Mediterranean Sea. SNMG2 has conducted various activities such as tracking the movement of commercial ships, analysis of automatic identification system (AIS) data and interrogation of suspicious ships. These activities help build a comprehensive picture of the maritime environment in the area. Since SNMG2 began its support of Operation Sea Guardian, the group has conducted its activities in the eastern Mediterranean Sea, and patrolled opposite the Suez Canal, prior to entering the center of the Mediterranean Sea and the Aegean Sea, in parallel to overseeing the movement of commercial ships into and out of the eastern Mediterranean Sea. The operations heighten operational maritime domain awareness to increase and safeguard the security of the entire Mediterranean Sea.

Turkey's relationship with NATO: Turkey's aggressive actions in the eastern Mediterranean Sea have resulted in Turkey, a NATO member, being described by the *New York Times* in the following way: Turkish Aggression Is NATO's 'Elephant in the Room.'⁶² Turkey's latest actions, which include, among others, unilateral steps and confrontational declarations, necessarily constitute a threat to countries such as Greece, Cyprus, Israel, the EU states, the US and NATO as a whole.⁶³ France protested that during the patrol of a French frigate in the area of Cyprus, and when having stopped a suspicious ship that was carrying equipment from Turkey to Libya, per the arms embargo imposed on Libya by the UN, a Turkish frigate that had been in the area intervened and locked its fire-control radar (pinged) on the French ship three different times. Operationally, this type of action is liable to lead to opening of fire, and this is a very aggressive action in symbolic terms. The French protested that

62 Steven Erlanger, Turkish Aggression Is NATO's 'Elephant in the Room', *The New York Times*, August 5, 2020. <https://www.nytimes.com/2020/08/03/world/europe/turkey-nato.html>

63 Marc Pierini, How Far Can Turkey Challenge NATO and the EU in 2020? *Carnegie Europe*, January 2020. https://carnegieendowment.org/files/Pierini_Turkey.pdf

Turkey was trying to enable the transfer of arms to the government in Tripoli, which action contravened the UN Security Council's decision, and described the actions of the Turkish ships as "aggressive in the extreme" and "unacceptable by a member of NATO against another member of the alliance." Turkey responded that France violated the UN's decisions and NATO's decisions by supporting the rebel forces of the Khalifa Haftar against the Government of National Accord (GNA), headed by Fayeز al-Sarraj. The meeting of the alliance's defense ministers in August 2020 did not result in compliance with France's request to censure Turkey's action, and raised tensions between the two NATO members. The **president of France, Emmanuel Macron**, said that "Turkey is provoking tension" with what he termed "its unilateral decision to send research ships to survey the seabed in the eastern part of the Mediterranean Sea that is in Greece's economic waters, which only Greece has the right to exploit," and sent French warships to conduct exercises with the Greek navy in the region.⁶⁴

Turkey is involved in a serious conflict with Greece (also a NATO member) in everything relating to demarcation of economic waters. The Turkish president signed an agreement with the Government of National Accord (GNA) in Libya regarding delineation of the economic waters of the two states that ignores the rights of Greece and Cyprus in the matter. The issue led to a near maritime clash when the two countries deployed their navies adjacent to the disputed area. Pressure that was put on Turkey by Germany and the actions of the secretary general of NATO, Jens Stoltenberg, led to the two states deciding to let the situation lie. Stoltenberg emphasized, in his talks with the head of the Greek government and the president of Turkey, the importance of resolving the situation in the spirit of allied solidarity and international law. According to him, military delegations from Greece and Turkey met many times at NATO headquarters in Brussels in the aim of creating deconfliction mechanisms to prevent maritime and aerial incidents and accidents. The secretary general noted the progress in the talks and stressed that NATO constitutes an important platform for consulting on matter of ongoing security.⁶⁵ According to experts who deal with NATO's relationship with Turkey: "In the final analysis, ..., Turkey today has a triple identity: a strategic partner for Europe, especially in the economic and trade fields; Europe's adversarial interlocutor in the Eastern Mediterranean and the Middle East; and a negative player within NATO. The challenge for EU leaders in 2020 is to combine pushing back Turkey's actions when

64 Anthee Carassava, France Sends Forces to Mediterranean as Greece, Turkey Dispute Territory, *Voanews*, August 14, 2020. <https://www.voanews.com/europe/france-sends-forces-mediterranean-greece-turkey-dispute-territory>

65 NATO Secretary General discusses Eastern Mediterranean with Prime Minister Mitsotakis, *NATO News*, September 24, 2020. https://www.nato.int/cps/en/natohq/news_178323.htm

they run counter to EU core interests with cooperation when there is ground for joint action. In trying to do so, they should not expect an easy ride."⁶⁶

As noted, **NATO's doctrine** has not been updated to deal with challenges that have developed, and in particular, those from the **Mediterranean Sea**. Accordingly, the leaders of the countries who participated in NATO's July 2016 Warsaw Summit decided to change the operational plan and operational concepts and adopt a new operational plan (which replaced the operational plan from 2001, Operation Active Endeavour), Operation Sea Guardian. The latter's objective was defined in the following way: "coordination with maritime stakeholders in the Mediterranean Sea to deter, to prevent acts of terror and to mitigate other security risks." The tasks assigned to this force are: building an up-to-date picture of the operations in the Mediterranean Sea and maintaining it in order to assist in identifying possible security risks, and performing three main tasks: maintain maritime situational awareness, deter and counter terrorism and enhance capacity building.⁶⁷ The center overseeing the task forces and building the situational awareness is located in Northwood, Britain.

The various interests NATO members have in Libya: During 2020, and against the background of the ongoing civil war in Libya, the opposing interests of some NATO members that have forces operating in Libya have sharpened acutely. Turkey, for example, provides massive amounts of essential support to the recognized government (GNA), and has, through military troops in 2020, succeeded in changing the balance of power on the ground. In opposition, France, as noted earlier, is operating vigorously in the sea to enforce the embargo placed on Libya by the UN.⁶⁸ As of 2017, the Italian coastguard has worked intensively to **prevent the stream of refugees** from reaching Italy from Libya, which activities are conducted in coordination with GNA in Tripoli, and which have sharply reduced the stream of refugees from North Africa to southern Europe (for further details, see the section on immigration via the sea in the chapter on global developments). Operation Sophia, run by the Italian navy for this purpose, caused disagreement between the alliance members because the Italian prime minister, Paolo Gentiloni, in April 2019, signed an order prohibiting

66 Pierini, 2020, p. 11.

67 Fact Sheet, Operation Sea Guardian, Allied Maritime Command Northwood UK, Media Center, October 7, 2019. <http://www.mc.nato.int/media-centre/fact-sheets.aspx>

68 The UN Security Council imposed an arms embargo on Libya in February 2011, which applies to supply or arms and military equipment to Libya or from it. Since September 2011, the Security Council has allowed arms supplies to the entities considered as Libya's government as recognized in the world, first the National Transitional Council (NTC) and today the Government of National Accord (GNA), contingent on the supplies being approved by the Sanction Committee.

patrol boats from rescuing people at sea. This led to Germany withdrawing from the mission and protesting that Italy's position undermines the operation's urgency. After Italy closed its waters to rescue and charity boats, the European countries could not reach agreement about the question of which countries should retrieve most of the refugees at sea.⁶⁹ Against this background, diplomatic talks were held between NATO members in Berlin, Germany, where at the end it was decided to terminate the activities of Operation Sophia in its present form.⁷⁰

In the shadow of conflicting interests of some NATO states in Libya in recent years, as noted above, and without efforts to mediate these differences, the NATO secretary general, Jens Stoltenberg, took the initiative and announced that NATO fully supports the work of the UN to find a political solution for the crisis. After Stoltenberg spoke to the head of the Libyan government, Fayeze al-Sarraj, on the phone, "in order to discuss the latest developments in the country". He emphasized the need to recruit the support of all the opposing factions in Libya and all the members of the international community, to support the process that the UN is leading, and to respect the UN's arms embargo. Stoltenberg also expressed support for the process being led by Germany, the EU President, which complement UN efforts to achieve peace and stability in Libya.⁷¹

Can NATO rise above the interests that are at cross-purposes in Libya and advance peace and rapprochement processes between the various adversaries—we will have to wait and see.

The Egyptian Navy

In 2019, a chapter comprehensively reviewing the Egyptian navy was included in the Center's annual report. The two reasons that led to the writing of this chapter were:

1. For the first time, the navy is undergoing a process of refurbishment and strengthening that unequivocally positions it as one of the strongest navies in the Middle East region. The navy itself operates in two main sectors: the Mediterranean Sea and the Red Sea. In the Red Sea sector, it faces several challenges that can affect Egypt, and especially impact navigation from and to

69 Italy to 'block and seize' refugee rescue ship, *Aljazeera*, May 10, 2019. <https://www.aljazeera.com/news/2019/05/italy-seize-charity-ship-rescued-migrants-190510111404317.html>

70 Jacopov Barigazzi, Operation Sophia to be closed down and replaced new Libya naval mission will have a different name and area of operation, *Politics*, February 17, 2020. <https://www.politico.eu/article/operation-sophia-to-be-closed-down-and-replaced>

71 NATO Secretary General discusses eastern Mediterranean, Libya with Foreign Minister of Turkey, NATO News, 19 August 2020. https://www.nato.int/cps/en/natohq/news_177523.htm

the Far East, which occurs at one of the most sensitive chokepoints—the Suez Canal.

2. The purchase of four German submarines (without going into the process itself and the political aspects) illuminated just one angle of the strengthening process of the Egyptian navy and the defense security forces' position relative to this strengthening and maintaining the qualitative edge that Israel needs to preserve in the Middle East.

The events that were added in 2020 and influenced the activities of the Egyptian navy were, first and foremost, the deterioration that began in Libya's domestic affairs. In addition, there has also been the Turkish involvement, which led to Egypt being concerned that Turkey, which has ever since the ousting of Morsi been in a political conflict with Egypt, may under circumstances place Turkish forces or proxies on its western border with Egypt, and endanger the security of the Egyptian government.

Against the background of the agreement signed at the end of 2019 between Turkey and Libya on the division of their EEZs, Greece and Egypt declared and demarcated their EEZs, which act underscores, in practice, their joint border, and challenges Turkey's and Libya's aspirations to search for gas in the area, and their joint maritime agreement. According to the treaty signed by them, Egypt and Greece are exclusively allowed to search for resources existing in the area, including petroleum and gas reservoirs.

Against the background of the tension between Turkey and Egypt and the enmity that emerged between the French and Turkish navies (as described above), the Egyptian and French naval forces conducted a joint exercise at the beginning of July 2020 in the eastern Mediterranean Sea. Two stealth Aquitaine class frigates (built both for the Egyptian navy and for the French navy) participated in the exercise. They focused on methods for organizing collaboration toward implementation of combat tasks against adversarial naval formations as well as surface and air targets. The Egyptian army spokesman noted that "the exercises are intended to increase the cooperation between the Egyptian and French armed forces in a way that will contribute to improving their abilities and collaborative experience as well as safeguard security and stability in the Mediterranean Sea".⁷² In August 2020, the Egyptian and Greek navies held bilateral exercises in the Mediterranean Sea after a visit by Greek ships to Alexandria port. The Greek navy included MEKO class frigates

72 Sarah Mukabana Egypt, France conduct joint naval drills in Mediterranean SeaCGTN Africa, July 26, 2020. <https://africa.cgtn.com/2020/07/26/egypt-france-conduct-joint-naval-drills-in-mediterranean-sea>

and the Egyptian navy included Oliver Hazard Perry class frigates. The exercises were held as part of the general command plan of the Egyptian armed forces to raise military cooperation with all friendly states in the region. There is no doubt that the tension that arose in the Mediterranean Sea in the summer of 2020 was exploited to conduct joint naval exercises and visits to ports as tools in the toolbox of the state levels of different countries in the region.



Figure 9: Two Aquitaine class frigates during the joint French–Egyptian exercise, July 2020, in the Mediterranean Sea

Additionally, Egyptian army forces, at the beginning of July 2020, held a wide-ranging amphibious landing exercise near the border with Libya. Both the Egyptian navy and air force participated in the exercise, called HASM-2020. Local journalists and security correspondents also joined the forces. The forces used the Mistral class Abdul Nasser helicopter carrier, supplied by the French to Egypt, Gowind corvettes, Perry frigates and a type 209 conventional attack submarine.⁷³

In the Red Sea, at the beginning of 2020, the Egyptian navy inaugurated the new port of Barnice, located near the border between Egypt and Sudan, and that will be the base used as the supply center for the Egyptian southern navy. In the state ceremony that was held with the participation of President A-Sisi and the senior army command, the speakers noted that the new base positions the Egyptian navy close to the southern entrance of the Red Sea, the Bab al-Mandab Strait and Yemen. The base also moves the Egyptian navy closer to the Horn of Africa, an important place for Egypt's and the Suez Canal's national security as well as protecting Egyptian interests in the Red Sea, and supports the coalition headed by Saudi Arabia, which

73 Dorian Archus, Egypt conducts large scale exercise HASM-2020, Naval News, July 19, 2020. <https://navalnews.net/egypt-conducts-large-scale-exercise-hasm-2020>

is fighting the Houthi rebels in Yemen who are supported by Iran. Egypt President A-Sisi, who dedicated the new base, was also the person who, in 2017, opened the naval headquarters in the same place.⁷⁴

Against the background of the rising tension in the southern Red Sea, in 2020 the Egyptian navy held several joint exercises with friendly navies in the Red Sea region: the Egyptian frigate Suez and the Spanish frigate Santa Maria participated in wargames held at the Barnice army base in the southern Red Sea. The joint exercise demonstrated high coping and combat ability as well as the readiness of the Egyptian naval forces. Drills for defending against air strikes, for strengthening naval attack deterrence and supply and fueling at sea were held.

On January 22, 2020, the Morgen 16 naval exercise was held in the Red Sea in which the Royal Saudi navy and Egyptian naval forces participated. The drills continued for several days and included a series of joint drills between the two countries that were wide-ranging and strengthened the maritime security measures in the region.

Undoubtedly, the Egyptian navy recognizes the strategic importance of the Red Sea for Egypt, understands that terror and pirate attacks and the sense of insecurity that permeates the region, especially in the area of Bab al-Mandab Strait, may significantly affect Egypt's economy and security (in light of the large part the tariffs paid for passing through the Suez Canal comprise of the Egyptian government's income), and, accordingly, are prepared to safeguard navigation in the region using its own forces, or in partnership with friendly navies.

There is no doubt that the Egyptian navy has been transformed into one of the dominant navies in terms of its operations and order of force both in the Mediterranean Sea and the Red Sea.

Changes in the security policies and resource allocation to these in selected countries

Security expenditures – general trends

The total amount of global military expenditure in 2019 was 1,917 billion dollars, according to the new data from the Stockholm International Peace Research Institute (SIPRI). The total amount of global military expenditure in 2019 is 3.6% greater than in 2018, and the annual increase was the greatest since 2010. The five states that had

74 Hassan Abdel Zaher, New naval base boosts Egypt's presence in the Red Sea, The Arab Weekly, January 19, 2020. <https://thearabweekly.com/new-naval-base-boosts-egypts-presence-red-sea>

the largest military expenditure in 2019, which constitutes 62% of the total amount, were the US, China, India, Russia and Saudi Arabia. This was the first time that two Asian states (China and India) appear among the three countries with the largest military budget.

The 2019 global military expenditure represented 2.2% of the global gross domestic product (i.e., the global product), equal to about 249 dollars per person. "Global military expenditure was 7.2 per cent higher in 2019 than it was in 2010, showing a trend that military spending growth has accelerated in recent years,' says Dr Nan Tian, SIPRI Researcher. 'This is the highest level of spending since the 2008 global financial crisis...'"⁷⁵ Figure 10 demonstrates the progress of security budgets since the beginning of the 1990s, segmented by area.

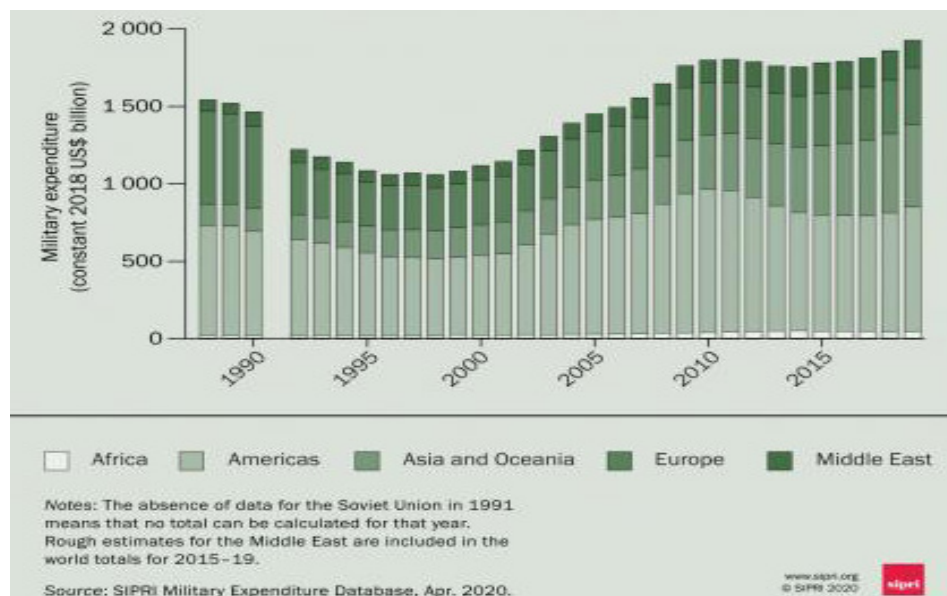


Figure 10: Global military expenditure by region for the years 1998–2019

The **US** military expenditure grew 5.3% to a total of 732 billion dollars in 2019, and constituted 38% of global military expenditure. The increase in US expenditure in 2019 alone was equal to Germany's entire military expenditure for the whole year.

75 Global military expenditure sees largest annual increase in a decade—says SIPRI—reaching \$1917 billion in 2019, Stockholm International Peace Research Institute (SIPRI), April 27, 2020. <https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion>

The increase reflects the change in US policy in everything related to competition between superpowers.

Table 5: Data for the ten countries with the highest military expenditure globally

Rank	Country	Military expenditure, 2019 (US\$ b.)	Change in military expenditure (%)		Military expenditure as a share of GDP (%)		Share of world total, 2019 (%)	
			2018–19	2010–19	2019	2010		
2019	2018							
1	1	United States	732	5.3	-15	3.4	4.9	38
2	2	China	(261)	5.1	85	(1.9)	(1.9)	(14)
3	4	India	71.1	6.8	37	2.4	2.7	3.4
4	5	Russia	65.1	4.5	30	3.9	3.6	3.4
5	3	Saudi Arabia	(61.9)	-16	14	(8.0)	8.6	(3.2)
6	6	France	50.1	1.6	3.5	1.9	2.0	2.6
7	9	Germany	49.3	10	15	1.3	1.3	2.6
8	7	United Kingdom	48.7	0.0	-15	1.7	2.4	2.5
9	8	Japan	47.6	-0.1	2.0	0.9	1.0	2.5
10	10	South Korea	43.9	7.5	36	2.7	2.5	2.3

() = estimated figure; GDP = gross domestic product.

Note: Figures and percentage shares may not add up to stated totals or subtotals due to the conventions of rounding.

China and **India** lead in military expenditure in Asia. China's military expenditure reached 216 billion dollars in 2019, an increase of 5.1% compared to 2018, whereas India increased its defense budget by 6.8% to 71.1 billion dollars. The tension and antagonism among India, Pakistan and China were prime motivators for India's large military expenditure.

In east Asia, in addition to China and Pakistan, **Japan** (47.6 billion dollars) and **South Korea** (43.9 billion dollars) had the highest military expenditure in Asia and Oceania. The military expenditure in this region has risen steadily since 1989.

Germany led Europe in growth of military expenditure, which grew by 10% in 2019, totaling 49.3 billion dollars. This increase is the most significant among the 15 leading countries in military expenditure in 2019. The increase in German military expenditure may be partially explained by the concept of an increased threat from Russia, common to many NATO members. The military expenditure of **France** and **Britain** remained relatively stable.

There was a sharp increase in military expenditure among **NATO members in central Europe**: for example, Bulgaria's expenditure grew by 127%, primarily because of

payments for new warplanes, and Rumania by 17%. The total amount of expenditure by all 29 NATO member states was 1,035 billion dollars in 2019.

In 2019, **Russia** had the fourth largest military expenditure in the world. We note that in recent years, Russia developed military modernization programs and adopted a more assertive foreign policy. Russia's military expenditure grew significantly in the past two decades. In realistic terms, we are talking about 30% between 2010 and 2019, and in nominal terms, 175% (Figure 11). Even though Russia's military expenditure decreased in 2017 and 2018, it grew again in 2019, reaching 65.1 billion dollars. The military burden on Russia's economy, that is, military expenditure as part of its gross domestic product, was 3.9% in 2019. This was higher than in 2010, but much lower than the peak, which was 5.5% in 2016.

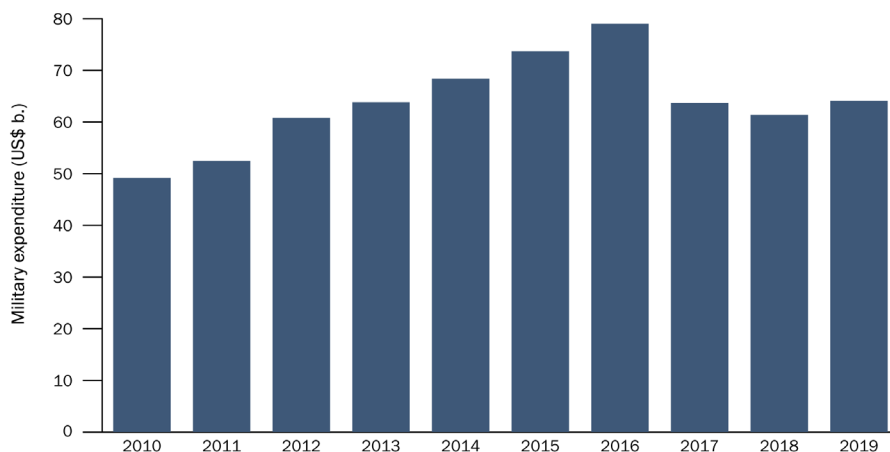


Figure 1. Russian military expenditure, 2010–19

Notes: Figures are in US\$ b. at constant (2018) prices and exchange rates.

Figures and percentage shares may not add up to stated totals or subtotals due to the conventions of rounding.

Figure 11. Russian military expenditure, 2010–2019⁷⁶

In its multiyear military modernization program, Russia allocates high priority to certain parts of its armed forces. For instance, its nuclear program has received focused priority since the beginning of the 2000s, and its delivery systems, and especially its naval arm, underwent broad modernization. In addition to upgrading these systems' equipment, they also received broader media exposure.

⁷⁶ Siemon T. Wezeman, Russia's military spending: Frequently asked questions, *Stockholm International Peace Research Institute (SIPRI)*, April 27, 2020. <https://www.sipri.org/commentary/topical-background/2020/russias-military-spending-frequently-asked-questions>

SIPRI noted that the Russian media and the official media tend to reflect the image of progress in modernization of the armed forces in every aspect of military abilities. This is extremely evident in the official information related to integration of new equipment. Nevertheless, the Swedish institute noted that a **gap exists between the levels of modernization** that were declared and what is actually seen by independent observers. Many large armament programs never reached the targets for which they were budgeted, and Russia has delayed or reduced purchase plans.⁷⁷ These programs may still be changed, especially in relation to the recession that is predicted will follow the COVID pandemic. Following the publication of the programs for 2020–2022 at the end of 2019, the price of petroleum entered a period of fluctuation and volatility. These economic factors are likely to limit Russia's future military expenditure.

77 Ibid.