



Modernized navy advances national goal to protect interests on high seas

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» RECENT global developments, including the ones concerning the Eastern Mediterranean, have once again brought the power and capabilities of the navies of coastal states to mind and the Turkish navy is no exception. Ankara has placed itself at the center of the latest discussions due to its determination to protect its rights both on land and offshore amid interdependent geopolitical and military developments encircling the

country. The country has been expanding and modernizing its navy by leaps and bounds with steps to transform the defense industry with domestic projects. In an exclusive interview with Daily Sabah, Ret. Navy Capt. Alp Kırıkkanat, a maritime defense and security consultant, said several developments in the near past, including the Cyprus Peace Operation and the subsequent arms embargoes on Turkey, played a big role in pushing Turkey toward locally modernizing its navy, despite its success with limited capacity at the time. **PAGE 4**

Modernized navy adds further muscle to Turkey's aspiration to protect national interests

Recent global developments have given greater pertinence to Turkey's efforts to expand and modernize its navy in a bid to safeguard the country's geostrategic interests

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WITHIN the following process, the Turkish navy "in addition to the national activities in the surrounding seas, has also carried out NATO duties in the remote seas and served with ships and other combat elements in the United Nations peace support activities," he said, by benefiting from the domestic projects.

Most recently, the Turkish Presidency of Defense Industries (SSB) released video footage showing the Multi-Purpose Amphibious Assault Ship TCG Anadolu anchoring to side dock at Sedef Shipyard in Istanbul's Tuzla district for harbor competency tests.

The TCG Anadolu is a landing helicopter dock (LHD) type amphibious assault ship that was modeled on Spanish LHD Juan Carlos and is expected to enter the Turkish Naval Forces' fleet toward the end of this year, further contributing to the aim of steadily modernizing the navy fleet while reducing its outside dependency by replacing the already-existing vessels with domestically produced ones.

The Anadolu, the navy's flagship-to-be vessel, often dubbed "Blue Homeland," will surely strengthen Turkey's hand in regional politics, concerning its maritime borders. Along with enabling the country to operate overseas when needed, it will safeguard Turkish-flagged vessels anywhere they sail. It will also participate in the humanitarian missions that the navy carries out.

The LHD will be able to host a battalion-sized force along with flight and command personnel and although the length of its flight deck is not long enough for classic warplanes to land and take off, the Anadolu has six spots where medium load transport, assault or general-purpose helicopters can land and take off along with other two spots that provide a landing platform for heavy cargo transport helicopters.

The TCG Anadolu will be able to carry many light and heavy armored vehicles, including the wheeled and tracked ones. It will have the capacity to carry up to 30 wheeled vehicles, including armored amphibious vehicles and armored personnel carriers on its light vehicle deck, the vessel's ramp enables at least 12 medium load helicopters to be transported, while the number can be increased with additional helicopters carried on the light vehicle deck, depending on the vessels' mission. The heavy vehicle deck at the top of the carrier's pool provides the transportation of heavy and tracked vehicles such as tanks along with other kinds of armored heavy vehicles.

The Anadolu provides the transportation of up to nearly 45 tanks, again, depending on how the vehicles are positioned on it and the vessel's mission-ranking from amphibious war to power transfer, along with the non-military tasks such as humanitarian aid, search and rescue, medical assistance or natural disaster support in variety of areas, including in the Aegean, Black Sea and Mediterranean and, if necessary, in the Indian Ocean (north of the Arabian Peninsula, west of India) and the Atlantic Ocean (west of Europe, northwest of Africa).

The launchpad constructed on the Anadolu's deck provides a vertical landing for aircraft, such as the Lockheed Martin's STOVL (Short Take-Off / Vertical Landing) F-35Bs. This proved to be a deadlock issue between the U.S. and Turkey as it was announced previously by U.S. President Donald Trump that Turkey would be expelled from the joint F-35 program over disputes between Washington and Ankara. This means it will be capable of assisting air operations as well, though limited, such as performing close air support.

Though the country's first domestically made warplane TE-X National Combat Aircraft (NCA) is being developed in a move to replace the F-16 fighter jets, the dispute between Turkey and its NATO ally on the F-35s, including the world's one of two STOVL aircraft F-35B, appears to be an object of interest, considering the Anadolu, once again highlighting the importance and urgency of overall nationalization process in defense industries.

The U.S. removal of Turkey from the F-35 program, in which Ankara was both manufacturer and buyer, came as a move after Turkey purchased Russian S-400 air and missile defense systems, which Washington argues could be used by Moscow to obtain classified details on the jet, along with its being incompatible with NATO systems. Turkey, however, counters that the S-400 would not be integrated into NATO

systems and would not pose a threat to the alliance, underlining that the U.S. has initially pushed Ankara toward deciding to pursue alternative sellers after the U.S. refused to sell its Patriot systems.

PROJECTS FOR GLOBAL CAPABILITY

In 2015, Turkish Naval Forces in their strategy report announced the aim to bring the Turkish Navy to the upper league, from a navy capable of medium-scale regional power transfer to a "Navy with Medium-Scale Global Power Transfer Capability."

The 48-page report lays down a path for the modernization of the navy. It outlines the regional and global developments, in which the construction of an LHD was included in six to 10 years of plans, along with Air Defense War Frigates, Combat Support Ship, New Generation Mine Hunting Ships and Submarines with Air Independent Drive Systems. A project for the construction of TF-2000 air defense frigate was also included in the navy's strategy plans, first of which will be added to the navy's inventory by 2023. The air defense frigate is one significant step for a country located in between three seas, all of which may face, different, yet interdependent escalations.

One crucial project that gave acceleration to the domestication of navy was the MILGEM project that was initiated in 2000 to locally design and built a new line of multi-purpose frigates and corvettes that will replace the older ones. TCG-Heybeliada, which is one of the pride ships designed and built nationally within the scope of the project, was commissioned by the Naval Forces Command in 2011, TCG-Büyükdada in 2013, TCG-Burgazada in 2018 and lastly the TCG-Kinalada in 2019. The MILGEM project has enabled the design of a corvette type military ship to be nationalized for the first time, thereby reducing external dependence in ship design, shipbuilding and system integration while bringing the participation of local industry up to 70% and providing job opportunities to more than 50 local companies.

In an interview with Daily Sabah, naval architect and marine engineer Semih Zorlu from Istanbul-based SEFT ship design & engineering said that this project can be considered as a milestone for the nationalization and replacement process of the navy vessels, which also brought up the cooperation and knowledge and experience sharing of military and the private sector which not only sped up the process but also made it open to further steps of exporting the local designs.

Evaluating the military-private sector cooperation on joint production of navy vessels or other naval equipment, Zorlu said



Turkish submarine rescue mother ship TCG Altınaraz was the leading vessel in NATO Dynamic Monarch Exercise held in 2017.

the private sector can be considered "more dominant in technology and innovations, competitive solutions, cost-effective and high-quality products, which are advancing rapidly due to its dynamic and competition intensive structure"; thus it is the best way to reach a good design and product with low initial investment is to cooperate with the industry.

Coast Guard Search and Rescue Ship Project carried out by the RMK Shipyard, New Type Patrol Boats Project carried out by the DEARSAN Shipyard, Landing Ship Project by the ADIK Shipyard, Submarine Rescue Ship, Rescue and Backup Vessels and Seismic Research Vessel by Istanbul Denizcilik can be included within the projects that were carried out by the private sector shipyards and then delivered to the Naval Forces. Zorlu gave the examples, noting that several others are still underway such as the fleet replenishment vessel (DIMDEG) Construction Project, together which can increase the domestication rate up to 85% in near future.

Similar to Kirikkant, Zorlu also said: "Despite the limited capabilities of our navy, it played a key role in the Cyprus Peace Operation in 1974 by successfully carrying out the amphibious operation, which was considered to be the most arguably militarily undisputed operation, and ensured that the amphibious and ground troops landed in Cyprus at the same time, along with naval gunfire support," arguing that the navy was using old vessels back than some of which had already completed their economic lives when purchased, and now the country is capable of "designing and producing its own frigates. We do not have to buy the ships that foreign countries have already used."

In 1974, following a coup aimed at Cyprus' annexation by Greece, Ankara had to intervene as a guarantor power. In 1983, the Turkish Republic of Northern Cyprus (TRNC) was founded. The operation, which was Turkey's first military operation abroad in the Republican era, followed two decades of intercommunal violence where Turkish Cypriots were targeted by Greek Cypriot pro-independence militia during the British colonial rule, and after independence, Turkish Cypriots were confined to enclaves starting from 1963 to protect themselves against Greek militia groups.

LOCAL FIRMS ASSIST PRODUCTION

Weaponry and sensory systems and command control software have also been on the top list of the defense industry's agenda, to domestically meet the needs of the navy, along with other command forces. One such system, the New Generation Network-Assisted Data Integrated Combat Management System (ADVINT SYS), developed in cooperation with Turkey's leading military systems developer HAVELSAN and the Naval Forces Command Research Center Command (ARMERKOM), is being installed on the TCG Anadolu, making the warship the second vessel to use the homegrown system after the TCG Kinalada. Weapon and sensor systems of the TCG Kinalada was also domestically developed by the leading defense contractor ASELSAN.

The country's first domestic maritime missile ATMACA, developed by the major defense contractor Roketsan, will also be equipped on Turkish ships soon, in a bid to replace currently used Harpoon missiles. Tests on ASELSAN's Multipurpose Phased Array Radar (AFRAD) is expected to be completed soon, which will be used on the national air defense frigates.

MODERNIZED NAVY FOR TRADE

Turkish Navy, apart from safeguarding its geostrategic rights, with a mission to protect any Turkish-flagged merchant ships, as well, as to operate on behalf of a country surrounded by sea on three sides with 9,985 kilometer of coastline with an advantage in maritime trade and transportation, along with transnational pipelines passing through its territorial waters. Zorlu highlighted the importance of naval capabilities in this regard, in all areas from transportation to fishing and scientific research, saying that the country now has two seismic research vessels and two drill vessels.

Among these, MTA Oruç Reis seismic research vessel was designed by SEFT Ship Design company entirely by Turkish engineers and was built in the Istanbul Shipyard. The ship has the capability of 3-dimensional seismic research with 8 seismic cables, each 8000 meters long, and it is also capable of conducting geology, hydrography and oceanography studies," he noted.

Although those currently operating in Eastern Mediterranean, namely the Yavuz and Fatih drilling ships were purchased from other countries due to the necessity of fast action, Zorlu noted, "Turkey has shipyards that export these kinds of ships to Norway to operate in the northern sea which means, under the scope of a planned projects, those operations can also be carried out by domestic vessels in the future."

STRONGEST NAVY IN EAST MEDIT

Among the other three regional countries with strong navies, namely Egypt, Greece and Israel, in the eastern Mediterranean where Turkey has been conducting drilling activities with two seismic vessels

under the scope of its territorial rights, Turkey has the strongest navy, though there are several different aspects of such a comparison. Not only it has the largest navy, quantitatively, next to Egypt, whose navy is large but mostly out serviced thus still can't outnumber that of Turkey's, Turkish navy is also one of the most modern navies in the region.

"With 16 frigates, 10 corvettes, 19 armed fast patrol boats, 12 submarines and other auxiliary elements, we have a considerable fleet in the region," Kirikkant evaluated. Four I-class frigates are also under construction to be added to the fleet, among others.

Kirikkant noted that the numbers are not always the indicators of power all alone, however, the Turkish navy with its current fleet "can successfully carry out national and alliance missions in several different seas at the same time; adding the logistics support infrastructure is very strong with experienced shipyard and maintenance units."

Turkish Naval Forces have conducted the Blue Homeland-2019 naval exercise between Feb. 27 to March 8, 2019, with 103 ships in the Black Sea, the Aegean and the Mediterranean simultaneously.

Commenting on the navies of Eastern Mediterranean coastal states, Kirikkant stressed: "The Greek and Egyptian navies are different from each other at first glance but one common thing is that they have many foreign warfare weapons, vehicles and equipment. This is a major disadvantage in terms of logistics integrity, repair capability and possible modernization plans," adding that the Greek navy is old and the economic crisis and foreign debts that must be paid by 2060 pose a significant obstacle to the implementation of many defense projects in the neighboring country, along with creating an obstacle for the modernization of already existing vessels.

Kirikkant said that similar to Greece's, the Egyptian navy also needs modernization while the new purchases do attract quite an attention.

"Although two multi-purpose amphibious ships, one frigate and one corvette from France, along with two submarines of German origin added a certain strength to the navy; it seems quite difficult for them to create a concept with ships purchased from U.S., Russia, Germany, England, France and South Korea," he said.

Egypt has purchased its first multi-purpose amphibious ship from France which was originally intended for Russia but was not delivered due to sanctions imposed upon Moscow, following its annexation of Crimea.

Israeli Navy, with advanced submarines and indigenous advanced sensors, electronic warfare and weapon systems, on the other hand, is quite at the fore especially when compared to those of the Egyptian and Greek navies, though it is the smallest of all four relevant navies, including Turkish, with 3 corvettes, 8 assault boats and 5 submarines, Kirikkant said.

Recent disputes arising from the share of exploration rights of offshore natural gas fields in the Eastern Mediterranean, which has only accelerated after the Greek Cypriot unilaterally declared its Exclusive Economic Zones (EEZs) by illegally crossing into Turkey's territorial waters, has only been escalated tensions between the Turkish Republic of Northern Cyprus (TRNC), the Greek Cyprus, Turkey, Greece, Egypt and Israel. Meanwhile, Turkey, though having come a long way, should maintain its focus on domestically developing the needs of its command forces, experts say, the Navy being the forefront.

Countries that have aircraft carriers or LHD

 The UK ● 2 aircraft carriers	 The US ● 11 aircraft carriers, 9 LHDs
 France ● 1 aircraft carrier, 3 LHDs	 S Korea ● 1 LHD
 Australia ● 2 LHDs	 India ● 1 aircraft carrier
 Japan ● 4 LHDs	 China ● 2 aircraft carriers
 Brazil ● 1 LHD	 Italy ● 1 aircraft carrier
 Russia ● 1 aircraft carrier	 Egypt ● 2 LHDs
 Spain ● 1 LHD	 Thailand ● 1 aircraft carrier

Currently, the U.S. navy holds superiority in high seas with carriers that outnumber others, while France keeping up the tradition of having the only nuclear-powered carrier after the U.S.