Egyptian Navy & Mistral-Class Amphibious Assault Ships

On December 24, 2010, the Russian President of the time Dmitry MEDVEDEV announced that two Mistral Class warships would be purchased from France for a total of €1.37 Billion. This was the first and the most significant arms procurement of the Russian Federation from the West and a NATO country to date.

Some of the vessels' features were redesigned to meet the Russian Navy's operational demands in cold weather and icy waters and to enable compatibility with Russian KA-52 and KA-27 helicopters. Unlike French ships, Russian vessels have a modified bridge structure, reinforced hull to operate in arctic zones, runway de-icing system, and an extended stern gate that completely closes the well-deck. Additionally, compared to the French ships, the height of the helicopter hangar was increased

to accommodate the coaxial-rotor KAMOV helicopters, which have become the company's trademark.

Following the design process, the construction of the ships started in 2012. The main contractor, STX shipyard in Saint-Nazaire, France, was responsible for the construction and final assembly of most of the blocks that constitute the ships, while the subcontractor Russian OSK shipyard was responsible for building a total of 12 blocks. Russia's total share was around 40% of the contract price.

The first ship, Vladivostok, was launched in October 2013, and the second ship, Sevastopol, was launched in November 2014.

The Russian Federation annexed Ukraine's Crimean Peninsula while the construction of the ships was about to be

completed, and the installation of Russian systems and the training of Russian sailors continued. Following this occupation, Europe decided to impose a series of political and economic sanctions against the Russian Federation. As a result of this decision. France announced that the Mistral Class ships would not be delivered to Russia. In August 2015. France announced that it had canceled the Mistral contract with the Russian Federation and reimbursed the money already paid under the contract.

The DCNS shipyard, which France holds a majority share, had to find new buyers for these ships in order not to sink financially. It did not take long before a new customer for the ships appeared. In August 2015, the French President of the time Francois Hollande announced



that the Arab Republic of Egypt was seriously interested in these two ships. The sale of the vessels was finalized in September. The first 180man team of the Egyptian Navy went to France in January 2016 and started orientation training on the ship.

The ship named Vladivostok by the Russians was named Gamal Abdel Nasser on June 2, 2016, and the second ship, Sevastopol, was commissioned by the Egyptian Navy on September 6, 2016 under the name Anwar El Sadat. It is estimated that Egypt paid €950 Million to France for these two ships.

Having purchased two multi-purpose amphibious assault ships in addition to one FREMM Class frigate and 4 GOWIND Class corvettes from France in 2014-2015, Egypt became the first country to use these types of vessels in the African Continent and the Middle East.

The Mistral Class ships are 199 meters long and 32 meters wide. The draft of the vessel is 6.3 meters. The height of the vessels from the waterline to the top of the mast is 64.3 meters. Their displacement is 21,300 tons when fully loaded.

One of the most important features of Mistral-class vessels is the 885.5-square-meter welldeck at the stern of the ship. This 57.5 m long, 15.4 m wide, and 8.2 m high area can accommodate 4 medium-sized landing craft, 2 Landing Craft Air Cushion (LCAC), or 2 EDA-R type Shoreto-Shore Landing Catamaran Fast Landing Craft (L-CAT). The welldeck allows for the transportation of these landing craft and also enables the quick transfer of military vehicles and soldiers so that they land safely from the main ship to the smaller landing craft in an environment



protected from adverse weather and sea conditions.

Spread over two decks inside the ship, the lower level of the vehicle garage offers direct access to the well-deck. In this 2,650-square-meter area, it is possible to park up to 1,200 tons of military vehicles in various combinations, such as 40 Leclerc main battle tanks or 13 Leclerc MBT and 46 other military vehicles.

The size of the flight deck on the ships is 5,200-square-meters and it has six helicopter landing spots, one of which can support a 33ton helicopter. However, the elevators carrying aircraft between the hangar and the runway have a maximum carrying capacity of 13 tons; therefore, heavier helicopters cannot be transported via the hangar. The flight deck is not suitable to operate short take-off/vertical landing aircraft (STOVL) such as the F-35B or Harrier.

As a standard, French ships carry 8 transport (NH-90, Puma or Cougar) and 8 Tiger attack helicopters. However, it has been stated that nearly thirty light helicopters can fit inside the 1,800-square-meter hangar of the ship.

Egypt purchased the KA-52K KATRAN attack helicopters and KA-27P ASW and KA-29TB transport/utility helicopters from Russia to use on these ships. Although European companies participated in Egypt's helicopter tender, it was logically the best decision to purchase Russian-made helicopters as the ships were modified for Russian helicopters. The KA-52K



KATRAN is the ship-based version of the KA-52 ALLIGATOR helicopter. Its fuselage is covered with resilient anti-corrosion coating and has folding rotor blades and wings. Additionally, the landing gears of the KATRAN have been strengthened to withstand hard landings on the ship, and the length of the wings have been shortened for easier shipborne operations and parking inside the hangar. The Egyptian Armed Forces also used CH-47 Chinook and AH-64 Apache helicopters on the Mistral Class ships during the exercises.

These ships can carry 450 soldiers in addition to military vehicles and helicopters. It is also possible to double this number for short expeditions.

Mistral Class LHDs have a wide range of medical facilities. Ships in the French Navy have NATO Echelon 3 hospitallevel diagnosis and treatment facilities. Spread over three decks. the 750-square-meter hospital has 69 beds, 50 of which are reserved for intensive care. a CBNR decontamination facility, two fully equipped surgery rooms, and a fully equipped dental treatment unit. Thanks to the x-ray, ultrasound, and CT scanning devices on board, doctors can treat their patients as soon as possible.

After commissioning the Mistral-class LHDs Gamal Abdel Nasser and Anwar El Sadat, the Egyptian Navy experienced a quantum jump in its operational capacities and gained capabilities it did not have before.

The amphibious ships owned by the Egyptian Navy before acquiring the Mistral-class LHDs are tank landing ships with a displacement of 600 - 800 tons, produced by the Soviet Union and given to Egypt between 1968-1974. Moreover, the Egyptian Navy ships allow only one helicopter to land and take off from the platforms.

The Egyptian Navy, which does not have previous experience in large-scale amphibious operations, must undergo an intensive learning process to use a large, capable, sophisticated and platform such as Mistral effectively and efficiently. It is debatable how sufficient the Egyptian Navy's knowledge is on critical issues such as forming a naval task force and integrating multipurpose amphibious ships into it, protecting them against enemy threats, and carrying out joint maritime operations (air, surface, and underwater) with all platforms.

Shortly after the explosion that took place in the Port of Beirut in early August and caused severe damage to the city and the country, French President Macron stated during his visit to Beirut that the French Navy Mistral-class LHD FS Tonnerre will be sent to Lebanon for humanitarian aid. However, Egypt, which has the same ships and can be considered Lebanon's neighbor, did not carry out such an action. Even this simple example is striking.

Because, before purchasing a weapon system and adding it to the inventory, it is much more important and vital to analyze how capable the existing systems are, where they are lacking, and what capabilities should be acquired in the future, as well as how to use the weapon system in the most efficient way

Boeing AN/TWQ-1 Avenger (fitted with Raytheon FIM-92 Stinger missiles) on the flight deck of the Mistral-Class LHD Anwar El-Sadat (L 1020) and The French Navy LHD Mistral during the joint French-Egyptian Naval Exercise "Cleopatra 2017"