



# The Suez Canal: Forthcoming Strategic and Geopolitical Challenges

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**Abstract** The Suez Canal is a strategic narrow route (chokepoint), and a geostrategic link between the Mediterranean and the Red Sea, en route to the Indian Ocean more broadly. The chapter examines the general strategic and geopolitical characteristics of the Suez Canal; the challenges, opportunities, and threats that Egypt, the country that owns, controls, and operates the canal, is likely to face over the coming decades; and how it might also influence the entire Eastern Mediterranean, the Red Sea, and the global supply chains. The stability of the Egyptian regime is the most important factor for any economic benefit provided by the Suez Canal, as well as for any efforts to secure it and make it more accessible to two-way traffic. Egypt's efforts to secure shipping should not be limited to the Suez Canal alone. The Gulf of Aden and the Red Sea are afflicted with many security threats, most notably piracy, which decrease the attractiveness of shipping through the Canal. In economic terms, Egypt should continue to develop the economic zone around the Canal, by investment and creation of jobs. Given its strategic and economic importance, Egypt should strive to turn this region from a periphery to a center.

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The Suez Canal is a central geostrategic link between the Mediterranean and the Red Sea, as well as the Indian Ocean more broadly. In geopolitical terms, it is located at the crossroads of three continents: Africa, Asia, and Europe, and serves a crucial function for trade. It is also the longest canal in the world without locks. The Suez Canal could also be viewed as a “test case,” representing the various geographical chokepoints that serve as political, economic, and military pivots of the world. The canal is owned completely by the Egyptian government. No shares are available in the stock market.

Along its history, the canal was closed six times; the shortest period was three days and the longest was eight years (following the 1967 war).<sup>1</sup>

The canal is extensively used by modern merchant vessels (bulk carriers, container ships, tankers, and passenger ships), as it is the fastest crossing from the Atlantic Ocean to the Indian Ocean. Tolls paid by the vessels represent an important source of income for the Egyptian government. In recent decades, the Suez Canal has also strengthened Egypt as one of the geopolitical cornerstones of the Middle East. The Suez Canal is one of the eight narrow chokepoints critical to the world’s oil trade.<sup>2</sup> The Suez Canal is also a strategic passageway for navies deploying their forces in the arena of the Arabian Sea and the Persian Gulf.

Since the signing of a peace treaty between Israel and Egypt in 1979 and the evacuation of the Israeli Navy naval bases in Sharm el-Sheikh and the Gulf of Suez, the Israeli Navy has also been moving through the Suez Canal on its way to secure its sea lines of communication (SLOC) in the Red Sea.<sup>3</sup>

This chapter examines the general strategic and geopolitical characteristics of the Suez Canal; the challenges (opportunities and threats) that Egypt, as the country that owns, controls, and operates the canal, is likely to face over the coming decades; and how it might also influence the entire Eastern Mediterranean and the Red Sea.

In general, the Suez Canal opportunities consist of the physical capability to expand and deepen the canal, which would allow the Canal Authority to increase maritime traffic and accommodate it to the bigger types of ships constructed these days; the contribution of China’s Belt

and Road Initiative (BRI), which increases the trade between China and Europe through the maritime route; the regional instability in the Middle East, which prevents the development of alternative terrestrial routes that can be used as a cheaper alternative to the canal; and the Chinese government's investment in the Suez Canal region, which could transform the Suez Canal region into a major trading center.

Alongside these opportunities, some emerging threats should be recognized and mentioned. The canal's continued prominence raises its attractiveness to security challenges, such as terrorist attacks on the canal as one of the world's most important chokepoints; the stability of the El-Sisi government in Egypt remains at risk, which reduces the canal's attractiveness as well; and last but not least—the possibility of opening the polar northeastern path in the Arctic Ocean, which would provide a shorter route from Western Europe to the Far East.

### THE SUEZ CANAL IN EGYPT'S ECONOMY: GENERAL CHARACTERISTICS

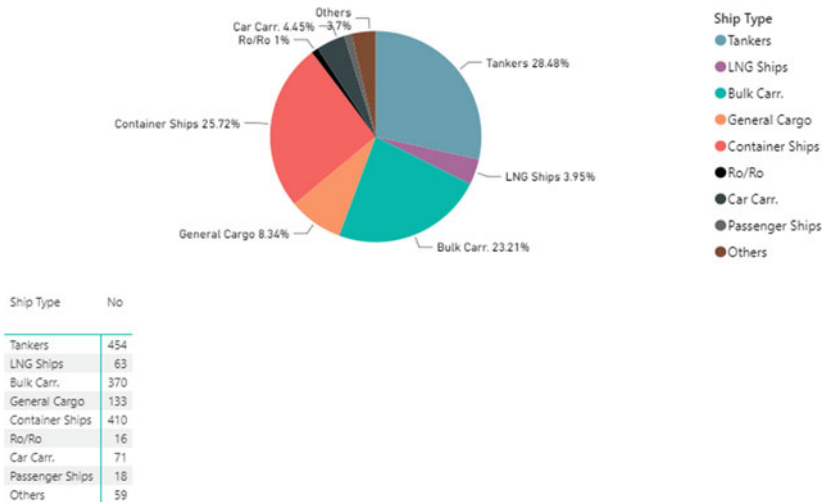
Egypt's economy faces significant structural challenges. It is the fourteenth most populous country in the world; in 2019, its population was estimated to have crossed 100 million people, and its annual population growth stands at 2%. One of the major challenges resulting from this is the need to keep its population supplied with affordable food; despite Egypt's rising agricultural yields, as population grows, the amount of land needed for housing and businesses rises, and the amount of land for agriculture falls. Egypt has a total land area of approximately 1 million square kilometers. Most of it is desert and only 5.5% is inhabited. Settlements are concentrated in and around the Nile Delta and its valley, which narrows considerably in Upper Egypt. The total cultivated land area is about 3% of the total land area—and consists mostly of old and newly reclaimed areas. Egypt has reached a state where the quantity of water available is imposing limits on its national economy. Thus, as time goes on, Egypt can produce less of its own food.<sup>4</sup> In 2010, Egypt imported 40% of its food and 60% of its wheat. In recent years, it has become the largest importer of wheat worldwide.

Egypt's GDP took a significant plunge in 2017, falling from \$332.9 billion to \$235.4 billion, though some recovery has been made since; in 2020, its GDP was \$361 billion. Egypt's unemployment rate, while

decreasing in recent years, remains well over 10%, and the average inflation rate (2017) amounted to about 20.86%.<sup>5</sup> In 2017, it had a negative trade balance of \$37.3 billion. A large-scale plan launched in 2016 to revive the Egyptian economy has had some significant achievements, turning Egypt into an emerging market that is popular among investors in government bonds; but the plan also pushed more people under the poverty line and attracted popular criticism against the government. In November 2019, President El-Sisi announced his intention to privatize the Egyptian Army's huge holdings in the economy, the National Service Products Organization (NSPO). This organization was established in 1979 under a presidential decree to achieve "the relative self-sufficiency of the Armed Forces requirements as well as locally and internationally marketing the surplus."<sup>6</sup> With a budget that is independent of the Ministry of Defense, the NSPO has established a wide range of companies in sectors as diverse as mining, food production, chemicals, farming, plastic, household appliances, and hospitality.<sup>7</sup>

The Suez Canal, serving as the shortest shipping route between Europe and South East and East Asia, is a major source of hard currency for the Egyptian economy—especially since the uprisings in 2011 and resultant instability led to a decrease in investment and tourism. In 2017, the passage of goods through the canal netted the government of Egypt \$5.3 billion—13.9% of its overall income and 25% of its income from export (overall \$23.2 billion). Egypt's income from the Suez Canal is more than its revenues from tourism, though dwarfed by the monetary transfers from Egyptian workers abroad, which amounted to \$17 billion in 2017. The annual revenues of the canal reached \$6.3 billion in 2021, the highest in its history. The Suez Canal Authority reported that 20,649 vessels passed through the waterway last year, a 10% increase compared to 18,830 vessels in 2020 (Fig. 1).<sup>8</sup>

Over the past two decades, there has been a decrease in the number of ships passing through the canal but an increase in their capacity, and therefore in Egypt's revenues. In 2005, 12,000 ships passed through the Suez Canal, with an overall capacity of 702 million tons, yielding Egypt a revenue of \$2.5 billion. In 2010, there were 18,050 ships with a capacity of 897 million tons and a revenue of \$3.4 billion. In 2016, the number decreased to 17,200 ships, but the capacity increased to 987 million tons, yielding a revenue of \$4.2 billion. Since 2010, there was a decrease in the number of oil tankers and passenger ships passing through the canal and an increase in the number of gas and container ships.



**Fig. 1** Seven types of ships passed through the Suez Canal, November 2019

Between 2008 and 2010, it is estimated that the canal lost 10% of traffic due to the threat of piracy, and another 10% due to the financial crisis. This demonstrates the sensitivity of the canal to geo-economics and security crises.<sup>9</sup> The Suez Canal Authority has completed its planned phase to deepen the canal, which allows passage of ships up to 20 meters (66 feet) draft or 240,000 deadweight tons and up to a height of 68 meters (223 feet) above water level and a maximum beam of 77.5 meters (254 feet). This enables the canal to accommodate the following percentages of the fully loaded vessels: 61% of the Tanker Fleet, 92% of the Bulk Carrier Fleet, and 100% of the Container Ships and Other Ships.<sup>10</sup>

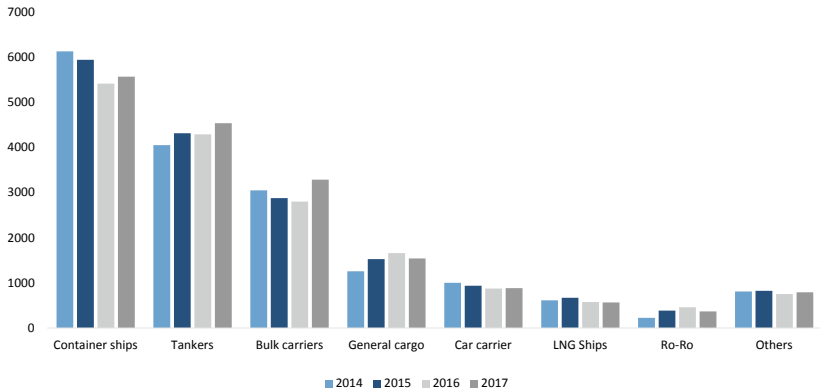
### EXPANSION OF THE SUEZ CANAL AND CHINA'S BELT AND ROAD INITIATIVE

Realizing the necessity to increase the canal's efficiency and boost the hard currency earnings for the Egyptian national income, Egypt has decided to construct a new canal from 60 km to 95 km, in addition to deepening and widening the Great Bitter Lakes bypasses and Ballah bypass, with a total length of 37 km (total length of the project is 72 km). This project will

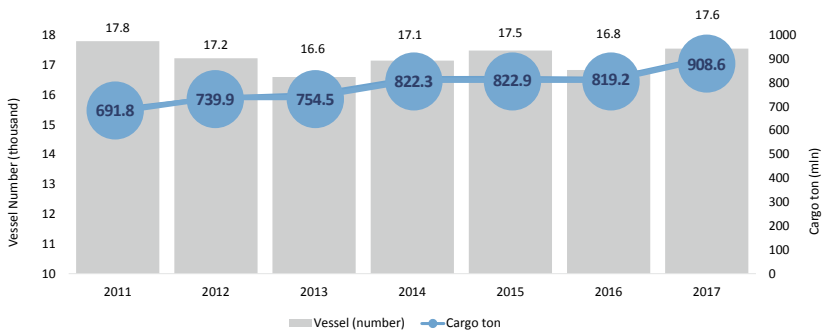
create a new canal, parallel to the existing one, to maximize the benefit from the present canal and its bypasses, and double the longest parts of the waterway to facilitate traffic in both directions and minimize the waiting time for transiting ships. This will reduce the time needed for the trip from one end of the Canal to the other, and increase the numerical capacity of the waterway, in anticipation of the expected growth in world trade. The project goes side by side with the Suez Canal Area Development Project, described in more detail below. The two projects will increase the importance of the Suez Canal and will make it the route of choice for ship owners the world over, surpassing alternative, competing routes. The project will also have a positive impact on Egypt's national economy as it will boost its hard currency earnings, provide much-needed job opportunities, and create new urban communities. According to the Suez Canal Authority, at the end of the project (2023), it will increase the daily average of transiting vessels to 97 ships (from 49 ships at present), allow direct unstopped transit for 45 ships in both directions, and step up the permissible draft to 66 feet (approximately 20 meters) throughout the entire Suez Canal. It will also increase the Suez Canal's revenues from \$5.3 billion at present to \$13.226 billion in 2023: an increase equal to 259%, which would positively contribute to Egypt's national income of hard currencies, create job opportunities for young people living in the Canal Zone, Sinai, and neighboring governorates; and creating new urban societies as well.<sup>11</sup>

In August 2015, Egypt inaugurated an expansion project of the Suez Canal, as described above. Approximately 400 companies and 25,000 workers were involved in the project, which lasted 12 months and required an overall investment of \$6.64 billion (Fig. 2).

The current global trend in shipping is toward an increase in the size of ships. Shipping companies are striving to utilize economies of scale by concentrating larger numbers of containers on “mega-ships” that would visit relatively few ports. Maersk shipping company—which switched its Asia–US East Coast shipping from Panama to the Suez Canal in 2013—is currently employing 20 new Triple-E type ships able to carry up to 20,000 standard container units (Twenty-foot Equivalent Unit, TEU).<sup>12</sup> Similar ships have also been purchased by Compagnie Générale Maritime (CGM) and Compagnie Maritime d’Affrètement (CMA) shipping companies. Following its 2015 expansion, the Suez Canal is currently able to handle ships up to 23,000 TEU. The 23,756-TEU MSC *Gulsun*, the



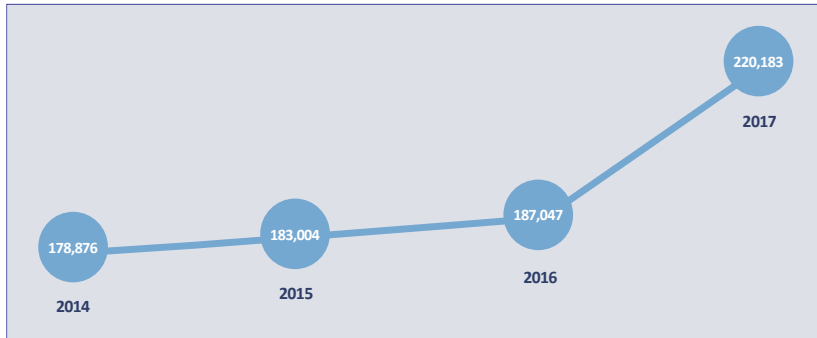
**Fig. 2** Traffic by ship type (Number) (*Source* SRM on SCA)



**Fig. 3** Ships and cargo through the Suez Canal, trend 2011–2017 (*Source* SRM on Suez Canal Authority [SCA])

world's largest container ship, transited the Suez Canal for the first time on August 9, 2019 (Figs. 3 and 4).<sup>13</sup>

On March 23, 2021, the Suez Canal was blocked for six days after the grounding of *Ever Given*, a 20,000 TEU container ship. The blockage of the Suez Canal created a severe global fest. However, far beyond the incident making headlines, the more disturbing aspect was the increase of the ongoing supply chain crisis that left global shippers and products fighting price increases and a shortage of goods, following the onset of the COVID-19 pandemic. Over 300 vessels at both ends of the



**Fig. 4** “Oil and Products” traffic through the Suez Canal (000 tons), trend 2013–2017 (*Source* SRM on SCA, 2018)

canal were congested by *Ever Given*. The container ship was refloated following a six-day salvage operation that involved a fleet of tugboats and dredging vessels. According to a study by Allianz, one of the world’s largest insurers, between 23 and 29 March, each single day the Suez stayed blocked could decrease global annual trade growth by 0.2–0.4% and cost \$6–10 billion, that is, the equivalent of \$400 million per hour.<sup>14</sup> On April 13, the ship was seized by a court in Ismailia after a request by the Suez Canal Authority (SCA). On July 7, 2021, Egyptian authorities released the ship after an unspecified settlement was reached. The incident emphasized the fragility of the global supply chain by triggering tangible damage to businesses across the globe. Rising political tensions raise worries that ill-intentioned actors could eventually disrupt a tightly interconnected economy by weaponizing its chokepoints in the future, or that keeping chokepoints open is “essential for global trade.”<sup>15</sup>

Another important contribution of the Suez Canal to Egypt’s economy is in terms of the energy sector. The city of Suez is the source of 23% of Egypt’s energy production. In addition, it houses several large oil and gas refineries that process oil and gas from the Sinai Peninsula and the Red Sea, from which both resources are transported to Cairo and the rest of Egypt. Despite having the largest refining capacity on the African continent, Egypt’s downstream infrastructure is aging, and the country currently has to resort to imports in order to meet its growing domestic demand for petroleum products. Upgrades and energy efficiency investments in its refineries are critical for Egypt to optimize utilization



rates, improve operational performance, reduce environmental impacts and achieve a sustainable balance in the energy sector.<sup>16</sup> The area around the Canal also has a contribution to agriculture, producing 1.8% of Egypt's rice and about 1% of its wheat.

Despite its economic importance and development efforts by the Egyptian government, the region surrounding the Suez Canal remains very much in Egypt's periphery. In 2017, the three Canal provinces were home to 2,832,000 residents—less than 3% of Egypt's population: 749,000 in Port Said Province (737,000 of them living in the city itself), 1,325,000 in Ismailia Province (56% city dwellers and 44% villagers), and 728,000 in Suez Province. The number of people employed in the Canal region is 857,000—approximately 2.8% of Egypt's working population—and unemployment in the region is a little bit lower than the national average, which was 7.8% in the third quarter of 2019.<sup>17</sup>

Another major upgrade undertaken in recent years concerns ports along the Suez Canal. The new port at Port Said, established in 2004 to serve as a hub for intercontinental trade, encompasses a territory of 35 square kilometers. The Egyptian Port Authority plans to expand the port, building 12-km docks and an industrial area that would spread over 85 square kilometers. El Sokhna Port, at the southern entrance to the Suez Canal, encompasses approximately 25 square kilometers; its largest docking area is 7 km long and 5.5 km wide. The El Sokhna Port serves the oil and gas fields in the area and is used to export petrochemical products, refined oil and gas, ceramics, ammonia, and sugar. In 2008, the port was bought by Amirti company, who announced its plan to build a new dock that will be able to handle an additional one million containers a year.

When the New Canal was opened (2015), Egypt proclaimed the formation of 42 auxiliary projects in its economic region aimed at maximizing its profit potential. Indeed, in accordance with the plans, Egypt needed to create growth engines in the Canal and to afford it with added economic value by turning it into a world hub of ports, logistics, cargo loading and unloading, repair and refueling of ships, and industrial and trade zones. The projects that were planned were supposed to provide some two million additional jobs for citizens of the cities along the canal and in the nearby area. More broadly, Egypt seeks to develop the Suez Canal Corridor as an economic zone whose economic activity it hopes will amount to a third of the country's entire GDP. To increase the Corridor's appeal to investors, Egypt reduced the corporate tax in the region by

two-thirds in comparison with the rest of the country. In 2014, the Egyptian Suez Canal Authority announced that a company listed in Bahrain planned to open a huge industry and logistics center around the Canal.<sup>18</sup> The Egyptian Army, a significant stakeholder in the Egyptian economy, is a local partner in this project through the Armed Forces Engineering Authority.

The largest investor in the Suez Canal Corridor, however, is China. According to *China Daily*, the planned economic zone will span 9.12 square kilometers with an investment of approximately \$2 billion in manufacturing, logistics, and direct funding.<sup>19</sup> During President El-Sisi's visit to China in December 2014, the two countries signed a memorandum of understanding for \$10 billion of Chinese investment in Egypt. In President Xi Jinping's visit to Egypt in January 2017, China committed itself to provide \$1.7 billion in funding to Egyptian banks and signed further deals for cooperation in electricity, space, infrastructure, trade, energy, finance, culture, media, technology, and environmental protection—with an overall worth of \$15 billion.

China's investments are driven by strategic considerations. Unlike its investment in the Gulf States, which has mostly to do with the supply of energy necessary for Chinese industry, China's investment in the Suez Canal is driven by the canal's geostrategic importance as part of the Belt and Road Initiative. The BRI, which includes massive overseas investment for the creation of new trade routes, has turned China into one of the main destinations and points of origin for cargo shipped through the Suez Canal. A report by the Italian Research Center for Economic Studies (SRM) has shown that the shipment of goods through the canal had reached record levels and is likely to increase further as a result of the BRI. Chinese shipping and investments are a mixed blessing: while they support Egypt's economy, they also provide China with significant political sway over the country. Beijing's so-called dynamic infrastructure and investment-dominant BRI initiative has a strategic component to it, one that a wary international community is mindful and concerned about. It is inherently dual-use and is capable of furthering both legitimate business activities and military operations. According to research done by the Center for Advanced Defense Studies (C4ADS):

The characteristics of China-funded commercial ports throughout the Indo-Pacific and the behavior of Chinese companies indicate that these

investments are not principally driven by the concept of win-win development as Beijing claims. Rather, the investments appear to generate political influence, stealthily expand China's military presence, and create an advantageous strategic environment in the region. The framework consists of the following six dimensions: the strategic characteristics of six analytical dimensions that are exhibited across China's Indo-Pacific investments-having: Strategic location, dual-use development model, notable communist party presence, significant financial control, limited transparency and unequal benefits.<sup>20</sup>

These strategic characteristics and behaviors fall along dimensions that, together, constitute a useful analytical framework through which to assess Chinese infrastructure investments globally. Egypt, for whom some of the components mentioned above can certainly be relevant, must take into account the strategic implications of the Chinese investment in the canal region, including possible control of the canal itself in extreme scenarios.

### MARITIME SECURITY AND THE SUEZ CANAL

The Suez Canal has been a lifeline for global commerce and for military power-projection since its inauguration in 1869. For nearly a century, it was the Royal Navy's vital link to most of the British Empire. Even today, the safe and secure passage of the Suez Canal serves many naval fleets and allows them to reach the areas of operation in the Arabian Sea, the Persian Gulf, and the Indian Ocean. The canal serves as a critical enabler of naval power, increasing the on-station time and its reaction to emerging crises. For obvious reasons, it is challenging to obtain data on naval movements in recent years through the Suez Canal, but a careful evaluation of their maritime strategies reflects the importance of the Suez Canal in this regard.

For decades, the US Navy has enjoyed the luxury of being able to transit the Suez Canal without interference, uninterrupted by turmoil in Egypt and wider regional instabilities.<sup>21</sup> Ships transiting from the United States East Coast to the Strait of Hormuz save over 3000 nautical miles, or about eight days in a journey, relative to traveling around Africa. In a round-trip 180-day deployment, a ship can save 16 transit days, increasing its on-station time while saving fuel. By transiting the Mediterranean, a ship can achieve presence near other key "hot spots" and provide the crew with morale-boosting visits to European ports.

Moreover, the Suez Canal facilitates the rapid movement of ships between the European and Central Commands. The ability to readily shift ships between the Mediterranean and Red Sea provides commanders with operational flexibility at a time of extensive regional threats in Libya, Ukraine, Syria, Iraq, Yemen, and Iran.

Just as the USS *Kearsarge* and USS *Ashland* came under rocket attack while docked in the port of Aqaba in 2005, a warship unable to make evasive maneuvers could come under attack from a variety of shore-based projectile weapons. While warships are built to withstand attack, a series of limited-scale strikes could inflict personnel casualties or damage the ship while it was confined to a predictable route in a narrow body of water. Shooting back would be difficult, both because the attackers could be concealed by urban terrain and because rules of engagement could preclude firing at Egyptian territory. Likewise, in the confined waters of the canal, suicide boats could also be used for attacks like the one against the USS *Cole* in 2000.

The Canal is no stranger to violence, some of which have even led to its extended closure in the past. In the unstable Middle East situation, there is also a possibility that a future Egyptian government could close the canal to US Navy traffic. While Egypt's current government is pro-American, from June 30, 2012, to July 3, 2013, it was governed by a popularly elected government of the Muslim Brotherhood, which was less aligned with the US aims. From an operational standpoint, the worst-case scenario would be if the canal were suddenly and unexpectedly closed to US warships (whether by terrorist threats or Egyptian policy) in the midst of a crisis.

There are two ways this risk could be addressed. One is to reduce the probability of losing access by working with national and local authorities in Egypt to improve internal security in the canal's vicinity. The other is to develop operational plans and even structure the fleet with the risk of losing Suez in mind: if forces cannot be rapidly re-tasked from one theater to another, or if on-station times are reduced, then changes in the employment of a mix of air and naval forces could be needed to achieve the same impact. Both approaches could enable the US Navy to achieve effective power-projection under all conditions.

Consequently, many have recommended that the United States should nevertheless retain its annual foreign military support (FMS) of \$1.5 billion to Egypt because of the US Navy reliance on the Suez Canal. Although the US Navy is divided between two arenas of action—the

Indo-Pacific command and the Atlantic command—it transports forces to the Arabian Sea and the Persian Gulf from the Atlantic as it travels through the Suez Canal.<sup>22</sup> One should bear in mind that China’s involvement in the development of the Canal Zone might give it control over communications infrastructure and more, that could be utilized when needed against US naval operations in the region.

The Russian Navy also considers the Suez Canal a strategic passageway for the deployment of its fleet, despite a bleak historical legacy that the Suez Canal evokes following the role that the Suez Canal played in Russia’s defeat in the Russia-Japan War of 1904–1905. At that time, the canal was a neutral zone under the protection of the British. The British prevented the Russian Baltic Fleet from using the canal on its way to the war in the Far East, which was one of the reasons for Russia’s defeat in that war.

In the twenty-first century, circumstances have dramatically changed, as did the Russian navy’s areas of operation. The complex geopolitics of the Indian Ocean has recently attracted a fair amount of attention. The sea lines of communication (SLOCs) crossing the Indian Ocean and linking Asia to the Persian Gulf and Europe have become critical components of world trade, and vital to the energy security of many countries in Europe and Asia. However, these shipping lines have been exposed to various transnational threats ranging from terrorism to piracy and their security has become a matter of concern. In response to these challenges, a growing number of European states have deployed their navies in the Northwest Indian Ocean to conduct anti-piracy operations. On June 2, 2011, the Russian Navy’s task unit consisting of Northern Fleet (NF) large ASW ship *Severomorsk*, Baltic Fleet (BF) tanker *Yelnya*, and Black Sea Fleet (BSF) sea-going tug *MB-304* passed through the Suez Canal and set a course for the Gulf of Aden. The task unit had begun to conduct a commercial shipping security mission in the Gulf of Aden and near the Horn of Africa and the Russian Navy command affirmed their plan for a regular presence in piracy-hazardous regions and considers the security of commercial shipping there a high priority and vital mission.<sup>23</sup>

The French Navy has increased its operations in the northeastern Indian Ocean and is in fact the second navy to hold a permanent presence in this area. The French national strategy for the security of maritime areas mentions that “[i]n the current security context, the latter route is by far the most sensitive (Suez Canal, Red Sea, Straits of Bab el-Mandeb

and Hormuz) in terms of accessibility and offers few alternatives, especially for our forces based in Djibouti or the United Arab Emirates.”<sup>24</sup> The strategy document emphasizes the Canal’s importance to France’s trade, by connecting the Mediterranean to East Asia, making it the main route used by containerized freight (70% of containers going to France come from the Far East) and concludes that “the widening of the Suez Canal will have little impact and the use of Arctic routes for intercontinental trade still remains a far-off prospect, given the difficulties and risks for reliable and sustainable operation.”<sup>25</sup> For France, the Malacca-Suez route remains important for containerized trade with East Asia, while the routes connecting the Gulf of Guinea and the Arabian/Persian Gulf remain strategic for energy transport.

To ensure and secure France’s trade with the Far East and the Persian Gulf states, France deployed two major interservice bases located in Abu Dhabi and Djibouti. Through these bases, France maintains a permanent military presence in the Persian Gulf and the Gulf of Aden. While the base in Djibouti is linked to the French colonial presence in the Horn of Africa, the one in Abu Dhabi is recent and was opened in 2009. These two bases reflect France’s ambition to maintain an operational capability near the crucial Straits of Hormuz and Bab el-Mandeb and along the sea lines between the Persian Gulf and the Mediterranean Sea through the Suez Canal, which are vital in terms of energy imports and global trade.<sup>26</sup> Therefore, secure and safe transit of naval forces through the Suez Canal is vital for the French Navy.

In January 1968, British Prime Minister Harold Wilson and his Defense Secretary, Denis Healey, announced that British troops would be withdrawn in 1971 from major military bases in South East Asia, east of Aden, as well as the Persian Gulf.

In 2014, the Foreign and Commonwealth Office announced that the UK would expand its naval facilities in Bahrain to support larger Royal Navy ships deployed to the Persian Gulf. The Strategic Defense and Security Review 2015 stated that new British Defense Staffs will be established in the Middle East, Asia Pacific, and Africa in 2016.<sup>27</sup> In the UK National Strategy for Maritime Security, presented to Parliament by the Secretary of State for defense in May 2014, Objective 4 is to assure the security of vital maritime trade and energy transportation routes within the UK Marine Area, regionally and internationally.<sup>28</sup> In late August 2017, the then-British Defense Secretary, Sir Michael Fallon, and his Omani counterpart signed a Memorandum of Understanding and

Services Agreement. According to the Ministry of Defense (MoD), this agreement will secure the use of facilities at the Duqm Port by the British Armed Forces, especially the Royal Navy, which is also strengthening and intensifying its operations in the Arabian Sea and the Gulf of Oman for the first time since its total evacuation of this area at the beginning of 1970s. As declared by the UK MoD, with Duqm as a base for HMS *Queen Elizabeth*, the newly built carrier will be able to project influence throughout the region, providing air power to support British and allied operations or delivering aid to areas in need.<sup>29</sup> Yet, the Royal Navy would also rely on its home facilities in Great Britain, increasing its dependence on a safe and secure passage through the Suez Canal.

China's primary interests, which drive the missions of the People's Liberation Army Navy, are national security and economic stability. Its maritime security concern is homeland defense. A secondary PLAN strategic maritime goal is protecting China's global economic interests. PLAN counterpiracy deployments to the Gulf of Aden began in December 2008 and are part of that second mission. Ultimately, China aspires to tie together the dynamic economies of the two extremities of the Silk Road, namely East Asia and Western Europe. The expansion of the Suez Canal in 2015 has doubled the traffic flow between the Red Sea and the Mediterranean Sea, allowing for the transit of larger vessels and reducing transit time between Asia and Europe, and raising the competitiveness and visibility of Mediterranean ports. Consequently, China is gradually sailing west, increasing offers to European partners under its grand strategy of the Belt and Road Initiative. This goal includes subsidiary objectives of enhancing capabilities to protect SLOCs and strategic chokepoints, countering piracy threats, and protecting commercial interests, which also necessitates safe and secure passage through the Suez Canal.<sup>30</sup>

China has continuously pushed for State-Owned Enterprises (SOEs) to operate in countries with less stable political environments. This strategy, while economically beneficial, has forced China to create contingency plans in order to properly protect its citizens working in these potentially dangerous and unstable political climates. In February 2011, China activated an emergency plan to evacuate its citizens from conflict-torn Libya by air, road, and sea. The first two ships, which together carried about 3800 people, evacuated China citizens from the Benghazi port in eastern Libya.<sup>31</sup> Such an event also demonstrates the PLAN's need to have a safe and secure passage through the Suez Canal. In July 2012, a Chinese

destroyer entered the Mediterranean Sea via Suez en route to the Syrian coast for naval maneuvers.

And last but not least—the Israeli Navy’s dependence on the Suez Canal. Since Israel’s withdrawal from the Sinai Peninsula in the wake of the peace treaty with Egypt, Israel also evacuated its naval base in Sharm el-Sheikh from which the Israeli Navy had in the 1970s deployed its patrols to the Red Sea and the straits of Bab el-Mandeb. Conducting such missions these days requires the Israeli naval forces to cross the Suez Canal. It was recently demonstrated that while Israel had covertly been attacking ships carrying Iranian oil and weapons through the Red Sea, opening a new maritime front in a regional shadow war. Israel has never publicly accepted responsibility for these attacks against Iranian ships bound for Syria, but media reports and informal disclosures had essentially confirmed its role, and Iran’s hand in recent attacks against Israeli ships is clear as well.<sup>32</sup> Most of the ships were carrying fuel from Iran to its ally Syria, and two carried military equipment.<sup>33</sup> The Israeli Navy’s free passage in the Suez Canal is essential for carrying out such operations as well as for protecting the freedom of navigation in the Red Sea and the Gulf of Aden.

Although the peace treaty between Israel and Egypt guarantees free passage for the Israeli Navy through the canal, one cannot ignore volatility scenarios in Egypt, analogous to what happened during President Morsi’s regime, when the Egyptian authorities would deny passage to Israeli Navy ships in the Suez Canal.<sup>34</sup> As one-third of Israel’s trade with the Far East is conducted through the Red Sea, a situation of this kind must be planned for, even if the probability of it happening today is low.

## ALTERNATIVE TRADE ROUTES: AN EMERGING CHALLENGE

Melting Arctic ice caps are likely to increase traffic and the commercial viability of the Northern Sea Route. One study, for instance, projects “remarkable shifts in trade flows between Asia and Europe, diversion of trade within Europe, heavy shipping traffic in the Arctic and a substantial drop in Suez traffic.”<sup>35</sup>

Russia and China announced their intention to build the critical infrastructure needed to support the Northern Sea Route, which connects northeastern Asia with northern Europe via Siberia. Attempted for the first time in 1773 by HMS *Racehorse* and HMS *Carcass*, the Northwest



Passage was first navigated in 1878–1879 by Nils Adolf Erik Norden-skiöld. However, the difficulty of the passage made it unfeasible to ship until recently. In 2013, a peak year for the route, only 71 ships navigated it, the majority of them (46) of Russian origin. Compared with 49 ships navigating daily through the Suez Canal, this is insignificant in terms of shipping (Fig. 5).

This trend may now be changing due to the effects of climate change. In August 2017, the first ship traversed the Northern Sea Route without the use of an icebreaker. In 2018, Maersk Line sent the new “ice-class” container ship *Venta Maersk* through the route to gather data on its

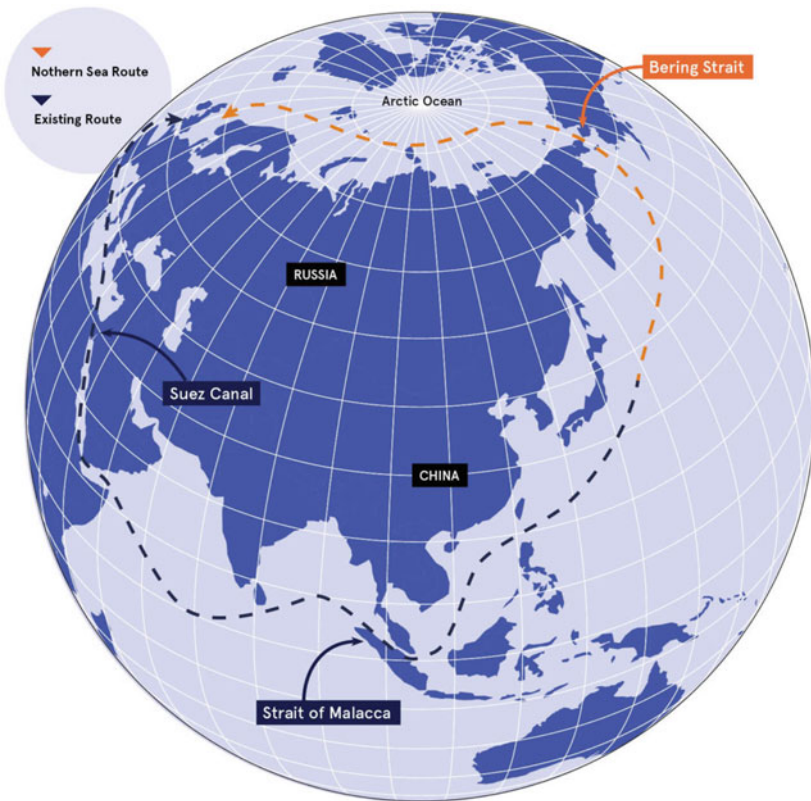


Fig. 5 The northeastern Arctic route and the route through the Suez Canal

operational feasibility, though the company does not currently view it as commercially attractive.<sup>36</sup>

If commercial shipping through the Northeastern Passage becomes a viable option, it would make maritime navigation from Europe to Asia significantly shorter than what is currently provided by the Suez Canal (Table 1). The average benefit assessment—considering the lower expenditure due to distance and time—is around 30–45% in bulk carrier comparison. The development of the Northeastern Passage is therefore likely to present a major challenge for the Suez Canal and its revenues.

In their study, Eddy Bekkers, Joseph Francois, and Hugo Rojas-Romagosa developed a model that attempts to predict the outcomes of the commercial use of the Northern Sea Route. They conclude that “if ultimately made possible by further melting of the Arctic icecap—[the Northern Route] will represent a major development for the international shipping industry. Roughly 8% of world trade is transported through the Suez Canal and we estimate that two-thirds of this volume will be re-routed over the shorter Arctic route.”<sup>37</sup>

Russia makes a territorial claim to a significant part of the Northeastern Passage and is investing significantly in its development. China and Russia have jointly agreed to develop a Northeastern Passage plan referred to as the Ice Silk Road. Chinese and Russian companies are collaborating on infrastructure development, oil and gas exploration, and tourism in the arctic region. The Chinese Shipping Company COSCO has concluded several experimental navigations in the arctic waterways, and the Ministries of Transportation of both countries are updating their policies and legislation concerning the development of the Arctic region.

**Table 1** Sailing distances between Asia and Europe through the NEP (in nautical miles)

<i>From</i>	<i>To Rotterdam, via:</i>				<i>Difference between Suez and NEP (%)</i>
	<i>Cape of Good Hope</i>	<i>Suez Canal</i>	<i>NEP</i>		
Yokohama, Japan	14,448	11,133	7010		37
Busan, South Korea	14,084	10,744	7667		29
Shanghai, China	13,796	10,557	8046		24
Hong Kong, China	13,014	9701	8594		11
HoChiMinhCity, Vietnam	12,258	8887	9428		–6

The issue has also been raised in the International Conference for the Development of Russia's and the Russian Commonwealth's Continental Shelf held in Moscow in 2019. These developments should be a cause of concern for Egypt with regard to the continued operation of the Suez Canal as the main shipping route between Europe and Asia.

### EGYPT'S APPROACH TO SECURING THE SUEZ CANAL

The Suez Canal is a strategic international waterway, connecting the Red Sea and the Mediterranean. It transports 8% of the world's oil (approximately 4.6 million barrels a day) and 12% of global Liquefied Natural Gas (LNG), making it crucial for the global energy market. The prospect of a terrorist attack against ships passing through the Canal, which would create a disruption of trade and shipping, is therefore both a realistic and severe threat. This is especially true given internal instability in Egypt following the 2011 ousting of Housni Mubarak and the 2013 counter-coup orchestrated by the military, led by President El-Sisi. The Sinai Peninsula especially provides a safe haven to many dangerous terrorist groups, some with links to global Jihad, and all openly hostile to the Egyptian government and its Western allies. An attack on any large transport vessel that results in its sinking would probably close the canal to all traffic for days, possibly even weeks. Even if militants failed to sink a major vessel, a waterborne suicide bomb attack on an LNG, oil tanker, cruise or container ship transiting the Suez Canal—a tactic used against the USS *Cole* in 2000 and the M/V *M. Star* in 2010—would have immediate effects on the use of the Suez Canal as a major shipping route.<sup>38</sup>

On November 12, 2014, four boats ambushed an Egyptian Navy patrol boat near the Suez Canal, which raised concerns about the prospects of a terrorist attack against container ships along the 120-km waterway. Since its inauguration in August 2015, many ships from around the world navigated the expanded canal under heavy security escort, both by sea and air.

The challenge for the Egyptian Navy is ensuring safe and secure passage through the Suez Canal. This includes securing ships and preventing terrorist infiltration, but also doing so in a way that does not hamper or delay regular shipping. The expansion of the Suez Canal has made this task more challenging by increasing both the overall size of the area to be defended and the number of ships passing through it. While the Egyptian military is aware of this threat, it has not done enough to mitigate

it, focusing instead on ad hoc responses against militant groups and individuals operating from the Sinai Peninsula. In April 2019, the German Parliament approved a 2.3 billion euro guarantee for the sale of 6 Meko A200 frigates to the Egyptian Navy, which can be used to strengthen the Canal's defenses.<sup>39</sup>

## CONCLUSIONS: EGYPT'S CHALLENGES AND OPPORTUNITIES IN THE SUEZ CANAL

The stability of the Egyptian regime is the most important factor for any economic benefit provided by the Suez Canal, as well as for any efforts to secure it. Stability is the basis for investor confidence in any infrastructure projects along the Canal, as well as for maintaining the regular flow of shipping. Instability also serves as fertile soil for terrorism, piracy, and other phenomena that threaten the security and the safety of the Suez Canal.

In the security aspect, it is crucial for the Egyptian Navy to ensure a "sterile" environment around the Canal, preventing any physical risk to shipping and navigation. This in turn requires accurate intelligence, sufficient ships and weaponry, and the development of an adequate doctrine to deal with the unique security characteristics of the Suez Canal.

In economic terms, Egypt should continue to develop the economic zone around the Canal, creating investment and employment; given its strategic and economic importance, Egypt should strive to turn this region from periphery to center. At the same time, Egypt should be aware of the possible results of Chinese investment in the Canal Zone and ensure that these investments do not result in a situation where the Chinese will have control over the Canal's operation. More broadly, a larger part of Egypt's revenues from the Suez Canal and its surrounding economic zone should be directed toward improving the economic situation in the rest of the country. The expected competition from the Northeastern Passage in the Arctic requires Egypt to be able to demonstrate greater efficiency and profitability to retain shipping.

Egypt's efforts to secure shipping should not be limited to the Suez Canal alone. The Gulf of Aden and the Red Sea are afflicted with many security threats, most notably piracy, which decrease the attractiveness of shipping through the Canal. Egypt would benefit from acting to deal with this threat, both unilaterally and as part of a coalition of like-minded nations. Finally, while Chinese investment in the Suez Canal and

in Egypt's economy more broadly is definitely profitable, it is important to remember that such investment is not free and includes significant political and strategic dimensions.

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