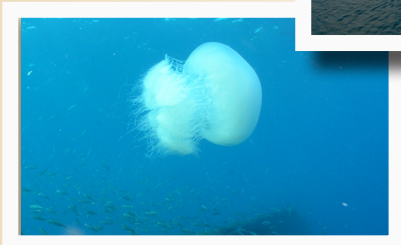
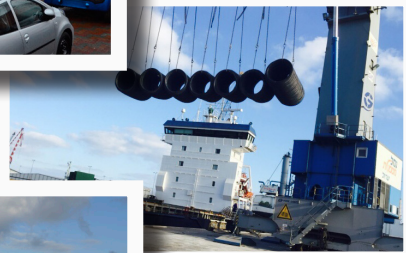
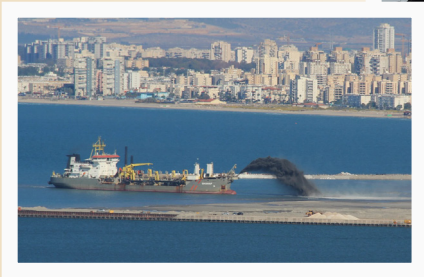


MARITIME STRATEGIC EVALUATION FOR ISRAEL 2018/19

Chief editor: Prof. Shaul Chorev

Edited and produced by: Ehud Gonen



Executive Summary

This is the fourth **Maritime Strategic Evaluation for Israel** published by the Maritime Policy & Strategy Research Center since 2016 when the Board of Haifa University approved the establishment of the Center. The Center's goal is to carry out research in regional security and foreign policy, the movement of cargo, people and ideas, law, energy and the environment, and to analyze their effect on Israel's national security.

The Center has set itself the goal of carrying out academic research as part of Haifa University's effort to take a leading role in maritime research on a national level, alongside its desire to become a knowledge center for policy makers, public leaders and the Israeli public. An additional goal is to become part of the public discourse by publishing policy papers, organizing conferences and conduct media interviews. The Center also collaborates with leading think tanks in the maritime domain worldwide, as well as being involved in the training of young researchers in the field of maritime strategy.

One of the objectives of the Center is to publish the annual **Maritime Strategic Evaluation for Israel** which focuses on the Eastern Mediterranean and the Red Sea, though it also includes a review of global developments and trends in the maritime domain that are likely to have an influence on the Eastern Mediterranean region and on Israel in particular. The Maritime Strategic Evaluation for Israel includes recommendations to various policy makers, primarily those in Israel.

In 2017, Haifa University approved the integration of the Wydra Institute for Shipping and Ports as a division within the Center, in the recognition of the importance of shipping and ports to Israel's security, in the broadest sense of the term.

In the 2018-2019 academic year, an **academic program was introduced for a graduate degree in Political Science with a minor in National Security and Maritime Strategy** in the Department for International Relations within the School for Political Science. The program adds another layer to the commitment that Haifa University has taken on itself to take a leading role in maritime studies in the framework of the Mediterranean Sea Research Center. The goal of the program is to provide its participants with knowledge, analytical tools and new research paradigms, as part of the adoption of a broad, multi-disciplinary approach that combines economic, social, environmental and technological dimensions, as derived—at least in part—from the emerging globalized world. These are closely tied to the maritime domain which is becoming an increasingly important component of Israel's resilience and security.

The importance of the maritime domain as a component within Israel's resilience has not yet gained sufficient recognition among the State's leaders or in Israeli public opinion. This is not a phenomenon that is unique to Israel and even in the US, which has a vigorous maritime tradition, it is felt that before formulating a maritime strategy it is necessary to achieve Maritime Domain Awareness.¹ In the case of Israel, the main characteristics that require the attention of leaders and the public are the following: Israel's unique geostrategic position in the Eastern Mediterranean; the high proportion of the population that lives near the Mediterranean coast; the discovery of offshore gas fields; Israel's complete dependence on seaborne trade (imports and exports); the growing share of desalinated water within Israel's water supply; and the sea as the only possible location for new infrastructures and the evacuation of existing hazardous facilities from population centers. These characteristics have essentially made Israel into a "land island" that is totally dependent on the sea. Despite its growing dependence on the sea, the lack of maritime awareness in general leads to reactive policy, as occurred in the case of the natural gas discoveries within Israel's maritime territory and the geopolitical implications of the development of Israel's ports. If there had been maritime awareness on these issues and if there had been an appropriate policy-making process, Israel's interests in these areas would have been defined ahead of time and would have been translated into a grand maritime strategy, as has occurred in many other coastal nations during the past decade.

Important support for the effort to increase the awareness of the Israeli public and in particular decision makers in the public sector has been provided by Israeli President Reuven Rivlin, who was presented with the annual report of the Maritime Policy & Strategy Research Center on June 10th 2018 by Professor Ron Rubin, the President of Haifa University; Professor Shaul Chorev, the Head of the Maritime Policy & Strategy Research Center; and General (res.) Ami Ayalon, the Center's Chairman of the Board. At the meeting, President Rivlin was presented with the report, which reviews a wide variety of topics related to Israel's maritime domain and which analyzes the developments during the past year. Professor Chorev emphasized the importance of the maritime domain to Israel's resilience and the President of the University and General (res.) Ayalon described the commitment of Haifa University to advancing academic studies related to the maritime domain.

1 Maritime Domain Awareness (MDA): "The effective understanding of anything associated with the maritime domain, all areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterway. MDA encompasses all maritime related activities, infrastructure, people, cargo, and vessels and other conveyances that could impact the security, safety, economy, or environment of the country".

They also mentioned the establishment of the School for Marine Sciences at Haifa University and the leading role played by the Mediterranean Sea Research Center of Israel. President Rivlin said in response that he appreciates the efforts of Professor Chorev, Professor Rubin and General (res.) Ayalon to deepen awareness among the Israeli public and recognition of the importance of the maritime domain to Israel's security and resilience. He also welcomed the establishment of the Maritime Policy & Strategy Research Center and encouraged its staff to continue their research, to create a knowledge center in this sphere for the citizens of Israel and to encourage public discourse and involvement in these areas.



With respect to methodology, it was correctly decided to carry out this evaluation in relation to the existing maritime policy and strategy and indeed the Director of Planning in the Ministry of Finance recognizes the need to formulate policy in the maritime domain that takes into account the “development needs and competition among uses that is expected in Israel’s maritime domain in coming years.” The Planning Branch has recently taken a leading role in the “**Maritime Domain Policy – Israel**” project. The Ministry of Finance has mandated “the formulation of planning policy for the Mediterranean domain, the creation of a national database on environmental,

technological, engineering and legal topics related to the maritime domain and the creation of tools for integrated management, coordination between all players active in the maritime domain and cooperation between them.”² The Maritime Policy & Strategy Research Center has participated in a number of meetings held on this subject by the Planning Authority and recognizes the value of the work done so far, but wishes to again emphasize that without a definition of Israel’s interests and goals, it is not possible to progress towards a policy document. Thus, in the existing draft there are various issues that cannot be dealt with in the absence of a formal process like those which have taken place in other countries. These issues will be described in the final section of this report entitled “Recommendations to Policy Makers”.

Another government institution that the Center is in contact with regarding the importance of a maritime policy and strategy to Israel’s resilience and security is the **National Economic Council in the Prime Minister’s Office**. The Council has recently been involved in the preparation of a study whose purpose is to prepare a strategic, economic and social evaluation that will be presented to the next government of Israel (the 35th). The Maritime Policy & Strategy Research Center responded to the RFI issued by the National Economic Council in May 2017 whose purpose was to advance a **process of expert consultation** in which experts would contribute their knowledge and experience to the evaluation by means of insights into trends, main characteristics and strategic issues.³ Since it is the opinion of the Center that one of the main issues facing the next government will be the **definition of Israel’s interests and policy in the maritime domain**, staff members from the Center met with the Council’s staff to propose that they participate in the identification of these interests and in the formulation of policy on issues such as moving infrastructure facilities to artificial islands, the formulation of a security policy for offshore energy facilities, and others.⁴

The **current annual report** includes a variety of topics, some of which are new and some of which appeared in previous reports, in view of the developments during the past year. As in previous years, **the report was written** by researchers at the

2 Ministry of Finance, Planning Branch, background to the preparation of the policy document, on the Ministry’s site: <http://www.iplan.gov.il/Pages/OpenTerritory/merchav-yami/allreka/reka.aspx>

3 Prime Minister’s Office, the National Economic Council, Formulation of a Strategic Socioeconomic Evaluation for the 35th Government.
<http://economy.pmo.gov.il/CouncilActivity/Strategy/Pages/gibosh35.aspx>

4 The Maritime Policy & Strategy Research Center also responded to an RFI for the “Formulation of a Program for the Design, Advancement and Achievement of Regional Cooperation Goals”.

Maritime Policy & Strategy Research Center, research fellows of the Center and other experts—some from Haifa University—with unique knowledge on these subjects.

Maritime Domain Blindness is not unique to Israel. We chose to include an article that describes the phenomenon and presents possible ways of reducing it on the national level or alternatively bringing about Maritime Domain Awareness.

In 2016, **Haifa University together the Hudson Institute** in Washington established a committee of well-known Israeli and American experts in the fields of security and energy as part of the creation of a joint framework to carry out research on the Eastern Mediterranean. In August 2016, a comprehensive report was published on these two topics as part of the Center's Strategic Evaluation for 2016. In the summer of 2018, the committee met in a somewhat different format with the following goals: to examine the "The Character of Maritime Warfare" in the region in coming decades; to analyze the current strategic environment and to predict the main developments expected in it; to discuss whether the US and Israel have sufficient capabilities to deal with these developments; to examine ways in which the governments of Israel and the US can cooperate in dealing with these challenges and opportunities; and finally to recommend new policy and strategy approaches to security in the Eastern Mediterranean. The final report of the committee has not yet been published, but the discussions have emphasized the lack of government policy with regard to Chinese investments in Israel and their effect on national security in the broadest sense of the term. The committee subsequently published a position paper on the topic and parts of it were even quoted in the media.

The current annual report opens with a description of the **changes and trends in the global maritime domain**. The most important of them is the **deterioration in relations between the US and its allies on the one hand and China and Russia on the other**. The US views China and Russia as revisionist powers that are seeking to establish "a world consistent with their authoritarian models."⁵ In addition to this trend, there are signs of an increase in the number of world leaders that **reject liberal democratic values** and are seeking complete control of politics, the economy, laws and the media. These leaders are liable to create a far different future in which the globalized world, the hi-tech industries, the knowledge and enlightenment that have developed in recent decades will find themselves back in the **Age of Authoritarianism**. The

5 Mike Eckel, Pentagon Chief Calls Russia, China 'Revisionist Powers', RadioFreeEurope Radio Liberty, January 19, 2018, <https://www.rferl.org/a/pentagon-mattis-calls-russia-china-revisionist-powers/28985632.html>

trend of a gradual shift in the geopolitical, economic and geostrategic center of gravity from the West to East and Southeast Asia is continuing and is the result of the increasing importance of this region in global economic development. Alongside these developments, it is increasingly understood that this trend is accompanied by negative indicators in the ecological system, such as pollution and emissions of greenhouse gasses. A number of countries have tried to redefine their interests in the maritime domain, which can be seen in the rising power of China as a global power that is trying to expand its economic waters in the South China Sea while challenging other countries in the region; in China's increased presence in the maritime domain; and in the US reaction to this threat. The renewed race to control the Arctic Ocean and the goals Russia has set itself in this region also reflect this trend.

The report then goes on to evaluate **the changes and trends** in the Middle East during 2018. The **Persian Gulf**, which is also known as the Arab Gulf, has in recent years experienced an accelerated military buildup as part of the shift in its geopolitical status from a peripheral region to one that is central to global security. This process was driven by both the countries bordering the Persian Gulf and the superpowers which have achieved control and influence there. We chose to devote a separate chapter to this subject in the report.

Next, we decided to describe developments during the past year in areas that were reviewed comprehensively in previous reports, such as the conflict in the **South China Sea**; the maritime aspects of a **possible slowdown in globalization** due to US protectionism in trade and the possible effect of this slowdown on global shipping and national fleets; and also recent developments in the stability in the southern Red Sea and the Bab el Mandeb Strait, with reference to the maritime activity of the **Houthi rebels in Yemen**, who are supported by Iran.

The strategic aspects of exporting natural gas from Israel to other countries is a topic that is occupying the government's attention. The Tsemah Committee, which was created in 2012, recommended the export of about 50 percent of Israel's gas reserves. This led to intense public criticism which called for a larger proportion of the gas reserves to be kept for Israel's use and for examining the question of gas exports with extra caution. The export of gas from Israel is a complex issue due to the country's geostrategic location relative to potential customers and due to the high cost of transporting gas to remote markets. Accordingly, the export of gas from Israel remains a contentious topic. We present a chapter that looks at its regulatory aspects and the use of royalties.

In the chapter that discusses energy topics, we decided to include a summary version of a study carried out by one of the Center's researchers, which proposes a **multidisciplinary approach to deciding on the location of the offshore energy production facilities**. It is well-known that Israel's maritime domain serves the needs of many sectors. It also constitutes the main conduit for trade with the rest of the world and there are those that view it as a land reserve that can be used for infrastructure facilities and perhaps even urban development. In addition, it serves as Israel's "blue lung" that includes an open landscape and a huge space for leisure activity. With the discovery of huge reserves of offshore natural gas in Israel's Exclusive Economic Zone (its "economic waters"), a new reality emerged that required an optimal balance between the exploitation of the gas reservoirs for the production of electricity and their use in transportation and industry on the one hand and export of part of the gas reserves to other countries, on the other hand, in addition to avoiding actions that would be to the detriment of public welfare and the ecological system. As mentioned, this chapter proposes an approach that tries to balance between the various components already mentioned and will serve decision makers when they are asked to approve a plan for the establishment of maritime infrastructure facilities for the production of energy from the sea.

The chapter dealing with foreign navies in the Eastern Mediterranean focuses this year on three of them: **the Russian navy, the Iranian navy and the US navy**. The Russian navy is continuing to consolidate its foothold in the Eastern Mediterranean as part of the importance attributed by the Russians to its Black Sea fleet (which is also its Mediterranean fleet). This includes the bases it is using in Syria for this purpose. The importance Russia attributes to development in the Arctic Ocean (including the Northwest Passage), whose main repercussions are ecological, has implications for the Chinese and their Maritime Silk Road and for the Egyptians, whose income is to a large extent based on revenues from the passage of ships through the Suez Canal. **The Iranian navy** continued to make clear its desire for a foothold in Syria's ports for its warships in the Eastern Mediterranean, and its continued attempt to strengthen its foothold in Syria is an important component of this approach. **The US navy** reduced its forces and presence in the Mediterranean as part of its shift to Southeast Asia (a policy called Pivot to Asia or Rebalancing). The desire of the US government to meet the demands of the navy for a buildup to 355 vessels has encountered budget problems and the constraints of the shipyards' ability to build that many ships. The chapter surveys the status of the program to increase the US navy's number of vessels and the difficulties it is encountering.

The subject of **artificial islands** for the evacuation of areas on dry land and the reduction of environmental risks from factories that handle hazardous materials has been on the public agenda for more than two decades. There have been a number of government decisions in this area but unfortunately none have been implemented as yet. Over time, the relevant technologies have developed and changed. Examples include the development of a FPOF (Floating Production Operation Facility) for the production of natural gas; designated vessels that can serve as a floating desalinization plant; etc. This chapter will survey the developments in this area, from the perspective of both the relevant projects and the introduction of new technologies that require a “timeout” in order to examine the validity of decisions made with regard to meeting the need for artificial islands.

In the area of **shipping and ports**, we decided this year to present a number of topics: **first**, the experience gained from the operation of the Israel Shipyards Port as a private port; **second**, an examination on the strategic level of the bulk transport market (which constitutes about one-half of Israeli trade). The chapter also includes an annual review of the activity in Israel’s ports and the regulatory structure of the ports. **In the area of shipping**, the report presents the position that looks at the government policy regarding the preservation of Israeli shipping capabilities. It is the Center’s position that if the current situation with respect to training of manpower and the manning of essential positions in the commercial fleet continues, the State may not manage to supply essential goods to the Israeli economy in a time of crisis. In view of the current situation and the integration of the Wydra Institute within the Maritime Policy & Strategy Research Center, we decided to present a brief biography of the late **Dr. Naftali Wydra**, one of the founding fathers of Israeli shipping.

In the area of protecting the marine environment in the Eastern Mediterranean, we chose this year to review three issues: the **first** is pollution of the Eastern Mediterranean; the **second** is the multiplication of jellyfish swarms that constitute a threat to desalination plants and power plants; and the **third** is the “The Gift of the Nile – Israel’s Marine Sand Resource: Sources, Uses and Quantities.” The article describes the maritime sources of sand along the coast of Israel, its physical characteristics and its main uses in the past and in the present.

The topic of **cyber warfare in the maritime domain** was evaluated and discussed in depth in the previous report. The dramatic developments in communication and information technology in recent years has affected the way in which state and non-state players operate in the marine domain. These technologies have created

opportunities but also challenges in the military and commercial spheres and even in criminal activity. The previous report stated that the civilian maritime domain (shipping, ports and marine infrastructure) has not been given priority in cyber protection. The report also recommended a number of measures that can improve the situation. Accordingly, this year's report reviews the developments since the publishing of the previous report.

The conclusion of the annual Maritime Strategic Evaluation for Israel attempts to create an evaluative foundation based on a number of parameters that can be used in coming years to evaluate Israel's situation in this domain.

The report itself includes policy recommendations to decision makers in the political echelons and in the senior bureaucracy. These recommendations were considered important by the writers of this report and in their opinion can assist in dealing with the challenges outlined in the report.