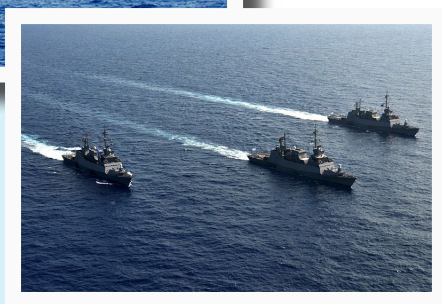
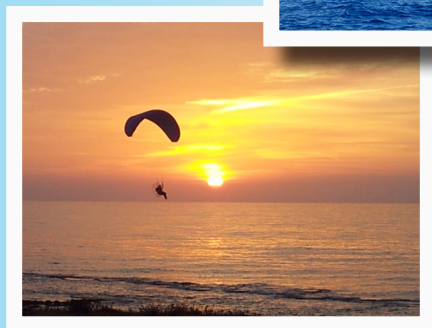
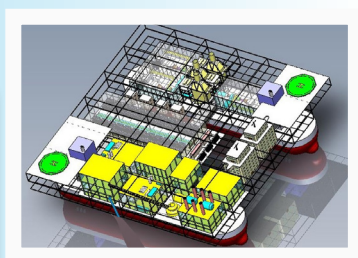


# MARITIME STRATEGIC EVALUATION FOR ISRAEL 2016

Chief editor: **Prof. Shaul Chorev**

Edited and produced by: **Ehud Gonen**





מרכז חיפה למחקרי מדיניות ואסטרטגיה ימית  
Haifa Research Center for Maritime Policy & Strategy

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April 2017

### ***Thanks and appreciations***

The Haifa Research Center for Maritime Policy and Strategy wishes to thank Dov (Berle) Shafir for his generous support which made possible the writing of this document.

The Maritime Strategy Evaluation report, including the insights and recommendations included in it, are based on the personal experience and professional judgment of the authors, but do not necessarily represent the official position of the Center or of the Haifa University.

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ISBN 965-7437-58-2

Printed by University of Haifa

## **Haifa Research Center for Maritime Policy and Strategy**

The center is developing knowledge in maritime strategy, focusing on Israel's maritime surroundings: the Eastern Mediterranean and the Red Sea. The center does so in five core areas: (1) regional security and foreign policy, (2) the mobility of goods, people and ideas, (3) law, (4) energy (5) and the environment.

The center was established in response to the of rising significance of the maritime domain both globally and in our region: the emerging strategic maritime competition between the United State and China, the expansion of exclusive economic zones (EEZ) and the crucial role of the seas in the international economic system both as a source of economic activity as well as serving as the world's main trade route. Our immediate environment saw a similar rise in the significance of the seas including the oil discoveries in the eastern Mediterranean, the evolution of the Israeli navy into a national strategic arm, Israel's total dependence on sea trade, and the growing realization that future development of national infrastructure may have to be done in the sea as land is becoming scarce.

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## Executive Summary

In early 2016, the Board of Governors of the University of Haifa approved the establishment of the Haifa Research Center for Maritime Policy and Strategy,<sup>1</sup> with the goal that it would carry out research on issues of regional security and foreign policy, the flow of goods, people, and ideas, law, energy and the environment, from the perspective of their effect on Israel's national security.

The Center has set itself the objective of carrying out academic research as part of Haifa University's desire to play a leading role in national maritime research, alongside the effort to serve as a **center of knowledge for policy makers, public figures and the citizens of Israel** and to become part of the public discourse. This includes the publication of position papers, the hosting of symposiums and presence in the media. In addition, the Center has begun the process of creating research collaborations with leading research centers abroad and of training young researchers in a variety of fields related to maritime strategy.

The importance of the maritime domain as a component in Israel's security has not yet been fully recognized by the leaders of the State or by public opinion in Israel. This phenomenon is not unique to Israel and even countries with a clear maritime tradition, such as the US, feel that before formulating a maritime strategy, it is first necessary to achieve Maritime Domain Awareness.<sup>2</sup> In the case of Israel, the most important factors that the government and the public should be aware of are the following: the unique geostrategic position of Israel, the high proportion of the population living near the Mediterranean coast, the discovery of offshore natural gas reservoirs, the complete dependence of Israel on maritime trade (both for exports and imports) and the ocean as the only location for new infrastructures and as the destination for dangerous infrastructures to be removed from population centers. These characteristics essentially make Israel an "island surrounded by dry land" that is totally dependent on the sea. Nonetheless, the

- 1 Maritime strategy as opposed to naval strategy includes, in addition to the sea itself, all of the issues related to this domain as well as whoever sails in it or lives near it. It includes, among other things, diplomatic aspects; defense and safety of commercial ocean shipping; fishing; use, preservation, regulation and defense of exclusive economic waters; coastal defense; border security; protection of islands; and also participation in regional and international organizations.
- 2 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".

lack of awareness of these issues has for the most part led to a reactive policy, as occurred in the case of the discovery of natural gas within Israel's territorial waters and the geopolitical significance of developing Israeli ports. If there had been sufficient awareness of these issues and an in-depth process of policy formulation, then Israel's interests in this domain would have been clearly defined ahead of time. These interests would have then been translated into a maritime strategy, as has occurred in many coastal nations during the last decade.

One of the Center's goals is to **publish an Annual Maritime Strategy Evaluation** that focuses on the region of the Eastern Mediterranean and the Red Sea, but also includes an examination of global trends and developments in the maritime domain, which are likely to have an influence on the Eastern Mediterranean in general and on Israel in particular. The previous report was published in December 2015 and was praised for its high level of analysis and its broad scope.<sup>3</sup> Essentially, this report lays the foundation for the annual evaluation which relates primarily to changes that have occurred and trends that have appeared and provides recommendations to decision makers, primarily those within the government of Israel.

**From the viewpoint of methodology**, it would have been correct to carry out this evaluation relative to existing maritime strategy and policy, but in their absence the Haifa Research Center for Maritime Policy and Strategy has decided to formulate a number of assumptions with respect to Israel's national goals and policies, and these will serve as the basis for writing an annual evaluation on the subject. Therefore, on those subjects where there is no policy or in cases where we are not informed of such as policy (such as, for example, shipping and cyber warfare), we have made recommendations as to which areas require policy formulation or revision.

Participating in **the writing of this report** were researchers of the Haifa Research Center for Maritime Policy and Strategy, its research fellows and other individuals at the University who have expertise in this field.

During the course of 2016, **Haifa University in collaboration with the Hudson Institute** in Washington established a committee of American and Israeli experts with reputations in the fields of security and energy as part of the establishment of

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3 Dr. Ehud Eran and Dr. Aviad Rubin, "Evaluation of Israel's Maritime Strategy: Annual Report 2015", Haifa Research Center for Maritime Policy and Strategy, 2015.

a joint consortium for carrying out research on the Eastern Mediterranean.<sup>4</sup> The committee met in full plenum on two occasions in order to review and discuss the latest developments in these areas and in August 2016 it published a comprehensive report. In view of the reputations of the committee members in the areas of security and energy, we saw fit to include some of their insights and recommendations in this document.<sup>5</sup> The full report can be found on the site of the Haifa Research Center for Maritime Policy and Strategy and can be perused separately.<sup>6</sup>

The Maritime Evaluation for Israel opens with the chapter "**Transformation, Change and Trends in the International Maritime Domain**". Two main factors affect these trends: **globalization and the Exclusive Economic Zone**. The ongoing process of globalization, which is reflected in the increased flow of goods, information and people from one nation to another and the integration of economies, has led to increasing international interest in the strategic and security aspects of the maritime domain. The expansion of the Exclusive Economic Zone, along with the technological development that is facilitating the discovery and exploitation of offshore resources, has led a number of countries to redefine their interests in the maritime domain, including the adoption of a new maritime strategy. This is reflected in, among other things, the growing power of China, which is seeking to expand its Exclusive Economic Zone in the South China Sea and is posing a challenge to other nations in the region. China is expanding its overall presence in the maritime domain, leading to an American response to what they view as a threat. The renewed race for control of the Arctic Ocean and the objectives that Russia has set for itself in this region are also a reflection of this trend.

The report then looks at the **Transformation and Changes** that occurred in 2016 in the area of the Eastern Mediterranean and the Red Sea, while examining the implications of what is happening in the Indian Ocean and the Persian Gulf, and considers the threat of maritime terror against Israel. The political instability in the Arab world (Syria, Libya, Lebanon, Yemen and Iraq), alongside the nuclear agreement signed between Iran and the superpowers in July 2015, continued to drive the major events in the Eastern Mediterranean and the Red Sea and they

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4 Commission members: Co-Chair Prof. Shaul Chorev, Co-Chair Senator Mary Landrieu, Admiral (ret.) Ami Ayalon, Dr. Seth Cropsey, Charles Davidson, Douglas J. Feith, Dr. Arthur Herman, Ambassador Ron Prosor, Admiral (ret.) Gary Roughead and Prof. Eytan Sheshinski.

5 Report of the Commission on the Eastern Mediterranean Sponsored by University of Haifa and Hudson Institute, August 2016.

6 At the website of Haifa Research Center for Maritime Policy and Strategy: <http://poli.haifa.ac.il/~hms/images/publications/HaifaHudsonReport.pdf>

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are described in this chapter of the report. It is worth emphasizing the impressive increase in the presence of Russia's Black Sea fleet in the Eastern Mediterranean, in contrast to the reduced presence of the US Sixth Fleet. There are a number of researchers who claim that the objective of the Russian strategy is to one day transform the Eastern Mediterranean into an area that is inaccessible to the US Navy and its allies (known as a policy of Anti-Access/Area-Denial). If indeed they are successful, this is likely to limit the access of the US and its allies to the Suez Canal, the Black Sea and the resource-rich Eastern Mediterranean, which will be subject to the hegemony of an increasingly aggressive Russian regime.<sup>7</sup>

The report then examines various aspect of the **discovery of offshore natural gas fields** and the opportunities they provide to Israel with respect to energy independence and perhaps even the possibility of it becoming a significant exporter of gas to its neighbors in the Eastern basin of the Mediterranean, or even to countries in Europe. It is predicted that in the coming decade the production of gas will produce profits of over \$270 billion for Israel, half of which will accrue to the public by way of taxes and royalties.<sup>8</sup> The natural gas resources will strengthen the Israeli economy, ensure its energy independence, reinforce its diplomatic position and present new challenges to its army. Unfortunately, as a result of the drawn-out regulatory process and the major drop in global energy prices, Israel lost out on profits it would have received from the natural gas fields had they been developed in a timely manner. Another negative outcome of this long process is the message to future investors who might be interested in developing these resources.

The discovery of natural gas in Israel's economic waters at the beginning of the decade and the start of production has focused attention on the need **to protect vital infrastructures**, in particular against terrorist attacks and precision missiles. Although the navy and other bodies have allocated resources to build up the necessary defense capabilities, from a systemic point of view it does not appear that this issue has been thoroughly examined. The report also looks at the situation of the various infrastructures for reception of the natural gas and their location, as well as their survivability and redundancy in the case of a terrorist attack or sabotage.

A new subject that is being included in the report for the first time is **cyber warfare in the maritime domain**. The dramatic developments in recent years in

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7 Matthew Bodner, "Russia's Black Sea Fleet Will Get 80 New Warships to Repel NATO," Moscow Times, 23 September 2014.

8 Hudson Institute and the University of Haifa, Report of the Commission on the Eastern Mediterranean, August 2016, P. 25.



communication and information technologies have affected the way in which state and non-state players operate in the maritime domain. These technologies have created opportunities but also challenges for the involved parties, on the military and commercial levels, as well as in the area of law enforcement. The navy, like the rest of the defense establishment, became involved in this area at a relatively early stage and the maritime aspect of cyber warfare is receiving the warranted attention. Nonetheless, the report indicates that this same level of priority is not being given to the civilian maritime domain (shipping, ports and maritime infrastructures) and recommends a series of steps that should be taken.

In the area of **shipping and ports**, the report looks at the situation of the sea ports that serve as a critical link in the logistic chain of international trade, which Israel is a part of, given the fact that an absolute majority of Israel's trade is by sea. The report describes the priority given to developing the ports in recent years. With regard to the situation of Israeli-owned ships or ships controlled by Israeli companies, the report describes a decline in recent years, both in the number of Israeli ships and in the number of Israeli seamen. This process is accompanied by the closing of training programs for the commercial fleet in the maritime schools, which may lead to a shortage of manpower during the coming decade in professions such as maritime pilot. The report also relates to the preparedness of the ports to deal with security events, such as the Second Lebanese War.

The report looks at the recent developments in Israel's maritime borders as they relate to the Delimitation Agreement of the EEZ with its neighbors. Israel did not sign the United Nations Convention of the Law of the Sea, which specified that an Exclusive Economic Zone of 200 nautical miles from shore will be defined for each country and in which it will have exclusive rights to offshore resources. Nonetheless, a government decision in 2011 set the northern maritime delimitation line of its coastal waters and Israel's EEZ in the Mediterranean. Israel came to an agreement regarding the boundary of its economic waters with Cyprus, but there is still a lack of agreement with Lebanon on this issue. Another issue that may have security implications for Israel, though it is not a directly involved party, is the agreement between Egypt and Saudi Arabia regarding the **restoration of sovereignty over the Tiran and Sanafir Islands** at the southern end of the Gulf of Aqaba, near Saudi Arabia. The agreement itself has raised a storm of protest in Egypt where many view it as violation of Egyptian sovereignty and as a concession of Egyptian territory. Furthermore, the Constitutional Court has ruled that the decision is unconstitutional.

In recent years, **many countries have changed or modified their maritime strategies** in view of the changes occurring in this domain. Each of them adopted a methodology that is appropriate to its needs. For example, in countries where the security aspect is not a dominant factor (such as, for example, Portugal), they have chosen a particular methodology while in countries like India a different methodology was chosen. The Haifa Research Center for Maritime Policy and Strategy has considered the various strategies and will in the near future suggest an appropriate methodology for Israel to use in formulating its maritime strategy. The principles of this methodology are presented in this report and on the completion of this research it is the intention to distribute the document for use by those who are responsible for this domain.

Despite the lack of approved maritime policy and strategy objectives for Israel, **there has been progress in the area of maritime spatial planning**. This work is intended to resolve the increasingly serious problem of lack of coordination in the building of infrastructure and the implementation of maritime activities, which sometimes prevent the establishment of other infrastructures in the future. While there is comprehensive planning of Israel's dry land territory by means of a series of masterplans from the local up to the national level, there is still no similar framework for the sea. A Maritime Plan for Israel is a result of the initiative of a group of researchers and planners at the Center for Urban and Regional Studies in the Faculty of Architecture and Town Planning at the Technion, who worked together with consultants from Israel and abroad and large group of interested parties who made a major contribution to the preparation of the plan and its derivatives. The plan was completed in November of 2015 after two years of in-depth and intensive work. A researcher from the Haifa Research Center for Maritime Policy and Strategy took part in the work and describes the developments in this area in this report.

The report also surveys the progress in the **construction of onshore gas infrastructure**, as well as additional offshore infrastructures. In 2011, the Ministry of Energy initiated a plan for the construction of a reception facility for Liquefied Natural Gas (LNG) using the buoy system west of Hadera. In 2013, the Israel Electricity Company signed a contract to lease it and in addition a reception facility was established on the coast where the raw natural gas is processed into a usable product. A number of local authorities were opposed to the establishment of the facility within their boundaries and requested that the Supreme Court mandate offshore gas facilities.

Israel is one of the most crowded countries in the world and its population centers are expanding and merging into metropolises. The proximity of populated areas to dangerous/nuisance facilities has led to the establishment of infrastructure facilities on the urban peripheries and in rural areas, at the expense of agricultural land or green areas. **The construction of infrastructure facilities on an artificial island** can provide a buffer between the facilities and the population. In 2012, the government of Israel created an interministerial steering committee to carry out a feasibility study for the creation of artificial islands where the facilities would be located.<sup>9</sup> The chapter in the report on this issue reexamines the need for an artificial island and recommends a series of technological solutions, in addition to reviewing the progress so far.

Any offshore development requires an **environmental and ecosystem protection policy**. Israel must define for itself the appropriate way to institute energy development best practices. There are a number of aspects of Israel's preparedness in the area of environmental protection, including cooperation with neighboring countries. This chapter of the report examines the current situation and proposes ways to improve the handling of the issue. It should be mentioned that not all environmental parameters are under Israel's control. On the contrary, the expansion of areas under limited governance along the coast of the Eastern Mediterranean weakens the ability for environmental monitoring. In the current situation, the United Nations Environment Programme (UNEP) has even reported that pollution of the Mediterranean from onshore sources is growing every year.

The Annual Review of Maritime Policy and Strategy will attempt to create an infrastructure for evaluation according to a number of parameters which can be used in coming years to assess Israel's maritime situation.

The report includes policy recommendations and options for implementation for senior-level decision makers in the government and the bureaucracy. These were viewed as the most important recommendations by the various participants in the writing of this report and they can help Israel in correctly dealing with the challenges enumerated in this report. Following are those recommendations:

1. The formulation of a maritime strategy for Israel.
2. The protection of shipping which is essential to Israel both in emergency situations and on an ongoing basis.
3. Inclusion of the Mediterranean as part of Israel's strategic depth.

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<sup>9</sup> Government Decision 4476 on June 17, 2012 regarding an evaluation of the feasibility of establishing artificial islands for infrastructure facilities.

4. The development and exploitation of offshore energy resources while protecting the environment.
5. The development of professional manpower to deal with Israel's new maritime challenges.
6. Formulation of a diplomatic policy in the Eastern Mediterranean and the Red Sea.
7. Dealing with maritime terrorist threats.
8. Making progress in the area of maritime justice and law.
9. Exploiting opportunities created with the discovery of offshore natural gas in order to strengthen Israel's international and economic status.
10. Inclusion of the Haifa Research Center for Maritime Policy and Strategy in national research projects.