



MARITIME STRATEGIC EVALUATION FOR ISRAEL 2017/18

Chief editor: **Prof. Shaul Chorev** Edited and produced by: **Ehud Gonen**





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

MARITIME STRATEGIC EVALUATION FOR ISRAEL 2017/18

Chief editor: **Professor Shaul Chorev** Edited and produced by: **Ehud Gonen**

March 2018

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.

Haifa Research Center for Maritime Policy and Strategy University of Haifa 199 Abba Hushi Avenue Har Hacarmel, Haifa 3498838

Tel: 04-8288757

Email: <u>hms@univ.haifa.ac.il</u> Website: <u>http://poli.haifa.ac.il/~hms</u>

Translated by: David Simmer, Yaakov Lappin

Graphic design: Noga Yoselevich, Faculty of Social Sciences, University of Haifa

 $\ensuremath{\mathbb{C}}$ All rights reserved by the Haifa Research Center for Maritime Policy and Strategy

ISBN 965-7437-70-4

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.

Contents	
Executive Summary	6
Foreign Affairs and Defense	
Global Developments in the Maritime Domain Shaul Chorev	13
Asian culture and developments in the South China Sea Benny Ben Ari	57
Strategic Developments in the Eastern Mediterranean Eyal Pinko	73
Unmanned Vehicles in the Maritime Domain: Missions, Capabilities, Technologies and Challenges Eyal Pinko	82
A Model and Methodology for a Grand Maritime Strategy for Israel Oded Gour Lavie	96
Maritime Cyber Warfare – Developments in the Past Year Eitan Yehuda	104
Foreign Fleets, the Great Powers and Countries in the Region	
US Policy in the Eastern Mediterranean Shaul Chorev and Ehud Gonen	109
"Guideline of Russia's Naval Policy" as a Continuation of the Soviet and Russian Bureaucratic-Military Tradition Tzevy Mirkin	113
Force Buildup of the Egyptian Navy Eyal Pinko	120
Egypt and "the new Mediterranean:" Economy, security, and culture By Ofir Winter	130
Law of the Seas	
The Dispute over the Israel – Lebanon Maritime Border – Legal Perspectives Nadia Tzimerman,	139
The Transfer of the Tiran and Sanafir Islands to Saudi Arabia and Freedom of Navigation in the Straits of Tiran – an Unsolved Story Benny Spanier	147
The Proposed Marine Areas Law 5777 – 2017 and its Impact on the Energy Sector Orin Shefler	156

Economy, Energy, Shipping and Marine Aquaculture	
Shipping and Ports Arie Gavish	178
China's Maritime Silk Road Initiative Ehud Gonen	198
Can Israel Become the Startup Nation for the Maritime Domain? Hannan Carmeli	210
Developments in the Fishery Management Policy of Israel Dor Edelist	219
Economic challenges to natural gas exports from Israel's maritime gas fields Elai Rettig	227
The Mediterranean Sea Research Center of Israel (MERC) Zvi Ben-Avraham	237
Human – Sea Heritag	
Spatial-Environmental Disputes between the Port and the City in Haifa Na'ama Teschner	245
"The Sea Trail" – Connecting Israeli Public to the Sea Ellik Adler and Noga Collins-Kreiner	248
The Past is Alive – and Sailing: The Story of the Ma'agan Mikhael II Ship (the Replica) and Plans for Its Future Deborah Cvikel	256
Historic Look	
The Israeli Navy in the Six Day War Arieh Rona and Kochavi Azran	263
Fiftieth Anniversary of the Port of Ashdod Kochavi Azran and Arieh Rona	279
Conclusion	
Conclusions and Policy Recommendations Rear Admiral (Ret.) Prof. Shaul Chorev	292
The Authors (according to the order of the chapters)	301

Executive Summary

At the beginning of 2016 and as part of Haifa University's effort to take a leading role in national maritime research, the University's Board of Governors approved the establishment of the Haifa Research Center for Maritime Policy and Strategy which will be involved in research related to regional security and foreign policy, the flow of goods, people and ideas, law, energy and the environment.

The Center has set a goal for itself to carry out academic research, to serve as a knowledge center for policy makers, public leaders and the citizens of Israel and to become part of the public discourse. In addition, the Center has begun to create research collaborations with leading knowledge centers in other countries and to train young researchers in subjects related to maritime strategy.

The assessment for 2017 focuses on the Eastern Mediterranean and the Red Sea though it also includes an examination of global developments and trends in the maritime domain, which are likely to have an effect on the Eastern Mediterranean in general and on Israel in particular. The previous report, which was published in December 2016, laid the foundations of the annual assessment while the current assessment relates primarily to changes that have occurred in the past year and to trends that are taking shape and concludes with recommendations to the relevant entities, primarily in the Israeli public sector.

In spite of the far-reaching changes in recent decades, which are related to the increasing importance of the sea as a component in Israel's resilience, maritime domain awareness in Israel remains low, among both government leaders and the public. Recently published studies in scientific journals indicate that the problem is not unique to Israel.¹ The lack of awareness is even more acute when one examines Israel's unique geostrategic location; its complete dependence on the sea lanes for the import and export of goods; the discovery of offshore natural gas fields in its economic waters, which have provided the country with energy independence; the increasing reliance of the Israeli water sector on desalinized water for the supply of drinking water; the reliance of international communication on underwater cables that carry most of the communication with Europe and the US; the high proportion of the population living adjacent to the Mediterranean coast; and the sea as a space that can compensate for Israel's loss of strategic depth and the only possible space for the establishment of new infrastructure and the removal of hazardous infrastructure from population centers.

The lack of a maritime policy and strategy has led to a reactive policy, as demonstrated in a number of instances, including the discovery of natural gas in Israel's economic waters, the transfer of infrastructure from the coast to the sea, the formulation of a general plan

¹ Christian Bueger, Timothy Edmunds, Beyond seablindness: a new agenda for maritime security, International Affairs, Volume 93, Issue 6, November 1st 2017, pp. 1293–1311.

for the protection of natural gas facilities and infrastructure, the destinations for the export of part of the natural gas production, legislation that will apply to the economic waters, the geopolitical implications of development of Israel's ports, the capability to transport goods by sea in an emergency and the development of human resources that can serve as an infrastructure to deal with these issues. In an examination carried out by the Center of other coastal nations, and primarily those who are members of the OECD,² it was found that most of them have dealt with these issues by formulating a maritime strategy. During the past year, the Center carried out a study that looked at a number of models and methodologies developed by the aforementioned countries and chose a model and methodology that is suited to the case of Israel. This study was submitted as a response to a call by the National Economic Council within the Prime Minister's Office for policy assessments to be used in the preparation of a policy paper to be submitted to the 35th government of Israel when it is established.³

The Maritime Strategic Assessment for 2017-18 was written by the researchers of the Haifa Research Center for Maritime Policy and Strategy of Haifa University, research fellows of the Center and additional individuals at the University who possess unique expertise in these subjects. The report is divided into a number of sections: The first section deals with foreign policy and security issues and opens with a review of developments, changes and trends in the global maritime domain. There exists a consensus that the global economy's center of gravity is moving eastward. For many centuries, the center of gravity was Western Europe, which at a later stage shifted to the US. If current trends continue, it will be located in Asia by the middle of this century and we are currently in a period of transition to a world in which the developing economies of China, India and other emerging nations are becoming dominant powers on the global stage.

China is becoming a global superpower with increasing economic and military strength. India, whose economy is growing rapidly, is also contributing to the shift eastward. In contrast, the tension in the Korean Peninsula is becoming a source of instability in the region, due to North Korea's nuclear program and its ability to launch nuclear weapons at the West Coast of the US. Russia, which is suffering from a long-term economic crisis, has not abandoned its divisive geopolitical policy and in some senses that policy is reminiscent of Russia's behavior during the Cold War period. Meanwhile, NATO is trying to recover from the exit of Britain from the EU and the isolationist policy of the US, which is reflected in President Trump's motto of "American First" and his demand that US allies in Europe and the Far East increase their defense expenditures in order to reduce the economic burden on the US.

² Organization for Economic Co-operation and Development.

³ The Prime Minister's Office, the National Economic Council, "The formulation of a strategic socioeconomic assessment for the 35th government", a call for the submission of ideas, main characteristics and strategic issues, March 15th 2017, as it appears on the website: <u>http://economy.pmo.gov.il/CouncilActivity/Strategy/Pages/gibosh35.aspx</u>.

A focus of tension in Asia is the South China Sea, in which the disputes over economic and sovereignty rights between China, Vietnam, Malaysia, the Philippines and other countries are continuing and even intensifying. In order to meet these challenges, the Obama administration in 2009 developed a policy called "Pivot to Asia", which was also manifested in the priority given to the activity of the American fleet in that region over other theaters. Over the years, this policy has become dominant and it appears that the Trump administration is also adopting it since this region is perceived as having a high potential for a superpower confrontation. In view of the global implications of this conflict, we have chosen to provide an update regarding recent developments in this region.

The report then shifts from the global arena to a survey of developments during the past year in the Eastern Mediterranean. The second section presents a survey of foreign navies, the superpowers and the countries in the region. The most prominent phenomenon that characterizes recent developments in the Eastern Mediterranean is the deepening involvement of the Russian navy in our region, which is manifested in, among other things, the extension of the lease agreement for the port of Tartus and the Khmeimim Airport in Syria for an additional 49 years. The deepening involvement of the Russian navy is part of the formation of the Russia-Iran-Syria strategic axis (which indirectly includes Hezbollah), which is likely to impose strategic risks on the State of Israel due to the opening of an Iranian corridor from Iran to the Mediterranean and the deployment of Iranian forces along its length and possibly even in one of Syria's ports. However, the Trump administration has continued in the footsteps of the Obama administration and has limited the involvement of the Sixth Fleet in the Eastern Mediterranean, whether as part of the need to give priority to East Asia or based on an understanding with the Russians to divide up interests in the region. This year, we devoted two articles to Egypt: The first examines "Egypt and the "New Mediterranean": Economics, Security and Culture". The article examines the growing discourse in Egypt since the uprising on January 25th 2011 surrounding the weight of the Mediterranean in the rejuvenated identity of the Land of the Nile and the ties between the evolving economic and security interests of Egypt in the Mediterranean and the shifts in its political and cultural orientation. The second article deals with the unprecedented buildup of strength in the Egyptian navy. Even if the diplomatic relations between Egypt and Israel are currently at their peak, Israel has in the past insisted that countries such as the US and Germany not provide Israel's neighbors with weaponry that is liable to reduce its qualitative military edge (QME). The article reviews the program for the buildup of strength in the Egyptian navy and examines this question, among others.

The Red Sea and in particular its southern part near the Strait of Bab el Mandeb has in past years become a dangerous area for ships following incidents related to the civil war in Yemen, which now a failed state. The Houthi rebels, which are supported by Iran, have used coast-to-sea missiles a number of times and have mined the approaches to the Mocha harbor. This has led a number of countries, such as Britain, to issue security advisories for this area. It is worth mentioning that this is one of the choke points through which passes a large volume of world trade. The State of Israel, which in recent years has increased its trade with East Asia, is not alone in facing this threat but it must also take into account the recent developments in the area.

The section on trends in the buildup of strength opens a window on unmanned sea vehicles. Unmanned systems create new capabilities that can help naval forces achieve a clear advantage in fulfilling their missions. However, the introduction of unmanned vehicles in the sea is proceeding at a much slower pace than in the aerial and land domains and this issue may warrant a comparative study.

As mentioned above, during the past year the Center carried out a study of maritime strategies in a number of countries, with the goal of choosing a model and methodology suited to the process of maritime strategy formulation for the State of Israel. We are pleased to report that we managed to stimulate some interest among officials who have responsibility in this area (in the National Security Council) and we are hopeful that this will lead to an interministerial policy paper and the formulation of a maritime strategy for Israel. The chapter on this issue describes the conclusions reached by the Center with regard to the method and methodology suited to Israel's circumstances.

The third section in the assessment is about maritime law and it surveys three topics: The first is legal aspects of the ongoing dispute with Lebanon on the demarcation of the maritime boundary between Israel and Lebanon. The second is the transfer of the islands of Tiran and Sanafir from Egypt to Saudi Arabia. It is these islands and the straits around them that were one of the causes of the Six Day War. The chapter discusses the question of whether this transfer constitutes "unfinished business". The third topic is the Law of Maritime Zones which is meant to provide greater certainty to investors and foreign companies with respect to the regulation that applies in Israel's economic waters and also to provide a solution to the environmental aspects of planning and licensing in Israel's maritime zones. The proposed law is meant to be voted on in the Knesset in the near future.

The fourth section of the assessment is economically oriented and includes a number of topics: The first looks at Israeli shipping and the trends in Israel's ports. The second describes the Chinese investments in Israel's ports and also the implications of China's "Belt and Road Initiative" for Israel. A researcher from the Center was even invited to an academic conference on the subject held by the Guangdong Institute for International Strategies in the city of Guangzhou in China, thus giving us an opportunity to learn about the initiative at first hand. The third is whether the State of Israel is a start-up nation in the maritime domain and if not how can it become one. Israel is a small country with a population of only 8 million. Nonetheless, it has the highest concentration of start-ups in the world. Each year about 5,000 new start-ups are created. The number of patents Israel registers is one of the highest in the world relative to its population and the

companies in this sector constitute a relatively large source of employment which also affects Israel's continued economic growth. Nonetheless, the maritime domain, in the broadest sense of the term, is not part of Israeli development and innovation. The fourth topic discusses trends in commercial fishing in Israel. During the last two decades, Israeli policy has led to the contraction of the local fishing industry and the loss of livelihood and employment for fisherman. The allocation of certain maritime areas to the needs of defense, shipping and the exploration, production and conveyance of offshore natural gas has exacerbated the trend. The fishing regulations that went into effect in January 2017 constitute a historic change in Israel's policy – from complete freedom of fishing to an approach that establishes marine nature (which includes the fisheries) as having priority. In addition, the responsibility for supervising fishing will be transferred, starting in 2018, from the Fishery Branch of the Ministry of Agriculture to the Nature and Parks Authority. The new regulations include components that apply to all fishing methods. The article makes a number of recommendations for revising the regulations in order to ensure on the one hand the continued existence of this industry and its development and on the other the preservation of the ecosystem.

The fifth section relates to the geostrategic aspects of the energy sector. Offshore natural gas has become an important component in Israel's economy and its resilience. Accordingly, we have devoted a separate chapter to this topic. Maritime environmental security is a topic that is becoming increasingly recognized in the Western world and it encompasses a wide variety of topics, including the prevention of ocean pollution, ship safety, search and rescue at sea, ongoing monitoring of the marine ecosystem and the effect of the changes on the maritime domain. From Israel's perspective, the most important issue to be dealt with at this time is to define the best ways to deal with the development of the natural gas fields, which requires, among other things, cooperation with neighboring countries.

The strategic assessment for this year was planned so as to include an article on the training of manpower for the shipping industry in Israel, which would focus on the topic of the maritime professions and maritime education in Israel. The importance of this need is clear and it has even been recognized in Government Decision 1107 of August 30th 2013, which specified, among other things, "that with the goal of improving the ability to compete of Israeli shipping, to preserve the professional knowledge in this area and to continue to maintain essential maritime infrastructure and an Israeli system of sea transport, a plan will be adopted, accompanied by the allocation of resources, with the following goal: to support Israeli shipping." These resources were meant to support the employment of Israeli seamen on Israeli ships, including energy ships, as part of the encouragement to maintain a fleet of Israeli ships. The actual situation is nowhere near what was intended by the aforementioned government decision. For various reasons, we were not able to include such a chapter in the report and as part of the unification of the

Wydra Institute for Shipping and Ports with the Center we intend to make this one of our leading issues, one that is worthy of academic research.

The fifth section in the assessment deals with the interface between man and the sea from the cultural, environmental and historical perspectives: Man, Sea, Environment and Heritage. We chose four topics for this section: The first is the interface between cities and ports. The fifty largest ports in the world (in terms of container flow) are part of the urban landscape and, as of now, are not "islands" in the sea. As a result, the interface between cities and ports leads to numerous conflicts, the first of which is the statutory separation between the two entities, which also includes definition of land ownership and the extent of control and access to the water line and territory adjacent to the shore. Based on research carried out by the Haifa Research Center for Maritime Policy and Strategy and the Heikin Chair for Geostrategic Studies, we decided to include the abstract of a paper on the conflicts and opportunities in the sea-city interface for the case of Haifa. The second topic is "The Ocean Trail - The Connection of Israeli Society to the Sea and the Creation of a Maritime-National Cultural Identity". The initiative and the process of establishing the Ocean Trail were meant to meet the genuine need for a connection between Israeli society and the sea and the need to create a maritime-national cultural identity. The trail also meets a need to expose the public to marine and coastal elements and to deepen its knowledge of them, with the goal of public involvement in the processes that are necessary for the preservation of the environment and the ecological systems in the open sea and on the shore and in the decision making processes that protect the sea and the coast from uncontrolled development and destructive real estate projects. Unfortunately, a large part of the coast between Rosh Hanikra and Gaza is taken up by army bases, ports and electricity and water infrastructure and a great deal of planning work is needed until this project can be implemented. The third topic is "The Past is Alive and Sailing – The Story of the Reconstructed Ship from Maagan Michael". The article presents the story of the reconstructed ship from Maagan Michael (a replica), whose construction was completed this year, and the future plans for it.

This year we added a chapter called "From a Historical Perspective", in which we look at two events: The first is the Six Day War and the second is the jubilee anniversary of the inauguration of the Port of Ashdod. In the chapter on the Six Day War—which occurred 50 years ago this year—we took a retrospective look at the maritime dimension of the war. The second event surveyed in this section is the establishment of the Port of Ashdod somewhat more than fifty years ago. The Ashdod port today is one of Israel's two main ports. Every aspect of the port, like the neighboring city, was planned. The latest of the port's achievements is the completion of a major logistical operation in which the largest container ship ever to enter an Israeli port—with a capacity of 14,080 containers— anchored in the Port of Ashdod. The article reviews the stages of the port's development and construction and also the lessons learned from the construction of the first port in the open sea.

The last section of the report contains policy recommendations for senior-level decision makers in the government and the bureaucracy. These recommendations reflect insights that were obtained from the writing of this report or from other research activity of the Center and which in the opinion of the writers can help Israel deal with the challenges it faces in the maritime domain. Following are the main recommendations:

- 1. Formulation of a maritime policy and strategy for Israel in preparation for the 35th government.
- 2. Preserving Israel's commercial shipping and the port infrastructure.
- 3. Integration of the Mediterranean as part of Israel's strategic depth.
- 4. Processes to build up Israel's naval forces.
- 5. Development and exploitation of the sea's energy resources while preserving the environment.
- 6. Development of professional human infrastructure in order to meet Israel's new maritime challenges.
- 7. Formulation of Israel's policy in the Eastern Mediterranean and the Red Sea.
- 8. Advancement and passage of maritime law.
- 9. Exploitation of opportunities created by the discovery of offshore natural gas in order to strengthen Israel's economy and its international standing.
- 10. Continued positioning of the Haifa Research Center for Maritime Policy and Strategy as a national knowledge center for maritime policy and strategy.