# MARITIME STRATEGIC EVALUATION FOR ISRAEL 2020/21

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## An Examination of the Coastal Life Rescue Services in Israel – Does Israel Need a lifeboat service?

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### Introduction

During the past decade, an average of 30 individuals have drowned on Israel's beaches each year. This number does not include about 20 drownings in natural and artificial ponds and pools throughout Israel. There are three layers of security and rescue on Israel's shores: The navy, which operates out of three bases (Haifa, Ashdod and Eilat) is responsible for guarding the international coastline of the Mediterranean and the Gulf of Eilat. Internal security, enforcement of public order and rescue are the responsibility of the Maritime Police Branch of the Israel Police, which operates out of five bases – Haifa, Tel Aviv, Ashkelon, Eilat and Sea of Galilee. Finally, rescue services on the official beaches are operated by the local councils. This article will examine the question of whether Israel should add another layer to its rescue services in the form of a lifeboat service.

It is difficult to compare sea rescue organizations between countries as the structure and role of those organizations vary between different countries[1] therefore the comparison will be made to a parallel coastal rescue organization, which focuses only on sea rescue – the Royal National Lifeboat Institute (RNLI).

The article consists of four chapters: an introduction; an analysis of the coastal rescue services in Israel and of the demand for those services; a parallel chapter on the situation in Britain (which was chosen as a reference country); and a conclusion with recommendations.

### Background

According to the World Health Organization, drowning is the third cause of traumatic death worldwide and accounts for 7 percent of total traumatic deaths. In 2014, 372,000 people drowned worldwide while in 2016, for example, about 320,000 died, most of them children and men. Ninety percent of drownings worldwide occur in the developing World. In Africa, for example, there are twenty times more drownings than in Western Europe. These figures are not precise since countries

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1    The Unique Role of the U.S Coast Guard. 2020. https://www.military.com/join-armed-forces/coast-guard-mission-values.html#:~:text=The%20Coast%20Guard%20is%20the,Port%20Security%20and%20Military%20Readiness

report on drownings in different ways. Thus, for example, there are countries that do not define a death caused by a flood as drowning, and there are countries that count suicide by drowning as drowning and those that do not. Apart from loss of life, these drownings have an economic cost, since 45 percent of the victims are part of the workforce in their country. In the US alone, the economic cost of drownings is $273 million per year and for the entire world it was estimated to be $146.9 billion in 2014.[2,3]

## The regulatory situation in Israel

The total length of Israel's coastline is about 319 km; of which 196 km is on the Mediterranean, 56 km is on Sea of Galilee, 14 km is on the Red Sea around Eilat and about 53 km is on the western side of the Dead Sea, not including the evaporation ponds of Dead Sea Works sites. Of these, only 19 km (6 percent) are defined as open to public bathing and they are organized into 155 official beaches. Most of these are only open for a period of six months during the year.[4,5]

Apart from the official beaches, there are 162 km (53 percent of the coastline) that are not permitted for public bathing at any time, since they are in use by the Navy or by infrastructure facilities (Israel Electric Company, Israel's ports, etc.). Another 126 km (41 percent) have no status, that is, they are not official beaches for public bathing and have no supervision, although the public has access to them.[6]

Life rescue services in Israel as already mentioned, there are three layers of security and rescue on the coasts of Israel. The outer layer is the naval arm of the IDF. This includes a number of flotillas, where Flotilla 7 (patrol squadrons equipped with Fast rigid patrol boats) and the port Security Unit (Called in Israel – Snapir and equipped with semi-rigid boats) are the relevant ones with respect to rescue at sea. It is unnecessary to describe here the number of boats, the size of their crews or their deployment since the task of rescue at sea and assistance to ships in distress is not part of their mission. The mission of Flotilla 7 is to prevent terrorist activity from

2   World Health Organization – Drowning. 2020.
    https://www.who.int/news-room/fact-sheets/detail/drowning;

3   RNLI – Estimating the Global Cost of Drowning. 2015.
    https://rnli.org/-/media/rnli/downloads/15452-cost-of-drowning-report.pdf

4   Israel list of official beaches. https://www.gov.il/he/Departments/news/beaches-list-2019

5   Ilia Elihu, (2017); Rescue services on the beaches in Israel. The Knesset research center Israel.
    https://fs.knesset.gov.il/globaldocs/MMM/c1bccf17-846b-e711-80d6-00155d0a6d26/2_
    c1bccf17-846b-e711-80d6-00155d0a6d26_11_9468.pdf. page 4.

6   ibid. page 6.

the sea while the Port Security Unit focuses on guarding the ports. In the US, for example, these tasks are the responsibility of the Coast Guard.[7] Nonetheless, there are extraordinary events, which are usually far from Israel's coast, in which the navy has taken part in rescue operations. This was the case in 2005 when a Syrian bulk carrier sank 56 km west of Nahariya and two Israeli missile boats joined French and American boats in the search for survivors.[8] In 2005, a patrol boat saved three fishermen whose boat had sunk in a storm in the Bay of Haifa[9] and in 2016 the navy's control center directed a commercial vessel and an air force helicopter in the rescue of two individuals from a yacht that sank in the Bay of Haifa.[10]

The second layer of defense and rescue is the Maritime Police Unit of the Israel Police. This unit, which until 1977 was called the Coast Guard, is equipped with about 10 Hornet-type boats (semi-rigid fast rescue boats) and a number of smaller rubber dinghies and Jet-skies (PWC – personal watercraft). Its mission is defined as enforcing the law and maintaining order along Israel's costs, as well as rescue operations at sea. In order to carry out these missions, the Unit has five operational bases: Haifa, Tel Aviv, Ashkelon, Eilat and Sea of Galilee. Each base is under the authority of the district in which it is located and professionally they report to the commander of the Maritime Police, who is based in the National Headquarters in Jerusalem. Each base includes about two Hornet-type boats and a number of PWC's. According to the police bylaws, the Maritime Police are responsible for rescue on non-official beaches (which constitute a majority of Israel's beaches) and for the location and rescue of bathers who have gotten too far from shore, whether intentionally or that they were carried away. In the Mediterranean, the distance between the Haifa station and the Tel Aviv station is about 90 km and the distance from the Tel Aviv station to the Ashkelon station is about 50 km. The maximal speed of a Hornet, which is the main boat of the Maritime Police, is 40 knots. In other words, the first boat will reach an event that takes place between Tel Aviv and Haifa in about 40 minutes.

Following are the bylaws of the Israel Police that specify their coastal duties, as revised in 2000:

> Objective: To fulfil police duties along Israel's coast in general and the enforcement of the law relating to vessels in particular. Tasks:
>
> 1. To carry out rescue operations at sea when necessary (apart from on official beaches).

7    IDF web site. http://navy.idf.il/Article/3808

8    Ynet (21 April 2005). https://www.ynet.co.il/articles/0,7340,L-3075442,00.html

9    Yney (16 October 2005). https://www.ynet.co.il/articles/0,7340,L-3155806,00.html

10   Maritime Heritage watch website. https://bit.ly/3jbRZ7T

2. Enforcement of laws regarding the use of small boats operating at bathing beaches.

3. To assist in rescue operations carried out by other maritime organizations.

4. To prevent the entry or exit from Israel of people and vessels (apart from ships) not by way of the ports, which serve as border checkpoints.

5. To carry out maritime patrols in order to prevent smuggling by small boats of drugs, valuables and weapons.

6. Enforcement of the law regarding the licensing of vessels and their operators.

7. Maintaining public order on the coasts of Israel.[11]

In addition to the Maritime Police, there are a number of diving units in Israel whose task is to locate and rescue missing persons in bodies of water. Two of them (Divers-North and Divers-South) are part of the Israel Police. The Israel Firefighters have divers as part of their Special Rescue Unit. The divers of the Firefighters are the only employed divers while those in the other units are volunteers. In certain circumstances, when these units are unable to locate a missing person, the navy's Unit for Underwater Works, which has more advanced equipment, is called in and given responsibility over the event. The two most prominent instances of intervention by that unit in civilian searches were in the location of the bodies of three drowned individuals during Passover 2017[12] and the location of the body of soldier, who drowned in the Sea of Galilee while on vacation in 2014.[13] It is unnecessary to describe these units since they are not involved in rescue but rather in the location of bodies of those that were not rescued.



Figure 1: Divers-North in action in Sea of Galilee (photo by the author)

11  Israeli police general secretary orders (11 June 2000).
    https://www.police.gov.il/menifa/01.02.03.07_1.pdf

12  Ynet (18 April 2017). https://www.ynet.co.il/articles/0,7340,L-4950067,00.html

13  Walla (14 May 2015). https://news.walla.co.il/item/2854363

The third layer of rescue, and essentially the one closest to the coast is the lifeguards on the official beaches. Usually, this layer is the most active and it is here that most bathers are located. The rescue services on Israel's coast bring together a number of government and regional organizations: the certification of lifeguards is the responsibility of the Ministry of Labor; the operation of official beaches and their supervision is carried out according to the regulations of the Ministry of the Interior; and the lifeguards and other beach workers are employed by the local municipalities directly or are subcontracted by them. The lifeguards have rescue equipment that includes a loudspeaker system, life belts, a Hasake' (Local Israeli style stand-up large paddleboard), and on some beaches also PWC's that make it possible to extend the range for rescue.[14]

In addition to rescue equipment, the lifeguards have basic resuscitation equipment and all of them are qualified to provide first aid (Basic Life Support – BLS). One of the problems that has been raised by the Knesset Research Department (in a 2016 document that describes the situation on the coasts) is the fact that only some of the official beaches have direct communication between the second layer and the third, that is, between the lifeguards and the Maritime Police Unit. On the rest of the beaches, the lifeguard must call the Police hotline (100) in order to bring in the Maritime Police.[15] It is estimated that today most of the beaches have cellular communication between the lifeguards and the Maritime Police with whom they are in constant contact; however, this communication is not subject to formal work protocols.



Figure 2: PWC of the Haifa Maritime Police (photo by the author)

14    see note 5.

15    see note 5, p. 13.

Figure 3: A *Hornet* boat of the Sea of Galilee Maritime Police (photo by the author)

## Rescue activity in Israel

According to the report of the Knesset Research Center, the most up-to-date document on this subject, in 2016 the Maritime Police carried out 523 rescues of individuals, 461 cases of assistance provided to individuals and 206 searches for missing persons. The vast majority of the activity took place in the Sea of Galilee in which many bathers use inflatable toys and are carried away by the western winds that blow onto the lake during the afternoon hours, and require assistance in order to return to shore.[16]

The attempt to gather precise data on drownings and rescues on the various beaches in Israel is quite difficult since the various organizations relate to different events and to different periods. Thus, for example, Magen David Adom (MDA – Israel's first aid organization) relates to all events in which an ambulance was dispatched to a beach and on an annual basis, while the Ministry of the Interior relates only to events that resulted in death and its data relates only to the season when the beaches are officially open for bathing. Some of the organizations specify where the drowning occurred (the Mediterranean, the Red Sea, etc.) while others do not. And so on. However, *on* the bottom line, it is possible to create an overall picture in which the trend is clear, even if the exact numbers are not. The data are summarized in Table 1.

For the purposes of this discussion, drownings in public and private pools, as well as in rivers and streams, will not be considered since we wish to relate to drownings in the Mediterranean, Red Sea and Sea of Galilee only, as stated in the introduction, which occur at a rate of about 30 per year.

16    see note 5, p. 14.

Table 1: Number of drownings in Israel, 2015–19[17]

| Year | Number of fatal drownings | Mediterranean | Pools and lakes | Number of rescues and cases of assistance to vessels by the Maritime Police |
|------|---------------------------|---------------|-----------------|------------------------------------------------------------------------------|
| 2019 | 46 | 27 | 19 | 617 |
| 2018 | 72 | 29 | 43 | 779 |
| 2017 | 39 | 30 | 9 | 866 |
| 2016 | 57 | 40 | 17 | 770 |
| 2015 | 30 | | | 652 |

It is worth mentioning that most of the drownings occur at non-official beaches or on official beaches but not during the official bathing hours: 14 percent when a lifeguard is on duty and the rest after the official beach hours or on a non-official beach. The distribution of drownings according to type of beach is presented in Figure 4.
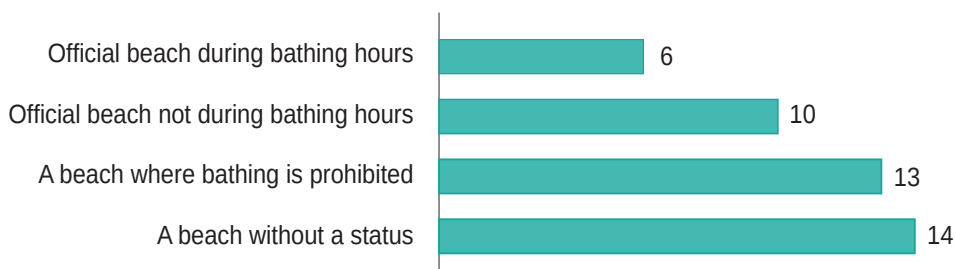


Figure 4: Drownings in 2016 according to type of beach[18]

## Rescue in Britain

In Britain, a country with a long maritime culture and history, there are also a number of layers of rescue and coastal protection. As in Israel, the Royal Navy is responsible for the defense of Britain against various threats and there are maritime police units which are part of the various police districts and are responsible for maintaining law and order and guarding the coast. However, there are two additional organizations in Britain that do not exist in Israel: the Coastguard, which is responsible for rescue in Britain's territorial waters and along the coast (people that have fallen from coastal cliffs or become stranded in tidal areas, for example) and the Royal National Lifeboat Institute (RNLI). Most of the RNLI activity is coordinated by the Coastguard where the RNLI is active in the maritime range while the Coastguard has a helicopter wing

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17   Table sources: see note 5, pp. 22–23. https://www.mdais.org/news/271019; https://www.ynet.co.il/articles/0,7340,L-5614856,00.html; Data from Israeli Police as for 17 August 2020.

18   see note 5, pp. 22–23.

that provides assistance when needed. In any case, even if the call goes directly to the RNLI, the Coastguard has responsibility for the commanding of the event.[19]

The RNLI was established in 1824 and since then has rescued more than 140,000 people. It is operated primarily by volunteers and operates on three levels: rescue at sea, which involves about 444 lifeboats at 238 stations along the coast of England, Scotland and Northern Ireland. The RNLI is also responsible for the training of lifeguards on the official beaches and for teaching children about water safety. For example, in 2018 alone, 756,378 children and youths attended some sort of lecture or training on the subject of water safety given by one of the organization's volunteers.[20]

The RNLI is proud that apart from the station on the Thames River in London and in the Port of Portsmouth (which due to the high level of activity are operated 24/7 and by full-time employees), all of the others stations are operated by about 5,600 volunteers who live nearby, which is in addition to a salaried foundation workers that manages the organization and maintains the boats. The RNLI has set itself a limit of less than 10 minutes to dispatch a lifeboat from the time a call comes in and it has met that goal. For example, the national average for 2018 was 9.7 minutes.

The RNLI provides a number of rescue and prevention services. The most famous of them is the lifeboats themselves. There are a number of types of lifeboats, ranging from small rubber dinghies for assistance close to shore (a swimmer who gets carried away, vessels stranded on a sandbar close to shore, etc.) to the larger boats for assistance out at sea, which are capable of going out under any weather conditions. The RNLI has 82 lifeboats for the open sea (of five different types), four hovercraft (which operate primarily in areas where the high and low tides cover particularly large areas) and another about 330 rubber boats of four different types.

In addition to the operation of these lifeboats, the RNLI operates 248 bathing beaches, and provides consulting to several hundred more throughout the UK. In addition, it has a comprehensive educational program for children in kindergarten up to high school. Some of these programs only involve lectures while others involve hands-on teaching in pools and in the sea. All of the programs are grouped under the name "Respect the Water".

19   *OTS News*. 2019. Do You Know the Difference Between the Coastguard and the Lifeboats https://www.otsnews.co.uk/know-difference-coastguard-lifeboats

20   RNLI. 2018. Operational Statistics. https://rnli.org/-/media/rnli/downloads/20173445_ops_stats_report_2019_v6_lr_single_pages.pdf; Morris, High. 2017. 27 things you'd never know about Britain if it were not for Ordnance Survey. https://www.telegraph.co.uk/travel/destinations/europe/united-kingdom/articles/ordnance-survey-facts-about-great-britain

As mentioned, the RNLI operates 238 stations along the coasts of England, Scotland and Ireland (although Ireland is an independent country, the RNLI is also active there and includes Ireland in its annual figures). It is responsible for 31,368 km of shoreline, of which 19,267 is on the main island and Ireland.[21] The RNLI has 15 stations on the smaller islands, such that if we divide the coastline of the main island and Ireland (19,267 km) by the number of stations on them (223), we obtain an average of 86.4 km per station. This is only an average and there are less populated areas in northern Scotland where the distance between stations is greater than in more populated areas.[22]



Figure 5: A Shannon-type boat is urgently dispatched from the Hoylake station
(photo: RNLI 2018)

Table 3: Number of drownings in Britain and Ireland, 2015–2019[23]

| Year | Number of drownings | Number of rescue operations | Successful rescue with certainty | Number of emergency dispatches of boats |
|------|---------------------|------------------------------|----------------------------------|------------------------------------------|
| 2019 | 223+64 | 38,713 | 374 | 8,941 |
| 2018 | 263+79 | | | 8,964 |
| 2017 | 255+72 | 32,116 | | 8,436 |
| 2016 | 265+94 | 20,538 | 558 | 8,851 |
| 2015 | 321+92 | 14,814 | | 4,300 |

21   Different sources are liable to cite different distances based on whether one measures every small bay, or a straight line is drawn that circumvents them and other factors.

22   RNLI 2018, see note 19.

23   Table sources: RNLI 2018, see note 19; National Water Safety Forum. 2019. Reports and Data. https://www.nationalwatersafety.org.uk/waid/reports-and-data; Water Safety Ireland. 2020. Statistics. https://watersafety.ie/statistics; RNLI. 2016. Annual Report and Accounts. https://www.green-park-jobs.co.uk/RNLI-FD/downloads/annual-report-and-accounts-2016.pdf; Walker, David. 2016. Figures reveal 321 people died in accidental drownings in 2015. https://nationalwatersafety.wordpress.com/tag/statistics; *Irish Examiner*. 26.11.2019. 64 people have drowned in 2019 so far. https://www.breakingnews.ie/ireland/64-people-have-drowned-in-2019-so-far-966587.html#:~:text=64%20people%20have%20drowned%20in%20Ireland%20so%20far%20this%20year,11%20Irish%20citizens%20drowning%20abroad

Notes:

- Number of drownings – England + Ireland

- Not including suicides in bodies of water and bodies dumped in the water following a criminal act.

- Although the annual totals are exact, they are not always identical in their criteria over the years and therefore some of the cells in the table are blank.

- The RNLI does not specify how many people drowned and where (near the shore, in a lake or out at sea).

The table points to an interesting trend, namely that the number of rescue operations has increased over time and accordingly the number of drownings has declined.

## Discussion and Conclusions

As we have seen, the collection of accurate data is not a simple task, neither in Israel nor in Britain and Ireland. In Israel, there is no organized gathering of data and each organization (Magen David Adom and the Ministry of the Interior) counts the events differently. In Britain as well, which is better organized in this area, there are differences in the criteria for calculating annual figures. Since the figures for Britain do not specify how many people drowned on the beach, how many drowned in a lake or river and how many went down with their boat out at sea, it is difficult to carry out an accurate comparison to Israel. Nonetheless, using all of the sources and the data that was gathered an overall picture can be arrived at.

Britain's population was 67,530,172 in 2019.[24] To this should be added the population of Ireland, i.e. 4,882,445.[25] In that year, the population of Israel was 8,519,377 (not including Judea and Samaria).[26] The average number of drownings in Israel in 2019 can then be calculated as one for every 185,203 individuals, while in Brittan and Ireland the figure is one for every 252,308 individuals. In theory, the ratio of drownings in Israel is much higher than in Britain and Ireland, a fact that might justify the expansion of the rescue services in Israel; however, this statistic doesn't tell the whole story. First, while in Brittan swimming lessons are part of the curriculum in the schools and as mentioned there are numerous educational activities in order to

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24 World Meter. 2020. UK Population.
https://www.worldometers.info/world-population/uk-population

25 World Meter. 2020. Ireland Population
https://www.worldometers.info/world-population/ireland-population

26 World Meter. 2020. Israel Population
https://www.worldometers.info/world-population/israel-population

teach children about correct behavior in the water, in Israel there are sectors in the population that rarely go to the beach and their children do not learn how to swim. Unfortunately, most of the drownings occur among these sectors.

Furthermore, in 2017, the public in Britain owned 1,185,243 private boats of various types (which include only boats that require a license and not small sailboats, kayaks, etc.).[27] In Israel there were only 24,000 boats in that same year (2,900 of which are anchored in marinas and the rest on the shore).[28] In other words, there is a boat for every 57 people in England while in Israel the figure is one for every 339 people (which is a subject for a different study – namely, why are so few Israelis involved in water sports?). Also in England's European neighbors there are a large number of boats and every so often the RNLI provides assistance to European vessels visiting British waters. In any case, this statistic may explains, in my opinion, why the RNLI carries out so many missions in order to rescue vessels as compared to the Maritime Police in Israel. This figure also explains why most of the drownings in Israel occur near the shore rather than while boating (as mentioned, the vast majority occur either on a non-official beach or on an official beach when a lifeguard is not present).

If we compare the preparedness of the Maritime Police in Israel in the provision of assistance and rescue to vessels, then Israel's situation is no worse, and perhaps even better than that of Britain. Thus, the average distance between stations is similar (about 80 kilometers in both cases), the speed of the various vessels is similar and the fact that the Maritime Police in Israel is composed mainly of full -time salaried employees on call in the stations or on the boats at sea shortens the response time relative to the RNLI, which is largely made up of volunteers. While most of the RNLI stations have one lifeboat for rescue at sea under any weather conditions and one rubber boat for assistance near the shore, the Maritime Police in Israel have two boats for rescue at sea and a water scooter for assistance near the shore.

In sum, the character of maritime activity in Israel (sport and recreation) for most of the public involves bathing at a beach and to a much lesser extent activity far from shore, such as sailing in small boats. This is apparently the reason for the small number of rescues by the Maritime Police and the navy along the coast of Israel (apart from Sea of Galilee). In my opinion, the Maritime Police are well-prepared for their missions. It appears that the scope of maritime activity and the need for rescue

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27  Statista. 2020. Total number of boats owned by household in the UK from 2015–2017
     https://www.statista.com/statistics/530382/boat-ownership-numbers-united-kingdom-uk

28  Ynet (11 June 2019). https://www.ynet.co.il/articles/0,7340,L-5523075,00.html

services at sea in Israel do not justify the creation of an additional protective layer such as the Coast Guard or the RNLI.

If we wish to reduce the number of drownings each year, as Britain has done, and despite the increase in Israel's population, then as a country on the Mediterranean coast where recreational activity at the beach is deeply engrained in the culture, the State (i.e. the government and the local councils) need to invest more in the teaching of swimming for all and in water safety education for children and youth. In addition, the State needs to encourage the local councils, that have not yet done so, to reinforce the existing rescue framework: more lifeguards, longer bathing hours and a longer bathing season since people go to the beach both before Passover and after the High Holidays (which is the official season for the beaches in Israel).

Since the cost of creating and operating official beaches is high and the local councils are reluctant to open additional official beaches as a result, the State needs to provide budgetary assistance or to open beaches that it will operate rather than by the local councils. In addition, there is a possibility of declaring certain beaches as official only during the bathing season or even only on weekends. Furthermore, the possibility of paid parking at official beaches should be considered; this provides the local councils with the possibility of offsetting part of the cost of maintaining the beach, although on the other hand this might encourage bathers to use non-official beaches and thus endanger themselves and their families.