

Yes, Israel's Navy Is Nuclear-Armed



Israel isn't fooling around with its defense.

Key point: Israel does not officially confirm it has nuclear weapons. But it does and it has the submarines with which to launch them.

Israel's navy is the smallest branch of the Israel Defense Forces. However, the need to protect Israel's recently-established gas rigs in the Mediterranean against missile and terrorist attacks presents the Israeli navy with a profound challenge.

In addition, the Israeli submarine fleet is of tremendous strategic importance—particularly regarding a possible Iranian military nuclear program. Thus, Israel's navy plays a vital role for Jerusalem's security.

Almost 10,000 men and women serve in Israel's navy under the command of Maj.

Gen. Eli Sharvit. Traditionally, coastal security is one of the naval forces' primary tasks. This includes protecting Israeli waters from enemy infiltration and preventing the smuggling of weapons.

The navy operates in two separate seas — the Mediterranean with major bases in Haifa and Ashdod and the Gulf of Aqaba with a base in Eilat. The fastest connection by far between both theaters is the Suez Canal. Since the peace accord between Israel and Egypt in 1979, it has been technically possible for Israeli military ships to pass through the canal. However, it is politically a very delicate situation.

In June 2009, INS *Hanit* was the first major Israeli warship to transit the Suez.

Currently, the main area of operation of Israel's navy is the Mediterranean. However, from time to time the naval forces conduct spectacular operations in the Red Sea, as well. In March 2014, they seized the freighter *Klos-C*. Israeli naval special operations force Flotilla 13 boarded the ship 1,500 kilometers from Eilat.

Hidden beneath cement bags they found tons of weapons and ammunition from Iran, including 40 Khaibar-1 artillery rockets and 400,000 7.62-millimeter rifle rounds — all probably bound for Gaza.

The mightiest warships of the Israeli navy are three corvettes of the *Sa'ar 5* class, manufactured by the U.S. company Northrop Grumman. Equipped with Harpoon and Gabriel sea-to-sea missiles, Barak-8 sea-to-air missiles, and a helicopter hangar, they are the biggest and heaviest ships at Israel's disposal.

However, the Israelis prefer smaller and more agile ships with lots of firepower, such as the missile boats of the *Sa'ar 4.5* and *Sa'ar 4* classes. They weigh 450 tons and are built in Israel, except the MTU diesel engines from Germany. The navy operates more than 10 ships of these classes.

In addition, two dozen *Dvora*- and *Dabur*-class patrol boats are in service. There are at least partly produced by Israeli companies. Israel's navy also operates unmanned boats such as the Protector USV, manufactured by the Israeli company Rafael. The Protector is a remote-controlled, weaponized rigid-inflatable boat that can reach speeds up to 50 knots and comes armed with a Typhoon machine gun.

In addition, the navy has a commando unit at its disposal—Flotilla 13, Israel's equivalent to the U.S. Navy SEALs or the British Special Boat Service. The 300-man strong Flotilla 13 is one of Israel's most elite special operation units. Its base is located at the picturesque Crusader castle Atlit on the Mediterranean coast.

Flotilla 13 has fought in most of Israel's wars and is famous for its counterterrorism and sabotage capabilities. The unit is capable of a broad range of operations, from reconnaissance to hostage-rescues. In the Yom Kippur War in 1973, the unit sneaked into Egyptian ports and sank five warships.

Since the 1980s, Flotilla 13 has been heavily involved in Israel's counterterrorism operations. Nowadays, the unit hits the headlines with spectacular missions often far away from Israel's shores. Its elite soldiers board and capture cargo ships carrying weapons for Hamas, Hezbollah, and the like.

During the major Arab-Israeli wars, the IDF's navy played only a marginal role. However, in the Yom Kippur War, Israel's naval forces sank eight Egyptian and Syrian warships without any losses. The navy succeeded in keeping the Israeli shore from harm.

The navy usually operates as "swimming artillery" and provides a forward operational base for the deployment of special forces, as well as for the surveillance of enemy coasts. The navy also enforces blockades—currently focusing on the Gaza Strip.

Infiltration by Palestinian terrorists has represented a major naval threat to Israel since the 1980s. Particularly vulnerable are the areas close to the northern border with Lebanon and in the south near Gaza. As a countermeasure, the navy also deploys underwater barriers and sensors.

Nevertheless, during the last major confrontation with Hamas in Gaza — Operation Protective Edge in 2014 — a naval commando unit of the Islamist terror organization managed to breach Israel's defense system. The Hamas frogmen came to shore close to Kibbutz Zikkim, surprising Israel. Even more worrisome is the possibility that Hezbollah might copy this tactic. Consequently, Israel's *Dvora* patrol boats were equipped with depth charges.

Since the discovery of huge gas fields off the coast of Israel and the beginning of their exploitation, the protection of gas rigs has become a vital task for the Israeli

navy. Naturally, the big installations make a perfect target for Hezbollah.

The Lebanese group's willingness to attack the gas rigs was demonstrated in their attempts to smuggle Russian Jachont missiles from Syria to Lebanon in recent years. The anti-ship missile has a range of 300 kilometers and travels at supersonic speed. Israel intervened several times to prevent the weapons' arrival in Lebanon.

According to media reports, in 2013 Israel destroyed several missiles with a submarine-launched missile of its own. However, it's possible that since then Hezbollah has managed to smuggle Jachont missiles into Lebanon.

***Dolphin*-class submarines**

At the center of Israel's maritime capabilities are the *Dolphin*-class submarines manufactured in Germany. The arms cooperation between Berlin and Jerusalem has traditionally been close in the naval sector.

Back in the 1970s, Israel's *Gal*-class submarines — based on Germany's Type 206A — were built in the British Vickers shipyard to plans from the German company Ingenieurskontor Lübeck and with financial support of the German government.

In the 1980s, the IDF was looking for a state-of-the-art substitute of the *Gal*-class subs. The navy demanded bigger, versatile vessels with an operational range that would cover the whole Mediterranean.

Again, Germany's IKL was commissioned to design a concept for Israel's needs. Jerusalem was pleased with the result, the *Dolphin* class, which is based on Germany's Type 209 class, though significantly modified and enlarged.

However, Jerusalem was desperately looking for ways to finance the ships. Then there was the 1991 Gulf War. Iraq's despotic ruler Saddam Hussein fired Scud missiles toward Israel and threatened to arm them with chemical warheads. When it became public knowledge that German companies were involved in Saddam Hussein's chemical weapon and missile program, Germany's government came under tremendous pressure.

Subsequently, the late chancellor Helmut Kohl promised to take care of the lion's share of the production costs for three submarines, as part of a compensatory aid

package for Israel. This time the subs were produced at Howaldtswerke Deutsche Werft in Kiel.

With the commissioning of the *Dolphin*-class submarines in 1999 and 2000, Israel's navy set sail into a new era. The 57-meter-long submarines with their diesel-electric propulsion have a range of 4,500 miles and are capable of operations in the whole Mediterranean. The subs are considered very quiet and are therefore hard to spot.

In 2002 and '03, Israel showed interest in an updated version of the submarines. The *Dolphin II* are some 10 meters longer than the original *Dolphins* and are propelled by a fuel cell drive manufactured by Siemens. The drive allows the boats to dive longer and farther — and do so more quietly.

Whereas *Dolphin*-class submarines had to surface after a couple of days to start the diesel engines and charge the batteries, the *Dolphin IIs'* propulsion is independent from external air — a so-called air-independent propulsion system, or AIP. It's thus possible for the new boats to stay submerged for up to three weeks. The *Dolphin II* class is similar to Germany's Type 212 submarines, but they are slightly longer, heavier, and have a larger crew.

For Jerusalem, the submarines are strategically essential because they provide Israel the only opportunity to operate undetected off the shore of Arab countries and maybe even Iran — although the latter represents a formidable challenge since Israel has no nearby supply base.

Germany's chancellor Gerhard Schröder assured Jerusalem that the Federal Republic would cover one-third of the production costs. "Israel gets whatever she needs to protect her security, and she gets it whenever she needs it," Schröder said.

Subsequently, Israel ordered three new submarines, which were in fact the largest underwater vessels built in Germany since World War II — and the IDF's most expensive weapon systems.

In 2014, the INS *Tanin* was the first of the new-generation submarines to reach its new homeport in Haifa. After intensive and highly secret "interior fittings" with Israeli equipment, the submarine reported for duty in summer 2015. In January 2016, the second submarine, INS *Rahav*, arrived in Haifa. The

third *Dolphin II* will probably be supplied in 2019.

In 2016, it was reported that the *Dolphin IIs* were equipped with a newly-developed sonar device by the Israeli company Rafael. The new system allows for the detection of very distant noises by filtering disrupting sounds.

The *Dolphins* mainly operate in the Mediterranean. Haifa is Israel's sole submarine base. Their operational spectrum is far-ranging, from the fighting of hostile naval forces to the bombardment of land targets with submarine-launched missiles. The subs can carry up to 16 missiles or torpedoes. Since the *Dolphins* can operate in shallow waters as well, they are perfectly equipped for gathering intelligence in periscope depth off enemy shores, and provide an ideal forward operational base for special forces.

Nuclear capabilities?

The *Dolphin II*-class subs have an unusual feature. Besides six torpedo tubes with a standard 533-millimeter diameter, they also possess four enlarged tubes with a 650-millimeter diameter. Since no other Western navy uses 650-millimeter tubes, this seems rather peculiar and gives rise to wide-ranging speculation as to their purpose.

It is widely assumed that Israel uses the enlarged tubes to launch nuclear-tipped cruise missiles. If this is true, the *Dolphin* subs provide Israel with a second-strike capability. Jerusalem wanted to acquire the U.S. Tomahawk with its 2,500-kilometer range.

When Washington denied the request, Israel probably tried to develop cruise missiles on her own. As one can imagine, available information is sparse. Media reports claimed that Israel might have tested a submarine-launched cruise missile off the shore of Sri Lanka in May 2000.

It seems plausible that Israel modified the Popeye air-to-surface missile produced by the Israeli company Rafael. An enlargement of the missile provides more space for fuel. Thus, a range of 1,500 kilometers with a warhead of up to 200 kilograms may be possible. In fact, this would be a proper explanation for the wider diameter of the torpedo tubes.

For several years now, Israel has sought to modernize its *Sa'ar 5* corvettes. First,

Jerusalem planned to acquire the American *Freedom*-class Littoral Combat Ship, but it turned out to be too expensive. Jerusalem then approached the German Thyssen Krupp Marine Systems and the Blohm+Voss shipyard in Hamburg.

Eventually, Jerusalem commissioned four ships of the *Meko A-100* class — similar to Germany's *Braunschweig*-class corvette — after tedious negotiations with the German government regarding financial support. In December 2014, Berlin agreed to subsidize the ships' construction with 115 million Euros.

One of the crucial missions that these *Sa'ar 6* ships will have to tackle is the protection of Israel's gas rigs in the Mediterranean. Thus, they will be equipped with Tamir interceptor missiles, basically transforming them into swimming Iron Dome vessels. The first *Sa'ar 6* is scheduled to arrive in Israel in 2019. With a displacement of about 2,000 tons and a length of around 90 meters, it will become Israel's mightiest naval surface vessel.

In addition, Israel is currently updating its fleet of missile boats. Israel Shipyards is building these *Sa'ar 72*. In May 2013, the Israeli navy proudly presented the mini-corvette at the International Maritime Defense Exhibition in Singapore. The ship is 72 meters long and can reach speeds up to 30 knots. It has a range of up to 5,500 kilometers and is expected to be operational in 2018.

In 2016, Israel and Germany signed a general agreement for three additional *Dolphin II* submarines worth up to 1.5 billion Euros. Israel's government apparently plans to replace the older *Dolphins* with the new ones from the year 2027 onward. However, the decision to enlarge the submarine fleet is highly controversial in Israel because Prime Minister Benjamin Netanyahu pushed the procurement through against the advice of former defense minister Moshe Ya'alon and high-ranking officers in the IDF, who suggested devoting the money to more urgent military needs.

In addition, leading Israeli figures involved in the negotiations for the deal are currently under investigation for corruption, fraud and other offenses. Thus, in mid-July 2017, the German government put the deal on hold, although Berlin had already approved it.

Source:

<https://nationalinterest.org/blog/reboot/yes-israels-navy-nuclear-armed-165071>

[Disclaimer]