

Israel's Nuclear-Armed Submarine Fleet in Mediterranean, Threatens Middle East and Europe

By Anthony Bellchambers

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*** See '10 Disturbing Facts about Israel', at end of this document

Technical data on the five, German-built, Dolphin-class submersible nuclear-armed warships [pictured left] of the IDF's Naval Warfare Arm:

The *Dolphin* class fleet actually comprises two related sub-classes of <u>diesel-electric submarine</u> developed and constructed by <u>Howaldtswerke</u>-Deutsche Werft AG (HDW), <u>Germany</u> for the <u>Israeli Navy</u>. The first boats of the class were based on the export-only German <u>209-class submarines</u>, but modified and enlarged. The *Dolphin* 1 sub-class is slightly larger than the <u>German Navy Type 212</u> in length and displacement. The three newer <u>air-independent propulsion</u> (AIP) equipped boats are similar to the Type 212 vessels in underwater endurance, are 12 metres (39 ft) longer, nearly 500 tonnes heavier in submerged displacement and have a larger crew than either the Type 212 or the <u>Type 214</u>.

The *Dolphin 2*-class are the largest submarines to have been built in Germany since World War II. The *Dolphin* class boats are the most expensive single vehicles in the <u>Israel Defense Forces</u>. The *Dolphin*-class replaced the aging <u>Gal-class submarines</u>, which had served in the Israeli navy since the late 1970s. Each *Dolphin*-class submarine is capable of carrying a combined total of up to 16 <u>torpedoes</u> and <u>SLCMs</u>.

The cruise missiles have a range of at least 1,500 km (930 mi) and are widely believed to be equipped with a 200-kilogram (440 lb) <u>nuclear warhead</u> containing up to 6 kilograms (13 lb) of <u>plutonium</u>. The latter, if true, would provide Israel with an offshore <u>nuclear second strike</u> capability and mean that virtually all the countries of Europe and North Africa would be within range of its nuclear warheads, if fired from an Israeli submarine in the central Mediterranean. This would include:

ALGERIA| AUSTRIA| BULGARIA| EGYPT| FRANCE| GERMANY| GREECE| ITALY| HOLLAND| HUNGARY| JORDAN| LIBYA| MOROCCO| POLAND| SPAIN| SYRIA| SAUDI- ARABIA| TURKEY| UNITED-KINGDOM| UKRAINE, amongst others.

Each submarine is fitted with 6 \times 533 mm (21.0 in) torpedo tubes, and 4 \times 650 mm (26 in) torpedo tubes. The very large 650 mm tubes can be used for laying mines, larger submarine-launched cruise missiles, or swimmer delivery vehicles, and with liners the tubes could be used for standard torpedoes and submarine-launched missiles. According to the German Defense Ministry the 650 mm tubes are to have a liner installed for firing 533 mm UGM-84 Harpoon missiles although the *Dolphin* class already has six tubes of the 533 mm size. The boats were first armed with Atlas Elektronik DM2A3 torpedoes using wire-guided active homing to deliver a 260 kg (570 lb) warhead at a maximum speed of 35 knots

(65 km/h; 40 mph) to a target over 13 km (8.1 mi) away, in passive homing mode a speed of 22 knots (41 km/h; 25 mph) and a range up to 28 km (17 mi) is possible. Israel has also has procured the DM2A4 torpedo, successor to their DM2A3s, which are electrically propelled, equipped with fiber optic communications and has countermeasure resistant signals processing and mission logic. A wet and dry compartment is installed for deploying underwater special operations teams. According to Defense Industry Daily the IDAS torpedo tube launched anti-helicopter missile, designed to defend against airborne threats while submerged in shallow water found in the Mediterranean where escape to depth is often not possible, is under development for the Dolphin and 212 classes.

Jane's Defence Weekly reports that the *Dolphin*-class submarines are believed to be <u>nuclear armed</u>, offering Israel a sea based <u>second strike</u> capability. In adherence to <u>Missile Technology Control Regime rules</u> the US Clinton administration refused an Israeli request in 2000 to purchase <u>Tomahawk</u> long range SLCMs. The U.S. Navy has deployed nuclear armed and conventional Tomahawk missiles for its submarine fleet which are launched from standard heavy 533 mm torpedo tubes. The <u>Federation of American Scientists</u> and GlobalSecurity.org report that the four larger torpedo tubes are capable of launching Israeli built nuclear-armed <u>Popeye Turbo cruise missiles</u> (a variant of the <u>Popeye</u> standoff missile), and the U.S. Navy recorded an Israeli submarine-launched cruise missile test in the Indian Ocean ranging 1,500 km (930 mi).

The *Dolphin* class uses the ISUS 90-1 TCS weapon control system supplied by STN <u>Atlas Elektronik</u>, for automatic sensor management, fire control, navigation, and operations. The installed radar warning receiver is a 4CH(V)2 Timnex electronic support measures system, scanning from 2 GHz to 18 GHz frequency bands and able to pinpoint radar sites with accuracy between 1.4 to 5 degrees of angle (depending on frequency). It is developed by <u>Elbit</u> in Haifa. Active surface search radar is an <u>Elta</u> unit operating on <u>I band</u>. The sonar suite includes the Atlas Elektronik CSU 90 hull-mounted passive and active search and attack sonar. The PRS-3 passive ranging sonar is also supplied by Atlas Elektronik, the flank array is a FAS-3 passive search sonar. The submarines have two Kollmorgen periscopes.

The *Dolphins* are equipped with three V-16 396 SE 84 diesel engines built by MTU Friedrichshafen (now Tognum), developing 3.12 MW (4,180 hp) sustained power. The submarines are equipped with three Siemens 750 kW alternators, and a Siemens 2.85 MW sustained-power motor driving a single shaft. The propulsion system provides a speed of 20 knots (37 km/h; 23 mph) submerged and a snorkeling speed of 11 knots (20 km/h; 13 mph). The hull is rated for dives up to 350 m (1,150 ft). The maximum unrefuelled range is 8,000 nautical miles (15,000 km; 9,200 mi) traveling on the surface at 8 knots (15 km/h; 9.2 mph) and over 400 nautical miles (740 km; 460 mi) at 8 knots (15 km/h; 9.2 mph) submerged; they are designed to remain unsupplied for up to 30 days on station.

Operations and deployment

According to news reports the submarines are normally based in the Mediterranean. One *Dolphin* was sent to the <u>Red Sea</u> for exercises, briefly docking in the naval base in <u>Eilat</u> in June 2009, which Israeli media interpreted as a warning to Iran. In 2009 the Israeli newspaper Haaretz, quoting an Israeli defense official, reported that the small Eilat naval station is unsuited strategically to base the *Dolphin*-class boats, specifically noting the tight entrance of the <u>Gulf of Aqaba</u> at the <u>Straits of Tiran</u> as one held by potential adversaries

including <u>Saudi Arabia</u> on the east and the demilitarized Egyptian Sinai to the west. Eilat is a 10 km (6.2 mi) strip of coast between Egypt and Jordan, the only two Arab states that currently have peace treaties with Israel. According to The London Sunday Times, the Israeli Navy decided in May 2010 to keep at least one submarine equipped with nuclear missiles there permanently as a deterrent in response to rumored ballistic missiles moved from Syria to Lebanon. [16]

If the boats are based at the larger Haifa naval base, access to the Persian Gulf area either requires openly sailing on the surface through the Egyptian controlled <u>Suez Canal</u> as permitted in the <u>Egypt-Israel Peace Treaty</u> or a long voyage sailing around Africa. According to the <u>Convention of Constantinople</u> signed by the ruling great powers of the time including the UK, France, and the Ottoman Empire in March 2, 1888; "The Suez Maritime Canal shall always be free and open, in time of war as in time of peace, to every vessel of commerce or of war, without distinction of flag." Denied crossing at the Suez Canal and blockade of the Straits of Tiran occurred in both in 1956 and 1967 leading to Israel twice seizing the Sinai to break the blockade. The <u>Egypt-Israel Peace Treaty</u> allows for the free passage of Israeli vessels through the <u>Suez Canal</u>, and recognizes the <u>Strait of Tiran</u> and the <u>Gulf of Aqaba</u> as international waterways. Even if a Red Sea or Indian Ocean base is unavailable other nations have used <u>submarine tenders</u>, ships that resupply, rearm, and refuel submarines at sea, when nearby friendly bases are unavailable.

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http://www.nti.org/treaties-and-regimes/treaty-on-the-non-proliferation-of-nuclear-weapons/

http://www.nti.org/analysis/articles/israel-submarine-capabilities/

BIOLOGICAL WEAPONS (*ISRAEL IS NOT A PARTY TO THE BWC)

- Multilateral
- o <u>Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological</u> (Biological) and Toxin Weapons (BTWC)

The treaty prohibits the development, production, stockpiling, or acquisition of biological and toxin weapons, and mandates the elimination of existing weapons, weapons production material, and delivery means.

Parties: Algeria, Argentina, Armenia, Australia, Azerbaijan, Belarus, Brazil, Canada, China, Cuba, Egypt, Estonia, Former Yugoslavia, France, Georgia, India, Indonesia, Iran, Iraq, Japan, Jordan, Kyrgyzstan, Latvia, Libya, Lithuania, Myanmar, North Korea, Pakistan, Russia, Saudi Arabia, South Africa, South Korea, Syria, Taiwan, Tajikistan, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uzbekistan, Venezuela, Vietnam

CHEMICAL WEAPONS (*ISRAEL IS NOT A PARTY TO THE CWC)

- · Multilateral
- o Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC)

The CWC requires State Parties not to develop, produce, acquire, stockpile or retain, transfer, use, or make military preparations to use chemical weapons. It entered into force in 1997.

Parties: Algeria, Argentina, Armenia, Australia, Azerbaijan, Belarus, Brazil, Canada, China, Cuba, Estonia, Former Yugoslavia, France, Georgia, India, Indonesia, Iran, Iraq, Japan, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Libya, Lithuania, Pakistan, Russia, Saudi Arabia, South Africa, South Korea, Taiwan, Tajikistan, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uzbekistan, Venezuela, Vietnam

(*ISRAEL IS NOT A PARTY TO THE NPT- NUCLEAR NON-PROLIFERATION TREATY)

ANNEX

*** 10 Disturbing Facts about Israel

- 1. Netanyahu heads the only undeclared nuclear weapons entity on the planet yet still alleges that non- nuclear Iran is trying to eliminate the state of Israel and its 100s of undeclared warheads in its Dimona secret arsenal, in an abortive effort to damage the internationally agreed Iran peace deal, painstakingly negotiated by the UN Security Council members and the EU. His political machinations in both Washington and Europe, have now resulted in ignominious failure as Iran re-joins the international community.
- 2. His Likud coalition government refuses to be a party to both the Chemical and Biological Weapons Conventions (CWC / BWC) to which EU members and other major UN states are signatories. Neither is it a party to the NPT nuclear Non-Proliferation Treaty as it refuses to submit its undeclared nuclear arsenal to the IAEA inspection of the United Nations.
- 3. His right-wing, extremist government supports the continued illegal occupation and settlement of the Palestinian West Bank, East Jerusalem and the Golan Heights in violation of international law, in addition to continuing a blockade of essential materials to 1.8 million in Gaza, both of which have earned global condemnation.
- 4. He exerts a wholly undemocratic influence over the Republican, AIPAC -dominated US congress in Washington thereby disproportionately skewing American foreign policy in favour of Israel and obtaining US\$6 billion of arms shipments annually to maintain its blockade of Gaza and its illegal settlement policy.
- 5. His family background includes a documented previous close association with terrorist organisations notably the Irgun Zvai Leumi paramilitary.
- 6. His government is in continued breach of the human rights provisions of the EU Association Agreement that currently affords Israel free trade access to the European single market now subject to review.
- 7. He allows the so-called 'pricetag' terrorists to continue to persecute Arab residents in the Occupied Territories by the burning and destruction of olive groves and businesses in a program of uncontrolled intimidation.
- 8. He continually threatens to restrict access to Jerusalem's Al-Aqsa mosque as did his failed predecessor, Ariel Sharon, apparently in a bid to provoke violence and dissent. This, notwithstanding the UN declaration of Jerusalem as an international city with unrestricted access to all faiths, in perpetuity.

- 9. He is the leader of a party whose published charter requires the ethnic cleansing of indigenous Palestinians in order to establish a Greater Israel in all of former Palestine.
- 10. Likud's official agenda to establish the so-called 'facts on the ground' is a blatant attempt to abort the establishment of an independent Palestinian state. This illegal program has recently been condemned by the Chinese government as well as by the EU, Russia and the US and is now expected to lead to global economic, political and sporting sanctions.

Note: all the above facts are verifiable within the public domain

eunewsdesk@gmx.com

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