

Newsletter Friday August 17, 2018

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Official: **Trump and Putin agreed to get Iran out of Syria**

Two leaders reportedly agreed on issue during July meeting in Helsinki • U.S. administration official tells Bloomberg that Russian leadership believes securing Iran's withdrawal will be difficult • Leaders also said they would ensure Israel's security.

Israel Hayom Staff

U.S. President Donald Trump and Russian President Vladimir Putin in Helsinki, Finland, in July | Photo: Reuters

U.S. President Donald Trump and Russian President Vladimir Putin reportedly agreed in principle that Iranian forces should exit Syria when they met in Helsinki in July, according to a U.S. administration official familiar with the meeting.

However, the official told Bloomberg that the Russian leadership said securing Iran's withdrawal from Syria would be difficult.

Trump and Putin also discussed the ongoing campaign against the Islamic State terrorist group, the dispute over Israeli sovereignty in the Golan Heights and the humanitarian situation in Syria, the official told Bloomberg.

According to the Bloomberg report, Trump briefed his chief of staff, John Kelly, National Security Adviser John Bolton, Secretary of State Mike Pompeo and U.S. Ambassador to Russia Jon Huntsman for 15 minutes immediately after meeting one-on-one with Putin.

At the July summit, much of the focus was directed at Trump's refusal to back the assessments of the U.S. intelligence community over Putin's denials of Russian meddling in U.S. elections. Trump subsequently said he misspoke and that he did believe the American intelligence community's assessment.

During their meeting, the two leaders said their countries would work together to ensure Israel's security.

The Russian leader said that during the "very successful" one-on-one meeting, Trump placed a special emphasis on maintaining Israel's security.

Netanyahu welcomed the U.S.'s "deep commitment," his office said in a statement after the summit.

The prime minister "greatly appreciates the security coordination between Israel and Russia and expressed the clear position to President Putin on the need to maintain the separation agreements between Israel and Syria in 1974," the statement said.

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Despite long-term truce overtures,  **Hamas urges mass border protest**

Hamas' actions on the ground will determine future of indirect cease-fire negotiations, Israeli officials say • **"If the calm on the border is violated, Israel will mount a forceful response,"** official warns • Cabinet ministers lock horns over Gaza policy.

Ariel Kahana, Mati Tuchfeld, Nikki Guttman and Eli Leon

Palestinian protesters burn tires near the Gaza-Israel border | Photo: AFP

Hamas leaders on Thursday urged Palestinians in the Gaza Strip to arrive at the border with Israel on Friday and protest en masse, as they have been doing since the onset of the group's border riot campaign four months ago.

The call came **despite the fact Gaza's rulers are engaged in indirect cease-fire negotiations** with Israel, meant to prevent the hostilities of recent weeks from escalating further.

Israeli officials said Hamas' actions on the ground would determine whether negotiations could continue, saying, "If the calm on the border is violated, **Israel will mount** a forceful, **unrestricted response.**"

Arab media reported Thursday that the cease-fire agreement Egypt is trying to negotiate between Israel and Hamas includes a one-year truce as well as several measures meant to alleviate the dire economic situation in Gaza, such as establishing a "naval corridor" between Cyprus and Gaza through which goods could be delivered to the enclave, as well as the construction of a port in the Sinai Peninsula, which would operate under Israeli security supervision.

An Egyptian source said that if the truce proves viable, negotiations will be held to extend it to four years.

He further said a broader agreement would **include a prisoner exchange deal**, under which Hamas will return the bodies of two IDF soldiers as well as two living Israeli civilians, and Israel will release hundreds of Palestinian security prisoners.

Hamas denied that a prisoner exchange deal was in the works, saying it opposes linking a truce deal to a potential prisoner exchange.

Israeli officials denied that the current talks extended beyond a bilateral cease-fire, and said any Arab reports suggesting Israel has agreed to a naval corridor are false.

An official privy to the current talks told Israel Hayom, "The truce would have to hold for a considerable period of time for Israel to discuss any humanitarian projects in which it may be involved. This would also depend on prisoner exchange negotiations."

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IDF code crackers help decipher absurdly complex wheat genome

Long thought impossible, scientists present complete sequence of bread wheat genome, hoping it will help feed world's growing population • Professor Tzion Fahima: To meet projected food consumption needs in 2050, wheat production must increase at double current rate.

Israel Hayom Staff

Wheat has five times more DNA than humans | Illustration: Reuters

On Friday, the International Wheat Genome Sequencing Consortium published the first presentation of a high-quality, complete sequence of the bread wheat genome – which scientists had long thought to be an insurmountable task.

Researchers from the universities of Haifa and Tel Aviv, along with Israeli high-tech company NRGene – founded by ex-IDF intelligence officers from the army's vaunted 8200 technological unit – were part of the yearslong international project comprising more than 200 researchers from 20 countries.

Wheat has five times more DNA than humans. Its fully annotated sequence provides the location of over 107,000 genes and more than 4 million genetic markers across the plant's 21 chromosomes. For a staple crop that feeds a third of the world's population, mapping wheat's genome is a milestone that may be on par with the day its domestication began 9,000 years ago, according to wired.com.

Now that scientists and farmers have discovered the genes and factors responsible for traits such as wheat's yield, grain quality, resistance to fungal diseases, and tolerance to environmental stress, they will be able to produce hardier wheat varieties.

Professor Tzion Fahima – head of the Evolutionary and Environmental Biology Department and the head of the Laboratory of Plant Genomics and Disease Resistance in the Institute of Evolution at the University of Haifa – was part of the Israeli team that helped with the research, which spanned a period of 13 years.

According to Fahima, in order to meet the world's projected food consumption needs in 2050, when the global population is expected to reach 10 billion, wheat production has to be increased by about 1.6% per year. In recent years, however, wheat production has only increased about half that amount.

"Having [wheat] breeders take the information we've provided to develop varieties that are more adapted to local areas is really, we think, the foundation of feeding our population in the future," said Kellye Eversole, the executive director of the consortium.

The US Navy faces 'a huge liability' in countering one of Iran's favorite and most dangerous weapons

Christopher Woody 20h

US Navy amphibious assault ship Bataan strait of hormuz

The amphibious assault ship USS Bataan on the Strait of Hormuz in 2011. US Navy Tensions between the US and Iran have long centered on the Strait of Hormuz, through which much of the world's oil flows.

Iran could shut the strait with naval assets, sea mines in particular, but the US and its partners have countermeasure systems they could bring to bear.

Those systems, however, face other issues that could complicate any effort to quickly restore free access to the Persian Gulf.

In the wake of President Donald Trump's decision to pull out of the nuclear deal signed with Iran and five other countries in 2015, Tehran has responded with one of its most frequent threats: closing the Strait of Hormuz, a narrow channel in the Persian Gulf through which roughly 30% of world's oil flows.

"If Iran's oil exports are to be prevented, we will not give permission for oil to be exported to the world through the Strait of Hormuz," a Revolutionary Guards commander said in July.

Coastal defenses and naval vessels would have a big role in that effort, but it would most likely revolve around one of Iran's favorite military assets: sea mines, a vicious weapon that presents an acute challenge for a US Navy that is shifting between old and new mine-countermeasure systems.

Iran has laid mines at sea in past conflicts, and even these much less sophisticated weapons have disabled and nearly sunk US Navy warships.

An asymmetric threat

"As far back as the early 1980s, Iran was mining waters in the Gulf to prevent oil tankers from coming in or out of ports in the Arab part of the Gulf — Kuwait, Saudi Arabia, Bahrain, etc. — and it has extensive experience in trying to also menace warships," said Scott Savitz, a senior engineer at the Rand Corporation.

Sea mines remain "a big part of the Iranian approach," said Bryan Clark, a senior fellow at the Center for Strategic and Budgetary Assessments.

Strait of Hormuz Iran military navy

Iranian military personnel during exercises near the Strait of Hormuz in 2011.

REUTERS/Fars News/Hamed Jafarnejad

The sea mines Iran used at that time were relatively unsophisticated — the mine that almost sank the frigate USS Samuel B. Roberts in 1988 was a World War I-era device— but mines it can deploy now are more advanced and more dangerous, with some warheads weighing nearly 2,500 pounds.

As of 2012, Iran was believed to have grown its supply of sea mines from about 1,500 during the Iran-Iraq War in the 1980s to more than 6,000, according to a report by the Center for Strategic and International Studies.

That stockpile is not as vast as those of North Korea, China, or Russia, which also rely on anti-access or area-denial approaches to limit movement in contested areas, but it includes an array of mines, such as cheap, conventional ones and more advanced "smart mines," which may be able to track multiple targets, discern different types of ships, and avoid detection by lurking on or near the seafloor.

Advanced mines can be triggered by sound, pressure, or magnetic influence. But even conventional ones that require contact to detonate are a threat to US warships and other commercial vessels. Iran also has an array of ships to lay them — some can even be deployed through submarine torpedo tubes.

Strait of Hormuz Iran Iraq Saudi Arabia Persian Gulf

Google Maps

Iran's naval forces are no match for the US Navy, but sea mines are asymmetric weapons that a weaker side can use to foil a stronger opponent — even one with the world's strongest navy. They can be deployed to deny access or freedom of movement and can be used to escalate tensions more incrementally than would a cruise-missile attack on an enemy warship.

"The Iranians see [mines] as a good tool for them to be able to threaten to close the strait and do it in a way that they can threaten it and you don't know that the mines are really there," Clark said, "and then if they do have some mines out there, the damage they're going to inflict is going to be more in terms of preventing people from freely going back and forth rather than having to kill a lot of people to make a point."

"You can threaten the use of mines and actually not have any out there," Clark added.

"However, a very small number of mines ... in a place where someone's likely to run into

one, and then that damages a ship, and then you can say that you've got a much larger field, even though you may not."

#### Speed and scope

Iran Persian Gulf Strait of Hormuz sea mine US Navy

A US Navy boarding party inspecting mines on an Iranian ship in the Persian Gulf in 1987. (AP Photo/Mark Duncan)

The US has previously said attempts to deploy mines would draw a military response, but the Navy also has means to counter mines.

The service keeps several of its 14 Avenger-class ships stationed in Bahrain all year.

The ships are designed for anti-mine warfare, using sonar and video systems, cable cutters, and a mine-detonating device to neutralize mines. Their hulls are made of wood covered with fiberglass for lower magnetic resonance. The engines are also designed to lower the ships' magnetic and acoustic signatures. This is exceedingly dangerous work for these ships and their explosive ordnance disposal teams, which involves getting close to lurking mines to find and neutralize them.

The Avenger-class ships based in Bahrain are "immensely capable" and have multiple capabilities for and approaches to mine warfare, Rand's Savitz said. They are lightly armed, however, and would require escorts.

But the Avenger class is aging, and the problem for the US Navy is that the mine threat looms as it struggles to move from those ships and the MH-53E Sea Dragon helicopters that often accompany them to a newer platform that uses unmanned systems deployed aboard littoral combat ships.

#### Avenger class mine countermeasures ship

The USS Avenger off the coast of Hawaii during the Rim of the Pacific exercise in 2004. US Navy

"The US is in this transition from a more traditional minesweeping approach, where a minesweeper goes out and either drags minesweeping equipment behind it that physically entangles the mines or sets them off by magnetic influence," Clark said.

"Now they're transitioning to the use of unmanned vehicles to do a lot of this," he added. "So they'll have an unmanned ship drive out ... sweep gear behind it to pick up mines, and they'll have unmanned vehicles go around and hunt for mines that might be on the seafloor" or otherwise submerged.

Littoral combat ships are already in service, and there's been recent progress with LCS-based mine countermeasures, such as the Knife fish unmanned undersea vehicle and the helicopter-mounted Airborne Laser Mine Detection System. That progress, amid

struggles with littoral combat ships, may mean these systems end up being deployed aboard other ships, Clark noted.

But other cost overruns, delays, and malfunctions — like the cancellation of the Remote Minehunting System after nearly a billion dollars and almost two decades of work — have hindered the mine-countermeasure program.

Mine-countermeasure systems in general "don't get as much attention as they need," Clark said. "It's not a sexy part of the Navy." Older systems, he said, "could've been replaced a long time ago, or at least improved before this became an issue."

USS Independence mine countermeasures UUV remote vehicle littoral combat ship  
The Remote Minehunting System and an AN/AQS-20 mine-hunting sonar being brought aboard the littoral combat ship USS Independence during testing of the mine-warfare mission module package in 2012. US Navy/Ron Newsome  
The shift between older platforms and newer systems with limited capabilities is "a huge liability" for the Navy, Clark said.

"They're in the middle of this transition, so they don't have these unmanned systems really completely tested out and fully fielded, and so there's still a lot of the traditional sweep gear and traditional approaches," he said.

The Sea Dragon, which is the Navy's oldest helicopter in service, was supposed to retire in 2005. But the service has yet to find a replacement for the heavy-lift helicopter, which can haul a variety of minesweeping gear and deploy anywhere in the world within 72 hours. The Avengers, introduced in the early 1990s, have also had their service lives extended, requiring upgrades.

Those ships and helicopters remain capable, but they aren't "scalable," meaning they "can't ramp it up when there's a minefield," Clark said. Those systems aren't necessarily a problem because they're old, he added, they're "just limited in speed and scope."

#### Timelines and risks

US Navy mine countermeasures MH-53 Sea Dragon helicopter sonar  
A naval aircrewman preparing a Q-24 sonar side-looking vehicle to be lowered into the Persian Gulf from an MH-53E Sea Dragon during mine-countermeasure training on May 18, 2017. US Navy/Mass Comm. Specialist 1st Class Joshua Bryce Bruns  
The issues facing US mine-countermeasure systems do not mean Iran has a clear advantage, however.

"While the Persian Gulf is not wide, it's big enough that Iran would have to cover a swath in order to prevent ships from going through it without encountering mines," Savitz said. "So it would be challenging for them."

Moreover, because it lacks refining capacity, Iran needs to be able to ship oil and refined products in and out.

"It would be cutting its own throat if it tried to shut down all traffic in the Gulf," Savitz said. "If it leaves open a significant pathway, then others can potentially use it too."

If Iranian ships start behaving in ways that indicate they're laying mines, "that can be interdicted," Savitz added. And the US would watch closely for any effort to reseed minefields that had been cleared.

"That's the best mine-countermeasure solution of all, is to catch the adversary laying the mines or to detect roughly where the mines are laid," to focus mine-countermeasure efforts, Savitz said.

US Navy mine countermeasures Avenger ship

US Navy Mineman 1st Class Justin Crabtree in November lowering a mine-neutralization vehicle from the Avenger-class ship USS Chief into the water to track mines and simulate delivering an explosive package. US Navy/Mass Comm. Specialist 2nd Class Jordan Crouch

But the scalability issue would loom over any effort to track down and clear mines from the area.

"Mine countermeasures is also typically a slow area of warfare that requires intense attention to detail, so it also entails thinking about trade-offs between timelines and risk," Savitz said. "How quickly a water space can be opened up after ... mine countermeasures have begun depends on what level of risk is acceptable."

Former Adm. James Stavridis, who was the supreme allied commander in Europe before retiring in 2013, told CNBC in July that, should Iran try to use its military to close the Strait of Hormuz, the US and its partners "would be able to open it in a matter of days."

That time frame is not so certain. It depends on how large the Navy and its partners believe the affected minefield to be.

"If it's the whole Strait of Hormuz, the Navy says that could take weeks," Clark said. While many modern tankers have features like double hulls that could mitigate some mine risks, closing or restricting access to the Gulf would upend the global economy.

Stavridis may have meant the US and its partners could clear a "very narrow channel" through a minefield during that period, Clark added, but that would slow down traffic, and each ship would need an escort. There would be "much less access than was previously available," he said.