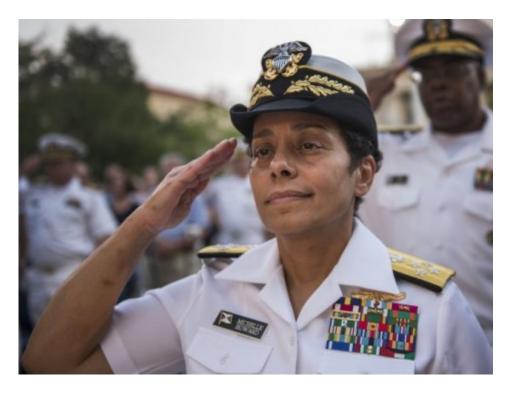
10-May-17 - Was Russia Tricked by an American Woman in Syria? - No way!

#### **Description**



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On April 7, 2017, President Trump famously launched 59 Tomahawk missiles at the Shayrat air base near Homs, a highly visible and much-vaunted gesture, even though only 23 of them actually landed. But even that begs the question: How did even one of them get through, if Russia has such a solid defense in place?

In Syria, the Russian army has deployed a multitude of land-based and ship-borne long-range and short-range AA systems and even has MiG-31BM, Su-30SM, and Su-35S cruise missiles capable of taking down cruise missiles. In its military actions in Syria, the Russians have applied the principles and laws of military science by the book [1]. Indeed, they have even surpassed world standards in the use of force for special operations [2].

Even so, all the Russian military installations were [seemingly] powerless against the US ship-based cruise missiles. The Americans managed to trick the Russians very handily.

Cruise missiles are no longer a technical novelty except for states with a weak military. Russia has demonstrated that their Kalibr can achieve the same performance as America's Tomahawk. Moreover, under standard conditions, AA S-400 and S-300V4 air defense missiles can successfully counter a Tomahawk cruise missile launched from surface ships (though not from submerged submarines which

are harder to spot).

So it wasn't technological superiority that made the difference, but the commanders of the Fifth American Fleet who demonstrated a high level of skill. They made full use of intelligence and innovation to counter the Russians' technological advantage. By the way, for those who do not know: the commander of Fleet VI is a woman, Admiral Michelle J. Howard, who graduated from the United States Naval Academy in 1982 and from the Army's Command and General Staff College in 1998.

# The apparent trajectory of cruise missiles.

If the Americans had chosen a direct trajectory for the cruise missiles, the distance between Crete (where the Arleigh Burke destroyers – the DDG 78 Porter and DDG 71 Ross – were deployed) and the Syrian air base Shayrat (40 km SE of Homs) would have been 1,070 km. The Tomahawk missiles used were Block III TLAM-C or Block IV TLAM-E, both with a range of 1,600 km.

On a direct trajectory, the cruise missiles would have overflown Cyprus and would have arrived over land at the 30 km strip that separates the port of Tartus from the Lebanese border. But the port of Tartus is used by the Russian navy and they have a division there (x 4 AA rockets), S-300V4. The new S-300V4 system became operational in 2014. It can detect cruise missiles flying just above sea level and launch air-to-air missiles when such targets pass Cape Greco in Cyprus (over 160 km). The S-300V4 division has 80 missiles.



US Navy photo by Paul Farley

Even if the cruise missiles had crossed this strip without being detected, the distance between Tartus and the Syrian air base at Shayrat is 85 km. Over rough terrain, the S-300V4 can detect Tomahawk missiles flying at an altitude of 50 m from 50 km away and can take them down from a distance of 38–40 km. Tomahawk rockets fly at 800 km / h, and at that speed they are within striking distance for more than 2 minutes and 30 seconds, enough time for 87% of them to be shot down by the S-300V4s.

The Khmemim airbase, located 68 km north of Tartus and used by Russian aviation, operates a Russian AA S-400 missile division. This division would have discovered them from more than 160 km away and would have knocked down the US cruise missiles if they had bypassed the island of Cyprus and made it to the coast of Turkey. The S-300V4 and S-400 divisions are protected by a Pantsir-S1 (X 8 launcher), each launcher having two 30 mm guns (4000 projectiles per minute) and 12 short range missiles (20 km). The Pantsir-S1 can detect and attack cruise missiles from a distance of 15 km. So, in this case, the American missiles would have had no chance of hitting the Shayrat air base.

# The actual trajectory chosen.

An interesting explanation offered by Russian expert Alexandr Shishkin in his article "Missed Hit" on his blog (at <a href="http://navy-korabel.livejournal.com/161373.html">http://navy-korabel.livejournal.com/161373.html</a> or <a href="http://navy-korabel.livejournal.com/161373.html">here</a>). He said the US cruise missiles were programmed to follow a flight trajectory 250km south of Cyprus and to cross over Israel. On this route, the radars of the S-300V4s and S-400s could not see the cruise missiles as the mountainous terrain of Lebanon intervenes between them and Israel. The cruise missiles then crossed Jordan's airspace for about 250 km, changing direction frequency. If lying parallel to the Syrian—Jordanian border. The missiles crossed into Syrian airspace and flew cross Syria to their targets over areas occurred by

Islamist rebels, mostly in the desert.

In 2011, Syria had more than 200 radars, in the metic, decimetric and centimeter ranges, for detecting air-to-air missiles and directing fighter jets. Most of them were arrayed in the open field or on top of commanding heights. During Syria's civil war, 85% of the radars were destroyed by Islamist rebels, while the rest were re-located around Damascus and the Mediterranean. That is why there are major gaps in the area covered by Syria's radio-location facilities — i.e., in areas occupied by Islamist rebels, starting at the border with Jordan, and in central, eastern and northern Syria.

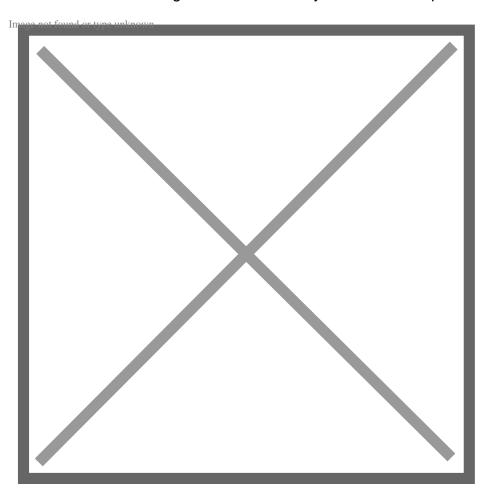
The Tomahawks' fight path was chosen to bypass Damascus, where discovery radars and AA missiles were in place that could shoot down cruise missiles.

### Did the Russians get it wrong?

After the collapse of the USSR, the US Navy Fleet in the Mediterranean no longer included a nuclear-powered aircraft carrier; submarines and many other combat ships disappeared. There are four destroyers at the Rota naval base in Spain and amphibious ships at Gaeta, Italy, homeport of the 6th

#### Fleet flagship USS Mount Whitney.

A similar threat to Syrian cruise missiles existed in 2013, but at that time the Russians created an efficient blockade with a naval group that included the Slava-class cruiser *Moskva* (equipped with air-to-air S-300F Fort and OSA-M missile systems), the cruiser *Peter the Great* (with S-300F Fort, 3K95-Kinzhal and OSA-M), and other destroyers and anti-aircraft frigates. The Russian naval group, superior both quantitatively and qualitatively, was deployed in a circular formation some of 150–250 km from the US military ships. The Russian ships had onboard KA-31 helicopters equipped with early warning radars and turrets with opto-electronic sensors, which patrolled the area for 40–70 km around their own naval grouping. Any cruise missile launch could be immediately detected and neutralized because it would be within the range of radar discovery on Russian ships.



Bear in mind that any such cruise missile operation takes at least a month to prepare, and after that one waits for the right moment to strike. It is out of the question that President Donald Trump simply made a tempestuous decision to do this.

And from this standpoint it would appear that Russia's military intelligence service was totally out of the picture. Meanwhile, the US naval and aero-cosmic reconnaissance had discovered that the Black Sea Fleet's frigates *Ladnyi* and *Pitlivy*, armed with the AA Osa-MA-2 missile systems, were laid up for repair. So was the cruiser *Moskva*, lead ship of the Russian Black Sea Fleet, and the *Smetlivy* antisubmarine destroyer, armed with M-1 Volna AA rockets.

The Americans also knew that the Russian frigate *Admiral Grigorovich* had just left the Mediterranean Sea and crossed the Bosporus and Dardanelle Straits to move to the port of Novorossiysk. The ship is armed with Kalibr cruise missiles and Shtil-1 AA rockets (40 km range).

In the meantime, the frigate *Admiral Makarov*, sister ship to the *Admiral Grigorovich*, launched in 2015, has not been commissioned even today and handed over to the Black Sea Fleet. So on the date of April 7, 2017, the Russians did not have a single medium- to high-range AA battle system in the Mediterranean Sea.

If the Russians had put up the same naval blockade as in 2013 and had not blindly relied on a totally inadequate tactic for the S-300V4 and S-400 type AA systems, then the Americans would not have launched the cruise missiles — as they would have been destroyed by the Russians. After the cruise missile attack, Russia finally deployed an A-50U AWACS aircraft to the Hmeimim airbase in Syria. The A-50U is equipped with the Vega Shmel-M radar for launch detection, including air-to-air missiles on a 500-km flight.

So, was the new face of the US Navy that smart, or was perhaps the whole episode rigged? — most likely.

- [1]. New details on the effort to insert airborne troops into Deir ez-Zor ( http://www.algora.com/blog/?p=235 ).
- [2]. The role of the Spetsnaz in the liberation of Aleppo ( <a href="http://www.veteranstoday.com/2016/12/23/the-role-of-the-spetsnaz-in-the-liberation-of-aleppo/">http://www.veteranstoday.com/2016/12/23/the-role-of-the-spetsnaz-in-the-liberation-of-aleppo/</a>)