Centre for Air Power Studies (CAPS)
Forum for National Security Studies (FNSS)
31/17

THE TOMAHAWK ATTACK: CONCOCTION OF POLITICAL SIGNALING, AIR DEFENCE & ECONOMICS

Wg Cdr BS Nijjar
Research Fellow, CAPS

The Ash Sha'irat Attack

The United States (US) Department of Defence (DoD) on April 06, 2017 released a statement about a cruise missile attack on the Ash Sha'irat military airfield in Syria. The attack, initiated on April 7, 2017 at 0440hrs (Syrian local time), comprised a fusillade of 59 BGM-109 Tomahawk land attack missiles (TLAMS) launched by two US Navy 'Arleigh Burke' class destroyers—USS Porter and USS Ross—from the eastern Mediterranean Sea.[1] These two destroyers are also a part of the American ballistic missile defence net for Europe and have an onboard capacity of at least 90 missiles each. The stated objective was to deter the use of chemical weapons by the Syrian regime and targeted aircraft stationed at the airbase along with the support infrastructure which included the fuel and ammunition dumps.

This direct intervention on part of the US in the ongoing civil war in Syria has been explained by US in various international forums as a form of reprisal against a chemical attack, as assessed by them to have been executed by a Syrian aircraft operating from the Ash Sha'irat airbase. The said chemical attack on forces opposing the Syrian regime at the opposition held Syrian town of Khan Shaykhun, Idlib on April 04, 2017 had resulted in more than 70 deaths, with Sarin gas as the suspected chemical agent.[2]

The target selection and timing of execution of the attack is significant, with the incumbent US President hosting the Chinese President Xi Xinping for the first time. The strikes also happened amidst the negotiations to end civil strife in Syria along with the ongoing operations against the ISIS and the developing situation in North Korea. Adding to the conundrum is a very robust ideological and military support being provided by Russia to the Syrian regime of

President Assad with a significant military presence of Russian military personnel in the Syrian government controlled areas.

The airfield strike by a swarm of missiles with an advance warning[3] to the target brought two important aspects of political signaling and Passive Air Defence (PAD) into sharp focus.

The BGM-109 TLAMS

The Tomahawk was the weapon preferred over fixed wing delivery platforms to minimise risks from Syrian and Russian Air Defence (AD) systems and also to meet the critical mission requirement of avoiding any collateral damages especially to civilians. The missile with multiple precision guidance systems has been a part of US inventory for more than 30 years and was first used during the Gulf War (Operation Desert Storm, 1991). It has a range of over 1250 kilometers (kms) at a subsonic speed of 880 km per hour with a 450 kilogram warhead.[4] However the advance warning enabled Syrians and possibly Russians to undertake passive measures to limit the damage.

The damage has been reported to be limited to six aircraft[5] with nine personnel including civilians having been killed. The US claims the damage to the aircraft amounts to be 20 percent of the total strength of Syrian Air Force.[6] Also, the US claim of 58 of the 59 TLAMS reaching their intended targets to destroy 20 percent of capability has been contested by Syria and Russia stating the numbers of missiles striking their intended targets may be as low as 23.[7] There may be some substance in the Russian claim as in the past too failures have been reported. There is an oft quoted case of three of the TLAMS being used for a failed attempt of killing Osama Bin Laden with his satellite phone as the target. Of these three, two had been reported to have reached the Chinese after having been recovered in unexploded condition in Pakistan and were reverse engineered.[8] Hence it is possible that a significant number did fail in reaching their intended target which enabled the Syrian military to undertake operations from the virtually undamaged runway within 24 hours.[9]

The Passive Air Defence Measures

Ash Sha'irat is an active airbase with a runway of over 9000 feet and is at a distance of around 120 kms from the international waters off Syrian coast from where the missiles would have taken a minimum of seven to eight minutes to reach the target.

The airbase has close to 40 hardened aircraft shelters along with associated support infrastructure including ammunition and fuel dumps. The notification to the Russians through the 'de-confliction' line may have included the target details for avoiding any Russian casualties. The warning along with an understanding of the complexities of targeting involved[10] ensured activation of passive measures at the airbase and

dispersal of key equipment including aircraft and personnel from their locations.

The use of Russian S-400 AD system as an active measure to counter the TLAMs was avoided by the Russians to conserve the missiles for their use in case of a possible direct attack against Russian assets. Also, the effectiveness of any AD system is likely to significantly degrade in case it is to be used in an off centre mode (as the target and AD system were not collocated) as was the requirement in this case.

The Economic Aspect

The US plans of using military options including the TLAMs to punish President Assad for using Chemical weapons were considered as early as August 2013, but were not executed.[11] The current strike may well have been a result of planning carried out at that time, the only difference being, that this time it received the required assent by the President of the US (POTUS).

Further, the stock price of Raytheon which manufactures the Tomahawk showed[12] an increase of over five percent[13] just after the strike expecting follow on orders for replacement of the missiles consumed and additional funding support for an expansion of the programme.

Conclusion

Despite the large number of missiles having been used, the airbase absorbed the strike and was able to resume limited operations within 24 hours. While the trigger may have been the Chemical attack at Khan Shaykhun, the actual intent of the strike could have also been to expose the inadequacy of support by Russians to give air cover to the Assad regime by penetrating the Syrian AD order of battle (OOB). The use of TLAMs indicates the intent was not to disable the airbase but to act as a rap on the knuckles of the Assad regime in Syria supported by Russia.

However the 'one-off' strike may be counterproductive for the US, as it may act as an excuse for Russia to provide the Assad regime with more potent AD systems while 'upping-the-ante' in the region. The tactic of overpowering an AD network by sheer numbers will also bring the focus back on the importance of passive AD measures to protect high value assets.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes

[1]US Department of Defence, "Statement from Pentagon Spokesman Capt. Jeff Davis on U.S. strike in Syria", https://www.defense.gov/News/News-Releases/News-Release-View/Article/1144598/statement-from-pentagon-spokesman-capt-jeff-davis-on-us-strike-in-syria accessed on April 11, 2017

[2] WHO, "WHO alarmed by use of highly toxic chemicals as weapons in Syria", http://www.who.int/mediacentre/news/statements/2017/toxic-chemicals-syria/en/ accessed on April 11,2017

[3] Pravda, "http://www.pravdareport.com/world/asia/syria/11-04-2017/137455-usa_missile_attack-0/ accessed on April 13, 2017

[4] United States Navy Fact File, "Tomahawk Cruise Missile", www.navy.mil/navydata/fact_display.asp, accessed on April 12,2017

[5] Sputnik News, "US Missile Attack on Syrian Airbase", https://sputniknews.com/infographics/20170407105242 0509-us-missile-attack-syrian-airbase/ accessed on April15,2017

[6] The National Interest, "The Syrian Air Force: What Is Left?" http://nationalinterest.org/blog/the-buzz/the-syrian-air-force-what-left-20135 accessed on April 12,2017

[7] RT.com, "'Low efficiency': Only 23 Tomahawk missiles out of 59 reached Syrian airfield, Russian MoD says", https://www.rt.com/news/383858-syria-us-strike-inefficient/ accessed on April 14,2017

[8] Lt Gen Prakash Katoch, "IDR-Sarin Attack in Syria-who's the Culprit?", www.indiandefencereview.com/news/sarin-attack-in-syria-whos-the -culprit/#.WO2kdkD9zdI.twitter, accessed on April 11,2017

[9]rt.com, "US Tomahawk strike on Syria as effective as dropping missiles from air balloons – Russia's MoD https://www.rt.com/news/384420-pentagon-syria-tomahawk-efficiency/ accessed on April 15,2017

[10] Steven M. Biemer Techdigest , "Force,Level Effectiveness Modeling for the Tomahawk Land Attack Cruise Missile, http://techdigest.jhuapl.edu/views/pdfs/V16_N1_1995/V16_N1_1995_Biemer.pdf accessed on April 15,2017

[11] http://www.mcclatchydc.com/news/nation-world/world/article24755023.html

[12] Palmer Report, "Donald Trump owns stock in the Tomahawk missiles he used in Syria", http://www.palmerreport.com/opinion/tomahawk-missiles-were-wrong-choice-for-syria-attack-but-donald-trump-owns-stock-in-the-company/2224/ accessed on April 16, 2017

[13] benzinga.com, "Raytheon, Maker Of Syrian-Strike Tomahawk Missile, Up Following U.S. Attack", https://www.benzinga.com/news/17/04/9276141/raytheon-maker-of-syrian-strike-tomahawk-missile-up-following-u-s-attack accessed on April 16,2017