



The Douhet Doctrine, Russian Style

OE Watch Commentary: Italian general and air power theorist, General Giulio Douhet, pioneered theories of air power and strategic bombing in the 1920s to achieve national objectives that is often referred to as the Douhet Doctrine. The accompanying excerpted article from *Nezavisimaya Gazeta* discusses how Russia is using air power to achieve its objectives in Syria. Although the article refers to Russia's use of the Douhet Doctrine to save the Assad regime, the way that the Russians use air power is quite a bit different than what General Douhet envisioned, namely high-altitude strategic bombing to intimidate the civilian population into leveraging the government to surrender or negotiate for peace from a disadvantaged position. Undoubtedly, Russia has used airpower to accomplish its objectives in Syria, but most of this air power has been of a close air support variety, involving Russian aircraft (including helicopters) directly supporting ground troops and conducting low altitude bombing.

The accompanying excerpted article from *Kommersant* discusses the death of a Russian pilot after his aircraft was downed by a Soviet/Russian Iгла man-portable air-defense systems. Major Roman Filipov flew Russia's premier close air support fighter, the Su-25SM. The Sukhoi Su-25 Grach (Су-25 Грач, NATO designation Frogfoot) is a single-seat, twin-engine jet aircraft designed to provide close air support for the Soviet Ground Forces by defeating small, mobile and stationary ground targets, and engaging low-speed air targets (slow flying airplanes, helicopters, large UAVs, etc.) throughout the tactical and operational depths. The Su-25 made its maiden flight in 1975 and went into serial production in 1978 in the Georgian Soviet Socialist Republic's capital, Tbilisi. After the collapse of the Soviet Union, Sukhoi shifted production to the Russian Federation and the Su-25 is currently manufactured by the Sukhoi Design Bureau Joint Stock Company and the Novosibirsk Aircraft Production Association.

The Su-25 has several versions, including: a two-seater trainer, the Su-35UB; a naval variant capable of carrier operations, the Su-25UTG (currently in service aboard the Admiral Kuznetsov); a dedicated antitank version, the Su-25T, and the Su-25TM, an upgraded version of the Su-25T. The most prominent version is the Su-25SM. The Su-25SM was designed in 2000 to be an affordable upgrade of the Su-25, due to concerns that the Su-25T and Su-25TM upgrade variants were too expensive. The Su-25SM is equipped with new engines and flight control, navigation, targeting, communications, and radar systems. In particular, the weapons have been upgraded to include: the Vypel R-73 air-to-air missile, B-13 five-round rocket 130 mm pods, and Kh-25ML and Kh-29L missiles.

In 2017 Russia started fielding the latest Su-25 variant, which was developed as a day/night all-weather platform to destroy moving targets (tanks, armored vehicles, etc.). The Su-25SM3 variant has two main defining features, the first of which is the SOLT-25 electro-optical targeting system that permits the aircraft to detect and track targets day and night in all-weather conditions at a range of up to 8 km with a .5-meter accuracy. The SOLT-25 has an electro-optical (television) sensor with a 16X zoom capability, thermal imaging device and laser rangefinder, which determines the distance to the target, and illuminates it for laser guided missiles and bombs. The second distinguishing feature is the Vitebsk EW system that can jam air defense systems. The Vitebsk EW system is reportedly accomplishing this by suppressing enemy targeting radars and interfering with hostile missiles. The addition of the SOLT-25 electro-optical targeting system and the Vitebsk EW system has allowed the Su-25 to evolve from an aircraft designed to fill the niche of a close air support aircraft for troops on the battlefield to a light, multifunctional strike aircraft, which is now equally valuable for engaging a high-tech enemy as it for engaging a simple armored column or guerrilla detachment. These capabilities are provided at an affordable price. Some estimates put the base cost of a new Su-25 at around \$11 million, with the SM3 modernization package costing around \$6 million, depending on the model being upgraded. Russia has reportedly modernized 10 Su-25s to the Su-25SM3 variant, with plans to modernize a total of 80 aircraft.

After the downing of Major Filipov's Su-25SM Russia reportedly switched to only allowing Su-30s and Su-35s, aircraft with greater capabilities to defend themselves from air defense systems, to perform close air support missions. Given that only Su-25SMs are currently in Syria, the confirmation of insurgent air defense capabilities, the Su-25SM3's increased capabilities against air defense systems, and the importance of close air support, it is reasonable to expect that Russia will begin to replace the Su-25SM fleet in Syria with Su-25SM3s. **End OE Watch Commentary (Bartles)**



Sukhoi Su-25SM Frogfoot (The international aerospace salon MAKS-2013).

Source: By Doomych [Public domain], from Wikimedia Commons, https://upload.wikimedia.org/wikipedia/commons/3/34/Sukhoi_Su-25SM_at_the_MAKS-2013_%2801%29.jpg.

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Continued: The Douhet Doctrine, Russian Style

“...whereas the Western antiterrorist coalition today needs 5.32 aircraft sorties to destroy one target, Russian pilots need only 1.14 aircraft sorties.”

Source: Nikolay Yakubovich, “Кремль применил для защиты Башара Асада доктрину (Kremlin Used Douhet Doctrine to Defend Bashar Al-Asad),” *Nezavisimaya Gazeta*, 27 February 2018. http://www.ng.ru/armies/2018-02-27/8_7180_siria.html

In the light of the latest build-up of the Russian Federation Aerospace Forces grouping in Syria, whereby it has been decided to subject even the latest domestically produced fifth-generation Su-57 aircraft systems to an ordeal by fire, the result of the employment of Russian aviation here in the preceding period affords interest. This is all the more important because Moscow has effectively managed to realize the provisions of the well-known Douhet doctrine in a new, hi-tech phase -- to destroy the adversary largely through the use of its aviation alone. And although the use of ground forces could not be dispensed with entirely (their role was played by Syrian troops, militiamen, and Russian special operations forces), the operation in Syria has caused observers to look at the role of the Russian Aerospace Forces, and assess their real combat potential, in a new way...

The backbone of the Hmeimim airbase’s airplane and helicopter air fleet was composed not just of the modernized “veterans,” Su-24M2s, Su-25SMs, and Su-27SM3s, but also by state-of-the-art Su-30SMs, Su-34s, and Su-35Ses. The helicopter pool was represented by combat Mi-24Ps, Mi-35Ms, Mi-28Ns, and Ka-52s. Ship-launched Su-33 and MiG-29K airplanes also took part in the combat operations. Mi-8AMTSh helicopters, An-72 airplanes, UAVs, IL-22M reconnaissance planes, and A-50 flying radars were used as auxiliary forces. And Long-Range Aviation crews in Tu-22M2M, Tu-95MSM, and Tu-160 airplanes also took part in the strategic operations; moreover, the crews of the first-mentioned of these planes inflicted strikes with air bombs and the rest with X-101 cruise missiles.

Moreover, it was not only the Russian contingent’s sudden appearance in Syria that proved a sensation, but also the active employment of high-precision weapons, together with the improved precision-hitting with conventional weapons, which was completely unexpected for the adversary...As a result, whereas the Western antiterrorist coalition today needs 5.32 aircraft sorties to destroy one target, Russian pilots need only 1.14 aircraft sorties.

The Russian Federation Aerospace Forces began inflicting strikes on the terrorists’ fortified regions, command and control centers, and areas of concentration, and also on their armored vehicles and convoys in Syria at the end of September 2015, when the Al-Asad government controlled only 15 percent of Syrian territory. At that moment in time, the air grouping included more than 59 aircraft, including one squadron of Su-24M2s and one squadron of Su-25SMs (12 aircraft) and four Su-SMs, and also Mi-8 and Mi-24P helicopters. By December, the air grouping had grown to roughly 70 aircraft, mainly through the addition of assault aircraft; but not for long, only until February 2016. In the initial period, Su-24M2s, Su-34s, and Su-25SMs completed about 20 combat sorties per day, gradually increasing their number. On individual days, the Aerospace Forces grouping completed up to 71 sorties. The tactics of the employment of aviation were also perfected...

Since the beginning of the combat operations, the Russian Federation Aerospace Forces have completed more than 1,600 sorties, destroying more than 2,000 ground targets. From November 2016 through January 2017, the combat operations saw the participation of carrier aircraft, which took off from the heavy aircraft-carrying cruiser, the Admiral of the Soviet Union Fleet Kuznetsov. At the same time, pilots completed 420 combat sorties, including 117 at night, and destroyed 1,252 terrorist facilities. In turn, the Tu-160s and Tu-95MSes launched, all told, more than 30 missiles...

Source: Aleksandra Dzhordzhevich, Marianna Belenkaya, and Ivan Safronov: “Летчик принял бой на земле (Pilot Engages in Combat on Land),” *Kommersant*, 5 February 2018. <https://www.kommersant.ru/doc/3540044>

On Saturday the Russian Federation Defense Ministry confirmed the loss of a Su-25SM ground-attack aircraft in Idlib province: The plane, which had been carrying out a reconnaissance flight, was shot down with a portable antiaircraft missile system. The pilot -- Guards Major Roman Filipov -- managed to eject from the burning plane, but he was encircled and killed during a shootout with the fighters who had downed the plane. The response followed a few hours later: First, the quadrangle in which the Islamists were located was bombarded with Kalibr cruise missiles, then Syrian special-purpose forces and Russian aviation set about cleaning up the territory. They were instructed at whatever cost to recover Maj. Filipov’s body from the fighters...

This is the first Su-25SM to have been lost since the start of Russia’s operation in Syria. Some experts wonder why the ground-attack aircraft were flying at such a low altitude: A missile from an Iгла portable antiaircraft missile system can hit a target at an altitude of up to 5,000 meters... One of Kommersant’s sources supposed that the height at which the Su-25 was flying may have been linked to the fact that Turkey has promised a guarantee of safety in this territory. It is Turkey that oversees the Idlib deescalation zone. “When the flight assignment was being devised, they may have relied on that,” Kommersant’s source reckons. Until the last minute, reports that the fighters had portable antiaircraft missile systems had not been confirmed, but now aviation will have to take this into account...

According to Konstantin Makiyenko, deputy director of the Center for the Analysis of Strategies and Technologies, following Vladimir Putin’s declaration of victory over the radical Islamists the Russian Federation Aerospace Forces “have lost more planes in Syria than over the previous two years of the campaign.” “This indicates that the supposed crushing defeat of the groups and the start of the political process certainly do not mean the war is over, and that withdrawing from the war may be more difficult than the military campaign itself,” the expert concluded...