

Preventing Dangerous Military Incidents in Wartime

Discussion Paper for a Track II Dialogue on U.S.-Russian Crisis Stability

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Syrian Battlefield

For two and a half years, Russia, the United States, NATO countries, and influential regional forces are simultaneously fighting in the air and on land in war-torn Syria. This is the first case of such collaboration in modern history, and it called for contacts to be established between very diverse forces in order to avoid dangerous military accidents.

Even in times of peace, incidents between NATO and Russian aviation are not a rare occurrence. Every year there are several aircraft meetings over the Black Sea. The narrow and winding air corridor available to the Russian Air Force (RuAF) on the Baltic Sea for Kaliningrad transit occasionally leads to unintentional and insignificant violations of state borders by obsolete aircraft with outdated navigation equipment. The parties also conduct frequent aerial reconnaissance near each other's borders. Long-distance flights of strategic aviation make countries even far away from Russia nervous.

But these are the usual meeting zones and the parties know each other's intentions, and that they do not pose a direct threat. For a long time, there was also a set of rules to follow, and an air "etiquette" for such meetings was developed. However, the situation is completely different in wartime. In Syria, meetings take place between fully armed aircraft carrying out real combat missions and supporting opposing sides in the conflict.

Ground warfare in Syria turned into a war of irregular formations, many of which were in fact proxy armies of influential foreign powers. The clashes between proxies provoked a military response from their foreign patrons, pitting them against each other.

Russia entered the Syrian civil war in September 2015 when the conflict was in its fifth year. By this time, shooting down each other's planes was by no means uncommon. In 2012, Syrian air defense shot down a Turkish reconnaissance aircraft that had violated the country's airspace. From 2013 to 2015, Israeli and Turkish fighters and air defense shot down three Syrian aircraft and one helicopter. In

the United States and Turkey, the need to create no-fly zones forbidding government aviation over Syria was widely discussed.¹

Russia's direct military intervention on Assad's side complicated the situation even more and forced parties to seek new approaches to deconfliction.² Russia deployed dozens of aircraft in Syria, with a daily number of sorties second only to government air forces. The fearful prospect of a direct confrontation between aircraft belonging to nuclear powers over Syria caused serious concern among all parties involved.

First Steps to Deconfliction

Russian leadership was well aware of the risks associated with intervening in the Syrian conflict and undertook intensive diplomatic efforts prior to the operation to prevent undesirable conflicts. Two months before the operation began, in August and September 2015, Vladimir Putin in a diplomatic blitz held personal meetings with the leaders of all major forces operating in Syria and the surrounding region: Egypt, Israel, Iran, Iraq, Jordan, Turkey, and the United States, with phone calls to Saudi Arabia, Qatar, and the UAE. Even more intensive was the forming of political and military contacts at lower levels. Russia informed them about the creation of a new structure to combat ISIS in Syria and offered closer cooperation in the fight against terrorism.³ Therefore, for top decisionmakers in those countries, the start of Russian intervention was hardly a surprise.

The most pressing issue was deconfliction with the United States as the head of a multinational anti-ISIS coalition in Iraq and Syria. But this task was seriously complicated by the fact that all direct military-to-military communication and most of the political communication between Russia and the United States was broken off by the United States early on in the Crimean crisis in March 2014.⁴ By September 2015, when Russia began to transfer its combat aircraft to Latakia, the pause continued for a year and a half.⁵ At the same time, the conflict in Syria did not threaten the vital interests of either country. Therefore, it was easier to reach compromises on Syria with the United States than with some regional forces, such as Turkey or Israel.

The beginning of communication on the topic of Syria was Russia's first diplomatic victory upon entering the conflict. To ensure the security of its troops, the United States was forced to reopen military-to-military communication. On September 18, 2015, the first telephone talks were held between U.S. Secretary of Defense Ashton Carter and Russian Minister of Defense Sergey Shoygu. The

¹ Tim Eaton, "Should there be a no-fly zone over Syria?" BBC, October 12, 2015, <http://www.bbc.com/news/world-middle-east-34485827>.

² Matthew Weaver, "'Deconflict': buzzword to prevent risk of a US-Russian clash over Syria," *The Guardian*, October 1, 2015, <https://www.theguardian.com/us-news/2015/oct/01/deconflict-buzzword-to-prevent-risk-of-a-us-russian-clash-over-syria>.

³ "Putin: Turkey and the U.S. are aware of the creation of a structure to combat ISIS," RIA Novosti, September 27, 2015, <https://ria.ru/world/20150927/1285221959.html>.

⁴ U.S. Department of Defense, "DOD Puts Military-to-military Activities with Russia on Hold," American Forces Press Service, March 3, 2014, <http://archive.defense.gov/news/newsarticle.aspx?id=121759>.

⁵ Andrew Tilghman, "U.S., Russia resume military relations to 'deconflict' in Syria," *Military Times*, September 18, 2015, <https://www.militarytimes.com/2015/09/18/u-s-russia-resume-military-relations-to-deconflict-in-syria/>.

Pentagon called these talks “constructive.” The day before the start of Russian operations, Vladimir Putin and Barack Obama held a talk about Syria on the sidelines of the United Nations General Assembly.

The technical details of the incident prevention agreement took about a month to complete, and the final version was drafted in the form of a Memorandum on Air Safety in Syria signed on October 20, 2015, which also established a joint workgroup for resolving issues.⁶

At Russia’s request, the text of the memorandum was not published. Nonetheless, it is known that the memorandum outlines practical, effective measures for deconfliction in the air, including a set of rules for behavior during close encounters of aircraft and methods for their identification. A safe distance of approach to Russian and Coalition planes was defined, along with frequencies for communication between pilots and the creation of a direct ground communication line.⁷

According to the American side, the document stipulated that communication between pilots in the air would take place in English.⁸ This proved difficult to realize. Russian pilots were in Syria on two-to-three-month shifts. Over the past three years, more than 80 percent of the military aviation crews have participated in the conflict. Unlike commercial aircraft pilots, the vast majority of military pilots do not speak English at a sufficient level and cannot communicate in the air with their U.S. counterparts. The coalition pilots do not speak Russian, so direct aircraft-to-aircraft communications were nearly impossible. Effective interaction was only possible through the headquarters of both groups, where there were always officers on the communication hotline who spoke foreign languages.

The United States vowed to share the safety rules with all the other members of its alliance, so Russia did not need to individually negotiate rules with dozens of countries fighting ISIS in Syria.

Despite the signing of this important document, both sides declared disagreement with each other’s actions in Syria. The memorandum did not establish zones of interaction, nor did it provide for the exchange of intelligence or information sharing about potential targets. U.S. leadership tried to limit interactions with the Russian side as much as possible and limit communication only as it pertained to deconfliction. The Russian side, on the other hand, pushed for closer cooperation in fighting ISIS.

In the following months, the memorandum was not followed too strictly but was nevertheless considered very useful for de-escalation by both sides. After serious violations, such as Turkey shooting down a Russian airplane or Russian aviation bombing the rebel camp in al-Tanf, high-level

⁶ Lisa Ferdinando, “U.S., Russia Sign Memorandum on Air Safety in Syria,” U.S. Department of Defense, October 20, 2015, <https://www.defense.gov/News/Article/Article/624964/us-russia-sign-memorandum-on-air-safety-in-syria/>.

⁷ “All You Need to Know about Russia-U.S. Memo on Preventing Incidents Over Syria,” Sputnik, April 7, 2017, <https://sputniknews.com/middleeast/201704071052412100-russia-us-memo-incidents/>.

⁸ Daily Press Briefing by Press Secretary Josh Earnest, The White House, October 19, 2015, <https://obamawhitehouse.archives.gov/the-press-office/2015/10/19/daily-press-briefing-press-secretary-josh-earnest-101915>.

discussions were held to understand the causes of these violations and how to avoid such incidents in the future.⁹

But even before the agreement with the United States was ready, serious problems of deconfliction arose with Turkey. Only nominally part of the U.S.-led coalition, Turkey had its own agenda in Syria that was completely antagonistic to the Russian agenda. And, unlike the United States, Russian aviation operated directly at Turkey's national borders.

From the very beginning of the Russian operation, there were serious incidents. On October 3, 2015, Russian and Turkish fighters kept their radars locked on each other in border encounters. On the same day, the first violation of Turkey's border by a Russian Su-30SM fighter occurred. The Russian side recognized the incident and chalked it up to difficult weather conditions, promising to improve procedures to prevent a repeat of such incidents in the future.¹⁰

On October 7, telephone consultations about incident prevention were held between Russian and Turkish military experts, but they were unsuccessful.¹¹ At that time, Russia and Turkey still had mutually exclusive approaches to solving the Syrian crisis. Incidents in the air continued. According to the Turkish side, from October 3 to 10, in addition to two brief border violations, there were 13 incidents involving dangerous close encounters between the two countries' planes. On October 16, a Turkish fighter shot down a presumably Russian drone that flew into Turkey from Syria.¹²

Despite increasing hostility, separate mechanisms for deconfliction with Turkey were not established. Russia hoped that the protocol outlined by the memorandum with the United States would be enough. But unlike the United States, Turkey's core interests were at stake here. Six U.S. F-16C fighters located in Turkey were instructed to just escort Russian aircraft out of Turkish airspace in the event of a border violation, with the Turkish Air Force receiving much less stringent rules of engagement.¹³

Since November 20, 2015, relations with Turkey once again sharply deteriorated following the government offensive on border settlements in the Latakia province where ethnic Syrian Turks (Turkmens) lived. The assault was supported by heavy Russian airstrikes, which caused a new crisis in Russian-Turkish relations.¹⁴ On November 24, the Russian Su-24M violated Turkey's airspace for just

⁹Andrew Tilghman, "Russia's attack on U.S.-backed rebels in Syria puzzles, frustrates the Pentagon," *Military Times*, June 23, 2016, <https://www.militarytimes.com/flashpoints/2016/06/23/russia-s-attack-on-u-s-backed-rebels-in-syria-puzzles-frustrates-the-pentagon/>.

¹⁰"Russia says jet violated Turkish air space due to bad weather," AFP, October 5, 2015, <https://www.yahoo.com/news/russian-air-force-says-hit-10-islamic-state-175405936.html>.

¹¹Russian Ministry of Defense, "Russian MoD continued consultations with Turkish colleagues about preventing air incidents," press release, October 7, 2015, <http://syria.mil.ru/news/more.htm?id=12059952>.

¹²"Air incidents on the Turkish-Syrian border since 2011," TASS, November 24, 2017, <http://tass.ru/info/2466665>.

¹³Dave Majumdar, "Revealed: Why U.S. Air Force F-15s Can't Defend Turkey from Russia," *National Interest*, December 7, 2015, <http://nationalinterest.org/blog/the-buzz/revealed-why-us-air-force-f-15s-cant-defend-turkey-russia-14544>.

¹⁴"Turkey summons Russian envoy over bombing of Turkmen," Anadolu Agency, November 20, 2015, <http://aa.com.tr/en/turkey/turkey-summons-russian-envoy-over-bombing-of-turkmen/476841>.

17 seconds during a bomb run on a target near the border and was shot down by a Turkish F-16 once already in Syrian airspace.¹⁵

This attack on Russian aircraft was not an accident or failure of deconfliction protocol. Both sides were on a collision course from the beginning, undertaking deliberate risks to test each other's determination and the strength of the "red lines" that had been drawn.

The loss of this aircraft brought the two countries to the verge of an armed conflict and caused significant economic consequences, also leading to increased militarization of the region. Both sides deployed additional fighters to the area and Russia greatly strengthened its long-range air defense in Syria. All of this was completely unnecessary and avoidable. Just a few months later, Russia and Turkey were forced to hastily patch up their strained relations in order to fight a common enemy during operation "Euphrates Shield."

After intense diplomatic and military contacts, on December 16, 2016, a little more than a year after the rupture of relations, the hotline between Russia and Turkey was restored. On January 12, 2017, an agreement was signed between Russia and Turkey to prevent incidents in the air during a cooperative operation against ISIS around the city of Al-Bab. A hotline was established between Russian and Turkish operation HQs and both sides agreed to a regular transfer of their own coordinates as well as those of the enemy, also adopting measures for deconfliction.

At that time, the Turkish army and its allies' unsuccessful attempt to storm Al-Bab continued for the second month. The agreement with Russia made it possible to organize a coordinated attack on the city with the Syrian government troops to completely surround Al-Bab. The offensive was supported by Russian aviation.

On January 18, a joint operation was announced between the Russian and Turkish Air Forces to attack ISIS positions near the city. Nine Russian attack aircraft (four Su-24M, four Su-25SM, and one Su-34) and eight Turkish aircraft (four F-16 and four F-4) attacked the targets coordinated between Turkey, Russia, and Syria.¹⁶ On this day the same area was simultaneously struck by U.S. drones and Great Britain's Tornado fighters. It required very intensive deconfliction and coordination efforts from all sides. In the following days, there more several more joint strikes.

These close interactions were not without problems, however. On February 9 one of the routine Russian airstrikes unintentionally hit Turkish forces. As a result, three soldiers were killed and 11 more wounded. Both sides agreed that the incident was a result of faulty communication.¹⁷ Immediately after the incident, the Russian president and the chief of the general staff called their Turkish

¹⁵ Mark Galeotti, "Why did it take Turkey just 17 seconds to shoot down Russian jet?," *The Guardian*, November 26, 2015, <https://www.theguardian.com/world/2015/nov/26/russia-turkey-jet-mark-galeotti>.

¹⁶ "Turkish General Staff Praises First Joint Airstrikes with Russia in Al-Bab," Sputnik, January 18, 2017, <https://sputniknews.com/middleeast/201701181049737045-turkey-russia-joint-strikes/>.

¹⁷ "Turkey, Russia try to avoid crisis," *Hurriyet Daily News*, February 10, 2017, <http://www.hurriyetdailynews.com/turkey-russia-try-to-avoid-crisis--109579>.

counterparts to offer condolences and discuss how to avoid such accidents in the future.¹⁸ Russian apologies were accepted, but it put an end to the practice of joint strikes. Turkey engaged in a demonstration of force, putting its fighters in the air and organizing round-the-clock patrolling of the area. For several days Turkish fighters escorted Russian attack aircraft when they were bombing close to Turkish ground force positions.

Nevertheless, coordination and deconfliction in the air and on the land continued. In the Al-Bab area, the two advancing hostile coalitions who were fighting the same enemy were not divided by a river, as in the Euphrates valley. There were occasional small clashes and mutual shelling between the pro-government forces and the Turkish-led rebels, but all such incidents were successfully extinguished by Russian and Turkish mediation.

The city was surrounded, and on February 23, after intensive street fighting, Al-Bab was taken by Turkish troops and its suburbs by government troops. A large ISIS enclave on the border with Turkey ceased to exist. Intensive direct interaction with Russia and indirect interaction with the Syrian government helped Turkey to fulfill its strategic task of eliminating ISIS presence along its borders.

Deconfliction with Israel

Unlike Turkey, Israel was not a member of the U.S.-led coalition against ISIS, and was waging its own separate air war over Syria and Lebanon. Israeli aircraft and drones regularly struck Hezbollah arms depots and supply columns in Syria. Occasionally they also carried out strikes against Syrian government facilities and anti-air defenses. Absolute technological superiority over Syria and Iran allowed Israel to act with minimal risk. Russia's entry into the conflict — a much more capable opponent — alarmed Tel Aviv.

The most important issues of deconfliction were resolved with frequent personal meetings between the Russian president and the prime minister of Israel. For the first nine months after September 2015, four such meetings took place and they maintained monthly telephone contact. At the first meeting on September 21, 2015, in Sochi, an agreement was reached to establish a hotline at the level of deputy chiefs of staff.¹⁹ From the very beginning, it was not only about deconfliction but also about cooperation in Syria. During the first visit to Sochi, the prime minister of Israel was accompanied by the chief of the armed forces and the chief of Israeli military intelligence. In the future, intelligence services contacts were regular.

An unprecedented level of interaction was demonstrated in October 2015. Practical training to prevent incidents in the air between Russia and Israel lasted two days.²⁰ No such training with other

¹⁸ Mumin Altas and Mehmet Tosun, "Russia 'accidentally' martyrs 3 Turkish troops in Syria," Anadolu Agency, February 9, 2017, <https://aa.com.tr/en/todays-headlines/russia-accidentally-martyrs-3-turkish-troops-in-syria/746169>.

¹⁹ Anshel Pfeffer, "Putin Flying Close to the Edge in Syria," *Haaretz*, October 16, 2015, <https://www.haaretz.com/.premium-putin-flying-close-to-the-edge-in-syria-1.5409911>.

²⁰ Ministry of Defense of the Russian Federation, "Briefing by the Chief of the Main Operational Directorate of the General Staff of the Russian Armed Forces Colonel General Andrei Kartapolov," October 16, 2017, <http://syria.mil.ru/en/index/syria/news/more.htm?id=12061051@egNews>.

forces was reported. A separate telephone line was established between the flight control centers at the Russian base in Khmeimim and the Israel Air Forces command center.²¹

The most notable difference from interaction with the U.S. coalition was the lack of publicity. Details of agreements between politicians and communications between military and intelligence services have not been officially disclosed. This is well in line with the traditions of both sides and does not cause problems for them. Moreover, it allows Russia and Israel to more honestly and objectively discuss the situation.

The existing contacts helped to avoid any problems when, on November 29, 2015, a Russian plane briefly and unintentionally entered Israel's airspace in Golan Heights. Unlike the incident with Turkey a few days before, this did not trigger a serious diplomatic or military reaction from Israel. In the first two months of the operation there were several such incidents, but all of them were successfully resolved in working order through the established communication lines.²²

Deconfliction measures were also effectively employed in several cases of close encounters between Russian and Israeli aircraft in Syrian airspace. According to the Israeli media, in no case did they lock their radars on each other.

After Turkey shot down a Russian bomber in November 2015, work on restoring Syria's air defense was intensified. The country did not receive new weapons, but the remaining air defense systems were repaired with the help of Russian specialists. In 2017, the creation of a joint air defense system between Russia and Syria was announced. It provided for the consolidation of information from Russian and Syrian radars.²³ Of course, the increase in air defense capabilities was a cause for alarm for Israel.

Since the beginning of the Russian operation in 2015, Israel has conducted several dozen air and missile strikes in Syria on Hezbollah positions, government facilities, and the Iranian military. In accordance with secret arrangements with Israel, Russia turns a blind eye to these strikes, refraining from using its powerful air defenses and remaining restrained in diplomatic statements on these occasions.²⁴

The unique position of Russia, which has good relations with Israel, Syria, and Iran simultaneously, became especially useful after an Iranian drone's penetration of Israel's airspace and the shooting down of the Israeli F-16I by the Syrian SAM on February 10, 2018. This was the first loss of an Israeli

²¹ Ibid.

²² Toi Staff, "Russia sometimes breaches Israeli air space, top defense official reveals," *The Times of Israel*, November 28, 2015, <https://www.timesofisrael.com/russia-occasionally-breaches-israeli-air-space-says-top-defense-official/>.

²³ "Russia and Syria create joint air defense system," TASS, August 25, 2017, <http://tass.com/defense/962057>.

²⁴ Zvi Magen, Udi Dekel, and Sima Shine, "Russia in Syria: Between Iran and Israel," Institute for National Security Studies, September 3, 2017, <http://www.inss.org.il/publication/iran-israel-russia-syria/>.

combat aircraft to enemy fire since 1982.²⁵ The rare success of air defense seems to have come as a surprise not only to Israel but also to Syria.

Israel immediately retaliated with three waves of massive airstrikes against Syrian and Iranian targets, and was preparing to continue strikes.²⁶ Putin's call to Prime Minister Netanyahu halted further escalation, which was about to turn into an unwanted but full-fledged military conflict between Israel and Iran.²⁷ Apparently, in this case, Russia was a key mediator in de-escalation between the old enemies.

Deconfliction with Allies

In addition to deconfliction with countries hostile to the Syrian government, Russia had to prevent military incidents, including friendly fire, with the allied forces. In September 2015, days before the start of the Russian campaign, the Joint Coordination Center was established in Baghdad by Russia, Iran, Iraq, and Syria. The goal was gathering, processing, and analyzing information on ISIS, and deconfliction in the air and on land.²⁸ Later on, most of its functions were transferred to Russian main headquarters on the Khmeimim airbase in Syria.

The first task was deconfliction with the Syrian Air Force. Despite the losses in the five-year conflict, up to 200 of its aircraft and helicopters continued to conduct military operations. They made dozens of sorties per day, striking the same areas as Russian aviation. This made close encounters with them in the air much more likely than with aircraft from Israel or the U.S. coalition.

The allied relations of the countries allowed them to cooperate on a completely different level. From the very beginning, a joint flight control center was established. The actions of Russian and Syrian aircraft were focused on a different battlefield. Wherever the situation required simultaneous use of them, different echelons were assigned to different air forces.²⁹ Russian aviation worked mainly from high altitudes, using its more advanced sights for unguided bombs and guided weapons. Syrian aircraft operated mainly from low altitudes and with unguided weapons only.

In the fourth month of the Russian operation, the Aerospace Forces and the Syrian Air Force carried out several joint missions. During these missions, the Russian Su-25 strike planes were escorted by Syrian MiG-29 fighters to and from the target.³⁰ This did not become a common practice and served

²⁵ Stuart Winer and Toi Staff, "Crew of downed F-16 say they had almost 'no time' to escape damaged jet," *The Times of Israel*, February 12, 2018, <https://www.timesofisrael.com/crew-of-downed-f-16-say-they-had-almost-no-time-to-escape-damaged-jet/>.

²⁶ Tom Cooper, "The February 2018 Air War between Israel, Syria and Iran Was Brief and Violent," *War Is Boring*, February 26, 2018, <http://warisboring.com/50408-2/>.

²⁷ Amos Harel, "Putin's Phone Call with Netanyahu Put End to Israeli Strikes in Syria," *Haaretz*, February 15, 2018, <https://www.haaretz.com/israel-news/putin-s-call-with-netanyahu-called-time-on-israel-s-syrian-strikes-1.5809118>.

²⁸ "Russia, Iran, Iraq & Syria setting up 'joint information center' to coordinate anti-ISIS operations," RT, September 26, 2015, <https://www.rt.com/news/316592-russia-syria-islamic-state/>.

²⁹ "Air Force representative: Syrian and Russian planes use different echelons," RIA Novosti, November 7, 2015, <https://ria.ru/syria/20151107/1315575873.html>.

³⁰ "Russian and Syrian aviation carried out first joint flight," Lenta.ru, January 14, 2016, <https://lenta.ru/news/2016/01/14/strike/>.

mostly as a PR stunt for both sides amid confrontation with Turkey after the Russian bomber was shot down.

It is not known what proportion of the flights of Syrian aircraft and helicopters were coordinated with Russia. It is safe to assume that, in the early stages, such coordination was hardly commonplace. Russia at that time only controlled the regions of the country around its bases by means of primary radars. In the winter of 2015–2016, after the incident with the downing of the Russian Su-24M by Turkey, the air defense and radar numbers were significantly strengthened. Also, one or two A-50 AWACS aircraft were permanently stationed in Syria. These improvements allowed Russia to observe the air situation not only over Syria but also over part of Turkey, Israel, Jordan, and Lebanon.

It is not known how much information about the air situation was shared with the Syrian side, though it was probably somewhat limited. There are no reports about Russia giving advance warning to Syria about incoming Israel airstrikes or strikes by U.S. cruise missiles.

All allied sides actively shared intelligence. From the first days of the operation, a Syrian-provided list of ground targets was used for choosing Russian aviation targets. Commanders of the government's regular army as well as militias and human intelligence (HUMINT),³¹ including "patriotic citizens" from nongovernment controlled regions of the country, were claimed as sources.

Interaction with Assad and Iran's land forces was conducted through Russian military advisers permanently assigned to specific units as well as temporarily attached forward air controllers. They not only conducted the target designation but also prevented incidents of friendly fire. Groups of advisers were assigned to almost all Syrian regular army units from the battalion level and up. They consisted of staff officers, artillery spotters, aviation controllers, translators, and support personnel.³² This practice, used from 2016 onwards, allows for the greatest level of coordination with Russia in ground combat and a good level of coordination between Syrian forces and Russian aviation.

Coordination with Hezbollah and other irregular pro-government units was much weaker. Typically, they did not have a permanent contingent of Russian advisers and only occasionally worked with Russian Special Operation Forces. There is data on several cases of Russian "friendly fire" on Hezbollah due to insufficient interaction with them.³³

From De-escalation with the United States to Cooperation?

Initially, the United States tried to have as little contact as possible with Russia in Syria and to conduct a completely independent anti-ISIS operation. But the situation changed when ISIS territory was

³¹ "Briefing of Russian General Staff," TASS, October 13, 2016, <http://tass.ru/armiya-i-opk/3702912>.

³² Viktor Baranets, "Interview with Chief of Russian General Staff," *Komsomolskaya Pravda*, December 26, 2017, <https://www.kp.ru/daily/26775/3808693/>.

³³ "As a result of = Russian Air Force attacks, 23 'Hezbollah' fighters killed," *Mignews*, November 6, 2015, http://mignews.com/news/disasters/061115_122101_31119.html.

significantly reduced, and two large and not very friendly anti-ISIS coalitions were forced to operate in a very confined space. Safety and coordination required closer ties than before.

First of all, in June 2016, the Obama administration's proposal for close cooperation with Russia to combat ISIS and Al-Nusra was announced. The United States was suggesting a new military command-and-control headquarters to coordinate the air campaign that would house U.S. and Russian military officers, intelligence officials, and subject-matter experts. In exchange, Syrian air forces would be grounded, and Russian aviation would strike only ISIS and Al-Nusra targets in "designated areas" and fully cease attacks against other opposition forces.³⁴

This offer never materialized; Assad and Russia were not ready to make such a compromise. Adopting U.S. conditions would lead to a radical restriction of the freedom of their action. The most serious battles were fought at that time not with ISIS and Al-Nusra, but with rebels for control of the largest city in the country, Aleppo. The halt of air support there would not allow it to be cleared of the opposition, which became a turning point in the civil war later that year.

Also, it is still unclear how sincere the U.S. proposal was. Perhaps this offer was intended only to block a military victory of the regime and allied forces in Aleppo and to preserve the status quo on the ground with the rebels.

Real examples of close interaction between the United States and Russia occurred in December 2016 and later during the liquidation of ISIS territory in the Euphrates Valley in 2017. During the same period, a joint air operation with Russia accelerated Turkey's victory over ISIS during the operation Euphrates Shield. These examples demonstrate the benefits of military interaction in battles against a common enemy.

In December 2016, a large group of several hundred ISIS militants left Iraq for Syria. This allowed them to escape the successful offensive by the Iraqi army, supported by the United States. The group made a sudden raid through the desert from the Euphrates and on December 11 again captured Palmyra from government forces. All the best troops of Syria and its allies were at that time engaged in battles around Aleppo. The militia and numerous but poorly trained Syrian troops of the second line fled, unable to resist. Insurgents captured huge stockpiles of weapons and ammunition situated there. About 30 government tanks were captured.³⁵

Palmyra was very far from the usual zones of operation of U.S. aviation or the location of their allies on the ground. But if so many weapons were to fall into the hands of terrorists, it could slow victory over them on all fronts. With the intensive use of the deconfliction telephone line on December 15, the U.S. Air Force began airstrikes on targets in the captured city. In just one day, 16 U.S. aircraft

³⁴ Josh Rogin, "Obama's Syria plan teams up American and Russian forces," *Washington Post*, July 13, 2016, https://www.washingtonpost.com/opinions/global-opinions/obamas-syria-plan-teams-up-american-and-russian-forces/2016/07/13/8d7777cc-4935-11e6-acbc-4d4870a079da_story.html.

³⁵ Suleiman Al-Khalidi, "Islamic State militants capture Palmyra despite heavy Russian strikes," Reuters, December 10, 2016, <https://www.reuters.com/article/us-mideast-crisis-syria-palmyra/islamic-state-militants-capture-palmyra-despite-heavy-russian-strikes-idUSKBN13Z073>.

destroyed 14 tanks and one artillery gun.³⁶ In the next two months, coalition air forces launched several dozen more attacks on ISIS here. The control of government troops with de facto significant help from U.S. aviation was completely restored in March 2017.³⁷

Donald Trump taking office did not immediately cause the expected increase in interaction with Russia in Syria. Moreover, under Trump, relations on deconfliction were subjected to serious tests. In 2017, he authorized the use of force against Syrian government troops if necessary. This caused several crises in relations and put both sides in danger of military escalation.

After the surprise U.S. cruise missile attack on April 7, 2017, at the Syrian air base of Shayrat, Russia, the Memorandum on Air Safety was suspended in protest and all military-to-military interaction in Syria was halted, including the telephone hotline³⁸ through which Russia was given advance notice before the strike.³⁹

This demarche was mostly a publicity stunt. No practical action aimed at interfering with the U.S. operation was undertaken by Russia. Moreover, already on April 13, after Secretary of State Tillerson's visit to Moscow, interaction was partially restored to ensure the safety of all sides. Less than a month later, after a telephone conversation between the Russian chief of staff and the U.S. chairman of the joint chiefs, the memorandum was restored in full.⁴⁰

But on June 18, 2017, the Syrian Su-22M4, which attacked opposition forces on the ground, was shot down by U.S. fighters. This caused a more serious diplomatic crisis. Russia again suspended the memorandum and stated that all coalition planes and drones crossing the Euphrates would be regarded by air defense as potentially hostile targets.

In practice, this meant little more than another color for the coalition aircraft on the radars of the Russian command post. Nevertheless, in the first days after such exacerbations, the United States traditionally took greater precautions. Within the limits of the Russian air defense, only F-22 stealth fighters were sent. Only after assessing the situation in dangerous areas were previous-generation aircraft and helicopters brought back.⁴¹ Without such advanced aircraft, some coalition allies preferred to stop flights in Syria completely until the resolution of the U.S.-Russia disagreement to

³⁶ Carla Babb, "U.S. Hits Russian Tanks Seized by Islamic State Near Palmyra," VOA News, December 16, 2016, <https://www.voanews.com/a/united-states-airstrikes-destroy-russian-tanks/3639553.html>.

³⁷ Liz Sly, "Hezbollah, Russia and the U.S. help Syria retake Palmyra," *Washington Post*, March 2, 2017, https://www.washingtonpost.com/world/syrian-army-retakes-the-ancient-city-of-palmyra-from-the-islamic-state/2017/03/02/fe770c78-ff63-11e6-9b78-824ccab94435_story.html.

³⁸ "Russia suspends flight safety memorandum over Syria after US missile strike—Foreign Ministry," RT, April 7, 2017, <https://www.rt.com/news/383837-russia-syria-flight-safety/>.

³⁹ U.S. Department of Defense, "Statement from Pentagon Spokesman Capt. Jeff Davis on U.S. strike in Syria," April 6, 2017, <https://www.defense.gov/News/News-Releases/News-Release-View/Article/1144598/statement-from-pentagon-spokesman-capt-jeff-davis-on-us-strike-in-syria/>.

⁴⁰ "Russian, U.S. Chiefs of Staff Ready to Restore Flight Safety Memorandum in Syria," Sputnik, May 6, 2017, <https://sputniknews.com/military/201705061053342225-russia-us-gerasimov-dunford-safety-memorandum-syria/>.

⁴¹ Oriana Pawlyk, "The F-22 in Syria: Deconflicting, Not Dog-Fighting," *Military.com*, June 27, 2017, <https://www.military.com/daily-news/2017/06/27/the-f22-syria-deconflicting-not-dog-fighting.html>.

avoid even a slight risk of confrontation. From June 20, 2017, until the pullout from the Middle East in January 2018, Australian Super Hornets made strikes only in Iraq.⁴²

This time, the U.S. and Russian militaries again did not allow escalation. The date of restoration of the hotline was never officially announced, but it happened very quickly. The military on both sides understood perfectly well that this was of critical importance for the common security of both parties. Three days later on June 22, Russia used the hotline to inform the United States about an impending strike on ISIS targets with cruise missiles from the Mediterranean.⁴³

In July 2017, the Trump administration renewed its offer to cooperate with Russia on Syria, including on military matters.⁴⁴ July 7, 2017, marked the first personal meeting between presidents Putin and Trump and cooperation in Syria was one of the main topics.⁴⁵ Both sides agreed to serious compromises. In southwestern Syria, on the border with Jordan, Russia agreed to create a new de-escalation zone, safe for the opposition. Perhaps it was no coincidence, then, that just a few days after this meeting Donald Trump ordered to stop the program to train many factions of Syrian anti-government rebels.⁴⁶

New agreements allowed for the start of a coordinated but not joint operation to attack ISIS-occupied areas in the Syrian desert and the fertile Euphrates Valley. On the territory east of the river, Syrian Democratic Forces were advancing, supported by coalition aviation. Simultaneously, in the west there was an offensive of pro-government forces from three directions supported by Russian Aerospace Forces. The last ISIS strongholds in Syria didn't stand a chance against such a multipronged offensive.

In August 2017, the two coalitions operated only a few dozen kilometers apart. This required an unprecedented level of interaction between the U.S. military and Russia. On average, the telephone hotline between air force HQs was used 10–12 times a day.

In September, in the final stage of the fight with ISIS in the Euphrates Valley, even such an active telephone line was not enough. Therefore, on September 21 it was reported that the first direct meeting was held between representatives of Russian and U.S. military command at the level of

⁴² Australian Department of Defense, "Royal Australian Air Force Fighter Jets Fly Final Mission in Middle East," January 16, 2018, <https://news.defence.gov.au/media/media-releases/royal-australian-air-force-fighter-jets-fly-final-mission-middle-east>.

⁴³ Paul D. Shinkman, "U.S.: Russia Gave Heads-Up about Cruise Missile Strike," *U.S. News*, June 23, 2017, <https://www.usnews.com/news/world/articles/2017-06-23/us-russia-gave-notification-ahead-of-cruise-missile-strike-on-supposed-isis-targets>.

⁴⁴ Matthew Lee, "U.S. Renews Offer of Syria Cooperation with Russia," *U.S. News*, July 6, 2017, <https://www.usnews.com/news/politics/articles/2017-07-06/us-renews-offer-of-syria-cooperation-with-russia>.

⁴⁵ Karen DeYoung, "Cooperation with Russia becomes central to Trump strategy in Syria," *Washington Post*, July 24, 2017, https://www.washingtonpost.com/world/national-security/cooperation-with-russia-becomes-central-to-trump-strategy-in-syria/2017/07/24/ba6172be-6e38-11e7-9c15-177740635e83_story.html.

⁴⁶ John Walcott, "Trump ends CIA arms support for anti-Assad Syria rebels: U.S. officials," *Reuters*, July 19, 2017, <https://www.reuters.com/article/us-mideast-crisis-usa-syria/trump-ends-cia-arms-support-for-anti-assad-syria-rebels-u-s-officials-idUSKBN1A42KC>.

generals. They discussed the situation, measures for deconfliction, and exchanged maps and data on insurgent positions.

Three direct communication lines were established: between Air Force command centers, between ground components, and a personal line between operations chiefs—Lt. Gen. Paul E. Funk and Col.-Gen. Sergei Surovikin.⁴⁷

In October, the frequency of using the communication line between Air Force command centers grew to 15–20 times a day. The parties called each other to report the coordinates of upcoming air strikes and to check whether there were friendly ground forces or proxies there.⁴⁸ The ground forces hotline was just as busy.⁴⁹

In November and December, during the fighting in the Abu-Kemal area and at the Syria-Iraq border, the mechanisms of deconfliction were seriously tested. The territory controlled by ISIS was reduced to just hundreds of square kilometers, and the ground forces of different sides were separated by only a few kilometers. This led to especially frequent encounters in the air. The small distances did not leave time for the usual protocol of deconfliction through the headquarters and the hotline.

The situation was significantly complicated by the rush of both government forces and Syrian Democratic Forces to grab as much land and oil and gas fields from a crumbling ISIS as possible. Disputes over the operation's line of delimitation between the two coalitions heavily spoiled cooperation between air forces. Initially, this line was established along the Euphrates River, but it was regularly crossed by Russian aviation to support the operation of pro-government forces and local tribal militias on the eastern coast. The United States regarded this as a violation of agreements even if Russian aviation was striking at ISIS.

The incident on December 13, 2017, became widely known. A pair of U.S. F-22 fighters, maneuvering and dispersing flares in front of a pair of Russian Su-25s tried to prevent their mission on the eastern coast. One of the F-22s was in turn intercepted by a Russian Su-35 fighter.⁵⁰ There were several more similar incidents, but this is the single most dangerous air encounter known to date. It shows that true cooperation in Syrian airspace between Russian and U.S. air forces was not achieved and accidents were still possible.

⁴⁷ U.S. Department of Defense, "Press Briefing by Colonel Dillon," September 21, 2017, <https://www.defense.gov/News/Transcripts/Transcript-View/Article/1320504/departments-of-defense-press-briefing-by-colonel-dillon-via-teleconference-from/>.

⁴⁸ Guy Taylor, "U.S. military uses Russian 'deconfliction' line 20 times a day to separate jets over Syria," *Washington Times*, October 5, 2017, <https://www.washingtontimes.com/news/2017/oct/5/us-russia-use-military-deconfliction-phone-20-time/>.

⁴⁹ Kristina Wong, "How One Phone Line Keeps U.S., Russia from Fighting in Syria," *Breitbart*, December 4, 2017, <http://www.breitbart.com/national-security/2017/12/04/russian-speaking-troops-man-military-deconfliction-line-with-russia/>.

⁵⁰ Ryan Browne, "U.S. F-22s intercept Russian jets over Syria, fire warning flares," *CNN*, December 15, 2017, <https://www.cnn.com/2017/12/14/politics/us-f-22-intercept-russian-jets-syria/index.html>.

Current State

Today, the quasi-state of ISIS in Syria is broken, and the group no longer controls large areas of the country. Due to the end of air operations over the Euphrates, the number of incidents in the air between U.S. and Russian planes has radically decreased. This is not the result of successful deconfliction actions by the two parties; they are simply much less likely to meet in the air today. Irreconcilable contradictions in their views on the future of Syria remain. The mixed signals coming from the current U.S. administration about Syria do not help the situation either.

Having lost their common enemy, the hostile sides of the civil war continued their old rivalries. To a certain extent, the situation in Syria today resembles the situation immediately after the victory over the Nazis in 1945. It is ready to turn into a series of new conflicts or cause a new Cold War between former anti-ISIS reluctant allies. For the foreseeable future, Syria will remain divided and continue to serve as a playground for global and regional powers.

One of the harbingers of such conflicts could be the bloody incident of February 7, 2018, when pro-government forces attempted to capture an oil field from the U.S.-backed Syrian Democratic Forces. The United States dispersed attackers through a series of air strikes, the victims of which were about a hundred fighters. Among the dead were several mercenaries from a Russian private military company.⁵¹ According to official statements and unofficial sources, this attack was not coordinated with the Russian Ministry of Defense, or approved by it.⁵²

Before, during, and after the incident, the communication channels intended for de-escalation were used intensively. No Russian military personnel were present or endangered. This explains why Russia had a comparatively soft reaction to the first case of pro-government combatants from Russia dying as result of a U.S. airstrike. This reaction turned out to be much weaker than after the downing of a Syrian aircraft in June 2017.

Relations between Israel, Syria, and Iran have become even more hostile. After the downing of the F-16I by Syrian air defense on February 10, 2018, Israel struck at least three Syrian air defense battalions and radar stations. This was the largest attack against Syria's air defense since the war in 1982. Risk of military escalation is still high.⁵³

After intensive political consultations and meetings with the Iranian and Russian militaries, Turkey launched a new large-scale military operation, Olive Branch, in the north of Syria. Opposition groups,

⁵¹ Christoph Reuter, "The Truth about the Russian Deaths in Syria," *Der Spiegel*, March 2, 2018, <http://www.spiegel.de/international/world/american-fury-the-truth-about-the-russian-deaths-in-syria-a-1196074.html>.

⁵² Marianna Belenkaya, Maksim Solopov, and Kirill Krivosheev, "Moscow did not rule out the death of Russians in Syria," *Kommersant*, February 15, 2018, <https://www.kommersant.ru/doc/3549540>.

⁵³ Mark Mackinnon, "Israel's mission creep in Syria raises nightmare scenario of wider war," *The Globe and Mail*, March 2, 2018, <https://www.theglobeandmail.com/news/world/israels-mission-creep-in-syria-raises-nightmare-scenario-of-wider-war/article38188820/>.

with the support of the Turkish army, are conducting an offensive against the Afrin canton of Syrian Kurds. Another de facto Turkish protectorate will be created on Syrian territory.

A major government offensive on East Ghuta—a rebel stronghold in the suburbs of the capital—caused an angry reaction from the West and even the threat of use of force against the government army.

The situation in post-ISIS Syria remains explosive and threatened by military incidents between the parties involved. Both sides are still exchanging verbal accusations, at times ridiculous, even from top levels. After a January attack on Russian military bases by drone swarm, the Russian Ministry of Defense accused the United States of helping or even organizing the insurgent attack.⁵⁴ Earlier, the Russian MoD press service published stills from a mobile game and old video from Iraq as “irrefutable evidence” that the United States is supporting ISIS in Syria.⁵⁵ U.S. Secretary of State Rex Tillerson offered to blame Russia “for any use of chemical weapons in Syria.”⁵⁶ With relations already tense, such allegations do not help with de-escalation, and even less with cooperation.

The risk comes not only from direct hostility, but also from miscommunication between the sides or misreading one another’s intentions.⁵⁷ The fate of the country and its inhabitants, as well as international relations, now depends on the effectiveness of incident prevention and the parties’ understanding of each other’s intentions on the Syrian battlefield.

Conclusion

Russia developed very different kinds of interactions with different sides.

Sphere	U.S.	Turkey	Israel	Syria
Air operations	Deconfliction hotline	Deconfliction hotline, limited cooperation	Deconfliction hotline	Full coordination in air
Ground operations	Deconfliction hotline	No separate hotline	No cooperation	Full coordination, advisers in most Syrian army units
Intelligence	Almost no sharing	Limited sharing	Limited sharing	Large-scale mutual sharing
Strategic coordination	No coordination	Limited coordination	No coordination	Full cooperation and joint operation planning

⁵⁴ Ryan Browne, “Russia suggests U.S. may have had role in attack on Russian bases in Syria,” CNN, January 10, 2018, <https://www.cnn.com/2018/01/09/politics/russia-us-attack-base-syria/index.html>.

⁵⁵ Shaun Walker, “Russia’s ‘irrefutable evidence’ of U.S. help for Isis appears to be video game still,” *The Guardian*, November 14, 2017, <https://www.theguardian.com/world/2017/nov/14/russia-us-isis-syria-video-game-still>.

⁵⁶ Matthew Lee and Angela Charlton, “U.S.: Russia ultimately to blame for Syrian chemical attacks,” *Military Times*, January 23, 2018, <https://www.militarytimes.com/flashpoints/2018/01/23/us-russia-ultimately-to-blame-for-syrian-chemical-attacks/>.

⁵⁷ Joost Hiltermann, “Russia a reluctant driver in the Syrian war,” International Crisis Group, February 28, 2018, <https://www.crisisgroup.org/middle-east-north-africa/eastern-mediterranean/syria/russia-reluctant-driver-syrian-war>.

Even in the most complicated environment of the multilateral civil war in Syria, deconfliction and de-escalation in critical situations between the United States, NATO countries, and Russia was possible. This not only ensured a minimum level of losses from mutual fire but also allowed for fruitful military cooperation to be established in the fight against the most terrible terrorist group of our time.

Russia is not the simplest partner for military interaction because of linguistic, doctrinal, and cultural differences. But for two and a half years, the Russian Air Force in Syria has not shot down by mistake any coalition aircraft or drones, which confirms their caution and qualifications.

Despite both sides often using tactics of blame-game and public accusations, communications with military specialists via the hotlines remains much calmer even in tough times. The U.S. side characterizes them as “professional” and “constructive,” or even “cordial.” Effective deconfliction and interaction with Russia at the level of professionals and experts is definitely possible and useful even when the official lexicon becomes hostile.⁵⁸ Given the political will to resolve the crisis peacefully, it was possible to prevent armed conflicts between the parties even in the worst incidents, such as downed aircraft or the death of friendly ground troops.

In Syria, the most successful method of deconfliction was the creation of two levels of direct communication channels at the top level and channels directly between military workgroups. Everyday issues were solved by creating direct lines between the headquarters of the factions, for which the military interpreters of both sides and officers at the level of the deputy chief of staff were constantly on duty. These lines allowed them to solve problems with air target identification and air deconfliction almost in real time. They also checked the coordinates of non-hostile troops of both sides on the ground.

Top-level channels on Syria were organized between the leaders of the countries and the defense ministers. Military-to-military communications at the level of chiefs of the General Staffs and their deputies were also very successful. Channels of this level were used for de-escalation in the event of the most serious incidents. Also, contacts at the highest level were useful to coordinate positions on strategic issues and to inform the other side about established “red lines.”

While incident prevention between air forces and regular ground forces of major powers was mostly successful, deconfliction of various proxies and irregular formations remains a big problem. A weak chain of command and low discipline of such formations make them especially prone to mistakes. The mechanisms of interaction used did not keep pace with the situation in zones of rapid change at the front line. This led to erroneous strikes against non-hostile forces from both Russia and the United States.

In a conflict of this magnitude and duration, despite all measures to prevent incidents, they are still possible. Airplanes or drones can be shot down unintentionally; strikes hit allies’ ground troops and private contractors. Historical experience shows that even minor incidents can rapidly grow into an

⁵⁸ U.S. Department of State, “Background Briefing on the Joint Statement by the President of the United States and the President of the Russian Federation on Syria,” November 11, 2017, <https://www.state.gov/r/pa/prs/ps/2017/11/275463.htm>.

escalation undesirable on all sides. Therefore, it is necessary to plan not only measures to prevent incidents but also a reaction in case such incidents occur.

The best way to avoid escalation is to reject the urge for an immediate, reflex military retaliation. A talk-before-shoot attitude is a much safer option when dealing with a not-so-hostile opponent. And it's much easier to choose this option if contacts are already plentiful. Established and well-functioning channels for deconfliction are proven to be useful not only in preventing incidents, but also in limiting the fallout if they do happen despite all precautions.

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