

# Road to Damascus

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## The Russian Air Campaign in Syria, 2015 to 2018

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### ISSUE

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The introduction of Russian airpower in Syria has been widely cited as a turning point in the Syrian civil war. Few analyses have attempted to systematically evaluate the impact of Russian airpower on Syrian military operations, against both the Western-backed opposition groups and the Islamic State in Iraq and Syria (ISIS). This study provides a strategic analysis and performance assessment of the use of Russian airpower in Syria from September 2015 to March 2018. The findings will provide insights to U.S. Air Force, Joint Force, Coalition, expert community, policy, and academic audiences about the Russian Aerospace Force's (VKS's) strengths, weaknesses, and adaptations in Syria—its first modern expeditionary air war.



### APPROACH

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We developed a database that integrates operational histories, Russian airstrikes, and disposition of Russian aircraft. We also created a software tool that generates theater-wide visualizations of the geographic distribution of daily Russian airstrikes, territorial control, and known Russian bases. We used these resources to analyze the relative effectiveness of Russian airpower against the opposition and ISIS. Finally, we compared the application of airpower in Syria by Russia and the U.S. Coalition. To illustrate this blended style of analysis, the figure displays the VKS's strike patterns across five distinct phases in Russia's air campaign in Syria. This research was completed in September 2019, before the February 2022 Russian invasion of Ukraine. It has not been subsequently revised.



### CONCLUSIONS

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- Russian airpower played a decisive role in Syria. The Russian intervention ensured the survival of Syrian president Bashar al-Assad's regime, defeated his opposition, contributed to the rollback of ISIS, and secured Russia's position in the region.
- Russia's intervention was designed as a limited-liability expeditionary campaign, with a small theater footprint predicated on Russian aerospace and naval forces providing support to regime ground forces. Tactical effectiveness was mixed, but it was adequate to the mission and improved as the VKS adapted to the operational environment.

- To sustain Russia’s expeditionary capability, the VKS experimented with a distributed basing model. Opening additional air bases enabled the VKS to relieve congestion at its main air base, scale up the deployed force, and operate more responsively. However, this model exhibited key gaps, including poor base protection and high attrition rates.
- The VKS’s employment of airpower was significantly more effective in engagements against the opposition than in conflicts against ISIS.
- Despite making key adaptations in counter-ISIS operations—including joint operational planning, concepts of employment (CONEMP), forward basing, and advanced capabilities—Russian airpower was not uniquely powerful or decisive against ISIS. The U.S. Coalition conducted at least 50 percent more airstrikes, in aggregate, than did Russia in ISIS-controlled regions in north, central, and eastern Syria. Ultimately, Kurdish forces, supported by Coalition airpower, propelled the rollback of ISIS in northeastern Syria.

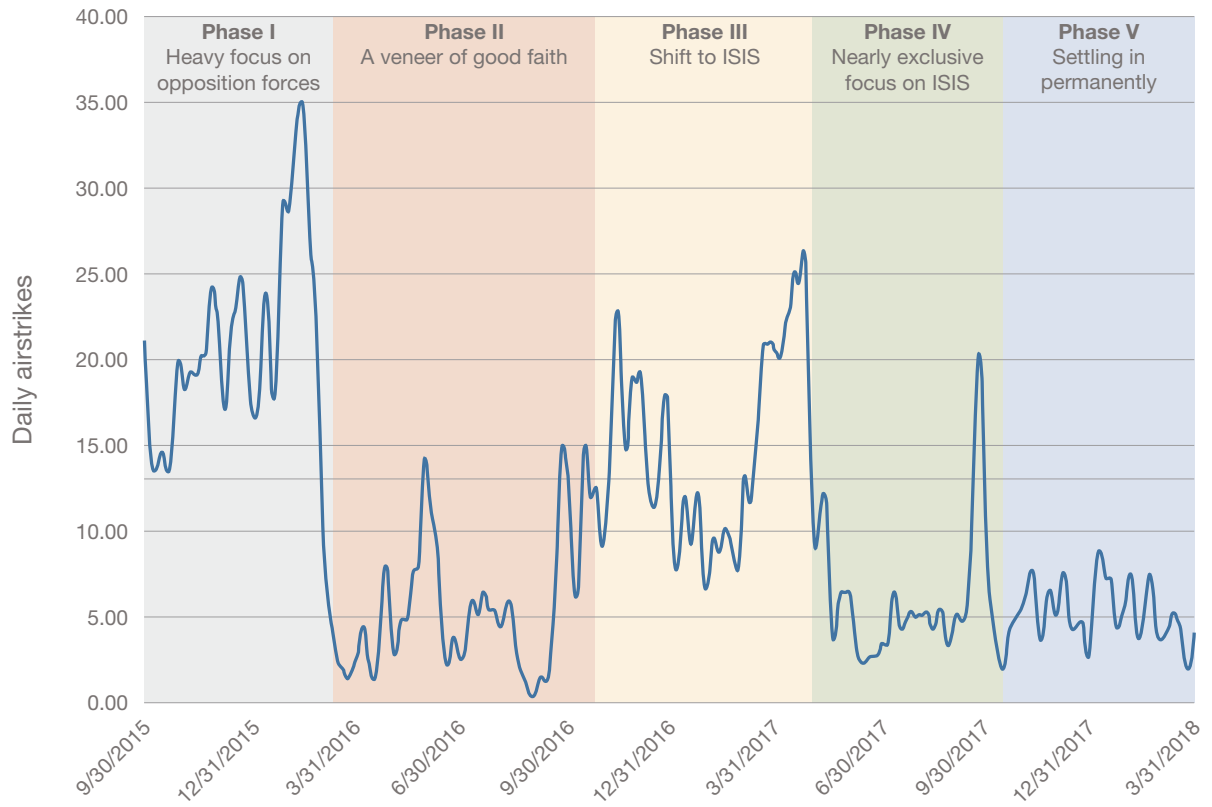


## IMPLICATIONS

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- It is unclear how effectively Russia might be able to export its expeditionary capability to other theaters. The geography in Syria was uniquely favorable for the VKS’s reliance on rotary-wing operations, the conflict was low intensity, and Russian forces rarely encountered adversaries with advanced air-to-air or surface-to-air capabilities.
- The VKS’s heavy reliance on distributed basing exhibited shortcomings that suggest a limited applicability to different operational contexts. It is unclear how well the VKS would perform, for example, if its basing options were limited.
- Russia refined CONEMP for enabler aircraft that it will likely apply to future conflicts. The VKS experimented with new capabilities in airborne intelligence, surveillance, and reconnaissance (ISR), early warning and control, command and control (C2), and command post roles. Russia has also invested in combat unmanned aerial vehicles with self-protection suites and the ability to conduct dual recon-strike missions.
- Russia’s reluctance to invest in expensive precision-guided munitions, underdeveloped targeting and penetrating ISR capabilities, and lack of intertheater tanking could be liabilities in future campaigns with a larger area of operations, fewer regional basing options, or against a peer force that can deny Russia’s less-capable legacy aircraft.

## THE RUSSIAN AIR CAMPAIGN IN SYRIA, 2015 TO 2018



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