

The Ukraine/Russia conflict: an analysis on air warfare



RuAF MiG-35 (left, photo ROE) and Ukr AF Sukhoi Su-27 (right, photo Ukr AF)

Introduction:

Since the beginning of the invasion of Ukraine by Russia on 24 February 2022, so much has happened on the ground and in the air, but in the absence of significant reliable information, it is very difficult to separate propaganda from facts and reality. So far, in Western media, what we have seen is mostly Ukrainian propaganda/version, but in reality, very little is known about the actual situation, and both sides are pushing their information warfare capabilities to their limits.

After the beginning of the Russian invasion of Ukraine in late February, many articles appeared regarding the mystery of missing Russian Air Force and its inability to establish visible air superiority. So, in this article, I will briefly summarise the air war till end of June 2022 and highlight the problems and weaknesses of both Russian Aerospace Forces (VKS) and Ukrainian Air Force (UkrAF), and offer my personal opinion on why there is no such mystery. No loss estimates (either Russian or Ukrainian) can be mentioned since no reliable information regarding the same is available.

Brief History of Air War

February:

- 23 February: intelligence, surveillance and reconnaissance flights by 10-12 VKS Su-24MRs.
- 24 February: about 120 Russian cruise and ballistic missile strikes against Ukrainian air defences, air bases and other targets; about 100 VKS fixed-wing sorties and SEAD missions using Kh-31P-series anti-radiation missiles; P-14 VHF early warning radar chain near Mariupol destroyed; Ukrainian S-300Ps largely destroyed; high Russian helicopter and aircraft losses.

- 25 February: UkrAF Su-27 shot down over Kiev by a Russian S-400 battery deployed in Belarus from a distance of more than 100 km; salvos of Russian cruise and ballistic missiles continue.
- 26 February - 28 February: UkrAF low-level defensive counter-air and ground-attack sorties continue; Russian cruise and ballistic missile barrages increase.

March:

- 1 March - 10 March: VKS sorties increase to about 200 per day; no UkrAF air base fully operational.

- 11 March – 20 March: VKS sorties decrease to about 120 per day; VKS shifts to medium altitude operations wherever possible; Russian cruise and ballistic missile strikes continue; UkrAF starts to operate from dispersed and improvised locations.

- 21 March – 31 March: VKS sorties average between 200 to 300 per day; first use of hypersonic Kh-47M2 Kinzhal missile.

April:

- VKS sorties between 100 to 200 per day; Russian cruise and ballistic missile