



Osprey Flight Solutions

A new age for aviation risk management

28 February 2022

Russia-Ukraine Situation Update



Welcome

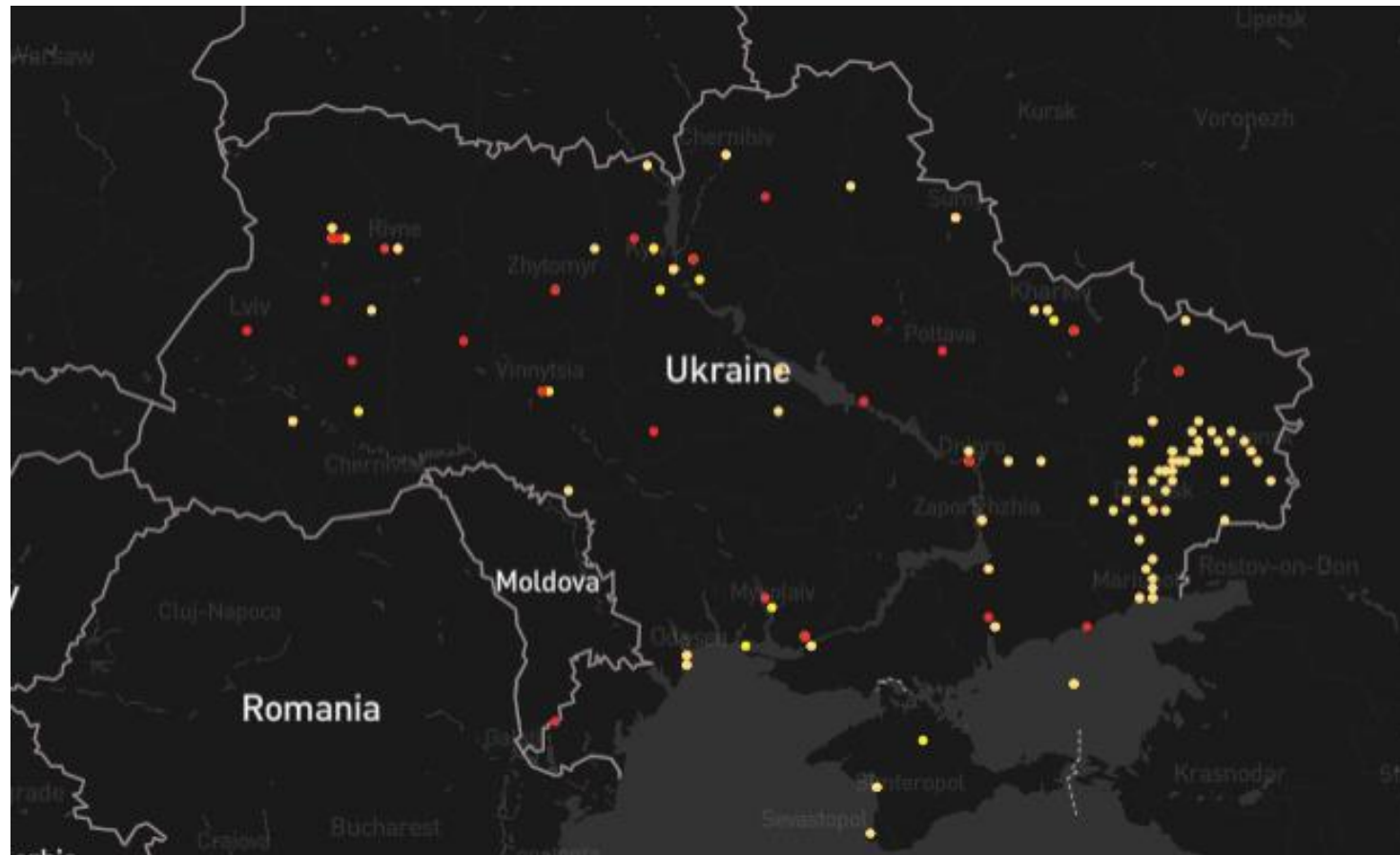
Matthew Borie, Chief Intelligence Officer

- Since c.0300 UTC on 24 February, Russian military cross-border strikes into Ukraine - reportedly including the use of over 350 cruise and ballistic missiles followed by airstrikes - have been reported targeting Kyiv, Lviv, Odessa, Gostomel, Rivne, Kharkiv, Dnipro, Bohuslav, Donetsk, Luhansk, Zhytomyr, Ivano-Frankivsk, Chuhuiv, Uman, Kropyvnytskyi, Chernihiv, Ternopil, Lutsk, Sumy, Starokostyantyniv, Vinnytsia, Kamianets-Podilskyi, Cherkasy, Mykolaiv, Myrhorod, Ozernomu, Kulbakinomu, Melitopol, Kherson, Zaporizhzhia, Khmelnytskyi, Chornobayivtsi, Zolotonosha, Mariupol & Kramatorsk, at the very least.
- Airports, airbases and/or military installations with aviation infrastructure in many of these cities have reportedly been targeted; however, material damage information at the facilities - including the status of air assets on ground - remains unclarified at this time.
- Separately, Russian military forces are pressing an invasion along several avenues of approach into Ukraine - including from the south via Crimea axis, east via Donbass axis, northeast via Kharkiv axis, north-central via Kyiv axis and northwest via Belarus axis.
- Russian naval activity has also been reported in the Black Sea and Sea of Azov over the past 96 hours.



Russia-Ukraine Situation Update

Osprey:Explore – Rocket, Missile & Airport/Airbase Attacks on Ukraine Since 24 February



Russia-Ukraine Situation Update

Key Developments:

- Russia claims shoot down of 2 ballistic missiles, 11 drones, 17 aircraft & 7 helicopters as well as destroying 35 aircraft on the ground at airports/airbases
- Ukraine claims downing 29 aircraft, 29 helicopters, 4 drones & over 20 missiles
- Russian strikes have reportedly targeted Ukrainian air-defence sites
- *Analyst Comment: Russia is not assessed to have achieved air superiority over Ukrainian airspace. While degraded, Ukrainian military air & air defence operations remain ongoing. While there are no indications that Russia or Ukraine intends to kinetically target legal civil aviation flights, Osprey assesses there is a significantly increased potential for miscalculation and/or misidentification.*



Defence Intelligence

UPDATE ON UKRAINE
26 February 2022

INTELLIGENCE UPDATE

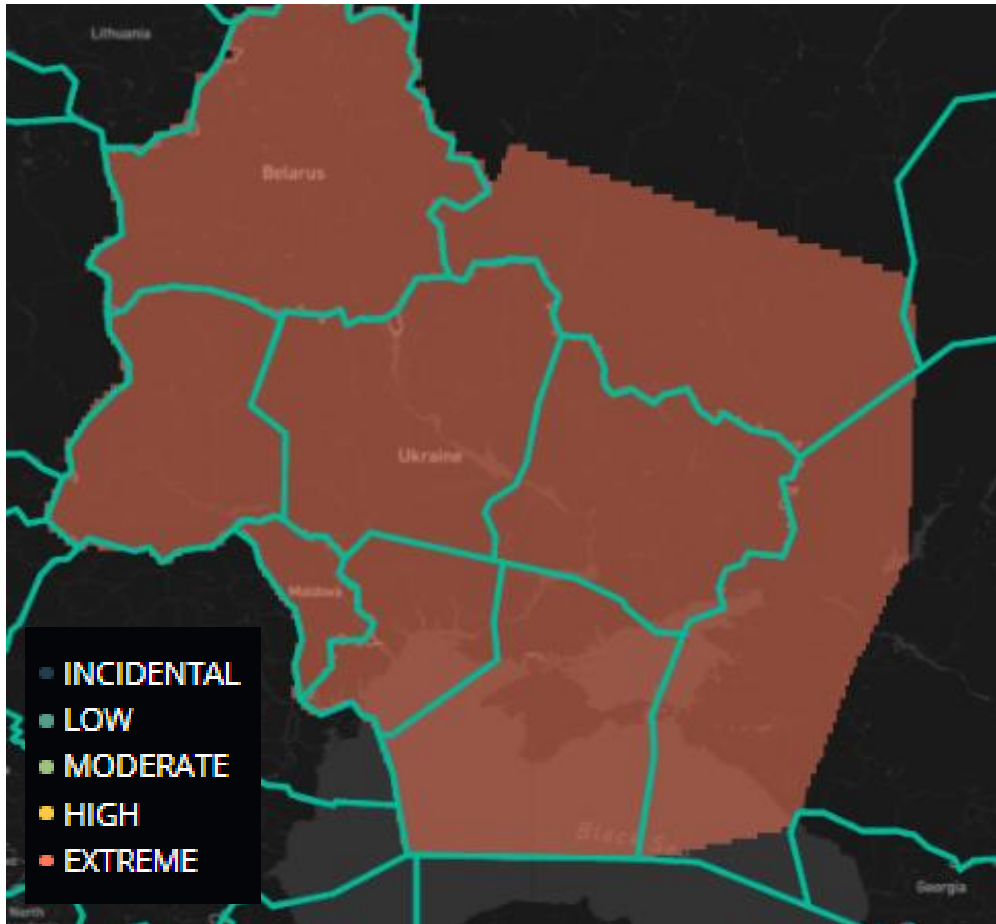
- Russian forces have continued their advance on Kyiv with the bulk of their forces now 30km from the centre of the city.
- Russia has yet to gain control of the airspace over Ukraine greatly reducing the effectiveness of the Russian Air Force.
- Ukrainian Armed Forces continue to put up staunch resistance across the country.
- Russian casualties are likely to be heavy and greater than anticipated or acknowledged by the Kremlin.

UK MoD Intelligence Update – Ukraine

Russia-Ukraine Situation Update

Key Developments: Regulatory, Risk, Operational & Geopolitical

Russia-Ukraine Situation Update



Osprey scoring for the relevant Airspace Risk Areas outlined below:

- Ukraine - Donetsk & Luhansk: **EXTREME** at all altitudes
- Ukraine (non-Donbass): **EXTREME** at all altitudes (up from HIGH on 23 Feb)
- FIR Simferopol (UKFV): **EXTREME** at all altitudes (up from HIGH on 23 Feb)
- Russian Border: **EXTREME** at all altitudes (up from HIGH on 23 Feb)
- Belarus: **EXTREME** at all altitudes (up from HIGH on 23 Feb)
- Moldova: **EXTREME** at all altitudes (new on 24 Feb)



Russia-Ukraine Situation Update

Regulatory Information

- ✦ **Ukraine** has closed its airspace, currently through 23 March (UKBV A0583/22). **Moldova** has also closed its airspace except for repositioning, cargo, humanitarian, repatriation & medical emergency flights with permission/coordination of the CAA and using Chisinau Airport only, until 25 April (LUUU A0046/22).
- ✦ **Belarus** has restricted the southern part of its airspace until 24 March (UMMV O0177/22); **Russia** has issued a NOTAM closing a large portion of its airspace in the SW of the country, also covering Ukrainian airspace and a large part of Belarusian airspace, through 2 March (UUWV/URRV/URFV U0107/22). Russia has also closed numerous ATS route segments in its SW airspace. **Poland** has flight planning restrictions in the eastern half of the country (EPWW C0217/22).
- ✦ Major regulatory bodies – including EASA, the UK, the US, Canada, France & Germany – have issued & revised conflict zone notices for airspace in Ukraine and neighbouring countries to varying extents, most with 'buffer zones' around Ukrainian airspace ranging up to 200NM.
- ✦ EU member states, the UK, Canada, Norway, Iceland and Gibraltar have banned Russian-linked aviation entities from using their airspace; Russia has reciprocated, or is expected to, in all cases.
- ✦ For more details of these notices, please access Osprey:Open via the following link: <https://open.ospreyfs.net>

Russia-Ukraine Situation Update

Map Legend

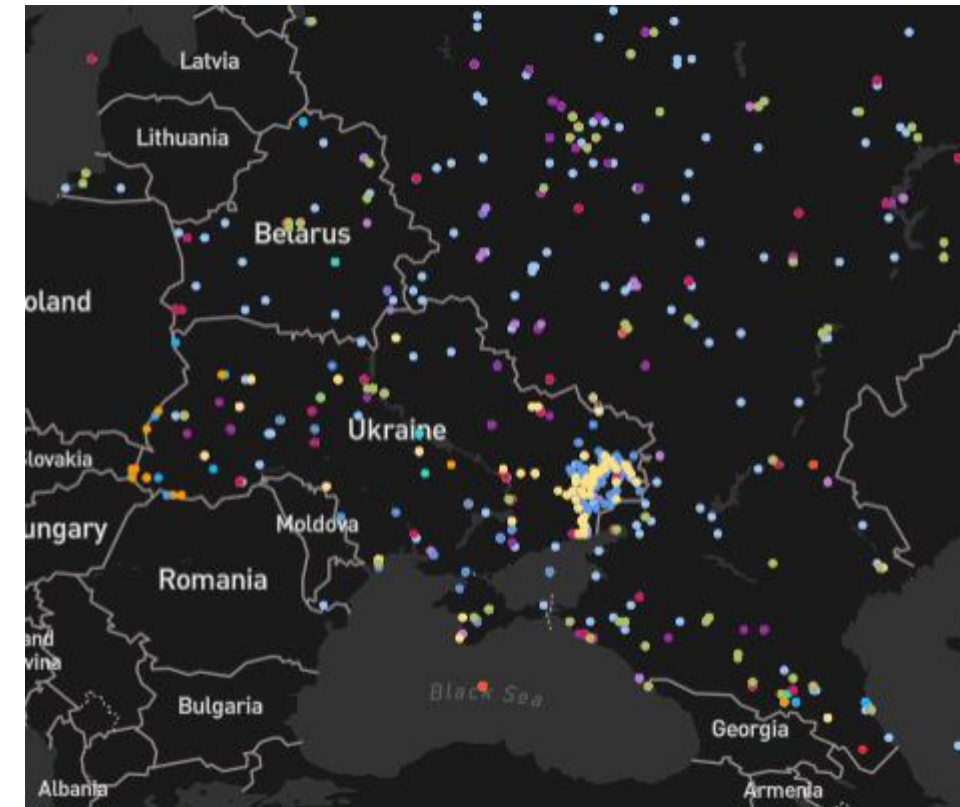
 Closed airspace to Russian airlines



Russia-Ukraine Situation Update

Key Operational Developments:

- Several foreign aircraft were stranded at airports in Ukraine & Moldova when the airspace was closed; Moldova has since allowed those stuck at Chisinau Airport to leave.
- Airline risk assessments and actual/anticipated reciprocal bans on using Russian airspace for transit have led numerous leading international commercial operators to alter flight routings and cancel services.
- Routings via Caucasus and Central Asia being used to south/south east Asia; also further south via ME, Gulf, Saudi Arabia, Iraq and Iran – although this would be subject to limitations posed by regulatory notices and other conflict zone activity in certain countries.
- Russian carriers essentially blocked from European/North Atlantic routings, and are now limited to roundabout route through international airspace over neutral waters of Baltic Sea to access Kaliningrad.



Osprey:Explore Data – Russia, Ukraine & Belarus

Russia-Ukraine Situation Update

Key Geopolitical Developments:

- ✦ 27 February: reports emerged that Ukrainian & Russian officials would meet at the Belarusian border for talks; no breakthrough towards a ceasefire agreement expected in the near term
- ✦ Some foreign governments - including the US, France & Germany - are advising their nationals to defer travel to Russia or depart the country.
- ✦ EU plans to finance the purchase and delivery of weapons to Ukraine – the first time it has done this. Several NATO countries - on an individual basis and not at the direction of the alliance - continue to provide military armaments to Ukraine.
 - ✦ NATO as part of the first ever activation of the Response Force within the alliance
 - ✦ Multinational battlegroup for air defence in Slovakia, with both Germany and the Netherlands deploying US-made MIM-104 Patriot conventional SAM system
 - ✦ NATO Baltic & Black Sea air policing missions ongoing



Russia-Ukraine Situation Update

Assessment, Indicators & Takeaways



Russia-Ukraine Situation Update

Osprey Assessment

The strikes are occurring in the wake of the Russian president stating on 24 February that Russia's armed forces had initiated a "special military operation" against Ukraine to "protect the Donbass" and to "demilitarize" Ukraine. On 27 February, reports emerged that Ukrainian and Russian officials would meet at the Belarusian border for talks amid the conflict; however, no breakthrough in negotiations towards a ceasefire agreement is expected in the near term. Osprey assesses that significant Russian military operations likely including the use of cruise and ballistic missiles targeting Ukrainian armed forces bases and critical infrastructure sites in Ukraine - including airports/airbases - are expected to persist through at least mid March. Increased military air and missile operations by the Russian and Ukrainian armed forces have the potential to cause airspace congestion and would impact the safety of civil aviation flights. The significant increase in the amount of air and missile operations in southwest Russia, Ukraine and the Black Sea are expected to disrupt availability of airports/airbases along with access to airspace in these areas indefinitely.

Rerouting of civil aviation over additional portions of Belarus's FIR Minsk (UMMV) as well as Russia's FIR Moscow (UUWV), FIR Samara (UWWW) and/or FIR Rostov (URRV) along with the eastern portion of Poland's FIR Warsaw (EPWW) is a significant concern going forward - either by further regulatory action and/or changes in insurance coverage. More restrictive measures could be enacted at short notice by Poland, Russia and/or Belarus as well as other leading civil aviation governing bodies, including additional partial restrictions of airspace in the above FIRs. While Ukraine and Moldova have closed their airspace, leading civil aviation governing bodies may issue further notices to their operators in addition to those detailed above regarding Ukrainian and neighbouring airspace.



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Key Indicators of Escalation

- Intensification of Russian strikes on main urban centres, military sites and critical infrastructure in Ukraine
- Significant Russian movement of forces deep into Ukrainian territory and control of main urban centres
- Additional deployment of further Russian military forces to Belarus or the areas bordering Ukraine
- Widespread telecommunications disruption an/or cyber attacks crippling critical infrastructure functionality

Key Indicators of De-escalation

- Russian willingness to engage in ceasefire negotiations
- Russian strikes being confined to a specific geographic area
- Russian troop movements confined to specific avenue of approach
- Russia-NATO council engagements on deconfliction



Russia-Ukraine Situation Update

Key Takeaways

- ✦ Ukraine is an active conflict zone and the airspace is closed – some neighbouring states restricting airspace as well
- ✦ Both Russia & NATO are conducting increased levels of military air patrols over the Black Sea & Baltic Sea
- ✦ GPS jamming & other forms of EMI remain present in the region, including the Black Sea & Baltic Sea
- ✦ Possible short-notice issuance of regulatory NOTAMs, circulars, publications, restrictions and/or bulletins
- ✦ Potential change in insurance coverage and/or access to such services for flights related to Ukraine conflict



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