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## Restoration of the aviation industry of Ukraine after the war

The aviation industry of Ukraine has suffered significant losses as a result of the full-scale war with russia. The suspension of flights, damage to airports, loss of aircraft, and staff reductions have jeopardized not only the functioning of the industry but also the country's economic growth and international mobility.

The restoration of Ukraine's aviation industry is a priority task that requires comprehensive efforts from the state, business, and the international community. This scientific work examines the key aspects of restoring Ukraine's aviation industry, proposing ways and methods to overcome current challenges and ensure the sustainable development of the sector in the future.

Analysis of current challenges: [1]

- Suspension of flights: Due to the war, most Ukrainian airports have been closed, leading to a complete halt of domestic and international flights.
- Airport damage: As a result of shelling and military actions, many airports have suffered significant damage, requiring extensive repair work.
- Loss of aircraft: Ukrainian airlines have lost a significant portion of their fleet due to the conflict, necessitating a renewal of the aircraft fleet.
- Reduction of staff: Airlines have been forced to cut a substantial part of their workforce due to the reduction in transportation volumes.
- Financial difficulties: Airlines and airports are experiencing significant financial losses due to the suspension of flights and decreased demand for services.

It is likely that European airlines, both before the full-scale war and after the victory, will find it unprofitable to operate within the territory of Ukraine due to the high VAT on domestic flights. This is why domestic airlines have not been overly concerned about potential competition. Even if these airlines do operate such routes after the war, the motivation will most likely be marketing rather than profit. With this approach, it is likely that European airlines will create a few routes within Ukraine between major cities (Lviv, Kyiv, Odesa), where there is potential for advertising promotion [4].

However, it can be argued that with the arrival of foreign airlines on the Ukrainian domestic aviation market, consumers will prefer them due

Of course, the longer the war lasts, the more difficult the situation will be for

Ukrainian civil aviation, and the longer it will take to recover afterwards. The optimal option would be to resume flights even under wartime conditions. However, today Ukraine is among the group of seven countries with the highest, first-level risk in terms of flight safety (Fig. 1) [2]. Civil aircraft operators are advised to completely avoid such zones, as aircraft could be incorrectly identified by air

defense systems and mistakenly targeted, or they could come under crossfire during air attacks, etc.



Figure 1 Map of safe airspace 03/20/2023 [3]

However, an analysis of cases involving the downing of civilian aircraft over conflict zones in the past shows that there is no practice of mandatory full airspace closure. Even today, flights are being conducted at airports classified as having the highest, first-level risk. That is why the proposal to resume flights from two Ukrainian airports has been made: "Lviv International Airport" named after Danylo Halytskyi and "Uzhhorod International Airport." Due to the proximity of these airports to the border, aircraft could quickly enter the airspace of the European Union and conduct flights safely. However, security guarantees from the Armed Forces of Ukraine are still necessary for this [3].

After the victory and the reopening of the skies, the country will need a rapid recovery of its aviation sector. The main load will fall on the capital's airports and those that have not been damaged. Among the airports that were either not affected or suffered only minor damage, the priority for recovery will be the "western gates": Ivano-Frankivsk, Lviv, Rivne, Uzhhorod, and Khmelnytskyi. The largest share of air defense systems is located in western Ukraine, so the demand for travel will be significant. Not all airports will handle only passenger flights; some will need to At the same time, with the support of partner countries and reparations from the aggressor state, the southern airports of Ukraine will also need to be quickly restored. For this, the country must have quality projects, specialists, construction materials, and a workforce.

Ways and methods of recovery: [4]

- Airport restoration: Large-scale repair and modernization of airports are necessary to ensure their safe and efficient operation.
- Fleet renewal: Funding must be secured to update the fleet with modern and safe aircraft.
- Staff support: The government and airlines must assist in retaining qualified personnel in the aviation sector.
- Stimulating demand: Measures should be taken to stimulate domestic and international air travel by offering affordable prices and new routes.
- Government support: The Ukrainian government should develop and implement a comprehensive support plan for the aviation industry, including financial assistance, tax incentives, and regulatory simplifications.
- International cooperation: It is important to establish international cooperation with partner countries to attract investments, share experience, and restore international routes.

## Conclusion

The restoration of Ukraine's aviation industry is a challenging but achievable task. Through the concerted efforts of the government, businesses, and the international community, Ukraine can not only restore its aviation industry but also make it more competitive and resilient to future challenges.

The war in Ukraine has had a detrimental impact on Ukraine's aviation industry, essentially rendering it inoperable. However, there is still hope for the resumption of air travel, even amid the war. Proposals have been made to launch flights from two Ukrainian airports - Lviv and Uzhgorod. Due to their proximity to the EU border, aircraft from these airports could quickly enter EU airspace and safely conduct flights.

After the victory and the opening of the skies, the country will need a rapid restoration of aviation.

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