## MITIGATING EMERGENCY SITUATIONS WHILE USING POINT MERGE IN UKRAINIAN AIRSPACE

Marshalok Daniil National Aviation University

In the midst of geopolitical instability and ongoing conflict in Ukraine, the aviation landscape stands at a critical juncture. With UkSATSE forecasting a significant possibility of aerodromes in Ukraine resuming operations by 2024, there arises a pressing need to address the multifaceted challenges inherent in this transition. Despite the optimistic outlook for the revival of aviation infrastructure, the persistent threat of warfare looms large, with rocket missiles posing a constant danger in various regions of Ukraine.

The specter of intentional aggression against civilian flights by the Russian federation casts g shadow of uncertainty over the resumption of air travel. Given these complex and volatile conditions*i* it is imperative to prioritize immediate emergency preparedness measures to safeguard the safety and security of air travel in Ukrainian airspace.

Moreover, in the absence of specialized procedures tailored to the unique challenges of Ukrainian airspace, the management of emergency situations during landing may lack the precision and efficiency required to ensure optimal outcomes. This gap in emergency response protocols underscores the pressing need for a tailored solution that can enhance the safety and effectiveness of landing operations in Ukrainian airspace.

In the context of emergency situations during landing, the point merge method offers severab advantages. Its inherent flexibility allows for rapid adjustments to accommodate deviations from standard landing procedures, such as priority handling for distressed aircraft or expedited sequencing for emergency landings. Additionally, the predictability and efficiency of the point merge method enable air traffic controllers to maintain safe separation distances between aircraft while minimizing disruptions to overall airspace operations. Furthermore, the point merge method can be tailored tb suit the specific operational requirements and geographical characteristics of Ukrainian airspace<sub>4</sub> thereby enhancing its suitability for managing emergencies effectively. By integrating advancep technologies such as automation, real-time data analytics, and collaborative decision-making toolgp the implementation of the point merge method holds the potential to improve air traffic management practices in Ukraine, ensuring safer and more resilient landing in the face of an emergency.

In considering practical implications and recommendations for improving emergency responsed procedures or refining the implementation of the point merge method, several key strategies can be explored: Y

S

е



1. Enhanced Training and Simulation Exercises: Provide comprehensive training programs for air traffic controllers and aviation personnel focused on emergency response procedures within the context of the point merge method. Incorporate realistic simulation exercises to simulate various emergency scenarios, allowing controllers to practice decision-making and coordination under pressure.

2. Development of Contingency Plans: Develop robust contingency plans that outline specific protocols for managing emergency situations during landing using the point merge method. These plans should address potential challenges such as system failures, adverse weather conditions, and high traffic volumes, outlining alternative procedures and escalation protocols as needed.

3. Collaborative Decision-Making: do collaboration and communication among air ATCs, airport authorities, airlines, and other stakeholders to facilitate coordinated decision-making during emergency situations.

4. Regulatory Alignment and Standardization: Ensure alignment with international aviation regulations and standards governing emergency procedures and air traffic management practices. Collaborate with regulatory authorities to develop standardized guidelines and best practices for implementing the point merge method in diverse airspace environments, including considerations for emergency contingencies.

By implementing these practical strategies and recommendations, stakeholders can strengthen emergency response procedures, enhance the effectiveness of the point merge method, and ensure the safety and efficiency of landing operations in challenging circumstances. Continued collaboration, innovation, and adaptation are essential to meeting the evolving demands of aviation safety and airspace management in the face of emergency situations.

References:

1. Opraniзація повітряного руху, URL <u>zakon.rada.gov.ua/go/z0165-22</u>

2. UkSATSE\_Official, URL <u>t.me/s/uksatse\_official?before=669</u>