Keynote Address by
the Secretary
General of the

International Civil Aviation Organization (ICAO)

Mr. Juan Carlos Salazar

For the AI in the Sky

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Excellencies, Distinguished Guests, Colleagues,

1. It is a great honour to address such an exceptional gathering at this landmark event—the AI in the SKY - organized by the Directorate General of Civil Aviation of Turkiye, and supported by ICAO. I would like to thank our hosts for their hospitality and bringing us together here in Antalya, a city known for its beauty and rich cultural heritage.

2. The timing of this conference is particularly significant. ICAO has recently unveiled its 2026-2050 Strategic Plan, setting ambitious goals for the next quarter century. As we chart aviation's future course, artificial intelligence and big data analytics emerge not as mere supplementary tools, but as fundamental enablers of our strategic vision.

3. Let me share how these technologies will shape ICAO's six strategic goals and their implementation, so that we may deliver on our promise of safe skies and a sustainable future.

Every flight is Safe and Secure

4. Our first commitment is that every flight must be safe and secure. Already, AI is enhancing predictive maintenance, enabling real-time aircraft health monitoring, and improving risk assessment. Through machine learning and advanced analytics, we are moving from reactive to predictive safety management.

5. In the realm of security, AI-powered systems are strengthening screening measures for both passengers and cargo. These innovations range from biometric matching for passenger processing to advanced anomaly detection in cargo shipments. Together, these technologies are creating more robust, *efficient* security processes while facilitating smoother operations.

Aviation is Environmentally Sustainable

6. Our commitment to achieve net-zero carbon emissions by 2050 demands innovative solutions. AI and big data are proving to be invaluable tools in this journey. Through advanced analytics, we can optimize flight paths, improve fuel efficiency, and precisely track them, and reduce emissions. These technologies will be essential in measuring and managing our progress toward this ambitious target.

Aviation Delivers Seamless, Accessible, and Reliable Mobility for All

7. The transformation of passenger experience stands at the heart of this goal. From multilingual passenger assistance to intelligent wayfinding systems, these technologies are enhancing the travel experience. Advanced analytics are helping airlines optimize schedules and operations, making air travel more reliable and accessible for everyone.

8. Through AI-driven customer relationship management systems, airlines can now better understand and respond to passenger needs, providing personalized services and proactively addressing potential disruptions. This technology enables us to move beyond one-size-fits-all solutions, to deliver truly customized travel experiences, while maintaining the highest levels of efficiency and reliability.

Economic Development assuring Prosperity and Societal Well-Being for All

9. The economic development of air transport remains vital for global prosperity. AI is driving efficiencies that make aviation more economically viable and affordable. Airlines are leveraging these technologies to optimize operations, reduce costs, and personalize services.

10. More significantly, these innovations are creating new economic opportunities for remote regions and developing nations. AI-powered demand forecasting and route planning are helping us better serve smaller communities and establish new air links that stimulate travel, trade, tourism, and cultural exchange. This isn't merely about cost savings – it's about building sustainable air transport

systems that generate employment, facilitate trade, and extend aviation's benefits to every corner of the globe.

No Country Left Behind

11. This goal represents both our moral imperative and operational necessity. We must develop and implement AI solutions that bridge existing gaps rather than creating new divides.

12. This transformation requires three interconnected actions. First, we must create scalable solutions that work for aviation authorities and operators of all sizes. Second, we must establish robust mechanisms for technology transfer and knowledge sharing between nations. Finally, our AI implementation plans must carefully consider and accommodate varying levels of infrastructure readiness across different regions.

13. Through ICAO's implementation and capacity development programmes, we provide targeted assistance, training, and expertise to Member States. By fostering regional partnerships and resource sharing, we ensure AI's benefits reach every nation, regardless of technological infrastructure.

Treaties, Laws and Regulations Address all Challenges

14. The governance of AI in aviation demands a coordinated international approach. The United Nations has recognized this imperative, and momentum is building for coordinated AI regulation addressing bias, transparency, and accountability.

15. The European Union's AI Act offers valuable insights, particularly in its risk-based approach and emphasis on transparency and human oversight. These frameworks inform efforts to develop aviation-specific AI governance.

16. Two critical challenges demand our immediate attention. The first is ensuring ethical deployment of AI in safety-critical decisions, where transparency and accountability are paramount. The second is establishing effective data governance frameworks, that balance innovation with essential privacy and security requirements.

Gender Equality and Attracting New Talent to Aviation

17. Our workforce will also transform as AI technologies evolve. This isn't about replacing human expertise – it's about augmenting it. We need to invest in training and education to prepare our aviation professionals for this evolution. Through ICAO's Training programme and our partnerships with training centers worldwide, we will be developing new curricula that integrate AI and data analytics skills with traditional aviation expertise.

18. Our Next Generation of Aviation Professionals (NGAP) and Gender Equality programmes actively promote diversity in aviation, with particular emphasis on increasing women's participation in technical and leadership roles. We're building an aviation workforce that reflects our global community.

Conclusion: Embracing the Future Together

19. As we convene these next three days, I challenge you to share your experiences openly, engage actively in discussions about standards and best practices, and think creatively about solutions that can scale globally. Consider how we can ensure equitable access to AI technologies and foster partnerships between developed and developing countries' aviation markets.

20. Looking toward 2050, we envision an aviation system that is safer, more efficient, and more sustainable through the thoughtful integration of AI. But this future isn't predetermined – it depends on the actions we agree this week.

21. This event represents more than just a discussion about technology. It's about shaping the future of global aviation in a way that benefits all nations and peoples and ensuring that as we advance technologically, we do so in a manner that strengthens the foundations of international civil aviation.

22. The partnerships we forge here, the knowledge we share, and the solutions we develop together will be crucial in achieving our strategic goals. The future of aviation is not just about connecting points on a map – it's about connecting innovations with real-world needs, connecting developed and developing nations, and ultimately, connecting people and cultures across our global community.

23. I look forward to the rich discussions ahead and the solutions that will emerge from our collective expertise and commitment.

24. Thank you.