



**Remarks by
the Secretary General of the
International Civil Aviation Organization (ICAO),
Dr. Fang Liu,
to the First Session of the 2017 China Civil Aviation Development Forum:
“New Opportunities for Aviation Development in the Internet Era”.**

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1. Good morning everyone.
2. Aviation today connects the world and its peoples, bringing together families, friends, businesses and cultures to the tune of 10 million passengers daily on over 100,000 flights.
3. Our sector supports 63.5 million jobs, a third of world trade by value, and contributes 2.7 trillion dollars annually to global GDP.
4. And very importantly, especially for urban centres everywhere, aircraft also carry over half of the 1.4 billion tourists who travel across international borders each year.
5. From this standpoint, we can all appreciate why Bill Gates once referred to the airplane as humanity’s “first World Wide Web.”
6. Mr. Gates’ perspective brings to mind the mutually reinforcing aspects of aviation’s unique capability to physically connect and unite us, and the internet era’s new and profound digital connectivity impacts on human culture and communications.
7. A major challenge for all of us in this regard is the incredible growth of e-commerce. For instance ICAO’s data has shown that the air cargo share of items purchased online grew from 16% to 74% between 2010 and 2015, and that it is projected to grow to a remarkable 91% by 2025.
8. These numbers support the fact that many of the expectations now instilled in modern consumers, whether for access to global products or next-day delivery, are wholly dependent on international air transport to move the goods they purchase online, rapidly and reliably.

9. And the speed of this e-commerce evolution highlights for us how the internet era is dramatically changing some very basic human behaviour patterns. It is estimated, for instance, that by 2020 the number electronic devices connected via the internet will grow to 50 billion – more than three times the number already connected today.
10. These trends also point out how we, and the agencies and companies we represent, must become much more dynamic and flexible in our response to these innovations. I would encourage everyone to recognize that this is absolutely fundamental if we hope to leverage the digital revolution to its fullest potential for the communities and populations we serve.
11. Aviation, for its part, has historically been an early adopter of advanced technologies. New online and digital capabilities have been no exception to this rule, and accordingly they've already changed the way all of us choose our flights, purchase our tickets, and check-in at the airport.
12. These front-end passenger experience changes mirror similar developments behind the scenes. Digital communications have greatly accelerated the implementation of new aviation capabilities, for example in terms of how our network manages its traffic, tracks aircraft over remote airspace, provides pilots with essential flight and weather information in real time, or delivers new customer efficiencies through innovations like e-Passports or e-Freight solutions.
13. Another recent example I would draw your attention to involves the *Google Loon* project. We have been cooperating with Google to help facilitate the international establishment of its micro balloon internet satellites, and just recently this new digital network proved essential to the delivery of vital internet connectivity to tens of thousands of people in severely flood-affected areas of Peru.
14. ICAO is closely involved in all of these developments, which have made aviation safer and more efficient, helping us to save lives and reduce emissions even as aircraft get faster and more reliable at connecting the world and its billions of citizens and consumers.
15. Another serious challenge we must recognize as we realize and guide this progress are the cybersecurity risks which accompany these developments. It seems that, almost daily, new and more sophisticated digital technologies and processes are coming online, and impacting as they do the function of our network, its relationships with customers and stakeholders, and even the way that air transport professionals connect and cooperate with one another.

16. ICAO, for its part, will continue to stay on top of this evolving threat context, and to work in close cooperation with the many partners and agencies needed to establish an effective and coordinated global cyber risk response. But importantly successful cyber resilience requires every party to be taking similar actions. None of us can afford becoming the weak link in this framework.
17. One important implication of the internet, e-Commerce and other related revolutions has been the expanding middle class in the Asia-Pacific's emerging economies. This is producing many new first-time flyers, and it has also made your Region home to the world's largest urban population.
18. This trend is clearly reflected in ICAO's passenger projections, with current data revealing that today's 2.2 billion Asia-Pacific air travellers will more than double, to over 5 billion, in just the next two decades.
19. It is this growth in air transport, above all, which has driven our sector to optimize digital capabilities and pursue new innovations such as integrated System Wide Information Management (SWIM) and Air Traffic Flow Management (ATFM), and Airport Collaborative Decision Making (ACDM) among others.
20. These digital communications and navigation advances promise tremendous overall safety, efficiency and emissions reductions gains in the years ahead, while permitting private sector airlines and airports to further streamline operations and enhance their profitability.
21. If we take a moment to consider what these overall trends will mean in terms of social and development objectives for States and Regions, I'd suggest that an important takeaway for all of us is the need for greater integration of aviation and airport development and urban planning.
22. This objective is very directly related to this Forum's separate focus on the important and growing relationships between internet connectivity and new approaches to multi-airport systems.
23. ICAO has been greatly encouraged in this regard by China's innovative efforts to evolve the Jing-Jin-Ji Region into an international city cluster and multi-airport system. This is a unique and practical example that may provide helpful experience for other states. It will foster a new engine for growth, by boosting technological synergies and commercial innovation through both enhanced air transport and internet connectivity.

24. Importantly, integrated multi-modal solutions such as this help to support faster-paced economic development, optimizing the use of infrastructure in otherwise low traffic airports, and promoting the economic potential of the less-developed areas to achieve more balanced regional growth. It may become another pattern of global economic and social development and bring new opportunities for civil aviation.
25. It is important to recognize, however, that for aviation to be able to fulfil its role as a catalyst for global connectivity and sustainable socio-economic and urban development, a number of key prerequisites must first be met by local governments.
26. In the first place local facilities and operations must be operated and regulated on the basis of ICAO's global Standards and Recommended Practices. Effective ICAO compliance is the most fundamental requirement if cities and regions wish to achieve their goals for global aviation connectivity and its many cascading benefits.
27. There is also a clear need for more timely and comprehensive coordination with other sectors of the economy, and the seamless integration of transport modes through aligned urban and airport planning.
28. It is for this reason that ICAO made great efforts to incorporate civil aviation into the 'New Urban Agenda' which is a visionary set of inclusive and action-oriented principles to guide transformative urban development worldwide in the next twenty years, adopted last October by the UN Habitat III Conference. ICAO also concluded a new collaborative agreement with UN Habitat last year. ICAO is now fostering joint activities that will create much needed synergies linking aviation and urban development.
29. We launched these efforts through a pilot project in 2016 involving five airports located in four different African cities, and will use the lessons learned to establish global guidelines for enhancing sustainable development synergies between airports and urban areas.
30. With the percentage of the world's population residing in urban areas expected to double by 2050, we must all recognize the critical connection between our shared goals under the UN's *2030 Agenda for Sustainable Development*, and the role to be played in improving local and sustainable prosperity by more integrated aviation, urban and national development planning.

31. Over the last decade, only 4.6% of Official Development Assistance has been earmarked for aviation infrastructure, and this is simply insufficient given the importance of air transport to modern societies. There can be few other calls to action which will deliver more significant impact on your local results than to see that this figure raises considerably in the context of your future development planning.
32. Ladies and gentlemen, in closing today I wish to emphasize for you that travel and tourism's contribution to world GDP outpaced the global economy for the sixth consecutive year in 2016, and that the sector now supports 1 in every 10 jobs on the planet.
33. I have stressed for you this morning that aviation makes dramatic contributions to this and many other sectors of your economies and societies, and that in the internet era these contributions are only expanding as our sector becomes more digitally connected, enhanced and efficient.
34. Whether we are talking about new and globally aligned digital traffic management approaches for the drones which will be delivering your next e-commerce parcel, or how you will connect to your friends and family the next time you escape to a remote destination, ICAO and the air transport sector will ensure we remain responsive and proactive in putting these innovations to work for modern civil society.
35. We look forward to working with you to optimize aviation's benefits for your citizens and businesses, and to the near-term commitments now required to ensure your sustainable long-term prosperity.
36. Thank you.