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**Opening remarks by the Secretary General
of the International Civil Aviation Organization (ICAO)
Dr. Fang Liu,
To the 2017 ICAO Next Generation of Aviation Professionals
Global Summit**

(ICAO HQ, Montréal, 27 November 2017)

1. Good morning everyone, and welcome to ICAO.
2. This is a very exciting time in the history of aviation, and a just-as-exciting moment for those of us involved in assuring that a dedicated and qualified Next Generation of Aviation Professionals (NGAP) will be on hand to manage the growth of the global air transport network, well into the future.
3. As you embark on this year's event, I would greatly encourage you to keep in mind the transformational power of aviation to improve the lives of people everywhere.
4. The availability of safe, secure and ICAO compliant aviation operations is being increasingly recognized today as a key catalyst for economic development. Well-planned aviation development can play such a critical role in many States' attainment of the United Nations' *Agenda 2030* Sustainable Development Goals.
5. And it also points to why myself and many others in ICAO are so determined to ensure that future air transport growth is managed and optimized by the best and the brightest that our coming generations have to offer.
6. This was the key motivation behind our organizing of this NGAP Global Summit, an event about attracting, educating, training and retaining the talented personnel within the aviation sector.

We will be taking these Summits around the world in the years to come, ensuring this message is appreciated by civil aviation authorities of our Member States and industry operators, academics, training organizations, and young people everywhere.

7. To put these priorities in the context of our global sector's forecast growth, I would like to highlight a few figures. Today the global air transport network is carrying some 10 million passengers daily on over 100,000 flights.

Our sector today supports 63.5 million jobs globally, fully one third of world trade by value, and contributes more than 2.7 trillion dollars annually to global GDP.

8. It also carries over half of the 1.4 billion tourists who travel across international borders each year, a contribution which establishes air transport as a veritable economic lifeline for many cities, States and Regions.
9. While these impacts on global mobility and economics are nothing short of profound, they are also expected to double in the next 15 years.
10. And at the same time as our sector is growing, its workforce is also shrinking due to the inevitable demographics of aging populations, lowering birth rates, and other attrition factors.
11. This means fewer air transport professionals being available to pilot future aircraft and to effectively maintain and manage our ever-expanding fleet. Aviation has always been an early adopter of new innovations and technologies, and we need the best young minds to leverage them to their full potential.
12. These challenges to air transport workforce planning are further aggravated by the increasing number of high-tech careers in other industry sectors which compete with aviation for up and coming talent.
13. Montreal, for instance, has lately been establishing itself as a global leader for careers in gaming and artificial intelligence, a dynamic which may threaten this region's sustainability as the third largest aerospace manufacturing hub in the world.

14. The world over, similar dynamics have forced us all to recognize that aviation has to do a much better job of both attracting and retaining the skilled workers and managers it requires.
15. ICAO has recently updated its forecasts for three key air transport professions; namely, pilots, air traffic controllers and aircraft technicians.
16. Our preliminary numbers have revealed that 620,000 pilots will be needed by 2036, to fly the world's 100-seat-and-larger aircraft.
17. But even more important than this figure is the fact that no less than 80 percent of these future aviators will be new pilots not yet flying today.
18. A similar story is playing out with respect to the future air traffic controllers, maintenance personnel and other technicians needed, but we should also recall that these are just a few of literally hundreds of direct and indirect aviation-related career categories being impacted by current air transport growth and attrition factors.
19. What this makes clear is that we will need more and better skilled aviation personnel in the years to come, and not only to increase the overall numbers but also to replace those who are retiring.
20. At the same time, we need to retain those skilled young people who do pursue aviation professions, and keep them sufficiently engaged in our sector and its role.
21. We further need to guide the balanced movement of aviation personnel between countries and employers within the aviation sector, in order to ensure that all States and regions are sustainably serviced.
22. Solutions to these challenges are not simple to arrive at, but that is why we have invited you all here today for this NGAP Global Summit.
23. What we have learned since ICAO's NGAP work commenced is that promoting excitement and passion for aviation is not enough.

24. We also need to facilitate access to aviation training and education programmes which lead to dependable recruitment opportunities and shorter-term career advancement returns.
25. Attrition dynamics can assist with these types of outcomes, and so we should appreciate them not only as one of our challenges, but also as one of our solutions.
26. We also need to broaden our scope and begin instilling greater aviation awareness in high school and younger students, and especially young girls, in addition to our work with the university-level and young professional demographics.
27. One way ICAO sought to augment this youth momentum was by serving as an official partner for the incredible Dreams Soar round-the-world solo flight for STEM which was successfully completed earlier this year.
28. Shaesta Waiz became the youngest woman in history to accomplish this feat when she completed this inspiring mission this past September, and she is one of our special guests at this NGAP Global Summit.
29. I'm sure you will find her Dreams Soar mission and goals to be as inspirational and courageous as we did.
30. ICAO is also welcoming some new strategic partners from the education sector, such as UNESCO, so that we can expand our horizons into a wider range of aviation professions and develop stronger links with the related UN global goals, whether relating to STEM education access and gender equality, or any other applicable outcomes.
31. We're grateful that UNESCO has arranged one of its special 'Pink Hardhat' events during this Summit for some attending young women from local high schools.
32. These workshops encourage girls between the ages of 11 and 17 to consider STEM careers, especially in the engineering field, and to dispel any preconceptions they may have regarding women taking their rightful place in these disciplines.

33. Other United Nations partners we are very grateful to have presenting and participating here include UN Women, the International Labour Organization, and the International Telecommunication Union.
34. You will also learn more over the coming days about some of the excellent national and regional examples of our NGAP programme at work, for instance its cooperation with the national NGAP programme in Sri Lanka, and the regional NGAP initiative in the Young African Aviation Professionals Association, to cite just two examples.
35. Our NGAP Summit programme has been designed with the objective of uniting the aviation and education sectors.
36. A second goal is to shine a spotlight on the full breadth of aviation professions available.
37. We further will be aiming to develop closer links between aspiring air transport career entrants and seasoned aviation professionals, and to highlight and improve awareness on and access to the various areas of the industry where recruitment needs are now most acute.
38. As you will have seen from your programmes, we have also organized several other activities during the Summit which should bring added value most especially to our younger and more career-oriented participants.
39. One of these will be a parallel Model ICAO Forum where local and international students will be exploring current issues of priority with respect to international air transport operations and multilateralism.
40. And another is the speed mentoring sessions we've arranged where young people interested in aviation careers can benefit from personalized one-on-one exchanges with seasoned air transport professionals.
41. We have also organized an exhibition where participants can explore and learn more about local and international education and training opportunities.

42. It is our hope that these complementary activities provide a wide range of experiences and opportunities during the next two days, consistent both with ICAO's NGAP objectives and the critical importance of keeping our network's aircraft flying at the service of global societies and economies.
43. But beyond this I also wish to call on you to work toward the establishment of a dedicated and comprehensive academic network which includes the many education institutions globally with aviation programmes. And ICAO will be very pleased to partner with you on this initiative.
44. Several partnerships of this nature have already been established, but we must increase their scope and purpose to stimulate greater international cooperation on aviation research and internship opportunities.
45. Let me take a moment to appreciate our existing affiliations in this regard:
- With Concordia University and its *Management Certificate in Civil Aviation*;
 - With the Ecole Nationale de l'Aviation Civile of France and its *Master's Programme in Safety Management*;
 - And more recently with the University of Waterloo in support of its NGAP e-Learning course on *The Fundamentals of the Air Transport System*.
46. We must also seek to provide better guidance to States who are just now embarking on new NGAP strategies and implementation actions.
47. I'd suggest that this could link to the new ICAO aviation training and capacity-building roadmap for States, the associated training needs analysis tool, and the Aviation Training and Education Directory being launched during this Summit.

48. Ladies and gentlemen, before concluding today let me please make very clear how personally committed I am to the goals of ICAO's NGAP programme, and of this Summit.
49. As the custodians of today's air transport network, and the recognized UN agency responsible for collating global results toward SDG 9.1 of UN 2030 Agenda SDG on establishing resilient infrastructure, ICAO has done some excellent work on improving our data and analysis, and on how these targets relate to our human resources development challenges.
50. But in doing so we have also revealed a wide range of challenges which must quickly and effectively be addressed.
51. We have organized our NGAP programme in ICAO using an inclusive matrix approach such that it overarches and benefits from our related work in support of all of ICAO's Strategic Objectives for aviation Safety, Security and Facilitation, Capacity and Efficiency, Economic Development, and Environmental Sustainability.
52. It also works in very close coordination with the new Global Aviation Training office which ICAO recently established, and helps to provide a focal point for our related work on initiatives such as the Young Aviation Professionals Programme, the annual ICAO/IAWA Scholarship, and the ICAO Human Resources Development Fund for Africa.
53. All of these efforts are aimed at supporting the achievement of the important NGAP outcomes we are now jointly pursuing, but let us also not lose sight of the fact that our work will also impact the future mobility and prosperity of our Member States all over the world.
54. As you consider and appreciate these noble but very challenging objectives, may I please wish you all a very productive and engaging NGAP Summit.
55. Thank you.