Opening address by the Council President of the International Civil Aviation Organization (ICAO), Dr. Olumuyiwa Benard Aliu, to CANSO’s Sixth World ATM Congress

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Director General CANSO, Mr. Jeff Poole

Good morning everyone.

It’s a great pleasure to join you at this sixth CANSO World ATM Congress to discuss some of the more pressing concerns now before our network in terms of its air traffic management and overall air navigation priorities.

Before I begin today, I’d like to extend my thanks and appreciation to CANSO’s Director General and my good friend, Mr. Jeff Poole, for the kind invitation to deliver these remarks this morning.

Air Transport is now firmly recognized as the safest mode of transport and a key driver of socio-economic development of the world.

Through the collective efforts of ICAO, Member States and Industry, 2017 set a record for safety even as air transport carried a record 4.1 billion passengers on 37 million flights.

But while aviation’s impacts on global mobility and economic development are nothing short of profound, they are also expected to double along with our network’s passenger and traffic volumes in the next 15 years.

These figures help to underscore the rather incredible and truly transformational power of aviation to improve the lives of people everywhere, and why the local availability of safe, secure and ICAO-compliant aviation operations is being increasingly recognized today as a critical catalyst for sustainable socio-economic development.

The near-term challenges posed by this continuing growth include the need for new and modernized infrastructure and associated capital investments, and the adoption of new techniques and procedures to improve our global efficiency by exploiting the full potential of today’s aircraft surveillance and flow management technologies.

But as our system and its aircraft continue to modernize, we must also do more to ensure our network’s sustainability from all relevant standpoints.
One way that ICAO has been seeking to meet this challenge is through our Global Plans for Aviation Safety, the GASP, and for Air Navigation Capacity and Efficiency, the GANP. Much of our focus now is on facilitating the steps States need to take to implement the Plans’ objectives and achieve their targets.

With regard to the GANP, I wish to recall the immediate priority objectives under the aviation system block upgrades including, inter alia, the implementation of:

- System Wide Information Management (SWIM)
- Performance Based Navigation (PBN)
- Air Traffic Flow Management (ATFM)
- Continuous Climb Operations (CCO) and Continuous Descent Operations (CDO); and
- the transition from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM).

Other continuing challenges include the safe integration of unmanned and remotely-piloted aircraft operations, as well as new commercial space flights. I wish to also highlight that with the increasing use of drones in urban areas, the world’s civil aviation administrations will be called upon sooner than later to support these burgeoning operations.

This will require new regulatory services and competencies, and every ICAO Member State should be preparing themselves to adjust to this new and non-traditional airspace environment.

Other new technologies, including for example machine-based learning and other forms of artificial intelligence, will likely be playing bigger and bigger roles in terms of our consistent goals of improving aggregate network safety and efficiency. As the use of these technologies continues to expand, it will require a range of new professional skills to support it.

This brings to mind many additional concerns, with the need for robust cybersafety and security measures to safeguard these new systems being one of the more important.

ICAO’s newly-endorsed Global Aviation Security Plan sets out related targets and recommendations, but a truly effective cyber stance for global aviation will only be achieved through closer partnerships with private sector innovators, and constant re-assessment of the risks and measures being undertaken.

On the Environmental front, aviation’s recent progress has been unprecedented. ICAO’s adoption of the first global CO₂ certification standard for aircraft, in addition to the Carbon Offsetting and Reduction Scheme for International Aviation (the CORSIA) are two of the more obvious and important steps which have been taken to keep air services sustainable.

I wish to also note the related progress being achieved on the deployment and use of aviation alternative fuels, and the fact that continuing improvements to air navigation efficiency hold out further potential for a more sustainable aviation future.

With regard to Air Navigation, enhancement of surveillance and air traffic flow management (ATFM) pose some important near-term considerations for today’s air navigation services specialists.
ATFM optimizes the existing capacities of the air traffic management system through the more precise coordination of take-off and landing by flight planners and ATM professionals at the departure and destination airports. It also aids with the dynamic routing of flights around constrained airspaces.

These advances and real-time coordination help to avoid scenarios whereby aircraft reach their destinations and are placed into costly holding patterns, and they also permit ATM professionals to be much more responsive when dealing with unexpected weather or other events.

The prioritization of ATFM today acknowledges the fact that the speed and efficiency by which commercial aircraft can globally transport passengers and cargo is the core value offering of our sector.

Aviation’s further Strategic Objectives for aviation safety and security complement this basic rapid transit attribute, establishing an overall foundation of speed, confidence and dependability which no other form of transport can match.

Another important consideration in this regard is that competition for airspace is also accelerating. We can all expect to see greater numbers of new unmanned and commercial space-related services seeking to carve out their own segments for their expanding operations in the coming years.

This points us to the realization that, to manage future growth, we must become better at what we already do in the finite airspace we already control.

Some of these solutions are being driven by ICAO today in the form of Performance-based Navigation (PBN) and new or refined approaches to flight tracking and aircraft separation, but ATFM holds out further and tremendous promise for the future of safe and efficient air traffic management.

In this regard, I wish to emphasize that effective ATFM is enabled by Collaborative Decision Making (CDM) among all stakeholders, and requires a very open posture toward flight data sharing.

For some States this will involve sovereignty concerns, as all partners involved in an ATFM framework must be willing to fully commit to and support a more open and collaborative international flight information environment.

Fortunately, finding solutions to these types of issues has been the hallmark of international civil aviation since the Chicago Convention was first drafted, and ICAO was essentially designed from the outset to help States determine them.

With respect to new advances in aircraft surveillance capabilities, technologies such as space-based ADS-B are challenging many of our legacy distinctions, for example regarding how ‘seamless’ or not the transition from oceanic to domestic airspace may become.

Space-based ADS-B holds the promise of eradicating nearly all surveillance transitions by serving as a truly global surveillance solution. It will largely redefine the way modern ATM functions, and deliver associated efficiency and emissions-reduction advantages.
Currently we do not yet have a global ADS-B mandate, however it is expected that by 2020 a number of states and regions will have established one nonetheless, and most commercial aircraft will also be equipped with ADS-B transponders.

This, combined with the increasingly global operation of the fleet, will go a long way towards ensuring truly worldwide aircraft surveillance, and well in-line with the objectives now established under ICAO’s Global Aeronautical Distress and Safety System (GADSS).

Another important aspect of this transition is that many ICAO Member States that are still in the process of developing or upgrading their core air navigation capabilities now have the option to leapfrog current and legacy surveillance technologies, moving directly to a cost-effective space-based ADS-B capability.

This would benefit basic system-wide interoperability, a quicker transition to ATFM, and many other advantages expected in the areas of Search and Rescue (SAR) services. It will also generate cost efficiencies due to decreased reliance on more expensive and complicated ground-based legacy infrastructure.

Furthermore, given that ICAO is working very hard today to ensure that No Country is Left Behind in terms of being ICAO-compliant and fully prepared to optimize the benefits of 21st century sectoral growth, the wider and more rapid adoption of space-based ABS-B can play an important part in our ultimate success.

With regard to the No Country Left Behind initiative to enhance implementation of ICAO Standards and Recommended Practices (SARPs), I want to express my appreciation to CANSO for collaborating with ICAO to establish the African ANSP Peer Review Mechanism, and to request that your Organization considers the implementation of further initiatives to enhance the safety and quality of ANS, particularly in parts of the world where regulatory regimes are weak.

Ladies and gentlemen, today’s air transport sector is undergoing nothing short of a Second Revolution in airspace design and airspace management.

The First Revolution saw military aviation bases and routes converted to civilian use after the end of the Second World War. It was during this period that the Chicago Convention that established ICAO was concluded and it continues to govern how the world’s countries share their skies to their mutual benefit.

Today’s incredibly rapid rate of technological progress is now forcing us to acknowledge, that in just a few years’ time, there will be a Second Revolution to adjust for as more and more aircraft enter into service which fly higher, lower, faster, and much slower than those we manage today.

At one end of this operational spectrum we’ll see drones navigating residential and urban environments to deliver goods, and at the other sub-orbital planes will be moving at super- or hyper-sonic speeds and at altitudes well beyond what we now know as ‘controlled airspace’.

And while some of these new vehicles will do what aircraft have traditionally done – transporting people and goods – many will also be providing services, such as internet access or other forms of communications or geolocation support.
At ICAO today we see it as our role to anticipate, enable, and guide this evolution. We must help to foster innovation in all its forms, but also safeguard the basic interoperability which has made air transport such an incredible force for peace and economic growth and prosperity in the world.

We also have a very critical responsibility to ensure that there are sufficient numbers of skilled personnel to manage this increasingly complex technological foundation for 21st century aviation.

It would be more than disappointing to work so hard toward the achievement of all of these new solutions, and to realize together an even safer and more efficient air transport network than the world has ever seen, only to find that we don’t have enough skilled pilots, air navigation specialists, controllers and other managers to operate it sustainably for future generations.

The horizon now before us is one I am convinced we can reach if we continue to work together, and certainly CANSO will be looked to by ICAO to play a key role in how we shape and realize this bold new future together.

Thank you and I wish you a very successful Congress.