

CANSO HIGHLIGHTS THE VITAL CONTRIBUTION OF AIR TRAFFIC MANAGEMENT IN REDUCING EMISSIONS FROM AVIATION

Geneva, 2 October 2017 – As aviation leaders from ICAO, States and industry head to the ATAG Global Sustainable Aviation Summit in Geneva, CANSO, the Civil Air Navigation Services Organisation has highlighted the vital role of air traffic management (ATM) in reducing emissions from aviation as well as contributing towards the UN’s Sustainable Development Goals. New technologies, better procedures and increasing cooperation are making ATM more efficient. But States need to facilitate investment in and modernisation of ATM to cater for the expected growth in air traffic and increasing connectivity.

Jeff Poole, CANSO Director General, said, “Aviation makes a major contribution to the UN’s Sustainable Development Goals, particularly Goal 8 on the ‘promotion of economic growth.’ It generates huge social and economic benefits by providing access to markets, boosting tourism and contributing to GDP growth. Efficient air traffic management has a crucial role to play in this by catering for expected traffic growth and enabling increased connectivity. By its very nature, more efficient air traffic management helps the aviation industry reduce its emissions.”

CANSO has highlighted some examples of the measures the industry is implementing to improve efficiency and reduce emissions:

- New technologies are making air traffic management more efficient. Automation and space-based surveillance enables aircraft to safely reduce their separation distances from each other, thereby increasing capacity and reducing delays.
- Performance-based navigation (PBN) uses satellites rather than fixed ground-based beacons, allowing aircraft to fly more efficient routes with greater accuracy, thus reducing CO² emissions.
- ‘Air traffic flow management’ regulates air traffic to ensure available capacity is used efficiently. Trials last year in Asia Pacific showed reduced airborne holding at Changi Airport of 6 minutes and we are currently assessing the airspace savings.
- Free route airspace allows aircraft to plan efficient routes with more stable trajectories, rather than traditional fixed routes, saving flying time and reducing emissions. Annual CO² savings include 15,000 tonnes in Austria and Slovenia; 16,000 in Hungary; and 30,000 in Germany.

- Controllers offer 'tactical directs' during actual flights to ensure routes are the most efficient. In 2016 these saved 938,000 tonnes of CO² across six States in central Europe (FABEC).
- During a flight an aircraft's weight decreases as it uses fuel and the most efficient flight level becomes progressively higher. NAV CANADA's 'Engage' project allows aircraft flying the North Atlantic to fly the most efficient flight profile, reducing emissions 1 to 2 percent, some 500-1,000 kg of CO₂ per flight.
- Improvements to UK airspace by NATS, including continuous descent approaches, cross-border arrival management, time-based separation and flexible use of airspace, saved 56,000 tonnes of CO² in 2016.

To continue to provide efficient airspace, the ATM industry needs the support of States to modernise ATM infrastructure. This is in line with Sustainable Development Goal 9 which is about building infrastructure. States can modernise ATM by implementing the ICAO Aviation System Block Upgrades. These set the course for operational improvements and aviation technology investments over 20 years and allow States to modernise at their own pace. They help States identify priorities; and advise on cost-effective solutions. For example, less developed States can make the jump straight to the latest technology; using satellite-based and digital systems rather than investing in ground-based systems and expensive infrastructure. This further modernisation of ATM systems will enable greater efficiency and enhance safety, capacity predictability, and environmental stewardship.

States can also play their part by freeing-up military airspace when not in use. In some regions up to 50% of airspace is reserved for military use (and is often not used for much of the time). Civil aircraft must fly around these areas, adding time and fuel burn. By reducing the size of these areas, or making them flexible-use, more direct flights are possible and this can bring significant fuel and CO² savings.

Jeff Poole concluded, "The ATM industry makes a vital contribution to reducing aviation emissions. It has already implemented a range of operational measures to transform ATM performance and continues to work on new technologies and procedures that will be implemented in the future. For their part, States should implement the Aviation System Block Upgrades (ASBUs) to modernise airspace and ensure adequate finance to upgrade ATM infrastructure to meet future traffic growth requirements".

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About CANSO

CANSO – the Civil Air Navigation Services Organisation – is the global voice of air traffic management (ATM) worldwide. CANSO Members support over 85 percent of world air traffic. Members share information and develop new policies, with the ultimate aim of improving air navigation services (ANS) on the ground and in the air. CANSO represents its Members' views in major regulatory and industry forums, including at ICAO, where it has official Observer status. CANSO has an extensive network of Associate Members drawn from across the aviation industry.

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