WSIS TalkX to mark the UN International Civil Aviation Day

Virtual event

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Opening Remarks

Mario Maniewicz

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Dear participants, Ladies and Gentlemen,

I am delighted to open this virtual WSIS TalkX focusing on ICTs and Civil Aviation: Trends, Opportunities and Challenges. This event is part of activities to mark the International Civil Aviation Day.

In recent years, the aviation industry has been experiencing enormous growth in the number of passengers and cargo transported, reliability of aircraft, variety, and quality of services for passengers. In 2019 the industry transported more than 4.5 billion passengers. The aviation industry supports 87.7 million jobs and contributes $ 3.5 trillion of the world's gross domestic product. If aviation was a country, it would rank 17th in size by GDP.

ICT, and especially radiocommunication technologies, are playing an increasingly important role in aviation industry. They contribute to the safety of flights by providing reliable communications with aircraft and ensure stable navigation and global flight tracking. Wireless technologies are becoming a part of aircraft design, replacing cables and making aircraft lighter and less fuel consuming. They also provide different services to passengers for communications and entertainment, allowing them to feel at home while onboard.

When looking or siting inside a plane, you will hardly notice any radio systems. But in fact, a modern aircraft, has more than 20 antennas serving different purposes. Thanks to the radio equipment onboard and on the ground, most commercial aircraft can fly in very tough weather conditions. They are capable of landing in thick fog, almost with zero visibility, and in a fully automated mode.

Dear participants,

Since 1949 ICAO and ITU have been closely collaborating in the aviation ICT domain. I would like to emphasize that aviation is a privileged customer of ITU, because aeronautical navigation and communications enjoy the safety of life status in ITU Radio Regulations and have special protection from interference.

ITU enables the operation of aeronautical wireless systems by providing necessary frequency spectrum and stable regulations for their usage at ITU's world radiocommunication conferences. ITU is also contributing to development of technical standards for aeronautical radio applications in ITU-R Study Groups.

I would like to give you some examples of such ITU activities. The World Radiocommunication Conferences held in 2007 and 2012 secured spectrum for new generation of aeronautical systems used for telemetry, communications with aircrafts, surveillance, as well as for surface airport communications.

WRC-15 opened the door for wireless avionics intra-communications - WAICs. This technology informs the cockpit about the operation of aircraft systems via Wi-Fi, instead of cables. WAICs could make new generation of aircraft more reliable, lighter, less fuel consuming and environmentally friendly.

WRC-15 is also a bright example of ITU's agility and capacity to rapidly react to new challenges. Many of you will recall the disappearance and tragic loss of Malaysian Airlines Flight MH370 in March 2014 with 239 people on board. One year later, at WRC-15, ITU agreed on the allocation of frequency spectrum for the satellite component of the Global Flight Tracking system. This enabled real-time tracking of aircraft anywhere in the world. It is especially important for polar, oceanic and remote areas.

Together with ICAO, ITU anticipates that the future trends in transportation will be dominated by unmanned machines, like self-driving cars, autonomous ships and certainly unmanned aircraft and drones. In this respect, ITU has already provided frequencies for terrestrial radio systems that can control such unmanned aircraft. The next World Radiocommunication Conference in 2023, is expected to finalize this issue and enable the satellite command and control links of unmanned aircraft systems. So, one day we could fly in an aircraft without any pilots in the cockpit.

Another dream that could becoming reality in near future is sub-orbital flights, and ITU will be considering radio communications for this technology at WRC-23.

With respect to the standards and characteristics for aeronautical systems developed in ITU-R Study Groups, currently there are more than 50 ITU-R Recommendations and Reports that are devoted to aeronautical wireless applications, both terrestrial and satellite.

Dear friends,

Today, during the UN International Civil Aviation Day, I would like again to pay a tribute to the outstanding contribution of ICAO to the promotion and development of civil aviation. I am proud of the close collaboration and understanding between our sister organizations. ICAO and ITU continue to work side by side, contributing to making aviation sector safe and competitive.

I have appreciated the active participation of the Secretary General of ICAO during the opening ceremony of the WSIS Forum this year in September and I am happy to note the interest of WSIS Stakeholders in this area thereby aligning our activities with the WSIS Action Lines in advancing the achievement of the Sustainable Development Goals.

The composition of today's panel also illustrates the close interconnectedness of the aviation and telecommunication industries. Today's panelists come from different sectors, including aircraft manufactures, telecom service provides, national aviation authorities, research groups and international organizations. I look forward to our discussion.