

Designing our future airspace for all users

The skies above us are changing, says Simon Hocquard, CANSO Director General. As more drones, air taxis and commercial spacecraft take flight, safely integrating these new players into our already crowded skies and allowing equitable access to airspace is becoming a key priority.



Credit: CANSO

The air traffic management industry is no stranger to new airspace users. In the past we've welcomed everything from hot air balloons and airships to jet engines and supersonic aircraft into our airspace.

While dealing with new airspace users is not an unprecedented phenomenon, what is new is how they behave. Today's disruptors are innovative, more agile and don't necessarily have the training that traditional airspace users have.

In some cases, they don't even consider themselves to be aircraft operators. We're dealing with unfamiliar mindsets and we need to bridge the gap between ANSPs and these new players.

The first challenge is putting an infrastructure in place that enables their safe operation. That future infrastructure – UAS Traffic Management, UTM, or U-Space – requires greater digitisation, automation, and a faster pace of operations than conventional ATM. Work is underway to determine what UTM will look like but, so far, it's been developed in an uncoordinated fashion with lots of organisations working on it.

Another challenge for ANSPs is figuring out how UTM will work alongside our heritage airspace. Some organisations are embracing

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collaboration – a great example being skyguide and AirMap's U-space demonstration which saw dozens of drones manoeuvre safely throughout Switzerland. The two organisations shared live information about the airspace situation and the drones' positioning that enabled the safe and expeditious flow of traffic.

Collaborations like this are the way forward. Not only can we help solve problems together, we can also learn from each other. ANSPs could learn from UAS how to become more nimble and agile. Also, the technology being developed for UTM systems could be used to enhance ATM systems. In turn, we can bring our extensive operational and safety expertise to the unmanned industry.

But it goes beyond just UTM and ANSPs talking to each other, we need to work across industries and across borders to find solutions. ANSPs, regulators, States, airlines, airports, industry suppliers, drone manufacturers and operators must all work together to design our future airspace. And I believe that CANSO has a crucial role to play in this.

Technical experts like ICAO are responding to the advent of new airspace entrants by trying to apply the rules and regulations that apply to heritage airspace. But is that really the right answer? How should we as ANSPs set about designing the future airspace of 2030 and beyond?

We need to take a proactive role in designing what future airspace looks like. If we don't, we risk being left behind. It's not hard to imagine a world in 10 or 20 years' time where airlines and pilots start looking to UTM to provide a separation service.

In early 2020, I'm planning to pull together a group of experts from across the industry to start developing our thinking in this critical area and I will keep you posted on our progress.

I firmly believe that working in silos creates obstacles, but if we work together across industries, anything's possible. ➔