

PROGRESS THROUGH PARTNERSHIP

CANSO's new director general Simon Hocquard is helping his members prepare for a different, safer and more efficient future

Ben Sampson

 The Civil Air Navigation Services Organisation appointed its latest director general in June. Simon Hocquard has 25 years of experience in the air traffic management (ATM) sector at different levels, including running Europe's largest air traffic control center in the UK, working at a strategic level managing investments and representing the sector on international boards and committees. He joined the CANSO two and a half years ago.

Hocquard believes his experience of different levels of the industry gives him the perspective required to further evolve the


Civil Air Navigation Services Organisation (CANSO), which today represents the interests of over 90 different air navigation service providers (ANSPs). "As a former member of CANSO I believe I know what members need from the association," he says. "I have the right level of experience and understanding of the industry to add more value to being a member."

Hocquard aims to ensure that CANSO is fully member-centric. "CANSO only exists to serve its members and a one size fits all approach will not work. We need to be able to deliver what different members need in

different parts of the world through both our digital and physical presence," he says.

Region by region

CANSO represents ANSPs from the Federal Aviation Administration in the USA to the Ukrainian State Air Traffic Service Enterprise. It's a global reach that feeds into how it goes about achieving its main aim – helping its members improve ATM safety and operations. "We help by getting everyone to share experiences and best practices and by influencing governments and institutions for the benefit of ATM," says Hocquard.



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The number of ANSPs in the world has not dramatically increased since CANSO was created in 1996, yet its membership has steadily increased over that time. Hocquard believes the association’s importance has increased as the amount of global air traffic has grown: “As traffic has grown it puts pressure on ANSPs all over the world to improve and CANSO is the right place to go to learn how to improve.”

The association has also been broadening its range of potential members. Suppliers and other stakeholders can now become associate members of CANSO. At this year’s AGM a

new category of membership was also devised so that the unmanned traffic management (UTM) service providers and other specialised air traffic service providers, companies developing technology to manage autonomous drones, can join.

The moves are indicative of the inclusivity that Hocquard firmly believes the sector needs to embrace to ensure it overcomes its future challenges. These challenges are familiar to those involved in the sector – improving safety and increasing airspace capacity. “Of all the needs of ATM, safety is always the number one priority,” he says.

“The quest to improve safety has led to us working more collegiality globally. Now we must work collegiality to deal with growth in the air traffic sector.”

Safety and improvements

Hocquard believes strongly that safety in all areas, airspace, runway and organisational culture, needs to improve alongside growth in air traffic and changes in technology and operations. Organisational culture has a role to play here – people must be comfortable reporting safety issues so that the rest of the industry can improve. CANSO also runs a

number of safety programs for its members, oversees standards of excellence in safety management systems, organises safety peer reviews and provides self-assessments of safety management systems.

The association and its members are also involved in the area of human performance management, specifically research into how the greater use of automation and machine learning will affect the tasks of an air traffic controller. “One of the key questions for the ATM sector is how we mesh the changing technological world with the people-based industry we currently are,” says Hocquard. “There will always be people involved in air traffic, but their role will change. It has to, so that we can keep pace with capacity-demands.”

The capacity of airspace is often currently determined by the speed at which someone can work or communicate. If automation removes the need to talk, airspace capacity can increase. Then, if technology monitors for and flags errors, safety can improve in parallel.

“Up until now, technology has focused (rightly) on safety. As a result, safety performance of ATM is incredibly high. Now as a sector we are moving on to how to improve operations, things such as automating communications and electronic and automatic recording of data.

“This means that in the future the controller becomes less tactical and starts to deal primarily with the unusual things rather than dealing with the norm. It’s a very different role.”

Technology implementation

According to Hocquard the ATM sector is full of smart people who appreciate the tools they have, are aware of the incoming technological changes and are readying themselves for it. Nevertheless, he believes that technology advances will not diminish the requirement for controllers and pilots in aviation. CANSO is therefore working with ICAO and other stakeholders to ensure there is a pipeline of controllers with the required skills to fulfil this future role. “The controllers are aware of the changes that are coming, so social dialogue is key about what the future roles look like and how we get there,” he says.

Another issue is the actual process of implementing new technology. An ANSP cannot stop managing air traffic when introducing a new piece of technology. Hocquard likens it to placing a new engine into an F1 car while it is still racing around the track.

Regardless of this challenge, a new technology that is being welcomed by the sector is space-based ADS-B, a satellite-based system that enables ANSPs to track the location of ADS-B equipped aircraft anywhere at any time. The first commercial space-based ADS-B service launched earlier this year. Hocquard is genuinely excited about the new technology, which he calls a “game-changer”.

He says, “When I was working as a controller in the UK it never ceased to amaze me that aircraft would disappear as they travelled over the North Atlantic and then reappear on the other side. You would count them on the way in and way out. To have the capability now to see aircraft anywhere in the world at any time is extraordinary.”

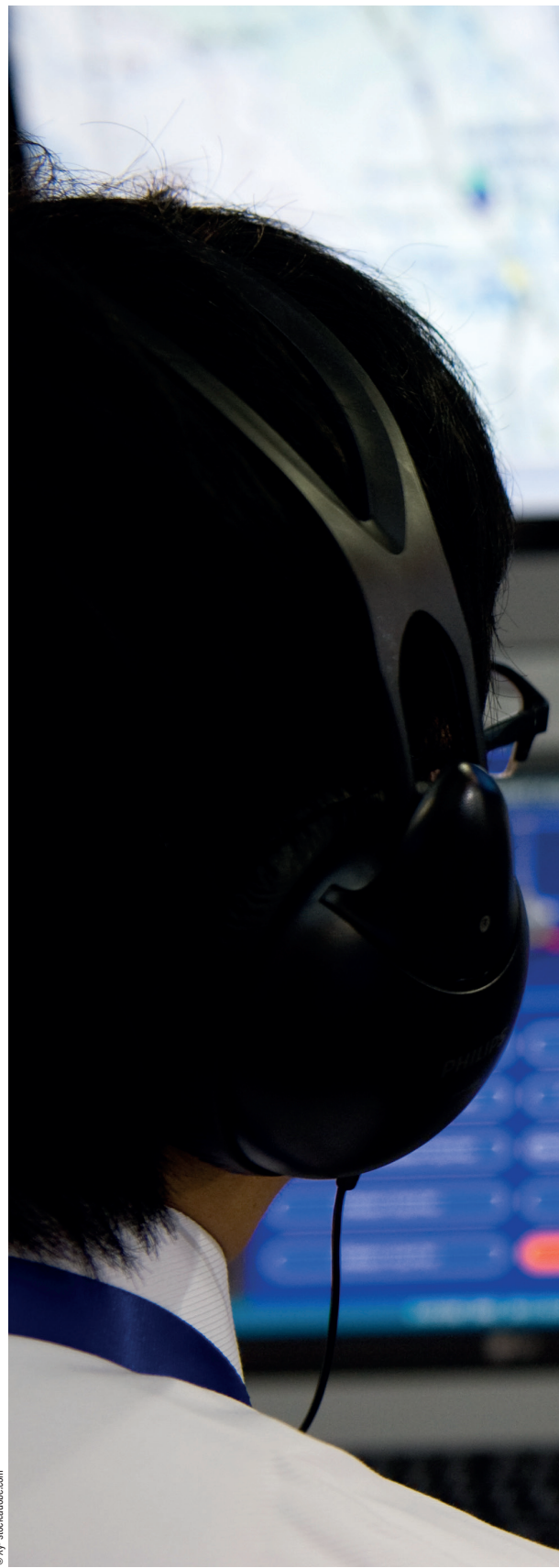
As well as safety improvements, the advent of space-based ADS-B has two direct impacts on ATM: a reduction in costs and an increase in the availability of information about aircraft positions. Space-based ADS-B means nations yet to build infrastructure for air traffic management can effectively jump forward in terms of ATM without a large and costly investment.

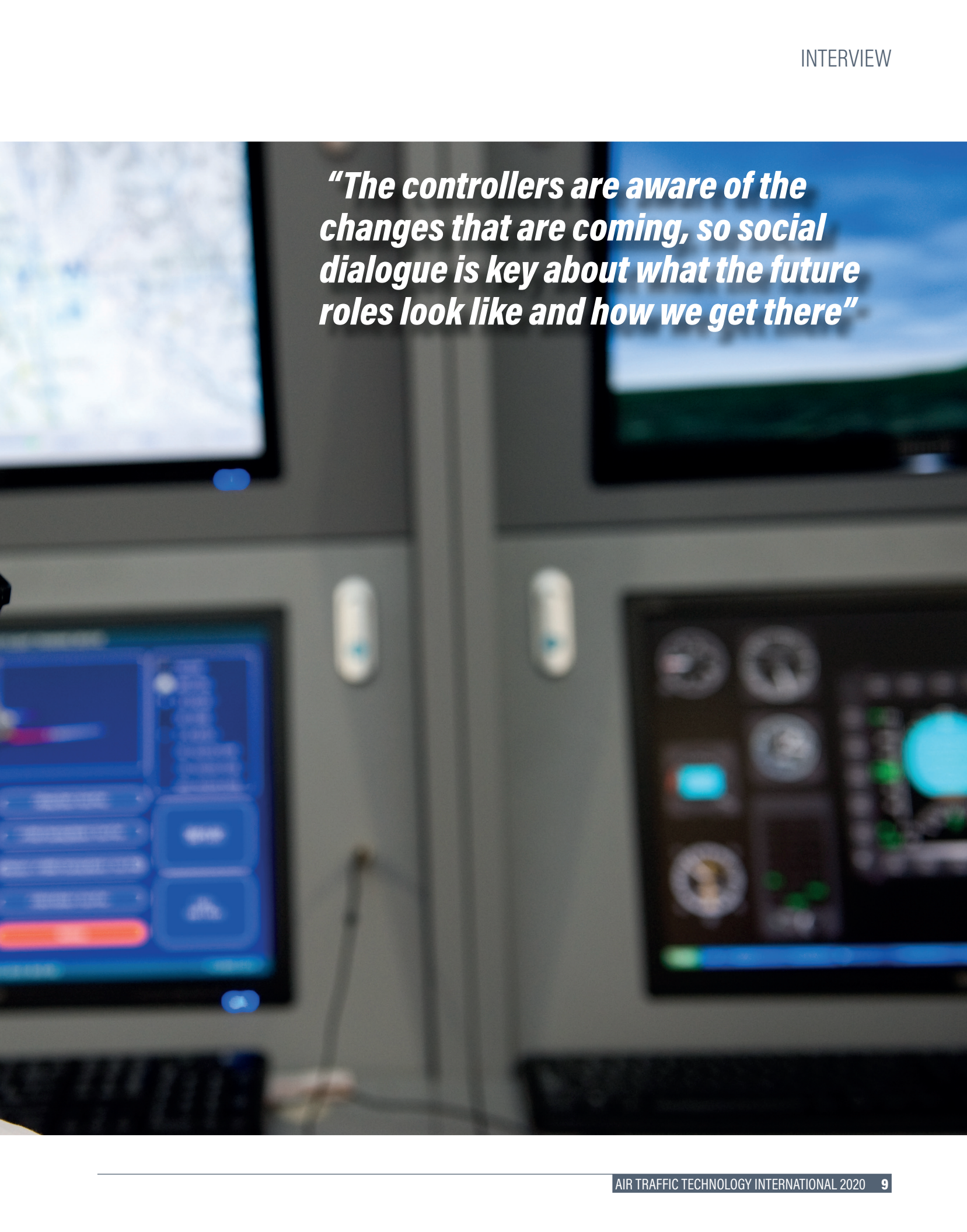
“For example, in Africa it’s difficult to build radar installations because of the distances involved. Other parts of the world are really mountainous. Now an ANSP can buy the surveillance information about an aircraft’s position and jump straight to the next generation of ATM technology.”

Another effect of space-based ADS-B is to improve the accuracy of information over large areas that previously did not have any information. For example, NAV CANADA and NATS are using it across the North Atlantic already. A recent study has shown that it saves up to US\$300 per flight over the North Atlantic. “Space-based ADS-B will change how people do air traffic control in the future,” says Hocquard. “There’s huge momentum behind it.”

Airspace crunch

There are also technological trends in the sector that are challenging though. Drones of all different sizes pose a major change for the aviation industry, including ATM. However, Hocquard does not see them in a problematic way: “They are a positive change in the aviation industry rather than a problem. Drones are a growing segment of the industry and will drive change across the whole of aviation, because these companies are innovative with a different way of thinking. We can provide guidance and help, but they may have new ideas that the whole industry can use.



A photograph of an air traffic control room. The room features several large monitors mounted on a grey wall. The top-left monitor shows a map. The top-right monitor shows a blue sky with clouds. The bottom-left monitor displays a blue interface with various data points and buttons. The bottom-right monitor shows a dark interface with several circular gauges and a large blue circle. A microphone is visible in the foreground, and a person's hand is partially visible at the bottom left.

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Drones are just one facet of a challenge associated to increasing capacity – the diversification of air space users. Air traffic will not include just commercial airliners, private jets and military aircraft in the future, but will also include air taxis, delivery drones, persistent near-space platforms, more heritage aircraft and more space launches. “They are all airspace users and we have to ensure that they all work safely together. There is perhaps more diversification than there has been in the past, but we are more than equipped to deal,” says Hocquard

Solutions are being developed. UTM-service providers are looking at separating out and managing drones at lower levels of airspace, below 400ft. Meanwhile CANSO is working to minimize the safety area that is required when space launches take place, track commercial spacecraft, training controllers on the characteristics of spacecraft and modifying ATM software to process and display those spacecraft.

Collaboration

Hocquard is clear on his and CANSO’s priorities: modernisation, pushing regulators for more effective regulation based on performance for new technology, advocating for ATM integration and global interoperability and promoting understanding of how the industry can meet the challenges it faces.

ALL AROUND THE WORLD

One of the aims of the Civil Air Navigation Services Organisation (CANSO) is to bring all members to the same high standards for safety and operations. However, different regions have different requirements. “I want CANSO to be more regionally focused and to be able to deliver what each region needs the most,” says Simon Hocquard, director general of CANSO.

“Africa is concentrating on air traffic flow management over the continent, along with improving safety. In Asia Pacific they are also looking at air traffic flow management, but because of the complexity of the airspace there and the geography and high demand, their approach has to be different.

“In Europe the focus of our work is advocacy on the latest rules and regulations, ANSPs there don’t necessarily need help with technical implementation.

“In Latin America and the Caribbean, we are working at growing the membership. It’s a huge continent with great variation in how operations are carried out. Flow management is being addressed there and it’s about bringing people together. In the Middle East there is lots of growth and the challenge is getting people to work together.

“The key is enabling regions to learn from each other,” he says.

Often this can be achieved by simply facilitating the transfer of technical expertise, “If there is an expert in Europe can we get them to Singapore for the Asia Pacific conference to help them with a particular challenge,” he adds

He sees the route to achieving these goals as more collaboration between members and stakeholders. For example, CANSO recently signed an agreement with IATA to enhance airspace capacity. “Collaboration is massively important to the future of the industry,” he says. “Great things are rarely achieved by individuals – memorable things are often achieved by working with others.”

However, Hocquard accepts that achieving greater collaboration throughout the world is far from straightforward. Issues such as the sovereignty of airspace and the importance

of protecting military airspace can prevent change from happening.

“To ensure you can fly seamlessly to anywhere in the world you need a network approach, which accepts there are large flows of traffic across different states and reduces the importance of independently-made, inward-looking decisions which do not serve the greater good of the network,” he says.

“To achieve that we have to bring the networks of information and interoperability together. That’s difficult to make happen but it is possible.” ♦