Driving economic benefits

The transformation of ATM performance in the Middle East will allow the region to realise its potential.

Aviation is a robust economic driver in the Middle East. According to the Air Transport Action Group's report, *Aviation: Benefits Beyond Borders*, air transport in the Middle East contributed $66.8 billion to GDP in the region. Tourism adds another $48.9 billion. Some two million jobs are supported by aviation and tourism. By 2032, the number of jobs will grow to 4.4 million and the contribution to GDP is forecast to grow to $341 billion, almost three times the 2012 figure.

Other developments back up aviation's key role. New or improved gateways at Abu Dhabi, Doha, Dubai and Muscat testify to the investment in major airports while the number of aircraft in the region is set to increase from 1,180 to 3,300 in the next 20 years. The latest aircraft such as the A380 and B787 ensure that Gulf hubs can now connect non-stop to 90% of the world's population. According to the International Air Transport Association (IATA), passenger capacity is expected to expand 15.6% in 2015 (up from 11.4% in 2014). Not surprisingly, the region's share of global air traffic has grown from 4% to 9% in just a decade.

But there are challenges ahead. And most critical of all is congested airspace. "The investment on the ground is not being matched in the air," says Hussein Dabbas, regional vice president for Africa and the Middle East at IATA.

Middle East airspace is fragmented and creates safety, efficiency and capacity issues. Large parts of it are out of bounds for civilian use and it is uncoordinated at the regional level. Unless airspace is managed in a sustainable manner, it will become a major constraint to further growth and expansion and will jeopardise the expected economic benefits.

An Airbus ProSky report estimates delays of up to 45 minutes could be a regular occurrence in the years ahead.

"Air traffic management capacity in the region could begin to constrain continued economic growth if airports and airspace congestions are not resolved," says Ahmed Al Jallaf, Chairman of the Steering Committee of the ICAO Middle East Airspace Enhancement Programme (MAEP). "The industry has witnessed phenomenal growth and we need to respond collaboratively in the region to improve air traffic safety, security and efficiency and therefore strong economic potential opportunities.

Al Jallaf adds that it is important to educate policy makers about the need to invest in ATM infrastructure. And he calls for co-operation between all the stakeholders to harmonise airspace, systems and procedures in achieving commonalities locally and regionally.

It is a view echoed by Adel Ali, CEO of Air Arabia. Speaking at the FATSS Conference, he said that even though aircraft were now faster, the passenger journey had got slower. A one-and-a-quarter hour flight might take two hours for the passenger, he suggested. Ali would like to see a Middle East Air Centre to coordinate and harmonise traffic.

An end to fragmentation

CANSO has been advocating strongly for an end to fragmented initiatives, duplication of efforts and military restrictions. "Transforming ATM performance in the Middle East is a major priority for CANSO and its members," says Jeff Poole, CANSO Director General.

"Under the umbrella of MAEP, we are working with partners to develop a coherent, coordinated, regional strategic plan for efficient airspace management. We must harness the renewed determination of stakeholders to work in partnership to transform ATM performance in the region. We want to ensure that the future ATM systems will be able to meet the needs of this growing market. To do that MAEP must be empowered to make decisions."

CANSO Middle East with support from CANSO Members in the region has developed the CANSO Middle East Strategy, which is derived from the global Vision 2020 strategy but addresses the specific challenges of this region.

To better support aviation's economic benefits, the region's airspace will need to change.

The first step is to ensure partnership and co-operation across States and all industry stakeholders in the region. "The transformation of ATM performance is only possible with the full support and involvement of States, ANSPs, airspace users, military organisations and airports in the region," says Poole.

The Middle East ANSP, Airspace User and Stakeholder Engagement (MEAUSE) initiative provides a forum where airspace users and stakeholders can engage in dialogue with ANSPs, proving the benefits of working together.

It has the strong support of ICAO, IATA and other stakeholders, to raise awareness of the challenges facing the region and the need for much closer collaboration and integration.

Middle East gateways such as Doha International Airport must be allowed to fulfil their potential.

The aim of MEAUSE is to harmonise the future equipage plans of airspace users with the investment plans of ANSPs. One aspect is gathering and analysing data on the present infrastructures of airspace users, ANSPs and other aviation stakeholders to enable ANSPs to apply their resources more effectively.

Second, seamless airspace in the Middle East region is also vital. The provision of safe, seamless, harmonised and efficient airspace globally is at the heart of CANSO's strategic plan for ATM, Vision 2020. Aviation business transcends national boundaries, believes Poole, and airspace needs to be organised, and air navigation services need to be delivered, in line with the operational requirement of airspace users rather than according to national borders.

If anything, the Middle East has gone backward in this regard. There used to be just one Flight Information Region (FIR) for the Arabian Peninsula based in Bahrain. Today, that has fragmented into six FIRs. Aircraft should be able to navigate seamlessly across the whole region, across national borders and FIRs, selecting the most efficient routes.

The "one State – one ANSP" business model must give way to more efficient service provision. States can delegate service provision to other States and/or designate a service provider to provide coverage for a larger airspace. This does not in any way diminish a State's sovereignty over its airspace; rather this delegation is a responsible and effective use of sovereignty that improves efficiency.

"Some argue that we should be looking to develop a Single Middle East Sky or sub-regional airspace blocks," Poole notes. "But I believe that the lessons from Europe advise us to avoid over-prescriptive top down regulation and we should instead be looking to build from the bottom up by making cross-border changes at the operational level. We need to be pragmatic and incremental; meaning the plan for the region must be coherent and allow each individual element to fit into the bigger picture."

Different entities

Third, the Middle East would also benefit if the service provider and the regulator are different entities. Most ANSPs in the region are owned and operated by the government bodies that regulate them, which can create conflicts of interest and hinder the implementation of performance-driven air navigation services. Proper separation between regulation and service provision has the clear potential to unlock value, enabling ANSPs to concentrate on the delivery of efficient, cost-effective and

customer-oriented air navigation services. This has worked remarkably well with NATS in the UK.

Fourth is the need to overcome the constraints caused by military airspace restrictions. A large part of Middle East airspace – up to 50% by some estimates – is reserved for military use, even when it is not actually using that airspace, thus forcing civil traffic into increasingly congested corridors. This prevents aircraft from fully exploiting their sophisticated technologies. It is inefficient, it poses implications for safety, and it is not environmentally friendly.

The progressive opening of military airspace to civilian operations in Europe, the US, and Asia has been managed responsibly and efficiently to the benefit of both sides. Such opening has allowed the flexible use of airspace, shorter routes, cost savings, fuel efficiencies and fewer delays.

At the FATSS Conference, Geoff Hounsell, Vice President, Flight Operations Support Services and ATM, Emirates said that military-civilian collaboration should be seen as an opportunity. But he warned that there are a lot of meetings to discuss the problems of Middle East airspace without any progress. "The people in the room are often not authorised to make decisions," he suggested.

The fifth step is to ensure that the technology available to ANSPs is fully harnessed to drive and even overtake the other issues. Technology will help to harmonise systems, processes, and traffic flows in a global way without reference to national borders or even land-based equipment. Technology could be the driver that frees the Middle East of its present fragmentation and ATM constraints.

"Keeping pace with the demand for air travel in the region is vital," concludes Poole. "The challenges for air traffic management must be addressed if the region's aviation industry is to continue its extraordinary success and its impressive contribution to the economies of the region.

"The aviation industry, States and other stakeholders must work closely together in partnership in order to create safe, seamless, harmonised and efficient airspace across the region," he adds.

"MAEP deserves strong support from all to ensure that it can truly become the single, robust framework that drives the necessary changes and developments in Middle East airspace. I am optimistic that MAEP will be action- and deliverable-focused." ✈