

Delivering airspace capacity in the Middle East

Alan Corner, of aviation consultancy Helios, assesses continued aviation growth in the Middle East and how regional collaboration will provide a robust framework for progress.



Even with the uncertain global economic outlook, aviation in the Middle East continues to grow. Whichever forecast is studied, from ICAO or IATA through to the aircraft manufacturers, they all predict continued increases in movements, passengers, cargo and just about everything else.

For some countries such as the United Arab Emirates (UAE), growth is critical to the overall economy. This is no more evident than in Dubai where the aviation sector's contribution to GDP is forecast to rise from 19% to an incredible 32% by 2020. But can this growth continue? While it has proved relatively straightforward to build new airports or runways, the real issue is whether airspace can keep up.

Taking action

Developing airspace and the supporting infrastructure in the Middle East is challenging and undoubtedly remains one of the biggest constraints to further growth. However, the progress made to date should not be underestimated.

Over the past few years, despite a headwind of geopolitical turmoil and the resulting airspace closures and contingency routings, many individual countries have taken action to improve efficiency and capacity by designing and implementing changes to airspace, procedures and the supporting technical infrastructure. This has been led by the Gulf States, who are arguably the most affected by potential constraints to growth.

The UAE is about to award a contract to implement new airspace and procedures as part of the final phase of a project that started in 2013. Such projects are positive and will go some way to delivering additional capacity, but the reality is that without the cooperation of neighbours and the region as a whole, action only by individual States will just end up moving the problem around.

The need to work together is well understood. As early as 2000, the Arab Civil Aviation Commission (ACAC) was assessing the potential for Arab Control and started to undertake regional airspace studies. Other projects have also been proposed and

studies undertaken by different organisations, many of which were brought together in 2011 as part of the CANSO-led Middle East Regional Airspace Review (MIDRAR).

While many of the projects produced sound operational and technical proposals, for different reasons they did not progress beyond the feasibility stage. The most recent initiative is ICAO's Middle East ATM Enhancement Programme (MAEP), established in 2015 to align activities and encourage a more regional approach to projects. MAEP is led by ICAO, and therefore the States, but is supported by other stakeholders.

A number of MAEP projects have been agreed, including an air traffic services (ATS) Route Network Optimisation Programme (ARNOP), a regional air traffic flow management (ATFM) initiative and the development of a Middle East IP network and AIM Database.

The first phase of the ARNOP project has already started and is being undertaken jointly with ACAC. This should help to better understand the immediate challenges and identify some potential solutions to the route network.

There is also ongoing activity at a sub-regional level. The Gulf Cooperation Council (GCC) has an initiative to harmonise service provision and create more seamless operations through the concept of a single Upper Flight Information Region (FIR) across the upper airspaces of the GCC States (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates).

These initiatives have real potential, but ensuring they are properly coordinated through to implementation will be key if the required benefits are really going to be realised.

Gaining political support

It is clear that regional initiatives can develop operational and technical solutions, but what has so far prevented the Middle East making even more progress at a regional level and what is different now? Unsurprisingly, the challenges here are not really any different to other parts of the world.

The first is undoubtedly politics. With the necessary political support anything is possible. There are, however, understandably other priorities for Middle East countries. Other than in the UAE, where much of the economy (particularly in Dubai) is dependent on the aviation sector, there has traditionally been a disconnect between the benefits of aviation and the economy as a whole.

Some of this comes down to awareness, a point that Oxford Economics tried to address in a 2015 report, but this has started to change. If political support can be measured by a government's commitment to spend increasingly sparse resources on airspace and ATM projects, then the number of projects that have been prioritised and funded since the collapse in the oil price should provide a positive indicator.

Of course, as elsewhere in the world, stakeholders must continue to lobby governments and build awareness, including through events, such as the Global Ministerial Aviation Conference that took place in August in Riyadh.

Perceived threats to a nation's sovereignty and security also provide a barrier to progressing regional initiatives. This is understandable in a region that has seen more than its fair share of conflict and where the need to accommodate the military mission takes priority.

This challenge has been known for some time and the military are now far more engaged in many State and regional projects. The flexible use of airspace is not fully implemented, however, and large volumes of military airspace still constrain civil operations. That said, there is an increasing amount of tactical coordination, and the expectation is that the introduction of pre-tactical coordination and resulting conditional routes that can be planned by airspace users might be introduced before the end of the decade.

Broad structure

Elsewhere, such as in Europe, regional collaboration is driven through legislation and coordinated by a plethora of agencies. This is not the case in the Middle East.

While the institutional complexity seen in some other regions might not be ideal, the lack of a vehicle to support the coordination and implementation of projects involving more than one State remains a challenge. ICAO Middle East (ICAO MID), of course, plays a critical role in developing regional strategies and plans and is probably engaged in implementation activities more than elsewhere in the world.

ACAC also has a broad membership and, with industry organisations such as AACO, CANSO and IATA, has led or supported a number of initiatives. However, what has been missing is a structure that can cut across stakeholders and has the legal and financial authority to support the delivery of projects.

At a regional level, it is still hoped that MAEP can provide this. MAEP comprises stakeholders from States, ANSPs, airspace users and the military, and because it is being managed as part

of an established ICAO MID process, it has wider support than some previous initiatives. But it is making slower progress than originally planned, not helped by the geopolitical and financial challenges affecting many countries. At a sub-regional level, the GCC is proving effective at coordinating activities between the GCC States and the GCC Upper FIR project.

Getting funding

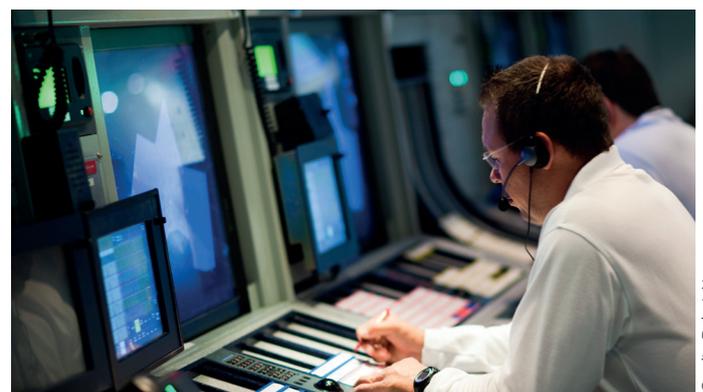
Historically, regional projects in the Middle East have also struggled to attract the required level of funding. This is directly related to some of the other known challenges, in particular political support, organisational arrangements and achieving buy-in from all stakeholders. Of course, funding multi-stakeholder projects anywhere is difficult, especially where there is such a wide disparity in terms of the priorities, maturity and wealth of the stakeholders, but despite several attempts and the introduction of ICAO's 'no State left behind' initiative, this remains a challenge. The promise of regional good has not always been promise enough.

But even here, there has been some success that can be built on. At a regional level, ICAO MID successfully implemented and continues to operate the Middle East Regional Monitoring Agency (MIDRMA) and at a sub-regional level, the GCC has successfully established the Upper FIR project that has been funded jointly by the six GCC States.

So, can all these challenges be overcome to allow State, sub-regional, regional and even inter-regional projects to be more effectively coordinated and delivered to meet forecast demand? The answer has to be yes.

It is clear that despite everything that is going on outside aviation, there is more cooperation at a regional level than ever before. Of course, there will continue to be challenges, but the region already knows what it must do and how to do it. With sufficient political support and the cooperation of all stakeholders, the required increases in capacity will be delivered and the aviation sector will be given the freedom to continue growing.

The direction of travel has been established, it is now only the pace of change that is open for discussion. ➔



Delivering additional airspace capacity is vital to the Middle East region.

Credit: Dubai Airports