Self-interest or collaboration – which will you choose?

Looking at this edition of ON AIR! two things strike me.

Firstly, there is an underlying common theme of collaboration. For cyber-security to be effective, aviation stakeholders need to find new ways of working together, because in the SESAR blueprinted ‘system of systems’ we are all interconnected; and cyber criminals can therefore target the weakest link in the system to gain access to the whole. In the Middle East collaboration is a key part of any solution to the growing airspace capacity problem. The GCC’s new Upper FIR project is an encouraging example of regional collaboration in this regard. Our short piece on datalink provides a timely warning of the dangers of divergence when it comes to technology choices – will Europe and the US collaborate? And for those of us operating in Europe, the possibility of accessing EU funds for ATM modernisation will be greatly enhanced if we collaborate in cross-border initiatives.

So, what was my second observation?... That none of this is new! We often say that shared success and working for the greater good are meaningful and appealing to us, but individuals frequently act out of self-interest, and the same is true of States. Perhaps the difference today is that the threat of failure, and the consequences of failure, are bigger than ever before. That might just provide the necessary focus for effective collaboration – wherever and whenever it is needed.

Best wishes

Mike Shorthose, Executive Chairman
functions. Cyber-security in this context, we believe, will require every ATM stakeholder to prepare and protect itself, to be ready to detect and analyse attacks as early as possible, and respond effectively to stop their escalation.

ATM stakeholders have begun to improve cyber-security, but the industry will need to work together to build trust across stakeholders. Good governance and coordination will be at the heart of a successful response. It’s not enough for individual stakeholders to address cyber-security in their own ‘patch’. The response needs to take account of complex, dynamic and cross-boundary cyber-risks. Clear responsibilities for protection and effective decision-making in response to the inevitable will be vital. In working together to address cyber-security, the aviation community will need to trust each other. It’s a pre-requisite to delivering the many benefits that modernisation and harmonisation promises.

For further information contact matt.shreeve@askhelios.com.

Matt Shreeve
Matt is a technology policy expert at Helios. He has over 10 years of experience in the policy, programme and change management aspects of developing, deploying and using innovative technologies and services. His particular expertise is in cyber-security, resilience and enterprise architecture. Many of his projects involve balancing potential benefits, costs and risks in complex and uncertain situations. Since joining in 2013, he has worked across Europe for the Commission, SJU, ANSPs, EUROCONTROL, ESA and the GSA.

Middle East
Two steps forward

Whilst there are many challenges in the aviation industry that can be resolved by individual air navigation service providers, improving the efficiency and capacity of airspace is not generally one of them. In Europe, regional collaboration is driven through legislation and coordinated by a plethora of agencies or other bodies. This is not always the case elsewhere in the world, including the Middle East.

Nevertheless the need to work together is well understood. A point repeatedly made by senior industry figures we interviewed as part of the first-ever ATM Middle East survey for Air Traffic Management magazine (see HOT AIR!). The ability to work together has also been demonstrated by a number of successful regional initiatives over the past decade, notably the Middle East Regional Monitoring Agency (MIDRMA), which maintains a central registry of State RVSM approvals of operators and aircraft. Other more ambitious initiatives (including ArabControl) have struggled to get beyond the feasibility stage because there has not been a vehicle to implement them, but this is changing.

Two major initiatives recently launched
The Middle East ATM Enhancement Programme (or MAEP) is being managed through the ICAO MID office to ensure the involvement of all States, but is also supported by wider industry, including organisations such as IATA, CANSO and ACI. MAEP will eventually provide a single platform to coordinate and even manage the implementation of regional projects, including the MID Region AIM Database.

The second is a sub-regional initiative: the Gulf Cooperation Council’s (or GCC) Upper Airspace Project, the first phase of which was recently awarded to Helios. The GCC has already established a dedicated task force that will work jointly with the Helios team. The objective is to develop a detailed study and implementation roadmap to harmonise ATM provision across the GCC member states (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates). We have adopted a structured, but iterative approach to ensure the project develops solutions that are implementable and that the GCC vision of ‘seamless’ airspace becomes a reality sooner rather than later.

As I concluded in my review of the ATM Middle East survey, our panellists have set out their desire to be and to have good neighbours, with space to fly. These two initiatives are evidence that things are moving in the right direction.

For more information contact alan.corner@askhelios.com.
A new dawn for datalink? Europe needs a long-term solution

Europe and the US now appear to be following diverging paths for the introduction of datalink applications. Whilst Europe is re-evaluating the role of VDL2/ATN, the US is starting to introduce datalink applications over the previous generation of technology (VDL2/AOA) with the intention of by-passing the European implementation of the already largely defunct OSI protocol stack in favour of a solution based on the IP protocols used to power the world wide web.

The divergence is worrying as datalink should be the big enabler of new ATM solutions globally rather than reflecting regional differences. What the aviation community needs is greater certainty – instead we are faced with ongoing technical arguments about the suitability of both VDL2 and the OSI stack for ATM, and indeed the impact of sharing frequencies with ever more demanding AOC applications (including engine monitoring).

At Helios we are beginning to wonder if we should be looking to the past as well as to the future for the solution. In the 1980s, the ICAO Future Aeronautical Navigation Systems (FANS) Panel suggested that aviation should become more reliant on satellites for CNS and that led to the introduction of controller pilot datalink (CPDLC)/ADS-C in oceanic airspace.

Satellite Communications is one of today’s fastest developing technologies. A stream of enhancements has reduced the power requirements, antenna size and avionics weight, leading to much lower airborne costs – such that, for example, Inmarsat’s new SB Safety service is suitable for all aircraft types and at an overall cost that could be comparable to VHF. With the ESA Iris programme developing satcom solutions to ensure that compatibility with SESAR and NextGen is maintained, could now be the time to revisit the FANS reports and make satcom a more central part of the global datalink strategy?

What do you think? Tell paul.ravenhill@askhelios.com.
The long-awaited SESAR deployment finally began in 2015. “Connecting Europe Facility” funds were used to kick-start the process and proved popular with ANSPs, airport operators and airlines. Although €300m of public funds were set aside for SESAR deployment in the 2014 round of funding, the Commission awarded almost €375m. This year the amount is set to double to €600m, with an additional €500m available to the ‘cohesion countries’ (EU Member States with a Gross National Income per inhabitant of less than 90% of the EU average).

Whilst the idea of securing EU funding seems attractive, and the grants are sizeable, you should not underestimate the resources required to put together a coherent proposal. So if the deployment is not strategically important, or does not deliver a real benefit, it may be wise to think again.

Current rules governing the use of public funds may require ANSPs to pass the grants back to users (airlines) via the unit rate. However CEF funds enable ANSPs to bring forward investment plans, which promotes an accelerated and synchronised approach to SESAR deployment across Europe, ensuring the full range of benefits are delivered at no extra cost to the user. But there is a risk that the funding structure and current rules may reduce an ANSP’s appetite to do something truly innovative.

That said, access to these unprecedented levels of funds is an opportunity for stakeholders to modernise the European ATM system by implementing Common Projects. In recent years Helios has supported €54.3 million worth of successful applications across 7 projects. Our advice is to look closely at the call objectives and use funding for interesting projects that drive genuine change and that would not be possible through self-financing alone.

Applicants should not be afraid to take an ambitious approach. The European Commission generally looks upon collaborative cross-border projects favourably because they illustrate the added value of the project to the European ATM network.

As with previous calls, competition for funding through the 2015 Call for Proposals is expected to be fierce. In our experience it takes time to put all the necessary paperwork and evidence together, so act quickly once the call is published to identify projects and to put together a clear and compelling case.

For further information on the 2015 Call for Proposals, contact david.phelps@askhelios.com.

Above or below the line?

With this puzzle we want to test your lateral thinking skills. Looking at “problems solved” below, where does the final letter ‘D’ go?

Please send your answer to onair@askhelios.com. You must tell us if the letter ‘D’ goes above or below the line and why. The solution will be published in the next edition of ON AIR! All entries must be received by 31 December 2015. The first correct answer drawn at random after this date will win a pair of Helios noise-cancelling headphones. Good luck!

And the winner is …

The solution to our puzzle “Delivery of the future” was 10 return trips. Congratulations to Denis Huet of EUROCONTROL, who sent the correct answer and came first in the draw. Well done Denis; we hope you enjoy your prize!