

Lara Launch Marks Major Milestone

Collaboration reaps rewards

The Local And sub-Regional Airspace management support system (LARA) is due to go live later this month, marking a major step forward in the journey towards improved Flexible Use of Airspace (FUA).

The idea behind the flexible use of airspace is to allow operators to plan and utilize airspace in close to real time.

LARA, which will initially be used by the UK Airspace Management Cell (AMC), a joint civil/military organisation based at Swanwick, is the result of a successful collaboration between NATS, MoD and Eurocontrol, who have developed the tool.

The tool enables civil and military controllers to share information about the use of airspace in the most efficient way.

One of the AMC's key responsibilities is to implement the FUA concept, meeting the needs of all airspace users by allowing airspace to be shared in the most efficient way possible.

This requires detailed planning and constant updates to airspace status and route availability, which in the past has involved an arduous process of receiving information from multiple sources and inputting it manually, with inevitable knock-on effects to the timeliness of updates.

LARA makes the whole process much quicker, with increased automation and visibility.

UK Civil Airspace Manager John Morton said: "LARA is effectively an enabler for more dynamic airspace management. It automates a procedure that was far too time intensive and inefficient and will help all parties to gain a better vision of airspace availability over selected military Danger Areas, so we can allow commercial carriers to optimise routes and save time and fuel without compromising either safety or military operations."

Huge potential

The scope for the initial LARA capability to be extended more widely is substantial, with the potential in the future for civil and military ANSPs and operators to receive and display up-to-date changes to airspace availability for the first time, so they can exploit this information when making traffic management plans or generating flight planning options.

As such, LARA provides the platform on which to deliver the UK's future strategic objectives, as defined in the Future Airspace Strategy and Single European Sky, of:

- Enhanced safety – improving the accuracy and responsiveness of airspace status changes;
- Improved efficiency – by increasing flight planning options for airline operators; and

- Increased capacity – maximising the opportunities to flight-plan managed routes over military Danger Areas, while maintaining flexible access for MoD users.

Swanwick ATM Development Manager Ash Bennett explained: “Following trials of LARA within the ops rooms, the potential benefit within the future operational ATC environment could be seen.

“By ensuring a timely and successful implementation within the AMC, we have laid the groundwork on which further capability can be built in the future.

“This includes the future potential to display airspace and route availability to the military user, aircraft operators and service providers.”

Common approach

LARA was developed by EUROCONTROL in order to improve airspace management processes by providing mutual visibility on civil and military requirements, by increasing mutual understanding and by enabling a more efficient collaborative decision-making process. The aim is to produce a harmonised national and regional ASM support system meeting the operational requirements of stakeholders.

The LARA software is developed by EUROCONTROL’s Civil-Military ATM Coordination Division (CMAC) with the support of the UK based software company Graffica. The development and its requirements are based on operational best practices and are driven by its potential users.

As a great example of the benefits of pan-European collaboration, not only does this provide a much more cost effective solution by removing the need for different ANSPs to go it alone, but it ensures that everyone works with the same, compatible systems.

This is particularly important because of military Danger Areas outside the UK (managed by neighboring ANSPs), that impact NATS operation.

Belgium and the Netherlands are in the process of using LARA operationally. The majority of other ECAC states have plans to trial or implement the tool and these include Ireland, for which the UK AMC provides the lead airspace management function as part of the UK/Irish FAB.

Deputy Civil Airspace Manager, Paddy Reynolds added: “Eurocontrol has produced a superb civil-military interface that has taken many years of hard work.

“The strength of the LARA functionality is that it has been developed by airspace managers working in close collaboration with Eurocontrol & Graffica via the LARA User Group.

Building relationships

In addition, the implementation further reinforces the already firm foundations of the Joint and Integrated policy to civil-military ATM.

UK Military Airspace Manager Lt Cdr Ben Cottee RN said: "It represents a big step forward in terms of collaboration and mutual understanding and there has been a lot of commitment from all parties.

"From day one there has been an appreciation of the benefits of LARA and the need for us to work closely together to implement a solution that marks a real step forward for all parties."

As a step towards the advanced FUA concept, which allows operators to plan and utilise airspace in close to real time, LARA forms an integral part of both the SESAR European ATM Master Plan and the UK Future Airspace Strategy (FAS).

Directorate of Airspace Policy Off-Route Airspace Supervisor Andy Sinclair said: "The introduction tools such as LARA, which allow more dynamic and flexible airspace access closer to the hour of operation, will build the confidence of the military that increased sharing will not degrade its ability to access the required airspace.

"Equally, evidence of increased 'sharing' to the civilian operator - seeking increased confidence of route availability - will promote an appetite to use those areas which have historically been dominated by military operations.

"The roll-out of LARA is expected to play a major role in the ability of the ANSP to deliver safety, environmental and capacity performance improvements associated with Reporting Period 1 of the Performance Scheme and pave the way for significant improvements in Reporting Period 2."