PE1804/Q
Air Navigation Solutions Ltd. submission of 30 October 2020

We have read and understood the action called for in petition PE1804 and believe that we can provide valuable context in relation to the concerns raised in the said petition.

Proven implementation of Remote Tower Control

Early development of Remote Tower Control (RTC) concepts commenced over 15 years ago. Initial viability studies soon turned into concept developments which since have led to implementation projects delivering RTC Solutions world-wide.

In Sweden since 2017, a Remote Tower Centre in Sundsvall has safely and effectively hosted both the RTC-based service delivery for Örnsköldsvik Airport and the RTC delivery of the local Air Traffic Control (ATC) operation of Sundsvall Airport.

Based on the clear evidence of safe and reliable RTC operations from Sundsvall, the decision was made for Scandinavian Mountains Airport (Sälen) in Sweden to commence operations in 2019 without an ATC Control Tower, receiving ATC Services remotely from Sundsvall.

A Remote Tower Centre at Leipzig/Halle Airport in Germany has, since 2018, provided ATC Services for Saarbrücken Airport. Erfurt/Weimar will be the next International Airport to transition to this RTC Service following the proven and uninterrupted operation of Saarbrücken for over two years.

In Jersey, an RTC Solution was certified and transitioned into operation in early 2019 as the contingency facility for Jersey Airport.

Cranfield Airport was the first in the UK to initiate RTC operations in 2018, and implementation and certification of an RTC Solution for London City Airport is underway.

Numerous other RTC developments and implementations are progressing internationally.

Collectively, more than ten years of safe, orderly, and expeditious ATC Services have to date been delivered utilising RTC Solutions. This experience includes operations in north Sweden where weather conditions may well be referred to as 'hostile'.

Quality and Feasibility

Based on this experience, we believe it is reasonable to conclude that RTC operations are well-tested and proven to be safe, reliable, and technically feasible. The ability to enhance the visual picture with information overlay, object detection and tracking capabilities more than compensates for any potential effects on visual perception from the use of TV screens.

The RTC market today offers various technical solutions, some of which present a 360° panoramic view permanently on reduced visual display, others however with a focus on undistorted display of any selection of the panorama deemed relevant by the Air Traffic Control Officer (ATCO).

Safety and Reliability

Safety is the prime concern of any Air Navigations Services Provider (ANSP) and a requirement that forms the core of the regulatory framework that governs Air Traffic Management (ATM). As such, it is a requirement for all ANSPs to demonstrate a sufficient level of safety for any change that is introduced to an ATM environment.

When developing and deploying RTC Solutions, all ANSPs produce a safety case, assessing and confirming the safety of the future operation and its compliance with regulatory standards.

This overarching safety requirement manifests itself in the design and specification of all RTC solutions and is as much focused on the requirement for familiarisation and training for ATCOs as the operational and technical structure. RTC training concepts include relevant measures to ensure local and specific knowledge for the airports that are intended to be controlled remotely.

Connectivity is a key requirement for RTC operations and loss of the same is often perceived as a newly introduced risk. However, this is not the case.

ATC services globally rely on networks for the exchange of information. Radar data is distributed over long distances and from remote and inaccessible locations to Area Control Centres (ACCs). Even the most fundamental tool of ATC operations, radio telephony, is transmitted over long distances using ATM networks.

Stringent standards and regulations in place ensure that quality, reliability, and availability of such networks renders the ATC services provided safe. The same type of proven and reliable connectivity is used to connect any RTC site to their respective airport.

Conclusion

Air Navigation Solutions (ANSL) is the ANSP for Scotland's busiest Airport, Edinburgh, and the world's busiest single runway Airport, Gatwick.

This experience is complemented by our delivery of a 'greenfield' validation, which enabled Carlisle Airport to recommence commercial air traffic operations after more than 25 years.

In our team, we have some of the world's leading experts in the field of Remote Tower Control (RTC) implementations and operations. Our experts held key roles both in the establishment of RTC in Germany and the implementation of RTC in Jersey. It is this experience and expertise that forms the basis of our statement.

Safety is at the heart of everything we do at ANSL, and so we can confidently conclude that there is evidence available that Remote Tower Control operations are both reliable and safe.

The flexibility this type of service delivery offers increases efficiency but can also increase the level and quality of service (e.g. ATC service instead of AFIS, increased/flexible operating hours increasing airport availability) offered at remote or less intensely operated airports by utilising capabilities available in a centralised location which would not otherwise be available to these sites.