

PE1804/I

Niclas Gustavsson submission of 28 October 2020

With my experience of being responsible for establishing the world's first Remote Tower Centre (RTC) in Sweden, as director of LFV, the Swedish Air Traffic Control Provider in 2105, and my current position as VP of Saab Digital Air Traffic Solutions (SDATS). SDATS is currently operating the same centre with over 5 years and 60 000 hours of use, I hereby offer my aggregated experiences and knowledge to support the route taken by HIAL ATMS to centralise its ATC facilities and services.

I fully respect the statements made by the petitioner and they are similar to the concerns I have seen these since 10 years ago in Sweden and other countries, and often based on feelings rather than factual validation and experience.

To ensure the validity of my experience, note that SDATS is certified by the Swedish Transport Agency to deliver ATS (ATC, FIS, ALRS)- and MET (observation, MET-report, METAR, SPECIAL)-services based on (among others), (EG) 550/2004, (EG) 552/2004, (EU) 2018/1139, (EU) 2017/373. We deliver these services remotely, according to the same regulatory framework as for traditional towers.

SDATS deliver these services to four small Swedish airports (Sundsvall, Örnsköldsvik, Scandinavian Mountain and Linköping Airport from a centre located in Sundsvall.

Before becoming operational, an extensive approval process by the Swedish Transport Agency was performed, covering the full scope of the change; technology, human performance and rules and regulations. Network, cyber security and the transition of services.

Traffic includes; commercial airlines, GA-traffic of all sorts, as well as military traffic (both turbo props, jets, heavy transports and helicopters).

The number or type of traffic is not a limiting factor working remotely.

The operations are closely followed up and audited by the Swedish regulator, to keep our approvals current.

The same system is approved and in operation at Cranfield Airport and soon for London City.

My experience is that Remote tower services enhances your performance:

Safety: Digital safety nets and tools enhances the ATCO's situational awareness. The ATCO's Unit competency schemes and training can be performed in an identical simulator which enables you to get high realistic quality and trust in all types of training and keep the ATCO's competence at a high level at all times.

More efficient and less vulnerable staff planning: The ATCO's can be endorsed in more than one tower which gives you a flexibility during times of staff shortage, customer changes in opening hours, sick leave, etc.

Efficiency: Multiple endorsements for ATCO's has given us the opportunity to reduce the "traditional" need for staff by 25-30%.

Resilience: During the covid-19 pandemic we could divide our staff in different teams that each could service all four airports. The teams were isolated from each other so that if one team member in one team got infected, we could lift that whole team out really fast, clean up the centre, and put in a new team.

Recruiting new generation of controllers to a centre is attractive, we get more applicants than for a local tower

Other observations

- A centre is to a large extent "**future proof**" enabling introduction of improved tools and services like drone operations.
- By using **360 degree cameras** and a compressed view (which was a request from the controllers after having tested a 360 radome already in 2012), combined with PTZ and IR cameras improves the situational awareness compared to a traditional tower
- Camera mast is designed and tested to support **wind speeds** up to 210km/h or 113 knots and still keep a stable picture, the environmental systems is tested above the
- polar circle, desert climate and at North Sea coastal cities.
- **No complaints** received from airlines operating in and out of the Remote Controlled airports, since 2015.
- **MET observations** has been made using cameras at all airports since 2015, it was part of the approval process.
- Remote Tower operations is to a large extent based on **global standards** from ICAO, EASA, EUROCAE
- As our society as such, Remote Tower operations rely on digital communications, availability and security are key parts of the overall safety approval required by any national regulator from day one

There is always resistance and reluctance to change, it can be safety concerns but most often due to social factors of being well established at a certain location. All these aspects must be treated with respect and embedded in an implementation programme from the start. HIAL must dedicate time and efforts to change management
Normally ~80% of the staff will find moving and working at a centre being positive, having more colleagues, better support and using modern technology.

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