



U.S. Department
of Transportation
**Federal Aviation
Administration**

NextGen Office
Portfolio Management & Technology
Development Office, ANG-C

800 Independence Ave., SW.
Washington, DC 20591

March 10, 2023

Mayor Kelly Burk
Leesburg Town Hall
25 West Market Street
Leesburg, Virginia 20176

Subject: Remote Tower at Leesburg Executive Airport

Dear Mayor Burk:

The Federal Aviation Administration (FAA) and Leesburg Executive Airport (JYO) have enjoyed a collaborative safety partnership for many years. We at the FAA understand and appreciate your frustration with the decision to cease remote tower services at JYO, but for safety reasons, there was no other choice to be made. JYO has a solid safety track record operating as a non-towered airport and we expect that to continue. Please know that the FAA remains committed to bringing remote towers into the National Airspace System (NAS), but it must be done safely, in accordance with the agency's primary mission.

On February 7, 2023 Saab Sensis formally notified the FAA that it was terminating its pursuit of a FAA System Design Approval for the prototype remote tower that it installed at JYO in partnership with the airport. The FAA had no role in that decision.

Saab has stated it wishes to focus its efforts on pursuing System Design Approval for its future remote tower product offering. The FAA remains committed to evaluating Saab's future designs if requested, but based on lessons learned, any new system entering into the System Design Approval process will be certified through the FAA remote tower test bed established at the William J. Hughes Technical Center in Atlantic City, NJ.

It may be helpful to recap the history of the test project at JYO. In early 2014 the Virginia SATSLab, Inc. (VSATS) contracted with Saab to deploy a remote tower system at the airport. At that time they asked the FAA to evaluate if the system could be certified to safely provide air traffic services.

In November 2014, the FAA agreed to VSATS request to seek formal certification approval of the remote tower system as a non-Federal system, under the assumption that the system and its design was mature, documented and ready to be tested. The FAA's certification approval process requires two parts: 1) System Design Approval, which ensures proper and safe operation of the systems hardware and software baseline and 2) Operational Approval, which demonstrates the

controller's ability to safely provide air traffic service while using the equipment. Given this understanding, a Memorandum of Understanding (MOU) between the FAA and VSATS was established.

Over the next six years, the FAA conducted multiple phases of testing of the Saab remote tower system at JYO. Saab had to implement numerous iterations of the system design in order to correct deficiencies and meet the test criteria, providing evidence that the overall system design was not as mature as advertised. The FAA expended considerable resources conducting a flight test program, to determine if controllers could safely and accurately control traffic as viewed through an array of two-dimensional cameras, which limit depth perception. In September 2021, the system was deemed to be operationally-viable by the FAA, though operations would be limited to 5,500-foot single runway airports as tested at JYO.

However, the system still needs to meet critical performance and safety standards outlined in the FAA System Design Approval process in order for the FAA to ensure pilots are not exposed to unacceptable levels of risk.

Since inception of this project, the FAA has been working with Saab to determine whether the system meets standards to obtain System Design Approval. Unfortunately, Saab has consistently failed to deliver the necessary safety documentation for that evaluation. Without that documentation, the agency cannot assure that the hardware and software will not present controllers with false or misleading information that could lead to catastrophic consequences or loss of life. Likewise, there is no information on the cybersecurity protections for the system. The FAA takes its safety responsibility seriously and will not certify this equipment if we are uncertain whether it meets the required design standards.

With Saab's decision to cease pursuit of this required approval, the FAA has determined that continued use of this unapproved system poses an unacceptable level of risk to all users, especially as the timeline and likelihood for the approval of a future Saab system remains unknown. The FAA has developed a plan to safely cease remote tower services at JYO, with a current target date of June 2023, and the agency is actively communicating the plan to all stakeholders.

We are happy to discuss details of this decision and provide additional technical data to support it. Since this information contains privileged, proprietary information, the FAA will not support this type of discussion in open forums.

Sincerely,

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John Maffei
Director (A)
NextGen Portfolio Management
& Technology Development Office

**Cc: Chairman Dan Duenkel, Airport Commission
Mr. Scott Coffman, Leesburg Executive Airport Director**