

Friedman Memorial Airport Authority Board Airport Traffic Control Discussion



August 6, 2019

Traditional ATCT – Remote Tower Comparison

Legacy ATCT

A multistory, single use facility designed to provide air traffic controllers with an unobstructed view of the airport movement area and local airspace.

Advantages:

- Widely used throughout the NAS;
- Certified to provide Class D Airspace air traffic control;
- Straightforward development siting, design and construction.

Disadvantages:

- Requires 3-5 years to site, design and construct;
- Fixed structure not readily adaptable to accommodate airport growth;
- Not easily repurposed at the end of useful life;
- High capital and O&M cost.

Remote Tower

A non-traditional facility providing air traffic controllers a comprehensive view of the airport surface and local airspace by employing variety of sensors, visual, track-based, IR, etc.

Advantages:

- System is readily scalable and expandable to accommodate airport growth;
- Provides controllers with enhanced situational awareness through visual target designation, tagging and tracking based on sensor inputs (radar, ADS-B, visual, IR, etc.);
- Digital video technologies, such as stitching and digital zooming, coupled with tracking pan-tilt-zoom cameras provide the controller with powerful tools that substantially improve the out-of-the-window view over a traditional ATCT;
- Less environmental impact than construction of a legacy ATCT
- Lower capital and O&M costs.

Disadvantages:

- Video display cannot exactly reproduce the out-of-the-window view from a legacy ATCT;
- Currently there is no certified remote tower system in the NAS;
- Will require 1 year to construct facility, install infrastructure and 2-3 years to certify the system.

Status of Remote Towers in the United States

- **FAA Focus:**
 1. Remote Tower Pilot Program – Identify and select airport(s) to participate in the Remote Tower Pilot Program as required in the 2018 FAA Reauthorization ACT;
 2. Establish Certification Process - Validate the process, moving forward, to be used to certify remote towers, based on lessons learned from existing efforts.

- **2018 FAA Reauthorization Bill:**
 1. Federal Contract Tower (FCT) - Remote Towers eligible for inclusion in the FCT Program;
 2. AIP Funding – Remote Towers AIP eligible after certification.

- **Current FAA Remote Tower Projects in United States:**
 1. Northern Colorado Regional Airport (FNL) – Loveland - Ft. Collins Colorado:
 - a. Undergoing passing operational testing;
 - b. System optimization and factory acceptance testing.
 2. Leesburg Executive Airport (JYO) - Leesburg, Virginia:
 - a. In operational/certification testing;
 - b. Undergoing an FAA safety analysis in advance of certification.

Remote Towers Under Evaluation in the NAS

NORTHERN COLORADO REGIONAL AIRPORT (FNL) Loveland, Colorado

Airport Data:

- General Aviation - Two Runways
- Annual Operations - 94,900±

Remote Tower System Status:

- System Optimization and Initial Functional Testing
- Certification expected – 2020

System Configuration:

- Distributed Camera Array - stitched video display
- Track-based (radar) display
- Radar tracking and tagging on video displays



LEESBURG EXECUTIVE AIRPORT (JYO) Leesburg, Virginia

Airport Data:

- General Aviation - Single Runway
- Annual Operations – 106,580±

Remote Tower System Status:

- Operational Testing
- Certification expected – 2020

System Configuration:

- Single 360° Camera Array
- Utilizes Video Tracking



Activities To Date

- **Board expressed desire to pursue a remote tower solution**
- **Congressional and State Action** - Idaho Congressional Delegation and State Aeronautics sent letters to the FAA Administrator expressing support for the Board's remote tower position.
- **Coordination and Meetings with FAA**
 - Brief FAA executives on mandate to relocate existing ATCT 2023;
 - Discuss options to meet the FAA mandated requirement to relocate the ATCT;
 - Obtain agreement to relax 2023 mandated deadline based on positive forward movement;
 - Pursue agency support for the Friedman Memorial Airport to be included in the Remote Tower Pilot Program;
 - Meetings - FAA Lines of Business:
 - COO Air Traffic Organization;
 - Associate Administrator for Airports;
 - Vice President Program Management Office;
 - Director NextGen Remote Tower Programs;
 - Director Air Traffic Policy and Implementation;
 - Manager Federal Contract Tower Program Office;
 - Manager Surveillance Broadcast Services (SBS) Program Office.

Remote Tower Vendor Meetings and Demonstrations:

- **Searidge Technologies – Ottawa, Canada**
 - **United States Projects:**
Northern Colorado Regional Airport – Loveland, Colorado
 - **Outside US:** Hungary, Singapore, Hong Kong
- **Saab Sensis – Syracuse, New York**
 - **United States Projects:**
Leesburg Executive Airport – Leesburg, Virginia
 - **Outside US:** Sweden, UK
- **Raytheon-Frequentis – Columbia, Maryland**
 - **United States Projects:**
US Military Evaluation - Air Force, Navy and Marines
 - **Outside US:** Germany, Austria, New Zealand
- **Kongsberg – Alexandria, Virginia**
 - **United States Projects – None**
 - **Outside US :** Norway

Remote Tower Funding Options

A. Remote Tower Pilot Program - 2018 FAA Reauthorization Bill: Selection Criteria

1. 1- Non-hub airport;
2. 3- Non-primary airports without an existing ATCT;
3. 1- Airport with an existing ATCT in the Federal Contract Tower Program;
4. 1- Airport at the discretion of the Administrator.

B. AIP - 2018 FAA Reauthorization Act:

1. Implementation of a remote tower in the Pilot Program is AIP eligible;
2. Remote Tower Program airport is eligible for FCT Program.

C. Service Provider Model:

1. Vendor funds cost of Remote Tower System implementation;
2. Cost of system implementation could be amortized over a selected contract period (10, 15, 20 years, etc.)
3. FAA is responsible for certification of the system;
4. An airport should be able to demonstrate a positive business case before embarking on this path.

Path Forward

- Continue to work with the FAA to ensure Hailey is selected as one of the Remote Tower Pilot Program airports;
- Work with the Idaho Congressional Delegation to develop a strategy to support Hailey's inclusion in the Remote Tower Pilot Program by:
 - Meeting with the FAA;
 - Direct request to the Secretary of Transportation.
- Get support from the National Air Traffic Controllers Association (NATCA) for Hailey's inclusion in the Remote Tower Pilot Program;
- Coordinate with the Airports District Office (ADO) on relaxation of the 2023 mandate and support of the remote tower solution;
- Engage with remote tower vendors to get possible political support and alternative funding options for a remote tower.

Questions/Discussion

