



COLORADO

Department of Transportation

SCOPE OF WORK

Program Management Services for Digital Airport Traffic Control Tower Project

Colorado Department of Transportation, Division of Aeronautics

Scope of Services:

The Colorado Division of Aeronautics (Division) is seeking qualified Program Management services for its ongoing Digital Airport Traffic Control Tower Project (Project) with the Federal Aviation Administration (FAA).

Started in 2013, this groundbreaking project was one of just two Digital Airport Traffic Control Towers under development in the U.S. and was funded in part by the Division through a Reimbursable Agreement with FAA. Both projects, one at Leesburg, Virginia and one at the Northern Colorado Regional Airport in Loveland, Colorado, were terminated by FAA in late 2023, after the vendors for each project opted not to continue development work. As of January 2026, the FAA is in the process of evaluating a digital tower system at FAA's William J. Hughes Technical Center in Atlantic City, New Jersey. This effort is expected to culminate in a system design approval (SDA) in 2026, which will allow qualified vendors that meet SDA criteria to begin deploying digital air traffic control tower technology at U.S. airports.

This Project consists of developing and implementing one or more digital towers at select Colorado airports. Additionally, the Division's long-term vision for this technology includes a potential digital tower center based on the ultimate approved digital tower system currently being tested by the FAA. The digital tower center could serve multiple Colorado airports by providing airport traffic control to non-towered airports using one centralized control facility. Overall, digital tower technology will enhance airport safety, efficiency and capacity for non-towered airports in Colorado by permitting scalable and adaptable air traffic services, particularly at busy mountain/resort airports.

The Program Manager for this Project will serve as a technical subject matter expert to represent the Division's investment and interest in the implementation and/or support of the Digital Tower Project and facilitate the Project's forward progress through funding, FAA certification and deployment. The Program Manager will participate in and assist with the development of airport digital tower valuation, testing, and certification activities, as well as attend all project meetings, and will serve as the technical representative for the Division of Aeronautics during all phases of the Project as outlined below.



Overall Digital Tower Program Management

- Under the direction of the director of the Division of Aeronautics, act as the project's Program Manager and provide technical representation and oversight of the Project.
- Develop a phased Concept of Operations starting with individual airports and potential further phases for other airport digital tower systems co-located in one building (digital tower center). All systems will be in alignment with the FAA's digital tower system design approval(s).

Individual Airport Digital Tower Evaluation and Deployment

- Assist the Division with selecting and prioritizing candidate digital tower airports and FAA qualified digital tower vendor selections.
- Develop a funding strategy to optimize Division of Aeronautics and FAA planning efforts to provide the highest possible benefit to airports and users while leveraging the maximum amount of federal funding.
- Assist the Division and participating airports in identifying and securing FAA and other funding for individual digital tower installations at airports.
- Assist individual airports with development of digital tower system configuration and equipment location alternatives.
- Work with the FAA's Department of Policy and Plans (APO) to ensure candidate digital tower airports are eligible to be included in the Federal Contract Tower (FCT) Program.
- Work with eligible airports to prepare and submit applications for acceptance into the FCT program.
- Review System Design Approval (SDA) documentation for FAA qualified digital tower vendors to determine impact on implementation.
- Serve as the Division's Project Manager during design, permitting and construction of any digital tower facility, in coordination with an airport's selected engineer and contractor.
- Attend and participate in Safety Management System (SMS) panels as required.
- Attend system FAA Technical Interchange Meetings (TIM) as required.
- Participate in FAA Configuration Review Board (CRB) activities as required.
- Coordinate with the FAA and the selected digital tower vendor to have existing surveillance (Wide Area Multilateration (WAM)/ADS-B and/or primary/secondary radars) integrated into the vendor's digital tower system.

Note: If FAA does not permit FAA surveillance system to be integrated into the digital tower system, work with the vendor to pursue a non-federal ADS-B system that could be integrated into the digital tower system to provide the necessary situational awareness.



- As needed, prepare system requirements to be used by airports and/or the Division when seeking vendor proposals to implement a situational awareness system.

Potential Digital Tower Center Facility Evaluation and Deployment

- The below tasks are being included if the FAA supports the potential of creating a Digital Tower Center that will support multiple airports.
- Assist the Division and participating airports in identifying and securing FAA and other funding for a potential digital tower center facility and related equipment and facilities.
- Evaluate the existing broadband data network in Colorado at and between locations with potential digital towers and identify any gaps in existing data infrastructure and what upgrades may be needed to support a digital tower center concept.
- Work with the Division and airports to identify an ideal airport location for a digital tower center, including on-airport site selection.
- Develop schematic of the digital tower center facility to accommodate future expansion to full capacity, and to accommodate the Federal Contract Tower (FCT) Minimum Equipment List (MEL) requirements.
- Assist the Division and/or participating airports in selecting an engineering and/or design firm for a digital tower center facility.

Other General Tasks

- Develop and implement a clear and concise executable project plan to be used for tracking Project progress and reporting to stakeholders
- Provide monthly written status reports, presentations and updates on the Project's progress for internal and external stakeholders.
- Travel as needed (in-state and out of state) for meetings with FAA, airport and Division personnel.

Qualifications:

- A minimum of ten years of experience designing, constructing and/or commissioning air traffic control facilities, including air traffic control towers, radar facilities and related air traffic control infrastructure including Federal Aviation Administration (FAA) tower facility equipment.
- Extensive knowledge of the FAA air traffic control system, including system design, national airspace architecture and operations.
- Extensive knowledge of and experience with FAA and other federal agency funding opportunities, processes and requirements, including the FAA's Airport Improvement Program.



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- Well-developed high level working relationships with key FAA lines of business, particularly the FAA's air traffic organization (ATO) and technical operations group (AJT).
- Experience or familiarity with the FAA's digital tower System Design Approval (SDA) process, including testing and documentation.
- Demonstrated familiarity and practical experience with the FAA's Safety Risk Management (SRM) processes, particularly related to air traffic control and airport operations.
- Demonstrated experience developing, implementing and monitoring FAA air traffic control testing procedures and processes.
- Proven ability to manage complicated air traffic control development projects involving multiple stakeholders including users, airport sponsors, infrastructure providers and contractors.
- Familiarity and demonstrated experience with developing and deploying new and innovative air traffic control technologies.
- Established working relationships with leading industry digital tower vendors.
- Experience with airport planning and management to include airport master plans, airport layout plans, capital improvement plans, and ATC siting studies.
- Program management team must have a civil engineer licensed in the State of Colorado on staff to support this scope of work as required.