



APPENDIX A

Community Engagement Summary

Cedar City Regional Airport
2025 Airport Master Plan

January 2025





CONTENTS

Appendix A Community Engagement

01 Public Information Meetings

02 Technical and Community Advisory
Committee Meetings

APPENDIX A

COMMUNITY ENGAGEMENT

Community involvement and coordination is a critical component of the airport master planning process. Airport staff and the project team used several methods to engage the public and held several public meetings where members of the community were encouraged to share their ideas and provide feedback on important elements of the airport master plan.

Public Information Meetings

Airport staff and the project team hosted public information meetings at important milestones in the planning process to share relevant and timely information with the public and invite feedback. These meetings were advertised in the local newspaper, on social media, and the city and project websites. Mailings and press releases were also sent out to increase awareness and participation. Meeting attendees were asked to sign in and were provided with informational handouts and comment forms. All attendees were also made aware of future opportunities to be involved in the planning process. Members of the public could also view plan documents and submit comments via the project website.

Technical Advisory Committee

The airport staff and project team relied heavily on members of the technical advisory committee (TAC) to help guide development of the plan. This committee was comprised of members who have a deep understanding of the airport, its role in the community, and future opportunities for improvement. Committee members included city representatives, airport tenants, and local residents who interact with the airport on a regular basis. The technical advisory committee provided the aviation planning team with valuable feedback and insight into the needs of the local aviation community and kept the team informed of local issues throughout the planning process.

Community Advisory Committee

The airport staff and project team also relied heavily on members of the community advisory committee (CAC) to help guide development of the plan. This committee was comprised of representatives from local and regional government agencies who helped to ensure the planning committee took the needs of these agencies into consideration as they develop the plan. This perspective helped the planning team develop a plan with a strong understanding of how future development projects would impact these agencies.

01 Public Information Meetings

01.1 Public Meeting #1

a. Meeting Time and Location

Date: October 11, 2022

Time: 5:30–7:30 p.m.

Place: Festival Hall, 105 North 100 East



NEWS RELEASE

For Immediate Release: September 27, 2022

Information Contact: Nick Holt, Airport Manager, (435) 867-9408

Cedar City Regional Airport Kicks Off Master Plan Process

Cedar City, Utah – Cedar City Regional Airport announced the launch of its airport master plan which will help guide the next 20 years of growth at the airport. The community is encouraged to attend the kick-off meeting which will take place Tuesday, Oct. 11 at 5:30 p.m. The meeting will be held at Festival Hall, 105 North 100 East.

The planning process, which is expected to take two years to complete, will examine the airport's role within the community, airport assets and facilities, aviation activity forecasts, and future development as well as options for ongoing public engagement on airport matters.

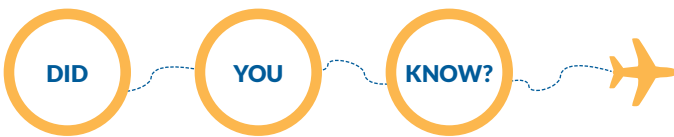
Community members are encouraged to attend the kick-off meeting to learn more about the airport master planning process, share feedback with the planning team, and sign up to receive ongoing project updates.

The Federal Aviation Administration (FAA) requires airports to develop a 20-year airport master plan to ensure thoughtful and strategic planning of future facilities and airport infrastructure. The airport master plan will help guide the airport's future with the goal of ensuring the airport continues to operate in a safe, efficient, and effective manner while also reflecting our community values.

Updates and additional information will be made available at <https://www.cedarcity.org>.

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c. Social Media Post



- THE FAA REQUIRES MASTER PLANS BE COMPLETED REGULARLY.
- THE FAA PAYS 90% OF THE COST TO DEVELOP AN AIRPORT MASTER PLAN.



d. Meeting Handout

What is an Airport Master Plan?
An airport master plan is the process of establishing an airport's blueprint for long-term development. It is a comprehensive study of the airport to determine an effective plan for future airport development. It ensures that the airport will continue to meet the needs of its customers in the future and that development is consistent with local, state, and national goals. This includes identifying potential environmental and socioeconomic impacts of future airport projects. An airport master plan is an important step in helping the airport become more efficient, as well as financially and socially responsible.

Why Does the Airport Need One?
The last airport master plan was completed for Cedar City Regional Airport in 2012. An airport master plan is typically updated every five to ten years. This helps the airport respond to updated design requirements, changes in the economy, and industry changes.

Who Determines This Process?
The elements of an airport master plan are outlined by the Federal Aviation Administration (FAA), but the process is tailored to meet the needs of the airport and the community. An airport's size, as well as the number and type of aircraft using the airport, will determine the complexity and level of detail required.

What is the Purpose of This Plan?
The purpose of the airport master plan is to develop a long-term plan for the airport that meets the following goals:

- Identifies the condition and capacity of existing airport infrastructure.
- Identifies existing airport issues, opportunities, and constraints.
- Determines if improvements are needed to meet current safety standards or future aviation activity.
- Identifies aviation industry trends and their potential impact to the airport.
- Ensures the airport is able to continue to safely and efficiently meet the needs of its customers.
- Allows the community to provide input on the development of the plan.
- Develops a financially responsible plan for airport development.
- Determines the potential environmental and socioeconomic impact of airport development.
- Establishes a realistic schedule for project implementation.
- Identifies potential funding sources.
- Keeps the community informed.

The Airport Master Plan Process
The FAA provides airports with guidance in the preparation of airport master plans. According to FAA Advisory Circular (AC) 150/9070-6B, Airport Master Plans each master plan should include the following steps:

- Research the history of the airport.
- Inventory the existing conditions.
- Develop a forecast of future aviation activity.
- Assess the airport's ability to accommodate the forecasted activity.
- Identify potential improvements or new facilities needed so the airport can accommodate forecasted activity safely and efficiently.
- Evaluate each option to determine the most environmentally, socially, and financially responsible plan.
- Prepare a financial plan for the airport that describes how the airport will finance each project.
- Prepare an implementation plan that includes a preliminary schedule and estimated project costs.
- Prepare a set of drawings called an airport layout plan (ALP) that illustrates the airport's long-term development plan.

Project Sponsor and Plan Oversight
As the owner of the airport, the City of Cedar City is considered the project sponsor. The airport master plan will be directed by the airport manager with support from the CDC Airport Board.

Plan Guidance
The technical advisory committee (TAC) and the community advisory committee (CAC) will help guide the development of the plan. The TAC is comprised of local residents, airport tenants, and stakeholders as well as representatives from the city. This committee provides the aviation planning team with valuable feedback and insight into the needs of the local aviation community and keeps the team informed of local issues.

The CAC includes representatives from local and regional government agencies. This committee ensures the planning committee takes the needs of these agencies into consideration as they develop the plan. This perspective helps the planning team develop a plan with a strong understanding of how the airport impacts other agencies in the region.

Project Funding
The FAA provides airports with ninety-five percent (95%) of the funding needed to develop an airport master plan. While the FAA provides the majority of the funds, it does not direct the process.

Who Approves a Master Plan?
The airport sponsor approves the airport master plan. However, FAA approval is required for the forecast and the airport layout plan (ALP) because the agency uses these elements to help determine the airport's eligibility for grant funding of proposed development.

Community Outreach
Public meetings are an important component in the development of this plan. These meetings provide airport planners with the opportunity to learn about your concerns and questions about the future of the airport. They also provide the community with access to the planning team, airport management, and city officials.

The planning team will hold several meetings where they will update the community as they reach major milestones in the development of the airport master plan. **The whole community is invited to attend these public meetings. We encourage you to share your thoughts and ideas and help shape the future of Cedar City Regional Airport.**

Plan Information and Project Updates
Plan information and project updates will be posted online throughout the airport master planning process. This includes a project schedule, meeting announcements, and copies of plan documents as well as a comment page where you can submit your questions, concerns, and comments.

Please visit us online:
<https://www.CedarCity.org/Airport>

Or please contact:

- Nick Holt, Airport Manager**
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(435) 867-9408 ext. 6
- Jeremy McAllister, Project Manager**
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e. Presentation

Cedar City Regional Airport
 Airport Master Plan
 Public Kickoff Meeting
 October 11, 2022

Welcome!
Please sign in

Nick Holt, Airport Manager
 Tyler Galetka, Airport Operations
 Jeremy McAllister, T-O Engineers
 Sam Allen, T-O Engineers

Agenda

- About T-O Engineers
- About the Airport
- Master Plan Objectives
- Master Plan Overview
- Airport Project Funding
- Public Involvement
- Roles and Responsibilities
- Next Steps

About T-O Engineers

- Aviation Planning consultant for CDC since 2015
- FAA requires airport sponsors to select Engineering and Planning consultants
- 5-year selection/term based upon qualifications
- Work in over 50 airports in ID, OR, WY, CO, WA, UT
- Parent company – Ardurra
- 1,200 employees in 70 offices throughout US

About the Airport – CDC

- Established: 1938
- Two runways
 - RWY 2/20 – 8,653' x 150'
 - RWY 8/26 – 4,822' x 60'
- Airline service to SLC
 - Delta Connection (SkyWest)
- Sphere One Aviation
 - Full-service FBO
- Southern Utah University
 - Large training program(s)
- BLM fire tanker base
- Aircraft
 - 99 based
 - 123,370 operations in 2021

About the Airport – Previous Master Plan

Previous Master Plan

- Forecast approved in 2016
 - Traffic at end of 20-year window forecast to be 26,562 operations
- Plan completed in 2017
- Included safety upgrades to airport that have been completed

FAA generally recommends new Master Plans:

- Every 5-7 years for commercial service airports
- Every 7-10 years for general aviation airports
- When significant growth in airport traffic occurs

Master Plan Objectives

- Understand airport issues, opportunities, and constraints
- Consider impacts of aviation trends
- Identify capacity of existing airport infrastructure
- Determine need for airport improvements
- Estimate project costs and funding sources
- Develop a schedule for project implementation
- Obtain stakeholder and public input (during entire MP process)

Master Plan Overview

Project duration

- Process typically takes 18-24 months

Federal Aviation Administration (FAA) guidance for project:

- Advisory Circular 150/5070-68, Airport Master Plans

Airport Project Funding

Airport and Airways Trust Fund (AATF)

- Passenger tickets
- Cargo taxes
- Aviation fuel taxes

Airport Improvement Program (AIP)

- Fed from AATF
- Provides most of the funding for eligible airport projects

CDC Master Plan Project Breakdown

- \$584,876 – (95%) FAA AIP grant
- \$30,783 – (5%) Sponsor airport revenue funds
- \$615,659 – Total project cost

The FAA Master Plan Process

RESEARCH

- Develop Scope of Work
- Inventory
- Aviation Forecast: Identify Critical Aircraft
- Forecast Approval

REQUIREMENTS

- Facility Assessments
- Develop Alternatives
- AIP Drawings

IMPLEMENTATION

- Cost Estimates, CIP Implementation Plan
- Financial Analysis
- Final Documents

Public Involvement

Critical to Master Plan process as project is focused upon community needs for the airport

Five public meetings planned

Two advisory committees formed

- Community Advisory Committee (CAC)
- Technical Advisory Committee (TAC)

Process is fluid and is based upon project/community needs

Project website coming soon...

Roles and Responsibilities

Federal Aviation Administration

- Primary funding agency
- Provide technical guidance
- Approve Forecast and Accept Master Plan

UDOT Aeronautics

- Update of state aviation state plan
- Provide input based on state aviation interests

Cedar City

- Project sponsor
- Organize public involvement
- Adoption and implementation of Master Plan
- Airport board, Advisory committees, Airport tenants/users
- Share ideas and offer local input and perspective

T-O Engineers

- Project consultant
- Conduct research and analysis
- Production of technical documents
- Facilitates meetings

Next Steps

- Complete Existing Conditions
- Complete Forecast
- CAC/TAC chapter review and meeting
- Hold Public Meeting #2
- Forecast submittal to FAA

Thank you!

Please fill out a comment sheet
 You may also email comments to any member of the planning team

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01.2. Public Meeting #2

a. Meeting Time and Location

Date: March 16, 2023

Time: 5:30–7:30 p.m.

Place: Festival Hall, 105 North 100 East



NEWS RELEASE

For Immediate Release: February 3, 2023

Information Contact: Nick Holt, Airport Manager, (435) 867-9408

Cedar City Regional Airport to Hold Public Information Workshop for Airport Master Plan Study

Cedar City, Utah – Join Cedar City Regional Airport at its public information workshop to discuss the future of the airport. The community is encouraged to attend the meeting which will take place Thursday, Feb. 23 at 5:30 p.m. The meeting will be held at Festival Hall, 105 North 100 East.

The planning team will provide the community with an overview of the airport's current facilities and a draft of the aviation activity forecast. The information presented at this meeting will provide the foundation for the remainder of the planning process. This includes identification of the critical aircraft that will be used to determine the Federal Aviation Administration (FAA) design standards for the airport as development occurs. The community will have the opportunity to learn how airport activity is expected to change in the coming years and how the airport proposes to accommodate the growth forecasted for the next 20 years.

The airport master plan will help guide the airport's future with the goal of ensuring the airport continues to operate in a safe, efficient, and effective manner while also reflecting our community values. Community members are encouraged to attend this meeting to learn more about the airport master planning process, share feedback with the planning team, and sign up to receive ongoing project updates.

Updates and additional information will be made available at <https://www.cedarcity.org>.

---end---

c. Social Media Post

You're Invited!
Cedar City Regional Airport (CDC)
Master Plan Presentation

Thursday, Feb. 23 • 5:30–7:30 p.m.
Festival Hall • 105 North 100 East, Room 5

This presentation will provide the community with an overview of the airport, its role in our local community, and the aviation activity expected to occur at the airport during the next 20 years. Please visit cdcmasterplan.com for more information.



TO: Technical Advisory Committee Member

FROM: T-O Engineers

DATE: September 27, 2022

SUBJECT: CDC Airport Master Plan
 Technical Advisory Committee Confirmation



On behalf of Cedar City, and the Cedar City Regional Airport, I would like to thank you for your commitment to serve on the Airport Master Plan Technical Advisory Committee (TAC).

The TAC will assist in preparing the Master Plan by providing technical input and recommendations throughout the planning process. This role is advisory in nature; ultimately, the outcome of the Master Plan will be determined by FAA guidance, Cedar City, the Airport’s goals and objectives, and the obligations of the Airport in accordance with FAA grant assurances.

d. Meeting Handouts



Cedar City Regional Airport Airport Overview

Airport Layout

- TERMINAL BUILDING
- 2/20 PRIMARY RUNWAY
- 8/26 CROSSWIND RUNWAY
- CARGO FACILITY
- FBO SPHERE ONE
- GA APRON
- CEDAR CITY FIRE STATION #3

2/20 Primary Runway

- Oriented: Northeast-Southwest
- Length: 8,653 Feet
- Width: 150 Feet

8/26 Crosswind Runway

- Oriented: East-West
- Length: 4,822 Feet
- Width: 60 Feet

Airport Tenants

- Agrinautics
- Animal and Plant Health Inspection Service
- BZI Steel
- Civil Air Patrol
- Color Country Interagency Fire Center
- Southern Utah University



Cedar City Regional Airport Forecast of Aviation Demand

Aircraft Operations

An aircraft operation is when an aircraft lands, takes off, or conducts a touch-and-go procedure. They are categorized as either commercial service, general aviation, or military.

Passenger Enplanements

The forecast of passenger enplanements is particularly important because it will help determine future requirements for airport facilities that accommodate passengers like the terminal and automobile parking.

Critical Aircraft

The critical aircraft is often referred to as the design aircraft because it is used to determine many airfield design standards. Different critical aircraft may be identified for different areas of the airport.

Aircraft Operations Forecast

Passenger Enplanements Forecast

**Existing: Avro RJ-85
Representative Critical Aircraft**

Future: Embraer E-175

Appendix C: FAA Forecast Approval

A-13

e. Presentation

Year	Jobs	Output	Revenue
2020	990	\$40.7M	\$71.9M
2025	1,127	\$47.7M	\$82.7M

- Baseline of current facility conditions at the airport
- Review areas for inventory
 - Natural/physical environment
 - Airport layout
 - Based aircraft
 - Airport layout and facilities
 - Pavement conditions
 - Navigation aids
 - Lighting
 - Commercial terminal, ramp, and parking areas
 - Car rental facilities
 - Cargo facilities
 - Fuel/State Operations
 - Non-aeronautical use
 - Utilities

- RWY 2/20
 - ± 632' x 150'
 - HRL - High Intensity Runway Lighting
 - RWY 2
 - MIL - Medium Intensity Runway Lighting
 - FAH - Precision Approach Path Indicator
 - RWY 20
 - MALSA - Medium Intensity Approach Lighting System with Runway Alignment Indicator Light (RAI)

- RWY 8/26
 - ± 832' x 60'
 - MIRL - Medium Intensity Runway Lighting
 - RWY 8
 - RAI

Runway	Category	Category 1	Category 2	Category 3
Runway 2/20	Category 1	Category 2	Category 3	Category 4
Runway 8/26	Category 1	Category 2	Category 3	Category 4
Runway 20/28	Category 1	Category 2	Category 3	Category 4
Runway 20/28	Category 1	Category 2	Category 3	Category 4

- TWY A
 - Full length parallel taxiway for RWY 2/20
 - Associated connecting taxiways
 - TWY A3, A4
- TWY B
 - Runs along North GA Ramp
 - Associated connecting taxiway
 - TWY B1
- TWY C
 - Runs between commercial terminal and North end of TWY A
 - Associated connecting taxiway
 - TWY C1

- Standard airfield signage/lighting
- Segmented circle and wind indicator
- Automated Surface Observation System (ASOS) station
- Rotating beacon
- Security fencing
- Wattle fencing for prairie dogs
- Powered vehicle security gates

- Commercial terminal
 - Approx. 15,000 sqft
 - Includes baggage claim, rental car desks, ticketing/ing check, security checkpoint
- Terminal parking lot
 - Space for approx. 204 vehicles, including rental cars
- Fixed-Base Operator (FBO)
 - GateOne (dba Sphere One) is sole facility
- Cargo Facility
 - Redix hangar that is used by FedEx and Alpine Air
- ARFF Station - Cedar City Station #3

Forecast Elements:

- Commercial Service
 - Enplanements
 - Operations
- General Aviation
 - Air Taxi
 - General Aviation
 - Military
 - Local
 - General Aviation
 - SUJ
 - Fleet Mix
 - Based Aircraft
 - Critical Aircraft

Category	Speed	Group	Tall Height (feet)	Wingspan (feet)
A	less than 91 knots	I	1-20	14-19
B	91 knots or more, less than 121 knots	II	20 - 30	69 - 79
C	121 knots or more, less than 141 knots	III	30 - 45	79 - 118
D	141 knots or more, less than 166 knots	IV	45 - 60	118 - 171
E	166 knots or more	V	60 - 86	171 - 234
		VI	86 - 90	234 - 262

Operations - Takeoff or landing, includes touch-and-go.

TAI - FAA Terminal Area Forecast, not to be confused with Terminal Aerodrome Forecast (which pilots use for weather information).

Load Factor - The percentage of filled revenue passenger seats to total available seats.

Capacity - Total available revenue passenger seats.

Enplanements - Boarding of an aircraft by a revenue passenger.

- FAA Aerospace Forecast 2022-2042
- FAA Terminal Area Forecast (TAF) 2021-2045
- 2020 Utah Aviation Development Strategy
- FAA Traffic Flow Management System Count (TFMSC)
- Department of Transportation (DOT) T-100 Database
- Winnipeg - Airport Operations Tracking System
- Mission activated cameras
- Airport Staff

- Regression Analysis - Regression analysis is a statistical technique used to identify trends in data by measuring the relationship between a dependent (e.g., aviation demand), and independent variables (e.g., socioeconomic factors). This method is effective when using relatively simple sets of data, a strong statistical correlation is evident, and reliable forecast data is available for the independent variables.
- Trend Analysis - Trend analysis uses historical patterns to project future activity. This approach is useful when conditions are unusual enough to differentiate the study airport from other airports in the region.
- Market Share Analysis - This technique assumes a top-down relationship between national, regional, and local forecasts. It involves conducting a historical review of the airport activity and identifying the percentage or share of a larger regional, state, or national aviation market. The historical market share trend is then used to project the future market share based on forecasts developed for the larger geographic area. This type of forecast is useful when the activity has occurred there at a larger market.
- Smoothing - Smoothing is a statistical technique used to make predictions based on repeating recent trends and conditions in historical data. It is most effective for generating short-term forecasts.

- Fewer regional carriers to serve small communities
- Shifting airline economics and effects on capacity
- Airline fleet simplification and modernization
- National pilot shortage
- Lingering effects from Covid-19 pandemic

Year	Enplanements	Flights	Seats Available	Load Factor
2022	11,452	624	50	43.7%
2027	14,366	624	50	46%
2032	18,232	624	70	42%
2037	23,161	624	70	53%
2042	29,473	624	70	67%

General Aviation Forecast Overview

Forecasting Elements and Methods

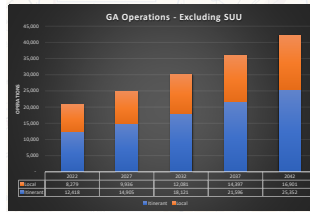
- **General Aviation Operations: Regression Analysis (3.63% CAGR)**
 - Air Taxi
 - Business General Aviation
 - Local General Aviation
- **SUU Operations – FAA Aerospace Forecast**
 - Fixed Wing: 0.40% CAGR
 - Rotary Wing: 1.30% CAGR
 - Overall: 0.5% CAGR
- **Based Aircraft – Forecast Population Growth (1.56% CAGR)**

Baseline Data

Victorville operations were validated through motion-activated cameras and the FAA TRMISC database.
 Itinerant GA includes air taxi operations. Total operations do not include Military or Air Carrier operations.
 * It is assumed the percentages will remain the same over the planning period.

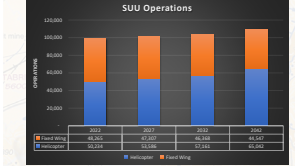
GA Baseline Operations		
	Percentage	2022 Operations
Itinerant GA	10%	12,418
Local GA	7%	8,279
SUU	82%	98,499
Total	99%	119,195

GA Operations - Regression Analysis



SUU Operations – FAA Aerospace Forecast

Helicopter Operations account for 51% of operations.
 Fixed Wing Operations account for 49% of operations.
 (Note: SUU nearing capacity – future growth expected to be minimal)



Based Aircraft

Forecast Method: Trend – Forecast Population Growth (1.56% CAGR) – Preferred
 Trend – Employment Growth (1.85% CAGR)



Military Operations

Unless there is specific knowledge of an upcoming change, military operations are typically forecast at current TAF levels because the Department of Defense provides limited details regarding future activity levels.

There are no local military operations forecasted at this time. Although we know there are reorganizations in progress, operational activity is unknown and therefore cannot be forecasted.

Military Operations Forecast	
Year	Itinerant
2022 (Baseline)	550
2027	550
2032	550
2037	550
2042	550

Forecast Summary

Year	Engagements	Newsworthy Operations					Local Operations		Total Ops	Based Aircraft
		Air Carrier	Air Taxi	GA	Military	Total	GA	Military		
2022	11,031	1,245	1,152	11,031	550	14,959	6,271	6,499	50,776	120,915
2027	14,251	1,481	1,388	14,251	550	19,731	7,061	7,303	102,021	125,481
2032	17,471	1,717	1,624	17,471	550	25,502	7,651	7,893	113,481	130,961
2037	20,691	1,953	1,860	20,691	550	31,272	8,241	8,483	124,981	136,441
2042	23,911	2,189	2,096	23,911	550	37,043	8,831	9,073	136,481	141,921

TAF Comparison

FAA regulation states that for FAA approval a non hub commercial service airport, the forecast elements must differ less than 10% to the TAF forecast, and less than 15% to the 10-year period from the TAF. If the forecast elements (i.e., additional operations) do not meet with the FAA, we must then create for all forecasting elements, except with enplanements and commercial service operations.

The difference is due to historical inconsistencies with the TAF, which was also noted in the previous master plan. Additionally, the TAF shows no growth in these two forecasting elements, which is unreasonable considering national trends and more local socioeconomic trends.

Once approved, the FAA should use this forecast to update the TAF.

Year	TAF	Enplanements		Commercial Operations		
		Master Plan	Difference	TAF	Master Plan	Difference
2022	10,600	11,452	8%	1,304	2,432	87%
2027	10,600	14,388	36%	1,304	2,667	105%
2032	10,600	18,227	72%	1,304	2,973	128%
2042	10,600	29,473	178%	1,304	3,661	181%

Critical Aircraft

- Also called "design aircraft" and is used to determine correct design standards for runways/taxiways.
- Criteria
 - Most demanding aircraft/group of aircraft with regular use (500 annual operations), excluding touch and go operations.
 - When there is not a single aircraft with 500 operations, the aircraft grouping with similar characteristics method allowed. This method combines aircraft with comparable characteristics (AAC and ADG separately) to determine the most demanding design criteria.
 - Standard industry practice include critical aircraft identification with greater than 350 operations, with an increasing trend.

2017 Airport Master Plan

Cedar City Regional Airport is currently designed to support AAC C, ADG III aircraft.

The 2017 Airport Master Plan used the aircraft grouping method to identify the design aircraft. Representative aircraft included the Avro RJ 85, Gulfstream V, KC-135, and forecasted E175.

Current Forecast

Based on the updated forecast, the critical aircraft and design standards for the airport are not anticipated to change.

Method- Aircraft grouping of Similar Characteristics.

Year	AAC C					ADG III				
	A	B	C	D	E	A	B	C	D	E
2022	66,300	71,413	77,808	84,740	92,249	3,312	3,691	2,662	2,879	3,156
2027	71,244	77,624	84,537	92,033	99,243	4,223	4,709	3,750	4,024	4,394
2032	77,624	84,537	92,033	99,243	106,853	4,709	5,200	4,141	4,429	4,804
2037	84,537	92,033	99,243	106,853	114,863	5,200	5,700	4,641	4,930	5,305
2042	92,033	99,243	106,853	114,863	122,873	5,700	6,200	5,141	5,430	5,805

Representative Critical Aircraft – Existing Avro RJ 85 (C-III)



Critical Aircraft – Ultimate Embraer E175 (C-III)



Conclusion

The critical aircraft determination from this forecast is consistent with the 2017 master plan and the design does not change over the planning period.

The next part of the master plan process will identify requirements and (if any) deficiencies to the FAA design standards.

Next Steps

- Submittal of forecast to FAA for approval
- Facility Requirements based upon approved forecast/critical aircraft
- Development Alternatives to be drafted to fulfill Facility Requirements and Sponsor/community vision for the airport
- Public Meeting #3 – Completion of Facility Requirements and Presentation of Development Alternatives
 - Date TBD – estimated June 2023 (largely determined by when we receive forecast approval from the FAA)

Project Website – <https://cdcmasterplan.com>



01.3. Public Meeting #3

a. Meeting Time and Location

Date: April 10, 2024

Time: 5–7 p.m.

Place: Festival Hall, 105 North 100 East

b. Meeting Invite



You're Invited!
Cedar City Regional Airport (CDC)
Master Plan Public Open House

Wednesday, Apr. 10 • 5:00–7:00 p.m.
Festival Hall • 105 North 100 East, Room 7

Please join us anytime between 5-7:00 to review and discuss potential Airport development alternatives to meet short-, mid-, and long- term demand at the airport over the next 20 years. Please visit CDCMasterPlan.com for more information.

c. Posters



Cedar City Regional Airport • Airport Master Plan

What is an Airport Master Plan?

An airport master plan is the process of establishing an airport's blueprint for long-term development to meet future aviation demand. It helps to ensure the airport will continue to meet the needs of its customers and that future development is consistent with local, state, and national goals. This includes identifying potential environmental and socioeconomic impacts of future airport projects.

Why Does the Airport Need One?

An airport master plan is typically updated every five to ten years. This helps the airport respond to updated design requirements as well as industry trends and changes in the economy. The last airport master plan was completed in 2017.

The Airport Master Plan Process

Research

- Research the airport's history.
- Inventory existing conditions.
- Develop a forecast of future activity levels.
- Identify critical aircraft.
- Forecast approval.

Requirements

- Identify improvements required due to updated standards or to accommodate forecasted activity.
- Evaluate each option to determine the most responsible plan.

Implementation

- Prepare an implementation plan with a preliminary schedule and estimated costs.
- Prepare a capital improvement plan.
- Prepare an airport layout plan (ALP).

Who Determines This Process?

The elements of an airport master plan are outlined by the Federal Aviation Administration (FAA), but the process is tailored to meet the needs of the airport.

Who Approves the Plan?

The City of Cedar City approves the plan. However, FAA approval is required for the forecast and airport layout plan because they are used for grant funding.

What Is the Purpose of the Plan?

- Identify the condition and capacity of existing airport infrastructure.
- Identify existing problems, opportunities, and constraints.
- Determine if improvements are needed to meet current safety standards or future activity levels.
- Identify industry trends and their potential impact to the airport.
- Ensure the airport is able to continue to safely and efficiently meet the needs of customers.
- Allow the community to provide input on the plan.
- Develop a financially responsible plan for airport development.
- Establish a realistic schedule for project implementation.
- Identify potential funding sources.
- Keep the community informed.



Cedar City Regional Airport • Airport Overview

Airport Layout

- Terminal Building
- 2/20 Primary Runway
- 8/26 Crosswind Runway
- Cargo Facility
- FBO GateOne
- General Aviation Apron
- Cedar City Fire Station #3

2/20 Primary Runway

- Oriented: Northeast-Southwest
- Length: 8,653 Feet
- Width: 150 Feet

8/26 Crosswind Runway

- Oriented: East-West
- Length: 4,822 Feet
- Width: 60 Feet

Airport Tenants

- Agrinautics
- Animal and Plant Health Inspection Service
- BZI Steel
- Civil Air Patrol
- Color Country Interagency Fire Center
- Southern Utah University



Cedar City Regional Airport • Aviation Forecast

Aircraft Operations

An aircraft operation is when an aircraft lands, takes off, or conducts a touch-and-go procedure. They are categorized as either commercial service, general aviation, or military.

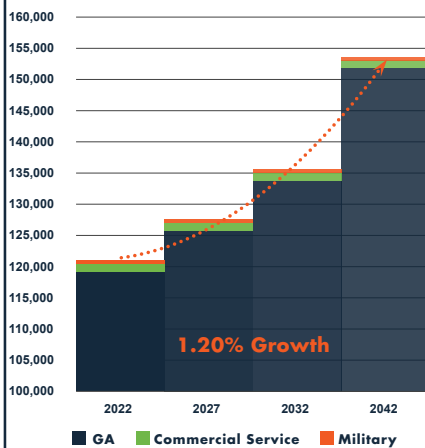
Passenger Enplanements

The forecast of passenger enplanements is particularly important because it will help determine future requirements for facilities that accommodate passengers like the terminal and automobile parking.

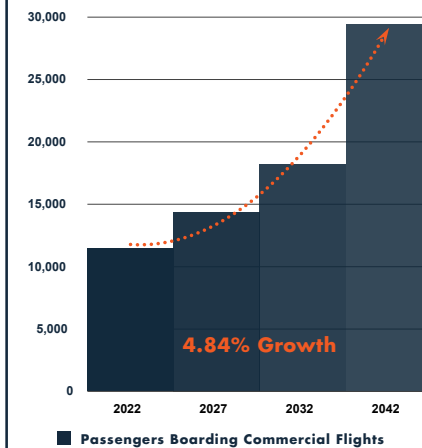
Critical Aircraft

The critical aircraft is often referred to as the design aircraft because it is used to determine many airfield design standards. Different critical aircraft may be identified for different areas of the airport.

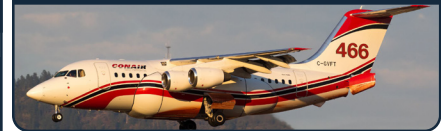
Aircraft Operations Forecast



Passenger Enplanements Forecast



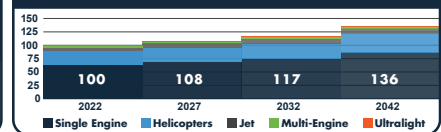
Existing: Avro RJ-85



Future: Embraer E-175



Based Aircraft Forecast



Cedar City Regional Airport • Facility Requirements

Recommendations Summary

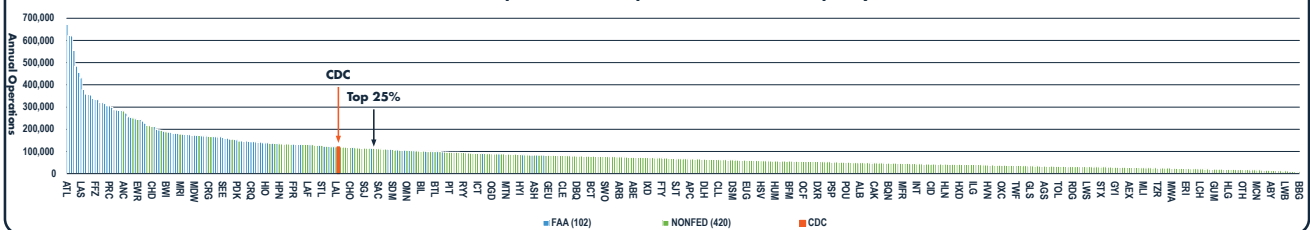
- Need to plan for an ultimate runway length of 10,000 feet for Runway 2/20.
- Runway 8/26 designation needs to be updated to Runway 9/27.
- Land use planning if Runway 8/26 is decommissioned.
- Geometry of taxiway fillets should be updated when reconstructed.
- The rotating beacon should eventually be relocated to provide better visibility.
- Land should be preserved for a future airport traffic control tower.
- Additional parking is needed for general aviation businesses.
- The self-serve fuel facility should be relocated.
- Land should be reserved for additional hangars and at least 17 tie-downs.
- Land should be reserved for a future cargo processing apron.

Airport Traffic Control Tower Justification

- Complex fleet mix that includes a flight school (fixed wing and rotor), GA aircraft (fixed wing and rotor), business and charter jets, military, aerial firefighting, and air carriers.
 - Significant seasonal fluctuations due to fire season, tourism, and flight school schedule.
- A tower will aid with:**
- Increasing efficiency for aircraft operations.
 - Establishes standardization for aircraft movement.
 - Separation of incompatible aircraft fleet mixes.
 - Increasing situational awareness for pilots.
 - Increasing airport operational safety.

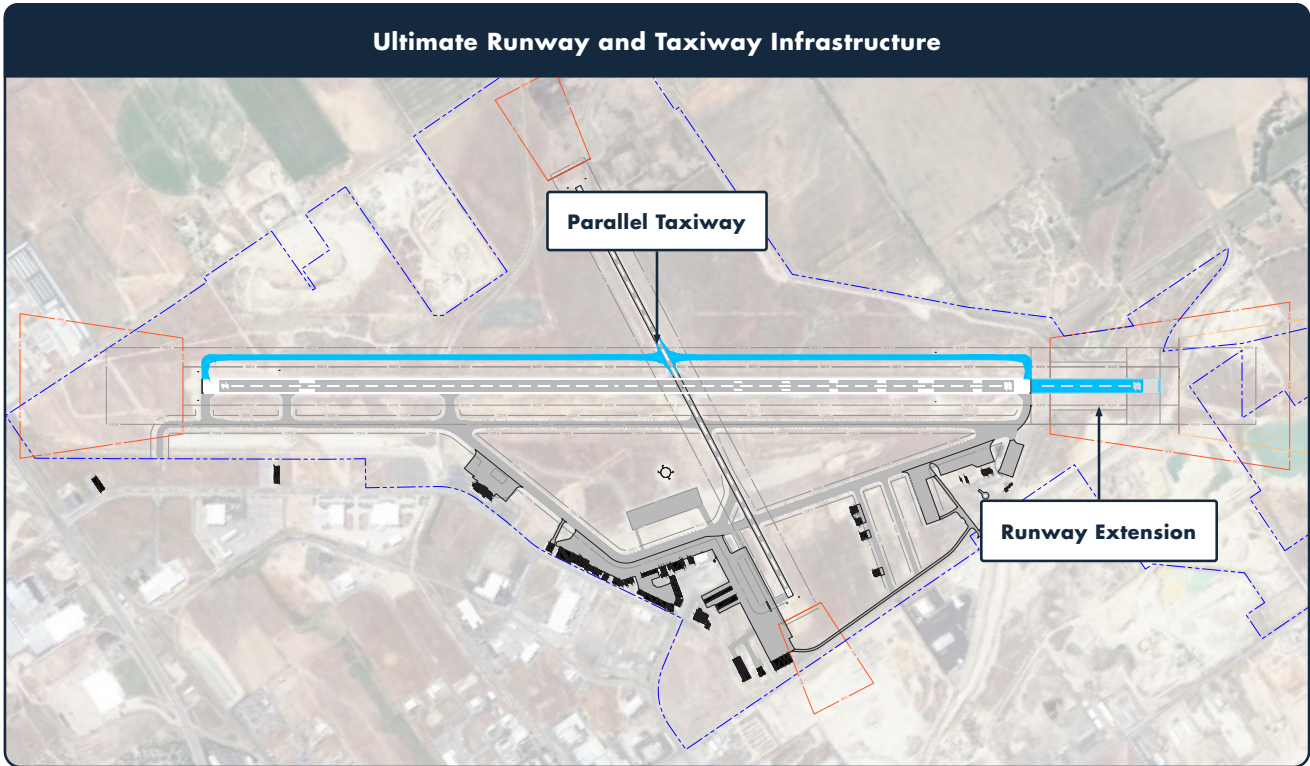
CDC Annual Operations Compared to Airports With a Control Tower

- With 120,996 annual operations in 2023, this puts CDC in the top 25% of airports with a control tower.
- The FAA has not set a minimum number of annual operations an airport needs to meet to qualify for a control tower.

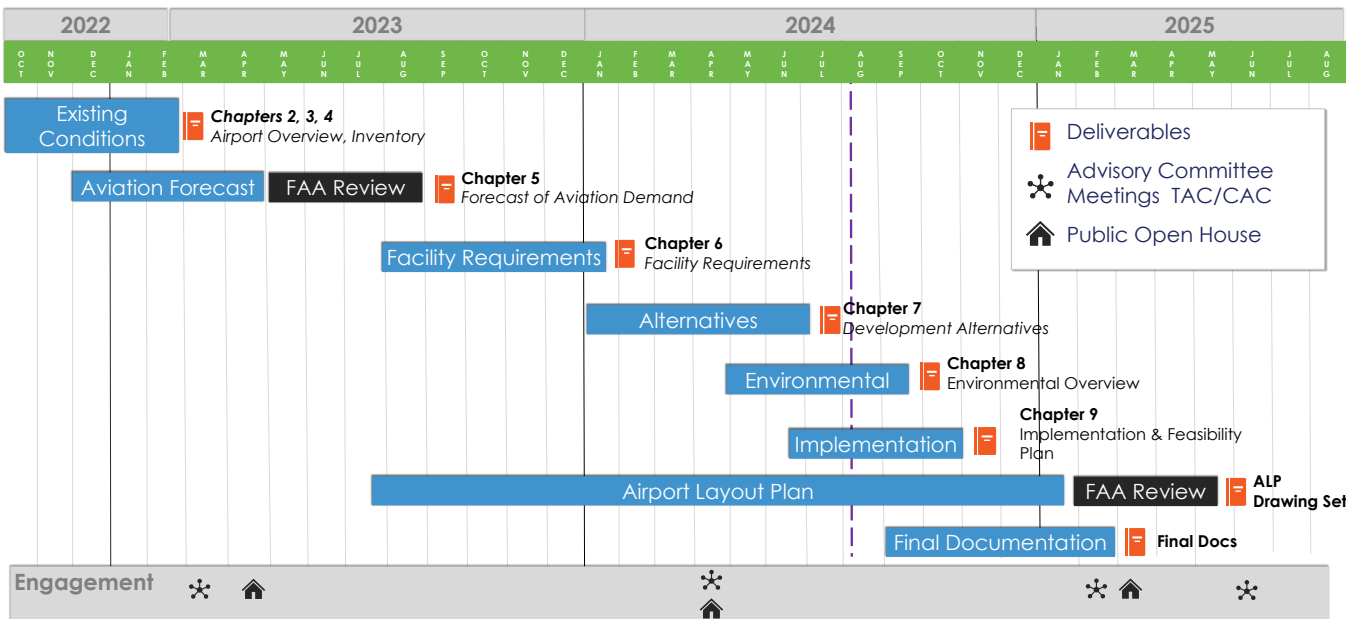




Cedar City Regional Airport • Alternatives Analysis



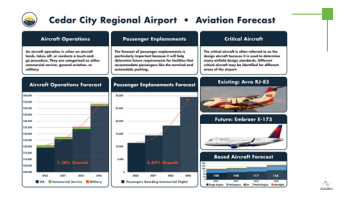
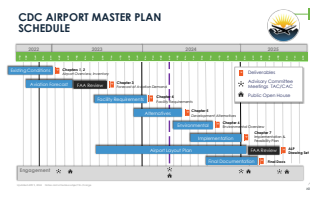
CDC AIRPORT MASTER PLAN SCHEDULE



Updated July 26, 2024 | Dates and schedule subject to change



d. Presentation



EXISTING REPRESENTATIVE CRITICAL AIRCRAFT
(COMPARE WITH DESIGN CHARACTERISTICS)

Aircraft	Year	Operator
Boeing 737 MAX 8	2021	Delta
Boeing 737 MAX 8	2022	Delta
Boeing 737 MAX 8	2023	Delta
Boeing 737 MAX 8	2024	Delta
Boeing 737 MAX 8	2025	Delta

FUTURE CRITICAL AIRCRAFT (APPROVED)

Document	Specifications
Boeing 737 MAX 8	175 Passengers
Boeing 737 MAX 8	175 Passengers
Boeing 737 MAX 8	175 Passengers
Boeing 737 MAX 8	175 Passengers
Boeing 737 MAX 8	175 Passengers

IMPLEMENTED

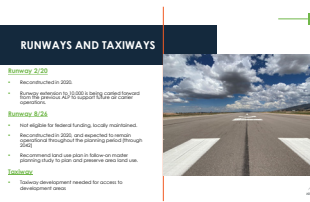
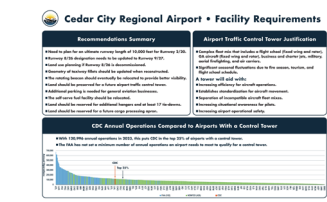
CRJ 900 Specifications	Count/Year
Aircraft Approach Category (AAC)	0
Design Group (DG)	01
Design Group (DG)	02
Design Group (DG)	03
Design Group (DG)	04
Design Group (DG)	05
Design Group (DG)	06
Design Group (DG)	07
Design Group (DG)	08
Design Group (DG)	09
Design Group (DG)	10
Design Group (DG)	11
Design Group (DG)	12
Design Group (DG)	13
Design Group (DG)	14
Design Group (DG)	15
Design Group (DG)	16
Design Group (DG)	17
Design Group (DG)	18
Design Group (DG)	19
Design Group (DG)	20

FACILITY REQUIREMENTS SUMMARY

Existing and future airport design standard: C-III DCS

CDC meets (or exceeds) FAA airport design standards for the existing and future conditions.

Critical Aircraft:
Existing: CRJ 900
Future: CRJ 900 (Approved) replacement D-III DCS



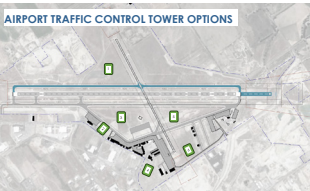
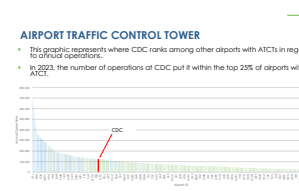
AIRPORT TRAFFIC CONTROL TOWER

Justification

- Complex fleet mix
- Flight School rotor and fixed-wing
- Rotor and fixed-wing GA
- Business and charter jets
- Aerial firefighting
- Military
- Air carrier operations
- Significant seasonal fluctuations
- Fire season
- Tourism
- SUW flight training schedule.

ATCT Airfield Contribution

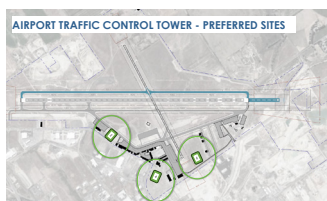
- Increasing efficiency for aircraft operations.
- Establishes standardization for aircraft movement.
- Separation of incompatible aircraft fleet mixes.
- Increasing situational awareness for pilots.
- Increasing airport operational safety.



AIRPORT TRAFFIC CONTROL TOWER

Retiree Evaluation

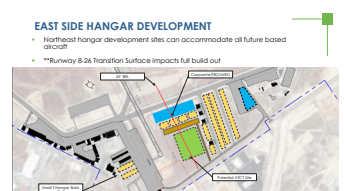
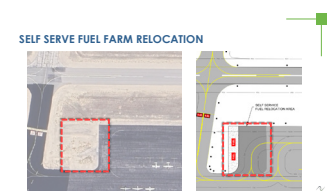
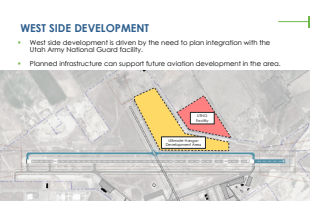
Evaluation Criteria	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Minimum Eye Level	92'	70'	67'	27'	56'	46'
Part 77 Impacts	1	3	2	4	2	4
Access	2	4	1	4	1	2
Infrastructure	1	3	1	3	1	2
Environmental	3	3	3	3	3	3
Cost	1	2	1	3	1	2
Total	9	19	10	21	10	16



AIRPORT TRAFFIC CONTROL TOWER

Secondary Evaluation

Impacts to Development	Site 2	Site 4	Site 5
Controls the Commercial terminal.	1	2	2
May be subject to higher requirements based on existing facilities. impacts ultimate hangar development area.	1	2	2
Impacts prime hangar development area.	1	2	2



CARGO DEVELOPMENT

Development Area	Site 1	Site 2	Site 3	Site 4
Runway Access	4	2	1	3
Public Road Access	2	2	4	4
Impact for Existing Infrastructure	4	4	4	3
Implementation Feasibility	4	1	4	1
Total	14	9	13	11

Questions?

Tyler Galbraith
Airport Manager
313-877-8924
tyler@cedar-city.gov

Pete Hansen
Assistant Planning Manager
313-877-2912
petehansen@cedar-city.gov

Stephanie Krulke
Airport Planner
313-877-2885
skrulke@cedar-city.gov

01.4. Public Meeting #4

a. Meeting Time and Location

Date: March 4, 2025

Time: 5–7 p.m.

Place: Festival Hall, 105 North 100 East

02 Technical and Community Advisory Committee Meetings

02.1 Meeting #1

a. Meeting Time and Location

Date: October 10, 2022

Time: 2–4 p.m.

Place: Festival Hall, 105 North 100 East

b. Meeting Invite

TO: Technical Advisory Committee Member

FROM: T-O Engineers

DATE: September 27, 2022

SUBJECT: CDC Airport Master Plan
Technical Advisory Committee Confirmation



On behalf of Cedar City, and the Cedar City Regional Airport, I would like to thank you for your commitment to serve on the Airport Master Plan Technical Advisory Committee (TAC).

The TAC will assist in preparing the Master Plan by providing technical input and recommendations throughout the planning process. This role is advisory in nature; ultimately, the outcome of the Master Plan will be determined by FAA guidance, Cedar City, the Airport's goals and objectives, and the obligations of the Airport in accordance with FAA grant assurances.

As the Airport Sponsor, Cedar City will retain ultimate decision-making authority, in accordance with FAA requirements.

Committee members will be requested to attend three in-person meetings, and up to two virtual meetings.

The first meeting is scheduled for:

October 10, 2022, 2:00-4:00
FESTIVAL HALL
 105 North 100 East
 Cedar City, UT 84720
 Rooms 5 & 6

Please respond to this invitation so we may plan on your participation. If you have any questions or need additional information, please reach out to the members of the planning team.

Thank you for your interest in Cedar City Regional Airport and the Master Plan. We look forward to working with you as a member of the Technical Advisory Committee.

Sincerely,

Stephanie Krabbe
 Aviation Planner
 T-O Engineers
 208-762-3644
 skrabbe@to-engineers.com

Sam Allen, C.M., ACE
 Aviation Planner
 T-O Engineers
 435-315-3168
 sallen@to-engineers.com

Jeremy McAlister, PE
 Project Engineer
 T-O Engineers
 435-315-3168
 jmcAlister@to-engineers.com

c. Principles of Participation

Principles of Participation

Mission

The Cedar City Regional Airport (CDC) Technical Advisory Committee (TAC) will advise the Airport Master Plan project team as a representative voice of airport stakeholders.

Responsibilities of Committee Members

To accomplish the mission described above, Committee members are being asked to:

- Become familiar with existing planning and policy documents related to the Airport.
- Become familiar with land uses, facilities, and environmental resources in the project area.
- Provide feedback to the project team (Airport staff and Consultant team) at the milestones in the planning process (see Meetings and Discussion Process below).
- Read the agenda and background materials distributed prior to the meetings by the project team.
- Publicize opportunities for members of respective organizations, other organizations, and the general public to participate in the planning process, including public workshops and website engagement activities.
- Listen carefully to others; the Committee will function best when we understand and value one another's views and experiences.
- Help create and maintain a respectful and productive working climate.

Representation

Committee members are chosen by identifying organizations and agencies that represent the various elements that will be considered in the Airport Master Plan. Identified organizations are often asked to choose individuals to represent them on the Committee.

Each Committee member is encouraged to report back to his/her respective organization to inform them about the Committee's discussions and the progress of the Master Plan. Meeting summaries will be prepared to facilitate this effort.

If an invited Committee member declines participation in the Committee, or at any point becomes unable to serve, they are requested to inform the project team, and an attempt to replace the member will be made.

Discussion Process

Committee members agree to abide by the following discussion process during the meetings:

- All participants are welcome to speak freely.
- All comments will be professional, constructive, and conducive to allowing others to participate.
- All perspectives are valued with one person speaking at a time.
- The preferred process for the Committee is collaborative problem solving with cases of mixed opinions being documented and alternative approaches considered.
- Committee members treat each other member viewpoints with respect.

Attendance

For the process to work effectively, full participation of representatives is critical. Committee members are asked to commit to attending Committee meetings as well as public outreach events to directly hear/gather input from the community. Meetings will generally be held during the late afternoon on a weekday but may be scheduled according to the needs of participants and venues.



Support

A member of the Consultant team will facilitate Committee meetings. The role of the facilitator is to ensure all perspectives are heard through a collaborative discussion process. The project team will provide technical and logistical support, including making presentations, answering questions, coordinating meetings, and documenting meeting content.

Meeting Agendas

The project team will be responsible for preparing the agendas, with consideration of input from Committee members. Agendas and assigned reference materials will be distributed by email in advance of each meeting.

Information Sharing

Committee members may want to share information and documents with other Committee members during the planning process. To ensure that all members have the same information available to them, all documents are to be distributed through the established point of contact for the Consultant team:

02.2. Meeting #2

a. Meeting Time and Location

Date: February 16, 2023

Time: 2–4 p.m.

Place: Festival Hall, 105 North 100 East

b. Presentation

Cedar City Regional Airport

Airport Master Plan
Airport Overview, Inventory, and Forecast
February 16, 2023

Welcome!

Stephanie Krabbe, Ardurra
Sam Allen, Ardurra
Jeremy Maklister, Ardurra

Agenda

- Airport Overview
- Airport Inventory
- Aviation Demand Forecast
- Critical Aircraft
- Next Steps

Socioeconomic Overview

Data from Iron County was evaluated to understand the nature of the community and market the airport serves, as well as provide indicators for the future of aviation activity at the airport. Specific indicators analyzed for future activity are Population, Employment, and Per Capita Income (PCI).

Airport Overview

Figure 3.12 Economic Impact of Cedar City Regional Airport

Employment	Payroll	Value-Added	Total Annual Impact
990 Jobs	\$40.7M	\$71.9M	\$112.7M

Airport Overview

- Cedar City Regional Airport
 - Regional airports serve metropolitan areas with relatively large populations. These airports support limited commercial service operations, with high levels of jet and multiengine aircraft.
- Airport Role
 - National Plan of Integrated Airport System (NPIAS)
 - Primary, Nonhub, Commercial Service

Airport Inventory

- Baseline of current facility conditions at the airport
- Review areas for inventory
 - Natural/physical environment
 - Airport land use
 - Based aircraft
 - Airport layout and facilities
 - Pavement conditions
 - Navigational aids
 - Lighting
 - Support facilities
 - Commercial terminal, ramp, and parking areas
 - Car rental facilities
 - Cargo facilities
 - Fixed-Base Operator(s)
 - Non-aeronautical use
 - Utilities

Airport Inventory – Runways

- RWY 2/20
 - 8,633' x 150'
 - HIS – High Intensity Runway Lighting
- RWY 2
 - RES – Runway End Identifier Lights
 - RWY – Precision Approach Path Indicator
- RWY 2D
 - MALS – Medium Intensity Approach Lighting System with Runway Alignment Indicator Light
 - FAH

Airport Inventory – Runways

- RWY 8/26
 - 4,822' x 60'
 - MALS – Medium Intensity Runway Lighting
- RWY 8
- RWY 1

Airport Inventory – Instrument Approaches

Category	Category A	Category B	Category C	Category D
Runway 20 (RWY 20)	1,000' x 150'	1,000' x 150'	1,000' x 150'	1,000' x 150'
Runway 20 (RWY 20) ILS	1,000' x 150'	1,000' x 150'	1,000' x 150'	1,000' x 150'
Runway 20 (RWY 20) CAT II	1,000' x 150'	1,000' x 150'	1,000' x 150'	1,000' x 150'
Runway 20 (RWY 20) CAT III	1,000' x 150'	1,000' x 150'	1,000' x 150'	1,000' x 150'

Airport Inventory – Taxiways

- TWY A
 - Full-length parallel taxiway for RWY 2/20
 - Associated connecting taxiways
 - TWY A1-A4
- TWY B
 - Runs along North GA Ramp
 - Associated connecting taxiway
 - TWY B1
- TWY C
 - Runs between commercial terminal and North end of TWY A
 - Associated connecting taxiway
 - TWY C1

Airport Inventory – Airfield

- Standard airfield signage/lighting
- Segmented circle and wind indicator
- Automated Surface Observation System (ASOS) station
- Rotating beacon
- Security fencing
- Wildlife fencing for prairie dogs
- Paved vehicle security gates

Airport Inventory – Notable Facilities

- Commercial terminal
 - Approx. 15,000 sqft
 - Includes baggage claim, rental car desks, ticketing/bag check, security checkpoint
- Terminal parking lot
 - Space for approx. 204 vehicles, including rental cars
- Fixed-Base Operator (FBO)
 - gateOne (dba Sphere One) is sole facility
- Cargo Facility
 - Fixed hangar that is used by FedEx and Alpage Air
- ARFF Station – Cedar City Station #3

Forecast of Aviation Demand

Purpose: To understand and anticipate activity expected during the 20-year planning period (2022-2042). The forecast enables the sponsor and community to plan for future demand to assist with phasing, funding, and ensuring the airport continues to safely operate in compliance with FAA standards.

Forecast Elements:

- Commercial Service
 - Enplanements
 - Operations
- General Aviation
 - Non-scheduled
 - Air Taxi
 - General Aviation
 - Military
 - Local
 - General Aviation
 - SOA
 - Fleet Mix
 - Basic Aircraft
 - Critical Aircraft

FAA Classification System

The FAA uses categories and codes to define design elements. The two primary groupings are:

- Aircraft Approach Category (AAC), Designated by a letter (A through E) and is a function of approach speed.
- Airplane Design Group (ADG), Designated by a Roman numeral (I through VII) and is a function of tail height of wingspan (whichever is greater).

Aircraft Approach Category (AAC)		Airplane Design Group (ADG)	
Category	Speed	Group	Tail Height (Feet) / Wingspan (Feet)
A	less than 91 knots	I	<20 / <49
B	91 knots or more, less than 121 knots	II	20 - 30 / 49 - 79
C	121 knots or more, less than 141 knots	III	30 - 45 / 79 - 118
D	141 knots or more, less than 166 knots	IV	45 - 60 / 118 - 171
E	166 knots or more	V	60 - 66 / 171 - 214
		VI	66 - 80 / 214 - 252

Airplane Design Group (ADG) - WINGSPAN

ADG	Group	Tail Height (Feet)	Wingspan (Feet)
I	I	<20	<49
II	II	20 - 30	49 - 79
III	III	30 - 45	79 - 118
IV	IV	45 - 60	118 - 171
V	V	60 - 66	171 - 214
VI	VI	66 - 80	214 - 252

Data Sources

- FAA Aerospace Forecast 2022-2042
- FAA Terminal Area Forecast (TAF) 2021-2045
- 2020 Utah Aviation Development Strategy
- FAA Traffic Flow Management System Count (TFMASC) Department of Transportation (DOT) T-100 Database
- Waypoint – Airport Operations Tracking System
- Notion activated cameras
- Airport Staff

Forecast Methodologies (Reference)

- Regression Analysis - Regression analysis is a statistical technique used to identify trends in data by measuring the relationship between independent (e.g., aviation demand) and independent variables (e.g., population or income). This method is effective when using relatively simple sets of data, a strong statistical correlation exists, and reliable forecast data is available for the independent variables.
- Trend Analysis - Trend analysis uses historical patterns to project future activity. This approach is useful when conditions are unusual enough to differentiate the study airport from other airports in the region.
- Market Share Analysis - This technique assumes a clear share relationship between national, regional, and local forecasts. It involves conducting a historical review of the airport activity and identifying its market share. This method is most effective when the airport's share of the market is constant over time. This trend is then used to project the future market share based on forecasts developed for the larger geographical area. This type of forecast is useful when the activity has a constant share of a larger market.
- Smoothing - Smoothing is a statistical technique used to make predictions based on analyzing recent trends and conditions to historical data. It is most effective for generating short-term forecasts.

Industry Trends Affecting Commercial Service

CDC is an Essential Air Service (EAS) Airport and is contractually obligated to receive a certain number of air carrier flights.

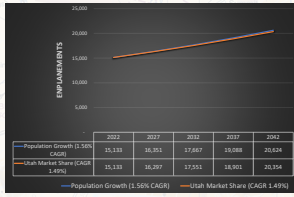
- Fewer regional carriers to serve small communities
- Shifting airline economics and effects on capacity
- Airline fleet simplification and modernization
- National pilot shortage
- Lingering effects from Covid-19 pandemic

Historic Air Carrier Activity

Source: ATIS 7:00 October

Enplanement Forecast

Forecast Method: Trend - Forecast Population Growth (1.56% CAGR)
Utah Market Share of enplanements (1.49% CAGR)



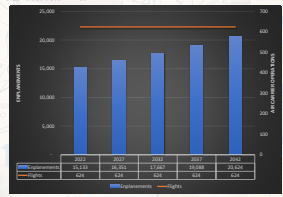
Load Factor Forecast

Typically, operations are demand driven depending on aircraft capacity and load factor.
*This forecast assumes that the CRJ200 will be phased out and replaced by a 70-seat aircraft in the long term forecast (2032-2042)

Year	Enplanements	Flights	Seats Available	Load Factor
2022	15,133	624	50	47%
2027	16,351	624	50	52%
2032	17,667	624	70	40%
2042	20,624	624	70	47%

Air Carrier Operations Forecast

Typically, operations are demand driven; however, CDC air carrier operations are EAS contract determined.



Alternate Air Carrier Forecast

Based on 2010 Leverage and Resilience Study, there is demand for additional markets, which means there is potential for low-cost carrier flights in the future. Assumptions for the alternate air carrier forecast include:
 • Short Term (2022-2027) - SkyWest will continue to offer 12 weekly flights on the CRJ200.
 • Mid Term (2027-2032) - The addition of a new gate begins seasonal service including 3 flights weekly for the CRJ200.
 • Long Term (2032-2042) - SkyWest continues to offer 12 weekly flights, with a transition to the 70-seat Embraer E175, and an additional commitment of carrier begins year-round service with 12 weekly flights.

Year	Air Carrier Operations	
	Master Plan Forecast	Alternate Forecast
2022	1,248	1,248
2027	1,248	1,392
2032	1,248	1,392
2042	1,248	2,640

CAGR	Master Plan Forecast	Alternate Forecast
2022-2042	0.00%	28.0%

General Aviation Forecast

Forecasting Elements and Methods

- General Aviation Operations: Regression Analysis
 - Air Taxi
 - Business General Aviation
 - Local General Aviation
- SUU Operations - FAA Aerospace Forecast
 - Fixed Wing: 0.40% CAGR
 - Rotary Wing: 1.30% CAGR
 - Overall: 0.5% CAGR
- Based Aircraft - Population Growth (1.56% CAGR)

Baseline Data

Virtower operations were validated through motion-activated cameras and the FAA FTMSC database.

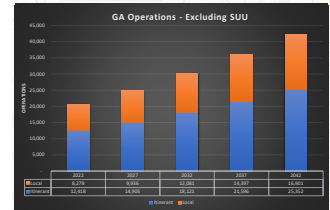
GA Baseline Operations		
	Percentage	2022 Operations
Itinerant GA	10%	12,418
Local GA	7%	8,279
SUU	82%	98,499
Total	99%	119,195

Regression Analysis

- Two parts to a regression analysis
1. Determine if there is a statistical relationship between two data sets, known as R² and to evaluate the strength of that relationship, known as P factor.
 2. Once an acceptable relationship has been established, the forecast uses elements from the regression analysis to forecast values.

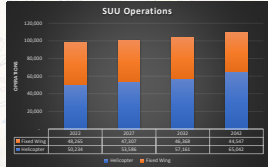
Regression Analysis	
	Acceptable Range
R ²	>70%
P Factor	<0.05
	CDC
	93%
	0.0003

Forecast Results



SUU Operations

Helicopter Operations account for 51% of operations
Fixed Wing Operations account for 49% of operations.



Military Operations

Unless there is specific knowledge of an upcoming change, military operations are typically forecast at current TAF levels because the Department of Defense provides limited details regarding future activity levels.

There are no local military operations forecasted at this time. Although we know there are negotiations in progress, operational activity is unknown at this time.

Military Operations Forecast	
Year	Itinerant
2022 (Baseline)	550
2027	550
2032	550
2037	550
2042	550

Forecast Summary

Year	Regional Operations					Local Operations			Total Op	Based Aircraft
	Enplanements	Arrival	Air Taxi	GA	Military	GA	SUU	Military		
2022	15,133	1,248	1,141	12,256	370	14,216	6,276	8,439	104,776	102,991
2027	16,351	1,248	1,141	13,460	350	15,150	1,980	8,000	110,227	105,461
2032	17,667	1,248	1,141	14,796	350	15,934	1,081	8,029	117,481	110,960
2042	20,624	1,248	1,141	17,235	350	17,324	11,911	8,038	126,489	119,270

TAF Comparison

Year	Enplanements			Commercial Operations		
	TAF	Master Plan	Difference	TAF	Master Plan	Difference
2022	10,600	15,133	43%	1,304	2,430	86%
2027	10,600	16,351	54%	1,304	2,667	105%
2032	10,600	17,667	67%	1,304	2,973	128%
2042	10,600	20,624	93%	1,304	3,661	181%

Year	GA Operations			Based Aircraft		
	TAF	Master Plan	Difference	TAF	Master Plan	Difference
2022	119,361	118,013	-1%	102	100	0%
2027	123,429	124,315	1%	104	110	6%
2032	128,046	132,005	3%	104	119	15%
2042	137,418	149,428	9%	104	137	34%

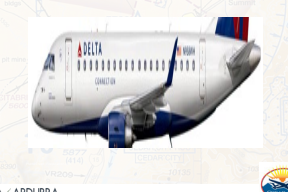
Critical Aircraft

- Criteria
 - Most demanding aircraft/aircraft group with regular use (minimum of 500 annual operations) at the airport
 - Excludes touch and go operations
- Also called "design aircraft" as it is used to determine correct design standards for runways/taxiways.

Critical Aircraft - Existing Avro RJ 85



Critical Aircraft - Future Embraer E175



Next Steps

- Submit forecast to FAA for approval
 - Facility Requirements start based upon approved forecast/critical aircraft
 - Development Alternatives to be drafted to fulfill Facility Requirements and Sponsor/Community vision for the airport
 - Public Meeting #3 - Completion of Facility Requirements and Presentation of Development Alternatives
 - Date TBD - estimated May/June 2023
- Project Website - <https://cdcmasterplan.com>



Thank you!

Please fill out a comment sheet
You may also email comments to any member of the planning team

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CEDAR CITY REGIONAL AIRPORT
ARDURRA

02.3. Meeting #3

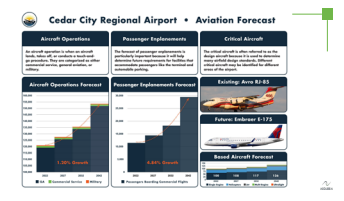
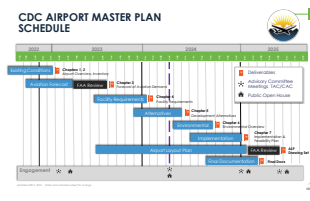
a. Meeting Time and Location

Date: April 10, 2024

Time: 2–4 p.m.

Place: Festival Hall, 105 North 100 East

b. Presentation



EXISTING REPRESENTATIVE CRITICAL AIRCRAFT
(COMPARE WITH DESIGN CHARACTERISTICS)

Aircraft	Year	Manufacturer
Boeing 737 MAX 8	2021	Boeing
Boeing 737 MAX 8	2022	Boeing
Boeing 737 MAX 8	2023	Boeing
Boeing 737 MAX 8	2024	Boeing
Boeing 737 MAX 8	2025	Boeing

FUTURE CRITICAL AIRCRAFT (APPROVED)

Document	Specifications
Boeing 737 MAX 8	180 Seats
Boeing 737 MAX 8	180 Seats
Boeing 737 MAX 8	180 Seats
Boeing 737 MAX 8	180 Seats
Boeing 737 MAX 8	180 Seats

IMPLEMENTED

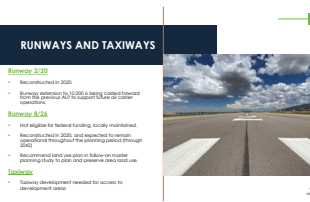
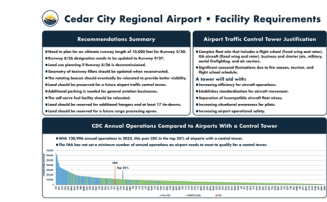
CRJ 900 Specifications	Count/Year
Aircraft Approval Category (AAC)	0
Approved Design Organization (ADO)	0
Approved Design Group (ADG)	0
Approved Design Group (ADG)	0
Wingspan	81.3'
Length	138.8'
Tail Height	24.1'
Outer Main Cabin Gate (OMCG)	54.6'
Outer Main Cabin Gate Width (OMGW)	30.100'
Maximum Ramp Weight	30,100 lbs

FACILITY REQUIREMENTS SUMMARY

Existing and future airport design standard: C-III DCS

CDC meets (or exceeds) FAA airport design standards for the existing and future conditions.

Critical Aircraft:
Existing: C-III DCS
Future: C-III DCS (Approved) (revised) D-III DCS



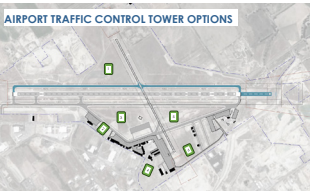
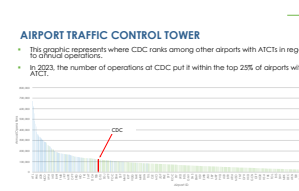
AIRPORT TRAFFIC CONTROL TOWER

Justification

- Complex fleet mix
- Flight School rotor and fixed-wing
- Rotor and fixed-wing GA
- Business and charter jets
- Aerial firefighting
- Military
- Air carrier operations
- Significant seasonal fluctuations
- Fire season
- Tourism
- SUW flight training schedule.

ATCT Airfield Contribution

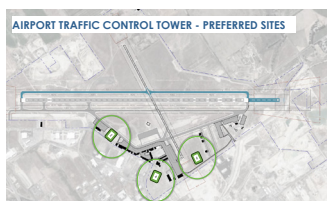
- Increasing efficiency for aircraft operations.
- Establishes standardization for aircraft movement.
- Separation of incompatible aircraft fleet mixes.
- Increasing situational awareness for pilots.
- Increasing airport operational safety.



AIRPORT TRAFFIC CONTROL TOWER

Retiree Evaluation

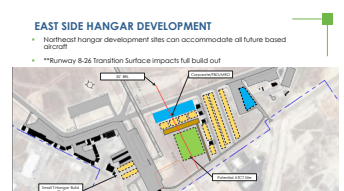
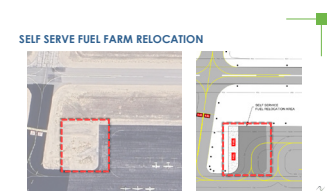
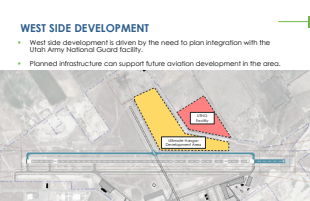
Evaluation Criteria	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Minimum Eye Level	92'	70'	67'	27'	56'	46'
Part 77 Impacts	1	3	2	4	2	4
Access	2	4	1	4	1	2
Infrastructure	1	3	1	3	1	2
Environmental	3	3	3	3	3	3
Cost	1	2	1	3	1	2
Total	9	19	10	21	10	16



AIRPORT TRAFFIC CONTROL TOWER

Secondary Evaluation

Impacts to Development	Site 2	Site 4	Site 5
Controls the Commercial terminal.	1	2	2
May be subject to higher requirements based on existing facilities. Impacts ultimate hangar development area.	1	2	2
Impacts prime hangar development area.	1	2	2



CARGO DEVELOPMENT

Development Area	Site 1	Site 2	Site 3	Site 4
Runway Access	4	2	1	3
Public Road Access	2	2	4	4
Impact for Existing Infrastructure	4	4	4	3
Implementation Feasibility	4	1	4	1
Total	14	9	13	11

Questions?

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Stephanie Krulke
Airport Planner
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skrulke@cedar-city.gov

02.4. Meeting #4

a. Meeting Time and Location

Date: March 4, 2025

Time: 2–4 p.m.

Place: Festival Hall, 105 North 100 East

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