

AIRPORT VISION PLAN

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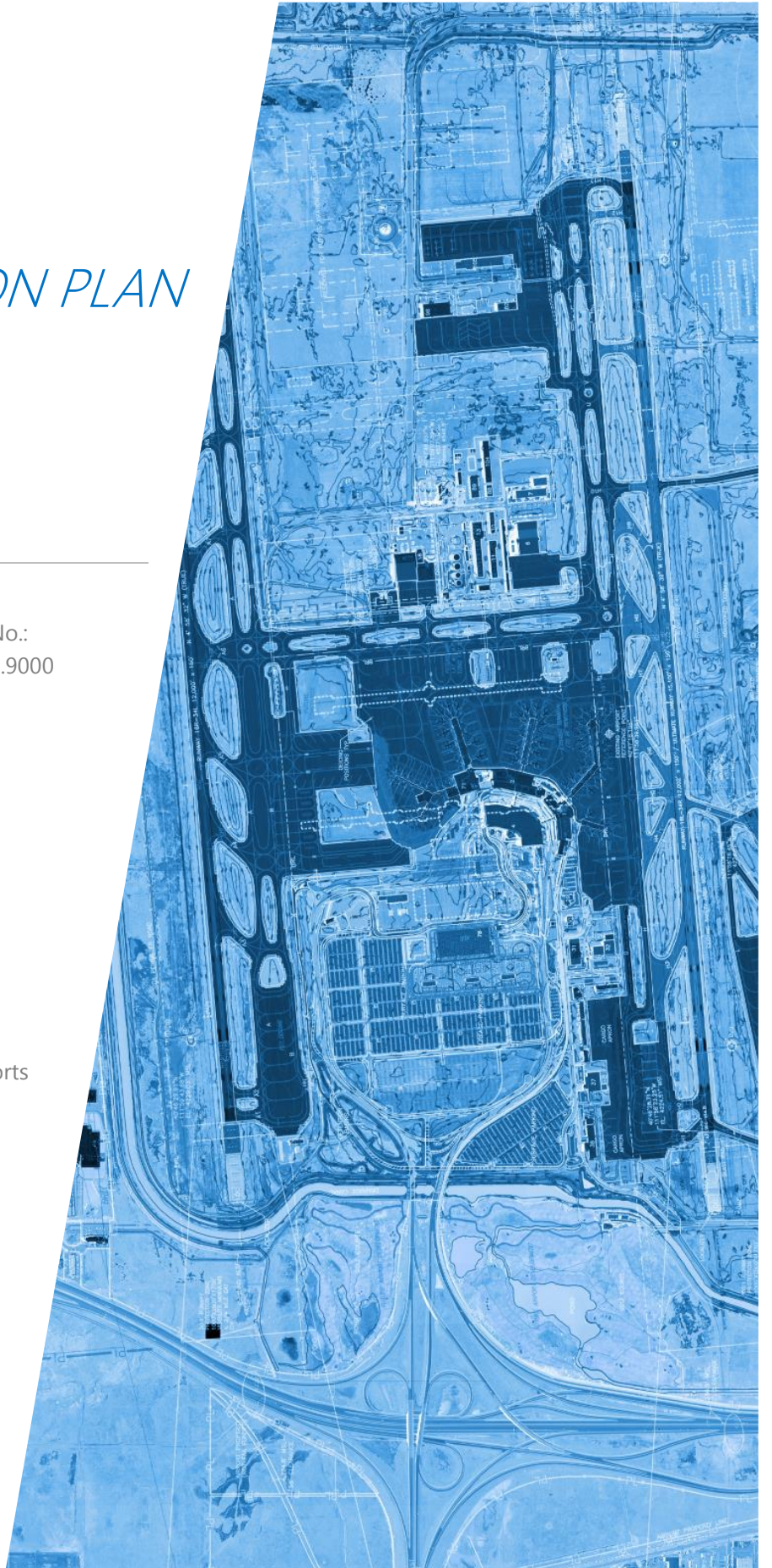


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AIRPORT VISION PLAN

1.1 VISION PLAN

Since the last update to the Salt Lake City International Airport (SLCIA) master plan was completed in 2003, tremendous changes to the airport have taken place. The largest of which is the Airport Redevelopment Plan (ARP), which at the time of this writing, is being constructed. That program includes a new terminal being built to the vision that was set in the previous master plan

This update to the SLCIA Master Plan sets the next vision for the Airport, with a focus on near term, long term, and ultimate development potential. The next vision for the Airport represents a composite view of how the airport should “look” and operate in the future, considering both facilities and services. The vision includes ideas of new facilities that might be needed to support anticipated growth or enhance services, as well as necessary improvements that must be undertaken to correct operational deficiencies.

Developing the vision was a collaborative process, with input from both internal and external stakeholders. Input was obtained during a series of visioning charrettes that considered both essential and desired enhancements to services and facilities to meet future needs, improve customer service, increase capacity where needed, add new facilities, add new services and maintain existing infrastructure. The input garnered during the charrettes was synthesized to aid in the development of a cohesive vision for the Airport.

During the series of visioning charrettes, stakeholders provided various observations and opinions about existing airport conditions and shared their ideas regarding possible airport facilities and services that could improve customer levels of service. Stakeholder observations and opinions about the effectiveness of existing SLCIA operations, and their ideas about future needs are critical influencers regarding the Airport’s growth and how facilities to accommodate that growth should be developed.

Stakeholder input received during those charrettes was documented and will be evaluated during a situational analysis to be performed in subsequent sections of the master plan process. The situational analysis will explore various factors contributing to the operational conditions identified by stakeholders in order to better understand their causes and effects. The situational analysis will then be used to influence the recommendations and outcomes of the SLC Master Plan Update and the General Aviation Strategy Plan. Additionally, the analysis will help drive the data and information collection processes related to the Existing Conditions Inventory.

The stakeholder input obtained during the visioning charrettes was used to craft a set of goals and objectives for the master plan study. These goals and objectives are established as the framework by which the study will focus attention on specific issues to guide the analysis in a way that generates solutions. The goals and objectives, along with the results from the visioning will also aid in guiding the development and evaluation of master plan alternatives. In the end, the master plan study will evaluate each goal and objective and make informed recommendations about future facilities that address and resolve the issues.

The following sections provide an overview of the visioning charrettes and present the input received from stakeholders during those meetings and charrette exercises. Goals and objectives are then defined, which will be used to guide the parameters of the study.

1.1.1 Visioning Charrettes Overview

A series of four visioning charrettes were conducted with various airport stakeholders. Two charrettes were focused on visioning specifically for SLCIA, while the other two were focused on visioning for the future of general aviation within the entire Salt Lake City Department of Airports (SLCDA) system. The stakeholder groups who participated in each charrette are described below:

Focus: Salt Lake City International Airport

- » SLCDA Staff – This group included Airport staff and leadership representing all airport divisions including, planning, engineering, maintenance, environmental, finance, public relations, and operations.
- » SLCDA Stakeholders – This group included representatives from organizations who use and/or operate at the airport on a regular basis including airline pilots, airline ground support management, tenants, and FAA air traffic control tower controllers. SLCDA staff participated as well.

Focus: SLCDA General Aviation System

- » General Aviation Policy Group – This group included community and business representatives with a stake in the two SLCDA general aviation airports (TVY and U42), and in the general aviation side of SLCIA. These stakeholders included elected and appointed representatives of local governing municipalities including city mayors, county commissioners, local business owners, as well as SLCDA staff.
- » General Aviation Stakeholders - This group included stakeholders who use the two general aviation SLCDA airports (TVY and U42), and the general aviation facilities on the east side of SLCIA. The group included pilot organizations, tenants who base aircraft at the airports, flight school representatives, on-airport business owners, and FBO management. Also, SLCDA staff was included.

Each charrette was conducted as an open forum using boards with focus points to guide discussion. During the discussion of each focus point, participants provided comments which were added to the boards using post-it notes. **Figure 1-1** illustrates the configuration of the charrettes.

FIGURE 1-1
VISIONING CHARRETTE



Each board had three columns: "Topics," "Challenge," and "Vision," which were used to further guide the process and the comments provided, as shown in **Figure 1-2**.

The two SLCIA charrettes each had eight boards with specific focus point topics for visioning. These included, airfield, airspace, landside, support areas, general aviation, community, environmental, and financial. The terminal area was not considered a major area of focus since the Airport is actively engaged in the process of constructing a new terminal complex to meet future requirements. Thus, the terminal was not included as a focus point with a dedicated board. However, some terminal related topics were discussed and recorded as they related to the other focus topics.

The two SLCDA General Aviation charrettes had one board for each of the SLCDA airports; Salt Lake City International Airport (SLC), South Valley Regional Airport (U42), and Tooele Valley Airport (TVY).

FIGURE 1-2
VISIONING CHARRETTE FOCUS POINT BOARDS



1.1.2 Salt Lake City International Airport - Visioning Charrettes Summary

Overall, the observations, concerns and opinions of the SLCD staff and the SLCIA user group participants in the visioning charrettes were very much aligned. Many of the same challenges and visions were expressed during each respective charrette. While the two group's visions were mostly aligned, there were slight differences related to each group's perspective based on their specific occupation and role at the airport. Note that many of the challenges and visions expressed during the charrettes were highly specific to a particular user need. These specifics are recorded in the documentation included in **Appendix A**, which includes transcription of what was added to each board during both of the SLCIA visioning charrettes.

For the purpose of crafting an overall vision for the Airport, the specific elements captured and documented during the process were combined and are provided on the following pages in a table format. These combined topics, challenges, and visions detailed in the tables will be referred to extensively during the facility requirements and alternatives evaluations of this master plan study.

SLCIA Charrette - Airside		
Topics	Challenge	Vision
Remain-Overnight Parking	Not enough RON parking to meet current and expected demand.	Provide additional flexible RON parking areas for existing and future demand.
New Runway	As operations increase, capacity beyond what is offered with the current runway complex may be needed. A new west runway can provide additional capacity. The new runway would have extensive wetland impacts. TERPS requirements will be impacted by the Oquirrh Mountains.	Maximize existing airfield through future improvements and enhancements. Determine optimal location for future west runway and examine TERPS and other constraints.
Runway 17/35	This runway is not aligned with RWY 16L/34R and 16R/34L, creating airspace issues on approach and decreasing capacity of the airfield. Existing length prevents use of runway by larger aircraft. Lack of exit taxiways increases occupancy times. RWY 17 only has a CAT I-II capability, and RWY 35 has a LDA approach.	Align RWY 17/35 with 16/34 and lengthen RWY to accommodate more aircraft types. Shift runway closer to other runways if possible to open additional land for development, and provide high-speed turnoffs. Upgrade RWY to CAT-III standards.
Crossfield Taxiways	Taxiways E and F are the only crossfield taxiways, which limits circulation and can affect capacity.	Create additional crossfield taxiways on the north and south to increase runway capacity and enhance circulation. Provide dual-flow crossfield taxiways for every terminal concourse.
Parallel Taxiways	Greater capacity and efficiency is desired. Greater circulation is desired along TWY K. Access to infield east of RWY 16L/34R requires parallel taxiway.	Construct parallel taxiways on east side of RWY 16L/34R, and west side of RWY 17/35. Provide a parallel taxilane (for bi-directional flow) adjacent to TWY K.
End Around Taxiways	Aircraft using RWY 17/35 have to cross RWY 16R/34L to access terminal, cargo area, and support facilities, which limits the capacity of the airfield. End around taxiway would likely require canal relocation.	Construct end around taxiway on the south end of RWY 16L/34R to improve capacity of airfield. Plan for end around taxiways as an option on RWY 16R/34L to allow for future cross field access to a new west runway.
De-Icing	Aircraft already deiced have no room to queue for departure, which limits efficiency of the deice pad. There are limited deicing locations on the east side of airfield. Existing deice pads have constrained circulation for deice trucks.	Expand and reconfigure the deicing facilities. Add new facilities on east side of airfield. Have deicing pads at each runway end.

SLCIA Charrette - Airside Continued (2)		
Topics	Challenge	Vision
ASR-9	This facility is in the best location now, but may have better land uses for long-term development.	Relocate ASR-9 to a north location to allow for highest and best land use of current site.
Power Lines	Existing powerlines create issues and affect OEI requirements, restricting the type of aircraft that can use some of the runways at SLCIA.	Relocate or bury the powerlines to the north of the airfield.
Aircraft Wingspan	The wingspan of aircraft are increasing and Delta is moving to larger aircraft than they currently fly.	Design airfield for ADG V, and verify that exiting runways and taxiways can accommodate new larger aircraft.
Boeing Expansion	Boeing Company could occupy a larger amount of land in the north east portion of the airport.	Prepare for Boeing Company to expand its operation, but prepare alternatives in case that development does not occur. Airport to take role of facilitator, not regulator.
RWY 14/32	RWY 14/32 layout creates two hot spot locations on the airfield, one on the north and one on the south.	Enhance safety and efficiency of the airfield, potentially by shortening, relocating, realigning, or repurposing RWY 14/32. Users of the runway desire the functionality of the RWY be maintained.
Terminal	The new terminal may reach capacity within the planning horizon. An additional satellite concourse will impact existing north support facilities. Pushback ramp areas north of the new north concourse are shared with the taxilane and obstructs aircraft movements when an aircraft pushes back.	Relocate all north support facilities and prepare for new concourse development. Provide space for apron and taxiway to allow unimpeded pushback operations.
Changing technology in air traffic control	In the future, technology may change the operation of ATCT facilities.	Plan for potential of offsite ATCT facilities.

TABLE 1-3
SLCIA CHARRETTE – AIRSIDE CONTINUED (3)

SLCIA Charrette - Airside Continued (3)		
Topics	Challenge	Vision
Engine Run-Up Areas	No designated run-ups areas on the airfield. SLC receives new aircraft that have several hour engine run-ups. The lack of a designated area can cause congestion and additional noise concerns.	Create a dedicated area for large aircraft engine run-ups.
Service Roads	Airfield service roads do not all provide direct and/or quick access to some locations, such as de-icing pads. Some require traffic to cross movement areas. An example is the access to/from the east deicing pad.	A service road network that provides quick access for all types of GSE operators, and minimizes operations in the movement area.
General Aviation & Businesses Development	Additional area for general aviation and businesses growth is desired.	Plan for growth of corporate GA and business facilities, and align runways, taxiways, and roadways to maximize this development. Examine potential of moving RWY 17-35 inboard to provide room for additional east side development.

TABLE 1-4
SLCIA CHARRETTE - FINANCIAL

SLCIA Charrette - Financial		
Topics	Challenge	Vision
Rates and Charges	SLC has low rates and charges relative to industry standards, which attracts airline services. Maintaining competitive rates and charges is critical to future business success.	Keep rates and charges at industry lows.
Parking	SLC receives a large portion of revenue for passenger vehicle parking fees. New technologies and TNC operators have been threatening this business model for airports around the world.	Maintain and expand the current revenue stream from parking and ground transportation. Develop new strategies to compensate for changes brought by future technologies.

SLCIA Charrette - Airspace		
Topics	Challenge	Vision
East Downwind	An east downwind would increase capacity at SLCIA. Due to potential noise issues over the eastern portions of SLC, the east downwind has never been implemented. However, new technologies may allow an east downwind that does not create noise issues for residents.	Explore opportunities to improve capacity using new approaches and technologies that are also compatible with the community.
Drones	Drone technology is rapidly advancing, opening opportunities for new businesses and airport staff uses. However, drones create airport and airspace challenges.	Plan for areas that can accommodate new drone operations. Ensure any future use of SLC by drones is FAA approved, safe, and compatible.
Vertical Flight	Improvements are needed for life flight helicopter approaches and potential future aircraft with vertical flight capabilities.	Revise helicopter approaches, examine heliport infrastructure for future technologies and include electrical charge infrastructure for potential of electric vertical flight aircraft.
General Aviation	Interaction of commercial and slower general aviation aircraft create airspace congestion issues.	Create more efficient use of airspace and airport system within the Salt Lake City region.
Outdated Overlay Zoning Ordinance	The existing overlay zoning ordinance is outdated and may overprotect and/or under protect airspace corridors in some instances.	Update the overlay zoning ordinance to ensure adequate airport protections.
Electrical Transmission Lines	Existing transmission lines create issues and affect OEI requirements, restricting the type of aircraft that can utilize some of the runways at SLCIA.	Relocate or bury existing transmission lines to alleviate airspace concerns.
NAVAIDS	RWY 17 has only a CAT I-II capability, and RWY 35 has a LDA approach. No runway status indicator lights on any runway.	CAT III capability for 17/35 with no LDA. Install runway status indicator lights on all three north/south runways.
Aircraft Airspeed	Mixing aircraft types with wide ranging airspeeds decreases efficiency of SLCIA operations.	Establish a minimum airspeed for use of SLCIA and match industry best practices for airspace usage surrounding hub airports.
Air Traffic Control	Approaches to SLC could be improved if hand off between enroute and TRACON controllers was revised. Tradition and territory creates challenges in creating changes.	Expanded approach control airspace for greater efficiency in air traffic movements surrounding SLCIA.
VFR Corridors	VFR corridors currently run east/west over commercial flight paths. VFR aircraft have potential of interference with commercial flight paths.	Change and optimize VFR routes within the vicinity of SLCIA.

SLCIA Charrette - Landside		
Topics	Challenge	Vision
New Terminal Capacity	Landside functions are expected to require near-term expansion (FIS, baggage claim, etc)	Plan for future expansion both near-term and long-term.
NW Quadrant Access	Development of Northwest Quadrant of airfield will necessitate roadway access.	Develop a roadway system that provides access from both east and west of the Airport to the Northwest Quadrant area.
Interstate 80	The interchange of Interstate 80 and Interstate 215 faces heavy congestion during peak times. Additionally, the interstate location limits future airfield expansion.	Revise roadway alignments to reduce congestion, provide better access to land owned by the Airport, and allow future runway/taxiway expansion.
Public Transportation	The Utah Transit Authority (UTA) would like to expand light rail service to SLCIA, but shifts may impact the airspace and the RPZ.	Extend the existing UTA line to the west of the airfield.
Rail Access	No rail service to serve existing or future airport business developments.	Extension of rail infrastructure to serve Boeing Company expansion and potential inland port facilities.
Rental Car Parking	Given the tourist traffic at SLC, rental car traffic makes up a large percentage of SLCIA ground traffic. Rental car facilities take up a lot of space in the parking garage that limits private vehicle parking.	Maintain current level of service and provide room for rental car parking growth. Also consider remote rental car parking facility off-Airport.
Public Parking	Public parking may reach capacity soon after new parking garage opens. GA area has limited public parking.	Expand parking garage and surface lots to meet future capacity. Construct garage parking for GA on east side.
Employee Access and Parking	Airport development will result in more employees, further congesting the limited employee parking available. Additional employee parking is needed.	Develop additional employee parking in new locations that provide expandability as demand requires. Include off-site security screening for employees to reduce demand on terminal screening processors.
Golf Course	Currently unable to use the abandoned golf course land.	Develop a plan for long-term land use. This plan must provide flexibility to accommodate future airfield expansion.

SLCIA Charrette - Landside Continued (2)		
Topics	Challenge	Vision
Roadway Access	Future access for a new terminal may eventually be needed on the north side of the airport. Roadways may also prohibit future airport development and expansion.	Planning for roadway configurations that aid in maximizing future airport development on all sides of the airport.
TNC and New Technology	No dedicated TNC staging areas. Future of autonomous vehicles presents unknown challenges.	Planning for flexibility to accommodate TNC and new technologies. Provide dedicated TNC and ground transportation staging areas.
Road capacity	2200 W is likely going to have capacity issues after full development of the east side of airfield. Additional development around the airport may create capacity challenges on surrounding roadways.	Plan for greater roadway access and capacity to accommodate future airport developments.
Cellular Services	Cellular phone coverage is lacking over large parts of Airport property.	Provide good cellular coverage in all areas of Airport.
Meeter/Greater Area	Meeter/Greater areas in the new terminal may be undersized for accommodating large parties of people welcoming home passengers.	Terminal(s) areas that can accommodate large meeter/greater parties awaiting arriving passengers.

SLCIA Charrette -Support Facilities		
Topics	Challenge	Vision
Fuel	Additional aviation fuel storage is anticipated to be needed in the future. The current fuel storage area will need to be relocated to allow passenger concourse expansion.	Plan for a remotely located aviation fuel storage facility that includes a bio-fuels facility.
	In regard to vehicle fuel, there are limited charging stations for customer and employee vehicles.	Provide an extensive network of charging stations for customer and employee vehicles.
ARFF Facilities	The current ARFF trainer will be decommissioned and a new trainer is desired.	Construct a new ARFF trainer facility that may be co-located with a police training facility. Planning should consider both on- and off-airport sites.
Air Cargo	Air cargo requires expansion of apron space and employee parking. Cargo may need to be moved for long-term terminal development. Currently, no hydrant fueling is provided.	Utilize NW Quadrant to create an air and truck cargo minihub. Plan for future cargo expansion and prepare for the future integration of drone services. Provide hydrant fueling for aircraft.
North Support Facilities	Continued concourse expansion will require relocation of all north support facilities.	A cohesive development plan designed to relocate the north support facilities, consolidate uses, and provide new air front development opportunities.
Centralized Warehouse	Future concourse expansion and commercial passenger growth will require more support facilities.	Creation of a centralized warehouse to accommodate airlines and concessionaires.
SRE and Maintenance Facility	Terminal expansion is likely to impact the existing airport maintenance facility and create new challenges for staff. Current facilities are undersized.	Examine relocation and expansion of airport maintenance and SRE to south of TWY S. A future maintenance building should have access to both secured and non-secured sides of the Airport. Future area must be sized to accommodate expansion.
Hangars	Delta is fully utilizing existing maintenance hangars.	More hangars for Delta.
Passenger Access between Commercial Terminal and GA	Currently there is no automated passenger movement system between the general aviation facilities and the commercial terminal. Passengers must be shuttled.	Tie in light rail or other type of transportation system to provide passenger transport between the terminal and general aviation facilities.
GSE Equipment	GSE storage is constrained.	Increased space for GSE storage.
Customs & Border Protection (CBP) Services	No dedicated customs office on the east side for general aviation customers.	A dedicated customs office on east airfield.
De-icing	Existing facilities do not allow for filling of de-icing trucks from the top, which is not as efficient.	All facilities with equipment for filling deicing trucks from the top and the bottom. This will increase efficiency. Provide deicing fill facilities on every deice pad.

SLCIA Charrette - Environmental & Sustainability		
Topics	Challenge	Vision
Wetlands	Potential airport development is likely to impact large amounts of wetlands, mitigation of which is difficult and expensive.	Engage in wetland banking in order to prepare for future development.
Renewable energy	Currently, there is a lack of renewable energy sources to power the airport.	Use solar and other renewable energies as able to become 100% renewable.
Stormwater	Existing stormwater drainage is nearing maximum amount of allowable pollutants. Additional environment regulations can change at any time.	Develop a stormwater treatment facility. Additionally, develop a stormwater master plan to create efficient implementation of stormwater upgrades in the future.
Glycol	Airport growth will result in additional capacity needs for handling glycol.	Develop an on-site glycol treatment facility.
Climate Change & Resiliency	Extreme weather resulting from climate change creates the need for resiliency planning at airport facilities.	Future planning should incorporate resiliency elements for airport facilities, such as safe shelters for extreme weather, and longer runways for hotter days.
Sustainable Aviation Fuels	Currently there is no sustainable or alternative aviation fuel sources or facilities.	Plan for areas that accommodate alternative aviation fuel facilities and new sustainable fuel technologies.
East Turn Out	No east turn out currently available due to political and noise related issues.	A future east turn out, which would provide aircraft fuel savings.

SLCIA Charrette - Community		
Topics	Challenge	Vision
Development of Northwest Quadrant	The Northwest Quadrant development is expected to be extensive, and will need to be integrated with airport development.	Work with Northwest Quadrant stakeholders so airport facilities are well integrated with future development.
New Residential Areas to the North and East	As residential areas expand, grow, and change, it is critical that zoning and overlay districts be up to date and comprehensive.	Ensure cohesive and appropriate integration of surrounding land uses.
Wetlands	Impacting wetlands can have a negative connotation among residents and stakeholders.	Maximize land use on Airport that does not require additional wetland mitigation. Prioritize what needs to be on the airport and what does not, so that any further wetland impacts are mitigated in advance.
Airport Role in Community	Maintain the historical good rapport and the reputation between airport and community.	An airport that is viewed positively by the community as a vital asset that must be protected and maintained.
Community Connection	Currently there is no Airport observation facility available for the community. Airplane noise is often a concern in metropolitan areas with heavy amounts of air traffic. These factors can detach airports from their local communities.	Integrate with the community in multiple ways, such as creating an area for aircraft viewing and plane-spotting. Work in collaboration with surrounding communities on issues such as noise.
Public Transportation	Southern communities using Front Runner do not have direct access to the airport. Airport employees do not have public transport to the proposed employee parking lot on the north side of the airport.	Bring Front Runner service direct to the Airport. Provide public transportation to future north side employee parking lots.
East Downwind	An east downwind has not been implemented as air traffic is not desired above the east valley neighborhoods. However, new approaches may allow an east downwind that does not create noise issues for residents.	Explore the potential for an east down wind approach to SLC, and work in collaboration with communities to determine if a practical solution exists.

SLCIA Charrette - General Aviation		
Topics	Challenge	Vision
De-icing locations for GA aircraft	No de-icing facilities in the GA area.	Construction of a de-icing facility on the east side of the airfield for use by GA airport users.
SLC Role Relative to GA Aircraft	GA aircraft type are widely varied at SLC, which is unusual for airports that support similar levels of commercial passenger services. This creates challenges related to mixing of aircraft types, impacting capacity and operations.	Incorporate policies in order to best support SLCDA system of airports, and maximize efficiencies, capacity, and economic impact of SLCIA.
Development	Limited space for expansion of the east side GA facilities.	Facilities (roads, runways, and taxiways) reconfigured to provide more area for GA development.
Apron	Existing GA apron becomes congested, especially for large GA aircraft. Existing apron is asphalt which is not ideal for large aircraft parking.	Greater apron space, made of concrete, to accommodate large GA aircraft.
Wayfinding	Wayfinding and signage in the east development area is outdated.	Improved wayfinding and signage in the east development area.
Restaurant	No restaurant currently exists in the GA area.	A restaurant within the GA area to serve employees and customers in the east side of the airport.
Airfield Access	Movement trained escorts are needed for moving people and aircraft between facilities in the GA area.	A new inner taxilane along the GA development to provide additional non-movement circulation.

1.1.3 SLCDCA General Aviation - Visioning Charrettes Summary

Salt Lake City International Airport is part of a three airport system operated by the Salt Lake City Department of Airports. All three airports in the system, including SLCIA accommodate general aviation (GA) aircraft users. Because SLCIA is part of a system, it is important to examine GA requirements from both an individual airport perspective and a holistic system perspective. As such, this master plan study includes facility requirements and alternatives analyses for the overall system serving general aviation. Through these efforts, specific requirements, alternatives, and implementation plans can be developed for SLCIA.

General aviation is a critical component of the SLCDCA system, SLCIA, and this Master Plan study, therefore a separate set of visioning charrettes were conducted to discuss GA specific observations and issues. Unlike the SLCIA focused charrettes, the GA charrettes used only three boards; one board for each of the three SLCDCA system airports. The intent was to outline the challenges and visions for each airport as they relate to GA facilities, services, and future plans.

The GA stakeholder group and the GA policy group were found to share similar challenges and visions for South Valley Regional Airport (U42) and Tooele Valley Airport (TVY). Some challenges and visions differed between the groups, yet most were found to be complimentary for these two airports. However, there were distinct differences in opinion between the groups regarding the vision and role for SLCIA.

Similar to the responses garnered in the SLCIA focused charrettes, many of the challenges and visions expressed were highly specific. The tables below provide a combined summary of the challenges and visions expressed by both groups for each the three SLCDCA airports. Visions related to the same topic that differed between the groups are also documented.

GA Charrette - Salt Lake City International		
Topics	Challenge	Vision
Runway System	Capacity and operations at SLC are becoming more constrained.	Maximize the capacity of the existing airfield, construct a new runway if needed, and utilize RWY 17/35 for GA.
Taxiway System	The closure of TWY K2 has increased occupancy times of GA aircraft on RWY 17/35.	Construct additional taxiways on the east side of RW 17/35 to allow aircraft to exit to the GA ramp sooner. Provide dual parallel taxiways on the entire east side of the runway.
Public Facilities	GA tenants who operate small aircraft noted that there are no restroom facilities near the GA hangars. Additionally, there is no airplane wash rack to self-wash aircraft.	Operators of small GA aircraft would like public restrooms and an aircraft wash rack independent of those provided by the FBO's.
Services	Currently there is no low cost aircraft engine repair service nor self-service fuel facility for owners of small single engine aircraft. Additionally there are limited flight training services. Market forces have made it difficult for the FBOs to provide affordable services to owners of small GA operators.	Operators of small aircraft would like on-site single-engine repair facilities, a self-serve fuel station with lower priced avgas, and flight training services at SLCIA.
Hangars	Market pricing prevents sustainable development of new t-hangars for single engine piston aircraft. Additionally, non-airworthy aircraft are taking up space within the GA hangars.	Operators of smaller aircraft would like more hangars for single engine piston aircraft at SLCIA. The GA policy group's vision is for larger corporate hangar development and small single engine aircraft to be based at South Valley Regional Airport. The general aviation area should allow for maximum development of hanagars.
Future Technology	New drone and aircraft technologies are developing that may require access to airports.	The Airport plans should address the needs of future aviation technologies. A policy addressing the use of drones at and near SLC is needed.
Airport Role	Small general aviation is declining, and market factors are making it difficult to sustainably maintain services for small aircraft operators. Capacity at SLCIA is limited, and the mixture of small and slow vs. large and fast aircraft is challenging.	Operators of small GA aircraft would like SLCIA to provide more facilities and services needed by small aircraft owners. The GA policy group's vision for SLCIA is to focus solely on the high performance jet segment of GA that are more compatible with large commercial aircraft and who require the level of facilities and services available at SLCIA.

GA Charrette - South Valley Regional		
Topics	Challenge	Vision
Airspace	There is no precision approach to the airport due to interference with the SLC airspace and flight path.	A precision approach and missed approach procedures that do not interfere with SLCIA traffic is desired.
East Side Development	There is no apron, aircraft parking, or aviation development on the east side of the airport. This precludes access by pilots to the commercial retail development east of the Airport.	Aviation related development on the east side of the Airport should be pursued. This development could potentially include a FBO, hangars, apron and aircraft parking with access to the commercial retail development east of the Airport.
Future Technology	New drone and aircraft technologies are developing that may require access to airports.	Plan for areas that can accommodate future aviation technologies.
Runway	The current runway length limits use by more demanding general aviation jet aircraft.	A runway extension and improvements to meet C-II standards are desired.
Army National Guard	The Army National Guard may not be best served at the current location. Community concerns include safety and noise related to helicopter training operations.	The GA policy group vision includes consideration of a shift of the ARNG to either TVY or a military base.
Airspace	The airport sits under the flight paths for SLC, creating the need for pilots to carefully monitor their position and elevation.	The GA policy group vision includes the transition of recreational and flight training operations from U42 to TVY, and U42 being focused on accommodating the high-performance aviation segment that is typically more accustomed to operating in constrained airspace.
Hangars	T-hangars at the Airport are not of the best quality. Market rates currently within the SLCDA system create barriers to future hangar development.	The GA policy group vision includes developing high quality hangars, allowing for rate increases, and improving viability of enhanced FBO services.
Airport Role	As the SLCDA system matures and becomes more capacity constrained, the role of U42 within the system must be more focused.	The GA policy group's vision is for U42 to be focused on accommodating corporate aviation use and development. Specifically, to serve high performance twin engine turbo-prop and light jet aircraft.
Services	Limited services are available at the airport.	The airport needs a good FBO to provide more services.

GA Charrette - Tooele Valley		
Topics	Challenge	Vision
Airport Utilities	Utility lines do not extend to the Airport. These include water, sewer, and high-speed telecommunication lines.	Extend water, sewer, and high-speed telecommunication lines to the Airport.
Vehicle Parking	Vehicle parking areas are currently limited.	Expand vehicle parking lots with reserved areas for future growth.
Services	Currently, the Airport lacks an FBO and associated FBO services necessary to attract new users and tenants. Additionally, Jet A fuel is not available for sale at the Airport.	Facilities and services should be on par with what is available at U42. This includes an addition of a FBO and Jet A fuel. GA stakeholders believe skydiving operations should be protected and an area reserved for future expansion.
Access	A new interchange on State Road 138 is being constructed near the Airport but does not connect to the Airport.	The road serving the Airport should be connected on the north to Highway 138. In addition, roads to the airport should tie into future UDOT expansion in the area.
Property Expansion	Residential expansion in the area surrounding the Airport is accelerating and will likely continue expanding.	Airport should look to acquire additional adjacent land to allow for future expansion and to protect from non-compatible land uses.
Future Technology	New drone and aircraft technologies are developing that may require access to airports.	Plan for areas that can accommodate future aviation technologies.
Runway	The runway length may not be adequate to best serve the Airport's role within the SLCDA system.	Examine the need and plan for a potential runway extension.
Land Use	No county land use policy is in place to protect the Airport and surrounding airspace.	Develop a land use policy plan that protects the Airport and local community, and integrates with long-term plans for the surrounding area.
Airport Role	As the SLCDA system matures and capacity becomes constrained, the role of TVY within the system must be more focused.	The GA policy group vision for TVY's role within the SLCDA system is for the Airport to serve recreational flyers and flight training operations. The GA stakeholder group noted that TVY is not centrally located in the valley, which may be difficult in attracting student pilots and based aircraft tenants.

1.1.4 Situational Analysis Considerations

During the charrettes, many important factors were presented that must be considered throughout the master planning process. A situational analysis will be conducted to expand upon these factors at high level and ensure they will be integrated into subsequent analyses within this study. These factors and considerations help lay the groundwork for the more detailed analyses and data collection efforts that will be conducted as part of the *Inventory of Existing Conditions* efforts. The bullets below detail the information that was recorded. Note the bullets were intended to highlight surface-level information and data, and are not intended to be comprehensive.

» Local and regional jurisdiction political influences

- The North West Quadrant development is large-scale and includes stakeholders in Salt Lake City as well as at the State level.
- The recently created Inland Port Authority may influence proposed development options for the west side of airport property.
- The SLCDAs general aviation airports greatly affect, and are affected by, the cities within which each airport resides. These cities include West Jordan for U42 and Tooele for TVY.
- Neighboring Salt Lake City Community Councils must be engaged in the master plan study.

» Physical boundaries

- Surrounding wetlands to the north and west of the SLC airfield significantly complicate the possible expansion of some airport facilities without imposing extensive wetlands mitigation and environmental approvals.
- Private owners control land surrounding TVY and U42.
- Some future master plan concepts may require acquisition of additional property.
- The Oquirrh Mountains impact the airports ability to expand airspace.

» Facility limitations

- U42 is currently restricted in regard to available instrument approaches due to its proximity under SLC flight paths.
- SLC airspace is a major factor in the overall capacity at SLCIA.
- TVY is significantly restricted in the amount of property that is available to accommodate general aviation demand.

» Surface transportation systems

- Interstate 80 and Interstate 215 are primary access roads to SLC. Interstate 80 bisects some portions of airport property, and currently prevents airport expansion to the south.
- Transportation network companies (TNCs), combined with the coming of autonomous vehicles, are expected to continue to dramatically change ground transportation patterns.

- As the northern and eastern portions of the airport are developed along 2100 North Street and 2200 West Street in the future, improved transportation access will need to be provided.

» **Social and community considerations**

- SLCIA has enjoyed an excellent reputation in the Salt Lake Valley as a community partner and economic generator.
- Residential development has grown closer to SLCIA as the Valley population has grown and infrastructure has expanded away from the urban core. The proximity and density of developments require consideration as SLCIA itself grows.
- Flight patterns east of the airport have been controversial in the past and proposals to modify flight patterns may be divisive

» **Financial and economic conditions**

- The Salt Lake Valley economy is booming and it is one of the fastest growing regions in the nation.
- SLCIA is highly competitive with peer airports in regard to airline rates and charges.
- The average cost per enplaned passenger at SLC has historically remained low compared to industry standards.

» **Legal and regulatory framework**

- The SLCDA is led by an Executive Director appointed by the Mayor of Salt Lake City.
- An 11 member Airport Board advises the Mayor regarding the operation and management of the airports owned by the Salt Lake City Corporation.

» **Environmental issues and considerations**

- Existing wetlands at SLC are a major factor for consideration for any future development
- The new terminal development at SLC is implementing leading-edge technologies and sustainable best practices, including extensive charging station networks for private vehicles and ground service equipment (GSE). It is desired that SLCIA continue to integrate leading-edge sustainable initiatives.

» **Airport user expectations and preferences**

- Residents in the Salt Lake Valley are accustomed to high levels of service. As the Airport grows in size, it will be important to maintain these high levels of service, and not lose the local, "smaller airport" feel.
- The general aviation community at SLCIA includes operators of both large and small aircraft. This is highly unusual at airports with the commercial traffic levels seen at SLCIA.

- Preferences and expectations vary among general aviation operators, service providers, and tenants. This will require further consideration throughout the master plan.

» The Airport System

- Stakeholders and users of SLCIA noted numerous potential solutions for adding capacity to the existing airfield without building another runway. Solutions noted include modifications to airspace, runway, and taxiway systems.
- The general aviation airports within the SLCDA system are being impacted by trends in GA being seen nationally.

1.1.5 Master Plan Goals and Objectives

The goals and objectives set forth for this master plan study were derived from the results of the visioning process. They are intended to be used as a framework for the boundaries of the planning assumptions considered within this master plan study, and set the foundation for the balance of the planning process.

1.1.5.1 Airside/Landside Related Master Plan Goals and Objectives

Goal: Update the Airport Development Plan with a strategy crafted to carry the airport forward through the next 20 years, and beyond.

Objectives:

- » Integrate the ARP (Airport Redevelopment Plan) into the Master Plan study and build a new development plan accounting for the ARP at completion.
 - Determine when future expansion of terminal and landside area facilities will be needed.
 - Identify how to build upon and expand all components of the ARP.
 - Identify when and how more aircraft gates will be constructed.
 - Identify when and how to expand Federal Inspection Services (FIS) to accommodate growth of international flights.
 - Identify how to accommodate future TSA screening requirements in the terminal.
 - Identify when and where a third satellite concourse should be implemented.
 - Identify areas to relocate all facilities in the North Support Area.
 - Identify how and where a second terminal facility could be integrated.
- » Identify at what trigger points airfield/airspace enhancements will be needed to add capacity, and how best to provide capacity.
 - Determine when a future west runway might be needed to meet forecasted demand.
 - Determine the preferred location for a future west runway.
 - Determine the modifications to existing facilities that would be required to implement a preferred future west runway.
 - Determine how the Oquirrh Mountains affects the airspace capacity.
 - Determine the general airfield and airspace constraints to increasing capacity for SLC
 - Determine the need to extend Runway 16L/34R and when that need might occur.

- Identify the range of options and preferred approach to increase airfield capacity on Runway 17/35.
- Determine the preferred solution to increase long term airfield capacity.
- Determine the preferred approach and required modifications to increase capacity on Runway 17/35.
- Determine the need for a parallel taxiway (X) east of 16L/34R.
- Determine the need to improve the parallel taxiway system (K) east of Runway 17/35.
- Determine a preferred solution to provide deicing on all runway ends.
- Determine facility improvements that could be made to improve circulation and maneuvering on deicing pads.
- Determine the timing and location for extending Taxiways U and V.
- Determine the benefits and need for end-around taxiways to Runway 17/35.
- Determine the need and feasibility for a cross-field taxiway between Runways 34R and 34L.
- » Determine the preferred approach to accommodate economic development of undeveloped Airport property.
 - Determine the need to preserve Airport land for potential development of airframe manufacturing facilities.
- » Identify impacts of TNC operators and autonomous cars to landside facilities.
- » Identify at what trigger points landside enhancements will be needed to add capacity, and how best to provide capacity.
 - Identify how to accommodate long-term forecasted public parking demand.
 - Identify how to accommodate long-term employee parking demand.
 - Identify when and how to expand terminal curbs to meet forecasted demand.
 - Identify when and where car rental facilities should be located as demand increases and the need to expand them occurs.
 - Identify how and where to accommodate ground service equipment storage.
 - Identify the highest and best use of the former golf course property.
 - Identify additional property that might be recommended for acquisition.
- » Provide empirical and analytical data to allow SLCDCA staff to justify the proposed development plan. The analytical data will include technical, economic, and environmental considerations.
- » Provide a modern graphic presentation of the future development of the airport and anticipated land uses on and in the vicinity of the Airport.
 - Develop an ALP set that includes the most current design of the new terminal.

1.1.5.2 Community Related Master Plan Goals and Objectives

Goal: Plan an airport system which balances the SLCDA's responsibility to develop facilities to meet aviation demand with community desires, local and State transportation needs, environmental requirements, and sustainability initiatives.

Objectives:

- » Provide the foundation for environmental evaluations that may be required prior to receiving project approval.
- » Present a plan that adequately addresses issues and satisfies local, state, and federal regulations.
- » Support sustainability goals.
- » Document policies and future aeronautical demand to support SLCDA best practices on spending, debt, land use controls, and other policies necessary to preserve the integrity of the Airport and its surroundings.
- » Set the stage and establish the framework for a continuing airport planning process with supporting public coordination and participation elements.

1.1.5.3 General Aviation Related Master Plan Goal and Objectives

Goal: Determine how SLCIA will accommodate general aviation demand to fit within the SLCDA system in the future.

Objectives:

- » Validate the roles of all SLCDA system airports, and identify how SLCIA will best serve general aviation system facility requirements.
 - Determine the preferred solution for future development of general aviation facilities
 - Determine the preferred approach to manage future development of general aviation facilities by FBO's and SLCDA.
- » Identify the type and location for future general aviation facilities at SLCIA, based on the clarified role and policy initiative of SLCIA within the airport system.
- » Identify development standards that will guide U42 and TVY.
- » Identify requirements and develop a land use plan for TVY.

1.1.5.4 Implementation Related Master Plan Goals and Objectives

Goal: Prepare an airport development plan that integrates the ARP development and supports local and regional economic and sustainability goals, while also providing flexibility to accommodate new technologies and shifts in development patterns.

Objectives:

- » Maintain a high level of service for airport-users such that the Airport remains a valued and respected economic generator within the region.
 - Develop a Capital Improvement Plan that minimizes operational impacts to users and tenants during implementation.
- » Integrate airport development with surrounding development (existing and planned) to maximize economic benefit and progress.
 - Coordinate the master plan process with neighboring communities to obtain input.
- » Establish a realistic schedule for the implementation of the development proposed in the short-, mid- and long-term planning horizons.
 - Prepare a Capital Improvement Program based on the projected facility requirements that are linked to specific planning activity levels.
 - Prepare detailed project descriptions for the first 5 years of proposed development.
- » Propose a financially achievable plan to support the implementation schedule.
 - Prepare a Capital Improvement Program based on the Airport's current and estimated future financial ability to fund projects.