NEBRASKA

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DEPARTMENT OF TRANSPORTATION

EXECUTIVE SUMMARY

McFARLAND JOHNSON

Executive Summary

INTRODUCTION AND VISION

This Nebraska State Aviation System Plan (SASP or Plan) document summarizes and presents the technical work undertaken to develop recommendations for the maintenance and improvement of the Nebraska system of public-use airports. The purpose of this Plan is to guide and inform the work of the Division of Aeronautics (Division) of the Nebraska Department of Transportation (NDOT) and support decisions and policies regarding project and funding priorities for the system.

The main purpose of the airport system planning process[1] is to determine the type, extent, location, timing, and cost of the airport development needed in a State or metropolitan area to establish a viable system of airports. Without an updated system plan and with the need to justify airport projects at the local level, airports may lose footing and become ineligible for important capital projects that help communities. The State Aviation System Plan (SASP) helps the State and airports make the best use of available funding.

The Plan is formulated with the following stakeholders in mind:

- Nebraska Aeronautics Commission[2]
- Nebraska Department of Transportation (NDOT)
- Federal Aviation Administration (FAA)
- Elected Representatives in the State Legislature,
- Airport Sponsors (owners),
- Local Communities' Elected and Appointed Officials,
- Airport, Aircraft, and Aviation Users
- General Public

The vision statement was created during the stakeholder engagement process and provided high-level guidance for the development of this SASP. This vision statement can be seen in **Figure 1**.

Figure 1: SASP Vision Statement

"A dynamic aviation system which enhances quality of life through infrastructure and services that met the diverse and evolving needs of all Nebraskans."

Source: Nebraska SASP Visioning Committee, 2021.

[1] FAA Advisory Circular (AC) 150/5070-7 Change 1, https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5070-7-change1.pdf

[2] The Nebraska Aeronautics Commission was created by the 1935 Legislature to oversee the development of aviation in the state. The Commission operated on its own in this capacity until the creation of the Department of Aeronautics in 1945. https://dot.nebraska.gov/about/aeronautics-commission/

SYSTEM OVERVIEW

Seventy-nine (79) public-use airport facilities (SASP airports) are currently identified as part of the Nebraska SASP.

There are many different ways in which the FAA categorizes airports. This includes the National Plan of Integrated Airport Systems (NPIAS) and ASSET categories. The NPIAS includes the following categories: commercial service (primary or nonprimary), reliever, and general aviation (GA) (nonprimary). The ASSET, which is established for nonprimary GA airports, includes the following categories: national, regional, local, basic, and unclassified.

While these categories are acknowledged and important considerations for federal funding, for the purposes of this report, Nebraska airports were divided into four main categories: commercial service, complex activity, community activity, and Non-NPIAS[3]. Descriptions for these four categories can be found below.

- **Commercial Service Airports:** The nine airports in this category offer scheduled commercial service at their facilities (i.e.: OMA, LNK, GRI, AIA, CDR, EAR, MCK, LBF, and BFF).
- **Complex Activity Airports:** Airports in this category include general aviation airports with 100 or more annual average B-II[4] or greater operations during our analysis period (2010-2019). 100 operations was used to identify the airports that may not meet the B-II critical aircraft category today, but could during the planning period. While 100 annual operations is not a metric used by the FAA (FAA requires 500), this project selected it to identify airports with between 100 and 500 annual B-II or greater operations better captures the complex activity of these airports compared to peers that see predominantly Group I operations. Identifying airports with between 100 and 500 annual complex operations helps to identify and plan projects as these airports approach the FAA eligibility threshold of 500 operations. These airports have increased levels of complex operations that may reach levels of B-II activity that could justify change of needs in the future due to their varied user base. Therefore, future planning projects should take this into consideration.
- **Community Activity Airports:** Airports in this category include the remaining general aviation airports that are included in the NPIAS. These facilities either had no B-II operations or recorded fewer than 100 average annual operations by B-II aircraft, meaning

[3] Airport categories were determined in 2020 and approved by NDOT based on an analysis period of operations from 2010-2019. For the purposes of this document, it should be noted that some information may have been missing and therefore some airports may require individual detailed analysis of operations that is not captured as part of this system plan should their operating characteristics be more unique than what was analyzed.

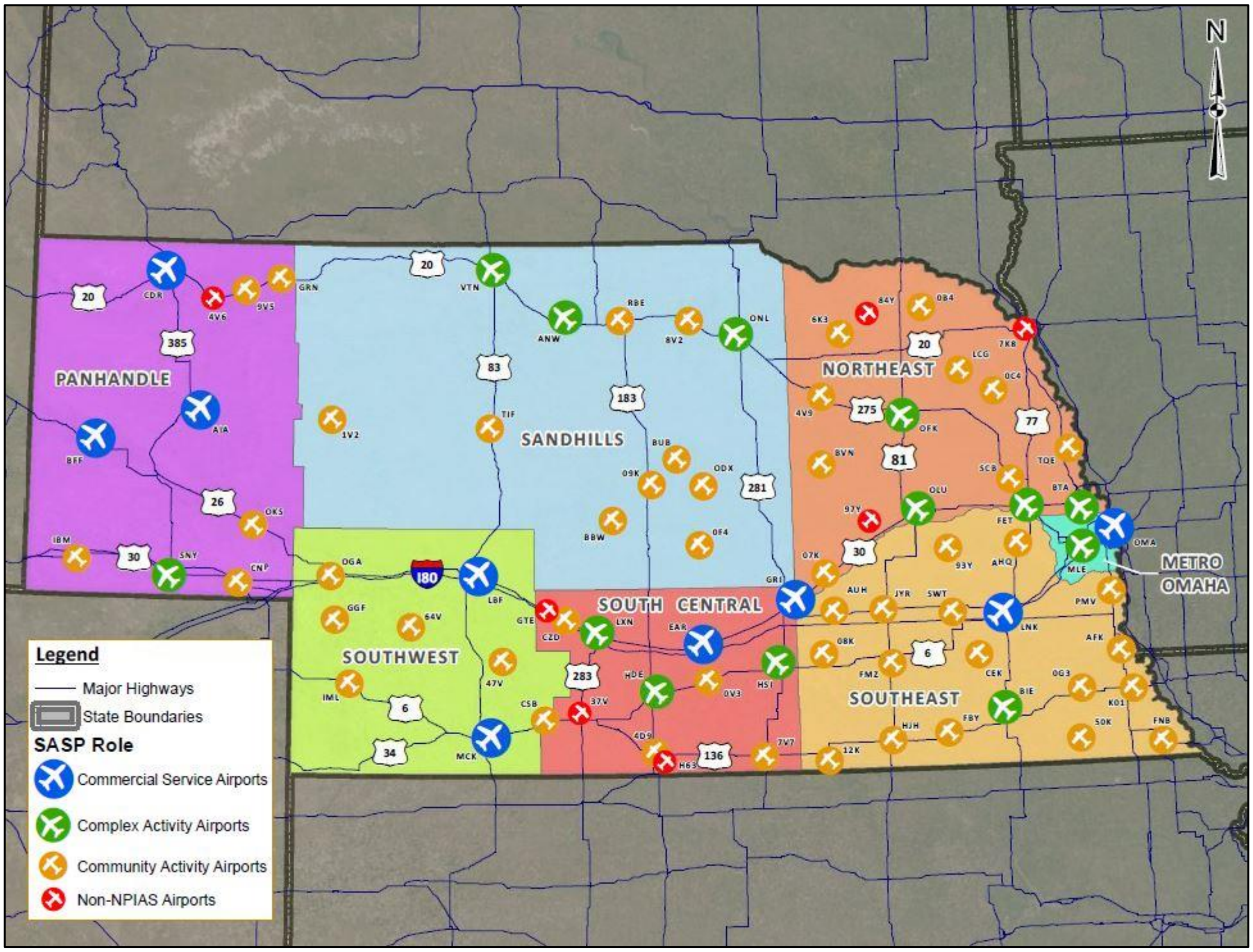
[4] B-II is a runway design code designated to airports that have a critical aircraft with approach speeds of 91 knots or more but less than 121 knots, have a tail height of 20 feet or more but less than 30 feet, and have a wingspan of 49 feet or more but less than 79 feet.

the vast majority of operations are conducted by small aircraft with wingspans of 49 feet or less.

- **Non-NPIAS Airports:** Airports in this category include airports that are not in the NPIAS, but are part of the Nebraska Statewide system. Non-NPIAS airports range widely in activity levels and how they contribute to the statewide system. For the purposes of this Plan, non-NPIAS airports are classified together as they do not receive federal funding regardless of activity levels.

The Nebraska system airports are show in **Figure 2** by SASP role and region within the State.

Figure 2: SASP Airports by Role and Region



Source: McFarland Johnson analysis, 2021.

FACILITY & SERVICE OBJECTIVES

Facility and service objectives for Nebraska airports can be found in **Table 1**. Each category of airports includes both minimum facilities and services as well as recommended facilities and services. All minimum, as well as recommended, facilities and services objectives hold true for subsequent categories of airports and further build upon those with additional minimums and recommendations.

Table 1: Facility and Service Objectives for State Airports

SASP Role	Facility and Services Objectives	
Non-NPIAS Airports	**Minimum Facilities/Services**	
	Runway - Turf, Water, or Paved Open Seasonally Aircraft Parking Area Public Telephone (If Cellular Service Unavailable) Airport Manager Contact Info Available	Windsock Require Minimum Standards/Rules and Regulations Basic Shelter Compliance w/ NE Administrative Code 198
	Recommended Facilities/Services	
	Open All Year	
Community Activity Airports	**All Minimum & Recommended Facilities/Services of Non-NPIAS Airports**	
	Paved Runway Updated ALP (<20 Years Old)[1] 100LL Avgas Fuel on Site Weather Service Station (AWOS or ASOS) PAPIs on Primary Runway Local Fire Department Trained in ARFF Procedures Updated Land Use/Zoning Hangars for Existing Based Aircraft	Basic Terminal/Shelter Meet A/B I Standards GPS Approach Runway PCI of 75 or greater Taxiway PCI of 60 or greater PT On-Site Airport Manager PT On-Site Operations/Maintenance Staff
	Recommended Facilities/Services	
	Evaluate ALP (<10 Years Old) [1] Weather Service Station (AWOS III P/T)	Self-Serve 100LL Avgas Fuel available 24/7 Paved Access Road and Vehicle Parking
Complex Activity Airports	**All Minimum & Recommended Facilities/Services of Community Activity Airports**	
	Update/Evaluate Master Plan (<10 Years Old) and Evaluate ALP (<5 Years Old) [1] Jet-A Fuel Hangar for Transient Aircraft Taxiway PCI of 70 or greater Primary Runway Minimums of < 1 Mile w/ ALS[2] Single Service SASO/FBO	Availability of a Rental Car and/or a Courtesy Car Meet B II Standards Snow Removal Equipment Terminal w/ passenger and pilot amenities Transient Parking Apron FT On-Site Airport Manager FT On-Site Operations/Maintenance Staff
	Recommended Facilities/Services	
	MALSR on Primary Runway[2] Basic Airport Security Measures and wildlife fencing ARFF On-Site	Parallel Taxiway to Primary Runway Passenger Transportation on Site Aircraft Maintenance on site
Commercial Service Airport	**All Minimum & Recommended Facilities/Services of Complex Activity Airports**	
	Terminal Building w/ Concessions (Restaurant, Vending, Restrooms post security, etc) PAPIs on all Paved Runway ends Airport Security Measures (SIDA, Badging, Security Fencing, TSA, etc)	Meet C II Standards Runway PCI of 85 or greater Taxiway PCI of 75 or greater Aircraft Deicing Part 139 Certified
	Recommended Facilities/Services	
	Onsite or Remote ATCT On Site Rental Cars and/or Courtesy Cars	Air Cargo Handling Facilities

Source: McFarland Johnson analysis, 2022.

[1] All ALPs should include an Exhibit A Property Map that meets the most up-to-date standard operating procedures (SOP).

[2] Eligibility will be determined on an airport-by-airport basis based on their own individual needs and ability to justify a project.

[3] While airfield lighting is not a SASP objective, adding lighting would be an airport level determination.

INVENTORY OF EXISTING SYSTEM

The inventory reviewed and identified the existing infrastructure and services available at individual Nebraska SASP airports. While some non-physical elements are mentioned, the focus is primarily on the physical infrastructure available.

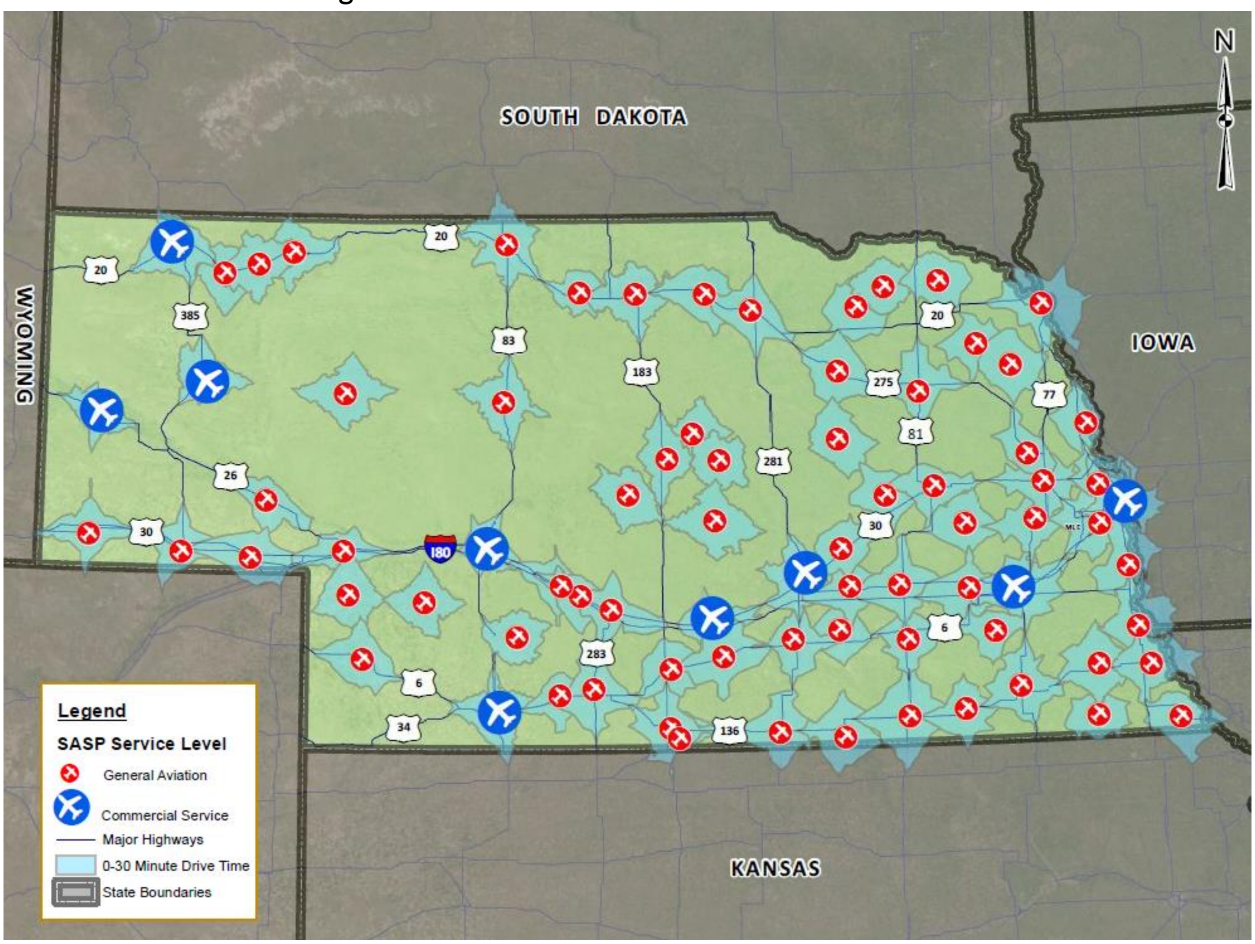
Facility Infrastructure

Both airside and landside facilities were reviewed for each SASP airport. Airside facilities include runways, taxiways, aprons, navigational aids, visual aids, and weather reporting infrastructure used to support aircraft operations. Landside facilities include terminal buildings, other airport buildings, fuel farms, hangars, T-hangars, automobile parking facilities and services such as flight training, aircraft rental, and courtesy cars.

Service Area Coverage

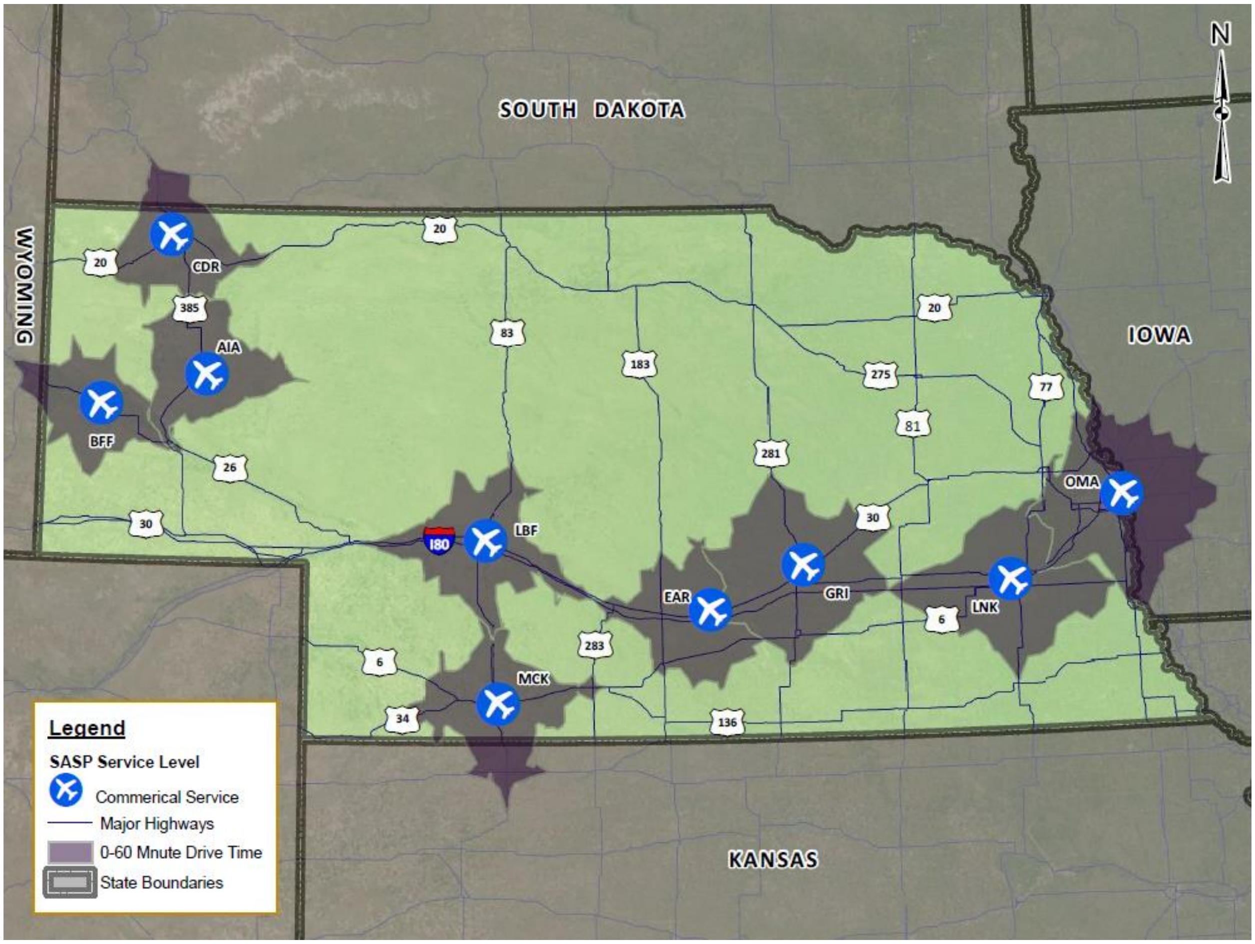
Airport service area coverage was also analyzed. These include both 30-minute drive times for all SASP airports, as well as 60-minute drive times to commercial service airports. Drive time market areas can be seen in **Figure 3** and **Figure 4**.

Figure 3: 30-Minute Drive Time Market Area



Source: McFarland Johnson, Inc., 2021.

Figure 4: 60-Minute Drive Time Market Area



Source: McFarland Johnson, Inc., 2021.

Airport Manager Surveys

Manager surveys were administered to all 79 SASP airports. 65 managers responded, resulting in an 82 percent response rate. These surveys were used to determine the primary functional role of each airport, the top issues and needs, key based and itinerant user types, budgets, fuel sales, project funding and local investment, as well as needs of service from NDOT.

Airport functional roles, from most number of airports to least number of airports, included:

- Community all-purpose;
- Agricultural spraying and agricultural business support;
- Based and itinerant business oriented;
- Schedule passenger service; and
- Critical community access for remote locations.

Airports' needs and issues, from most number of airport to least number of airports, included:

- New hangars (t-hangars, box, maintenance), renovations, and expansions;

- On-airport aeronautical services (fixed base operator (FBO), maintenance, flight instruction, charter service);
- Primary and secondary pavements, extensions and maintenance;
- Fuel system replacements/expansions/upgrades, card readers, and Jet-A fuel;
- Terminal improvements and landside pavements/access;
- Funding for maintenance and expansion (primarily sponsor);
- Airport maintenance (pavement, hangars, etc.); and
- Staffing, volunteers, and board positions.

Key users of airports, both based and transient types included:

- Agricultural;
- Medical operators;
- Cargo, charter, and GA (including flight instruction;
- Miscellaneous private business; and
- Power and energy industry.

Budgets, fuel sales, project funding, and investments were used to gain insights into the fiscal position of SASP airports. The following questions pertained to these four topics:

- Budgets: trends in expenses and revenues, supplementation of airport budgets, and sources of budget supplements;
- Fuel sales: gallons of fuel sold as well as revenues collected from these sales;
- Project funding: ability of airports to receive FAA funding and meet the local match contribution; and
- Investment: what private investment has been made into airports and what private investment is planned for projects that may not necessarily meet FAA funding criteria.

For the purposes of this SASP, the role of NDOT Division of Aeronautics is key to the success of airports in the Nebraska Aviation System. Survey respondents were asked to rank the importance of a number of need areas in which NDOT could assist. **Table 2** shows these survey results.

Table 2: Airport Manager Survey Results - Airport's Areas of Need from NDOT

Area of Need	Mode Score	Airport Manager Rankings			Response Rate
		#1	Top 3	Bottom 3	
Training & Education for Airport Managers	4	9	21	6	36%
Staffing Maintenance Positions	1	10	24	14	34%
Marketing/Promotions & Community Education	2	9	35	6	31%
Coordination with System Airports	8	5	7	25	39%
Revenue Generation & Partner Development for Local Match	1	27	40	3	31%
Assistance with State Zoning Enforcement	6	5	21	11	36%
Assistance with DBE Participation	8	5	10	25	36%
Assistance with Minimum Standards, Rules/Regulations, Rates & Charges, Sample Leases	3	10	25	7	33%

Sources: Airport Manager Survey Analysis and McFarland Johnson Analysis, 2021.

SUMMARY OF AVIATION ACTIVITY & FORECAST

Several components of Nebraska's aviation activity for the near-term (2026), mid-term (2031), and long-term (2041) time frames were examined. Forecasts developed for this Nebraska SASP provide insights to guide analysis of future system needs. Forecasts for each airport are not intended to represent the upper limit of activity or the long-term prospects for growth or opportunity at any one SASP airport. This SASP encourages airport sponsors to revisit and update forecasts for their facilities via an update to their airport master plans or airport layout plans (ALP).

At the start of this SASP, COVID-19 was still having a profound impact on the aviation industry. For this reason, aviation forecasts and growth scenarios had a greater degree of uncertainty. Information available at the time of the writing of the forecast for this project were used to inform and project out 20 years. Despite the exorbitant impacts, aviation has made a remarkable recovery. As of September 2023, global passenger traffic has returned to near pre-pandemic levels reaching over 94 percent of 2019 levels. Furthermore, 2024 is expected to show substantial growth and surpass 2019 levels for the first time since the pandemic began[5].

As stated in the System Overview, SASP airports were divided into four categories: commercial service, complex activity, community activity, and Non-NPIAS. These categories were used in the analysis to forecast both operations and based aircraft.

Aircraft Operations

Baseline Forecasts

Forecasts were developed for each commercial service and complex activity SASP airport for the near-term (2026), mid-term (2031), and long-term (2041) periods. The column labeled "Forecast Range" in the table represents the +/- 20 percent range for the 20-year activity anticipated for the forecast period, which may vary year to year based on demand. **Table 3** shows the operations forecast for commercial service and complex activity Nebraska SASP airports.

Table 3: Operations Forecast

City	Airport	2019	2026	2031	2041	Forecast Range
Commercial Service Airports						
Alliance	Alliance Municipal	9,717	11,085	12,179	14,702	7,774-17,642
Chadron	Chadron Municipal	7,665	8,744	9,607	11,597	6,132-13,916
Grand Island	Central Nebraska Regional	12,755	14,551	15,987	19,298	10,204-23,158
Kearney	Kearney Regional	21,770	24,836	27,287	32,937	17,416-39,525
Lincoln	Lincoln	60,661	69,204	76,033	91,779	48,529-110,134
McCook	McCook Ben Nelson Regional	16,700	19,052	20,932	25,267	13,360-30,320

[5] https://aci.aero/2023/09/27/latest-air-travel-outlook-reveals-2024-to-be-a-milestone-for-global-passenger-traffic/

City	Airport	2019	2026	2031	2041	Forecast Range
North Platte	North Platte Regional/ Lee Bird Field	28,300	32,285	35,471	42,817	22,640-51,381
Omaha	Eppley Airfield	100,139	114,241	125,514	151,508	80,111-181,809
Scottsbluff	Western Nebraska Regional/ William B Helig Field	30,216	34,471	37,873	45,716	24,173-54,859
Complex Activity Airports						
Ainsworth	Ainsworth Regional	4,000	4,215	4,375	4,715	3,372-5,658
Beatrice	Beatrice Municipal	11,000	12,829	13,317	14,350	10,263-17,220
Blair	Blair Executive	15,500	16,332	16,954	18,269	13,066-21,923
Broken Bow	Broken Bow Municipal/Keith Glaze Field	10,850	11,433	11,868	12,789	9,146-15,346
Columbus	Columbus Municipal	8,000	8,430	8,750	9,429	6,744-11,315
Fremont	Fremont Municipal	22,250	23,445	24,337	26,225	18,756-31,470
Hastings	Hastings Municipal	17,000	17,913	18,595	20,037	14,330-24,045
Holdrege	Brewster Field	16,000	16,859	17,501	18,859	13,487-22,630
Lexington	Jim Kelly Field	10,640	11,211	11,638	12,541	8,969-15,049
Norfolk	Norfolk Regional/Karl Stefan Memorial Field	11,434	12,048	12,507	13,477	9,638-16,172
O'Neill	The O'Neill Municipal John Baker Field	7,440	7,839	8,138	8,769	6,272-10,523
Omaha	Millard	24,000	25,289	26,251	28,288	20,231-33,946
Sidney	Sidney Municipal	4,100	4,320	4,485	4,833	3,456-5,799
Valentine	Miller Field	4,900	5,163	5,360	5,775	4,130-6,931
York	York Municipal	10,475	11,037	11,458	12,347	8,830-14,816

Sources: FAA Terminal Area Forecast, 2021 and McFarland Johnson analysis, 2021.

While a 20-year range was forecast, a specific year by year forecast was not done for Community Activity and Non-NPIAS airports. Instead, a +/- 20 percent range was looked at for the planning period, based on the 2019 baseline operations numbers.

Complex Operations Forecast

Complex operations were further analyzed to help anticipate potential infrastructure needs. During the forecast period, complex activity is expected to increase, though no new airports are expected to cross the 500+ annual operations threshold. This report will discuss incremental improvements and recommendations for airports as this type of activity increases.

Based Aircraft

Based aircraft forecasts were also developed for all Nebraska SASP airports. Rather than a detailed growth rate, a forecast range was created. This range was +/- 20 percent of the 2019 baseline number of based aircraft.

EXISTING SYSTEM PERFORMANCE

Facility and Service Objectives Performance

The analysis of statewide aviation system airports utilized a weighted sum model to measure the performance of each system airport for the SASP. The weighted sum model is designed such that each facility and service objective within each SASP Role is assigned a relative weight that corresponds to the importance of the objective within each SASP Role. Points are the product of the assigned value given to the airport multiplied by the objective's weight. To measure the performance of airports through the State of Nebraska, a model was designed to appropriately score and weight each criterion relative to its importance.

When aggregated, the facility and service objectives' weights for the entire statewide system was divided by the total points achievable to receive a score out of 100 within their SASP Role. Each airport is only scored on the objectives identified by their SASP role. Therefore, airports with fewer facilities may receive a higher score than those with more facilities due to fewer objectives needing to be met by their SASP role. The performance model then produces point values for each system airport, such that an airport that meets all objectives will score 100 points, with all system airports scoring along the point scale from zero to 100. For a copy of the full scoring model, please contact NDOT for report details. **Table 4** shows the average facility score for each airport in each SASP role.

Table 4: Facility and Service Objective Results by Activity Level SASP Role

SASP Role	Average Performance Score
Commercial Service	89
Complex Activity	83
Community Activity	88
Non-NPIAS	97

Source: McFarland Johnson analysis, 2023.

Airport System Geographic Performance

Ground Access Service Area Coverage

Each system airport's service area, defined by automobile drive-times, was utilized to quantify discrete values for coverage in terms of land area, population, and employment centers. These metrics are applied using 30-minute drive times for non-NPIAS and community activity system airports and 45-minute drive times for complex activity system airports. A 60-minute drive time is used to evaluate the coverage of scheduled passenger service by commercial service system airports. These results can be found in **Table 5** and **Table 6**.

Table 5: Ground Access Land Area Coverage and Population Coverage by SASP Role

Airport SASP Role	Land Area Coverage (SQMI)	Land Area Coverage (% Total) [1]	Population	Population Coverage (% Total) [1]
Commercial Service	22,749	29.4	1,510,839	77.2
Complex Activity	17,319	22.4	1,203,974	61.5
Community Activity	22,610	29.2	542,878	27.7
Non-NPIAS	3,283	4.2	55,236	2.8
Sub-Total (Complex + Commercial)	***34,717***	***44.9***	***1,729,021***	***88.4***
All SASP Airports	**49,420**	**63.9**	**1,872,679**	**95.7**

Source: McFarland Johnson Analysis, 2023.
[1] Nebraska has a total land area of 77,353 square miles and population of 1.957 million (2022).

Table 6: Ground Access Employment Center Coverage by SASP Roles

Airport SASP Role	Employment Centers	Employment Center Coverage (% Total)
Commercial Service	43	86
Complex Activity	39	78
Community Activity	7	14
Non-NPIAS	1	2
Sub-Total (Complex + Commercial)	***49***	***98***
All SASP Airports	**50**	**100**

Source: McFarland Johnson analysis, 2023.

Air Access Service Area Coverage

In addition to the analyses of service area coverage by airport SASP Role presented thus far, the analysis also considered air access service area coverage by system airports with specific infrastructure, equipment, and services. The key infrastructure elements included in the analysis of air access coverage are:

- Coverage by Airports with Precision Instrument Approaches (**Table 7**)
- Coverage by Airports with Non-Precision/GPS Instrument Approaches (**Table 8**)
- Coverage by Airports with Jet-A Fueling Services (**Table 9**)
- Coverage by Airports with AvGas/100LL Fueling Services (**Table 10**)
- Coverage by Airports with On-Site Weather Reporting Service (**Table 11**)

Table 7: Air Access Coverage – SASP Airports with Precision Instrument Approach

Metric	Coverage[1]	Coverage (% Total)[1]
Land Area	31,798	41.1
Population	1,675,544	85.6
Employment Centers	48	96

Source: McFarland Johnson analysis, 2023.

[1] Land Area, Population, and Employment Center Coverage refers to the portions of Nebraska only and does not include coverage in neighboring airports' host communities.

Table 8: Air Access Coverage – SASP Airports with Non-Precision Instrument Approach

Metric	Coverage[1]	Coverage (% Total)[1]
Land Area	67,529	87.3
Population	1,933,145	98.8
Employment Centers	50	100

Source: McFarland Johnson analysis, 2023.

[1] Land Area, Population, and Employment Center Coverage refers to the portions of Nebraska only and does not include coverage in neighboring airports' host communities.

Table 9: Air Access Coverage – SASP Airports Jet-A Fueling Service

Metric	Coverage[1]	Coverage (% Total)[1]
Land Area	51,993	67.2
Population	1,836,315	93.8
Employment Centers	49	98

Source: McFarland Johnson analysis, 2023.

[1] Land Area, Population, and Employment Center Coverage refers to the portions of Nebraska only and does not include coverage in neighboring airports' host communities.

Table 10: Air Access Coverage – SASP Airports 100LL/AvGas Fueling Service

Metric	Coverage[1]	Coverage (% Total)[1]
Land Area	70,822	91.6
Population	1,946,574	99.5
Employment Centers	50	100

Source: McFarland Johnson analysis, 2023.

[1] Land Area, Population, and Employment Center Coverage refers to the portions of Nebraska only and does not include coverage in neighboring airports' host communities.

Table 11: Air Access Coverage – SASP Airports with On-Site Weather Reporting Service

Metric	Coverage[1]	Coverage (% Total)[1]
Land Area	61,138	79.0
Population	1,892,507	96.7
Employment Centers	49	98

Source: McFarland Johnson analysis, 2023.

[1] Land Area, Population, and Employment Center Coverage refers to the portions of Nebraska only and does not include coverage in neighboring airports' host communities.

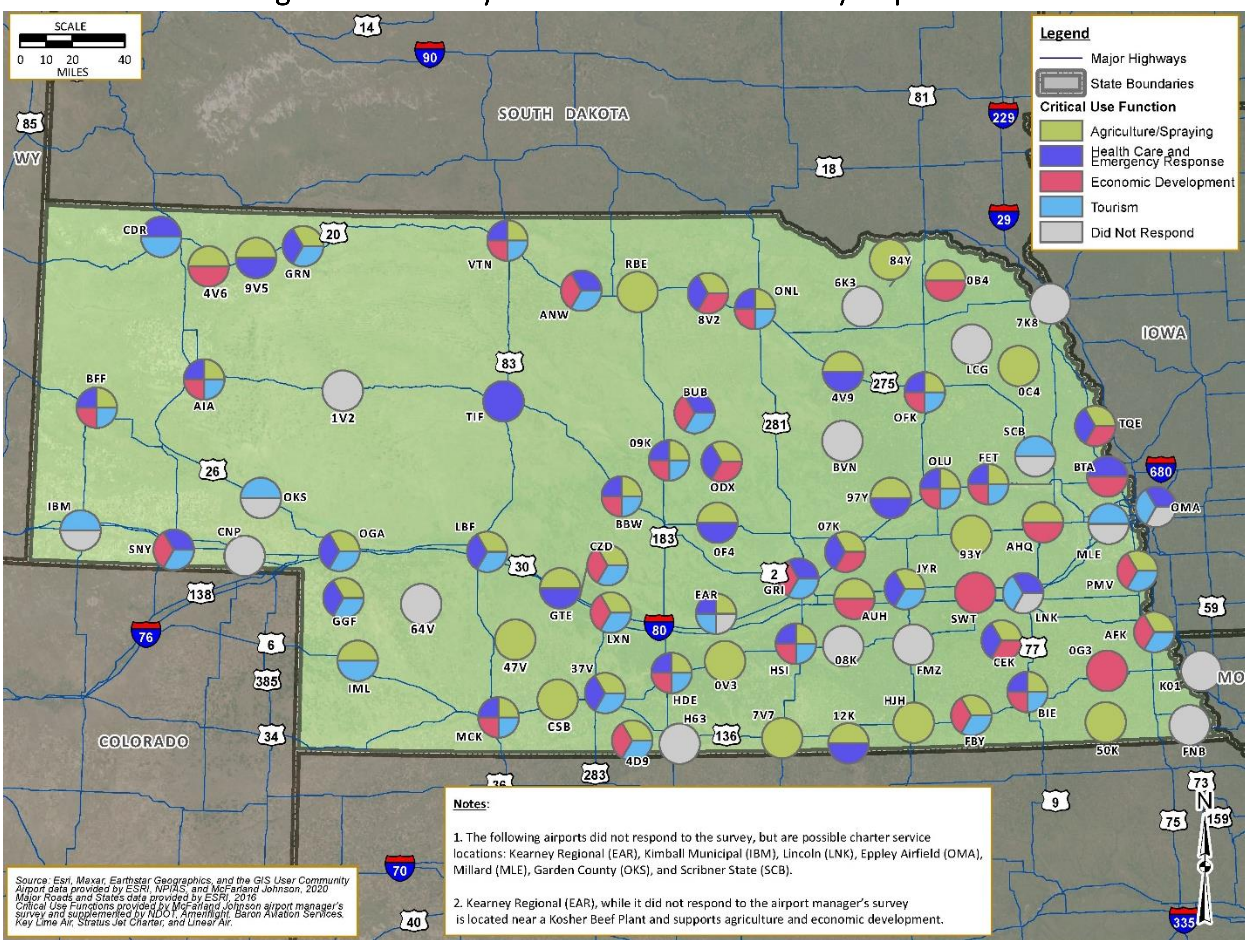
Critical Use Functions

The Inventory of Existing System identified the following critical use functions relevant to this SASP:

- Agriculture
- Health Care and Emergency Response
- Economic Development
- Tourism

Figure 5 shows Nebraska's airports and the critical use functions they serve based on the airport manager's survey responses as well as supplemented information from Nebraska operating charter and cargo companies and NDOT Division of Aeronautics data. As noted, additional airports that did not respond to the survey, provide critical use functions to the State's system.

Figure 5: Summary of Critical Use Functions by Airport



Source: McFarland Johnson, Inc. 2023.

The Nebraska system as a whole has average scores of 82 to 98 percent meeting goals both by SASP Role and by region, as shown in **Table 12**.

Table 12: Summary of Performance Metrics by SASP Role and Region

SASP Role	Average	Maximum	Minimum
Commercial Service	89%	96%	77%
Complex Activity	84%	98%	70%
Community Activity	88%	100%	53%
Non-NPIAS	98%	100%	78%

Region	Average	Maximum	Minimum
Metro	83%	96%	70%
Northeast	92%	100%	73%
Panhandle	84%	100%	60%
Sandhills	82%	100%	53%
South Central	91%	100%	78%
Southeast	90%	100%	57%
Southwest	88%	100%	60%

Source: McFarland Johnson Analysis, 2023.

While the goal is to have 100 percent of the airports meet the minimum facility and service objectives, the average scores as presented above showcase a healthy aviation system that generally meets the needs of the State.

ALTERNATIVES & IMPLEMENTATION PLAN

Table 13 shows the anticipated funding needs for Nebraska's Non-NPIAS, community activity, complex activity, and commercial service airports (except for OMA, LNK, and GRI).

Table 13: Estimated Costs Over 20-Year Period

	Non-NPIAS	Community	Complex	Commercial	Total	Average Annual
Maintenance /Planning	$1,322,075	$84,545,952	$64,308,126	$69,485,330	$218,775,483	$10,938,774
Airside SASP	$0	$13,691,100	$7,519,722	$7,103,320	$28,314,142	$1,415,707
Landside SASP	$0	$10,038,000	$21,429,850	$35,054,080	$66,521,930	$3,326,097
Programmed CIP	$0	$132,933,558	$60,735,736	$37,344,160	$231,013,454	$11,550,673
Total	$1,322,075	$241,208,610	$153,993,434	$148,986,890	$544,625,009	$27,231,250

Source: 2021 Nebraska CIP and McFarland Johnson analysis, 2023.

[1] Annual Local Share

[2] OMA, LNK, and GRI are not included in this table and the total 20-year need likely exceeds $1 billion.

Table 14 shows the estimated funding available over the 20-year planning period.

Table 14: Estimated Funding Over 20-Year Period

	Non-NPIAS	Community	Complex	Commercial[1]	Total	Average Annual
Estimated Entitlement	$0	$144,000,000	$45,000,000	$103,000,000	$312,000,000	$15,600,000
Estimated Discretionary [2]	$0	$14,111,458	$11,595,412	$49,517,120	$75,223,990	$3,761,200
Estimated Total Federal Funding	$0	$158,111,458	$56,595,412	$152,517,120	$387,223,990	$19,361,200
Estimated Total Programmed CIP Funding	$1,322,075	$241,208,610	$153,993,434	$148,986,890	$545,511,009	$27,275,550
Total Funding Gap	$1,322,075	$83,097,152	$97,398,022	$(3,530,230)	$158,287,019	$7,914,351
State Funding Discretionary Match[3]	$1,189,868	$12,060,431	$7,699,672	$7,449,345	$27,275,550	$1,363,778
Revised Surplus/ (Deficit)	$(132,208)	$(71,036,722)	$(89,698,350)	$10,979,575[4]	$(131,011,469)	$(6,550,573)

Source: 2021 Nebraska CIP and McFarland Johnson analysis, 2023.

[1] OMA, LNK, and GRI are not included in this table and the total 20-year programmed CIP funding likely exceeds $1 billion.

[2] The estimated discretionary funding is derived from the average historical discretionary funding awarded multiplied by 20 years through the planning period.

[3] For non-NPIAS airports, a 90 percent State match was assumed while at community, complex, and commercial airports, a five percent match was assumed.

[4] Discretionary monies were calculated for the 20-year planning period using the average annual discretionary received between 2011-2020. By using averages, years with much higher than normal discretionary funding can skew the data. In any given year, there will be no excess of federal funding on AIP projects. Therefore, any surplus would be assumed an anomaly due to one year of much higher than average funding.

Three funding scenarios were analyzed: a no change scenario, a partial funding increase scenario, and a full funding scenario. The no change scenario assumes that the funding available at the time of the publishing of this report, 2023, remains steady throughout the 20-year planning period. For the purposes of this report, the 5-year funding averages of LB138 (approximately $1.6 million) and of LB727 (approximately $1.65 million) were used as the no change funding scenario. This scenario shows an existing State revenue of approximately $3.25 million. The partial funding increase scenario demonstrates potential meaningful increases in funding that could grow the State's airports fund. The full funding scenario assumes that the State is able to fund all CIP projects for all airports in the State by either matching half the local share of federally funded AIP projects or fully funding ineligible projects with State dollars.

A project prioritization methodology should be developed based on the Division goal to develop a method by which to rank projects.

The prioritization categories to consider, as presented in **Table 15**, are safety, airport asset preservation, planning, landside asset preservation, airside growth and development, and landside growth and development. Further development of prioritization models by NDOT (outside the scope of this work) should be developed to consider individual airport projects/needs from focused studies and master plans alongside SASP recommendations.

Table 15: Project Prioritization Methodology for Airport Projects

Category
Safety: • Obstruction removal and avigation easements/acquisitions for existing surfaces • Lighting • Fencing • Existing safety areas • ARFF Equipment • VISAIDs • SRE
Airside Asset Preservation: • Airside project justifications • Runway rehabilitation/reconstruction • Taxiway rehabilitation/reconstruction • Apron rehabilitation/reconstruction • Weather station repair/maintenance • NAVAID repair/maintenance
Airport Planning: • Master Plans • ALPs • Environmental documents • Project justifications
Landside Asset Preservation: • Fuel farm replacement • SRE building rehabilitation • ARFF building rehabilitation • Terminal building rehabilitation • Hangar maintenance • Vehicle parking/access road(s) repair/maintenance
Airside Growth & Development: • Runway extension/expansion • New taxiway &/or taxiway extension • New or expanded apron • New NAVAIDs • New weather stations
Landside Growth & Development: • New fuel farms

Category
• New hangars • New or expanded terminal building • New ARFF building • New SRE building • New/expanded vehicle parking/access road(s)

Source: McFarland Johnson analysis, 2023.

POLICY & PROJECT RECOMMENDATIONS

Nebraska SASP addresses a range of topics that arose from the stakeholder engagement process. Policy framework is needed to maintain, sustain, and grow Nebraska airports over the 20-year planning period and recommendations will be critical to the development of individual airport planning and project development activities. The policy framework will also serve as a critical input into the development and updates to individual airport master plans, and associated project development activities. During the planning process, 15 policy frameworks were reviewed. **Table 16** shows the summary of recommendations that resulted from these policy reviews.

Table 16: Summary of Recommendations

Category	Recommendation
Channeling Act Legislation	A review with airport stakeholders should be conducted to determine which approach is in the best interest of Nebraska airports. Data on historical discretionary funding gaps relative to neighboring states is presented in Chapter 8 and can be used to inform the review.
Multimodal Connectivity	The State should consider discussion with other modes of transportation to explore connectivity options.
Land Use and Zoning	Nebraska should develop a guidebook to supplement the existing regulations that will aid communities in addressing land use conflicts.
Economic Development	An opportunity for Nebraska is to conduct workshops educating airport operators and inviting key industries to share and communicate the ways in which they use Nebraska airports and maintaining an overall dialogue on mutual interests to ensure key industries in the State are supported by the appropriate airport facility infrastructure. Additionally, NDOT should consider furthering its partnership with the Department of Economic Development as a way to develop a mutually beneficial relationship that would aid both airport development as well as generate business for the economies in which these airports are located.
Tourism and Marketing	Establishing and maintaining a dialogue between NDOT Aeronautics and State tourism officials on how airports aside from OMA, LNK and GRI can support State tourism efforts. Soliciting examples from GA and other commercial airports can

Category	Recommendation
	help promote mutual interest of tourism and the State aviation system.
Financial Sustainability Best Practices	It is recommended that hangar lease rates consider the full cost i.e., the cost of maintenance and/or replacement value. Airports should also charge fair market value for nonaeronautical leases.
Benchmarking Against Neighboring States	It is recommended that Nebraska continues to use the state aviation tax (fuel taxes, etc.) for its dedicated aviation fund. Nebraska should also evaluate potential fuel tax rate charges to be in line with those present in other neighboring States. As of March 2023, there is no aircraft registration fee in Nebraska; whereas there is one (based on the age and use) in Iowa. It is also recommended that Nebraska consider implementing an aircraft registration fee that would go directly into the dedication aviation fund.
Emergency Response and Training Planning	In addition to State and local plans, it is recommended that all airports have access to specific ARFF training opportunities to prepare in the event of an aircraft emergency.
Aviation Education Support	NDOT should support training of future aviation workforce through collaborative education efforts with high school, technical education, and university programs. Furthermore, it is recommended that support be put into place to help educate and train airport sponsors on how to best support and advocate for their airports.
Workforce Development	It is recommended that NDOT continue to support the efforts of airport sponsors and aeronautical businesses develop to their workforce in addition to making efforts to recruit aviation professionals to Nebraska.
Electrification and Alternative Fuel Sources	In the short term (1-3 years) it is recommended to do a review/small study on the electrification needs and alternative fuel, applicability, and needs of Nebraska aviation with a more detailed study likely required in the years that follow.
Air Service Development/Enhancement	NDOT and Commercial Service airports should consider exploring opportunities to take a more active role in an attempt to improve the quality of EAS in the State for Nebraskans, visitors and businesses that rely on the service. This would include public outreach and user surveys, discussions with existing and potential operators as well as the US DOT to potentially coordinate bid cycles. The overall end goal should be the maximum, safe and efficient air service that is best aligned with user needs.
Modernized Fee Structure	It is recommended that a modernized fee structure be developed and implemented. This will require coordination and consideration of all system users, surrounding states and what

Category	Recommendation
	will ultimately become common practice as this issue is not exclusive to Nebraska.
Project Prioritization Model	NDOT should develop a project prioritization model to distribute State funds to public use airports. By establishing a prioritization model, it will ensure the highest and best use of limited State funds across the system.
Airport Capacity Planning	Capacity planning by individual airports should be emphasized by NDOT in order to justify facility needs that exist outside of those identified in this SASP.

Source: McFarland Johnson analysis, 2023.

Ultimately, it is the goal of NDOT to maintain and support growth of the system of airports within the State of Nebraska. With industry changes and newly available State funding, it is recommended that NDOT modernize their fee structure to maintain and/or grow their revenue stream while also using their available resources to fund the projects that most benefit the statewide system.