# IOWA AVIATION SYSTEM PLAN

# AIRPORT SUMMARY REPORT

# SAC CITY MUNICIPAL AIRPORT

Prepared for:

IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION

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# IOWA AVIATION SYSTEM PLAN - AIRPORT SUMMARY REPORT

This summary is intended to provide a general understanding of the specific information, findings and recommendations from the Iowa Aviation System Plan. An individual airport report was prepared for each public owned airport in Iowa.

## INTRODUCTION

The Iowa Department of Transportation Office of Aviation, along with the System Plan Advisory Committee and consultant team, developed a strategic approach by which to identify and evaluate the needs of the Iowa aviation system within the period 2004 to 2024.

The Iowa aviation system is an integral component of the state's transportation network. The aviation system meets aviation and economic needs and links Iowa to the national transportation system. Aviation provides an important and efficient means of transportation for the movement of people and goods. The vision for the Iowa aviation system is to have safe, quality facilities and services that support transportation demands and meet economic development and quality of life needs in the state.

The primary goal of the system plan is to provide a framework that supports informed decisions related to planning and developing the Iowa aviation system. The objectives of this update of the Iowa Aviation System Plan are to:

- Identify and analyze aviation assets, including airspace, ground facilities and services, and needs of the state to assure that aviation performs its role in Iowa's economy and for its citizens.
- Provide continued guidance for development of a system of airports to meet the state's existing and future air transportation needs, projecting five, ten, and 20-year projects and giving guidance to meet needs.
- Build consensus among public policy makers, airport sponsors and users so that the plan's recommendations can be more readily accomplished.

Each airport was assigned to a functional classification. Facility and service objectives were developed for functional classifications. Based on existing facilities and services, recommendations were set forth for each airport.

## SYSTEM GOALS

The following five goals and associated performance measures were identified and adopted to guide the Iowa aviation system development and establish the framework for the Iowa Aviation System Plan:

- **Development** – To provide an airport system that meets current and future customer needs.
- **Economic Support** – To promote an aviation system that sustains and enhances Iowa's economy.
- **Safety & Security** – To promote a safe and secure system of airports.
- **Accessibility** – To provide a system of airports that is accessible from both the ground and the air.
- **Education** – To support a system of airports that provides educational and career opportunities and promotes an understanding of the benefits of Iowa's air transportation system.

## Performance Measure & Benchmark Summary

### Performance Measure: Development

*Benchmarks*

- Airports meeting aircraft storage objectives
- Airports meeting aircraft parking objectives
- Airports meeting auto parking objectives
- Airports with Pavement Condition Index (PCI) rating of 70 or higher on primary runway
- Airports with current master plan or Airport Layout Plan (ALP)
- Airports included in a local comprehensive plan or with surrounding land use controls/zonings

### Performance Measure: Economic Support

*Benchmarks*

- Airports with jet fuel
- Airports with a runway length of 5,500 feet or greater
- Airports with rental car services
- Airports with a courtesy car available
- Airports with a 24-7 fueling (credit card or FBO)
- Iowa employment within a 30-minute drive time of Commercial or Enhanced Service airport
- Employment growth counties within 30-minute drive time of Commercial or Enhanced Service airport
- Airports supporting air cargo
- Airports with aircraft maintenance

### Performance Measure: Safety and Security

*Benchmarks*

- Airports with clear approaches to primary runway
- Airports with wildlife management plans
- Airports with emergency response plans
- Airports with perimeter fencing
- Airports with controlled access to airfield

### Performance Measure: Accessibility

*Benchmarks*

- Airports with precision approaches
- Airports with any instrument approach
- Airports with approach lighting system (ALS)
- Airports with a precision approach and ALS
- Iowa's Population within 30 minutes of any system airport
- Iowa's population within 30 minutes of a Commercial or Enhanced Service airport
- Iowa's population within 30 minutes of a General Service airport
- Iowa's population within 30 minutes of an airport with a non-precision approach
- Iowa's population within 30 minutes of an airport with a precision approach
- Iowa's population within 30 minutes of an airport with onsite weather reporting equipment
- Iowa's population within 60 minutes of an airport with one or more scheduled commercial airlines
- Iowa's population within 120 minutes of an airport with two or more scheduled commercial airlines
- Iowa's population within 120 minutes of an airport with two or more scheduled commercial airlines or 60 minutes of an airport with one or more scheduled commercial airlines

### Performance Measure: Education

*Benchmarks*

- Airports with on-site flight instruction
- Aviation related training programs connected with local schools
- Airports with public outreach/educational (following National Air Transportation Association (NATA,) National Business Aircraft Association (NBAA,) and Aircraft Owners and Pilots Association (AOPA) guidelines) programs, or hosting functions to bring the non-flying public to the airport

## AIRPORT FUNCTIONAL ROLES

Airports within any transportation system contribute to meeting air transportation and economic needs in different ways and at varying levels. While each airport within a system contributes in some way, airports fill different roles. Because airports in the Iowa aviation system play different roles, their needs for facilities and services also vary accordingly.

With input from the Iowa DOT Office of Aviation and the System Plan Advisory Committee, each public owned airport in Iowa was assigned to one of five roles.

## RECOMMENDED FUNCTIONAL AIRPORT ROLES

- **Commercial Service Airports** – these airports support some level of scheduled commercial airline service and they support a full range of general aviation aircraft to virtually all domestic and possibly some international destinations.
- **Enhanced Service Airports** – these airports support almost all general aviation aircraft, including most types of business jets; these airports generally serve as transportation centers and economic catalysts for the State.

  Facility and service objectives: 5,500' x 100' runway, parallel taxiway, precision approach, approach lighting, AWOS/ASOS, covered aircraft storage, jet and aviation fuel, full service FBO, and ground transportation
- **General Service Airports** – these airports support most twin and single engine general aviation aircraft and may experience occasional use by business jets. These airports support regional and in-state air transportation needs and local economic development.

  Facility and service objectives: 4,000' x 75' runway, partial parallel taxiway or turnarounds, non-precision approach, AWOS/ASOS, covered aircraft storage, jet and aviation fuel, limited service FBO, and ground transportation.
- **Basic Service Airports** – these airports support primarily single engine general aviation aircraft but may also sometimes accommodate smaller twin-engine general aviation aircraft. These airports support local air transportation, and special use aviation activities.

  Facility and service objectives: 3,000' x 60' runway (paved), 2,500' runway (turf), exits as needed, visual approach, covered aircraft storage, and aviation fuel.
- **Basis Service II Airports** – These airports support local air transportation, special use aviation activities, and may duplicate services in the area.

  No facility and service objectives are specified for these airports.

## AIRPORT FACILITY AND SERVICE OBJECTIVE

Airport facility and service objectives were established for the functional roles. These objectives were developed with input from the Iowa DOT Office of Aviation and System Plan Advisory Committee. The facility and services objectives should not be considered a requirement or development standard. Current airport facilities and services were compared to the facility and service objectives. Where existing facilities and services do not meet or exceed the objectives, consideration may be given by the airport owner to develop future facility and services improvements. Development of some facilities would require local support and justification of need through development of an airport master plan or through the environmental documentation process.

No state or federal funding resources are guaranteed or committed by inclusion of specific facility and service improvements in this report.

Facility and service objectives for commercial service airports should, at minimum, equal those developed for enhanced service airports as well as recommendations set forth in a current Airport Master Plan.

Basic Service II airports should meet state minimum safety standards: Runway width 50', visual approach 20:1, wind indicator, and 24 hour public telephone. Additional facility and service objectives were not established for Basic Service II airports.

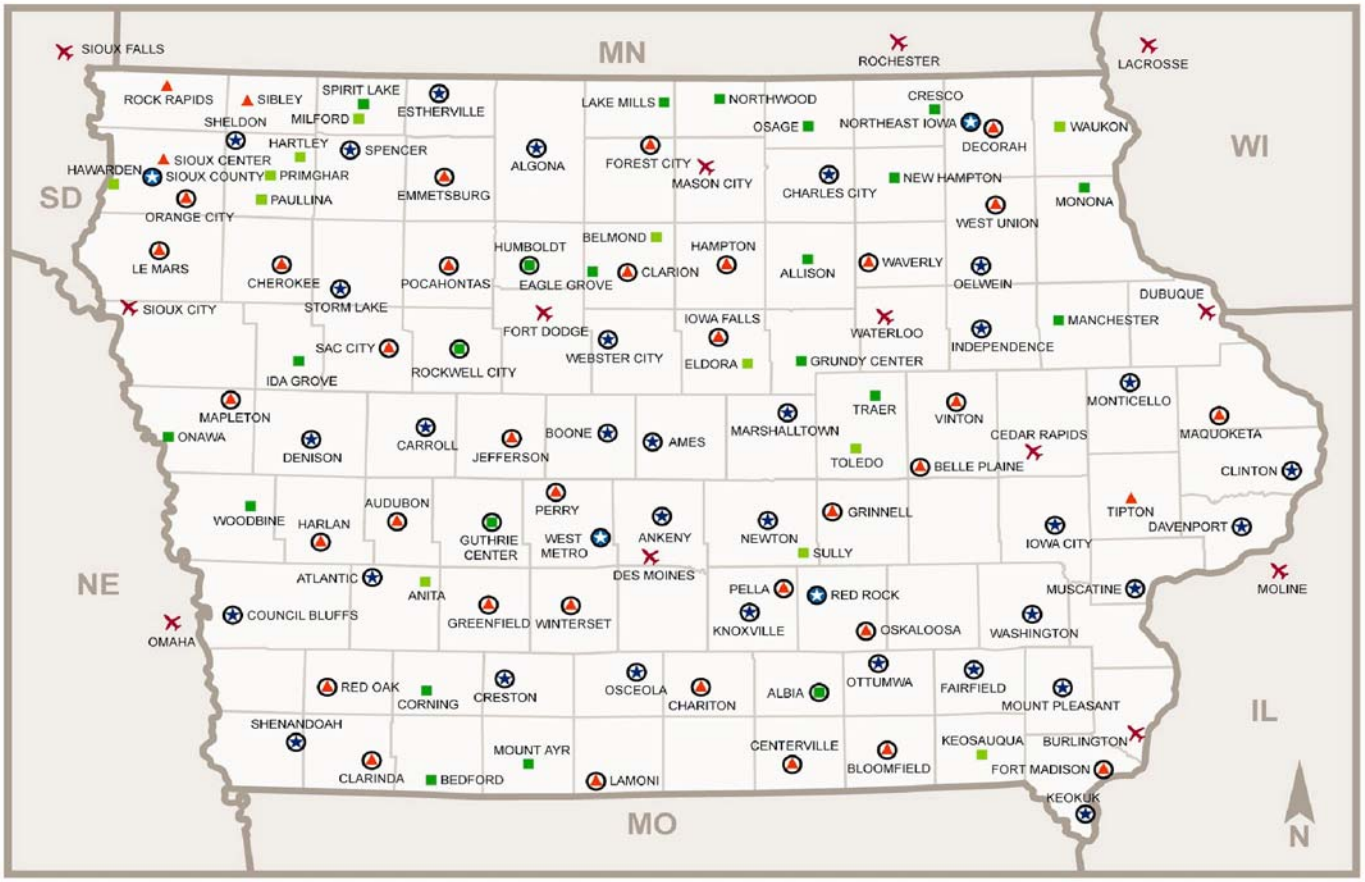
The following table sets forth the facility and service objectives for Enhanced Service, General Service, and Basic Service airports.

# FACILITY AND SERVICE OBJECTIVES

| | Enhanced Service Airports | General Service Airports | Basic Service Airports |
|---|---|---|---|
| Airport Reference Code (ARC) | C-II | B-II | B-I or Below |
| Runway Length (Primary) | Minimum 5,500 feet | Minimum Length 4,000 feet | 3,000 feet Paved; 2500 feet Turf |
| Runway Width | 100 feet | 75 feet | 60 feet Paved; 120 feet Turf |
| Taxiway | Full Parallel | Partial or Turnarounds | Exits as Needed |
| Approach | Precision | Non-Precision | Visual |
| Runway Lighting | MIRL/HIRL | MIRL | LIRL (Pilot Controlled) |
| Taxiway Lighting | MITL/HITL | LITL | Not An Objective |
| Weather Reporting | AWOS/ASOS | AWOS/ASOS | Not An Objective |
| Approach Aids | ALS | ALS | Not An Objective |
| Visual Guidance Slope Indicator (VGSI) | Both Runway Ends | Both Runway Ends | Not An Objective |
| Runway End Identifier Lights (REILS) | Both Runway Ends | Both Runway Ends | Not An Objective |
| Rotating Beacon | Rotating Beacon | Rotating Beacon | Not an Objective |
| Lighted Wind Indicator | Lighted Wind Indicator | Lighted Wind Indicator | Lighted Wind Indicator/Wind Sock |
| RCO Facilities | RCO Facilities | Not an Objective | Not an Objective |
| Other Pavement Strength | To Be Determined | To Be Determined | To Be Determined |
| Covered Storage | For 100% of Based Aircraft | 100% of Based Aircraft | 100% of Based Aircraft |
| Aircraft Apron | 100% of Daily Transient | 50% of Daily Transient | 50% of Daily Transient |
| Terminal/Administration Bldg. | Yes | Not An Objective | Not An Objective |
| Auto Parking | Spaces equal to 100% of Based Aircraft (paved) | 75% of Based Aircraft | 50% of Based Aircraft |
| Fencing | Perimeter | Not An Objective | Not An Objective |
| Other | Building for Airport Maintenance Equipment | Not An Objective | Not An Objective |
| Fuel | 100LL & Jet A - 24 Hour | 100LL & Jet A 24 Hour (as needed) | 100LL |
| FBO | Full Service - 24 Hour | Limited | Not An Objective |
| Ground Transportation | Rental Car, Taxi or Other | Courtesy Car/Off Site Rental Car | Not An Objective |
| Food Services | Vending | Vending | Not An Objective |
| Phone | Yes | Yes | Yes |
| Restroom | Yes | Yes | Yes |
| Pilot Lounge | Yes with Weather Reporting | Yes with Weather Reporting | Not An Objective |
| Security* | * | * | * |
| Snow Removal | Snow Removal | Snow Removal | Yes |

*See the Iowa DOT Security Enhancement Guidelines.

# Airports by System Role



# SAC CITY MUNICIPAL AIRPORT (SKI)
# INDIVIDUAL SUMMARY REPORT

The Sac City Municipal Airport is owned and operated by the City of Sac City and is included in the National Plan of Integrated Airport Systems (NPIAS). The NPIAS designates the Sac City Municipal Airport as a general aviation airport. The Iowa Aviation System Plan identifies the Sac City Municipal Airport as a General Service airport.

General aviation airports in Iowa provide an important means of accessing the communities and regions they serve and provide a link to the national transportation system. The Sac City Municipal Airport serves the general aviation needs of Sac County and the City of Sac City. The airport is utilized mostly by single engine aircraft. The airport has no fixed-base operator (FBO) but offers fueling (100LL). The airport also offers aircraft parking and hangar storage.

A variety of aeronautical activities occur at the Sac City Municipal Airport including: personal travel, business travel, agricultural and medical transport.

## LOCATION MAP

The Sac City Municipal Airport is located in Sac County approximately 3 miles south of the City of Sac City. Local access is provided via County Roads M54 and D42.

## EXISTING FACILITIES

The Sac City Municipal Airport supports two runway facilities. Runway 18/36 is paved and is 4,100 feet in length and 75 feet in width. The concrete surfaced runway has a 12,500 pound single wheel loading. Medium intensity edge and threshold lights are in place. Runway 36 is equipped with runway end identifier lights (REIL) and runways 18 and 36 are equipped with pulsating visual approach slope indicators (PVASI).

Runway 14/32 is asphalt and is 2,667 feet long and 44 feet wide. Reconstruction of Runway 14/32 will be completed in 2004. The concrete surfaced runway, when completed, will be 60 feet in width and 2,330 feet in length.

A non-precision instrument (NPI) approach may be made to Runway 16:

NDB or GPS Runway 36

Both Runways are served by a connecting taxiway system.

The airport has a rotating beacon, lighted wind indicator and non-directional beacon (NDB).

Landside facilities include a terminal building, aircraft storage hangars, fuel facilities, apron area and vehicle parking.

Aircraft storage facilities are noted as follows:

| Type | Year Constructed | Aircraft Storage |
|---|---|---|
| Carousel | Unknown | 4 |
| Conventional | Unknown | 6 |
| Tee | Unknown | 6 |
| Tee | Unknown | 2 |
| Conventional | Unknown | 1 (shop) |

The airport has storage for 19 aircraft.

Fuel (100LL) storage is provided by an above ground 6,000 gallon tank. Fuel is dispensed by self-serve pump.

The concrete surfaced (4,000 square yards) apron provides two tiedowns.

Parking is available for 28 vehicles.

## EXISTING SERVICES

Aeronautical services provided include fuel (100LL) and pilot instruction.

The terminal building provides a pilot lounge, rest rooms, and other amenities.

## SAC CITY MUNICIPAL AIRPORT (SKI)

Federal Role: General Aviation Airport
State Role: General Service Airport

## CURRENT AND FORECAST DEMAND

There were 13 aircraft based at the airport in 2003. All of those were single engine aircraft. The number of based aircraft is forecast to increase to no fewer than 15 in 2022.

There were an estimated 6,328 total annual operations conducted in 2003. The total number of operations is expected to increase to 7,960 in 2022.

| Operational Activity | 2003 | 2007 | 2012 | 2022 |
|---|---|---|---|---|
| Based Aircraft | 13 | 13 | 14 | 15 |
| Annual Operations | 6,328 | 6,604 | 7,447 | 7,960 |
| Itinerant Operations | 3,596 | 3,962 | 4,468 | 4,776 |
| Local Operations | 2,732 | 2,642 | 2,979 | 3,148 |

The based aircraft mix and aircraft operational mix are not expected to change significantly over the 20 year planning period. Reference may be made to Chapter Four of the 2004-2024 Iowa Aviation System Plan for additional forecast data regarding:

- Based aircraft mix
- Operational mix
- Annual Instrument Approaches
- Annual Instrument Operations

## AIRPORT FACILITY AND SERVICE NEEDS

The Sac City Municipal Airport has been classified as a General Service airport and should provide facilities and services commensurate with its system role.

The following table summarizes current facilities and services, the airport's facility and service objectives, and actions/projects recommended to meet objectives within the context of the system plan. Local airports may have additional projects planned to accommodate local needs and demand.

| Airside Facilities | Existing | System Objective | Recommendation |
|---|---|---|---|
| Airport Reference Code | B-II | B-II | None |
| Primary Runway Length | 4,100' | 4,000 min. | None |
| Primary Runway Width | 75' | 75' | None |
| Taxiway | Connecting & Turnaround | Partial or Turnaround | Extend turnaround |
| Approach | NPI | Non-Precision | None |
| Runway Lighting | MIRL | MIRL | None |
| Taxiway Lighting | MITL | LITL | None |
| Approach Aids | None | None | None |
| Visual Guidance Slope Indicators (VGSI) | VASI Runway 18/36 | Both Ends | None |
| Runway End Identifier Lights (REIL) | Runway 36 | Both Ends | Add REIL Runway 18 |
| Rotating Beacon | Yes | Rotating Beacon | None |
| Lighted Wind Indicator | Yes | Lighted Wind Indicator | None |
| RCO Facilities | No | Not an Objective | None |
| Pavement Strength | 12,500 lb. SW | To be determined | None |
| Landside | | | |
| Covered Storage | 19 | 100 % Based Aircraft | None |
| Aircraft Apron | 4,000 SY | 50% Daily Transient | None |
| Terminal/Admin Building | Yes | Not an Objective | None |
| Auto Parking | 28 spaces | Space equal to 75% based aircraft | None |
| Fencing | No | Not an Objective | None |
| Storage | None | Not an Objective | None |
| Fuel | 100LL | 100LL, Jet A | None |
| FBO | No | Limited | None |
| Ground Transportation | Courtesy Car | Courtesy car/off-site rental car | None |
| Food Services | None | Vending | None |
| Phone | None | Phone | None |
| Restroom | Yes | Restroom | None |
| Pilot Lounge | Yes | Yes w/weather reporting | None |
| Security* | * | * | * |
| Snow Removal | Yes | Snow Removal | None |
| Other | None | None | None |

*Security enhancements for each airport depend on the size and activity at the airport. Each airport is encouraged to complete a security plan that addresses security enhancements recommended by the Transportation Security Administration and the Iowa DOT.

## SYSTEM DEVELOPMENT COSTS

| Development Item | 2004-2009 |
|---|---|
| Extend turnaround | $120,000 |
| Add REIL Runway 18 | $25,000 |
| Airfield lighting system replacement Runway 14/32 | $139,008 |
| Replace rotary beacon | $30,000 |
| Lighted wind cone | $17,445 |
| **Total** | **$331,453** |

## OTHER RECOMMENDATIONS

Airport improvements identified on the Airport Capital Improvement Program (ACIP) data sheets are noted as follows:

- AWOS Installation
- Airport Access Road Improvements

## DEVELOPMENT COSTS - OTHER

| Development Item | 2004-2009 |
|---|---|
| AWOS Installation | $144,680 |
| Airport access road improvements | $69,681 |
| **Total** | **214,361** |

Reconstruction of Runway 14/32 was programmed for completion in 2004.

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