Chapter Four: Airport Roles

Airports in Iowa serve different types of demand and meet the needs of different users. An airport's role depends on aviation demand and the facilities and services provided. This chapter describes the roles and factors evaluated to assign airports into one of five airport roles. Facilities and services important for each role have been identified and targets established for each role. These facility and services targets are also described in this chapter.

4.1 Airport Roles

Airport roles identify the function that airports serve within the state aviation system as well as the general types of aircraft an airport is capable of supporting. Airports in the 2004 Iowa State Aviation Plan were categorized into five airport roles. The 2010 Iowa State Aviation Plan update maintains five airport roles, with slight modifications to the names and descriptions identified in the 2004 plan.

- **Commercial Service Airports** – These airports support some level of scheduled commercial airline service and have the infrastructure and services available to support a full range of general aviation activity. These facilities meet most needs of the aviation system and serve as essential transportation and economic centers of the state.

- **Enhanced Service Airports** – These airports have runways 5,000 feet or greater in length with facilities and services that accommodate a full range of general aviation activity, including most business jets. These airports serve business aviation and are regional transportation centers and economic centers.

- **General Service Airports** – These airports have runways 4,000 feet or greater in length with facilities and services customized to support most general aviation activity, including small to mid-size business jets. These airports serve as a community economic asset.

- **Basic Service Airports** – These airports have runways 3,000 feet or greater in length with facilities and services customized to meet local aviation demands.

- **Local Service Airports** – These airports support local aviation activity with little or no airport services.

4.1.a Role Classification Criteria

Each system role is defined by a set of criteria based upon current levels of infrastructure and services. Criterion within each role defined required levels of facilities and services needed to support the goals and objectives of the aviation system. Special criteria, such as the availability of commercial airline service or type of runway surface, also influenced the classification of airports.

Types of criteria vary by classification since airports with more enhanced facilities and services support the needs of a greater variety of aviation users. The following summarizes criteria for each system role that influenced the classifications of Iowa's airports.

Commercial Service – Airports supporting the operations of scheduled commercial air service typically offer a higher level of infrastructure and services that are capable of meeting the requirements of most aircraft types. Airports offering scheduled commercial airline service were automatically classified into the Commercial Service role.

Enhanced Service – Criteria for Enhanced Service airports reflect design elements and level of services typically offered to support the operations of business jet and twin-engine aircraft. Airports in this role are able to meet the needs of most general aviation aircraft users. Airports must have the following criteria to be classified as an Enhanced Service airport:

- 5,000 foot or longer paved runway.
- Airport Reference Code (ARC) of C-II or greater.
- Full-time staffing during regular business weekday and weekend hours.
- Availability of based services such as aircraft maintenance and repair, flight training, rental aircraft, and aircraft charter operations.
- Availability of airport or Fixed Base Operator (FBO) staffing 24 hours a day.
- Availability of jet fuel.
- Installation of on-airport automated surface observing systems (ASOS) or automated weather observing systems (AWOS) weather equipment.

General Service – Criteria for General Service airports reflect infrastructure design and level of services required to support the operations of small business jet and twin-engine aircraft that typically operate at these types of airports:

- 4,000 foot or longer paved runway.
- Based services such as aircraft maintenance and repair, flight training, rental aircraft, and aircraft charter operations.
- Staffing during regular business hours.

Basic Service – Criteria for Basic Service airports are based upon levels of infrastructure and services that support local and special interest aviation demands such as those associated with recreational general aviation and agricultural operations:


- 3,000 feet or longer paved runway.
- Availability of aircraft fuel.
- Some availability of airport or FBO personnel or on-call personnel 24 hours a day.

Local Airports – These airports serve local aviation activity and have little or no services available. Included are airports with only turf runways and those airports that do not have the infrastructure or services to fill the Basic Service role.

4.1.b Current Role Classification

The classification of airports into one of the five roles was based on whether airports currently meet the specified infrastructure and service criteria. Current classification of airports resulted in eight Commercial Service airports, fifteen Enhanced Service airports, thirty-one General Service airports, nineteen Basic Service airports and forty-four Local airports. **Figure 4-1** illustrates the locations of each airport by role and **Table 4-1** lists the airports by role classification.

Figure 4-1: Iowa Airports by Role
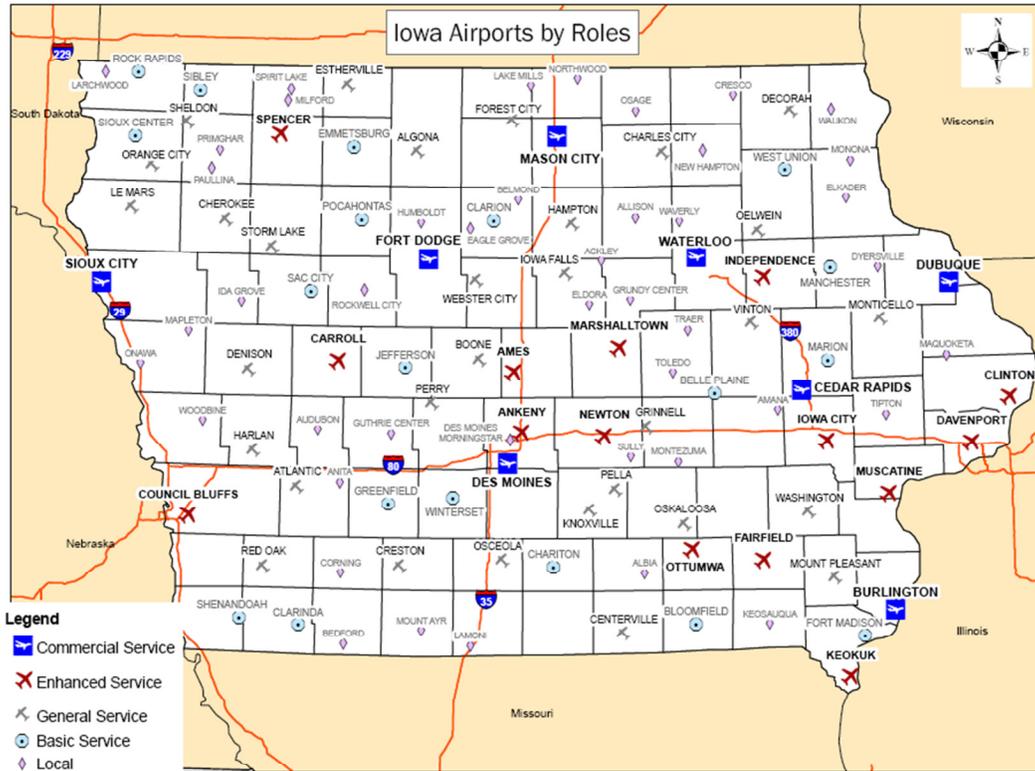
Source: Kirkham Michael (2010)

Table 4-1: 2010 Airport Roles

Commercial Service	Enhanced Service	General Service	Basic Service	Local
Burlington	Ames	Algona	Belle Plaine	Ackley*
Cedar Rapids	Ankeny	Atlantic	Bloomfield	Albia
Des Moines (International)	Carroll	Boone	Chariton	Allison
	Clinton	Centerville	Clarinda	Amana*
Dubuque	Council Bluffs	Charles City	Clarion	Anita
Fort Dodge	Davenport	Cherokee	Emmetsburg	Audubon
Mason City	Fairfield	Creston	Fort Madison	Bedford
Sioux City	Independence	Decorah	Greenfield	Belmond
Waterloo	Iowa City	Denison	Jefferson	Corning
	Keokuk	Estherville	Manchester	Cresco
	Marshalltown	Forest City	Marion*	Des Moines (Morningstar)*
	Muscatine	Grinnell	Pocahontas	
	Newton	Hampton	Rock Rapids	Dyersville*
	Ottumwa	Harlan	Sac City	Eagle Grove
	Spencer	Iowa Falls	Shenandoah	Eldora
		Knoxville	Sibley	Elkader*
		Le Mars	Sioux Center	Grundy Center
		Monticello	West Union	Guthrie Center
		Mount Pleasant	Winterset	Humboldt
		Oelwein		Ida Grove
		Orange City		Keosauqua
		Osceola		Lake Mills
		Oskaloosa		Lamoni
		Pella		Larchwood*
		Perry		Mapleton
		Red Oak		Maquoketa
		Sheldon		Milford
		Storm Lake		Monona
		Vinton		Montezuma*
		Washington		Mount Ayr
		Webster City		New Hampton
				Northwood
				Onawa
				Osage
				Paullina
				Primghar
				Rockwell City
				Spirit Lake
				Sully
				Tipton
				Toledo
				Traer
				Waukon
				Waverly
				Woodbine

*Private, public-use

4.2 Facility and Service Targets for Airport Roles

Facility and service targets were established for each airport role to reflect what is desirable for airports to effectively meet the aviation system goals and user needs. While not all targets are required for inclusion in a particular role, these targets are recommended as suggested levels of services or facilities appropriate for the type of use associated with each role. Airports may exceed suggested targets for their role to meet local needs, enhancing the benefits to the system's aviation users.

The targets are separated into four categories: airside facilities, landside facilities, services, and planning. Targets for each role vary based on facilities and services beneficial for airports to meet the needs of aviation users for that role. The Enhanced Service airports will have more targets since they need to meet the needs of business users. There are fewer targets for Local Service airports since they serve users with fewer operational requirements. Targets for Commercial Service airports were combined with Enhanced Service targets, though in most categories, Commercial Service airports will exceed targets to meet commercial air service aircraft requirements.

Table 4-2 located at the end of this chapter summarizes the specific criteria by role. The following sections provide more detail on the individual targets in the four categories.

4.2.a Airside Facility Targets

The targets established in the airside facility category are focused on the physical infrastructure of the airport. Runway length was considered a requirement for inclusion in the airport role. Airside facility targets include the following:

- **Airport Reference Code (ARC)** – the ARC for each airport refers to how the airfield is designed to meet the most demanding type of aircraft using the airport. The targets range from C-II for Commercial Service and Enhanced Service airports to A-I for Local Service airports.

- **Primary Runway Length** – Runway length is a requirement for inclusion in a particular airport role. To be considered an Enhanced Service airport, the runway must be 5,000 feet or longer; 4,000 feet for a General Service airport; 3,000 feet for Basic Service, and no requirement for Local Service. Airports may exceed this target if meeting local needs.

- **Primary Runway Width** – The runway width target varies from a minimum of 100 feet in width for Enhanced Service airports, which is the FAA standard for C-II aircraft, to a minimum of 50 feet in width for Local Service airports, which is the state minimum standard.

- **Type of Parallel Taxiway** – To increase the safe operations at an airport, taxiways are recommended in various configurations. Full parallel taxiways are recommended for Enhanced Service airports; turnarounds at both runway ends that meet FAA design standards are recommended for General Service airports; and exits, as necessary, from the runway to aircraft parking and hangar areas are recommended for Basic Service airports.

- **Type of Runway Approach** – Vertically guided approaches are recommended for Enhanced Service airports, non-precision approaches for General Service airports and visual approaches for Basic and Local Service airports.

- **Runway Lighting** – Medium Intensity Runway Lighting (MIRL) is targeted for Enhanced and General Service airports, while Basic Service airports should have at least Low Intensity Runway Lighting (LIRL). No target is established for Local Service airports.

- **Taxiway Lighting** – Medium Intensity Taxiway Lighting (MITL) is recommended for Enhanced Service and General Service airports, while no target is recommended for Basic and Local Service airports.

- **Visual Guidance Slope Indicators** – Visual guide slope indicators or an instrument landing system (ILS) on both primary runway ends is recommended for Enhanced Service airports. Visual guide slope indicators on both primary runway ends are recommended for General Service airports. No targets were established for Basic and Local Service airports.

- **Runway End Identifier Lights (REILs)** – REILs or an instrument landing system (ILS) on both primary runway ends are recommended for Enhanced Service airports. REILs on both primary runway ends are recommended for General Service airports. REILS are not targets for Basic Service and Local airports.

- **Rotating Beacons –** It is recommended that rotating beacons be installed at Enhanced, General Service and Basic Service airports.

- **Lighted Wind Indicators** – Installation of lighted wind indicators to provide local wind condition information to pilots is an important target for all of the airports in system.

- **Remote Communications Outlets (RCOs)** – Providing RCOs for communication purposes is a target for Commercial Service and Enhanced Service airports. No target is established for General Service, Basic, or Local Service airports.

- **Adequate Wind Coverage or a Crosswind Runway –** The recommended target for Enhanced and General Service airports in the NPIAS is to provide ninety-five percent (95%) wind coverage either through runway alignment or crosswind runway. No target is established for Basic or Local Service airports.

4.2.b Landside Facility Targets

Providing infrastructure to support user access and operations at an airport is important to meet user needs. Targets for landside facilities focused on the physical infrastructure on the landside of the airport. These include the following:

- **Covered Aircraft Storage** – Providing adequate storage of all based aircraft is an important target for all airports except Local Service airports.

- **Overnight Storage for Business Aircraft** – Providing adequate overnight covered storage for the average itinerant aircraft/business user is a target for Enhanced and General Service airports.

- **Adequate Aircraft Apron Area** – Adequate parking of transient aircraft is an important part of airport operations. It is recommended that Enhanced and General Service airports have an adequate apron to accommodate 100 percent (100%) of the average daily transient aircraft. It is recommended that Basic Service airports have an apron that accommodates fifty percent (50%) of the transient aircraft. No target is established for Local Service airports.

- **Terminal/Administration Building** – Terminal/administration buildings or dedicated administration areas are recommended targets for Enhanced and General Service airports. The target for Basic Service airports is a waiting area inside a building. No target was established for Local Service airports.

- **Paved Entry/Terminal Parking –** Paved entrance roads and terminal parking are targets for Enhanced and General Service airports. No targets were established for Basic or Local Service airports.

4.2.c Service Targets

Providing services to adequately meet the needs of aviation users is an important component of operating an airport. Service targets reflect the types of services necessary to meet typical user needs. Targets that are required for inclusion in a role are indicated under the description. Service targets include:

- **Fuel (type and hours) –** Providing fueling options and availability is important for aviation users, particularly at airports used by business aircraft. The required target for inclusion as an Enhanced Service airport is to have both Jet A and 100 LL available 24 hours a day. It is recommended that 100 LL is available at both General Service and Basic service airports, and Jet A available at General Service airports as needed.   No fueling target was established for Local Service airports. Although not a designated target, all airports are encouraged to provide available automobile gas for aircraft at the airport.

- **Attendance**

    o **Weekday Hours of operation –** Airports must be staffed during normal business hours and be available on-call after hours to be classified as Enhanced or General Service airports.   On-call staff must be available for Basic Service airports. Staffing is not a target for Local Service airports.

    o **Weekend Hours of operation -** Airports must have staffed weekend hours and be available on-call to be classified as Enhanced or General Service airports. On-call staff must be available for Basic Service airports. Staffing is not a target for Local Service airports.

- **Ground transportation –** Providing some form of ground transportation for pilots and users to reach community destinations is an important service, particularly for airports serving business users. The availability of a courtesy car or rental car is a target for Enhanced and General Service airports. This is not a target for Basic or Local Service airports.

- **Food and Beverage –** Providing vending machines, at a minimum, for food and beverages is recommended for Commercial Service, Enhanced Service, and General Service airports. This is not a target for Local Service airports.

- **Posted Contact Information** – Posting a list of contact information so that users know who to contact in an emergency or who to report issues is recommended for all airports.

- **Internet Access –** Commercial Service, Enhanced Service and General Service airports are encouraged to have internet access available to accommodate pilots in accessing weather and flight planning services. Internet access is not a target for Local Service airports.

- **Restroom Facilities –** Commercial Service, Enhanced Service, General Service, and Basic Service airports are recommended to have restroom facilities available to aviation users. This is not a target for Local Service airports.

- **Pilot Area –** A pilot lounge or designated area is a recommended target for Commercial Service, Enhanced Service and General Service airports. This is not a target for Basic Service and Local Service airports.

- **Security –** All airports are encouraged to have a security plan appropriate to their airport role classification and security risk.

- **Snow Removal –** Timely snow removal is recommended to facilitate continual operations for Commercial Service, Enhanced Service and General Service airports. It is recommended that Basic Service airports and hard surface Local Service airports provide snow removal as necessary.

- **Rental Aircraft –** In an effort to provide access to aircraft and facilitate flight training, it is recommended that Commercial Service, Enhanced Service and General Service airports have rental aircraft based at their airports. Rental aircraft is not a target for Basic Service and Local Service airports.

- **Flight Training –** It is recommended that Commercial Service, Enhanced Service, General Service, and Basic Service airports have flight training opportunities available at their airports. This is not a target for Local Service Airports.

- **Aircraft Maintenance/Repair –** Providing access to aircraft maintenance and repair is important to serve based pilots as well as transients. Commercial Service and Enhanced Service airports are encouraged to have based aircraft maintenance and repair capabilities. General Service airports are encouraged to have aircraft maintenance and repair opportunities available at their airports. This is not a target for Basic Service and Local Service airports.

- **Aircraft Charter Operations –** Providing access to aircraft charter opportunities is important, particularly in areas with high employment and business activity. Commercial Service and Enhanced Service airports are encouraged to have charter operations based at their airports. General Service and Basic Service airports are encouraged to have charter service available at their airports. This is not a target for Local Service airports.

- **Weather Reporting/Flight Planning Capabilities –** Since weather conditions have a significant impact on flight operations and pilots need to plan for their

flights, the provision of computers and weather reporting options to facilitate these activities is recommended as a target for Commercial Service, Enhanced Service and General Service airports. This is not a target for Basic Service and Local Service airports.

4.2.d Planning Targets

Planning activities support the preservation and long-term development of airports and support the goals of the aviation system. These include the following:

- **Established Height Zoning –** To protect the airspace around an airport, the establishment of height zoning in proximity of an airport is a target for all airports.

- **Local Comprehensive Plans Define Compatible Land Uses –** Since land use decisions that impact airports are often governed by entities other than the airport sponsor, it is important to have city and county comprehensive plans that provide for compatible land use near the airports. This is a recommendation for all airports.

- **Current Emergency Plans –** Airports of any size have the potential for an incident to take place on or near the airport. Documenting emergency response procedures, tailored to the type of airport by role, is recommended for all airports.

- **Current Airport Layout Plan (ALP) –** Documenting current facilities and planning for future development is important through current ALPs. The target for updating ALPs is every eight years for Commercial Service and Enhanced Service airports and every ten years for General Service airports. Basic Service airports, even those that are not NPIAS airports are encouraged to have a minimal ALP. No target is established for Local Service airports. The FAA expects airports that are part of the NPIAS to maintain a current ALP regardless of the state role**.**

4.3 Summary

Each airport plays an important role in the Iowa aviation system based upon varying levels of demand and the individual facilities and services each offers to meet the needs of users. Identifying a classification system provides a basis for identifying facilities and services that are needed to continue to meet aviation user needs. Roles identified in this chapter provide the groundwork for reviewing performance of each individual airport. Using these roles, strengths and weaknesses of the system as a whole can be addressed. The facility and service targets outline a general concept of what should be offered at each type of airport.

Table 4-2: Facility and Service Targets by Role

Description	Commercial Service/Enhanced Targets	General Service Targets	Basic Service Targets	Local Service Targets
Airside Facilities				
Airport Reference Code	C-II	B-II	B-I or below	A-I
Primary Runway Length	Minimum 5,000 ft	Minimum 4,000 ft	3,000 ft	Not an objective
Primary Runway Width	Minimum 100 ft	Minimum 75 ft	Minimum 60 ft	Minimum 50 ft
Type of Parallel Taxiway	Full parallel	Turnarounds meet standards (both ends)	Exits as needed	Not an objective
Type of Runway Approach	Vertical guidance	Non-precision	Visual	Visual
Runway Lighting	MIRL	MIRL	LIRL	Not an objective
Taxiway Lighting	MITL	MITL	Not an objective	Not an objective
Visual Guidance Slope Indicator	Both runway ends (or ILS)	Both runway ends	Not an objective	Not an objective
Runway End Indentifier Lights - as required	Both runway ends (or ILS)	Both runway ends	Not an objective	Not an objective
Rotating Beacon	Yes	Yes	Yes	Not an objective
Lighted Wind Indicator	Yes - multiple as needed	Yes	If open for night	If open for night
RCO Facilities	Tower or RCO	Not an objective	Not an objective	Not an objective
Wind coverage or crosswind runway	Crosswind runway or 95% wind coverage for NPIAS facilities	Crosswind runway or 95% wind coverage for NPIAS facilities	Not an objective	Not an objective
Landside Facilities				
Covered storage	100% of based aircraft	100% of based aircraft	100% of based aircraft	Not an objective
Overnight storage for business aircraft	Typical average aircraft/business user demand	Typical average aircraft/business user demand	Not an objective	Not an objective
Aircraft apron	100% of average daily transients	100% of average daily transients	50% of average daily transients	Not an objective
Terminal/administration building	Yes	Yes	Waiting area	Not an objective
Paved entry/terminal parking	Yes	Yes	Not an objective	Not an objective
Services				
Fuel (type & hours)	100LL & Jet A - 24 hour - single point	100LL; Jet A as needed	100LL	Not an objective
Attendance				
Weekday hours of operation	Standard business hours, after hours on-call	Standard business hours, after hours on-call	On-call	Not an objective
Weekend hours of operation	Standard business hours, after hours on-call	Standard business hours, after hours on-call	On-call	Not an objective
Ground transportation	Courtesy car/car rental available	Courtesy car/car rental available	Not an objective	Not an objective
Food & Beverage	Vending	Vending	Not an objective	Not an objective
Posted contact info	Yes	Yes	Yes	Yes
Internet access	Yes	Yes	Not an objective	Not an objective
Restroom	Yes	Yes	Yes	Not an objective
Pilot area	Yes	Yes	Not an objective	Not an objective
Security	Security plan	Security plan	Security plan	Security plan
Snow removal	Timely snow removal	Timely snow removal	Snow removal	Not an objective
Rental aircraft	Based*	Based*	Not an objective	Not an objective
Flight training	Available*	Available*	Available	Not an objective
Aircraft maintenance/repair	Based*	Based*	Not an objective	Not an objective
Aircraft charter	Based*	Available*	Available	Not an objective
Weather reporting/Flight planning capabilities	Yes	Yes	Not an objective	Not an objective
Planning				
Height zoning	Yes	Yes	Yes	Yes
Comp plan define land uses	Yes	Yes	Yes	Yes
Emergency plan	Yes	Yes	Yes	Yes
Airport Layout Plan	ALP update within last 8 years	ALP update within last 10 years	Yes	Not an objective

*Shaded areas indicate requirements to be included in the role.