

CHAPTER
1
INVENTORY

COCHISE COLLEGE AIRPORT
AIRPORT MASTER PLAN



Chapter One

Inventory



1.1 INTRODUCTION AND AIRPORT HISTORY

Cochise College Airport (P03) is a general aviation Airport located in southeast Arizona, approximately nine miles west of the City of Douglas and 18 miles east of the City of Bisbee in Cochise County. The Airport is approximately 95 miles southeast of Tucson and approximately 200 miles southeast of the state capitol in Phoenix, Arizona.

Cochise College opened in 1964 as the second community college in Arizona. The College is Arizona's largest rural community college, serving approximately 15,000 students annually. The establishment of the college was due to the efforts of the citizens of Cochise County, who voted in 1961 to create a community college district. A 1962 bond election resulted in the construction of the Douglas campus, a 540-acre facility. The Douglas campus features unique architecture and panoramic views of the Mule and Chiricahua Mountains, as well as neighboring Sonora, Mexico. The College consists of the Douglas Campus, Sierra Vista Campus, Benson Center, Willcox Center, Online Campus, Fort Huachuca Army Education Center and the Nogales/Santa Cruz center (Cochise College provides instruction through a grant).

The Airport was established in 1968 on the Douglas Campus. The Airport started out with an unpaved runway that was located in the same location as the current runway. A large classroom/hangar building was constructed in 1969. The runway was paved in 1975 and a full-length parallel taxiway was constructed in 1983. At one time there was another airfield located to the east of the current runway. The airfield has two intersecting dirt runways in an "X" configuration that can still be seen but the Airport is identified as closed in publications.

Cochise College's Aviation Program is well-respected and widely recognized throughout the industry. In more than 35 years of aviation training, graduates have been placed with all the major commercial airlines, the Federal Aviation Administration, the U.S. Border Patrol and U.S. Customs, air freight services, and corporate aviation companies. The aviation programs are certified by the Federal Aviation Administration and the Federal Communications Commission. The Douglas Campus provides room, board and an array of student activities for those pursuing pilot and aviation maintenance training.

Cochise College Aviation's outstanding reputation can be attributed to:

- Southeast Arizona having some of the best flying conditions in the United States
- On-campus housing within walking distance of the airport and hangar
- Cochise College's superior safety record resulting from closely supervised training
- Tuition and flight fees being more affordable than most aviation schools
- The high degree of instructor continuity and accessibility for students
- The airport also provides access to the area for business and personal transportation and as a flight test facility for unmanned aerial vehicles.

1.2 AIRPORT ROLE

The 2009 Arizona State Airports System Plan (ASASP) divides the airports into five roles. The roles are defined as follows:

- **Commercial Service Airports:** Publicly owned airports which enplane 2,500 or more passengers annually and receive scheduled passenger air service.
- **Reliever Airports:** FAA-designated airports that relieve congestion at commercial service airport.
- **General Aviation Community Airports:** Airports that serve regional economies, connecting to state and national economies and serve all types of general aviation aircraft.
- **General Aviation Rural Airports:** Airports that serve a supplemental role in local economies, primarily serving smaller business, recreational and personal flying.
- **General Aviation Basic:** Airports that serve a limited role in the local economy, primarily serving recreational and personal flying.

Cochise College Airport is listed in the ASASP as a general aviation rural airport.

Cochise College Airport is not included in the National Plan of Integrated Airport Systems (NPIAS). Airports are typically excluded from the NPIAS if they do not meet the minimum entry criteria of 10 based aircraft, are within 20 miles of a NPIAS airport or are located at inadequate sites and cannot be expanded or improved to provide safe and efficient airport facilities. Cochise College Airport is within 20 miles of the Bisbee-Douglas International Airport and the Bisbee Municipal Airport, which are both NPIAS airports.

Cochise College Airport is currently an Airport Reference Code (ARC) B-I facility serving small aircraft. A small aircraft is defined as an airplane of 12,500 pounds or less maximum certificated takeoff weight. The Airport can serve single engine piston, multi-engine piston, turbo prop aircraft and Very Light Jets (VLJ). Users include:

Flight Training: These users conduct local and itinerant flights in order to meet flight proficiency requirements for obtaining FAA pilot certifications. These flights include touch-and-goes, day and night local and cross-country flights and simulated approaches. Pilot certifications include Sport, Private, Instrument, Commercial, Instructor and Airline Transport ratings.

The Cochise College Professional Flight Training Program offers Private Pilot Certification, Instrument Rating, Commercial Pilot Certification, Multi-Engine Rating, Initial Flight Instructor Certification (CFI), Flight Instructor Instrument Certification (CFII) and Flight Instructor – Multi-Engine Rating (MEI). All courses meet or exceed pertinent FAA regulation requirements. The primary role of the Cochise College Airport is to support the College's flight training programs.

Flight Testing: Northrop Grumman conducts flight testing of the RQ-5 "Hunter" unmanned aerial vehicle (UAV) at Cochise College Airport. The flight testing program is an extension of the Army's Unmanned Aircraft Systems Training Battalion at Fort Huachuca that trains soldiers and civilians in the operation and maintenance of the Hunter UAV. The Hunter has fixed landing gear to allow it to take off and land on the runway.

Business Transportation: Business aviation users benefit by being able to travel to or from business centers to conduct business activities in a single day, without requiring an overnight stay or extensive ground travel time. Local and other small businesses generally utilize single-engine and multi-engine piston aircraft. This user category also includes state and federal agencies and travel by government officials.

Personal Transportation: These users desire the utility and flexibility offered by general aviation aircraft. The types of aircraft utilized for personal transportation vary with individual preference and resources and generally include a mix of single-engine, multi-engine and in some cases turbojet aircraft.

Recreational and Tourism: These users include transient pilots flying into the region to visit recreational and tourist attractions. These users mostly utilize single-engine piston aircraft; however, a small percentage may operate multi-engine piston aircraft. Other types of aircraft in this category include home-built, experimental aircraft, gliders and ultra lights.

1.3 AIRPORT GRANT HISTORY

Capital improvement projects are typically funded at 90 percent by the Arizona Department of Transportation - Multimodal Planning Division - Aeronautics Group (ADOT) and 10 percent by the sponsor (Airport). A state grant history for the capital improvements at Cochise College Airport is provided in **Table 1-1**.

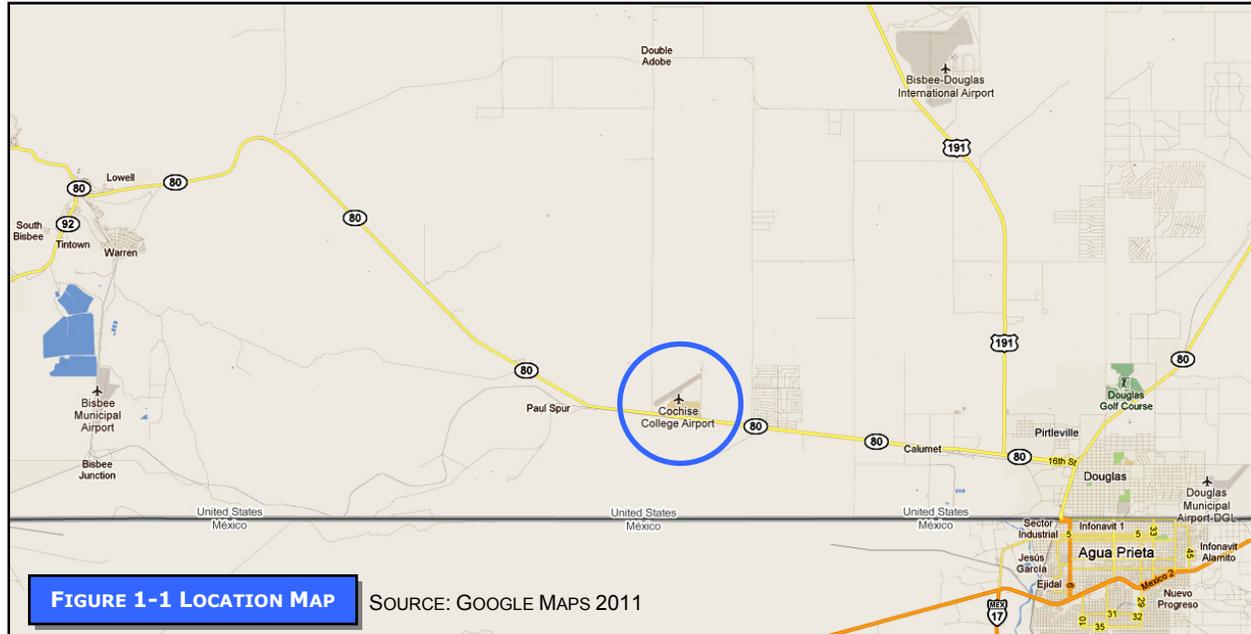
TABLE 1-1 GRANT HISTORY			
State Grant No. & Year	Description	Sponsor Amount	State Amount
N810 (2000)	GVGI (replace PAPIs); Security Lighting (hangars)	\$4,140	\$41,400
0127 (2000)	Master Plan Update	\$41,200	\$412,003
N728 (2000)	Surface Runway, Taxiway and Apron (Pavement Preservation)	\$7,000	\$70,000
9018 (2000)	Structural Upgrade (Runway stopway-reconstruct)	\$12,780	\$127,800
3S89A (2003)	APPP (Airport Pavement Preservation Project)	\$11,602	\$104,422
4S28 (2004)	REIL Install for RW 5/23	\$4,025	\$36,225
1S37 (2011)	Acquire Parcel 1 – 3.5 acres for Runway 5 RPZ Avigation Easement, Acquire land 7.7 acres for approach protection Rwy 23 RPZ.	\$3,857	\$34,710
1S39 (2011)	Update the Airport Layout Plan and Airport Master Plan	\$16,495	\$148,458
2S68 (2012)	Reconstruct RW 5/23 (5,303 ft x 72 ft)	\$190,000	\$1,710,000
TOTAL AMOUNTS		\$291,099	\$2,685,018

Source: ADOT, 2011

1.4 AIRPORT LOCATION

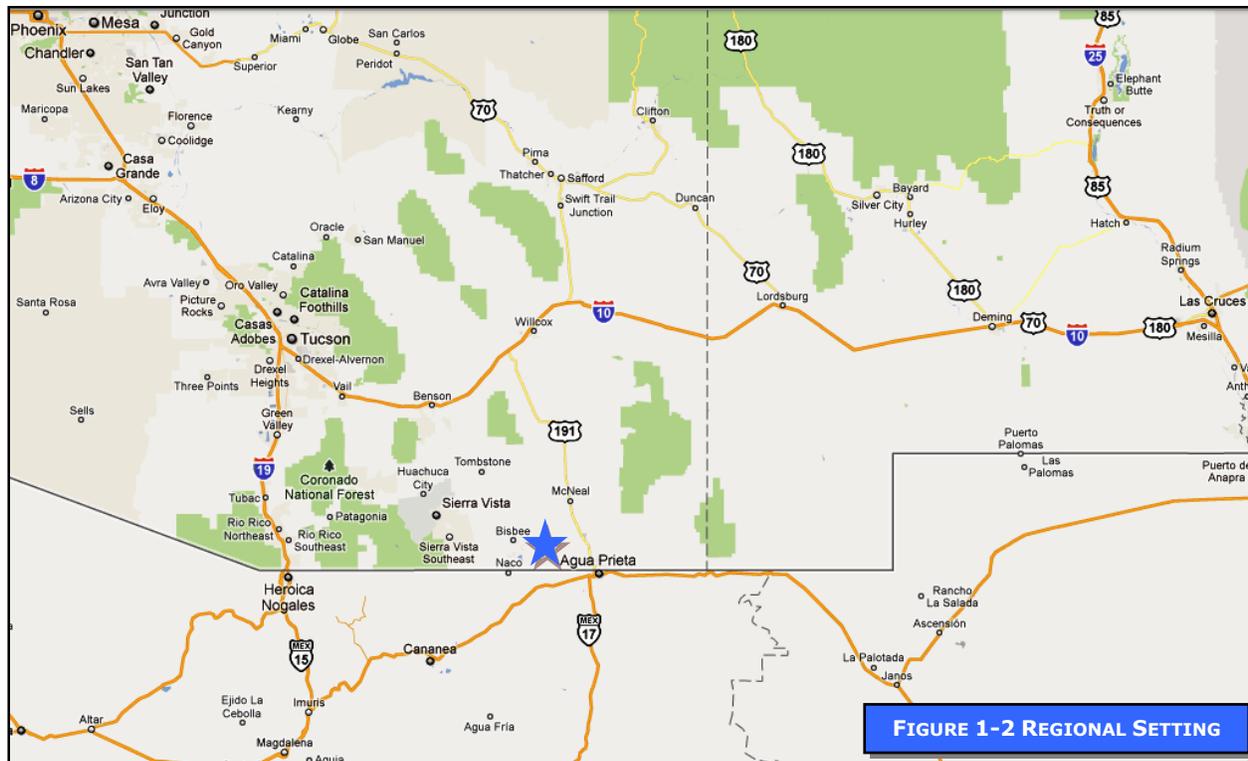
Cochise College Airport is located in the southeast corner of Arizona at the south end of Cochise County approximately two miles from the U.S. border with Mexico. The Airport is situated in Township 24 South, Range 26 East of the Gila and Salt River Meridians. **Figure 1-1** provides a graphic depiction of the location of Cochise College and the Airport. The Airport is designated by the FAA as Site Number 00670.2*A with the 3-letter identifier P03 and is a public use Airport. The Airport location is Latitude 31° 22' 16.68" North and Longitude 109° 41' 23.85" West (surveyed August 2011) according to FAA Form 5010-1, Airport Master Record. The Airport elevation is 4,147 feet (surveyed August 2011) Mean Sea Level (MSL) and the Airport

currently has a B-I (small) Airport Reference Code. The existing Airport property line encompasses approximately 104 acres which is owned and operated by Cochise College.



1.5 REGIONAL SETTING

Cochise College Airport is located in the Sulphur Springs Valley at the south end of Cochise County at an elevation of 4,147 feet. Northwest of the Airport are the Mule Mountains reaching as high as 7,370 feet. Northeast of the Airport are the Chiricahua Mountains reaching as high as 9,759 feet. The U.S. border with Mexico is located approximately two miles south of the Airport with the Mexican state of Sonora located to the south. The U.S. state of New Mexico is located approximately 40 nautical miles east of the Airport. The Airport is located approximately 95 miles southeast of Tucson and approximately 200 miles southeast of the state capital in Phoenix, Arizona (Figure 1-2).



SOURCE: GOOGLE MAPS 2011

1.6 COMPATIBLE LAND USE

Land use compatibility conflicts are a common problem around many airports and smaller general aviation facilities. In urban areas, as well as some rural settings, airport owners find that essential expansion to meet the demands of airport traffic is difficult to achieve due to the nearby development of incompatible land uses. Aircraft noise is generally a deterrent to residential development and other noise sensitive uses. In accordance with State of Arizona airport compatibility legislation, residential development should be placed outside of the 65 DNL noise contour.

Conflicts may also exist in the protection of runway approach/departure and transition zones to assure the safety of both the flying public and the adjacent property owners. Adequate land for this use should be either owned in fee or controlled in easements, as recommended in this and future sections of this Airport Master Plan.

All of the unincorporated areas of Cochise County have been zoned. The purpose of zoning is to guide the development of land in accordance with the County's Comprehensive Plan, and to promote the public health, safety and general welfare of the County's residents. Zoning districts specify permitted land uses, minimum lot sizes, and certain site development standards. Cochise County encompasses a large and diverse area, there are 34 individual zoning districts. However, for general purposes, the majority of these zoning districts can be classified into three broad groupings: Rural, Residential and Commercial/Industrial.

As shown in **Figure 1-3** the Cochise College Airport and the land surrounding the Airport is located in a rural land use (RU-4). The closest residential development is located over a mile east of the Airport.

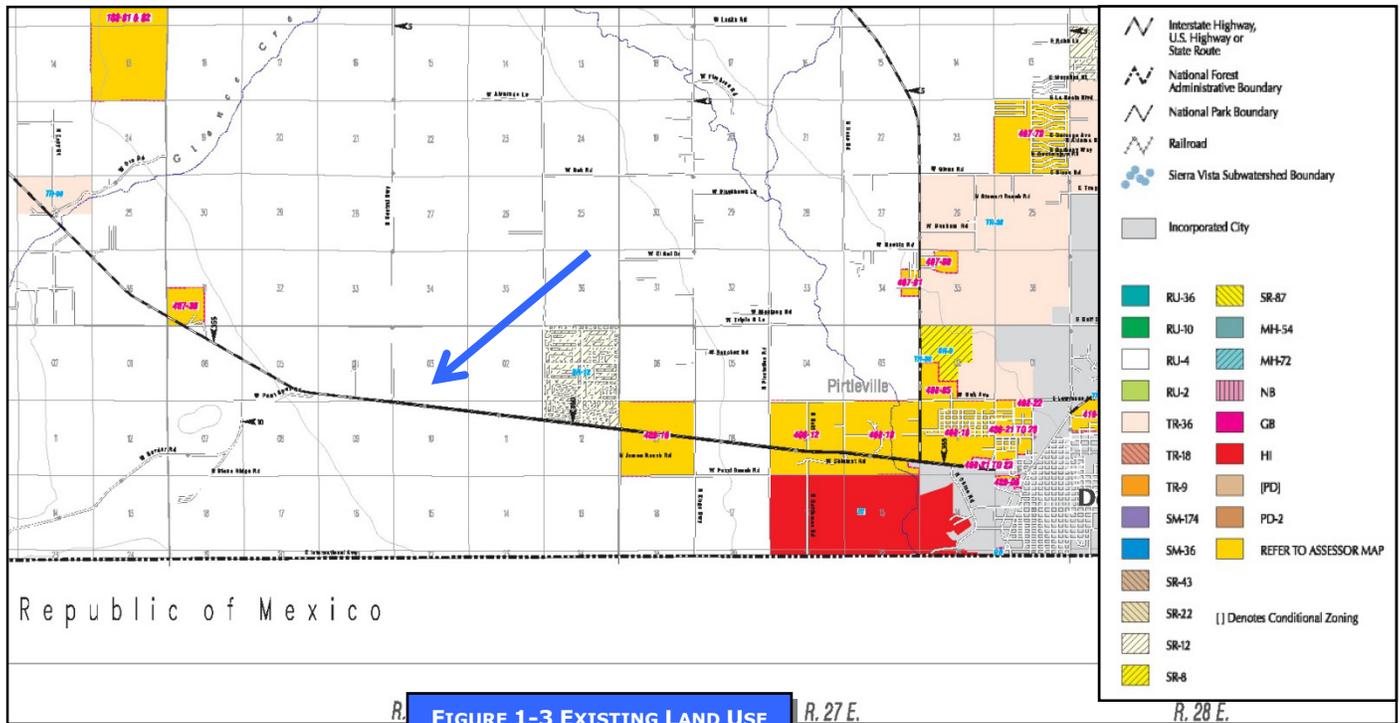


FIGURE 1-3 EXISTING LAND USE

SOURCE: COCHISE COUNTY ZONING BASE MAP 2011

1.7 SOCIOECONOMIC CHARACTERISTICS

Examining the specific socioeconomic characteristics of Cochise County, the enrollment data at Cochise College and the enrollment data for the College flight training program will help determine the factors influencing aviation activity in the area and the extent to which aviation facility developments are needed. Characteristics, such as employment, demographic patterns and income will help in establishing the potential growth rate of aviation within the area. In other words, by analyzing the information in this Chapter, forecasts of aviation activity can be developed. Those forecasts are provided in Chapter 2.

1.7.1 LOCAL PROFILE

According to the SouthEastern Arizona Governments Organization (SEAGO) the largest employer in Cochise County is Fort Huachuca followed by Cochise County and Sierra Vista Unified School District. Fort Huachuca employed 10,146 military personnel and civilian contractors in 2009 while Cochise County ranked second with 1,011 employees. Cochise College employed 1,036 individuals in 2009 according to Cochise College Consolidated Annual Financial Report (6/30/2010).

1.7.2 POPULATION

As of the 2010 U.S. Census there were 131,346 people residing in Cochise County. According to population data from the U.S. Census Bureau, the population has increased at double-digit rates in Cochise County from 2000-2010. **Table 1-2** shows this increasing population trend.

The population of Cochise County has a direct impact to the number of students enrolled in Cochise College. According to the Cochise College 2010-2011 fact sheet, 75 percent of students are county residents followed by 18 percent of students from outside the county and 7 percent of students from out-of-state. Cochise College has seen a dramatic increase in the number of students since 2000. The strong partnership with the county's largest employer, Fort

Huachuca, is a significant factor in both the number of students served and in the number of degrees conferred.

TABLE 1-2 POPULATION

	2000	2010	Average Annual Increase 2000-2010
Cochise County ¹	117,732	131,346	11.5%
Cochise College (Douglas Campus)	1,757 ²	1,361 ³	-7.7%
Arizona ¹	5,130,607	6,392,017	24.6%

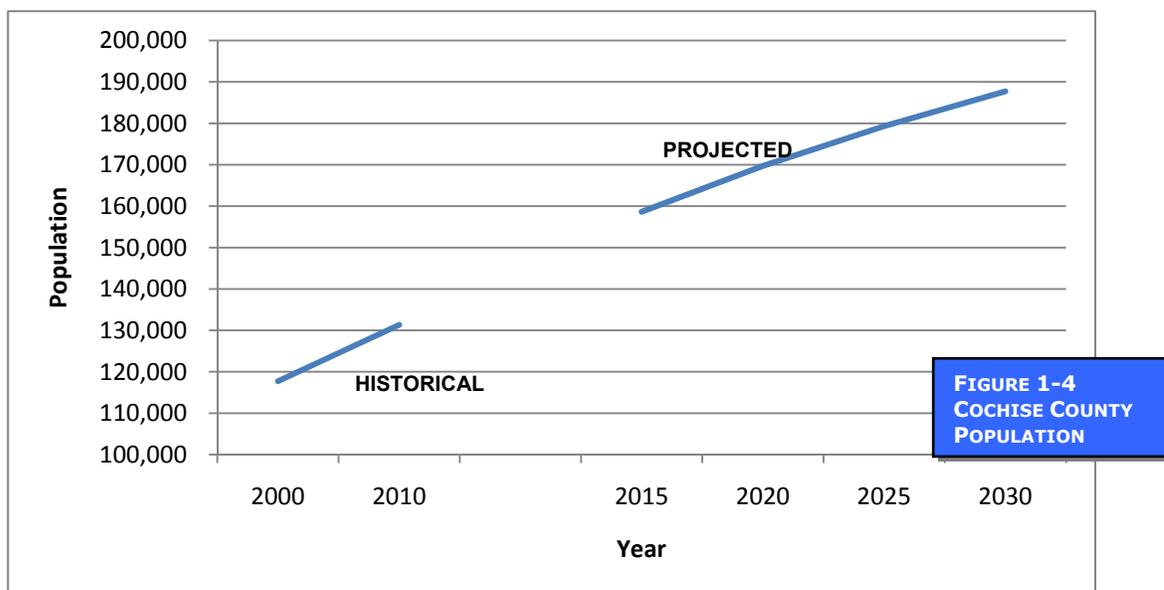
Source: U.S. Census Bureau, 2011¹; Cochise College Administration 2012²; CC 2009-2010 Fact Sheet³

The Arizona Department of Economic Security developed population projections for Cochise County and Arizona in 2006. Population projections as shown in **Table 1-3** and **Figure 1-4**, indicate 7.9 percent annual population increases for the study areas from 2015 to 2030. The student population at Cochise College decreased at an average annual rate of 7.7 percent from 2000-2010. This decrease can be attributed to the drop in enrollment after the events of September 11, 2001.

TABLE 1-3 POPULATION PROJECTIONS

	2015	2020	2025	2030	Average Annual Growth 2015-2030
Cochise County ¹	158,650	169,717	179,317	187,725	7.9%
Arizona ¹	7,915,629	8,779,567	9,588,745	10,347,543	8.7%

Sources: ¹Arizona Department of Economic Security 2006



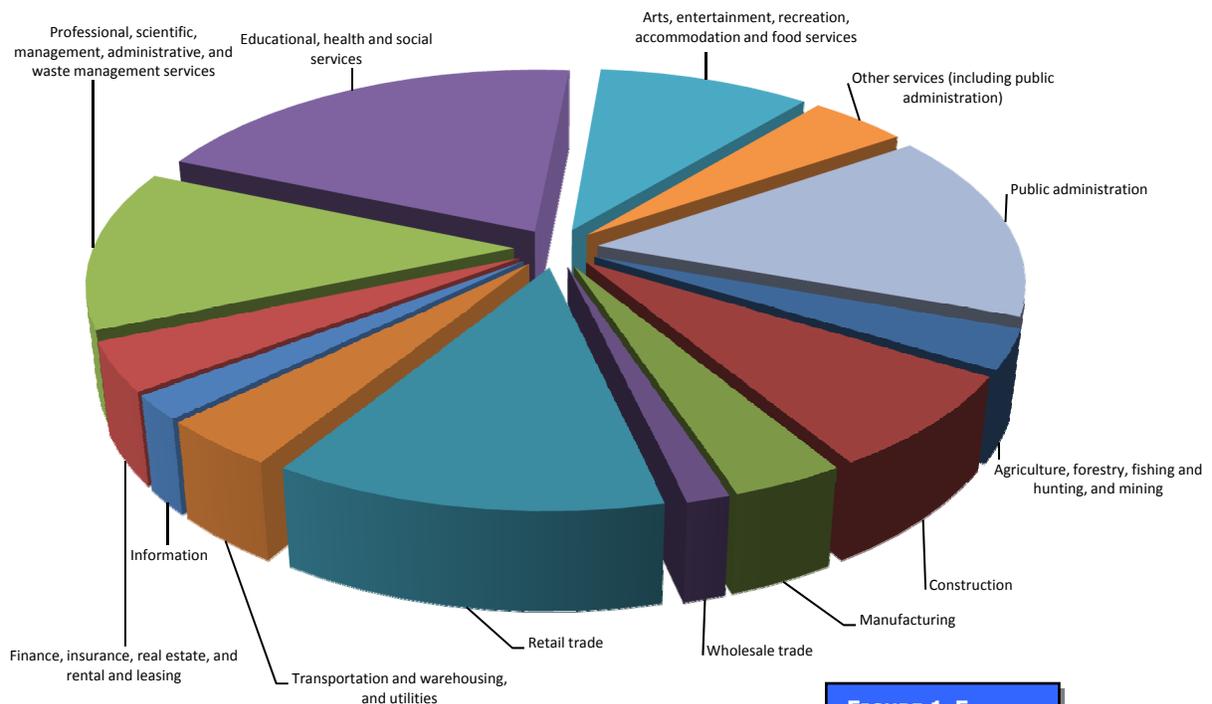
1.7.3 EMPLOYMENT

As stated previously, the largest employer in Cochise County is Fort Huachuca. According to the U.S. Census Bureau 2005-2009 American Community Survey 5-year estimates the largest industries in Cochise County are education, health and social services followed by other services including public administration and professional, scientific, management, administration and waste management services. Employment distribution by industry for Cochise County is shown in **Table 1-4** and **Figure 1-5**.

TABLE 1-4 COCHISE COUNTY EMPLOYMENT DISTRIBUTION

	Cochise County	% of Total
Agriculture, forestry, fishing, hunting and mining	1,508	3.2
Construction	3,582	7.6
Manufacturing	1,689	3.6
Wholesale trade	658	1.4
Retail trade	5,896	12.5
Transportation, warehousing and utilities	1,819	3.9
Information	914	1.9
Finance, insurance, real estate, rental and leasing	1,845	3.9
Professional, scientific, management, administrative and waste management services	6,083	12.9
Educational, health and social services	9,388	19.9
Arts, entertainment, recreation, accommodation and food services	4,518	9.6
Other services (including public administration)	9,216	19.6
Total	47,116	100%

Source: U.S. Bureau of the Census, Census 2010; Selected Economic Characteristics: 2005-2009



**FIGURE 1-5
COCHISE COUNTY
EMPLOYMENT
SECTORS**

1.7.4 INCOME

The median household income in Arizona (\$48,711) was slightly lower than the national average (\$50,221) in 2009. According to the 2009 (inflation-adjusted dollars) U.S. Census, the median income for a household in Cochise County was \$43,786. The average number of persons per household in Cochise County is 2.51, in Arizona 2.76 and 2.60 in the U.S. The per capita income in 2009 was \$22,419 for the county and \$25,203 for the State of Arizona. The percentage of families living below the poverty line in 2009 was 16.2 percent for the county, 16.5 percent for the State of Arizona.

1.8 CERTIFICATED PILOTS AND REGISTERED AIRCRAFT

The FAA databases of certificated airmen and registered aircraft were reviewed to determine the current distribution of pilots and registered aircraft in Cochise County.

This data indicates that there are 558 certificated pilots and 305 aircraft registered in Cochise County as shown in **Table 1-5**. Aircraft are not always based where they are registered. Of the 305 registered aircraft in the Cochise County, 15 are based at Cochise College Airport according to FAA records.

TABLE 1-5 CERTIFICATED PILOTS AND REGISTERED AIRCRAFT

	Aircraft Registered	Certificated Pilots
Cochise County	305	558

SOURCE: FAA, 2011

1.9 BASED AIRCRAFT AND OPERATIONS

According to the Airport Master Record Form 5010-1 there are 15 based aircraft at Cochise College Airport, all of which are Cochise College aircraft. The 5010 also reports 47,050 annual operations. The existing activity at the Airport was evaluated using a method for estimating general aviation operations. The FAA Statistics and Forecast Branch has developed a *Model for Estimating General Aviation Operations at Non-Towered Airports using Towered and Non-Towered Airport Data*. This model was created using data from towered and non-towered general aviation airports. A dummy variable is used to differentiate between those airports having an air traffic control tower and those that do not. The model was used to estimate the number of operations at 2,789 non-towered general aviation airports included in the *FAA Terminal Area Forecasts*. The equation for estimating operations at Cochise College Airport is #15 pertaining to non-towered airports. Local factors such as the number of based aircraft, population, location and the number of flight schools is applied to the equation resulting in an estimated number of annual operations. Cochise College Airport is unique given all the based aircraft are used for flight training. Listed below is the equation 15 calculated for Cochise College. Since the Cochise College Airport does not fulfill the role of a traditional general aviation airport, since it is utilized almost exclusively for flight training by the college, the equation is not considered to be valid and is not carried forward for further evaluation. The 5,577 operations per flight school does not accurately reflect the actual activity levels of Cochise College Aviation Program, which is considerably higher. A factor of 34,900 versus 5,577 would more accurately reflect activity at Cochise College.

Equation #15 Model for Estimating General Aviation Operations at Non-Towered Airports

Operations = 775 + 241(Based Aircraft) – 0.14(Based Aircraft)² + 31,478(Based Aircraft/Total Number of Based Aircraft within 100 miles of Airport) + 5,577(Number of Flight Schools at Airport) + 0.001(Population with 100 miles) – 3,736(multiply by 1 if Airport is Located in WA, CA, OR or AK; multiply by zero if not) + 12,121(Population within 25 miles/population within 100 miles)

$$775 + 241(16) - 0.14(16)^2 + 31,478(.15) + 5,577(1) + 117 - 0 + 12,121(.22) = 17,717$$

According to the Director of Aviation Programs there are 17 based aircraft as of August 2011 and approximately 47,000 operations. According to the Arizona State Airports System Plan there were 52,180 annual operations in the year 2007. There are no published instrument

approaches at the Airport, and hence no instrument operations. Historical based aircraft and operations are shown in **Table 1-6**.

TABLE 1-6 HISTORICAL COCHISE COLLEGE AIRPORT BASED AIRCRAFT AND OPERATIONS

Year	Itinerant Operations					Local Operations			Based Aircraft
	Air Carrier	Air Taxi & Commuter	General Aviation	Military	Total	Civil	Military	Total Operations	
2001 ¹	0	480	3,000	50	3,530	51,650	0	55,180	15
2008 ²	0	0	51,700	3,000	54,700	480	0	55,180	15
2010 ³	0	0	2,000	50	2,050	45,000	0	47,050	15
2011 ⁴	0	0	1,950	50	2,000	45,000	0	47,000	17
2011 ⁵	-	-	-	-	-	-	-	17,717	15

¹Cochise College Airport Master Plan – April 2001

²Arizona State Airports System Plan – 2008

³Cochise College Airport Master Record – September 2011

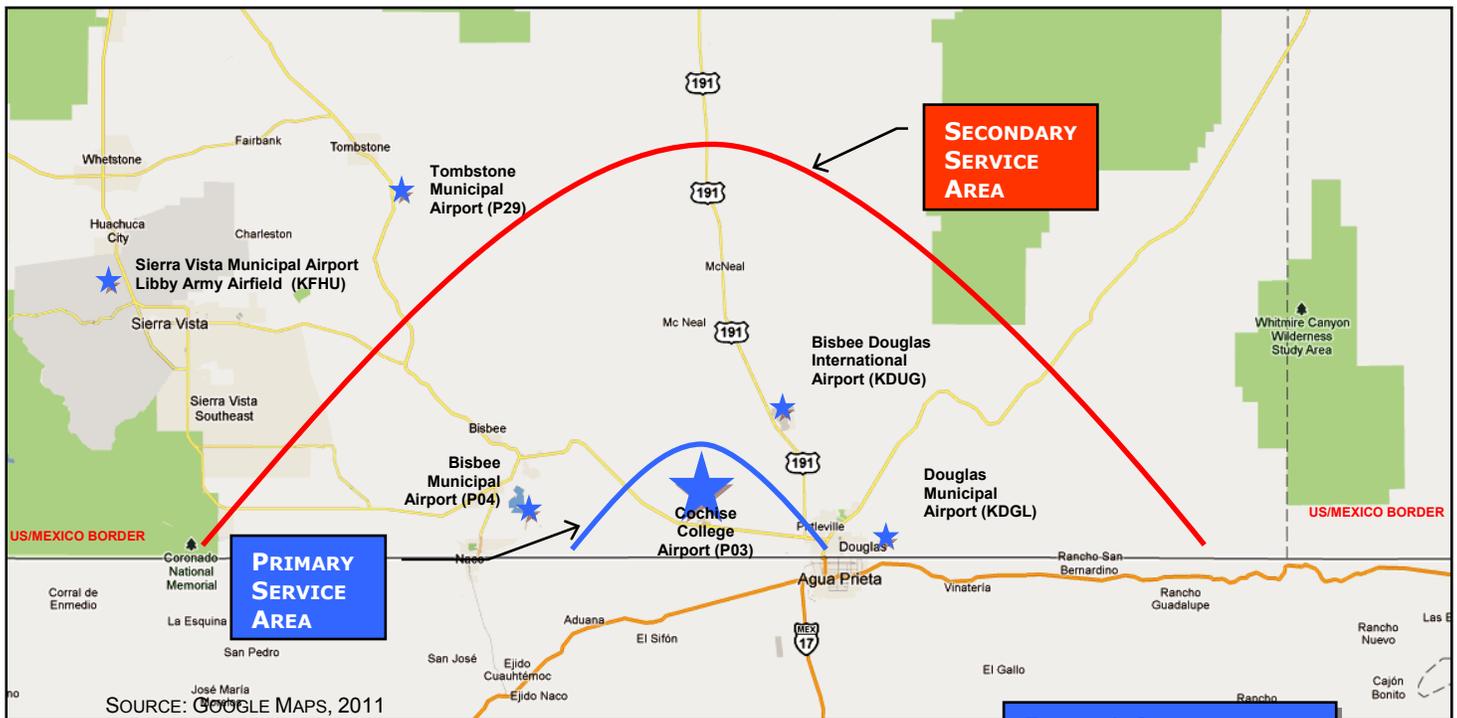
⁴Cochise College Airport Manager – August 2011

⁵2011 Estimate of Operations-Derived from *Model for Estimating General Aviation Operations at Non-Towered Airport, Equation #15, FAA Statistics and Forecast Branch (July 2001)*.

1.10 INVENTORY OF EXISTING AIRPORT FACILITIES

1.10.1 AREA AIRPORT/SERVICE AREA

An airport service area is defined by the communities and surrounding areas served by the airport facility. For example, factors such as the airport’s surrounding topographical features (mountains, rivers, etc.), proximity to its users, quality of ground access, required driving time to the airport and the proximity of the facility to other airports that offer the same or similar services can all affect the size of a particular airport’s service area. To define the service area for Cochise College Airport, the airports in the area and their specific services and facilities were reviewed. The nearest public airport with a paved surface and an instrument approach (**Table 1-7**) is located 7.4 nautical miles northeast at Bisbee Douglas International Airport (KDUG). Runway 17/35 at KDUG is 6,430 feet long and 100 feet wide. Douglas Municipal Airport (KDGL) is located 9.6 nautical miles east of Cochise College Airport. Bisbee Municipal Airport (P04) is located 9.9 nautical miles west of Cochise College Airport. Tombstone Municipal Airport (P29) is located 24.7 nautical miles northwest of the Cochise College Airport. Sierra Vista Municipal Airport-Libby Army Airfield (KFHU) is located 35.9 nautical miles west of the Cochise College Airport. The primary service area includes the area within half the distance of the nearest airport from Cochise College Airport. The secondary service area is the area within 20 miles/30-minute drive time of Cochise College Airport. **Figure 1-6** shows the primary and secondary service areas.



**FIGURE 1-6
COCHISE COLLEGE AIRPORT
SERVICE AREA**

TABLE 1-7 COCHISE COLLEGE AIRPORT AND SURROUNDING AIRPORTS

Identifier	Distance (Nautical Miles)	Distance (Highway Miles)	NPIAS Status	Runway Length(s) Width(s)	Pavement Type	Instrument Approaches	Fuel
Cochise College Airport, Douglas, AZ	-	-	N/A	5,303 ¹ x60'	Asphalt	None	Yes
Bisbee Douglas International Airport, Douglas, AZ	7.4 NE	15	GA	6,430'x100' 4,966'x60'	Asphalt Asphalt	VOR/DME, GPS	Yes
Douglas Municipal Airport, Douglas, AZ	9.6 E	11	GA	5,760'x75' 4,095'x100'	Asphalt Dirt	None	Yes
Bisbee Municipal Airport, Bisbee, AZ	9.9 W	18	GA	5,929'x60' 2,650'x110'	Asphalt Dirt	None	Yes
Tombstone Municipal Airport, Tombstone, AZ	24.7 NW	37	GA	4,430'x60'	Asphalt	None	No
Sierra Vista Municipal Airport-Libby Army Airfield, Fort Huachuca/Sierra Vista, AZ	35.9 W	47	JU	12,001'x150' 5,366'x100' 4,285'x75'	Concrete Asphalt Asphalt	ILS, LOC, GPS, VOR	Yes

Source: Airmav, 2011

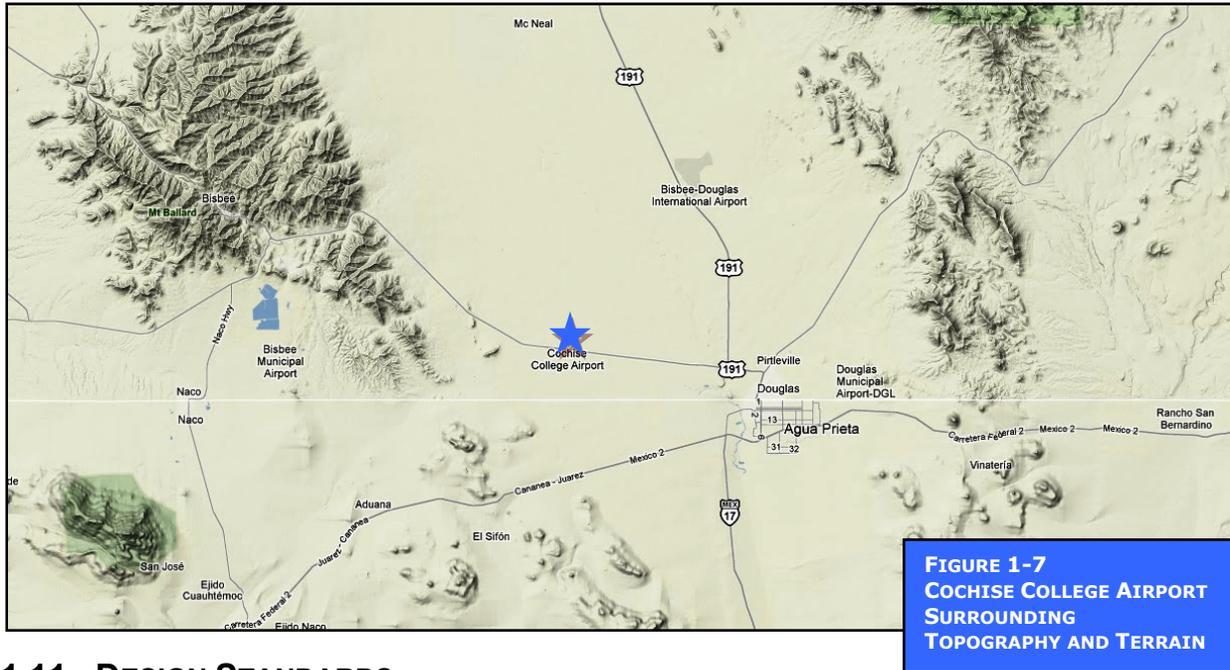
P: Primary (Commercial Service)
 GA: General Aviation
 R: Reliever
 JU: Joint Use Military and Civilian
 ILS: Instrument Landing System
 LOC: Localizer
 DME: Distance Measuring Equipment
 GPS: Global Positioning System
 VOR: Very High Frequency Omnidirectional Range

¹As published in Airmav, 2011

1.10.2 TOPOGRAPHY AND TERRAIN

The elevation of Cochise College Airport is 4,147 feet MSL. The Airport is located within the Sulphur Springs Valley with higher terrain bordering the valley to the west and the east as shown in **Figure 1-7**. The terrain surrounding Cochise College Airport within the 20 mile valley is generally flat. The Mule Mountains are located approximately six miles northwest of the Airport and reach as high as 7,370 feet. The Chiricahua Mountains are located approximately 14 miles northeast of the Airport and reach as high as 9,759 feet.

SOURCE: GOOGLE MAPS 2011



1.11 DESIGN STANDARDS

FAA AC 150/5300-13, Airport Design, establishes design standards for airports based on the Airport Reference Code (ARC) of the airport. When design standard deficiencies exist, the FAA recommends correction of such deficiencies as soon as practicable. Design standards are based on the ARC and approach visibility minimums of the airport. The ARC is a combination of the wingspan, tail height and approach speed of the critical aircraft operating at the airport. The current ARC for Cochise College Airport is B-I (small). A more detailed discussion of ARCs is included in Chapter 3.

1.11.1 SAFETY AREAS

Runway and Taxiway Safety Areas (RSAs and TSAs) are defined surfaces surrounding the runway and taxiway prepared specifically to reduce the risk of damage to aircraft in the event of an undershoot, overshoot or excursion from the runway or taxiway. The Safety Areas must be:

- Cleared and graded and have no potentially hazardous surface variations;
- Drained so as to prevent water accumulation;
- Capable, under dry conditions, of supporting snow removal equipment, ARFF equipment and the occasional passage of aircraft without causing structural damage to the aircraft; and
- Free of objects, except for objects that need to be located in the runway or taxiway safety area because of their function.

The existing RSA at Cochise College Airport is 120 feet wide longitudinally centered on the runway and extends 240 feet beyond each runway end. The existing TSA is 49 feet wide longitudinally centered on the taxiway.

1.11.2 OBSTACLE FREE ZONE (OFZ) AND OBJECT FREE AREA (OFA)

The Obstacle Free Zone (OFZ) is a three dimensional volume of airspace which supports the transition of ground to airborne aircraft operations. The clearing standard precludes taxiing and parked airplanes and object penetrations, except for frangible visual Navigational Aids (NAVAIDs) that need to be located in the OFZ because of their function. The OFZ is similar to the FAR Part 77 Primary Surface insofar that it represents the volume of space longitudinally centered on the runway. It extends 200 feet beyond the end of each runway and has a width of 250 feet. The Runway Object Free Area (ROFA) is a two-dimensional ground area surrounding the runway. It extends 240 feet beyond the end of each runway and has a width of 250 feet. The ROFA standard precludes parked airplanes, agricultural operations and objects, except for objects that need to be located in the ROFA for air navigation or aircraft ground maneuvering purposes.

1.11.3 RUNWAY PROTECTION ZONE (RPZ)

According to FAA AC 150/5300-13 Airport Design, the RPZ is trapezoidal in shape and centered about the extended runway centerline. The RPZ dimension for a particular runway end is a function of the type of aircraft and approach visibility minimum associated with that runway end. The existing RPZs at Cochise College Airport begin 200 feet from the runway threshold and extend for 1,000 feet. The RPZs are 250 feet wide at the inner end and 450 feet wide at the outer end. The Runway 5 approach RPZ and Runway 23 departure RPZ are collocated; however, the Runway 5 departure RPZ and Runway 23 approach RPZ are off-set by 447 feet as a result of the displaced threshold. The land uses not compatible within the RPZ include residences, fuel storage and places of public assembly (churches, schools, hospitals, office buildings, shopping centers and other uses with similar concentrations of persons typify places of public assembly). The FAA recommends the Sponsor control the RPZs through fee simple ownership or avigation easements. Avigation easements for all three RPZs were obtained in March 2011. The Airport now controls development within the existing RPZs.

1.11.4 DECLARED DISTANCES

The purpose of declared distances in airport design is to provide an equivalent RSA, ROFA or Runway Protection Zone (RPZ) in accordance with FAA design standards at existing constrained airports where it is otherwise impracticable to meet standards by other means. Declared distances are also employed when there are obstructions in the runway approaches and/or departure surface that are beyond the ability of the airport owner to remove and result in a displaced runway threshold or change in the departure end of the runway. Declared distances are not currently published for Cochise College Airport; however, the existing road located at the northeast runway end does not provide a full-length RSA or ROFA. The non-standard conditions listed in **Table 1-8** and illustrated in **Figure 1-8** are currently existing conditions at the Airport.

- **Takeoff Run Available (TORA)** – the length of runway declared available and suitable for satisfying takeoff run requirements.
- **Takeoff Distance Available (TODA)** – the TORA plus the length of any remaining runway or clearway beyond the far end of the TORA available for satisfying takeoff distance requirements.
- **Accelerate-Stop Distance Available (ASDA)** – the length of runway plus stopway declared available and suitable for satisfying accelerate-stop distance requirements.

- **Landing Distance Available (LDA)** – the length of runway declared available and suitable for satisfying landing distance requirements.

A summary of design standards for Cochise College Airport are shown in **Table 1-8**.

TABLE 1-8 SUMMARY OF DESIGN STANDARDS		
Description	RW 5/23	Actual Dimensions
	B-I (small)	B-I (small)
Runway Centerline to parallel TW centerline	150'	202'
Runway Centerline to aircraft parking apron	125'	235'
Runway Width	60'	60'
Runway Safety Area width	120'	120'
Runway Safety Area length beyond RW end	240'	Northeast RW end 179' actual
Runway Object Free Area width	250'	250'
Runway Object Free Area beyond RW end	240'	Northeast RW end 132' actual
Runway Obstacle Free Zone width	250'	250'
Runway Centerline to aircraft hold lines	125'	125'
Runway Obstacle Free Zone length beyond RW end	200'	Northeast RW end 132' actual
Runway Protection Zone	1,000' x 250' x 450'	1,000' x 250' x 450'
Taxiway Width	25'	22' actual
Taxiway Safety Area width	49'	49'
Taxiway Object Free Area width	89'	89'
Taxiway Centerline to Parallel TL Centerline	69'	69'
Taxilane Object Free Area width	79'	79'

SOURCE: FAA ADVISORY CIRCULAR 150/5300-13 AIRPORT DESIGN, CHANGE 18



FIGURE 1-8 NORTHEAST RUNWAY END

1.11.5 TITLE 14 CODE OF FEDERAL REGULATIONS PART 77 (14 CFR PART 77) IMAGINARY SURFACES

Title 14 of Code of Federal Regulations (CFR) Part 77 establishes several Imaginary Surfaces that are used as a guide to provide a safe, unobstructed operating environment for aviation. The Primary, Approach, Transitional, Horizontal and Conical Surfaces identified in Part 77 are applied to each runway. For the purpose of this section, a visual/utility runway is a runway that is intended to be used by propeller driven aircraft of 12,500 pound maximum gross weight and less. A non-precision instrument/utility runway is a runway that is intended to be used by aircraft of 12,500 pounds maximum gross weight and less with a straight-in instrument approach procedure and instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan or by any planning document submitted to the FAA by competent authority. A non-precision instrument/larger-than-utility runway is a runway intended for the operation of aircraft weighing more than 12,500 pounds that also has a straight-in instrument approach procedure.

The Primary Surface is an imaginary surface of specific width longitudinally centered on a runway. Primary Surfaces extend 200 feet beyond each end of the paved surface of runways, but do not extend past the end of non-paved runways. The elevation of any point on the Primary Surface is the same as the elevation of the nearest point on the runway centerline. The width of the Primary Surface varies from 250, 500 or 1,000 feet depending on the type of approach and approach visibility minimums.

The Approach Surface is a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the Primary Surface. An Approach Surface slope is applied to each end of the runway based upon the type of approach available or planned for that runway, either 20:1, 34:1 or 50:1. The inner edge of the surface is the same width as the Primary Surface. It expands uniformly to a width corresponding to the FAR Part 77 runway classification criteria.

The Transitional Surfaces extend outward and upward at right angles to the runway centerlines from the sides of the Primary and Approach Surfaces at a slope of 7:1 and end at the Horizontal Surface.

The Horizontal Surface is a horizontal plane 150 feet above the established airport elevation. The airport elevation is defined as the highest point of an airport's useable runways, measured in feet above mean sea level. The perimeter is constructed by arcs of specified radius from the center of each end of the Primary Surface of each runway. The radius of each arc is 5,000 feet for runways designated as utility or visual and 10,000 feet for all other runways.

The Conical Surface extends outward and upward from the periphery of the Horizontal Surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

A summary of Part 77 Imaginary Surface Dimensions for Cochise College Airport are shown in **Table 1-9**.

TABLE 1-9 14 CFR PART 77 AIRSPACE SURFACES FOR RUNWAY 5/23

	Runway 5/23 Existing
	Visual, Utility
Primary Surface width	250'
Primary Surface length beyond runway ends	200'
Approach Surface Dimensions	250'x1,250'x5,000'
Approach Surface slope	20:1
Transitional Surface slope	7:1
Horizontal Surface radius from runway	5,000'
Conical Surface width	4,000'
Conical Surface slope	20:1

1.11.6 THRESHOLD SITING SURFACE

According to FAA AC 150/5300-13, the runway threshold should be located at the beginning of the full-strength runway pavement or runway surface. However, displacement of the threshold may be required when an object obstructs the airspace required for landing airplanes and is beyond the airport owner's power to remove, relocate or lower. Thresholds may also be displaced for environmental considerations such as noise abatement or to provide the standard RSA and ROFA lengths.

Based on the visual approach and size of aircraft using the Cochise College Airport, in order to meet FAA design standards, no object should penetrate a surface that starts at the threshold of the elevation of the runway centerline at the threshold and slopes upward from the threshold at a slope of 20 feet (horizontal) to 1 foot (vertical). In the plan view, the centerline of this surface extends 2,250 feet along the extended runway centerline. This surface extends laterally 125 feet on each side of the centerline at the threshold and increases in width to 350 feet at a point 2,250 feet from the threshold. The Runway 23 threshold is displaced 447 feet and there are no objects penetrating this surface.

1.12 AIRSIDE FACILITIES

The airside facilities of an airport are described as the runway configuration, the associated taxiway system, the ramp and aircraft parking area and any visual or electronic approach navigational aids. **Figure 1-9** depicts the existing airside facilities at Cochise College Airport. An overview of Cochise College Airport facilities is provided in **Table 1-11**.

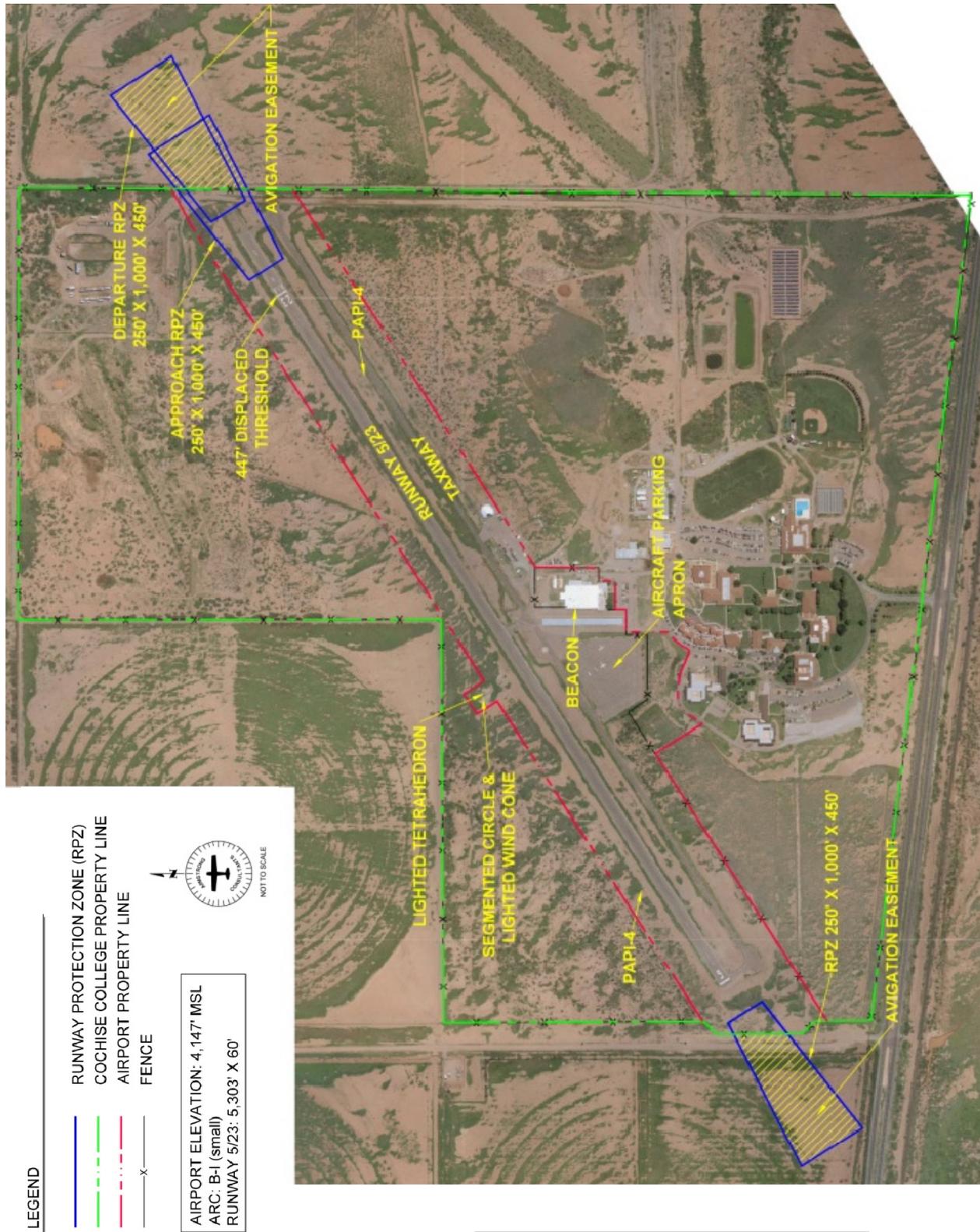


FIGURE 1-9 EXISTING AIRSIDE FACILITIES

1.12.1 RUNWAY

Cochise College Airport has a single runway configuration. Runway 5/23 was reconstructed in summer 2012. As part of this project the runway narrowed to 60 feet and medium intensity runway lights were installed. Although the published length is 5,303 feet the physical runway length was found to be approximately 5,551' as part of the design process. The runway has a published strength of 12,500 pounds single wheel gear (SWG). The runway is marked with basic markings which are in excellent condition. Runway 23 has a displaced threshold of 447 feet which reduces the landing distance on the runway to 5,103 feet. The threshold was displaced to provide clearance of the approach slope over the road which is located east of the runway. The departure end of Runway 5 does not have a full-length RSA or ROFA as a result of the location of the fence and road. There are currently no published declared distances. A photo from the Runway 5 end facing southwest is included as **Figure 1-10**.

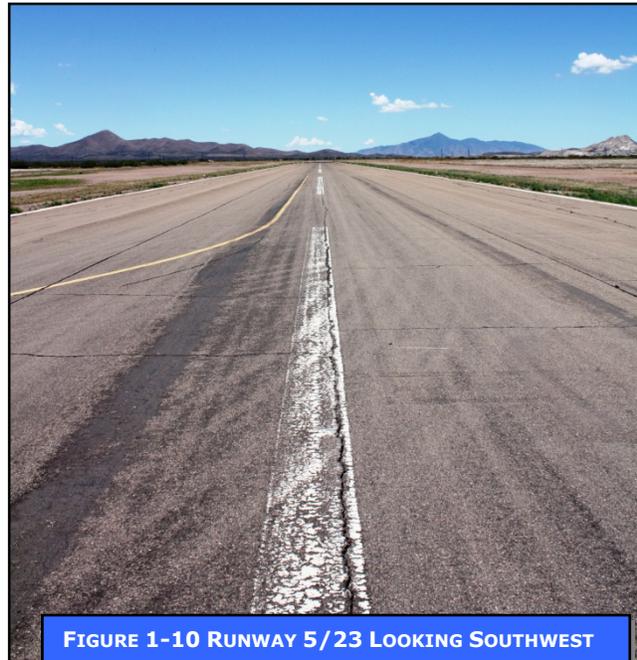


FIGURE 1-10 RUNWAY 5/23 LOOKING SOUTHWEST

1.12.2 TAXIWAYS

Taxiways provide a surface for aircraft to access the parking apron to and from the runways. They expedite aircraft departures from the runway and increase operational safety and efficiency. The parallel taxiway is 22 feet wide with a pavement strength of 12,500 pounds Single Wheel Gear (SWG). The design standard for a Group I taxiway is 25 feet wide. Therefore the parallel taxiway does not currently meet the design standard. The taxiway is located 202 feet from the taxiway centerline to the runway centerline. The standard separation for an ARC B-I (small) runway centerline to taxiway centerline is 150 feet; therefore the existing taxiway exceeds the design standard. The taxiway pavement and markings are in poor condition. The taxiway is scheduled to be reconstructed in 2013. A photo taken from the taxiway facing southwest is included as **Figure 1-11**.



FIGURE 1-11 FULL-LENGTH PARALLEL TAXIWAY

Taxiways typically have a designation such as "Taxiway A" to assist in determining location on an airport. The parallel taxiway does not have a designation. The parallel taxiway has three unnamed connector taxiways that allow aircraft to enter and exit the runway. There are connector taxiways at each runway end and one at the runway midpoint.

1.12.3 AIRCRAFT APRON

The aircraft apron provides an area for aircraft to park. Aprons are typically connected to the runway via taxiways or taxilanes. A typical aircraft parking apron has marked parking positions identified by a yellow “T” also known as tiedown positions. At the ends of each tiedown “T” there are typically ropes or chains used to secure an airplane by attaching a rope or chain to the underside of each wing and to the aircraft tail section. The ropes or chains are either attached to an anchor placed in the pavement or a cable that lies across the pavement.

The aircraft parking apron at Cochise College Airport has approximately 58,490 square yards (SY) of asphalt pavement, with a strength of 12,500 pounds SWG, containing 19 aircraft tiedowns and is in poor condition. The apron markings are in poor condition. The apron is currently used for transient aircraft parking (i.e. aircraft not based at Cochise College Airport). All of the existing based aircraft are owned by the college flight program and are parked under a sun-shade that has ten parking positions located east of the aircraft parking apron. The aircraft parking apron can be seen in **Figure 1-12** and the sun shade can be seen in **Figure 1-13**.



FIGURE 1-12 AIRCRAFT PARKING APRON



FIGURE 1-13 AIRCRAFT PARKING SUN SHADE

1.12.4 PAVEMENT CONDITION INDEX

According to the 2010 Arizona Airports Pavement Management System Update Statewide Summary Report (2010 APM), pavement management is a systematic process of monitoring and preserving pavement assets cost-effectively. An airport pavement management system is a tool that facilitates the identification and prioritization of maintenance and rehabilitation needs, the preparation of cost-effective repair programs and the estimation of repair quantities. It provides the fact based information needed to make decisions regarding the significant investment that the airport pavements represent.

Pavement conditions at Cochise College Airport were assessed using the pavement condition index (PCI) procedure. This methodology is the industry standard for visually assessing the condition of airport pavements, and is documented in FAA Advisory Circular 150/5380-6B, Guidelines and Procedures for Maintenance of Airport Pavements and the American Society for Testing and Material (ASTM) Standard D5340, Standard Test Method for Airport Pavement Condition Index Surveys.

The PCI scale rates pavement from 0-100. A PCI rating between 86-100 indicates that the pavement is in excellent condition and requires routine maintenance. New pavement has a design life span of 20 years. A PCI rating between 56-85 indicates that the pavement is in good to fair condition and requires pavement preservation to prolong the life of the pavement. A PCI rating between 0-55 indicated that the pavement is in need of major rehabilitation.

The 2010 APM indicates that Cochise College Airport had an overall PCI of 49 at the time of the study. The runway PCI was rated at 53, the taxiway PCI was rated at 45 and the aircraft parking apron PCI was rated at 46; however Runway 5/23 was reconstructed in 2012 providing a new pavement life. The entire pavement area at the Airport is 835,611 square feet with an overall area weighted age of 19 years out of a 20 year design life. A summary of the PCI data is shown in **Table 1-10**.

TABLE 1-10 COCHISE COLLEGE AIRPORT PCI

Pavement Area	Overall PCI	Runway PCI	Taxiway PCI	Apron PCI	Overall Area-Weighted Age
835,611 SF	49	N/A See Note ¹	45	46	19 years
Pavement Condition Index (PCI) Range					
Major Rehabilitation		Pavement Preservation		Routine Maintenance	
0-55		56-85		86-100	

SOURCE: 2010 APM

¹The 2010 PCI reports Runway 5/23 PCI as 53; however, Runway 5/23 was reconstructed in summer 2012

1.12.5 WEATHER REPORTING

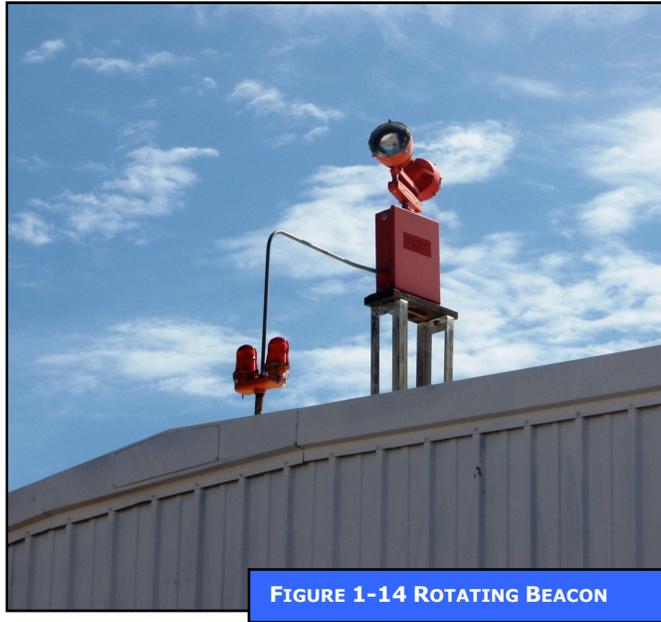
An Automated Weather Observation System (AWOS) uses various sensors, a voice synthesizer and a radio transmitter to provide real-time weather data. There are four types of AWOS. An AWOS-A only reports altimeter setting while an AWOS-1 also measures and reports wind speed, direction, gusts, temperature and dew point. AWOS-2 provides visibility information in addition to everything reported by an AWOS-1. The most capable system, the AWOS-3 also includes cloud and ceiling data. The AWOS transmits over a VHF frequency or the voice portion of a NAVAID. The transmission can be received within 25 nautical miles of the site or above 3,000 feet above ground level (AGL). The frequency for the AWOS is typically published on

aeronautical charts as well as in the airport facilities directory. The AWOS is typically connected to the telephone service allowing pilots to check current weather conditions at the Airport.

Cochise College Airport currently does not have an AWOS to provide local weather information. The closest automated weather reporting system is located at Bisbee-Douglas International Airport, approximately 7.4 nautical miles to the northeast.

1.12.6 AIRFIELD LIGHTING, SIGNAGE VISUAL AIDS, AND MARKINGS

Guidance on airport lighting standards is provided in FAA Advisory Circular (AC) 150/5340-30D, Design and Installation Details for Airport Visual Aids. Airport lighting enhances safety during periods of inclement weather and nighttime operations by providing visual guidance to pilots in the air and on the ground. Several common airfield lighting and visual aid features of general aviation airports include a rotating beacon (activated by photoelectric cell for dusk to dawn operations see **Figure 1-14**), pilot-controlled runway lights (activated by aircraft radio signal) and threshold lights. Common visual aids include Runway End Identifier Lights (REILs) which mark the runway threshold with flashing strobe lights, Precision Approach Path Indicators (PAPIs) to provide visual descent guidance information during an approach to the runway, wind cones and segmented circles.



Airfield lighting at Cochise College Airport consists of pilot-controlled Medium Intensity Runway Lights (MIRLs) and threshold lights which were installed on Runway 5/23 as part of the 2012 runway reconstruction project. The runway lights have white colored lenses. There are currently Low Intensity Taxiway Lights (LITL) outlining the taxiways at Cochise College Airport. Several of the existing taxiway lights are inoperative. The taxiway lights are direct burial and are considered to be in poor condition.

Existing visual aids include a segmented circle, lighted wind cone and tetrahedron and rotating airport beacon (located on top of the aviation building above the hangar sliding doors). Runway 5/23 has 4-light PAPIs on both ends set at 3 degree glide paths. There is currently no airfield signage on the airport (including directional, holding position or location signs).

1.12.7 NAVIGATIONAL AIDS AND INSTRUMENT APPROACH PROCEDURES

A Navigational Aid (NAVAID) is any ground based visual or electronic device used to provide course or altitude information to pilots. NAVAIDs include Very High Frequency Omnidirectional Range (VORs), Very High Frequency Omnidirectional Range with Tactical Information (VORTACs), Nondirectional Beacons (NDBs) and Tactical Air Navigational Aids (TACANs), as examples.

There are no existing published instrument approach procedures, no air traffic control tower (ATCT) and no NAVAIDs located at the Airport.

1.13 LANDSIDE FACILITIES

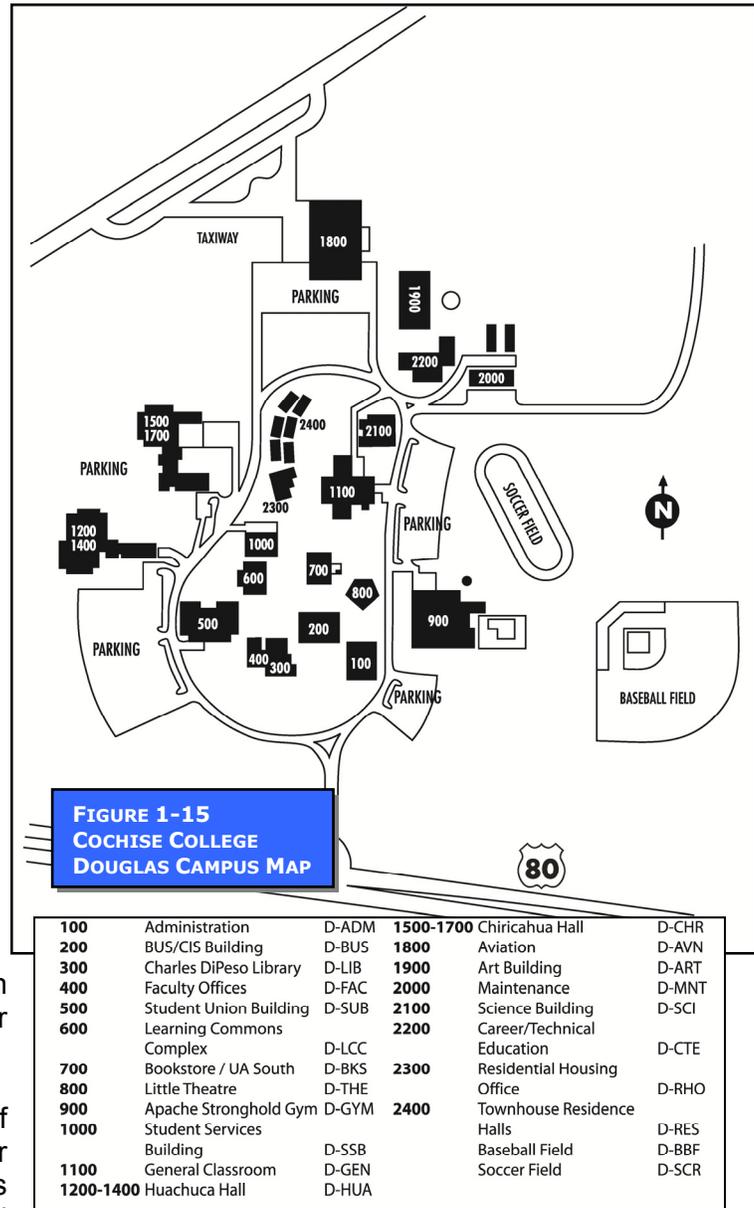
1.13.1 BUILDING AREA

The building area of a typical general aviation airport usually consists of FBO offices and/or hangars, a pilot lounge, terminal building, eating facility, additional aircraft hangars, a maintenance building and other related structures. The only existing permanent building at Cochise College Airport is the hangar/classroom facility located adjacent to the taxiway and the sun-shade structure. The facility is home to the aviation program and includes an aircraft maintenance hangar, workshops, classrooms, flight simulators, dispatch area and administrative offices. Two quonset huts located adjacent to the aviation building provide additional storage space. Northrop Grumman has a facilities use agreement to use the runway and section of land south of the taxiway for their RQ-5 “Hunter” unmanned aerial vehicle (UAV) flight test program. The lease area includes a circular tent-like structure with a large opening, two modular mobile trailers and several support vehicles and equipment.

1.13.2 GROUND ACCESS, SIGNAGE AND PARKING

Cochise College Airport is located nine miles west of Douglas, Arizona and 18 miles east of Bisbee, Arizona along State Route 80 (SR-80). Access to the Airport requires entering the main college entrance located off of SR-80. The main college vehicle entrance is a two-lane loop roadway with a sign indicating the location of the aviation department building (see **Figure 1-15** for a map of the campus).

A vehicle parking lot is located south of the aviation department building for students and faculty. The parking lot is approximately 12,000 square feet and includes 80 regular parking spaces and three handicapped parking spaces.



1.13.3 UTILITIES

Available utilities at Cochise College Airport include power, water, sanitary and storm sewer, natural gas and phone. Electricity is provided by Arizona Public Service, telephone services are provided by Qwest and natural gas is provided by Southwest Gas. Water is provided by the college owned and operated well. Sanitary sewer is provided by the college owned and

operated sewer ponds and solid waste is handled by USA Waste of Arizona. Utilities serving the Airport are illustrated in **Figure 1-16**.

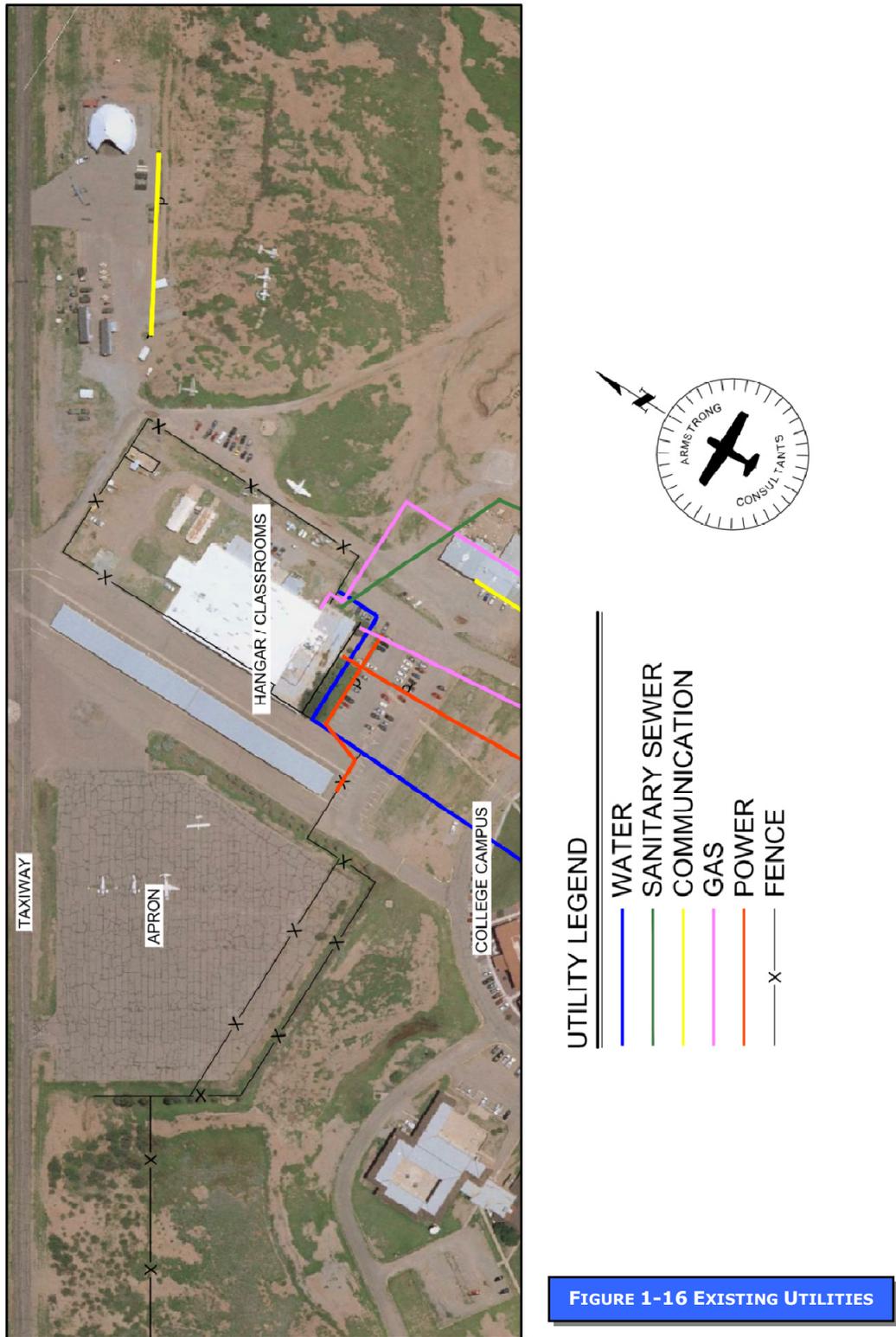




FIGURE 1-17 EXISTING LANDSIDE FACILITIES



FIGURE 1-18 FLIGHT SIMULATOR



FIGURE 1-19 AIRCRAFT MAINTENANCE HANGAR



FIGURE 1-20 NORTHROP GRUMMAN UNMANNED AERIAL VEHICLE FLIGHT TEST FACILITY

1.13.4 AIRCRAFT FUEL FACILITIES

Fuel services at Cochise College Airport are owned and operated by the college. The college has one 10,000 gallon above ground fuel tank which contains 100 low lead (LL) aviation gasoline (Avgas) and one 10,000 gallon above ground split-fuel tank which contains 5,000 gallons diesel and unleaded automobile gasoline (see **Figure 1-21**). The fuel tanks are double-walled to provide secondary containment in the event of a fuel spill or ruptured tank. The fuel tanks are located east of the college Maintenance Building. The Airport has a mobile fuel truck that contains Avgas with a capacity of 1,000 gallons (see **Figure 1-22**). The standard operating procedure is to fill the mobile fuel truck at the aboveground storage tank and then drive to the aircraft flight line to fuel the aircraft. Fuel is available to transient aircraft during normal business hours. Aboveground fuel storage tanks are subject to the requirements of a Spill Prevention, Control and Countermeasure (SPCC) Plan in accordance with the Environmental Protection Agency and 40 CFR 112. Cochise College Airport does not currently have a SPCC Plan in place.



FIGURE 1-21 ABOVEGROUND FUEL STORAGE TANKS



FIGURE 1-22 MOBILE FUEL TRUCK

1.13.5 AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) EQUIPMENT & STORAGE BUILDING

Aircraft Rescue and Fire Fighting (ARFF) equipment is not required at airports that do not serve scheduled passenger service with aircraft having 10 or more passenger seats. Local municipal or volunteer fire departments typically provide fire protection to general aviation airports in their district. Mutual aid agreements may also be provided and developed with nearby fire departments to assist in emergency situations. In any case, procedures should be in place to ensure emergency response in case of an accident or emergency at the Airport. Although statistically very safe, the most likely emergency situations at general aviation airports are an aircraft accident, fuel or aircraft fire or hazardous material (fuel) spill.

The level of protection recommended in FAA Advisory Circular 150/5210-6D, Aircraft Fire and Rescue Facilities and Extinguisher Agents, for small general aviation airports is 190 gallons of aqueous film forming foam (AFFF) supplemented with 300 pounds of dry chemical. Proximity suits should be utilized for fire fighter protection. Aviation rated fire extinguishers should be immediately available in the vicinity of the aircraft apron and fueling facilities. Adequate facilities should be provided to store any ARFF vehicle(s) or equipment that is acquired in the future. There is not currently any ARFF equipment or personnel based at Cochise College Airport nor are any required for a general aviation airport. Currently, aviation fire extinguishers are available near the fuel tanks, on the fuel truck, adjacent to the aircraft parking sun shade and at various locations throughout the aviation department. A proposal has been made to have access to an airport fire truck through a joint venture with Northrop Grumman. Emergency

response is provided by the Douglas Fire Department (DFD) as further discussed in Section 1.13.6.

1.13.6 EMERGENCY SERVICES

The nearest medical facility to Cochise College Airport is the Southeast Arizona Medical Center (SAMC) located approximately six miles east of the Airport in Douglas. SAMC provides general medical and surgical care with 24-hour per day, seven-day per week emergency room services. SAMC has five physicians on staff, 25 beds and is classified as a Level 4 trauma center. Patients in serious or critical condition would most likely be airlifted or transported to a major hospital in Tucson such as University Medical Center (UMC). UMC operates Southern Arizona's only Level 1 trauma center has a capacity of 487 beds and 700+ physicians on staff.

Sunnyside Volunteer Fire is the primary responder to the Airport. Emergency fire and ambulance services are also available from the Douglas Fire Department (DFD) and EMS located approximately nine miles southeast of the Airport in Douglas. The DFD has one Fire Chief, two administration staff and 24 paid full time personnel providing 24-hour emergency service. The DFD has three fire trucks and five ambulances with an estimated response time to the Airport of 10 minutes for an ambulance and 15 minutes for a fire truck.

1.13.7 AIRPORT FENCING AND SECURITY

The primary purpose of airport fencing is to prevent unwanted intrusions by persons or animals on to airport property. Airport fencing provides increased safety and security for the airport. It is normally installed along the perimeter of the airport property and outside any of the safety areas defined by the Federal Aviation Administration (FAA) in Advisory Circular (AC) 150/5300-13, Airport Design and Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. The terminal area is enclosed with a 6-foot high chain link fence and has a manually operated vehicle gate providing access to the terminal and apron areas (see **Figure 1-23**). The terminal area also has a pedestrian gate to access the apron area and sun shade parking (see **Figure 1-24**). Access to the airside is also available from the college by entering the aviation building hangar or classroom portion of the complex. The Airport perimeter outside of the terminal area is surrounded by a 4.5-foot woven wire fence.

Cochise College security conducts regular patrols of the Airport. In the event of an accident, incident or other emergency the Cochise County Sheriff's Office would be notified. The Sheriff's Office headquarters are in Bisbee with a patrol office located in Douglas, approximately nine miles southeast of the Airport. The Sheriff's Office can respond in approximately 10 minutes from their Douglas location.



FIGURE 1-23 VEHICLE ACCESS GATE



FIGURE 1-24 PEDESTRIAN GATE

1.13.8 AIRPORT SERVICES/FIXED BASE OPERATIONS

A Fixed Base Operator (FBO) is usually a private enterprise that leases land, and sometimes facilities, from the airport sponsor on which to provide services to based and transient aircraft. The extent of the services provided varies from airport to airport; however, these services frequently include aircraft fueling, minor maintenance and repair, aircraft rental and/or charter services, flight instruction, pilot lounge and flight planning facilities and aircraft tiedown and/or hangar storage. Cochise College Airport does not have an FBO. The college aviation department provides fuel to transient aircraft on request during normal business hours. The aviation department has an aircraft maintenance hangar where aviation department mechanics maintain the college’s fleet of aircraft. Aircraft maintenance to the public is not available at the Airport.

1.13.9 AIRPORT MANAGEMENT

Cochise College is the Sponsor of the Airport, and as such is responsible for the operations, maintenance and management of the facility. The Director of Aviation Programs, who reports to the Cochise College Vice President for Instruction/Provost, acts as the Airport Manager and serves as the primary contact point for Airport related items. The Director of Facilities Management and Planning is responsible for beautifying the grounds and improving safety at the Airport and reports to the Airport Manager. The Director of Aviation Programs reports to the Cochise College Vice President. The college administration reports to the five-member Governing Board elected from precincts in Cochise County.

1.13.10 AIRPORT MAINTENANCE AND SUPPORT

The college has a John Deere front end loader, a Ford front end loader, a Montana front end loader and a Case backhoe to maintain the Airport as seen in **Figure 1-25**. Auxiliary attachments for the maintenance vehicles include an augur, mower and forks. The maintenance equipment is stored outside adjacent to the campus Maintenance Building.



FIGURE 1-25 MAINTENANCE EQUIPMENT



TABLE 1-11 COCHISE COLLEGE AIRPORT INVENTORY

Airport Data		
Identifier	P03	
FAA Site Number	00670.2*A	
Airport Reference Code	B-I (small)	
Owner/Sponsor	Cochise College	
Airport Elevation	4,147' MSL	
Facilities	Comments/Conditions	
Runway 5/23	Length: 5,303' (as published) Width: 60' Surface: Asphalt Marking: Basic	(Physical length estimated 5,551') RW 23: 447' Displaced Threshold
Runway Lighting	MIRL	New in 2012
Signage	None	
Navigational Aids	None	
Approach Minimums	N/A (visual)	
Visual Aids	Beacon, lighted wind cone, segmented circle and tetrahedron, PAPI-4 Runways 5&23	
Taxiway	Full Length Parallel Taxiway Runway 5/23 22' wide	Poor (25' standard)
Taxiway Lighting	Low Intensity Taxiway Lighting (LITL)	
Aircraft Apron	58,490 SY	Poor
Tie Downs	19	
Pavement Strength	12,500 lbs. (SWG)	
Landside Facilities	1 Hangar/Classrooms Building UAV Flight Test Facility	10 space sun shade aircraft parking
Automobile Parking	86 Vehicles (Paved)	Fair
Perimeter Fencing	Airfield surrounded by 4.5-foot woven wire fence and terminal area surrounded by a 6-foot high chain link fence with vehicle and pedestrian access gates.	
Fuel	100 LL AvGas 100 LL AvGas Mobile Fuel Truck Diesel and Unleaded Gasoline	10,000 gallons 1,000 gallons 5,000 gallons each
Weather Equipment	None	
FBO	Cochise College	
Utilities	Power, Water, Sanitary and Storm Sewer, Natural Gas and Telephone	

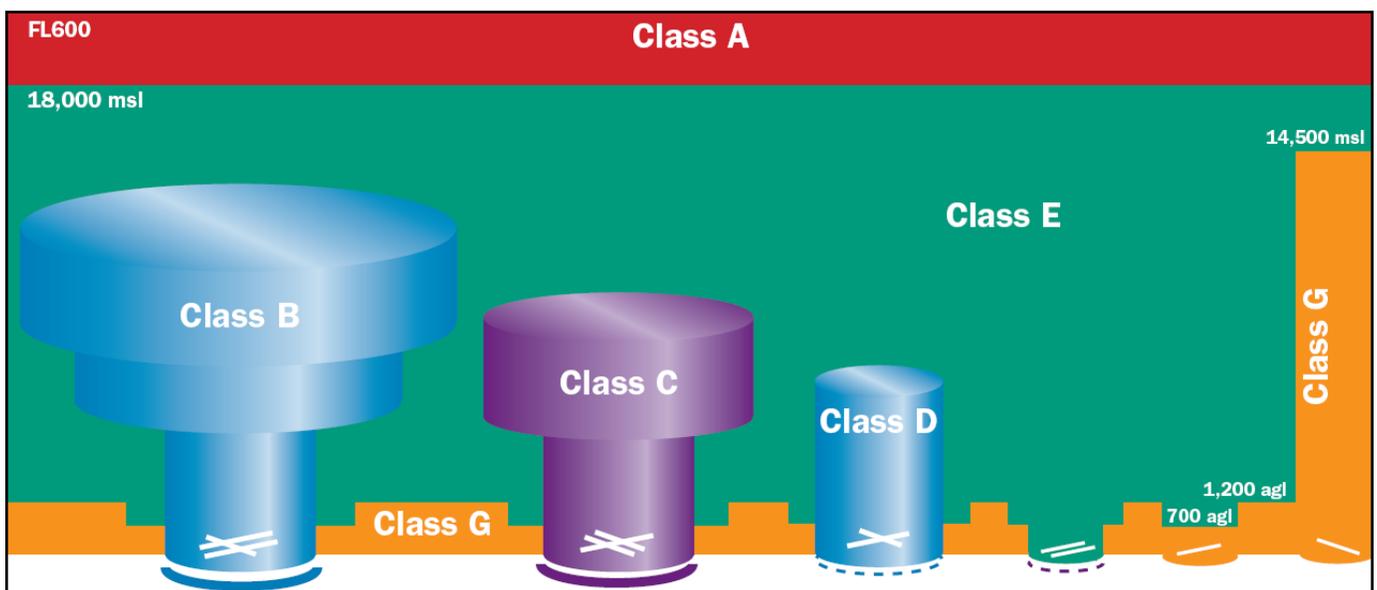
1.14 AIRSPACE CHARACTERISTICS

The National Airspace System consists of various classifications of airspace that are regulated by the FAA. Airspace is either controlled or uncontrolled. Pilots flying in controlled airspace are subject to Air Traffic Control (ATC) and must follow either Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) requirements. These requirements include combinations of operating rules, aircraft equipment and pilot certification and vary depending on the Class of airspace. These rules are described in Federal Aviation Regulations (FAR) Part 71, Designation of Class A, Class B, Class C, Class D and Class E Airspace Areas; Airways; Routes; and Reporting Points and FAR Part 91, General Operating and Flight Rules. **Figure 1-26** shows the different airspace classes and gives a graphical representation of them.

General definitions of the Classes of airspace are provided below:

- **Class A Airspace:** Airspace from 18,000 feet Mean Sea Level (MSL) up to and including Flight Level (FL) 600.

- **Class B Airspace:** Airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of IFR operations or passenger enplanements.
- **Class C Airspace:** Generally, airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower.
- **Class D Airspace:** Airspace from the surface up to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports with an operational control tower.
- **Class E Airspace:** Generally, controlled airspace that is not Class A, Class B, Class C or Class D.
- **Class G Airspace:** Generally, uncontrolled airspace that is not designated Class A, Class B, Class C, Class D or Class E.
- **Victor Airways:** These airways are low altitude flight paths between ground based VHF Omnidirectional Range receivers (VORs).



SOURCE: AIRCRAFT OWNERS AND PILOTS ASSOCIATION (AOPA) 2009

FIGURE 1-26 TYPES OF AIRSPACE

Figure 1-27 provides a graphical depiction of the airspace surrounding Cochise College Airport. The Airport is situated under Class E airspace starting at 1,200 feet above the surface. Between the surface and 1,200 feet, the airspace is considered Class G. Approximately two nautical miles northeast is Class E airspace which encompasses the surface to 1,200 feet Above Ground Level (AGL) serving the Bisbee-Douglas International Airport (DUG). Pilots should check Notices to Airmen (NOTAMs) or the Airport/Facility Directory (A/FD) for Class E (surface) effective hours.

A Victor Airway is a special kind of Class E airspace and is like a “highway” in the sky. Many powered aircraft follow these routes. The routes connect VOR stations that radiate a signal in all directions. These stations are usually located at or near airfields. North-south Victor Airways have odd numbers while east-west airways have even numbers. These federal or Victor

Airways are used by both IFR and VFR aircraft. The airspace set aside for a Victor Airways is eight miles wide with a floor at 1,200 feet AGL and extend up to FL 180 (18,000 feet MSL).

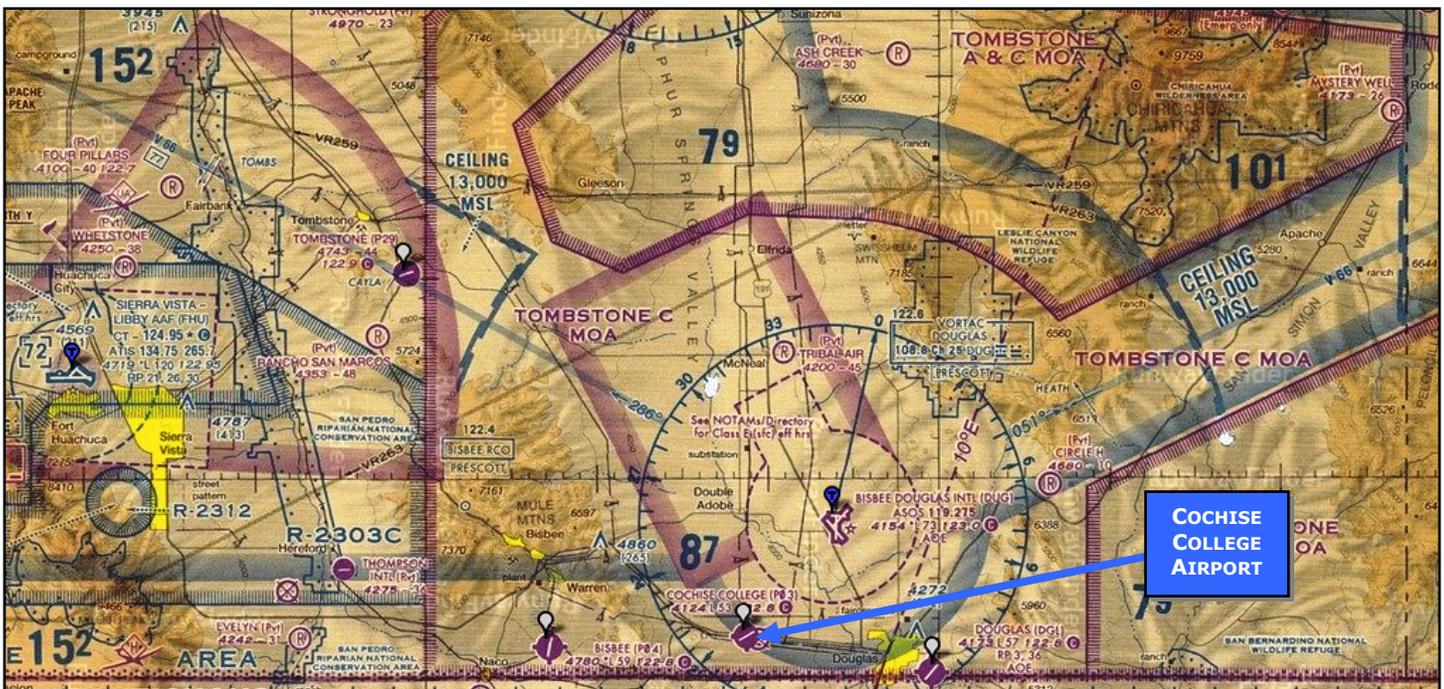
Victor Airway 66/202 (V-66 and V-202) is located 10 nautical miles north of the Cochise College Airport. V-66/V-202 is a highway in the sky that connects the Douglas (DUG) VORTAC located seven nautical miles northeast of the airport at Bisbee Douglas International Airport with the Tucson (TUS) VORTAC located approximately 87 nautical miles northwest of the Airport at Tucson International Airport. Increased air traffic can be expected in and around Victor Airways and the originating and terminating VOR.

The traffic patterns at Cochise College Airport are standard left traffic for Runway 5 and Runway 23. Traffic Pattern Altitude (TPA) is 5,000 feet MSL (853 feet AGL) for all aircraft. There are currently no noise abatement procedures in place at the Airport.

The practice area for the Cochise College flight training program is located up to 25 miles north of the Airport from the Mule Mountains to the Chiricahua Mountains. Practice area altitude restrictions are from 500 feet AGL up to the service ceiling of the aircraft (approximately 12,500 feet MSL). The reporting frequency for traffic advisories is 122.8 MHz.

1.14.1 AIRSPACE JURISDICTION

Cochise College Airport is located within the jurisdiction of the Albuquerque Air Route Control Center (ARTCC) and the Prescott Flight Service Station (FSS). The altitude of radar coverage by the Albuquerque ARTCC may vary as a result of the FAA navigational/radar facilities in operation, weather conditions and surrounding terrain. The Prescott FSS provides additional weather data and other pertinent information to pilots on the ground and enroute.



Source: 2011 Phoenix Sectional Aeronautical Chart

FIGURE 1-27 SURROUNDING AIRSPACE

1.14.2 AIRSPACE RESTRICTIONS

Military Operation Areas (MOAs) and Military Training Routes (MTRs) are established for the purpose of separating certain military training activities, which routinely necessitate acrobatic or

abrupt flight maneuvers, from Instrument Flight Rules (IFR) traffic. IFR traffic can be cleared through an active MOA if IFR separation can be provided by Air Traffic Control (ATC), otherwise ATC will reroute or restrict the IFR traffic. Restricted areas are defined as “airspace designated under FAR Part 73, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. Most restricted areas are designated joint use and IFR/VFR operations in the area may be authorized by the controlling ATC facility when it is not being utilized by the using agency.” Restricted areas are typically associated with military operations and indicate the existence of unusual, often invisible, hazards to aircraft such as artillery firing, aerial gunnery or guided missiles.

Cochise College Airport is located under the Tombstone C MOA. The Tombstone C MOA covers the surrounding area and includes the airspace from 14,500 feet MSL to 18,000 feet MSL. The Tombstone C MOA is active Monday through Friday from 6:00 a.m. until 9:00 p.m. The Tombstone A and B MOAs are located north and east of the Airport and include the airspace from 500 feet AGL to 14,500 feet MSL. The Tombstone A and B MOAs are active Monday through Friday from 6:00 a.m. until 9:00 p.m. The controlling agency for the MOAs is Albuquerque Center. The MOAs are routinely scheduled for activation on weekends. Above Tombstone MOA is an Air Traffic Control Assigned Airspace (ATCAA) which extends the Tombstone MOA up to 51,000 MSL. The Tombstone MOA/ATCAA may be scheduled active at other times by issuing a Notice to Airmen (NOTAM).

Aerial refueling (AR) occurs above Cochise College Airport and may be scheduled independent of Tombstone MOA activation. AR-639A is authorized for refueling between 13,000 and 28,000 feet MSL and AR-639 is authorized for refueling between 16,000 and 28,000 feet MSL. Albuquerque Center is the controlling authority for both. The Airport may also be over flown by VFR or IFR military aircraft at fairly low altitudes transitioning to/from Sierra Vista Municipal Airport-Libby Army Airfield and Tombstone MOA.

Cochise College Airport is also located approximately 18 nautical miles west of the R-2303C restricted airspace. R-2303C is part of restricted airspace that surrounds the U.S. Army post Fort Huachuca and includes the airspace from 15,000 feet MSL to 30,000 feet MSL.

Cochise College Airport is located approximately two nautical miles from the U.S. border with Mexico. Aircraft flying into the U.S. are required to follow the procedures of the Air Defense Identification Zone (ADIZ). An ADIZ is an area of airspace defined by a nation where an aircraft must identify themselves and their location in the interest of national security. An aircraft entering an ADIZ is required to contact ATC and state their planned course, destination and any other information about their trip through the ADIZ.

In addition to MOAs and Restricted airspace, Military Training Routes (MTR) pose a potential hazard to civilian aircraft. The MTR program is a joint venture by the FAA and the Department of Defense (DOD). MTRs are mutually developed for use by the military to conduct low-altitude, high-speed training. Increased vigilance is recommended for pilots operating in the vicinity of these training routes. There are two MTRs in the vicinity of the Cochise College Airport. Visual MTR (VR 263) is located approximately 18 nautical miles northwest of the Airport and runs in a northeast/southwest orientation. Visual MTR (VR 259) is located approximately 25 nautical miles north of the Airport and runs in an east/west orientation.

Special Conservation Areas are also located in the vicinity of the Cochise College Airport. This type of airspace surrounds many national parks, wildlife refuges and other noise sensitive areas. Pilots are requested to avoid flight below 2,000 feet AGL in these areas. The San Pedro

Riparian National Conversation Area is located approximately 23 nautical miles west of the Airport. The Chiricahua Wilderness Area is located approximately 30 nautical miles northeast of the Airport.

1.15 METEOROLOGICAL CONDITIONS

Meteorological conditions have a direct impact on the operational characteristics of an airport. These conditions determine the regulations under which operations may be conducted, the frequency of use for each operational configuration and the instrumentation required to assist aircraft in landing and departing.

1.15.1 LOCAL CLIMATOLOGICAL DATA

Cochise College Airport is located in south-central Cochise County in an area that receives approximately 12.63 inches of precipitation annually. Average annual snowfall for the area is approximately 1.3 inches. The average maximum temperature of the hottest month, June, is 94.8 degrees Fahrenheit, while the average minimum temperature of the coldest month, December, is 29.2 degrees Fahrenheit. The annual average maximum temperature is 78.4 degrees Fahrenheit and the annual average minimum temperature is 45.9 degrees Fahrenheit.

1.15.2 CEILING AND VISIBILITY CONDITIONS

Ceiling and visibility conditions are important considerations since the occurrence of low ceiling and/or poor visibility conditions limit the use of the airport. Under poor visibility conditions or Instrument Meteorological Conditions (IMC), the pilot must operate under Instrument Flight Rules (IFR), rather than Visual Flight Rules (VFR). Under IFR, the pilot maneuvers the aircraft through sole reference to instruments in the aircraft and navigational aids on the ground. When flight conditions are visual or Visual Meteorological Conditions (VMC), the pilot can maneuver the aircraft by reference to the horizon and objects on the ground. Afternoon thunderstorms are common in southern Arizona with the area averaging 52 annual events. Cochise College Airport currently has no instrument approach procedure.

1.15.3 RUNWAY WIND COVERAGE

Wind direction and speed determine the desired alignment and configuration of the runway system. Aircraft land and takeoff into the wind and therefore can tolerate only limited crosswind components (the percentage of wind perpendicular to the runway centerline). The ability to land and takeoff in crosswind conditions varies according to pilot proficiency and aircraft type.

FAA Advisory Circular 150/5300-13, Airport Design, recommends that a runway should yield 95 percent wind coverage under stipulated crosswind components. If one runway does not meet this 95 percent coverage, then construction of an additional runway may be advisable. The crosswind component of wind direction and velocity is the resultant vector, which acts at a right angle to the runway. It is equal to the wind velocity multiplied by the trigonometric sine of the angle between the wind direction and the runway direction. The allowable crosswind component for each Airport Reference Code is shown in **Table 1-12**. The allowable crosswind component and corresponding wind coverage percentage is shown in **Table 1-13**.

There is currently no historical wind data available for Cochise College Airport. The closest wind data available is from Bisbee Douglas International Airport located 7.4 nautical miles northeast of Cochise College

TABLE 1-12 CROSSWIND COMPONENT	
Allowable Crosswind in Knots	Airport Reference Code
10.5 knots	A-I & B-I
13 knots	A-II & B-II
16 knots	A-III, B-III & C-I through D-III
20 knots	A-IV through D-VI

SOURCE: FAA ADVISORY CIRCULAR 150/5300-13 AIRPORT DESIGN CHANGE 15

Airport. Historical wind data from Bisbee Douglas International Airport was used to create a wind rose and corresponding wind coverage data for Cochise College Airport as seen in **Figure 1-28**. The existing single-runway configuration provides 91.40 percent crosswind coverage for 10.5 knots and 96.25 percent for 13.0 knots. This is less than the recommended 95 percent coverage for A-I and B-I aircraft and meets the recommended coverage for A-II and B-II aircraft.

TABLE 1-13 WIND COVERAGE

Crosswind	Wind Coverage
10.5 knots	91.40%
13.0 knots	96.25%

SOURCE: BISBEE DOUGLAS INTERNATIONAL AIRPORT

NOTE: KDUG AWOS
 7.4 NM NE OF P03 AT 4,150' MSL
 TIME PERIOD: 1999-2008
 78,405 WIND OBSERVATIONS

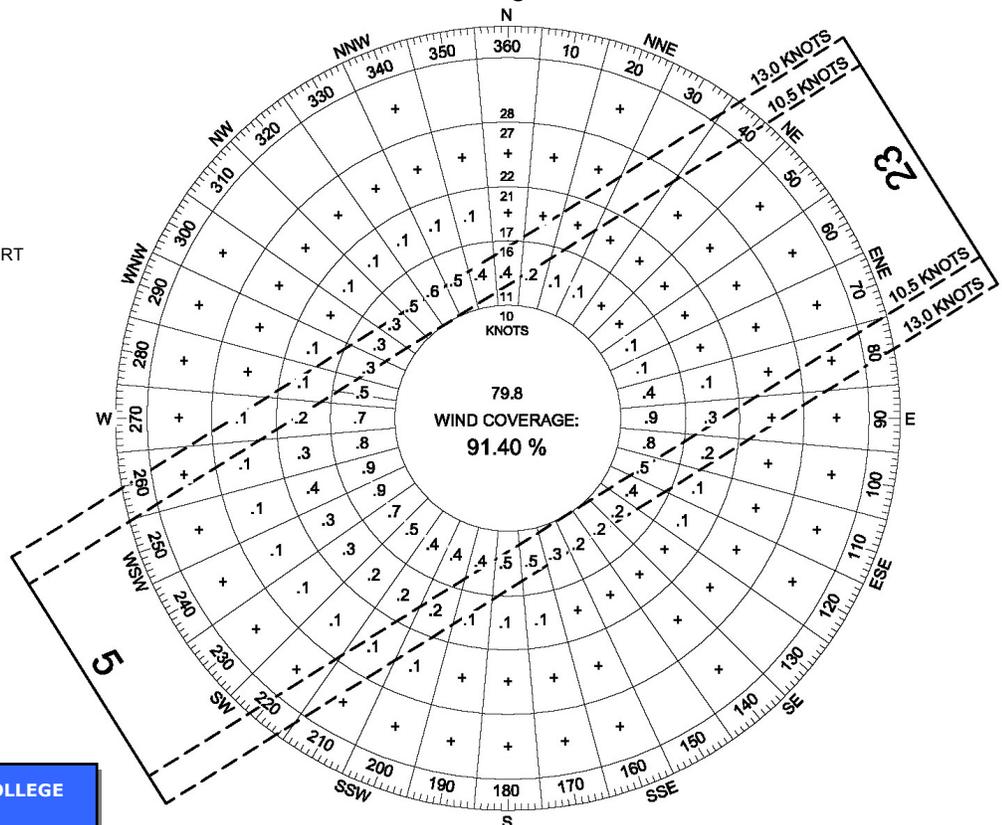


FIGURE 1-28 COCHISE COLLEGE AIRPORT WIND ROSE

1.16 ENVIRONMENTAL INVENTORY

1.16.1 INTRODUCTION

The purpose of the environmental inventory is to identify key environmental resources that may be affected by potential airport development. The data compiled in this section will be used later in this study in evaluating potential airport development alternatives and to identify environmental related permits that may be required for recommended development projects.

1.16.2 AIR QUALITY

Air quality attainment maps were obtained from the March, 2011 EPA map of nonattainment areas. The Airport is located within a nonattainment area (See **Figures 1-29, 1-30 and 1-31**). An attainment area is a zone within which the level of a pollutant is considered to meet National Ambient Air Quality Standards.

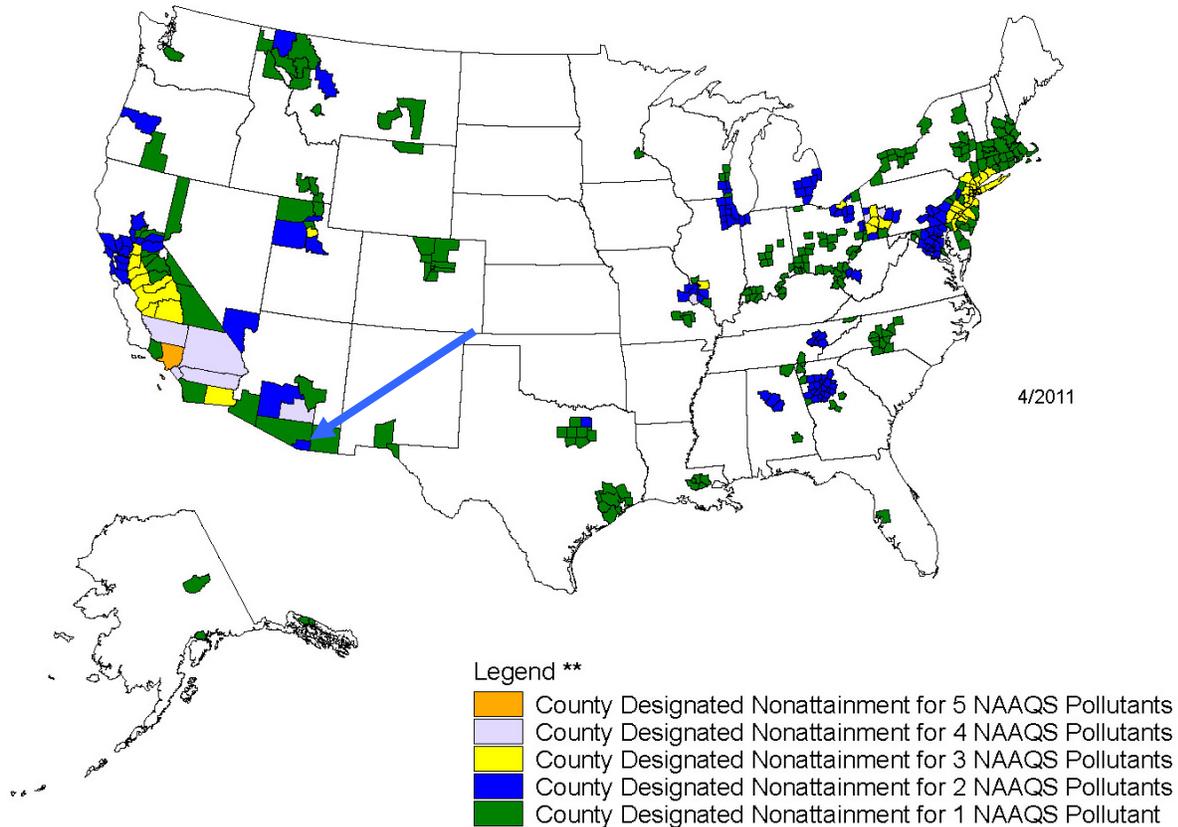
In addition to emissions originating in Mexico, unpaved road dust and paved roads, agricultural burning, cleared areas, windblown agricultural land, off road vehicles and unpaved parking lots were identified as contributing sources.

In a 1990 clarification, the Douglas-Paul Spur Group I Area was specified to include all or part of eight contiguous townships in and around the City of Douglas and the Paul Spur unincorporated

area. Consistent with EPA's PM10 grouping scheme, the Douglas-Paul Spur Group I Area was designated and classified as a moderate PM10 nonattainment area upon enactment of the 1990 Clean Air Act (CAA) amendments. Arizona Department of Environmental Quality (ADEQ) is currently developing a maintenance plan and request for re-designation for the Douglas-Paul Spur PM10 nonattainment Area. Further evaluation of air quality impacts will be discussed in Chapter 6.

Counties Designated "Nonattainment"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) *



Guam - Piti and Tanguisson Counties are designated nonattainment for the SO₂ NAAQS

* The National Ambient Air Quality Standards (NAAQS) are health standards for Carbon Monoxide, Lead, Nitrogen Dioxide, 8-hour Ozone, Particulate Matter (PM-10 and PM-2.5), and Sulfur Dioxide.

** Included in the counts are counties designated for NAAQS and revised NAAQS pollutants. 1-hour Ozone is excluded. Partial counties, those with part of the county designated nonattainment and part attainment, are shown as full counties on the map.

The Indiana portion of the Chicago-Gary-Lake County, IL-IN 8-hr Ozone multi-state nonattainment area has been redesignated, but the area is not considered a maintenance area until both states in the area are redesignated. All of the counties for this area are displayed as being in nonattainment

SOURCE: U.S. ENVIRONMENTAL PROTECTION AGENCY 04/2011

FIGURE 1-29 NATIONAL AIR QUALITY MAP

Nonattainment and Attainment With a Maintenance Plan Areas

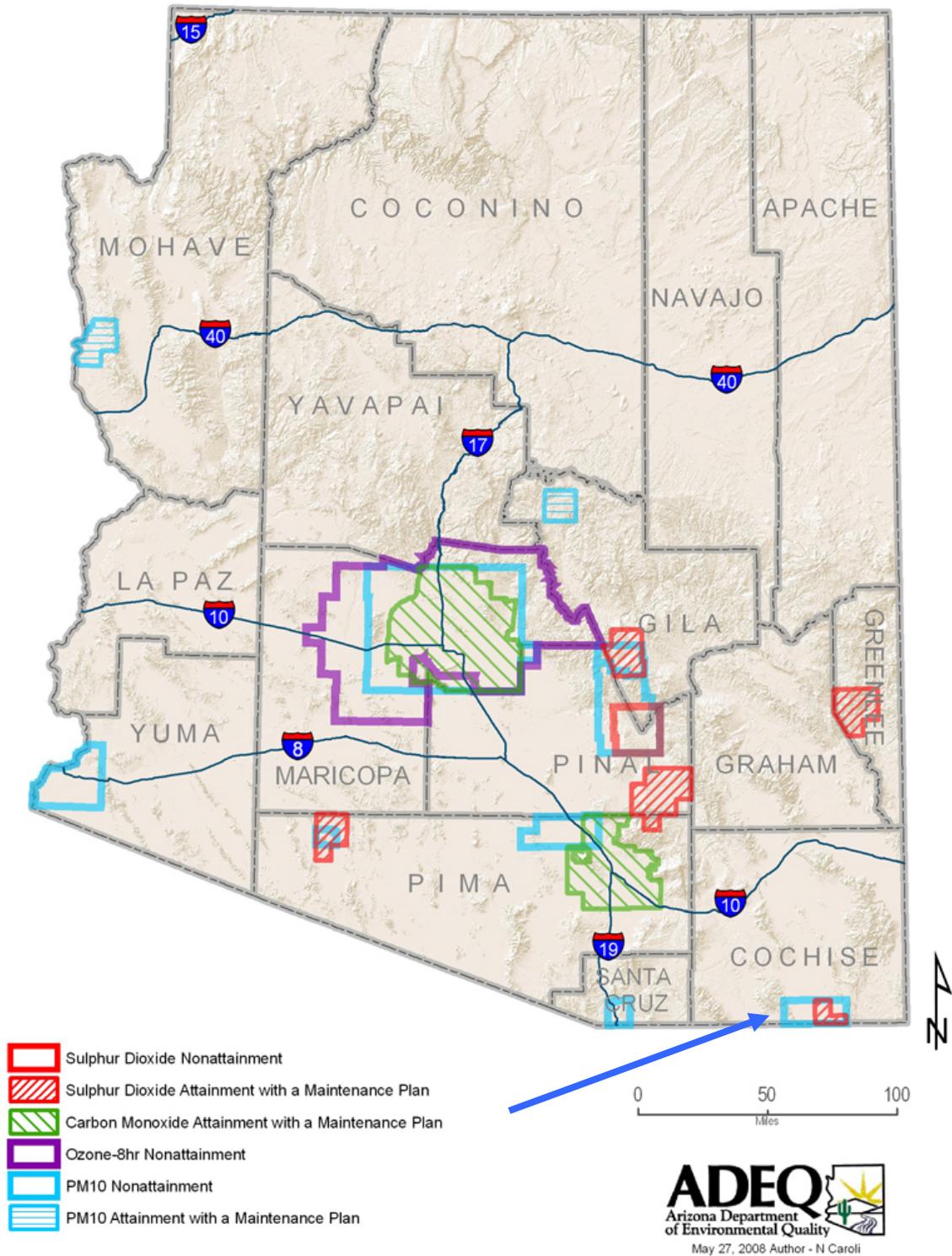
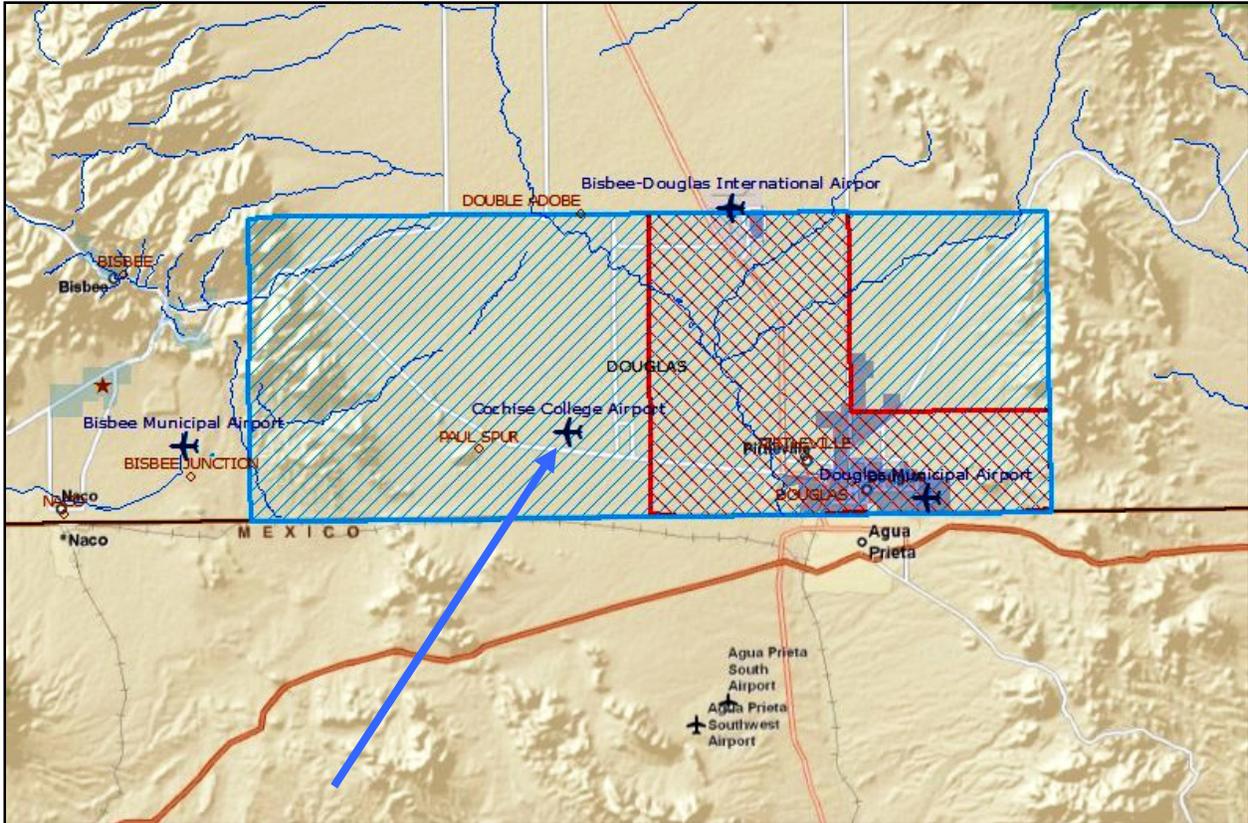


FIGURE 1-30 STATE AIR QUALITY MAP



SOURCE: ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY 05/2008

FIGURE 1-31 COUNTY AIR QUALITY MAP

1.16.3 FISH, WILDLIFE AND PLANTS

The U.S. Fish and Wildlife Service website was consulted concerning the possibility of any impacts to any threatened and endangered species and candidate species that may occur within the airport environment. A list of federally threatened or endangered species was obtained for Cochise County. Future development projects should be evaluated to determine if any of the listed species occur or would be impacted.

The species shown on **Table 1-14** are currently listed for Cochise County but do not necessarily occur in the vicinity of Cochise College Airport:

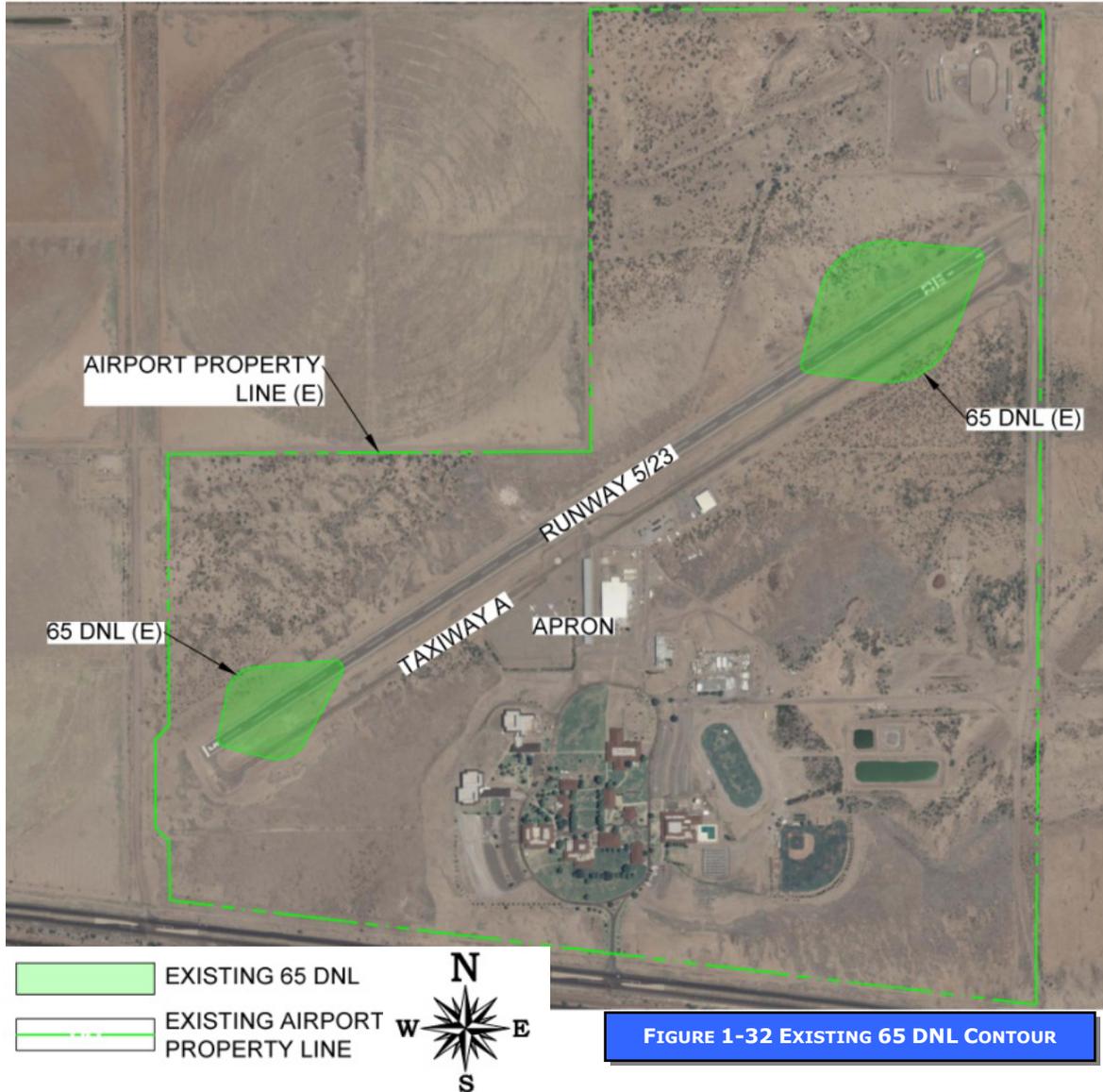
Table 1-14 Threatened, Endangered and Candidate Species Potentially Occurring Within Cochise County, Arizona

Common Name	Scientific Name	Status
Arizona treefrog	<i>Hyla wrightorum</i>	Candidate
Beautiful shiner	<i>Cyprinella formosa</i>	Federally Threatened
Canelo hill ladies'-tresses	<i>Spiranthes dielitescens</i>	Federally Endangered
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	Federally Threatened
Cochise pincushion cactus	<i>Coryphantha robbinsorum</i>	Federally Threatened
Desert pupfish	<i>Cyprinodon macularius</i>	Federally Endangered
Gila chub	<i>Gila intermedia</i>	Federally Endangered
Gila topminnow	<i>Poeciliopsis</i>	Federally Endangered
Huachuca springsnail	<i>Pyrgulopsis thompsoni</i>	Candidate
Huachuca water-umbel	<i>Lilaeopsis schaffneriana var. recurva</i>	Federally Endangered
Jaguar	<i>Panthera onca</i>	Federally Endangered
Lemmon fleabane	<i>Erigeron lemmonii</i>	Candidate
Lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuenae</i>	Federally Endangered
Loach minnow	<i>Tiaroga cobitis</i>	Federally Threatened
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Federally Threatened
New Mexico ridenose rattlesnake	<i>Crotalus willardi obscurus</i>	Federally Threatened
Northern aplomado falcon	<i>Falcon femoralis septentrionalis</i>	Federally Endangered
Northern Mexican gartersnake	<i>Thamnophis eques megalops</i>	Candidate
Ocelot	<i>Leopardus pardalis</i>	Federally Endangered
San Bernadino springsnail	<i>Pyrgulopsis bernadina</i>	Candidate
Sonora tiger salamander	<i>Ambystoma tigrinum</i>	Federally Endangered
Southwestern willow flycatcher	<i>Empidonax traillii</i>	Federally Endangered
Spikedace	<i>Meda fulgida</i>	Federally Threatened
Yaqui catfish	<i>Ictalurus pricei</i>	Federally Threatened
Yaqui chub	<i>Gila purpurea</i>	Federally Endangered
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate

Source: US Fish and Wildlife Service, 2011

1.16.4 NOISE

The existing 65 day-night level (DNL) noise contour was developed utilizing the FAA Integrated Noise Model (INM) Program version 7.0(c) for the Cochise College Airport using existing aircraft activity levels and fleet mix. Based on the results of the noise analysis, a 65 DNL contour is only generated at the ends of the runway and located entirely within the existing Airport property boundary. The existing 56 DNL noise contour is shown in **Figure 1-32**.



1.17 FINANCIAL DATA INVENTORY

Figure 1-33 shows a summary of the available historical financial data for the Cochise College Aviation Program. Cochise College Airport is unique in that it is located on a college campus and does not have the typical revenues sources and expenditures found at the average rural airport.

Cochise College					
Flight Training					
Comparative Statement of Revenues & Expenditures					
For the Periods Ended June 30, 2011, June 30, 2010 June 30, 2009 June 30, 2008, June 30, 2007					
	Fiscal Year 2011 - Actual YTD 6/30/11	Fiscal Year 2010 - Actual YTD 6/30/10	Fiscal Year 2009-Actual YTD 6/30/09	Fiscal Year 2008 - Actual YTD 6/30/08	Fiscal Year 2007 - Actual YTD 6/30/07
	Douglas (PFT)	Douglas (PFT)	Douglas (PFT)	Douglas (PFT)	Douglas (PFT)
Duplicated Enrollment (Registrants)	232.00	207.00	138.00	181.00	217.00
Unduplicated Enrollment*	107.00	82.00	74.00	90.00	101.00
Number of Sections	40.00	39.00	36.00	39.00	48.00
Total FTSE/Annualized (30 hrs.)	22.48	23.42	14.80	19.15	25.25
* It is possible to duplicate headcount if students are enrolled in more than one discipline in a quarter.					
Revenues:					
Aircraft Revenues	\$ 372,532.40	\$ 211,892.00	\$ 140,082.80	\$ 166,313.80	\$ 204,655.70
Pilot Instructor Revenues	139,725.60	153,629.00	88,772.80	97,497.20	156,167.40
Simulator Revenues	5,169.00	4,095.00	7,018.00	3,893.00	6,835.00
Other - Dorm Forfeit/Aircraft Rental	-	-	-	-	-
Program Instructional Revenues	\$ 517,427.00	\$ 369,616.00	\$ 235,873.60	\$ 267,704.00	\$ 367,658.10
Total Revenues	\$ 600,107.64	\$ 451,913.00	\$ 292,294.10	\$ 338,818.00	\$ 463,448.10
Expenditures:					
Personnel Compensation:					
Faculty Salaries	263,609.55	244,905.14	139,632.45	\$ 168,777.69	\$ 168,493.49
Associate Faculty Salaries	62,789.75	75,142.09	53,576.28	42,738.07	61,120.86
Vacation and Sick Leave Payouts	-	-	-	-	-
Overtime Wages	-	264.72	876.89	-	-
Insurance	27,933.41	23,588.29	8,062.27	15,360.70	11,901.66
Arizona Retirement	27,192.50	23,483.31	13,635.16	16,246.63	16,041.64
Social Security	20,057.97	19,511.22	11,837.99	12,800.65	13,948.80
Workmen's Compensation	10,053.17	7,305.11	5,439.40	4,067.59	4,830.48
Medicare Tax	4,690.94	4,563.13	2,768.56	2,993.70	3,262.26
ASRS - LTD	703.29	1,030.13	755.03	892.82	931.82
Total Personnel Comp.	\$ 417,030.58	\$ 399,793.14	\$ 236,584.03	\$ 263,877.85	\$ 280,531.01
Direct Expenditures:					
Maintenance Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Service Fees	1,900.00	1,603.80	-	100.00	5,324.76
Advertising	6,936.31	5,235.66	4,247.30	1,974.29	-
In-House Printing	-	-	-	-	-
Office Supplies	426.98	-	-	-	-
Instructional Supplies	9,081.42	13,266.46	9,783.83	10,488.23	7,229.47
Maint. & Repair Supplies	-	-	-	-	-
Computers	1,166.59	-	-	-	-
Duplicating	947.79	-	56.00	24.00	-
Other Supplies	259.17	819.27	399.53	45.00	616.05
Fuel	-	-	-	-	78.45
Periodicals	296.47	254.21	13.70	136.87	180.97
Rent	-	-	-	-	-
Insurance	-	-	-	-	-
Memberships	460.00	400.00	60.00	400.00	-
Licenses Permits Fees	-	-	-	-	50.00
Subscriptions	-	-	-	-	-
Telephone Services	-	-	-	-	-
Postage	-	-	-	-	-
Travel - In State	1,081.94	2,220.39	404.13	1,962.45	6,141.39
Travel - Out of State	-	-	3,574.26	-	-
Conference Registration Fees	235.00	-	-	-	-
Prior Year Adjustment	-	455.00	-	-	-
Total Direct Expenditures	\$ 22,791.67	\$ 24,254.79	\$ 18,538.75	\$ 15,130.84	\$ 19,621.09
Total Flight Training Expenditures	\$ 439,822.25	\$ 424,047.93	\$ 255,122.78	\$ 279,008.69	\$ 300,152.10
Aircraft Overhead/Schedule A Expenditures	\$ 356,802.47	\$ 336,200.18	\$ 297,890.93	\$ 341,273.39	\$ 340,080.61
Total Flight Training plus Aircraft Overhead Expenditures	\$ 796,624.72	\$ 760,248.11	\$ 553,013.71	\$ 620,282.08	\$ 640,232.71
NET Revenues / (Expenditures)	\$ (196,517.08)	\$ (308,335.11)	\$ (260,719.61)	\$ (281,464.08)	\$ (176,784.61)
Cost per FTSE	\$ 35,437	\$ 32,461	\$ 37,366	\$ 32,391	\$ 25,356
Revenue per FTSE	\$ 26,695	\$ 19,296	\$ 19,750	\$ 17,693	\$ 18,354

FIGURE 1-33 FINANCIAL DATA INVENTORY