1. Introduction

This chapter forecasts aviation activity at Coeur d'Alene Airport (COE). Forecasts form the basis of other Master Plan Update (Plan) elements, and identify anticipated growth at COE so improvements can be planned.

COE's users require facilities for safe and efficient operations. The development of these facilities is correlated with aviation activity forecasts.

This chapter forecasts based aircraft and aircraft operations. Forecasts prepared by the Federal Aviation Administration (FAA) and Idaho Transportation Department's Division of Aeronautics (ITD-Aero) are compared, and evaluated for their concurrence with observed local and national trends. Aviation activity forecasts and observed trends are used to select a preferred forecast. This chapter also considers the opportunity and viability of scheduled commercial passenger airline service and air cargo at COE.

Forecasts have a base year of 2008, selected because of the available data of the Fiscal Year (FY) 2009 FAA Terminal Area Forecast (TAF) (2009 TAF), and the ITD-Aero 2008 System Plan (2008 System Plan). The forecast reporting years are five, ten, and twenty years. Projections include analysis of statistical data, professional judgment and interpretation, and industry rules of thumb to support the recommendations. Forecasts are generally expected to represent unconstrained demand that the Airport could realistically expect to serve if the necessary facilities to support the demand were present.

1.1 Forecast Utilization

Aviation forecasts are one of two elements the FAA will formally approve as part of this Plan; the other is the Airport Layout Plan (ALP). The FAA uses airport forecasts to develop nation-wide forecasts for the National Airspace System, and to program funding for demand-driven improvements. Additionally, the forecasts will likely be used for projects requiring National Environmental Policy Act (NEPA) documentation.

1.2 FAA Approval Process

Guidance for preparing aviation activity projections is contained in FAA Advisory Circular 150/5070-6B, *Airport Master Plans.* These steps are: identify aviation activity measures, review previous airport forecasts, gather data, select forecast methods, apply forecast methods and evaluate results, compare forecast results to FAA TAF, and approval of forecasts. These steps are documented in this chapter.

FAA compares the Plan forecasts with the TAF and coordinates with the Airport to align discrepancy.

The FAA approval letter is included in **Section 9**.

1.3 Review of Previous Forecasts

A review of previous forecasts provides information about the underlying methodologies used in their development, and an initial screen of pertinent trends and changed conditions. A summary of previously published forecasts follows.

1.3.1 December 2009 Terminal Area Forecast

The TAF is the official federal forecast for airports included in the National Plan of Integrated Airport Systems (NPIAS). The TAF is the policy benchmark for federal review and approval of airport forecasts. Generally, master plan forecasts are approved readily if they are within 10 percent of TAF projections. Outside of this range, coordination may be necessary to adjust the forecasts and bring them within 10 percent. TAF projections are updated for each federal fiscal year, which begins October 1. This Plan uses the TAF published in December 2009, from which 2008 data is drawn.

1.3.2 FAA Aerospace Forecast 2010-2030

The FAA Aerospace Forecast provides a 20-year outlook on national aviation demand. These forecasts are a primary source for identifying national trends in macro-activity, and fleet mix, and are used to support forecast projections.

1.3.3 2008 Idaho Department of Transportation Aviation System Plan

ITD-Aero released the 2008 System Plan in "a proactive approach to ensuring aviation's role in the statewide transportation system." The 2008 System Plan provides a baseline of airport activity and facilities, and includes forecasts for based aircraft and aircraft operations at COE. The 2008 System Plan forecasts growth based on compound annual growth rates (CAGR), and tiers based on airport and local characteristics.

For based aircraft, a general aviation (GA) airport's tier is determined by whether it had a paved primary runway, and by the county's population growth rate. Kootenai County's population growth rate placed COE in the highest tier. Based aircraft are forecast to grow with a CAGR of 2.3 percent.

For aircraft operations, the 2008 System Plan looks at the ratio of aircraft operations per based aircraft in 2007. This ratio is applied to the airport's based aircraft forecast. As a result, the 2.3 percent CAGR used for the based aircraft forecast generates the aircraft operations forecast.

The 2009 TAF and the 2008 System Plan were reviewed to establish concurrence. The 2008 System Plan has a base year of 2007, and forecasts for years 2012, 2017, and 2027. To match the 2008 base year of this forecast 2008 System Plan forecast values for based aircraft and aircraft operations were calculated using a 2.3 percent CAGR.

1.3.4 2000 Airport Master Plan

For comparison, the forecasts of the 2000 Airport Master Plan (2000 Plan) were reviewed. GA in the U.S. has changed since the 2000 Plan forecasts were developed, particularly in the area of aircraft operating expense. Growth rates anticipated by the 2000 Plan forecast is presented in **Table 2-1** and **Table 2-2**.

Table 2-1: 2000 Airport Master Plan Based Aircraft Forecast

Year	Single-Engine	Multi-Engine	Jet	Helicopter	Total
1998	111	14	3	9	137
2003	113	15	5	10	143
2008	115	16	7	11	149
2018	122	18	12	13	165
CAGR	0.5%	1.3%	7.2%	1.9%	0.9%

Source: 2000 Plan

Compared to 2008 based aircraft counts recorded as part of the 2009 TAF, levels forecasted during the 2000 Plan generated single-engine counts were 19 percent lower, multi-engine counts were 19 percent lower, jet counts were 41 percent lower, and helicopter counts were 21 percent lower. Forecast total based aircraft from the 2000 Plan was 21 percent below recorded 2008 levels.

Table 2-2: 2000 Airport Master Plan Aircraft Operations Forecast					
Year	**GA Total**	**Airline/Charter**	**Cargo**	**Military**	**Total**
1997	104,000	0	0	1,400	105,400
2003	110,546	80	0	1,400	112,026
2008	119,447	1,328	0	1,400	122,175
2018	139,503	1,368	500	1,400	142,771
CAGR	1.4%	20.8%[1]	N/A	0%	1.5%

1= CAGR 2003-2018

Source: 2000 Plan

The 1.5 percent CAGR for aircraft operations in the 2000 Plan was below the 2.4 percent CAGR anticipated by the 2000 TAF. The 2000 Plan anticipated that aircraft operations would have a CAGR between 1.5 percent and 2.4 percent. Compared to 2008 aircraft operations levels, the 2000 Plan forecast GA activity 26 percent higher, while commercial activity was 95 percent lower, military activity was two percent lower, and total operations were one percent lower.

1.4 Regional Airport Analysis

The Airport faces competition from airports in surrounding counties, particularly Spokane County, Washington. Five of the nine regional airports identified in **Chapter 1** have a runway longer than 5,000 feet or an instrument approach procedure, and three of these five have both. Spokane International Airport (GEG) has a longer runway and an instrument approach procedure (IAP) with lower visibility minimums than COE. GEG's IAP requires special aircraft equipment and flight crew training to operate under lower visibility minimums; otherwise it offers the same visibility minimums as COE's IAP to Runway End 05. The facilities available at COE are attractive to private and corporate GA users, making it the key GA airport in the region. As a result, COE is the busiest GA airport in the region in terms of total operations, as show in **Table 2-3**.

Table 2-3: 2008 Regional Airport GA Operations	
Airport	**GA Operations**
Coeur d'Alene (COE)	123,048
Spokane International (GEG)	98,972
Felts Field (SFF)	66,177
Deer Park (DEW)	36,540
Sandpoint (SZT)	29,990
Shoshone County (S83)	11,480

Source: 2009 TAF

2. Based Aircraft

Based aircraft are those which hangar and tie-down at COE. Based aircraft forecasts allow for planning of storage space, influence FBO trends, and generally impact aircraft operations. The 2009 TAF categorizes airplanes as *single engine piston*, *multi-engine piston*, *jet*, *helicopters* and *other* (gliders and hot air balloons). As the primary GA airport in the region, COE expects the number of based aircraft to increase.

2.1 Based Aircraft History

The based aircraft inventory in **Chapter 1** indicated that single-engine piston aircraft were the most prevalent type of aircraft at COE. It is expected single-engine piston aircraft will remain the most numerous throughout the forecast period; however, there has been a recent increase in the number of multi-engine piston and jet aircraft based at the Airport. There were 143 single-engine piston, 18 multi-engine piston, 12 jet, 14 helicopter, and 2 other based aircraft in 2008.

2.2 Based Aircraft Forecast—2009 Terminal Area Forecast

The 2009 TAF is the baseline for based aircraft forecasts. 2009 TAF based aircraft forecasts are presented in **Table 2-4.**

Table 2-4: Based Aircraft Forecast—2009 TAF

Year	Single-Engine Piston	Multi-Engine Piston	Jet	Helicopter	Other	Total
2008	143	18	12	14	2	189
2013	172	22	14	15	2	225
2018	205	27	16	18	2	268
2028	293	43	25	25	2	388
CAGR	3.7%	4.5%	3.7%	2.9%	0%	3.7%

Source: 2009 TAF

The 2009 TAF forecasts growth in single-engine piston, multi-engine piston, jet, and helicopter based aircraft. Total based aircraft are forecast to grow at a CAGR of 3.7 percent. The FAA Aerospace Forecast for FY 2010-2030 (Aerospace Forecast), reviewed to assess these growth rates with current industry trends, anticipates that GA growth will be led by business travel. The Aerospace Forecast supports growth forecasted by the 2009 TAF, with emphasis on jet aircraft.

The Aerospace Forecast is less optimistic about the role of piston-powered GA aircraft in the near-term, anticipating a decline in active aircraft between 2008 and 2017. The Aerospace Forecast projects a return to growth for piston-powered aircraft between 2017 and 2030. Multi-engine piston aircraft are forecast to grow at a CAGR of 0.8 percent, and single-engine piston aircraft are forecast to grow with a CAGR of 0.2 percent between 2010 and 2030. The Aerospace Forecast has helicopters growing at a CAGR of 3.4 percent between 2010 and 2030.

The Aerospace Forecast supports the 2009 TAF's anticipated growth rates for jet and helicopter aircraft, but challenges the growth rates forecast for single- and multi-engine piston aircraft. Although these forecasts differ, the specificity of each should be taken into consideration. The Aerospace Forecast considers the national perspective, at a time when communities struggle with economic decline and rising unemployment. The 2009 TAF considers a more regional perspective, and includes observed regional trends. For COE, the 2009 TAF concurs with the 2008 System Plan and with local socioeconomic trends presented in **Chapter 1**.

2.3 Based Aircraft Forecast—2008 System Plan

The 2008 System Plan ties growth in based aircraft to growth in county population, which gave COE based aircraft a CAGR of 2.3 percent. The 2008 System Plan does not distinguish between aircraft types. In order to facilitate comparison between the 2008 System Plan and the 2009 TAF, based aircraft types are kept proportional to those presented in the 2008 Plan baseline data, which indicate that 78 percent of based aircraft were single-engine piston, six percent were multi-engine piston, four percent were jet, ten percent were helicopter, and two percent were other. Adjusted 2008 System Plan values are presented in **Table 2-5**.

Table 2-5: Based Aircraft Forecast—2008 System Plan

Year	Single-Engine Piston	Multi-Engine Piston	Jet	Helicopter	Other	Total
2008	113	9	5	14	3	144
2013	126	10	6	16	3	162
2018	141	12	6	18	4	181
2028	177	14	8	23	5	227
CAGR	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%

Source: 2008 System Plan, (calculated)

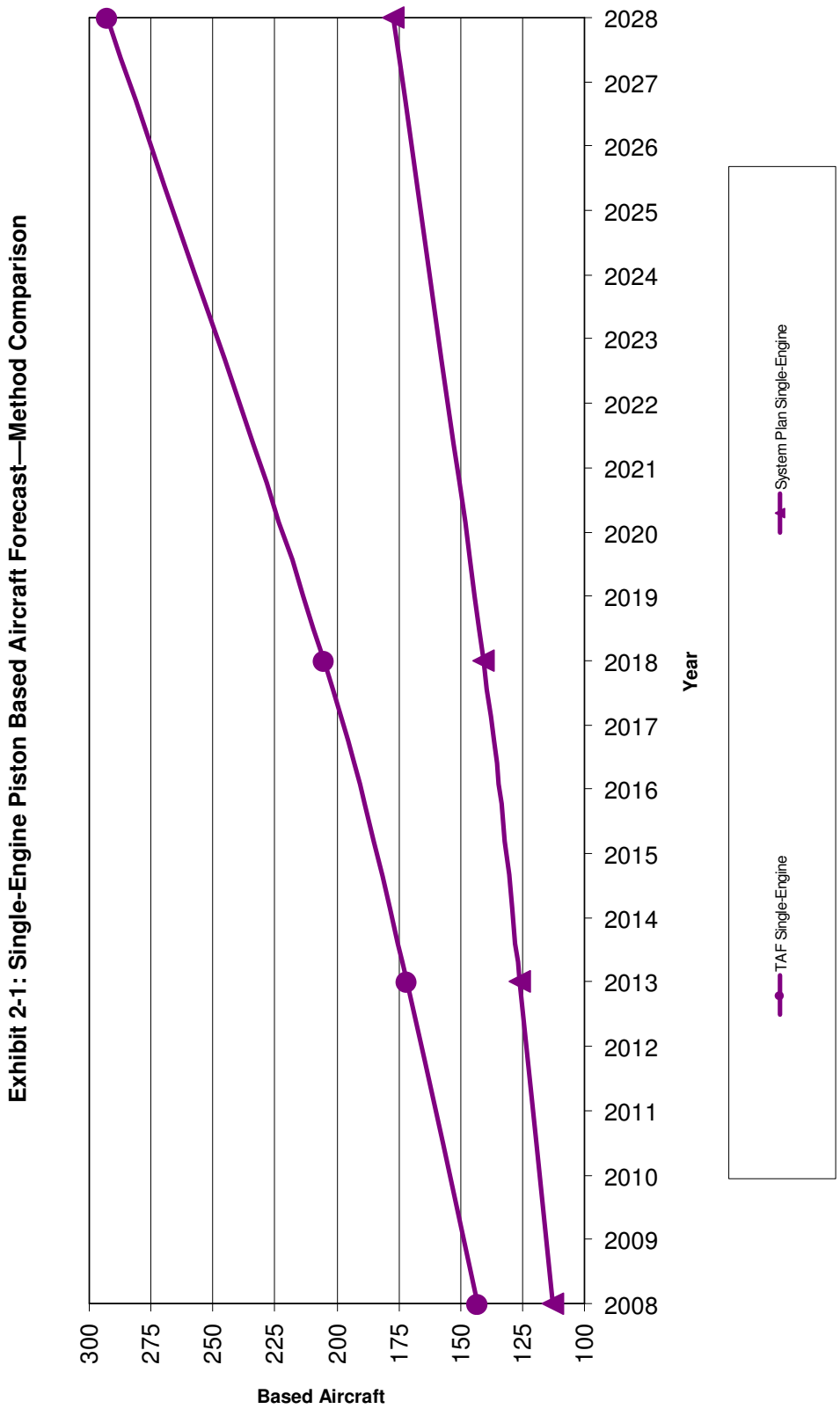
2.4 Based Aircraft Forecast—Method Comparison

In order to select the preferred based aircraft forecast, the 2009 TAF and 2008 System Plan based aircraft forecasts are compared to one another.

TAF anticipates single-engine piston aircraft growing faster than does the 2008 System Plan. For both forecasts, single-engine piston aircraft represent the majority of total based aircraft. Observed trends, including GA forecasts in the Aerospace Forecast, and conversations with fixed base operations (FBOs) at COE support this growth. The Aerospace Forecast supports growth by jet aircraft throughout the forecast period, and growth of single-engine and multi-engine piston aircraft after 2017.

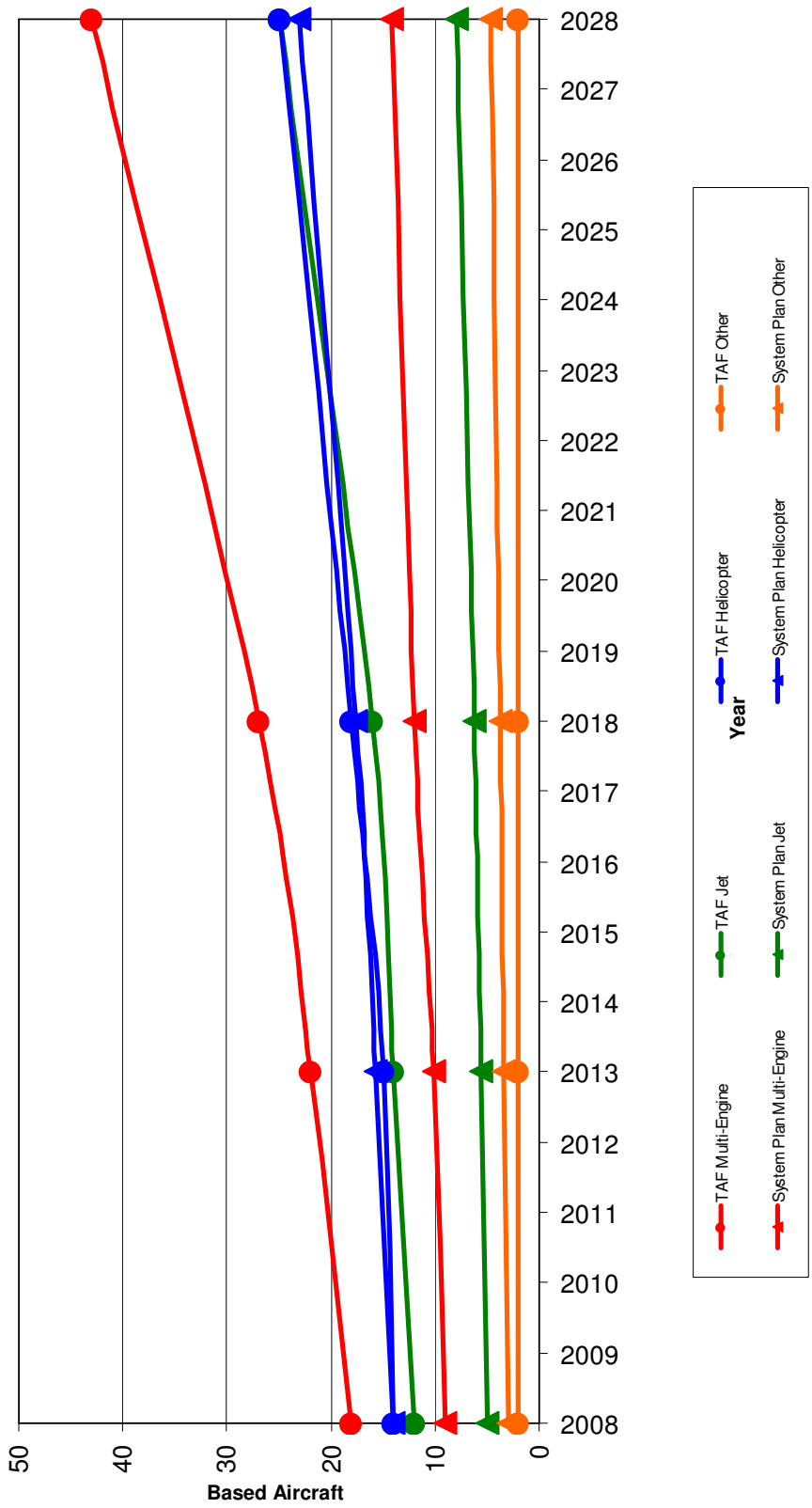
The preferred based aircraft forecast is the 2009 TAF.

A comparison of the 2009 TAF and 2008 System Plan based aircraft forecasts are shown in **Exhibit 2-1** and **Exhibit 2-2**.



Source: 2009 TAF; 2008 System Plan

Exhibit 2-2: Multi-Engine Piston, Jet, Helicopter, and Other Based Aircraft Forecast—Method Comparison



Source: 2009 TAF; 2008 System Plan

3. Aircraft Operations

The Airport has seen annual aircraft operations increase each year since 2000, increasing at a CAGR of 3.9 percent. Itinerant air taxi traffic went from 90 operations in 2007 to 27,200 operations in 2008. This sharp increase suggests that these types of operations were being recorded as general aviation traffic in the years prior.

GA operations, both local and itinerant, declined between 2005 and 2008. This is similar to trends observed across the country, where GA activity has declined in the wake of the financial crisis and increased fuel prices. There were 36,400 local GA, 58,020 itinerant GA, 1,428 itinerant military, and 27,200 air taxi aircraft operations at COE in 2008, for a total of 123,048 aircraft operations.

3.1 Aircraft Operations Forecast—Terminal Area Forecast

The 2009 TAF provides annual forecasts through 2030. Forecast operations levels are presented in **Table 2-6**.

Table 2-6: Operations Forecast—Terminal Area Forecast

Year	GA		Military		Air Carrier	Air Taxi	Total
	Local	Itinerant	Local	Itinerant			
2008	36,400	58,020	0	1,428	0	27,200	123,048
2013	45,563	62,704	0	1,428	0	27,200	136,895
2018	57,031	67,767	0	1,428	0	27,200	153,426
2028	89,360	79,153	0	1,428	0	27,200	197,141
CAGR	4.6%	1.6%	0%	0%	0%	0%	2.4%

Source: 2009 TAF

The TAF indicates growth in GA operations, with local GA operations growing faster than itinerant. Overall operations are anticipated to grow with a CAGR of 2.4 percent. The 2008 System Plan projects a similar CAGR of 2.3 percent. One notable element is that the TAF freezes the air taxi aircraft operations at 27,200.

The FAA Aerospace Forecast projects a 2.5 percent CAGR in the number of GA hours flown through 2030. A large part of those hours are attributed to jet and helicopter aircraft, with a 4.4 percent CAGR, while piston-powered aircraft are anticipated to have a CAGR of 1.1 percent. In this forecast, COE would see utilization by single- and multi-engine piston aircraft remain stable, while jet operations increase. This forecast supports projections of jet aircraft making up a larger percentage of the fleet mix.

3.2 Aircraft Operations Forecast—2008 System Plan

The 2008 System Plan, adjusted to a base year of 2008, is presented in **Table 2-7**.

Table 2-7: Aircraft Operations Forecast—2008 System Plan

Year	Total Airport Operations
2008	125,878
2013	141,072
2018	158,053
2028	198,359
CAGR	2.3%

Source: 2008 System Plan (calculated)

3.3 Aircraft Operations Forecast—Method Comparison

The 2008 System Plan forecasts aviation growing at a set CAGR, determined by the forecast growth in based aircraft. The TAF categorizes aircraft into local and itinerant operations, and distinguishes between GA, military, air carrier and air taxi aircraft, while the 2008 System Plan forecasts for total operations. The structure of the 2009 TAF allows for greater flexibility if an operations category experiences a change in activity. Local and itinerant GA are the only categories forecasted to grow at COE. The 2009 TAF and the 2008 System Plan aircraft operations forecasts are presented in **Table 2-8**.

Table 2-8: Aircraft Operations Forecast—Method Comparison

Year	2008 System Plan	2009 TAF
2008	125,878	123,048
2013	141,072	136,895
2018	158,053	153,426
2028	198,359	197,141
CAGR	2.3%	2.4%

Source: 2009 TAF; 2008 System Plan, (calculated)

Although the 2008 System Plan Forecast produces a higher number of operations, the TAF has a higher CAGR. The difference between the 2008 System Plan forecast and the 2009 TAF becomes smaller as the forecasts progress, with the two nearly converging in 2028. The 2008 System Plan also starts with a higher number of operations, reporting 123,048 in 2007, while the 2009 TAF reported the same number in 2008.

The 2009 TAF is the preferred operations forecast. It is supported by concurrence with national trends in the Aerospace Forecast, which support growth in business GA. Forecast growth in Kootenai County's economy provides additional support for an increase in business GA, driving operations levels at COE.

4. Scheduled Commercial Passenger Airline Service

COE had scheduled commercial passenger airline service in the 1970's, and most recently between 1983 and 1995. COE did not have scheduled commercial passenger airline service in 2008. The 2003 Idaho Air Passenger Demand Study (2003 Demand Study) reported that GEG is Northern Idaho's primary airport with scheduled commercial passenger airline service, with 94 percent of the market share. Seattle-Tacoma International Airport (SEA) has two percent, and Missoula International Airport (MSO) has four percent.

4.1 2003 Idaho Air Passenger Demand Study

The potential of Kootenai County attracting scheduled commercial passenger airline service was analyzed in the 2003 Demand Study. This study found that while the population base around COE had potential to attract air service, the significant level of service at nearby GEG would make the success of such service difficult to achieve. As of September 2010, GEG was served by six airlines to 13 destinations.

Market analysis performed as part of the 2003 Demand Study found that 215,000 of GEG's annual enplanements originate from counties in Northern Idaho, including 120,344 from Kootenai County. Top destinations for passengers originating from Northern Idaho include Seattle, Boise, Southern California, Las Vegas, and Hawaii.

4.2 Niche-Market Low Cost Carriers

While mainline carriers and low cost carriers are present at GEG, COE may attract the interest of niche-market low cost carriers (NMLCC). NMLCCs connect airport with little or no scheduled commercial passenger air service to popular travel destinations. NMLCC route structure generally avoids competition, allowing the carrier to select time slots and frequencies.

Allegiant Air is a NMLCC that specializes in connecting smaller markets to vacation destinations in Nevada, Arizona, California, and Florida. Allegiant Air has been successful in providing air service to airports that are otherwise without, and looks to serve markets with little or no air service. Allegiant Air's business plan revolves around avoiding route competition, operating two to three flights per week to obtain high load factors, and selling tickets at a low cost, while subsidizing their revenue by charging for baggage, assigned seating, and food. Additional revenue comes from offering travel services such as rental car and hotel on the airline's website. Allegiant Air operates 150-seat Boeing MD-80 aircraft on mainland routes, and will introduce Boeing 757-200 aircraft on Hawaii routes in 2011.

In 2010, Allegiant Air provided scheduled commercial passenger airline service to nearby airports in Idaho Falls (IDA) and Twin Falls (TWF), Idaho; Kalispell (GPI) and Missoula (MSO), Montana; and Pasco Tri-Cities (PSC), Washington, but not GEG. U.S. Department of Transportation (USDOT) data indicates that load factors on these routes exceeded 87 percent between January 2009 and February 2010. High load factors, including 87 percent, are attributable to Allegiant Air's flight scheduling procedures, low airfares, and demand for scheduled commercial passenger airline service in these communities.

With two to three flights per week, Allegiant Air flights are marketed for leisure travelers. Scheduled commercial passenger airline service of this nature reduces the frequency that airport neighbors are exposed to noise from larger aircraft. Travelers departing COE are likely to encounter fewer passenger processing related delays than those departing from GEG because of COE's lower passenger volume. Allegiant Air's pricing strategy may attract travelers from neighboring counties in Idaho, Montana, and Washington. Inbound passengers can generate ancillary revenue for other businesses in Kootenai County, which increase the Airport's indirect economic impact.

Potential enplanement effects of NMLCC service are discussed in **Section 5**.

4.3 Intrastate Scheduled Commercial Passenger Airline Service

Empire Airlines provided intrastate scheduled commercial passenger airline service between COE and Boise Airport (BOI), stopping at Lewiston-Nez Perce County Regional Airport (LEW), until the carrier ceased scheduled commercial passenger airline operations in 1995. The 2003 Demand Study reported that Empire Airlines averaged three flights per day in 1992. USDOT records show that Empire Airlines used 30-seat Fokker F-27 aircraft, and 17-seat Swearingen Metroliner II and Metroliner III aircraft.

In 2003, an estimated 120,344 of GEG's enplanements came from Kootenai County, and the 2003 Demand Study indicated that Boise was a major destination for these passengers. Drive time between Kootenai County and Boise can exceed seven hours, while a flight is less than two hours. 2003 USDOT data shows 110,587 passengers flew from GEG to BOI. In 2003, Horizon Air and Southwest Airlines offered this route, but Horizon Air discontinued this service in 2010. In 2003, Horizon Air had an average load factor of 66 percent using 74-seat Bombardier Q400 aircraft, and Southwest Airlines had an average load factor of 57 percent, using 122- and 137-seat Boeing 737 aircraft. 2009-2010 USDOT data shows that Southwest Airlines operated between GEG and BOI with an average load factor of 63 percent, 13 percent below the carrier's national average of 76 percent.

It is anticipated that intrastate scheduled commercial passenger airline service at COE will utilize aircraft with 30 seats or fewer. Smaller passenger aircraft, such as the 9-seat Pilatus PC-12, share similar operating characteristics with existing corporate GA at COE.

Potential enplanement effects of intrastate air taxi service are discussed in **Section 5**.

4.4 Scheduled Commercial Passenger Airline Service Considerations

A consideration of starting scheduled commercial passenger airline service at COE is the need for security screening by the Transportation Security Administration (TSA). Airlines that operate aircraft with more than 30 seats require security screening. It is anticipated that NMLCC service will require TSA screening, and intrastate scheduled commercial passenger airline service will not.

Scheduled commercial passenger airline service at COE can compete with surrounding commercial airports by offering passengers shorter processing times. Lower passenger volumes at COE reduce waiting time for security and luggage retrieval. Using smaller aircraft can increase load factors, resulting in higher profitability.

5. Enplanement Scenarios and Forecasts

Scheduled commercial passenger airline service opportunities exist at COE, and potential passenger enplanements are forecasted. The introduction of scheduled commercial passenger airline service at COE is not expected to contribute to the based aircraft count. Enplanement forecasts are intended to serve only as an estimate and should be revised with recent information upon the commencement of scheduled commercial passenger airline service. Enplanement forecasts are split into two categories: NMLCC and intrastate commercial passenger airline service. Forecast reporting years have a base year of 2008, and report at five-, ten-, and twenty-year intervals.

5.1 Niche-Market Low Cost Carrier Enplanement Forecast

The NMLCC enplanement forecast uses Allegiant Air as a model for aircraft size and departure frequency. The expected aircraft is the Boeing MD-83 with 150 passenger seats.

In 2010, Allegiant Air's primary west coast hub was Las Vegas (LAS) with 28 percent of the airline's routes. Other focus cities in the western U.S. are Phoenix-Mesa (AZA), with 15 percent of the airline's routes, and Los Angeles (LAX), with 10 percent of the airline's routes. The 2003 Demand Study included Las Vegas and Southern California as top destinations for passengers originating in Kootenai County. Allegiant Air does not operate connecting flights, and generally does not fly between the eastern and western U.S. The NMLCC enplanement forecast anticipates Allegiant Air serving one of these cities from COE initially, and then adding service to other cities. These enplanement forecasts use 87 percent load factors, the same as the average of nearby airports Allegiant Air serves. The NMLCC Forecast is presented in **Table 2-9**.

Table 2-9: Niche-Market Low Cost Carrier Enplanement Forecast

Year	Destinations Served	Operations Per Week	Enplanements
2008	0	0	0
2013	1	4	13,572
2018	2	8	27,144
2028	3	12	40,716
CAGR	7.6%	7.6%	7.6%

5.2 Intrastate Commercial Passenger Airline Service Enplanement Forecast

Intrastate commercial passenger airline service forecasts investigate air service between COE and BOI. Through a reduction in screening requirements, smaller aircraft size, and lower passenger volume at COE, the Airport can market itself as an alternative to GEG for business travelers headed to BOI.

It is anticipated that COE could initially support two flights daily by a 9-seat aircraft such as a King Air 350i or a Pilatus PC-12. The target load factor of these flights is 70 percent. Success of these flights may lead to frequencies increasing over time. These flights will be aimed at passengers with the destination of BOI, not connecting passengers.

Intrastate commercial passenger airline service enplanement forecast is presented in **Table 2-10**.

Table 2-10: Intrastate Commercial Passenger Airline Service Enplanement Forecast

Year	Operations Per Week	Enplanements
2008	0	0
2013	28	5,242
2018	42	7,862
2028	56	10,483
CAGR	4.7%	4.7%

5.3 Commercial Enplanement Forecast Summary

A summary of the NMLCC and intrastate commercial passenger airline service enplanement forecasts are presented in **Table 2-11**.

Table 2-11: Enplanement Forecast Summary

Year	Departures Per Week	Enplanements	Air Carrier Operations	Air Taxi Operations
2008	0	0	0	0
2013	16	18,814	208	1,460
2018	25	35,006	417	2,190
2028	34	51,199	626	2,920
CAGR	6.9%	6.9%	7.6%	4.7%

6. Scheduled Commercial Air Cargo Service

Growth of the population and gross regional product of Kootenai County will likely create a demand for a greater volume of air cargo. Air cargo for Kootenai County and the region is handled at GEG, where FedEx and UPS have consolidation facilities. Cessna 208 Caravan and ATR-72 aircraft fly cargo between airports in the region, and GEG, where freight is loaded onto larger cargo aircraft and flown to a cargo hub for world-wide distribution. The 2010 Inland Pacific Hub Transportation Study, developed by a committee of several local stakeholders, including the ITD and Empire Airlines, indicated that Spokane County processed 99.9 percent of air cargo in its region, which included Lincoln and Adams counties in Washington, and Kootenai and Shoshone counties in Idaho. The level of air cargo operations at GEG creates significant challenges to establishing a competing air cargo facility.

Airport management and FBO tenants indicate that air freight does occur at COE, on an as-needed basis. The USDOT does not require operations of as-needed cargo services to document flight frequencies and cargo volume, and therefore does not provide data regarding the volume of air cargo that passes through COE. As there are no past trends and future schedule, a reasonable air cargo forecast is not prepared. It is anticipated that air cargo operations at COE will continue to occur on an as-needed basis using existing facilities. As cargo activity at COE increases, there may be benefit to the creation of dedicated air cargo facilities, which should involve discussion with local economic development agencies and potential operators.

7. Critical Aircraft

The critical aircraft for Runway 01-19 is the Dassault Falcon 900, which has an ARC of B-II. The critical aircraft for Runway 05-23 and the Airport is the Bombardier Q400, which has an ARC of C-III. Forecast activity at COE does not anticipate a need to change the ARC of either runway.

For Runway 05-23, the critical aircraft could change from the Q400 to a larger aircraft. Scheduled commercial passenger aircraft would likely be C-III aircraft. The introduction of larger, heavier C-III aircraft may place additional demand on pavements at COE. C-III aircraft are presented in **Table 2-12**.

Table 2-12: Critical Aircraft

Aircraft	Wingspan (Feet)	Length (Feet)	Maximum Takeoff Weight (Pounds)
Bombardier Q400	93	108	64,500
Boeing MD-83	108	148	160,000
Boeing Business Jet (737-700/800)	117	110	171,000

Source: Aircraft Characteristics, 9th Ed.

The critical aircraft for the Airport is expected to be a C-III. This ARC is expected to accommodate most business jet aircraft, as well as potential scheduled commercial passenger airline service.

8. Summary

Preferred based aircraft and aircraft operations forecasts are presented in **Table 2-13**.

Table 2-13: Forecast Summary

Year	Based Aircraft	Aircraft Operations [1]	Passenger Enplanements [2]	Scheduled Commercial Passenger Service Aircraft Operations [2]
2008	189	123,048	0	0
2013	225	136,895	18,814	1,668
2018	268	153,426	35,006	2,607
2028	388	197,141	51,199	3,546
CAGR	3.7%	2.4%	6.9% [3]	4.7% [3]

1: Excluding Scheduled Commercial Passenger Airline Service
2: Forecast based on market potential, not trend analysis.
3: CAGR 2013-2028

Jet GA aircraft are expected to be the driving force behind increases in based aircraft and airport operations. The FAA Aerospace Forecast sees this growth as a national trend through the growth in on-demand air taxi services, and the recommencement of corporate GA travel as the U.S. economy recovers from the 2009 recession.

In 2010, COE did not have scheduled commercial passenger airline or air cargo service. The market potential for both of these services exists in Kootenai County; however, the Airport is located in the service area of GEG, which has scheduled commercial passenger airline and air cargo service and facilities. Although scheduled commercial passenger airline service at COE may not compete with GEG, niche-market low cost carriers often prefer airports without existing air service. This presents COE with opportunity to establish scheduled commercial passenger airline service, and attract leisure travelers from neighboring counties in Idaho and Washington.

Intrastate passenger airline service existed at COE until 1995. Drive time between Kootenai County and the state capital in Boise can exceed seven hours, while a flight is less than two hours. This service would connect the business community in Kootenai County to BOI without TSA security screening and high passenger volumes associated with this service out of GEG.

Because of the facilities that COE provides, the socioeconomic growth in Kootenai County, the limited availability of comparable facilities in the region, and economic recovery nationwide, COE is expected to remain the key GA airport in the region.

9. Forecast Approval

U.S. Department
of Transportation

Federal Aviation Administration

Seattle Airports District Office
1601 Lind Avenue, S.W., Ste 250
Renton, Washington 98057-4056

March 19, 2012

Mr. Greg Delavan
Airport Manager
Coeur d'Alene Airport
10375 Sensor Avenue
Hayden, Idaho 83835

Dear Mr. Delavan:

Airport Master Plan Study
Airport Improvement Program (AIP) Project Number 3-16-0010-029

I have reviewed the Aviation Activity Forecasts submitted by your consultants. I find adequate justification exists for the figures cited in the forecast tables of draft Chapter 2 and hereby approve the Forecast Summary.

As always, please feel free to contact me with any questions at: 425.227.2649 or by e-mail at: bruce.fisher@faa.gov.

Sincerely,

Bruce C. Fisher
Airport Planner, Oregon / Idaho

cc: Mr. Damon Smith, Head & Hunt, Inc.

www.faa.gov/arp/anm