# 3 FORECASTS OF AVIATION DEMAND

Forecasts of future levels of aviation activity are the basis for making decisions in airport planning. A comprehensive forecast includes elements of socioeconomics, demographics, geography, and external factors.

Reported base passenger enplanements for the year 2008 are 59,978. With a median 0.60% annual increase, enplanements could reach 67,601 by 2028. Comparison of actual enplanements to previous forecasts shows that the majority of previous growth expectations were not met (see Table 3–12, Section 3.3.4); as such for this AMP Update, more conservative scenarios of enplanements have been developed; ranging from a low of 0.11% to a high of 0.85% with the mid range forecast of 0.60%.

Forecast operations for this Master Plan were developed using the same methodology as was used for the enplanement forecast, see Section 3.4 for methodology. Operations at Nome Airport are not formally recorded because there is no air traffic control tower. Consequently, operations from a variety of sources were compiled to generate the base year estimate. The 2008 base year estimate of operations is 39,937 with 45,013 possible by year 2028 using a mid-range growth rate of 0.60%.

Although Nome Airport serves as a hub for 14 Bering Strait communities, air freight and mail data were not systematically collected before 2003, when the U.S. Department of Transportation (US DOT) Bureau of Transportation Statistics implemented a new data collection system after the passage of the Rural Air Service Improvement Act in late 2002. Thus, cargo data collected before 2003 appear considerably lower. Base year 2008 estimated cargo is 19,156 tons.

The proposed methodology for the Nome Airport air traffic forecast is based on the process recommended in FAA AC 150/5070-6B, *Airport Master Plans* and in *Forecasting Aviation Activity by Airport* (FAA, 2001). These documents provide national guidance for the development of airport master plans and have been used since enactment of the Airport and Airways Development Act of 1970. Recommended steps include:

- ***Step 1:*** Identify aviation activity measures
- ***Step 2:*** Review previous airport forecasts
- ***Step 3:*** Gather data
- ***Step 4:*** Select forecast methods
- ***Step 5:*** Apply forecast methods and evaluate results
- ***Step 6:*** Compare forecast results with FAA's Terminal Area Forecasts
- ***Step 7:*** Obtain approval of the forecasts

## 3.1 Identify Aviation Activity Measures

The level and type of aviation activity anticipated at an airport, as well as the nature of the planning to be done, determines the parameters to be forecast. Generally, the most important activities for airfield planning are aircraft operations and the fleet mix, since these define the

runway and taxiway requirements. Plans for general aviation airports require forecasts of aircraft operations and based aircraft to define runway and taxiway and aircraft parking requirements. Airports with commercial service require forecasts of aircraft operations, fleet mix, and passenger enplanements. Passenger levels are particularly important, since they determine the size of the terminal building (if any) and other important elements of airport infrastructure such as parking facilities and access roads. Additionally, a large increase in passengers could trigger a change in future aircraft fleet mix through increased operations or larger aircraft.

Practical considerations dictate the level of detail and effort that should go into an airport planning forecast (FAA, 2001). Air traffic activity at Nome is comprised of commercial, passenger and passenger-cargo combination jets and turboprop aircraft, commercial cargo aircraft, single and twin-engine GA aircraft, corporate jets, and helicopters. Commercial operations, passenger enplanements, mail, and cargo have historically comprised a significant percentage of the annual aviation activity. Other activities include military operations, search and rescue, touch and go operations, and other general aviation activities. The forecast for Nome Airport will focus on:

- Passenger enplanements – air carrier, commuter
- Aircraft operations – air carrier, commuter, general aviation, military
- Based aircraft – single and multi engine, helicopter, others
- Air cargo – freight, mail

## 3.2 Previous Airport Forecasts

Relevant forecasts for Nome and the surrounding area are summarized below. These include the FAA Terminal Area Forecast (TAF), the Alaska Aviation System Plan, the 1996 Nome Airport Master Plan Update, the Northwest Alaska Transportation Plan, and the National Plan of Integrated Airport Systems.

### 3.2.1 Federal Aviation Administration Terminal Area Forecast

The FAA TAF projects the activity for airports across the nation, however in Alaska the TAF is not frequently updated; as such the data provided is not accurate. This being the case however, the FAA guidance requires comparison of the AMP forecast with that of the TAF as part of the forecast approval process. The FAA TAF for Nome Airport is summarized below in Table 3–. The TAF includes passenger enplanements, aircraft operations and based aircraft for major uses of the airport (air carriers, air taxi and commuters, general aviation, and military). Comparison of the TAF with the AMP forecast is presented in Section 3.6.

**Table 3–1 – FAA, Terminal Area Forecast (2008) Nome Airport**

| Passenger Enplanements | | | Itinerant Aircraft Operations | | | | Local GA Operations | Total Operations |
|---|---|---|---|---|---|---|---|---|
| Air Carrier | Commuter | Total | Air Carrier | Commuter/ Air Taxi | GA | Military | | |
| 28,866 | 31,969 | 60,835 | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 28,000 |

### 3.2.2 Alaska Aviation System Plan

Table 3–2 outlines the aviation demand forecasts for Nome Airport as developed in the 1996 Alaska Aviation System Plan Update (AASP). The AASP forecast reflects local conditions and policy considerations at the state level. Note that the AASP defines Air Carrier and Air Taxi operations differently than other forecasts, thus biasing operation forecasts towards Air Carriers.

**Table 3–2 – Air Traffic Forecast, Nome Airport, Alaska Aviation System Plan (1996)**

| **Operations** | **1992 (Base)** | **1995** | **2000** | **2005** | **2010** |
|---|---|---|---|---|---|
| Air Carrier | 15,000 | 15,800 | 16,600 | 18,300 | 19,100 |
| Air Taxi | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| GA Local | 5,000 | 5,000 | 5,500 | 6,000 | 6,500 |
| GA Itinerant | 5,000 | 5,000 | 5,500 | 6,000 | 6,500 |
| Military | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| **Total** | 28,000 | 28,800 | 30,600 | 33,300 | 35,100 |
| **Fleet Mix (Based Aircraft)** | **1992 (Base)** | **1995** | **2000** | **2005** | **2010** |
| Single Engine | 51 | 43 | 50 | 55 | 61 |
| Multi Engine | 12 | 10 | 12 | 13 | 14 |
| Jet | 0 | 0 | 0 | 0 | 0 |
| Rotorcraft | 5 | 4 | 5 | 5 | 6 |
| Other | 3 | 3 | 3 | 3 | 4 |
| **Total** | 71 | 60 | 70 | 76 | 85 |
| **Enplaned Passengers** | **1990 (Base)** | **1995** | **2000** | **2005** | **2010** |
| **Total** | 46,337 | 48,791 | 54,358 | 60,565 | 67,488 |
| **Enplaned Cargo (tons)** | **1991 (Base)** | **1995** | **2000** | **2005** | **2010** |
| **Total** | 4,234 | 4,400 | 4,900 | 5,500 | 6,100 |

Note: The AASP defines Air Taxi operations as unscheduled operations performed by Part 135 operators. Any scheduled commercial service operations are defined as Air Carrier operations.

### 3.2.3 Nome Airport Master Plan Update (1996)

DOT&PF developed the Nome Airport Master Plan in 1983. In 1996, DOT&PF completed the Nome Airport Master Plan Update. This update included aircraft operation and passenger enplanement forecasts as summarized below.

**Table 3–3 – Air Traffic Forecast, Nome Airport - Airport Master Plan Update (1996)**

| | Base (1992) | 1997 | 2002 | 2007 |
|---|---|---|---|---|
| **Operations** | | | | |
| Air Carrier | 4,006 | 4,907 | 5,192 | 5,394 |
| Air Taxi | 15,000 | 18,442 | 20,208 | 20,327 |
| GA | 10,000 | 10,800 | 11,350 | 11,750 |
| Military | 1,500 | 1,500 | 1,500 | 1,500 |
| **Total** | 30,506 | 35,649 | 38,250 | 38,971 |
| **Enplaned Passengers** | 49,517 | 69,295 | 82,854 | 91,333 |

### 3.2.4 Northwest Alaska Transportation Plan, 2004

The Northwest Alaska Transportation Plan was a multi-year effort to define and select a blueprint for the region's long-term transportation future. The plan is one of several regional, multi-modal transportation plans that are part of the Statewide Transportation Plan.

**Table 3–4 – Air Traffic Forecast, Nome Airport - Northwest Alaska Transportation Plan (2004)**

| | Base Year (2000) | 2005 | 2010 | 2015 | 2020 | 2025 |
|---|---|---|---|---|---|---|
| **Enplaned Passengers** | 55,145 | 61,551 | 65,791 | 70,228 | 74,665 | 79,039 |

### 3.2.5 National Plan of Integrated Airport Systems (NPIAS)

The NPIAS presents a five-year forecast for enplaned passengers and based aircraft.

**Table 3–5 – NPIAS Forecast Year 2009***

| | |
|---|---|
| Passenger Enplanements | 59,359 |
| Based Aircraft | 71 |

*Base year 2006; forecast 2009-2013

## 3.3 Gather Data

### 3.3.1 Data Requirements

The FAA requires incorporation of the number of aircraft operations for various categories of aircraft into the forecast. Passenger enplanement, cargo, mail, and freight data are also required, and the Advisory Circular specifies that population, employment rates, and socio-economic factors be included as these are all factors that can affect the forecast. Air traffic operations at Nome Airport are not maintained on site because there is no air traffic control tower. Historical air traffic data for Nome were collected from the FAA's Airport Master Record Form 5010, the FAA TAF, the US DOT Bureau of Transportation Statistics, the NPIAS, the Northwest Alaska Transportation Plan, and the Alaska Aviation System Plan. Interviews with airport tenants,

DOT&PF maintenance personnel, and the Nome Flight Service Station, as well as public meetings and user questionnaires provided data on operations, enplanements, and freight.

### 3.3.2 Historical Aviation Activity

Nome Airport is a non-towered facility. Consequently, activity at Nome is included in the TAF, based on estimates filed with FAA Airports District Offices on FAA Form 5010. Passenger enplanement data are reported directly from the FAA TAF and the US DOT Bureau of Transportation Statistics T-100 Domestic Market database.

#### *Aircraft Operations*

Table 3–6 contains the historical aircraft operations for Nome Airport from 1990 to 2008 as reported in the TAF. Table 3–7 reports passenger enplanements over the same period.

**Table 3–6 – TAF Historic Aircraft Operations (1990-2008), Nome Airport**

| | Itinerant Operations | | | | Local Operations | | Total Operations |
|---|---|---|---|---|---|---|---|
| | Air Carrier | Air Taxi | GA | Military | GA | Military | |
| **1990** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1991** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1992** | 3,378 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 29,878 |
| **1993** | 3,378 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 29,878 |
| **1994** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1995** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1996** | 1,500 | 24,310 | 5,000 | 1,500 | 5,000 | 0 | 37,310* |
| **1997** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1998** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **1999** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2000** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2001** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2002** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2003** | 1,500 | 15,156 | 5,000 | 1,500 | 5,000 | 0 | 28,156 |
| **2004** | 1,500 | 15,235 | 5,000 | 1,500 | 5,000 | 0 | 28,235 |
| **2005** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2006** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2007** | 1,500 | 15,000 | 5,000 | 1,500 | 5,000 | 0 | 28,000 |
| **2008** | 1,500 | 15,073 | 5,000 | 1,500 | 5,000 | 0 | 28,073 |

*Note – Increase likely due to completion of 1996 master plan update

**Table 3–7 – Passenger Enplanements (1997-2008), Nome Airport**

| | TAF | ACAIS | Difference (ACAIS – TAF) |
|---|---|---|---|
| **1997** | 58,669 | 58,339 | (330) |
| **1998** | 49,515 | 57,006 | 7,491 |
| **1999** | 53,133 | 56,911 | 3,778 |
| **2000** | 51,862 | 55,145 | 3,283 |
| **2001** | 52,327 | 55,922 | 3,595 |
| **2002** | 41,179 | 49,602 | 8,423 |
| **2003** | 57,152 | 57,981 | 829 |
| **2004** | 62,935 | 63,725 | 790 |
| **2005** | 62,243 | 60,357 | (1,886) |
| **2006** | 60,118 | 63,017 | 2,899 |
| **2007** | 63,824 | 62,915 | (909) |
| **2008** | 60,835 | 59,978 | (857) |

Source: FAA and US DOT, Bureau of Transportation Statistics (RITA)
ACAIS is the database maintained by the FAA and updated annually based on voluntary reporting of the airlines.

### *Fleet Mix and Based Aircraft*

Table 3–8 lists the fleet of aircraft, by commercial carrier, using Nome Airport (RITA, 2009).

**Table 3–8 – Current Fleet Using Nome Airport**

| Carrier | Aircraft |
|---|---|
| Alaska Airlines, Inc. | Boeing 737-400<br>Boeing 737-700/700lr<br>Boeing 737-800 |
| Alaska Central Express | Beech 1900 A/B/C/D |
| Arctic Transportation | Casa/Nurtanio C212 Aviocar<br>Cessna C206/207/209/210 Stationair |
| Bering Air Inc. | Beech 1900 A/B/C/D<br>Beech 200 Super Kingair<br>Casa/Nurtanio C212 Aviocar<br>Cessna 208 Caravan<br>Cessna C206/207/209/210 Stationair<br>Piper Pa-31 (Navajo)/T-1020<br>Robinson R44 |
| Era Aviation | Beech 1900 A/B/C/D |
| Frontier Flying Service | Beech 1900 A/B/C/D<br>Piper Pa-31 (Navajo)/T-1020 |
| Grant Aviation | Piper Pa-31 (Navajo)/T-1020 |
| Hageland Aviation Service | Beech 1900 A/B/C/D<br>Cessna 208 Caravan<br>Cessna 406 Caravan II<br>Cessna C206/207/209/210 Stationair<br>Piper Pa-31 (Navajo)/T-1020 |
| Lynden Air Cargo Airlines | Lockheed L100-30/L-382e |
| Northern Air Cargo Inc. | Boeing 737-100/200<br>McDonnell Douglas DC-6 |
| Peninsula Airways Inc. | Cessna 208 Caravan<br>Fairchild Metro 23<br>Saab-Fairchild 340/B<br>Swearingen Metro III |
| Tatonduk Flying Service | Embraer Emb-120 Brasilia<br>McDonnell Douglas DC-6 |
| Wright Air Service | Cessna 208 Caravan<br>Cessna C206/207/209/210 Stationair<br>Helio H-250/295/395 |

Source: US DOT, Bureau of Transportation Statistics (RITA)

A public database (www.landings.com) lists 136 aircraft registered with Nome addresses. According to www.landings.com, aircraft currently registered in Nome include:

- Piper PA-18, PA-31, J3C-65, PA-12, PA-22, J4E, PA-14, PA-11, PA-20
- Champion/Bellanca 7ECA, 8GCBC
- Cessna 208, 170, 185, 195, 207, 150, 172, 182, 206, 152, 210, 180, 310, 140
- Beech 1900D, G18S, C-45H, B200, C-23
- Morgan Steen Skybolt MI-2
- Aeronca 11AC
- CASA 212
- Taylorcraft BC12-D, 15A
- Robinson R44
- Hughes TH-55A
- Maule M-7, M-4
- Stinson 108, V77
- Hiller UH-12D
- AStar AS 350 B2

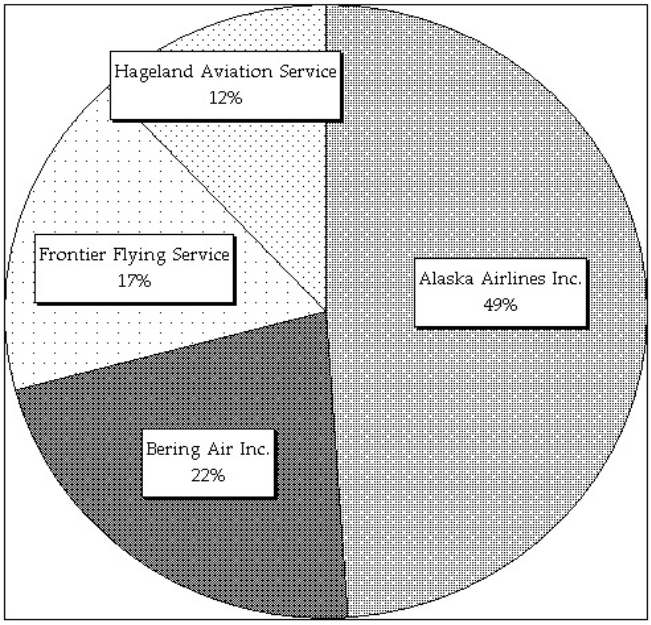
### *Passengers*

Air carriers and air taxis currently providing passenger service to/from Nome include:

- Bering Air
- Hageland Aviation
- Frontier Flying Service
- Alaska Airlines

There were 59,978 passenger enplanements at Nome Airport in 2008, the latest year with complete data. This compares to a five year average of 61,968 annual enplanements (RITA, 2009). The 4.67% drop in passenger enplanements in 2008 is likely due to the recent economic downturn coupled with the shutdown of the Rock Creek Mine. Nationally, the seven largest air carriers have seen a 2.3% decrease in passenger-miles flown (Chicago Tribune, 2009). Chart 3–1 illustrates the percent of passengers enplaned by carrier for 2008.

**Chart 3–1 – 2008 Nome Airport Passenger Enplanements by Carrier**




## *Cargo and Mail*

Air transportation of freight and mail to rural Alaska is critical to the sustainability of communities not connected to the road system. Coastal and river communities can receive barge shipments during the ice-free summer months, but the rest of the year they rely on air service to deliver goods.

The enactment of bypass mail in 1985 allowed rural Alaskans to send and receive first class mail at fourth class rates. Delivery of mail by air at these favorable rates has facilitated a better flow of goods to rural Alaska.

Table 3–9 contains total freight and mail volumes enplaned and deplaned at Nome Airport from 2002 to 2008. The recorded increase in cargo after 2002 is due to the changes in reporting requirements enacted with the Rural Services Improvement Act of 2002.

Mail and freight activity at Nome Airport has remained relatively stable, with a five-year average of 18,561 tons.

**Table 3–9 – Historical Cargo (Freight and Mail) Activity (Tons) at Nome Airport, 2002-2008**

| Year | Freight | Mail | Total |
|---|---|---|---|
| **2002*** | 4,781 | 7,832 | 12,613 |
| **2003** | 7,379 | 10,849 | 18,228 |
| **2004** | 7,746 | 10,742 | 18,488 |
| **2005** | 6,963 | 11,241 | 18,204 |
| **2006** | 6,351 | 11,271 | 17,623 |
| **2007** | 8,211 | 11,126 | 19,337 |
| **2008** | 7,829 | 11,327 | 19,156 |

Source: US DOT, Bureau of Transportation Statistics
*Before 2003, only the large carriers were required to report cargo volumes

In 2008, a total of 10,842,805 pounds of freight was shipped to Nome, while 4,812,169 pounds of freight were enplaned at Nome Airport (RITA, 2009). Table 3–10 summarizes the percentage of total freight (by weight) by air carrier. Cargo enplaned in Nome consists primarily of cargo going to outlying villages and some freight, such as fresh seafood, headed to market.

**Table 3–10 – 2008 Freight Carriers for Nome Airport**

| Carrier | Enplaned at OME | Delivered to OME |
|---|---|---|
| Tatonduk Flying Service | 10% | 12% |
| Alaska Airlines | 11% | 29% |
| Northern Air Cargo | 20% | 35% |
| Lynden Air Cargo | 13% | 20% |
| Arctic Transportation | 24% | 2% |
| Bering Air | 16% | 1% |
| Frontier Flying | 3% | 1% |
| Hageland Aviation | 3% | <1% |

Source: US DOT, Bureau of Transportation Statistics

Most air freight destined for Nome and the surrounding Bering Strait communities originates in Anchorage and is transported to Nome on the larger jets. Nearly half is then transferred to smaller commuter aircraft for delivery to the villages. The data in Table 3–10 above reflect this multiple carrier system.

In 2008, a total of 15,446,313 pounds of mail (both bypass and regular) were shipped to Nome, while 7,207,472 pounds were enplaned in Nome that same year. The FAA does not differentiate between bypass and regular mail on the T-100 reports.

Hageland Aviation, Arctic Transportation, Frontier Flying, and Bering Air carried 92% of the mail enplaned in Nome. Tatonduk Flying, Northern Air Cargo, Alaska Airlines, and Lynden Air Cargo carried 97% of the mail delivered to Nome.

Mail is delivered to Nome and the surrounding communities similarly to air freight. However, bypass mail regulations enacted in 2002 prohibit cargo-only carriers from carrying more than 20% of the total bypass mail delivered.

### 3.3.3 Air Traffic Data Collected by PDC

The project team interviewed airport tenants and users, conducted online surveys, collected schedules, and factored in weather delays to supplement and validate aircraft operation data. The resulting estimate of operations is in Table 3–11. This compilation of data is for comparison with the air traffic activity as reported by the FAA TAF, FAA 5010, AASP, and the NPIAS.

The base year estimate of operations was compared with the number of Airport Advisories issued by the Nome FSS. This served as a proxy for Air Traffic Control records that a towered airport would have. In 2008, the Nome FSS issued 32,368 Airport Advisories. Most pilots request this information during departure and landing.

**Table 3–11 – Estimate of Aircraft Operations Based on Schedules and Contacts, 2008**

| Operator | Service | Number of Operations | Time Period | Scheduled Operations | Actual Operations |
|---|---|---|---|---|---|
| Alaska Airlines | Air carrier | 21 | Flights/week | 2,184 | 2,164 |
| Frontier Flying | Air carrier/taxi | 76 | Flights/week | 7,904 | 7,114 |
| NAC | Air carrier | 5 | Flights/week | 520 | 468 |
| ATS | Air taxi | 9 | Flights/week | 936 | 770 |
| Lynden Cargo | Air carrier | 3 | Flights/week | 312 | 281 |
| Bering Air | Air taxi | 75 | Flights/week | 7,800 | 7,020 |
| Hageland Aviation | Air taxi | 105 | Flights/week | 10,920 | 9,828 |
| Guardian Flight | Air taxi | 3 | Flights/week | | 312 |
| Tatonduk Air | Air carrier | 5 | Flights/week | 520 | 520 |
| Peninsula Air | Air carrier | 3 | Annual ops | | 6 |
| Evergreen | Air taxi | 1 | Flights/week | 104 | 104 |
| CAP | Military local | 1 | Flights/week | | 104 |
| Air National Guard | Military transient | 250 | Annual ops | | 250 |
| State Troopers | GA | 250 | Annual ops | | 250 |
| Fish & Game | GA | 250 | Annual ops | | 250 |
| NPS | GA | 250 | Annual ops | | 250 |
| Part 91 (OME) | GA | 50 | Annual ops each | | 1,550 |
| Part 91 (City Field) | GA | 50 | Annual ops each | | 1,250 |
| Transient | GA | 10 | Per day | | 7,300 |
| | | | | **Total** | **39,937** |

### 3.3.4 Air Traffic Base Year Summary

**Table 3–12 – Historical and Forecast Air Traffic Data - Nome Airport**

| | Forecast Year | Based Aircraft | Passenger Enplanements | Total Aircraft Operations |
|---|---|---|---|---|
| 2004 Northwest Transportation Plan | 2005 | -- | 61,551 | 29,200 |
| 2005 Aviation System Plan | 2005 | 77 | 60,565 | 33,300 |
| 1996 Nome Airport Master Plan Update | 2007 | 92 | 91,333 | 38,971 |
| FAA ACAIS | 2008 | -- | 59,978* | — |
| FAA TAF | 2008 | 71 | 60,835 | 28,000 |
| NPIAS | 2009 | 71 | 59,359 | — |
| PDC Estimate | 2008 | 98 | 59,978* | 39,937 |

*Actual

### 3.3.5 Factors Affecting Aviation Activity

***Port of Nome***

Vessel traffic to the port of Nome has nearly doubled in the last decade (see Charts 3-2 and 3-3). Much of this increase is attributable to gravel transport for construction. Additionally, freight and vessel support for oil and gas exploration in the Chukchi Sea has contributed to the increased port traffic.

Tourist-related vessel traffic has remained steady over the past ten years. However, the opening of the Northwest Passage would make Nome an important port of call for Passage-bound ships. Increased cruise ship traffic could lead to increased use of the Nome airport as passengers disembark or board ships.

The 1983 Nome Airport Master Plan aviation forecast expected oil and gas exploration along the outer continental shelf (OCS) to continue. While exploration did occur for a few years, the high cost of recovering the resources ultimately caused oil companies to focus efforts elsewhere. With oil prices increasing again, development of the OCS may become economical. This could have consequences on Nome's economy and aviation activity.

**Chart 3–2 – Port of Nome Vessel Traffic, 1990-2009**

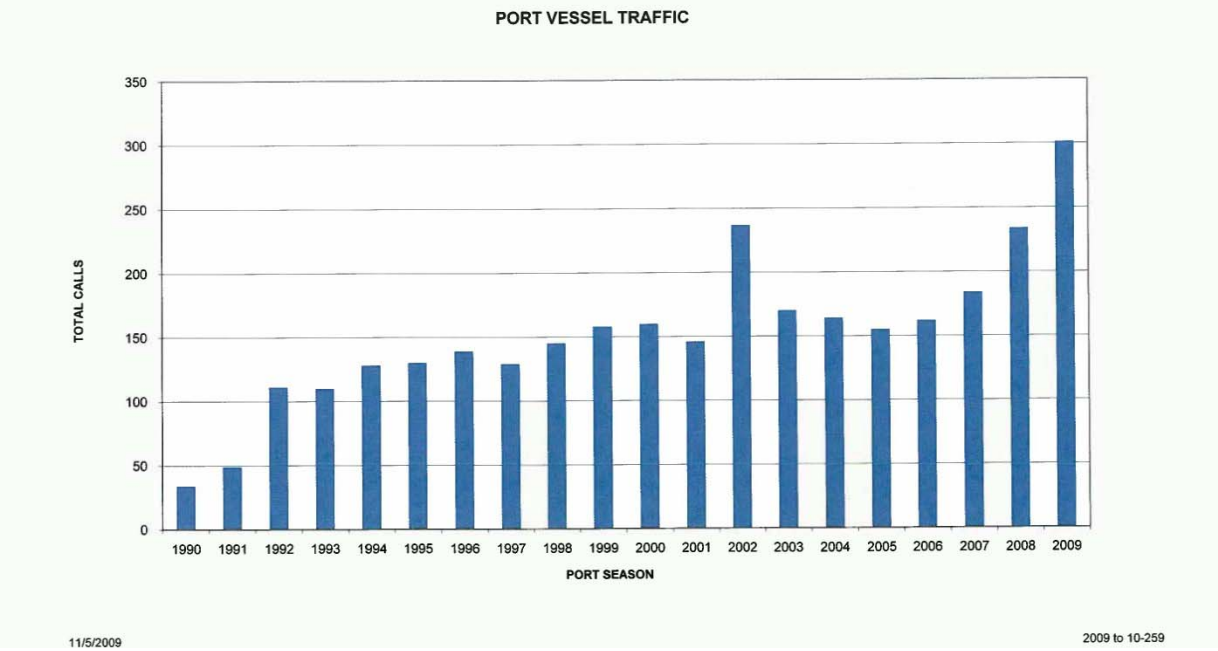
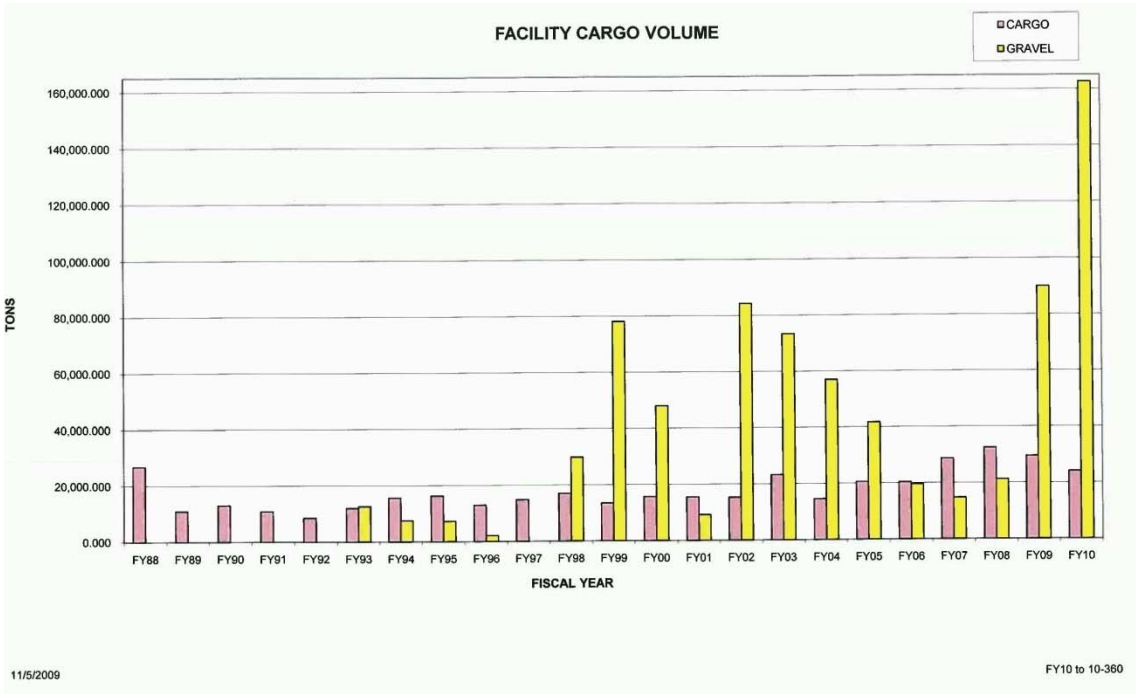


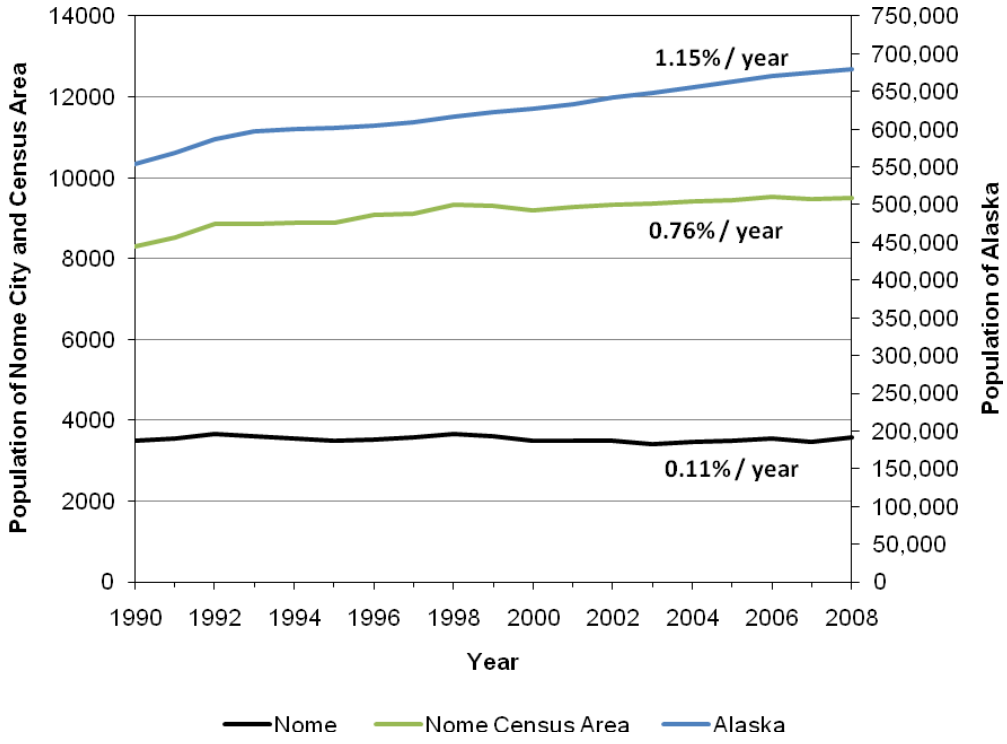

**Chart 3–3 – Port of Nome Cargo Volume, 1987-2009**



## Socioeconomic Data[1]

As a rule of thumb, it is common to expect that annual passenger enplanement demand for a given community is approximately proportionate to the population base being served. Chart 3–4 shows the population of Nome over the period 1990 to 2008. During that period, Nome's population grew at a slower rate than the Nome Census Area, 0.11% compound annual growth rate as opposed to 0.76%. The state as a whole grew much faster than the city and census area, at 1.15% annually.

**Chart 3–4 – Population Statistics for Alaska, Nome, and Nome Census Area, 1990-2008**



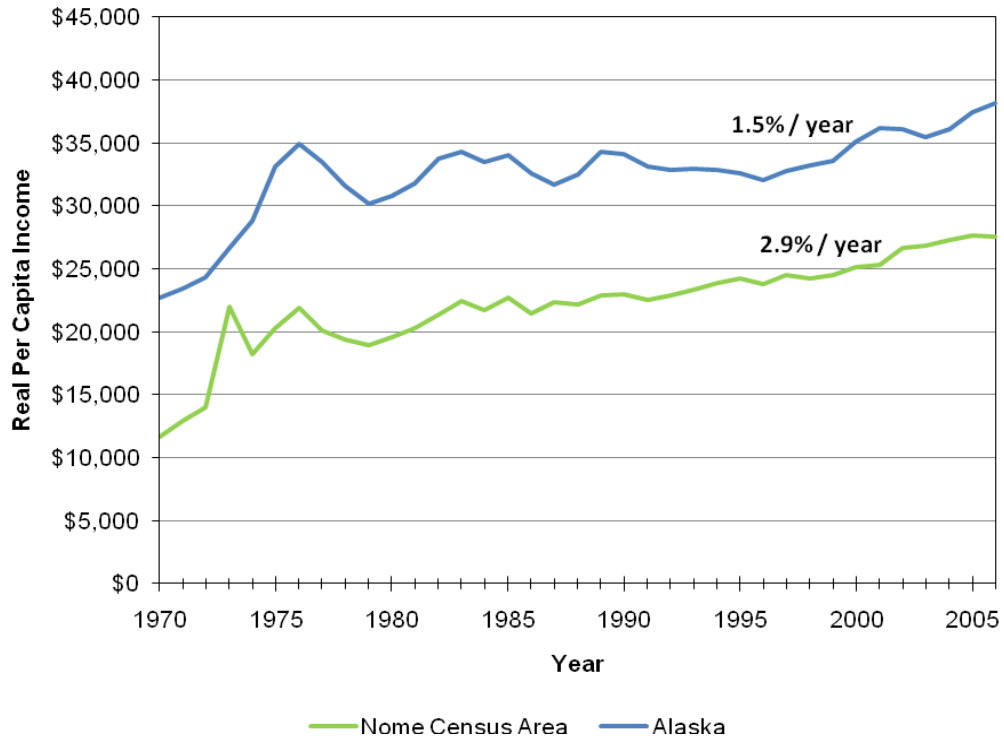

Source: Alaska Department of Labor and Workforce Development (2009a)

## Income[1]

Increased disposable personal income in the community should also have a positive effect on the demand for air travel. As a measure of wealth, personal income serves as a good indicator of an individual's financial ability to travel. Growing personal income levels allow stronger purchasing power and provide greater opportunity for air travel. Chart 3–5 shows annual per capita income for communities in the Nome Census Area from 1970 through 2006, with amounts adjusted to 2006 dollars to account for inflation.

[1] This section prepared by Northern Economics, Inc. (see Resource Documents binder).

**Chart 3–5 – Real Per Capita Income Statistics for the Nome Census Area, 1970-2006**



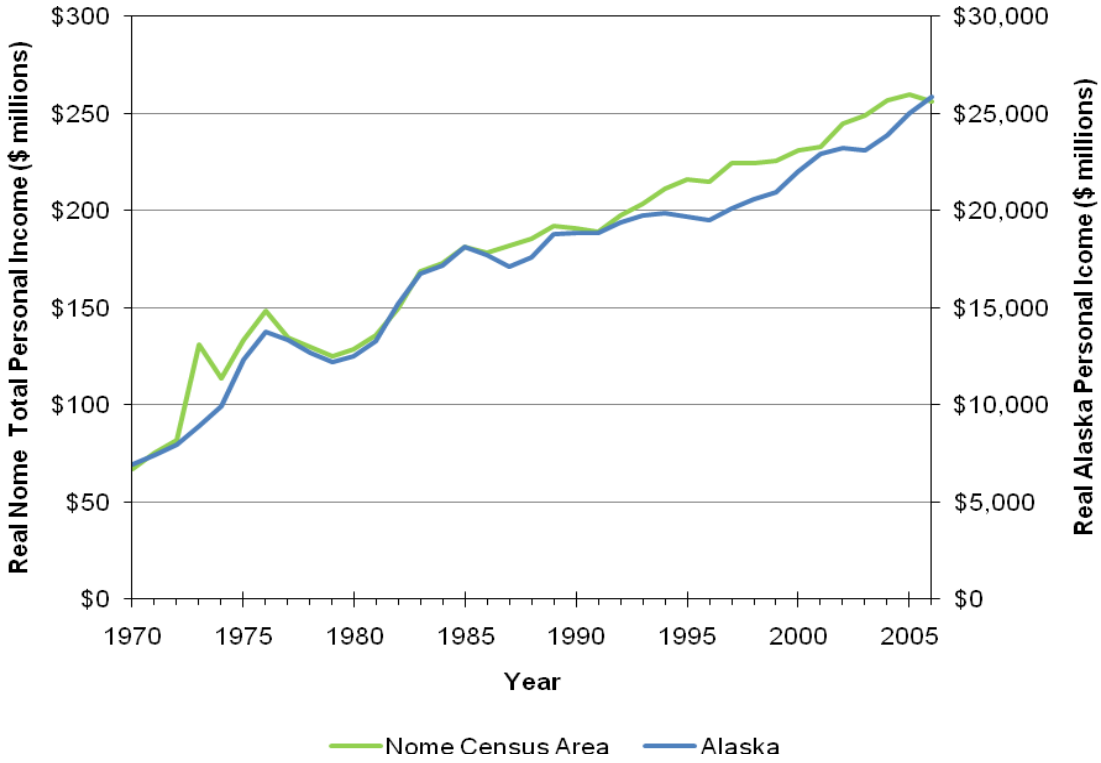

Note: Data adjusted for inflation using the Anchorage consumer price index. Anchorage is the only Alaska city for which a consumer price index is calculated.

Source: Alaska Department of Labor and Workforce Development (2009b)

While not all communities in the Nome Census Area are served by Nome Airport, per capita personal income data are only reported at the borough/census area level for areas other than Anchorage and Fairbanks. Per capita personal income in the Nome Census Area consistently tracked well below the state figure during the 1970-2006 period (even though Nome's per capita income grew at a faster rate than the state as a whole, 2.9% average annual growth as opposed to 1.5%). Moreover, Fried and Robinson (2009) note that Nome is considered to be a "higher-cost" community in Alaska because of its reliance on air transport for food items much of the year. The researchers report that costs in Nome are 139% of the costs in Anchorage. If adjustments were made for variation in the cost of living, the difference in real per capita income between Nome and the state as a whole would be even greater.

Population and per capita income can be combined into a single variable affecting the demand for air travel—total personal income. This variable is often a better indicator of the growth in demand for air transportation than population or per capita income alone (Kutchins & Groh 2008). Changes in real total personal income in the Nome Census Area are shown in Chart 3–6.

**Chart 3–6 – Real Total Personal Income Statistics for the Nome Census Area, 1970-2006**

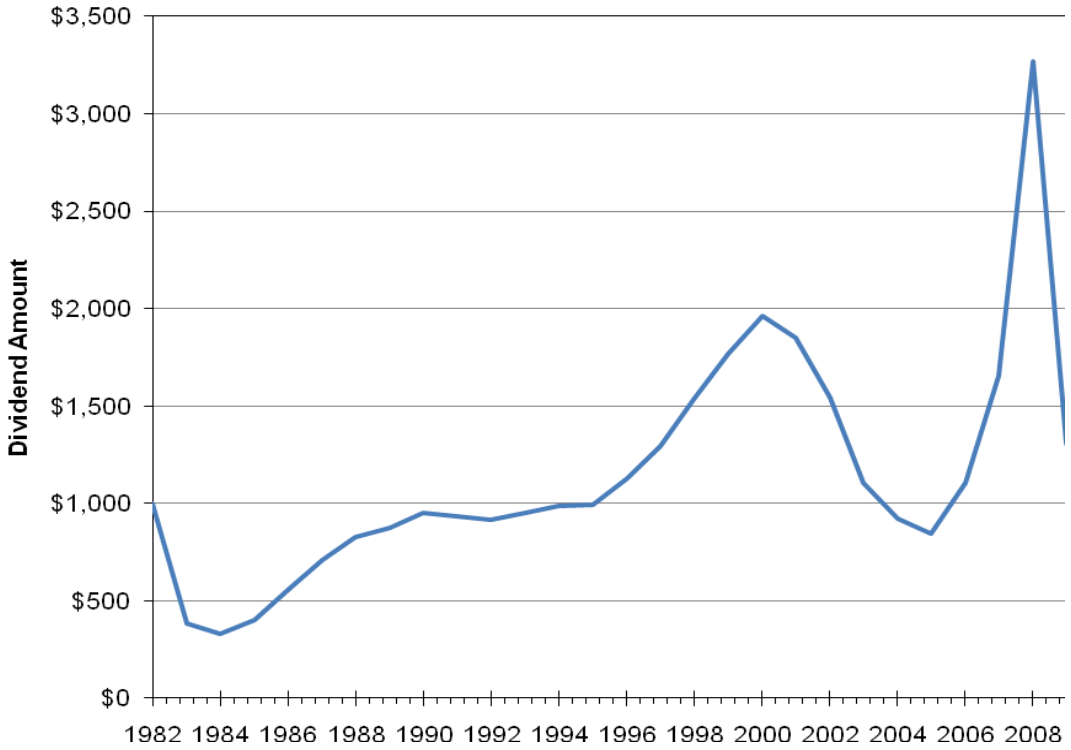



Note: Data adjusted for inflation using the Anchorage consumer price index. Anchorage is the only Alaska city for which a consumer price index is calculated.

Source: Alaska Department of Labor and Workforce Development (2009b)

The added individual income generated by annual Permanent Fund Dividend distributions can influence the seasonal as well as overall demand for air travel. This additional income, together with annual Permanent Fund Dividend fare sales offered by passenger air carriers, increases the propensity to travel. In 2008, for example, an Alaska Airlines fare sale offered up to 25% off for in-state travel to or from Anchorage, Fairbanks and Juneau, as well as savings on select routes between Alaska and the Lower 48 states, Canada, Hawaii and Mexico (Skycontrol, 2008). These special Permanent Fund Dividend fares are for the exclusive use of Alaska residents. Annual Permanent Fund Dividend distributions since the fund was established in 1982 are shown in Chart 3–7.

**Chart 3–7 – Permanent Fund Dividend Amounts, 1982-2008**




Note: The 2008 dividend payment consisted of a $2,069 dividend plus a one-time energy rebate of $1,200. The basic dividend alone was the highest payment in the history of the Permanent Fund Dividend program.

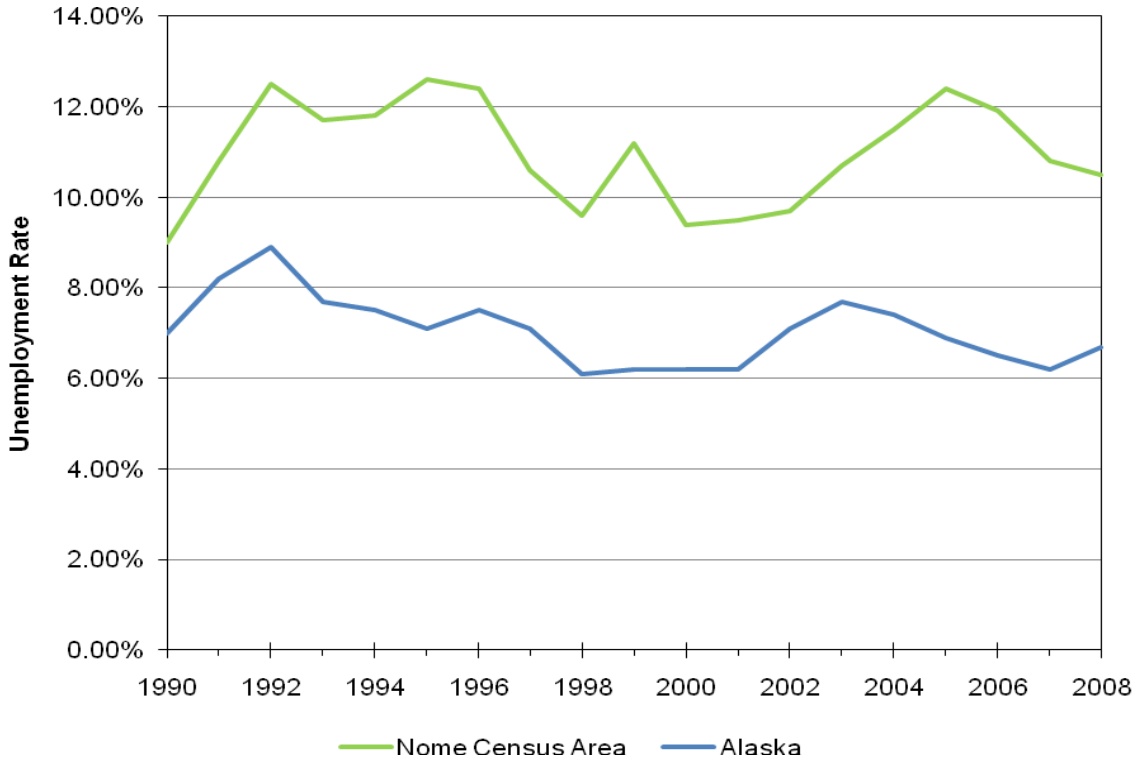
Source: Alaska Department of Revenue, Permanent Fund Dividend Division (2009)

## *Employment*[1]

Another likely factor influencing the demand for air transportation is employment levels. In general, business and personal spending comes under more scrutiny when the economic climate is poor. High unemployment rates would be expected to cause people to be more cautious in their expenditures for air travel. The historical rate of unemployment in the Nome Census Area is shown in Chart 3–8. The unemployment rate has been higher than the state benchmark since the early-1990s.

[1] This section prepared by Northern Economics, Inc. (see Resource Documents binder).

**Chart 3–8 – Unemployment Rate Statistics for the State of Alaska and the Nome Census Area, 1990-2008**




Source: Alaska Department of Labor and Workforce Development (2009c)

## *Economic Impacts*[1]

The sections below describe trends in three important basic sector activities in the area served by Nome Airport—tourism, commercial fishing, mining, and the military. Trends in the economic performance of firms involved in these basic sector activities are dependent on factors external to the local economy. It is important to note that these basic sector activities not only generate overall economic growth that should have a positive impact on demand for air services, they also heavily use air services in support of their business operations, and therefore directly contribute to aviation demand. Furthermore, while economic growth is a key driver of growth in air traffic demand, air transport can, in turn, play a key role in economic development and in supporting long-term economic growth. Greater connections to the global air transport network can boost the productivity and growth of economies by providing better access to markets, enhancing links within and between businesses and providing greater access to resources and capital markets (IATA, 2007).

### Tourism

Nome is a well-established tourism destination (DCCED, 2007). It is the largest community in Northwest Alaska and, together with Kotzebue, serves as a transportation hub for the region. There is jet service between Anchorage and Nome with three flights daily, two of which travel from Nome to Kotzebue to Anchorage and one of which flies directly to Anchorage. In conjunction with this jet service, Alaska Airlines offers Nome day and overnight tours

[1] This section prepared by Northern Economics, Inc. (see Resource Documents binder).

(Alaska.org, undated). In addition, cruise ship tourism is important to Nome's economy as a port of call for small, expedition-class cruise ships (ships that carry a maximum of approximately 100 passengers), which attract visitors interested in culture, wildlife and adventure (DCCED, 2007). Cruise Line Agencies reports that 786 cruise passengers stopped in Nome in the summer of 2005, some of whom boarded their vessel in Nome and may have spent the night there (McDowell Group, 2006). These cruise ships often dock just long enough to pickup and off-load passengers that are flown by charter jet, and to refresh supplies—their short time in Nome's harbor gives passengers only a brief opportunity to visit Nome's attractions, usually with a tour guide (Land Design North, 2003). For independent tourists and those tour package and cruise ship visitors who overnight in Nome, the community offers fairly well-developed tourist-related infrastructure and businesses, including three hotels, eight bed and breakfasts and apartments and nine restaurants (TravelAlaska.com, undated).

The primary tourism and recreational assets of Nome include adventure and ecotourism opportunities in nearby national parklands, Alaska Native culture, and its "north of the Arctic Circle" allure (Northwest Arctic Borough Economic Development Commission and Alaska Department of Commerce, Community and Economic Development, undated). Nome is also a popular location for birding, with 200 migratory species transiting the area from May 15 to June 15 and in the fall (Nome Alaska Visitors Center, 2009). Many outdoor recreation areas can be accessed only by small, fixed-wing "bush" planes, starting from Nome Airport; however, Nome is also the originating point for three major state roads providing vehicle access to a mix of natural and cultural attractions: Teller Highway, Council Road and Kougarok Road. These 250 miles of road were originally constructed to provide access to villages, subsistence resources and mines, but their popularity in recent years has grown due to the recreational freedom they provide for tourists (DCCED, 2007).

The Iditarod Dog Sled Race brings worldwide attention to the area while filling hotel rooms with tourists during part of the winter season (DOT&PF, 2004). Bed tax and sales tax revenue spike in March when the race finishes in Nome, and it is estimated that the race generates $1.1 million annually for local merchants (Bauman, 2008; Pardes, 2002).

In addition to the variety of natural area recreation opportunities, the study area has a number of cultural assets through its Iñupiat, Yup'ik and Athabascan Indian history and connection to the gold rush era. The Carrie McLain Museum houses historical photos and exhibits about Native culture, Eskimo art and the gold rush (TravelAlaska.com, undated). Other historic sites in Nome include the gold-rush-era Board of Trade Saloon and St. Joseph's church. Teller Highway provides direct access to the village of Teller, a subsistence village with a small local store and gift shop selling Alaska Native crafts, and indirect access to the villages of Brevig Mission and Port Clarence (Land Design North, 2003).

It is estimated that tourism brings $3.7 million per year into the Nome area economy alone. As local beneficiaries (e.g., tourism industry workers, local business owners, and Native artisans) spend their earnings, the multiplier effect of these dollars circulating in the region is $4.9 million (DOT&PF, 2004).

However, despite Nome's many tourist attractions, the Northwest Arctic Borough (2004) indicates that visitor volume in the Northwest Arctic Borough in 2004 was substantially less than

what it was in the mid-1990s. While a sharp decline in the worldwide economy may be partially responsible for the falloff in tourist travel to the region, it has also resulted from reduced tourism marketing by NANA Development Corporation (Northwest Arctic Borough, 2004). The number of tourists visiting Nome and Kotzebue as part of air package tours has been steadily dropping in recent years. As the demographics of Alaska cruise passengers change (passengers have less income and less time to spend), the extra money for a one- or two-day air package tour to Nome and/or Kotzebue is not affordable and/or does not appear to provide a good product for the cost (DOT&PF, 2004; Land Design North, 2003).

Further development of recreation resources and tourism in the area served by Nome Airport is expected to be a challenge for several reasons, including continued sluggish growth in the global economy; competition with other tourist destinations that offer similar attractions but are cheaper and quicker to visit; the limited pool of "niche market visitors" that might be interested in visiting the area; the short visitor season; and the lack of private and public tourist-related infrastructure in most of the outer villages served by Nome Airport.

### Fisheries

Norton Sound Seafood Products, a division of the Norton Sound Economic Development Corporation, has operated the Norton Sound Seafood Center in Nome since the seafood processing facility opened in 2002 (NSEDC, 2009). Crab and halibut are the primary species processed. In addition, halibut harvests around St. Lawrence Island are delivered to a processing facility in Savoonga, which is also operated by the Norton Sound Seafood Products, where they are cleaned and chilled, and then flown to Nome (NSEDC, 2009). Salmon is produced in the region, but all but a small amount is harvested and processed in Unalakleet before being shipped by air directly to Anchorage. As a result, most of the region's salmon production does not use Nome's airport.

The high cost of electricity necessary to freeze seafood and maintain frozen product, coupled with the lack of ocean based shippers, make shipments of fresh product by air the most cost effective transportation choice for Norton Sound Seafood. Jet service at Nome's airport helps lower the cost of flying fresh salmon to Anchorage, where it is sold locally or distributed to Lower 48 markets on passenger and cargo flights. These fish hauls generally occur from mid-June through the end of July, but the pattern is not consistent from year to year. The regular air service also allows Norton Sound Seafood Products to ship live king crab to markets in Anchorage and beyond (Tremaine, 2009).

The decline in the number of salmon returning to rivers that drain into Norton Sound caused the commercial salmon fishery to be restricted or closed in the early years of this decade. Moreover, dockside prices for Alaska wild salmon fell due to competition from farmed salmon. As shown in Table 3–13, harvest decreased dramatically; however, production in the commercial salmon fishery showed a substantial improvement beginning in 2005. Since all but a small part of the salmon fishery is handled in Unalakleet, very little salmon product uses Nome's airport.

**Table 3–13 – Harvest in the Norton Sound District Commercial Fisheries, 1990 – 2007**

| | Fishery | | |
|---|---|---|---|
| | Norton Sound District Salmon | Halibut | Crab |
| Year | Harvest (Thousands of Pounds) | | |
| **1990** | 1,074 | 3 | 48 |
| **1991** | 1,176 | 0 | 10 |
| **1992** | 1,497 | 0 | 21 |
| **1993** | 1,221 | 3 | 17 |
| **1994** | 3,177 | 22 | 93 |
| **1995** | 1,021 | 0 | 124 |
| **1996** | 1,973 | 0 | 42 |
| **1997** | 715 | 0 | 12 |
| **1998** | 1,796 | 26 | 5 |
| **1999** | 194 | 41 | 15 |
| **2000** | 709 | 8 | 100 |
| **2001** | 236 | 0 | 182 |
| **2002** | 18 | 104 | 188 |
| **2003** | 163 | 67 | 193 |
| **2004** | 338 | 89 | 263 |
| **2005** | 692 | 58 | 349 |
| **2006** | 937 | 51 | 412 |
| **2007** | 1,184 | 0 | 297 |

Source: Alaska Commercial Fishing Entry Commission (2009)

### Mining

The area around Nome has large known gold resources. The Nome district also has produced silver as a by-product. It has produced about 4.8 million ounces of gold from the core of the district—almost all as placer, and dominantly from onshore sources (Mindat.org, 2009).

Drill-indicated gold reserves are on the order of 2.5 million ounces, including 1 million ounces offshore, 1 million ounces in placers onshore, and more than 500,000 ounces in lodes onshore, mainly at Rock Creek and Big Hurrah, which are located about seven miles from Nome (Mindat.org, 2009). NovaGold Resources is currently studying taking its Rock Creek project to the production phase (NovaGold Resources Inc., 2009). The Rock Creek mine has been designed as a 7,000 tonnes-per-day conventional open-pit year-round operation, expected to produce approximately 100,000 ounces of gold per year once in operation. Though life of the mine is planned at four years, Novagold hopes to extend this out to at least 10 years given the potential of resources in the area (Bailie, 2009). The project has already brought significant benefits to Nome and surrounding communities through direct employment and training opportunities as well as service-related businesses (NovaGold Resources Inc., 2009). Nome Airport is used to fly the gold out and to fly in any additional parts or supplies that might be needed for the mining operation.

Relatively short extensions to the three state roads leaving Nome could provide access to other resources. A bridge and extension to the Teller road or a ferry could give access to the Lost River

area, which is rich in tin, tungsten, fluorine, and beryllium. A short extension to the Kougarok road would provide access to tin deposits, and an extension to the Council road would provide access to uranium and coal deposits. However, large parts of the region around Nome are remote with limited surface transportation, and this remoteness will continue to inhibit exploration and hence discovery of minerals and remain a major factor in preventing development of all but rich deposits of gold. On the other hand, Nome Airport could serve as the staging site for construction or development of mining areas that are inaccessible by roads.

Gold prices and gold development projects are closely related. However, due to the capital investments involved and the lead time in the startup of development projects, developers have to consider the long-term trends in minerals prices rather than temporary spikes or drops. In theory, every existing mine has a low-end price at which operations would have to cease, and every potential mine has a minimum or hurdle price at which development becomes feasible. Northern Economics attempted to contact the Alaska Miners Association to ask about the relationship between gold prices and mine activity, but had not received word back as of the time of this report. However, it follows logically that if gold prices remain at the current, elevated levels for sufficient time, additional mine development activities would likely take place in the Nome area, which could lead to increased use of the airport for transportation to and from new mines.

### Military

Recent military activity in and around Nome may potentially impact the Nome economy and aviation activity. The Coast Guard and Air Guard may have a buildup of activities in the future. The Air National Guard already has an apron and hanger and the Coast Guard is seeking a lease lot (ideally next to the Air National Guard).

The shrinking polar ice cap has led to an opening of the Northwest Passage. Increasing navigation through the passage and increased access to undersea oil and gas deposits has created the need for the United States to develop emergency response, patrol/surveillance, and defense facilities in northern Alaska (Borgerson, 2009). Nome's proximity to the Bering Strait makes it a promising situation for additional military development, which would have implications both for Nome's economy and the use of the air facilities.

The Coast Guard Cutter *Spar* is "conducting a comprehensive review of traffic patterns, nautical charts, port facilities and existing aids to navigation to assess the efficiency of the aids to navigation system in the area. The *Spar* also carries a hydrographic survey system that can map the bottom of the ocean in small areas leading to harbors and can forward the data to NOAA's National Ocean Service for inclusion in future editions of nautical charts, the *Spar*'s navigator, Lt.j.g. Brown, explained. This data can then be used to assist in establishing new aids in specific locations. The *Spar* is also heavily involved in fisheries law enforcement, has an advanced electronics and communications suite to support homeland security operations, and carries oil skimming equipment to support environmental protection" (Frederickson, 2009).

Operation Arctic Crossroad, a joint military activity, took place in Nome and Barrow in August 2009. The focus was on the Coast Guard's "ability to respond to a rescue call, oil spill, national security breach, or any other situation up north. The Coast Guard expects to expand their responsibilities in the Arctic during the next five to ten years" (Peacock, 2009).

**Weather**

Weather conditions affect runway utilization, thereby affecting daily operations. In Nome, weather may temporarily reduce the number of daily operations, particularly for general aviation aircraft. Local air carriers and air taxis adjust their operations by including more flights once the weather clears up, thus putting a temporary strain on their staff and facilities. Alaska Airlines is able to compensate for weather delays by flying at capacity until all delayed freight and passengers are accommodated. Occasionally this may include flying a larger aircraft such as the 737-800 to Nome.

## 3.4 Select Forecasting Methods

While there are several acceptable techniques and procedures for forecasting aviation activity at a specific airport, most forecasts utilize basic techniques such as regression, exponential smoothing, or share analysis. The following discussion is an overview of the forecast method applied to aviation demand at Nome Airport.

First, we calculated the annual average growth rate for both the City of Nome and the Nome Census Area, based on population data for 1990-2008, which resulted in rates of 0.11% and 0.60%, respectively. These growth rates serve as low and medium forecast scenarios.

High forecast scenarios for 1) passenger enplanements, 2) cargo and 3) operations were calculated individually. For enplanements, we applied a linear regression forecast to historic ACAIS passenger enplanements, resulting in a 0.85% annual growth rate. Similarly, we applied a linear regression forecast to historic cargo data, which produced an annual growth rate of 0.90%. Finally, we averaged the enplanement and cargo annual growth rates to obtain an annual average growth rate of 0.88% for operations.

We forecasted the Nome census area population using a linear regression of historic data from 1990-2008. We feel that this is an accurate estimation of population. An R-squared value of 0.77 confirms that the historic population growth is, for the most part, linear. Likewise, we feel that using the entire census area population rather than just the city of Nome provides more accurate forecasts. Because Nome is a hub for the Bering Strait region, the entire population of the region influences aviation demand at Nome Airport.

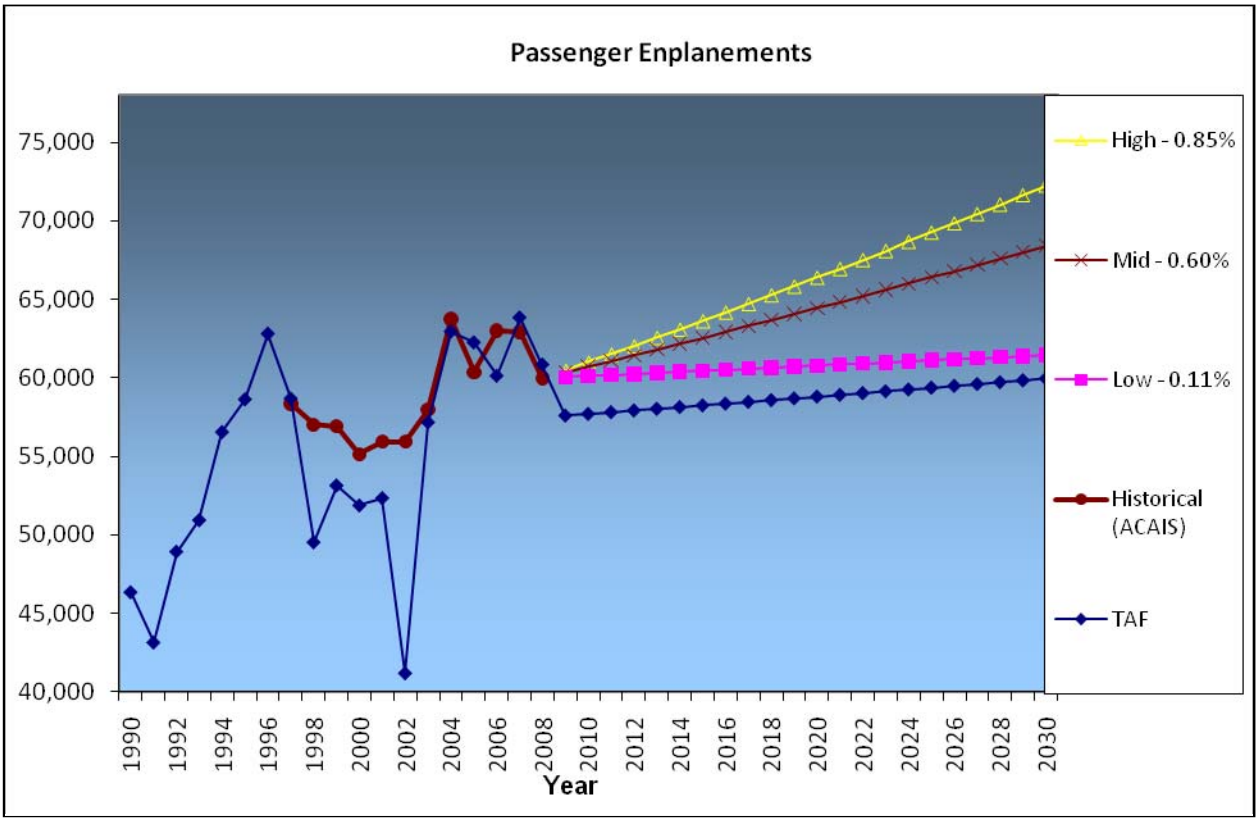
One major advantage of using a regression equation is that if the independent variables are more readily projected than the forecast or dependent variable, then it is relatively easy to derive a forecast. Forecasts of the independent variable may be available. For example, forecasts of regional income are usually readily available. Obviously, if the independent variable is difficult to forecast or if projections are not available, a good historical regression "fit" may be without value for forecasting purposes.

## 3.5 Apply Forecast Methods, Summarize, Evaluate and Document Results

This section presents three scenarios (low, medium, high) of air traffic forecasts for passenger enplanements, cargo and aircraft operations for Nome Airport. Forecast scenarios are based on the forecast growth rates previously discussed.

Chart 3–9 shows the historical and forecast passenger enplanements for Nome Airport. The low, medium, and high growth scenarios are presented, as well as the TAF forecast. Comparison with the TAF is included per FAA guidance, *Forecasting Aviation Activity by Airport.*

**Chart 3–9 - Passenger Enplanements Historical and Forecast – Nome Airport**




*The TAF is not frequently updated in Alaska.

We have chosen to show cargo data for the years 2003 to the present because the change in reporting requirements in 2002 with the enactment of the Rural Air Service Improvement Act created a spike in the reported numbers.

**Chart 3–10 – Cargo Operations Forecast – Nome Airport**

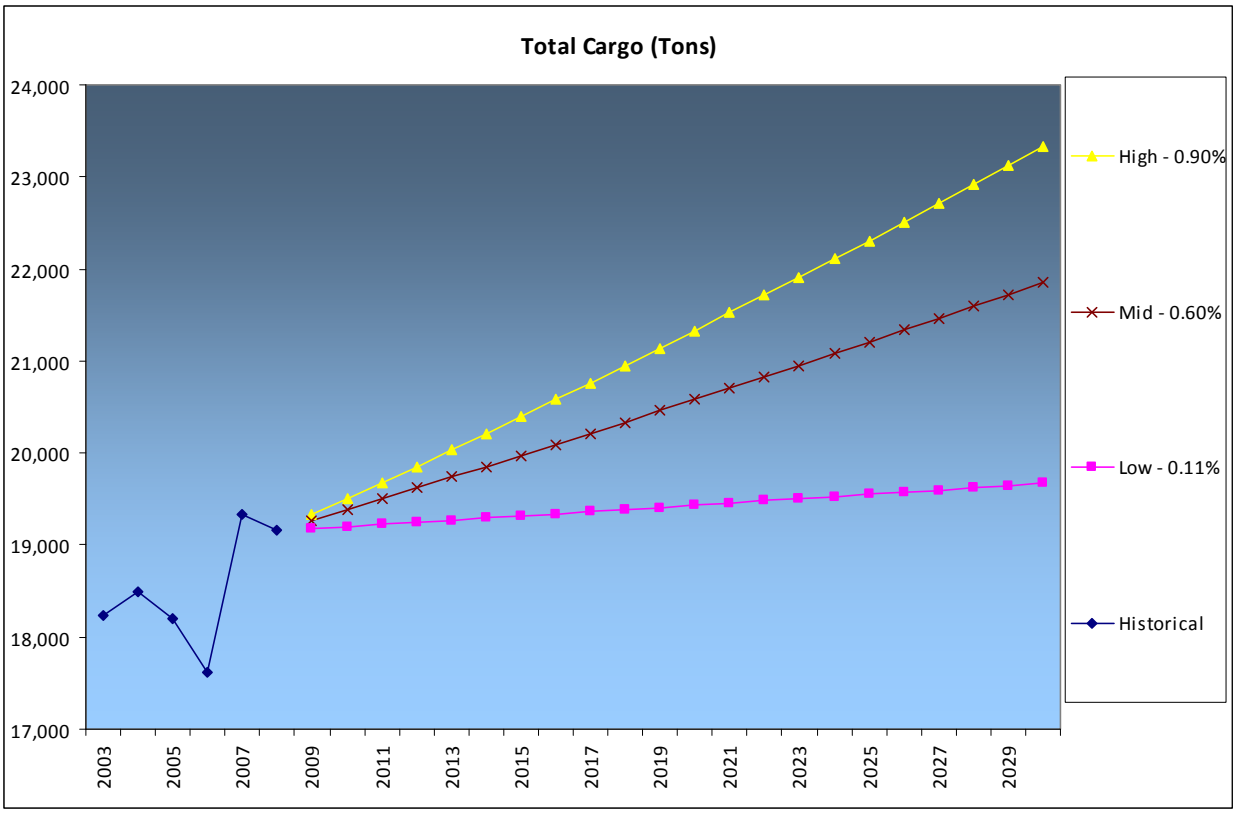
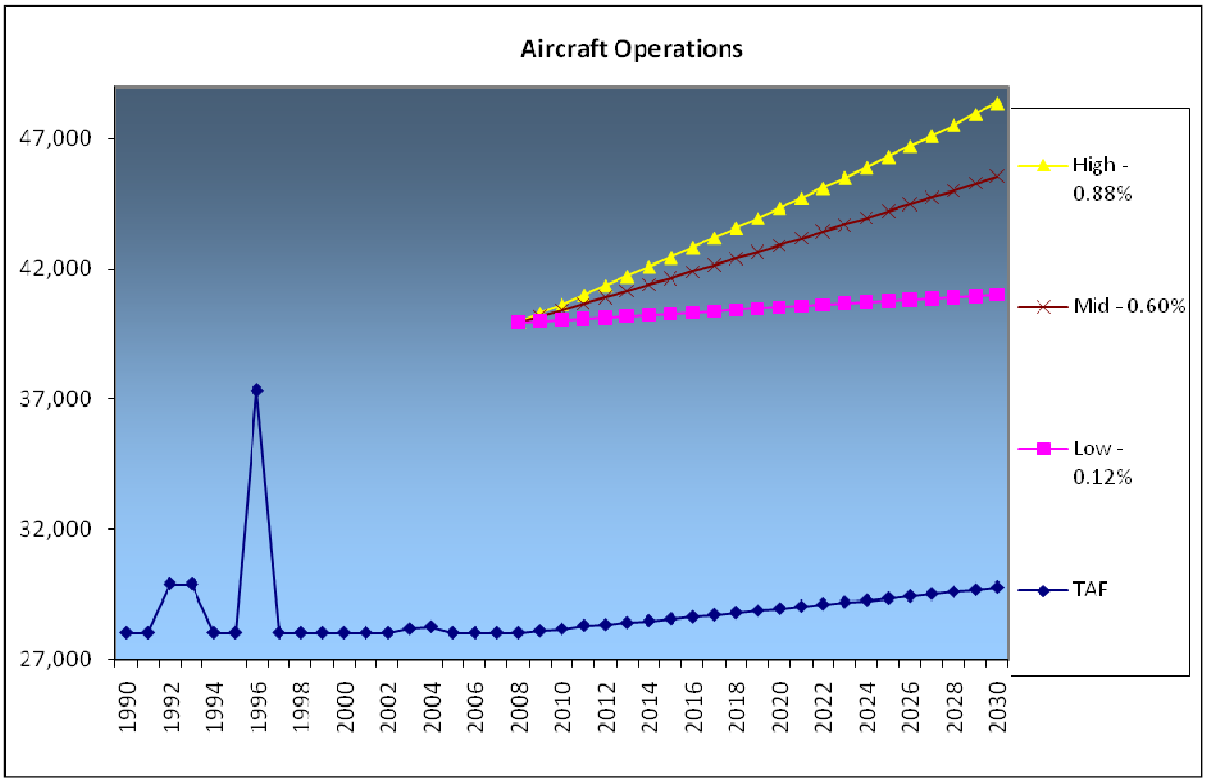


**Chart 3–11 – Aircraft Operations Forecast – Nome Airport**



## 3.6 Compare Airport Planning Forecast Results with TAF

Table 3–14 presents a comparison between the updated air traffic forecast for Nome Airport (based on the determined medium scenario growth rate of 0.60%) and the FAA TAF.

**Table 3–14 – TAF/Airport Planning Forecast Comparison**

| | Year | Airport Forecast (AF) | TAF | AF/TAF % Change |
|---|---|---|---|---|
| **Passenger Enplanements** | **2008** | 59,978 | 60,835 | (<1%) |
| | **2013** | 61,799 | 58,015 | 7% |
| | **2018** | 63,675 | 58,566 | 9% |
| | **2028** | 67,601 | 59,707 | 13% |
| **Commercial Operations** | **2008** | 28,733 | 16,500 | 74% |
| | **2013** | 29,605 | 16,880 | 74% |
| | **2018** | 30,504 | 17,271 | 77% |
| | **2028** | 32,385 | 18,077 | 79% |
| **Military Operations** | **2008** | 354 | 1,500 | (76%) |
| | **2013** | 365 | 1,500 | (76%) |
| | **2018** | 375 | 1,500 | (75%) |
| | **2028** | 399 | 1,500 | (73%) |
| **GA Operations** | **2008** | 10,850 | 10,000 | 9% |
| | **2013** | 11,180 | 10,000 | 12% |
| | **2018** | 11,520 | 10,000 | 15% |
| | **2028** | 12,229 | 10,000 | 22% |
| **Total Operations** | **2008** | 39,937 | 28,000 | 43% |
| | **2013** | 41,150 | 28,380 | 45% |
| | **2018** | 42,399 | 28,771 | 47% |
| | **2028** | 45,013 | 29,577 | 52% |

TAF data based on US government fiscal year (October – September)

## Table 3–15 – Forecast Levels and Growth Rates

| | Forecast Levels, Base Year 2008 | | | | | Average Annual Compound Growth Rates | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Base Yr. Level | Base Yr. +1yr | Base Yr. +5yrs. | Base Yr. +10yrs. | Base Yr. +20yrs. | Base Yr. to +1yr | Base Yr. to +5yrs. | Base Yr. to +10yrs. | Base Yr. to +20yrs. |
| **Passenger Enplanements** | | | | | | | | | |
| Air carrier | 29,405 | 29,581 | 30,298 | 31,218 | 33,142 | 0.60% | 0.60% | 0.60% | 0.60% |
| Commuter/air taxi | 30,573 | 31,119 | 31,501 | 32,457 | 34,459 | 0.60% | 0.60% | 0.60% | 0.60% |
| **TOTAL ENPLANEMENTS** | **59,978** | **60,700** | **61,799** | **63,675** | **67,601** | 0.60% | 0.60% | 0.60% | 0.60% |
| **Operations** | | | | | | | | | |
| *Itinerant* | | | | | | | | | |
| Air carrier | 3,178 | 3,197 | 3,274 | 3,374 | 3,582 | 0.60% | 0.60% | 0.60% | 0.60% |
| Commuter/air taxi | 25,555 | 25,708 | 26,331 | 27,130 | 28,803 | 0.60% | 0.60% | 0.60% | 0.60% |
| TOTAL COMMERCIAL OPERATIONS | 28,733 | 28,905 | 29,605 | 30,504 | 32,385 | 0.60% | 0.60% | 0.60% | 0.60% |
| General aviation | 7,300 | 7,344 | 7,522 | 7,751 | 8,228 | 0.60% | 0.60% | 0.60% | 0.60% |
| Military | 250 | 252 | 258 | 265 | 282 | 0.80% | 0.63% | 0.58% | 0.60% |
| *Local* | | | | | | | | | |
| General aviation | 3,550 | 3,571 | 3,658 | 3,769 | 4,001 | 0.60% | 0.60% | 0.60% | 0.60% |
| Military | 104 | 105 | 107 | 110 | 117 | 0.96% | 0.57% | 0.56% | 0.59% |
| **TOTAL OPERATIONS** | **39,937** | **40,030** | **41,150** | **42,399** | **45,013** | 0.60% | 0.60% | 0.60% | 0.60% |
| **Cargo/mail (enplaned+deplaned tons)** | 19,156 | 19,204 | 19,397 | 19,640 | 20,137 | | | | |
| **Based Aircraft** | | | | | | | | | |
| Single engine (non-jet) | 75 | 75 | 77 | 80 | 85 | 0.0% | 0.53% | 0.65% | 0.63% |
| Multiple engine (non-jet) | 17 | 17 | 18 | 18 | 19 | 0.0% | 1.15% | 0.57% | 0.56% |
| Jet engine | 0 | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% |
| Helicopter | 6 | 6 | 6 | 6 | 7 | 0.0% | 0.0% | 0.0% | 0.77% |
| Other | 0 | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% |
| **TOTAL** | **98** | **98** | **101** | **104** | **111** | 0.0% | 0.60% | 0.60% | 0.60% |

## 3.7 Obtain Approval of the Forecast

FAA AC 150/5070-6B provides guidance on airport master plans. The chapter on aviation forecasts concludes that forecasts must be:

- Realistic
- Based on the latest available data
- Reflect the current conditions at the airport
- Supported by information in the study
- Provide an adequate justification for the airport planning and development

Additionally, FAA AC 150/5070-7, *The Airport System Planning Process*, recommends that aviation forecasters use their professional judgment in determining what is reasonable.

FAA approved the forecast presented in this chapter, February 2010.