



EXISTING CONDITIONS (I.E. INVENTORY) SUMMARY

The Airport Inventory

The inventory part of the airport master plan looks at the current operational levels of the airport, and community characteristics.

Metrics, such as the number of takeoffs or landings, the number of aircraft that call Longmont home, along with transient aircraft flights, are determined.

Community numbers, such as population, education all levels, income, and taxes are also assessed. These measurements provide planners a current “picture” of the airport, which is then compared to forecasted conditions. The analysis between what “is” today and what “tomorrow” may bring, results in recommended improvements to airport facilities.

An airport is often a reflection of its community. Growing communities often mean growing airports and the master plan is used to determine how the airport can best keep up with the community development. The inventory, which is sometimes called “existing conditions” also includes weather data, airfield features (runways and taxiways), navigational aids to pilots, and an environmental review.

The Longmont Vance Brand Municipal Airport is classified by the FAA as a General Aviation airport, which means it accepts most types of aircraft operations, with the exception of scheduled commercial service. Airports like Denver International and Colorado Springs are classified as commercial service and receive both scheduled service and general aviation aircraft.

Longmont’s airport is presently estimated to have 61,211 annual operations (any takeoff or landing is an operation) and the airport is home to 340 based aircraft. The airport not only serves local needs, it is considered essential to the State of Colorado and the United States airspace system. A review of instrument flight plans over the course of one year show flights to and from every corner of the country. The airport owns 264 acres of land, which includes both airfield and surrounding property.

The Colorado Aviation System Plan, prepared by CDOT’s Division of Aeronautics, evaluates and measures the performance of each of Colorado’s airports. The Longmont Airport is classified as a “Major” airport in the system due to the importance of the airport to the State. The State believes that 75% of all major airports must have planning studies updated every five years.

Airfield Characteristics

Airports are designed around the largest aircraft that uses the airport more than 500 times per year. This is known as the “critical aircraft”. The wingspan or tail height and the approach speed of the critical



aircraft determines the Airport Reference Code (ARC). Airport planners use this aircraft (or the ARC) as their guide to construct runways, taxiways and airport facilities.

Longmont's ARC is known as "B-II," which relates to an aircraft with an approach speed between 91 and 121 knots (104-139 mph), and a wingspan between 49-79 feet. This category applies to virtually all piston-powered and turboprop single and multi-engine aircraft, as well as most mid-sized business jets.

Longmont's runway is 4,800 feet long and is constructed with concrete, which is fortunate for airport users and the City. Many airports of Longmont's size have asphalt runways, which deteriorate quicker and require higher levels of maintenance. Concrete contributes greatly to a pavements' longevity. The pavement is currently rated as excellent by the Colorado Division of Aeronautics.

There is instrumentation on the airport (known as a non-precision approach) to allow aircraft to land when the clouds are no lower than 625-feet above the ground and visibility is at least 1-mile. Longmont Airport does not have an Instrument Landing System, which is a "precision approach," and would allow aircraft to continue to operate as the cloud ceiling and visibility worsens.

The airport has two Fixed-Base Operators (FBOs). An FBO serves as a terminal for private and chartered aircraft, providing fuel, maintenance services, hangar rental, pilot rest and flight planning services. Think of an FBO as a "truck-stop" for private aircraft. There are nine other businesses on the airport including two charter operations, Mile-Hi Skydiving, and a restaurant.

Community Demographics

According to the U.S. Census Bureau and the Colorado Department of Transportation, the City of Longmont is growing similar to other surrounding cities and the cities of the nearby competitor airports. Furthermore, it has grown more than twice as fast as Boulder County.

The U.S. Bureau of Economic Analysis (BEA) tracks employment by category and shows that for Boulder County, the Professional, Scientific, and Technical Services classification is the largest sector for the county. Typically these businesses employ highly skilled, specialized and educated workers.

Environmental Review

Ever since the passage of the National Environmental Policy Act in 1970, before an airport project can go forward, the environmental impacts must be determined. Airport projects are evaluated to determine if there will be an environmental impact and to what extent further review is necessary. Some projects have no environmental impact, such as the acquisition of a fire truck.

Other projects may require an Environmental Assessment or in some cases, a complete Environmental Impact Statement. The EA and EIS not only determine potential environmental impact, but also provide mitigation measures. Noise, along with several other impact categories, is included as part of any level of environmental review.



An airport master plan generally does not include an EA or an EIS on any particular project, but does make comments about which future projects may need an EA or EIS before moving forward.

Noise is an important issue around most every airport. The FAA uses the Day-Night Average Sound Level (DNL) as the standard metric to determine the cumulative exposure individuals around an airport have to noise. DNL is the 24-hour average sound level in decibels (dB). The average is determined by measuring all aircraft operations in a 24-hour period, with a 10 dB noise penalty added to night operations (10 p.m. to 7 a.m.) to compensate for people's heightened sensitivity to noise during this period.

Using the DNL metric, noise contours will be developed for the airport during the master plan project that show areas of noise exposure for both the current and 20 year timeframe. Individuals residing within the 65 DNL contour may be eligible for noise mitigation relief, but this is determined through an additional FAA Part 150 noise study. Areas outside of the 65 DNL contour, are generally not eligible for Federally sponsored noise abatement programs.

There are no residences inside of the 65 DNL Contour that was created for the 2004 Longmont Municipal Airport Master Plan and a majority of the contour is contained within airport property.

Airport Funding

Currently, all General Aviation airports, such as Longmont, are provided an annual \$150,000 entitlement grant from the FAA. This type of grant is available for use on certain planning, development and airport pavement maintenance projects. Entitlement money funded much of the master plan study.

For larger projects that cannot be funded by the entitlement grant, the FAA can tap into discretionary grant money. However, this money is in limited supply, and must be shared amongst all FAA grant-eligible airports. The FAA evaluates each project and assigns funds based on a set of priorities. A project typically must be shown on an approved Capital Improvement Plan for several years in order for the FAA to adequately be able to assess the need and assign funds.

Survey Information

Surveys from 84 local aircraft owners and pilots were collected. The surveys reflect the general opinion of those who base at Longmont Airport.

Overwhelmingly, they expressed a desire for a year-round restaurant, a new crosswind runway, additional hangar space and hangar availability, and a runway extension for Runway 11/29.

Local users felt that self-service fueling, aircraft maintenance, tie-downs or hangars, and flight instruction are the most essential facilities at the airport, while least essential were fire and rescue and tourism or entertainment related activities. Users also expressed a desire for 24-hour bathroom



availability, an area to wash aircraft, access to courtesy cars. A majority of the users stated the airport is extremely important, if not vital, to the local community and businesses.

Surveys from 9 airport tenants were collected, which also indicated the desire for a runway extension for Runway 11/29, with a majority requesting additional aircraft parking space, dedicated snow removal equipment, and a better instrument approach into the airport.

A total of five transient pilot surveys were collected and four corporate aircraft surveys were collected. Lowest rated categories were hangar availability and runway length. Runway length should be the highest priority according to this survey group. The highest rated categories were runway orientation, Fixed-Base Operator services, visual aids and condition of pavement.

Surveys from 28 Longmont Area Business were collected. They showed that the airport is very important to the community. Many respondents commented that the airport has a reciprocating effect on the growth of Longmont and all Longmont businesses benefit in some way from the airport. Two businesses stated they use Longmont Airport for business travel, while others use Denver International Airport. A majority of the respondents would like to see the runway extended.

Historical Aviation Activity

With 340 based aircraft, Longmont Airport ranks fourth in the number of based aircraft in the state of Colorado, behind Centennial, Rocky Mountain Metro and Front Range Airports.

General aviation airports are often measured by the number of flight operations that are conducted. An “operation” is either a landing or a take-off. However, since Longmont Airport does not have an air traffic control tower, there is not an official count of each and every operation. Therefore, planners must estimate the annual number of operations.

For this master plan study, five different methods were analyzed to estimate aircraft operations. These include the FAA Terminal Area Forecast (known as the TAF), a national average of operations per based aircraft, a local average of operations per based aircraft obtained from survey information, a review of recorded FAA radar flight tracks, and a comparison to other local airports.

TAF: The FAA collects data from non-towered airports from estimates of operations provided to the FAA by the airport management. The operations count for the TAF was originally derived from an acoustical counter that was placed at the runway end in 2005.

National Average Operations per Based Aircraft: Used averages from the FAA’s National Plan of Integrated Airport Systems (NPIAS) - which is kind of like the FAA’s master plan for all airports in the U.S. that are eligible for federal funding. This method averages the number of flight operations at an uncontrolled airports based on the number of based aircraft. Using this method puts Longmont’s estimated operations at 119,000 annually, nearly 100% higher than all other estimates. In this case, the



planners felt that the NPIAS guidance was not written during current economic conditions, so this method was not used.

Local Pilot Reported Operations per Based Aircraft: Used surveys of actual pilots and regional flight instructors.

FAA Recorded Flight Radar Tracks: Data was obtained from DIA's Airport Noise and Monitoring System (ANOMS), which records all flights within the coverage area of DIA's radar. This process estimates flight tracks, but not necessarily operations. DIA's system will pick up an aircraft when the pilot activates their transponder, but not all aircraft are required to carry or use a transponder.

Comparisons To Other Local Airports that have accurate traffic counts due to having control towers: Operations at other airports around the Denver Metro area, including Centennial, Rocky Mountain Metro and Front Range, were analyzed. From the period 2005-2010, there was an overall regional decline in flight operations, which averaged 34.4%. This decrease was applied to Longmont's annual reported operations.

Comparing all methods, planners estimate that Longmont Airport had about 61,211 operations in 2010.

Summary

This represents a summary of the airport inventory for the Longmont Vance Brand Municipal Airport Master Plan. To read the actual study, [click here](#).

The next step in the process is to conduct the forecast. The forecast will determine what the future operational and based aircraft activity will look like for Longmont Airport. It must be approved by the FAA, after which the public will be able to attend the open house, review the work that's been done thus far and talk with airport management, the planners and others involved in the process.