



## McCarran International Airport

### Background

Within Southern Nevada's tourism-based economy, perhaps no single element of the region's tourism infrastructure is more critical than McCarran International Airport ("McCarran"). Since its creation in 1948, the airport has evolved and grown along with the community while providing a convenient and popular link between Southern Nevada and cities across the United States and around the globe. Today, that link brings 43 million passengers a year through McCarran, ranking it as the ninth-busiest airport in the country and the 25<sup>th</sup>-busiest in the world. When measured by the number of origin and destination ("O&D") passengers, the airport is the second-busiest in the U.S. The majority of the airport's passengers, 80 percent, consists of tourists and business travelers, making it the first and last stop in Las Vegas for roughly 17 million visitors each year.

While every visitor plays an important role in the Southern Nevada economy, those who fly through McCarran provide a greater economic impact, on average, than those who arrive by ground transportation. Since air travelers typically come to Las Vegas from farther distances, they tend to stay longer and spend more during their visit. In 2014, air travelers stayed an average of 3.8 nights per trip compared to 2.8 nights for ground travelers. Air travelers spent more on transportation (\$120.27 vs. \$31.77), food and drink (\$353.48 vs. \$230.31), shopping (\$178.16 vs. \$129.31), shows and entertainment (\$68.00 vs. \$32.82), and other categories. Air travelers also gamble more and visit more casinos per trip than ground travelers.<sup>1</sup>

Spending by visitors arriving via McCarran created an estimated \$XX billion in total economic impact in Southern Nevada in 2014. (*Note: Applied Analysis has conducted an economic impact study on behalf of McCarran. The results of that study will be released once the report has been finalized and made public.*) After factoring in the impact of local resident air travel and airport operations, the total economic impact of McCarran and its four sister airports climbs to \$XX billion, nearly XX of the entire regional economy. That economic activity supports more than XXX jobs in the region and generates \$XX billion in labor income. The Clark County Department of Aviation directly employs 1,400 people, and another 14,500 employees work for airlines, airport tenants, and concessionaires.<sup>2</sup>

The economic benefits created by McCarran and its sister airports come at no cost to taxpayers, as the Department of Aviation is a self-sufficient enterprise. In fiscal year 2014, the department collected \$599.5 million in operating revenue, of which 51 percent was generated by non-airline revenue streams such as concessions, advertising, and parking. The remaining 49 percent was generated through airline operations. These revenues support 100 percent of airport operations without any supplemental tax revenues.

McCarran shares its airspace with Nellis Air Force Base, Creech Air Force Base, and other sensitive installations and restricted areas, which puts regional air capacity at a premium. The Department of

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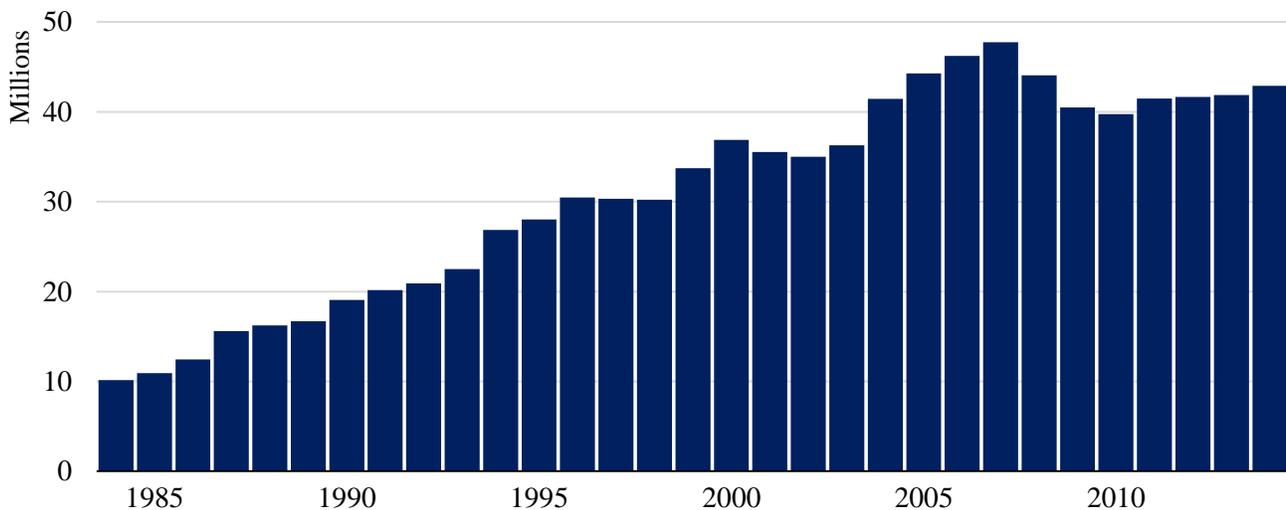
<sup>1</sup> Las Vegas Convention and Visitors Authority, *Las Vegas Visitor Profile Study 2014*.

<sup>2</sup> Applied Analysis, *McCarran International Airport Economic Impact Analysis*, 2015.



Aviation manages limited airspace through its network of smaller airports, including the North Las Vegas and Henderson Executive airports. These smaller airports support most of the region’s general aviation needs, allowing McCarran’s airspace to be maximized for commercial airline service. Last year, McCarran handled more than 522,000 takeoffs and landings, the eighth-most among world airports. Of those operations, 340,000 (72 percent) involved commercial air carrier traffic. McCarran also serves as a primary hub for helicopter tour operations that fly to the Grand Canyon, Hoover Dam, and other sightseeing attractions. In 2014, helicopters accounted for 128,000 takeoffs and landings (18 percent), while general aviation generated 53,000 operations at McCarran (10 percent).

### McCarran International Airport Passengers



Source: Clark County Department of Aviation

With the opening of Terminal 3 in 2012, McCarran increased annual capacity to 55 million passengers. Clark County commissioners approved the \$2.4 billion project in the midst of recession in 2008 but just a year removed from the peak of nearly 48 million passengers that strained existing facility capacity. Along with boosting overall throughput, Terminal 3 enhanced international passenger capacity. As a result, McCarran served 3.3 million international passengers in 2014, up 28.5 percent from the 2.6 million in 2011, the last year before Terminal 3 opened. International passenger capacity will increase further upon completion of a tunnel connecting seven gates at the D Concourse directly to the U.S. Customs and Border Protection passenger arrival checkpoint in Terminal 3.

Additional overall passenger capacity could be realized through improvements under the Federal Aviation Administration’s Next Generation Air Transportation System (“NextGen”), on ongoing project that will transition air traffic control from a radar-based system to a global-positioning satellite system. Local airspace is also part of an ongoing FAA Metroplex air traffic study, which will increase efficiency of airplane movements between Southern Nevada and neighboring regions.



## Issues, Analysis, and Recommendations

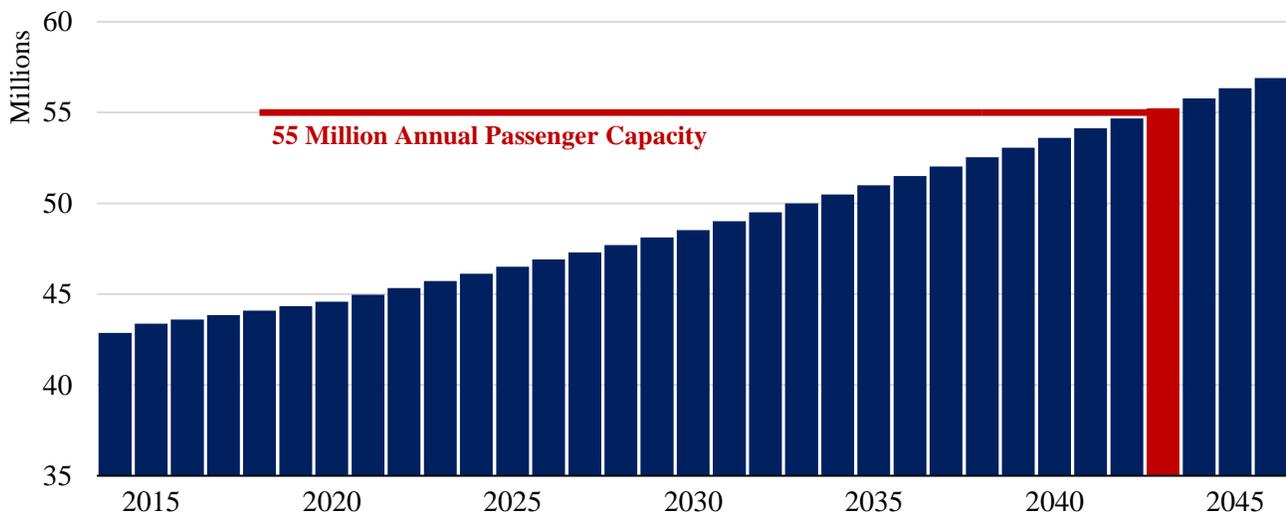
### *Passenger Capacity*

#### *Findings*

Throughout its history, McCarran has expanded facilities to accommodate the growing air travel demands of Southern Nevada. The last major expansion, Terminal 3 in 2012, raised the airport’s annual passenger capacity to an estimated 55 million. Although some extra capacity could be gained through ongoing FAA initiatives, additional capacity at McCarran is constrained by a mix of factors, including airspace restrictions in the region and the lack of available land adjacent to the airport. Also, McCarran is subject to surges in passenger demand as many flights arrive and depart at similar times throughout the week. These peak times can be managed but will remain a concern as passenger volumes rise. As the airport approaches and eventually exceeds its designed capacity, delays will increase in number and duration, negatively affecting the travel experience that is a critical component to the overall visitor experience that drives the region’s tourism-based economy.

McCarran is estimated to reach its current capacity of 55 million annual passengers in 2043, according to a projection by Las Vegas research firm Applied Analysis.<sup>3</sup> This projection is based on McCarran estimates of 285 passengers per available hotel room in the Las Vegas Area as well as the projected number of hotel rooms necessary to accommodate 1-percent annual growth in Las Vegas visitor volume. When McCarran approached maximum capacity in the mid-2000s, the Clark County Board of Commissioners authorized the development of Ivanpah airport along Interstate 15 between Primm and Jean. Land for the new airport had been secured through federal legislation in 2000 that transferred 6,000

### McCarran International Airport Passengers (Projected)



Source: Clark County Department of Aviation

<sup>3</sup> Applied Analysis, *Airport Capacity & Passenger Count Projections*, 2015.



acres from the Bureau of Land Management to Clark County. Subsequent federal legislation transferred an additional 17,000 acres to serve as an airport buffer zone.<sup>4</sup> As the project moved forward, the necessary planning and environmental study processes were started as McCarran’s annual passenger counts continued to climb. Passenger volume peaked at 47.7 million in 2007 before a rapid multiyear decline triggered by the Great Recession. The sudden drop in air travel demand diminished the immediate need for additional commercial air capacity in Southern Nevada, and plans for the Ivanpah airport were put on hold.

The Ivanpah airport site remains the most viable option to increase air passenger capacity in the region. Some of the initial planning and study work remains relevant, however, the process of planning, studying, and building the airport would require 12 to 15 years to complete at an estimated cost of \$10 billion in today’s dollars. Because premature development of the site would be overly expensive and unnecessary, the site should be preserved in the near term until regional air passenger trends indicate the need for additional capacity.

*Recommendation*

- ❖ Preserve site and explore potential funding options for construction of Ivanpah airport.

*Requested Actions for the Governor’s Office and Legislature*

- ❖ None. This is a local issue to be handled by the Clark County Department of Aviation.

<b>Infrastructure Issue, Recommendation, and Cost Summary</b>			
<b>Issue</b>	<b>Recommendation</b>	<b>Timeline</b>	<b>Estimated Cost</b>
McCarran is projected to reach maximum passenger capacity of 55 million in 2043.	Preserve Ivanpah airport site and explore potential funding options for construction	12 to 15 years to fully develop the Ivanpah site; preservation-oriented activities will need to take place during at least the first five years of this timeline	Cost to develop the Ivanpah airport is an approximately \$10 billion; preservation costs are unclear at this time

***Aviation Fuel Supply***

*Findings*

Southern Nevada’s only source of aviation fuel is the CALNEV pipeline, a 248-mile pipeline system that runs generally along Interstate 15 between Colton, California, and Las Vegas. The pipeline consists of two pipes: An 8-inch diameter pipe used exclusively to ship commercial aviation fuel (Jet-A), and a 14-inch diameter pipe that handles a variety of fuel types, including gasoline, diesel, military jet fuel, and Jet-A fuel. Kinder Morgan Energy Partners, which owns the CALNEV pipeline, is in the process of adding a

<sup>4</sup> Clark County Department of Aviation, *Project Definition and Justification: Proposal to Construct and Operate a New Supplemental Commercial Service Airport in the Ivanpah Valley*, 2006.



16-inch pipeline to increase capacity from 156,000 barrels of product per day to up to 200,000 barrels per day. Announced in 2007, the proposed \$400-million expansion project remains under regulatory review.

The additional pipe will increase capacity to help meet the growing fuel needs of Southern Nevada. However, the additional capacity does not alleviate the potential for a shortage of aviation fuel in the event of an accident, natural disaster, or other disruption to the CALNEV pipeline operation. In recent years, McCarran’s aviation fuel supply has been interrupted many times because of these types of events.<sup>5</sup>

**May 1989** – A Southern Pacific freight train derailed in San Bernardino County, California, damaging the underground 14-inch pipe adjacent to the railroad tracks. A subsequent fire caused the pipeline to be shut down for several days.

**January 2001** – Rolling power shortages in California caused several disruptions to the pipeline’s electricity supply over a period of weeks.

**January 2002** – A computer glitch caused a 36-hour shutdown of the pipeline.

**January 2005** – Heavy rains and mudslides in Southern California shut down the pipeline for nearly a week.

**March 2014** – McCarran experienced a weeklong fuel shortage after a five-day supply of jet fuel that didn’t meet standards was delivered to the airport.

These disruptions required emergency measures, such as restructuring aircraft fueling to only what was necessary for the next flight segment, reducing fuel exports to outlying areas, and delivering fuel to the valley using trucks. These types of measures, along with McCarran’s 10-day supply of fuel in reserve, allow for the short-term management of a pipeline disruption. However, they would be difficult to sustain over a prolonged timeframe.

#### *Recommendation*

- ❖ Secure an alternative jet fuel supply for Southern Nevada. Potential sources include a second pipeline from out of state or from Fulcrum BioEnergy, which is planning to build a biofuel factory in northern Nevada that will process garbage into fuel for aircraft.

#### *Requested Actions for the Governor’s Office and Legislature*

- ❖ **To Be Determined**

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<sup>5</sup> Blue Ribbon Commission to Improve the Reliability of Southern Nevada’s Fuel Supply, *Summary Report*, October 2006.



**Infrastructure Issue, Recommendation, and Cost Summary**

<b>Issue</b>	<b>Recommendation</b>	<b>Timeline</b>	<b>Estimated Cost</b>
Southern Nevada relies on a single source of aviation fuel, making air travel vulnerable to supply interruptions.	Secure an alternative aviation fuel pipeline to the region	Short-term; risk is immediate	Not provided during testimony

**Surface Transportation Near McCarran**

*Findings*

Unlike many other U.S. airports, McCarran handles a large share of passengers who are either beginning or ending their trips rather than connecting to other flights. About 90 percent of McCarran’s passengers fall into the category of O&D passengers, making it the second-busiest airport in the U.S for total O&D passengers. McCarran accommodates about 40 million O&D passengers a year, moving them not only through its gate, baggage claim, and ticketing areas, but also facilitating their transportation to and from the airport grounds.

Currently, all modes of transportation to and from McCarran involve using surface streets, putting strain on the surrounding roadway infrastructure and creating significant and frequent travel delays, particularly during peak commuting hours. Because of McCarran’s location in the urban core and its proximity to major employers in the resort corridor and the University of Nevada, Las Vegas, among others, a large share of daily traffic includes commuters mixed with airport traffic. Depending on the time of day, commuter traffic comprises as much as 70 percent of all traffic in the vicinity of McCarran.<sup>4</sup> Congestion is a regular occurrence in the area and worsens during peak times, creating extensive delays at the primary routes that carry vehicle traffic to and from the airport. Anecdotally, vehicles leaving the airport on Swenson Street during peak hours can wait as many as five or six traffic light cycles before getting through the intersection at Tropicana Avenue.

**Traffic Volumes Near McCarran International Airport**

<b>Roadway</b>	<b>Average Daily Traffic</b>
Airport Connector*	98,000
Tropicana Ave. (between Koval and Paradise)	92,000
Tropicana Ave. (between Paradise and Swenson)	64,500
Tropicana Ave. (between Swenson and Maryland)	50,000
Paradise Rd. (south of Tropicana)	36,000
Russell Rd. (between Paradise and Maryland)	26,000
Swenson St. (south of Tropicana)	25,000

\* 2013 data

Source: Nevada Department of Transportation, 2014



Traffic congestion in Southern Nevada is a reality for visitors and residents alike, and the costs associated with it extend beyond the typical frustrations that come with travel delays. In Las Vegas, the average visitor is delayed more than 19 minutes per trip because of road congestion. Multiply that figure by the 41 million people who visited in 2014, and the time lost to traffic congestion skyrockets to 13 million hours a year. After accounting for the costs of wasted time and fuel, the annual economic costs of congestion reach an estimated \$241.8 million.<sup>6</sup>

*Recommendation*

- ❖ Address traffic congestion on streets and at intersections that serve airport traffic, particularly the primary intersections for transporting passengers and employees to and from the airport, those include Swenson Street and Paradise Road intersections with Tropicana Avenue.

*Requested Actions for the Governor’s Office and Legislature*

- ❖ **To Be Determined**

Infrastructure Issue, Recommendation, and Cost Summary			
Issue	Recommendation	Timeline	Estimated Cost
Extreme congestion on roads and at intersections near McCarran create extensive delays and impact visitor experience.	Improve traffic movement and access in and around McCarran	Short to mid-term; traffic flows negatively impact corridor mobility at present	Not provided during testimony

***Taxicab Loading Area***

*Findings*

For air travelers who rely on taxicabs to transport them from McCarran to their destinations, delays often begin soon after they collect their luggage and head to the cab line. During peak demand, travelers can face extensive waits in airport cab lines. Like the delays caused by congestion on roadways, the delays while waiting for a taxicab degrade the visitor experience. Additionally, the configuration of the Terminal 1 taxicab loading area creates potential delays because it intersects with the primary pedestrian crosswalk connecting the baggage claim area with the parking garage and passenger pick up area. Airport personnel manage the intersection by coordinating the flow of incoming taxicabs with the pedestrians crossing the street. A new crossing that separates pedestrians from taxicab traffic would alleviate potential delays at this intersection.

*Recommendations*

- ❖ Pilot a system to track and display estimated wait times at the taxi queuing area using a Wi-Fi tracking system that is currently being tested for accuracy at McCarran.

<sup>6</sup> Applied Analysis, *Las Vegas Cost of Congestion*, 2013.



- ❖ Address the existing conflict between the primary pedestrian crosswalk at Terminal 1 and the taxicab traffic entering the loading area.

*Requested Actions for the Governor’s Office and Legislature*

- ❖ **To Be Determined**

Infrastructure Issue, Recommendation, and Cost Summary			
Issue	Recommendation	Timeline	Cost
Lengthy wait times at taxicab lines, particularly during peak demand, negatively affects visitor experience.	Implement system to track wait times at taxicab loading area	Short-term	Not provided during testimony
Primary pedestrian crosswalk to passenger pickup and parking garage intersects with taxicab loading area.	Address existing conflict between passenger crosswalk and incoming taxicab traffic	Short to mid-term	Not provided during testimony

***Customs Processing for Private Plane Passengers***

*Findings*

A large portion of gaming revenue is attributed to the top 1 percent of visitors, many of whom are international travelers flying to Las Vegas via private plane. Because private aircraft are generally not processed at Terminal 3, those arrivals typically do not access the regular U.S. Customs processing area. Instead, most international travelers on private aircraft are processed at a smaller Customs facility on the west side of the airfield.

McCarran has invested in upgrading this facility, and will continue to explore opportunities to develop a new west side Customs facility that would provide a better welcome experience to its users. In addition, the U.S. Customs and Border Protection’s 559 program has already resulted in increased flexibility for private and commercial aircraft to arrive at any time of day, any day of the week.

*Recommendations*

- ❖ **To Be Determined**

*Requested Actions for the Governor’s Office and Legislature*

- ❖ **To Be Determined**

Infrastructure Issue, Recommendation, and Cost Summary			
Issue	Recommendation	Timeline	Cost
International high-value gaming customers arriving via private plane are processed outside main customs area.	TBD	TBD	TBD