**Appendix Q**Regional Air Cargo Capacity Overview

## REGIONAL AIR CARGO CAPACITY OVERVIEW

One of the Proposed Project's objectives is to:

More fully utilize the operations capacity of the MIP Airport to meet regional demands for air cargo services within Southern California and the greater region, thereby alleviating congestion and overtaxed air and roadway facilities within the greater region.

The following is an overview of the factual basis supporting this Objective.

Given the time-sensitive nature of both domestic and international air cargo, shippers often select airports based on the combined ground and air transit time. Ground transit time can vary significantly, especially when carriers offer equivalent service from multiple airports. Key competitive factors for airports include availability of takeoff and landing windows at crucial flight times, gate availability, and associated fees. Access to and from air cargo facilities is a critical first/last mile issue for many airports in California.

### Operational Capacity of the MIP Airport

MIP Airport is a joint use airport that shares essential aviation facilities with the Air Force Reserves. The shared facilities include fully manned control towers, taxiways, navigation aids (NAVAIDs), and runways, ensuring comprehensive maintenance and operational efficiency. As a joint use facility, operational costs are highly competitive. Million Air provides FBO services, including Modern Jet-A and AVGAS fuel, from an executive terminal built in 2015. Airspace is non-congested, as no arrival or departure routes are "shared" by other airports within the Southern California region. This also holds true for the NAVAIDs, which utilize the Homeland Very High Frequency Omnidirectional Range Notably, Runway 14-32, at 13,300 feet, is one of the longest civilian runways on the West Coast, capable of accommodating fully-loaded freighter aircraft such as the 747-400 and AN 124 under most conditions. Landside, MIP Airport contains more than one million square feet of ramp area that is stressed to accommodate aircraft up to 900,000 pounds. This makes MIP Airport an ideal hub to serve commercial air cargo freighters, which typically operate heavy loads over long distances. The airfield adheres to FAA design standards as detailed in FAA Advisory Circular 150/5300-13 (Change 4 Airport Design) and Federal Aviation Regulations Part 77 Objects Affecting Navigable Airspace.<sup>4</sup>

MIP Airport's strategic location near the Los Angeles metropolitan area, San Diego, and Inland Empire communities facilitates efficient ground transportation. MIP Airport is accessible to four major freeways. Access to MIP Airport was upgraded from Interstate 215, as a High Priority Project through TEA-21. This \$9 million ground access project was completed in mid-2000 and further improved in 2015. MIP Airport's long primary runway and cargo apron, capable of accommodating large aircraft, combined with undeveloped adjacent land, present significant opportunities for cargo expansion. The regional location of MIP Airport has been planned and developed to assure land use compatibility with the operation of March Airfield. Major freight cargo operators ATI, ABX, and Atlas Air have scheduled service at MIP Airport, supporting Amazon Air operations. With the available capacity and uncongested airspace, MIP Airport's cargo activity has surged from 159 scheduled landings in 2018 to 1,692 in 2021, despite competition from nearby Ontario International Airport (ONT), a medium-hub, primary airport located 20 miles to the northwest of MIP Airport, as well as San Bernardino International Airport (SBD), a national reliever located

<sup>&</sup>lt;sup>1</sup> California Freight Mobility Plan 2023, p. 400; https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/cfmp/cfmp-july-2023-final-v1-a11y.pdf.

<sup>&</sup>lt;sup>2</sup> California Freight Mobility Plan 2023, p. 401.

<sup>&</sup>lt;sup>3</sup> California Freight Mobility Plan 2023, p. 135.

<sup>&</sup>lt;sup>4</sup> https://marchjpa.com/march-inland-port-airport/formation-of-mipaa/

15 miles north of MIP Airport.<sup>5</sup> The MIP Airport Service Area is defined as a ten-mile area extending outward from MIP Airport. This area encompasses portions of the surrounding cities of Riverside, Moreno Valley, and Perris.6



The FAA defines an airport's Annual Service Volume (ASV) as a reasonable estimate of an airport's annual capacity, which accounts for differences in runway use, aircraft mix, weather conditions, etc., that would be encountered over a year's time. Therefore, ASV is a function of the hourly capacity of the airfield and the annual, daily, and hourly demands placed upon it. ASV is estimated by multiplying the daily and hourly operation ratios by a weighted hourly capacity. Although many airports commonly exceed their ASV, typical guidance indicates that when an airport reaches 60% of its ASV, planning efforts should begin to remediate aircraft delays and as an airport approaches 80% of its ASV, it should start the design process to prevent aircraft delays from becoming unmanageable. MIP Airport's ASV is estimated to be 240,000 aircraft operations (landings and takeoffs) for present conditions. This estimate is determined by "Figure 2-1 Capacity and ASV for long range planning" of FAA AC 150/5060-5 (Consolidated), Airport Capacity and Delay. This analysis looks at estimated capacity with civilian and military operations combined to fully understand the overall capacity at MIP Airport. As indicated by Table 6.6 excerpted from the Draft MIP

<sup>&</sup>lt;sup>5</sup> MIP Master Plan Update – January 2024 Draft, pp. 1, 48-49; https://marchjpa.com/wpcontent/uploads/2024/01/2023-12-06\_Draft-Report-Combined-OS12824.pdf.

<sup>&</sup>lt;sup>6</sup> MIP Master Plan Update – January 2024 Draft, p. 56.

<sup>&</sup>lt;sup>7</sup> MIP Master Plan Update – January 2024 Draft, p. 9; see also Figure 3.1 RIV Airport Service Area, p. 57.

Master Plan Update, which compares the estimated ASV to forecasted annual operations, there is adequate capacity to accommodate the future ASV demand through 2041.8

Table 6.6 – Annual Service Volume Summary

Year	Annual Operations <sup>1</sup>	Annual Service Volume <sup>2</sup>	Annual Capacity Ratio (Excluding Military Operations)	Annual Capacity Ratio (Including Military Operations)
2021	5,126	240,000	2%	13%
2026	8,746	240,000	4%	14%
2031	11,966	240,000	5%	15%
2036	14,458	240,000	6%	16%
2041	17,485	240,000	7%	18%

<sup>&</sup>lt;sup>1</sup>Presented in Forecasts of Aviation Demand.

Source: C&S Engineers, Inc.

Under the March ARB/MIP Joint Use Agreement, the capacity of annual civilian air cargo operations is limited to 21,000 flight operations.<sup>9</sup> Existing civilian flight operations at MIP Airport are approximately 5,000 operations per year.<sup>10</sup> Over 75% of MIP Airport's civilian flight operation capacity is currently unused. As customer revenue, such as landing and gate fees, comprise a majority of the MIP Airport Authority budget,<sup>11</sup> increasing utilization of MIP Airport's civilian flight operation capacity will provide needed funds for airport maintenance, repairs, improvements and expansion, which would accommodate civilian flight operations under the Joint Use Agreement.

# Regional Demands For Air Cargo Services Within Southern California and the Greater Region

MIP Airport serves one of the most robust population and economic centers in the United States – the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA), now the 12th largest MSA in the country with a population exceeding 4.6 million. The Inland Empire region is projected to grow by 20%-plus over the next 25 years, significantly outpacing the Southern California average. <sup>12</sup> This growth will drive increased demand for air cargo services. <sup>13</sup> The region is a global logistics and goods movement hub, employing 200,000 people and necessitating greater air cargo capacity. MIP Airport is well-positioned to meet this demand alongside other regional airports, including ONT and SBD. <sup>14</sup>

<sup>&</sup>lt;sup>2</sup>ASV from FAA Advisory Circular 150/5060-5 (Consolidated), Airport Capacity and Delay. C&S Engineers, Inc. analysis for Runway-use Configuration 1 and Fleet Mix Index of 121-180 for 2021-2041.

<sup>&</sup>lt;sup>8</sup> MIP Master Plan Update – January 2024 Draft, p. 154.

<sup>&</sup>lt;sup>9</sup> Joint Use Agreement, Section 1(c).

<sup>&</sup>lt;sup>10</sup> KC-46A Main Operating Base 5 (MOB 5) Beddown Environmental Impact Statement Revised Draft -June 2023; https://www.kc-46a-mob5.com/content/documents/163215\_KC-46A%20MOB%205%20Volume% 20I%20Revised%20Draft%20EIS%20Chapters%201-6.pdf.

<sup>&</sup>lt;sup>11</sup> MIPAA Annual Audit Report – Year Ending June 30, 2023; https://marchjpa.com/wp-content/uploads/2024/12/Financial-Statements-MIPPA.pdf.

<sup>&</sup>lt;sup>12</sup> MIP Master Plan Update – January 2024 Draft, pg. 1.

<sup>&</sup>lt;sup>13</sup> Determinants of Air Cargo Traffic in California – Institute of Transportation Studies, UC Irvine, August 2014; https://www.sciencedirect.com/science/article/abs/pii/S0965856415001871.

<sup>&</sup>lt;sup>14</sup> MIP Master Plan Update – January 2024 Draft, pg. 1.

Air cargo traffic includes both domestic and international freight/express mail. After increasing by 16.9 percent in 2021, total revenue ton miles (RTMs) are expected to grow 2.5 percent in 2022. Because of steady U.S. and world economic growth in the long term, FAA projects total RTMs to increase at an average annual rate of 3.2 percent over the forecast period. 15 Compared to past years when air cargo was carried primarily in the belly holds of passenger aircraft, most regional air cargo is now transported by dedicated all-cargo freighters. Cargo carried by freighter is estimated to range from about 60% to 64%, depending on the season. MIP Airport has the capability and facilities to accommodate cargo operations. Economic activity, particularly in manufacturing and service-related sectors, significantly impacts air cargo demand. The presence of manufacturing and service-related employment in these regions contributes to the demand for air cargo services, as these sectors rely on timely and efficient transportation of goods. 16 The vast growth in warehouse/distribution facilities in Riverside County, primarily the Cities of Moreno Valley and Perris, make MIP Airport a viable goods movement facility for import/export businesses coming to the region, especially those within the March JPA Foreign Trade Zone. 17 According to real estate market data, there are approximately 124 million SF of combined Industrial, Flex, Office, and Retail floor space in the MIP Airport Service Area. 18 Transportation and Warehousing is also a key, highly concentrated industry that is experiencing rapid growth through the COVID-19 pandemic recovery as shifts in consumer needs and supply chain management have led to increased demand for the services provided by this industry. 19 Continued growth in the region's logistics sector will require significantly increased air-cargo capacity.

There are eight airports that provide air cargo services in the region. Collectively, these airports handled more than 3.6 million tons of air cargo in 2021. Los Angeles International Airport (LAX) and ONT handled most of the region's international and domestic air cargo during 2021, including international goods valued at \$139.2 billion. LAX ranked 3rd in the U.S. for import trade value during 2021, while ONT ranked 9th in all cargo landed weight in 2021 per the FAA. Most of the remaining air cargo moves through SBD, which is ranked 37th and growing rapidly, and MIP Airport ranked 87th. In addition, Hollywood Burbank Airport (BUR), Long Beach (LGB), John Wayne (SNA), and Palm Springs International Airport (PSP) are also located in the region and handle air cargo, but are not in the top 100.20 Overall, the demand for air cargo services in Southern California and the greater region is influenced by a combination of population growth, economic activity, infrastructure capabilities, and strategic planning to accommodate future growth. The projections indicate a robust increase in air cargo traffic, necessitating continued investment in airport infrastructure and regional planning to meet the anticipated demand.

## Congestion And Overtaxed Air And Roadway Facilities Within The Greater Region

The Southern California - Southern Nevada/Arizona corridor, a major freight gateway characterized by high truck volumes and frequent traffic congestion, includes several airports and is crucial for domestic and international trade. The region faces challenges with air cargo handling capacity, particularly LAX, which was globally the 9th busiest airport for cargo operations in 2023, with 2.4 million tons of cargo volume. Delays during peak periods are exacerbated by limited ramp space, on-airport warehouse space, and peak-period lift capacity. Despite planned improvements, it is unlikely that LAX and its regional

<sup>&</sup>lt;sup>15</sup> MIP Master Plan Update – January 2024 Draft, pg. 130 (referencing FAA Aerospace Forecast FY 2022-2042, Cargo, p. 26).

<sup>&</sup>lt;sup>16</sup> Determinants of Air Cargo Traffic in California – Institute of Transportation Studies, UC Irvine, August 2014.

<sup>&</sup>lt;sup>17</sup> https://marchipa.com/march-inland-port-airport/operations/

<sup>&</sup>lt;sup>18</sup> MIP Master Plan Update – January 2024 Draft, pg. 63.

<sup>&</sup>lt;sup>19</sup> MIP Master Plan Update – January 2024 Draft, pg. 63.

<sup>&</sup>lt;sup>20</sup> 2023 California Freight Mobility Plan, p. 350.

<sup>&</sup>lt;sup>21</sup> California Aviation System Plan 2020, pg. 202; https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/2020\_casp\_adopted\_divofaero\_01052022-a11y.pdf

<sup>&</sup>lt;sup>22</sup> https://aci.aero/2024/04/14/top-10-busiest-airports-in-the-world-shift-with-the-rise-of-international-air-travel-demand/

highways will fully accommodate the forecasted air cargo volume growth, much of which will originate from the Inland Empire.<sup>23</sup> Many existing air carrier airports lack the space to accommodate the extensive warehousing, manufacturing, and intermodal facilities that are associated with state-of- the-art cargo-handling airports. MIP Airport has the land and ability to construct high-tech manufacturing/distribution centers with intermodal capabilities, or "inland port."<sup>24</sup> In the FAA's 2023-2027 National Plan of Integrated Airports System (NPIAS) report, MIP Airport is classified as a military owned, national reliever airport. National reliever airports are located in metropolitan areas near major business centers and are so designated in order to reduce congestion at major airports nearby.<sup>25</sup>

## Conclusion

The strategic location and operational capacity of MIP Airport make it a critical component in addressing the growing air cargo demands of the Southern California region. By leveraging its existing infrastructure and expanding its capabilities, MIP Airport can significantly alleviate congestion and enhance the efficiency of air cargo services in the area.

<sup>&</sup>lt;sup>23</sup> https://marchjpa.com/march-inland-port-airport/operations/

<sup>&</sup>lt;sup>24</sup> https://marchjpa.com/march-inland-port-airport/operations/

<sup>&</sup>lt;sup>25</sup> MIP Master Plan Update – January 2024 Draft, pg. 3.