



Global Market Advisors

Strategies to Grow International Tourism into
Las Vegas and Stimulate Economic Activity

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Table of Contents

I. INTRODUCTION	1
II. HOW FREIGHT MOVES	3
FREIGHT FORWARDERS	3
INTEGRATED CARRIERS.....	4
NON-INTEGRATED AIR CARGO CARRIERS	5
TRENDS IN FREIGHT.....	5
III. THE KINDS OF PLANES THAT MOVE PEOPLE AND CARGO	6
NARROW BODY	6
WIDE BODY	6
DEDICATED FREIGHTER.....	6
IV. OVERVIEW OF SOUTHWEST UNITED STATES AIR CARGO	8
V. CRITICAL SUCCESS FACTORS IN ATTRACTING FOREIGN AIR CARRIERS	9
24/7 OPERATIONS	9
HIGHWAY ACCESS	9
COMMON USE CARGO FACILITIES.....	9
WIDE BODY PASSENGER OPERATIONS.....	9
EXTENSIVE DOMESTIC NETWORK	10
COLD STORAGE FACILITIES.....	10
CENTRALIZED CARGO SCREENING FACILITY	10
VI. MCCARRAN INTERNATIONAL AIRPORT FREIGHT FACILITIES	11
VII. WHY MCCARRAN NEEDS FREIGHT	13
VIII. MCCARRAN AS A GATEWAY CITY.....	15
TERMINAL 3.....	15
COMMON USE CARGO FACILITIES, APRONS AND RUNWAYS	15
EXCELLENT HIGHWAY ACCESS TO REGIONAL MARKETS.....	16
LAS VEGAS AS A TOURISM DESTINATION	16
LAS VEGAS AS A GATEWAY CITY	16
FREIGHT CONNECTIVITY	16
GROWING DEMAND FROM BUSINESS TRAVELERS	17
24/7 OPERATIONS	17
SUPERIOR COST STRUCTURE OVER LAX.....	17
IX. THE KIND OF FACILITY THAT LAS VEGAS NEEDS	18
CENTRALIZED CARGO SCREENING FACILITY	18
REFRIGERATION	18
ADDITIONAL CARGO BUILDING	18
X. CONCLUSION	19
XI. REFERENCES.....	21
XII. DISCLAIMER	22
XIII. ABOUT GLOBAL MARKET ADVISORS	23



I. INTRODUCTION

Few would argue that sustained growth in air passenger volume into Las Vegas is a critical factor in the health and vibrancy of the Southern Nevada tourism industry. While McCarran International Airport (“LAS”) continues to enjoy steady growth in domestic passenger volume, growth in international traffic has experienced a far higher rate in the last five years, fueled by the opening of the new international terminal and marketing initiatives by the Clark County Department of Aviation. International visitation grew from 14% of total visitor volume in 2009 to 20% in 2013.¹ International tourism continues to represent the greatest opportunity for new market growth, particularly visitors from Asian countries.

Asian visitors have traditionally used Los Angeles International Airport (“LAX”) and San Francisco International Airport (“SFO”) as their gateway cities into the United States. Notwithstanding, LAS has succeeded in attracting a modest amount of direct flights from Asia. Korean Airlines (“KAL”) now offers four non-stop flights a week from Seoul on wide body aircraft, having added a flight in June of this year. The airline has enjoyed a 12.4% increase in passenger volume on the route for the first six months of 2015 compared to the prior year period.² Philippine Airlines had previously offered wide body direct service from Manila to LAS (stopping to service the plane in Vancouver) but discontinued their four weekly flights in 2013.

There is much to like about visitors from Asian countries. They stay longer and spend more than domestic travelers. They have a higher propensity to gamble and also include non-gaming activities in their travel itineraries. They also have plans to travel more. In a recent report, Credit Lyonnais Securities Asia (“CLSA”) estimates, “By 2020, outbound mainland tourist numbers will reach 200 million, double the 100 million who left China in 2013, and tourist spend will triple.”³ The CLSA report further stated that “The USA received 1.5 million mainland Chinese visitors, the largest number on record, and expects travel numbers to reach 5.7 million by 2020.”⁴

The challenge that the Clark County Department of Aviation and Las Vegas tourism industry leadership face is how to attract more Asian airlines to Las Vegas. A second challenge is to attract carriers that can commit to year-round schedules rather than

¹ Las Vegas Visitors Profile, Las Vegas Convention and Visitor’s Authority (LVCVA), 2013. P. 80.

² “McCarran Passenger Traffic Jumps in June,” www.mccarran.com, June 2015.

³ <https://www.clsa.com/about-clsa/media-centre/2014-media-releases/outbound-chinese-tourists-to-double-by-2020-propelling-global-growth-in-travel-related-sectors.php>.

⁴ CLSA.



seasonal flights. Finally, how can airport leadership convince airlines to schedule those flights to arrive and depart on days other than Thursdays and Sundays, Terminal 3's ("T-3") busiest days?

What LAS needs are airlines that maintain regularly scheduled, year-round service from key Asian markets that serve both leisure and business travelers. Airlines that operate charter flights tend to target value-driven tourists; will enter or leave a market solely on seasonal demand; and will schedule flights only on those days that appeal to leisure travelers (e.g., Thursdays and Sundays). Airlines that target business travelers as well as tourists offer longer commitments to the market and schedules that evolve around those types of customers.

KAL's passenger volume growth into LAS offers clues into how tourism leadership can attract new airlines to LAS. KAL is the largest air freight operator in Asia with the airline deriving 25% of its gross revenue from transporting freight.⁵ While the airline operates a substantial number of freighter aircraft, its wide body passenger jets are capable of carrying fifteen tons of cargo along with 250 passengers.⁶ The planes that KAL flies into and out of Las Vegas carry not only passengers but also a substantial amount of freight, and it is that freight that represents a key component of KAL's business model. That model can be summarized simply as, "Fill the belly of the plane, fill the front of the plane, and then fill the back of the plane." In other words, fill the belly of the plane with freight; fill the front of the plane with business travelers who are willing to spend substantially more for business class seats, and then fill the back of the plane with price-sensitive leisure travelers.

This paper examines market factors that drive Asian air carriers to select particular destinations and how the intercontinental airline model differs from the domestic model. It also examines the concept of using freight services to attract more passenger traffic from Asia. This paper does not advocate repositioning LAS to accommodate freighter aircraft or become a major air freight hub, but it does propose strategies that would make LAS more appealing to Asian based carriers by improving the airport's freight handling facilities to allow those airlines to generate revenue from the belly, the front, and then the back of their planes. This strategy would increase the number of tourists to Las Vegas while simultaneously diversifying the Las Vegas economy by attracting other demand generators, including international business travelers and international cargo transport.

⁵ Korean Airlines Annual Report, 2014.

⁶ In comparison, a 747-8 Freighter can carry 115 tons of freight.



II. HOW FREIGHT MOVES

The vast majority of freight to and from Asia is transported by ships. Nonetheless, air freight remains an important form of freight transport, particularly for perishable goods (e.g., fresh fish, flowers); goods that have a high value to weight ratio (pharmaceuticals, electronics); goods that must be shipped because the opportunity cost of not having them are significant (replacement machinery, stock-outs); items that are susceptible to theft, and products whose demand is unpredictable and would require delivery on very short notice.⁷

When an individual or company wants to ship goods overseas via air, they have two basic options: a freight forwarder or an integrated carrier.

FREIGHT FORWARDERS

A freight forwarder is a company that manages shipments to get goods from the manufacturer or producer to a market, customer or final point of distribution. International freight forwarders typically contract with a trucking firm to pick up goods from a client; bring those goods to their warehouse facility (often near an airport); review and prepare essential documents (commercial invoice, shipper's export declaration, bill of lading, etc.) required by the carrier or country of export/import; consolidate those goods with other shipments onto pallets; contract with air carriers, and deliver those goods to the airport where the chosen air carrier loads those goods onto the appropriate airplane. Upon arrival at the destination airport, the freight forwarder handles customs matters, retrieves those goods from the airport, separates individual shipments, and arranges for final delivery of those goods.

Freight forwarders consolidate shipments from a number of shippers, thereby increasing their negotiating influence with air carriers for rates. Freight forwarders control the routing of commodity flows and can direct their movements to the airports and air carriers of their choice. Depending on the size of the shipment and airline schedules, the freight forwarder may place their shipments on an air freighter or a wide body passenger jet.

All cargo that is placed on passenger planes must be screened, just like passengers and luggage; however, because of physical constraints, not all screening can take place at the airport. To relieve this bottleneck, the Transportation Security Agency ("TSA")

⁷ Phoenix Regional Air Cargo Planning Study, January 2014.



implemented a Certified Cargo Screening Program (“CCSP”), which offers freight forwarders the option to pre-screen cargo prior to arrival at the airport. In order to qualify for CCSP, freight forwarders must purchase and maintain their own screening equipment, train and certify employees to screen cargo, and guarantee chain of custody from the point that the freight is screened to the time it is delivered to the air carrier. As an example, freight arrives at a freight forwarder’s facility; the contents are placed through an oversized screening device (capable of accommodating a pallet) and inspected by a certified agent. The freight is then consolidated with other shipments; and kept secure until delivery to the air carrier. As long as the chain of custody is maintained, a freight forwarder can also transport freight to an alternative airport if schedules, costs and airplane capacity offer a more favorable solution.

Not all freight forwarders have the resources to provide their own CCSP near every airport. They must rely on screening systems that are available at the airport. In such cases, pallets of freight are delivered to a centralized air cargo screening facility where it is screened by TSA agents, and then assembled for loading by the air carrier. When on-airport screening equipment is not available, such as at LAS, there is a natural incentive for forwarders to route cargo to the nearest large cargo gateway airport, most often LAX, where screening equipment is available.

INTEGRATED CARRIERS

An integrated carrier provides the complete suite of services that is required to transport goods internationally from point of origin to its final destination. Federal Express (“FedEx”) and United Parcel Service (“UPS”) are the largest integrated carriers. Unlike a freight forwarder, integrated carriers own or control all of the assets needed to transport goods from the point of pickup to the final destination. The integrated carrier picks up the goods to be shipped from the point of origin in their own trucks; takes those goods to a centralized sorting facility; processes all of the necessary documentation; screens the freight at their facility (most often at an airside facility); and directs the goods to one of their aircraft. Upon arrival at the destination airport, the integrated carrier manages the customs declaration process; takes the shipment to their destination sorting facility; places it on the appropriate truck, and delivers the shipment to the recipient.

Integrators have grown into large and very efficient operations, utilizing a hub and spoke model. They can pick up a shipment anywhere in the United States and deliver it to any



place in the world. FedEx and UPS are the dominant integrated carriers in the United States.

NON-INTEGRATED AIR CARGO CARRIERS

Another kind of freight carrier is a non-integrated air carrier that operates freighter aircraft between intercontinental destinations. Non-integrated air cargo carriers provide airport to airport transportation services. They are only responsible for transporting goods from the origin airport to the destination airport. The shipper, freight forwarder or the shipper's representative manages all documentation, and arranges for delivery to the airport and retrieval at the destination airport. Non-integrated air cargo carriers include companies that only operate freighter aircraft and air carriers that utilize both dedicated freighter aircraft and wide body passenger aircraft that provide substantial belly cargo space. Singapore Airlines, EVA Air, KAL and Lufthansa are examples of such operators.

TRENDS IN FREIGHT

Freight forwarders continue to adopt technology to reduce costs and find the most efficient and effective way to ship goods. Technology allows the freight forwarder to: calculate the cost of trucking goods from the shipper to their consolidation facility; the optimal method of screening cargo; the cost of transporting goods to the air carrier; the price that different air carriers are charging on a given day; available cargo space, estimate time of delivery, and determine the optimal shipping option. Given any combination of factors, a freight forwarder may move goods destined to an overseas destination to one of several air carriers operating at one of several airports.

The number of non-integrated air cargo carriers solely utilizing dedicated freighter aircraft appears to be on the decline. Some dedicated air cargo carriers have ceased operations while airlines that operate both wide body passenger aircraft and freighters have reduced the number of dedicated freighters.

Dedicated freighter aircraft have unique advantages, primarily in their ability to accommodate large items that cannot fit into the belly of a wide body aircraft. Notwithstanding, wide body passenger aircraft do offer copious amounts of freight capacity that airlines need to fill in order to optimize the profitability of each flight.



III. THE KINDS OF PLANES THAT MOVE PEOPLE AND CARGO

NARROW BODY

Narrow body aircraft such as the Boeing 737/757 and Airbus 319/320/321 series are designed to primarily accommodate passengers. While they have the ability to carry cargo, their capacities are limited since passenger baggage takes priority over freight. Furthermore, narrow body aircraft have limited space and cannot accommodate pallets or containers, referred to as unit load devices (ULD's). This means that freight must be loaded loosely by hand rather than mechanically in containers. Airlines such as Southwest have robust domestic air cargo operations in which loose cargo is loaded into the bellies of their passenger jets.

Smaller regional jets have extremely limited cargo capacities, and as more of these types of aircraft are deployed, air freight shipping options become more limited. This in turn has led to a greater reliance on trucks to move air freight bound to international destinations to gateway airports. Generally, a 500 mile radius defines the distance that a truck will travel to deliver goods to a gateway airport.

WIDE BODY

Wide body aircraft are prevalent on international routes and include Boeing's family of 747, 787, 777 and 767 series passenger jets, MD-10/11, and Airbus A-330, A-340, A-380 series of aircraft. They feature two aisles in economy class and their cargo holds are capable of accommodating pallets and ULD's. While they have copious amounts of baggage and freight capacity, the maximum height of ULD's that wide body bellies can accommodate is 64". Items that cannot fit into these ULD's must travel on a freighter.

DEDICATED FREIGHTER

Dedicated freighters are primarily comprised of wide body aircraft that are configured to handle cargo on both the main deck and lower cargo hold. The main deck of a freighter can accommodate larger and taller ULD's up to 96". Some models of the 747 can handle items as tall as 118".



Palletized cargo and ULD's are loaded onto a Thai Airways 777 passenger aircraft



Pallets and ULD's bound for loading onto a wide body aircraft



IV. OVERVIEW OF SOUTHWEST UNITED STATES AIR CARGO

LAX is the dominant gateway airport for international air freight. LAX has long been a consolidation and distribution point for international cargo. The airport accommodates a large number of freighter aircraft as well as wide-body passenger planes that fly to virtually every gateway city in Asia. LAX also has a well-established freight-forwarder base. By consolidating cargo at gateway cities such as Los Angeles, freight forwarders can be assured that adequate airlift capacity will always be available, even if some flights are cancelled. Furthermore, by consolidating cargo services at LAX, forwarders can maintain pricing leverage over air carriers.

The downside to LAX offsets some of these benefits. The area around LAX is fully developed and there is little room left to expand freight forwarding services. What little land that is available for development is very expensive. Traffic congestion is another factor. Transporting perishable goods from the central valley or Inland Empire can take the better part of a day while arriving perishable goods can deteriorate as trucks plod through bumper to bumper traffic.

Given the traffic gridlock around LAX, and the high costs of doing business in that area, some freight forwarders will divert goods to LAS. This is one of the reasons why Korean Airlines added an additional flight to its weekly travel schedule. A sufficient number of freight forwarders have found it more expedient to assemble goods for shipment at their facilities near LAX, screen them, and then truck them to LAS (while maintaining chain of custody) for shipment on one of KAL's four weekly flights to Seoul.

The movement of goods destined for overseas markets via air often takes rather circuitous routes. For example, goods produced in Salt Lake City will be trucked by a freight forwarder to a facility near LAX, screened and palletized, then transported to LAS by truck and loaded into the belly of a wide body passenger jet. Goods emanating from Phoenix to Seoul may take a similar route, traveling to Los Angeles where it is screened and consolidated, and then transported to LAS for transcontinental shipment. Given the demand for international freight and considering the more convenient location of LAS versus LAX for many cities in the southwest United States, a significant opportunity exists for Las Vegas to attract this international freight business, and increase the number of passenger flights to and from Asia.



V. CRITICAL SUCCESS FACTORS IN ATTRACTING FOREIGN AIR CARRIERS

In order to attract international air service from foreign flag carriers, a domestic airport must have a number of attributes, not the least of which is an attractive destination that holds appeal to both tourists and business travelers. It must also offer immigration services, have the capacity to handle wide body aircraft and facilities that allow airlines to fill the bellies of their aircraft with freight. Factors that are critical to handling international freight requires additional attributes include the following.

24/7 OPERATIONS

Like domestic airlines, Asian and European airlines utilize hub and spoke business models. An airplane departing a west coast gateway city at midnight will arrive into an Asian gateway city at 6:00 am to allow for connections to other Asian cities. Likewise, an evening departure from Asia will arrive into the US in the late evening. As such, any airport that is intent on servicing international wide body aircraft must be able to accommodate late night arrivals and departures as well as provide customs facilities that can operate late into the night.

HIGHWAY ACCESS

Since freight is delivered by truck, sometimes from up to 500 miles away, an airport must offer easy access to the interstate highway network. Rail access is not a critical success factor for air freight since goods shipped by plane are usually transported to their final destination by trucks. Convenient access to the interstate highway network along with the ability to move quickly along that network is critical.

COMMON USE CARGO FACILITIES

Once screened, freight must be assembled into pallets or loaded onto ULD's, which are in turn loaded into the bellies of wide body aircraft. A common use cargo facility allows multiple airlines to share in the use of the facility and allows a number of freight forwarders to deliver freight for screening and shipment.

WIDE BODY PASSENGER OPERATIONS

Any airport intent on attracting international air service must have runways, a passenger terminal and aprons of sufficient size to accommodate wide body aircraft.



EXTENSIVE DOMESTIC NETWORK

Once freight arrives into a gateway airport and clears customs, there are two choices that a shipper can make: 1) load the freight onto trucks, or 2) transfer the cargo to domestic narrow body aircraft. An airport with a large number of flights to other domestic destinations allows time-sensitive cargo to move quickly and efficiently to its final destination. Passengers transiting through a gateway airport to destinations in other parts of the US also require flights to a large number of US airports.

COLD STORAGE FACILITIES

Sizable portions of what is shipped via air are comprised of perishable food items and pharmaceuticals that require refrigeration. In order to attract wide body aircraft that may carry perishable goods in their bellies, the airport must provide a temperature controlled facility that allows for the storage of those perishable goods prior to shipment, and after arrival, until the goods clear customs and are loaded onto refrigerated trucks.

CENTRALIZED CARGO SCREENING FACILITY

Of all factors that are critical to the success of an airport seeking to attract wide body aircraft with an air cargo component, no one factor is more important than a centralized cargo screening facility. While the largest of freight forwarders maintain their own screening equipment near gateway airports such as LAX under CCSP, it is an expensive undertaking for one freight forwarder. A centralized cargo screening facility allows multiple freight forwarders to transfer goods directly from the point of pick up to an intermediary point of consolidation, and then to the common use cargo facility for screening and loading. Today, goods emanating from Salt Lake City or Phoenix are trucked to facilities in Los Angeles, screened, palletized, and then taken to LAX. An on-airport or proximate-to-airport screening facility also allows for the handling of late arriving cargo or extremely time sensitive/perishable cargo.



VI. MCCARRAN INTERNATIONAL AIRPORT FREIGHT FACILITIES

LAS is the ninth busiest airport in North America, at 42 million annual passengers.⁸ While competitive on the passenger side, the airport also continues to expand air cargo, with 210,000 square feet of cargo and shipping facilities, serving more than 100,000 tons of cargo a year.⁹ The high passenger volume at the airport enables LAS to offer a significant amount of available belly space for air cargo. Furthermore, the abundance of belly cargo capacity available due to these air services gives LAS the potential to effectively compete for air cargo in the greater southwest region, with the advantage being that Las Vegas is very cost competitive, specifically related to warehouse and distribution space, and is accessible to various southwest destinations, including Phoenix, Salt Lake City and Southern California.

The Marnell Air Cargo Center sits on approximately nineteen acres near McCarran International Airport's T-3. The cargo center opened in 2010 and is located on the east side of the airport, with direct access to loading facilities for both trucks and airplanes. The facility sits within Foreign Trade Zone 89 and is eligible to activate portions of its facilities for the handling of international freight. Current tenants include: UPS, US Airways, Airport Terminal Services, Allegiant, Worldwide Flight Services, Inc., Southwest Airlines, and FedEx. In 2013, commercial passenger carriers transported 37 percent of the air cargo that passed through LAS. The vast majority of remaining cargo was transported by integrated freight carriers.

LAS also offers wide body passenger service from several airlines including Hawaiian Airlines, British Airlines, KAL, and Virgin Atlantic. The abundance of belly cargo capacity gives LAS the potential to effectively compete for air cargo with other airports in the southwest United States.

The cargo center is less than two miles from Interstate 15, allowing trucks egressing the facility to quickly access the interstate highway system. LAS is also within a one day's drive of multiple air cargo markets:

- Los Angeles, California : 275 miles
- Salt Lake City, Utah: 330 miles

⁸ Federal Aviation Administration (FAA), 2014.

⁹ McCarran International Airport (LAS), 2014.



- San Francisco, California: 560 miles
- Phoenix, Arizona: 255 miles

What Marnell Air Cargo Center lacks today is a facility that can be used by freight forwarders to screen cargo prior to loading onto aircraft. The expense of such a screening system is prohibitive for one freight forwarder, but a facility and screening system that can be shared by multiple users would dramatically enhance LAS's attractiveness as a cargo center to freight forwarders.



VII. WHY MCCARRAN NEEDS FREIGHT

International air carriers utilizing wide body aircraft operate on a different business model than domestic carriers. Wide body aircraft offer a number of unique advantages over narrow body aircraft. Their range is far greater, allowing them to travel in excess of 7,000 miles without refueling (e.g. LAS-Hong Kong). Passenger capacity is also greater, and that allows airlines to configure their aircraft to accommodate up to three classes of service. The girth of a wide body fuselage also creates a larger cargo hold, capable of accommodating ULD's that can be pre-loaded in a landside facility, transported to the aircraft and loaded mechanically into the plane's belly in a relatively short amount of time. Wide body aircraft also afford the airline the ability to carry a lot of weight.

Because of these attributes, a wide body aircraft can serve multiple market segments, including leisure travelers seeking value air transportation, business travelers who require more comfort and space (and are willing to spend substantially more for that space), and freight. If an airline can be assured that it can fill the belly of the plane with cargo, and business class seats with price-elastic business travelers, then it can offer value pricing to its economy class customers. The business model can be summarized as follows, "Fill the belly of the plane, fill the front of the plane, and then fill the back of the plane," or "you make your money up front and in the belly."

Regular scheduled wide body air service also differs from wide body charter service and airlines that offer seasonal service to Las Vegas. Charter/seasonal operators (e.g., Edelweiss, Thomas Cook, MagniCharters) shift their aircraft to different markets depending on the season and where tourism demand is strongest. They do not rely on cargo or business travelers, but rather focus their marketing efforts solely on leisure travelers. They schedule their flights to arrive during peak leisure demand periods (e.g., Thursdays and Sundays) and will quickly abandon a market when demand slackens. Cargo handlers have no interest in these kinds of carriers since they do not offer regularly scheduled service throughout the year, and business travelers avoid them since they do not offer year-round schedules, premium seating, loyalty programs, or connectivity to international hubs.

Mainline foreign flag air carriers (e.g., Korean Airlines, EVA Air) schedule their flights to intersect with peak travel times at their home hubs. A plane departing LAS at midnight will arrive in an Asian gateway city at 6:00 am, allowing for morning connections to regional Asian destinations. Conversely, a flight departing an Asian hub airport in the early evening (peak connection time) can gather passengers from multiple departure points throughout



Asia, load them onto a wide body plane at their hub airport, and transport them to the western United States, arriving at mid-evening.

Mainline carriers, with their dependable year-round schedules, are ideal for LAS and Las Vegas hotel operators, with each plane delivering upwards of 300 passengers in the mid-evening time period. Foreign flag carriers also are not dependent on Thursday and Sunday arrival/departures, which allows LAS's T-3 to accommodate demand across more days of the week and during different day-parts. They are also ideal for freight handlers since arriving freight can be cleared through customs, loaded onto trucks, and be en-route to their final destinations before morning traffic starts.

By providing a facility that can accommodate more kinds of international freight and one that attracts more freight forwarders, LAS can then attract more international wide body aircraft and substantially grow tourism volume.



VIII. MCCARRAN AS A GATEWAY CITY

LAS is an ideal destination for international airlines operating wide body aircraft and is close to being an ideal airport for a number of Asian airlines.

TERMINAL 3

T-3 was specifically designed to accommodate wide body aircraft from international destinations and it remains underutilized except during the peak demand days of Thursdays and Sundays. It offers outstanding immigration and customs facilities and is capable of processing large volumes of arriving passengers. Once those arriving passengers are processed, they can be quickly transported and checked into the city's hotels. Passengers can also easily access late night domestic flights to regional destinations departing from T-3. In fact, transferring to a domestic flight at T-3 is far easier for arriving passengers than at LAX, where transferring passengers navigate narrow sidewalks and long walking distances to the airport's various terminals.

T-3 can accommodate a substantial number of additional flights, particularly those arriving at mid-evening and departing at midnight. It has the capacity both at the terminal and on its runways.

COMMON USE CARGO FACILITIES, APRONS AND RUNWAYS

LAS already provides a modern common use air cargo facility within close proximity of T-3, although it still lacks some features that are essential in attracting more freight traffic. The airport also has appropriately sized aprons that can accommodate additional wide-body aircraft. LAS also has one of the longest runways in the Western United States that even exceeds the longest runway at LAX. With the possible exception of the A-380 aircraft, today LAS can accommodate virtually any kind of wide body passenger aircraft.¹⁰

¹⁰ The A380 is considered a Design Group 6 aircraft, while the 747 is a Design Group 5. The different designations address tail heights, lengths and wingspans of different aircraft types. The biggest problem at LAS is that the taxi strips leading to the gates are too close to each other for safe clearance of Design Group 6 aircraft with other planes. While it is conceivable that LAS could accommodate a Design Group 6 aircraft, it would take additional planning.



EXCELLENT HIGHWAY ACCESS TO REGIONAL MARKETS

LAS offers quick access to Interstate 15 and US 93/95, allowing trucks to move cargo quickly into and out of the Las Vegas Valley. The highway network allows for the quick movement of goods to and from Los Angeles, the Inland Empire, Salt Lake City, Albuquerque, and Denver. As improvements are made to US 93, access to Phoenix will also improve.

LAS VEGAS AS A TOURISM DESTINATION

Las Vegas remains one of the most popular tourism destinations in the United States and is poised to take advantage of the increase in tourism expected to emanate from China over the next ten years. While domestic visitation continues to grow at a slow but steady rate, growth in international tourism is expected to increase at a far greater rate. Few cities offer attractions that are as appealing to Asian tourists as Las Vegas.

LAS VEGAS AS A GATEWAY CITY

With non-stop flights to nearly every major city, and many secondary cities in the United States, Las Vegas has the potential to serve as a primary gateway city for arriving passengers from Asia. In fact, the arrival and transfer experience at LAS is superior to LAX. Passengers arriving at the Bradley International Airport at LAX must navigate narrow sidewalks and must sometimes walk substantial distances (Terminal 1 where Southwest operates and Terminal 7 where United operates are two examples). LAX also offers limited gate capacity, and wide body planes must often park at satellite aprons, forcing passengers to take buses to the main terminal.

At LAS, access to domestic check-in counters at T-3 is very convenient and, with modest improvements to schedule, equipment and service, the shuttle bus service from T-3 to T-1 is also capable of providing quick and convenient access to Southwest Airlines and other T-1 airline check-in counters.

FREIGHT CONNECTIVITY

Freight movement can also benefit from LAS's extensive network of non-stop destinations. Arriving freight bound for other regional destinations can be quickly unloaded, unbundled from ULD's and transferred to domestic airlines. While some of that freight may have to be re-screened to meet domestic TSA requirements, it could conceivably occur within the airside confines of the airport.



GROWING DEMAND FROM BUSINESS TRAVELERS

Las Vegas is far more than a leisure travel destination. The city, with more than 2 million residents, generates a substantial amount of international business travel. With the exception of Korean Airlines' flights to Seoul, business travelers flying to Asia today must fly to LAX or SFO in order to connect to outbound flights to Asia. That journey can be arduous and can easily add six hours to a trip to Asia; a delay on an outbound domestic flight (a fairly common occurrence) or misrouted luggage can easily play havoc with an international connection.

The Las Vegas business community, particularly those in the gaming and gaming manufacturing sectors, would quickly embrace additional non-stop service to Asian gateway cities.

24/7 OPERATIONS

LAS already operates on 24/7 schedule with flights arriving and departing up to and well past midnight. The airport can easily accommodate additional late night flights as could its cargo facility. The city's hotels are also well accustomed in checking in large numbers of guests at all hours. In fact, few North American cities have the workforce, work discipline and general mindset to operate on a 24/7 basis as Las Vegas.

SUPERIOR COST STRUCTURE OVER LAX

Operating freight operations in and around LAX is expensive. What little land is available for freight operations is expensive and the cost of transporting goods to and from the airport as well as airside costs are far greater at LAX than LAS.

With the appropriate mix of air cargo facilities at LAS, freight forwarders could afford to shift operations to areas around LAS. Prices for raw land as well as warehouse facilities near LAS are far lower than LAX. As long as LAS provide the necessary infrastructure and freight handling facilities, freight forwarders can shift a substantial portion of their operations to LAS.



IX. THE KIND OF FACILITY THAT LAS VEGAS NEEDS

CENTRALIZED CARGO SCREENING FACILITY

A centralized cargo screening facility, equipped with an appropriate number of screening devices and fully staffed by trained CCSP personnel, is the single most important component needed to fill the belly of the plane. With a screening facility, freight forwarders will be able to bring freight from other cities in a cost effective manner, have it screened in LAS, placed into ULD's, and then loaded onto wide body passenger planes at LAS.

The authors of this paper cannot comment on whether the current facility at LAS is capable of supporting such devices and provide the room necessary to load ULD's. What the authors do recognize is that by providing the appropriate equipment and facility at LAS, freight forwarders will immediately find LAS a more attractive place to ship goods into and out of. Airlines in turn will also realize that they will be able to fill their passenger jet bellies with freight, thereby allowing them to fully implement their business strategies.

REFRIGERATION

Refrigeration is another critical component in making belly freight work at LAS. Perishable goods, whether from the farm growing regions in Arizona and Southern California, pharmaceuticals, or temperature-sensitive electronics, require constant cool temperature. LAX's cargo facilities offer that today and it is essential that LAS offer it also.

ADDITIONAL CARGO BUILDING

While LAS boasts over 200,000 square feet of cargo space, it is not fully equipped to handle ULD's bound for international destinations. The authors of this report readily admit that they are not facility planning specialists and are not in a position to recommend the size and scope of an additional international cargo facility. Therefore, a separate feasibility study conducted by a firm with experience in this field is strongly recommended to determine the optimal location and configuration for such a facility.



X. CONCLUSION

McCarran International Airport serves as one of the best examples of an airport facility in the United States. Clark County Department of Aviation leadership has long recognized that the airport must continue to grow and evolve ahead of demand in order to better serve the hospitality industry, residents of the Las Vegas Valley, and the general business community. T-3 represents the latest example in this evolution by providing substantial domestic capacity as well as a modern international terminal.

The purpose of this paper was to offer insights on how to grow international passenger volume and to capture a greater share of passenger traffic emanating from Asia. It does so by advocating an expansion of cargo related amenities. This paper does not advocate transitioning LAS into a major cargo hub but rather propose measures to increase international passenger traffic, such as providing incentives to international carriers so that they in turn can implement their business models. For international carriers to succeed, they must generate revenues from three sources: the belly of the plane, the front of the plane, and the back of the plane. While the goal of the hospitality community and airport planners is to attract more leisure travelers (ostensibly traveling in the back of the plane); to the international air carrier, filling the back of the plane only works once the belly of the plane and front of the plane have been filled.

With a suite of cargo amenities that complement LAS's existing cargo facilities (i.e., federal inspection facility and refrigerated storage), freight forwarders will shift a greater portion of their cargo to LAS because of its lower cost structure and their ability to move goods directly from southwest cities such as Salt Lake City to LAS rather than through LAX. As freight forwarders shift cargo through LAS (ostensibly on KAL flights), other foreign flag carriers will quickly recognize that their business models can work in LAS also, and will enter the market. The hospitality industry will in turn benefit from increased leisure travelers from Asia and be better positioned to take advantage of the expected growth in leisure travelers from China.

An increase in the number of direct flights from Asia also holds the potential to increase overall business activity and foreign investment into the Las Vegas Valley. Today, travel to and from Asia generally requires transit through LAX and SFO, an inconvenient and often strenuous addition to travel days that can last over 24 hours. Non-stop service to Asian hub cities allows business travelers far more convenient and time-saving solutions, making Las Vegas a better place to establish US operations.



An increase in the number of international wide body flights from Asia into LAS will also allow the airport to evolve into a true gateway city, with more visitors transiting through LAS and on to other domestic destinations. The key to achieving these goals is to provide the appropriate amenities that allow international carriers to operate profitably.



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XII. DISCLAIMER

Global Market Advisors (“GMA”) has made its best effort to secure accurate information, however, much of the information contained in this report was received from third parties, which GMA did not validate or verify. Accordingly, GMA makes no warranty, real or implied, regarding the data contained in this white paper. This white paper also contains projections of future events based upon certain assumptions. As it is not possible to predict future outcomes with absolute accuracy, these projections should be treated only as estimates of potential future results. Actual results may differ due to unforeseen events. Consequently, GMA assumes no liability for the accuracy of these projections.



XIII. ABOUT GLOBAL MARKET ADVISORS

GMA provides clients with market feasibility studies, primary research, economic impact studies, due diligence, payroll control, operations analysis, business and marketing plan development, and player reward program design for the gaming, hospitality and tourism industries. The principals and associates of GMA have hands-on experience in nearly all aspects of the gaming and hospitality industries, including domestic and international operations, project development, marketing expertise, and detailed market analysis.

GMA is a (Nevada) Limited Liability Corporation with offices in Las Vegas, NV, Denver, CO, Taipei, Taiwan and Bangkok, Thailand. Below is the contact information for the company's partners who authored this paper.

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ANDREW M. KLEBANOW

Andrew Klebanow is the Senior Partner at GMA. Mr. Klebanow specializes in Marketing Plan and Business Plan Development, Market Research, Casino Property Analysis, Service Quality Measurement Programs and Player Rewards Program Design exclusive to the gaming and hospitality industries.

Mr. Klebanow has worked in the hospitality industry since 1975 and in the fields of marketing and business planning since 1991. He earned a Bachelor of Arts Degree at New York University and Master's Degree in Marketing from Cornell University's School of Hotel Administration.

From 1991-1993, he was the Director of Marketing at Sahara Gaming Corporation's Hacienda Hotel and Casino and Director of Marketing and Planning for the parent company's Development Group. Mr. Klebanow also worked as Director of Marketing for Alliance Gaming Corporation.



From 1996 to 1999, Andrew was Vice President of Marketing for Santa Fe Gaming Corporation, where he oversaw the marketing efforts for the Santa Fe Hotel and Casino in Las Vegas and the Pioneer Hotel and Gambling Hall in Laughlin, NV. His most recent position was that of Vice President of Marketing at Sam's Town Hotel and Gambling Hall, where he oversaw the repositioning of the 22-year-old gaming property and the re-branding of its player rewards program.

Mr. Klebanow formed his own consulting firm in 2001 and, together with Mr. Gallaway, formed Gaming Market Advisors in 2005. In 2014, Gaming Market Advisors acquired the consulting firm Galaviz and Co., and rebranded the firm as Global Market Advisors where Mr. Klebanow is its senior partner today.

Mr. Klebanow is a periodic lecturer at Cornell University's School of Hotel Administration, the University of Nevada Las Vegas (UNLV) and the University of Nevada Reno's (UNR) School of Continuing Education. Mr. Klebanow has authored over 100 articles in Indian Gaming Magazine, Global Gaming Business, In Asian Gaming and in the online gaming publication Urbino.net. He has also contributed academic papers to the Cornell University Hotel and Restaurant Quarterly and the UNLV Hospitality Journal. Mr. Klebanow has written extensively on the subject of player reinvestment. Recently, he focused his attention on casino development in urban environments and published a paper on that subject.

Over the past twenty years, Mr. Klebanow has spoken at a number of gaming conferences. More recently, he delivered a presentation on Player Reinvestment and Tiered Player Reward Program Design at the Asian Gaming Congress 2010, and on Casino Development in Eastern Russia in 2012. At G2E Asia 2010, he delivered a one-hour presentation entitled, "Say My Name: The Application of Loyalty Programs in Asia." He also served as a panelist at G2E Asia 2011 on the Korean gaming market, and in 2012, on the Manila gaming market. In 2013, he moderated a panel on marketing communications in Asia.

Mr. Klebanow has also moderated panels and shared the lecture podium at G2E Las Vegas. In 2012, he moderated a panel discussion entitled, "Risk and Rewards: Understanding Player Reinvestment." In 2013, he conducted a seminar entitled, "An Introduction to Casino Operations," and spoke as a panelist in a session on Trends in Asian Tourism.

In April of 2015, he presented a paper entitled, "Casinos and the City" at the Third Annual Asia Pacific Conference on Gambling and Commercial Gaming Research in Beijing, and



moderated a panel on Trends in Electronic Casino Marketing Communications at the Casino Marketing and Technology Conference in Las Vegas.

STEVEN M. GALLAWAY

Steve Gallaway is Managing Partner at GMA. His areas of expertise include gaming market assessments, hotel and casino feasibility studies, operational reviews, and marketing analysis.

Mr. Gallaway has spent his entire career in the gaming and hospitality industry, starting as a valet attendant and eventually rising to chief operating officer and managing partner of a casino in Colorado. Prior to forming GMA, he served as senior vice president of a hospitality consulting firm where he honed his craft in the fields of gaming market assessments and feasibility analysis. During the span of his career, Steve developed hands-on experience in operations management, organizational development, project development, business development, process improvement, contract negotiations, employee development, and customer service training.

In 2005, along with Andrew Klebanow, Mr. Gallaway formed Gaming Market Advisors. In 2014, the firm was rebranded as GMA, reflecting the company's evolution as an international gaming, tourism, and hospitality consulting firm.

Mr. Gallaway has completed over 300 feasibility studies with a strong focus on international gaming operations and integrated resort development. Mr. Gallaway has worked on more than 60 projects in Asia, Western and Eastern Europe, the Caribbean, Central America, Canada, and Australia. His knowledge and understanding of emerging markets, particularly those in Asia, has led him to advise institutional investors on new market opportunities in that region, as well as an advisor on established markets. Today, Steve's clients include most public gaming companies, investment banks, private developers and government institutions.

Mr. Gallaway is a visiting lecturer at the UNR's School of Continuing Education where he teaches a class on casino feasibility analysis and marketing measurement. He is a periodic contributor to Global Gaming Business Magazine and Indian Gaming Magazine, and has spoken at G2E Las Vegas and the Asian Gaming Congress.

Mr. Gallaway graduated from Boston College with a Bachelor of Arts Degree in Economics.



JONATHAN GALAVIZ

Mr. Jonathan Galaviz is a Partner in the firm. He manages consulting engagements to Fortune 500 clients and emerging companies in the areas of Asia market expansion, government policy, tourism strategy, and provides industry specific guidance to companies in the airline, casino gaming, and technology industries.

Mr. Galaviz regularly appears on CNBC, BBC, and Bloomberg TV and is quoted frequently by leading newspapers around the world. His clients include firms such as the Bank of Tokyo-Mitsubishi UFJ, Goldman Sachs (U.S. and Asia), CapitaLand, Deutsche Bank, Caesars Entertainment, Station Casinos (Fertitta Gaming), eSun/Lai Sun, Keppel Land (Singapore), Lend Lease (Australia) and several private equity/venture capital funds.

In 1996, Mr. Galaviz was a U.S. Senate Staffer in Washington D.C. for the Office of U.S. Senator Pete Domenici (R-New Mexico). From 1998 to 2002, Mr. Galaviz was employed in a variety management consulting roles at Spectra Corporation, Whittman-Hart and Mandalay Resort Group (now a part of MGM Resorts International). From 2002 to 2013, Mr. Galaviz was head of Galaviz & Company LLC, a strategy-consulting firm focused on assisting Fortune 500 clients with their Asian market expansion strategies.

In 2011, Mr. Galaviz served as the Interim Head of Campus for the UNLV campus located in the Republic of Singapore. He was responsible for returning the campus to profitability and enhancing its operational viability. His work at UNLV was widely praised in media and academic circles.

Mr. Galaviz serves as the President of The Economic Club of Las Vegas, a non-profit organization dedicated to non-political economic discussion. He is also a member of the National Association for Business Economics.

Mr. Galaviz holds an MBA from the Saïd Business School at the University of Oxford (England) and is a graduate of the New Mexico Military Institute. He studied finance at the National University of Singapore's School of Business as a foreign exchange student in 1997.

WILLIAM BRYSON

Bill Bryson has practiced law in New York and Taipei for over 25 years, and is recognized as a leading lawyer in the fields of gaming, hospitality, real estate development, mergers and acquisitions and financial transactions.



Bill has extensive experience in the representation of local and foreign hospitality industry clients in their operations and investments, both in Taiwan and throughout Asia. Bill has represented casino gaming companies, gaming machine manufacturers, and consultants to the industry in Taiwan and 38 other jurisdictions on a variety of issues, including:

- Corporate Structuring
- Taxes
- Employment Issues
- Marketing Restrictions
- Internet/Interactive Gaming
- Debt Collection
- Gaming Development

In connection with prior and ongoing efforts by Taiwan to legalize casino gaming, Bill has represented several gaming industry clients in connection with possible gaming development projects in Taiwan. These representations have involved due diligence on potential joint venture partners, negotiation of joint venture and deal documentation, due diligence on potential casino gaming locations, reviewing and commenting on draft laws and regulations, and preparing background materials for, and participating in, client lobbying efforts and meetings with government officials.

Bill has been acknowledged by Chambers Asia Pacific as a leading gaming lawyer in the region, and by Chambers Global as a leading lawyer in the global gaming industry. He has been a speaker at both the Asian Gaming Congress and G2E Asia, and currently serves on the Advisory Board of the Center for Research on Gaming and Lotteries, a division of the School of Business Administration at the National Taiwan University of Science and Technology.

Bill has also represented non-gaming interests in the hospitality industry, including both local hotel owners and foreign management companies. Bill's roles in such representations have included assisting local owners in the negotiation of letters of intent, hotel operation agreements, management agreements, franchise agreements, technical services agreements, and pre-opening services agreements. He has assisted foreign management companies in similar transactions as well as in termination scenarios (including related hand-over issues), and owner insolvency proceedings.

Bill's merger and acquisitions, financing and real estate experience includes many "first of a kind" deals in Greater China, including the first-ever sale/leaseback of a commercial



building in Taiwan, the first multi-jurisdiction acquisition of non-performing loans in Taiwan, the first acquisition of non-performing loans in China by a foreign investor, the first cross-border limited recourse financing led by Taiwanese banks, the first acquisition of a listed local shipping company by a foreign investor, the first acquisition of a substantial stake in a local financial holding company by a Japanese bank, the largest (by value) acquisition of commercial real estate by a foreign investor in Taiwan, and the acquisition of a local Internet Service Provider by an American internet company. Bill has been acknowledged as a leading lawyer in M&A, real estate, and finance by Chambers Asia Pacific, Asia Pacific Legal 500, and *AsiaLaw* magazine's Leading Lawyers Survey.

Along with his gaming, hospitality and transactional experience, Bill also brings with him extensive experience in public advocacy. As a member of the Government Relations Committee of the American Chamber of Commerce in Taipei, as well as his roles as Chairman of the Private Equity Committee and member of the Travel and Tourism Committee, Bill has, for the past 20 years, been a regular and central member of the Chamber's advocacy efforts on behalf of foreign companies in Taiwan. Bill's advocacy experience includes working with both local and US government officials on issues of importance to American companies in Taiwan, reviewing and revising draft legislation and regulations, developing advocacy strategies for both clients and industry groups, and being an editor of the Chamber's annual Taiwan White Paper, a collection of position papers produced by the Chamber's Industry Committees. Bill's efforts on behalf of foreign companies in Taiwan have been recognized by the American Chamber of Commerce with two Outstanding Achievement Awards.

