



System
Metrics
Group



California Air Cargo Ground-Side Needs Study

Freight Advisory Committee Meeting

September 18th, 2013



Air Cargo provides substantial revenues and jobs for the State of California.

- Identify critical aviation infrastructure and facility needs to support air cargo growth in the State.
- Identify potential landside access and egress issues that could adversely impact air cargo growth.
- Identify strategies to accommodate growth.

Primary and Secondary Cargo Airports



The Focus of the Study

12 Airports Handle 93% of the Tonnage

Code	Airport	City	Total Cargo 2011	Total Cargo 2010	Percent Change
LAX	Los Angeles International Airport	Los Angeles, CA	1,688,351	1,819,344	-7.2%
OAK	Oakland International Airport	Oakland, CA	499,365	510,598	-2.2%
SFO	San Francisco International Airport	San Francisco, CA	381,887	432,488	-11.7%
ONT	Ontario International Airport	Ontario, CA	378,727	379,486	-0.2%
SAN	San Diego International Airport	San Diego, CA	128,282	120,453	6.5%
SMF	Sacramento International Airport	Sacramento, CA	65,326	66,659	-2.0%
BUR	Burbank (Bob Hope) Airport	Burbank, CA	46,259	45,131	2.5%
SJC	Mineta San Jose International Airport	San Jose, CA	39,946	44,783	-10.8%
MHR	Sacramento Mather Airport	Sacramento, CA	37,331	37,481	-0.4%
LGB	Long Beach Airport	Long Beach, CA	25,609	25,816	-0.8%
SNA	Santa Ana (John Wayne) Airport	Santa Ana, CA	14,296	13,474	6.1%
FAT	Fresno Yosemite International Airport	Fresno, CA	10,000	8,749	14.3%
	Subtotal - Top 12		3,315,379	3,504,460	-5.4%



The Key Trends Impacting Growth

- Security
- Truck Substitution
- Gateway Fragmentation
- Major Gateway Shipping
- Belly Cargo Capacity Rationalization
- Changing Distribution Systems



Historical Impact of the Trends

- LAX handled 51% of all the air cargo in the State.
- Air cargo volumes overall decreased in 2011 by 5.4% over 2010.
- Air cargo volumes in 2011 were about 75% of the tonnage handled in 2000

On-Airport Capacity Considerations

- Existing facilities at many airports are old and will need to be replaced or redeveloped.
- Freighter parking *may* be the greatest concern moving forward.
- Some truck aprons and roads are not designed for modern tractor-trailers.
- Employee and customer parking is in some instances a challenge.
- Overall, there are no anticipated infrastructure failures.

Capacity and Demand

AIRPORT	EXISTING ACREAGE ¹	FUTURE DEMAND (ACRES)	SET ASIDE CAPACITY (ACRES)	SURPLUS (ACRES)
LAX	166	158.2	0	7.8
OAK	123	39	40	124
SFO	105	49.3	0	55.7
ONT ²	180	34.5	100	245.5
SAN ³	7	16.1	32	22.9
SMF	30	5.5	0	15.5
MHR	23	4.9	43	68.1
BUR	14	4.2	0	9.8
SJC	9	3	27	33
LGB	8	1.8	0	6.2
SNA	4	1.8	0	2.2
FAT	10	1.4	59	67.5

- Notes:
- 1) Existing acreages derived from site areas in airport inventories.
 - 2) ONT operates under "through-the-fence" agreement with UPS. Existing acreage includes off-airport property.
 - 3) SAN site acreage does not include off-airport sortation buildings for FedEx, UPS and DHL.

Sources: On-site airport visit by System Metrics Group, Inc., Landrum & Brown analysis, Airport Master Plans, Airport Layout Plans, and communications with airport personnel.

Potential Access Areas of Concern

- All airports in urban areas except for Fresno lie in close proximity to freeways experiencing severe congestion or specific bottleneck locations.
 - LAX
 - Sepulveda Boulevard/I-105 interchange identified by LAWA expected to be significantly impacted by traffic by year 2025.
 - Proposed NB off-ramp improvement would require further engineering study.
 - Airport lies adjacent to I-405 and I-105. I-405 is 2nd most congested freeway in District 7 with major bottleneck at Culver Blvd. I-105 is 10th most congested.
 - OAK
 - Airport staff reports that mobility and reliability are major issues facing air cargo.
 - Airport lies adjacent to I-880 in Alameda County - 2nd most congested freeway corridor in District 4 with major freeway bottlenecks at 23rd and 98th avenues.
 - SFO
 - Airport lies adjacent to US-101 and I-380. US-101 in San Mateo and Santa Clara Counties is 3rd most congested freeway corridor in District 4.
 - ONT
 - Two major nearby bottlenecks on I-15: Philadelphia St and 4th Street.

Key Findings and Recommendations

- Overall growth of air cargo tonnage will continue to be slower than in the past.
- Four of the top 12 airports are expected to at least double their current tonnage handled over the next 30 years: ONT, SAN, MHR, and LAX.
- The capacity of the top 12 airports should be sufficient to handle growth through 2040.
 - All the airports have in place, if not formal plans, at least contingencies to address unanticipated growth.
 - In the event of substantial growth alternative airports can provide more than adequate space.
- LAX will remain the key facility but will need a redevelopment of its cargo areas.