

Summary Report



2012 AOT Air Traffic



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AOT Overview

The year 2012 started with the air traffic recovery from floods crisis that took place in previous year. The demand of passengers climbed up throughout the year, which resulted in the strong growth of passenger and aircraft movements. Moreover, the relocation of the Air Asia Group's services from Suvarnabhumi to Don Mueang since October 2012 has released the congestion at Suvarnabhumi Airport and allowed overall air traffic demand to grow.

Despite the travel demand at AOT airports surged, the air cargo was facing a slightly growth, as a result of the US and European financial crises which affected the overall trade and hence resulted in the declining number of air freight across the world.

For the management and operations of six international airports throughout 2012, Airports of Thailand Public Company Limited (AOT) handled 499,494 aircraft movements, 76.13 million passengers and 1.42 million tonnes of cargoes. The passenger traffic and aircraft movement retained strong positive growth of 14.71 and 11.13 percent versus 2011. However, aggregate cargoes reflected 2.29 percent growth as compared with previous year.

Total passengers increased from 66.37 million to 76.13 million with 14.71 percent growth. Don Mueang witnessed the traffic surge of 74.69 percent growth which benefit from Air Asias' passengers, followed by Chiang Rai (+20.57 percent), Chiang Mai (+15.75 percent), Hat Yai (+13.82 percent), Phuket (+12.68 percent), and Suvarnabhumi (+10.63 percent).

Number of Passengers			
	2011	2012	%Change
Suvarnabhumi	47,910,904	53,002,328	10.63%
Don Mueang	3,424,915	5,983,141	74.69%
Chiang Mai	3,880,037	4,491,331	15.75%
Hat Yai	1,869,113	2,127,483	13.82%
Phuket	8,467,995	9,541,552	12.68%
Chiang Rai	818,163	986,436	20.57%
Total	66,371,127	76,132,271	14.71%

As a result of passenger demand growth, the overall aircraft movements jumped to 499,494 movements (+11.13 percent) with Don Mueang registered the highest growth rate (+59.06 percent), followed by Chiang Rai (+22.67 percent), Chiang Mai (+13.98 percent), Phuket (+7.64 percent) and Hat Yai (+7.27 percent). Suvarnabhumi had a growth of 4.88 percent due to the operations of Air Asia Group moved to Don Mueang in October 2012.

Aircraft Movements			
	2011	2012	%Change
Suvarnabhumi	299,566	314,199	4.88%
Don Mueang	40,940	65,120	59.06%
Chiang Mai	32,445	36,981	13.98%
Hat Yai	14,032	15,052	7.27%
Phuket	56,673	61,004	7.64%
Chiang Rai	5,819	7,138	22.67%
Total	449,475	499,494	11.13%

The total of 1.43 million tonnes of cargoes (freight & mail) excluding transit increased by 2.29 percent. Don Mueang showed 33.60 percent growth, while Phuket grew by 28.44 percent followed by Chiang Rai (+10.43 percent), Hat Yai (+4.17 percent) and Suvarnabhumi (+1.79 percent). However, Chiang Mai experienced decreasing rate of -9.64 percent.

Cargo Volume (in Tonne)			
	2011	2012	%Change
Suvarnabhumi	1,321,853	1,345,490	1.79%
Don Mueang	5,434	7,260	33.60%
Chiang Mai	21,723	19,628	-9.64%
Hat Yai	15,733	16,389	4.17%
Phuket	26,515	34,055	28.44%
Chiang Rai	4,306	4,755	10.43%
Total	1,395,564	1,427,577	2.29%

1. Number of Scheduled Airlines

AOT served a total of 119 scheduled airlines during the year 2012, which can be divided into 106 of passengers and 13 of cargo air carriers. Details of each airport can be summarized as followed.

Number of Scheduled Airlines

Airport	Code	Passenger	Cargo	Newcomer	Suspended
Suvarnabhumi	BKK	95	13	7	2
Don Mueang	DMK	7	-	5	-
Chiang Mai	CNX	14	-	1	1
Hat Yai	HDY	7	-	1	1
Phuket	HKT	40	-	6	3
Chiang Rai	CEI	6	-	1	-

List of Newcomers & Suspended Scheduled Airlines

Airport	Newcomer	Suspended
BKK	<i>Cambodia Angkor Air, Lao Central Airlines, Lufthansa Cargo, Mandala Airlines, Scoot, Spring Airlines, Yangtze River Express Airlines</i>	<i>GMG Airlines, Shanghai Airlines Cargo</i>
DMK	<i>Air Asia, Thai Air Asia, Indonesia Air Asia, Siam GA, T'Way Airlines*</i>	-
CNX	<i>Dragon Air</i>	<i>Happy Air</i>
HDY	<i>Firefly</i>	<i>Happy Air</i>
HKT	<i>China Southern Airlines, Eastar Jet, Emirates, Virgin Australia, Junyao Airlines, Sichuan Airlines,</i>	<i>Happy Air, Mahan Air, Vaustralia</i>
CEI	<i>China Eastern Airlines</i>	-

Remark: T'Way Airlines offered its service temporarily through Don Mueang from July to August 2012.

2. Passenger Throughput

In 2012, AOT totally served 47.69 million of international and 28.44 million of domestic passengers, with a growth rate of 14.64 and 14.83 percent respectively over the year 2011. Of which the total number of AOT international passengers, 40.71 million was accommodated by Suvarnabhumi Airport, or can be calculated to approximately 85 percent of total AOT.

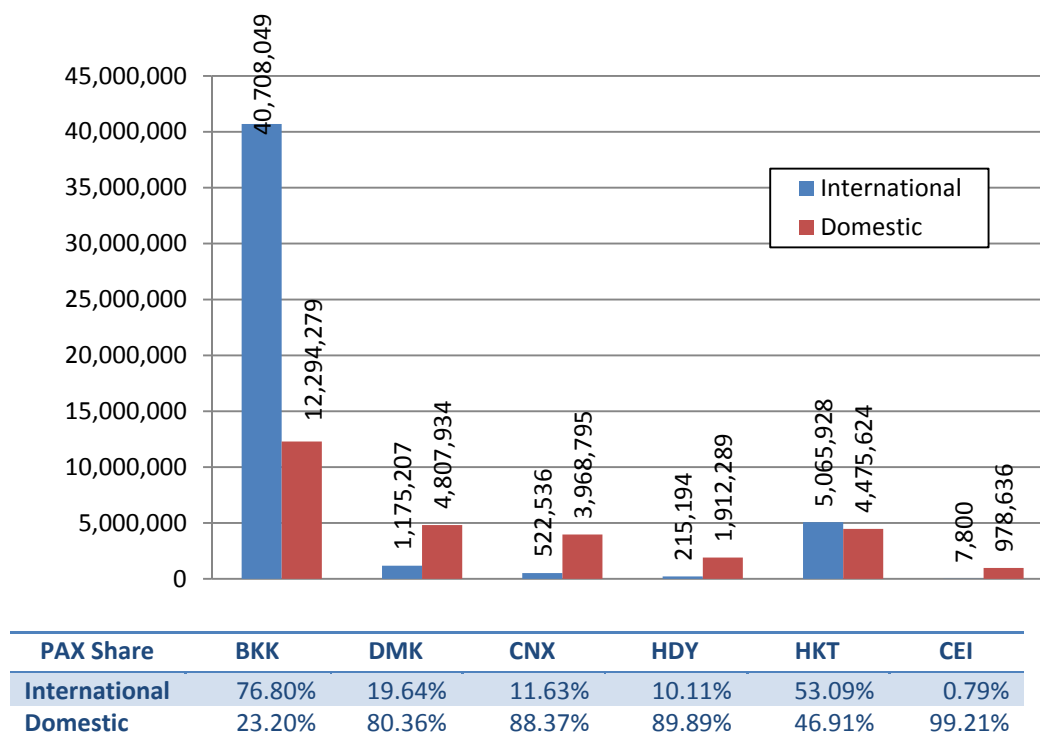
The 2012 Passenger Traffic

Airport	International	%Change	Domestic	%Change
BKK	40,708,049	11.23%	12,294,279	8.66%
DMK	1,175,207	-	4,807,934	41.66%
CNX	522,536	35.58%	3,968,795	13.57%
HDY	215,194	1.21%	1,912,289	15.44%
HKT	5,065,928	15.91%	4,475,624	9.23%
CEI	7,800	-15.78%	978,636	20.98%
Total	47,694,714	14.64%	28,437,557	14.83%

2.1 Traffic Proportion

The chart below illustrated the traffic proportion between international and domestic, showing that nearly 77 percent of passenger traffic at Suvarnabhumi was international whereas other airports handled mainly domestic traffic.

However, Phuket International Airport, as the second busiest airport of AOT had the market share between international and domestic traffic accounted by 53 : 47 percent.



2.2 Type of Passenger Traffic

Passenger traffic was carried by 2 main types of operations, scheduled and non-scheduled, for both international and domestic. Regarding domestic passengers, a pattern of all AOT airports was similar which scheduled one amounted to more than 95 percent.

The patterns of international passengers were similar for Suvarnabhumi, Don Mueang, Chiang Mai and Hat Yai to the extent which most of them were generated by scheduled traffic.

However, international passengers carried by charter operations at Phuket were almost 30 percent out of international traffic, indicating the main destination for non-scheduled charter operations. This similar figure goes for Chiang Rai where all of non-scheduled were accounted about 30 percent of international traffic as well.

Type of Passenger Traffic

	International Passenger				Domestic Passenger		
	Scheduled	Non-Scheduled			Scheduled	Non-Scheduled	General Aviation
		Charter	Technical	Business Aviation			
BKK	39,500,590	1,195,630	10,012	1,817	11,363,928	929,968	383
%Change	11.41%	6.73%	-49.33%	-0.87%	7.39%	26.94%	110.44%
DMK	972,162	193,226	1,770	8,049	4,629,577	177,195	1,162
%Change	-	688.61%	29.58%	58.51%	40.36%	90.29%	-55.27%
CNX	479,199	41,769	1,188	380	3,941,143	27,068	584
%Change	39.38%	13.01%	-15.86%	-88.20%	13.56%	11.33%	75.38%
HDY	202,734	10,837	1,187	436	1,871,848	40,349	92
%Change	1.24%	-9.37%	245.06%	560.61%	18.24%	-44.95%	8.24%
HKT	3,627,037	1,435,598	768	2,525	4,406,384	69,102	138
%Change	10.16%	33.44%	26.11%	58.81%	8.73%	56.25%	-72.51%
CEI	5,292	1,577	65	866	975,843	2,551	242
%Change	-	-81.49%	-	16.55%	23.17%	-84.35%	-28.61%

2.3 Airline Market Share

The airline market share revealed the rank of passengers carried by airlines for each airport regardless of type of operations.

For Suvarnabhumi, Thai Airways dominated international passenger traffic of 34.4 percent followed by Thai Air Asia with 5.0 percent share, and Cathay Pacific with 4.2 percent.

On the other hand, the majority of international passengers at Don Mueang were handling by Thai Air Asia, whereas Chiang Mai and Phuket were handled by Air Asia. Tiger Airways and China Eastern Airlines ranked first for international passengers carried at Hat Yai and Chiang Rai respectively.

For domestic operations, Thai Airways International still made a foothold for domestic market by topped the ranking in Suvarnabhumi, Chiang Mai, Phuket and Chiang Rai. However, Nok Air and Thai Air Asia ranked first at Don Mueang and Hat Yai respectively. The following tables disclosed the airlines ranking for each airport.

Suvarnabhumi Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	Thai Airways International	14,018,069	34.4%	12.70%
2	Thai Air Asia	2,024,370	5.0%	-14.28%
3	Cathay Pacific Airways	1,718,672	4.2%	13.41%
4	Emirates	1,434,284	3.5%	5.23%
5	Qatar Airways	884,612	2.2%	37.56%
6	Singapore Airlines	858,638	2.1%	22.69%
7	Bangkok Airways	796,257	2.0%	19.89%
8	China Airlines	778,165	1.9%	0.77%
9	Korean Air	750,652	1.8%	15.51%
10	Etihad Airways	716,848	1.8%	37.56%
11	Air Lanka	679,322	1.7%	33.79%
12	Tiger Airways	580,970	1.4%	61.84%
13	Tranaero Airlines	574,205	1.4%	28.18%
14	Japan Airlines	573,777	1.4%	29.26%
15	EVA Airways	561,335	1.4%	-6.66%
16	China Southern Airlines	512,944	1.3%	42.37%
17	Vietnam Airlines	485,498	1.2%	33.73%
18	Jet Airways	483,794	1.2%	28.84%
19	China Eastern Airlines	451,140	1.1%	17.48%
20	All Nippon Airways	407,414	1.0%	16.10%
Domestic				
1	Thai Airways International	5,933,391	48.3%	9.01%
2	Thai Air Asia	2,889,919	23.5%	-9.25%
3	Bangkok Airways	2,366,031	19.2%	17.29%
4	Nok Air	645,655	5.3%	37.31%
5	Orient Thai Airlines	404,433	3.3%	161.92%

Don Mueang International Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	Thai Air Asia	773,328	65.8%	-
2	Air Asia	137,099	11.7%	-
3	Orient Thai Airlines	90,145	7.7%	456.07%
4	Indonesia Air Asia	82,167	7.0%	-
5	Nok Air	27,340	2.3%	-
6	Business Air Center	20,735	1.8%	-
7	Penya De L'Aire	16,763	1.4%	-
8	City Airways	5,957	0.5%	-
9	Thai Airways International	5,579	0.5%	425.33%
10	T'Way Airlines	2,400	0.2%	-
Domestic				
1	Nok Air	3,120,123	64.9%	27.44%
2	Thai Air Asia	1,170,048	24.3%	-
3	Orient Thai Airlines	376,399	7.8%	-56.87%
4	Siam GA	128,413	2.7%	133.53%
5	Solar Air	6,926	0.1%	-44.66%

Chiang Mai International Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	Air Asia	143,369	27.4%	37.71%
2	Korean Air	102,834	19.7%	69.94%
3	Thai Air Asia	93,445	17.9%	21.95%
4	Silk Air	43,838	8.4%	3.83%
5	Dragon Air	28,421	5.4%	-
6	Lao Aviation	25,439	4.9%	7.58%
7	China Airlines	23,554	4.3%	-20.17%
8	China Eastern Airlines	18,365	3.5%	1.09%
9	Air Bagan	13,905	2.7%	26.69%
10	Business Air Center	12,304	2.4%	115.52%
Domestic				
1	Thai Airways International	1,492,218	33.2%	7.94%
2	Thai Air Asia	1,023,169	22.8%	14.82%
3	Nok Air	716,444	15.9%	31.40%
4	Bangkok Airways	434,246	10.9%	11.93%
5	Orient Thai Airlines	211,836	4.7%	-21.66%

Hat Yai International Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	Tiger Airways	112,721	52.4%	-1.08%
2	Air Asia	85,833	39.9%	-0.74%
3	Thai Airways International	11,036	5.1%	-9.13%
4	FireFly	4,517	2.1%	-
Domestic				
1	Thai Air Asia	723,716	37.9%	30.23%
2	Nok Air	548,541	28.7%	9.34%
3	Thai Airways International	444,597	23.3%	18.75%
4	Orient Thai Airlines	195,080	10.2%	-11.91%

Phuket International Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	Air Asia	364,315	7.2%	8.81%
2	Silk Air	343,863	6.8%	4.59%
3	Transaero Airlines	319,198	6.3%	26.66%
4	Thai Airways International	285,589	5.6%	19.65%
5	Nordwind Airlines	259,330	5.1%	21.93%
6	Thai Air Asia	248,266	4.9%	-2.78%
7	Jetstar Asia Airways	234,387	4.6%	23.97%
8	Tiger Airways	209,714	4.1%	-1.57%
9	Malaysian Airlines	183,307	3.6%	15.58%
10	Business Air Centre	182,138	3.6%	51.13%
11	China Eastern Airlines	176,635	3.5%	10.54%
12	Korean Airlines	173,726	3.4%	-14.10%
13	Shanghai Airlines	171,885	3.4%	23.87%
14	Dragon Air	171,266	3.4%	11.72%
15	Air Berlin	147,469	2.9%	145.53%
16	Orient Thai Airlines	145,023	2.9%	244.22%
17	Mytravel Airways	141,355	2.8%	-8.50%
18	Asiana Airlines	132,487	2.6%	-13.12%
19	Hong Kong Airlines	100,552	2.0%	129.78%
20	Qatar Airways	98,958	2.0%	9.00%
Domestic				
1	Thai Airways International	1,925,366	43.0%	9.76%
2	Thai Air Asia	1,234,801	27.6%	8.08%
3	Bangkok Airways	784,752	17.5%	12.56%
4	Orient Thai Airlines	286,986	6.4%	30.34%
5	Nok Air	231,767	5.2%	-14.68%

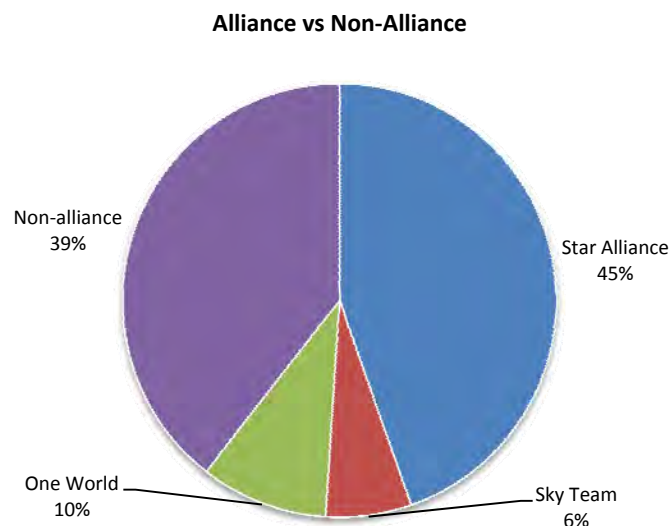
Chiang Rai International Airport

Rank	Airlines	Total Pax	%Share	%Change
International				
1	China Eastern Airlines	6,519	83.6%	-
2	China Southern Airlines	306	3.9%	-2.55%
3	Tomsonflys	220	2.8%	32.53%
Domestic				
1	Thai Airways International	399,883	40.9%	1.46%
2	Thai Air Asia	250,894	25.6%	-2.04%
3	Nok Air	218,742	22.4%	-
4	Orient Thai Airlines	107,977	11.0%	-30.37%
5	Kan Air	630	0.1%	-48.49%

2.4 Alliance vs Non-Alliance Airlines at Suvarnabhumi Airport

According to 39,500,590 international scheduled passengers at Suvarnabhumi, the alliance airlines generated 61 percent out of the total numbers, while the rest 39 percent belonged to non-alliance airlines.

The majority of airline alliances were allocated to Star Alliance which handled 45 percent of total international scheduled passengers, while the market share of One World and Sky Team accounted for 10 and 6 percent, respectively.



Remark : This figure based on the number of passengers carried by airlines. Therefore it cannot be separated by code-share passengers within, between or outside alliance groups.

Generally, all of the alliance groups experienced a high positive growth led by One World with the highest rate of 22.54 percent, followed by Star Alliance and Sky Team by 13.45 and 12.23 percent respectively.

Number of Scheduled Passengers

PAX Traffic	2011	%Share	2012	%Share	%Change
Star Alliance	15,539,385	43.8%	17,630,147	44.6%	13.45%
Sky Team	2,246,166	6.4%	2,520,954	6.4%	12.23%
One World	3,064,534	8.6%	3,755,384	9.5%	22.54%
Non-alliance	14,604,631	41.2%	15,594,105	39.4%	6.78%

2.5 Regional Passenger Growth

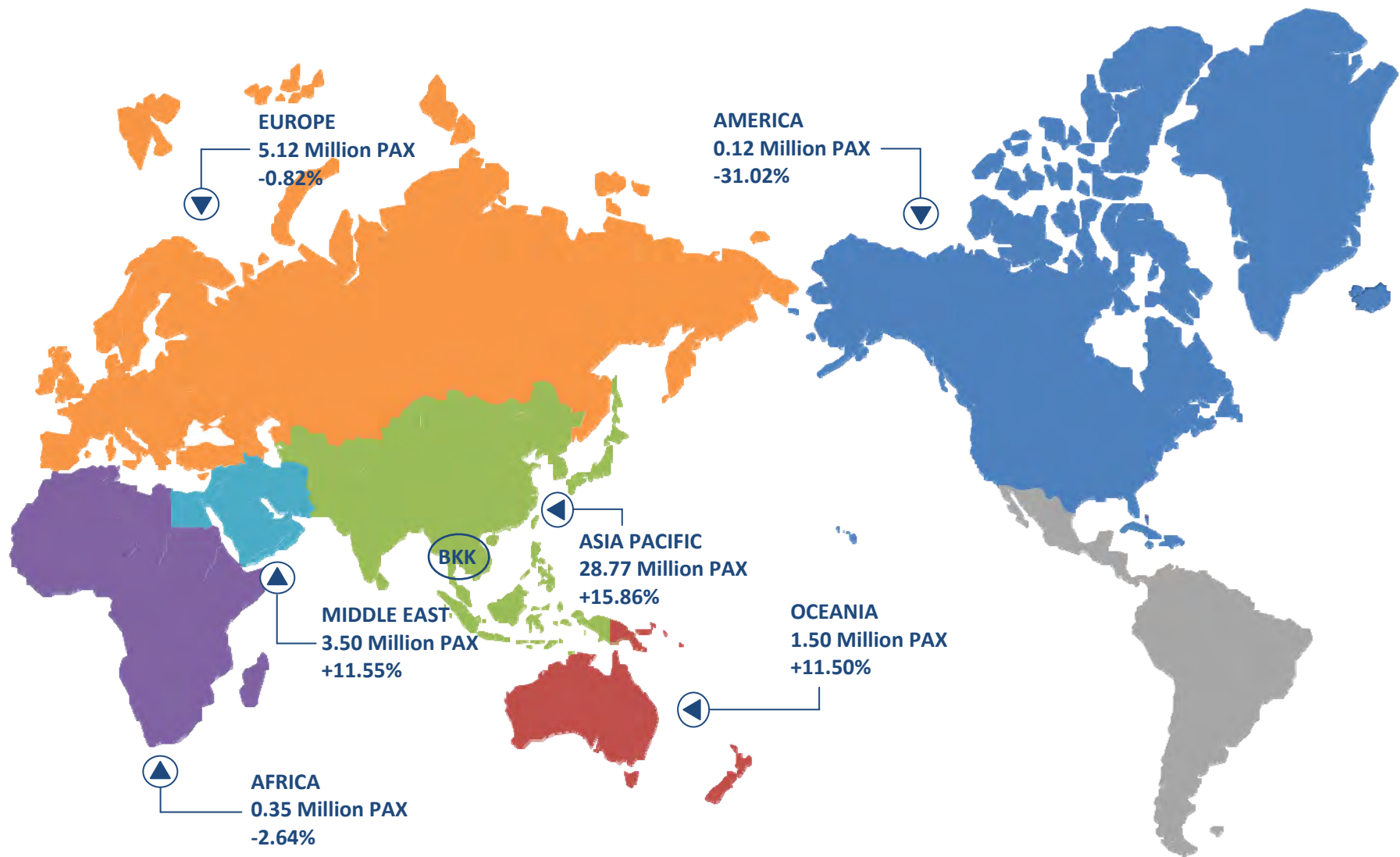
Functioning as an aviation hub of ASEAN, Suvarnabhumi Airport served international passengers to/from cities across the world. The top international flows in 2012 were to/from Asia Pacific by 73 percent share of total international, followed by Europe with 13 percent and the Middle East with 9 percent share.

Passenger traffic at Suvarnabhumi to/from Asia Pacific showed the highest positive growth of 15.86 percent, followed by the Middle East and Oceania which were increased by 11.55 and 11.50 percent. However, the America, Africa and Europe showed negative growth of passengers in 2012 of 31.02, 2.64 and 0.82 percent respectively.

On the other hand, domestic traffic at Suvarnabhumi was mainly to/from the southern and the northern part, hence the number of passengers to/from those two domestic regions in 2012 increased by 10.90 and 5.64 percent, respectively. In addition, the traffic to/from the northeastern part came in third place and became more popular with a relatively high growth of 7.78 percent.

Similar to Suvarnabhumi, domestic traffic at Don Mueang was also mainly from the southern, northern and northeastern parts of the country. For regional airports of Chiang Mai, Hat Yai and Chiang Rai, the domestic traffic was mainly to/from Bangkok.

International Traffic to/from Suvarnabhumi Airport



International Traffic to/from Phuket Airport



Phuket remains one of the most favorite tourist destinations in the region. International passengers mainly came from Asia Pacific and Europe, with 69.6 and 22.9 percent share respectively. When compared the visitor-data with the previous year, the region which showed the highest positive growth of passenger flow was the Middle East at 147.90 percent, while Asia Pacific and Europe still showed the strong growth.

Suvarnabhumi Airport

Region	2011	2012	%Change
International			
America	172,084	118,696	-31.02%
Europe	5,163,456	5,121,091	-0.82%
Oceania	1,341,001	1,495,163	11.50%
Asia Pacific	24,830,452	28,769,727	15.86%
Middle East	3,135,636	3,497,751	11.55%
Africa	363,593	353,988	-2.64%
Domestic			
North	3,111,364	3,286,725	5.64%
Northeast	1,384,231	1,491,912	7.78%
East	73,125	61,884	-15.37%
Central	98,569	83,970	-14.81%
West	239	191	-20.08%
South	6,627,926	7,350,387	10.90%

Don Mueang International Airport

Region	2011	2012	%Change
International			
America	18	28	55.56%
Europe	58	48	-17.24%
Oceania	64	262	309.38%
Asia Pacific	26,462	1,155,920	4,268.23%
Middle East	2,283	490	-78.54%
Africa	1	22	2,100.00%
Domestic			
North	750,550	1,205,429	60.61%
Northeast	641,762	1,035,778	61.40%
East	109	270	147.71%
Central	153,100	172,042	12.37%
West	248	263	6.05%
South	1,847,124	2,393,339	29.57%

Chiang Mai International Airport

Region	2011	2012	%Change
International			
Europe	3	-	-100.00%
Asia Pacific	383,854	520,150	35.51%
Middle East	102	12	-88.24%
Domestic			
North	67,999	67,914	-12.50%
Northeast	38,245	105,106	174.82%
East	36	7	-80.56%
Central	2,999,874	3,375,067	12.54%
South	389,277	420,160	7.93%

Hat Yai International Airport

Region	2011	2012	%Change
International			
Asia Pacific	200,319	203,186	1.44%
Middle East	11,958	10,837	-9.38%
Domestic			
North	93,700	103,729	10.71%
East	-	9	-
Central	1,558,070	1,806,624	15.95%
West	5	-	-
South	3,142	604	-80.78%

Phuket International Airport

Region	2011	2012	%Change
International			
Europe	1,034,196	1,156,266	11.80%
Oceania	249,245	178,069	-28.56%
Asia Pacific	2,971,224	3,518,382	18.42%
Middle East	80,421	199,367	147.90%
Africa	8	17	112.50%
Domestic			
North	259,984	276,503	6.35%
Northeast	138,815	116,802	-15.86%
East	29,609	32,050	8.24%
Central	3,506,447	3,862,083	10.14%
South	160,494	186,379	16.13%

Chiang Rai International Airport

Region	2011	2012	%Change
International			
Asia Pacific	8,827	7,351	-16.73%
Domestic			
North	1,611	818	-49.23%
East	-	5	-
Central	807,272	977,429	21.08%
South	6	7	16.67%

2.6 Passenger/Aircraft Ratio

Passenger/Aircraft ratio demonstrated average number of passengers per aircraft movement (excluding freighters). In 2012, international and domestic passengers per aircraft ratio showed a positive trend for all AOT's airports, except for Hat Yai where international ratio decreased and for Chiang Rai which both international and total ratio dropped. The growth of the ratio derived from the continued passenger-demand growth for travel as well as the larger size of aircraft services which resulted for higher load (cabin) factor, whereas the decline came from either of passenger drops or the growth of aircraft movements greater than the growth of passengers.

After Air Asia group moved their services from Suvarnabhumi to Don Mueang in October 2012, the number of smaller size aircraft (A320) operated at Suvarnabhumi diminished while number of larger average size aircraft (e.g. B777, B747 and A380) was risen. Meanwhile, the number of A320 at Don Mueang, which were considered to be larger size comparing with existing business and private jet aircraft, greatly increased. Therefore the ratios for both airports increased.

The aircraft type will be later discussed in the Aircraft Throughput section of this report under the Aircraft Mix by Aerodrome Code topic.

Pax / Aircraft Ratio

Airport	International			Domestic			Total		
	2011	2012	%Change	2011	2012	%Change	2011	2012	%Change
BKK	187	195	4.28%	137	143	4.38%	173	180	4.05%
DMK	15	107	613.33%	88	89	1.14%	84	92	9.52%
CNX	97	103	6.19%	123	125	1.63%	120	122	1.67%
HDY	126	115	-8.73%	135	145	7.41%	134	141	5.22%
HKT	153	157	2.61%	147	157	6.80%	150	157	4.67%
CEI	62	24	-61.29%	143	144	0.70%	141	139	-1.42%

3. Aircraft Throughput

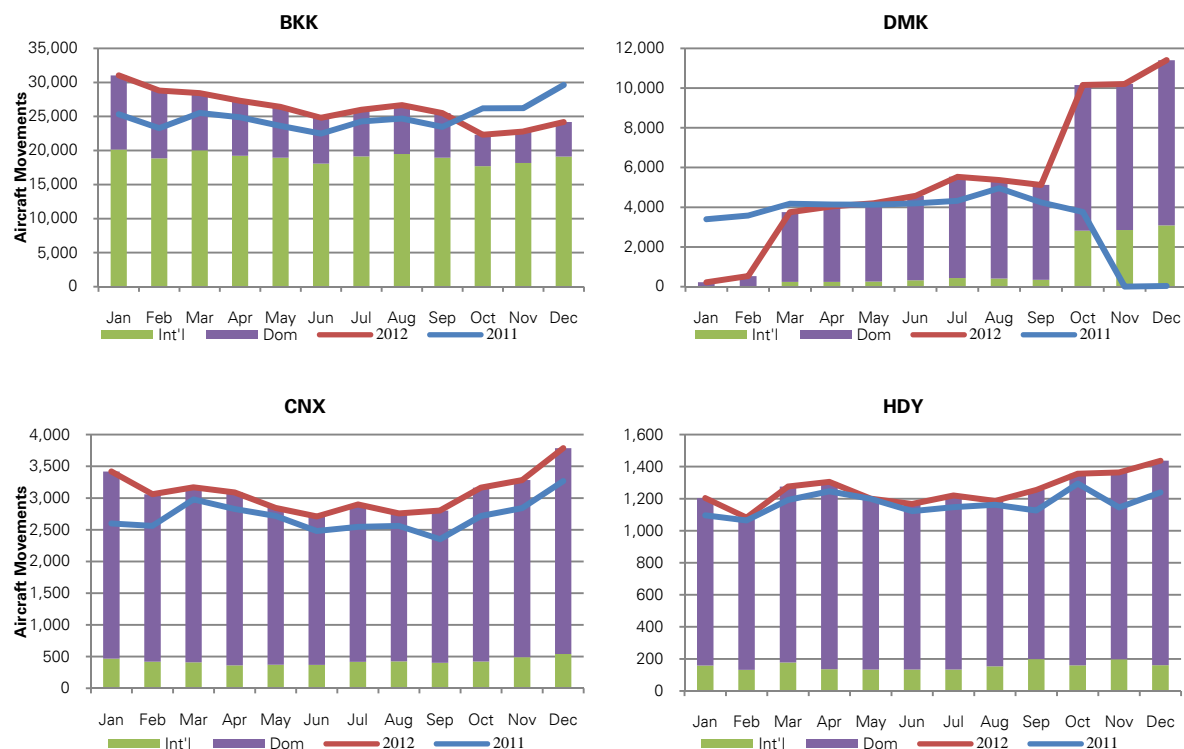
The total of 278,604 international and 220,890 domestic aircraft movements in the year 2012 showed continued strong demand growth from last year with the rates of 9.96 and 12.64 percent respectively. All airports registered fairly high growth for both international and domestic aircraft movements.

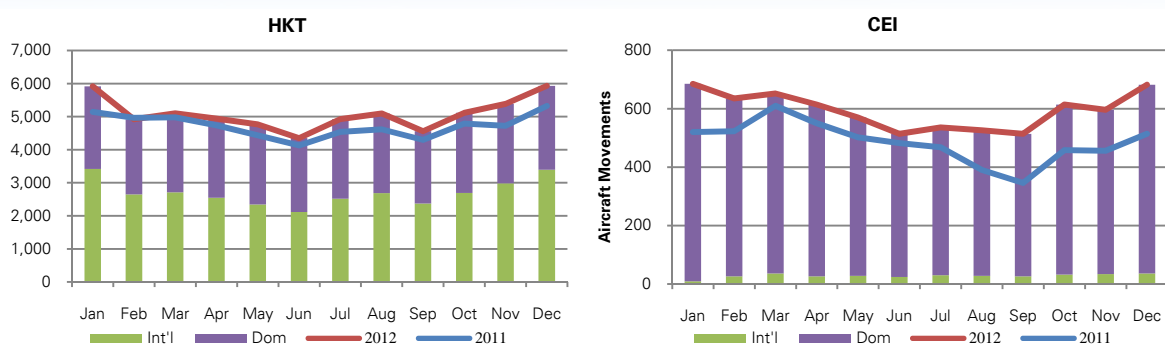
The 2012 Aircraft Movements

Airport	International	%Change	Domestic	%Change
BKK	227,808	5.16%	86,391	4.17%
DMK	11,061	415.66%	54,059	39.35%
CNX	5,095	27.22%	31,886	12.12%
HDY	1,879	10.79%	13,173	6.79%
HKT	32,426	12.82%	28,578	2.31%
CEI	335	123.33%	6,803	20.00%
Total	278,604	9.96%	220,890	12.64%

3.1 Aircraft Movement Trend

In 2012, all AOT airports, experienced strong growth throughout the year. For Suvarnabhumi, overall traffic registered positive rate from January to September. Then Air Asia Group was moved to Don Mueang, which make Don Mueang air traffic to increase dramatically after the airport has resumed commercial services since March 2012 due to the flood covered at the end of 2011.





3.2 Aircraft Operation Category

Aircraft is often categorized according to the type of traffic that is designed to carry. There are 3 main types, passenger aircraft, all-cargo aircraft or freighter, and combination aircraft. These 3 types of aircraft are operated on the basis of scheduled and non-scheduled operations.

Suvarnabhumi accommodated all three types of those, while other airports accommodated only passenger and combination aircraft. Numbers of aircraft movements in the year 2012 classified by type of traffic are shown in the following tables.

Passenger & Combination Aircraft Operations

	International Flight				Domestic Flight		
	Scheduled	Non-Scheduled			Scheduled	Non-Scheduled	General Aviation
		Charter	Technical	Business Aviation			
BKK	208,184	6,739	441	417	74,709	11,441	241
%Change	5.43%	10.20%	-6.77%	-9.74%	3.13%	10.84%	46.95%
DMK	7,008	1,606	236	2,207	33,913	19,243	903
%Change	-	330.56%	0.85%	44.53%	26.68%	72.37%	5.00%
CNX	4,316	537	142	100	28,680	3,078	128
%Change	31.60%	2.84%	-25.93%	57.78%	13.31%	12.64%	-76.04%
HDY	1,680	76	11	112	12,520	574	79
%Change	8.18%	33.33%	175.00%	36.59%	10.06%	-35.43%	11.27%
HKT	23,807	7,685	357	577	27,522	993	63
%Change	6.12%	42.26%	-0.83%	6.07%	1.43%	47.11%	-49.19%
CEI	228	56	8	43	6,578	152	73
%Change	-	-49.09%	-	7.50%	33.00%	-77.11%	23.73%

All – cargo Aircraft (Freighter) Operations

	International		Domestic	
	Scheduled	Non-Scheduled	Scheduled	Non-Scheduled
BKK	11,622	405	-	-
%Change	-2.33%	78.41%	-	-

3.3 Aircraft Mix

Aircraft mix classified by Aerodrome Reference Code¹ indicates categories of aircraft to be accommodated at an airport. Generally, codes A to F are categorized by the range of an airplane wingspan and outer main gear wheel span. In addition, aircraft mix can be categorized by an aircraft type. The results of both classifications can be related.

- Aircraft Mix by Aerodrome Reference Code**

3.3.1 Suvarnabhumi Airport

As an aviation hub for the region, Suvarnabhumi's international traffic accommodated 3 main categories of aircraft size, which consisted of code C, code D and code E. Code E refers to a larger size of aircraft to which the legacy airlines normally used for operating in high demand routes or connecting between hub airports, while code C and D were generally used in thin routes as spoke point for serving hub airports or being used by low cost airlines for serving a point-to-point network.

Suvarnabhumi Airport

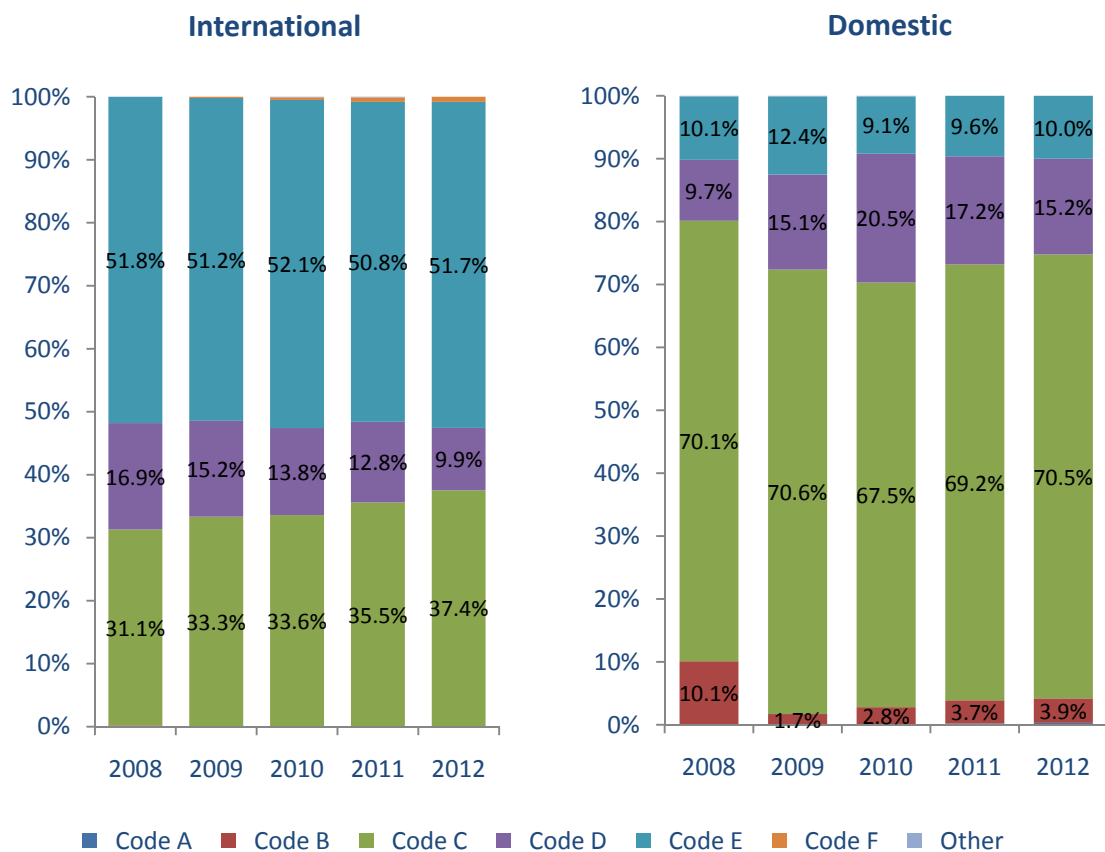
	2011	%Share	2012	%Share	%Change
International					
Code A	63	0.0%	86	0.0%	36.51%
Code B	158	0.1%	211	0.1%	33.54%
Code C	76,970	35.5%	85,213	37.4%	10.71%
Code D	27,752	12.8%	22,593	9.9%	-18.59%
Code E	110,112	50.8%	117,732	51.7%	6.92%
Code F	1,466	0.7%	1,895	0.8%	29.26%
Other	115	0.1%	78	0.0%	-32.17%
Domestic					
Code A	169	0.2%	233	0.3%	37.87%
Code B	3,075	3.7%	3,400	3.9%	10.57%
Code C	57,416	69.2%	60,871	70.5%	6.02%
Code D	14,281	17.2%	13,171	15.2%	-7.77%
Code E	7,957	9.6%	8,680	10.0%	9.09%
Code F	-	-	14	0.0%	-
Other	32	0.0%	22	0.0%	-31.25%

¹ ICAO, ANNEX 14. 2004, *Aerodrome Reference Code Element 2, Table 1-1*

Wingspan, A: <15m, B: 15m-<24m, C: 24m-<36m, D: 36m-<52m, E: 52m-<65m, F: 65m-<80m

The graphs below illustrated the proportion of aircraft mix for international and domestic traffic at Suvarnabhumi Airport during the year 2008-2012. Generally, Code C and E showed greater proportions and increased from those of the previous years, whereas code D dropped.

Share of Aircraft Mix at Suvarnabhumi 2008-2012



3.3.2 Don Mueang International Airport

Don Mueang is now serving Nok Air, Orient Thai Airlines and Air Asia group, along with other non-scheduled operations. The table below showed the number of aircraft mix of Don Mueang.

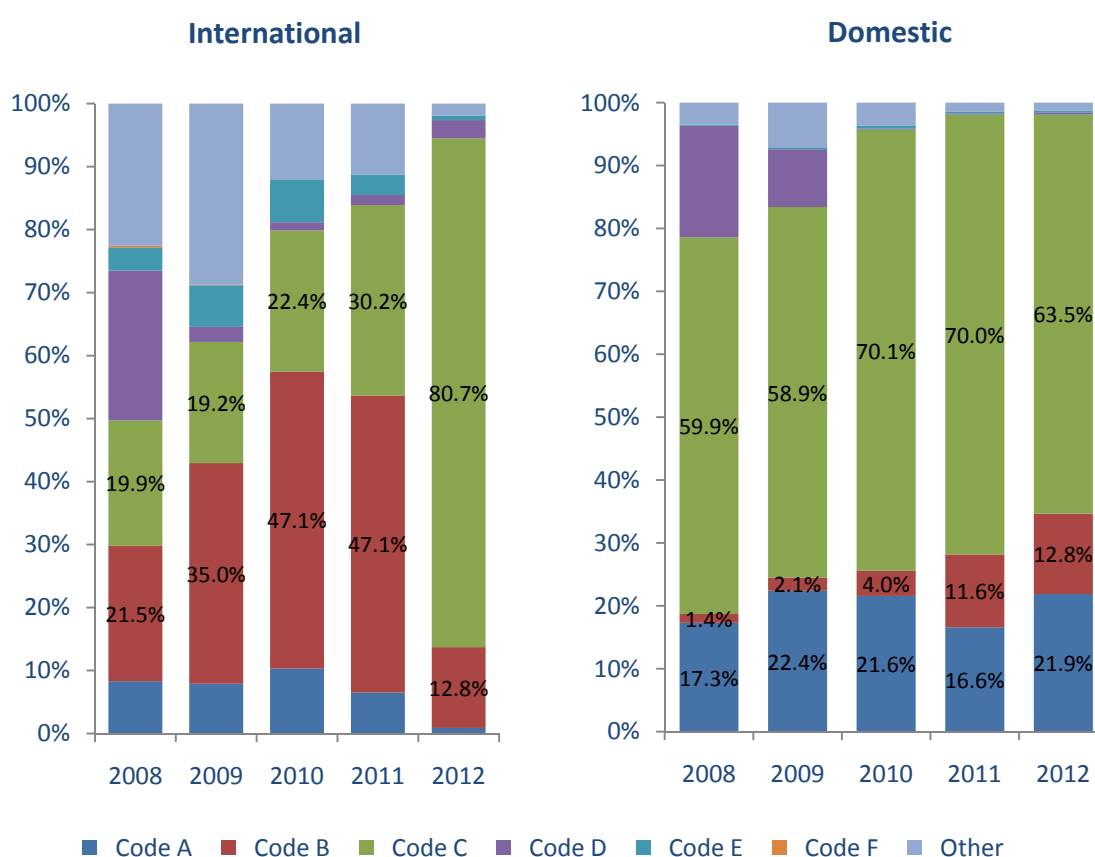
Don Mueang International Airport

	2011	%Share	2012	%Share	%Change
International					
Code A	140	6.5%	98	0.9%	-30.00%
Code B	1,010	47.1%	1,417	12.8%	40.30%
Code C	648	30.2%	8,928	80.7%	1,277.78%
Code D	35	1.6%	325	2.9%	822.57%
Code E	69	3.2%	80	0.7%	15.94%
Code F	-	-	-	-	-
Other	243	11.3%	213	1.9%	-12.35%

Domestic					
Code A	6,424	16.6%	11,840	21.9%	84.31%
Code B	4,512	11.6%	6,917	12.8%	53.30%
Code C	27,142	70.0%	34,314	63.5%	26.42%
Code D	58	0.1%	149	0.3%	156.90%
Code E	114	0.3%	143	0.3%	25.44%
Other	545	1.4%	696	1.3%	27.71%

In 2012, the majority of international and domestic operations were dedicated to code C aircraft such as Airbus 320 and Boeing 737 which were being used by Air Asia and Nok Air respectively.

Share of Aircraft Mix at Don Mueang 2008-2012



3.3.3 Chiang Mai International Airport

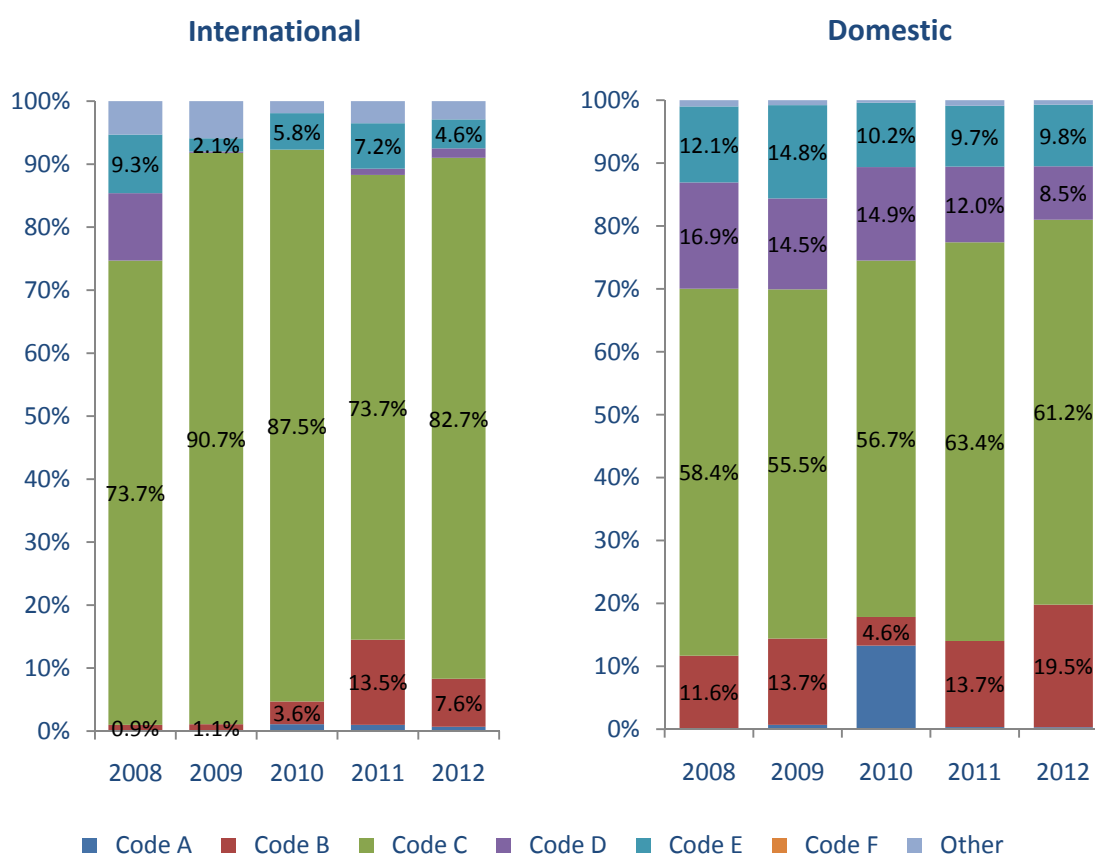
Chiang Mai served international and domestic traffic, mostly within the region. Consequently, the aircraft mix was dominated by the large proportion of code C. The table below presented the number and proportion of each aircraft type.

Chiang Mai International Airport

	2011	%Share	2012	%Share	%Change
International					
Code A	40	1.0%	37	0.7%	-7.50%
Code B	542	13.5%	388	7.6%	-28.41%
Code C	2,952	73.7%	4,212	82.7%	42.68%
Code D	40	1.0%	74	1.5%	85.00%
Code E	289	7.2%	236	4.6%	-18.34%
Other	142	3.5%	148	2.9%	4.23%
Domestic					
Code A	92	0.3%	84	0.3%	-8.70%
Code B	3,895	13.7%	6,233	19.5%	60.03%
Code C	18,020	63.4%	19,502	61.2%	8.22%
Code D	3,422	12.0%	2,712	8.5%	-20.75%
Code E	2,746	9.7%	3,126	9.8%	13.84%
Other	265	0.9%	229	0.7%	-13.58%

For international traffic, most of aircraft operated by airlines were code C. This pattern went the same for domestic traffic.

Share of Aircraft Mix at Chiang Mai 2008-2012



3.3.4 Hat Yai International Airport

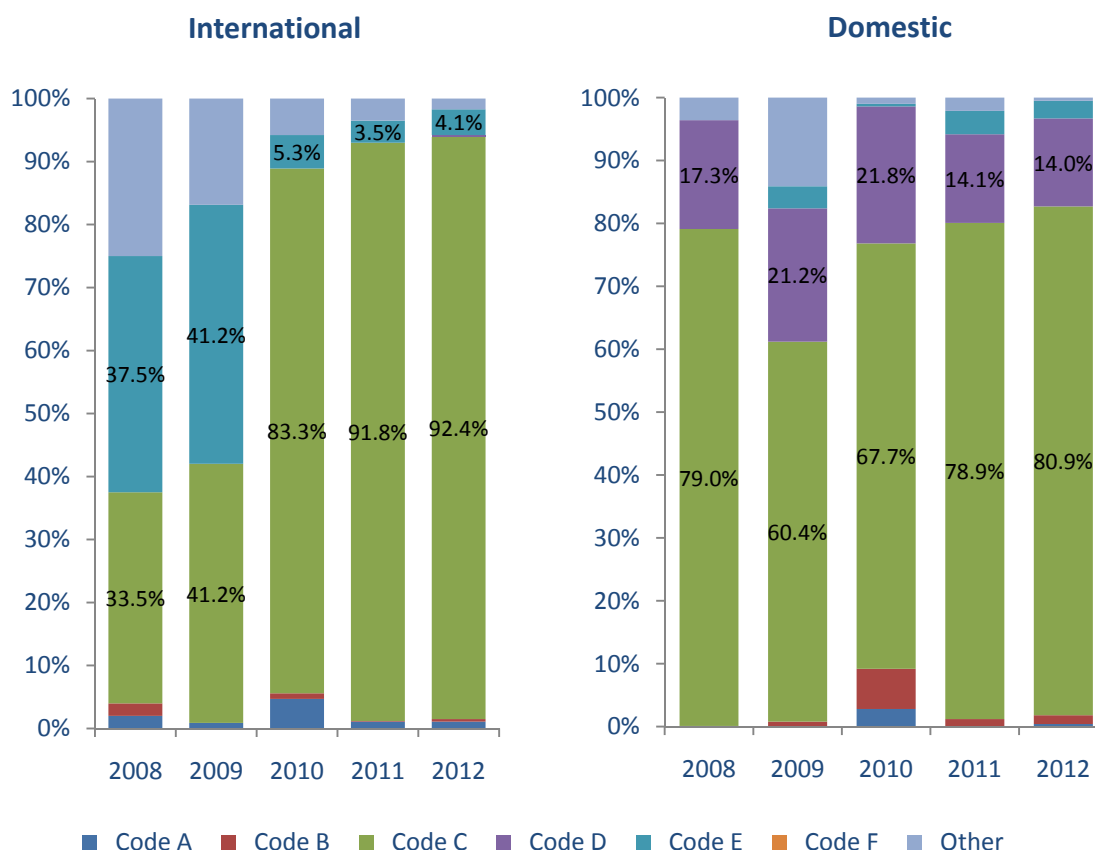
The international traffic was generated mostly by code C aircraft, as a result of low cost airlines' operations such as A-320 by Tiger Airways and Air Asia. For domestic operations, code C and D aircraft were mostly used by Thai Airways and Thai Air Asia.

Hat Yai International Airport

	2011	%Share	2012	%Share	%Change
International					
Code A	19	1.1%	20	1.1%	5.26%
Code B	2	0.1%	8	0.4%	300.00%
Code C	1,557	91.8%	1,736	92.4%	11.50%
Code D	-	-	6	0.3%	-
Code E	59	3.5%	77	4.1%	30.51%
Other	59	3.5%	32	1.7%	-45.76%
Domestic					
Code A	9	0.1%	50	0.4%	455.56%
Code B	138	1.1%	178	1.4%	28.99%
Code C	9,734	78.9%	10,659	80.9%	9.50%
Code D	1,738	14.1%	1,847	14.0%	6.27%
Code E	461	3.7%	367	2.8%	-20.39%
Other	256	2.1%	72	0.5%	-71.88%

The growth of low cost airlines resulted in a larger proportion of code C aircraft during the past 5 years, especially for international traffic. For Domestic, the majority of aircraft operations still belong to code C, while the room for code D aircraft was getting smaller from the period of time.

Share of Aircraft Mix at Hat Yai 2008-2012



3.3.5 Phuket International Airport

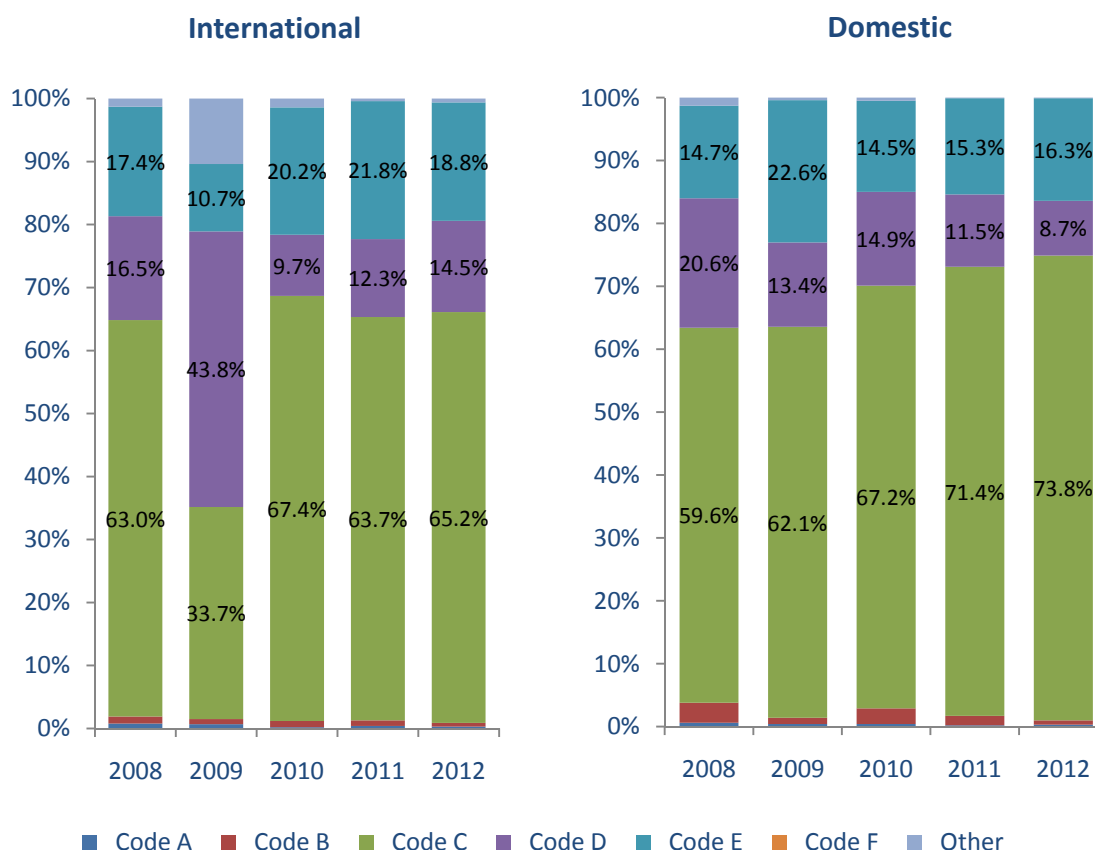
Regarding Phuket International Airport, airlines were increasing their international flight operations with code C, D and E aircraft, which represented growth rates of 15.48, 32.39 and 51.64 percent respectively. The figures go in the same direction for domestic operations which code C and E were grown by 5.66 and 9.50 percent, respectively.

Phuket International Airport

	2011	%Share	2012	%Share	%Change
International					
Code A	110	0.4%	108	0.3%	-1.82%
Code B	252	0.9%	201	0.6%	-20.24%
Code C	18,304	63.7%	21,137	65.2%	15.48%
Code D	3,544	12.3%	4,692	14.5%	32.39%
Code E	6,252	21.8%	6,103	18.8%	-2.38%
Other	122	0.4%	185	0.6%	51.64%
Domestic					
Code A	69	0.2%	92	0.3%	33.33%
Code B	424	1.5%	201	0.7%	-52.59%
Code C	19,951	71.4%	21,081	73.8%	5.66%
Code D	3,200	11.5%	2,497	8.7%	-21.97%
Code E	4,264	15.3%	4,669	16.3%	9.50%
Other	24	0.1%	38	0.1%	58.33%

During 2008-2012, the majority of flight operations were still in code C, while code E aircraft became more popular in this airport for serving the high demand of leisure travelers due to the limitation of single runway capacity.

Share of Aircraft Mix at Phuket 2008-2012



3.3.6 Chiang Rai International Airport

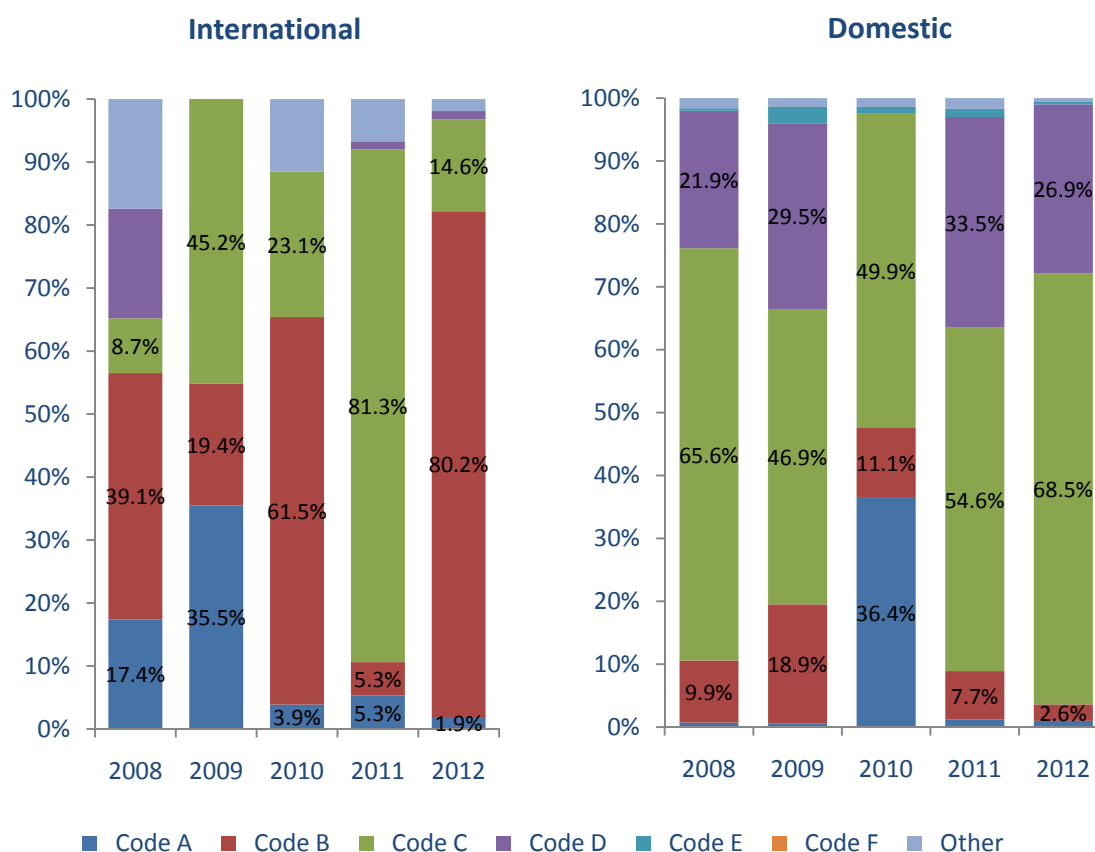
Because of most international traffic was non-scheduled, therefore it was mainly operated by smaller aircraft from the Business & Executive flight or the Private Jet. However, domestic traffic was consisted mostly by code C and D aircraft.

Chiang Rai International Airport

	2011	%Share	2012	%Share	%Change
International					
Code A	8	5.3%	6	1.9%	-25.00%
Code B	8	5.3%	274	80.2%	2,987.50%
Code C	122	81.3%	45	14.6%	-63.11%
Code D	2	1.3%	4	1.3%	100.00%
Other	10	6.7%	6	1.9%	-40.00%
Domestic					
Code A	70	1.2%	69	1.0%	-1.43%
Code B	436	7.7%	177	2.6%	-59.40%
Code C	3,096	54.6%	4,658	68.5%	50.45%
Code D	1,898	33.5%	1,832	26.9%	-3.48%
Code E	72	1.3%	36	0.5%	-50.00%
Other	97	1.7%	31	0.5%	-68.04%

The international aircraft mix at Chiang Rai was mostly operated by scheduled operation of China Eastern Airlines, mostly involved by code B and C aircraft. For domestic traffic, code C aircraft were mostly used by low cost carriers, while code D aircraft were operated by Thai Airways International.

Share of Aircraft Mix at Chiang Rai 2008-2012



- **Aircraft Mix by Aircraft Type**

Aircraft mix classified by an aircraft type generally demonstrates a rank of an aircraft to be accommodated at a certain airport. Code A and B consist of small aircraft such as Cessna and Diamond DA-42. Common aircraft for code C are Airbus 319, Airbus 320, Airbus 321 and Boeing 737. For code D, the popular ones are Airbus 300-600, Boeing 757 and Boeing 767.

Code E aircraft consists of Airbus 330, Airbus 340, Boeing 747 and Boeing 777. Finally, code F is the largest aircraft such as Airbus 380. Details of each airport for the 2012 aircraft operations are displayed in the tables below.

Suvarnabhumi Airport

Rank	Aircraft Type	Passenger & Combination	Freighter	Total	%Share	%Change
International : Top 20						
1	B-777	45,103	699	45,802	20.1%	17.15%
2	A-330	40,956	1,068	42,024	18.4%	19.29%
3	A-320	38,702	-	38,702	17.0%	3.97%
4	B-737	23,055	-	23,055	10.1%	26.40%
5	B-747-400	13,612	4,850	18,462	8.1%	-21.73%
6	B-767	12,272	854	13,126	5.8%	-2.13%
7	A-319	10,213	-	10,213	4.5%	24.16%
8	A-340	6,530	-	6,530	2.9%	2.64%
9	A-321	6,172	-	6,172	2.7%	24.86%
10	ATR-72	5,702	-	5,702	2.5%	-12.24%
11	A-340-600	3,556	-	3,556	1.6%	32.54%
12	A-300	2,370	1,097	3,467	1.5%	-52.86%
13	B-757	2,240	-	2,240	1.0%	-29.16%
14	MD-11	2	2,154	2,156	0.9%	-12.32%
15	A-380-800	1,864	-	1,864	0.8%	27.15%
16	A-310	1,132	462	1,594	0.7%	17.81%
17	B-747	555	22	577	0.3%	-55.95%
18	B-727	9	557	566	0.2%	-44.62%
19	MA-60	490	-	490	0.2%	8.41%
20	A-340-500	435	-	435	0.2%	-74.21%
Domestic : Top 10						
1	A-320	27,709	-	27,709	32.1%	-0.62%
2	A-300	12,827	-	12,827	14.8%	-9.13%
3	B-737	11,009	-	11,009	12.7%	0.80%
4	ATR-72	10,114	-	10,114	11.7%	12.39%
5	A-319	9,594	-	9,594	11.1%	9.12%
6	B-747-400	4,091	-	4,091	4.7%	23.67%
7	A-330	2,467	-	2,467	2.9%	0.73%
8	B-777	2,076	-	2,076	2.4%	-1.80%
9	Saab 340	1,589	-	1,589	1.8%	24.33%
10	Cessna 208	1,366	-	1,366	1.6%	-10.78%

Don Mueang International Airport

Rank	Aircraft Type	Passenger & Combination	%Share	%Change
International : Top 10				
1	A-320	7,180	64.9%	-
2	B-737	838	7.6%	539.69%
3	Bombardier Global Express	264	2.4%	200.00%
4	Beech-350	242	2.2%	-19.33%
5	Gulfstream V	233	2.1%	130.69%
6	B-767	213	1.9%	965.00%
7	Beech-40	210	1.9%	311.76%
8	Gulfstream IV	183	1.7%	-13.68%
9	CL-60	152	1.4%	15.15%
10	H-25B	134	1.2%	-42.24%
Domestic : Top 10				
1	B-737	21,310	39.4%	8.12%
2	Cessna 172	9,429	17.4%	105.51%
3	A-320	8,564	15.8%	-
4	Saab 340	4,683	8.7%	133.33%
5	ATR-72	2,108	3.9%	48.56%
6	MD-82	1,573	2.9%	-52.45%
7	MD-81	707	1.3%	-73.39%
8	D-228	663	1.2%	-45.07%
9	Beech-20	522	1.0%	-1.32%
10	BK-117	490	0.9%	24.37%

Chiang Mai International Airport

Rank	Aircraft Type	Passenger & Combination	%Share	%Change
International : Top 10				
1	A-320	2,361	46.3%	33.39%
2	B-737	873	17.1%	189.07%
3	ATR-72	642	12.6%	-0.93%
4	CRJ-2	374	7.3%	-29.03%
5	A-330	228	4.5%	-16.48%
6	F-100	174	3.4%	17.57%
7	A-319	126	2.5%	250.00%
8	B-767	66	1.3%	106.25%
9	A-321	30	0.6%	-6.25%
10	LJ-35	12	0.2%	20.00%
Domestic : Top 10				
1	A-320	9,389	29.5%	19.38%
2	B-737	4,591	14.4%	15.09%
3	Cessna-208	3,674	11.5%	9.97%
4	A-319	2,783	8.7%	20.63%
5	SF-34	2,502	7.9%	383.01%
6	ATR-72	1,396	4.4%	-27.89%
7	B-777	1,322	4.2%	20.84%
8	B-747-400	1,140	3.6%	17.28%
9	MD-82	769	2.4%	-20.80%
10	A-300	656	2.1%	2.18%

Hat Yai International Airport

Rank	Aircraft Type	Passenger & Combination	%Share	%Change
International : Top 10				
1	A-320	1,556	82.8%	0.06%
2	ATR-72	130	6.9%	-
3	A-330	77	4.1%	30.51%
4	AW-139	48	2.6%	-
5	Cessna 510	8	0.4%	-
6	TBM8	6	0.3%	-25.00%
7	B-767	4	0.2%	-
8	Cessna 208	4	0.2%	-
9	CRJ-2	4	0.2%	-
10	LJ-45	4	0.2%	-
Domestic : Top 10				
1	A-320	4,979	37.8%	20.38%
2	B-737	4,323	32.8%	3.22%
3	A-300	1,839	14.0%	6.55%
4	MD-81	676	5.1%	-1.46%
5	MD-82	651	4.9%	-9.58%
6	A-330	305	2.3%	-29.89%
7	Beech-20	173	1.3%	-0.57%
8	B-777	46	0.4%	109.09%
9	SK-76	36	0.3%	89.47%
10	M-20T	26	0.2%	-

Phuket International Airport

Rank	Aircraft Type	Passenger & Combination	%Share	%Change
International : Top 10				
1	A-320	12,362	38.1%	11.20%
2	B-737	6,406	19.8%	29.41%
3	A-330	4,912	15.1%	3.48%
4	B-767	3,721	11.5%	46.21%
5	B-757	869	2.7%	-2.69%
6	A-321	796	2.5%	83.41%
7	A-319	793	2.4%	-30.74%
8	B-747	550	1.7%	-10.86%
9	ATR-72	428	1.3%	2.88%
10	B-777	349	1.1%	-53.90%
Domestic : Top 10				
1	A-320	10,871	38.0%	-13.09%
2	ATR-72	3,778	13.2%	-3.52%
3	A-300	3,170	11.1%	46.35%
4	B-737	2,586	9.0%	27.96%
5	B-747-400	2,313	8.1%	-20.52%
6	A-319	1,265	4.4%	24.14%
7	A-330	1,053	3.7%	-11.66%
8	B-777	876	3.1%	57.84%
9	MD-82	765	2.7%	-1.67%
10	MD-81	684	2.4%	-17.89%

Chiang Rai International Airport

Rank	Aircraft Type	Passenger & Combination	%Share	%Change
International : Top 10				
1	CRJ-2	256	76.4%	-
2	B-737	34	10.2%	-68.52%
3	Gulfstream V	6	1.8%	100.00%
4	B-757	4	1.2%	100.00%
5	Cessna 750	4	1.2%	-
6	F-100	4	1.2%	-
7	GALX	4	1.2%	-
8	PC-12	4	1.2%	-
9	Gulfstream IV	3	0.9%	-
10	A-319	2	0.6%	-50.00%
Domestic : Top 10				
1	B-737	2,228	32.8%	960.95%
2	A-320	1,896	27.9%	0.32%
3	A-300	1,824	26.8%	-3.70%
4	MD-81	252	3.7%	-41.40%
5	MD-82	246	3.6%	-56.23%
6	Cessna 208	115	1.7%	-72.75%
7	Beech-20	48	0.7%	20.00%
8	A-330	30	0.4%	-34.78%
9	Cessna 510	29	0.4%	31.82%
10	Gulfstream V	20	0.3%	400.00%

4. Air Cargo Throughput

In 2012, AOT totally served 1.31 million tonnes of international and 118,576 tonnes of domestic cargoes. International cargo was grown by 2.60 while domestic cargo dropped by 0.97 percent when compared with the last year. The overall international cargoes increased. However, domestic cargoes at Suvarnabhumi, Don Mueang and Chiang Mai declined due to the lower number of goods distributed from Chiang Mai to Bangkok.

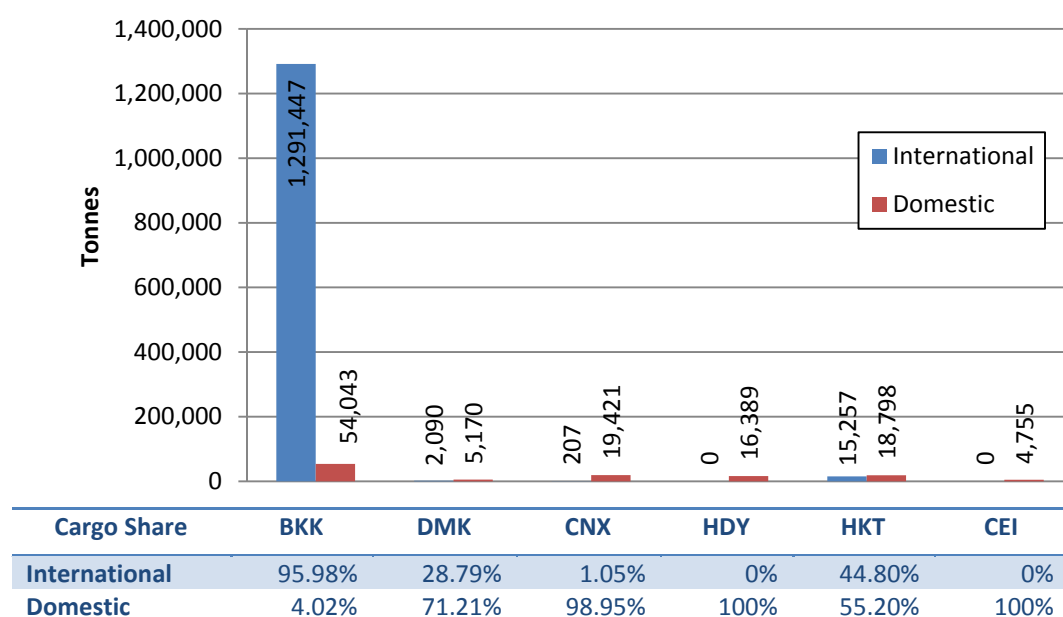
The 2012 Cargo Traffic in Tonne

Airport	International	%Change	Domestic	%Change
BKK	1,291,447	1.95%	54,043	-1.99%
DMK	2,090	2,973.53%	5,170	-3.65%
CNX	207	31.85%	19,421	-9.95%
HDY	-	-	16,389	4.17%
HKT	15,257	71.60%	18,798	6.66%
CEI	-	-	4,755	10.43%
Total	1,309,001	2.60%	118,576	-0.97%

4.1 Air Cargo Proportion

The graph below demonstrated the proportion of cargo traffic between international and domestic. Suvarnabhumi Airport handled most of cargoes, especially international, while other airports handled mainly domestic one.

While both international and domestic cargoes at Don Mueang, Chiang Mai, Hat Yai, Phuket and Chiang Rai were solely carried by combination aircraft, only international cargoes at Suvarnabhumi were handled by both combination and all-cargo aircraft (freighters).



4.2 Airline Market Share

In 2012, Thai Airways International still shared the maximum in international cargo handling for most of AOT airports, except for Don Mueang and Chiang Mai where the Air Asia group dominated. Generally, the international cargo showed the sign of stagnation caused by the economic slowdown of Europe and America, with a slightly growth from previous year especially at Suvarnabhumi which Thai Airways International's cargo only increased by 0.81 percent.

For the domestic cargo, Thai Airways International handled the majority of cargo service in all airports except Don Mueang where Nok Air dominated.

Suvarnabhumi Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
International : Top 20				
1	Thai Airways International	544,927	42.3%	0.81%
2	Singapore Airlines	50,150	3.9%	11.36%
3	EVA Air	44,188	3.4%	12.04%
4	Cathay Pacific Airways	39,980	3.1%	6.98%
5	Hongkong Airlines	38,963	3.0%	21.57%
6	Korean Air	38,142	3.0%	-0.69%
7	All Nippon Airways	33,729	2.6%	8.39%
8	Nippon Cargo Airways	31,906	2.5%	3.71%
9	China Airlines	29,237	2.3%	9.52%
10	Emirates	25,488	2.0%	19.12%
11	Japan Airlines	24,637	1.9%	-4.34%
12	Air Hong Kong	23,200	1.8%	-5.04%
13	China Cargo Airlines	21,571	1.7%	4.37%
14	Qatar Airways	19,138	1.5%	15.00%
15	Etihad Airlines	16,163	1.3%	20.55%
16	Sri Lankan Airlines	12,292	1.0%	27.17%
17	Asiana Airlines	12,254	1.0%	13.51%
18	Cargolux Airlines	12,218	0.9%	5.37%
19	Federal Express	11,753	0.9%	13.98%
20	Turkish Airlines	11,613	0.9%	75.39%
Domestic				
1	Thai Airways International	52,640	97.6%	-2.07%
2	Bangkok Airways	965	1.8%	-15.13%
3	Nok Air	249	0.5%	111.24%
4	Thai Air Asia	68	0.1%	-48.00%

Don Mueang International Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
International				
1	Thai Air Asia	1,872	89.6%	-
2	Air Asia	129	6.2%	-
3	Indonesia Air Asia	72	3.4%	-
4	Singapore Airlines	8	0.4%	0.33%
5	Thai Airways International	7	0.3%	-
Domestic				
1	Nok Air	5,150	99.6%	2.26%
2	Thai Air Asia	20	0.4%	-

Chiang Mai International Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
International				
1	Air Asia	89	33.5%	494.44%
2	China Cargo Airlines	59	22.2%	-
3	Business Air Center	48	18.0%	100.00%
4	China Airlines	36	13.5%	-15.56%
5	Silk Air	19	7.1%	-44.12%
Domestic				
1	Thai Airways International	18,510	95.3%	-9.51%
2	Bangkok Airways	297	1.5%	115.22%
3	Siam GA	28	0.1%	-
4	Thai Air Asia	24	0.1%	-

Hat Yai International Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
Domestic				
1	Thai Airways International	15,438	95.3%	5.24%
2	Nok Air	766	4.7%	-2.42%
3	Thai Air Asia	2	0.0%	100.00%

Phuket International Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
International : Top 20				
1	Thai Airways International	6,472	42.4%	132.05%
2	Air Berlin	1,736	11.4%	869.83%
3	Jetstar Airways	1,384	9.1%	60.93%
4	Shanghai Airlines	1,036	6.8%	108.87%
5	Korean Airlines	706	4.6%	-12.62%
6	Thai Air Asia	650	4.3%	69.27%
7	Hong Kong Airlines	605	4.0%	481.73%
8	Asiana Airlines	431	2.8%	4.87%
9	Transaero Airlines	344	2.3%	127.81%
10	Dragon Air	297	1.9%	-0.34%
11	Silk Air	274	1.8%	-16.46%
12	Hainan Airlines	199	1.3%	255.36%
13	Qatar Airways	158	1.0%	125.71%
14	Mytravel Airways	144	0.9%	-8.86%
15	Strategic Aviation	98	0.6%	-88.14%
16	Condor Flugdienst	86	0.6%	-18.10%
17	Finnair	79	0.5%	119.44%
18	Mahan Air	64	0.4%	42.22%
19	Malaysian Airlines	57	0.4%	280.00%
20	Orient Thai Airlines	29	0.2%	-
Domestic				
1	Thai Airways International	18,431	98.0%	6.99%
2	Thai Air Asia	188	1.0%	1,242.86%
3	Nok Air	179	1.0%	9.15%

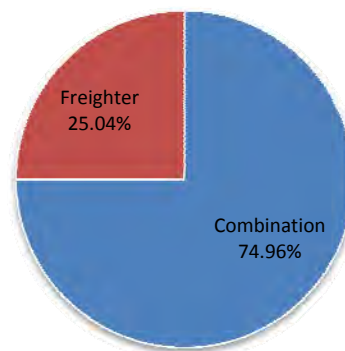
Chiang Rai International Airport

Rank	Airlines	Cargo (Tonnes)	%Share	%Change
Domestic				
1	Thai Airways International	4,695	98.7%	12.29%
2	Nok Air	60	1.3%	-

4.3 Suvarnabhumi International Air Cargoes

Regarding to 1,291,447 tonnes of international cargoes at Suvarnabhumi Airport, cargoes carried by combination aircraft shared the majority ratio of 75 percent, whereas the rest of 25 percent was contributed to all cargo aircraft (freighters). The international cargo volume carried by combination aircraft increased by 1.37 percent, as well as cargoes carried by freighters increased by 3.73 percent, compared with the previous year.

Suvarnabhumi International Cargoes in Tonnes



Type of Aircraft	Cargo	%Change
Combination Aircraft	968,110	1.37%
All-cargo Aircraft (Freighter)	323,337	3.73%
Total Cargo	1,291,447	1.95%

In regard to the 323,337 tonnes of cargoes carried by freighters, they were ranked top by Eva Air with 11.7 percent share, followed by Nippon Cargo Airlines and Hong Kong Airlines with 9.9 and 8.4 percent share. Top 5 airlines showing major increase in 2012 were Malaysia Airlines (+94.88 percent), Saudi Arabian Airlines (+45.33 percent), Asiana Airlines (+20.02 percent), United Parcel Service (+18.47 percent), Aerologic (+17.72 percent) and EVA Air (+17.52 percent). In addition, 8 airlines introduced their cargo services to Suvarnabhumi led by Thai Airways International, Turkish Airlines and Yangtze River Express.

On the other hand, 7 airlines registered a reduction during the year 2012. Top 5 airlines showing major decrease were Southern Air (-91.22 percent), K-mile Air (-53.25 percent), Martin Air (-37.87 percent), Lufthansa German Airlines (-34.17 percent), and Korean Air (-20.03 percent), respectively.

The 2012 Cargo Market Share (Cargo flight only)

Rank (top 30)	Airlines	Cargo (Tonnes)	%Share	%Change
1	EVA Air	37,757	11.7%	17.52%
2	Nippon Cargo Airlines	31,906	9.9%	3.71%
3	Hong Kong Airlines	27,038	8.4%	7.40%
4	Singapore Airlines	26,262	8.1%	29.26%
5	Air Hong Kong	23,200	7.2%	-5.04%
6	All Nippon Airways	21,764	6.7%	9.04%
7	China Cargo Airlines	21,571	6.7%	4.37%
8	Thai Airways International	21,157	6.5%	-
9	Korean Air	17,010	5.3%	-20.03%
10	China Airlines	14,684	4.5%	14.20%
11	Cargolux Airlines	12,218	3.8%	5.37%
12	Federal Express	11,753	3.6%	13.99%
13	Aerologic	11,285	3.5%	17.72%
14	K-mile Air	6,373	2.0%	-53.25%
15	Qantas Airways	6,307	2.0%	9.06%
16	United Parcel Service	5,464	1.7%	18.47%
17	Martin Air	4,093	1.3%	-37.87%
18	Asiana Airlines	3,009	0.9%	20.02%
19	Lufthansa German Airlines	2,994	0.9%	-34.17%
20	Saudi Arabian Airlines	2,783	0.9%	45.33%
21	Malaysia Airlines	2,590	0.8%	94.88%
22	Turkish Airlines	2,322	0.7%	-
23	Southern Air	2,307	0.7%	-91.22%
24	Yangtze River Express	2,098	0.6%	-
25	Lufthansa Cargo	1,609	0.5%	-
26	Cathay Pacific Airways	1,323	0.4%	-7.35%
27	Atlas Air	750	0.2%	-
28	ACT Airlines	441	0.1%	-
29	Emirates Airlines	391	0.1%	-
30	Volga-Dnepr Airlines	294	0.1%	-
	Other	584	0.2%	-

5. Airport Connectivity

In 2012, Suvarnabhumi Airport served 157 international scheduled routes in 63 countries and 18 domestic scheduled routes. Phuket, the second busiest AOT's airport, connected the scheduled services to 52 international (in 23 countries) and 9 domestic destinations.

Number of Scheduled Services

Airport	International		Domestic
	Routes	Countries	Routes
BKK	157	63	18
DMK	25	10	18
CNX	8	6	16
HDY	3	2	3
HKT	52	23	9
CEI	1	1	3

The top rank of international and domestic destinations, including both scheduled and non-scheduled operations, was highlighted in tables for each airport.

For international traffic at Suvarnabhumi Airport, the still popular regional routes within Asia Pacific led by Singapore which occupied the major share of 8.7 percent, followed by Hong Kong (8.3 percent), Seoul (5.3 percent), Tokyo - Narita (4.0 percent), Kuala Lumpur (3.7 percent) and so on. The major shares of domestic route were led by important tourism destinations such as Phuket (26.9 percent), Chiang Mai (20.8 percent) and Samui (11.6 percent).

Singapore also ranked the first international destination for Hat Yai and Phuket, while Kuala Lumpur ranked first for Don Mueang. Regarding international destination at Phuket, the first rank of Singapore was at 17.5 percent share, followed by Kuala Lumpur at 11.4 percent share, and Hong Kong at 11.2 percent share. However, the latter showed variety of destinations which came from China through Middle East and Europe. This proves that Phuket is still a famous tourism destination for traveler across the world.

Suvarnabhumi Airport

Rank	City	PAX	%Share
International : Top 30			
1	Singapore	3,407,354	8.7%
2	Hong Kong	3,267,195	8.3%
3	Seoul – Incheon	2,095,145	5.3%
4	Tokyo – Narita	1,575,302	4.0%
5	Kuala Lumpur	1,453,681	3.7%
6	Taipei	1,134,857	2.9%
7	Dubai	1,066,391	2.7%
8	Ho Chi Minh City	941,065	2.4%
9	Guangzhou	924,457	2.3%
10	Shanghai – Pudong	913,177	2.3%
11	Yangon (Rangoon)	863,035	2.2%
12	New Delhi	858,511	2.2%
13	Mumbai	747,384	1.9%
14	Abu Dhabi	717,032	1.8%
15	London	700,049	1.8%
16	Hanoi	654,549	1.7%
17	Beijing	653,435	1.7%
18	Manila	642,218	1.6%
19	Sydney	603,608	1.5%
20	Frankfurt	587,228	1.5%
21	Doha	562,726	1.4%
22	Osaka	560,947	1.4%
23	Macau	529,746	1.3%
24	Jakarta	484,822	1.2%
25	Tokyo – Haneda	475,913	1.2%
26	Phnom Penh	449,122	1.1%
27	Melbourne	444,761	1.1%
28	Amsterdam	443,005	1.1%
29	Calcutta	427,137	1.1%
30	Paris	414,108	1.1%
Domestic : Top 10			
1	Phuket	3,300,730	26.9%
2	Chiang Mai	2,552,333	20.8%
3	Samui	1,426,247	11.6%
4	Hat Yai	1,047,850	8.5%
5	Krabi	724,856	5.9%
6	Chiang Rai	665,263	5.4%
7	Udon Thani	563,946	4.6%
8	Khon Kaen	513,612	4.2%
9	Surat Thani	383,160	3.1%
10	Ubon Ratchathani	330,834	2.7%

Don Mueang International Airport

Rank	City	PAX	%Share
International : Top 30			
1	Kuala Lumpur	199,063	17.0%
2	Singapore	142,128	12.1%
3	Macau	89,393	7.6%
4	Yangon	65,239	5.6%
5	Hong Kong	57,130	4.9%
6	Ho Chi Minh City	49,917	4.3%
7	Jakarta	44,732	3.8%
8	Nanjing	41,057	3.5%
9	Chongqing	30,676	2.6%
10	Penang	28,539	2.4%
11	Guangzhou	28,516	2.4%
12	Wuhan	27,860	2.4%
13	Xianyang	27,646	2.4%
14	Calcutta	26,643	2.3%
15	Shenzhen	26,278	2.2%
16	Bali	25,451	2.2%
17	Phnom Penh	25,112	2.1%
18	Hangchow	24,911	2.1%
19	Changsha	22,424	1.9%
20	Hanoi	22,130	1.9%
21	Surabaya	20,298	1.7%
22	Chennai	18,105	1.5%
23	Medan	16,996	1.5%
24	Seoul	16,879	1.4%
25	Mandalay	14,727	1.3%
26	Jinan	13,065	1.1%
27	Guiyang	7,263	0.6%
28	Taiyuan	6,926	0.6%
29	Guilin	6,577	0.6%
30	Ningbo	6,243	0.5%
Domestic : Top 10			
1	Chiang Mai	809,954	16.8%
2	Hat Yai	757,822	15.8%
3	Phuket	554,003	11.5%
4	U-Tapao	463,947	9.7%
5	Nakhon Si Thammarat	387,861	8.1%
6	Ubon Rachathani	341,080	7.1%
7	Surat Thani	325,436	6.8%
8	Chiang Rai	312,189	6.5%
9	Trang	217,452	4.5%
10	Phisanulok	170,993	3.6%

Chiang Mai International Airport

Rank	City	PAX	%Share
International : Top 10			
1	Nyaung-u	143,369	27.5%
2	Shanghai	119,154	22.9%

3	Danang	79,243	15.2%
4	Hong Kong	58,058	11.2%
5	Pudong	28,483	5.3%
6	Taipei	27,139	5.2%
7	Singapore	25,456	4.9%
8	Sanya	18,448	3.5%
9	Kunming	4,910	0.9%
10	Manila	818	0.2%
Domestic : Top 10			
1	Suvarnabhumi	2,559,116	64.5%
2	Don Mueang	809,765	20.4%
3	Phuket	276,621	7.0%
4	Hat Yai	104,495	2.6%
5	Udonthani	63,946	1.6%
6	Mae Hong Son	56,272	1.4%
7	Ubon Rachathani	39,883	1.0%
8	Samui	39,035	1.0%
9	Phisanulok	6,186	0.2%
10	Mae Sot	4,606	0.1%

Hat Yai International Airport

Rank	City	PAX	%Share
International : Top 5			
1	Singapore	112,753	52.7%
2	Kuala Lumpur	85,670	40.0%
3	Jeddah	5,427	2.5%
4	Muscat	5,410	2.5%
5	Subang	4,547	2.1%
Domestic : Top 5			
1	Suvarnabhumi	1,048,847	54.9%
2	Don Mueang	757,777	39.7%
3	Chiang Mai	103,729	5.4%
4	Nakhon Si Thammarat	314	0.0%
5	Songkhla	240	0.0%

Phuket International Airport

Rank	City	PAX	%Share
International : Top 30			
1	Singapore	884,104	17.5%
2	Kuala Lumpur	578,324	11.4%
3	Hong Kong	567,534	11.2%
4	Seoul	535,325	10.6%
5	Domodedovo	233,650	4.6%
6	Shanghai	176,234	3.5%
7	Chengdu	152,902	3.0%
8	Abu Dhabi	115,208	2.3%
9	Chongqing	115,014	2.3%
10	Aranda	112,033	2.2%

11	Helsinki	106,616	2.1%
12	Sydney	87,098	1.7%
13	Perth	73,876	1.5%
14	Novosibirsk	72,474	1.4%
15	Doha	68,248	1.4%
16	Beijing	57,402	1.1%
17	Copenhagen	56,906	1.1%
18	Krasnoyarsk	45,601	0.9%
19	Irkutsk	42,804	0.8%
20	Xianyang	41,634	0.8%
21	Göteborg	41,477	0.8%
22	Sheremetyevo	41,370	0.8%
23	Bali	41,058	0.8%
24	Guangzhou	41,043	0.8%
25	Jakarta	40,998	0.8%
26	Hangzhou	39,031	0.8%
27	Nanjing	31,347	0.6%
28	Moscow	30,326	0.6%
29	Leningrad	30,143	0.6%
30	Koltsovo	29,149	0.6%
Domestic : Top 10			
1	Suvarnabhumi	3,302,196	73.8%
2	Don Mueang	559,887	12.5%
3	Chiang Mai	276,499	6.2%
4	Samui	158,537	3.5%
5	Udon Thani	89,954	2.0%
6	U-Tapao	31,963	0.7%
7	Surat Thani	27,022	0.6%
8	Ubon Ratchathani	26,844	0.6%
9	Krabi	332	0.0%
10	Hat Yai	186	0.0%

Chiang Rai International Airport

Rank	City	PAX	%Share
International : Top 5			
1	Kunming	6,835	89.9%
2	Guangzhou	306	4.0%
3	Siem Reap	65	0.9%
4	Darwin	59	0.8%
5	Maldives	57	0.8%
Domestic : Top 5			
1	Suvarnabhumi	665,359	68.0%
2	Don Mueang	312,070	31.9%
3	Chiang Mai	787	0.1%
4	Buriram	368	0.0%
5	Phisanulok	15	0.0%

6. Low Cost Carrier Traffic

The number of AOT passengers carried by 20 LCCs operating at AOT airports in 2012 was 21.91 million passengers, increased by 21.0 percent when compared with last year, and gained a market share of overall AOT passenger traffic up to 28.8 percent.

For Suvarnabhumi, after Nok Air moved their flight back to Don Mueang in March 2012, Tomsonfly stopped their services to Bangkok in April, Orient Thai also migrated to Don Mueang in June, and Air Asia group switched to Don Mueang in October, there were 12 LCCs still operated at the end of 2012. The following table showed the number of scheduled services offered by LCCs.

LCC Scheduled Services

Airport	International		Domestic	
	Airlines	No. of Routes	Airlines	No. of Routes
BKK	Air Asia, Thai Air Asia, Tiger Airways, Jetstar Asia, Jetstar Airways, Cebu Pacific Air, Indonesia Air Asia, Jeju Air, Jin Air, IndiGo Airlines, Eastar Jet, T'Way Airlines, Tomsonfly, Scoot, Spring Airlines, Mandala Airlines	29	Thai Air Asia, Orient Thai Airlines, Nok Air	12
DMK	T'Way Airlines*, Air Asia, Thai Air Asia, Indonesia Air Asia	25	Orient Thai Airlines, Nok Air, Thai Air Asia	16
CNX	Air Asia, Thai Air Asia, T'Way Airlines, Tomsonfly	3	Orient Thai Airlines, Thai Air Asia, Nok Air	7
HDY	Tiger Airways, Air Asia, Firefly	3	Orient Thai Airlines, Thai Air Asia, Nok Air	3
HKT	Air Asia, Tiger Airways, Jetstar Asia, Jetstar Airways, Firefly, Condor Flugdienst, Thai Air Asia, Tomsonfly, Indonesia Air Asia, Eastar Jet	10	Orient Thai Airlines, Thai Air Asia, Nok Air	6
CEI	-	-	Orient Thai Airlines, Thai Air Asia, Nok Air	2

Remark: T'Way Airlines offered its service temporarily through Don Mueang from July to August 2012.

6.1 LCC Aircraft Movements

The total LCC aircraft movements in the year 2012 showed a positive growth of 13.71 percent over the previous year. Traffic continued to grow from last year where Don Mueang yielded the highest growth rate (+53.32 percent) benefit from the traffic of Air Asia group, followed by Chiang Rai (+34.79 percent) while Suvarnabhumi registered a small growth of 2.10 percent.

LCC Aircraft Movements

Airport	International	%Change	Domestic	%Change	Total	%Change
BKK	32,934	6.03%	29,324	-1.99%	62,258	2.10%
DMK	7,320	-	34,238	26.31%	41,558	53.32%
CNX	1,849	31.88%	15,010	3.45%	16,859	5.95%
HDY	1,680	8.25%	10,119	4.32%	11,799	4.86%
HKT	9,405	5.47%	12,459	2.42%	21,864	3.71%
CEI	-	-	4,359	34.79%	4,359	34.79%
Total	53,188	23.89%	105,509	9.18%	158,697	13.71%

6.2 LCC Passengers

The total of 21.91 million passengers served by LCCs in the year 2012 jumped by 21.03 percent from the year 2011. The strong continued demand growth for LCCs resulted from the growing number of leisure travelers especially in Southeast Asia region and within Thailand. Thus, LCC airlines tend to expand their fleet capacities to ensure their effort of service offering.

LCC Passenger Traffic

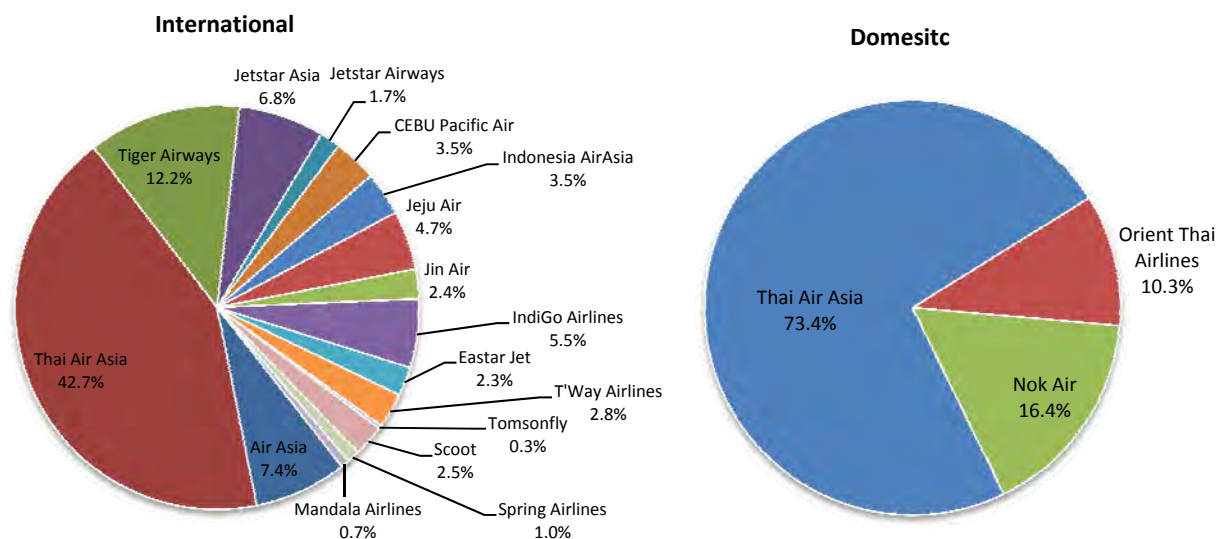
Airport	International	%Change	Domestic	%Change	Total	%Change
BKK	4,745,580	9.83%	3,939,548	3.45%	8,685,128	6.84%
DMK	1,021,947	-	4,664,851	40.47%	5,686,798	71.24%
CNX	246,047	34.85%	2,111,789	25.12%	2,357,836	26.07%
HDY	202,644	1.26%	1,466,447	14.74%	1,669,091	12.92%
HKT	1,346,919	6.79%	1,751,004	7.13%	3,097,923	6.98%
CEI	-	-	577,613	39.84%	577,613	39.84%
Total	7,563,137	26.80%	14,350,912	18.19%	21,914,049	21.03%

6.3 LCC Market Share

6.3.1 Suvarnabhumi Airport

At Suvarnabhumi, the LCC market share by the number of passengers of international and domestic operations was 55 and 45 percent. Among 16 LCCs offering international services, Thai Air Asia outperformed in passenger traffic by sharing 42.7 percent followed by Tiger Airways (12.2 percent), Air Asia (7.4 percent) and Jetstar Asia (6.8 percent) and so on. On the other hand, the LCC domestic traffic was mainly operated by Thai Air Asia (January to September) whereas Nok Air and Orient Thai Airlines moved all services back to Don Mueang since March and June 2012 respectively.

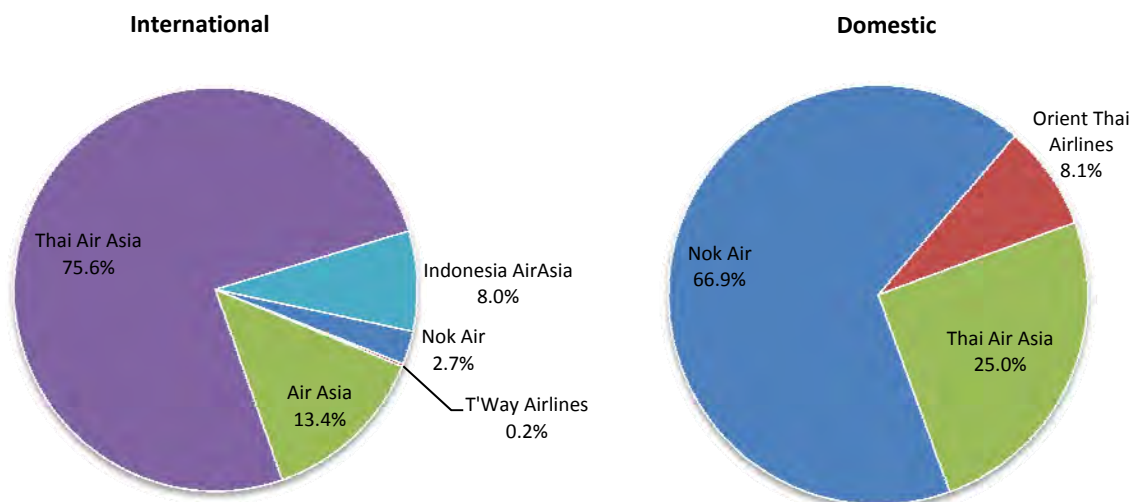
LCCs at Suvarnabhumi



6.3.2 Don Mueang International Airport

The proportion of LCCs of international and domestic passengers at Don Mueang was 18 and 82 percent. After Air Asia group has begun service since October 2012, they topped the international passenger market share with Thai Air Asia led by 75.6 percent. However, Nok Air still held the highest domestic passenger market share by 66.9 percent.

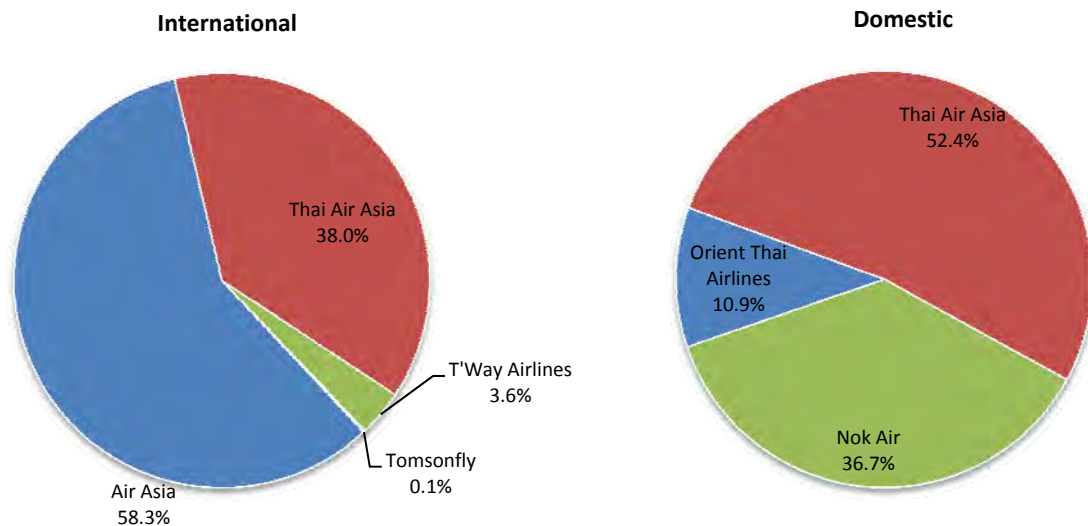
LCCs at Don Mueang



6.3.3 Chiang Mai International Airport

The proportion of LCCs of international and domestic traffic at Chiang Mai was 11 and 89 percent. International traffic was mostly operated by Air Asia and Thai Air Asia. Among LCC domestic traffic, Thai Air Asia led the share by 52.4 percent followed by Nok Air and Orient Thai Airlines which held 36.7 and 10.9 percent share respectively.

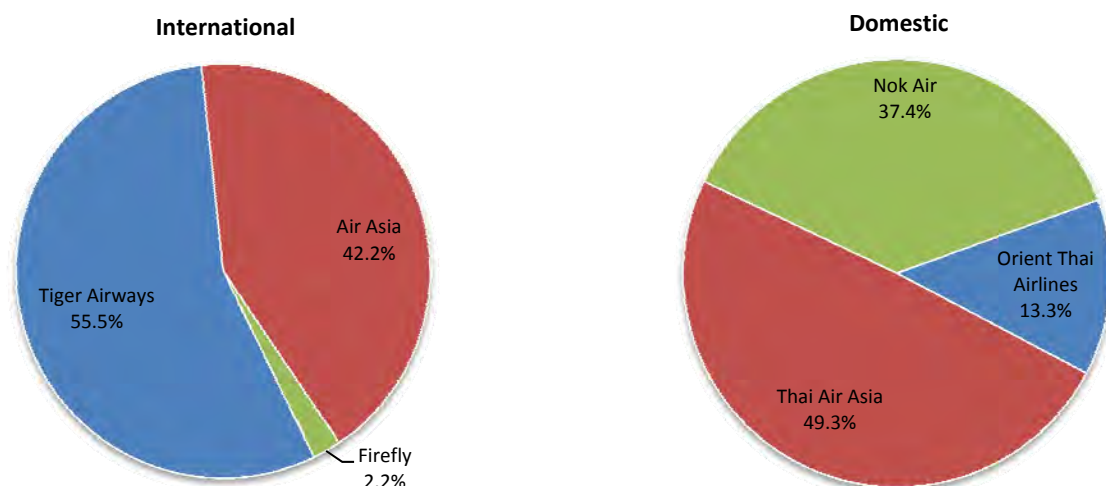
LCCs at Chiang Mai



6.3.4 Hat Yai International Airport

At Hat Yai, Firefly added their service in August 2012 in addition to Tiger Airways and Air Asia. Tiger Airways led the international passenger market share by 55.5 percent while Air Asia and Firefly held 42.2 and 2.2 percent. For domestic operations, there were 3 LCCs led by Thai Air Asia with a 49.3 percent share, followed by Nok Air with a 37.4 percent and Orient Thai Airlines with a 13.3 percent.

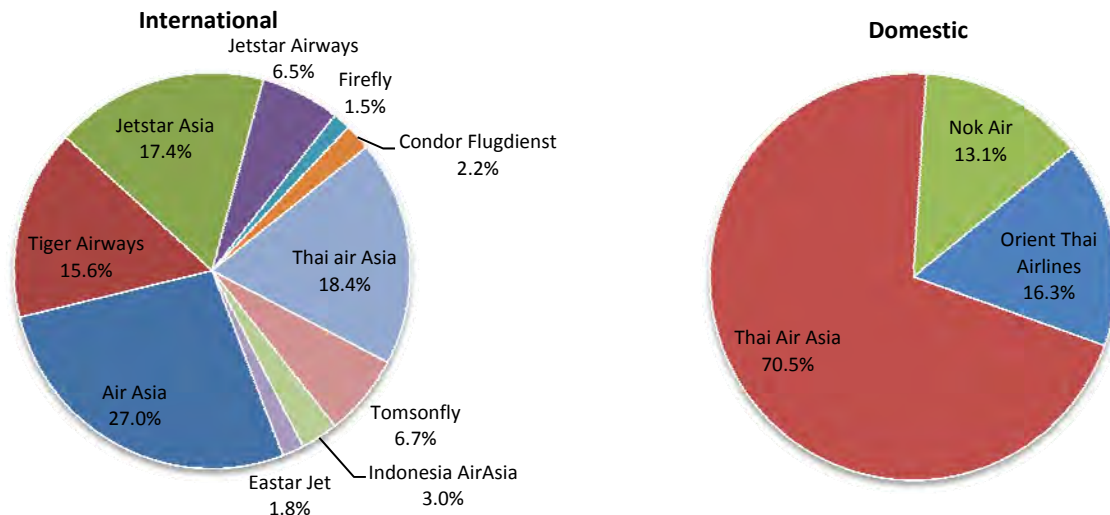
LCCs at Hat Yai



6.3.5 Phuket International Airport

For Phuket, the LCC market share by the number of passengers of international and domestic operations was 43:57. Air Asia led the market share of LCC international passenger by 27.0 percent followed by Thai Air Asia and Tiger Airways with 18.4 and 17.4 percent share respectively. For domestic LCC market share, Thai Air Asia held the majority of 70.5 percent share, then came Orient Thai Airlines of 13.1 percent, and Nok Air with a market share of 13.1 percent.

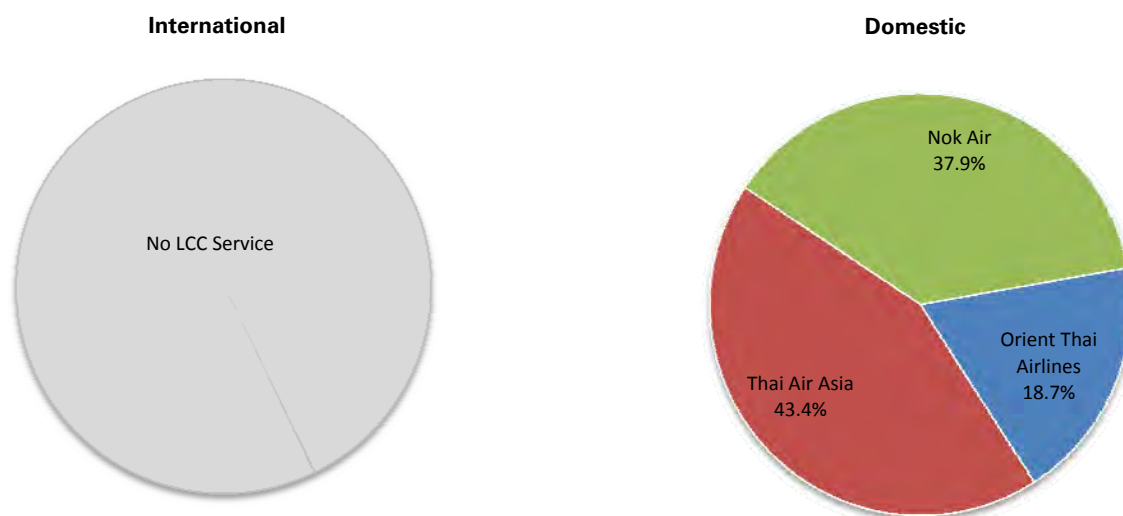
LCCs at Phuket



6.3.6 Chiang Rai International Airport

Three LCCs provided their services at Chiang Rai in 2012. Thai Air Asia and Nok Air dominated a market with 43.4 and 37.9 percent share, while the rest 18.7 percent of the LCC passenger market belongs to Orient Thai Airlines.

LCCs at Chiang Rai



6.4 LCC Connectivity

By LCC operations in 2012, Suvarnabhumi Airport connected to 29 international scheduled routes and 12 domestic scheduled routes while Phuket had 10 international and 6 domestic scheduled destinations.

For international traffic at Suvarnabhumi, Hat Yai and Phuket, Singapore ranked the first destination followed by Kuala Lumpur. International LCCs for all AOT's airports mostly connected to Southeast Asia and China. Domestic LCCs at Suvarnabhumi and Don Mueang were mainly connected to/from the provinces in the southern and northern parts of Thailand, whereas for province airports the traffic was mainly to/from Bangkok (Suvarnabhumi and Don Mueang).

The following tables showed the rank of international and domestic destinations operated by LCCs, including both scheduled and non-scheduled operations, in the year 2012.

Suvarnabhumi Airport

Rank	City	PAX	%Share
International : Top 20			
1	Singapore	1,373,193	28.94%
2	Kuala Lumpur	558,050	11.76%
3	Seoul	475,928	10.03%
4	Hong Kong	422,542	8.90%
5	Macao	305,787	6.44%
6	Delhi	173,711	3.66%
7	Ho Chi Minh	154,244	3.25%
8	Manila	139,984	2.95%
9	Yangon	139,215	2.93%
10	Jakarta	114,742	2.42%
11	Pusan	103,511	2.18%
12	Mumbai	101,391	2.14%
13	Penang	79,871	1.68%
14	Melbourne	78,413	1.65%
15	Bali	76,016	1.60%
16	Shenzhen	75,183	1.58%
17	Calcutta	72,397	1.53%
18	Phnom Penh	71,786	1.51%
19	Guangzhou	70,542	1.49%
20	Hanoi	66,008	1.39%
Domestic : Top 10			
1	Phuket	844,365	21.44%
2	Chiang Mai	738,667	18.75%
3	Hat Yai	603,670	15.32%
4	Krabi	275,201	6.99%
5	Chiang Rai	265,695	6.74%
6	Udon Thani	247,396	6.27%
7	Nakhon Si Thammarat	220,461	5.59%
8	Surat Thani	204,182	5.18%
9	Ubon Ratchathani	195,408	4.96%
10	Trang	158,466	4.02%

Don Mueang International Airport

Rank	City	PAX	%Share
International : Top 20			
1	Kuala Lumpur	199,041	20.02%
2	Singapore	135,804	13.66%
3	Macau	89,252	8.97%
4	Yangon	64,751	6.51%
5	Hong Kong	53,075	5.34%
6	Ho Chi Minh City	49,671	4.99%
7	Jakarta	44,728	4.50%
8	Penang	28,518	2.87%
9	Calcutta	26,569	2.67%
10	Shenzhen	26,232	2.64%
11	Chongqing	25,801	2.59%
12	Bali	25,416	2.56%
13	Hangzhou	24,897	2.50%
14	Guangzhou	24,890	2.50%
15	Phnom Penh	24,656	2.48%
16	Hanoi	21,807	2.19%
17	Wuhan	20,734	2.08%
18	Surabaya	20,298	2.04%
19	Chennai	18,063	1.82%
20	Medan	16,987	1.71%
Domestic : Top 10			
1	Chiang Mai	809,544	17.35%
2	Hat Yai	757,382	16.23%
3	Phuket	552,796	11.85%
4	Udon Thani	463,704	9.94%
5	Nakhon Si Thammarat	387,778	8.31%
6	Ubon Ratchathani	340,994	7.31%
7	Surat Thani	325,351	6.97%
8	Chiang Rai	311,746	6.68%
9	Trang	217,426	4.66%
10	Phisanulok	160,165	3.43%

Chiang Mai International Airport

Rank	City	PAX	%Share
International : Top 5			
1	Kuala Lumpur	143,369	58.26%
2	Macau	58,040	23.59%
3	Singapore	35,405	14.39%
4	Pusan	4,910	2.00%
5	Seoul	4,016	1.63%
Domestic			
1	Suvarnabhumi	899,158	42.58%
2	Don Mueang	809,365	38.33%
3	Phuket	208,272	9.86%
4	Hat Yai	104,495	4.95%
5	Ubon Ratchathani	39,883	1.89%
6	Udon Thani	31,386	1.49%
7	Mae Hong Son	19,148	0.91%

Hat Yai International Airport

Rank	City	PAX	%Share
International			
1	Singapore	112,547	55.51%
2	Kuala Lumpur	85,670	42.26%
3	Subang	4,517	2.23%
Domestic			
1	Don Mueang	757,607	51.66%
2	Suvarnabhumi	604,442	41.22%
3	Chiang Mai	103,729	7.07%

Phuket International Airport

Rank	City	PAX	%Share
International : Top 20			
1	Singapore	540,166	40.02%
2	Kuala Lumpur	363,990	26.97%
3	Hong Kong	100,524	7.45%
4	Sydney	87,100	6.45%
5	Helsinki	50,602	3.75%
6	Bali	41,031	3.04%
7	Cengkareng	40,897	3.03%
8	Seoul	26,559	1.97%
9	Frankfurt	20,225	1.50%
10	Penang	19,535	1.45%
11	Oslo	14,141	1.05%
12	Copenhagen	11,334	0.84%
13	Nanning	9,640	0.71%
14	Sharjah	7,782	0.58%
15	Göteborg	7,207	0.53%
16	Billund	4,015	0.30%
17	Luleå	2,291	0.17%
18	Hangzhou	767	0.06%
19	Yangon	542	0.04%
20	Siem Reap	422	0.03%
Domestic			
1	Suvarnabhumi	843,305	48.09%
2	Don Mueang	557,781	31.81%
3	Chiang Mai	208,257	11.88%
4	Udon Thani	90,271	5.15%
5	Ubon Ratchathani	26,844	1.53%
6	Surat Thani	26,832	1.53%
7	Nakhon Si Thammarat	260	0.01%

Chiang Rai International Airport

Rank	City	PAX	%Share
Domestic			
1	Don Mueang	311,685	53.96%
2	Suvarnabhumi	265,570	45.98%
3	Buriram	358	0.06%

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Summary Report

Air Transportation Information Division,
Corporate Strategy Department
Tel: 02-535-1373 Fax: 02-535-8332