

Bandaranaike International Airport

Development and Traffic Flow at Bandaranaike International Airport in Sri Lanka

Sri Lanka, formally Ceylon, is known all over the world for its diverse attractions, and attracted millions of tourists from all over the world. Bandaranaike International Airport (BIA) is the only gateway to facilitate international flights, located at Katunayake, which is 32 km away from Colombo city. Although many of the world's largest airports are in the South Asian region, few of them acquired a good reputation, and BIA is one of them. In order to satisfy ever increasing demand, it has been continuously developing its infrastructure, as a result it will sooner be identified as a major hub airport in South Asia.

By K. Somasundaraswaran.

History of BIA

The Bandaranaike International Airport, formally known as the Colombo Airport, was built by British in the mid 1940's at Katunayake for the Royal Air Force and was originally called the Royal Airport Katunayake. This airport was primarily used as an air force base and supply center for the aircrafts engaged in World War II.

After independence in 1948, the airport was transferred to an established 'Royal Ceylon Air Force' as a property of Sri Lanka. The airport was then renamed the Katunayake Airport. Since then, this airport has acted as the main airport for the island, catering to both international and domestic air traffic. It was taken over from the 'Royal Ceylon Air Force' by the 'Sri Lanka Air Force' in 1957, and the inauguration of the 'Katunayake International Airport' was held in 1958. It was named Bandaranaike International Airport (BIA), in 1970, then again it was renamed as Katunayake International Airport in '77. The Katunayake International airport was then named as the Colombo International Airport in '79, but was once again renamed Bandaranaike International Airport in 1995.

Picture 2: *The runway. Courtesy of GPaolo Colombo*



Picture 1: *Colombo Airport. Photo by Bo Jayatilaka*

Infrastructure Developments and Passengers

The notable construction work to improve the airport facilities commenced in October 1962, and construction of a runway (3,368m), taxiway and apron (a size of 213m x 122m) were completed in 1965. In June 1966, construction of the terminal building was started and the opening of the new facility took place on the 5th of August 1968. Further extensions to the apron and a second taxiway were added in 1971, and additional sections to the terminal building with a larger departure lounge area and a VIP lounge were completed in 1976. Further development work was undertaken in 1978, and air navigational facilities were also upgraded. On March 24th in 1983, the Airport and Aviation Services (Sri Lanka) Limited (AASL) took over the airport as an appointed agent of the government of the Democratic Socialist Republic of Sri Lanka for the purposes of developing, and maintaining of the airport and in its vicinity, and, subsequently the

passenger and cargo handling capacities including runway expansion were completed in 1987.

Although AASL prepared many Airport development strategies in the past: a feasibility study for Phase-II development[2] in 1997 is notable. The project's objective is to increase the capacity of facilities to cope with demand and to improve the safety, efficiency and convenience at BIA. It was decided to implement the Phase-II development in two stages, which will cater to the forecasted passenger, aircraft and cargo demands until the year 2010 (Stage-1 development) and the year 2015 (Stage-2 development).

These developments were considered as a significant milestone in the history of the airport and civil aviation in Sri Lanka, since it comes at a crucial time in the country's development. A pier with eight aerobridges opened in November 2005 to eliminate the need for taking a coach to the aircraft, together with two new special lounges,

new duty-free shopping, immigration areas and baggage reclaim areas are some of the notable infrastructure developments.

In recent years, various expansion projects have also been identified for future developments, and the projects that are currently in discussion are:

- ➔ a second runway to support new largest aircraft;
- ➔ developing facilities to accommodate technological developments tend including electronic commerce, improving traffic control tower to use satellite-based GPS;
- ➔ a further eight passenger gates;
- ➔ a domestic terminal;
- ➔ a 5-storey car-park; and
- ➔ a five star hotel near to the airport.

New approach channels into the airport will also be created.

The present development and management strategies includes ‘dynamic strategic planning approach’ which shows that without any doubt the Bandaranaike International Airport will play a vital role in South Asia as a hub airport.

Over the last four decades, the demand for aviation in Sri Lanka has experienced continued healthy growth with passenger arrivals increasing from a mere 21,304 in 1967[2] to 4,239,161 in 2005. The detail of passenger movements during a period between 1983 and 2005 is given in table 1.

As shown in table 1, there are notable differences between arrival and departing passengers. Always the departing passengers are more than arrival passengers, except in 2004. Since immigrants through sea is negligible, this show that a portion of people are always on move and stay in abroad, such as students, skill workers or immigrants, which amount to 1.1 million population for the same period. The students and skill workers may visit home and return back but they are continued to be in the list of departure, however actual reasons should be pronounced based on research.

Year	Departures (D)	Arrivals (A)	Total Movements	Changes in percentage	Differences (D-A)
1983	660,342	560,999	1,221,341	+	99,343
1984	679,554	606,068	1,285,622	5.0	73,486
1985	636,701	601,577	1,238,278	(-3.8)	35,124
1986	601,881	570,351	1,172,232	(-5.6)	3,153
1987	579,834	545,517	1,125,351	(-4.2)	34,317
1988	619,626	577,694	1,197,320	6.0	41,932
1989	645,619	565,757	1,211,376	1.2	79,862
1990	759,784	711,927	1,471,711	17.7	47,857
1991	812,081	709,391	1,521,472	3.3	102,69
1992	954,689	842,644	1,797,333	15.3	112,045
1993	987,01	906,809	1,893,819	5.1	80,201
1994	1,103,146	1,052,991	2,156,137	12.2	50,155
1995	1,155,543	1,079,419	2,234,962	3.5	76,124
1996	1,091,402	1,057,176	2,148,578	(-4.0)	34,226
1997	1,181,120	1,138,152	2,319,272	7.4	42,968
1998	1,196,912	1,168,824	2,365,736	2.0	28,088
1999	1,325,565	1,323,215	2,648,780	10.7	2,35
2000	1,458,039	1,422,348	2,880,387	8.0	35,691
2001	1,348,614	1,279,429	2,628,043	(-9.6)	69,185
2002	1,401,355	1,364,809	2,766,164	5.0	36,546
2003	1,637,727	1,595,015	3,232,742	14.4	27,822
2004	2,015,328	2,063,146	4,078,474	20.7	(-47,818)
2005	2,133,413	2,105,748	4,239,161	3.8	27,665

Table 1: Number of Arrival and Departing Passengers at BIA Source: Chairman, Airport Authority, BIA in 2004, and Annual Report 2005 & 2006, Civil Aviation Authority of Sri Lanka (CAA)

The last two decades show remarkable growth in the international passenger movements at BIA. According to recent data for the years 2003, 2004 and 2005; in year 2003, there were 3,232,742 passengers movements were recorded, and it is 14.4 % increase compared with 2002 figures. Again very steady increase was observed in year 2004, and number reached to a total of 4,078,474

passenger movements, and it is over 20 % increase compared to 2003 figures. Once again in 2005, the number reached to a total of 4,239,161 passenger movements, and it is 3.8 % increase compared to 2004 figures.

Although the detail is not given in this text, the number of transit and transfer passengers passing through the Airport improved in 2004 and 2005. The total

number of transit passengers used BIA in 2004 was 582,532 and increased to 823,899 in 2005[2].

Premium traffic is a key source of revenue and profitability for airlines. Indeed, strong economic growth in the Middle East and Asia is already feeding through into strong growth in premium traffic on some of

the smaller routes to and from these regions. As an example, the global premium traffic growth is about 5 per cent in 2005[4], but Middle East – Far East premium traffic shows 14 per cent growth. BIA is ideally located between Dubai and Singapore, therefore, similar global and regional traffic growths will expect to boost traffic flow at BIA.

National Carrier and Passengers

Air Ceylon was the earliest carrier to operate which was Ceylon's (later Sri



Lanka's) national carrier that began as Ceylon Airways in 1947, and was fully state-owned. It ceased operations in 1978 and was replaced by 'Air Lanka'. In 1998, once again Air Lanka was replaced by a name Sri Lankan Airline, and at present extremely contributing to the passenger and cargo movements at BIA.

Table 2 on the next page shows the contribution of the Sri Lankan airline to the passengers' movements at BIA in 2004. In 2004, there were thirty four (34) airlines operated to BIA. Nearly, 55.1 percentages of the total passengers' movements were by Sri Lankan.

However, other airline such as Sahara, Emirates, Qatar, Cathay, Indian, Gulf Air, Saudi, Kuwait, LTU, Thai Airways, Condor, Jet Airways also appreciably contribute to passenger movements.

In 2004, these airlines were connected forty seven (47) cities in the world. Out of the total departures, Madras (11%), Singapore (8%), London (7%), Dubai (7%), Male (6%) and Doha (6%) came top in the list of destinations in regard to passenger movements with percentages as shown in brackets [2]. Similarly, it is also observed that in regard to passenger arrivals, Madras (11%), Dubai (11%), Singapore (8%), London (6%), Male (6%) and Doha (5%) topped the list with percentages of the total arrivals as shown in brackets [2].

	Passengers by	Percentage
	SriLankan	of total
January	193210	54.6
February	168325	56.4
March	169085	55.5
April	168138	55.9
May	169323	57.1
June	175415	55.7
July	209702	56.6
August	223249	55.6
September	193424	56.1
October	189453	50.2
November	180680	54.8
December	209105	54.1
Sub total	2249109	55.1

Table 2: Share of Sri Lankan Airlines to passengers movements in 2004. Source: Annual Report 2005 & 2006, Civil Aviation Authority of Sri Lanka

Conclusion

The Bandaranaike International Airport is the only international airport in Sri Lanka, and passengers' movement at airport is steadily increasing, there was a very rapid increase in the early twenties. Although, thirty airlines are connecting their flights at BIA to transport passengers, over half of the passengers were carried by Sri Lankan airline.

For a period between 1983 and 2005, the annual data on departure and arrival passengers shows that there are always more departures than arrival passengers. However, the actual rea-

sons for these differences must be identified from future research studies. In an airport, inevitable changes in passenger demands, actions by airlines and airport management, technological developments tend [electronic commerce, satellite-based geographic positioning system} will change the planning and design, especially at airport terminals.

But history shows that BIA kept its development and management strategies to satisfy these requirements. The image of BIA image has further increased in November 2005 with the upgrades that have included eight new gates completed with passenger aerobridges; two new special lounges; new duty-free shopping; immigration areas and baggage reclaim areas.

Being well placed between Dubai and Singapore, BIA is well suited to being developed as a future South Asian hub airport, therefore, the continued development and modernization of the facilities remains as top priorities.

The present development and management strategies such as approach of 'dynamic strategic planning concepts' also show that without any doubt the Bandaranaike International Airport will play vital role in Asia as a hub airport.

References

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About the Author

Somasundaraswaran is a Senior Lecturer at University of Ruhuna in Sri Lanka. His research interests covers Road safety, Accident investigations and prevention measures, Traffic signal design, Freeway flow characteristics, Evaluation of airport operation, and Statistical modeling.



Picture 3: The push-back of an SriLankan Airlines's Airbus 340-300. Courtesy of Stuart Lawson [Airplane-Pictures]