

The Airfreight Services And Airfreight Forwarding
Business At Bayan Lepas Airport, Penang

Chong Yoon Choi

5006

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PREFACE

This report is prepared based on the survey which was carried out at Bayan Lepas Airport, Penang, from April, 1980 to November, 1980. This survey was carried out as a form of academic exercise which is a compulsory course for all Geography major (without education).

The main aim of this academic exercise is to give the students the opportunities to use the various research technique effectively in their academic work. The using of these technique require the students to participate in field work including visits to libraries and archives. Students may also require to interview personnel who will be able to contribute their knowledge to the survey. Also if the surveys are carried out using the proper research technique and with proper supervision will produce graduates who are qualified researchers. Students will also be given the opportunities to express their ideas and views concerning certain topics sistematically, clearly and precisely based on the data and informations gather during the survey.

The topic ' Airfreight Service And Airfreight Forwarding Business in Penang' because of the increasing important of this industry in the economic of the country especially the developing countries like Malaysia who are speeding up their industrialization programmes. Thus more and more and input and output from industries are using the air-freight services.

Thus it is hope that this small survey will bring light the importance of the airfreight industry in the economy of the country and in particular to Penang. This survey will also try discuss the various problems which are impeding the growth of this industry. Lastly, it is hope that this survey will serve as a useful reference for studing the airfreight industry in the country in the future.

ABSTRACT

The survey indicates that the airfreight industry in Penang is growing at a very rapid^{rate} judging from the tremendously increased in volume of cargo handled by the airfreight industry since its establishment in 1968. The volume of cargo increased by 30.2% during the period 1971 - 1980.

The airfreight industry in Penang has played various important functions viz (i) provide a fastest outlet for products which are very prone to obsolescence and spoilage, (ii) provide specialized airfreight services to consignors and consignees and (iii) help to speed up the industrialization process in the state. The closing down of the industry will definitely cause adverse effects to the economy of the state. Industries depending heavily on airfreight services (electronic industries) will have to reduce or stop their production. Perishable products cannot be sent to distanced markets. The unemployment rate in the state might rise.

International cargo make up 98.6% of the total cargo handled at the airport. The largest volume of the cargo are imports representing 67.9% of the total cargo. The second half of the year handled 63.6% of the total annual cargo. The main commodity handled at the airport is electronic components and electrical appliances. The exports and imports of high-valued goods such as pharmaceutical products, cosmetics, camera, watches, films and pens is still very low. The main trading partners of Penang are Singapore, USA, Japan, Hongkong, Germany and Philippine. Singapore is the main trading partner of electronic components and electrical appliances. Commodities like electronic components, electrical appliances and garments and textiles dominate the domestic cargo. Majority of these commodities are from Kuala Lumpur. The volume of trade with East Malaysia is only 12.4%. Thus there should^{have} extra effort to increase the volume of trade with East Malaysia.

Like any other forms of industries, the airfreight industries in Penang also faces various problems viz lack of airfreighting facilities, congestion at the aircargo terminal, delay in examing and clearing of cargo, lack of plane space, delay in issuing custom licences for certain commodities and lack of skilled and dedicated MAS and custom personnel. These problems have caused delay in clearing the cargo. The cargo have to be stored for a longer period thus incurring higher storage and insurance costs. Thus there is an urgent need for a new aircargo terminal equiped with the latest airfreighting facilities and manned with skilled, efficient and dedicated staff.

The airfreight industry in Penang has a bright prospect. It will continue to grow. The demand for airfreight services will definitely increased judging from the fact that the demand for airfreight services from places outside Penang such as South Kedah and North Perak has increased although the volume is still very low. The various airfreight problems should be solved first if all parties involved in this industry wish to the opportunity of the increased in demand for airfreight services.

Seperti dengan industri-industri lain, industri pengangkutan cargo udara juga menghadapi berbagai-bagai masalah. Masalah-masalah itu terdiri daripada masalah kurang alat-alat 'airfreighting', kesesakan di dalam terminal cargo, kelewatan mengeluarkan lesen kastam bagi barang-barang tertentu, kekurangan tempat barang di dalam kapal terbang dan kurangnya pekerja-pekerja yang cekap dan berdedikasi dalam kerja mereka. Masalah-masalah tersebut telah menimbulkan masalah sampingan iaitu kelewatan menghantar keluar cargo dan lambat memeriksakan cargo itu. Oleh itu cargo-cargo itu terpaksa disimpan dalam gudang bagi tempoh masa yang lebih panjang. Ini melibatkan kos tambahan dalam bentuk kos menggunakan gudang dan kos insuran yang lebih tinggi. Maka sudah tiba masanya bahawa sebuah terminal cargo yang baru harus dibina dengan segera. Terminal itu mesti dilengkapi dengan alat-alat 'airfreighting' yang moden dan dikendalikan oleh tenaga-tenaga pekerja yang lebih cekap, berdedikasi dan bertanggungjawab.

Industri pengangkutan cargo udara di Pulau Pinang mempunyai masa hadapan yang amat cerah memandangkan permintaan perkhidmatan pengangkutan cargo udara yang semakin bertambah. Permintaan perkhidmatan tersebut juga datang dari tempat-tempat seperti di Selatan Kedah dan Utara Perak. Oleh itu adalah perlu bagi pihak-pihak yang terlibat di dalam industri ini supaya sama-sama mengatasikan masalah-masalah yang dihadapi supaya industri ini terus berkembang.

INTRODUCTION

The airfreight industry in developed as well as in the developing countries is growing at a very rapid rate. This is because of the need for a fast and efficient distribution system brought about by the rapid growth of industry and agriculture. This is also because of the increasing in demand for accelerated and even distribution of agricultural commodities, both of a non-perishable and perishable nature. The potential for increased air transport of perishable goods and food is particularly important in view of the chronic shortages of sources of nutrition in many areas in the world. The air transport has the potential and facilities in providing ways and means to off-set soaring production costs; including such factors as fast delivery, reduction in handling costs, damage and pilferage; minimal packing requirements; considerable reduction of necessity for warehousing, resulting in savings of labour, sheltered storage space and insurance; significant reduction of inventory requirements and others. Associated with the airfreight industry are the airfreight forwarders and agents. Their roles (airfreight forwarders and agents) in the industry should not be overlooked. It cannot be denied that due to the rapid increased in the demand for the airfreight services various problems are bound to be faced by the airfreight industry.

The demand for airfreight services in the world is growing rapidly in many developing as well as the developed countries. During the period 1962 - 1972, the average annual increase in the airfreight volume has been about 17.1%.¹ The percentage increase during 1972 was nearly 15% significantly higher than that of nearly 10% recorded in 1971 or that of 7.2% recorded in 1970.² In the developed countries such as U.S and Singapore, the demand for airfreight services increased tremendously. In Singapore, the airfreight volume increased from 30,000 tonnes in 1972 to 41,000 tonnes in 1973.³ The projection volume of airfreight volume in Singapore will be 430,000 tonnes in 1984.⁴

1. United Nation, Review, 1972 - 1973, page 106

2. *ibid*

3. Rex Toh, Focus on Transport, The Chartered Institute Of Transport (Singapore Division), Singapore, 1976. page 46

4. *ibid*.

In the developing countries the demand for airfreight services also increased significantly. For South America as a whole the ton-kilometres airfreight carried in international service increased from 5.7% of all airfreight in 1951 to 30.2% in 1963.⁵ In the case of Venezuela, airfreight represented 45% of the total airfreight in 1963.⁶ The government of Kenya, Uganda and Tanzania are depending on their cheap regular airfreight services to export their horticulture produces to European markets. The agricultural production of horticulture is the backbone of the economy of these countries.⁷

The airfreight transported in international operations increased far more rapidly than in domestic services which in the case of cargo was practically constant over time such as experienced in South American countries. For example, the cargo transported in international operations in South America increased from 7.5 million ton-kilometres in 1951 to 70 million ton-kilometres in 1963 whereas domestic cargo increased from 140 million ton-kilometres in 1951 to 160 million ton-kilometres in 1963.⁸ In Malaysia, 27 million kilos of aircargo were conducted at the Kuala Lumpur international airport in 1980. Out of the 27 million kilos, 22 million kilos were international cargo (Export and Import) and 5 million kilos were domestic cargo.⁹

Airfreight Forwarders And Agents

Associated with the airfreight industry are the airfreight forwarders and airfreight agents. The airfreight forwarder assumes responsibility for the movement of goods from door-to-door as part of a total package of transport services. This package services also offers consignors a wider range of services embodying a choice of line-haul modes whereas the road, rail or sea freighters can only offer a single line haul. With the present single invoice it carries all aspects of the movement of goods between consignors and consignees.¹⁰

5. Robert T. Brown, Transport & The Economy Intergration Of S. America, Washington D.C., 1976. page 202-211.
6. ibid
7. United Nation, A Transport Strategy For Land-Looked Developing Countries, New York, 1974. page 23-24.
8. Robert.T Brown, op. cit., page 202-211.
9. Jabatan Penerangan Awam, Perangkaan Pengangkutan Udara Tahun 1980 (Semenanjung Malaysia) page 20
10. Rimmer, P.J., Freight Forwarding: Changes in Structure, Conduct and Performance, The Australian National University, Canberra. page 2.

As distinct from the airfreight forwarder, the airfreight agent arranges the collection of the goods for shipment and to raise the necessary documentations. On arrival at the terminal of origins, the line haul mode takes charge of the goods and arranges for them to be loaded. At the destinations terminal the line haul mode is responsible for unloading and storing the goods in the terminal sheds by the consignees themselves, local carrier or the local forwarding agents after further documentations. Thus there is no overall responsibility for the journey as a whole and the supply of different services was only loosely co-ordinated.¹¹

According to Rimmer¹², in fulfilling the door-to-door service the forwarder either owns or subcontracts for the use of the following facilities;

- space in the line-haul terminals and warehouses,
- ancillary equipments such as fork-lifts and cranes,
- pick up and delivery fleets,
- convectional air, rail, road or sea line-haul equipments,
- internodal line-haul equipments such as trailers, containers and pallets,
- specialised line-haul equipment for the carriage of goods requiring either insulation or refrigeration, liquid and bulk cargoes and heavy haulage and
- a fleet of pull vehicles for repositioning internodal line-haul equipment.

With access to the above facilities, the forwarders will be able to offer a series of specialist door-to-door services for insulated and refrigerated freight dry and liquid bulk commodities and heavy haulage.

Thus with the above facilities, the forwarder is able to provide the following services;

- customs examination and clearance services,
- delivery services,
- acquiring of custom licences for restricted items,

11. Rimmer, P.J., op. cit., page 7

12. ibid page 2

- packing services and
- trucking of cargo from one airport to another to enable the cargo to be sent out according to schedule.

In some countries where the airfreight industry are well developed such as in Australia, the airfreight forwarders have their own airfreighting facilities.¹³ However in countries where the airfreight forwarding industries are not well developed, the government will provide all the necessary airfreighting facilities. Moreover, it will not be economical to have these facilities by the forwarders themselves because of the extra cost involved in maintaining them. Also these facilities will be underutilized. Thus it is cheaper to use or subcontract these facilities from the government.

AirFreight Rates

The airfreight rates charged on the commodities are set by IATA. All IATA members (Malaysia is a member) have to follow these rates. These rates must be approved by the respective governments. The airfreight traffic flow is in favour of the developed countries. There is an imbalance of airfreight traffic flow between the developed countries and the developing countries. To correct this imbalance, the governments of the developing countries have lowered the common freight rates. The lower freight rates encourage the importers and exporters to use the airfreight services, thus increasing the flows of airfreight from the developing countries to developed countries. In a recent survey of airfreight in the European Region which employed low bulk-haul pricing indicated only marginal profitability.¹⁴ In an attempt to stimulate traffic to Europe, freight rates have been set at 25% below those for incoming flights by the RTS countries. Also certain freight rates to points in North America are lower than the corresponding rates in the reverse direction.¹⁵

13. Rimer, op. cit., page 2

14. Southeast Asian Regional Transport Survey, Book Two, Part II, Straits Times Press, 1972. page 359

15. ibid page 306

In 1970, the government of the East African countries (Kenya, Uganda and Tanzania) made a decision to fix the airfreight rates much lower than the IATA rates for their North-South shipments of produce.¹⁶ Thus the airfreight rates set by IATA can be manipulated to correct the imbalance of airfreight traffic flow in some countries.

Types of commodities sent by air

A large portion of the commodities moved by airfreight are of high value, non-bulky and for long distance hauls (thousands of miles). Commodities within this category are electronic components, electrical appliances, spare parts, cosmetics, films, cameras, watches, perishable products (Flowers, fruits, livestock), garments and textiles and printed matter. Commodities sent by air can be sent out in time and in a shorter time period to reach their destinations. The number of storage days in the warehouses will be shorter. Thus incurring less costs for the insurance charges, storage charges and handling charges. High value commodities can reach their markets in a shorter time. This helps to avoid the problem of obsolescence. Garments and printed matter (news-paper) can reach their destinations for immediate consumption. Perishable products can be sent to distant markets without having to face the problem of spoilage. Commodities sent by air reduced the problems of spoilage, pilfering and damage to the commodities. However, bulky commodities such as coal, raw materials, grains, petroleum, heavy machinery and low value commodities will cost less if sent by truck or ocean vessels.

Problems of the airfreight industry

The various problems faced by the airfreight industry can be summarized as follows,

- delay in custom examination and clearing of the cargo,
- wrong interpretation of the airfreight rates, thus causing delay in clearing the cargo,
- poor warehousing and storage facilities,
- lack of loading and unloading facilities,
- lack of plane space for certain commodities and
- inadequate of efficient and dedicated personnel.

The problems have caused the following effects on the airfreight industry,

- delay in sending out the commodities,
- delay in clearing the cargo mean incurring higher storage and insurance charges,
- facing the problems of pilfering and damage to the commodities and
- perishable products cannot be sent to long distanced markets.

Measures are taken to overcome these problems so that they will not impede the growth of the airfreight industry. For example, the East African countries have set up a Central Control Agency comprising representatives of the governments, airport authorities, producers, shippers, airlines and aviation licensing authorities in Nairobi to find ways and means to solve these airfreighting problems.¹⁷ The RTS also point out that facilities for airfreight are generally inadequate throughout the world. Improvement in both storage and handling facilities and custom clearance and examination procedures must precede the further growth of air traffic in the RTS region. It is also necessary to point out that some regional airlines refuse to accept air cargo because they cannot guarantee its safe storage before its departure.¹⁸

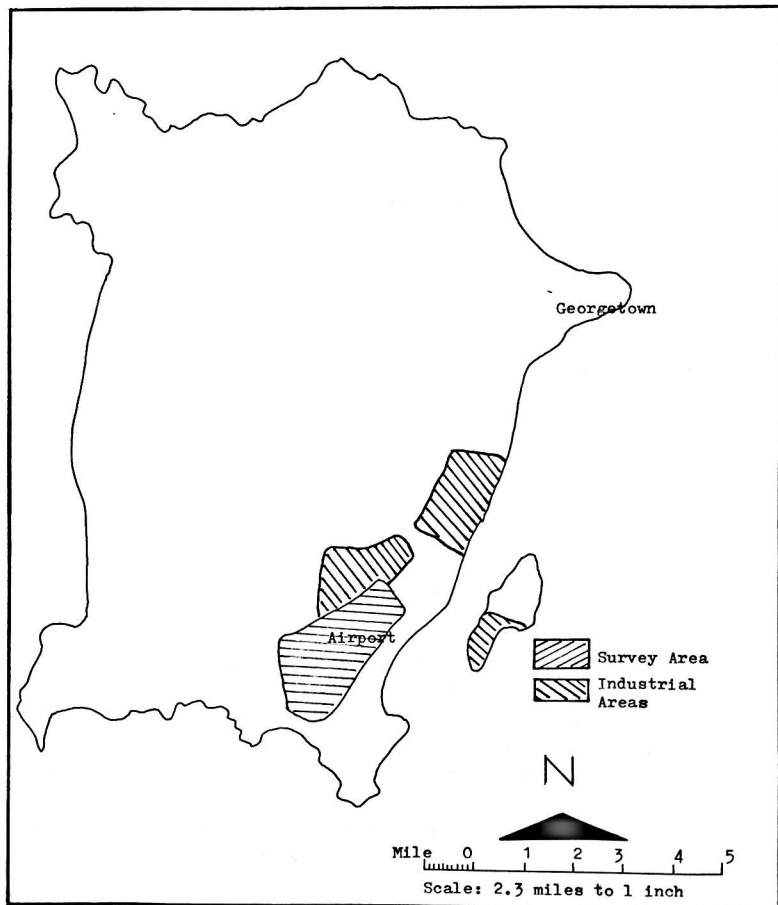
Area of study

The area of study is Bayan Lepas Airport, Penang. The airport is located at about 10 miles from Georgetown. About a mile from the airport is the well developed electronic industry - Bayan Lepas Free Trade Zone. The vegetable, fruits and livestock industry around the airport is well developed. The garments and textiles industry in Penang has increased its output for exports. Thus there is a need for an airfreight industry in Penang to cater for the need of airfreight services from these industries.

17. United Nation, op. cit., page 23-24

18. Southeast Asian Regional Transport Survey, op. cit., page 360

MAP 1 - Map of Penang Island showing the location
of the survey area.



The airfreight industry was then established in 1968 with the setting up of one airfreight forwarder. In 1981, there were already 12 airfreight forwarders operating in Penang. The volume of cargo handled by the airfreight industry increased tremendously. In 1980, a total of 9074661 kilos of cargo was via Bayan Lepas Airport. This amounted to 24.1% of the total cargo handled by all Malaysian airports. This amount is the second highest after Kuala Lumpur (table 1)

Table 1

Total cargo loaded and unloaded at Malaysian airports (1980)

Airports	Cargo (kilos)		
	Loaded	Unloaded	%
Kuala Lumpur	13546799	11992666	68.0
Penang	3115265	5959396	24.1
Johor Bahru	1641679	61315	4.5
Kota Bahru	216245	459526	1.8
Ipoh	90999	166170	0.6
Malacca	46338	53619	0.2
Alor Setar	6948	56990	0.1
Kuala Trengganu	18269	31363	0.1
Kuantan	10308	37250	0.1
Total	18692844	18817697	100.0

Source: Department of Civil Aviation Malaysia, Air Transport Statistics For 1980, (W. Malaysia), Kuala Lumpur, 1980. page 15

A recent preliminary survey, it was found that there are now 12 airfreight forwarders operating in Penang. Majority of them are doing their business in the old cargo terminal. Although the volume of cargo via Bayan Lepas Airport has increased tremendously but the airfreighting facilities at the airport remained the same. The forwarders are not happy with the present condition where the airfreighting business are conducted. The present condition is not conducive to the growth of the airfreight industry.

Thus this survey is to examine why there is no improvement in the airfreighting facilities although the demand for airfreight services had increased. Problems confronting the airfreight forwarders and other related problems (custom and cargo) will be examine. The effects resulting from these problems on the airfreight industry will be examined. The forwarders will be asked to give their suggestions to how these problems can be reduced if not solved completely. The survey will also try to find out the types of commodities using the airfreight services most, their origins and destinations.

Aims of the research

To examine the airfreight services and the airfreight forwarding business at Bayan Lepas Airport, Penang.

Objectives of the research

A. Airfreight industry at the airport.

- i. to trace the growth (since 1968 - 1980) of the airfreight industry at the airport.
- ii. to examine the services and functions provided by the airfreight industry at the airport.
- iii. to examine the movement patterns of the commodities via Bayan Lepas Airport:- their types, origin and destinations (international or domestic).

B. The airfreight forwarding business at the airport.

- iv. to examine the nature of the airfreight forwarders (types, organizations, size) operating in Penang.
- v. to examine the services, functions and importance of the airfreight forwarding services.
- vi. to examine the problems and prospects of the airfreight forwarding business in Penang.

Methodology

A preliminary survey was conducted at the MAS cargo terminal to find out the exact number of airfreight forwarders operating in Penang. It was found that there are 15 airfreight forwarders in Penang. Incidentally, 12 of them are housed at the Penang Flying Club Premise, including the hangar. One of them is in Bayan Lepas town and two of them are in Georgetown. After going through the background of the forwarders, it was decided to take 12 of them for this research. This was because 2 of them were just set up three months ago and the other 1 of them could not be located.

Information concerning the airfreight industry and the airfreight forwarding business were collected using questionnaires with the MAS cargo supervisor and the airfreight forwarding managers. There are two different sets of questionnaires - one set is for the airfreight industry (MAS cargo supervisor - Appendix I) and the other set is for the airfreight forwarding business (airfreight forwarding managers - Appendix II).

Statistical data relating to the movement patterns of the commodities via Bayan Lepas Airport- their types, volume, origins and destinations were collected from the airfreight forwarders. This is because the airport do not keep any of these statistic in the tabulated forms. The forwarders also do not keep any statistic in tabulated forms but only as daily entries records. Only statistic relating to the movement patterns of the commodities for the year 1980 were taken. These statistics were collected from 8 of the forwarders as the other 4 had sent their statistic to their headquarters in Kuala Lumpur.

All the daily entries for 1980 from the 8 forwarders were copied down manually. There were between 10 entries to 50 entries daily by each forwarder. Altogether about 72,000 entries were copied down from these forwarders. The statistics were then collated into the following tables.

- (a) total volume of commodities according to domestic and international cargo

- (b) total volume of commodities according to their exports and imports.
- (c) total monthly cargo loaded and unloaded at the airport.
- (d) total monthly cargo loaded and unloaded by their imports and exports.
- (e) total annual cargo (domestics and international) by types of commodities.
- (f) total annual cargo (domestics and international) by their exports, imports and destinations.
- (g) total daily imports (months of June) by types of commodities.
- (h) total daily exports (month of June) by types of commodities.
- (i) total annual cargo by types of commodities, origins and destinations.
- (j) total annual exports by types of commodities, origins and destinations.
- (k) total annual exports by types of commodities, origins and destinations.
- (l) total annual domestic cargo by types of commodities, origins and destinations.
- (m) total annual international cargo by types of commodities, origins and destinations.

All the statistics collected are presented by graphical and tabulated methods.