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# **AIR TRANSPORT IN THE ASIA-PACIFIC : CHALLENGES, OPPORTUNITIES AND OPTIONS**

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**Conference, 9 - 11 July 1995**

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## **SUMMARY REPORT**

*Organised by*

**Singapore National Committee for Pacific Economic Cooperation**

*on behalf of*

**PECC Member Committees of Australia, Chile, Korea and Singapore**

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## **PACIFIC ECONOMIC COOPERATION COUNCIL**

The Pacific Economic Cooperation Council (PECC) is a unique partnership of business, government and research representatives from 22 Asia Pacific economies who work on practical government and business policy issues to increase trade investment and economic development in the region.

The governing body, the Standing Committee, meets four times in 24 months and comprises the Chairs of the PECC Committees of each of the 22 member economies. PECC holds a major working meeting every 24 months when leaders of business, government and research and invited Ministers jointly to give their assessments of regional economic issues and begin identifying future ones. The substantive work programme is carried out by a range of forums, task forces and project groups.

At the regional level, the most important link with government is through APEC. PECC is one of the three observer organisations of APEC and the only non-governmental body to be given that status. PECC representatives attend APEC Ministerial meetings, the Senior Officials meetings and the working group meetings.

For further information on PECC, please contact the PECC International Secretariat, 4 Nassim Road, Singapore 258373, Tel: (65) 737 9822, Fax: (65) 737 9824.

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## PREFACE

Four Member committees of the Pacific Economic Cooperation Council (PECC), in July 1995, hosted in Singapore a meeting on air transport issues in the Asia Pacific region. The meeting had been planned since late 1994. The meeting was prompted by the expected high rates of growth of traffic in the region and concerns about the ability of the air transport systems (both airlines and supportive infrastructure services) to supply those services at least cost. There was also an interest in the question of how these events will affect regulation of international trade in air transport services.

The PECC, because of its tripartite structure, can make a special contribution to the discussion of issues in this field. PECC can feed in ideas and initiatives to the official process. It also gives business a voice in these sorts of discussions.

The PECC meeting in Singapore was especially timely in the context of the work proposed in APEC, not only because of the expertise that could be assembled in the meeting but also because of PECC's observer status in APEC. As he opened the meeting, the Minister for Communications in Singapore, Mr Mah Bow Tan, said he looked forward to reading reports from the meeting and using them as an input into the work of his group in APEC.

This report summarises some of the discussion of the meeting and highlights the main issues. More detail of the material presented at the meeting, and of the situation in particular economies or regions, will be reported in other related publications. Here, the focus is on the set of common issues in the region.

APEC has also taken up the air transport challenge. Consistent with the leaders' commitments at Bogor last year to pursue free trade in the region, the APEC Transport Ministers, at their meeting in Washington in June, 1995, agreed to convene a group of officials who would prepare a paper on options for more competitive air services on a consensus basis, with fair and equitable opportunities for all member economies. Singapore accepted the nomination to chair the group. Other members are China, Australia, Chile, Hong Kong, Japan, Mexico, New Zealand, the Philippines and the US.

The report was prepared by a drafting group made up of Christopher Findlay (AUSPECC), Jong Seok Kim (KOPECC), Ricardo Paredes-Molina (CHILPEC) and K. Raguraman (SINCPEC), representatives of the national PECC committees which hosted the meeting. The authors consulted all the participants in the meeting and sought comments on a draft of this report before its release. However the authors hold editorial responsibility for the material presented here. Views expressed here may not be those of all participants.

*CF*  
*RP-M*  
*JSK*  
*KR*

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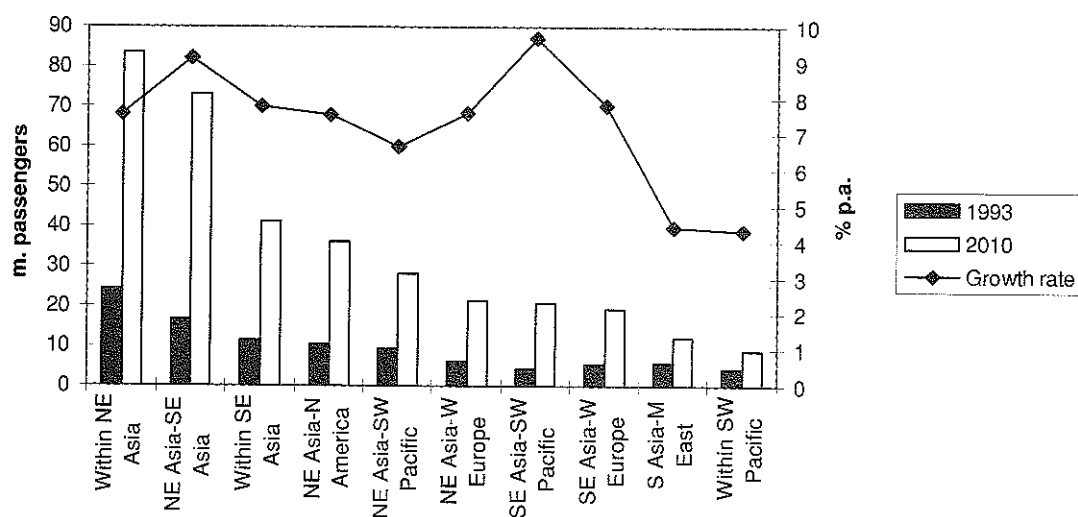
## REGIONAL TRAFFIC GROWTH

### EXPECTED GROWTH RATES OF PASSENGER TRAFFIC

There is a variety of forecasts of traffic growth in the Asia Pacific region.<sup>1</sup> IATA forecasts traffic to grow by over 8.5 per cent between 1993 and the year 2000 - a total increase in passenger movements of 78 per cent, or 87 million trips). There will be another doubling of passengers over the subsequent 10 years (a growth rate of 7 per cent a year).

These projections refer to movements within the region and between it and the rest of the world. By the year 2000, the total movements associated with the Asia Pacific are forecast to account for 41 per cent of the world total (28 per cent of the world total will occur within the region) and for over 50 per cent by the year 2010 (33 per cent within the region).

Figure 1: Asia Pacific Traffic Growth



Source: IATA

Figure 1 shows the shares in traffic in 1993 and the year 2010 (forecast by IATA) of various sets of routes in the region. The largest sets of routes are expected to continue to

<sup>1</sup> The Asia Pacific region according to this definition includes northeast Asia, southeast Asia, south Asia and the southwest Pacific.

lie within NE Asia, between NE and SE Asia, and within SE Asia. However the fastest growing sets of routes will lie between SE Asia and the SW Pacific, followed by routes between SE and NE Asia.

China will see the fastest growth in traffic which to the year 2005 is forecast to be over 13 per cent. The next highest forecast rate of growth is Chinese Taipei with over 9 per cent while Hong Kong is just under 9 per cent. Others with above average growth include Indonesia, Thailand, Korea, and the Philippines. Those with below average growth (but still at rates exceeding 5 per cent) include Singapore, Malaysia, Australia and Japan.

While routes to, from and within the Asian region are expected to grow faster than others over the next two decades - at about 7 per cent a year or more - those involving Latin America are in the bracket of high growth routes - 5 to 5.5 per cent a year. Traffic across the Atlantic, with Europe and within North America is expected to grow at 4 to 4.5 per cent a year over that period.

### **Change in The Traffic Mix**

Underlying these rates of growth in demand are the effects of the growth of incomes and of international business. Leisure travel is highly income elastic. The growth of trade and of international capital flows is also driving the demand for business travel. Business travellers are expected however to face an increasing number of substitute mechanisms for international travel. For this reason, and because of the effects of rising income at particular stages of development in the East Asian and Latin American region, the long run scenario among PECC member economies could be relatively faster growth of tourist traffic compared to business traffic.

Since 1970, the index of the average world wide average passenger revenue yield has fallen at a rate of -2.5 per cent year in real terms, that is, by nearly 80 percent over the quarter of a century. Partly this reflects the technological changes in the industry, and their effect on supply of capacity compared to the growth in demand. The change in the



composition of demand is also affecting airline yields, with more seats filled by lower fare passengers. On the other hand, while revenue yield per passenger may be falling, yield per flight may not be falling so fast. Revenue yield per available seat km can be increased by the use yield management programs which increase the ability of carriers to fill seats.

The point remains, however, that these technological changes combined with shifts in demand are management challenges to airlines, even though the size of the markets in the region are growing rapidly.

### **Expected Growth Rates of Freight Traffic<sup>2</sup>**

The major freight markets are the routes between North America to Asia, in the US domestic market, between North America and Asia and between Europe and Asia (all with shares in the world market in the range of 15-20 per cent). The next largest group is intra-Asia and North to Latin America (shares of 5 to 10 percent). The intra-Europe market is one of the smallest air freight markets in the world.

Between 1978 and 1994, air cargo grew at 7.8 per cent a year. The rate forecast to the year 2014 is 6.6 per cent. Over that period, the world wide freight volume is expected to more than treble.

Growth in intra-Asia traffic has been relatively rapid and is expected to lead the world's growth over the next two decades. Above average growth is expected within Asia, and between Asia and North America and Europe. Other rapid growth routes are those between North and Latin America and between North America and Europe.

There is expected to be a dramatic change in the composition of the air freight market. International express is expected to boom. Its share is expected to grow from 4.7 per cent of the market in 1994 to over 31 per cent by the year 2014.

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<sup>2</sup> Forecasts in this section were provided by Boeing.

therefore expected to change little, while the pure freighter shares rises. However there is still a large change in volume in absolute terms, with the pure freighter volume rising from about 73 billion ATKs to 267 ATKs, an increase by a factor of 3.7. This growth in traffic is associated with an expected increase in the share of large size aircraft in the world's all cargo fleet, from 18 per cent in 1994 to 38 per cent in 2014.

## **INFRASTRUCTURE CONSTRAINTS**

### **Airport Capacity Constraints**

The growth forecasts we have reviewed so far are unconstrained. They assume that the aviation infrastructure is capable of sustaining this growth.

Substantial investment in airport infrastructure is planned. Major airport work in the Asia-Pacific region has included

- Changi (Singapore),
- Kansai (Osaka),
- Chek Lap Kok (Hong Kong),
- Seoul,
- Bangkok,
- Kuala Lumpur,
- Macau,
- Hanoi,
- Manila and
- Sydney.

This record is impressive compared to Europe where the only major new airport in recent years has been Munich, and that took 30 years from inception to completion.

Despite the level of activity in the Asia Pacific region, there is still some concern that the capacity may not be sufficient. There is also some concern that airport development will occur at different rates in various locations, which will tend to divert traffic flows onto routes or networks with lower levels of congestion.

occur at different rates in various locations, which will tend to divert traffic flows onto routes or networks with lower levels of congestion.

China is a special case because of the scale of the growth in demand. Currently in China there are 132 airports in service, among which only 13 are capable of accommodating an aircraft as large as a Boeing 747: more than 70 can accommodate a 737. The immediate plans are to build 32 new airports over the next 5 years. The first step includes new airports at Guilin, Guangzhou, Hangzhou and Haikou, plus the expansion of Chengdu. Beijing, Shanghai and Guangzhou airports will be developed into hubs. This program involves a large amount of design and management effort and Chinese policy makers in this area have announced their intention to involve foreign investors. Issues involved in privatisation are discussed below.

A major limitation to meeting the growth in demand for airport capacity is the environmental constraint. The delay in the construction of the Munich airport is explained in part by the cost of meeting environmental objections. Similar constraints have emerged in other cities in this region, eg Tokyo and Sydney. This concern, especially about noise pollution, remains despite the improvement in noise emissions from jet aircraft. Environmental constraints on the extent of operating hours not only reduce aircraft utilisation rates but also raise the costs of aircraft operation.

The second and related constraint to airport development will be the rising cost of suitable land. This is a special issue in the region which is in general relatively densely settled. Subject to the emergence of suitable vertical take off and landing passenger aircraft, airports will continue to require relatively large land areas close to cities.

Some airports originally constructed in suitable locations which permit high utilisation rates may be surrounded over time by housing. The proximity of a larger number of people living in the area increases the problem of noise which in turn can lead to curfews and other constraints on expansion. Either airports have to be constructed with the expectation that their life will be shortened by expanding urban areas, or the surrounding areas have to be protected from particular uses, accommodation in particular. Local

zoning rules have been ineffective in providing this protection. It appears that a different contractual solution to these problems may be required. For example a local government would not be so inclined to, or be able to, change zoning rules in this way if it had acquired in some way contractual responsibility for managing the airport and for accommodating the associated noise within its jurisdiction. The particular government may, for example in this alternative scenario, have bid for the right to have the airport in its area, or it may have accepted a compensation package from other communities with which it was associated for it to continue to have the airport in its area.

Another major cause of congestion at airports is the failure to develop customs and immigration facilities which can handle the growth in traffic. There are technical opportunities for processing now available which are not being taken up by immigration and customs authorities. With respect to the movement of people these include machine readable passports and visas. Another example is the Future Automated Screening for Travellers (FAST) system, being promoted by the World Travel and Tourism Council, which uses a biometric measuring device to scan and record physical details which are unique to the individual traveller (for example, the hand). Increases in aircraft size (one response to airport congestion) will increase the pressure on terminal building facilities.

The opportunities to innovate in this field are currently being examined by various APEC working parties, especially with respect to freight. More work of this type could in the long run make a significant contribution to the rate of traffic flow and to reducing terminal building congestion.

Finally, an important infrastructure issue related to airports is surface access. Heavy road congestion in some cities means that the journey to the airport is longer than the international flight taken by the traveller.

A theme of these remarks about airport congestion (and those below about air traffic control) is the value of taking an integrated view of the services required - surface transport, terminal buildings, apron facilities, runways and landing slots.

## **Air Traffic Control Constraints**

The growth in traffic is increasing the demand for air traffic control services. The capacity to respond has also increased, but controllers who in earlier years controlled 5 to 6 aircraft at one time now control 8 to 10.

Airport constraints at present spillover into apron and air space congestion as aircraft are forced to queue. Also as the number of airports increases, the airspace available to traffic controllers to hold aircraft waiting to land can shrink. This may be a special issue for example in the Pearl River Delta area where airports at Hong Kong, Shenzhen, Macau and Zhuhai are located.

There are solutions to the air traffic control problem. One is the introduction of the Future Air Navigation System (FANS). This system provides more accurate navigation, more accurate tracking, and a reduction in aircraft separation without a reduction in safety. This system can also respond more quickly to and the reduce the effects of changing conditions, for example, changes in the weather or systems failures. A spinoff from the adoption of this technology is ability to provide higher quality communications services to travellers, for example, telecommunications and entertainment during flight.

This system is based on satellite communications and so will require international cooperation for its introduction. However at some airports and even using the current technology there is scope to reduce the separation times between aircraft.

## **Role of Secondary Airports**

Congestion at the major airports has implications for the route development strategies in many economies. The tendency in some markets has been a rise in the share of flights to and from hub airports and a fall in the share at secondary airports. This has been the case in Europe between 1985 and 1994. In the Asia Pacific region, the share of flights from secondary airports has fallen from 21 per cent in 1985 to under 20 per cent in 1994. Airlines have tried to concentrate their flights on hub airports offering higher frequencies

in larger aircraft. Congestion, as noted already, constrains the application of that strategy. The development of smaller long range aircraft also encourages the consideration of other strategies. Over the next decade, the share of international flights from secondary airports is expected to increase as a result. The extent to which this can happen also depends on the regulatory regime. One option to encourage this pattern of development is to adopt a more liberal policy with respect to these airports.

### **Regional Airlines**

A greater focus on secondary airports and the greater use of smaller aircraft increases the scope for regional airlines for offering direct services. Other forces in this direction are the lower costs of operating regional services in a separate and specialised company.

North America now accounts for nearly 56 per cent of the world's regional airlines. Europe accounts for 26 per cent, the Asia Pacific accounts for only 11 per cent and Latin America for 5 per cent at present. The largest regional carriers in the Asia Pacific are Merpati Nusantara (a 100 per cent government owned airline in Indonesia and the fourth largest regional operator in the world) and TransAsia Airways (Taiwan).<sup>3</sup>

A further force in this direction in the Asia Pacific is the increasing separation of international and domestic services, especially as flag carriers are privatised (see below).

### **Airport Privatisation**

The size of the task of airport management and expansion has led many governments to consider and implement the idea of privatisation. In some cases, this means a role for the private sector in airport development under 'build, operate and transfer' schemes. In other cases, it means private ownership and management of airports.

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<sup>3</sup> These data are from *Airline Business*, May 1995, p. 47: the editors note the response rates in the survey were higher in North America and Europe.

Privatisation of airports involves more complexities than privatisation of other enterprises. Airports are likely to be local monopolies with considerable market power. One response could be apply price cap regulation to monopolies.

Airports also generates considerable external effects on local communities - aircraft noise and flows of traffic to and from the facility are examples. These too can be handled, although often with some difficulty.

Private airports will aim to pursue financial objectives, but governments on the other hand may have a wider range of objectives. It may be necessary to set up explicit incentives or controls on airport operators that will induce the required behaviour.

The implication of all these observations is that a successful privatisation program will require governments to establish explicitly its objectives in airport management, the treatment of the externalities associated with their operations and the regulatory regimes which are to apply. Without privatisation governments could have responded to issues as they arose. Privatisation however challenges governments to consider a wider range of contingencies all at once. Privatisation permits governments to escape the costs of a series of construction and management tasks but at the same time requires attention to a range of policy issues.

There are also issues associated with the trend towards the privatisation of airlines and we examine them in more detail below.

### **Pressures on Aircraft Suppliers**

The growth in traffic in the region is leading to increased demand for aircraft. Its requirements are becoming the driving force in determining the capability of aircraft in the future.

A feature of the region will be its wide range of demands for aircraft types. Aircraft are required in every size category but must also be capable of serving many different

is estimated that the cost of adding ten new aircraft of the same fleet type to an existing fleet is 27 per cent lower than if the new aircraft are of a different fleet type.

## **REGULATORY REGIME**

The regulatory system in air transport is unusual. The trade is regulated by a complex global network of bilateral agreements. Countries exchange with each other the rights for their airlines to fly on routes between them. They also determine the access of third parties to these routes and that access is generally restricted. There are often disputes between countries over the extent of that access and disputes can lead to threats of sanctions.

The history of the bilateral system is important to appreciate. A number of arguments carried some weight at the time the system was created. These included the views that

- The market would otherwise be dominated by US carriers
- Air transport is an “infant industry”
- A national carrier is required to “show the flag”
- National airlines support local aircraft industries
- National airlines are needed to reduce balance of payments deficits
- The presence of a locally based carrier provides access to aircraft in times of national emergency.

Some of these arguments can now be reinterpreted - for example, “showing the flag” can now be more specifically defined in terms of promotion of a local tourism industry. Generally however, the strength of these arguments has been weakened by the growth of the market, including in the Asia Pacific region. Furthermore, there are other and, economists would argue, more efficient forms of policy intervention for particular objectives than the bilateral system of regulation. If there is a case that the output of a particular industry is too low from a social point of view, then direct subsidies - which have the advantages of a greater degree of transparency - are usually argued to be the more efficient form of intervention.



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### **Pressure for Change**

There is a number of pressures for change on the bilateral system. One is from the multilateral trading system. Multilateralism for a number of reasons, including the successful outcome of the Uruguay Round of negotiations, is the fundamental principle in the management of the world trading system. The regulatory system in air transport, however, clashes with many of the principles of multilateralism. Rights are negotiated on a reciprocal basis with the aim of achieving a 'balance of opportunities' between the two sides. It does not therefore treat all trading partners in a non-discriminatory way. It also discriminates between foreign trading partners and domestic firms in terms of market access. As a result, the current arrangements deny some of the gains from international trade in this service. The extent to which this cost is incurred is an issue which is discussed again below.

There were attempts to have air transport included in the General Agreement on Trade in Services (GATS) which emerged from the Uruguay Round of multilateral trade negotiations, but the parties agreed to include only some marketing and ground service components. Market access questions were not included.

The multilateral system has not stopped giving air transport its attention. The WTO is committed to reviewing the sector some time over the next 5 years. In anticipation, other multilateral institutions are working on the issues, the OECD for example.

Because of these multilateral forces, greater scrutiny of the regulatory system and its effects on trade can be expected. These initiatives will be strongly supported by the tourism industry in many economies, in particular those parts of the tourism sector which

rely on inbound tourists and which stand to gain from further improvements in real fares and efficiency.

Local consumer influence, eg of outbound passengers in highly regulated markets, is also increasing. Greater weight on consumers interests has been made explicit in many economies in the region. The effects have been significant, for example, contributing it is argued to the characteristics of the new US/Canada agreement (see below).

These forces for reform may also be supported by suppliers of other inputs into the industry, such as firms involved in the planning, construction and management of airports, and others such as the aircraft suppliers.

There is also an administrative issue. The bilateral system is relatively more expensive to administer in high growth markets. Agreements have to be renegotiated frequently which places a burden on governments and on airlines.

There are however arguments against change and substantial resistances to reform which we note below.

## **CHALLENGES FOR AIRLINES**

In this section, it is argued that Asia Pacific carriers cannot be protected to the same extent as before by the bilateral system. They will become exposed to increasing degrees of competition. Their competitive edge due to lower input prices is valuable but will be eroded over time as they develop, and also their competitors based in Europe and the US have countervailing advantages. These arise from the effects of the competitive processes that have already been experienced within those markets. This perspective has important implications for the regulatory system which we examine in more detail later.

Airlines in the Asia Pacific region tend to serve various parts of the region in an uneven manner. Their networks are fragmented. Global alliances are being formed. US and European carriers are aligning themselves with several Asian carriers. These Asian

partners also compete with each other and the US and European partners benefit from this situation.

Some European carriers have been able to organise their local networks in a more efficient manner using the open skies regime within the EU. Carriers based in Asia have not yet had that opportunity.

Many carriers based in Asia have had cost advantages, sometimes due to lower input prices. Also economic growth is associated with rising prices of inputs, labour in particular. It is possible, however, that waves of new competitive suppliers will emerge, although the extent of the threat which they pose to established carriers depends on the features of the regulatory system.

The difference in competitiveness between Asian carriers, and those from the US or Europe for example, is not efficiency, but input prices. Carriers based in other continents on the other hand have structural and marketing advantages. The extent to which they have been able to develop these advantages has been enhanced by deregulation with the US and the open skies regime within Europe. The degree of openness in North America has increased since the signing in February 1995 of an open skies agreement between Canada and the US.

Despite its restrictions on entry of third parties and on new suppliers, the extent of competition in the bilateral system is increasing. There is more traffic, denser routes and more routes. The extent of protection which the bilateral system affords any one carrier is falling. This pressure has helped ensure that the technological changes and their effects of reducing costs have been passed on to consumers in falling real ticket prices.

Airlines are having to respond to this growth in competitive pressure. Even though the bilateral system is in place, it cannot protect airlines from making losses. Travel demand is also sensitive to the variability in economic activity. Even low cost carriers would report fluctuating earnings for this reason. But in the longer term high cost carriers are especially vulnerable to the growth of competitive pressure in the market place.

Firms in other industries under pressure for structural adjustment will often consider strategies such as increasing the extent to which inputs into their production processes are sourced offshore, or even relocating offshore. These options are more difficult to pursue in the air transport business.

The air transport system has many of the features of a preferential trading arrangement. It provides preferred access to some suppliers. In merchandise trade, the identity of the suppliers with preferred access is determined by the country of origin of the products which they are selling. Country of origin rules like this are more difficult to apply in services transactions. What happens in those cases is the movement across borders of the capacity to supply. So in air transport, the identity of preferred suppliers is determined by an ownership rule. The preferred carriers must be substantially owned and controlled in the bilateral partners.

This ownership rule tends to limit the adjustment strategies of the airlines. It is not so easy for them to relocate for example, because their treatment under their home country's bilateral agreements might be challenged.

Airlines tend instead to pursue other options. The result has been the proliferation of marketing arrangements and other alliances which has been observed over the last few years. In some cases, these alliances - for example, codesharing which permits the quick extension of networks - are sensible. The option of going even further, taking a larger equity position and achieving a substantial degree of control over a business partner is however constrained by the bilateral system.

## **OPTIONS FOR SYSTEM DEVELOPMENT**

### **Resistances for Regulatory Change**

There is no single position on the next steps in the development of the regulatory system within the Asia Pacific region.

appropriate strengths and opportunities, their managements, and policy makers at their home base, may still be uncertain about the outcome of a change in the regulatory regime.

Growth in traffic has been impressive, even under the bilateral system. The forecasts noted above are not based on expectations of regulatory reform. Relevant assessments of what the outcome would have been in the absence of regulation, or of what the forecast growth rates would be if there was reform, are not immediately available. The absence of this sort of assessment is an impediment to the evaluation of alternatives.

Policy in some key economies continues to be opposed to reform. There is a wide range of perspectives and interests, even in the Asia Pacific region. Some variables which appear to influence the position of economies on these issues include the size of their markets, the direction of traffic flows (eg the relative importance of tourists originating offshore compared to traffic originating from home), their location, airline competitiveness and others.

One difficulty in re-negotiating and realigning airline policy positions in this sector is that, at present, negotiations on air transport are

- quarantined from those on other tradeable goods and services and
- dealt with bilaterally.

Negotiating with a number of countries simultaneously (ie engaging in multilateral aviation talks) would reduce the significance of this impediment. Inserting air transport into negotiations on a package of goods and services would have the same effect: the experience in the EU was that liberalisation was possible because air transport was packaged with all other goods and services.

Another impediment is a concern about the problems created by infrastructure congestion, an issue which was discussed in the first part of this report. In this context, the current arrangements serve as a policy instrument for managing access to essential facilities, like airports - landing times, terminal slots, etc. These questions can be raised and resolved in

Another impediment is a concern about the problems created by infrastructure congestion, an issue which was discussed in the first part of this report. In this context, the current arrangements serve as a policy instrument for managing access to essential facilities, like airports - landing times, terminal slots, etc. These questions can be raised and resolved in the bilateral system or under the agreements negotiated there. In their absence it is not clear how such issues would be resolved. A carrier might have some advantage in terms of airport access at its home base, but its bargaining power would be weaker elsewhere. These are questions about the administration, and international coordination, of competition policy. However the institutions required for the application of such a policy in the Asia Pacific regime are still being developed.

A coordinated approach to competition policy might be used to replace the bilateral system, at least with respect to these issues. In the short run, this could involve coordination amongst existing authorities and the adoption of a set of principles including a dispute settlement process. In the longer run, the application of competition policy more generally may also expose other competitive practices common in the industry. Some airlines, particularly established carriers, may be apprehensive about starting institutional changes that lead in this direction.

The bilateral system has served a number of purposes. It supported the participation in international aviation by national flag carriers which might not otherwise have survived. It created the possibilities of offering cross subsidies. Airlines could be induced to perform various community service obligations, even at a loss, with the knowledge that their profitable routes would not be subject to "cream skimming" by entrants not burdened with the same obligations. These community service obligations include serving particular routes deemed to be in the national interest but also promoting the home country as a destination.

### **Directions and Options for Change**

Can we predict in which direction the bilateral system might change? The answer is no! While an increasing number of countries are seeking to liberalise their bilateral

agreements to make them more responsive to market forces, there is a range of opinion among policy makers and among airlines. Consistent with the Bogor Declaration, however, APEC members could commit themselves to working towards more liberal arrangements. There is a number of routes available and in this section we outline some options. We have grouped these options according to the time period over which they might be implemented - short term (that is, by the end of 1997) and longer term (that is, by the end of 1999). While these options have different target dates for implementation, they could be pursued simultaneously.

### **Short Term**

#### *Automatic 3rds and 4ths*

One option, especially relevant to rapidly growing markets like those in the region, is to have automatic exchanges of market access between bilateral partners, but continue to negotiate access for third parties. That is, 5th freedom access could be managed under the current system, but 3rd and 4th freedoms could be managed under a trigger mechanism. Capacity could be added by airlines at either side until a target (and predetermined) load factor was met. At that point further additions to capacity would depend on the growth in demand.

#### *Open charter markets*

Some economies in the region have an open policy towards charters. APEC members could work to make their charter policies more transparent and encourage their administration in member economies in an open way. There is scope for the growth in charter traffic, as in Europe, given the relatively faster rates of growth in the region expected for leisure traffic.

#### *Free freight markets*

The rapidly growing freight sector could benefit especially from open systems, given the lack of symmetry in traffic movements and the gains from being able set up efficient networks, involving various sorts of triangular structures. Some lessons about

deregulation might also be learnt in the freight market, such as the efficiencies to be gained by regulating international air freight separately from passengers.

#### *Role of alliances and codesharing*

Alliances and codesharing are mechanisms for getting around the restrictions of the bilateral regime. Policy in some economies may be inhibiting the use of this option. Although it raises competition policy issues, reviews of policy on this issue are worthwhile. Considerable empirical work on the impact of these strategies has already been completed in North America.

#### *Open skies at secondary airports*

The current regime could be retained for hub airports and alternative more open system be adopted in the secondary airports. The secondary airports are those which are less congested and where a particular range of aircraft types are likely to be observed. Apart from the question of defining secondary airports, the main issue in this regime is managing the connections between the secondary airports and the hubs, and the relative competitive powers of the different types of airlines.

#### *Agreements on state aid*

While public subsidies to airlines are difficult to avoid, it may be possible to negotiate to limit subsidies, even the generous provisions in the US bankruptcy code. There are precedents in other sectors -- shipbuilding, export credits for civil aircraft, and assistance to agriculture. Each of these negotiations, undertaken in multilateral forums, took several years before subsidy definitions and limits could be agreed. However, the increase in the extent of privatisation of airlines will facilitate shifts in this direction.

#### *Multiple designation*

A number of economies in the region now have had experience with multiple designation. The introduction of that policy appears to have had a substantial effect on the policy making process. It complements deregulation in the domestic market. It facilitates the introduction of a consumer perspective, although it also raise new issues about procedures for the allocation of capacity between designated carriers. APEC



members could share the experiences and define the principles for the adoption of multiple designation regimes.

#### *Dispute settlement*

Civil aviation is not covered by the dispute settlement mechanism in the GATS. The bilateral agreements have arbitration clauses, but these may not be binding and there is no multilateral forum for dispute settlement. Disputes can become wars, with both sides threatening to impose sanctions on the other. APEC might therefore consider designing its own dispute settlement system.

#### *GATS principles*

While inclusion of air transport in the GATS is a longer term option, an endorsement of the relevance of its principles to air transport is a worthwhile short term objective in the region. It would both guide the development of regional strategies (see below) and send a signal to other regional groupings about the objectives of regulatory development in this region.

#### *Options for thin routes*

APEC members may also review how all these options might be applied to relatively thin routes, for example, those within the South Pacific linking the island economies, or thin routes within larger economies which wish to maintain service quality. Experience of the management of these community service obligations, providing a greater role for the private sector while also avoiding some of the problems of the abuse of market power than also can occur on such routes, is worthwhile sharing.

### **Longer Term**

#### *Regional clubs*

The scope for regional arrangements is an interesting longer run option. For example, a group of countries within a region, and between whom the traffic flows are relatively dense, could agree to a more liberal regime: this might include no restrictions on the exchange of capacity among members of the group, including third party access by

members of the group to any route within the network covered by the agreement. This is the next step beyond the automatic third and fourth freedom regime listed above.

Furthermore, we could expect to see economies committed to this sort of reform to work simultaneously on the coordination of some aspects of their national competition policies. The latter is especially important given the concerns about the likely congestion of infrastructure in this sector, and the scope for incumbent airlines with preferential access to airports for example to protect their positions.

Regional arrangements (sometimes called plurilateral) should only be endorsed, however, if they contain an explicit statement of a rule on accession. A test of their openness is their willingness to permit new members to join, and to join on exactly the same terms as existing members. This clause would also cover the docking of existing clubs to each other. Higher level authorities, like the WTO or APEC, could adopt this accession condition as one form of assessment of the contribution of any particular arrangement to progress in this sector.

#### *Hubs and spokes*

Another option for reform, and which is promoted and pursued already, is to work within the bilateral system, for example, freeing up rules on capacity on particular routes. The idea is that liberalism then spreads, with competitive pressure from more open routes forcing itself on other less open routes. This is the hub and spoke approach to reform. Some countries, which become hubs in systems of more liberal bilaterals, take the initiative. This strategy, which may lie in the comfort zone of some policy makers, has some disadvantages. These include the risks that the system will become dominated by a few hub countries. This is precisely the sort of domination which the original regulatory system was designed to avoid. APEC members could evaluate this strategy compared to a club solution which satisfies the relevant criteria of open regionalism as applied in this sort of trade.

#### *Ownership rules*

A natural next step is for the group to consider relaxing the restrictive rules on foreign ownership, since these rules would no longer play a key role in the absence of the preferential system. Airlines within the group should also have access to the same strategic options as their competitors, including opportunities to build new networks, to set up marketing systems or to purchase inputs in a number of locations, each of which may involve offshore establishments.

#### *The role of the GATS*

The GATS has the advantage of recognising the relevance of the principles of the world trading system to trade in services, but also giving countries the option of claiming exemption from some of them.

The advantage of the GATS is that economies can approach liberalisation in a transitional manner. A further attraction of this approach is that it is consistent with the market driven nature of the development of the Asia Pacific region. The creation of a new bureaucracy is not required when moving via this route.

#### *Competition policy*

Many of the issues in the air transport sector are those covered by competition. A movement towards a coordinated approach to competition and its application in this particular sector would be an important complement to other changes. This aspect of the development of policy could be considered within other work in APEC on the general question of competition policy coordination.

### **NEXT STEPS**

The APEC working group has a busy agenda. Its members are examining a part of our regional economy where demand is growing rapidly and where there are substantial gains from an efficient air transport system.

The report has also drawn attention to the value of

- taking an integrated view of infrastructure services - surface transport, terminal buildings, apron facilities, runways and landing slots - in planning their development
- promoting and accelerating the work in progress in APEC on the simplification of customs procedures for freight and the work that might be undertaken to facilitate the movement of passengers through terminal facilities
- securing land use zoning rules (for example by higher level government than the local level) around airports to sustain high utilisation rates
- defining and making transparent government objectives in airport management, the treatment of the externalities associated with their operations and the regulatory regimes which are to apply when airport privatisation programs are being designed
- the introduction of satellite navigation, tracking and communications systems.

In addition to these strategies in the infrastructure sector, there are other issues to which we have not given as much attention here including

- the harmonisation of safety standards and the application of inspection procedures
- the scope for joint efforts in the region in marketing and promotion
- the human resource development constraints on enterprise growth in some economies.

With respect to economic regulation in this industry, there are benefits, we expect, from an acceleration of liberalisation. There are also important resistances to change associated with the uncertainties about its effects. Some of these uncertainties can be resolved by complementary policy development. We might see a diverse set of paths to

reform and in that context, regional cooperation in setting up more open regimes has a key role to play.

However the dilemma is that the scope to continue to be reactive is diminishing. The returns to taking an initiative in this sector are increasing, particularly as carriers based in other parts of the world enhance their strengths and increase their global competitiveness.

The next steps we suggest, to take place over the next 12 months, include:

- A commitment to a more liberal set of arrangements
- A more detailed documentation of the options listed above
- The initiation of discussion of the short term options
- Careful empirical assessments of the impacts of the longer term options, and
- The development and application of a set of principles for evaluating these options.

## **APPENDICES**

*Copy of the program*

*Copy of the list of participants.*

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# **AIR TRANSPORT IN THE ASIA-PACIFIC: CHALLENGES, OPPORTUNITIES AND OPTIONS**

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## **PROGRAMME**

**9-11 JULY 1995**

**THE REGENT SINGAPORE**

26 October, 1995

**9 July (Sunday) PECC Secretariat**

**6.00 pm OPENING CEREMONY AND RECEPTION**

*Welcome Remarks*

**Mr David Parsons**

Director General PECC

*Welcome and Introduction of Guest of Honour*

**Dr Lau Teik Soon**

Chair SINCPEC

*Address*

**Mr Mah Bow Tan**

Minister for Communications

Singapore

**10 July (Monday) Royal Ballroom II Regent Hotel**

**8.30 - 9.00 am Registration**

**SESSION 1: TRAFFIC OUTLOOK FOR ASIA-PACIFIC**

**Chair:** **Dr Chia Lin Sien**  
National University of Singapore

**9.00 am** *Global Travel: Trends and Issues*  
**Mr Geoffrey Lipman**  
President  
World Travel and Tourism Council

**9.30 am** *Travel and Tourism in the Asia-Pacific: Issues and Opportunities*  
**Ms Glenys Coughlan**  
Manager, Government and Industry Affairs  
Air New Zealand and  
Immediate Past Chairman  
PATA Advisory Council

**10.00 am Coffee Break**

**Chair:** **Mr R J Adcock**  
Assistant Director (Air Services)  
Civil Aviation Dept, Hong Kong

**10.15 am** *Outlook for Airfreight Traffic in the Asia-Pacific*  
**Mr James R Edgar**  
Regional Director - Cargo Marketing  
Boeing Commercial Airplane Group



10.45 am                    *Challenges and Opportunities for Asia-Pacific Airlines*  
                                 **Prof Tae Oum**  
                                 University of British Columbia  
                                 and Korea Transport Institute

11.15 am                    General Discussion

12.15 pm                    Lunch: Royal Ballroom III

**Chair:**                    **Dr K Raguraman**  
                                 National University of Singapore

Address:                    *Airport Planning and the Changi Experience*  
Speaker:                    **Mr Fong Kok Wai**  
                                 Director (Engineering)  
                                 Civil Aviation Authority of Singapore

## **SESSION 2: CONSTRAINTS ON AIR TRANSPORT GROWTH**

**Chair:**                    **Dr Amelia Ylagan**  
                                 Vice President, Philippine Airlines

2.00 pm                    *Airport Capacity Constraints in the Asia-Pacific*  
                                 **Mr John Meredith**  
                                 Executive Director  
                                 Air Transport Action Group

2.30 pm                    *Air Traffic Control Problems in the Asia Pacific*  
                                 **Mr George Chao**  
                                 Executive Vice President  
                                 International Federation of Air Traffic  
                                 Controllers Association (IFATCA)

3.00 pm                    *Aircraft Needs of Asia-Pacific Airlines into 21st Century*  
                                 **Mr Jeff Verwey**  
                                 Chief Engineer  
                                 Customer Requirements Product Development  
                                 Boeing Commercial Airplane Group

3.30 pm                    General Discussion

4.00 pm                    Coffee Break

**Chair:** **Dr Michael Tretheway**  
University of British Columbia

**11 July (Tuesday) Royal Ballroom II Regent Hotel**

**Chair:** **Professor Tae Oum**  
University of British Columbia  
and Korea Transport Institute

8:30 am ***Review of Regulatory Policies and Issues in the Asia-Pacific***  
A/Prof Christopher Findlay  
University of Adelaide

**Dr Michael Tretheway**  
University of British Columbia

**Dr K Raguraman**  
National University of Singapore

10.00 am	Coffee Break
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**Chair:** **A Prof Christopher Findlay**  
University of Adelaide

10.15 am ***Panel on Regulatory Policies***

***Regulation on International Airline Industry in Korea:  
Experiences and Challenges***

**Dr JongSeok Kim**  
Research Fellow  
Korea Transport Institute

***Impact of Regulatory Systems on Trade in Air Transport Services***

**Mr R J Adcock**  
Asst Director (Air Services)  
Civil Aviation Department, Hong Kong

***Current Policies and Business Opportunities in Civil  
Aviation in China***

**Mr Wang Ronghua**  
Dept of International Affairs & Cooperation

Discussion Panel and Presentations:

- Australia
- Indonesia
- Philippines
- South Pacific Forum Secretariat
- Chinese Taipei
- Thailand

12.30 pm Lunch: Royal Ballroom III

## **SESSION 5: REGIONAL AND MULTILATERAL RESPONSES TO REGULATORY ISSUES**

**Chair:** **Mr Karmjit Singh**  
Chairman  
Chartered Institute of Transport, Singapore

2.00 pm ***Aviation and the New World Trading Regime***

**Mr Mario Marconini**  
Counsellor, Trade in Services Division  
World Trade Organisation (WTO)

2:30 pm ***Cooperation between Asia-Pacific Airlines:  
Evaluation of Progress***

**Mr Richard Stirland**  
Director General  
Orient Airlines Association (OAA)

**Chair:** **Mr Karmjit Singh**  
Chairman  
Chartered Institute of Transport, Singapore

3.00 pm ***Panel Discussion on Regional Groupings in  
Air Transport: Experiences and Lessons for Asia-Pacific***

- ***The Chilean Airline Industry***  
**Dr Ricardo Paredes-Molina**  
University of Chile
- ***Some Key Features of European Aviation Reform***  
**Prof Kenneth Button**  
Counsellor,  
Advisory Unit to the Secretary General  
OECD
- ***Air Transport: Experiences and Lessons for  
Asia-Pacific OCEANIA***  
**Prof Christopher Kissling**  
Lincoln University
- ***North America***  
**Dr Michael Tretheway**  
University of British Columbia

4.00 pm Coffee Break

## **SESSION 6 CONCLUDING SESSION**

**Chair:** **Mr Karmjit Singh**  
Chairman  
Chartered Institute of Transport, Singapore

**Panel:** **A Prof Christopher Findlay**  
University of Adelaide

**Dr K Raguraman**  
National University of Singapore

5.30 pm Media Conference (Royal Ballroom II)

**LIST OF PARTICIPANTS**  
**(11/7/95)**

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